What a Residential Drainage Assessment Looks At

A drainage assessment starts with a clear question about the property. Where does water collect? Which route did you see it take? What decision do you need to make? That information helps the owner and engineer agree on what the visit should cover.

State the problem and the decision

Tell the engineer when the problem shows up, which areas it affects, and what you plan to do next. For example, “Water reaches the side-door threshold after some storms. We need to know what to evaluate before rebuilding the walk.” Include dated photos, a sketch, prior repairs, and the survey or plans you have. Note areas where access is limited and whether you need findings for budgeting, repairs, or a project deadline.

What grades and drainage routes tell the engineer

The engineer can compare observations with the ground levels around the house, thresholds, window wells, nearby pavement, and visible drain inlets or outlets. A **spot elevation** is a recorded height at a particular location. Comparing heights on the same reference helps the engineer ask whether the survey and your observations tell the same story. Ask when the survey was made and whether later paving, grading, or additions changed the site.

The contributing area is the ground or roof area that sends water toward a location under consideration. Tell the engineer where you first see water and where you lose sight of it. Ask what information would confirm where it goes next. [USGS, Surface Runoff and the Water Cycle]

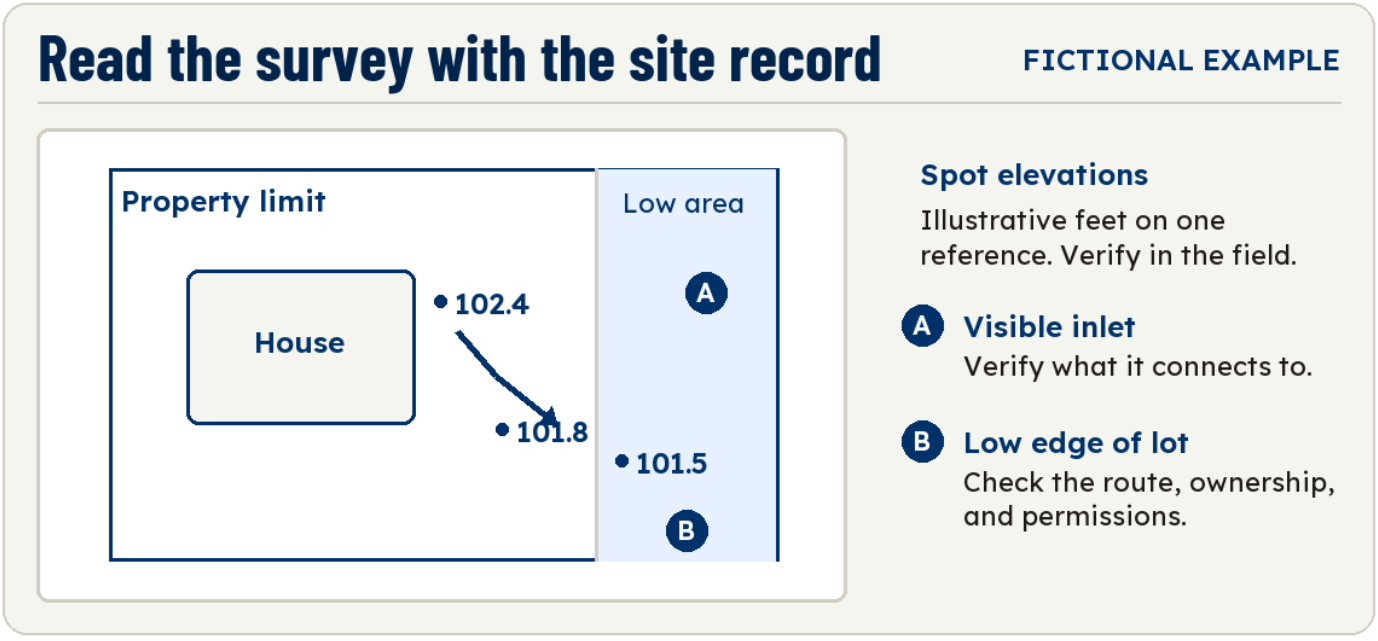


Figure 1. Fictional survey example. The numbers show heights on one reference. The two possible outlet locations are questions for the assessment. RES illustration.



Figure 2. In this separate gallery example, the wider view shows the downspout, extension, paving, and lawn. RES Media gallery, RES-M0366.

When boundaries and buried features matter

Bring any recorded survey, drainage easement document, HOA plan, or utility record that may affect the work. Tell the engineer about observed water coming from or moving toward a neighboring property, street, or common area. For a pipe that disappears underground, note the visible end and any plans or maintenance records. Ask who would confirm the connection, condition, access, and whether a proposed discharge is allowed. Local requirements differ. For examples of where to start, see Denver's sewer use and drainage permit information and Fort Lauderdale's city engineering resources.

What findings can lead to

Ask for the intended deliverable before the visit. Depending on scope, it may describe what was visible, identify unanswered questions, or recommend additional information such as updated elevations or a check of buried drainage. If findings support a concept, ask what separate design, coordination, or approvals would be needed before a contractor can price or build it.

Field notes

Date and property location _____

Decision and deadline _____

Survey, access, and outlet questions _____

What to do next

Gathering observations for a visit? Use What to Document When Water Collects Near Your Home.

Planning around a budget or access window? Read Planning and Pricing Drainage Work in Phases.