

2. Rights of Way and Construction Strips.

a. General.

- 1) When a water or sewer pipeline(s) extends into property that is not publicly owned, show the limits of the right of way and construction strip on the drawings, see the requirements listed in this section and in Appendix "D" (WSSC Survey and Right of Way Criteria). WSSC will review the widths of both the right of way and the construction strip for maintenance and constructability due to the depth and/or soil conditions and make any necessary changes to the widths.
- 2) After determining the limits of the right of way and construction strips and receiving concurrence from WSSC, prepare the right of way documents.

b. Existing Pipeline Width Requirements.

- 1) The existing widths of rights-of-way shown / provided for existing large diameter pipelines (30-inch and larger) may be inadequate from public safety, operation and maintenance perspectives. The most serious risks are posed in situations where occupied spaces are built within short distances of large diameter Pre-Stressed Concrete Cylinder Pipe (PCCP). Future design should take this into consideration. WSSC will provide available information and discuss potential design considerations upon request.

c. Proposed Pipeline Width Requirements.

- 1) For right of way and construction strip minimum width requirements for water and sewer pipelines, see Tables "20" and "21". WSSC may require an increase in the width of the right of way and/or construction strip, greater than those indicated in Tables "20" and "21".
- 2) Consider the construction and maintenance requirements when determining the required widths for the construction strip(s) and the right of way.
 - a) Construction strip(s). Take into account the topography along the alignment, when determining the area necessary to construct the pipeline (i.e., steep side slopes which may require the contractor to bench an area to be able to construct the alignment, deep excavations, etc.). If additional area is required to construct the pipeline due to stockpiling material along the alignment, consider the following items: storing the pipe along the trench; stockpiling stone, gravel and/or select backfill, and excavated trench material; contractor's access along the alignment; trench width and equipment area; and the area along the trench for other construction equipment (i.e., front-end loader, etc.).
 - b) Right(s) of way. Take into account when determining the width of the right of way, the area required to facilitate future maintenance, excavation, and repairs. Additional access points along the alignment may be required to facilitate the mobility of equipment and personnel.
- 1) Provide sufficient right of way to minimize the potential for personal injury to the public and/or significant property damage caused by water or sewer pipeline breaks.



TABLE "20"

Right of Way and Construction Strip Minimum Width Requirements for Water Pipelines

Pipeline Diameter	Width of Right of Way	Total Width of Construction Strips
14-inch and smaller	20 feet	15 feet
16-inch to 24-inch	25 feet	20 feet
30-inch	30 feet	20 feet
36-inch to 42-inch	40 feet	To be determined by WSSC
48-inch to 66-inch	60 feet	To be determined by WSSC
72-inch and larger	75 feet	To be determined by WSSC

TABLE "21"

Right of Way and Construction Strip Minimum Width Requirements for Sewer Pipelines

Pipeline Diameter	Width of Right of Way	Total Width of Construction Strips
Smaller than 15-inch	20 feet	20 feet
15-inch to 24-inch	45 feet	20 feet
30-inch to 36-inch	50 feet	To be determined by WSSC
42-inch and larger	55 feet	To be determined by WSSC

(For Right of Way widths for deep sewers, see information below)

c). Right of Way for Deep Sewers

- 1) For requirements for Deep Sewers, see Part Two, Section 8 (Vertical Alignment (Profile)).
- 2) For determining width of right of way for sewer pipelines over twenty-two (22) feet of cover, use the following:
 - (a) For sewers 12-inch and smaller with depth greater than twenty (22) feet, multiply two (2) feet of right of way width by each foot of cover pipeline depth. If Deep Sewer is sharing the right of way with another pipeline, see additional in this section.

Example: For a 12-inch diameter sewer pipeline with twenty (23) feet of cover:

2 (feet of right of way) times 23 (feet of cover) equals 46 feet.

Total ROW width shall be 46 feet width.

- (b) For sewers 15-inch and larger, with depth greater than 22 feet, multiply one (1) foot of right of way width from the edge of the right of way to the centerline of the deep sewer for each foot of cover pipeline depth. Also, see requirements for Location of Pipelines Within Rights of Way and Construction Strips in this section

Example: For a 15-inch diameter sewer pipeline with twenty (23) feet of cover:

1 (feet of right of way) times 23 (feet of cover) equals 23 feet for both pipelines (new sewer and future relief sewer).

Offset the sewer for future relief sewer, add minimum of 10 feet separation
Total ROW width shall be 56 feet width.d. **Location of Pipelines Within Rights of Way and Construction Strips.**

- 1) One (1) pipeline within the right of way. Typically, locate one pipeline in the center of the right of way and equally divide construction strip on both sides of the right of way, except for the following:
 - a) Water pipelines 48-inch to 66-inch, provide a minimum of twenty (25) feet from the OD of the



pipeline to the right of way line, for total minimum width of the right of way, see Table "20".

- b) Water pipelines 72-inch and larger, provide a minimum of thirty (30) feet from the OD of the pipeline to the right of way line, for total minimum width of the right of way, see Table "20".
- c) Sewer pipelines 15-inch and larger, offset the sewer within the right of way for future relief sewer, see Part Three, Section 3 (Pipeline Crossings and Clearances) Minimum Spacing Requirements Between Two (2) Pipelines in this section. If depth of cover is less than twenty (20) feet, provide a minimum distance of fifteen (15) feet from the right of way line to the centerline of the pipeline, for total minimum width of right of way, see Table "21". If depth of cover is twenty (20) feet or more, see Right of Way for Deep Sewers in this section.

2) Two (2) pipelines within the same right of way and parallel to each other.

- a) Existing Right of Way. Research the recorded documents for existing rights of way, to see if another pipeline can occupy the existing right of way.
 - 1) If the recorded documents state that it is for one pipeline, prepare a new right of way document for the proposed pipeline.
 - 2) If the recorded documents state that it is for one or more pipelines, then see if the spacing of the proposed and existing pipelines are within the requirement for Minimum Spacing Requirements Between Two (2) Pipelines in this section. If the existing right of way is not large enough to suit the required spacing, prepare a new right of way document for the additional right of way required.
- b) Proposed Right of Way. If the design requires two pipelines to occupy the same right of way, the proposed right of way documents must include in the description the right to have more than one pipeline occupy the right of way.
- c) Minimum separation requirements between two pipelines parallel to each other. Refer to Part Three, Section 3 (Pipeline Crossings and Clearances).
- d) Additional spacing requirements between two pipelines parallel to each other.
 - (1) If the soil boring logs show that rock will be encountered during the construction, determine if the distances stated above will be safe for blasting the trench if one (1) of the pipelines is existing.
 - (2) If one (1) of the pipelines is existing and the area over the existing pipeline will be used for the construction of the new pipeline, evaluate the impact of the construction over the existing pipeline. Construction over an existing pipeline should not add any additional pipe loading, which includes heavy construction equipment (exceeding AASHTO H20 loading), trench spoils, etc., unless calculations are submitted showing that the existing pipeline will not be jeopardized due to the additional pipe loading. Information may have to be added to the contract limiting the types of activities, types of construction equipment, etc., permitted in the area above the existing pipe.
 - (3) When one of the new pipelines is 15-inch or larger and parallel to an existing pipeline, provide a minimum working area of twenty five (25) feet on the opposite side of the new pipeline. (Combination of both the right of way and construction strip).



e. Right of Way for Water Pipeline Appurtenances.

- 1) Fire hydrants: provide a minimum twelve (12) foot wide of the right of way, six (6) feet on each side of the fire hydrant and extended six (6) feet behind the fire hydrant and no construction strip is necessary.
- 2) Meters (box, vaults, etc.) and structures: provide a right of way a minimum of ten (10) feet on each side of the outside edge of the vault wall, meter box, pipeline, (i.e., bypass line), etc.

f. Construction Strips.

- 1) Typically, the construction strip is equally divided on both sides of the right of way. The location, type and size of the pipeline may require the construction strips to vary in size and location.
- 2) When one side of the right of way cannot be used for construction, i.e., stream location, steep slopes, etc., provide the total width of the construction strip on the side that can be used for construction.
- 3) When the proposed pipeline is parallel to an existing pipeline, provide the construction strip adjacent to the new pipeline right of way.
- 4) State in the right of way documents whether the contractor has the right to cut trees within the construction strip. The need to cut trees in the construction strip will be determined after the design review stage.

g. Access Points Along the Right of Way.

- 1) Provide adequate access along the pipeline right of way. Access points are to allow for entry to the right of way so that traversing of private property will not be required. The exact distance between the access points can be varied slightly to be cost effective.
- 2) For 48-inch and larger water pipelines, design access points along the right of way every six-hundred (600) feet, unless otherwise directed by WSSC.

h. Property of the Maryland National Capital Park and Planning Commission (MNCPPC).

- 1) In most cases, MNCPPC requires permits for the construction of pipelines within park property. Show the total working area required to construct the pipeline(s) on the drawings. Include both the width of the right of way and construction strips in the total working area. Indicate the total working area on the drawings as "WORK LIMITS". Verify with MNCPPC for requirements within their property.

i. Potomac Electric Power Company (PEPCO).

- 1) In some cases, PEPCO owns a utility right of way through a road right of way. This may require WSSC to obtain a right of way from PEPCO within a road right of way.
- 2) No structures (manholes, vaults, etc.) are permitted within a PEPCO right of way, unless approved by PEPCO.
- 3) Design pipeline crossings of PEPCO rights of way at ninety (90°) ± degrees and indicate the



distances to PEPCO towers, etc. to reference the location.

- 4) Verify PEPCO requirements within its right of way.

