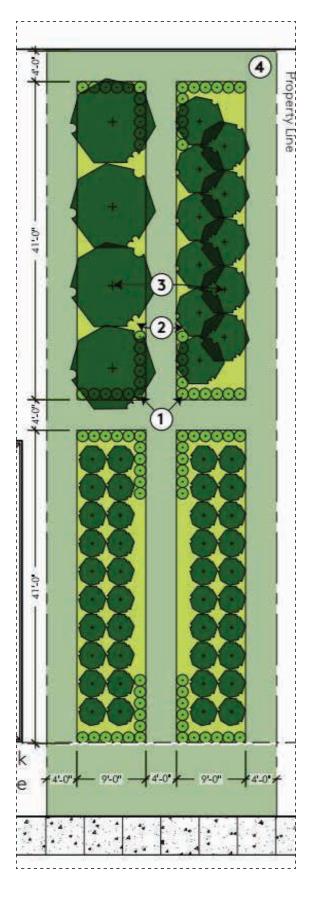


LOT DESIGN: HEDGE FUND



Do you want to turn your green thumb and love of nature into a tree nursery business? GRANT AMOUNT UP TO: \$12,000

The Hedge Fund Lot Design creates organized spaces for growing trees that can later be sold and transplanted to another site. This is well-suited for those who would like to have a hands-on approach to both maintaining and selling trees. The mix of hedges and tree planting areas create clean edges, pathways for maintenance, and preserves views through the lot.

DETAILS:

• Anticipated installation: Fall 2019

REQUIREMENTS:

• Long-term commitment (five year min.) for nursery operations and a plan for using the tree stock

- Secure storage for tools and machines
- There is the potential for a workforce development component to be integrated into the installation

IDEAL FIT:

- The preferred site would be at least two lots (or 60' of frontage)
- This project is ideal for experienced gardeners
- The ability to expand onto nearby lots
- Access to alley for transporting trees

ADDITIONAL REQUIRED RFP QUESTIONS: HEDGE FUND

Please answer in a separate document and upload to Submittable with your proposal (.doc or .pdf file format).

1) What research have you conducted related to this small-business opportunity (ex: do you have a sustainable business model or have you received advice from someone in the field)?

2) Where is the secure storage for the tools and machines that you will need?





Image Source: Lambert, Rotherstien & Associates, "Hantz Tree Installation." Used by permission.





Hedge Fund

The Hedge Fund lot design creates organized spaces for growing trees that can later be sold and transplanted to another site. This is well-suited for those who would like to have a hands-on approach to both maintaining and potentially selling trees.

This lot design takes advantage of land available to increase tree production activity in Detroit, while considering the full season visual and spatial impact of scattered, neighborhood-based tree nurseries.

The mix of hedges and tree planting areas create clean edges, pathways for maintenance and preserves views through the lot.

What is the lot design likely to cost?

The estimated cost of the Hedge Fund is high (\$2,500 - 5,500) and based on 1.5 inch diameter trees, potted plants, and utilizing volunteer labor. To save money, you can buy smaller trees or pots. The cost assumes that residents or volunteers have access to basic safety gear and garden tools.

How much upkeep will this lot design require?

A high level of maintenance is required for this lot design. A commitment to regular monitoring of the trees and plants is needed to ensure the health and proper form of these plants being grown for profit. Maintenance will include watering plants, particularly during times of drought or excess heat, pruning trees and shrubs, and regular inspection of your plant material as it matures.

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 this lot design. Please refer to the Step-By-Step section for guidance. If you do not have required support or feel unable to tackle this lot design, please seek professional assistance.

How long will it take to install this lot design?

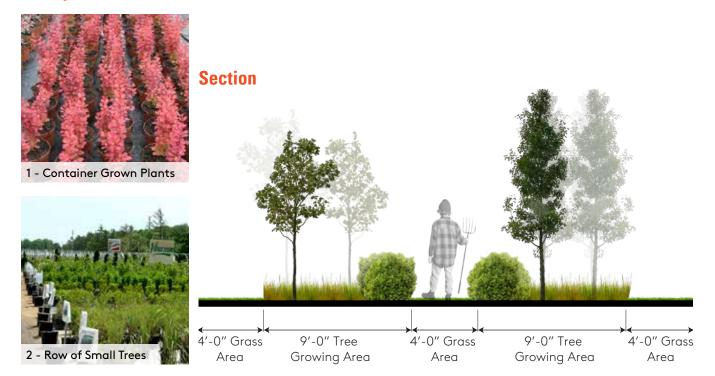
While people tackle projects in different ways and at different speeds, the Field Guide estimates installation time of this lot design to be one full weekend with the help of at least five healthy adults or youth. The Field Guide assumes that the lot is 'construction ready,' and all research, equipment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

For more information refer to DFC-lots.com

Cost	\$50 - 1,000	\$1,0	000 - 2,500	\$2,500 - 5,500		\$5,500 +
People	Volunteer		Professional		Volunteer + Professional	
Experience	Beginner		Intermediate		Advanced	
Upkeep	Low		Medium		High	
Stormwater	Good		Better		Best	
Location	Residential or Commercial Side Lot in Full Sun to Part Sun					

Hedge Fund

Examples of Tree Nurseries



Where Do I Grow?

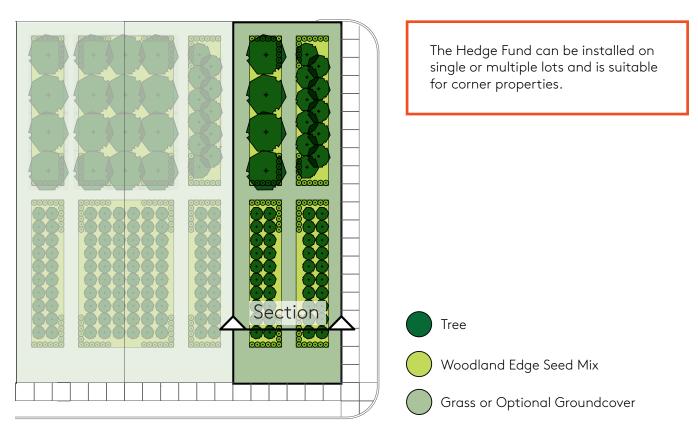


Image Source: 1) Leonora Enking, "Berberis." 21 May 2012 via Flickr CC BY-SA 2.0; 2) Steven Depolo, "West Michigan Evergreen." 25 May 2009 via Flickr CC BY 2.0.

Before You Start

'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 <u>Clean +</u> <u>Green</u> lot design.

You can find the lot design at 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.

Test Your Soil

Harmful pollutants have made their way into many urban soils. To proceed with awareness, consider having your soil tested before construction. Two great options are available:

Soil testing is free to members of Keep Growing Detroit's Garden Resource Program. Call (313) 757–2635 for more information or visit detroitagriculture.net.

If you are not yet a member, you can work directly with Michigan State University's (MSU) Extension Program. They have a Home Lawn and Garden Soil Test Mailer for \$25. For more information call (888) 678–3464 or visit msusoiltest.com.

If you are concerned about the presence of lead or other contaminants in your soil, call the Michigan Department of Health and Human Services at (866) 691–5323 or (800) 424–LEAD.

Remove Your Grass

Need to remove grass in areas where you are constructing your lot design?

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

Till Safely

Before you till, inspect your lot for signs of buried concrete or rubble that was not removed during the cleanup stage. Large debris can ruin tiller blades.

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

What You Need: Shopping List

Shopping List

The shopping list provides a 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 + Resources

Suggested Tools

- Marking Paint and Tape Measure
- Safety Gear: Gloves, heavy work boots, tall socks, pants, long sleeve shirts, dust mask, protective eye wear, ear plugs, and hard hats (if using heavy machinery)
- Garden Tools: Spades, shovels, rakes, trash bags, and wheelbarrows
- Ball Cart, for moving heavy trees

Potential Water Sources

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

Field Guide Resources

Resources are available on the Field Guide's web site.

- · Clean + Green
- · Tree Planting Detail
- · Perennials + Grasses Planting Detail
- · Bulb Planting Detail

Materials List

Materials

• Mulch or Wood Chips, 2 cubic yards

Planting

- Woodland Edge Seed Mix, 9 ounces of seed
- Annual Cover Crop seed mix, 12 ounces of seed
- Germination Blankets, 2 rolls (8 by 112.5 feet)
- · Boxwood, 88 pots

Refer to page 10 for tree suggestions.

Remaining Lot (Optional)

Groundcover

- Low-Maintenance Fescue Mix, 8 pounds of seed
- Germination Blanket, 2 rolls (8 by 112.5 feet)

Hedge Fund Step-By-Step

Let's Start

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

 \oslash

Check off tasks as you go along.

Lot Design Steps

Volunteer:

- Research + Prepare Your Lot
- O Plant Hedge
- Sow Meadow
- O Plant + Grow Trees
- **Maintain Your Lot Design**
- **Sow Remaining Lot**

Libraries are a great resource for researching horticulture and seeking advice on starting a small business.

Annual Cover Crop is used to establish the Woodland Edge Seed Mix and does not require annual re-seeding.

Research + Prepare Your Lot

This lot design will require property owners to research and learn more about horticulture — the practice of cultivating plant material, specifically trees and shrubs for this lot design. This will allow you to become a better steward of the species you will be growing.

Spend time conducting research to ensure you are prepared for this lot design. Horticulture can be rewarding and potentially lucrative. Greater understanding and preparedness can result in healthier trees.

If you are planning to use this lot design to generate income, make sure you understand the costs involved in starting, maintaining, and selling trees. Speak to someone with small business experience and seek advice on how to create a sustainable business model.

Once you have a strong understanding of horticulture, running a small business, and have selected a lot or multiple lots, it is time to start installation. Use marking paint and a tape measure to map out the size, shape, and dimensions of your design. The Field Guide recommends four (9 by 41 foot) nursery beds.

O Plant Hedge

A sunny to shade planting option is recommended for Hedge Fund.

Place plants in desired location and remove plastic pots, loosen roots and plant.

The Field Guide recommends adding three inches (two cubic yards) of wood chips or mulch to planting beds. Adding wood chips or mulch will help suppress weeds.

For more guidance on planting perennials refer to the <u>Perennials + Grasses Planting</u> <u>Detail</u>.

Hedge Fund Step-By-Step

○ Sow Meadow

Soil should be prepared for seeding by scarifying, raking or tilling the soil four to six inches deep to loosen up any compaction, allowing for easier seed germination and better water infiltration. Tilling should not be done without an assessment of buried cement, debris, or large rocks. Be sure to select the correct size of machinery for the job.

Seeding should take place in either spring (mid-May to mid-June) or fall (mid October to end of November). Michigan Wildflower Farm's Woodland Edge seed mix and Annual Cover Crop seed mix are good options for the Hedge Fund; similar mixes are available from other suppliers.

Michigan Wildflower Farm suggests five ounces of Woodland Edge mixed with eight ounces of Annual Cover Crop seed mix per 1,000 square feet. The Field Guide recommends nine ounces of Woodland Edge seed mix and 12 ounces of Annual Cover Crop seed mix for four meadow areas (1,539 square feet).

Once seeds have been mixed, spread seed across the entire meadow area. You can do this by hand or with a hand-cranked whirlwind seeder. You may need to do this several times to get even coverage. Gently water seedlings daily until they are four to six inches in height.

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. **Two 8 by 112.5 foot single net** germination blankets will cover the meadow area. Germination blankets or straw can be purchased at most nurseries and garden stores, including Detroit Farm and Garden.

O Plant + Grow Trees

Follow the best practices explored through your research conducted for the Hedge Fund lot design. The Field Guide has a few additional recommendations for getting started:

You can choose to grow trees from seed or from liners. Liners are to trees what plugs are to perennials – small immature plants which require care and time to grow into mature plants. Liners vary in size, but are usually 1.5 to three feet in height and two to three years old. Using liners will eliminate some of the delicate care required to grow trees from seed but will be more expensive.

Growing from seed is the less expensive option for starting your Hedge Fund. The Field Guide encourages you to pick whichever option is best for you.

Trees cannot survive the winter in an aboveground container (their roots will freeze!). Either plant trees in the ground or bring them indoors.

Transplanting, or moving a plant from one location to another, should only be undertaken while the plant is dormant. For deciduous trees, this means they have no leaves. In Michigan, transplanting should take place between mid-November and early spring.

During the spring of the year you plan to sell the trees, transplant the trees into a container, or ball and burlap while the plant is still dormant.

For more guidance on tree planting refer to the <u>Tree Planting Detail</u>.

Hedge Fund Step-By-Step

O Maintain Your Lot Design

Trees and shrubs must be watered regularly during the first year. Water weekly or as needed.

Trees: Trees require care and attention to thrive. The Field Guide recommends connecting with an arborist or taking a workshop on tree health and maintenance. The Greening of Detroit offers a great Citizen Forester program to interested residents.

Meadow: The Woodland Edge seed mix will require weeding, watering, and mowing. In the first year, cut your meadow back to four to six inches whenever it reaches above ten inches in height.

After the first year, continue weeding and mow your meadow in late fall or early spring. This will keep the meadow at its best. It will take about three years for the meadow to establish.

Visit the Resources page on the Field Guide's web site (DFC-lots.com) to discover other vendors and places to purchase plants.

Average Height of Plants



Trees, Shrubs and Hedge

Sow Remaining Lot

If you are seeking a lower maintenance alternative to a traditional lawn, the Field Guide recommends a fescue seed mix. If you follow the Hedge Fund lot design you will need approximately eight pounds of fescue seed mix for the remaining lot (1,461 square feet) and two 8 by 112.5 foot rolls of single net germination blankets.

This family of floppy grasses is drought-resistant and requires one cutting (in August or September) per year. 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).

Soil should be prepared for seeding by scarifying, raking, or tilling the soil four to six inches deep to loosen any compaction, allowing for easier seed germination and better water infiltration. Apply seed mix to a damp lot.

Sow seeds by using a seed spreader or by hand across remaining lot. A seed rate of five pounds per 1,000 square feet is recommended. Gently water seedlings daily until they are four to six inches in height. 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. Germination blankets or straw can be purchased at most nurseries and garden stores.

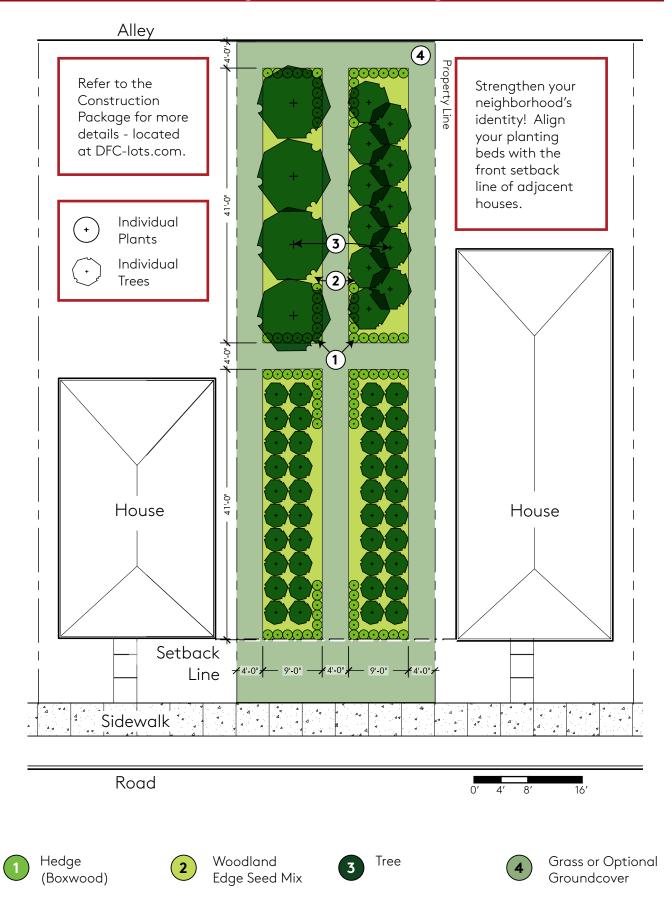
Once established, grass will not require supplemental watering except during unusually dry periods. Eco-Turf Low Maintenance Fescue Mix is one recommended seed mix and can be purchased through the Michigan Wildflower Farm.

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

Next Level: If you would like to bring additional color to your grass, you can always plant bluebells, crocuses and/or daffodils to create a decorative show in spring. Bulbs should be planted in the fall.

For more guidance on bulb planting refer to the <u>Bulb Planting Detail</u>.

Hedge Fund Lot Design



Hedge Fund Planting Options

Tree Options

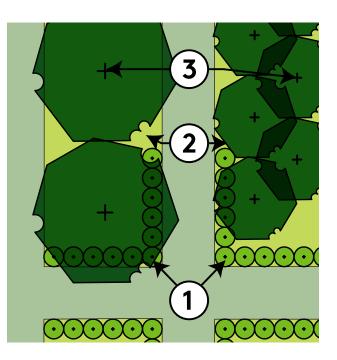
Selecting trees for your nursery requires research and a strong business plan. Your nursery is likely to have a mix of quick and slow growing trees. Here is a list trees to consider:

Quick Growing Trees

- Red Maple, Acer rubrum
- · Zelkova, Zelkova serrata
- · Pin Oak, Quercas palustris
- · Sweetgum, Nyssa sylvatica
- · Yellowood, Cladrastis kentuckea
- · Chinkapin Oak, Quercus meuhlenbergii
- · Serviceberry (Ornamental tree), Amelanchier canadensis
- · Yoshino Cherry (Ornamental Tree), Prunus Yedoensis
- Amur Maple (Ornamental Tree), Acer ginnala

Slow Growing Trees

- · Black Walnut, Juglans nigra
- · Linden, Tilia americana
- Tulip Tree, Liriodendron tulipifera
- English Oak, Quercus robur
- · Katsura Tree (Ornamental Tree), Cercidiphyllum japonicum
- · Japanese Tree Lilac (Ornamental **Tree)**, Syringa reticulata



Key



Boxwood (Space approximately 1.5 feet

apart.)



3

Woodland Edge Seed Mix

Tree (See the suggested list at left.)

Plant Sizes



Pots & Seeds: Trees can be purchased in a variety of forms, including pots, liners and seeds.



Chicagoland Green Boxwood¹ Buxus x 'Glencoe' 3' Height x 3' Width Slow Growing

10

Hedge Fund Planting

Woodland Edge Mix

Mixing nine ounces of Woodland Edge Mix with 12 ounces of Annual Cover Crop seed mix is recommended for the Hedge Fund lot design.

You can buy these seeds premixed at Michigan Wildflower Farm.

Canada Wild Rye, *Elymus canadensis* (30% of mix)

Bottlebrush Grass, *Hystrix patula* (10% of mix)

Little Bluestem, Schizachyrium scoparius (22% of mix)

Bergamot, Monarda fistulosa (4% of mix)

Foxglove Beardtongue, Penstemon digitalis (4% of mix)

Snakeroot, Eupatorium rugosum (4% of mix)

Wild Columbine, Aquilegia canadensis (4% of mix)

June Grass, Koeleria cristata (3% of mix)

Purple Meadow Rue, Thalictrum dasycarpum (3% of mix)

Bluestem Goldenrod, Solidago caesia (2% of mix)

Heart-Leaved Aster, *Aster cordifolius* (2% of mix)

Tall Bellflower, Campanula americana (2% of mix)

Showy Tick Trefoil, Desmodium canadense (2% of mix)

Nodding Wild Onion, Allium cernuum (2% of mix)

Woodland Sunflower, Helianthus divaricatus (2% of mix)

Canada Anemone, Anemone canadensis (1% of mix)

Tall Thimbleweed, Aquilegia virginiana (1% of mix)

Wild Geranium, Geranium maculatum (1% of mix)

Hairy Beardtongue, Penstemon hirsutus (1% of mix)

Plant Sizes



Seeds: All plants can be purchased in seed form.

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 for assistance.

Helpful Facts

- SEMCOG's Regional Green Infrastructure plan calls for a significant increase in tree canopy across Detroit.
- Trees increase in value over time. They can be purchased very inexpensively at a young age but can be sold for much more in only a few years as they grow larger.

Planting Tips

- Call ahead to be sure the nursery or garden store has the plants you need for your lot design.
- Inspect trees before purchasing to be sure they are healthy and well formed. This will help you select trees that are likely to survive.
- Using liners will avoid the delicate requirements of raising trees from seed.
- The best time to plant is in spring or fall.
- · Do not plant in extreme heat.
- Water trees during planting and as needed.
- If mulching around trees, do not place too close (less than three inches) to the tree trunk. This will help keep trees free of disease.
- Do not plant trees under overhead wires.

Draw Your Lot





Visit DFC-lots.com #DFClots

Image Source: Challenge Detroit Fellow, "Grandmont Rosedale Tree Nursery." 13 June 2014, Owned by Detroit Future City.