

DESIGN REQUIREMENTS

UTILITY CORRIDORS

PULLED FROM PEA RIDGE WATER SPECIFICATIONS SECTION 7A

(AS APPROVED BY ARKANSAS DEPT. OF HEALTH)
(AS APPROVED BY PEA RIDGE CITY COUNCIL 3-21-2023)

SECTION 7A DESIGN REQUIREMENTS \ UTILITY CORRIDORS

7A.1 CONCEPT

7A.1.1 Please keep in mind that the DEPARTMENT provides water within three separate city boundaries (Pea Ridge, Rogers, and Bentonville) as well as County areas & sewer within the city limits of Pea Ridge, therefore, variations in specs may occur. The DEPARTMENT also has multiple pressure planes for water.

7A.1.2 Initial concept plans are helpful but not required. Many times we can help with decisions before too much money is spent designing, only to be changed after review. Our goal is to assist in the minimizing of the number of reviews for a development.

7A.1.3 Verify Water Mains are in the area and what size are the distribution lines.

- A. Will a larger main line be required to serve development?
- B. Where will the connection point(s) be?
- C. Will 'off-site' improvements be required?
- D. Will development 'link' pressure planes & required a Pressure Reducing Valve & Vault?

7A.1.4 Verify Sewer is in the area of development and what size are the collection lines.

- A. To get sanitary sewer service, you must be within Pea Ridge City Limits.
- B. Will a lift station be required? (See requirement information mentioned further within this document.)

7A.1.5 What electric service provider will serve this development? There are two (2) in our service area.

- A. Carroll Electric
- B. SWEPCO/AEP

7A.1.6 The DEPARTMENT only does water/sewer utilities and utility easements. We do not have anything to do with drainage, streets, lot layout, streetlights, etc. Please coordinate with street and planning departments on those items separately.

7A.1.7 All offsite mainline extensions must be in a private 20' Utility Easement (Sewer may require more based upon depth), signed over to the DEPARTMENT and it must be obtained prior to submittal to ADH.

7A.2 DESIGN

7A.2.1 All developments, unless otherwise approved through the city, have a 10' Right of Way along the road (which includes a 5' green space & a 5' sidewalk), then a 20' General Utility Easement, (which is to be dedicated during on the "Final Plat" or an official "Easement/Asset Dedication"). Then the structure setback is at 35' from back of curb. Each lot also will have a side setback of 7', which is important to observe as water/sewer/electric utilities are to be placed in that setback. No structures, including driveways, are to be placed in the 7' side setback.

7A.2.2 For the purpose of this document, we will be referring to Back-of-Curb for placement of utilities, and NOT from the Right-of-Way!

- A. Water and Sewer Mains are to be placed in first 10' to 15' from back of curb.
 - 1. Water should be 11' from back of curb.
 - 2. Sewer should be 13' from back of curb (Should avoid placing manholes in sidewalks).
- B. Meter Cans, Fire Hydrants, and Sewer Taps are to be placed as described below.
 - 1. From back of curb = Right of Way – First 10'.
 - 2. Side setback – 7' from property line.
 - 3. Meter cans (18" round BROOKS as per specs.) are to be placed, from center of can, 13' from back of curb and 6' from property line, within the side setback.
 - 4. Fire Hydrant Assembly, per the DEPARTMENT'S specs., shall consist of Valve, Swivel Anchor Coupler, and Fire Hydrant, and shall be placed on the side of main away from right of way. Fire Hydrant Assemblies shall be placed on the property line unless on a corner lot, then will need placed to keep any part of assembly out of the sidewalk.
 - 5. Sewer Service Connections (Taps) shall be placed 14' from back of curb at a finished elevation of 4' below finished grade and 6' from the property line, within side setback. The connection (tap) shall be capped and marked by a green 'T' post per the DEPARTMENT'S specifications.
 - 6. Electric corridor begins at 15' from back of curb. To maintain 5' of separation from Water/Sewer, conduit shall be placed a minimum of 16' from back of curb if following water main and 18' from back of curb if following sewer main. Electric providers should design transformers along with the meter loops centered on property lines within the side setbacks.
 - 7. Gas corridor begins at 20' from back of curb.
 - 8. Telecommunications (Cable, Phone, Internet) begins at 25' from back of curb.
- C. ***Flexibility needs to be maintained by the DEPARTMENT in this area due to the fact that water/sewer utility easements may need to be wider due to required depth of these utilities as may be needed based on designed flow and ADH requirements.***
- D. Total Structure Setbacks are generally set at 35' from back of curb unless otherwise granted a variance by City of Pea Ridge Planning Commission and ALL utilities must remain 5' away from total setback, NO EXCEPTIONS.
- E. **NOTE** – In the best interest of the City and the Water/Sewer Utilities, in order to loop water and link together an efficient collection system, additional easements may be requested by the DEPARTMENT in order to prevent isolated blocks of land/acreage/parcels, to precipitate growth.

7A.3 REVIEW

7A.3.1 All design work must follow City of Pea Ridge Specifications involving Building/Planning, Street, and Pea Ridge Water Utilities departments. The DEPARTMENT'S specifications are available at www.pearidgewater.com under the Information tab. Contact the afore mentioned departments for their respective specifications. After you have completed your design, following specifications and requirements within this document, the DEPARTMENT will do a cursory review of the plans (which may include submitting to PRWU's contracted engineering firm for more in-depth review) and will make any appropriate comments on what needs to be addressed. A Technical Review meeting will be scheduled with City Department representatives and planning commission members to discuss and review plans. A second technical meeting may be requested if required by planners to review any required changes from previous meeting.

7A.3.2 Before a second review can be submitted, developer/engineer should have worked with electric service provider for this development and have received their design back from them. This design is then to be overlaid on the plans showing locations in regards to other utilities. This is a required step to eliminate problems later in the process with conflicts involving electric transformer and meter loop placement.

7A.3.3 Is a sewer lift station required? If so, all lift stations taken into the DEPARTMENT'S system are to be designed by the consulting engineer and submitted to the DEPARTMENT for design consideration and review. Design must follow department specifications and will be reviewed by the DEPARTMENT and our contracted engineers. Back-up power generator will be required as per the DEPARTMENT'S specifications with auto-transfer panel and sized in conjunction with design engineers and pump supplier. Both pump and generator controls shall have an interface for connectivity to a SCADA monitoring system. Lift station shall have a SCADA transducer control of level and pump operation and alarm notifications. Piping system can be supplied by others but must interface with pump disconnects and valve connections.

7A.3.4 NOTE on Lift Station Power! All lift stations are to be three-phase power. However, if three-phase power is not available nor required for the development (Power Provider Must Advise!), three-phase power can be accomplished utilizing step-down transformers. If three-phase is required for development, then run three-phase to the lift station.

7A.3.5 *(You Must Keep The Following In Mind.)* The City requires all power within the development be buried without any overhead lines within the development. Certain voltages leading to the lift station cannot be buried. They are as follows: 120/240 cannot be buried (overhead only). 120/208, or combination thereof such as 208/230, and 277/480 can be buried. Generator voltage must match power being supplied.

7A.3.6 Once all requirements have been met and reviews completed with the DEPARTMENT, you may submit plans to the Arkansas Dept. of Health in Little Rock. In agreement with ADH, after their first review, and comment letter is received by our department, we will then issue a "Letter of Concurrence" to be submitted with second submission to ADH. Submission to ADH is allowed after Technical Review, if all requests are addressed and before Planning Commission approval, but only if no further changes are to be made to the utility's layout.

7A.3.7 NOTE on Design Changes during construction: If any changes are made after being approved by Pea Ridge Planning Commission during construction that are substantial and major design changes, resubmittal to the Planning Commission may be required. Seek guidance from appropriate managing city department such as Planning, Street, and Water Utilities. Changes made to plans approved by ADH are required to be resubmitted to ADH for review.

7A.4 DEVELOPMENT

7A.4.1 Once all approvals have been obtained from planning, utilities, and ADH, you can request a pre-construction meeting with the planning department and all departments will typically be represented.

7A.4.2 Small changes, or ‘field changes’, are allowed with Pea Ridge Water Inspections approval in the field without having to do a Change Order. Any ‘Major Changes’ must go through the planning departments change order process if needed as determined by the DEPARTMENT. Changes made to plans approved by ADH are required to be resubmitted to ADH for review. Any changes must be reflected on the submitted as-built plans.

7A.4.3 The DEPARTMENT has its own “Inspections Department” which will make unscheduled visits to your project throughout construction looking for installation compliance as well as compliance with ADH and Dept. of Labor Safety guidelines. This department will take pictures, videos, and notes for our own construction record of your project. Engineer of Record is required by the DEPARTMENT’S specifications to provide on-site inspections. This inspector will be required to submit record of inspections to the DEPARTMENT on a weekly basis. This representative of the engineer of record will need to schedule all required testing of water/sewer through PRWU Inspections with a minimum of 24-hour advance notice. Our crew will work with you the best they can, time allowed, to keep your development moving and not held up.

7A.4.4 When it is time to ‘load’ the water mains with water to perform the appropriate pressure testing and chlorination of mains, coordinate with the DEPARTMENT’S inspection division for loading the lines. You are not allowed to do this on your own.

7A.4.5 When it is time to draw ‘BACTI’ samples, you must coordinate with the DEPARTMENT’S inspection division for the pulling of samples. The DEPARTMENT will, because of flow-metering of water usage, flush and pull samples as well as deliver them to the Benton County Health Unit for ADH Laboratory testing.

7A.4.6 After samples are approved and after ‘Final Plat’ or ‘Asset Dedications’ are approved by Planning Commission and/or City Council, the DEPARTMENT will be responsible for opening main valves and bringing development online.

7A.5 CLOSE-OUT

7A.5.1 Once the development is completed and ready for final inspection, schedule a “Final Walk-through” with the planning department. They will notify the DEPARTMENT and request a date and time that the inspection division can work it in. During this walk-through, any issues observed will be noted and must be reconciled before the DEPARTMENT will sign off on the project/development.

7A.5.2 “Final Plat” and “As-Built” plans must be submitted to planning department for all departments to make comments.

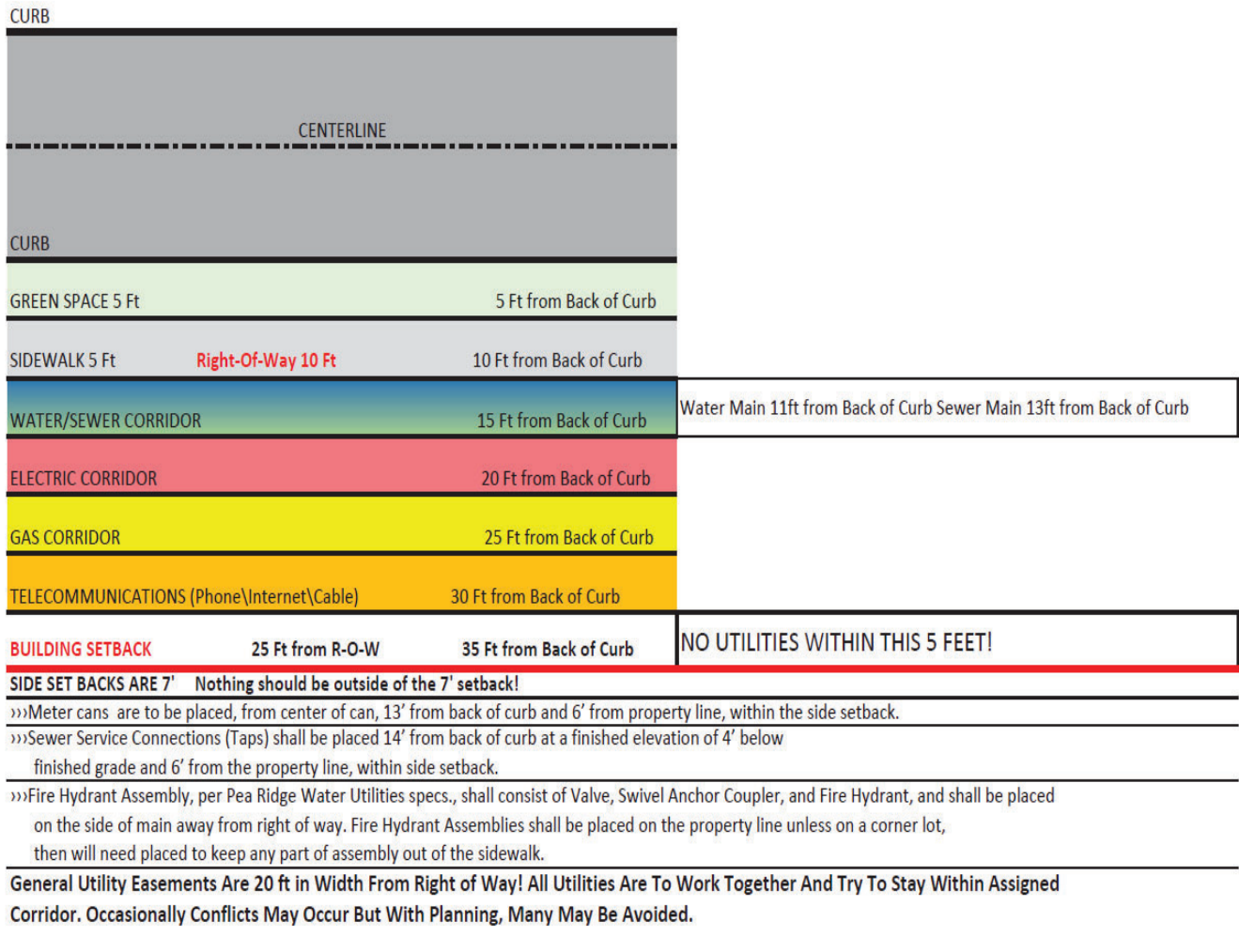
7A.5.3 At Final stage, the DEPARTMENT requires the following:

- A. A cost breakdown of the installed infrastructure, including labor. (Submitted for review a minimum of 1 week prior to Final Plat meeting.)
- B. Once that cost breakdown is approved, that amount will be used for the “*Maintenance Bond*” or an acceptable ‘*Irrevocable Letter of Credit*’ which the developer will provide. This bond must be for ½ of the installed infrastructure cost. It is to be for a period of one (1) year from the acceptance date of the City Council. The bond ‘must’ be dated as of the City Council acceptance.
- C. The developer must complete and submit an affidavit attesting to the accuracy of the prices and the proper installation of the infrastructure. (See Appendix #1)
- D. Payment to PRWU for any and all Large Scale Development fees associated with development. (Contact the DEPARTMENT for fee schedule.)

- E. Electronic copy of As-built plans including GPS coordinates for all above ground appurtenances, i.e. meter cans, manholes, valves, fire hydrants, etc. Must receive these a minimum of one (1) week prior to Planning Commission approval meeting for the DEPARTMENT to review.
- F. The DEPARTMENT must receive digital files of the correct as-builts in a digital format of the completed work. Digital files are to include a 'pdf' of the entire development which includes GPS coordinates, and a copy of the development in a geo-referenced AutoCAD/dwf format for incorporating into departments ESRI programs.
- G. Without any one of the above, the DEPARTMENT reserves the right not to recommend passage to the City Planners or Council until missing item is submitted.

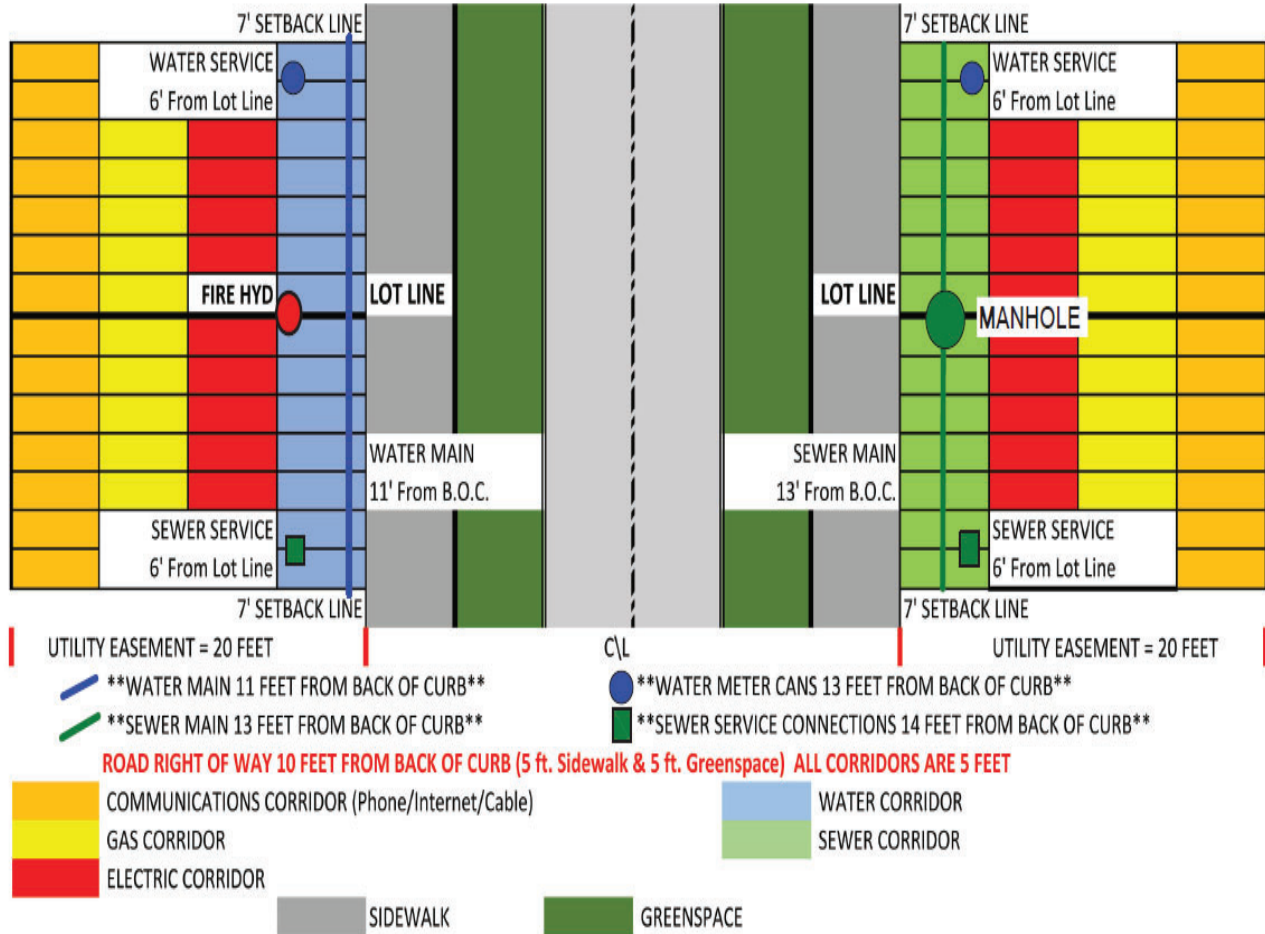
7A.6 UTILITY CORRIDORS (Exhibit)

City of Pea Ridge Subdivision Utility Placement Corridor



7A.7 SETBACKS (Exhibit)

SIDE SETBACK & UTILITY PLACEMENT



****QUAD CROSSINGS SHOULD BE A MINIMUM OF 4 FEET DEEP