

WBC JOINT UTILITIES

ALEXANDRIA PHILLIPS

MAY 30, 2019



WASHINGTON GAS SALES ENGINEERING STAFF

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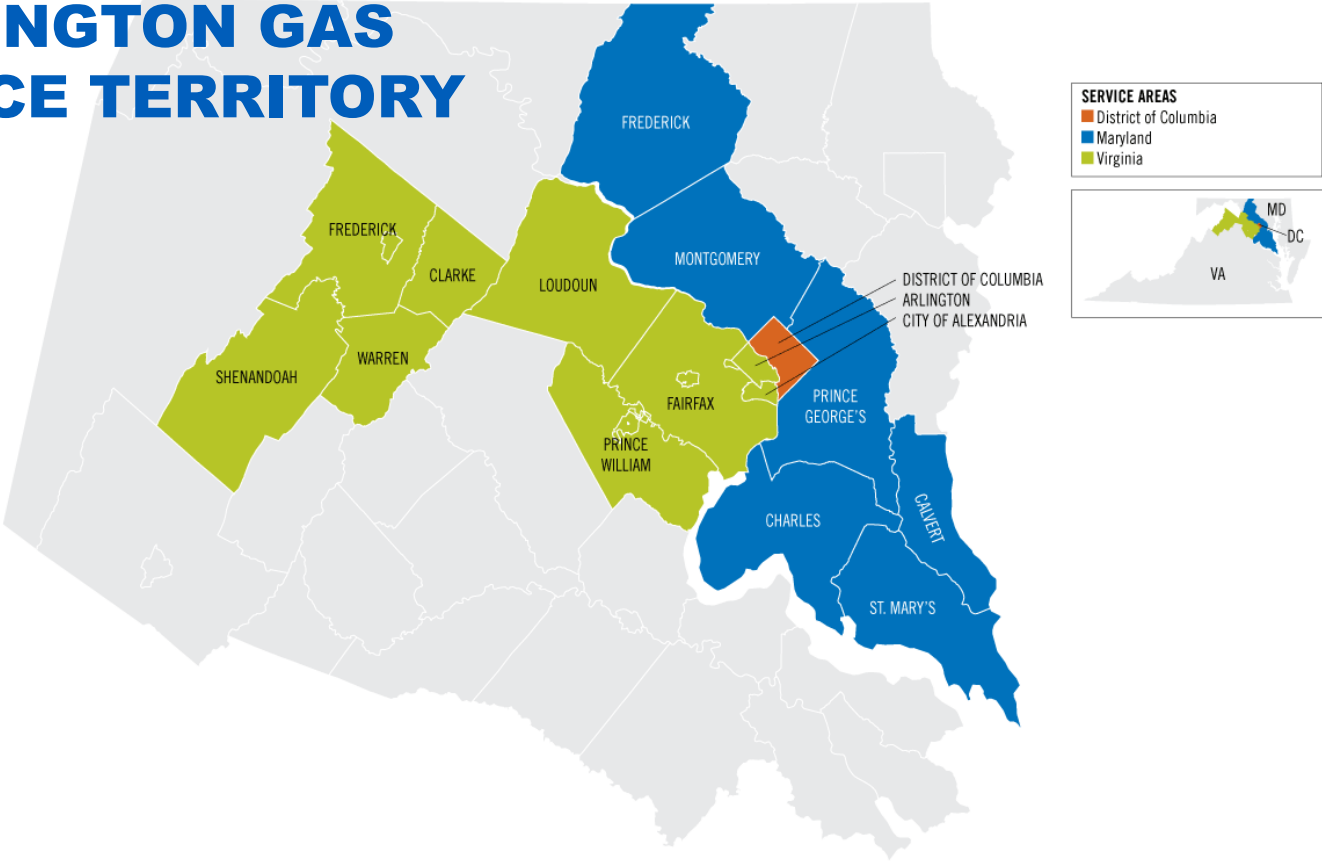
Specialist Engineer, 1 year

alphillips@washgas.com
(703) 750-4308

HISTORY OF WASHINGTON GAS LIGHT HOLDINGS

- WGL is a public held utility founded in 1848
- The company operates 4 divisions – Washington Gas – WGL Energy – WGL Midstream – New Hampshire Gas
- The company provides options for natural gas, electricity, sustainable energy, carbon neutrality and energy services
- 1.2 million customers in DC, MD and VA
- Today, we are now a subsidiary of Alta Gas whom we merged with in June 2018.

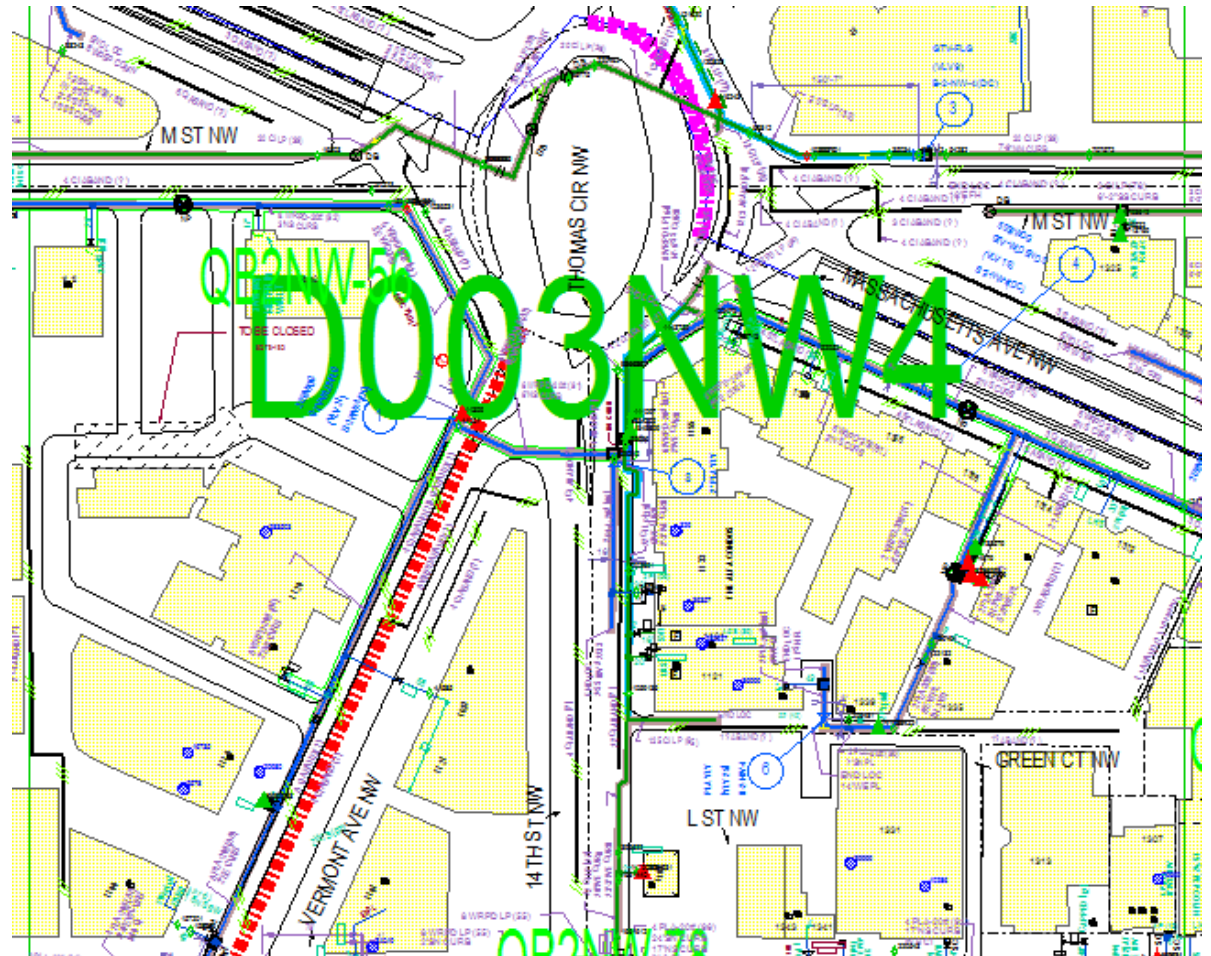
WASHINGTON GAS SERVICE TERRITORY



NAVIGATING THE SUBMITTAL PROCESS

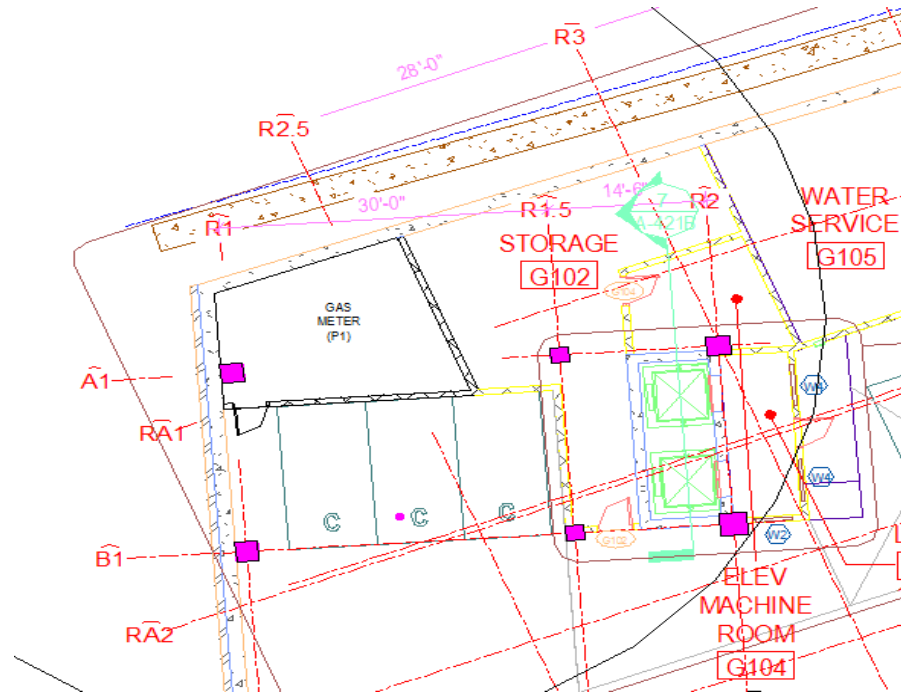
FACILITIES MAPPING DATABASE - SMALLWORLD

- Gas Mains Located in:
 - WG & Public Right-Of-Ways
 - Public Utility Easement
 - WG Easement
 - Never in private property
- Transmission > 60psi
- High Pressure
 - 20psi, 30psi, & 55psi
- Low Pressure
 - 5" w.c.



PLANNING YOUR PROJECT

- Gas availability
- Gas loads
- Gas use
- External gas configuration
- Building entry point
- Regulator placement
- Meter Location/s
- Meter Room Location/s
- Meter Room Configuration
- Regulator Venting Route
- Vent Termination Point



PLANNING YOUR PROJECT



**Submittal of
>12,500cfh LARGE
LOAD**



**Submittal of
>27,100cfh Corporate
design**



Examples:

- Multi-family (Condo & Apartment)
- Mixed Use Developments
- Town Centers (Retail / Restaurant)
- Hotel
- Schools
- Hospital
- Processing Plants

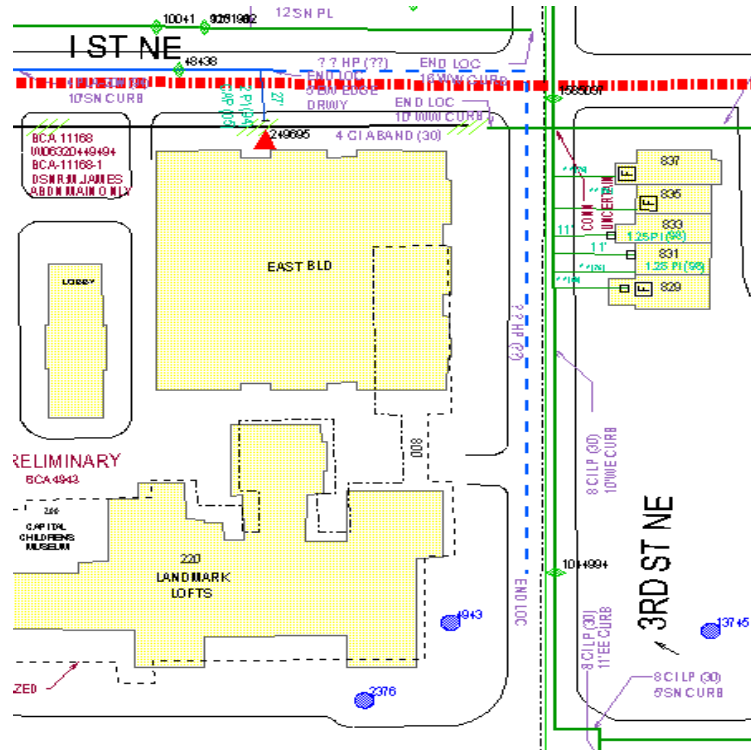


Considerations

- System Planning
- Diversification
- Redundancy & Run Time

KEY CONSIDERATIONS


- Main Extensions
 - Pressure
 - Capacity
 - No Gas Available
- Resulting in more;
 - Planning
 - Time
 - Added Costs
 - Construction
 - Permits



UNDERSTANDING SUBMITTALS

Be Prepared to Discuss:

- Project Phasing
- Meter Install Dates
- Unit Quantity
- Meter Quantity
- Equipment Operations
- Equipment Redundancy
- Service Delivery Pressure >2spi
- New or Existing Building
- New & Existing Loads
- Future Proposed Loads
- Generators
- Construction Heat



Washington Gas

Service/Information Request

Company Requesting Information

Company:		Phone No.:
Contact Person:		Phone No.:
Address:		
City:	State:	Zip Code:

Project

Project Name:		City:	State:	Zip Code:
Address:		Closest Intersection:		
City:	State:	Zip Code:		

Information Required

Request for gas service
 Gas Pricing Information
 Preliminary inquiry of gas availability
 Inquiry of rebate availability
 Other (explain): _____
 Existing customer; please give Washington Gas Account # _____

Please provide much of the following information as is available when filing out this request.

Residential: Single Family
 Townhouse
 Garden Apartments Qty: ____
 High Rise Apartments Qty: ____

Commercial: Office Building
 Dry Cleaners
 Industrial Processing
 Restaurant
 Food Stores
 Motels/Hotels
 Religious Building
 Warehouse/Light Industry
 Medical Building
 School
 Retail
 Other: _____
 Conversion
 New Construction

List proposed equipment by type and BTUH input rating. Indicate the operating schedule of any process applications. List boilers by BTUH input rating and indicate if boilers are dual-fueled. List make-up air units by BTUH input rating and CFM supplied. List absorption air conditioning by BTUH input and tonnage supplied. List existing equipment that will continue to be utilized in the left column. List new/dedicated equipment in the right column.

QTY	Existing Equipment Description	BTUH Input Rating	QTY	New Equipment Description	BTUH Input Rating
Total BTUH Input (All Equipment New and Existing):			Total BTUH		

Type of Gas Service Requested: Firm
 Interruptible
 Interim/Intermittent Firm
 General Contractor
 Other: _____

Gas Pressure Requested at Meter Outlet: Standard low pressure (0.5 psi)

Local Contact: _____ Phone No.: _____
 Architect: _____ Phone No.: _____
 Engineer: _____ Phone No.: _____

General Contractor: _____ Phone No.: _____
 Developer: _____ Phone No.: _____
 Owner: _____ Phone No.: _____


Important: *ALONG WITH THIS COMPLETED SUBMITTAL, SEND A/CAD ELECTRONIC FILE OF SCALED SITE PLAN, A SCALED METER LOCATION PLAN AND INCLUDE CONSTRUCTION SITE AVAILABLE DATE AND METER INSTALLATION DATE.

Customer's Date: _____
 Date Information Needed: _____
 Date Gas Piping Installation Required: _____
 Signature: _____
 Email Address: _____

Please Send Request To:

 Alexandria Phillips
 Sales Engineer
 6801 Industrial Road
 Springfield, Virginia 22151
alphillips@washingtongas.com

 (703) 750-4308
 (703) 750-5533 (FAX)
 (571) 340-1877 (CELL)


Washington Gas
A WGL Company

REQUIRED SUBMITTAL DOCUMENTS

- Service Information Request Form (SIR)
- Civil Site Plan (Auto-CAD files)
- Building Plans (Auto-CAD files)
- Gas Riser Diagram (.pdf format)

- Auto-CAD Scaled Site and Building Plans;
 - North Arrow
 - Streets and Building Identified
 - Service Entry Point
 - Meter or Meter Room Location
 - Regulator Vent Route to Atmosphere

Washington Gas Service/Information Request

Company Requesting Information

Company: _____ Phone No.: _____
 Contact Person: _____ Phone No.: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____

Project

Project Name: _____
 Address: _____ Closest Intersection: _____
 City: _____ State: _____ Zip Code: _____

Information Required

Request for gas service Gas Pricing Information Preliminary inquiry of gas availability Inquiry of rebate availability
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Please provide much of the following information as is available when filling out this request.

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 Hotels/Hotels Religious Building Warehouse/Light Industry Medical Building School
 Retail Other: _____
 Conversion New Construction

List proposed equipment by type and BTUH input rating. Indicate the operating schedule of any process applications. List boilers by BTUH input rating and indicate if boilers are dual-fueled. List make-up air units by BTUH input rating and CFM supplied. List absorption air conditioning by BTUH input and tonnage supplied. List existing equipment that will continue to be utilized in the left column. List new/additional equipment in the right column.

QTY	Existing Equipment Description	BTUH Input Rating	QTY	New Equipment Description	BTUH Input Rating
Total BTUH Input (All Equipment-New and Existing):			Total BTUH Input:		

Type of Gas Service Requested: Firm Interruptible Gas Pressure Requested at Meter Outlet: Standard low pressure (P₄ & P₅) Interruptible, alternate fee Other: _____

Local Contact: _____ Phone No.: _____ General Contractor: _____ Phone No.: _____
 Account: _____ Phone No.: _____ Developer: _____ Phone No.: _____
 _____ Phone No.: _____ Owner: _____ Phone No.: _____

Important: *ALONG WITH THIS COMPLETED SUBMITTAL, SEND ANnotated ELECTRONIC FILE OF SCALED SITE PLAN, A SCALED METER LOCATION PLAN, AND INCLUDE CONSTRUCTION SITE AVAILABLE DATE AND METER INSTALLATION DATE.

Please Send Request To:

Today's Date: _____
 Date Information Needed: _____
 Date Gas Piping Installation Required: _____
 Signature: _____
 E-mail address: _____

Alexandria Phillips
 Sales Engineer
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 Springfield, Virginia 22151
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CRM – ASSET RESOURCE MANAGER

Asset and Resource Manager

- Evaluation period - 30 to 90 days after design is complete

• Sales Rep. & Project Manager Monitored

- Therm Credits
- Cost estimate
- Customer Commitment Letter

• Final sign-off of design and permit completed after receipt of payment

• Project Manager approval

• Agency permits (typically 3 months)

• Washington Gas Contractor scheduling

ARM

User Id: 18719 Username: Alexandri L. Philips, Type: Company

Business Case Authorization Tasks (BCA ID: 289779)

General Tasks Work Requests Contacts Attachments

BCA Costs BCA Comments BCA Load BCA WR Contribution

New Save Subscribe to Monitoring Events

Sel	Del	Icon	No	Status	M/O	Description	Can update	Authorization
<input checked="" type="checkbox"/>	<input type="checkbox"/>		78000	Completed	Mandatory	BCA DATA ENTRY	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		80100	Completed	Mandatory	PERFORM LARGE LOAD ANALYSIS	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		81000	Completed	Mandatory	DIGITIZE LANDBASE	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		81800	Completed	Mandatory	ENGINEERED THERM ESTIMATE	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		80200	Completed	Mandatory	VERIFY SOURCE OF SUPPLY	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		81200	Bypassed	Mandatory	PERFORM AREA DEVELOPMENT ANALYSIS	Both	N
<input type="checkbox"/>	<input type="checkbox"/>		81100	Completed	Mandatory	PERFORM SYSTEM ANALYSIS	Both	N

Task Detail Information

Task No: 78000 Task Description: BCA DATA ENTRY

Task Status: Completed Mandatory / Optional: Mandatory

Authorization Task: Responsible Person:

Resp. Person Phone: Estimate Start Date:

Estimate Complete Date: Display Order No: 10

Updateable By: Both Comment:

Reported Start Date: 09/21/2018 Reported Complete or Accept: 09/25/2018

PROGRAMS AND INCENTIVES

WHAT IS THE MULTIFAMILY INCENTIVE PROGRAM?

An incentive program designed to provide financial support to help reduce first costs for multifamily developers who choose to use individual-unit natural gas meters for their projects energy load.

Individual Metered Apartments (IMA)



Furnace
(heating)



Hot Water Heater



Gas Range
(cooking)

MULTIFAMILY INCENTIVE PROGRAM | INQUIRY FORM



Four or more units (rental or condo).



Located within Washington Gas' service territory.



Pre-construction stage of development and recommended to be at the pre-design stage for incentive optimization.

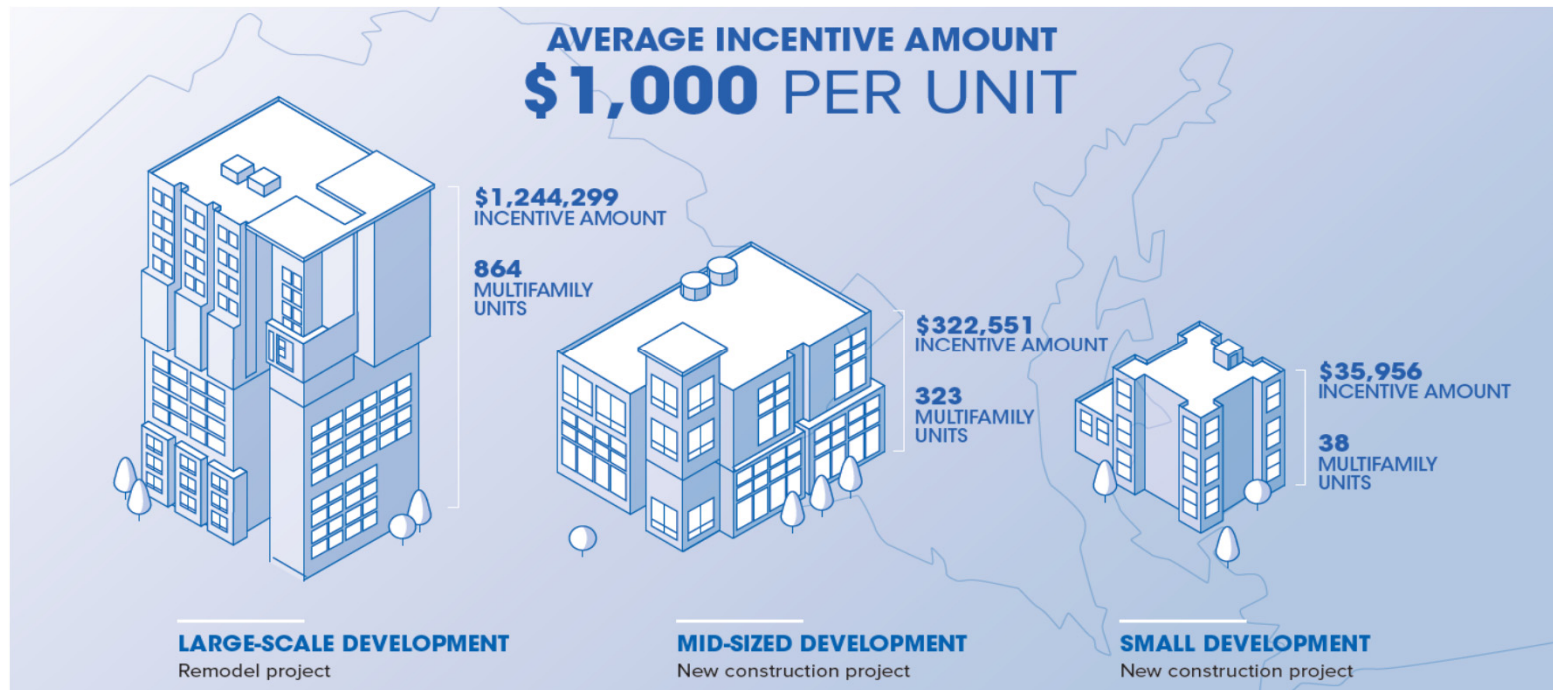


Receive approval after Washington Gas's cost-benefit lifecycle evaluation



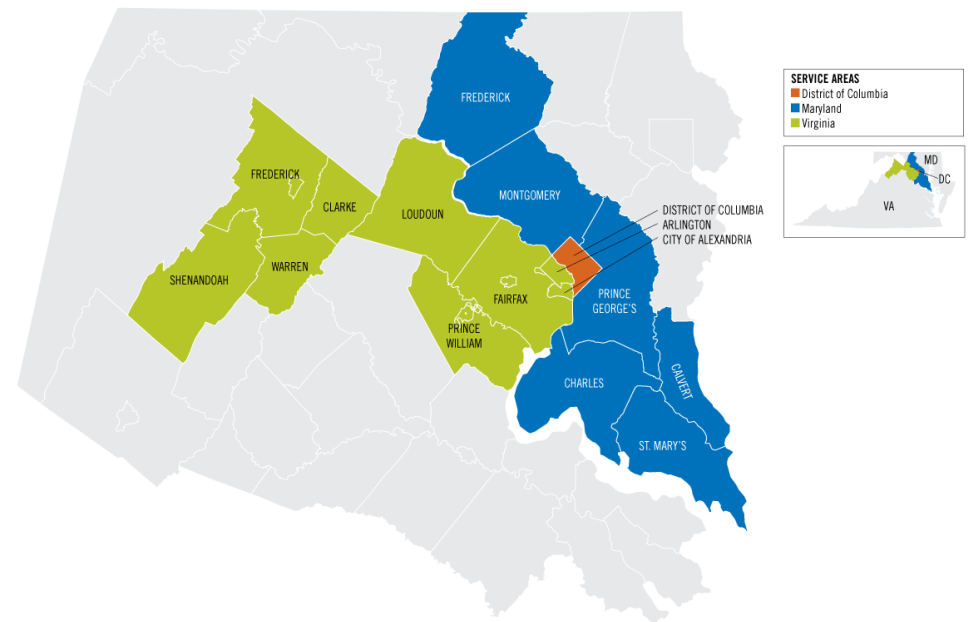
Submission of project internal piping installation costs upon completion of work.

HOW MUCH MONEY WILL A DEVELOPER POTENTIALLY RECEIVE?



MULTIFAMILY INCENTIVE PROGRAM (MIP) BY JURISDICTION

- Virginia
 - Receive up to 80% of incentive amount
 - Only for heat and ranges
- Maryland
 - Receive up to 100% of incentive amount
 - Heat, hot water, and ranges



WHAT IS A DISTRIBUTED METER ROOM (DMR)

- The DMR program applies new technology to lower the upfront cost of including natural gas in the construction of high-rise multifamily apartments & condominiums.
- Design locates the meters in central gas meter room(s) per floor resulting in cost reduction for gas piping incurred by the project owner.
- Washington Gas covers the cost for piping & maintenance up to & including the natural gas meter if the job is cost effective over a 30 year evaluation period.
- Used for New Construction & Retro-fit high-rise MF buildings.

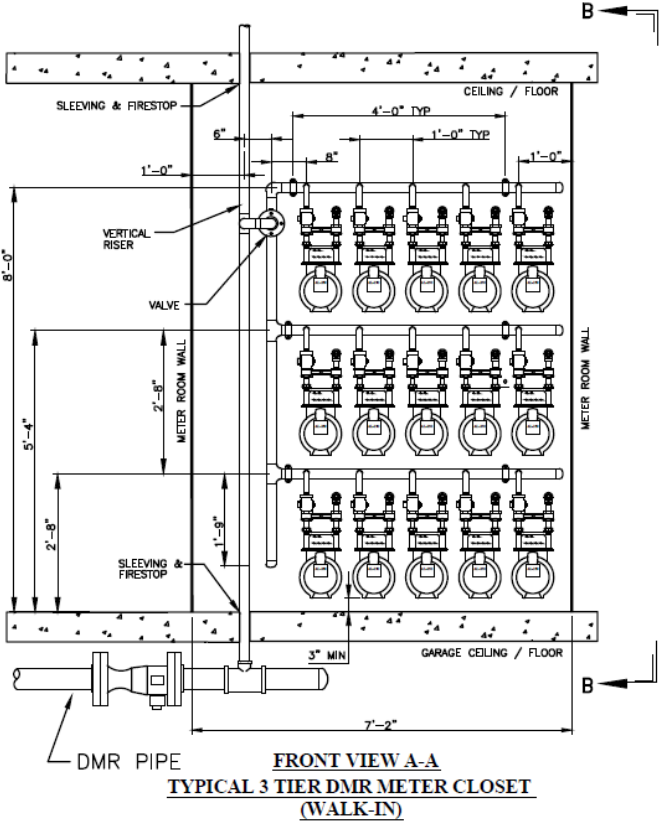
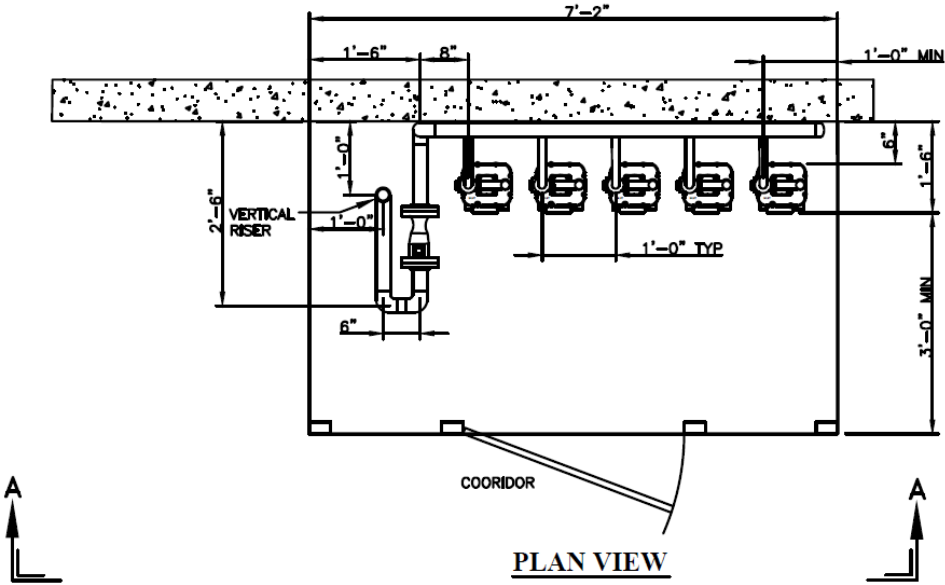
DISTRIBUTED METER ROOMS (DMR) - MULTIFAMILY

- Configuration
 - Central Stacked Closet(s) per floor
 - Individual gas meter per unit
 - Rooftop options
- Exposed gas piping run horizontally through ceiling of lower level to vertical riser through stacked gas meter rooms
- Vertical piping shall remain vertical unless there are no practical alternatives
- All piping in meter rooms shall be exposed & accessible for maintenance & inspection. Access panels are allowed
- Multiple gas meter room/s per floor
- WG responsible for all gas piping up to the outlet of all gas meters

HOW DOES DMR RELATE TO MIP?

- The MIP program creates a rebate based upon the DMR design.
 - MIP references owner rebates and incentives. DMR references design and building impact.
 - MIP program details caters more to Owners/Developers. DMR details caters more to Architects/MEPs/Engineers.
 - Both programs are used for New Construction & Retro-fit high-rise MF buildings.
- § Both programs work in tandem to provide individual meters.

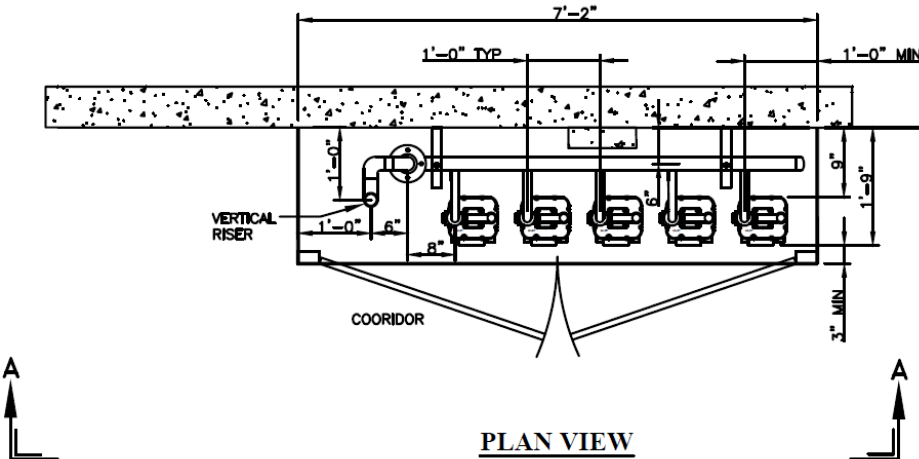
DMR WALK-IN CLOSET



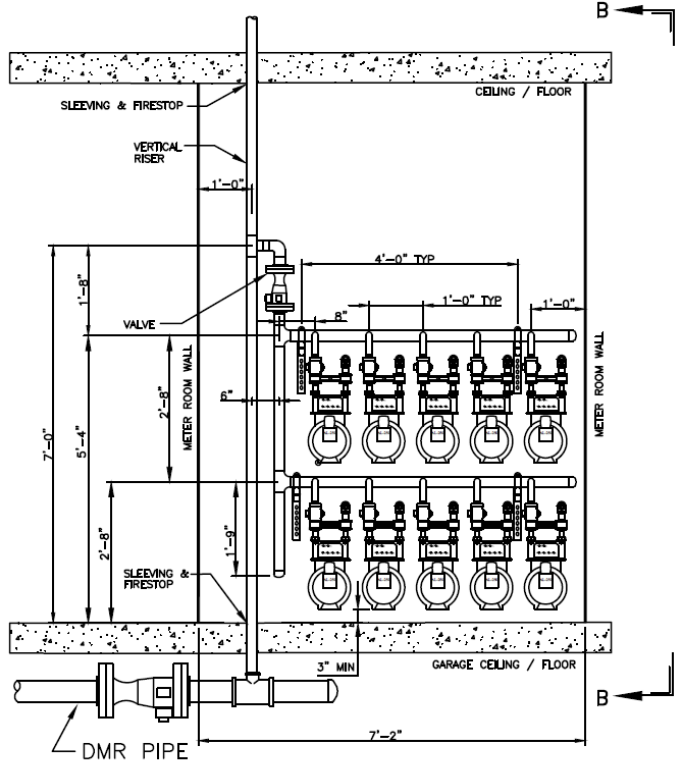
DMR WALK-IN CLOSET



DMR FLUSH MOUNT CLOSET



PLAN VIEW

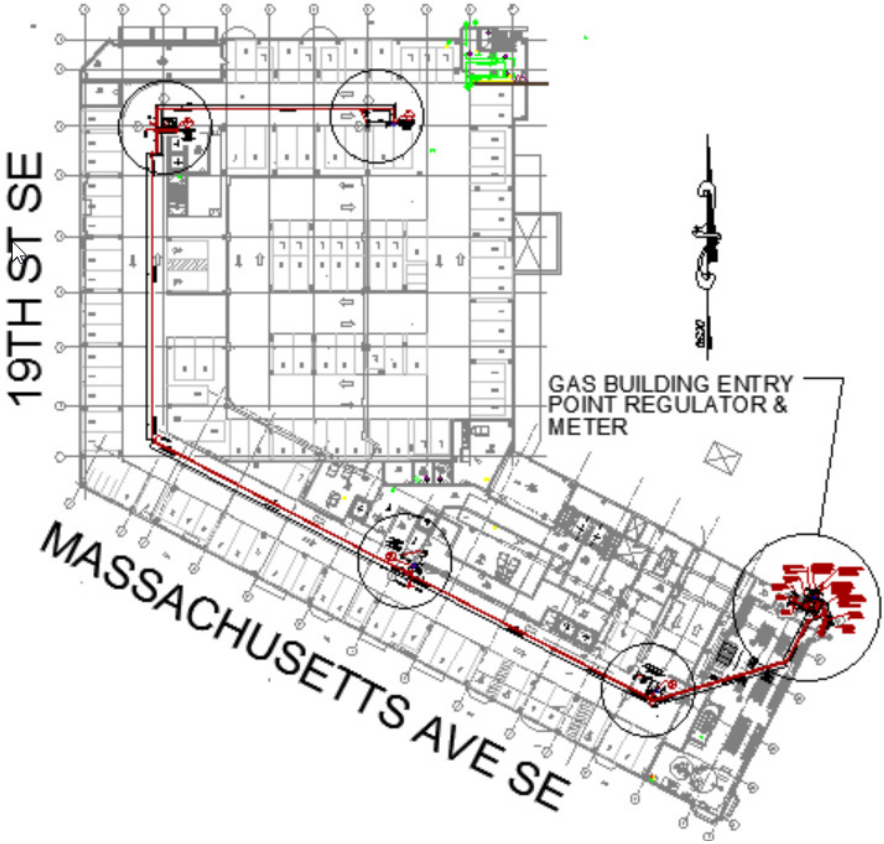


**FRONT VIEW A-A
TYPICAL 2 TIER DMR METER CLOSET
(FLUSH MOUNT)**

DMR FLUSH MOUNT CLOSET



DMR Vertical Riser Locations – Plan View Garage Level



DMR RESIDENTIAL MECHANICAL CLOSET



MULTIFAMILY INCENTIVE PROGRAM (MIP) DISTRIBUTED METER ROOMS (DMR)

- Benefits
 - WG covers the cost of piping up to the outlet of the meters
 - Eliminates third-party downstream sub-meter costs
 - Utility bill responsibility transferred from owner to tenant
 - Tenants will be encouraged to conserve energy
 - Potentially save on design bid prices
 - Washington Gas technical representative support
 - Potential of Rebates (Multi-family Incentive Program)

Branched Service Laterals Into Building – Multifamily



Dual Building Entry for Split Systems – Multifamily



Regulator & Relief Valve Venting



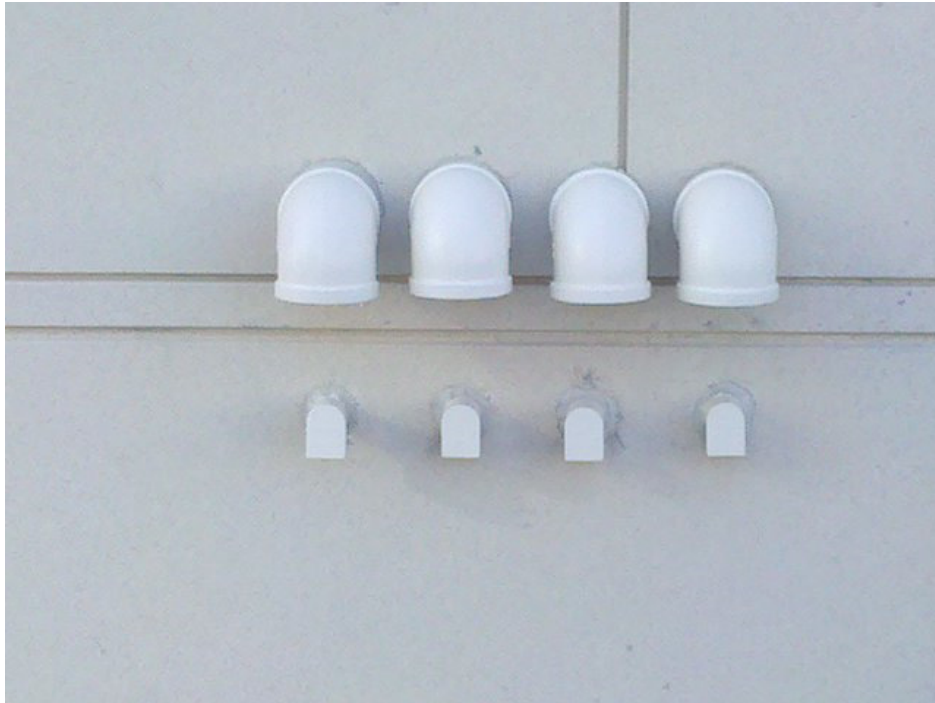
Vent Line Routing

- Installation aboveground shall be the preferred method (new business)
- Vent lines can only be run underground when;
 - replacing existing underground venting
 - aboveground route is not practical
- Vents must terminate outside where gas can vent safely away from building openings
- Vent lines shall remain exposed for the entire run for maintenance & inspection
- Access panels are permitted
- Vent route shall not be run through private or residential space

Typical Vent Route to Atmosphere

- All vent lines shall:
 - Terminate outdoors at 12" min. above final grade w/ insect screen
 - Terminate 12" min. above horizontal surfaces directly below vent
 - Terminate 3'-0" away from operable doors & windows
 - Terminate 3'-0" away from sources of ignition
 - Terminate 10'-0" away from induced air intakes to the building
 - Terminate above the high-water mark in flood areas
 - Orient termination point downward to prevent rainwater entry

Vent Terminations



External Mechanical Closet & Gas Appliance Venting (Heat & Hot Water)



**THANK YOU!
QUESTIONS?**



**Washington
Gas**
A WGL Company