

Volunteer

Professional

Volunteer + Professional



Syrup Maker

Image Source: CAFNR, "Mapling Basket." 08 March 2013 via Flickr, CC BY 2.0.





The Syrup Maker is a long-term lot design that has potential to generate income once the trees are mature enough (12 inches in diameter) to collect sap for maple syrup production.

Maple trees offer a vibrant array of fall colors and deep summer shade. It could take two decades for your trees to reach the size required for tapping, but in the interim, the Syrup Maker provides a well-groomed landscape appropriate for most neighborhoods.

This is an 'heirloom landscape' lot design that will be enjoyed by many generations.

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 Syrup Maker is moderate (\$1,000 – \$2,500) and based on 1.5 inch diameter trees and utilizing volunteer labor. To save money you can plant smaller size trees however this can take longer for trees to reach 12 inch diameter required for sap for maple syrup production. 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 include watering newly planted trees, particularly during times of drought and excess heat.

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 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 installation time of this lot design to be one full weekend with the help of at least three to five healthy adults or youth. The Field Guide assumes the lot is 'construction ready,' and all equipment and materials required for the lot design have been acquired and are ready to go.

Cost	\$50 - 1,000	\$1,000 - 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	Single, Double, or Multiple Lots in Full Sun or Shade			

Syrup Maker

Examples of Maple Sap Collection



1 - Watering Tank



2 - Syrup Collection

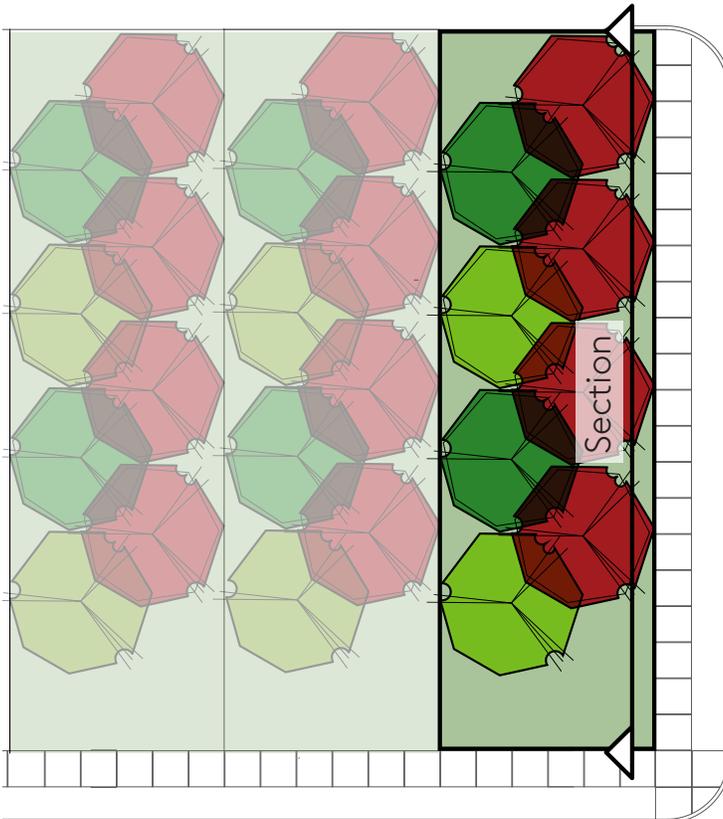


3 - Sugar Maple

Section



Where Do I Grow?



The Syrup Maker can be constructed on single, double, or multiple lots and is suitable for corner properties.

-  Grass or Optional Groundcover
-  Black Maples
-  Red Maples
-  Sugar Maples

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 [Clean + Green](#) 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

- **Safety Gear:** Gloves, heavy work boots, tall socks, pants, long sleeve shirts, dust masks, 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
- Bulb Planting Detail

Materials List

Materials

- **Mulch or Wood Chips,** 0.5 cubic yards

Planting

- **Sugar Maple,** 4 pots, or balled and burlapped
- **Black Maple,** 2 pots, or balled and burlapped
- **Red Maple,** 2 pots, or balled and burlapped

Remaining Lot (Optional)

Groundcover

- **Low-Maintenance Fescue Mix,** 15 pounds of seed
- **Germination Blankets,** 4 rolls (8 by 112.5 feet)

Refer to pages 10 and 11 for alternative groundcovers for underneath trees.

Syrup Maker Step-By-Step

Let's Start

Want to create the Syrup Maker 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:

- Prepare Your Lot**
- Plant Trees**
- Maintain Your Lot Design**
- Sow Lot Underneath Trees**

Prepare Your Lot

Decide on the best location for your Syrup Maker. **The Field Guide recommends utilizing the full 30 by 100 foot lot (3,000 square feet).**

You do not need to kill grass in the areas you wish to plant your maple trees. Simply dig out existing grass or groundcover in the area you wish to plant your trees.

Plant Trees

The Field Guide recommends planting 1.5 inch diameter trees; however, smaller or larger trees can be planted if preferred. Trees can be purchased in pots or balled and burlapped. If you decide to plant larger trees speak with a professional or an educational group as older trees can be more difficult to establish.

Plant trees as soon as possible after purchasing. If you cannot plant them the same day, do not leave unplanted trees in direct sunlight. Keep them in shade and well watered until you can plant them. (Trees dry out fast!)

Identify the location where you wish to plant the trees. Dig a hole three times the width of the root ball and equal to the depth.

Pots should be removed before placing the tree in the planting hole. Balled and Burlapped root balls should remain wrapped until placed in hole. Unwrap the top 1/3 of the root ball and peel back the burlap once planted. Remove any twine, nails, or stakes. The root flare should be level with the ground when you place the tree in the hole.

Water the root ball, then backfill the hole with the soil previously removed from planting. Add water to the tree every six inches as you backfill the hole. Compact the soil lightly after each watering until the hole is filled with soil and level with the adjacent ground.

The Field Guide recommends adding three foot diameter by three inch depth of wood chips or mulch around trees. **0.5 cubic yards of mulch or wood chips is required for eight trees.** Keep mulch or wood chips a few inches away from tree trunks.

The Syrup Maker plan shows maple trees organized in rows. If you prefer a naturalized maple forest, plant trees randomly or staggered throughout the lot, making sure all trees are approximately 15 to 20 feet apart. This will give trees room to grow.

For more guidance on tree planting refer to the [Tree Planting Detail](#).

Syrup Maker Step-By-Step

○ Maintain Your Lot Design

Trees require care and attention to thrive. Trees must be watered regularly during the first year. Water weekly or as needed.

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.



Prefer to sow remaining lot with seed mix other than low-maintenance Fescue mix? Refer to pages 9 and 10 for alternative groundcovers perfect for growing underneath trees.



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 and Groundcover

○ Sow Lot Underneath Trees

If you are seeking a lower maintenance alternative to a traditional lawn, the Field Guide recommends a fescue seed mix. **If you follow the Syrup Maker lot design you will need approximately 15 pounds of fescue seed mix for full lot (3,000 square feet) and four 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 seed across the remaining lot by using a seed spreader or by hand. 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.

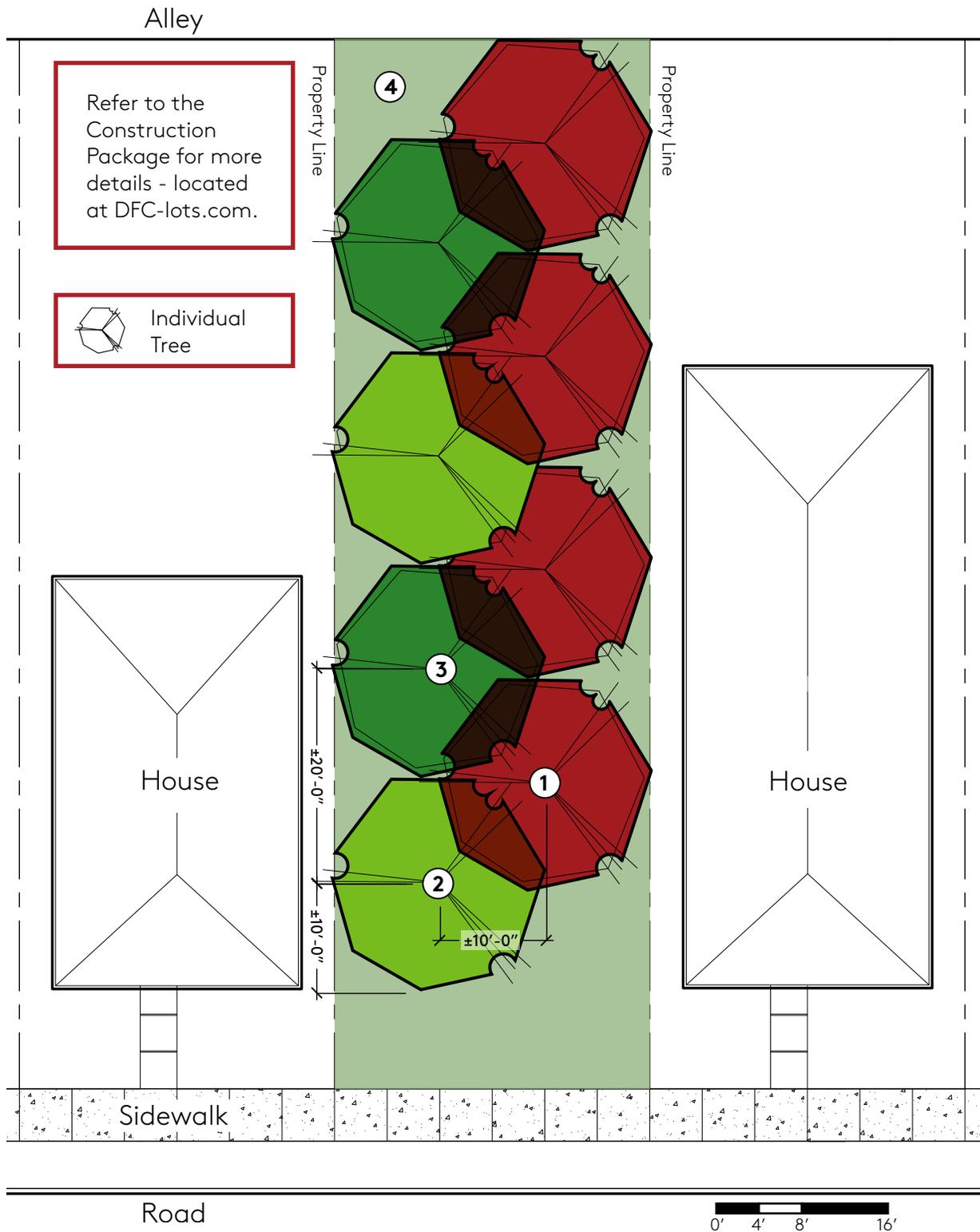
Once established, grass will not require supplemental watering except during unusually dry periods. Eco-Turf Low Maintenance Fescue Mix is one recommended seed mix and can be purchased through the Michigan Wildflower Farm.

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 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 [Bulb Planting Detail](#).

Syrup Maker Lot Design



- 1
 Shade Tree (Sugar Maple)
- 3
 Shade Tree (Red Maple)
- 2
 Shade Tree (Black Maple)
- 4
 Grass or Optional Groundcover

Planting: Full Sun to Part Sun



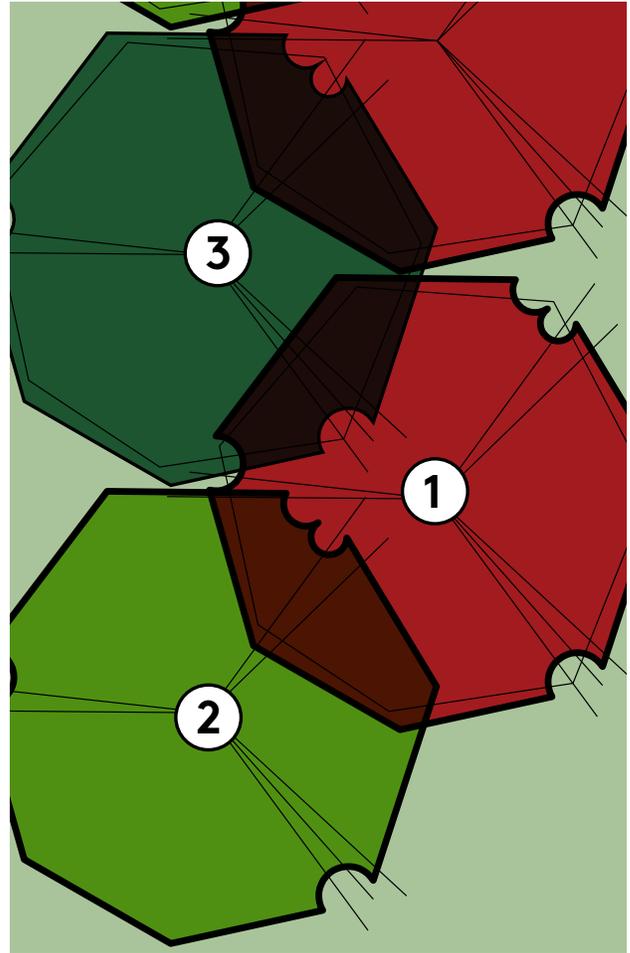
Sugar Maple¹
Acer saccharum
 60' Height x 50' Width.
Quantity: 4 pots or B & B



Black Maple²
Acer nigrum
 70' Height x 50' Width.
Quantity: 2 pots or B & B



Red Maple³
Acer rubrum
 60' Height x 50' Width.
Quantity: 2 pots or B & B



Plant Sizes



Pots: 1.5 inch diameter trees are available at commercial landscape supply stores in pots or balled and burlapped (B & B).

Key

- 

Sugar Maple
 (Space approximately 15 to 20 feet apart from each other.)
- 

Black Maple
 (Space approximately 15 to 20 feet apart from each other.)
- 

Red Maple
 (Space approximately 15 to 20 feet apart from each other.)

Planting: Alternative Groundcover

Seed Mix for Underneath Trees

Partially Shaded Mix

Mixing two pounds of Partially Shaded Area Roadside Seed Mix (ERNMX -140) with three pounds of Annual Cover Crop seed mix is recommended if selected as lot design groundcover.

You can buy these seeds premixed at Ernst Conservation Seeds.

Little Bluestem, *Schizachyrium scoparium*, Fort Indiantown (32% of mix)

Virginia Wildrye, *Elymus virginicus* (20% of mix)

Autumn Bentgrass, *Agrostis perennans* (20% of mix)

Purple Coneflower, *Echinacea purpurea* (5% of mix)

Partridge Pea, *Chamaecrista fasciculata* (4% of mix)

Tall White Beardtongue, *Penstemon digitalis* (3% of mix)

Marsh Blazing Star, *Liatris spicata* (3% of mix)

Blackeyed Susan, *Rudbeckia hirta* (2% of mix)

Oxeye Sunflower, *Heliopsis helianthoides* (2% of mix)

Prairie Dock, *Silphium terebinthinaceum* (3% of mix)

Slender Bushcover, *Lespedeza virginica* (1.5% of mix)

Ohio Spiderwort, *Tradescantia ohiensis* (1% of mix)

White Wood Aster, *Aster divaricatus* (1% of mix)

Eastern Columbine, *Aquilegia canadensis* (1% of mix)

Thimbleweed, *Anemone virginiana* (1% of mix)

Browneyed Susan, *Rudbeckia triloba* (1% of mix)

Blue False Indigo, *Baptisia australis* (0.8% of mix)

White Goldenrod, *Solidago bicolor* (0.5% of mix)

Wild Bergamot, *Monarda fistulosa* (0.5% of mix)

Zigzag Goldenrod, *Solidago flexicaulis* (0.5% of mix)

Hoary Mountainmint, *Pycnanthemum incanum* (0.2% of mix)

Plant Sizes



Seeds: All plants can be purchased in seed form.

Planting: Alternative Groundcover

Seed Mix for Underneath Trees

Non-Native Woods Mix

Mixing six pounds of Right-of-Way Non-Native Woods Mix seed mix (ERNMX-132) with three pounds of Annual Cover Crop seed mix (oats or grain rye depending on sowing season) is recommended.

You can buy these seeds premixed at Ernst Conservation Seeds.

Creeping Red Fescue, *Festuca rubra* (30% of mix)

Timothy 'Climax', *Phleum pratense*, 'Climax' (20% of mix)

Perennial Ryegrass 'Homerun', *Lolium perenne*, 'Homerun' (20% of mix)

Ticklegrass, *Agrostis scabra* (18% of mix)

Alsike Clover, *Trifolium hybridum* (12% 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.

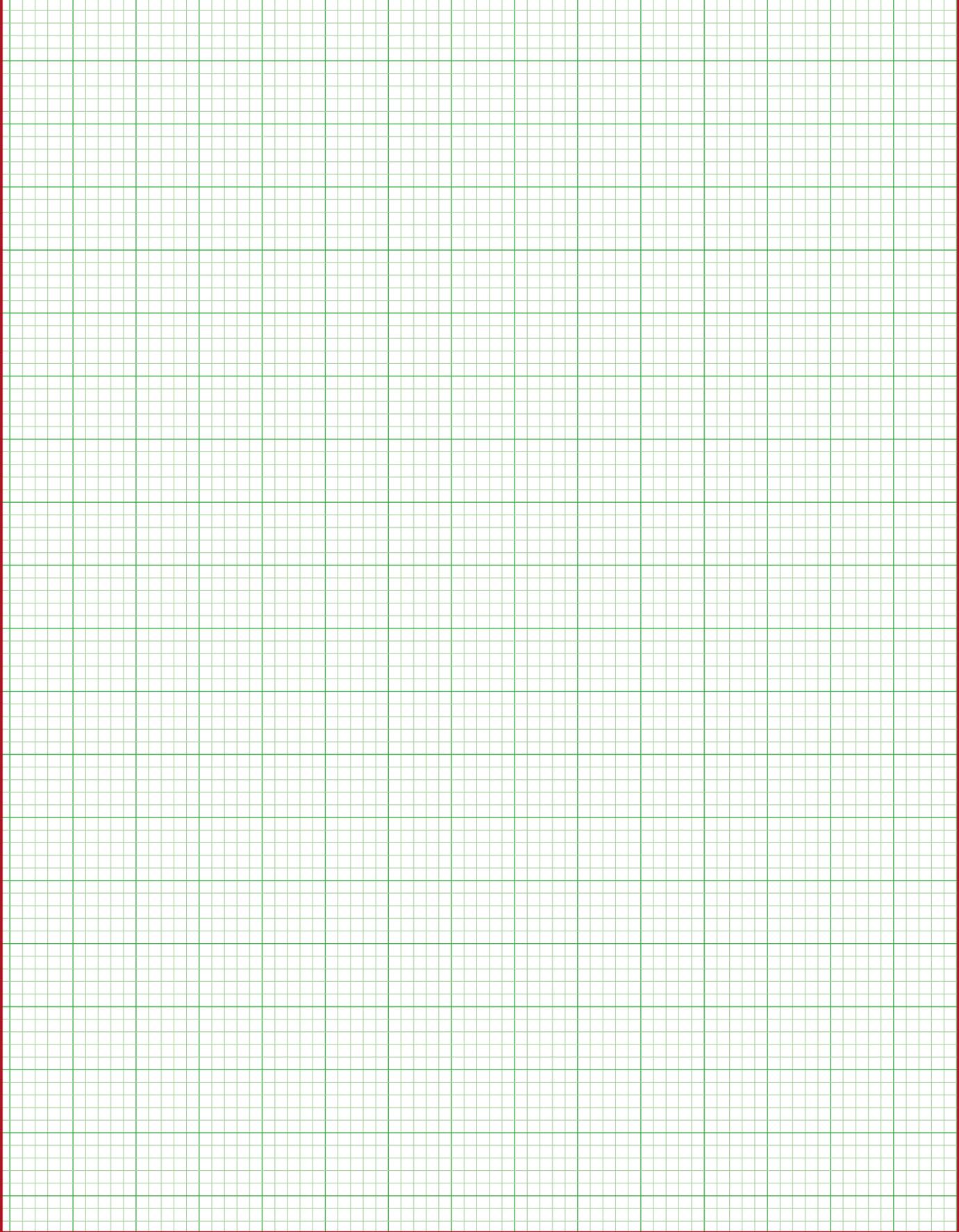
Helpful Facts

- Maple trees have beautiful fall colors.
- You can collect sap from a maple tree to make syrup once the tree has reached 12 inches or greater in diameter.
- Sugar maples yield the highest volume of concentrated sap. Black maples produce a sweeter sap than sugar maples. 40 to 50 gallons of sap will produce one gallon of syrup.
- Red maples do not produce as much sap as sugar maples; however, some maple farms prefer to only use red maples due to their superior flavor.
- Michigan has a strong network of syrup makers with several Michigan-based suppliers of tapping equipment, evaporators, and even cooperative syrup-selling opportunities.

Planting Tips

- Water trees during planting and as needed.
- If mulching around trees, do not place mulch too close to tree trunk (less than three inches). This will help keep the tree free of disease.
- Inspect trees before purchasing to make sure they are healthy and well formed. This will help you select trees that are likely to survive.
- Call ahead to be sure the nursery or garden store has the plants you need for your lot design.
- The best time to plant trees and shrubs is in the spring or fall.
- Do not plant trees under overhead wires. Trees can grow 40 to 50 feet in height.

Draw Your Lot





**DETROIT
FUTURE
CITY**

**working
with lots**
A FIELD GUIDE

Visit DFC-lots.com
#DFClots

Image Source: Ellenm1, "Irresistible Maples." 26 October 2009 via Flickr, CC BY-NC 2.0.

