

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
WATER AND SEWER DESIGN & CONSTRUCTION STANDARDS
FOURTH EDITION
JULY 2018**

TABLE OF CONTENTS

ADMINISTRATIVE

WATER / SEWER AVAILABILITY APPLICATION
SIZING WATER SERVICE LINES AND METERS
WATER METER FIXTURE VALUE CHART
NON-RESIDENTIAL SANITARY SEWER CHECKLIST
PLAN SUBMITTAL CHECKLIST
PLAN APPROVAL PROCEDURES
PLAN REVIEW FEE WORKSHEET
CONSTRUCTION INSPECTION FEE WORKSHEET
REQUEST FOR WAIVER, MODIFICATION, OR FIELD CHANGE FORM
INSPECTION REQUIREMENTS
CERTIFICATE OF SUBSTANTIAL COMPLETION
ACCEPTANCE OF WATER / SEWER FACILITIES PROCEDURES

WATER/SEWER STANDARDS

DESIGN AND CONSTRUCTION STANDARDS FOR WATER FACILITIES -
Section 100.00
DESIGN AND CONSTRUCTION STANDARDS FOR SANITARY SEWER
FACILITIES - Section 200.00

SPECIFICATIONS

SPECIFICATION SECTION 01300 – SUBMITTALS AND SUBSTITUTIONS
SPECIFICATION SECTION 02110 – CLEARING AND GRUBBING
SPECIFICATION SECTION 02230 – ROCK EXCAVATION
SPECIFICATION SECTION 02270 – EROSION AND SEDIMENT CONTROL
SPECIFICATION SECTION 02310 – STREAM AND/OR HIGHWAY CROSSINGS
SPECIFICATION SECTION 02605 – CONDUCTIVE TRACE WIRE
SPECIFICATION SECTION 02665 – WATER DISTRIBUTION LINES
SPECIFICATION SECTION 02670 – INSTALLATION OF WATER LINES AND
SANITARY SEWER LINES BY HORIZONTAL DIRECTIONAL DRILLING (HDD)
METHOD
SPECIFICATION SECTION 02731 – SANITARY SEWER COLLECTOR LINES
AND FORCE MAIN
SPECIFICATION SECTION 02900 – SEEDING AND MULCHING

WATER/SEWER DETAIL DRAWINGS

WATER DETAIL DRAWINGS
SEWER DETAIL DRAWINGS

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
WATER AND SEWER DESIGN & COSTRUCTION STANDARDS
FOURTH EDITION
JULY 2018**

SECTION ONE - ADMINISTRATIVE

WATER / SEWER AVAILABILITY APPLICATION (1 page)
SIZING WATER SERVICE LINES AND METERS (1 page)
WATER METER FIXTURE VALUE CHART (1 page)
NON-RESIDENTIAL SANITARY SEWER CHECKLIST (7 pages)
PLAN SUBMITTAL CHECKLIST (1 page)
PLAN REVIEW FEE WORKSHEET (1 page)
PLAN APPROVAL PROCEDURES (1 page)
CONSTRUCTION INSPECTION FEE WORKSHEET (1 page)
REQUEST FOR WAIVER, MODIFICATION, OR FIELD CHANGE FORM (1 page)
INSPECTION REQUIREMENTS (1 page)
CERTIFICATE OF SUBSTANTIAL COMPLETION (1 page)
ACCEPTANCE OF WATER / SEWER FACILITIES PROCEDURES (2 pages)

Montgomery County Public Service Authority Water/Sewer Availability Application

Date: _____

Applicant: _____

Mailing Address: _____

Phone: _____

Cell: _____

Fax: _____

Property Address: _____

Tax Map Number(s): _____

Parcel Identification Number(s): _____

Development (Subdivision) Name: _____

Single Residential, Duplex, Multi-Residential, Mobile Home Park, Subdivision, or Commercial Facility? _____

Water Meter Size Requested: _____

Sewer Lateral Size Requested: _____

COMPLETE THE FOLLOWING FOR NON-RESIDENTIAL AND MULTI-RESIDENTIAL SERVICES

Domestic Flow Required? ** _____ GPM

** (Attach completed "Sizing Water Service Lines and Meters" Form AND "Non-Residential Sanitary Sewer Checklist", blank forms available on website under "Engineer's section".)

Is Building to be Sprinkled? Yes _____ No _____

Minimum Fire Flow Required? _____ GPM

Return to Robert Fronk; Phone: (540)381-1997; Fax: (540)382-5703
Postal Mail: 755 Roanoke Street, Suite 2-I, Christiansburg, VA 24073
fronkrc@montgomerycountyva.gov

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
SIZING WATER SERVICE LINES AND METERS**

DEVELOPMENT NAME: _____

TYPE OF OCCUPANCY: _____

<u>Plumbing Fixture Type</u>	<u>Number of Fixtures</u>	<u>Fixture Value @ 35 PSI</u>	<u>Fixture Value</u>
Bathtub	X	8	=
Bedpan Washer	X	10	=
Combination Sink & Tray	X	3	=
Dental Unit	X	1	=
Dental Lavatory	X	2	=
Drinking Fountain - Cooler	X	1	=
Drinking Fountain - Public	X	2	=
Sink - 1/2" Connection	X	3	=
Sink - 3/4" Connection	X	7	=
Lavatory - 3/8" Connection	X	2	=
Lavatory - 1/2" Connection	X	4	=
Laundry Tray - 1/2" Connection	X	3	=
Laundry Tray - 3/4" Connection	X	7	=
Shower Head	X	4	=
Urinal - Pedestal Flush Valve	X	35	=
Urinal - Wall Flush Valve	X	12	=
Urinal - Trough (2 Foot Unit)	X	2	=
Wask Sink (Each Set of Faucets)	X	4	=
Water Closet - Flush Valve	X	35	=
Water Closet - Tank Type	X	3	=
Dishwater - 1/2" Connection	X	5	=
Dishwater - 3/4" Connection	X	10	=
Washing Machine - 1/2" Connection	X	5	=
Washing Machine - 3/4" Connection	X	12	=
Washing Machine - 1" Connection	X	25	=
Hose Connection (Wash Down) - 1/2"	X	6	=
Hose Connection (Wash Down) - 3/4"	X	10	=
Hose (50 foot -Wash Down) - 1/2"	X	6	=
Hose (50 foot -Wash Down) - 5/8"	X	9	=
Hose (50 foot -Wash Down) - 3/4"	X	12	=

COMBINED FIXTURE VALUE TOTAL _____

Water Meter Fixture Value Chart

Residential Uses

<u>Meter Sizes</u>	<u>Max. Cap. (gpm)</u>	<u>Fixture Values (max.)</u>
5/8"	20	100
1"	50	600
1 1/2"	100	7,000
2"	160	*
3"	300	*
4"	500	*
6"	1,000	*

* For fixture values greater than 7,000, capacity of meter shall be 100 gpm + 1 gpm for each 160 fixture values over 7,000.

Commercial Uses

<u>Meter Sizes</u>	<u>Max. Cap. (gpm)</u>	<u>Fixture Values (max.)</u>
5/8"	20	50
1"	50	200
1 1/2"	100	600
2"	160	6,000
3"	300	*
4"	500	*
6"	1,000	*

* For fixture values greater than 6,000, capacity of meter shall be 175 gpm + 1 gpm for each 160 fixture values over 6,000.

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY NON-RESIDENTIAL SANITARY SEWER CHECKLIST

Montgomery County is tasked by USEPA, VA DEQ, and local pretreatment agreements to evaluate all non-residential sanitary sewer users to determine the category of the user and to insure compliance with all applicable laws and regulations. This evaluation requires a thorough review of the type of business, building layout, plumbing configuration, processes performed, equipment utilized, chemicals used, chemicals stored, and expected discharges to the public sanitary sewer. Completion of the Montgomery County PSA Non-Residential Sanitary Sewer Checklist with requested attachments is the initial step of this evaluation.

If this evaluation determines that the facility is an industrial type user, large quantity discharges, or of significant potential, a wastewater discharge permit will be issued. Other responses include the facility collecting and analyzing a wastewater sample and site inspection. All submitted documentation will be filed for reference. If a wastewater analysis is required, the received results would be compared to the Montgomery County discharge limits, and if in compliance, would be placed on file for reference as conclusion to the evaluation process.

Montgomery County PSA will assist in completion of this form and to identify items of concern. All efforts should be made to prevent unsuitable materials from entering the sewer. Proper housekeeping operations can eliminate most of the sewer discharge violations.

Significant items of concern:

- Sampling structures are required for all non-residential facilities.
- All food preparation operations require a properly sized grease trap. Montgomery County, through experience, recommends that the trap be sized for 30 minutes of detention during peak flows. A copy of the cleaning schedule will also be required. It is highly recommended that the trap be placed outside the building so that a septic tank hauler can be used to clean/empty the trap.
- Floor drains should be restricted to bathrooms. Floor drains, in other areas, present a potential route for accidental spills to enter the sanitary sewer. If floor drains are needed outside of bathrooms, a spill prevention plan is required, all stored liquids of concern in the area must be placed within secondary containment devices, all equipment must have means to prevent lubricants or product from entering the floor drain and other requirements may apply. Hub drains with a lip above the floor level to eliminate the spill potential concern are recommended for areas that need a drain.
- Film and X-ray processors require a "silver" recovery system to remove silver, lead, and cadmium from the discharged fixer, developer, AND wash streams. Montgomery County discharge limits for these metals are fairly stringent.
- Discharges from automotive or machining type operations may require a specifically designed petroleum type oil/water separator.
- "Plaster traps" are required where wash-up of inert materials are directed to the public sewer.

The Montgomery County PSA Non-Residential Sanitary Sewer Checklist must be submitted and reviewed prior to Plan Approval or release of the Building Occupancy Permit. Questions relative to the checklist should be directed to **Montgomery County PSA, (540) 381-1997.**

September 2007

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

In order to properly review all non-residential sewer applications pursuant to the Montgomery County Sewer Use Standards, this checklist is required to be completed and submitted to the Montgomery County PSA. The sewer customer or building owner of an **EXISTING FACILITY** may complete this form **ONLY** if the facility plumbing fixtures are as listed below as **NORMAL RESIDENTIAL FIXTURES**. Checklists for all other facilities must be completed and submitted by a **PROFESSIONAL ENGINEER**. A determination will be made after review of this checklist and attachments as to any pretreatment or industrial sewer user requirements.

Instructions: Answer all questions to the best of your knowledge.

Facility Name: _____

Facility Mailing Address: _____

Existing ____ or Proposed ____

Owner: _____

1. List facility operations:

1a. List Current Federal Standard Industrial Classification (SIC) Code(s):

2. What is the projected sewer flow for this facility?

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

3. Indicate the number of contributing fixtures that discharge to the sanitary sewer including floor drains:

a) Normal Residential Fixtures:

- | | |
|---|---------------------------------|
| <input type="checkbox"/> hand sink (lavatory) | <input type="checkbox"/> toilet |
| <input type="checkbox"/> kitchen sink | <input type="checkbox"/> urinal |
| <input type="checkbox"/> bathroom floor drain | |

b) Non-Residential Fixtures:

- | | |
|--|--|
| <input type="checkbox"/> air compressor | <input type="checkbox"/> mop sink |
| <input type="checkbox"/> air conditioner | <input type="checkbox"/> neutralization tank |
| <input type="checkbox"/> air cooling units | <input type="checkbox"/> paint booth |
| <input type="checkbox"/> chemical storage/blending tank | |
| <input type="checkbox"/> cleaning unit | <input type="checkbox"/> pressure washer |
| <input type="checkbox"/> dental sink\cuspidor | <input type="checkbox"/> steam table |
| <input type="checkbox"/> dishwasher* | <input type="checkbox"/> 3 compartment sink |
| <input type="checkbox"/> distillation unit | <input type="checkbox"/> 2 compartment sink |
| <input type="checkbox"/> dry cleaner | <input type="checkbox"/> wash rack |
| <input type="checkbox"/> evaporator | <input type="checkbox"/> washing machine |
| <input type="checkbox"/> equalization tank | <input type="checkbox"/> other: |
| <input type="checkbox"/> film or x-ray processor | _____ |
| <input type="checkbox"/> floor drain (other than Bathroom) | _____ |

*May be residential fixture for certain uses. Please submit explanation of use.

If any items are checked in block 3-b, a Professional Engineer will be required to complete remainder of the form. If there are questions, please contact Montgomery County PSA (540-381-1997) for clarification.

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

4. List any sewer pretreatment processes:

5. Are any heated waters or liquids to be discharged to the sanitary sewer system (except residential size hot water heaters)? _____ (if yes list temperature, quantity, and flow rate):

6. Are oil and/or grease trap(s) existing or to be installed?
_____ If yes, submit engineer calculations, manufacturers' data, and maintenance schedule.

7. Are any garbage grinders existing or to be installed?
_____ If yes, submit manufacturers' data.

8. Are floor drains existing or to installed in this facility? _____. If yes, provide sketch showing location of all floor drains.

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

9. Will any of the following elements (in any form) be stored or used in this facility? (mark yes or no for each)

YES	NO	ELEMENT	YES	NO	ELEMENT
___	___	acetate	___	___	grout
___	___	acid	___	___	heavy metal
___	___	alcohol	___	___	herbicides
___	___	algicides	___	___	inks
___	___	alkalis	___	___	ketone
___	___	aluminum*	___	___	lead
___	___	ammonia	___	___	lime*
___	___	antimony	___	___	manganese
___	___	antifreeze	___	___	mercury
___	___	arsenic	___	___	methane
___	___	barium	___	___	motor oil
___	___	benzene	___	___	naphtha
___	___	bismuth	___	___	nickel
___	___	boron	___	___	nitrogen
___	___	cadmium	___	___	paint
___	___	cement*	___	___	PCBs
___	___	chemical residuals	___	___	pesticides
___	___	chloride	___	___	phenols
___	___	chloroform	___	___	phosphorus
___	___	chromium	___	___	phthalates
___	___	cobalt	___	___	pitch
___	___	cooking oil	___	___	plating solutions
___	___	copper	___	___	salt*
___	___	creosote	___	___	sand*
___	___	cyanide	___	___	silver
___	___	diesel	___	___	soil
___	___	dyes	___	___	sugar*
___	___	ether	___	___	sulfate or sulfite
___	___	fats*	___	___	tanning solution
___	___	film developer or fixer	___	___	tar
___	___	fluoride	___	___	thinner
___	___	formaldehyde	___	___	toluene
___	___	fuel oil	___	___	wax
___	___	fungicides	___	___	whole blood*
___	___	gasoline	___	___	zinc
___	___	glue			
___	___	grease			

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

For each element checked yes, submit Material Safety Data Sheets, intended use, storage area, and any disposal procedure.

*Material Safety Data Sheet Not Required

10. List all stored materials that could enter the sanitary sewer system due to a spill. (Attach sheets as necessary)

11. Attach sketch showing proposed location of required sampling manhole.

12. What is the projected parameter loading for the following; if an existing facility, attach copy of sample analysis from laboratory certified for wastewater testing (in lb/day or mg/l):

Biochemical Oxygen Demand (BOD): _____

Chemical Oxygen Demand (COD): _____

Oil and Grease (O&G): _____

Total Phosphorus (P): _____

pH: _____

Total Suspended Solids (TSS): _____

Total Kjeldahl Nitrogen (TKN): _____

**MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
NON-RESIDENTIAL SANITARY SEWER CHECKLIST**

SEWER CUSTOMER/OWNER CERTIFICATION:

I, _____ hereby certify that the information provided in this document to be true and accurate. I further understand that if I change the facility operations and/or discharges to the public sewer in any way, I must notify the Montgomery County PSA prior to discharging any new materials to the public sewer. I also acknowledge that I will be liable for any cleaning or damages of the public sewer for any unauthorized discharges from this facility. **Engineer must also complete this certification if facility has other than normal residential fixtures.**

SIGNATURE: _____

TITLE: _____

HAVE ALL QUESTIONS BEEN FULLY ANSWERED? FAILURE TO ANSWER ALL QUESTIONS WILL RESULT IN REJECTION AND RESUBMISSION OF THIS FORM.

ENGINEER'S SEAL AND SIGNATURE

SIGNATURE OF ENGINEER: _____

TYPED NAME: _____

DATE: _____

NUMBER OF ATTACHMENTS: _____

AFFIX ENGINEER'S SEAL AND SIGNATURE BELOW

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
PLAN SUBMITTAL CHECKLIST

Project Name: _____ Tax No. _____

Date: _____ Design Engineer: _____

1. ___ Obtain Availability Letter. (Water / Sewer Availability Application). Availability Letter Number shall be referenced on the Utility Plan sheet.
2. ___ Complete and submit "Sizing Water Service Lines and Meters" form. (Available in Water and Sewer Regulations manual)
3. ___ Non-residential sanitary sewer facilities shall complete and submit a Non-Residential Sanitary Sewer Checklist. (Available in Water and Sewer Regulations manual)
4. ___ Complete and submit "Plan Review Fee Worksheet."
5. ___ Submit 1 set of plans on 24" by 36" sheets, Cover Letter and check made out to Montgomery County PSA for Plan Review Fees to the PSA office located at 755 Roanoke Street Christiansburg, VA 24073. Plans will be reviewed and comments issued in conjunction with the Montgomery County Planning Department process.
6. ___ Cover Letter shall identify submission number (first, second, third, etc.) for project. Cover Letter for second and subsequent submissions shall include PSA review comments from the previous plan review and design engineer's response.
7. ___ Submit appropriate water and sanitary sewer design calculations (2 sets) as required by the Water and Sewer Regulations.
8. ___ Provide Engineer's Seal, signature and date on all sheets with water and sanitary sewer facilities and on all design calculation sheets.
9. ___ Plans shall include a table listing all materials, estimated installed unit costs and total installed costs for all water and sanitary sewer facilities.
10. ___ Easements shall be dedicated as exclusive public water and/or sanitary sewer easements on forms acceptable to the PSA.
11. ___ Water and sanitary sewer facilities shall not be landlocked. The facilities shall be extended through the project property or public easements provided that are acceptable to the PSA.
12. ___ Plans shall include plan and profile sheets for all water and sanitary sewer facilities.
13. ___ Profiles shall be provided for any proposed grading (cut or fill) over existing public water or sanitary sewer facilities.
14. ___ Provide table of sanitary sewer lateral invert elevations at the service clean-out at the property line and minimum sewer service elevation for each proposed building.
15. ___ Place note on all applicable plan sheets that all public water and sanitary sewer facilities shall be installed per the PSA Design and Construction Standards and that a copy of the Standards shall be on-site.
16. ___ Show and label all adjoining and adjacent property lines, public right-of-way lines, streets and easements.

17. ___ Show and label all adjoining property owners including address, tax map number and tax parcel ID.
18. ___ Show and label all surveying benchmarks and monuments. At least one project benchmark shall list NAD 83 horizontal and NAVD 88 vertical references.
19. ___ Show and label existing and proposed water meter locations and sizes. Meters shall not be placed in sidewalks, roadways, concrete, pavement or driveways.
20. ___ Show and label existing and proposed sanitary sewer cleanouts and sizes.
21. ___ Show and label all existing and proposed water facilities, mains, valves, appurtenances, fittings, wet taps, etc. with stationing on plan and profile.
22. ___ Show and label all existing and proposed sanitary sewer facilities, mains, manholes, force mains, etc. with stationing on plan and profile.
23. ___ Show flow straight through sampling structures (vertical and horizontal).
24. ___ Label deflection angles of sanitary sewer pipes at manholes (minimum 90 degrees between incoming and outgoing pipes).
25. ___ Provide details for all special water or sanitary sewer facilities (stream crossings, thrust blocks, slope anchors, abandonments, etc.)
26. ___ Show and label utility crossings and dimension separation distances.
27. ___ Provide static water pressures at point of connection, high point, low point and fire hydrants on profile.
28. ___ Submit copy of completed Plan Submittal Checklist.

Developments will not be approved until all items on this checklist have been verified or waived by the PSA.

July 2012 Revision

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY

PLAN REVIEW FEE WORKSHEET

Per PSA Regulation Section D. (g). - Effective August 4, 2008

Development/Project Name: _____

Date: _____

Fees for the FIRST, SECOND and THIRD SUBMISSIONS (once for all three):

Linear Footage of Main Line Facilities:

Water = _____ *Feet*

Sanitary Sewer = _____ *Feet*

Fee Amount Due:

Base Fee = _____ **\$100.00**

Water = \$ _____ **(\$0.20 x linear feet of main line facilities)**

Sanitary Sewer = \$ _____ **(\$0.20 x linear feet of main line facilities)**

TOTAL FEE DUE: \$ _____

Fees for the FOURTH and Later SUBMISSIONS (due for each submission):

Linear Footage of Main Line Facilities:

Water = _____ *Feet*

Sanitary Sewer = _____ *Feet*

Fee Amount Due:

Base Fee = _____ **\$50.00**

Water = \$ _____ **(\$0.10 x linear feet of main line facilities)**

Sanitary Sewer = \$ _____ **(\$0.10 x linear feet of main line facilities)**

TOTAL FEE DUE: \$ _____

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY

PLAN APPROVAL PROCEDURES

Plan Review and Approval Procedures:

- All project/development plans shall be submitted (1 set for each review) on 24" x 36" paper plan sets.
- Plan Review Fees per the included worksheet, shall be submitted with initial plan set; re-submission fees applicable for fourth and all additional submissions. PSA plan review will not start until receipt of Plan Review Fees.
- PSA plan review comments will be provided in written form for each plan set submission.
- PSA will provide "Conditions for Plan Approval" letter identifying all payments, bonds, and items needed for formal plan approval and construction.
- Upon receipt of all items identified in the "Conditions for Plan Approval" letter, PSA will provide a "Certificate to Construct (CTC)" so that the installation work may commence.
ANY WORK DONE BEFORE ISSUANCE OF THE CTC SHALL BE REJECTED.

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY

**FINAL ACCEPTANCE INSPECTION
CONSTRUCTION INSPECTION FEE**

Development/Project Name: _____

Date: _____

Facilities to be inspected for Final Acceptance:

Water: Yes No (Circle)

Sanitary Sewer: Yes No (Circle)

Linear Footage of Facilities to be Inspected:

Water: _____ *feet*

Sanitary Sewer: _____ *feet*

Fee Amount Due:

Water: \$ _____ (\$100 / 1,000 ft. & Each Portion Thereof)

Sanitary Sewer: \$ _____ (\$100 / 1,000 ft. & Each Portion Thereof)

TOTAL FEE DUE: \$ _____

**REQUEST FOR WAIVER, MODIFICATION, OR FIELD CHANGE
MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
WATER AND SEWER REGULATIONS**

Item/Standard: _____

Water and Sewer Regulation Section Number: _____

Project: _____

Station: _____

Inspector/Engineer for Project

Person Making Request:

Name & Title

Telephone Number

E-Mail

Justification/Reason for Request:

Montgomery County PSA Inspector/Engineer Comments:

Montgomery County PSA Comments:

_____ **APPROVED**

_____ **DISAPPROVED**

Director - Montgomery County PSA

CERTIFICATE OF SUBSTANTIAL COMPLETION

Date:

To: Montgomery County Public Service Authority

From: *(Licensed Professional Engineer)*

Project:

In compliance with 12 VAC 5-590-250 of the Commonwealth of Virginia Waterworks Regulations for Public Water Facilities and/or in compliance with 9 VAC 25-790-180.C.1 of the Virginia Sewage Collection and Treatment Regulations for Public Sanitary Sewer Facilities, I submit the following statement:

The construction work described as the Project named above and approved by the Montgomery County Public Service Authority on (DATE) was completed substantially in accordance with the approved plans, Water and Sewer Design & Construction Standards of Montgomery County, Virginia, 4th Edition and other specifications preapproved by Montgomery County Public Service Authority.

In accordance with 12 VAC 5-590-240 for Water Facilities and 9 VAC 25-790-180.B. for Sanitary Sewer Facilities, all deviations from approved plans, standards or specification identified in the referenced Virginia Regulations were approved by the Montgomery County Public Service Authority under the following documents:

Document Number of Title	Execution Date	MCPSA Approval Date

This statement is based upon inspections of the water and/or sanitary sewer facilities during and after construction that are adequate to insure the truth of this statement.

Virginia Professional Engineer Seal with Signature and Date

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
Inspection Requirements

A. Construction Inspections:

1. Adequate inspections shall be performed by the design engineer or qualified project inspector to insure compliance with all applicable standards, approved project plans and specifications. Field inspection reports shall be completed for each site inspection.
2. The contractor shall keep a copy of the Montgomery County Public Service Authority Water and Sewer Design & Construction Standards on site during water and/or sanitary sewer work.
3. The PSA may require a full-time project inspector at the owner's expense, if PSA personnel determine the contractor is installing facilities in violation of any section of the Montgomery County Public Service Authority Water and Sewer Design & Construction Standards or approved project plans. Failure to comply with this provision may be cause for non-acceptance of facilities by the PSA.

B. Inspection Certifications Required for Substantial Completion:

1. Certificate of Substantial Completion with copies of all field inspection reports
2. Certified as-built drawings
3. Water line pressure test results
4. Bacteriological sample test results (only valid for 30 days after sample collection)
5. Continuity certification for locator wire
6. Fire hydrant flow test results
7. Sewer main low pressure test results
8. Sewer manhole vacuum test results
9. Sewer force main pressure test results
10. Sewer wet well vacuum or exfiltration test results
11. All applicable water and/or sewer pump station certifications including VDH or DEQ CTC & CTO.
12. All applicable water storage facility certifications

Inspections Required Prior to Release of Warranty Bond:

1. Internal closed-circuit television inspection of all public gravity sanitary sewer mains shall be performed at or about 11 months after issuance of acceptance to insure the integrity of sewers prior to release of the warranty bond. Certified inspection reports and video tapes shall be submitted to the PSA for confirmation.
2. The PSA shall perform any testing or inspections required to verify compliance with approved plans and standards prior to release of warranty bond. Written notice identifying deficiencies shall be submitted to the design engineer and developer for correction prior to release of warranty bond. Failure to make corrections in a timely manner shall be cause for the PSA to make corrections using the warranty bond.

MONTGOMERY COUNTY PUBLIC SERVICE AUTHORITY
Acceptance of Water/Sewer Facilities

PURPOSE

This Standard Operating Procedure (SOP) outlines the method by which a developer requests the Public Service Authority (PSA) to accept water/sewer facilities for ownership and maintenance.

GENERAL

This procedure provides guidance and steps to have the PSA accept ownership of newly constructed water/sewer facilities.

PROCEDURE

- A. Upon completion of the project or approved phase, the developer/agent will notify the PSA, in writing, that the facility is ready for testing.
- B. The developer/agent will notify the PSA at least 48 hours in advance of all required testing.
- C. The developer/agent will perform testing in accordance with the PSA water/sewer technical specifications and provide certification by a professional engineer or certified laboratory.
- D. The developer/agent will submit test certification, laboratory results and developer's engineer's Certificate of Substantial Completion with field reports to the PSA Director or Engineer and if applicable, VDH District Engineer for applicable water facilities or DEQ Area Engineer for applicable sewer facilities.
- E. PSA Engineer and if applicable, VDH District Engineer for applicable water facilities or DEQ Area Engineer for applicable sewer facilities will approve the facility to be placed in service or provide the developer with the criteria needed for acceptance.
- F. The developer/agent will request, in writing that the PSA accept the facility for ownership and maintenance. Certified as-built drawings in both paper (24" by 36" sheets only) and electronic format must accompany this request.
- G. PSA staff will conduct a field inspection of the facilities including locator wire testing.
- H. PSA Engineer will review as-built drawings and provide PSA Director a recommendation for acceptance.

- I. The PSA Director will issue an acceptance letter identifying date of the one-year warranty period. The PSA Director will establish a bond amount to be posted by the developer/agent.
- J. Developer/agent will execute acceptance letter including any applicable documents/deeds and return with appropriate bond instrument and executed easement documents to PSA Director.
- K. PSA will accept and commence operation of the facilities upon receipt of executed acceptance letter and all requested documents.
- L. PSA Director will request the PSA Board to accept the facilities by resolution. The value of the new facilities will be added to PSA assets inventory.
- M. Developer/agent will coordinate internal closed-circuit television inspection of all gravity sanitary sewer mains at or about 11 months after issuance of acceptance letter to insure the integrity of sewers prior to release of the warranty bond. Certified inspection reports and video tapes shall be submitted to the PSA for confirmation.
- N. PSA Director will arrange for a warranty inspection with the developer/agent at least two weeks before the end of the warranty period.
- O. The developer/agent will make necessary corrections and notify PSA after completion.
- P. PSA Director will release the bond after satisfactory completion of the repairs.