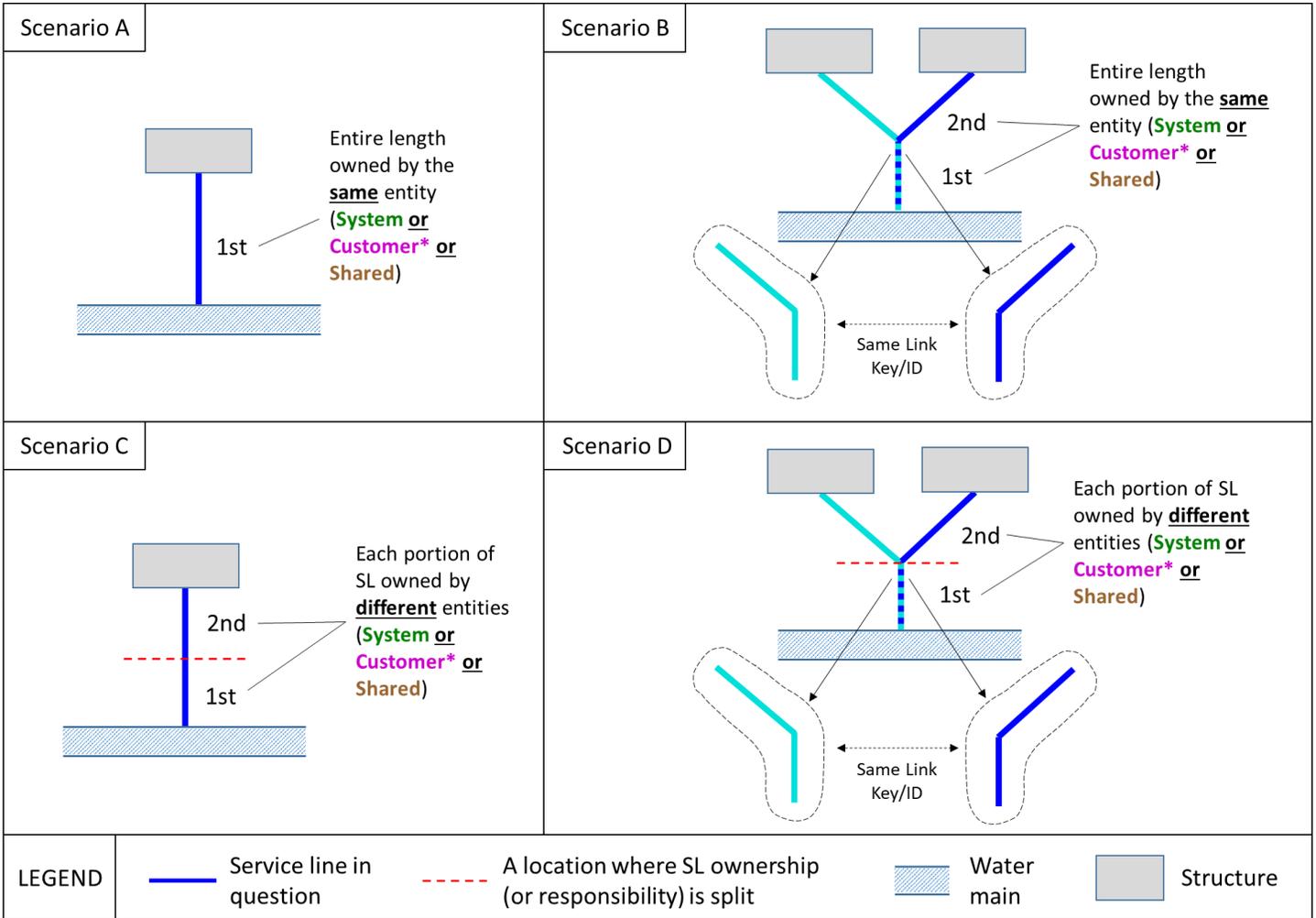


Appendix A: Service Line Scenarios

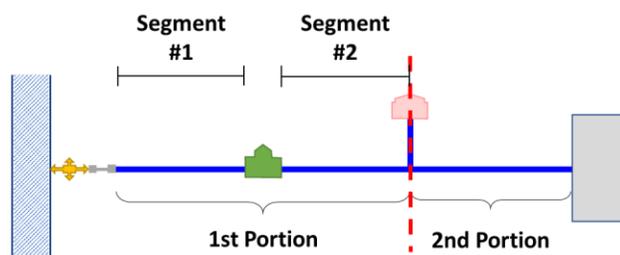


The diagram above depicts four different scenarios of service lines that water systems may encounter in their water distribution systems. In the inventory spreadsheet, for each service line, water systems will need to select a scenario that best represents that particular service line. Depending on the scenario, there may be up to two portions that comprise the entire length of the service line (from the water main to the building/structure). ***If your water system has a service line that does not fit any of the scenarios depicted above, please contact MDE.***

*The term “Customer” refers to any entity that is not the water system.

Note: For each portion of a service line depicted above, there may be one or more segments that comprise that portion. For example, in a diagram on the next page, if the 1st portion of the service line contains a valve at the midpoint, then there would be two segments for that 1st portion of the service line: from the water main to the valve (segment #1) and from the valve to the property line or location where ownership of service line is split (segment #2).

A possible example of Scenario C service line with multiple segments in the 1st portion



LEGEND	Water main	Service line in question	Control Valve	Connector	Water Meter	Curb stop Valve	A location where SL ownership (or responsibility) is split	Structure
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Scenario A: The entire service line consists of only **1 portion** from the water main to the structure and it is owned by the **same** entity (System **or** Customer **or** Shared). Also, this single service line does **not** branch/feed** into multiple downstream service lines.

Scenario B: The entire service line consists of **2 portions** from the water main to the structure and both portions are owned by the **same** entity (System **or** Customer **or** Shared). In addition, the 1st portion of this service line branches/feeds** into multiple 2nd portions (i.e., downstream service lines). *When selecting Scenario B in the inventory spreadsheet, a Key/ID*** to link service lines is required.*

Scenario C: The entire service line consists of **2 portions** from the water main to the structure and each portion is owned by **different** entities (System **or** Customer **or** Shared). Also, the 1st portion of this service line does **not** branch/feed** into multiple 2nd portions (i.e., downstream service lines). This scenario is the most common service line scenario for most water systems.

Scenario D: The entire service line consists of **2 portions** from the water main to the structure and each portion is owned by **different** entities (System **or** Customer **or** Shared). In addition, the 1st portion of this service line branches/feeds** into multiple 2nd portions (i.e., downstream service lines). *When selecting Scenario D in the inventory spreadsheet, a Key/ID*** to link service lines is required.*

Note that in a situation where a single building are served by multiple service lines (for instance, a large apartment building), each of the service lines will still be represented by one of the four Service Line scenarios depicted above.

While Scenario C may be the most common in community water systems, some water systems may encounter Scenarios A, B, or D. For example, in **Scenario D**, a single System-owned service line is being shared by multiple Customer-owned service lines downstream (i.e., a single System-owned service line branching into 2 (or more) Customer-owned service lines). For instance, a single service line goes up to the property line, two meters (“double meter”), and branching to two houses. The two houses may have different service line materials.

**Examples in Scenario B demonstrate the concept of branching/splitting of service lines.

*** If Scenario B or D is selected in the inventory spreadsheet, water systems must create a Key/ID to link the 1st portion of the service line that feeds into all downstream 2nd portions that branch from it. All service lines

(from water main to building) that are fed by the same 1st portion should have the **same** Key/ID. The Key/ID should be the same for all service lines that branch from the same 1st portion of this service line.

Some possible examples of these four scenarios include:

Scenario A Example:

- Service line from water main to a mobile home in a mobile home park. The service line is entirely owned by a customer (i.e., not owned by a water system).

Scenario B Examples:

- (1) Service line from water main branching/splitting into two lines to serve two mobile homes in a mobile home park. The service line is entirely owned by a customer (i.e., not owned by water system). The 1st and 2nd portions of the service line may have different service line materials.
- (2) Service line from water main branching/splitting into two lines to serve two public buildings owned by municipality, who also supplies the drinking water to the two buildings. The service line is entirely owned by the water system. The 1st and 2nd portions of the service line may have different service line materials.

Scenario C Example:

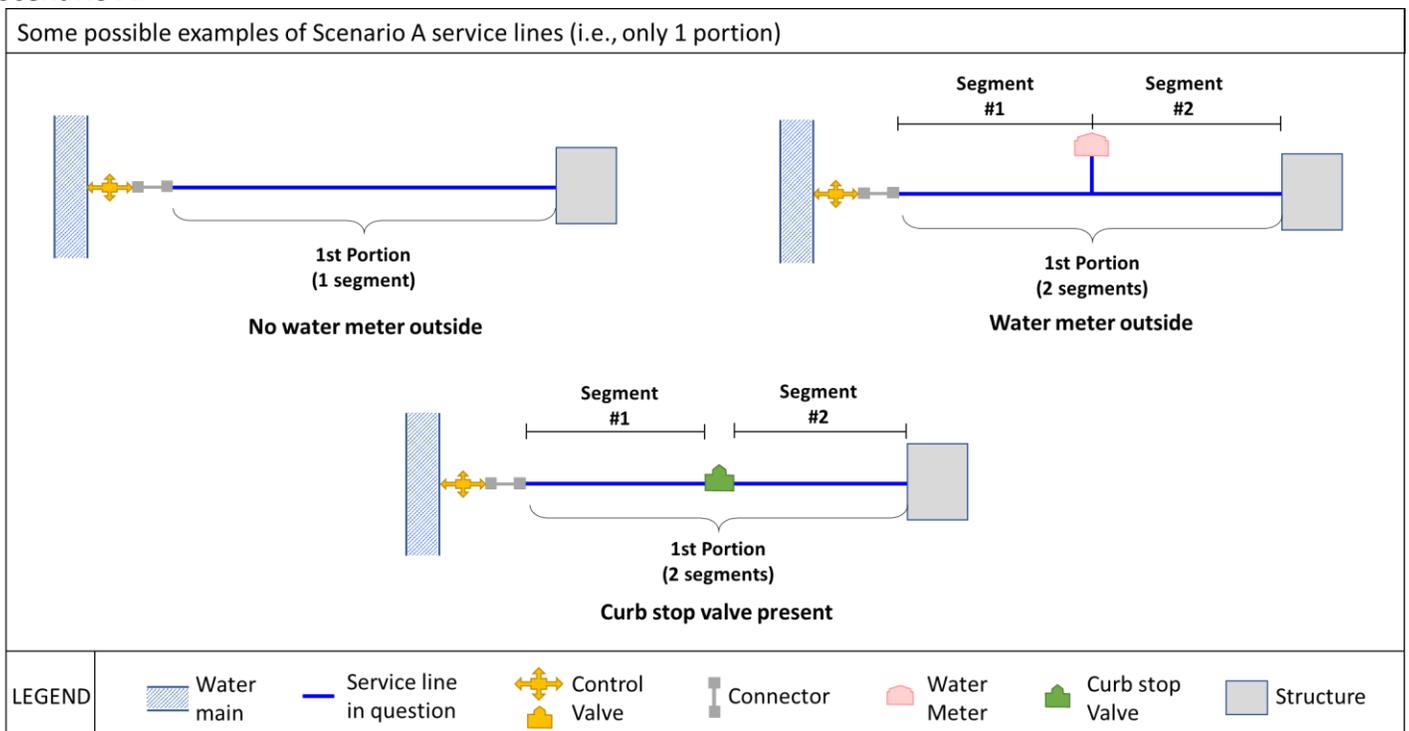
- Service line from water main to a house. The service line from the water main to the property line is owned by a water system, and from the property line to the house is owned by a customer. The 1st and 2nd portions of the service line may have different service line materials.

Scenario D Example:

- Service line from water main branching/splitting into two lines to serve two houses. The service line from the water main to the property line is owned by a water system, and from the property line to the house is owned by a customer. The 1st and 2nd portions of the service line may have different service line materials.

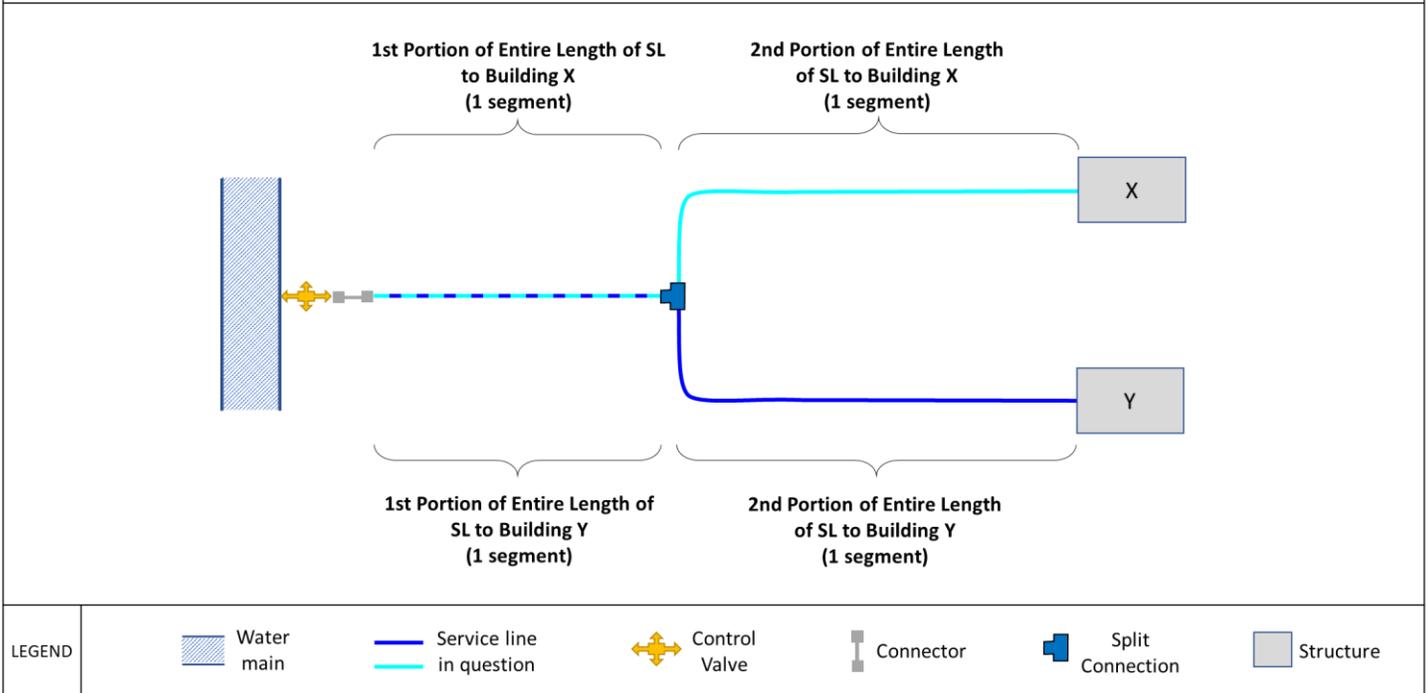
Some possible examples of service line configurations/layouts:

Scenario A:



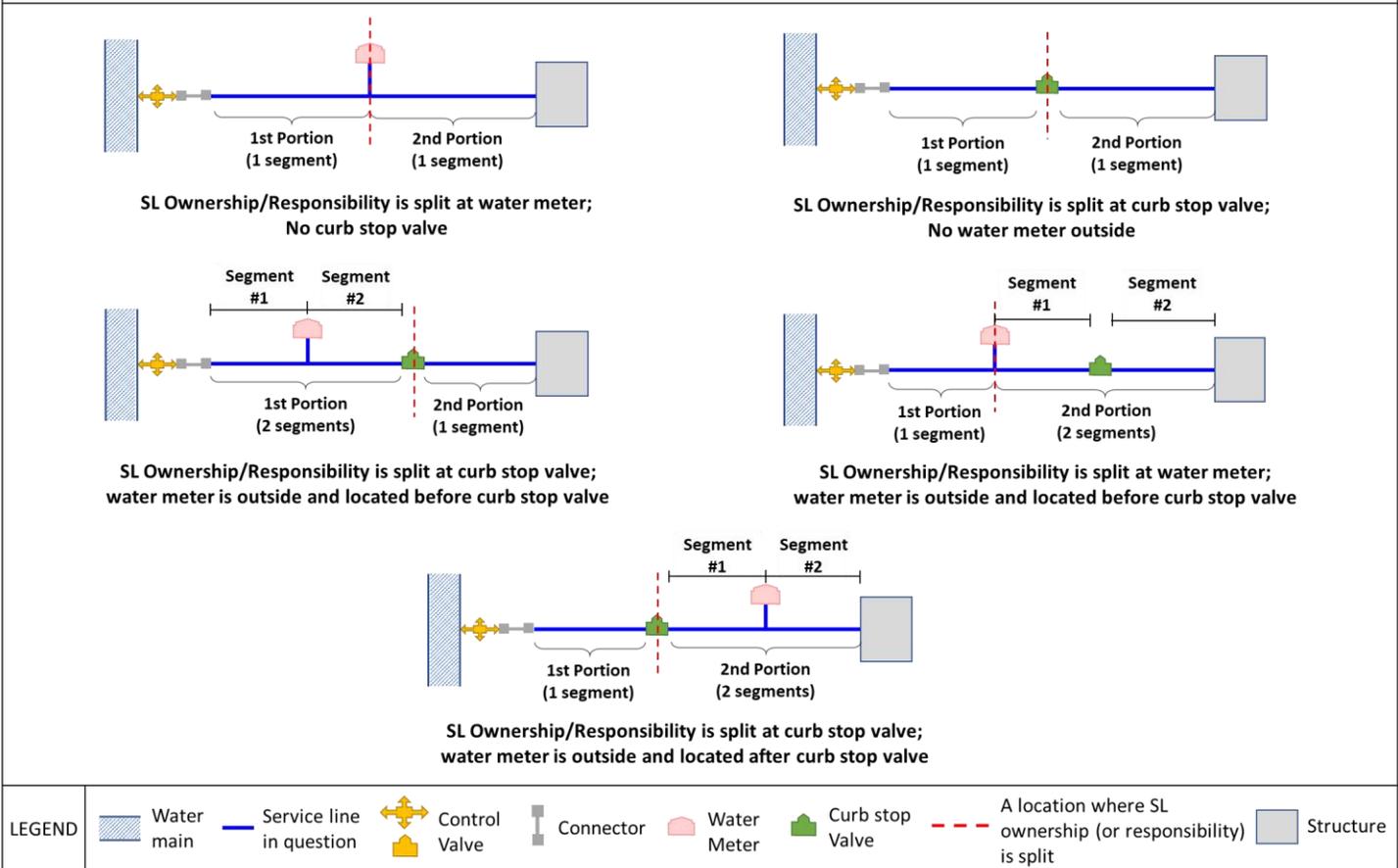
Scenario B:

A possible example of Scenario B service lines (i.e., consists of 2 portions with 1st portion branches/feeds into multiple 2nd portions downstream)



Scenario C:

Some possible examples of Scenario C service lines (i.e., consists of 2 portions with no branching)



Scenario D:

A possible example of Scenario D service lines (i.e., consists of 2 portions with 1st portion branches/feeds into multiple 2nd portions downstream)

