

PLANNING MODULE COMPONENTS

FOR

**GETTYSBURG
COMMONS**

**AN ACTIVE ADULT PLANNED RESIDENTIAL
COMMUNITY**

LOCATED IN

STRABAN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

DEP CODE NO. A3-01929-243-3

Prepared by:

**ROBERT A SHARRAH, PLS
1270 FAIRFIELD ROAD SUITE 5
GETTYSBURG PA 17325-7246
717-334-5400**

**JULY 2004
REVISED SEPTEMBER 2004
REVISED FEBRUARY 2005
REVISED MARCH 2005**

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Pennsylvania Department of Environmental Protection

1331 South Seventh Street, Suite 6
Chambersburg, PA 17201-3852
July 14, 2004

Office: 717-267-3364
Fax: 717-267-3740

Chambersburg District Office

Robert A. Sharrah, PLS
1270 Fairfield Rd., Suite 5
Gettysburg, PA 17325

Re: Planning Module for Land Development
Greater Gettysburg Development Company, LLC
1800+/- Units or Lots
225,000 Gallons/Day
Straban Township, Adams County
DEP Code No. A3-01929-243-3

Dear Applicant:

In response to your mailer, enclosed are the module forms required for the proposed development. Please submit the modules to the municipality(ies) in which the project is located. The Department must receive two (2) copies.

A copy of this letter must be attached to the planning module when submitted through the municipality to the Department. This letter is to be used as a checklist. The municipality must submit a complete module package. (See end of letter for certification statement.)

Please address all items in the following list:

Municipal
Checklist

DER Use Only
Completeness
Review

_____ Transmittal letter, completed and signed by
Secretary

_____ Resolution of Adoption, completed and signed
by the municipal secretary and containing the
municipal seal.

received
7-16-04



Municipal Checklist	DER Use Only Completeness Review
_____ Component 3, Sections A through J and O through R	_____
_____ All items in Component 3-G (4)	_____
_____ Component 3, Sections F and H - Project Narrative and Alternative Analysis	_____
_____ Component 3-E, Letter of Intent from the Public Water Supplier stating that it will serve the proposed development	_____
_____ Component 3-G (7) - PA Historical Museum Commission letter documenting resolution of conflict, if applicable	_____
_____ Component 4a - Municipal Planning Agency comments	_____
_____ Component 4b - County Planning Commission comments	_____
_____ Other <u>All requirements of: 71.65, 71.71 AND 71.72</u>	_____

Robert A. Sharrah, PLS

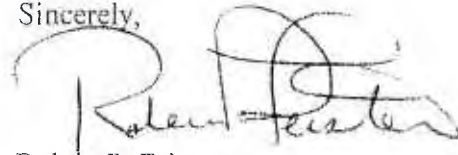
July 14, 2004

In all cases address the immediate and long range sewage disposal needs of the proposal and comply with 25 Pa. Code, Chapter 71, Subchapter C relating to New Land Development Plan Revisions.

If additional copies of the enclosed modules are needed, or if you have any questions concerning the information required, please contact me at the above number.

Please note that the Department will return this letter if an incomplete revision is submitted. If it is stamped incomplete, then the required items will be indicated. Failure to submit a complete planning module within sixty (60) days will result in disapproval. Remember to adopt all materials submitted.

Sincerely,



Robert P. Feister
Water Quality Specialist
Water Management Program

CERTIFICATION STATEMENT:

I certify that this submittal is complete and includes all requested items. Failure to submit a complete module package will result in return of package.

Signed: Joan A. Shankbaker, Municipal Secretary
Date: 9/15/04

List below any individuals (and mailing addresses) that should be copied if the planning module is returned to the municipality:



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

TRANSMITTAL LETTER
FOR SEWAGE FACILITIES PLANNING MODULE

DEP USE ONLY				
DEP CODE # A3-01929-243-3	APS ID #	CLIENT ID #	SITE ID #	AUTH ID #

TO: Approving Agency (DEP or delegated local agency)
CHAMBERSBURG DISTRICT OFFICE
1331 SOUTH SEVENTH STREET SUITE 6
CHAMBERSBURG, PA 17201

Date _____

Dear Sir:

Attached please find a completed Sewage Facilities Planning Module prepared by ROBERT A. SHARRAH

PROFESSIONAL LAND SURVEYOR (Title) for GETTYSBURG COMMONS (Name)
a subdivision located in STRABAN TOWNSHIP (Name)

ADAMS (City, Borough, Township) County.

Check one

- (i) The Planning Module, as prepared and submitted by the applicant, is approved by the municipality as a proposed revision supplement for new land development to its "Official Sewage Facilities Plan", and is adopted for submission to the Department of Environmental Protection transmitted to the delegated local agency for approval in accordance with the requirements of Chapter 71 and the Sewage Facilities Act, OR
- (ii) The Planning Module will not be approved by the municipality as a proposed revision or supplement for new land development to its "Official Sewage Facilities Plan" because the project described therein is unacceptable for the reason(s) checked below.

Check Boxes

- Additional studies are being performed by or on behalf of this municipality which may have an effect on the Planning Module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.
- The Planning Module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.
- Other (attach additional sheet giving specifics)

Municipal Secretary: Indicate below by checking appropriate boxes which components are being transmitted to the Approving Agency.

- 2. Individual Onlot Disposal
- 3. Sewage Collection/Treatment
- 4.A. Municipal Planning Agency Review
- Adoption Resolution
- 3s Small Flow Treatment Facility
- 4.B. County Planning Agency Review
- 4.C. Health Department Review

JEAN HAWBAKER

Municipal Secretary (print)

Jean A. Hawbaker
Signature

9/15/04
Date

Note: Please remove and recycle the Instructions portion of the Sewage Facilities Planning Module prior to mailing the appropriate completed components and supporting documents to the approving agency.



DEP Code No.
A3-01929-243-3

**RESOLUTION FOR PLAN REVISION
FOR NEW LAND DEVELOPMENT**

RESOLUTION OF THE SUPERVISORS of STRABAN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act", as Amended, and the rules and Regulations of the Pennsylvania Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new land development conforms to a comprehensive program of pollution control and water quality management, and

WHEREAS THE GREATER GETTYSBURG DEVELOPMENT COMPANY, LLC has proposed the development of a parcel of land identified as GETTYSBURG COMMONS and described in the attached Sewage Facilities Planning Module, and

name of subdivision

proposes that such subdivision be served by: (check all that apply), sewer tap-ins, sewer extension, new treatment facility, individual onlot systems, community onlot systems, spray irrigation, retaining tanks, other, (please specify). SEWAGE PUMPING STATION

WHEREAS, STRABAN TOWNSHIP finds that the subdivision described in the attached municipality

Sewage Facilities Planning Module conforms to applicable sewage related zoning and other sewage related municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the **Supervisors of the Township** of STRABAN hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Sewage Facilities Plan" of the municipality the above referenced Sewage Facilities Planning Module which is attached hereto.

Jean A. Hawbaker, Secretary, of Straban
(Signature)

Township Board of Supervisors (Borough Council) (City Councilmen), hereby certify that the foregoing is a true copy of the Township (Borough) (City) Resolution # ~~_____~~, adopted, Sept. 7 20 04.

Municipal Address:

1745 GRANITE STATION ROAD

GETTYSBURG, PA 17325

Telephone 717-334-4833

Seal of
Governing Body



SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY				
DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH ID #

This planning module component is used to fulfill the planning requirements of Act 537 for the following types of projects: (1) a subdivision to be served by sewage collection, conveyance or treatment facilities, (2) a tap-in to an existing collection system with flows on a lot of 2 EDU's or more, or (3) the construction of, or modification to, wastewater collection, conveyance or treatment facilities that will require DEP to issue or modify a Clean Streams Law permit. Planning for any project that will require DEP to issue or modify a permit cannot be processed by a delegated agency. Delegated agencies must send their projects to DEP for final planning approval.

This component, along with any other documents specified in the cover letter, must be completed and submitted to the municipality with jurisdiction over the project site for review and approval. All required documentation must be attached for the Sewage Facilities Planning Module to be complete. Refer to the instructions for help in completing this component.

REVIEW FEES: Amendments to the Sewage Facilities Act established fees to be paid by the developer for review of planning modules for land development. These fees may vary depending on the approving agency for the project (DEP or delegated local agency). Please see section R and the instructions for more information on these fees.

NOTE: All projects must complete Sections A through H, and Sections O through R. Complete Sections I, J, K, L, M and/or N if applicable or marked .

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name **GETTYSBURG COMMONS**

2. Brief Project Description **THIS PROJECT PROPOSES THE CONSTRUCTION OF AN ACTIVE ADULT COMMUNITY CONTAINING APPROXIMATELY 1800 SINGLE FAMILY DETACHED RESIDENTIAL DWELLINGS, RECREATIONAL FACILITIES AND RELATED INFRASTRUCTURE.**

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

Municipality Name	County	City	Boro	Twp
STRABAN TOWNSHIP	ADAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
HAWBAKER	JEAN	A		SECRETARY
Additional Individual Last Name	First Name	MI	Suffix	Title
Municipality Mailing Address Line 1	Mailing Address Line 2			
1745 GRANITE STATION ROAD				
Address Last Line -- City	State	ZIP+4		
GETTYSBURG	PA	17325		
Phone + Ext.	FAX (optional)	Email (optional)		
717-334-4833	717-334-0061			

C. SITE INFORMATION (See Section C of instructions)**Site (Land Development or Project) Name****GETTYSBURG COMMONS**

Site Location Line 1

SOUTH SIDE OF SHRIVERS CORNER ROAD (SR0394)

Site Location Line 2

EAST OF SR0015

Site Location Last Line -- City

GETTYSBURG

State

PA

ZIP+4

17325

Latitude

39-52-32

Longitude

77-11-10

Detailed Written Directions to Site **FROM THE US ROUTE 15/SR 0394 (HUNTERSTOWN) INTERCHANGE, PROCEED EAST ON SR0394 (SHRIVERS CORNER ROAD) APPROXIMATELY 200' TO MARTIN ROAD (T-513). TURN RIGHT ONTO MARTIN ROAD AND PROCEED APPROXIMATELY 1500'. THE SITE IS ON BOTH SIDES OF THE ROAD AND EXTENDS TO THE EAST TO HUNTERSTOWN ROAD (SR3003).**

Description of Site **MOSTLY AGRICULTURAL CROPLAND, PARTLY SCRUB/SHRUB FOREST AND PARTLY MATURE FOREST**

Site Contact (Developer/Owner)

Last Name

KLEIN

First Name

RICHARD

MI Suffix

A

Phone

717-334-8000

Ext.

28

Site Contact Title

PROJECT MANAGERSite Contact Firm (if none, leave blank)**GREATER GETTYSBURG DEVELOPMENT COMPANY LLC**

FAX

717-334-8020

Email

Mailing Address Line 1

601 MASON DIXON ROAD

Mailing Address Line 2

Mailing Address Last Line -- City

GETTYSBURG

State

PA

ZIP+4

17325**D. PROJECT CONSULTANT INFORMATION** (See Section D of instructions)

Last Name

SHARRAH

First Name

ROBERT

MI Suffix

A PLS

Title

PROFESSIONAL LAND SURVEYOR

Consulting Firm Name

ROBERT A. SHARRAH, PLS

Mailing Address Line 1

1270 FAIRFIELD ROAD

Mailing Address Line 2

SUITE 5

Address Last Line -- City

GETTYSBURG

State

PA

ZIP+4

17325-7246

Country

USA

Email

robertasharrahpls@earthlink.net

Phone

717-334-5400

Ext.

FAX

717-334-0922**E. AVAILABILITY OF DRINKING WATER SUPPLY**

The project will be provided with drinking water from the following source: (Check appropriate box)

- Individual wells or cisterns.
 A proposed public water supply.
 An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: **GETTYSBURG COMMONS COMMUNITY WATER SUPPLY**

F. PROJECT NARRATIVE (See Section F of instructions)

A narrative has been prepared as described in Section F of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section F of the instructions.

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (See Section G of instructions)

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter 93 (relating to wastewater treatment requirements).

1. COLLECTION SYSTEM

a. Check appropriate box concerning collection system

- New collection system Pump Station Force Main
 Grinder pump(s) Extension to existing collection system Expansion of existing facility

Clean Streams Law Permit Number TO BE APPLIED FOR

b. Answer questions below on collection system

Number of EDU's and proposed connections to be served by collection system. EDU's ONE THOUSAND EIGHT HUNDRED (1800)

Connections 1800+/-

Name of existing collection or conveyance system N/A

owner N/A

existing interceptor N/A

owner N/A

2. WASTEWATER TREATMENT FACILITY

Check appropriate box and provide requested information concerning the treatment facility

- New facility Existing facility Upgrade of existing facility Expansion of existing facility

Name of existing facility N/A

NPDES Permit Number for existing facility TO BE ASSIGNED

Clean Streams Law Permit Number TO BE ASSIGNED

Location of discharge point for a new facility. Latitude 39-52-40 Longitude 77-11-18

3. SOCIAL ECONOMIC JUSTIFICATION

Yes No

- Will the proposed project result in a new or increased discharge into special protection waters as identified in Title 25, Pennsylvania Code, Chapter 93? If yes, attach the Social or Economic Justification (SEJ) required by Section 93.4c.

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (Continued)**4. PLOT PLAN**

The following information is to be submitted on a plot plan of the proposed subdivision.

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. Existing and proposed buildings. | j. Any designated recreational or open space area. |
| b. Lot lines and lot sizes. | k. Wetlands - from National Wetland Inventory Mapping and USGS Hydric Soils Mapping. |
| c. Adjacent lots. | l. Flood plains or Floodprone areas, floodways, (Federal Flood Insurance Mapping) |
| d. Remainder of tract. | m. Prime Agricultural Land. |
| e. Existing and proposed sewerage facilities. Plot location of discharge point, land application field, spray field, COLDS, or LVCOLDS if a new facility is proposed. | n. Any other facilities (pipelines, power lines, etc.) |
| f. Show tap-in or extension to the point of connection to existing collection system (if applicable). | o. Orientation to north. |
| g. Existing and proposed water supplies and surface water (wells, springs, ponds, streams, etc.) | p. Locations of all site testing activities (soil profile test pits, slope measurements, permeability test sites, background sampling, etc. (if applicable). |
| h. Existing and proposed rights-of-way. | q. Soils types and boundaries when a land based system is proposed. |
| i. Existing and proposed buildings, streets, roadways, access roads, etc. | r. Topographic lines with elevations when a land based system is proposed |

5. WETLAND PROTECTION

YES NO

** SEE PROJECT NARRATIVE*

- a. Are there wetlands in the project area? If yes, ensure these areas appear on the plot plan as shown in the mapping or through on-site delineation.
- b. Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on streams classified as HQ or EV and address impacts of the permitting requirements of said encroachments on the project.

6. PRIMARY AGRICULTURAL LAND PROTECTION

YES NO

** SEE PROJECT NARRATIVE*

- Will the project involve the disturbance of prime agricultural lands?
If yes, coordinate with local officials to resolve any conflicts with the local prime agricultural land protection program. The project must be consistent with such municipal programs before the sewage facilities planning module package may be submitted to DEP.
If no, prime agricultural land protection is not a factor to this project.
- Have prime agricultural land protection issues been settled?

7. HISTORIC PRESERVATION ACT

YES NO

- Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP website at www.dep.state.pa.us, select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice (CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

H. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section H of instructions)

- An alternative sewage facilities analysis has been prepared as described in Section H of the attached instructions and is attached to this component.

The applicant may choose to include additional information beyond that required by Section H of the attached instructions.

I. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES (See Section I of instructions)

The Pennsylvania Natural Diversity Inventory (PNDI) has identified a protected plant or animal species in the vicinity of the project area. Contact the appropriate protective agency for this specie(s) to determine what options are available to resolve the conflict.

- Documentation supporting contact with the appropriate agency having jurisdiction over the rare, threatened, or endangered species of concern and resolution of all potential conflicts is attached.

J. CHAPTER 94 CONSISTENCY DETERMINATION (See Section J of instructions)

Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Title 25, Chapter 94 (relating to Municipal Wasteload Management). If not previously included in Section F, include a general map showing the path of the sewage to the treatment facility. If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows _____ gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilities" sewage flows, use Annual Average Flow for "average" and Maximum Monthly Average Flow for "peak" in all cases. For "peak flows" in "collection" and "conveyance" facilities, indicate whether these flows are "peak hourly flow" or "peak instantaneous flow" and how this figure was derived (i.e., metered, measured, estimated, etc.).

- a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
- b. Enter the average and peak sewage flows for the most restrictive sections of the existing sewage facilities.
- c. Enter the average and peak sewage flows, projected for 5 years (2 years for pump stations) through the most restrictive sections of the existing sewage facilities. Include existing, proposed (this project) and future project (other approved projects) flows.

To complete the table, refer to the instructions, Section J.

	a. Design and/or Permitted Capacity (gpd)		b. Present Flows (gpd)		c. Projected Flows in 5 years (gpd) (2 years for P.S.)	
	Average	Peak	Average	Peak	Average	Peak
Collection						
Conveyance						
Treatment						

3. Collection and Conveyance Facilities

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table. The individual(s) signing below must be legally authorized to make representation for the organization.

YES NO

- a. This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system?

J. CHAPTER 94 CONSISTENCY DETERMINATION (Continued)

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved Corrective Action Plan (CAP) granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the module package.

If no, a representative of the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not affect that status.

b. Collection System

Name of Agency, Authority, Municipality _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

c. Conveyance System

Name of Agency, Authority, Municipality _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

4. Treatment Facility

The questions below are to be answered by a representative of the facility permittee in coordination with the information in the table and the latest Chapter 94 report. The individual signing below must be legally authorized to make representation for the organization.

Yes No

- a. This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility? If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved CAP granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the planning module. If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not impact that status.

b. Name of Agency, Authority, Municipality _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

 K. TREATMENT AND DISPOSAL OPTIONS (See Section K of instructions)

This section is for land development projects that propose construction of wastewater treatment facilities. Please note that, since these projects require permits issued by DEP, these projects may **NOT** receive final planning approval from a delegated local agency. Delegated local agencies must send these projects to DEP for final planning approval.

K. TREATMENT AND DISPOSAL OPTIONS (continued)

Check the appropriate box indicating the selected treatment and disposal option.

1. Spray irrigation or other land application is proposed, and the information requested in Section K.1. of the planning module instructions are attached.
2. A discharge to a dry stream channel is proposed, and the information requested in Section K.2. of the planning module instructions are attached.
3. A discharge to a perennial surface water body is proposed, and the information requested in Section K.3. of the planning module instructions are attached.

 L. PERMEABILITY TESTING (See Section L of instructions)

- The information required in Section L of the instructions is attached.

 M. PRELIMINARY HYDROGEOLOGIC STUDY (See Section M of instructions)

- The information required in Section M of the instructions is attached.

 N. DETAILED HYDROGEOLOGIC STUDY (See Section N of instructions)

- The detailed hydrogeologic information required in Section N. of the instructions is attached.

O. SEWAGE MANAGEMENT (See Section O of instructions)

(1-2 for completion by the developer, 3-4 for completion by the non-municipal facility agent and 5 for completion by the municipality)

Yes No

1. Connection to, or construction of, a DEP permitted, non-municipal sewage facility or a local agency permitted, community onlot sewage facility is proposed.

If Yes, respond to the following questions, attach the supporting analysis, and an evaluation of the options available to assure long-term proper operation and maintenance of the proposed non-municipal facilities. If No, skip the remainder of Section O.

2. Project Flows 270,000 gpd

(For completion by non-municipal facility agent)

3. Collection and Conveyance Facilities

The questions below are to be answered by the organization/individual responsible for the non-municipal collection and conveyance facilities. The individual(s) signing below must be legally authorized to make representation for the organization. Yes No

- a. If this project proposes sewer extensions or tap-ins, will these actions create a hydraulic overload on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, a representative of the organization responsible for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 71 §71.53(d)(3) and that this proposal will not affect that status.

- b. Collection System

Name of Responsible Organization GREATER GETTYSBURG DEVELOPMENT COMPANY, LLC

Name of Responsible Agent RICHARD A KLEIN

Agent Signature _____

c. Conveyance System

Name of Responsible Organization GREATER GETTYSBURG DEVELOPMENT COMPANY, LLC

Name of Responsible Agent RICHARD A KLEIN

Agent Signature _____

Date _____

4. Treatment Facility

The questions below are to be answered by a representative of the facility permittee. The individual signing below must be legally authorized to make representation for the organization.

Yes No

- a. If this project proposes the use of an existing non-municipal wastewater treatment plant for the disposal of sewage, will this action create a hydraulic or organic overload at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with §71.53(d)(3) and that this proposal will not impact that status.

- b. Name of Facility N/A

Name of Responsible Agent _____

Agent Signature _____

Date _____

(For completion by the municipality)

5. The **SELECTED OPTION** necessary to assure long-term proper operation and maintenance of the proposed non-municipal facilities is clearly identified with documentation attached in the planning module package.

P. PUBLIC NOTIFICATION REQUIREMENT (See Section P of instructions)

This section must be completed to determine if the applicant will be required to publish facts about the project in a newspaper of general circulation to provide a chance for the general public to comment on proposed new land development projects. This notice may be provided by the applicant or the applicant's agent, the municipality or the local agency by publication in a newspaper of general circulation within the municipality affected. Where an applicant or an applicant's agent provides the required notice for publication, the applicant or applicant's agent shall notify the municipality or local agency and the municipality and local agency will be relieved of the obligation to publish. The required content of the publication notice is found in Section P of the instructions.

To complete this section, each of the following questions must be answered with a "yes" or "no". Newspaper publication is required if any of the following are answered "yes".

Yes No

1. Does the project propose the construction of a sewage treatment facility ?
2. Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3. Will the project result in a public expenditure for the sewage facilities portion of the project in excess of \$100,000?
4. Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5. Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6. Will the project result in a subdivision of 50 lots or more? (on lot sewage disposal only)

P. PUBLIC NOTIFICATION REQUIREMENT cont'd. (See Section P of instructions)

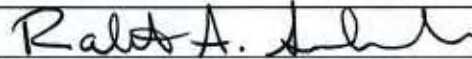
7. Does the project involve a major change in established growth projections?
8. Does the project involve a different land use pattern than that established in the municipality's Official Sewage Plan?
9. Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
10. Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)?
11. Will sewage facilities discharge into high quality or exceptional value waters?
- Attached is a copy of:
- the public notice,
- all comments received as a result of the notice,
- the municipal response to these comments.
- No comments were received. A copy of the public notice is attached.

Q. FALSE SWEARING STATEMENT (See Section Q of instructions)

I verify that the statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

ROBERT A. SHARRAH

Name (Print)



Signature

PROFESSIONAL LAND SURVEYOR

Title

9-2-04

Date

1270 FAIRFIELD ROAD STE 5 GETTYSBURG PA

Address

717-334-5400

Telephone Number

R. REVIEW FEE (See Section R of instructions)

The Sewage Facilities Act establishes a fee for the DEP planning module review. DEP will calculate the review fee for the project and invoice the project sponsor **OR** the project sponsor may attach a self-calculated fee payment to the planning module prior to submission of the planning package to DEP. (Since the fee and fee collection procedures may vary if a "delegated local agency" is conducting the review, the project sponsor should contact the "delegated local agency" to determine these details.) Check the appropriate box.

- I request DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand DEP's review of my project will not begin until DEP receives the correct review fee from me for the project.
- I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of **\$90,000.00** payable to "Commonwealth of PA, DEP". Include DEP code number on check. I understand DEP will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, DEP will return my check or money order, send me an invoice for the correct amount. I understand DEP review will NOT begin until I have submitted the correct fee.
- I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for _____ County, Pennsylvania

Deed Volume _____ Book Number _____

Page Number _____ Date Recorded _____

R. REVIEW FEE (continued)

Formula:

1. For a new collection system (with or without a Clean Streams Law Permit), a collection system extension, or individual tap-ins to an existing collection system use this formula.

$$\#1800 \text{ Lots (or EDUs)} \times \$50.00 = \underline{\$ 90,000.00}$$

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
 - For community sewer system projects, one EDU is equal to a sewage flow of 400 gallons per day.
2. For a surface or subsurface discharge system, use the appropriate one of these formulae.

- A. A new surface discharge greater than 2000 gpd will use a flat fee:

$$\begin{aligned} & \$ 1,500 \text{ per submittal (non-municipal)} \\ & \$ 500 \text{ per submittal (municipal)} \end{aligned}$$

- B. An increase in an existing surface discharge will use:

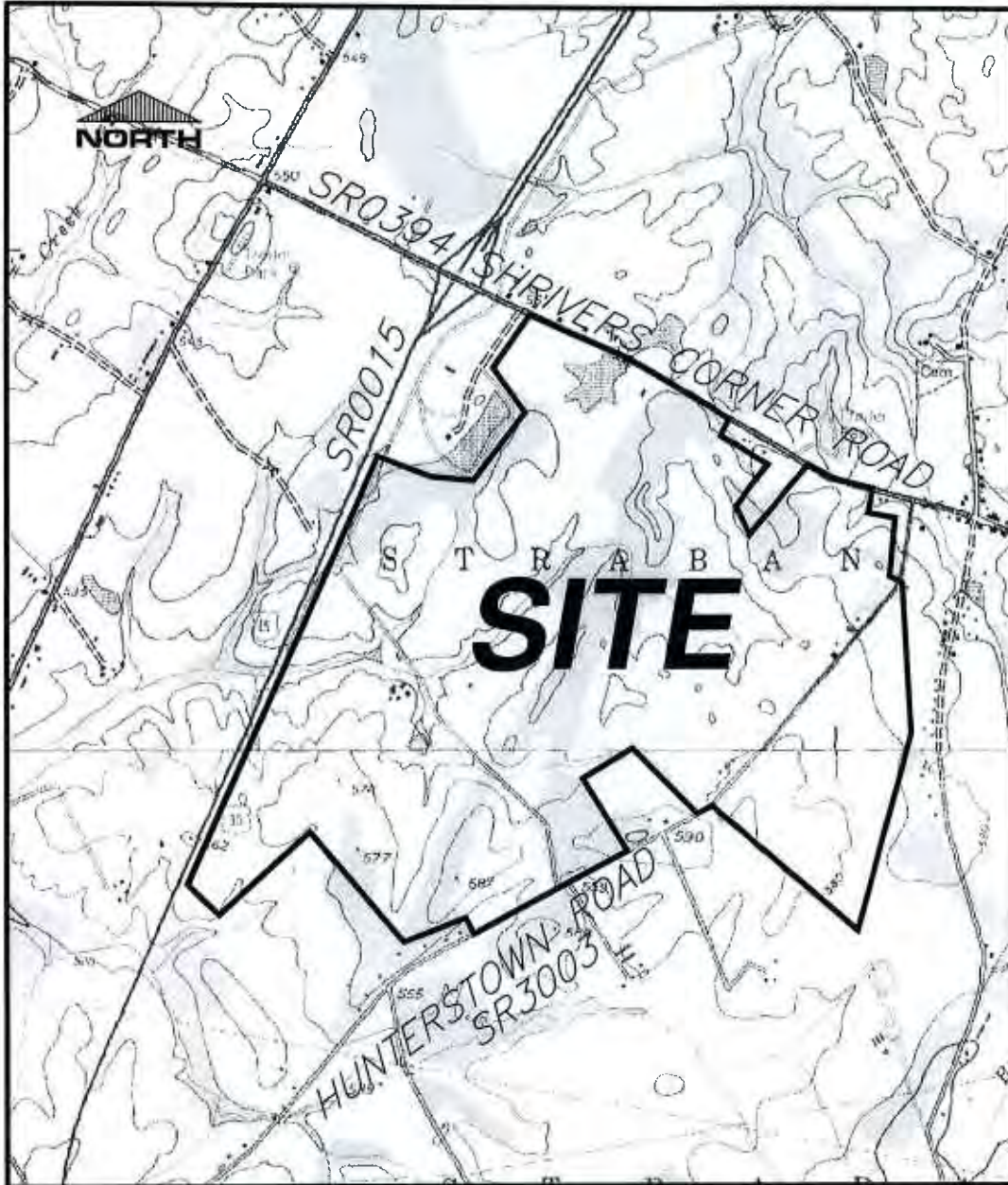
$$\# \underline{\hspace{2cm}} \text{ Lots (or EDUs)} \times \$35.00 = \$ \underline{\hspace{2cm}}$$

to a maximum of \$ 1,500 per submittal (non-municipal) or \$ 500 per submittal (municipal)

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
 - For community sewage system projects one EDU is equal to a sewage flow of 400 gallons per day.
 - For non-single family residential projects, EDUs are calculated using projected population figures
- C. A sub-surface discharge system that requires a permit under The Clean Streams Law will use a flat fee:

$$\begin{aligned} & \$ 1,500 \text{ per submittal (non-municipal)} \\ & \$ 500 \text{ per submittal (municipal)} \end{aligned}$$



REVISIONS		
NO.	DATE	DESCRIPTION
DRAWN BY: RAS		DATE:07-26-04
DWG NAME: QUAD		FILE NO: 9835
SCALE: 1"=2000'		DWG. NO: A-224

LOCATION MAP
GETTYSBURG COMMONS
 STRABAN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA
ROBERT A. SHARRAH, PLS
 Land Surveying & Consulting Services
 1270 Fairfield Road, Suite 5
 Gettysburg, PA 17325-7246
 Tel. 717-334-5400 Fax. 717-334-0922

**RE: GETTYSBURG COMMONS
RAS FILE 9845
DEP CODE NO. A3-01929-243-3**

PROJECT NARRATIVE

This project proposes the construction of approximately one thousand eight hundred (1800) single family detached residential dwellings in an active adult community. The improvements will also include two community/recreational facilities as well.

The site will contain approximately 650 acres. It is located in the general vicinity of the southeast quadrant of the SR0015/SR0394 interchange.

Based on previous experience and existing communities developed as "active adult", a flow per dwelling unit of 150gpd shall be utilized. A copy of a study from a similar community in New Jersey is attached to the Module for reference. Based on 75gpd per capita, and two persons per residence, a total project flow of 270,000gpd is expected.

The Appendix of this Module includes a study from a similar, operating active adult community in New Jersey. The study concludes that the actual flow rate, per residence is 125gpd. Therefore, the 150gpd/residence is conservative and deemed appropriate.

It must be noted that the residences in this community will be deed restricted and will have no children permanently living on premises. Most dwelling units will house two people, some only one person. All residents must be 55 years of age or older. Based conservatively then on 2 persons per household and 1800 dwellings, the population served by the facilities will be 3600 people.

The proposed method of sewage disposal for this project shall be construction of a wastewater treatment facility on site. Collection lines will be installed, and one portion of the site will drain to a point that cannot get into the WWTP by gravity. A pump station and associated force main will be constructed to convey wastewater from this area to the WWTP. As currently conceived, all sewer and water facilities will be constructed with private funds and operated by an entity with all required Pennsylvania licenses, with no required municipal participation. The owner/developer(s) and the Township of Straban have agreed that the owner/developer(s) will dedicate the facilities to the Township when the Township requests dedication. The owner/developer(s) and the Township agree

to memorialize the details of dedication in a private agreement after approval of this module.

The owner/developer hereby acknowledges that all necessary NPDES and Water Quality Permits will be obtained for this proposed privately owned and maintained facility. The developer's consultant for sewer and water matters has requested preliminary water quality discharge requirements from PADEP by letter dated August 4, 2004 and the Department provided preliminary limits. This correspondence, including the preliminary limits, is attached in the Appendix hereto.

At this time, Straban Township does not provide sewer or potable water service to the public in the area of the Township encompassed by the Gettysburg Commons planning module. The developer/owner of Gettysburg Commons understands that Straban Township is interested in operating and/or owning the wastewater facilities at some time in the future pursuant to the parties' agreement regarding dedication at the Township's request. As stated previously, the terms and conditions of dedication shall be memorialized in a private written agreement. The waste water system as proposed, will be expandable to accommodate municipal needs beyond the Gettysburg Commons development if dedication is requested.

Straban Township will be given the opportunity to review the proposed construction plans and comment on the proposed treatment process, materials to be used, etc. As part of the Land Development approval process, prior to Final Plan approval, and in accordance with the Municipalities Planning Code, the developer shall post financial security in an amount and form agreeable to the Township, to guarantee the construction of the wastewater treatment plant (and various other appurtenances) to assure the overall public health, safety and welfare are preserved. Additionally, the owner/developer(s) have executed an Operation and Maintenance Agreement with the Township of Straban to further guarantee operation and maintenance of the facilities in accordance with applicable statutes, regulations, and local ordinances. A copy of this Agreement is included in the Appendix hereto.

To guarantee the successful operation and maintenance of the WWTP, the developer shall provide an additional financial guarantee as outlined below. The financial instrument shall be automatically renewed from year to year until terminated by mutual agreement between the Township and WWTP owner/operator.

DESCRIPTION	COST (\$)
Operator's Salary (part time)	25,000.00
Electrical Power	18,000.00
Laboratory Services and Supplies	4500.00
Chemicals	2500.00
Biosolids Disposal	9000.00
General Maintenance	2500.00
Equipment Replacement	2500.00
Miscellaneous	6000.00
TOTAL	70,000.00

The above table is representative of costs associated with operating the proposed WWTP for one year. The developer hereby agrees to post financial security in the amount of \$140,000.00 to guarantee operation of the facility for a two year period.

As a prudent planning measure, the proposed WWTP will be designed and installed to be easily expanded if needs warrant. We are proposing a technologically known and tested extended aeration system, utilizing biological nutrient removal, e.g. Sequencing Batch Reactor (SBR) process, or similar approved technology. The WWTP will be designed in three separate treatment "trains", each having 100,000gpd capacity. Therefore, based on project needs of only 270,000gpd, approximately 30,000gpd of treatment capacity will be available to address potential malfunctioning on-lot sewage disposal systems in the project vicinity, if the Township requests service prior to dedication. The owner/developer has agreed to work cooperatively with the Township to address requested service areas. Please see the Supplement to this module for additional information regarding service beyond the Gettysburg Commons development.

The WWTP will be located adjacent to an unnamed tributary to Rock Creek adjacent to SR0015. This location serves the largest area of the project through gravity flow. The area is currently used for pasturing cattle. The proposed discharge location was provided to the Department and is 39 degrees 52 minutes 40 seconds north latitude and 77 degrees 11 minutes 18 seconds west longitude and formed the basis for the preliminary limits. The Chapter 93 designation of the surface water is WWF (Warm Water Fishery).

Water will be served to the project via a proposed privately held community water system. Test wells have been drilled under the supervision of PADEP. These wells will be developed in full accordance with DEP criteria. The four proposed production wells that have been drilled are shown on the Existing Conditions Exhibit attached in the Appendix. All well locations have been reviewed and approved by the PADEP hydrogeologist. The developer's hydrogeologist is currently working with PADEP to perform the pump tests on the subject wells.

Revised September 2, 2004
Revised February 1, 2005

REV. PER WFH 2-3-05

Several areas of jurisdictional wetlands have been mapped on the project site. Special care will be taken to avoid and/or minimize impacts to these environmental resources. An environmental biologist has delineated wetlands shown on the Existing Conditions Exhibit. We will obtain a jurisdictional determination from the US Army Corps of Engineers. The approximate locations of the encroachments/potential impacts that require permits are identified on the Existing Conditions map included in the Appendix hereto. These impacts are expected to be minor because the Conceptual Development Plan avoids or minimizes environmental impacts to the maximum extent feasible.

There are several soils mapped in the project area that are designated as "prime farmland" and several others that are deemed to be "statewide important" soils. In as much as Straban Township does not have a prime agricultural land preservation program, and given the fact that the area is designated in the Comprehensive Plan and the Zoning Ordinance as a development/growth area, the proposed project is believed to be consistent with applicable regulations. These soil types and boundaries are shown on the Existing Conditions Plan.

**RE: GETTYSBURG COMMONS
RAS FILE 9845
DEP CODE NO. A3-01929-243-3**

ALTERNATIVE ANALYSIS

As previously indicated in the Project Narrative, this project proposes to develop a total of 1800 single family detached residential units.

The chosen method of sewage disposal is construction of a new wastewater treatment plant with stream discharge. This method of disposal is the “ultimate” for use in this project.

The Straban Township Official Zoning Map shows this area to be zoned “EC-1” (Employment Center-1). “Age-Qualified Housing” is a permitted use in the EC-1 Zone. Properties to the northwest of the site are also zoned EC-1. All other adjoining properties are zoned Residential-Agricultural (A). All adjoining properties are served by on-lot sewage disposal systems. To the best of our knowledge, none of these adjoining properties have septic systems that are in need of repair due to malfunction. All adjoining properties are served by private water wells.

Connection of this proposed development to the newly constructed Hunterstown collection, conveyance and treatment system was considered as an alternative means of waste disposal. However, due to the distance from this site to the existing WWTP, difficulties with grades and the lack of possibility of gravity sewers, this alternative was not considered feasible for economic, logistical and legal reasons. Another factor considered while deliberating the possible connection to and expansion of the Hunterstown system was the present ownership and operational control of this facility. Currently, Straban Township is not in control of this system, nor is the Gettysburg Municipal Authority, the current plant operator. The four party agreement (Straban Township, Gettysburg Municipal Authority, Adams County Commissioners and Reliant Energy) executed to facilitate the construction of the facilities called for the Gettysburg Municipal Authority to ultimately be the owner and operator of the system. The parties are currently in dispute regarding control over this system and so connection thereto is not reasonable. The vast majority of the project lands are in the Potomac River Basin. The existing Hunterstown WWTP is located in the Susquehanna River Basin. Therefore discharge to the Hunterstown system would require an interbasin transfer, which is not a preferred practice under current regulatory and policy standards. This was an additional consideration in discounting connection to and expansion of the Hunterstown system.

Revised September 15, 2004
Revised February 1, 2005
Revised March 3, 2005

Connection of the proposed development to the Gettysburg Municipal Authority's Wastewater Treatment facility located in the Borough of Gettysburg was considered. The excessive distance, legal costs and connection costs required to connect to the existing GMA system made this alternative infeasible.

Due to the size of the proposed project and overall marginal soils on the project site, as mapped on the Existing Conditions Plan, on-lot sewage disposal is not a viable alternative.

Installation of a wastewater treatment plant to serve the need of the proposed active adult community is believed to be consistent with the Official Sewage Facilities Plan for Straban Township. As indicated in the Appendix of this module, an extended aeration WWTP will be constructed to treat the wastewater generated by this project. The facility will have excess treatment capacity available for use by adjoining properties if requested by the Straban Township Board of Supervisors prior to dedication. The developers have agreed to dedicate the facilities to the Township at their request and under certain conditions which will be fully memorialized in a written agreement.

3800-FM-WSWM0362A Rev. 9/2002



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

DEP Code #
A3-01929-243-3

SEWAGE FACILITIES PLANNING MODULE COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the existing local municipal planning agency for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name
GETTYSBURG COMMONS

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

- 1. Date plan received by municipal planning agency. 8-7-04
- 2. Date review completed by agency. 8-25-04

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, <i>et seq.</i>)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Is this proposal consistent with the comprehensive plan for land use? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input type="checkbox"/>	3. Is this proposal consistent with the use, development, and protection of water resources? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input type="checkbox"/>	4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation?
<input type="checkbox"/>	<input type="checkbox"/>	5. Does this project propose encroachments, obstructions, or dams that will affect wetlands? If yes, describe impacts _____
<input type="checkbox"/>	<input type="checkbox"/>	6. Will any known historical or archaeological resources be impacted by this project? If yes, describe impacts _____
<input type="checkbox"/>	<input type="checkbox"/>	7. Will any known endangered or threatened species of plant or animal be impacted by this project? If yes, describe impacts _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Is there a municipal zoning ordinance?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance?
<input type="checkbox"/>	<input type="checkbox"/>	11. Have all applicable zoning approvals been obtained?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is there a municipal subdivision and land development ordinance?

received
9-7-04

3800-FM-WSWM0362A Rev. 9/2002

SECTION C. AGENCY REVIEW (continued)

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input type="checkbox"/>	14. Is this plan consistent with the municipal Act 537 Official Sewage Facilities Plan? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input type="checkbox"/>	15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision?
<input type="checkbox"/>	<input type="checkbox"/>	If yes, is the proposed waiver consistent with applicable ordinances?
17. Name, title and signature of planning agency staff member completing this section:		
Name: <u>J Riley Redding</u>		
Title: <u>Chairman Planning Comm</u>		
Signature: <u>J Riley Redding</u>		
Date: <u>8-25-02</u>		
Name of Municipal Planning Agency: <u>STRABAN TOWNSHIP PLANNING COMMISSION</u>		
Address: <u>1745 GRANITE STATION ROAD GETTYSBURG, PA 17325</u>		
Telephone Number: <u>717-334-4833</u>		

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

This Component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are desired, attach additional sheets.

The planning agency must complete this Component within 60 days.

This component and any additional comments are to be returned to the project sponsor.

No X = unknown

3800-FM-WSWM0362B Rev. 9/2002



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

DEP Code #
A3-01929-243-3

**SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4B - COUNTY PLANNING AGENCY REVIEW
(or Planning Agency with Areawide Jurisdiction)**

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning package and one copy of this *Planning Agency Review Component* should be sent to the existing county planning agency or planning agency with areawide jurisdiction for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name
GETTYSBURG COMMONS

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by county planning agency. 8/5/04
2. Date plan received by planning agency with areawide jurisdiction N/A
Agency name N/A
3. Date review completed by agency September 3, 2004

SECTION C. AGENCY REVIEW (See Section C of instructions)

- | | | |
|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Is there a county or areawide comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101 et seq.)? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Is this proposal consistent with the comprehensive plan for land use? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Does this proposal meet the goals and objectives of the plan?
If no, describe goals and objectives that are not met _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Is this proposal consistent with the use, development, and protection of water resources?
If no, describe inconsistency <u>See Attached Comments</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 5. Is this proposal consistent with the county or areawide comprehensive land use planning relative to Prime Agricultural Land Preservation?
If no, describe inconsistencies: _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6. Does this project propose encroachments, obstructions, or dams that will affect wetlands?
If yes, describe impact <u>See Attached Comment</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7. Will any known historical or archeological resources be impacted by this project?
If yes, describe impacts <u>See Attached Comments</u> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. Will any known endangered or threatened species of plant or animal be impacted by the development project? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. Is there a county or areawide zoning ordinance? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Does this proposal meet the zoning requirements of the ordinance?
If no, describe inconsistencies _____ |

N/A

received
9-3-04

3800-FM-WSWM0362B Rev. 9/2002

Yes	No	SECTION C: AGENCY REVIEW (continued)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> n/a	11. Have all applicable zoning approvals been obtained?
<input type="checkbox"/>	<input checked="" type="checkbox"/>		12. Is there a county or areawide subdivision and land development ordinance?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> n/a	13. Does this proposal meet the requirements of the ordinance? If no, describe which requirements are not met _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>		14. Is this proposal consistent with the municipal Act 537 Official Sewage Facilities Plan? If no, describe inconsistency <u>See Attached Comments</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>		15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe <u>See Attached Comments</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> n/a	16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? <u>No Residual Tract</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> n/a	If yes, is the proposed waiver consistent with applicable ordinances. If no, describe the inconsistencies _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>		17. Does the county have a stormwater management plan as required by the Stormwater Management Act? <u>See Attached Comments</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>		If yes, will this project plan require the implementation of storm water management measures?
18. Name, Title and signature of person completing this section:			
Name:		<u>Richard H. Schroyer, AICP</u>	
Title:		<u>Dir. of Planning and Dev't</u>	Signature: <u>[Signature]</u>
Date:		<u>Sept 3, 2004</u>	
Name of County or Areawide Planning Agency:		<u>Adams Co Office of Planning and Dev't</u>	
Address:		<u>19 Baltimore Street, Suite 101, Gettysburg PA 17325</u>	
Telephone Number:		<u>(717) 337-9824</u>	
SECTION D: ADDITIONAL COMMENTS (See Section D of instructions) <u>See Attached Comments</u>			
This Component does not limit county planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.			
The county planning agency must complete this Component within 60 days.			
This Component and any additional comments are to be returned to the applicant.			

Attachment to Sewage Facilities Planning Module

DEP Code #: A3-10929-243-3
ACOPD File 016-04-MOD
Development/Developer: Gettysburg Commons

Date September 3, 2004

I. Introduction: Be advised that Adams County Office of Planning and Development responses to items listed in the Department of Environmental Resources *Sewage Facilities Planning Modules* are intended to establish consistency of proposed sewage disposal systems with County Planning Policy and the Goals and Objectives contained in the *Adams County Comprehensive Plan* adopted in December 1991, as updated by the *Southeast Adams County Transportation Plan* in 1997 and the *Adams County Natural Areas Inventory* and *Adams County Vision for Parks, Recreation, and Open Space* in 1998. County Office of Planning and Development responses do not necessarily reflect all factors that will be taken into consideration when conducting reviews of any related subdivision and land development plans or zoning ordinance amendments that would be required to comply with Act 247 of 1968, the Municipalities Planning Code, as amended.

II. Summary: The following statement summarize our comments and recommendations regarding the Gettysburg Common Sewage Facilities Planning Module:

- The proposal is consistent with the Adams County Comprehensive Plan in that community sewer service is proposed for a designated growth area. However, we are concerned that the private development of fragmented centralized sewer and water systems within the greater Hunterstown growth area will lead to the inefficient provision of sewer and water service in the area.
- The proposal is not consistent with County Plan recommendations regarding development and protection of water resources in that an independent, privately operated water system will be proposed near Hunterstown Village, Oak Village Mobile Home Park, the Reliant Energy facility, and the County Facilities site. A single, centrally owned and operated water system is recommended.
- The Gettysburg Commons project will directly impact nationally significant historic resources associated with Hunterstown Village and the Hunterstown Battlefield. All appropriate steps should be taken to mitigate impacts on these resources, including the preservation of key components of the adjacent Battlefield.
- The Planning Module is not consistent with Straban Township's Act 537 Plan in that community sewer service has not been proposed for the Route 15 / Route 394 Interchange area. Before any Planning Module in this setting is

approved, the Township should prepare an Act 537 Plan Update for this setting. The Update should seek to consolidate sewer service within this area within a single, publicly owned and operated sewer system.

- The Gettysburg Commons project is subject to the requirements of the Monocacy River Watershed Stormwater Management Plan.
- We are not convinced that Questions 4, 5, 7, and 8 in Section P of the Gettysburg Commons Planning Module are correctly answered.
- We recommend that a rigorous Alternatives Analysis be prepared by the applicant. The option of expanding the existing public sewer service in the Hunterstown area should be fully explored by the applicant.
- The applicant is requesting authorization to construct a facility designed at 0.5 EDU per housing unit. If approved, conditions should be placed on the approval to require the applicant to expand the system, at their cost, should their numbers not work. We also note inconsistencies between the system capacity numbers on the Planning Module cover letter and the Project Narrative.

III. Agency Review: Please review and consider the following comments regarding the Gettysburg Commons Sewage Facilities Planning Module.

A. Question #3: The property in question lies primarily within the "Employment Center" land use designation as portrayed on the Land Use Plan Map of the Adams County Comprehensive Plan. Ordinarily, this designation connotes the use of property within the area for business development. However, given that business development has been fostered at the Route 15 / Route 30 Interchange to the south, the designated growth area around the Route 15 / Route 394 should now be interpreted more broadly. From this perspective, the development of a residential community in this location can be considered consistent with the land use element of the Adams County Comprehensive Plan. Some supportive business and commercial development should, however, be located nearby, provided that adequate pedestrian, bicycle, and vehicular connections can be made.

The proposed Gettysburg Commons project should also be evaluated against the Housing Plan component of the Adams County Comprehensive Plan. The Land Use Plan Map recognizes the importance of providing Medium Density residential development in the general vicinity of Hunterstown. The proposed Gettysburg Commons project represents a moderate density residential development, consistent with the density recommendation of the "Residential - Medium Density" land use classification applied in the Hunterstown area. Also, and perhaps more importantly, the County Plan recognizes the need to provide areas within each municipality in Adams County suitable for a variety of housing types, which would be attractive to existing and future households of varying composition and income. The proposed project involves a project with only one housing type (single family detached on lots of approximately 7,000 to 10,000 square feet), and likely marketed to only one age and income group (upper middle-class people over 55 years of age). While innovative housing approaches for the retiring "baby-boomers" will certainly be necessary over the coming years, the housing needs of other segments of the

population also need to be addressed. Focusing only on development of this nature and size, and not considering the housing needs of other segments of the community, could prove to be short-sighted. Further, a development focused on retirees will create new demands for services, businesses, and housing needs for an expanded, non-retiree work force. The pressure on Straban Township to accommodate other types of housing could be strong. Since the proposed project does not provide for, or call for, additional housing types, the project is not fully consistent with the housing element of the County Plan.

Finally, the Gettysburg Commons project should be evaluated against the Utilities Component of the County Plan. The County Plan recommends that, within designated growth areas, centralized sewer and water facilities be provided to help achieve the recommendations of the Land Use Plan element. Since the applicant is proposing to develop a project located in a designated growth area with public water and sewer service, the project can be considered, from a narrow perspective, consistent with the Utilities element of the County Plan. However, as discussed in further detail in our responses to Questions 4, 14, and 15, we must express concern regarding the introduction of new, privately owned and operated sewer and water systems into an area that already hosts several smaller sewer and water systems. To achieve full consistency with the goals of the Utilities element of the County Plan, these sewer and water systems should be combined into a single regional system. The development of a series of stand-alone, privately owned and operated sewer and water systems in this setting can not be considered to be consistent with the County Plan.

B. Question #4: The project in question involves the development of a community water system to service this community. Considering that the project is located within a designated growth area of the Adams County Comprehensive Plan, the development of a community water system within this setting to service this extensive project is appropriate. From this perspective, the project is consistent with the utilities component of the Adams County Comprehensive Plan. However, we must express concern regarding the potential for proliferation and fragmentation of water systems in this setting. In addition to the proposed Gettysburg Commons water system, water systems serving the Oak Village Mobile Home Park, the Reliant Energy site, and the Adams County Facilities site all operate within close proximity. At the same time, Hunterstown Village continues to rely on private domestic wells for water supply. Over time, these systems may wind up competing for available groundwater supply, likely to the detriment of private domestic well users in Hunterstown Village and the surrounding area. Both the developer and the Township should be extremely cautious concerning the provision of an adequate water supply which does not interfere with the water needs of nearby neighbors.

Given the importance of managing water supply and quality in this setting, steps should be taken to consolidate water system management. Ideally, a single community water system for the entire Hunterstown setting should be developed and operated by a public agency. The system should include the existing systems, the proposed Gettysburg Commons system, and extensions should be provided to Hunterstown Village. Failure to achieve this goal could result in individual systems competing for water supply, as well as duplicative system management, water supply management, and wellhead protection

processes. As additional community water systems are developed, the private domestic wells serving Hunterstown Village properties could be compromised. Further, failure to move toward single, regional sewer and water systems serving the entire Hunterstown setting is inconsistent with utility recommendations of the Adams County Comprehensive Plan as well as the Adams County Water Supply / Wellhead Protection Plan.

With regard to water supply protection, sufficient documentation has not been provided to allow for a thorough assessment regarding this project's impact on the protection of water resources. Obviously, as indicated above, the project will have a significant impact on groundwater resources, as this project will likely rely upon groundwater supplies. Assessments should be made regarding the sustainability of the groundwater resource in this setting, particularly with regard to its ability to service 1800 new homes. Achieving the run-off capture requirements of the Monocacy River Watershed Stormwater Management Plan (see our response to Question #17 below), could contribute to this requirement.

Finally, we note that several surface water features, namely tributaries to Rock Creek, are located on the subject property. These tributaries have their headwaters on the subject property. The Conceptual Site Plan submitted with the Module packet indicates that the "wetlands and intermittent streams will be avoided to the maximum extent possible." This objective is appropriate, and the Conceptual Site Plan depicts some potential conservation efforts around these resources. However, given the amount of site preparation and grading that will likely be necessary for a project of this size, we remain concerned about the long-term impacts of this project on surface water resources. We recommend that all reasonable precautions be taken to ensure the minimal disturbance to these areas. Failure to do so may result in substantial downstream impacts, including but not limited to Rock Creek. Rock Creek specifically is subject to sudden and dramatic flooding events. The sewer plant discharge and improperly designed stormwater management facilities could exacerbate this already significant public safety concern.

C. Question #6: As indicated in our response to Question #4 above, we believe that the proposed project may have significant impact on existing surface water features on the site. These surface water features may include wetland areas. The National Wetlands Inventory maps depict several wetland areas on the site. Some of these are associated with existing ponds, while others are associated with tributaries of Rock Creek. Other wetland areas are possible, particularly given that the Conceptual Site Plan indicates that site wetland mapping is still to be conducted. Any identified wetland area on this site should be conserved in a natural state.

D. Question #7: The project in question will have significant impact on Hunterstown Village, a designated Historic District in the National Register of Historic Places, as well as the Hunterstown Battlefield, also a designated Historic District in the National Register. The proposed project will create, at a minimum, traffic, environmental, and visual impacts on these historic resources. The following specific comments should be considered.

1. Hunterstown Battlefield: The area immediately south of Hunterstown Village experienced significant cavalry action associated with the Civil War Battle of Gettysburg. Because of this action and its importance within the Battle of Gettysburg context, this area along Hunterstown Road was deemed eligible for listing on the National Register of Historic Places in 1998.

The proposed Gettysburg Commons Project, particularly the eastern portion of the project adjoining Hunterstown Road, will directly impact the visual setting of the Hunterstown Battlefield. The eastern portion of the Gettysburg Commons project lies either within or immediately adjacent to properties deemed eligible for listing. Confederate Major General Jubal Early reached Hunterstown from the northeast on July 1, 1863, and encountered corps of the Union Army of the Potomac south of Hunterstown on July 2. This skirmish constitutes one of several outlying skirmishes in Adams County associated with the broader Battle of Gettysburg. The visual integrity has been somewhat impacted by the development of a large electric power generating facility. Residential development on the western side of the Hunterstown Battlefield will, without appropriate buffering and aggressive conservation measures on the Battlefield area itself, further impact the historic landscape. Particular emphasis should be placed by the developer to minimize the extent of residential development on the eastern portion of the Gettysburg Commons project to preserve the historic landscape. We would support an effort to remove residential development from the area along Hunterstown Road, while allowing denser development toward the middle and western side of the Gettysburg Commons property. Site landscaping should be employed to buffer the Hunterstown Battlefield from the residential project. If there are any structures on the Hunterstown Battlefield that date back to the Battle, every effort should be made to ensure that they are preserved. We believe that it will be in the interests of the developer, future residents, and Straban Township to ensure that the core areas of the Hunterstown Battlefield are preserved.

2. Hunterstown Village: The Hunterstown Village National Historic District is adjacent to the Hunterstown Battlefield National Historic District. This village was considered as a possible location for a county seat when Adams County was split from York County in 1800. The village contains remnants of a town square, and many historic structures. Route 394 through Hunterstown Village and adjacent to the proposed project was part of the historic Blacks Gap Road, which connected York County with the frontier area during the French and Indian War. General George Washington traveled this road in 1754.

Placement of a large residential development so close to the Hunterstown Village core could create new pressures to convert properties containing historic buildings to new, incompatible uses. At the same time, a new development of this nature could create new demands by residents for nearby services and uses relying on the historic fabric of the village. Every effort should be made by the development community, the Township, the County, and the Commonwealth to

ensure that the historic integrity of Hunterstown Village is maintained and enhanced.

E. Question #14: For the better part of the last two decades, Act 537 Planning in Straban Township has focused on addressing problem areas along the Route 30 Corridor east of Gettysburg. Little, if any, attention has been given to the area surrounding the US Route 15 / Route 394 Interchange (Shrivers Corners), even though the Adams County Comprehensive Plan and the Straban Township Comprehensive Plan identify this setting as a designated growth area. Straban Township has further facilitated development in this setting by applying growth and development oriented zoning district in the context of the Straban Township Zoning Ordinance. However, Straban Township has not addressed potential public sewer needs in this area through the development of an Act 537 Plan for this area. Existing Straban Township Act 537 planning envisions the installation of public sewer lines along the Route 30 Corridor, and the expansion of a small sewer plant near Hunterstown to service Hunterstown Village as well as utility and governmental projects along Granite Station Road to the south of Hunterstown Village. We must assume that Straban Township policy is that all other areas in Straban Township would be serviced by private, on-lot systems. While it is understood that private, on-lot systems would not be suitable to use to service a large designated growth area, such as the Shrivers Corners setting, the development of a large, privately operated community sewer system is technically inconsistent with the Township's Act 537 planning of at least the last two decades.

The Office of Planning and Development recognizes that significant development is likely to occur at the Shrivers Corner location in the short to moderate term future. We agree that, if development is to occur, that this location should be available to accommodate such development. However, any development at this location, including the currently proposed project, should be implemented in a coordinated fashion, particularly with regard to the provision of sewer and water utilities. Currently, two community sewer systems, one publicly operated and one privately operated, are located in close proximity to the Interchange. If approved, the sewer system to serve this project would represent the third system operating within the immediate area. We understand, through news accounts and discussions with Township staff, that additional development proposals are likely, which may result in the development of additional, privately operated community sewer systems. We are wary of the potential development of several, privately developed and operated community sewer systems serving a single growth area.

The Office of Planning and Development further recognizes that Straban Township is progressing on the development of an update to its Comprehensive Plan. When completed, the Plan should establish policies and recommendations regarding the development of the Shrivers Corners area. Specifically, the Plan should provide recommendations regarding how sewer and water service should be provided for this designated growth area. Once the Comprehensive Plan is completed, we recommend that the Township develop an Act 537 Plan Update to address sewer service needs of the Shrivers Corners and Hunterstown Village areas in a comprehensive manner. We

APPENDIX

PUBLIC NOTICE

Notice is hereby given that a Pennsylvania Department of Environmental Protection Sewage Facilities Planning Module has been submitted to Straban Township for the following project.

The Greater Gettysburg Development Co., LLC proposes to construct 1800 residential dwellings, two community/clubhouse buildings and recreational facilities associated with an active adult community located along the south side of SR0394 (Shrivers Corner Road), between US Route 15 on the west and SR3003 (Hunterstown Road) on the east. The name of the project is "Gettysburg Commons". The site is located in Straban Township, Adams County. The total property area is approximately 650+/- acres with approximately 3.0 acres being affected by the construction of a wastewater treatment plant. The purpose of the wastewater treatment, conveyance and collection system construction is to treat domestic wastewater from the proposed single family detached residential development. Anticipated average daily flow is 315,000 gallons per day, which equates to 900 equivalent dwelling units (EDU), based on 350 gallons per day per EDU. The proposed treatment system will likely utilize an extended aeration system with stream discharge. The PA Department of Environmental Protection requires this publication since a new sewage treatment facility is proposed. Written comments will be received from concerned individuals for thirty (30) days from the date of this Publication. During this comment period, the Conceptual Development Plan and the Sewage Planning Module Components can be reviewed at the Straban Township Municipal Building located 1745 Granite Station Road Gettysburg, PA 17325 (Tel 717-334-4833) during normal business hours. All comments should be forwarded to the above address in care of the Straban Township Supervisors.

Attachment to Discovery A-10 (Wastewater)

Proof of Publication of Legal Notice

Under provisions of "Newspaper Advertising Act" of Pennsylvania and its Supplements.

STATEMENT

It is hereby stated and declared that The Gettysburg Times is a daily newspaper as defined under the "Newspaper Advertising Act" of the Commonwealth of Pennsylvania approved May 16, 1929, and its several supplements and amendments, published at its place of business in the Township of Cumberland, Adams County, Pennsylvania, and is of general circulation throughout said County. That it was established in the year 1902 and has been issued regularly and continuously circulated and distributed from its established place of business daily, from the date of its establishment to the present time; that said newspaper is owned and published by The Times and News Publishing Company, a corporation organized and existing under the laws of the State of Pennsylvania.

That a legal notice, a true copy of which exactly as printed and published, is securely attached hereto, was published and appeared in the regular editions and issues of said newspaper on the following dates, viz.

July 26, 2004

That all of the charges, costs and expenses, including the fee for the affidavit to this proof of publication have not been paid in full.

[Signature of Linda A. Becker]

Advertising Clerk

of Times and News Publishing Company

Commonwealth of Pennsylvania) ss.
County of Adams

On the 26th day of July 20 04, before me, the subscriber, a Notary Public in and for said State and County personally came the above named Linda A. Becker who having been by me duly sworn according to law on his oath doth depose and say that he is the advertising clerk of The Times and News Publishing Company, a corporation, and is an officer duly authorized by resolution of the Board of Directors of said corporation to make the foregoing statement and this affidavit on its behalf; that the affiant is not interested in the subject matter of the notice or advertising referred to in the foregoing statement and that all of the allegations contained in the foregoing statement as to the time, place and character of publication therein referred to are true.

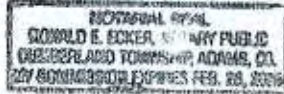
Copy of notice of publication

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Sworn to and subscribed before me Advertising Clerk
the day and year aforesaid.

[Signature of Ronald E. Ecker]
Notary Public

My commission expires



Statement of Advertising Costs

Table with 2 columns: Description and Amount. Rows include: The Gettysburg Times, To Times and News Publishing Company, Dr., on the above dates (\$ 52.54), Probating same (\$ 2.00), Total (\$ 54.54)

Publisher's Receipt for Advertising Costs

Times and News Publishing Company, a corporation, publisher of the Gettysburg Times, a daily newspaper, receipt of the aforesaid advertising and publication of costs and certifies that the same have been

Times and News Publishing Company, a corporation, publisher of The Gettysburg Times, a daily newspaper.

By _____
Its _____

her full



Aqua Pennsylvania, Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA 19010

Mark J. Kropilak, Esquire
Vice President, Corporate
Development and Corporate
Counsel

September 2, 2004

T: 610.645.1080
F: 610.645.1061
mjkropilak@aquaamerica.com
www.aquapennsylvania.com

Sent via Federal Express

Mr. Richard Klein
Greater Gettysburg Development Company, L.L.C.
601 Mason Dixon Road
Gettysburg, PA 17325

Re: Gettysburg Commons
Straban Twp., Adams Co.

Dear Mr. Klein:

Please accept this letter as our statement of interest in being the operator of the water and wastewater systems that will serve the Gettysburg Commons development. In addition, we are willing to provide consulting services related to the design and construction of these systems.

Based upon our working relationship at the Links of Gettysburg, we look forward to working with your firm to establish another premiere water and wastewater system to serve the customers of Gettysburg Commons. Similar to the structure we are using at the Links, Aqua Pennsylvania is anxious to negotiate the terms for operating, and eventually owning, the water system and its subsidiary, Suburban Wastewater Company, has a similar interest in the wastewater system.

As you know, these two utility companies are part of a family of companies owned by Aqua America, Inc. which is the largest U.S.-based investor owned water utility. As noted on the enclosed brochure, Aqua America provides water and wastewater service to over 820,000 customers in 14 states, including over 400,000 customers throughout Pennsylvania.

Should you need any additional information, please do not hesitate to contact me at 610-645-1080.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark J. Kropilak".

Mark J. Kropilak

MJK/sm

Enclosure

cc: Keith Gabage
Anthony J. Donatoni



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERSHED MANAGEMENT
BUREAU OF WATERWAYS ENGINEERING

FOR OFFICIAL USE ONLY

PNDI Screening

Reviewer _____

Date _____

Phone No. _____

SUPPLEMENT NO. 1
PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM

This form provides site information necessary to perform a computer screening for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the PA Game and Wildlife Code. Records regarding species of special concern are maintained by PA DCNR in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). Results from this search are not intended to be a conclusive compilation of all potential special concern resources located within a proposed project site. On-site biological surveys may be recommended to provide a definitive statement on the presence or absence, or degree of natural integrity of any project site. Results of this PNDI search are valid for one year after the initial search or conclusion of coordination with the jurisdictional agency (whichever is later), then a new PNDI coordination process must be initiated, and a new PNDI search is required. The search area should include the entire area that presently or in the future requires a permit or authorization.

Please complete the information below, attach an 8½" x 11" photocopy (DO NOT REDUCE) of the portion of the U.S.G.S. Quadrangle Map that identifies the project location and outlines the approximate boundaries of the project and mail to the appropriate DEP regional office or delegated County Conservation District prior to completing a Chapter 105 environmental assessment or any other DEP permit application. (SEE REVERSE SIDE FOR LIST OF OFFICES AND ADDRESSES).

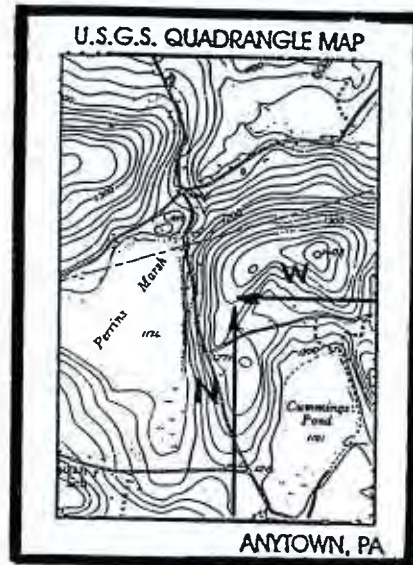
NAME: GETTYSBURG COMMONSADDRESS: c/o RICHARD A. KLEIN601 MASON DIXON ROADGETTYSBURG, PA 17325PHONE: (717) 359-8000 ext.28COUNTY: ADAMSMUNICIPALITY: STRABAN

U.S.G.S. 7½ Minute Quadrangle

BIGLERVILLE, PA

PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)

1800 UNIT ACTIVE ADULT RESIDENTIAL COMMUNITY ON 650+/- ACRES (INCLUDES CURRENT MARTIN, BLACK AND KELLER FARMS, AS WELL AS SOME SMALL PARCELS)



Latitude _____ Longitude _____

(OR) North (Up) 0.8 inchesWest (to the left) 7.2 inches

- INDICATE BY LATITUDE AND LONGITUDE; -- OR --
- INDICATE PROJECT LOCATION TO THE NEAREST ONE TENTH INCH MEASURING FROM THE EDGE OF THE MAP IMAGE FROM THE LOWER RIGHT CORNER.

FOR OFFICIAL USE ONLY**SCREENING RESULTS** - Follow the directions of the checked block.

- No potential conflicts were encountered during the PNDI inquiry. Include this form and the PNDI receipt with your Chapter 105 environmental assessment or other DEP permit application submissions.
- Potential conflicts must be resolved by contacting the natural resource agencies listed on the PNDI receipt. Please provide a copy of this form and the PNDI receipt along with a brief description of your project to the listed agency for consultation and recommendations. Include this form, the printed PNDI search results and the natural resource agency's written recommendation with your Chapter 105 environmental assessment or other DEP permit application submissions.

PNDI Internet Database Search Results

PNDI Search Number: N150437

Search Results For spillis@acc.pa.net

Search Performed By: Stefani Piliis On 8/3/04 10:52:45 AM

Agency/Organization: Adams County Conservation District

Phone Number: 717-334-5171

Search Parameters: Quad - 397782; North Offset - 0.8; West Offset - 7.2; Acres - 50

Project location center (Latitude): 39.87939

Project location center (Longitude): 77.17634

Project Type: Real Estate Development/Residential Development

Print this page using your Internet browser's print function and keep it as a record of your search.

No conflicts with ecological resources of special concern are known to exist within the specified search area.

PNDI is a site specific information system, which describes significant natural resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is valid for 1 year. An absence of recorded information does not necessarily imply actual conditions on-site. A field site survey may reveal previously unreported populations of rare species, their critical habitats, or other unique natural resources.

Legal authority for Pennsylvania's biological resources resides with three administrative agencies. The handout entitled Pennsylvania Biological Resource Management Agencies, outlines which species groups are managed by these agencies. Feel free to contact our office if you have questions concerning this response or the PNDI system, and please refer to the PNDI Search Number at the top of this page in future correspondence concerning this project.

New Search using inches on a Quad

New Search using Latitude and Longitude

PNDI Search Home

PNDI Search Welcome

received
8-4-04



Commonwealth of Pennsylvania
Attachment to Discovery A-10 (Wastewater)
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093

August 31, 2004

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Robert A. Sharrah, PLS
1270 Fairfield Road Suite 5
Gettysburg, PA 17325-7246

Re: File No. ER 99-2468-001-C
DEP, ACT 537 NPDES & General
Permits, Gettysburg Commons, Straban
Twp., Adams Co.

Dear Mr. Sharrah:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

A HIGH PROBABILITY EXISTS THAT ARCHAEOLOGICAL RESOURCES MAY OCCUR WITHIN THE PROPOSED PERMIT AREA

Based on an evaluation by our staff, there is a high probability that significant archaeological sites are located in this project area and could be adversely affected by project activities. Although there are no recorded archaeological sites within the project boundaries, the soil type, topographic setting, slope direction, and distance to water of the project area are similar to the settings of known archaeological sites in the vicinity. A Phase I archaeological survey of the project area to locate potentially significant archaeological resources is recommended but not required.

If a survey is not conducted and you encounter archaeological resources during construction, you must stop the project, notify the Pennsylvania Historical and Museum Commission's Bureau for Historic Preservation and the Department of Environmental Resources and allow the Bureau for Historic Preservation 60 days to conduct a survey to determine the significance of the archaeological resources. If the Bureau determines that the resources are significant, you must submit a mitigation plan to protect the significant resources on the site. We will review the plan within 30 days.

LISTED/ELIGIBLE HISTORIC RESOURCES ARE PRESENT - THE PROJECT WILL HAVE AN ADVERSE EFFECT

The Pennsylvania Historical and Museum Commission has determined that significant historic structure(s) eligible for or listed in the National Register of Historic Places are within the project area. This project may adversely affect the historic and architectural qualities that make the property significant. You must continue to consult with the Bureau for Historic Preservation to make a precise determination of the effects and, if necessary, seek ways to avoid or reduce the effects of construction on historic properties. Please submit the development plans for the project and explain how the historic structures will be affected by the project.

received
9-3-04

Page 2
August 31, 2004
Mr. Robert A. Sharrah, PLS

Hunterstown Historic District Boundary Increase

FOR YOUR INFORMATION

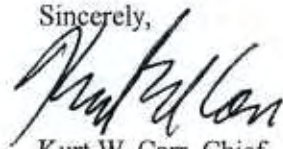
The Pennsylvania Historical and Museum Commission will keep the Determination Notice and the materials you submitted in its files. Please attach this letter to your copy of the Notice and materials then submit the entire package of materials to DEP.

If this project will require any federal permits or will receive federal funding, the federal agency, under the National Historic Preservation Act of 1966, may require the appropriate surveys to be conducted. We suggest that you consider conducting the survey early in the development or planning process to avoid delays in the future. Guidelines and instructions for conducting Phase I surveys are available from our office upon request.

Thank you for notifying us of your proposed activity.

If you need further information regarding archaeological survey please contact Mark Shaffer at (717) 783-9900. If you need further information concerning historic structures please consult Ann Safley at (717) 787-9121.

Sincerely,



Kurt W. Carr, Chief
Division of Archaeology &
Protection

CC: DEP, Southcentral Region
KWC/lmm



CULTURAL RESOURCE NOTICE

Read the instructions before completing this form.

SECTION A. APPLICANT IDENTIFIER			
Applicant Name	THE GREATER GETTYSBURG DEVELOPMENT COMPANY, LLC		
Street Address	C/O RICHARD A. KLEIN 601 MASON DIXON ROAD		
City	GETTYSBURG	State	PA Zip 17325
Telephone Number	717-359-8000 ext 28		
Project Title	GETTYSBURG COMMONS		
SECTION B. LOCATION OF PROJECT			
Municipality	STRABAN TOWNSHIP	County Name	ADAMS DEP County Code 01
SECTION C. PERMITS OR APPROVALS			
Name of Specific DEP Permit or Approval Requested:	ACT 537, NPDES & GENERAL PERMITS		
Anticipated federal permits:			
<input type="checkbox"/> Surface Mining	<input type="checkbox"/> 404 Water Quality Permit		
<input type="checkbox"/> Army Corps of Engineers	<input type="checkbox"/> Federal Energy Regulatory Commission		
<input type="checkbox"/> 401 Water Quality Certification	<input type="checkbox"/> Other:		
SECTION D. GOVERNMENT FUNDING SOURCES			
<input type="checkbox"/> State: (Name) _____	<input type="checkbox"/> Local: (Name) _____		
<input type="checkbox"/> Federal: (Name) _____	<input checked="" type="checkbox"/> Other: (Name) <u>PRIVATE</u>		
SECTION E. RESPONSIBLE DEP REGIONAL, CENTRAL, DISTRICT MINING or OIL & GAS MGMT OFFICE			
DEP Regional Office Responsible for Review of Permit Application	<input type="checkbox"/> Central Office (Harrisburg)		
<input type="checkbox"/> Southeast Regional Office (Conshohocken)	<input type="checkbox"/> Northeast Regional Office (Wilkes-Barre)		
<input checked="" type="checkbox"/> Southcentral Regional Office (Harrisburg)	<input type="checkbox"/> Northcentral Regional Office (Williamsport)		
<input type="checkbox"/> Southwest Regional Office (Pittsburgh)	<input type="checkbox"/> Northwest Regional Office (Meadville)		
<input type="checkbox"/> District Mining Office:	<input type="checkbox"/> Oil & Gas Office:		
SECTION F. RESPONSIBLE COUNTY CONSERVATION DISTRICT, if applicable.			
County Conservation District	Telephone Number, if known		
ADAMS	717-334-5171		
SECTION G. CONSULTANT			
Consultant, if applicable	ROBERT A. SHARRAH, PLS		
Street Address	1270 FAIRFIELD ROAD SUITE 5		
City	GETTYSBURG	State	PA Zip 17325-7246
Telephone Number	717-334-5400		

SECTION H. PROJECT BOUNDARIES AND DESCRIPTION

REQUIRED

Indicate the total acres in the property under review. Of this acreage, indicate the total acres of earth disturbance for the proposed activity.

Attach a 7.5' U.S.G.S. Map indicating the defined boundary of the proposed activity.

Attach photographs of any building over 50 years old. Indicate what is to be done to all buildings in the project area.

Attach a narrative description of the proposed activity.

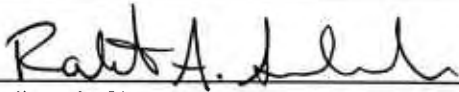
Attach the return receipt of delivery of this notice to the Pennsylvania Historical and Museum Commission.

REQUESTED

Attach photographs of any building over 40 years old.

Attach site map, if available.

SECTION I. SIGNATURE BLOCK



8-3-04

Applicant's Signature

Date of Submission of Notice to PHMC

Existing Building Photographs

for

Proposed

GETTYSBURG COMMONS

An Active Adult Residential Community

Straban Township, Adams County, Pennsylvania

Prepared by:

Robert A. Sharrah, PLS
1270 Fairfield Road
Gettysburg, PA 17325-7246
717-334-5400

Prepared for:

Pennsylvania Historical and Museum Commission

August 2004

CONTENTS

Project Description

Quadrangle Map

Photo Key Map

Photographs

Conceptual Development Plan

**RE: Gettysburg Commons
Straban Township, Adams County
RAS File 9845**

PROJECT NARRATIVE

This project proposes the development of approximately one thousand eight hundred (1800) single family detached residential housing units for active adults. The site is located at the southeast quadrant of the interchange of SR 0015 (Blue and Gray Highway) and SR 0394 (Shrivers Corner Road) and contains approximately 650 +/- acres. The site extends eastward to Hunterstown Road (SR3013). The site is generally bisected by a Township Road known as Martin Road (T-513).

A portion of the subject site was in planning several years ago (approximately 1999) as "The Gettysburg Equestrian Center". At that time, a Cultural Resource Notice was transmitted to the PHMC. By letter dated August 6, 1999, the project was assigned **File No. ER 99-2468-001-A**. The original project included only approximately 475 +/- acres.

The present site is made up of three larger parcels, currently known as the Martin, Black and Keller farms. Existing buildings on the current Black and Keller properties will be subdivided from the larger parcel and retained by their present owners. The Martin farm buildings located along Martin Road are the subject of the attached Photo Report.

The bulk of the property is currently used for the production of agricultural crops with the remaining acreage used as pasture land for livestock, or forest. There are two (2) existing barns, an existing 2-1/2 story frame dwelling and numerous farm outbuildings on the south side of Martin Road. A mobile home, a concrete block shed and a frame shed exist on the north side of Martin Road.

This project proposes the demolition of all buildings located on the Martin site and depicted in the attached photographs.

Approximately 400 acres will be disturbed by this project. Stream corridors and wetland areas will be preserved and protected to the maximum extent possible.

Permits and authorizations contemplated at the present time include Act 537 sewage planning approval from Straban Township and PADEP, an NPDES Permit for the discharge of construction related storm water runoff, an NPDES Permit for discharges from a proposed wastewater treatment plant to be constructed on site, a Community Water Supply Permit for drinking water for the community, General Permits for minor environmental impacts from roadway and utility line crossings.

ROBERT A. SHARRAH, P.L.S.
Land Surveying and Consulting Services
1270 FAIRFIELD ROAD STE. 5
GETTYSBURG, PA 17325
(717) 334-5400

SHEET NO. _____ OF _____
CALCULATED BY RAS DATE 08-04-04
CHECKED BY _____ DATE _____
SCALE NONE

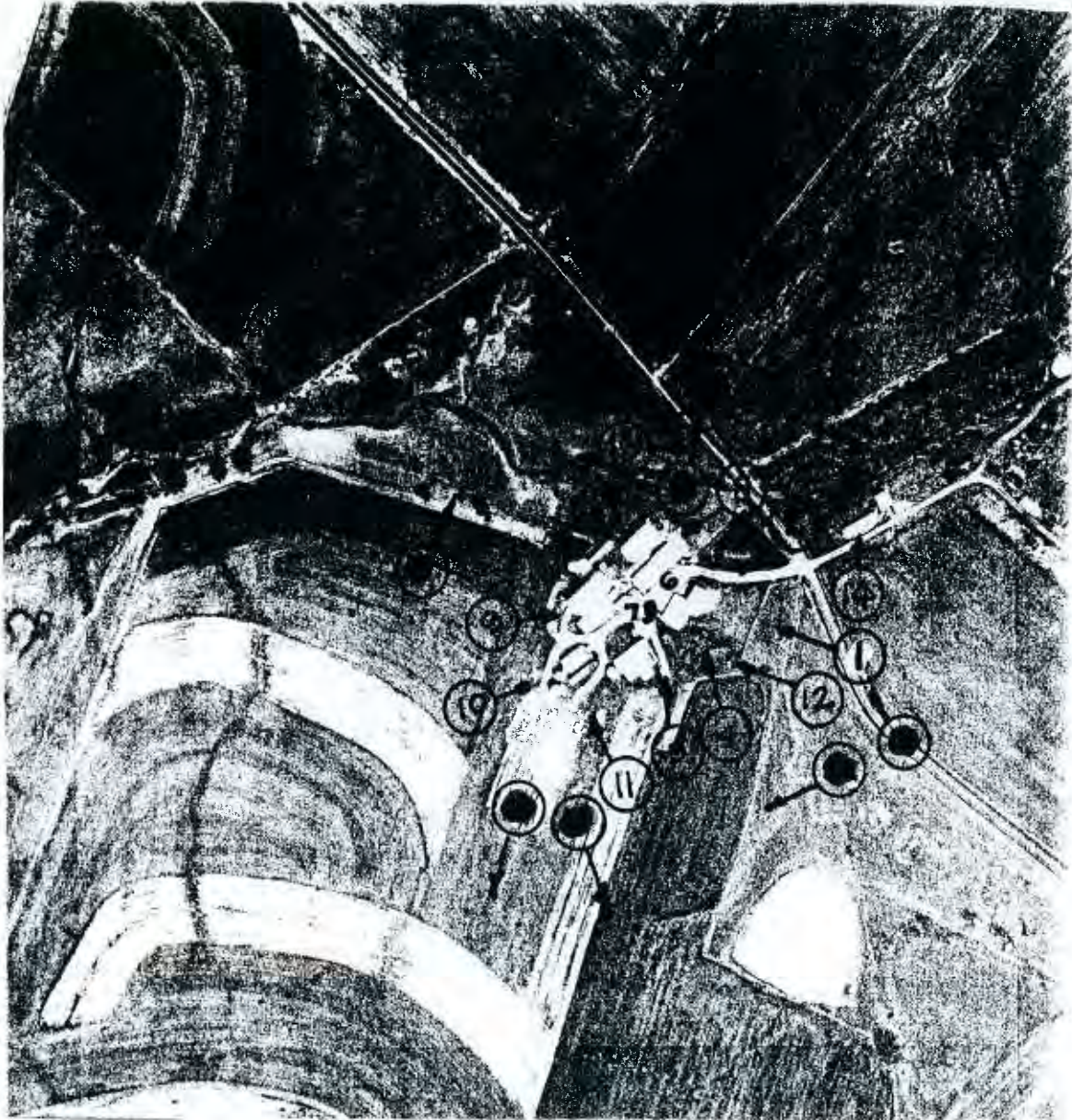


PHOTO KEY MAP

* PHOTOS TAKEN 07-15-99



PHOTO #1 – East elevation of existing 2-1/2 story frame dwelling



PHOTO #2 – East elevation of existing 2-1/2 story dwelling and miscellaneous out buildings



PHOTO #3 – West elevation of existing 2-1/2 story dwelling and frame garage



PHOTO #4 – South elevation of existing 2-1/2 story dwelling and frame garage



PHOTO #5 - View of existing farm buildings and frame garage



PHOTO #6 - Northwest corner of existing 2-1/2 story frame dwelling

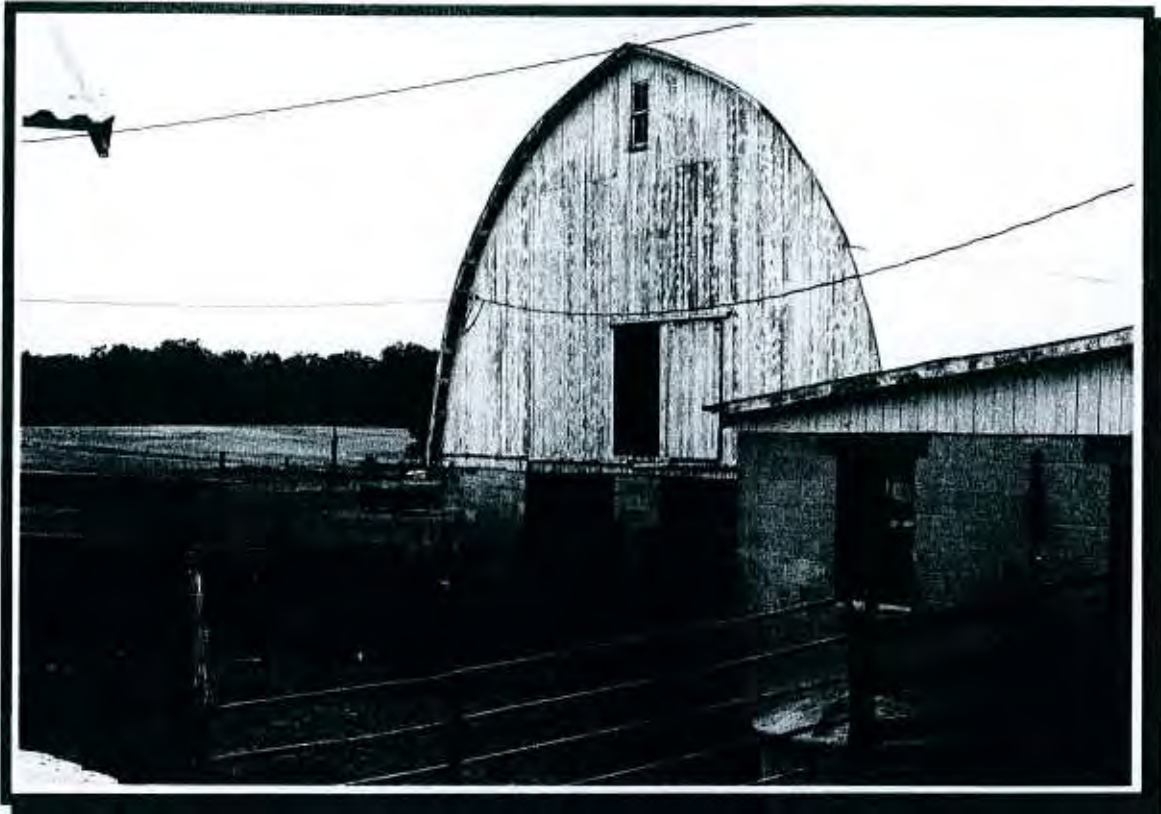


PHOTO #7 – South elevation of northern livestock barn



PHOTO #8 – North elevation of northern livestock barn



PHOTO #9 – South elevation of southern livestock barn



PHOTO #10 – Miscellaneous farm buildings



PHOTO #11 – Miscellaneous farm buildings



PHOTO #12 – Miscellaneous farm buildings and southern portion of existing frame garage and dwelling



PHOTO #13 – Existing mobile home, CMU and frame sheds on north side of Martin Road

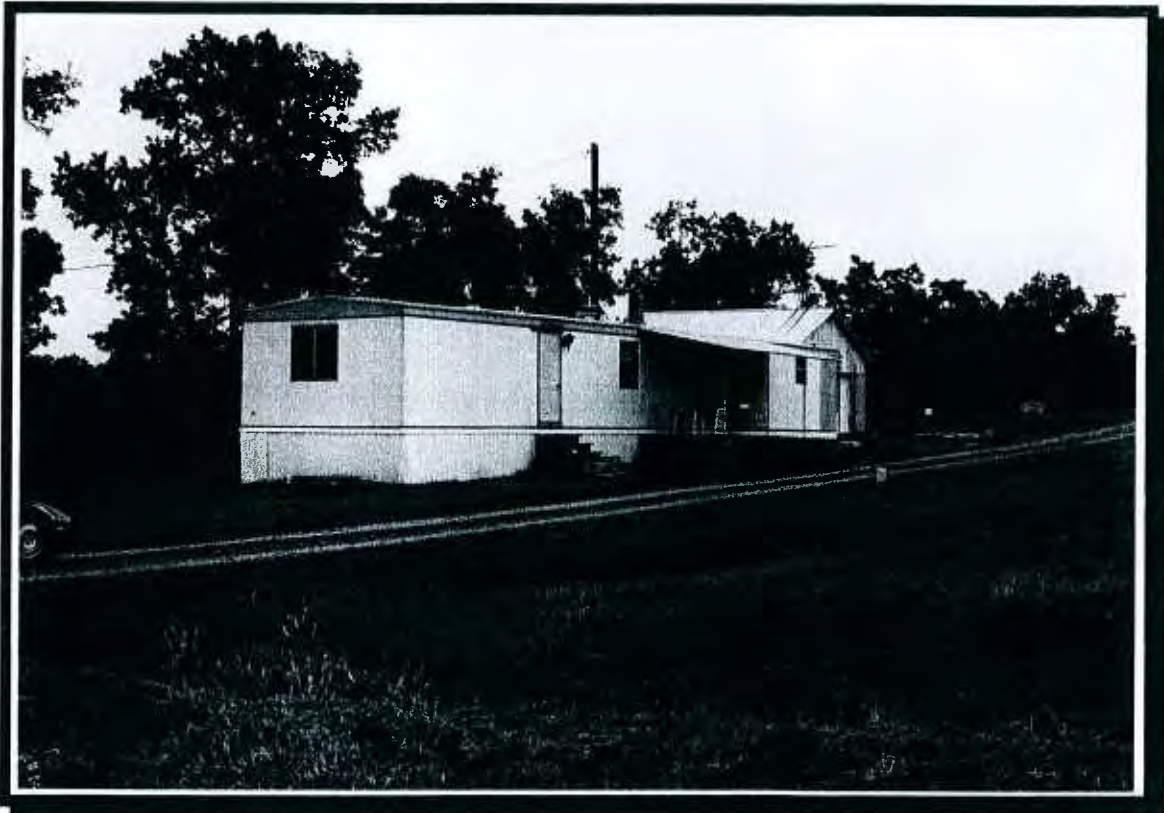


PHOTO #14 – Existing mobile home on north side of Martin Road

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

PHMC
 300 NORTH STREET
 HARRISBURG, PA
 17120

2. Article Number (Copy from service label)

7003 3110 0004 5822 8523

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

AUG 09 2004
 C. Signature *[Signature]* Agent
 Addressee

D. Is delivery address different from item 1? Yes
 No
 If YES, enter delivery address below:

received
 8-11-04

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes



martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)

August 4, 2004

Maria Bebenek
PaDEP – Water Management Program
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

RE: Gettysburg Crossing
Straban Township, Adams County
Our file: 1250.6a (zip b1)

Dear Maria:

Please find attached one (1) copy of a USGS location map from the Gettysburg and Biglerville Quadrangle depicting a proposed WWTP discharge point in Straban Township, Adams County. Currently, the development proposed is 1,800 single-family lots resulting in an estimated discharge rate of 315,000 gpd. The latitude and longitude of the proposed discharge point is as follows:

Lat: N39°52'40"
Long: W77°11'18"

The above information is provided to request preliminary water quality discharge requirements for the proposed site discharging to an unnamed tributary to Rock Creek.

We hope the above information is adequate to establish preliminary data. However, please don't hesitate contacting our office for further information.

Very truly yours,
MARTIN AND MARTIN, INCORPORATED

Joseph M. McDowell, P.E.

JMM:ts
cc: R. Klein
R. Sharrah

received
8-6-04



Pennsylvania Department of Environmental Protection

909 Elmerton Avenue
Harrisburg, PA 17110-8200

September 14, 2004

Southcentral Regional Office

717-705-4707
FAX - 717-705-4760

Joseph M. McDowell, P.E.
Martin and Martin, Inc.
37 South Main Street, Suite A
Chambersburg, PA 17201-2251

Re: Sewage
Preliminary Effluent Limits
Gettysburg Crossing
Straban Township, Adams County

Dear Mr. McDowell:

In response to your August 4, 2004 request, we have developed preliminary effluent limits for a discharge of 0.315 MGD of treated wastewater to an unnamed tributary of Rock Creek (59027). Any changes in the size or location of the discharge will require a reevaluation. The preliminary effluent limits are:

Parameter	Concentration (mg/l)		
	Monthly Average	Annual Average	Instantaneous Maximum
CBOD ₅ (5/1 to 10/31)	15	--	30
(11/1 to 4/30)	20	--	40
Suspended Solids	30	--	60
NH ₃ -N (5-1 to 10-31)	1.6	--	3.2
(11-1 to 4-30)	4.8	--	9.6
Total Phosphorus	2.0	--	4.0
Total Nitrogen	--	8.0	--
Dissolved Oxygen	Minimum of 5.0 at all times		
pH	Within the range of 6 to 9 standard units at all times		
Fecal Coliform	Not greater than 200/100 ml as a geometric average value, not greater than 1,000/100 ml in more than 10% of the samples tested from May 1 to September 30; not greater than 2,300/100 ml as a geometric average value during the remainder of the year.		

received
9-30-04

Joseph M. McDowell, P.E.

- 2 -

September 14, 2004

Issuance of these limits does not represent approval for a discharge to the waters of the Commonwealth. This information is provided as an aid in evaluating alternative wastewater disposal methods.

To meet the requirements of the Sewage Facilities Act, the proposed facility must be included in the municipality's Official Plan for Wastewater Management approved by the Department. This requirement can be satisfied by submitting planning module components, adopted by the municipality as a revision to their Official Plan, to Mr. Bob Feister in the Chambersburg District Office for approval. The modules can be obtained from that office.

State law requires all reasonable alternatives for area-wide waste treatment management to be evaluated. The modules should contain a narrative of what alternatives to the treatment proposal were considered and why there were rejected.

After the Department grants planning approval, permit applications may be submitted. Please remember that an NPDES permit application must be filed with the Department at least 180 days before you propose to commence discharge of treated wastewater. A Water Management Part II permit must be obtained from the Department prior to starting construction of the collection system or treatment facility. Permit applications can be obtained by contacting this office.

A condition for issuance of permits for a nonmunicipal plant is that the facility must be abandoned upon notification from the Department or municipality after connection to a municipal system becomes feasible.

If you have any questions, please call me at 717-705-4814.

Sincerely,



Maria D. Bebenek
Permits Section
Water Management Program



McNees Wallace & Nurick LLC
attorneys at law

ALEXANDRA C. CHIARUTTINI
DIRECT DIAL: (717) 237-5336
E-MAIL ADDRESS: ACHIARUTTINI@MWN.COM

February 2, 2005

Edward Corriveau, Chief
Sewage Planning Section
Southcentral Regional Office
PA Dept. of Environmental Protection
909 Elmerton Avenue
Harrisburg, PA 17110

Re: Gettysburg Commons Sewer Planning Module
Supplemental Submission

Dear Ed:

Pursuant to our conversation and meeting on December 21, 2004, we submit the following information on behalf of Greater Gettysburg Development Company regarding the proposed sewer planning module referenced above. We would note that all of the information that you requested at the meeting was included in the original module submission, except for an implementation schedule. In most cases, I have cited the location in the module and the substantive response/information. We have supplemented some of the original information as well.

1) Location of Sewage Facilities

The Planning Module has a plot plan and sewage facility location map included in the back of the document. We reviewed this map during our meeting of December 21, 2004. Please refer to this map, which includes planned lots, roads, infrastructure, community structures, location of the treatment facility, the water supply facility, and general site layout. Of course, after the planning stage, this layout may be altered slightly based upon site constraints that may be discovered during construction, permitting requirements, and other such variables. However, the site design should not materially change.

2) Wetland Impacts

The Planning Module includes a wetland delineation map attached to the back of the module as an "Existing Conditions" exhibit. This delineation is also referenced on the third page of the Project Narrative just before the "Alternatives Analysis." In this portion of the Narrative, the proponents state that the delineation will be reviewed by the US Army Corps of Engineers to verify the wetland boundaries and to determine the presence or absence of jurisdictional wetlands. That review is being scheduled. As with any development, the developers will avoid and/or minimize impacts to wetlands and will obtain all required permits and approvals prior to initiating earth disturbance. We have shown the approximate areas of wetland/environmental encroachments on the Plot Plan (Conceptual Site Plan).

Edward Corriveau, Chief
February 2, 2005
Page 2

3) Township to Address Comments

During our meeting you expressed concerns whether the Township considered the comments submitted on the proposed planning module. Specifically, you referred to the County comments. The regulations do not require written responses to the County's comments, but do require inclusion of the comments in the module. The comments were included in the original module submission.

Recital H of the executed Operation and Maintenance Agreement also includes an affirmative statement that the Township considered all comments submitted on the planning module, including County comments. This Agreement was duly considered, negotiated, and executed by the Board of Supervisors and includes this affirmative statement to satisfy your concerns. The parties are in regular contact so as to continue a cooperative development process. Moreover, the developers of this project are directly supportive of municipal 537 planning efforts and will be involved and cooperative in that process.¹

4) PHMC Letter

The planning module contains an August 31, 2004 review letter from the Pennsylvania Historic and Museum Commission ("PHMC"). This letter is the result of the PHMC review of potential effects on both historic and archaeological resources. This letter is a standard form letter from the PHMC and represents no impediment to development. At the end of the second full paragraph, the PHMC states, "A Phase I archaeological survey of the project area to locate potentially significant archaeological resources is recommended but not required." The letter goes on to state that if the suggested survey is not conducted and the developer encounters resources during construction, work must stop and the PHMC must be notified. This item requires no immediate response by developers.

Further, the letter goes on to state that, "significant historic structure(s) eligible for or listed in the National Register of Historic Places are within the project area." This is a reference to Martin Farm buildings (Lawrence and Sandy Martin farm) known to exist on the site. The directive with respect to this item is that developers must continue to consult with the Bureau of Historic Preservation to make a precise determination of the effects and, if necessary, seek ways to avoid or reduce the effects of construction on historic properties. Developers will submit the development plans for the project and will continue to consult with the Bureau pursuant to this letter. The Developer's consultant has experience working with PHMC on many Gettysburg area projects. If there is any

¹ We would like to note that, in accordance with the Department's desire to minimize discharges and coordinate treatment and disposal services, the developers of this project are willing to serve areas at the municipality's request in the future and prior to dedication if and when requested by the Township. In accordance with the PUC Certificate memorandum of law previously submitted to the Department, if that comes to pass at some later date, then any required approvals and licenses would be obtained, including required planning and NPDES approvals/modifications and a PUC Certificate of Public Convenience, prior to extending service.

Edward Corriveau, Chief
February 2, 2005
Page 3

further action required pursuant to the Historic Preservation Law, the developers and their consultant will address those items with and through the PHMC.

5) Implementation Schedule

We have attached hereto a proposed implementation schedule for the project. This schedule is similar to a prior project proposed and completed by the same developers, The Links at Gettysburg community and associated wastewater treatment system. In that project, the developers met the suggested schedule and we anticipate that will be accomplished on this project as well. As you will note, many of the time-consuming approval items have been completed.

6) General Facility Overview and Design

The general location of the proposed facility is described in the Narrative portion of the module (on the page before the Alternatives Analysis), and is also specifically identified on the site plan layout map included in the module. The Narrative describes the discharge to an unnamed tributary to Rock Creek and the letter to the Department requesting water quality discharge requirements dated August 4, 2004 sets forth the approximate latitude and longitude of the proposed discharge point, which is also indicated on the Plot Plan (Conceptual Site Plan). Additionally, on the first page of the Narrative, the method of sewage disposal is described generally, including the use of gravity lines, a pump station and associated force main. Page 2 of the Project Narrative explains that the WWTP will be designed in three separate treatment "trains" each having 100K gpd capacity. The necessary capacity of the proposed facility is set forth in both Component 3 form and in the Project Narrative and in other locations throughout the original module submission. Moreover, the developers state in the Public Notice included in the module that the site of the treatment facility is 3.0 acres and that treatment will utilize extended aeration with a stream discharge to an unnamed tributary to Rock Creek.

I have attached a schematic of an extended aeration package plant the Developers propose. As you know, these facilities are relatively standard and utilize standard, known treatment technologies. It is premature at this time to provide a final facility design, but effluent limitations set by the Department, will be met by the treatment technology and final design selected. We have attached a copy of the preliminary water quality limits provided by the Southcentral Regional Office in the Appendix to the module. If you would like more information as to extended aeration treatment and/or facility design, please contact Mr. Robert A. Sharrah, PLS who will be working on the design phase of this project.

7) Economics/Cost per EDU

As the module Narrative describes, this project will be privately funded and not publicly funded. As such, it is not necessary for the developers to provide the Department with private financial information as part of this submission. The module Narrative does describe the specific financial guarantees that will be put in place that will be annually automatically renewed until terminated by mutual agreement between the Township and the WWTP owner/operator. The module itemizes specific estimated costs associated with annual operation and maintenance of the facility based upon past experience and experience in the industry on page 2 of the Project Narrative. The developer states in

Edward Corriveau, Chief
February 2, 2005
Page 4

that portion of the original submission that it will, and has, posted financial security in the amount of \$140,000.00 to guarantee operation of the facility for a two year period. Thereafter, the financial security will be renewed as agreed upon by the Township. Moreover, as the original module submission states, the developer shall post financial security in an amount and form agreeable to the Township to guarantee the construction of the wastewater treatment plant (and appurtenances thereto) to assure overall public health, safety and welfare. See, p. 2-3 of the Project Narrative. This amount of security will be agreed upon between the developers and the Township and will be in place to the satisfaction of the Township and in accordance with the Municipalities Planning Code.

To the extent that we can estimate the cost per edu at this "planning" stage of the project, our engineer believes the cost to be *approximately* \$264.00/edu (annual), with some adjustment for depreciation, capital investment and increasing operation and maintenance costs as the project ages and actual construction costs are realized. This is based upon the initial \$70,000.00 operation and maintenance cost/year (on p. 2 of the original Project Narrative), divided by the # of edus to be served in the Gettysburg Commons community (1800, as set forth on pp. 1, 3, and 10 of the Planning Module form- Component 3, throughout the Project Narrative and Appendix). It also assumes an initial construction cost for the complete sanitary sewer collection, conveyance and treatment system to be \$8,000,000.00. As stated, this is an estimate based on similar sized systems and costs from the design engineers' who are currently working on the facility design.

8) Miscellaneous Consistency Items 25 Pa. Code §71.53(d)

During our meeting, which was intended to provide the developers with the Department's list of missing information necessary to supplement, you mentioned that we should consider Section 71.53(d) generally. This was a surprise to me because that regulatory section is a general catch-all module content/consistency provision. Such a reference was contrary to the intent of our meeting. However, in our effort to expedite this process, we shall review the requirements:

(d)(1) The module includes information required in Section 71.52 (relating to content requirements). You and Chuck Ferree specifically identified the items you believed were missing from the original module submission during our meeting. This letter and the accompanying information should address those items.

(d)(2) Comments by appropriate official planning agencies. The information necessary to address this item was included in the module, including the comments themselves. We further addressed the Department's concern over municipal consideration of the comments in the Operation and Maintenance Agreement as described in Paragraph 3 herein.

(d)(3) A written commitment from the owner of the receiving community sewerage facilities to provide service to the proposed new land development and conditions for that service. This item is addressed in the O&M agreement, which will be amplified by the Development Agreement between the Township and the Developer. At our meeting on December 21, 2004, the Department requested a fully executed copy of the O&M Agreement, which is attached and included in the Module.

(d)(4) Documentation that the proposal is consistent with the official plans. This is provided in the municipality's adoption of the module as a revision to its existing plan.

Edward Corriveau, Chief
February 2, 2005
Page 5

The Resolution of Adoption is included in the planning module to evidence this action. Moreover, the parties have added specific language to the Project Narrative portion of the module that is intended to address dedication and the assumption of indebtedness agreed to between the owner/developer and the Township. As you may be aware, the municipality will be beginning a 537 planning process shortly and this module will become an integral part of the municipality's plans. Whether or not that will include municipal ownership and/or operation of this facility or private ownership and/or operation of this facility in the future is an open question for the municipality and the owner/developers to address in the context of their agreements. The Department did not mention this item at our meeting on December 21, 2004.

(d)(5) SEO Statement. This provision does not apply since the planning module does not propose on-lot sewage treatment and disposal.

(d)(6) Public Notice. The developers published public notice of the planning module proposal in a newspaper of general circulation. Evidence of this publication was included in the original module submission, including both the notice itself and confirmation of the publication. The Department did not mention this item at our meeting on December 21, 2004.

9) Municipal Coordination/Involvement

Please note that the narrative of the module is hereby revised pursuant to an agreement between the developers and the Township. This agreement affirms that Straban Township will have the opportunity to take dedication of the sewer facility (and infrastructure) in the future should they choose to take it. The parties agree that the details or terms and conditions of dedication of the facility will be specifically addressed in a private agreement between the Township and the owner/developers. This is language that the Township and the owner/developers have agreed upon. This accommodation was made pursuant to your concerns about municipal involvement and coordination of treatment in the Township. Please note that this agreement does not mandate dedication unless the Township requests it, nor does it require the Township to accept dedication if offered. It provides for that opportunity if the Township requests dedication in the future. We expect the Township to request dedication at some point in the future, however. In the meantime, the developers plan to own, operate and manage the facility, with the assistance of a professional certified operator/professional operation contractor.

Please contact me, the project proponents, or Mr. Sharrah if you or your staff have any questions regarding the information contained herein.

We have amplified the opportunity for dedication to the Township based upon discussions that have taken place since the original Module submission. The Department should note that the opportunity and possible municipal interest in ownership/operation and/or dedication was included in the Module adopted by the Township and previously submitted to the Department. The alterations that have developed since the original submission reflect a broadening of the Township's opportunity to take dedication and at least one condition of dedication (i.e., with certain indebtedness). Again, the full terms and conditions of dedication shall be memorialized in a private agreement between the Township and the developers. Accordingly, we hereby re-submit the module for DEP approval. We expect, based upon our prior conversations, that the Department will expedite this review of the module.

Edward Corriveau, Chief
February 2, 2005
Page 6

This information should satisfy the Department's module review inquiries as expressed during our December 21, 2004 meeting. Thank you for your continued consideration of this matter.

Sincerely,

McNEES WALLACE & NURICK LLC



By

Alexandra C. Chiaruttini

sjd

c: Mr. Richard Klein
Mr. Robert Karen
Martin Siegel, Esquire
Straban Township Board of Supervisors

ioc: Scott A. Gould

**EXTENDED AERATION WASTEWATER TREATMENT PLANTS
(POST-TENSIONED STRUCTURES AND CUSTOM EQUIPMENT CONFIGURATIONS)**

Dutchland, Inc. specializes in designing, manufacturing and installing custom designed, extended aeration wastewater treatment plants with rectangular precast post-tensioned concrete walls and walk-ways. This type of plant is typically used in sizes ranging from 100,000 GPD and up. Smaller configurations are also available.

This type of structure is comprised of a superstructure with interior walls to create compartments. All exterior and interior walls are post-tensioned. The structure can be buried or primarily out of the ground with the base below frost level. Because of the depth capacity of post-tensioned walls, the overall area required is about 50% - 75% of the area of a conventional steel or poured-in-place concrete plant. Post-tensioned structural designs are more efficient than cast-in-place concrete and provide a superior product.

Dutchland, Inc. includes high quality equipment such as Muffin Monster grinders, Sanitaire stainless steel diffusers, stainless steel air headers and slide rail systems, Halliday stainless steel hoists, Goulds or Flygt pumps and controls, Roots Div/Dresser Industries or Sutorbilt blowers, and Trojan Ultraviolet disinfection systems.

Plant designs typically include Equalization, Aeration, Clarifiers, Disinfection (chlorination and de-chlorination or ultraviolet), Post-Aeration, Sludge Holding (and Tertiary if required).

Custom configurations are designed for each application.

ADVANTAGES

- Precast post-tensioned concrete structures combined with high quality equipment provide a superior structural and functional system which far outlast conventional wastewater treatment plants.
- Precast concrete structures are more durable and cost less to maintain.
- Precast concrete can be manufactured and constructed more easily in cold weather.
- Precast post-tensioned concrete tanks can be constructed at greater depths, reducing the amount of necessary area and site work.
- A substantial portion of the equipment is constructed of stainless steel and aluminum.
- Precast post-tensioned plants cost about the same as steel or cast-in-place plants, especially when designed to treat over 100,000 GPD.
- Plants are designed to be functional by experienced design and operations personnel.

Precast concrete post-tensioned structures are guaranteed to be free of defect. A no hassle ten-year complete structural warranty is provided to the owner to warrant the base, walls, walk-way and roof systems of all post-tensioned tank structures and bases provided and installed by Dutchland, Inc.

Additional information is available for Rectangular Post-Tensioned Tanks



*67,000 GPD, lagoon discharge
Eaglesmere, Sullivan County, PA*

*66,000 GPD, stream discharge
Shade Gap, Huntingdon County, PA*



Attachment to Discovery A-10 (Wastewater)



*70,000 GPD
stream discharge
Orangeville, Columbia County, PA*



*130,000 GPD
tertiary filter
stream discharge
Valley Green Development, Montgomery County, PA*



*240,000 GPD
stream discharge
Salisbury Township, Lancaster County, PA*

*250,000 GPD
stream discharge
Delta Borough, York County, PA*



*600,000 GPD (peak capacity of 2MGD)
stream discharge
Hastings Area Sewer Authority, Cambria County, PA*

SCHEDULE FOR GETTYSBURG COMMONS

ZONING

Complete

LAND PLAN

Complete

HISTORICAL REVIEW

Complete

ENDANGERED SPECIES

Complete

WETLANDS

Delineation Plan Complete – Will avoid and minimize wetland impacts
Submitting March 1, 2005 for permit
Expecting Approval June 1, 2005

WATER SYSTEM

Drilling Wells – Complete
Pump Test – Complete
Water Quality Test – Complete
Submitting to DEP for permit February 28, 2005
Hoping to receive permit by June 30, 2005

PENNDOT

Traffic Impact Study – Complete
Comments Received December 15, 2004
Comments Resubmitted January 1, 2005
HOP Permit May 30, 2005

SEWER PERMIT

Sewer Module submitted to DEP September 1, 2004
Expecting Approval on Sewer Module by February 28, 2005
Submitting Part I Water Quality Permit April 30, 2005
Expecting to Receive Construction Permit by July 30, 2005

EROSION & SEDIMENT POLLUTION CONTROL

Submit NPDES Permit Application, Plan & Report to ACCD May 1, 2005
Expecting Approval by July 1, 2005

PRELIMINARY PLAN

Submitting May 1, 2005
Expecting Approval July 30, 2005

FINAL PLAN 200 LOTS

Submitting May 1, 2005
Expecting Approval by August 1, 2005

GETTYSBURG COMMONS CONSTRUCTION SCHEDULE

PRELIMINARY CONSTRUCTION

If above schedule falls in place, this will be a preliminary construction schedule.

Bidding Process begins May 1, 2005

Select contractor(s) June 1, 2005

Construction begins July 1, 2005 (if all permits received)

E&S done by August 1, 2005

Clubhouse begins September 1, 2005 and completed by March 1, 2006

Sewer Plant begins September 1, 2005 and completed March 1, 2006

Water Plant begins September 1, 2005 and completed March 1, 2006.

Roads/sewer/water/storm water management begins August 1, 2005 and completed
March 1, 2006 (Phase 1)

Home construction begins October 1, 2005 (first section) and completed March 1, 2005.

OPERATION AND MAINTENANCE AGREEMENT

This SEWER OPERATION AND MAINTENANCE AGREEMENT is made this _____ day of February, 2005, by and between the GREATER GETTYSBURG DEVELOPMENT COMPANY a Pennsylvania corporation ("Developer") and STRABAN TOWNSHIP, a Pennsylvania municipality ("Township"). Developer and the Township shall be collectively referred to herein as the "Parties."

Background

A. Developer is the owner of real property located in Straban Township, Adams County, Pennsylvania. The real property is approximately 650 acres in size and is located on the south side of Shrivvers Corner Road (SR0394) and is described more fully in the Sewage Facilities Planning Module attached hereto as Exhibit "A." ("Property") The Property is the planned location for the Gettysburg Commons retirement community.

B. In July 2004, Developer submitted a sewer planning module for the Property to the Township entitled, "Planning Module for Components for Gettysburg Commons: An Active Adult Planned Residential Community," and prepared by Robert A Sharrah, PLS.

C. There is no public or community sewage/waste water service available or within close proximity to the Property. Portions of the Township at great distance from the Property are provided with sewage/waste water conveyance and treatment service by the Gettysburg Municipal Authority.

D. The Township does not have current or existing plans to construct a sewage/waste water collection system and treatment facility within its borders (hereinafter, "waste water system").

E. Developer's planning module described in Paragraph B above proposes construction of an active adult retirement community on the Property containing approximately 1800 single family detached residential dwellings and limited recreational facilities for the community's residents.

F. The Parties estimate that the residential community will produce approximately 270,000 gallons per day (gpd) in wastewater flows.

G. The Developer's planning module proposes construction of a private sewage conveyance and treatment system to serve Gettysburg Commons residents. The private sewage conveyance and treatment system will be owned, operated and maintained by Developer, with assistance from a certified waste water treatment facility operator, until such time that Developer sells or dedicates the collection, conveyance and/or waste water treatment facility to a qualified purchaser or municipal entity.

H. On September 7, 2004, by municipal resolution, and after consideration of the public and County comments received and included in the module, the Straban Township Board of Supervisors adopted the Developer's planning module for Gettysburg Commons as a revision to its existing Act 537 sewage facilities plan. A true and correct copy of the resolution is included in Exhibit "A" hereto.

I. The Township supports the Gettysburg Commons project as an enhancement to the local community.

J. The Parties desire to enter into this Agreement to set forth each of their obligations and responsibilities relating to the operation and maintenance of the waste water collection, conveyance and treatment facilities described in the sewage planning module referenced in Paragraph G herein.

NOW THEREFORE, intending to be legally bound hereby, the Parties agree as follows:

1. The Background paragraphs set forth above are incorporated herein by reference as if set forth in full.
2. **CONDITION PRECEDENT.** The obligations of the Developer and the Township under this Operation and Maintenance Agreement are conditioned upon construction of the collection, conveyance and treatment system in substantial conformity with all local approvals, and applications to and approvals by the Pennsylvania Department of Environmental Protection.
3. **TERM.** The term of this Operation and Maintenance Agreement shall extend ten (10) years from the date of execution of this Agreement, or until the closing date whereupon a third party that is either a municipality/municipal Authority, or a private entity, which plans to offer waste water service to or for the general public for compensation and that holds a Certificate of Public Convenience from the Pennsylvania Public Utility Commission purchases the facility, whichever occurs first. If the ten years expires, this Agreement shall continue on a year-to-year basis between the Parties until/unless the Parties hereto rescind, revise or replace this Agreement in writing.
4. **CONSTRUCTION.** The Developer, at no cost or expense to Straban Township, shall construct and install the waste water collection, conveyance and treatment system to serve the Gettysburg Commons community in accordance with all applicable state and federal statutes and regulations that regulate the construction and installation of such facilities.

5. OPERATION. The Developer shall operate the waste water system, including the collection, conveyance and treatment system and all associated infrastructure, in accordance with all applicable federal, state and municipal laws, statutes, regulations and ordinances (including lawful resolutions of any municipal Authority with jurisdiction over this portion of Straban Township that may be created in the future). The waste water shall be sufficiently treated at the treatment facility to meet applicable NPDES permit conditions imposed by the Pennsylvania Department of Environmental Protection, and to such other limits and/or standards lawfully imposed by the municipal government and/or any future municipal Authority with jurisdiction over this portion of Straban Township that may be created in the future.
6. MAINTENANCE. Developer shall maintain the system, including collection, conveyance and treatment facilities and infrastructure in accordance with all applicable local, state, and federal statutes, regulations and ordinances. The facilities shall be maintained and repaired at the Developer's cost, and be kept in good and sound working order at all times. The Developer shall provide the Township with notice of such maintenance and repair activities.
7. EXPENSES. Developer shall assume responsibility for the payment of all costs, fees and expenses related to the construction, installation, operation, maintenance and repair of the waste water collection, conveyance, and treatment system.
8. TREATMENT CAPACITY. The treatment capacity designed and to be constructed at the subject waste water system shall not exceed what is approved by the municipality and the Pennsylvania Department of Environmental Protection, and shall not exceed that which is permitted for construction and operation pursuant to the NPDES approval and permitting program. Treatment capacity shall not be expanded unless and until the proper adoptions, approvals, and where applicable, permit(s) have been obtained by Developer.
9. PUC CERTIFICATION. If, in the future, the provision of waste water service is offered to or for the general public for compensation such that a Pennsylvania Public Utility Commission Certificate of Public Convenience ("Certificate") is required, the Developer shall obtain that Certificate prior to application for expansion and prior to any change in the community and nature of service requiring such Certificate.
10. MUNICIPAL OBLIGATIONS. Pursuant to the statutory and regulatory requirements, the municipality of Straban Township,

Adams County agrees that it has oversight responsibility for the waste water collection, conveyance, and treatment system as set forth and described in the Pennsylvania Department of Environmental Protection's regulations, including but not limited to, 25 Pa. Code §71.71.

11. RIGHT OF ENTRY. Straban Township shall have the right to enter the Property where the collection, conveyance and treatment system is located for purposes of reviewing and inspecting the treatment system in connection with and pursuant to monitoring compliance with, and enforcement of, any applicable local ordinance or other applicable requirement(s) within its jurisdiction.
12. INDEMNITY. The Developer shall indemnify and hold harmless Straban Township with respect to any claims, actions, demands, losses, costs, expenses, liabilities (joint or several), penalties and damages, including counsel fees, actually incurred by or successfully prosecuted against Straban Township in connection with Developer's operation and/or maintenance of the waste water collection, conveyance, and treatment system, unless occasioned by the negligence or willful misconduct acts or omissions of Straban Township, including the employees, agents, contractors or invitees of Straban Township.
13. NOTICE. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or via a nationally recognized overnight delivery service to the following addresses or to such other address as may be specified in writing at any time during the term of this Operation and Maintenance Agreement:

If to Developers, to:

Richard Klein
Greater Gettysburg Development
601 Mason Dixon Road
Gettysburg, PA 17325
(ph) 717-359-8000
(fax) 717-359-8020

If to Straban Township, to:

Straban Township
Board of Supervisors
1745 Granite Station Road
Gettysburg, PA 17325
(ph) 717-334-4833
(fax) 717-334-0061

14. SURVIVAL. Notwithstanding any provision to the contrary, all covenants, conditions and representations contained in this Operation and Maintenance Agreement, impliedly or expressly, involving performance after expiration or earlier termination of this Operation and Maintenance Agreement or which cannot be ascertained to have been fully performed until after expiration or earlier termination of this Operation and Maintenance Agreement, shall survive such expiration or earlier termination.
15. LAW. This Operation and Maintenance Agreement shall be interpreted and shall be governed by the laws of the Commonwealth of Pennsylvania.
16. ENTIRE AGREEMENT. All prior oral and written agreements between the Parties regarding the matters set forth herein are merged within this Operation and Maintenance Agreement, which alone fully and completely sets forth the understanding of the Parties related to operation and maintenance of the waste water facilities, except for financial security and/or financial assurances that may be required by the Township. All representations by either of the Parties or their agents or representatives made prior to or concurrent with execution of this Operation and Maintenance Agreement, which are not specifically contained herein shall not be binding upon either of the Parties hereto. This Operation and Maintenance Agreement may not be changed orally or in any manner other than by an agreement in writing and signed by the party against whom enforcement of the change is sought.
17. If any provision, sentence, clause, section or part of this Operation and Maintenance Agreement is, for any reason, found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not impair any of the remaining provisions of this Agreement.

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have set their hands and seals the day and year first above written.

ATTEST:

DEVELOPER:

Greater Gettysburg Development
Company

Name:

Name:

Title:

Date:

ATTEST:

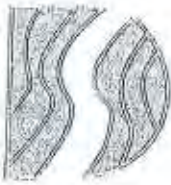
STRABAN TOWNSHIP

Name:

Name:

Title:

Date:



D.W. SMITH Associates, P.A.

Consulting Engineers · Planners · Surveyors · Landscape Architects

Nicholas V. Coppola

Alan R. Veverka

John W. Rabito

Robert F. McCarthy

September 2, 1999



Mr. Mike Whitehill
McCrone, Inc.
207 North Liberty Street
Centreville, MD 21617

RE: Adult Community
Sewer Plans

Dear Mike:

As a follow-up to our previous discussions, we are forwarding herewith copies of various sanitary sewer flow studies and analyses prepared for the Four Seasons Adult Community in Lakewood Township, Ocean County, New Jersey. As indicated in our letter dated September 8, 1995, to the LTMUA, the metered average daily flow for a total of 1788 homes was calculated to be approximately 125 GPD/Unit. The LTMUA allowed us to utilize an average daily flow of 165 GPD/Unit which was significantly less than the NJDEP's requirement of 225 GPD/Unit (2-Bedroom) and 300 GPD/Unit (3-Bedroom). You will recall that the previous information sent to your office included an agreement with the NJDEP wherein they recently approved reduced flows of 170 GPD/Unit (2-Bedroom) and 225 GPD/Unit (3-Bedroom). Based upon our experience and the flow studies we still believe these numbers are conservative, but they certainly are an improvement.

Should you have any questions, please do not hesitate to call Bob McCarthy or me.

Very truly yours,

D.W. SMITH ASSOCIATES, P.A.


ALAN R. VEVERKA, P.E., P.P.

ARV:mb
Enclosure

Greeneengineering®



D.W. SMITH Associates, P.A.

Consulting Engineers · Planners · Surveyors · Landscape Architects

Nicholas V. Coppola

Alan R. Veverka

John W. Rabito

September 8, 1995

Mr. Paul Morrill, P.E.
Lakewood Township Municipal Utilities Authority
390 New Hampshire Avenue
P.O. Box 141
Lakewood, New Jersey 08701

Re: The Four Seasons
Our Ref. No. 92-771.LVE

Dear Mr. Morrill:

This letter is written to supplement the previously submitted report, "Engineering Study of The Four Seasons Sanitary Sewer Flow Impact to Leisure Village East," dated June 29, 1995. The LTMUA Technical Review letter dated July 18, 1995, for Section Eight, Item Nos. 8a and 8c requested that the LTMUA's Leisure Village East sanitary sewers which will transport flow from The Four Seasons be as-built and then analyzed for capacity. Enclosed please find a plan, Sheet 1 of 1, entitled "Sanitary Sewer Flow Analysis to the LTMUA Leisure Village East System As-Built Plan," dated August 1995. Manholes have been labeled 8-1 through 8-15 (for eight inch lines), 10-1 through 10-22 (for ten inch lines), and 12-1 through 12-13 (for twelve inch lines) that were included in the study area, for a total of fifty manholes. Manholes 8-13, 8-15, 10-8, 10-10 and 10-18 are labeled to have no inverts due to either the manhole not being found or the manhole cover could not be removed by the field survey crew. It is our opinion that the final analysis can be completed without these inverts.

The as-built information obtained indicates that the overall sanitary sewer system was installed in general conformance with the design plans. Although the slopes of the sanitary sewer mains varied below and above the design slopes, they varied to a minimum degree.

Greeneengineering™





D.W. SMITH Associates, P.A.

Mr. Paul Morrill, P.E.
September 8, 1995
Page 2

Enclosed please find Table A which delineates the pipes installed below the design slopes. This table includes the manhole designation, size and slope of pipe, pipe capacity flowing full and half full, and design flows. The design flows are based upon the anticipated flows from both The Four Seasons and Leisure Village East calculated using 165 GPD/Unit x 2.0 (peaking factor) x No. of Units. As Table A indicates, all the pipes above Manhole 12-1 have the capacity to handle The Four Seasons' anticipated sanitary sewer flow.

As was stated in the previously submitted report dated June 19, 1995, the existing sanitary sewer main from Manhole 12-1 to the existing pump station was installed too flat. This influent pipe will be upgraded along with the modernization of the existing pump station.

Enclosed please find a copy of a report dated August 13, 1995, completed by Shoreline Services concerning sanitary sewer flow monitoring to determine average flows for adult communities. Utilizing the flows monitored at a manhole located on Shorrock Street near Shetland Street provides flows from all of Leisure Village East (1,412 units), Lions Head Woods (281 units), and The Four Seasons project (95 units) for a total of 1,788 adult community units. The following is a summary of flows obtained:

1. Six day flow: 216,000 GPD/1,788 units = 120.8 GPD/unit.
2. Weekend flow: 226,000 GPD/1,788 units = 126.4 GPD/unit.
3. Weekday flow: 217,000 GPD/1,788 units = 121.4 GPD/unit.

Reviewing Tables A and B indicates there is one pipe from Manhole 10-3 in which the design flow exceeds the flowing $\frac{1}{2}$ full capacity by approximately five (5) percent. Shoreline services sewer flow metering indicates a peak flow of .4917 MGD (Saturday, 9:00 a.m., 8/12/95) while the six day flow average was .2160 MGD or a peaking factor of (.4917 - .2160) 2.28. Multiplying 165 GPD/unit by a peaking factor of 2.28 yields a contributory flow of 442,411 GPD to Manhole 10-3 which is less than 80 percent of the depth of the pipe (442,411 GPD less than 641,000 GPD) per NJDEP's requirements.



D.W. SMITH Associates, P.A.

Mr. Paul Morrill
September 8, 1995
Page 3

The four (4) downstream sanitary sewer mains from Manholes 10-1, 10-2, 12-2, 12-3 which have the greatest contributory flow prior to Manhole 12-1 were also analyzed (see enclosed Table B). It was found that these sanitary sewer mains have the capacity to handle both the LVE and The Four Seasons project projected sanitary sewer flows

As shown by the aforementioned flow data, the LTMUA's flow figure of 165 GPD/unit (although conservative) is more realistic than NJDEP's 225 GPD/unit. It is D.W. Smith Associates' intention to utilize the LTMUA's figure to design the downstream LTMUA's pump station located in LVE and for the analysis of the LTMUA's LVE existing sanitary sewer mains.

It should also be noted that the existing pumps within the pump station were monitored. One pump has an estimated capacity of 594 gallons per minute (GPM), while a second pump was approximately 533 GPM. These figures are in line with our previous estimate of 600 GPM.

We are also forwarding this letter and as-built plan to the Leisure Village East Board of Trustees and Thomas Hakala for informational purposes.

If you have any questions or require additional information, please do not hesitate to contact this office.

Very truly yours,

D.W. SMITH ASSOCIATES, P.A.

Robert F. McCarthy, P.E.

RFM/ac

Enclosure

cc: Barry McCarron
Lewis Kurland
Glenn Ward
Alan Veverka
LVE Board of Trustees
Thomas Hakala

August 10, 1995
92-771.LVE

TABLE A
THE FOUR SEASONS
SANITARY SEWER FLOW ANALYSIS
IMPACT TO LEISURE VILLAGE EAST
BASED ON AS-BUILTS
PIPE FOR SLOPES LESS THAN DESIGNED

MANHOLE DESIGNATION	SIZE & SLOPE OF PIPE	FLOWING FULL CAPACITY (GPD)	FLOWING 1/2 FULL CAPACITY (GPD)	DESIGN* FLOWS (TWICE THE AVE. FLOW)
10-3	10" @ .28%	736,782	368,391	388,080
10-5	10" @ .27%	723,856	361,928	320,100
10-7	10" @ .24%	685,078	342,539	316,800
10-11	10" @ .29%	749,708	374,854	207,900
10-12	10" @ .21%	639,837	319,919	192,720
10-14	10" @ .28%	736,782	368,391	180,180
10-16	10" @ .29%	749,708	374,854	167,640
10-19	10" @ .28%	736,782	368,391	142,560
12-4	12" @ .10%	723,856	361,928	247,500
12-7	12" @ .11%	762,634	381,317	223,080
12-8	12" @ .12%	788,486	394,243	193,380
12-10	12" @ .12%	788,486	394,243	173,580
12-11	12" @ .11%	762,634	381,317	164,340
8-3	8" @ .37%	478,908	239,454	91,080
8-6	8" @ .38%	486,018	243,009	76,560
8-11	8" @ .36%	474,384	237,192	88,440

*Using average flow of 165 GPD/Unit.

August 31, 1995
92-771.LVE

TABLE B
THE FOUR SEASONS
SANITARY SEWER FLOW ANALYSIS
IMPACT TO LEISURE VILLAGE EAST
BASED ON AS-BUILTS
DOWNSTREAM MANHOLES

MANHOLE DESIGNATION	SIZE & SLOPE OF PIPE	FLOWING FULL CAPACITY (GPD)	FLOWING 1/2 FULL CAPACITY (GPD)	DESIGN* FLOWS (TWICE THE AVE. FLOW)
10-1	10" @ .43%	915,807	457,904	393,360
10-2	10" @ .39%	870,566	435,283	393,360
12-2	12" @ .15%	888,016	444,008	270,600
12-3	12" @ .16%	918,392	459,196	263,340

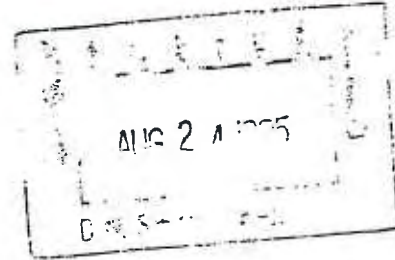
*Using average flow of 165 GPD/Unit.



Shoreline Services

August 23, 1995

D.W. Smith Associates
40 Airport Road
Lakewood, New Jersey 08701



ATTN: Mr. Bob McCarthy

RE: Temporary Flow Monitoring
Lakewood Township - The Four Seasons

Dear Mr. McCarthy:

In accordance with our proposal of August 4, 1995, we have completed the temporary flow monitoring at two locations in the Lakewood Township MUA collection system on Shorrock Street. We have also determined the pumping capacity of the Authority pumping station also located on Shorrock Street. The results of our field study is as follows.

1. FLOW MONITORING

A. Location LA-1 - Influent to Pumping Station

The flow to the existing Shorrock Street pumping station was recorded in a manhole just upstream of the pumping station. The selection of this manhole was at the request of the client to record the total flow being discharged to the pump station. A mass flow monitoring system was installed in the downstream 12-inch sewer from a manhole just upstream of the pump station. The flow monitoring system recorded depth of flow and velocity of flow for a period starting on Thursday, August 10, 1995 and concluding on Thursday, August 17, 1995. The equipment determines a flow rate from this data, which has been summarized on the attached flow monitoring report.

The data shown represents hourly averages of flow occurring to the pump station. This flow data has been plotted on a continuous graph for location LA-1.

Calibration of the system occurred at the initiation of flow monitoring and at the conclusion at the time of removal of the system. Calibration data indicated the equipment was functioning properly.

In review of the data obtained, specifically the velocity and depth data, we have determined that a backup occurs into the 12-inch influent sewer to the

D.W. Smith Associates
 August 23, 1995
 Page 2

pumping station. This sewer has a flat slope, and is at an elevation where backup from the wet well can occur. This backup condition carried through to the flow monitor and was recorded as a decrease in velocity and a corresponding increase in depth. This backup occurs at various times during the day, especially during the peak flow periods. The flow monitoring equipment is designed to record flow conditions even in backwater situations; however, in reviewing the data we feel that the results of flow monitoring are questionable as to the total flow being discharged to the pumping station. With this in mind, we have summarized the daily average flow recorded to the pumping station during the time of flow monitoring hereafter.

B. Location LA-2 - Downstream Gravity Sewer

Flow monitoring equipment was installed in a manhole located on Shorrock Street near Shetland Street as requested by the client. The sewer at the point of flow monitoring was an 18-inch sanitary sewer, and the flow monitoring equipment installed recorded the velocity and depth of flow (which was interpreted to a flow rate) during the period of flow monitoring. The equipment was maintained for the same period of time as location LA-1, i.e., from August 10 to August 17, 1995. The equipment produced flow data which was interpreted and is summarized on the attached flow monitoring report. The seven days of flow monitoring have also been plotted as a continuous graph. The results of flow monitoring are shown on the following table.

SUMMARY OF FLOW DATA

	Monitoring Location	
	LA-1 ⁽¹⁾	LA-2
Average Daily Flow (MGD)		
a. Six day average	0.210	0.216
b. Weekend average	0.196	0.226
c. Weekday average	0.217	0.211

⁽¹⁾ Data questioned due to backwater condition

D.W. Smith Associates

August 23, 1995

Page 3

2. PUMP STATION CAPACITY INVESTIGATION

The capacity of the existing pumps in the pumping station on Shorrocks Street was determined through a series of flow tests performed on August 17, 1995. During the flow test, the pumps were allowed to sequentially activate and the drop in volume in the wet well compared to the time of pumping. The results of this test are shown on the attached table, which includes the data obtained during the test itself.

During the period of flow monitoring, an estimate was made of the inflow to the pumping station occurring from the 12-inch sanitary sewer. This inflow rate was added to the volume being pumped to determine the final flow capacity of each of the pumps in the pumping station. We have determined that the estimated capacity of one pump in the pumping station is approximately 594 gallons per minute (GPM), whereas the second pump was approximately 533 GPM.

We trust that this data is as requested. We would be happy to discuss these results with you at your convenience. Should you have any questions, please advise.

Very truly yours,

SHORELINE SERVICES



John J. Flood

JJF:mon
Attachments

SMITH.RPT

SUMMARY OF PUMP TEST DATA

(Pump test performed on August 17, 1995)

1. Wet Well Data - 6' diameter

The volume of the wet well was determined to be approximately 211 gallons per vertical foot.

$$(3)^2 (3.14) (1.0) = 28.26 \text{ CF} \times 7.48 = 211.46 \text{ gallons}$$

(say 211 gallons/VF)

The volume change was realized in the cylindrical section of the wet well, not in the conical section.

2. Test Data

(Note: Test nos. 1 & 3 for same pump, with test nos. 2 & 4 for the second pump)

	TEST			
	1	2	3	4
Time of test	2:04	2:14	2:19	2:24
Fall in wet well (ft)	1.99	2.33	2.38	1.71
Time (minutes)	0.92	1.42	1.02	0.75
Calculated volume	420	491	502	361
Estimated inflow volume ⁽¹⁾	<u>110</u>	<u>170</u>	<u>122</u>	<u>90</u>
Total pumped volume	530	661	624	451
Pump Rate (GPM)	576	465	612	601
Average Pump No. 1			594	
Average Pump No. 2				533

⁽¹⁾ Inflow rate estimated at 120 GPM

PROJECT NUMBL S2029

CLIENT - D. W. Smith

MUNICIPALITY - Township of Le... 000

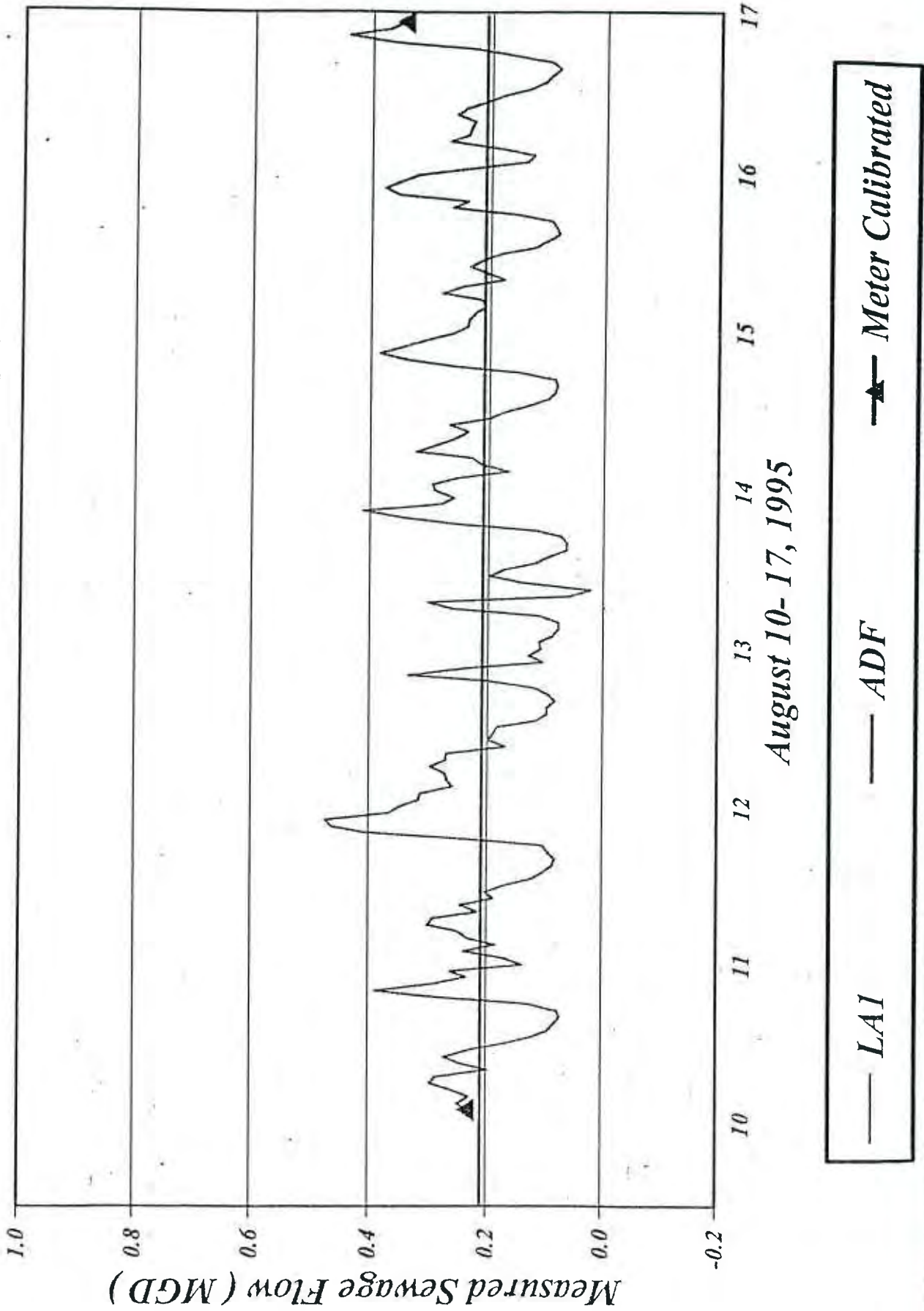
Attachment to Discovery A-10 (Wastewater)

GENERAL INFORMATION	
STREET LOCATION	Monitoring Location LA1 - D. W. Smith, Lakewood, Sharrock St Pumping Station
FLOW MONITORING DEVICE	Marsh McBirney Flow Tote
PERIOD OF MONITORING	Thursday, August 10, 1995 through Wednesday, August 16, 1995

TIME OF DAY	DAY / DATE						
	THUR - 8/10/95	FRI - 8/11/95	SAT - 8/12/95	SUN - 8/13/95	MON - 8/14/95	TUE - 8/15/95	WED - 8/16/95
	d (inches)	Q (MGD)	d (inches)	Q (MGD)	d (inches)	Q (MGD)	d (inches)
0100	0.1248	0.1258	0.0976	0.1164	0.1184	0.1308	0.1221
0200	0.0928	0.1030	0.0966	0.0976	0.0955	0.0971	0.0993
0300	0.0825	0.0861	0.0844	0.0966	0.0646	0.0865	0.0812
0400	0.0739	0.0825	0.0952	0.0844	0.0636	0.0836	0.0870
0500	0.0769	0.0943	0.0952	0.0952	0.0738	0.0864	0.0954
0600	0.1310	0.1031	0.1200	0.1200	0.1109	0.1500	0.1514
0700	0.2869	0.2443	0.2035	0.2035	0.2575	0.2654	0.2636
0800	0.3883	0.4089	0.3341	0.3341	0.3438	0.3396	0.2402
0900	0.2903	0.4639	0.2388	0.2388	0.4124	0.3848	0.3566
1000	0.2150	0.4736	0.1053	0.1053	0.2819	0.3421	0.3781
1100	0.2616	0.3646	0.1310	0.1310	0.2600	0.3047	0.3498
1200	0.1399	0.3471	0.1084	0.1084	0.2921	0.2621	0.3204
1300	0.1712	0.3167	0.1118	0.1118	0.2956	0.2388	0.2266
1400	0.2345	0.2392	0.3132	0.0880	0.2532	0.2362	0.1396
1500	0.2476	0.1861	0.2598	0.0783	0.1675	0.2257	0.1269
1600	0.2297	0.2328	0.2698	0.0785	0.2131	0.2083	0.1864
1700	0.2597	0.2492	0.2719	0.1108	0.2287	0.2153	0.2695
1800	0.2949	0.2994	0.2969	0.2616	0.3229	0.2815	0.2397
1900	0.2858	0.2914	0.2713	0.3025	0.2882	0.2458	0.2358
2000	0.1971	0.2166	0.2709	0.0595	0.2557	0.1768	0.2284
2100	0.2464	0.2452	0.1711	0.0222	0.2378	0.2066	0.2591
2200	0.2718	0.1900	0.1985	0.1419	0.2676	0.2349	0.2432
2300	0.2299	0.2018	0.1920	0.1978	0.2004	0.2131	0.2073
2400	0.1691	0.1706	0.1850	0.1747	0.1749	0.1817	0.1782
AVERAGE		0.2066	0.2517	0.1410	0.2247	0.2203	0.2159
MAXIMUM		0.3883	0.4736	0.3341	0.4124	0.3848	0.3781
MINIMUM		0.0739	0.0825	0.0222	0.0636	0.0836	0.0812

D. W. SMITH

Flow Monitor - LAI (1-hour avg.)



PROJECT NAME S2029

CLIENT - D. W. Smith

MUNICIPALITY - Township of Wood

GENERAL INFORMATION

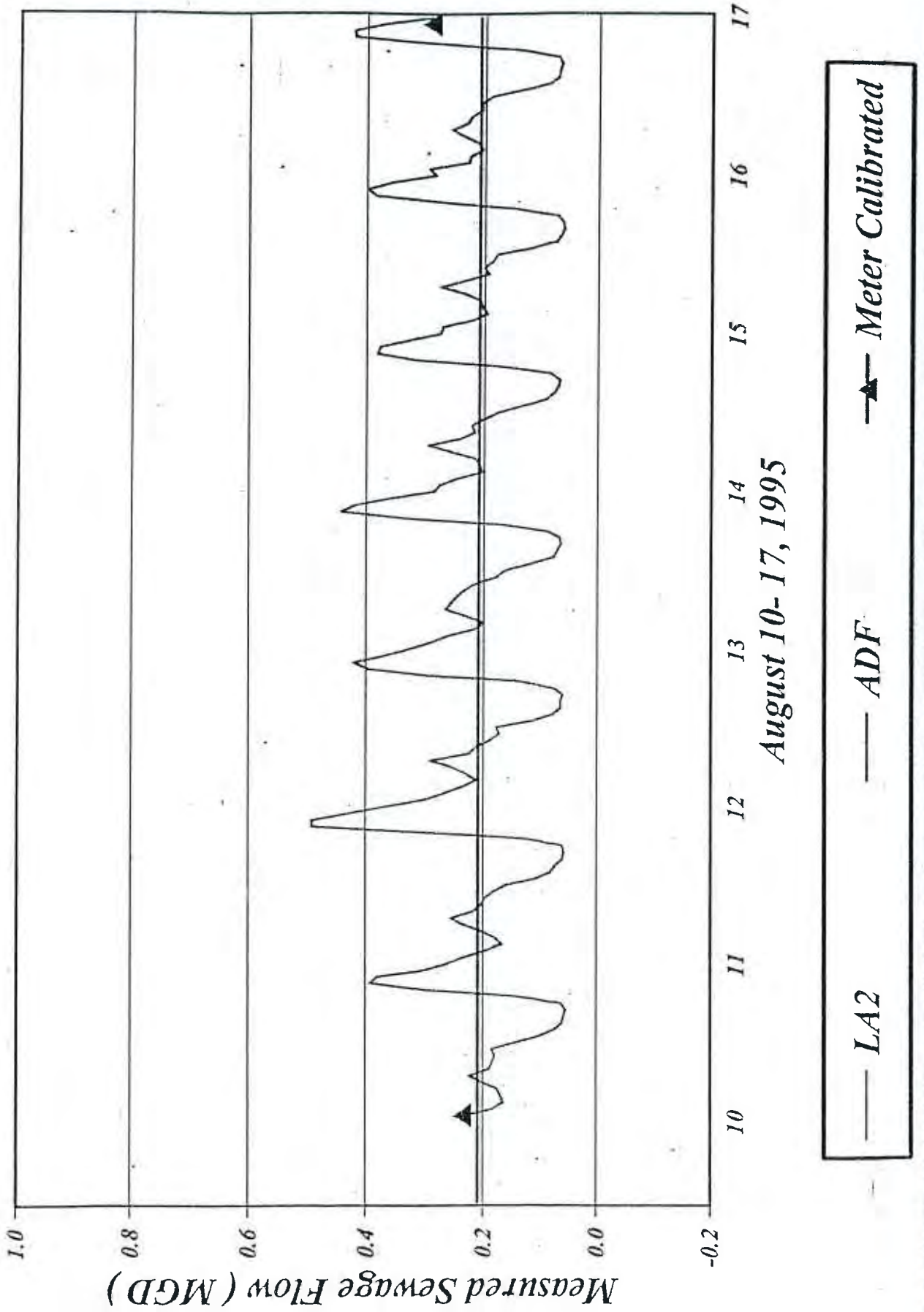
STREET LOCATION
 FLOW MONITORING DEVICE
 PERIOD OF MONITORING

Monitoring Location LA2 - D. W. Smith, Lakewood, Sharrock St Trunk Line
 Sigma AV-950
 Thursday, August 10, 1995 through Wednesday, August 16, 1995

TIME OF DAY	DAY / DATE							
	THUR - 8/10/95	FRI - 8/11/95	SAT - 8/12/95	SUN - 8/13/95	MON - 8/14/95	TUE - 8/15/95	WED - 8/16/95	
	d (inches)	Q (MGD)	d (inches)	Q (MGD)	d (inches)	Q (MGD)	d (inches)	Q (MGD)
0100	0.1029	0.1097	0.1170	0.1202	0.1349	0.1203		
0200	0.0760	0.0811	0.0797	0.0789	0.0915	0.0744		
0300	0.0619	0.0739	0.0663	0.0724	0.0790	0.0666		
0400	0.0591	0.0616	0.0662	0.0660	0.0705	0.0609		
0500	0.0550	0.0594	0.0616	0.0689	0.0691	0.0641		
0600	0.0637	0.0622	0.0779	0.0895	0.0854	0.0731		
0700	0.1443	0.1292	0.1406	0.1684	0.1721	0.1489		
0800	0.2960	0.3067	0.2933	0.3325	0.3173	0.2789		
0900	0.3920	0.4917	0.3979	0.4440	0.3813	0.3846		
1000	0.3795	0.4915	0.4209	0.4198	0.3770	0.3980		
1100	0.3049	0.4276	0.3707	0.3610	0.3272	0.3556		
1200	0.2635	0.3656	0.3273	0.2864	0.2756	0.2838		
1300	0.2354	0.3040	0.2921	0.2767	0.2715	0.2936		
1400	0.1839	0.2696	0.2641	0.2466	0.2204	0.2281		
1500	0.1663	0.2366	0.2166	0.2029	0.1965	0.2259		
1600	0.1697	0.2134	0.1990	0.2095	0.2032	0.2049		
1700	0.1756	0.2302	0.2292	0.2157	0.2088	0.2137		
1800	0.2022	0.2348	0.2654	0.2562	0.2333	0.2361		
1900	0.2231	0.2552	0.2907	0.2949	0.2751	0.2570		
2000	0.1898	0.2174	0.2466	0.2421	0.2321	0.2307		
2100	0.1843	0.2025	0.2332	0.2173	0.1938	0.2240		
2200	0.1803	0.1973	0.2131	0.2217	0.2008	0.2058		
2300	0.1858	0.1832	0.1777	0.1992	0.1864	0.2066		
2400	0.1456	0.1618	0.1778	0.1772	0.1792	0.1898		
AVERAGE		0.2317	0.2201	0.2238	0.2107	0.2133		
MAXIMUM		0.3920	0.4917	0.4440	0.3813	0.3980		
MINIMUM		0.0550	0.0594	0.0616	0.0660	0.0609		

D. W. SMITH

Flow Monitor - LA2 (1-hour avg.)





D.W. SMITH Associates, P.A.
Consulting Engineers · Planners · Surveyors · Landscape Architects

Nicholas V. Coppola
Alan R. Veverka
John W. Rabito

March 8, 1996

Mr. Paul Morrill, P.E.
Lakewood Township M.U.A.
390 New Hampshire Avenue
Lakewood, NJ 08701

RE: The Four Seasons
Our Ref. No. 92-771.LVE, .PS & .08

Dear Mr. Morrill:

As per your previous correspondence (most recent March 1, 1996, Section Eight) recommending that a hydraulic analysis of the sanitary sewer collection system based on additional field metering of the LTMUA's Leisure Village East and The Four Seasons existing systems, enclosed please find a report completed by Shoreline Services dated February 8, 1996, for your review.

The following summarizes the data collected at Manhole 10-1 within Leisure Village East which is just down stream of Manhole 10-2.

1. It should be noted that Manhole 10-2 was snow-covered and could not be found at the time of metering installation. Due to the weather forecast (heavy rains) we opted to meter Manhole 10-1 instead. The metering was completed during a significant rainfall.
2. Average Daily Flow for period between 1/27/96 and 2/6/96:
 $.1374 + .1248 + .1172 + .1166 + .1179 + .1180 + .1202 + .1353 + .1265 + .1173 + .1137 = 1.3449$ or 1,344,900 Gallons
 $1,344,900 \div 11 \text{ Days} = 122,264 \text{ GPD}$
3. Average Daily Flow per unit:
 $122,264 \text{ GPD} \div 742 \text{ Units} = 165 \text{ GPD/Unit}$

Greeneengineering™



D.W. SMITH Associates, P.A.

Mr. Paul Morrill, P.E.

March 8, 1996

Page 2

4. Peak Factor:

Using highest peak (during rainfall) and average flow:

$$.2542 \div .1223 = 2.08$$

The data collected at Manhole 1A within The Four Seasons is summarized as follows:

1. Average Daily Flow for period between 2/2/96 and 2/6/96:

$$.0220 + .0228 + .0208 + .0190 + .0204$$

$$= 0.105 \text{ or } 105,000 \text{ Gallons}$$

$$105,000 \div 5 \text{ Days} = 21,000 \text{ GPD}$$

2. Average Daily Flow per unit (Approximately 250 units were "moved into" during this period per K. Hovnanian Marketing Department)

$$21,000 \text{ GPD} \div 250 = 84 \text{ GPD/Unit}$$

3. Peak Factor:

Using highest peak and average flow

$$.0522 \div .2100 = 2.49$$

Projected flow through the sanitary sewer main between Manholes 10-3 and 10-2:

a. Utilizing aforementioned data and total units - 726 (Leisure Village East) plus 450 (projected from The Four Seasons).

$$(726 \text{ Units} \times 165 \text{ GPD/Unit} \times 2.08) +$$

$$(450 \text{ Units} \times 84 \text{ GPD/Unit} \times 2.49) = 343,285 \text{ GPD}$$

b. From previous report:

$$1,176 \text{ Units} @ 165 \text{ GPD/Unit} @ 2.28 = 442,411 \text{ GPD/Unit}$$



D.W. SMITH Associates, P.A.

Mr. Paul Morrill, P.E.

March 8, 1996

Page 3

It should be noted that groundwater infiltration is prevalent in the LTMUA's Leisure Village East sanitary sewer collection system (see enclosed Shoreline Services report). The average flow of 165 GPD/Unit found within the existing system is high as compared to historical data for adult communities within Ocean County. The sanitary sewer collection system which is being installed within the Four Seasons project utilizes PVC pipe and has full-time inspection observation and testing procedures. The methodology in process for the Four Seasons will help control future off-site contributory infiltration into the LTMUA Leisure Village East sanitary sewer collection system. Although the average flow monitored from the Four Seasons project was found to be 84 GPD/Unit, it is expected that the eventual future average flow will be approximately 100 GPD/Unit. It is D. W. Smith Associates' opinion that the combined contributory flow through the pipe between Manholes 10-3 and 10-2 will be between 343,285 GPD and 442,411 which is less than 80 percent of the depth of the pipe (641,000 GPD) per NJDEP's requirements.

D. W. Smith Associates is in the process of preparing design plans for the downstream pump station within Leisure Village East. The pump proposed capacities (variable speed) are being calculated as follows:

1. 1,412 units from Leisure Village East and 600 units from The Four Seasons for a total of 2,012 units.
2. Peak Flow:
 $2,012 \text{ Units} @ 165 \text{ GPD/Unit} @ 2.5 = 829,950 \text{ GPD or } 576 \text{ GPM}$
3. Use two (2) 600 GPM pumps.

Preliminary pump station plans and engineering reports will be submitted to the LTMUA in the near future for review.

If you have any questions or require additional information, please do not hesitate to contact this office.

Very truly yours,

ROBERT F. MCCARTHY, P.E.

RFM:clm
Enclosure

cc: Barry McCarron
Lew Kurland
Larry Gardecki
Alan Veverka



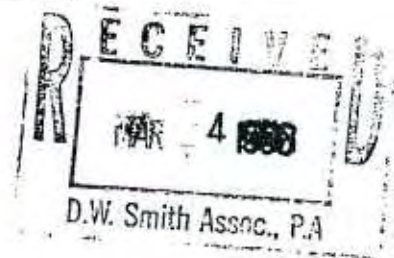
Shoreline Services

February 8, 1996

D.W. Smith Associates, P.A.
40 Airport Road
Lakewood, New Jersey 08701

ATTN: Mr. Robert McCarthy, P.E.

RE: The Four Seasons - Lakewood Township
Temporary Wastewater Flow Monitoring



Dear Mr. McCarthy:

We have completed the monitoring of wastewater flow at two (2) locations in the Lakewood Township MUA collection system in accordance with your request of January 3, 1996, and our proposal of January 11th. The results of flow monitoring are shown on the attached graph and summary table for each of the flow monitoring locations.

Flow monitoring was commenced on January 26, 1996, and was completed on February 6, 1996. The installation of the flow monitoring equipment on January 26 was to insure that the system recorded flow during a significant rainfall that occurred during January 27th. Rainfall totals exceeded one inch of rainfall on that particular day, which is considered to be a significant rainfall event. Groundwater conditions are seasonally high and as such, the time of flow monitoring was appropriate for recording any impact from storm related inflow to the collection system.

Flow monitoring equipment was installed in two locations. The first, in manhole 10-1 was intended to record the range of flow occurring in the 12-inch sanitary sewer at a location corresponding to a "flat" section. The flow recording system in this location was maintained for a period of 12 days, with the principal rainfall occurring on January 27th. The diurnal flow patterns produced from the flow monitoring equipment at this location suggested only minimal increase in flow occurring during the rainfall, as opposed to the normal Saturday flow conditions as seen on February 3rd, one week later. The average flow during the period of monitoring was approximately 120,000 GPD. The highest flow recorded occurred on the 27th, when a peak flow of 254,000 GPD occurred. The minimum flow recorded during the period of monitoring averaged about 46,000 GPD, which is a significant percentage of the average flow. This would suggest that groundwater infiltration is prevalent in this collection system.

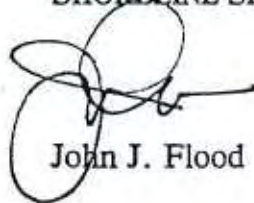
D.W. Smith Associates
February 8, 1996
Page 2

The second location of flow monitoring corresponded to manhole 1-A, at the outlet from Section 4 of the Four Seasons project. Flow monitoring at this location was disrupted for a period of about four days with the malfunctioning of the flow monitoring system. During weekly calibration when this condition became known, the system was recalibrated, and additional flow data obtained through the 6th of February. The average flow during the period of monitoring was about 21,000 GPD. Minimum flows of about 4,000 GPD were also recorded, which do not appear to be significantly influenced by excessive groundwater infiltration.

We trust that the flow monitoring data included with this report is as requested. Should you have any questions on this flow monitoring project, please feel free to call.

Very truly yours,

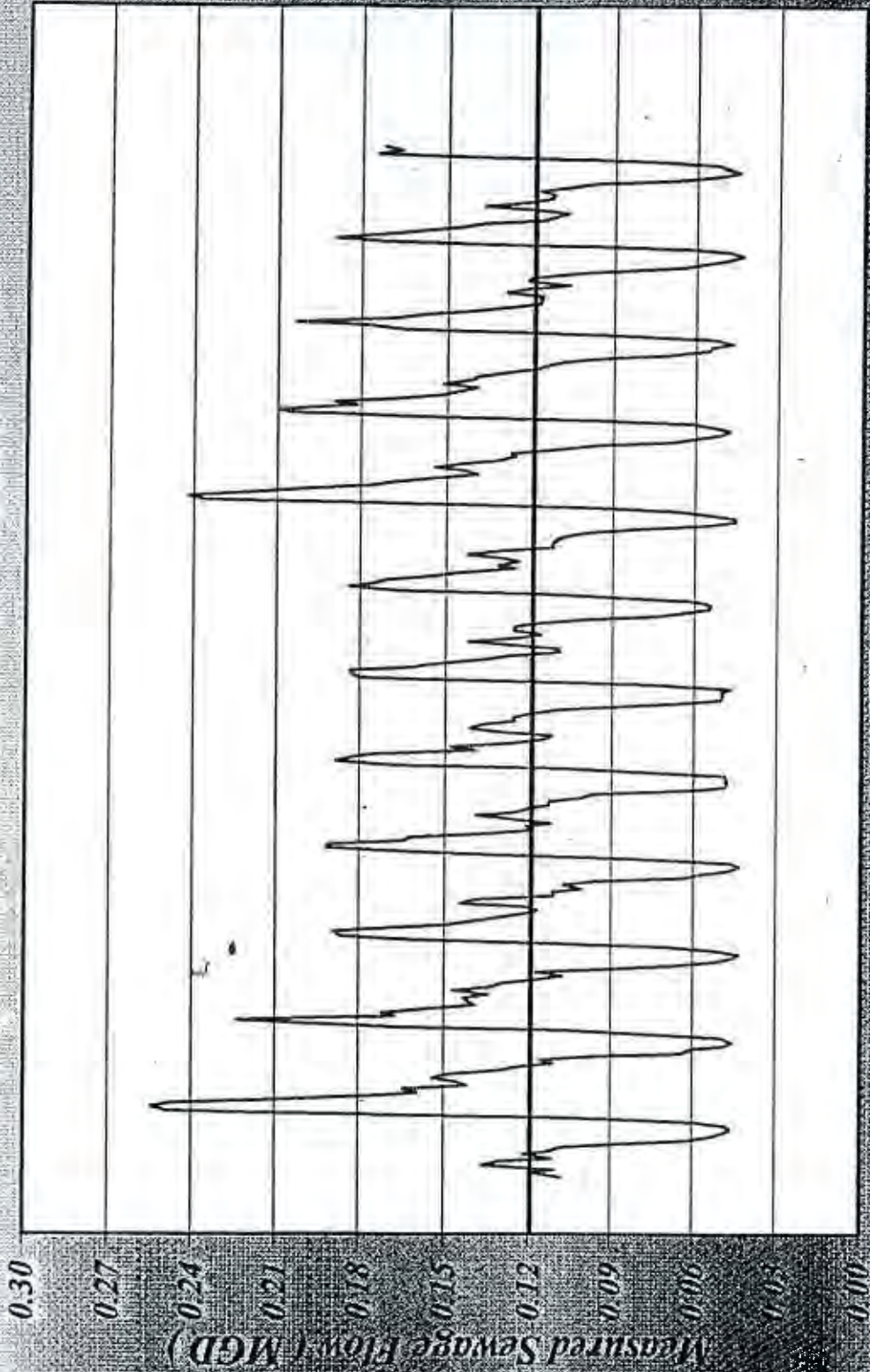
SHORELINE SERVICES



John J. Flood

JJF:mon
Attachments
2029RPT.01

***K. Hovnanian (Lakewood-Leisure Village)
Temporary Flow Monitor - Manhole 10-1***



26 27 28 29 30 31 1 2 3 4 5 6 7 8
January 26-February 8, 1996

SHORELINE SERVICES

PROJECT NUMBER - B1012

CLIENT - K Hovnanian

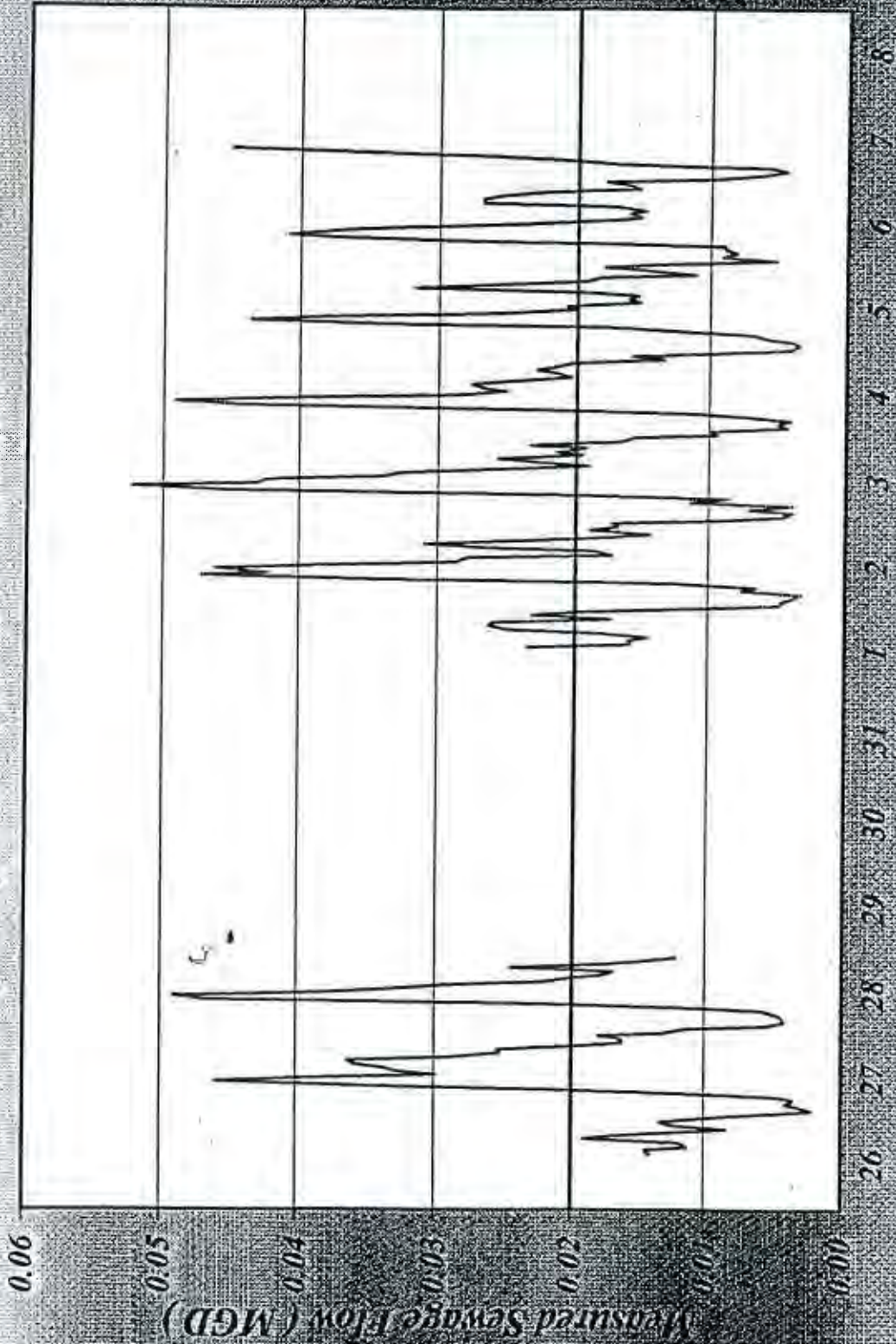
FLOW MONITORING REPORT

MUNICIPALITY - Township of Lakewood

STREET LOCATION		Manhole 10-1 - Shorrocks Street (Outfall of Lebraire Village)	
PRIMARY MEASURING DEVICE		Marsh - McBirney Flo-Tote	
PERIOD OF MONITORING		Friday, January 26, 1996 through Thursday, February 1, 1996	

DATE	TIME	DEPTH	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVERAGE	MAXIMUM	MINIMUM
1/26/96	06:00	0.0624	0.0639	0.0607	0.0485	0.0455	0.0506	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466
1/27/96	06:00	0.0537	0.0607	0.0485	0.0455	0.0506	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466	
1/28/96	06:00	0.0494	0.0485	0.0455	0.0506	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466		
1/29/96	06:00	0.0466	0.0455	0.0506	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466			
1/30/96	06:00	0.0485	0.0506	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466				
1/31/96	06:00	0.0599	0.0706	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466					
2/01/96	06:00	0.0939	0.1075	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466						
2/02/96	06:00	0.1809	0.1631	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466							
2/03/96	06:00	0.2490	0.2025	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466								
2/04/96	06:00	0.2542	0.2333	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466									
2/05/96	06:00	0.2473	0.1672	0.2109	0.1766	0.1592	0.1641	0.1419	0.1458	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466										
2/06/96	06:00	0.2109	0.1719	0.1570	0.1387	0.1414	0.1431	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455											
2/07/96	06:00	0.1766	0.1570	0.1387	0.1414	0.1431	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455												
2/08/96	06:00	0.1592	0.1387	0.1414	0.1431	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455													
2/09/96	06:00	0.1641	0.1414	0.1431	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455														
2/10/96	06:00	0.1419	0.1431	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455															
2/11/96	06:00	0.1458	0.1346	0.1468	0.1338	0.1298	0.1181	0.1080	0.1176	0.0902	0.1248	0.2233	0.0455																
2/12/96	06:00	0.1537	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466																		
2/13/96	06:00	0.1493	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466																			
2/14/96	06:00	0.1303	0.1241	0.1114	0.1159	0.0941	0.1374	0.2542	0.0466																				
2/15/96	06:00	0.1116	0.1214	0.1126	0.1088	0.0908	0.1374	0.2542	0.0466																				
2/16/96	06:00	0.1214	0.1126	0.1088	0.0908	0.1374	0.2542	0.0466																					
2/17/96	06:00	0.1126	0.1088	0.0908	0.1374	0.2542	0.0466																						
2/18/96	06:00	0.1088	0.0908	0.1374	0.2542	0.0466																							
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*K. Hovnanian (Lakewood-Four Seasons)
Temporary Flow Monitor - Manhole 1-A*



January 26-February 8, 1996

SHORELINE SERVICES

PROJECT NUMBER - E1012

CLIENT - K Hovnanian

FLOW MONITORING REPORT

MUNICIPALITY - Township of Lakewood

STREET LOCATION		Manhole I-A - K. Hovnanian Four Seasons, Amberwind Court ROW									
PRIMARY MEASURING DEVICE		Sigma 950 Area-Velocity Meter									
PERIOD OF MONITORING		Friday, February 2, 1996 through Thursday, February 8, 1996									

Time	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVERAGE	MAXIMUM	MINIMUM
Area	0.0048	0.0045	0.0038	0.0031	0.0076	0.0065	0.0125	0.0341	0.0470	0.0423	0.0460	0.0396	0.0286	0.0279	0.0171	0.0186	0.0263	0.0300	0.0242	0.0175	0.0144	0.0188	0.0167	0.0171	0.0220	0.0470	0.0031
Velocity	0.0085	0.0045	0.0038	0.0071	0.0038	0.0114	0.0086	0.0246	0.0455	0.0522	0.0432	0.0424	0.0340	0.0325	0.0274	0.0189	0.0230	0.0256	0.0194	0.0214	0.0191	0.0232	0.0165	0.0156	0.0228	0.0522	0.0036
Flow	0.0095	0.0100	0.0042	0.0059	0.0040	0.0071	0.0108	0.0250	0.0442	0.0490	0.0414	0.0287	0.0251	0.0268	0.0276	0.0244	0.0204	0.0213	0.0228	0.0211	0.0202	0.0134	0.0158	0.0091	0.0208	0.0490	0.0040
Velocity	0.0041	0.0034	0.0040	0.0057	0.0070	0.0110	0.0178	0.0341	0.0435	0.0380	0.0254	0.0201	0.0207	0.0153	0.0161	0.0154	0.0197	0.0316	0.0262	0.0192	0.0182	0.0112	0.0146	0.0178	0.0190	0.0435	0.0034
Area	0.0128	0.0059	0.0092	0.0081	0.0088	0.0080	0.0255	0.0376	0.0408	0.0369	0.0331	0.0238	0.0176	0.0152	0.0160	0.0149	0.0169	0.0267	0.0268	0.0256	0.0228	0.0154	0.0159	0.0178	0.0204	0.0408	0.0052
Velocity	0.0097	0.0060	0.0044	0.0057	0.0108	0.0088	0.0255	0.0376	0.0408	0.0369	0.0331	0.0238	0.0176	0.0152	0.0160	0.0149	0.0169	0.0267	0.0268	0.0256	0.0228	0.0154	0.0159	0.0178	0.0204	0.0408	0.0052



D.W. SMITH ASSOCIATES, P.A.
Consulting Engineers • Planners
Surveyors • Landscape Architects

40 Airport Road • Lakewood, New Jersey • 08701

Attachment to Discovery A-10 (Wastewater)

FAX TRANSMISSION SHEET

DATE:

August 10 1999

TIME:

8:30 AM

TO:

Mike Whitehill

COMPANY:

McCrone, Inc

FAX NUMBER:

410-758-2464

PROJECT NAME:

Adult Communities

OUR REF. NO:

FROM:

Al Develto

FAX NUMBER:

(732) 905-8669

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET:

5

COPIES TO:

HARD COPY TO FOLLOW:

YES

NO

SENT VIA:

COMMENTS/DIRECTION:

As discussed please find copies of the following related to sewer flows for adult communities:

① DEP Sewer Flows Adopted 6/6/94 - w

Differentiation Between Age Restricted / Non-Age Restricted Dwellings

② DEP Memorandum Dated 4/7/98 Establishing Design Flows For Adult Communities

③ DEP Memorandum of Agreement Dated 6/9/99 Establishing Sewer Flows For Adult Communities, Assisted Living Facilities, etc.

Will send other info Under Separate Cover -

If you do not receive all the pages indicated on this cover sheet please phone (732) 363-5850 for assistance.

ADOPTIONS

ENVIRONMENTAL PROTECTION

(b) These rules establish specific criteria and standards for the construction and operation of treatment works. In promulgating these requirements, the Department recognizes that, at times, deviations from these requirements may be necessary to address specific circumstances. The Department will consider deviations from these design criteria provided that appropriate documentation addressing the need for deviation and justification for the proposed design is submitted with the treatment works approval applications and includes a signed and sealed statement from the design engineer attesting to the treatment works ability to meet the purposes intended.

(c) These rules do not specify any technical standards explicitly for the construction of industrial treatment works due to the high degree of variability of the wastestreams, and treatment process options available to deal with the various pollutants that may be present at an industrial facility. Because of this variability, it would not be prudent to impose specific technical standards on facilities where such standards may not be appropriate. It is the responsibility of the design engineer to design industrial treatment works to meet all applicable Federal, State or local limitations, conditions, and/or

requirements, including, but not limited to, the requirements of a facility's NJPDES or NPDES permit. When appropriate, the general technical standards specified in this subchapter for domestic waste treatment and conveyance systems may be used.

7:14A-23.3 Projected flow criteria

(a) The values specified below are to be used in computing the projected flow to wastewater conveyance and treatment facilities and when making an application for a treatment works approval pursuant to N.J.A.C. 7:14A-22. The specific measurement unit listed for each category shall be used as the basis for the projected flow. No additional provisions for inflow and infiltration are required. For the purposes of design only, other values, proposed by the design engineer, through actual water usage data, may be accepted at the Department's discretion, with an appropriate safety factor. However, all determination concerning whether or not any specific project requires a treatment works approval and/or sewer ban exemption shall be based upon the projected flow criteria established below. *These criteria are not mandated to be used by sewerage authorities as a basis for establishing local user fees and/or connection fees.*

Type of Establishment	Measurement Unit	Gallons Per Day
*Residential Dwellings	Per Dwelling	300
Single Family	1 Bedroom	150
Duplex units, townhouses, condominiums, apartments	2 Bedrooms	225
	3 or more Bedrooms	300*
*Residential Dwellings (single family home, duplex units, townhouses, condominiums, apartments)	Per Dwelling	150
1 bedroom unit	Per Dwelling	225
2 bedroom unit	Per Dwelling	300*
3 bedroom unit or larger		
Transit dwelling units	Bedroom	75
Hotels	Bedroom	60
Lodging houses and tourist homes	Bedroom	60
Motels and tourist cabins	Boarder	50
Boarding houses (max. permitted occupancy)		
Camps	Site	100
Campground/mobile rec. vehicle/tent	Site	200
Parked mobile trailer site	Bed	50
Children's camps	Bed	40
Labor camps	Person	15
Day camps—no meals		
Restaurants (including washrooms and turnover)	Seat	35
Average restaurant	Seat	20
Bar/cocktail lounges	Seat	15
Fast food restaurant	Seat	50
24 hour service restaurant	car space	50
Curb service/drive-in restaurant		
Clubs		
Residential	Member	75
Nonresidential	Member	35
Racquet club	(per court per hour)	80
Bathhouse with shower	Person	25
Bathhouse without shower	Person	10
Institutions (includes staff)		
Hospitals	Bed	175
Other institutions	Bed	125
Schools (includes staff)		
No shower or cafeteria	Student	10
With cafeteria	Student	15
With cafeteria and showers	Student	20
With cafeteria, showers and laboratories	Student	25
Boarding	Student	75

CC: ALV
RFM
TPL
DAD



State of New Jersey
Department of Environmental Protection

ORIG: CAF

Robert C. Shinn, Jr.
Commissioner

Christina Todd Whitman
Governor

Bureau of Engineering South
MEMORANDUM

TO: TWA staff
FROM: *APP* Gautam Patel, Chief
Bureau of Engineering South
SUBJECT: Design flows for age restricted housing
DATE: March 30, 1998

APR 07 1998

Since the promulgation of our most recent rule change in 1994, we have received many requests for consideration of reduced design flow numbers for adult communities, where age restricted housing is built. Individual letters have been written allowing reduced flow numbers for specific development sites. The purpose of the memo is to memorialize the policy concerning reduced design flow in treatment works approval permits. Effective as of the date of this memo, when requested by the applicant and agreed to by the associated sewerage authority and receiving sewage treatment plant, the following flow numbers may be used in assigning flows to TWA permits:

- | | |
|-------------------------|---------------------|
| One bedroom unit..... | 110 gallons per day |
| Two bedroom unit..... | 170 gallons per day |
| Three bedroom unit..... | 225 gallons per day |

Please note that this is per unit, and is applicable to age and occupancy restricted developments of single family homes, apartments, mobile homes etc. Flow amounts greater than those listed may, of course, still be utilized up to the allowable flows as shown in N.J.A.C. 7:14A-23.3. Flow numbers less than those noted above will not be acceptable. In all cases those flows listed in 7:14A-23.3 shall be used for TWA determinations.

C: N. Binder
S. Cach



State of New Jersey

Department of Environmental Protection

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

MEMORANDUM OF AGREEMENT

Director Lance Miller, Division of Watershed Management and Director Dennis Hart, Division of Water Quality, and their respective staffs met to discuss the issue of flow projections and how they relate to TWA sewer extension permitting and thresholds for determining the need for a WMP, an individual amendment or a revision to a water quality management plan. It was agreed that, in the interim until the revised water quality management planning rules are adopted or the Treatment Works Approval rules are revised, the following procedure will be followed in order to optimize attainment of the Department's and constituents' interests:

1. The flow projections at N.J.A.C. 7:14A-23.3 will continue to be the basis for TWA sewer extension permit determinations and for projections of future flow to be documented in various water quality management planning documents, to the extent currently required.
2. The following development types are not specifically listed in the TWA rule with respect to sewer extensions and have been included in the "institutions" category for the purposes of TWA sewer extension permitting:
 - a. Skilled nursing facilities
 - b. Assisted living facilities

In addition, age restricted housing was not specifically listed in the TWA rule and has been included in the "residential dwellings" category. For design purposes only, the above development types have been allowed to utilize alternative flow projections by the Department for sewer extensions.

The Department's rules at N.J.A.C. 7:15-3.5(b)4v. identify a threshold of 8000 gallons per day as the flow threshold at which an inconsistent sewer service area modification project must be processed as an amendment versus a revision. There is no requirement at that cite directing use of the TWA flow numbers for assessing this threshold. Further, there are thresholds that relate in a more meaningful way to the potential for a proposed project to generate issues of environmental concern. There is a similar service area modification flow threshold (20,000 gpd) for triggering a WMP instead of processing an individual amendment, at N.J.A.C. 7:15-5.1(b)1. Therefore, for the above previously unidentified types, where a project is inconsistent with the approved water quality management plan, and where exceedance of the flow threshold is the only reason for triggering an amendment as opposed to a revision, or a WMP as opposed to an amendment, and it is determined that using the accepted alternative design flow

ITOA
6/17/99

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calculations would not result in exceedance of the flow thresholds, then the Department will process the proposal as a revision and not an amendment or an amendment and not a WMP, as appropriate.

3. The alternative design flow numbers that have been accepted for sewer extension projects are as follows:

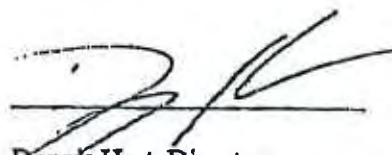
- a. Age restricted housing: in accordance with the April 7, 1998 memorandum from Gautam Patel, Bureau of Engineering South, attached.
- b. Assisted living facilities: 100 gpbpd.
- c. Skilled nursing facilities: 75 gpbpd.

All revisions approved based on this memorandum of agreement will specifically state that a TWA sewer extension permit must be obtained from the Department since the projected flow pursuant to N.J.A.C. 7:14A-23.3, exceeds 8,000 gpd. This procedure will keep intact the safety factors built into the permitting process while avoiding unnecessary processing steps within the Department and unnecessary delays for the Department's constituents.



Lance Miller, Director
Division of Watershed Management

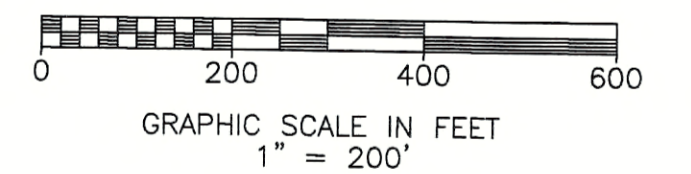
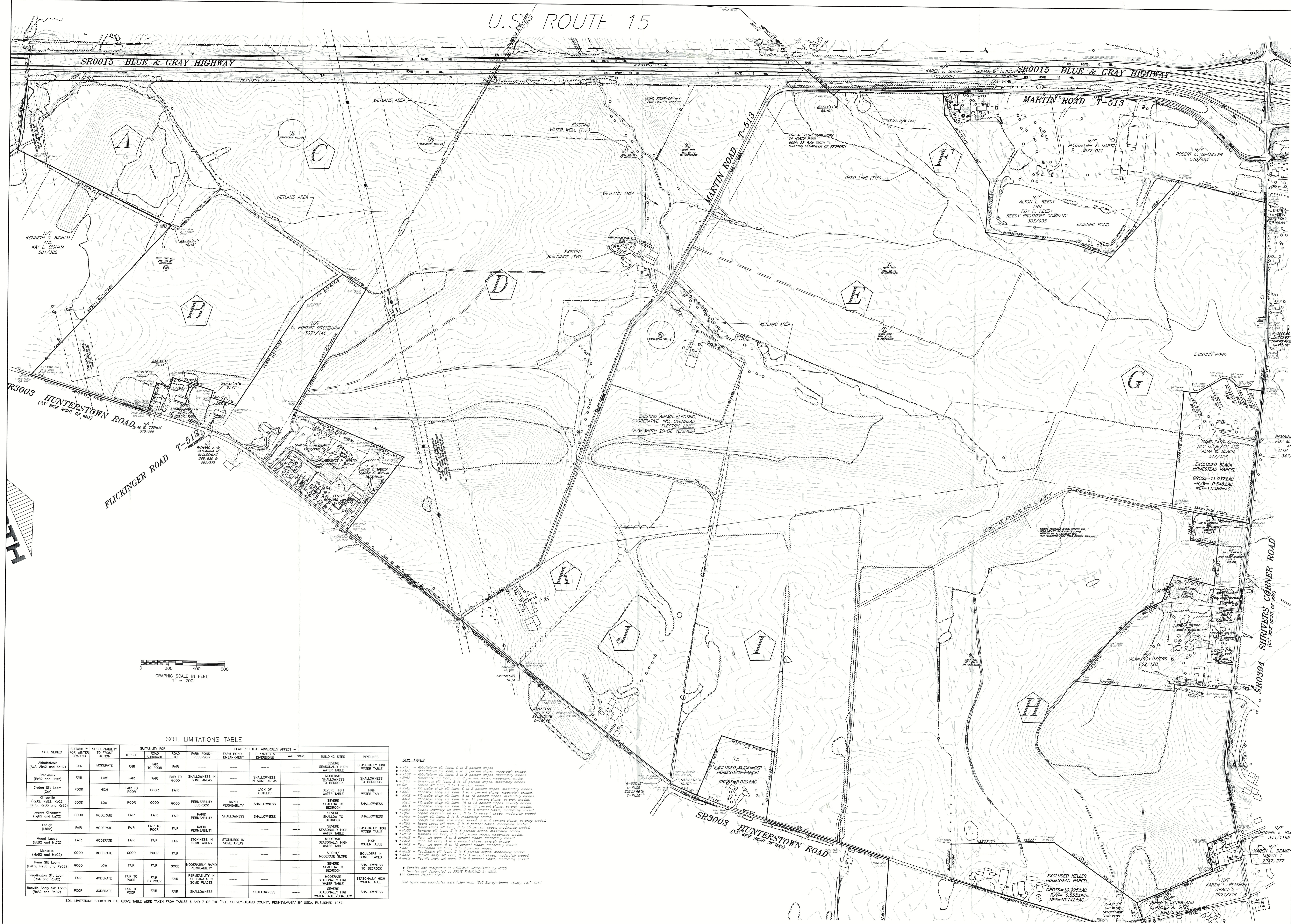
Date: 6/9/99



Dennis Hart, Director
Division of Water Quality

Date: 6/10/99

U.S. ROUTE 15



SOIL LIMITATIONS TABLE

SOIL SERIES	SUITABILITY FOR WINTER BURNING	SUSCEPTIBILITY TO FROST ACTION	SUITABILITY FOR				FEATURES THAT ADVERSELY AFFECT --				BUILDING SITES	PIPELINES
			TOPSOIL	ROAD SUBGRADE	ROAD FILL	FARM POND--RESERVOIR	FARM POND--EMBANKMENT	TERRACES & DIVERSIONS	WATERWAYS	SHALLOWNESS TO BEDROCK		
Abbotstown (Aa1, Aa2 and Aa3)	FAIR	MODERATE	FAIR	FAIR	FAIR	---	---	---	---	---	SEVERE SEASONALLY HIGH WATER TABLE	SEASONALLY HIGH WATER TABLE
Bredford (Bb1 and Bb2)	FAIR	LOW	FAIR	FAIR	FAIR	SHALLOWNESS IN SOME AREAS	---	---	---	---	MODERATE SHALLOWNESS TO BEDROCK	MODERATE SHALLOWNESS TO BEDROCK
Croton Silt Loam (Ca)	POOR	HIGH	FAIR TO POOR	POOR	FAIR	---	---	---	---	LACK OF OUTLETS	SEVERE HIGH WATER TABLE	HIGH WATER TABLE
Kinrossville (Kk1, Kk2, Kk3, Kk4, Kk5 and Kk6)	GOOD	LOW	POOR	GOOD	GOOD	PENETRABILITY TO BEDROCK	RAPID PENETRABILITY	SHALLOWNESS	---	---	SEVERE SHALLOW TO BEDROCK	SHALLOWNESS
Lagore Channey (Lg1 and Lg2)	GOOD	MODERATE	FAIR	FAIR	FAIR	RAPID PENETRABILITY	SHALLOWNESS	SHALLOWNESS	---	---	SEVERE SHALLOW TO BEDROCK	SHALLOWNESS
Lafayette (Lh)	FAIR	MODERATE	FAIR	FAIR TO POOR	FAIR	RAPID PENETRABILITY	---	---	---	---	SEVERE SEASONALLY HIGH WATER TABLE	SEASONALLY HIGH WATER TABLE
Mount Lucas (Mb1 and Mb2)	FAIR	MODERATE	FAIR	FAIR	FAIR	STONINESS IN SOME AREAS	---	---	---	---	MODERATE SEASONALLY HIGH WATER TABLE	HIGH WATER TABLE
Monticello (Mm1 and Mm2)	GOOD	MODERATE	GOOD	POOR	FAIR	---	---	---	---	---	SLIGHT/MODERATE SLOPE	BOULDERS IN SOME PLACES
Penn. Silt Loam (Pa1, Pa2, Pa3 and Pa4)	GOOD	LOW	FAIR	FAIR	GOOD	MODERATELY RAPID PENETRABILITY	---	---	---	---	SEVERE SHALLOW TO BEDROCK	SHALLOWNESS TO BEDROCK
Readington Silt Loam (Ra1 and Ra2)	FAIR	MODERATE	FAIR TO POOR	FAIR TO POOR	FAIR	PENETRABILITY IN SOME PLACES	---	---	---	---	MODERATE SEASONALLY HIGH WATER TABLE	SEASONALLY HIGH WATER TABLE
Resolute Silt Loam (Re1 and Re2)	POOR	MODERATE	FAIR TO POOR	FAIR	FAIR	SHALLOWNESS	---	---	---	---	SEVERE SEASONALLY HIGH WATER TABLE/SHALLOW	SHALLOWNESS

SOIL TYPES

- Abbotstown silt loam, 0 to 3 percent slopes, moderately eroded.
- Abbotstown silt loam, 3 to 8 percent slopes, moderately eroded.
- Bredford silt loam, 0 to 8 percent slopes, moderately eroded.
- Bredford silt loam, 8 to 15 percent slopes, moderately eroded.
- Croton silt loam, 0 to 3 percent slopes, moderately eroded.
- Kinrossville silt loam, 0 to 3 percent slopes, moderately eroded.
- Kinrossville silt loam, 3 to 8 percent slopes, moderately eroded.
- Kinrossville silt loam, 8 to 15 percent slopes, severely eroded.
- Kinrossville silt loam, 15 to 25 percent slopes, severely eroded.
- Lagore Channey silt loam, 0 to 8 percent slopes, moderately eroded.
- Lagore Channey silt loam, 8 to 15 percent slopes, moderately eroded.
- Lafayette silt loam, 0 to 8 percent slopes, moderately eroded.
- Lafayette silt loam, 8 to 15 percent slopes, moderately eroded.
- Mount Lucas silt loam, 0 to 8 percent slopes, moderately eroded.
- Mount Lucas silt loam, 8 to 15 percent slopes, moderately eroded.
- Monticello silt loam, 0 to 8 percent slopes, moderately eroded.
- Monticello silt loam, 8 to 15 percent slopes, moderately eroded.
- Penn. silt loam, 0 to 8 percent slopes, moderately eroded.
- Penn. silt loam, 8 to 15 percent slopes, moderately eroded.
- Readington silt loam, 0 to 8 percent slopes, moderately eroded.
- Readington silt loam, 8 to 15 percent slopes, moderately eroded.
- Resolute silt loam, 0 to 8 percent slopes, moderately eroded.
- Resolute silt loam, 8 to 15 percent slopes, moderately eroded.

Denotes soil designated as STATEWIDE IMPORTANCE by NRCS.
Denotes soil designated as PRIME FARMLAND by NRCS.
Denotes FROST SOILS.

Soil types and boundaries were taken from "Soil Survey-Adams County, Pa.", 1967.

ROBERT A. SHARRAH, P.L.S.
Land Surveying & Consulting Services
1270 Fairfield Road Suite 5
Gettysburg, Pennsylvania 17325-7246
Tel (717) 334-5400 Fax (717) 334-0922

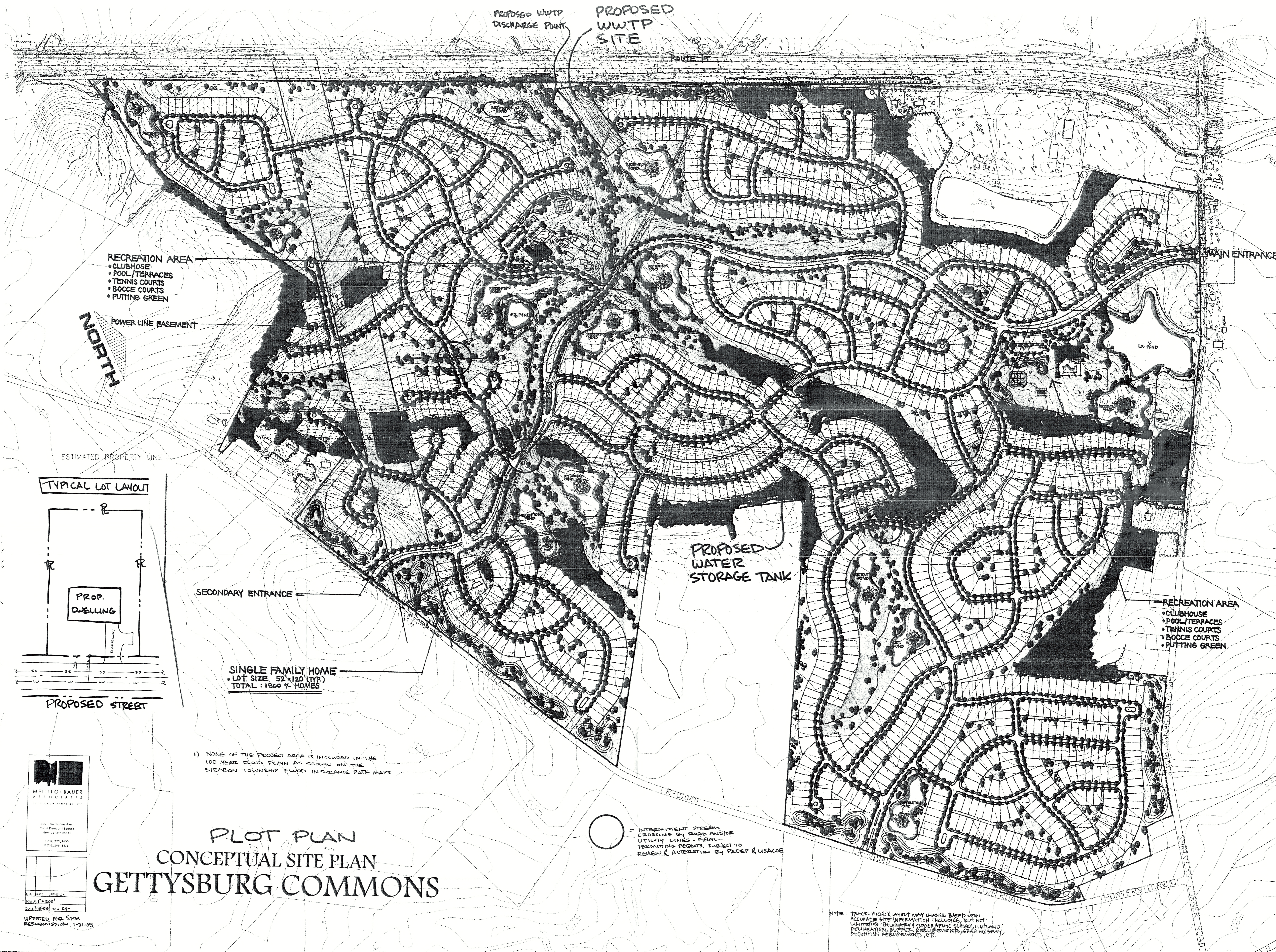
REVISIONS			XREFS	
NO.	DATE	DESCRIPTION	T000-0428	PLO0-0428

CALL BEFORE YOU DIG
PENNSYLVANIA ACT 267 REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION WAYS AND 5 WORKING
DAYS IN DESIGN STAGE. STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776

PLAN PREPARATION	
DRAWN BY: J.W.	DATE: 09-03-04
DESIGNED BY: RAS	FILE NO. 0428
CHECKED BY: RAS	DRAWING NO.

EXISTING CONDITIONS PLAN
GETTYSBURG COMMONS
A PLANNED ACTIVE ADULT COMMUNITY
STRABAN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE
1"=200'
SHEET NO.
1 OF 2



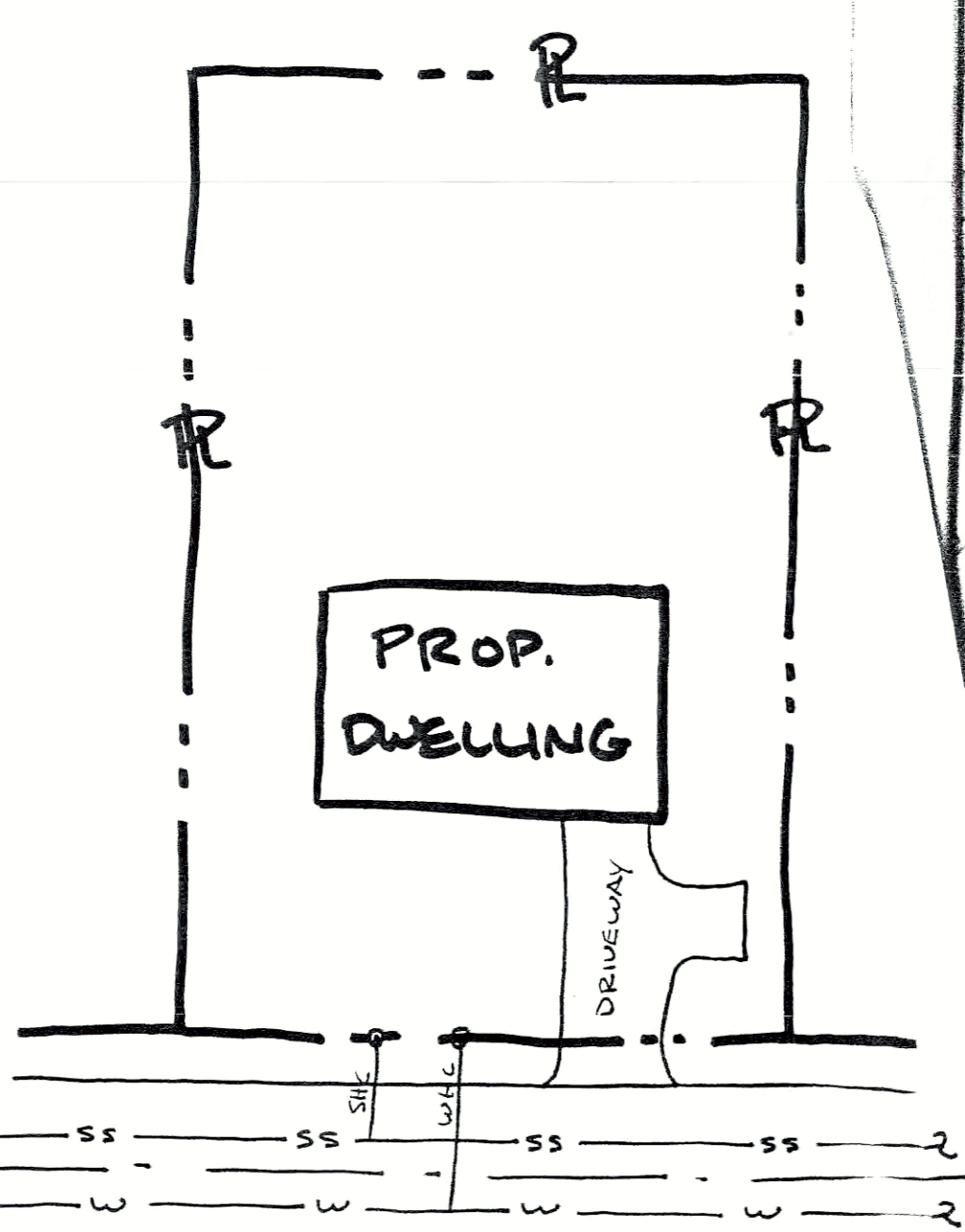
RECREATION AREA
 • CLUBHOUSE
 • POOL/TERRACES
 • TENNIS COURTS
 • BOCCÉ COURTS
 • PUTTING GREEN

NORTH

POWER LINE EASEMENT

ESTIMATED PROPERTY LINE

TYPICAL LOT LAYOUT



PROPOSED STREET

SECONDARY ENTRANCE

SINGLE FAMILY HOME
 • LOT SIZE: 52' x 120' (TYP)
 TOTAL: 1800 +/- HOMES

PROPOSED WATER STORAGE TANK

RECREATION AREA
 • CLUBHOUSE
 • POOL/TERRACES
 • TENNIS COURTS
 • BOCCÉ COURTS
 • PUTTING GREEN

1) NONE OF THE PROJECT AREA IS INCLUDED IN THE 100 YEAR FLOOD PLAIN AS SHOWN ON THE STRABEN TOWNSHIP FLOOD INSURANCE RATE MAPS

○ = INTERMITTENT STREAM CROSSING BY ROAD AND/OR UTILITY LINES - FINAL PERMITTING REQ'TS. SUBJECT TO REVIEW & ALTERATION BY PADEP & USACE

NOTE: TRACT, YIELD & LAYOUT MAY CHANGE BASED UPON ACCURATE SITE INFORMATION INCLUDING, BUT NOT LIMITED TO: BOUNDARY & TOPOGRAPHIC SURVEY, LANDSCAPE ARCHITECTURE, SUPPLY REQUIREMENTS, GRADING ONLY, PERMITTING REQUIREMENTS, ETC.

PLOT PLAN CONCEPTUAL SITE PLAN GETTYSBURG COMMONS

MELILLO BAUER ASSOCIATES
 3029 DUNDAS AVE.
 Suite 1000
 New York, NY 10017
 732 278-4300
 F 732 278-7844

NO. DATE REVISION
 1 11/10/04 1
 2 11/10/04 2
 3 11/10/04 3
 4 11/10/04 4
 5 11/10/04 5
 6 11/10/04 6
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 9 11/10/04 9
 10 11/10/04 10

UPDATED FOR SPM
 RESUBMISSION 1-31-05