



**Volunteer**

**Professional**

**Volunteer + Professional**

# Clean + Green

Image Source: Jurek D., "Morning Lawn." 11 May 2007 via Flickr, CC BY-NC 2.0.





**The Clean + Green lot design is a set of guiding principles to prepare a lot for a healthy and low-maintenance future. It provides information and support for many of the potential scenarios you may encounter through a cleanup process. The Clean + Green also takes any lot, in any condition, and readies it for installation of a Field Guide lot design.**

**The Clean + Green provides a range of principles and resources for how to treat existing conditions unique to each lot.**

**For more information refer to [DFC-lots.com](https://dfc-lots.com)**

### What is the lot design likely to cost?

The estimated cost of the Clean + Green is low (\$50 – \$1,000) and based on utilizing volunteer labor. The cost is dictated by the price of trash removal, waste disposal, equipment rental, and ‘green’ remediation to help create healthy soil. The cost assumes that residents or volunteers have access to basic safety gear and garden tools.

### How much upkeep will this lot design require?

This is a low-maintenance lot design. Maintenance will be dependent on what lot design or groundcover you ultimately choose to install.

### Will the installation of this lot design require a professional?

The installation of this lot design should not require professional assistance if you, with the help and support of friends, family, or neighbors, would like to construct it. Please refer to the Step-By-Step section for guidance. If you do not have the required support or feel unable to tackle this lot design, please seek professional assistance.

### How long will it take to install this lot design?

While people tackle projects in different ways and at different speeds, the Field Guide estimates the installation time of this lot design to be one full weekend with the help of at least two healthy adults or youth. The Field Guide assumes that all equipment and materials required for lot design have been acquired and are ready to use.

<b>Cost</b>	<b>\$50 - 1,000</b>	\$1,000 - 2,500	\$2,500 - 5,500	\$5,500 +
<b>People</b>	<b>Volunteer</b>	Professional	Volunteer + Professional	
<b>Experience</b>	<b>Beginner</b>	Intermediate	Advanced	
<b>Upkeep</b>	<b>Low</b>	Medium	High	
<b>Stormwater</b>	<b>Good</b>	Better	Best	
<b>Location</b>	<b>Any Lot in Sun or Shade</b>			

# Clean + Green

## Examples of Materials Found in Clean + Green



1 - Hand Tools



2 - Volunteer Labor



3 - Soil



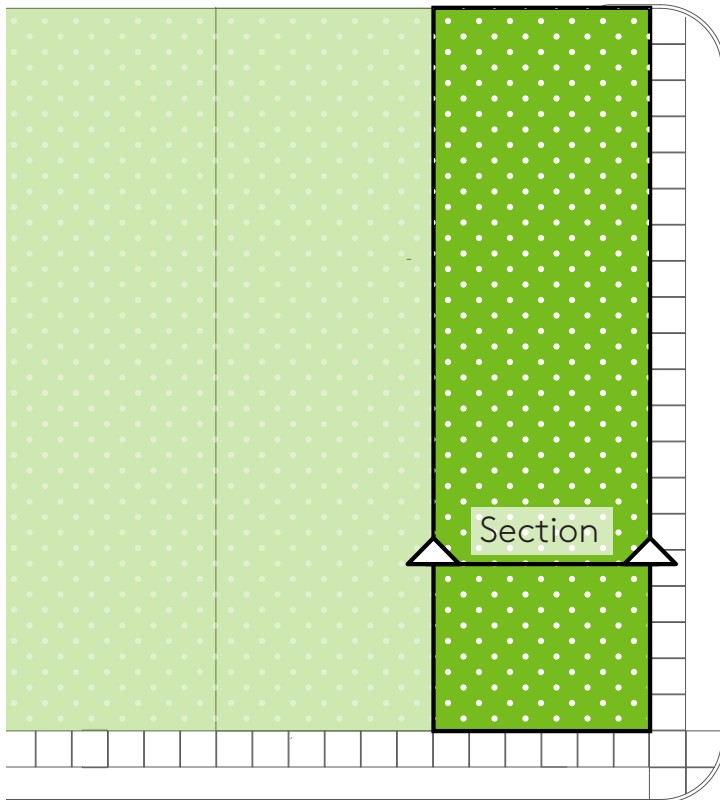
4 - Grass Area

## Section



Grass Area, Full Lot coverage

## Where Do I Grow?



The Clean + Green can be constructed on any lot. This design improves the safety of the lot and health of soils. Most of the action in this lot design happens below the surface.

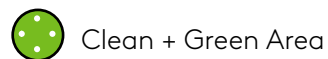


Image Source: 1) Quietlyurban.com, "day 38: digging in the dirt" 17 May 2014 via Flickr, CC BY-ND 2.0; 2) Elizabeth Merriam., "US\_Navy\_090501" 1 May 2009 via Wikimedia public domain; 3) newmy51., "Divide." 12 July 2008 via Flickr, CC BY-NC-SA 2.0 ; 4) Jurek D., "Morning Lawn." 11 May 2007 via Flickr, CC BY-NC 2.0.

## Before You Start + Shopping List

### 'Construction Ready'

This lot design assumes that you have prepared the lot to a 'construction ready' state.

'Construction Ready' refers to a lot that is clean and clear of trash, hazardous objects, unwanted trees, brush and vegetation, fences, and other unwanted structures.

It may be necessary to remove grass in preparation for your lot design. Refer to the Remove Your Grass box located on the right hand side of this page for more information.

Is there an available water source near your lot? Consider how and where you will access water during and after construction to ensure that your plants can establish.

If your lot is not ready for construction, refer to the [Clean + Green](#) lot design.

You can find the lot design at [DFC-lots.com](https://dfc-lots.com).

### Call Before You Dig

Locate underground utilities before beginning your lot design. MISS DIG provides a free service to Michigan residents by locating and marking utilities on requested properties. Call 800.482.7171 or 811 at least three days before you plan to start digging on your lot.

### Shopping List

The shopping list provides breakdown of potential materials, tools and resources required to construct this lot design.

**This shopping list is designed for a single lot (30 by 100 feet).**

### Tools

#### Suggested Tools

- **Marking Paint**
- **Safety Gear:** Gloves, heavy work boots, tall socks, pants, long sleeve shirts, protective eye wear, dust masks, ear plugs, and hard hats. Additional safety gear, such as hard hat with attached face guard and leg protection or chaps, are required for using a chainsaw.
- **Garden Tools:** Spades, shovels, rakes, trash bags, and wheelbarrows
- **Lot Clean Up Tools:** Clippers, loppers, pruning saw, chainsaw, pick axe, knife, flat shovel, chain saw, tiller, and ball cart (for moving heavy trees)

#### Potential Water Sources

- Garden Hose with potential extension hose
- Sprinkler
- Rain Barrel in addition to other water source

### Materials List

- **Low-Maintenance Fescue Mix**, 15 pounds of seed
- **Germination Blankets**, 4 rolls (8' by 112.5')
- **Bio-Organics**, 1.5 pounds (Endomycorrhizal Inoculant)

## Clean + Green Step-By-Step

### Let's Start

**Want to create the Clean + Green but don't want to hire a professional? Here are a few guiding principles to help you construct your lot design.**

Check off tasks as you go along.

### Lot Design Steps

#### Volunteer Opportunities:

- Assess Lot Condition
- Learn Soil Type
- Remove Trash
- Remove Unwanted Scrub Brush

#### Professional Recommended:

- Remove Dead or Dying Trees

#### Volunteer Opportunities:

- Remove Groundcover + Till
- Bald Lot
- Apply Mycorrhizal Inoculant
- 'Green' Your Lot
- Maintain Your Lot

### Assess Lot Condition

Once you have selected a lot you wish to maintain, spend an afternoon understanding what is currently on your lot. Here are a few questions you should ask as you walk through your lot:

**What types of trees or plants are growing on your lot? Can you name the species?**

---

**Does Your lot have scrub or unwanted brambles growing? Where?**

---

**Do you notice any trees or vegetation that should be removed? Do you notice any trees that are dead, have dead wood, cracks, disease, decay, are tilting or have poor form, have structural defects or anything that looks dangerous?**

---

**Are there any trees or vegetation that you would like to keep?**

---

**Do you see any native plants? How are you going to protect them in your management plan?**

---

# Clean + Green Step-By-Step

## Clean Steps

### ○ Learn Soil Type

Before you complete steps for the Clean + Green on your lot, it is important to make sure you soil is clear from harmful chemicals or toxins that could be hazardous to your health. It is recommended that all residents have their soil tested before removing low growing vegetation, tilling, installing a lot design, or undertaking any type of activity that would disturb the soil.

If you are looking for a place to test your soil, the Field Guide recommends joining Keep Growing Detroit's Garden Resource Program where members have free access to soil testing. Another option is MSU's Extension program, which charges a small fee. Soil testing takes approximately ten days to get results.

If your soil test shows you have high amounts of lead in your soil, refer to the [Quiet Remediator](#) lot design for more safety instructions.

Soil testing is also a great opportunity to learn about the type of soil on your lot. Knowing your soil type is important when selecting plants and understanding drainage, which are especially important if you decide to implement a lot design after the Clean + Green process. ww

For more information and tips, check out the 'Discover Your Soil' activities in the printed Field Guide. You may pick-up a copy for free at the DFC Implementation Office or download and print yourself from the Resource Page.



**Visit the [Discover Your Lot](#) page on the Field Guide's web site to take a quick quiz to better understand the lot type you are starting with.**

### ○ Remove Trash

The first step in cleaning a lot is clearing a lot. Is there garbage on your lot? If so, what type?

**Standard Refuse:** Plastic, paper, boxes, metals, glass, etc.

**Yard Waste:** Organic materials such as leaves, branches, and twigs.

**Bulk Refuse:** Furniture, appliances, air conditioners, hot water tanks, mattresses, large toys, doors, etc.

There are several locations in Detroit that you can take bulk trash and yard waste. These locations are only open to Detroit residents with proper identification. Residents are limited to one load per household per day, not to exceed one cubic yard or 1,000 pounds. The City does not accept demolition, construction or remodeling debris, household or commercial garbage, or tree stumps.

#### **Advanced Disposal (Brush and Bulk Collection on Detroit's West Side)**

12255 Southfield Road

Detroit, MI 48228

Phone: (844) 2-DETROIT (338764)

#### **Rizzo Services (East Side and South of I-94)**

6200 Elmridge

Sterling Heights, MI 48313

Phone: (866) 772-8900

#### **Dumps in Detroit**

Davison Yard: 8221 West Davison

Southfield Yard: 12255 Southfield Service Dr.

State Farm Yard: 19715 John R

J. Fons Transfer Station: 6451 E. McNichols

# Clean + Green Step-By-Step

## Clean Steps

**Do you have hazardous or dangerous materials on your lot?** Materials such as car parts (engines, batteries, fuel, motor oil, etc.), paint, tires, ammunition, or other hazardous materials? If you have any of these types of materials, contact the City of Detroit for more information and guidance on how to safely remove these materials from your lot.

### ○ Remove Unwanted Scrub Brush

Once all trash is removed from your lot you can cut down any unwanted vegetation, such as scrub brush. Scrub brush generally consists of small woody trees or shrubs, grasses, and brambles. The best time to remove unwanted vegetation or to prune most plants is in the spring or fall when plants are either starting to come up or die back for the year.

Be sure to wear appropriate clothing for the job to protect you from any thorns, poison ivy, glass, or needles that might be present on a lot. You will also need a variety of tools to help assist you with the removal of unwanted scrub and vegetation. **Refer to the list of suggested safety gear and tools is provided on page 4.**

**Be careful when removing scrub as you may not know what type of vegetation you are removing or if you may be disturbing something that can harm you, such as a beehive.** This job is best done in pairs or groups.

### ○ Remove Dead or Dying Trees

Are there trees you need to remove on your lot? These might be trees that are unhealthy, unsafe, or species you do not wish to have on your lot.

Removing trees can be dangerous to you and other volunteers as well as to adjacent properties and other trees. The Field Guide recommends working with someone who has prior experience with tree removal. **A great reference is Working Safely with a Chain Saw in the Backyard Woods Guide provided by the Arbor Day Organization.**

For tree removal, be sure to wear the suggested safety gear listed on page 4. This list includes additional safety gear related to operating a chain saw. When selecting a chain saw, make sure it has the proper safety features, such as a chain brake, throttle safety latch, and chain with guard and links in good condition. If you are cutting a large tree, it will likely require guide ropes and one or two hired professionals.

Tree felling can be unpredictable. Before cutting trees, ensure trees are a safe distance from houses, roads, power lines, bodies of water, and cars. Also make sure children and adults are a safe distance away. Contact any nearby neighbors before removing large trees.

**Experience in tree cutting and tree felling is required before removing any large trees. The Field Guide does not recommend undertaking this without professional assistance or support.**

# Clean + Green Step-By-Step

## Clean Steps

### ○ Remove Groundcover + Till

Does your lot have existing groundcover? Do you want to keep your groundcover or would you like to remove all or a portion of it and replace it with a low-maintenance grass mix or a recommended Field Guide lot design?

The first step is to remove the grass and its root system by digging the grass up. Another option is to cover your lot with cardboard or plastic tarp to smother your grass in darkness. It will take a few weeks, but after being covered the dead grass will be easier to remove.

If you do not own a tiller, you will need to rent or buy one. There are three ways you can go about tilling: a manual tiller, a push tiller, and tilling with a tractor. **Till soil at approximately six to eight inches deep if the soil is compacted, in poor condition, or if you are working with a lot that has a recently completed demolition or another soil disturbance event.** If your soil is healthy or semi-healthy, do not till as this can kill healthy bacteria that currently exists in your soil. Tilling should only be used to loosen compacted soil or existing vegetation. Once the lot is tilled, rake, and remove all clumps of existing vegetation.

**Before tilling, be sure to inspect your lot for buried concrete or rubble that was not removed during the cleanup stage. Large debris can ruin tiller tines.**

When tilling, wear appropriate safety gear, such as covered boots with socks, long pants, safety glasses, dust mask, and ear protection. Refer to the user's manual and make sure you understand the safe operating procedures of your tiller.

If you would like to keep your existing groundcover, you can mow this area and/or refer to the Field Guide website for lot designs that can be implemented within an existing groundcover as well as small lot designs that only require a small portion of groundcover to be removed.

**Please note that tilling your existing vegetation directly into you soil will likely result in the same species growing back again, later.**

### ○ Bald Lot

Is your lot bald? Your lot may have minimal groundcover if a house was recently demolished on your lot or because of poor, compacted soil.

**If your lot has minimal vegetation due to a recent demolition but has even soil distribution, this lot is ready for a lot design.**

Refer to the Field Guide web site and select the lot design you wish to implement.

**If your bald lot is due to poor, compacted soil, the Field Guide recommends tilling your soils. Be sure to test your soil before tilling to determine if any harmful pollutants are present in the soil.**



## Clean + Green Step-By-Step

### Green Steps

#### ○ Apply Mycorrhizal Inoculant

**Healthy soil is not just dirt.** Soil contains a mix of microorganisms and a network of fungi which can mobilize nutrients and assist with the distribution of water - both necessary for the health of your plants.

The last step is to create healthy soil on your lot. Healthy soil will make it easy to build a Field Guide lot design or to better grow whatever plants you already have in place. The Field Guide recommends using a mycorrhizal inoculant on your lot. When selecting an inoculant brand, be sure your application includes a variety of fungi species to provide fungal diversity and a higher success rate. **One suggestion is Bio-Organics (Endomycorrhizal Inoculant), which requires 1.5 pounds per 30 by 100 foot lot.** These amendments are likely to cost between \$50 and \$75 per lot and can be purchased at most garden stores. Follow the suppliers' recommendation for the amount of Bio-Organics, or any other endomycorrhizal inoculant for your lot.

There are many ways to apply an endomycorrhizal inoculant depending on your lot. Below are a few options:

**Bare Lot:** If you are applying the mycorrhizal inoculant to a bare lot, mix inoculant with turf seed prior to sowing. Spread by hand or with a seed spreader.

**Existing Lawn:** If using to fortify existing lawn or plants, mix with water. Water is the vehicle for getting the fungi into the root bed of the plant.

**Before Planting:** If applying to plants, dust roots with inoculant prior to planting.

**Dry powder can be spread by sprayer or, if you have more time, by watering can.** Granular amendments must be applied by hand. Application rates and amounts will vary by manufacturer, so be sure to refer to the manufacturer's instructions.

#### ○ 'Green' Your Lot

If you are planning to 'green your lot,' a low-maintenance fescue seed is a good alternative to a traditional lawn. This family of floppy grasses is very drought resistant and requires only one cutting (in August or September) per year. The soil should already be loosened and prepared for seeding after tilling the lot.

Fescue can be established in full sun to shade and should be seeded in spring (mid-March to mid-May) or fall (August to September). Seed mix should be applied to a damp lot. Sow seeds by using a seed spreader or by hand across the remaining lot. Spread seed mix evenly over entire lot. You will need to do this several times to get even coverage. A seed rate of five pounds per 1,000 square feet is recommended. **A full 30 by 100 foot lot will require approximately 15 pounds of seed mix.**

Placing a thin layer of straw or a germination blanket over seeded areas will help ensure that your seed establishes by keeping seeds from blowing away and protecting them from birds. **Four 8 by 112.5 foot rolls of single net germination blanket required for 30 by 100 lot.** Germination blankets or straw can be purchased at most nurseries and garden stores, including Detroit Farm and Garden.

Gently water seedlings daily until they are four to six inches in height. Eco-Turf Low Maintenance Fescue Mix is one recommended seed mix and can be purchased through the Michigan Wildflower Farm.

**Other Field Guide lot designs can be used as groundcovers. Check out the web site for additional options and ideas.**

**If you are planning on implementing a lot design, you may not need to 'green' your lot. Please refer to individual lot designs to see what the next step is for installing lot design.**

## Clean + Green Step-By-Step

### ○ Maintain Your Lot

Minimal maintenance is required for this lot design. If you have trees, be sure to monitor them throughout the year. It may be necessary to continually remove brush or trees as they die. The groundcover will require mowing once a year.

**Mycorrhizae will live in the soil as long as the plants are present.** There is no need to feed the fungus; that is the plant's job.

Be sure to avoid future tilling (if soil is not compacted) or adding fast release phosphorus as this will kill mycorrhizae.

When plants die and stop delivering benefits to the fungi, fungi will eventually die as well. Be sure to replant soon after plants die or you will lose both plants and fungi!

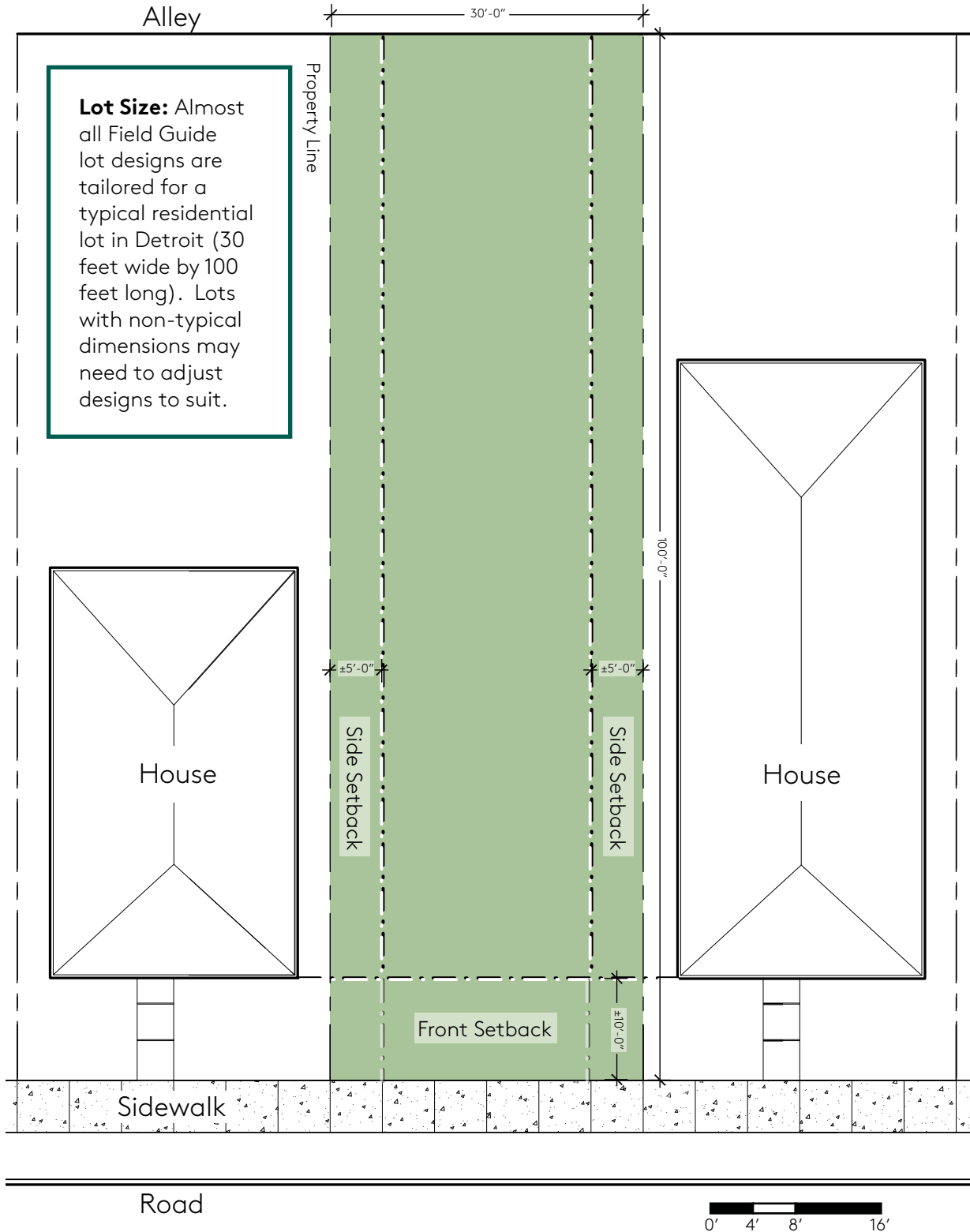
### Maintain Your Sidewalk

How does the street and alley side edge of your lot look right now? If you are short on time, one of the best things you can do to introduce a 'tidy' look to your lot is to clean up curb, sidewalk, and alley edges.

A flat shovel or a dutch hoe are the best tools for clearing away extra debris, old leaves, and weeds that may be growing along edges and seams. Be sure to remove roots when possible.

Depending on the state of your curb, sidewalk, and alley edges, this can be a large or small undertaking associated with time and energy.

# Clean + Green Lot Design



**Lot Size:** Almost all Field Guide lot designs are tailored for a typical residential lot in Detroit (30 feet wide by 100 feet long). Lots with non-typical dimensions may need to adjust designs to suit.

**Front Setback:** This refers to the distance between the sidewalk and the beginning of your lot design and should be consistent with adjacent houses. Front setbacks should be at minimum 10 feet.

**Side Setback:** This refers to the distance between the edge of your property and the beginning of your lot design. The setback will help ensure the lot design elements will not interfere with the privacy or safety of your neighbors. Side setbacks are typically five feet.

## Did You Know?

### Professionals Can Help!

The Field Guide to Working With Lots provides a Construction Package for each lot design. The Construction Package includes information and details required for a professional to construct this design. On the Field Guide web site, use the [Construction Package](#) link located near the top of this lot design page to download and print. Your selected professional will then be able to provide a cost estimate and schedule based on the condition of your lot and the design you select.

### Want to Hire Locally?

DFC-lots.com has a growing list of Detroit-based professionals and suppliers of landscape materials and services.

Still unsure of where to start?

Call (313) 294-LOTS or email [fieldguide@detroitfuturecity.com](mailto:fieldguide@detroitfuturecity.com) for assistance.

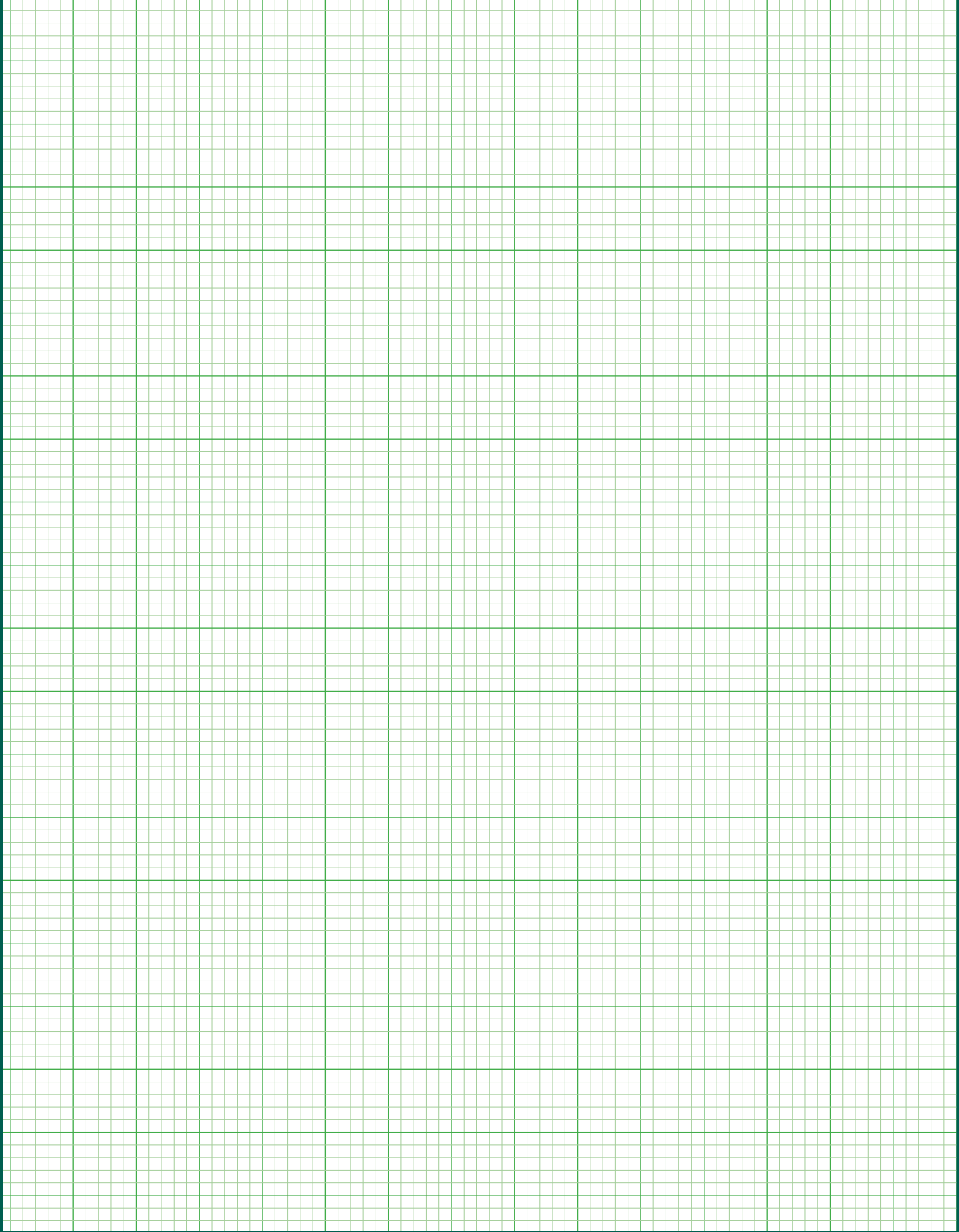
### Helpful Facts

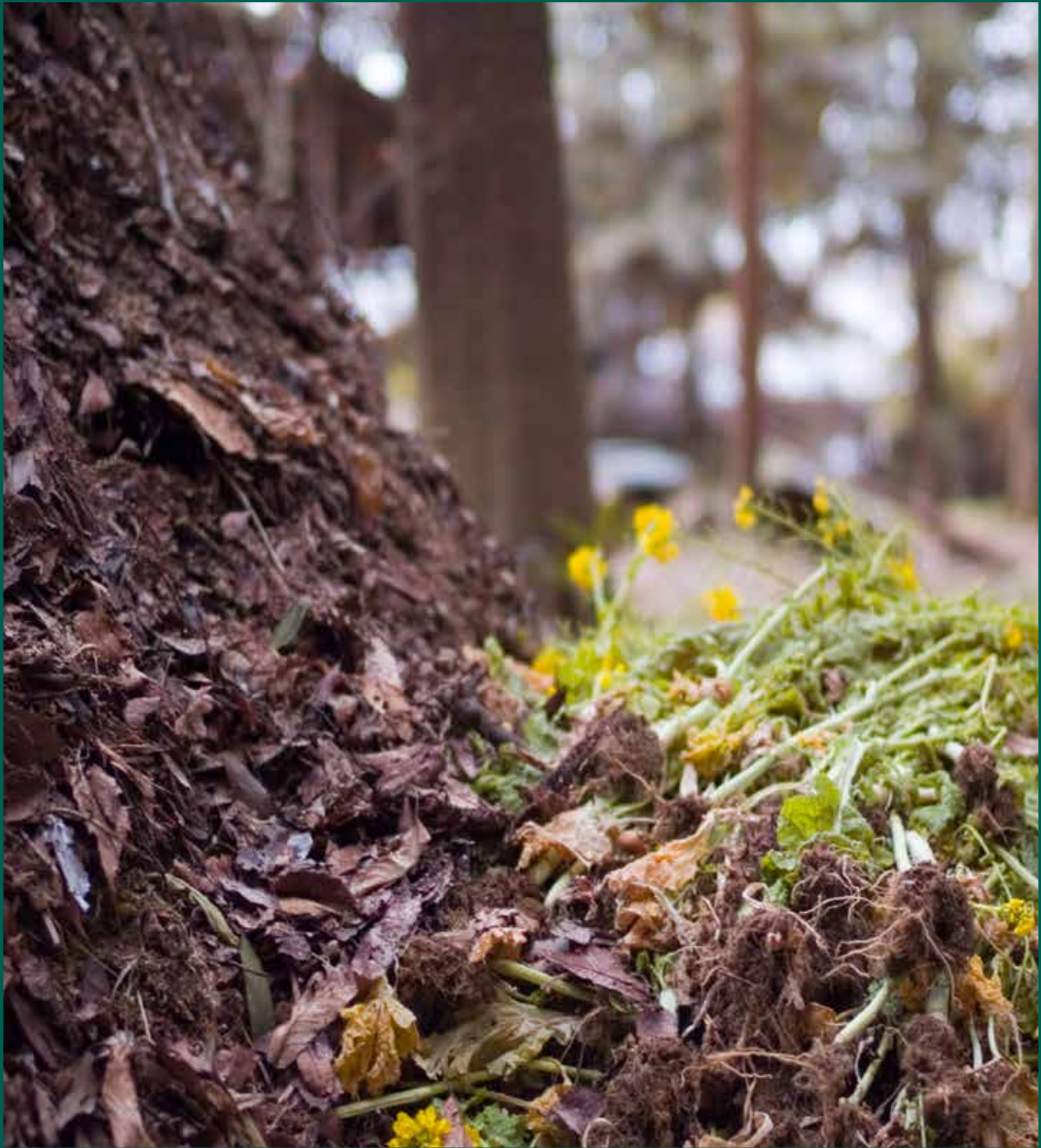
- Mycorrhizal fungi has been around for 450 million years!
- 95% of plants benefit from mycorrhizal fungi.
- There is no such thing as too much mycorrhizal fungi in your soil!
- Mycorrhizal fungi occurs naturally in the soil but can be destroyed through tilling, earthwork, construction, and even heavy foot traffic.
- Fungi is an organic amendment and not toxic, but be careful if you are allergic to fungus.

### Planting Tips

- Call ahead to be sure the nursery or garden store has the materials you need for your lot design.
- If applied at the surface, cover with a mulch blanket directly after planting to shield fungi from UV ray damage.
- Avoid quick release fertilizer or fast release phosphorus with fungi as it will counteract the fungi.
- When plants die, fungi will die off next since they depend on the plants. Be sure to replant new plants soon after others die to ensure the health of your fungi network.

## Draw Your Lot





**DETROIT  
FUTURE  
CITY**

**working  
with lots**  
A FIELD GUIDE

**Visit [DFC-lots.com](https://dfc-lots.com)  
#DFClots**

Image Source: Joi Ito, "Neighbor's Compost." 17 March 2007 via Flickr, CC BY 2.0.