

Environment Corps

This document is from the library of materials assembled for the $\underline{\textit{E-Corps Online Handbook}}$, a section of the $\underline{\textit{Environment Corps}}$ website intended to assist faculty interested in adapting the program model to their own areas of interest and expertise.

Stormwater Corps Group Project: Pervious Concrete Construction (Spring 2023)

HOMEWORK #4

NRE 3150 | SPR 2023

Due Tuesday 2/28/23

In class on 2/28/23, your group will be making your own pervious concrete (**DO NOT COME TO OUR REGULAR CLASSROOM-PLEASE COME TO THE HICKS ARENA BY THE YOUNG BUILDING**). Using the specification provided, work with your group to determine the proper mixture of materials.

Here are your given facts:

- 1. You will be given **7.70 kg** of stone aggregate
- 2. You will have access to sand (fine aggregate), Portland cement, and water
- 3. You will have access to a balance to weigh these materials and graduated cylinders for measuring water volume
- 4. We will have gloves and other PPE for handling the Portland cement

Your material will be tested for:

- 1. Strength (shear test using weight of one professor)
- 2. Permeability (can it accept a fixed volume of water in a certain time)

Your assignment is to come to class with:

- 1. A name for your group
- 2. Your "recipe" of materials to create pervious concrete

If possible, we suggest wearing "play clothes" for this activity!