Construction equipment is a common cause of soil compaction. Limiting the area of disturbance and applying thick layers of mulch can minimize soil damage. Other strategies for protecting soils during construction are discussed in more detail in Lesson 2.

Class Assignment 1 Site Assessment

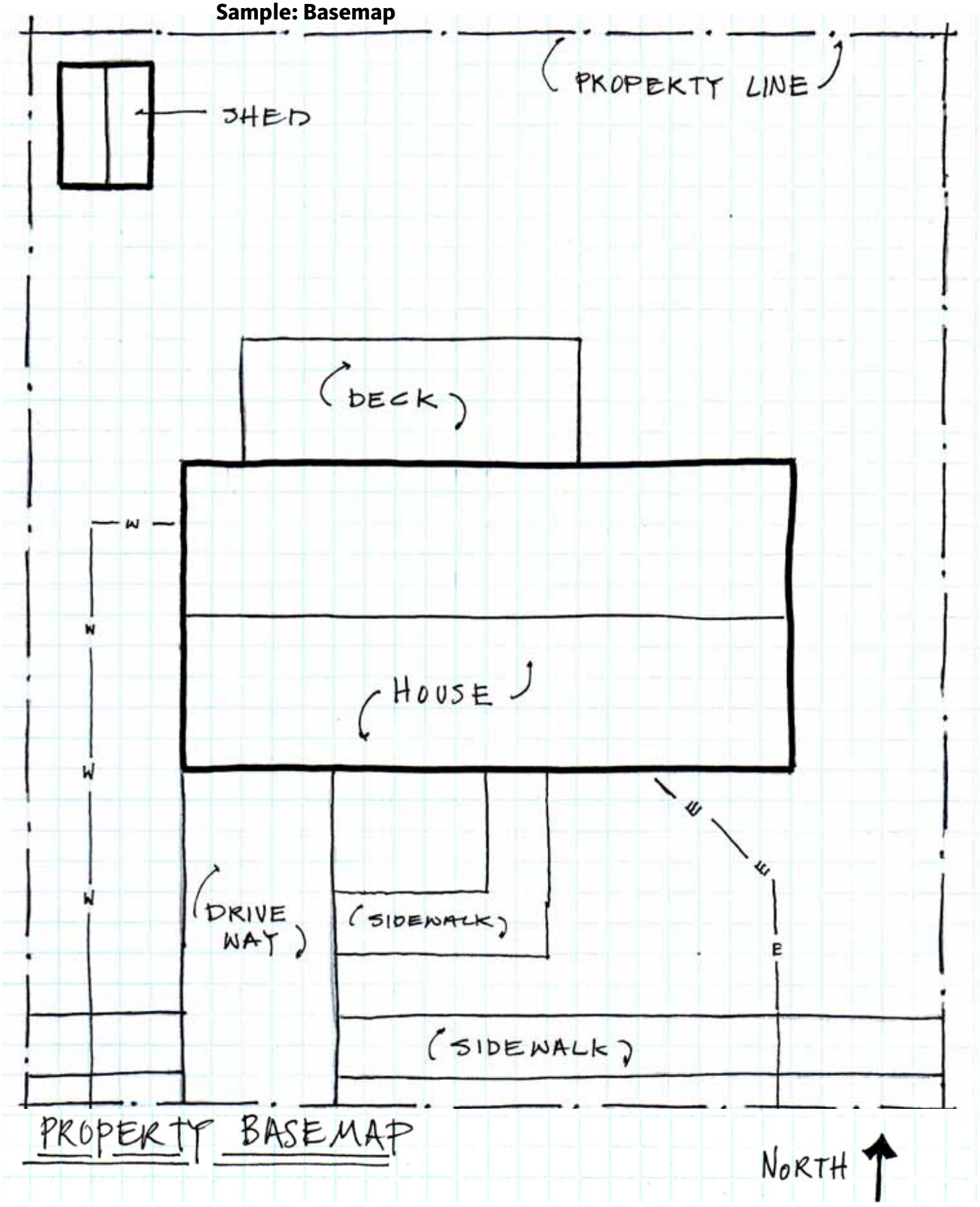
Throughout the series, students will be asked to assess and record the conditions of their landscape. During the last class, students' findings and potential design scenarios will be discussed.

Assignment 1 — Site Assessment
A site assessment evaluates the current conditions of the landscape to determine the resources, constraints and opportunities that should be considered when designing the garden.

Step one: Create a basemap (i.e. page 31)
To create a template for the site assessment and garden design, students will need to create a base map of their property. Using colored pencils and graph paper, students should draw their house and property to scale, allowing about a quarter inch per foot. The basemap should include the following:

- All paved surfaces such as driveways, walks and patios
- The footprint of each building
- Utility lines such as gas, sewer and electric
- North arrow
- Scale of the basemap

Sample: Basemap



Once the basemap is complete students will need to make several copies and bring their basemap and assessment findings with them to class each week.

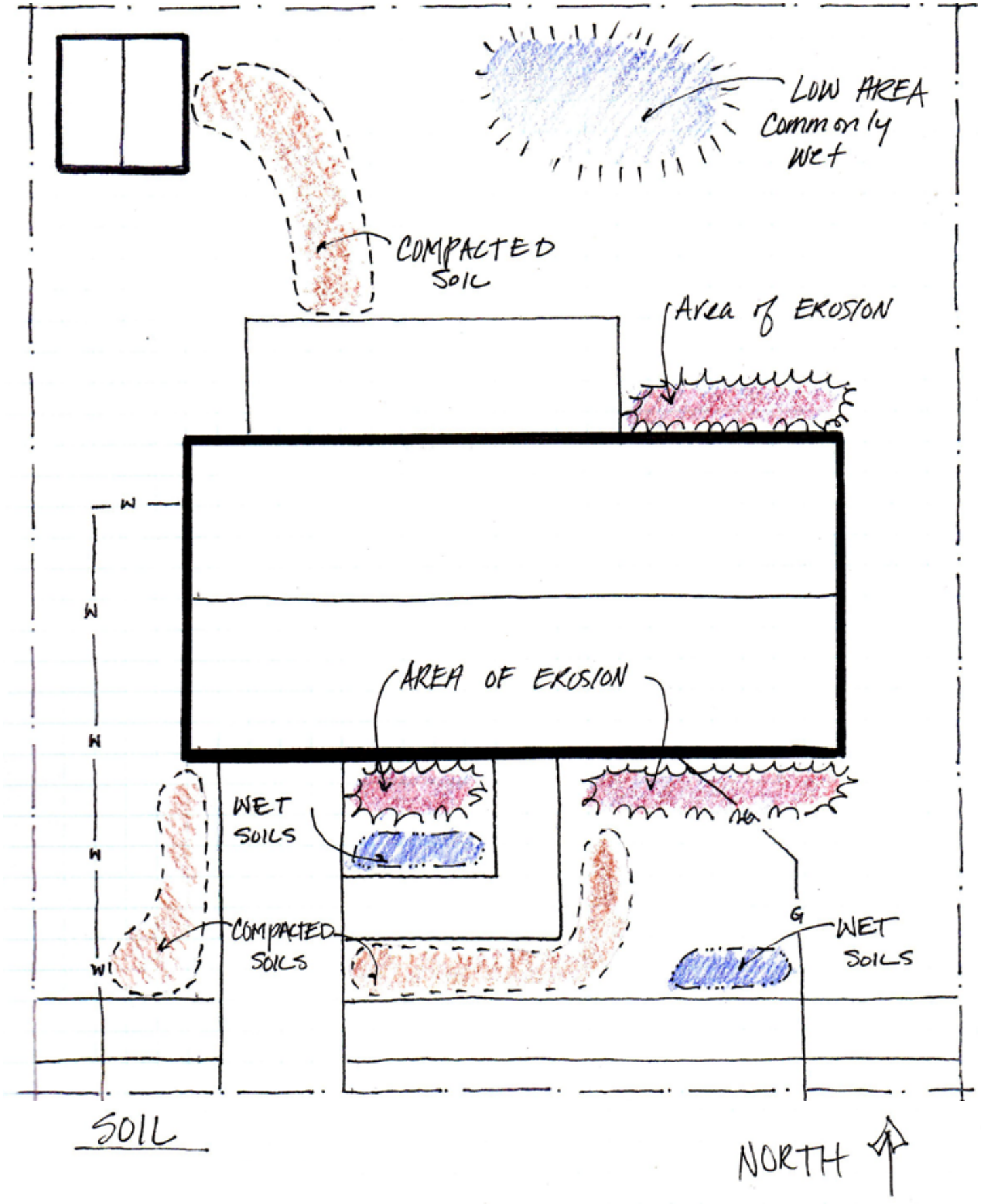
Step Two — Soil assessment: (i.e. Page 33)
Using the soil tests discussed in class, students can determine the texture, structure and pH of their garden soils. It is recommended that students conduct the pH test right away since it may take several weeks to receive the results. It is important to note that garden soils can vary across a landscape and students may need to conduct tests in several locations to gain a full understanding of their soil conditions. Indications that soils may be different in an area are changes in color, texture, moisture and compaction. Abrupt changes in vegetation type can also indicate varying soil conditions.

Using trace paper over the basemap, students should outline the following characteristics:

- areas of erosion and compaction
- low areas that are commonly wet
- exposed rock
- shallow soils
- areas where the soil abruptly changes texture or structure

Class Wrap-up: Closing Questions or Comments

Sample: Soil Assessment



Class Assignment 2 Site Assessment — Water

Throughout the series, students will be asked to assess and record the conditions of their landscape. During the last class, students' findings and potential design scenarios will be discussed.

Assignment 2: Site Assessment — Water (i.e. page 58)
The class assignment for this week is to investigate the existing water use, runoff and aquatic features of their landscapes. On the site analysis base map created in the previous class, students should locate any existing water features such as wetlands, shorelines, ponds, streams or other waterways on or adjacent to their property.

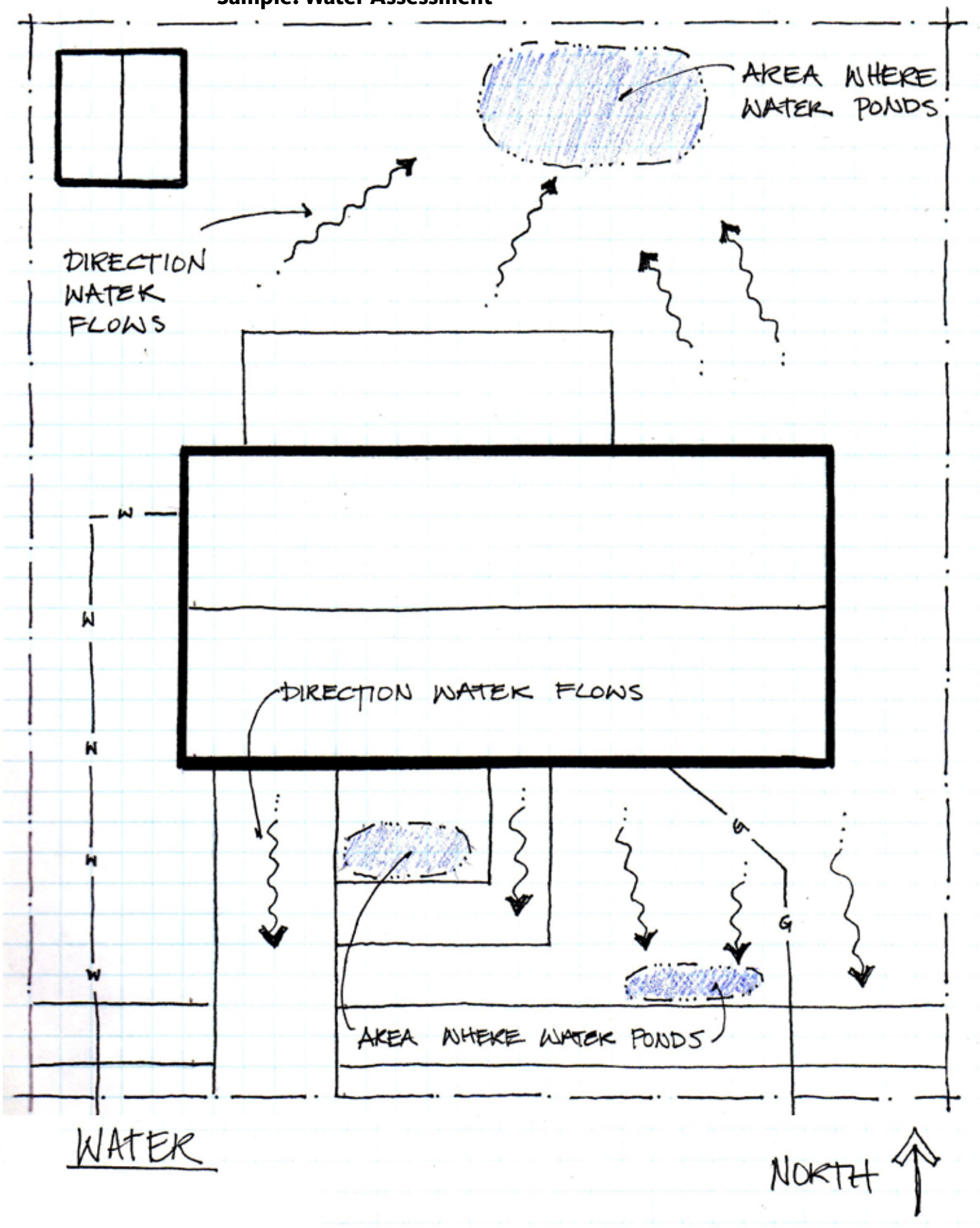
Using trace paper over the basemap, outline the following:

- Direction water flows across the landscape and areas where water pools during storm events.
- Locations where stormwater runoff is concentrated and eventually leaves the site. i.e. driveways, drainage pipes, storm gutters, etc.

On a separate sheet of paper, calculate the following:

- Area of each impervious surface as well as the material type. For example, shingle roof 2,000 ft^2, concrete driveway 200 ft^2, gravel patio 500 ft^2
- Estimate the amount of water used in the landscape. Municipal water bills typically indicate all potable water usage of a property. To calculate the irrigation use separately, compare municipal water bills between months of heavy irrigation and months where irrigation was not needed or was minimal. The difference between the two is the estimated average landscape water use per month.

Sample: Water Assessment



Class Assignment 3 Site Assessment — Plants

Throughout the series, students will be asked to assess and record the conditions of their landscape. During the last class, student's findings and potential design scenarios will be discussed.

Assignment 3: Site Assessment — Plants
The class assignment for this week is to have students map and identify the plants in their landscape. On a copy made of the site analysis base map, students should locate large trees, shrubs, lawn and other significant vegetation. The canopy area of each plant should be outlined along with the name, general size and health of the plant. Encourage students to bring in photos or samples of vegetation they cannot identify.

On a separate sheet of trace paper, students will need to outline the sun and shade patterns of the site. Students should note areas that receive sun all day and those that receive morning, midday, or afternoon sun only as well as portions of the site that are shaded all day.

Class Activity

Class fieldtrip: Identifying plants commonly grown in the area
The fieldtrip is intended to help students with the plant identification class assignment. Instructors will lead students on a walking tour of the surrounding landscape and point out vegetation that is commonly grown in the area and may be found in home landscapes. The following class will include a discussion of native and invasive vegetation along with plants best suited for the area, so the instructor need not cover that information in this walkabout. Students should be encouraged to point out any plants currently found in their garden.

When the class is being held in a location where common landscape plants cannot be found within walking distance, the instructor can take students on a visual fieldtrip and provide a PowerPoint presentation of plants commonly found in the area.

Class Wrap-up: Closing Questions or Comments

Example: Plants Site Assessment