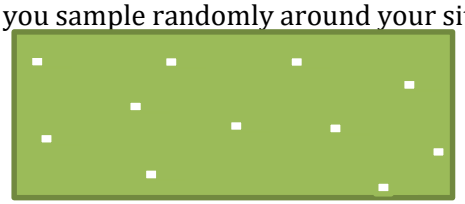
INSTRUCTIONS
HOW TO PERFORM A SOIL TEST

Soil sampling and testing is a relatively quick and easy process to assess the health of the soil on a vacant lot. Several organizations can assist you; however, you can do it on your own by following these simple steps:

Determine the number of test areas
It may be helpful to test areas of your lot based on past usage, for example, where the garage or house used to be versus the backyard area. You may also consider separate tests for areas where there is a slope, drainage, different color, or past pest infestation, to give you more information about your site. At a minimum, the City requires at least one soil test for each project. It is essential to make a note of how you are dividing your site so you can interpret your results later.

Collect your samples
Each area sample should be a mixture of soil from 10-12 separate samples taken randomly from your site (see example below). Use the space on page 2 to keep track of where you took samples for future reference (and for your application).

Make sure you sample randomly around your site like this:



Be sure to use a clean tool (trowel, shovel, core sampler, or bulb planter) and a clean container for your initial collection. (Galvanized tools contain zinc, which may affect your soil sample.) If contaminants are likely, please wear gloves while handling the soil.

For each sample, pull back the top layer of grass to get to the bare soil. You want to take soil from 4-6" below the surface. Grab at least a golf-ball sized sample from each of the 10-12 random spots on your site to create your area sample. You should have at least one cup of soil for each area sample, so make sure you have plenty of soil to allow for drying and debris removal. Avoid sampling extremely wet soil.

Dry your samples
Place each of the individual samples in a clean container (pail, bucket, or bag) and mix the samples together. Spread the mixed sample onto newspaper, break up any clumps, and remove debris (rocks, glass, sticks, and other plant matter). Allow the sample to air-dry (do not use oven); this may take a few days.

Ship your samples
Once completely dry, place at least one cup of soil in a zip seal bag and label clearly with your name, address, and a sample ID (can be the lot and block number), according to the testing lab instructions.

Allegheny County Conservation District has purchased equipment that reads the amount of heavy metals and contaminants in soil, and they **can test your soil for free**. There is an educational component to the grant that funded the equipment, so you'll have to be on site for the testing. To set up an appointment, you can request Farm Assistance on the ACCD Website, and select "Urban Soil Health & Soil Lead Screening" then "Heavy Metal Micro Mapping Services". Please note that because this is a free service, availability may be limited.

The University of Massachusetts Amherst Soil Testing Lab's **$20 Routine Soil Analysis** includes pH, exchangeable acidity, Modified Morgan extractable nutrients (P, K, Ca, Mg, Fe, Mn, Zn, Cu, B, S), lead (Pb), and aluminum (Al), cation exchange capacity, and base saturation, as well as crop specific lime and nutrient recommendations.

Penn State Extension Agricultural Analytical Services Laboratory also offers soil tests that include standard fertility tests, and separate tests for heavy metals. See "Soil Fertility Testing" for a **$10 nutrient test**, and "Environmental Soil Testing" for individual heavy metal testing, including a **$30 lead test**.

Whatever lab you use, you should make sure the test includes a full nutrient evaluation as well as heavy metals. **You MUST test for lead levels in order to use City-owned land.**

Most labs offer to email the results to you. Please include the Open Space Specialist's email in that section – oss@pittsburghpa.gov

NOTE: If this is a high-risk area where there was likely dumping or other potentially dangerous contaminants, please write in the notes section of the form "questionable urban soil" so the lab workers can take the appropriate precautions.