

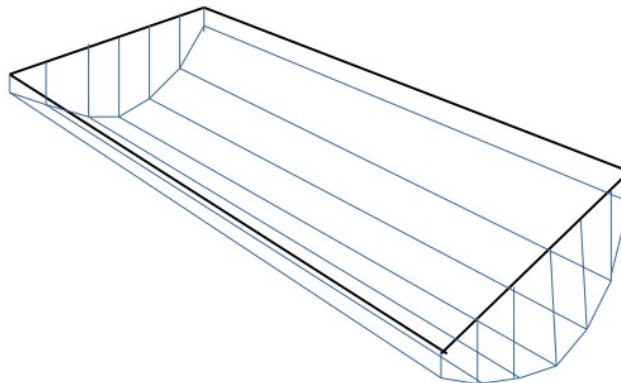
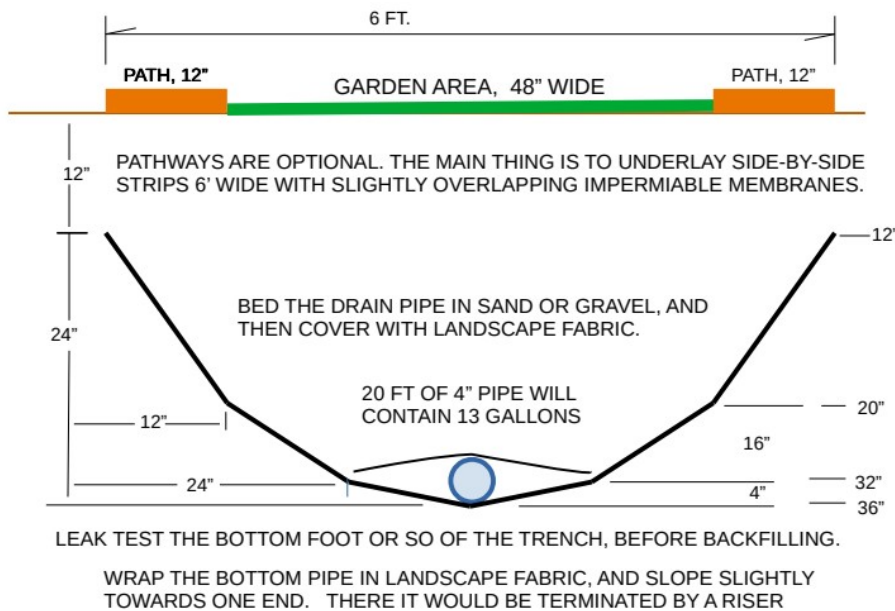
Trench Format

As a trench, this format could be extended to any length. Having a garden area underlain with multiple adjacent segments of this format could make a standardized design flexible enough to fit a wide range of garden shapes and spaces.

Since there would be no visible evidence of the underlayment on the surface (except for occasional risers), the area could provide its advantages to lawns or other decorative vegetation as well.

When the need arose for food production, it could be replanted with vegetables overnight. This would be an excellent means of sustainable prepping with little impact upon your lifestyle in the meantime – other than a major reduction in the amount of water needed.

One other thought occurred to me that may or may not be important: Is water trapped in the bottom likely to become stagnant? If so, we have a drain pipe that slopes gently downwards to the riser. If necessary, air forced into this drain pipe could replace water in the very bottom of the garden as it climbed this gentle slope towards the other end of the garden.



In order to maintain a consistent profile, I made a depth guide consisting of a 10' 4x4 with chains suspended to indicate the depth at various points of the cross section.

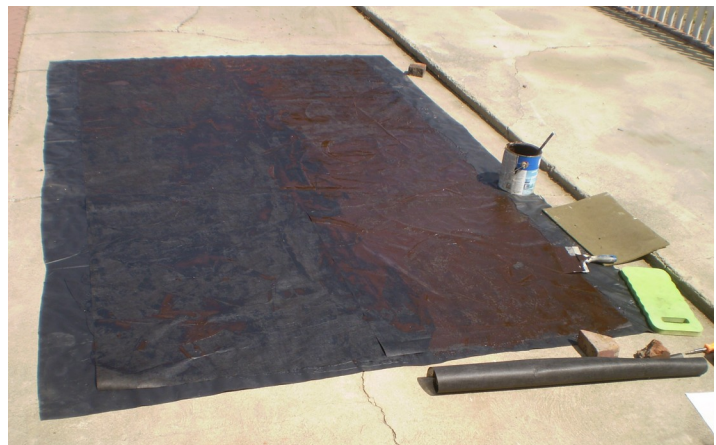


I chose to slope the bottom towards the riser by about $\frac{1}{2}$ " per foot (purely arbitrary, but I assumed the water would be intelligent enough to take the hint). I temporarily installed three 12 inch pavers at the ends and middle points to guide me in keeping this slope line straight.

A better membrane material

In one of my experiments I had experienced a leak in the plastic of an underlying membrane. The plastic isn't very tough, and a dropped tool or stake could produce a small leak that could go unnoticed. So for larger areas of membrane I felt a tougher membrane would be wise.

Polypropylene landscape fabric is fairly tough – especially when glued to the 6 mil black plastic I have been using to date. For adhesive, I troweled on an asphalt emulsion. This is an economical sealant guaranteed to make a mess out of anything it touches. For tools, I had to get my wife another soup scooper, and since she hadn't equipped her kitchen drawer with the right size of putty knife, I had to buy my own. I recommend a blade over a paint brush, to force the emulsion in and through the fabric. When doing this, leave an inch or few between the edge of the fabric and the edge of the plastic, so you don't coat your driveway as well.



The drain pipe was wrapped in landscape fabric and , bedded in a thin layer of sand, then then the sand and the pipe were overlain with a 3' wide piece of landscape fabric. The perforated riser was installed and also wrapped, to keep dirt and mud from entering it. Then the back-filling was begun.



Rather than terminate the edge abruptly at 12" below the surface, I allowed a foot of it to extend horizontally, so it could overlap with any future trenches.

Upon completion, the riser was cut off and temporarily capped just below the surface, so there would be no evidence of what lay beneath – other than what the surface vegetation would later reveal.

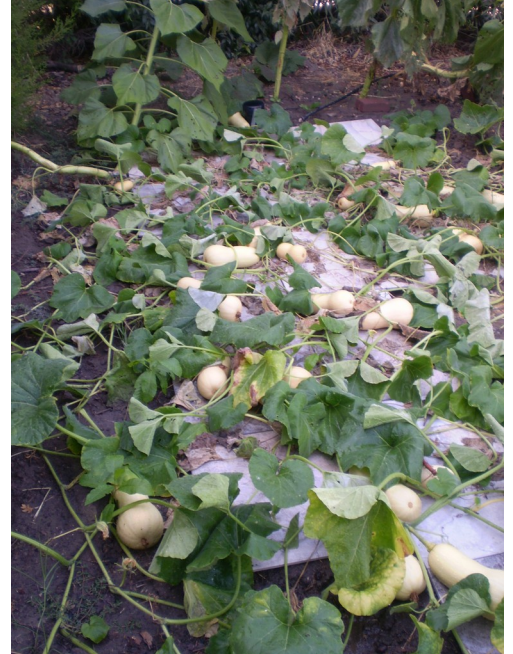
Trench Test Garden

One of the first tasks assigned to this trench garden was a place for a couple of butternut squash seeds salvaged during preparation of a meal last winter. The North end was salted with volunteer sunflower seedling that also arose from last summer's harvest.



The large tiles, though not nearly enough to cover much of the trench area, did a beautiful job of containing moisture and controlling weeds as far as they were able. This made the whole enterprise one of very low maintenance – just add water, and not even a whole lot of that.

Perhaps it was the reflection of the sunlight, but in any case we had an abundance of mature squash by the end of June. While marveling at the level of productivity, I noticed a peculiar thing: The actual squash only grew on or next to the tiles. When I become sure of the reason for this, I'll let you know.



Even the bordering sunflowers thrived, and their ability to quickly rise far above the competing weeds, added their own form of low maintenance.

