

08-09

**ROGERS WATER UTILITIES SYSTEM  
ROGERS, ARKANSAS**

**SPECIFICATIONS FOR WATER AND  
SANITARY SEWER FACILITIES  
RECORD PLANS  
REVISED JANUARY 2013**

1. **SCOPE**

This specification governs the record plans (as-built) requirements that must be submitted to RWU upon the completion of the water and sanitary sewer facilities. The record plans, both paper and digital, must show the exact location of all water and sanitary sewer facilities as constructed.

2. **GENERAL REQUIREMENTS**

- a. The construction plans shall be used in the preparation of the record plans.
- b. Record plans shall consist of the cover sheet, utility plan sheet(s), water and sanitary sewer main plan/profile sheet(s). If the construction project includes a sanitary sewer lift station, record plans shall also include the force main plan/profile sheet(s) and all lift station sheet(s).
- c. One set of record plans, in paper format, and being of full size (24"x 36" or 22"x 36" sheets), black line print must be submitted to RWU for review prior the project final inspection.
- d. Utility easements and rights-of-way shown on the utility plan sheet(s) must be shown on the recorded plat and/or easement dedication plat. Utility easement dedicated by separate document shall be shown and noted on record drawings.
- e. On phased projects, the phase lines must be clearly shown on the utility plan sheet(s) and the plan view of affected water and sanitary sewer main plan/profile sheet(s).
- f. All street names, subdivision names, lot numbers and property addresses must be clearly shown on record plans.
- g. All changes to the construction plans must be shown clearly on the record plans by boldly striking through the item changed and placing the record plan information next to or as near as possible to it. All record plan annotation changes must be larger and bolder than the original and free from background obscuring.

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- h. When there is a change in the alignment of the proposed sanitary sewer main, force main or water main, the record plan must reflect this change accurately. The old alignment should be deleted from the record plans.
- i. Determining record slope of sanitary sewer mains may be accomplished by one of two methods. Record slope may be calculated by determining the horizontal length of pipe between the invert in elevation and the invert out elevation of the manholes (edge of manhole to edge of manhole) or by determining the horizontal length to the center of the two manholes (length being the pipe and half of the diameter of two manholes) with the center invert elevation of both manholes.
- j. All elevations reflected on the record plans shall be based upon NGVD29.
- k. Two directional dimensions (field measured) are required for manholes, end of sewer services, valves, air release valves and water meter boxes. Directional dimension are require from existing monuments such as fire hydrants, light poles, power poles, building corners, back of curb, curb inlet structures and/or property lines.
- l. Directional dimensions shall not exceed 100 feet in length and shall be rounded to nearest tenth.
- m. All record plans must be labeled and signed and sealed by a registered Arkansas professional engineer.

3. **DIGITAL RECORD PLAN REQUIREMENTS**

- a. One CD of the record plans must be submitted to RWU. The digital format shall be in DWG format readable by AutoCad 2010. Do not use file compression.
- b. All pertinent drawing elements must reside in the primary drawing file. All x-reference drawings shall be bound (insert method) and all text/dimensions shall be of standard AutoCad fonts.
- c. The CD shall be labeled with Engineering Company Name, Project Name, Date CD was burned and AutoCad Version.
- d. Global Positioning System (GPS) data points (field measured) must be provided on valves, air release valves, water meter boxes, manholes and end of sewer service lines with record plan stationing. GPS data points must be provided in state plane coordinates, NAD 83 North Zone, feet, ASCII coma delimited format (numbers shall be without commas). GPS data points shall be in TXT format and

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included on the CD of the record plans. Coordinates shall be accurately provided and shown to a precision of the nearest tenth of a foot.

For Example: Item, Northing, Easting, Description  
1,712120.3,667363.4,8"VA-Sta 1+20 Line A

The GPS position accuracy shall be less than one meter with differential correction.

4. **WATER MAIN FACILITIES REQUIREMENTS**

- a. Utilize detail blow-ups where several valves/meter boxes are close together and provide directional dimensions for valves/meter boxes.
- b. When there is a change in the proposed depth and/or length of the water pipe, the profile view shall reflect this change accurately.
- c. The demarcation (separation) valve from public to private fire lines must be labeled. The fire lines and FDC lines must be labeled.
- d. Clearly show all abandoned water mains, valves and cut & caps on the record plans.

5. **SANITARY SEWER FACILITIES REQUIREMENTS**

- a. Utilize detail blow-ups where several manholes/sewer services are close together and provide directional dimensions for manholes/sewer services.
- b. The demarcation (separation) sewer manhole from public to private sewer mains (diameters greater than 6 in.) must be labeled. Private sanitary sewer mains must be labeled.
- c. When there is a change in the proposed slope and/or length of the sewer pipe, the profile view shall reflect this change accurately. The rim elevation, invert elevations, slope percent and pipe length shall be revised as needed.
- d. Two directional dimensions are not required for an end of sewer service if sewer service is connected to building.
- e. Record force main plans shall be prepared as outlined for the water main facilities requirements.

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- f. Record lift station plans shall reflect all changes accurately. The site grading, paving, power/cable routing, fencing and yard piping shall be revised as needed. Record elevations are required for the wet well structure, valve vault structure and the piping penetrating structure walls.
  
- g. Clearly show all abandoned sewer mains and manholes.