

# **Geocaching Activity Role Play Handout**

## **CITY ENGINEER**

Pretend you are a City Engineer. You have been assigned with the task of mapping the locations of the fire station, water plant, waste treatment facility, landfill and power company. You have the GPS (Global Positioning System) coordinates of each of these locations (in reality they will be hidden cache boxes), but now you need to walk to each location to make sure these coordinates are correct. You will be rewarded if you find each location. Use your GPS unit to find the coordinates of each location using the following directions.



The first location is the fire station. A City Engineer needs to map the fire station in order to calculate response times to locations of emergencies throughout the city. City Engineers often use GPS to tell the fire trucks where fire hydrants are located so they can find them in a hurry in case of fire. Use your GPS unit to find the imaginary fire station at \_\_\_\_\_.



The second location is the water plant. A City Engineer needs to map the water plant and water lines to keep track of where everything is. When there is a break in the water line, City Engineers help fit it. They need to know where the break is and how to access the line to fix it. Use your GPS unit to find the imaginary water plant at \_\_\_\_\_.



The third location is the waste treatment facility. This is where waste water from homes, businesses and sewers gets cleaned and put back into the water cycle. Waste treatment facilities are usually located near a river. City Engineers also help fix problems with sewer lines and GPS can be used to map the sewer lines and locations of leaks. Use your GPS unit to find the imaginary waste treatment plant at \_\_\_\_\_.



The fourth location is the landfill. A City Engineer needs to map the landfill to make sure it is located close enough to the city so it doesn't cost too much for the garbage trucks to drive there, but the landfill should be downwind from the city so people don't have to smell the garbage and methane gas. GPS can be used to locate the houses and businesses that receive curb-side recycling and garbage pick up to make it easier for the drivers. Use your GPS unit to find the imaginary landfill at \_\_\_\_\_.



The last location is the power company. This is where most of the electricity is produced for the city's residents and businesses. City Engineers often work with the power company to install new power lines because they can be buried under city streets and property. More and more, people are trying to use environmentally friendly forms of power such as wind power and solar power. GPS can be used to locate power lines as well as the best locations for wind and solar power. Use your GPS unit to find the imaginary power company at \_\_\_\_\_.