

Division 33 – Utilities

1. Mason is the sole owner and maintainer of the following utility infrastructure:
 - Storm sewer system
 - High Temperature Hot Water (HTHW) distribution system
 - Dual Temperature (DT) distribution system
 - Chilled Water (CW) distribution system
 - Data/Comm (except for the trunk lines feeding the campuses)
 - Site lighting
 - Fuel oil distribution system

2. The remainder of the utility infrastructures servicing the various campuses are owned and/or maintained by the following:

Campus	Utility	Owner	Pt. of Departure	Reference
Fairfax	Domestic Water	Fairfax City Utilities	Water Meter	Note h
	Sanitary Sewer	Fairfax County	1 st MH (≥8" only) ^a	Note d
	Electric Power	Dominion	Service Point Enclosure ^b	Note c
	Natural Gas	Washington Gas	Gas Meter	Note i
Arlington	Domestic Water	Arlington County Utilities	Water Meter	Note j
	Sanitary Sewer	Arlington County Utilities	1 st MH (≥8" only) ^a	Note j
	Electric Power	Dominion	Service Point Enclosure ^b	Note c
	Natural Gas	Washington Gas	Gas Meter	Note i
Prince William	Domestic Water	Prince William Service Authority	Water Meter	Note e
	Sanitary Sewer	Prince William Service Authority	1 st MH (≥8" only) ^a	Note e
	Electric Power	NOVEC	Primary Meter	
	Natural Gas	Washington Gas Colonial Gas ^g	Gas Meter	
Loudoun	Domestic Water	na		Note k
	Sanitary Sewer	na		Note k
	Electric Power	na		Note k
	Natural Gas	na		Note k
SCBI	Domestic Water	SI	Water Meter	
	Sanitary Sewer	SI	1 st MH (≥8" only) ^a	
	Electric Power	SI	Service Point Enclosure	
	Natural Gas	na		
POV	Domestic Water	Fairfax County	Water Meter	
	Sanitary Sewer	Mason	na	
	Electric Power	Dominion	Service Point Enclosure ^b	Note c
	Natural Gas	na		
PSC	Domestic Water	PWCSA	Water Meter	Note e
	Sanitary Sewer	PWCSA	1 st MH (≥8" only) ^a	Note e
	Electric Power	Dominion	Service Point Enclosure ^b	Note c
	Natural Gas	na	Gas Meter	

Notes:

- a) Maintenance only
- b) Mason prefers that the Service Point Enclosure be located to meet Dominion's 'Five Foot Rule', and that the transformer be located <50' from the facility, so that Dominion will own the secondary cabling
- c) <https://www.dom.com/dominion-virginia-power/customer-service/for-businesses/pdf/bluebook.pdf>
- d) <http://www.fairfaxcounty.gov/dpwes/publications/guidelines/02000.pdf>,
<http://www.fairfaxcounty.gov/dpwes/publications/pfm/>
- e) <http://www.pwesa.org/documents/USM/Utility%20Standards%20Manual%20Master.pdf>
- f) [http://www.loudoun.gov/documents/14/1525/FSM%20Table%20of%20Contents%20-%20Effective%2011_1_12%20\(3\)_201211011224143495.pdf](http://www.loudoun.gov/documents/14/1525/FSM%20Table%20of%20Contents%20-%20Effective%2011_1_12%20(3)_201211011224143495.pdf)
- g) Freedom Center only; all other facilities use Washington Gas
- h) <http://www.fairfaxva.gov/PublicWorks/PFM.asp>
- i) <http://washingtongas.com/>
- j) <http://www.arlingtonva.us/departments/CountyBoard/CountyCode/file74526.pdf>
- k) Furnished by landlord.

33 00 00 Utilities

1. Underground steel pipe systems shall be cathodically protected using Pikotec or approved equal.
2. Utility Marker
 - All underground utility runs, mechanical, electrical, plumbing, or what have you, shall be protected with buried marker. Markers are to be of a marker ball type; see detail. Marker balls must be compatible with university detection equipment.
 - Balls to be placed 12 inches directly above top of pipe, over entire length of run.
 - Balls to be placed on top of 4 inches deep x 6 inches wide layer of clean white sand.
 - Any existing tape which is encountered, removed or disturbed during excavation shall be replaced in conformance with items no 1-3 above and to the approval of the University, prior to backfilling.

33 10 00 Water Utilities

1. Major water mains shall comply with local utility design requirements.
2. Provide a water meter for each separate facility that is constructed.

33 30 00 Sanitary Sewer Utilities

1. Comply with local utility design requirements.
2. Provide a sanitary meter for any building where the sanitary outflow is less than 20% of the designed water inflow.
3. Minimum cover under roads for Sanitary Sewer systems shall be 42 inches and minimum slope shall be 1 inch in 15 feet (.55% slope).

33 40 00 Storm Drainage Utilities

1. Unless otherwise supplemented here, storm drainage facilities and construction must meet the requirements of VDOT's "Road and Bridge Specifications" and "Construction Manual". (www.virginiadot.org/manuals-default.asp)

33 41 00 Storm Drainage

1. Trench type storm drains are to be avoided.
2. Road grates shall VDOT approved All grates shall be bicycle safe grates.
3. The top of lawn grates shall be set minimum ½ inch below finished grade level to facilitate drainage. Lawn grates smaller than 2 feet shall be round.
4. Contractor shall clean interior of piping after installation, see below.
5. Where down spouts are utilized, these should be tied into adjacent storm drainage. All buried down spouts are required to be 6 inches or larger. No corrugated plastic pipes are allowed..