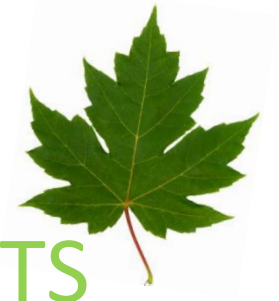


TORONTO DIRECTORY OF URBAN WOOD PRODUCTS AND SERVICES



Including companies located in the Greater Toronto Area

Third Edition

January 2016



Arborists • Carpenters • Carvers • Craftspeople • Furniture Makers • Lumber • Millwork • Sawyers • Sawmills • Tree Removal • Wood Turners • Arborists

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Prepared by
Economic Development and Culture, City of Toronto

January 2016

An electronic version of this directory can be downloaded at www.toronto.ca/urbanwooddirectory

Front Cover photo credits: Galen McMonagle, Lija Skobe/LEAF, Michael Finkelstein

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Introduction and Background

Urban forests are constantly evolving. Each year nearly 200,000 trees in the City of Toronto die of natural causes, are felled by storms, removed for safety reasons or killed by diseases and pests.

Toronto's urban forest has about 10.2 million trees that provide canopy cover for almost 30% of the city. 4.1 million trees line Toronto's streets and are found within the City's many parks and natural areas and the remaining 6.1 million are situated on private property.

Urban trees provide huge benefits to the city and the people who live and work here. Amongst their many benefits, Toronto's urban forest provides the equivalent of at least \$28.2 million in ecological services each year including:

- Storage of 1.1 million metric tonnes of carbon or the equivalent of annual carbon emissions from 733,000 automobiles.
- Reduction of energy consumption by shading buildings, providing evaporative cooling, and blocking winter winds. Toronto's urban forest is estimated to reduce energy use from heating and cooling of residential buildings by 41,200 MWH (\$10.2 million annually).
- Improvements to local air and water quality, intercepting over 1,900 metric tonnes of air pollutants annually (the equivalent value of \$16.9 million annually).
- Mitigation of storm water runoff. It is estimated that surface runoff is reduced by almost 24% by Toronto's trees – reducing flooding and the costs of building and maintaining storm water sewers and treatment facilities.

Periodically forests face massive die offs due to changing conditions. In the 1960s, Dutch elm disease killed off nearly 80% of Toronto's majestic elms. Toronto is now faced by a die off of ash trees due to the Emerald Ash Borer. Nearly all of Toronto's 860,000 ash trees will die in the next 5 - 10 years due to this invasive pest. This surge of ash may double the annual mortality rate of Toronto trees over the next few years.

This is not the first massive tree species die off – it will not be the last. What can be done with all these dead trees?

The term 'windfall' now means an unexpected, unearned or sudden gain. However, the origins of its meaning, and one which the founders of York (eventually Toronto) were well aware of, referred to a tree that unexpectedly came down in a storm. For the founders of Toronto it represented a sudden economic gain – for Toronto's trees were once used to build our homes, shelter our animals, and store our grain. They built our civic founders' furniture, heated their homes and businesses, and provided one of our first export opportunities.

The wood industry still plays a major role in the economy of Toronto. Some of our largest firms use wood as the raw material for their products, and the wood using industry employs nearly 25,000 people. Toronto is also a North American hub for furniture and interior design, while Canada is the 4th largest global exporter of furniture behind Italy, China and Germany. Many of these designs are made from wood.

Despite this, the wood now used in Toronto comes from virgin forests, while the wood from our fallen urban trees is considered a costly problem that needs disposal.

There are opportunities for homeowners and businesses to again use Toronto's fallen trees as an economic resource. They need not be a financial burden for both individuals and the community. Using local urban wood, just as producing energy locally and growing food locally, will keep local dollars in the community and create new job opportunities in Toronto.

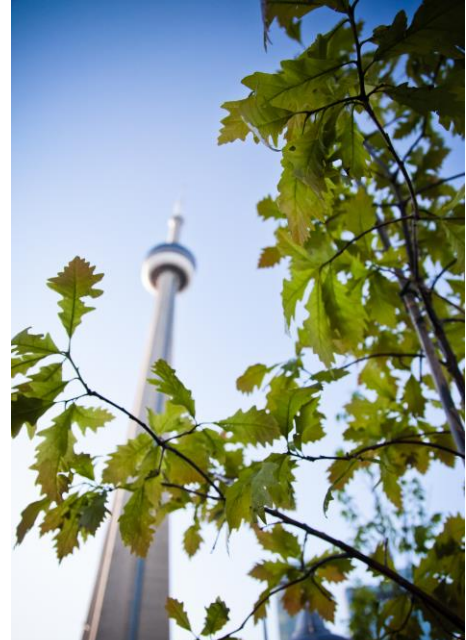


Photo 1: Source: LEAF

For the homeowner who loses a beloved shade tree –it can become a dining room table, new flooring for the kitchen, or even a carved bowl to display on the mantel piece that will help retain memories of the fallen friend and create a family heirloom to be passed down through the generations (and a conversation piece at the next family gathering or cocktail party!).

For businesses who brand themselves as “green” and want to implement visibly sustainable practices – what better way than to use “salvaged” wood that would otherwise go to waste in the design of the interior spaces of a restaurant, store or office?

The City of Toronto’s Economic Development and Culture division has implemented an Urban Wood Initiative, **Neighbour Wood**, to encourage homeowners and commercial enterprise to salvage and re-use Toronto’s valued local trees. The purpose of this directory is to link homeowners and commercial enterprise to the companies that can provide services and make products from urban wood when the need arises to remove a local tree.

Within this directory is a list of local companies that work with urban wood. Supporting these local businesses generates new jobs within the City of Toronto and the GTA, and encourages the sustainable re-use of wood materials.

More information on **Neighbour Wood**, the Urban Wood Initiative, can be found at: www.yourleaf.org/urban-wood-utilization

Methodology

The companies included in this directory are located within the Greater Toronto Area (GTA). The rationale for including companies located outside the boundaries of the City of Toronto is to capture those activities in the wood industry which do not, or cannot occur in a highly urbanized city. Many activities related to the harvesting and milling of wood, such as sawyers and sawmills, require large compounds and storage facilities that are often found outside of Toronto. The wood industry must be thought of as a regional sector and is therefore better captured using the boundaries of the GTA.

This directory builds on the Urban Wood Initiative work and outreach conducted by City staff during 2012-2013. An initial database of wood firms was developed and has been augmented by a survey of the wood industry conducted in September 2013. The survey was targeted to companies which fall under the North American Industry Classification System (NAICS) codes broadly defined as including forestry and logging, construction, manufacturing and other wood and related activities.

The intent is to update and publish this directory on a regular basis. It is recognized that there might be other companies that have not been captured here. Urban wood firms that are interested in being included in future updates of this directory can contact greentech@toronto.ca.



Figure 1: The Greater Toronto Area

How do I Use this Directory?

This directory is designed to help connect homeowners, property owners and businesses to Toronto's urban wood using industry. There are three general reasons why these connections can be made:

1. I am a homeowner (or property owner) with a tree that needs to be removed. I want to have something made from this tree for my own use.

If you're considering creating a product from your tree then you will often need a team of skilled trades-people working with you. In some cases all the skill sets can be found in one or two companies and this is something to consider when undertaking this task. A good arborist or tree service company may be able to coordinate and link you in with all the necessary services.

First, connect with an arborist to ensure that the tree cannot be saved. In Toronto you will need a permit (and a valid reason!) to remove a tree. When selecting an arborist, inquire if they have expertise providing advice on potential "salvaged" uses for the wood and if they can recommend firms who can work with you to make items from the wood. The arborists listed in this directory will have these contacts. The arborist can provide advice on the tree's potential for harvesting wood to make into products for your own use. The section '**Lumber Characteristics of Toronto's Trees**' in this directory will give you some guidance on what types of products can be produced from your tree.

Next, search through the websites of the wood product firms which includes furniture makers, carvers, carpenters and artists listed in the **Custom Products** section of the directory. These are firms that will work with you to produce products that can become heirloom pieces for you and your home. Keep in mind that not all items need to be large and expensive – a cutting board or a carved bowl can be made from a small piece of the tree and are often inexpensive ways of getting lasting value from your downed tree. Most firms should be able to give you an estimated cost and wood requirements without meeting with you directly. In some cases the wood craftsman may want to meet with you to begin the design process. Where the product is large – or requires on site preparation of the wood – then these firms will work with sawyers (who will bring a portable sawmill to your property), or your 'saw logs' will be delivered to a local sawmill to produce your lumber.

If the tree needs to be removed then you will need to contract a tree service company for its removal. Many arborists work with or for tree service companies, and it is this company that cuts the tree down. There will be coordination between the tree service firm and the wood product firm (or sawyer) you have selected to ensure that the tree is cut for the proper saw-logs that you need. Often tree service companies will also dispose of the cut tree or be able to transport the saw logs to the firm you have selected to work with. There are also waste removal companies that specialize in the removal of cut trees. You should inquire about where the waste wood will go. Many wood removal firms work with biomass brokers or sell direct to firewood and wood chip firms, however, there is concern that much of the removed private trees in Toronto are going to private landfills.

2. I want to purchase something made from the wood of Toronto's trees.

If you are interested in buying wood furniture or other wood products, remodelling or doing a renovation of your home or business, then consider purchasing (or making) an item from Toronto's urban trees. This will support the sustainable use of a local, valuable, natural resource. The firms listed in the **Commercial Products** section of the directory make items from the wood of Toronto's trees. These items may be produced as "standard" products (such as dining room tables or flooring) or may be custom made (interior design) to meet specific client needs. Toronto's wood using industries have an opportunity to purchase raw wood from local sources at rates that are often cheaper than those from traditional forestry firms elsewhere, due to the high costs of disposing of local wood and the costs of transportation from up north.

3. I want to sell the wood from my felled trees.

Certain tree species are in high demand from the wood using industry due to their rarity or wood characteristics. A listing of high demand wood can be found in the **Lumber Characteristic of Toronto's Trees** section of the directory. However, the actual value of individual raw *saw logs* (i.e. a log 8' long and 24" in diameter) might be in the range of \$15 - \$40 and even a very large tree may only produce 3-4 logs.

Trees grown in urban areas often have many defects and characteristics which reduce their value as traditional lumber. Often this will not justify the costs that a firm incurs to pick up and process logs from one or two trees from a private property. If you do have a tree that is in demand by the wood using industry, then discuss potential opportunities of selling the timber with your tree service firm. Sawyers and sawmills listed in the directory will often be able to provide you advice on the potential value of logs from your tree. Alternatively, some local wood crafts people will consider picking up a few logs of a unique tree species, free of charge, that they can turn into unique products.

Property owners where there is a significant number of trees that need to be removed (i.e. a grove of ash trees killed by the emerald ash borer) may want to look into opportunities to sell their wood through local sawmills, biomass brokers or firewood/wood chip firms.

Definitions of Services

This section defines each category of service offered. This will help to determine what types of services a company offers, and which categories will be best suited to meet your needs.

On-Site Services

These firms offer onsite services to advise and assist the property owner on the condition and removal of the tree. To be listed in this directory, arborists and tree removal services must have experience working with firms that can produce items from urban trees.

Arborists:

Arborists are professionals in the practice of arboriculture, or the cultivation and management of individual trees and plants. In Ontario they are certified by the International Society of Arboriculture, and are able to provide tree owners with professional tree care, safety and maintenance advice. Some arborists are also trained to conduct tree removals as necessary.

Sawyers:

Individuals who saw logs into usable lumber. They are able to provide rough cuts or more finished products based on the customer's need. They may have the ability to conduct the sawing on-site with the use of portable sawmills. Typically able to provide more customized products.

Tree Removal:

A company or individual who offers tree removal services. They are not necessarily a certified arborist, and are able to provide tree owners with the services required to remove dangerous or unwanted trees from their properties.

Waste Removal:

A company which offers services for the removal of household, commercial, industrial and natural waste. Some companies offer recycling programs where waste wood is re-used as biomass for energy facilities, as new wood products etc.

Custom Products

These types of firms will work with individual tree owners to process their downed tree into products for the owner's own use. Examples of these firms include furniture makers who will make you a dining room table or mill your tree for flooring for your renovation. Go to these firms if you want something made from your fallen tree.

Artist:

An individual or collection of persons capable of creating an artistic product out of wood materials in consultation with the buyer.

Carpentry, Cabinetry, Interior Design and Millwork (for homeowners):

An individual or company which custom makes interior and exterior home products for homeowners. This includes kitchen cabinets, stair casings and railings, trim, fascia, and door and window frames.

Carpentry, Cabinetry, Interior Design and Millwork (for commercial):

An individual or company that custom makes interior and exterior commercial products for offices and businesses. This includes interior panelling, counters, shelving, signs and interior design.

Carving and Woodturning:

An individual or company who makes custom carvings such as plaques, coat of arms, decorative art pieces etc, and woodturned products such as bowls, pens and vases.

Flooring:

A company which mills wood supplied by the customer and produce custom flooring for home, office, and institutional use.

Furniture (wood):

An Individual or company who creates custom wood furniture based on the needs of the customer.

Kiln:

An individual or company that has access to or owns a kiln, which is an oven used to quickly dry green wood. Drying and hardening of wood is often necessary to be made into usable products. The alternative to kiln drying wood is air drying, which takes significantly more time.

Other Wood Products:

Firms who create unique or specialty wood products based on the requirements of the customer.

Sawmills:

A stationary facility where saw logs are cut into lumber. If they are listed in this section then they custom cut wood supplied by the customer into specific lumber dimensions. Often able to process larger quantities of logs than sawyers, and may have kiln drying facilities available.

Commercial Products

These firms use urban wood to produce commercial products which can be purchased. They may do custom work but will use a supply of urban wood not from the individual. Examples of these firms are cabinet makers who will custom make kitchen cabinets or interior designers who will design and build an interior for a new restaurant. Go to these firms if you want to purchase products made from Toronto trees.

Carpentry, Cabinetry, Interior Design and Millwork (for homeowners):

An individual or company which make interior and exterior home products.

Carpentry, Cabinetry, Interior Design and Millwork (for commercial):

An individual or company that makes interior and exterior commercial products for offices and businesses.

Carving and Woodturning:

A professional who does carvings such as plaques and woodturned products such as bowls, pens and vases.

Flooring:

A company that mills urban wood and produces wood floor for home, office, and institutional use.

Furniture (wood):

An Individual or company which makes wood furniture. These can range from custom designs to mass manufactured products.

Lumber Supply (live edge):

A company which mills logs and supply rough cut or live edge materials which have unique characteristics and are often not standard dimensional lumber. These products typically need further finishing and milling to be turned into finished products.

Lumber Supply (Standard):

A company that mills logs and supplies finished and dimensional lumber to customers. This is the more conventional type of lumber that does not require additional milling work to be turned into finished products.

Other Wood Products:

Unique or specialty products made of wood from Toronto's trees.

Sawmills:

A stationary facility where logs are cut into lumber. Listed here means they produce standardized dimensional lumber to be used as building or fabrication materials by other companies. They may not deal with individuals. Able to process larger quantities of logs, and often have kiln drying facilities available.

Other Services and Organizations

These firms offer related services to various stakeholders.

Biomass Brokers:

Individuals or firms who buy biomass (any form of woody materials) from tree owners and then sell this to companies who use biomass for energy production, or the production of other value added wood products.

Firewood/Woodchips:

A company which specializes in the sale of firewood or woodchips (for energy source) and often made up of all types of wood species.

Non-Governmental Agency:

A recognized organization whose mandate and function relates to the use or interaction with tree's and wood products.

Bulk Wood Purchasers or Users

Companies who use high volumes of urban wood in their operations. Typically these firms are focused on biomass energy (i.e. making wood pellets), mulch for ground cover, of firms that buy wood for powering their own operation

Table 1: On-site and custom services by category

Company	On-Site Services				Custom Categories								
	Arborists	Sawyers	Tree Removal	Waste Removal	Artist	Carpentry (home)	Carpentry (comm.)	Carving and Woodturning	Flooring	Furniture	Kiln Dryer	Other Wood Products	Sawmill
Akroyd Furniture										●			
Al Miley & Associates	●		●										
Artistic Wood and Tool Supply Inc.					●	●	●	●	●	●	●	●	●
Anazao Inc					●	●	●	●	●	●		●	
Baker Brothers					●	●	●			●		●	
Biochar Consulting													
Borealis Wood Power Corp.												●	
Brothers Dressler					●	●	●			●		●	
C.R. Fieldhouse						●		●		●		●	
Cabinet Inc.						●	●			●			
Canadian Salvage Timber						●	●		●	●		●	●
Century Wood Products Inc.										●			
Cherrywood Studio										●			
Crowe River Studio					●	●	●			●		●	
Daniel Daigle Fine Woodworking Inc.										●		●	
David MacHenry Design						●		●		●			
Deer Brian Inc						●	●		●			●	●
Eco Tree Co.	●	●	●		●	●	●		●	●	●	●	●
Eco-Woodturner					●			●				●	

Company	On-Site Services				Custom Categories								
	Arborists	Sawyers	Tree Removal	Waste Removal	Artist	Carpentry (home)	Carpentry (comm.)	Carving and Woodturning	Flooring	Furniture	Kiln Dryer	Other Wood Products	Sawmill
Firewood Solutions and Live Edge Lumber		●		●		●				●			●
Forever Interiors										●			
Garrison Creek Bats					●			●				●	
Greenwood Studio						●	●			●		●	
Jake Whillans Studio						●	●			●			
Karmatree Inc	●	●	●										
Kelly's Tree Care	●		●	●									
Live Edged Woodcraft					●					●		●	
Lubo Design										●			
Made in Rockingham							●	●				●	
Mobile Sawmill Services		●											●
Modelling Surface Water Limited								●					
North on Sixty	●	●	●		●	●	●		●	●	●	●	●
Norwood Portable Sawmills		●											●
Ontree (formally Ontario Tree Experts)	●		●										
Paccione Construction		●			●	●				●		●	
Paus+Grun Woodwork						●	●						
Portal Studio					●	●	●			●			
Rekindle					●			●		●		●	
Roca Wood Works Inc						●	●			●	●	●	

Company	On-Site Services				Custom Categories								
	Arborists	Sawyers	Tree Removal	Waste Removal	Artist	Carpentry (home)	Carpentry (comm.)	Carving and Woodturning	Flooring	Furniture	Kiln Dryer	Other Wood Products	Sawmill
Sawmill Sid		●				●			●	●		●	●
Sean Martindale					●								
Shady Lane Tree Care	●	●	●						●	●	●	●	●
South Street Boat Builders					●	●	●	●		●			
Storyboard Furniture		●			●	●	●	●	●	●		●	●
Strata Various						●				●			
The Dovetail Shop						●		●		●			
The Michael Fortune Studio					●	●	●	●		●	●		●
Urban Tree Salvage					●	●	●			●		●	
urbanproduct					●	●	●	●		●		●	
We Care Tree Care	●	●	●	●	●	●	●	●		●		●	●
White Glove Tree Services	●	●	●							●		●	
Wychwood Contracting		●				●		●		●	●		●

Table 2: Commercial Products and Other Services by Category

Company	Commercial Products									Other Organizations			
	Carpentry (home)	Carpentry (Comm.)	Carving and Woodturning	Flooring	Furniture	Lumber Supply (Live Edge)	Lumber Supply (Standard)	Other Wood Products	Sawmill	Biomass Brokers	Firewood	Purchaser/User of Bulk Wood	NGO
Akroyd Furniture													
Al Miley & Associates											●		
Artistic Wood and Tool Supply Inc.					●	●		●					
Anazao Inc				●	●								
Baker Brothers	●	●	●		●	●		●					
Biochar Consulting								●		●		●	
Borealis Wood Power Corp								●			●		
Brothers Dressler					●			●					
C.R. Fieldhouse			●		●			●					
Cabinet Inc.	●	●			●								
Canadian Salvage Timber	●	●		●	●	●	●	●	●				
Century Wood Products Inc.				●				●				●	
Cherrywood Studio					●								
Crowe River Studio													
Daniel Daigle Fine Woodworking Inc.													
David MacHenry Design													
Deer Brian Inc						●		●					
Eco Tree Co.	●	●			●	●			●			●	
Eco-Woodturner			●					●					

Company	Commercial Products									Other Organizations			
	Carpentry (home)	Carpentry (Comm.)	Carving and Woodturning	Flooring	Furniture	Lumber Supply (Live Edge)	Lumber Supply (Standard)	Other Wood Products	Sawmill	Biomass Brokers	Firewood	Purchaser/User of Bulk Wood	NGO
Forever Interiors	●	●											
Garrison Creek Bats			●					●					
Greenwood Studio	●	●			●			●					
Jake Whillans Studio													
Karmatree Inc													
Kelly's Tree Care								●			●		
Live Edged Woodcraft					●			●					
Lubo Design													
Made in Rockingham								●					
Mobile Sawmill Services									●				
Modelling Surface Water Limited			●										
North on Sixty	●	●		●	●	●	●	●	●		●	●	●
Norwood Portable Sawmills													
Ontree (formally Ontario Tree Experts)													
Paccione Construction	●				●	●	●	●	●				
Paus+Grun Woodwork Design													
Portal Studio					●								
Rekindle					●			●					
Roca Wood Works Inc		●			●	●		●				●	
Sawmill Sid				●		●					●		
Sean Martindale													

Company	Commercial Products									Other Organizations			
	Carpentry (home)	Carpentry (Comm.)	Carving and Woodturning	Flooring	Furniture	Lumber Supply (Live Edge)	Lumber Supply (Standard)	Other Wood Products	Sawmill	Biomass Brokers	Firewood	Purchaser/User of Bulk Wood	NGO
Shady Lane Tree Care				●	●	●			●				
South Street Boat Builders			●		●								
Storyboard Furniture						●							
Strata Various													
The Dovetail Shop													
The Michael Fortune Studio	●	●			●	●			●				
Urban Tree Salvage	●	●			●	●	●	●				●	
urbanproduct			●		●								
We Care Tree Care						●	●						
White Glove Tree Services						●		●	●			●	
Wychwood Contracting	●					●			●				
LEAF													●
Ontario Wood Carvers Association													●
Woodturners Guild of Ontario													●

Directory of Companies

To be listed in this directory the businesses must be using, or willing to use urban wood. Firms that are located in Toronto are highlighted in **bold**. Firms that are Ontario Wood partners are underlined. Urban wood is defined as individual trees in a community which must be removed for other purposes.

Akroyd Furniture

15 CaseGoods Lane, Studio 101
Toronto, ON, M5A 3C4
416-367-5757
www.akroydfurniture.ca
info@akroydfurniture.ca

Akroyd is a small firm that designs and builds hand-crafted furniture from local woods complimented with steel, glass, stone and leather. Originally established in 1997, the studio is located in Toronto's Distillery District and maintains workshops and a retail boutique in a vibrant creative setting.

AL MILEY & ASSOCIATES

203 Toryork Dr.
Toronto, ON, M9L 1Y2
416-749-3723
www.almileytree.ca
allanmiley@bellnet.ca

Expert Tree Care Solutions for all aspects of Arboricultural services

Artistic Wood and Tool Supply Inc.

50 Venture Dr., Unit 4
Toronto, ON, M1B 3L7
416-241-8654
www.woodchuckers.com
marc@woodchuckers.com

Woodturning Tools, Lathes, Solid Woods for studio furniture makers wood turners and all wood hobbies. We have some carving and wood

burning supplies, Many Finishes. We dimension wood, cut, plane, saw, make projects to order.

ANAZAO Inc

#203 B2-125 The Queensway
Toronto, ON, M8Y 1H6
647-294-6941
www.anazao.ca
kes@anazao.ca

ANAZAO is a material based design and build company focused on responsibly sourced lumber. We build bespoke furnishings, flooring, objects and spaces with a focus on sustainability, material, process, and craftsmanship.

Baker Brothers

729 Stonepath Ave.
Pickering, ON, L1V 3S9
416-899-7049
www.bakerbrothers.ca
bakerbrothers@bell.net

Handcrafted furniture and art from fallen/diseased trees. Specializing in custom furniture and art, feature walls, park benches carved from large fallen trees. Transformation of a vision--a description, a simple sketch--into a piece worth cherishing. There are no boundaries to what I can do with wood.

Biochar Consulting

48 Suncrest Blvd.
Thornhill, ON, L3T 7Y5
www.biochar-consulting.ca
lhelferty@biochar.ca

Biochar Consulting (Canada) provides technical services to clients who wish to undertake projects utilizing Agricultural Biocarbon (Charcoal), also known as "biochar". Biochar Consulting is one of the nation's pioneer leaders in the development of the Biochar industry in Canada and provides professional Engineering Support Services to assist engineering and R&D teams undertake projects. Biochar Consulting can also work with you to help develop a

commercially viable Biochar industry in Canada by promoting viable solutions that achieve specific engineering, environmental and social results that improves the lives of all.

Borealis Wood Power Corp.
4041 North Service Road
Burlington, ON, L7L 4X6
905-319-0404
www.borealiswoodpower.com
lgooder@borealiswoodpower.com

Borealis is a renewable energy company with a technology that uses wood chips to provide combined heat and power. The thermal heat can be used for small district heating and the electricity can be sold back to the grid or used 'behind the meter' to reduce energy costs.

Brothers Dressler

225 Sterling Rd., Unit 16
Toronto, ON, M6R 2B2
416-910-5892
www.brothersdressler.com
lars@brothersdressler.com

Brothers Dressler have been working collaboratively since 2003 to design and build furniture, lighting, objects and custom projects. With a focus on sustainability, and an eye to material, process and craftsmanship, we create original one of a kind and batch production pieces as well as custom projects from our Toronto workshop/studio. Working primarily in wood, we use local, reclaimed, repurposed, ecologically friendly and responsibly harvested materials, working to promote a return to local manufacturing to create modern heirloom furniture to last a life time.

C. R. Fieldhouse

225 Sterling Rd., Unit 220
Toronto, ON, M6R 2B2
647-883-5084
www.crfieldhouse.com
Chris@crfieldhouse.com

C.R. Fieldhouse is a designer and maker of objects and furniture, based in Toronto. His work seeks to combine historical references, modern sensibilities and high quality craftsmanship. He produces speculative work for retail and is also available to create unique commissioned pieces.

Cabinet Inc.

354 Davenport Rd. Suite 100
Toronto, ON, M5R 1K6
www.cabinetfurniture.ca
ron@cabinetfurniture.ca

Cabinet is a furniture manufacturer that provides both standard and custom work for commercial and residential customers. We use primarily solid wood and make everything to order. Our shop and showroom or both located in Toronto. Our focus is on producing high quality pieces at a reasonable price. The owner is a 3rd generation cabinetmaker with a passion for preserving this craft that seems to be slipping away. We are a full service house, from design to installation.

Canadian Salvage Timber

442 Dufferin St., Unit J
Toronto, ON, M6K 2A3
905-237-1529
www.canadiansalvagedtimber.ca
conor@cstimber.ca

Canadian Salvage Timber was developed and designed to provide both a superior product with outstanding customer service. With vast experience that spans over 15 years in fields such as supply, design, and custom building we feel it is the best product in the marketplace today. We are a part of numerous LEED projects and are a Eco-friendly company based in

Downtown Toronto. If you take a look at our website you can see that we are a Canadian owned and operated company. Also there you will find pictures of past projects, as well as our inventory with the stories behind the material. We take pride in what we do here at CST and would love to assist you in any of your project needs.

Century Wood Products Inc.

191279 13th Line
East Garafraxa, ON, L9W 7B4
519-855-9559
www.centurywood.com
sales@centurywood.com

Century Wood Products Inc. is a mill which specializes in processing reclaimed woods. These lumbers are salvaged from buildings being torn down. The woods are then primarily processed into flooring.

Cherrywood Studio

13340 7th Concession
King City, ON, L7B 1K4
416-254-8974
www.cherrywoodstudio.ca
Barb.benoit@cherrywoodstudio.ca

Cherrywood Studio creates unique contemporary hardwood tables. We use locally sourced large urban hardwood trees that would otherwise be destined for landfill sites, instead transforming them into singular pieces of fine furniture. Our design philosophy is to follow the source wood's natural lines and contours, with a particular focus on revealing each piece's individual grain and edge. The result is contemporary hardwood furniture that highlights its organic origin.

Crowe River Studio

42 Wardell St.
Toronto, ON, M4M 2L5
647-233-8127
www.croweiver.workgalleries.com
Richard@rawart2.com

I am an artist, woodworker, and design/renovator. I make furniture with reclaimed wood, metal, and glass elements, including from the reclaimed old growth Toronto Distillery wood. I do trimwork, millwork, cabinets, carpentry, and general renovations. As an artist (sculptor) I am an 'eco-artist' and make what I call Earth Skins by layering latex and gauze on surfaces in the landscape to create 'tapestries' which glow like high detail prints of the surfaces they come from, and are connected to climate change.

Daniel Daigle Fine Woodworking Inc.

3311 Burnham St. N
Cobourg, ON, K9A 4J7
905-373-2699
www.danieldaiglefinewoodworking.com
ddfww2@gmail.com

We are a small woodworking shop that specializes in designing and building everything from free standing custom furniture to built-in wall units. We work closely with interior designers, as well as the home owner to provide that one of a kind piece.

David MacHenry Design

108 Hallam St.
Toronto, ON, M6H 1W8
647-219-4502
www.davidmachenrydesign.blogspot.ca
davidmachenry@sympatico.ca

We are a custom cabinet and furniture shop in downtown Toronto. We do design build and custom build. We work closely with architects designers and their clients.

Deer Brian Inc.
15 Cardish Street
Kleinburg, ON, L0J 1C0
416-884-7005
<http://deerbrianinc.com>
info@deerbrianinc.com

Designer sawmill with personal, direct contact between the sawyer and the customer. Custom orders of any size, reclaimed and resawn barn beams and flooring. Milled stock from 4/4 to 12/4, barn beams up to 12"x12" in stock.

Eco-Woodturner

c/o 550 Eglinton Ave. W.
Toronto, ON, M5N 3A8
416-487-2353
www.ecowoodturner.com
Michael@ecowoodturner.com

Please see our website for detailed info on our services including Commissioned Work and Eco-woodturnings from your own felled trees or wood. Studio & Workshop open to clients on an appointment basis.

Firewood Solutions and Live Edge Lumber

200 Unwin Ave.
Toronto, ON, M5A 1A3
416-605-8662
www.firewoodsolutions.com
glenn@firewoodsolutions.com

Firewood Solutions started in 2004 as a local Firewood business. We added a Saw Mill and Log Loader to the operation in 2013/2014. This enables us to produce Live Edge Lumber and Timber for Furniture or building projects. We produce Custom Live Edge Furniture and Wooden Signs at our shop on Unwin Ave. The business plans to expand in 2016 to add a location for processing and sales north of the City of Toronto.

Forever Interiors

2903 Dundas St. W.
Toronto, ON, M6P 1Z1
416-291-2001
www.foreverinteriors.com
foreverinteriors@yahoo.com

Forever Interiors is about reusing, rebuilding, and custom building furniture and décor from reclaimed material. Our specialties are: 1. Making furniture from reclaimed doors! Believe it or not, we custom build coffee tables, cabinets, pantries, benches, kitchen islands, vanities and a lot more, all from reclaimed doors. 2. We build a wide selection of rustic tables, harvest tables and steel framed tables from 122 year old reclaimed pine or BC fir. 3. Reinventing used furniture into new and eclectic furniture.

Garrison Creek Bats

225 Sterling Rd., Unit 220
Toronto, ON, M6R 2B2
647-883-5084
www.garrisoncreekbats.com
info@garrisoncreekbats.com

Founded in 2012, the Garrison Creek Bat Co. crafts hand-made, well-designed baseball bats and celebrates local baseball history. GCBC also partners with local artists and craftspeople to create unique products that appeal to baseball lovers of all stripes.

Greenwood Studio

213 Sterling Rd., Unit 108
Toronto, ON, M6R 2B2
416-716-0929
www.greenwoodstudio.ca
Michael@greenwoodstudio.ca

Greenwood Studio is a boutique design/build studio creating contemporary custom furniture from salvaged and reclaimed materials and bespoke Tree houses. Also specializing in solid wood furniture using local and exotic woods. Michael Greenwood is the principal designer

and builder who is passionate about creating things out of wood.

Jake Whillans Studio
12 Goldthorne Ave
Etobicoke, ON, M8Z
416-616-9649
www.jakewhillans.com
jake.whillans@gmail.com

Jake Whillans is a studio based furniture design firm operating in Toronto, ON. Currently producing both speculative, made-to-order and privately commissioned pieces for both residential and commercial interiors. Using locally sourced, domestic hardwoods, his work pairs traditional craft practice with a contemporary design aesthetic. He strives to create furniture + objects that are timeless, elegant, and built to last for generations.

Karmatree Inc.
39 Arcadian Circle
Toronto, ON, M8W 2Z3
647-346-6712
www.karmatree.ca
ryan@karmatree.ca

We are a boutique tree service serving Toronto, mostly southwest region of the city. Our services include but are not limited to arborist services, trimming, tree removal, stump removal, lot clearing, arborist consultation and report writing. We have performed custom milling of logs in some cases

Kelly's Tree Care
12 Old Kingston Rd.
Toronto, ON, M1E 3J5
416-462-0007
www.kellytree.com
Kelly@kellytree.com

Kelly's Tree Care Ltd. is a full service tree care company which promotes tree preservation with an ethical approach to caring for trees. Although we do not support the removal of healthy protected trees, removals are

sometimes necessary when tree health and structure diminish or when trees are in conflict with structures. We always encourage the re-use of our waste products including wood chip mulch and other wood materials. What we once considered as a waste product is in fact an invaluable resource to our local wood product industry.

Live Edged Woodcraft
11 Corners Avenue
Georgina, ON, L0E 1E0
289-221-1174
www.liveedgedwoodcraft.ca
liveedgedwoodcraft@gmail.com

We make live edged cheese boards and placemats using cross cuts of re-claimed logs, and some live edge tables. We are a green company in sourcing locally and using hemp seed oil and an eco-friendly hard was/oil.

Lubo Design
1659 Dundas St. W.
Toronto, ON, M6K 1V2
416-953-6192
www.lubodesign.com
info@lubodesign.com

LUBO is furniture made with reclaimed and local woods. Designed and made in Toronto.

Made in Rockingham
95 Gore Vale Ave.
Toronto, ON, M6J 2R5
416-703-2479
www.madeinrockingham.bigcartel.com
alex@madeinrockingham.com

Made In Rockingham shoes are handmade in Canada using traditional craftsmanship. They are mostly made out of natural, biodegradable materials. We work them manually, altering them as little as possible. When you put them on you sense their natural aroma.

Mobile Sawmill Services
368 Concordia Ct.
Oshawa, ON, L1G 8C3
905-723-3309
jnovak@bellnext.ca

Custom cutting of provided, on the ground, logs into useable dimensional lumber, beams, cants, etc. Boards can be left with live edges for table tops. Customer can choose desired thickness of cuts with advice from a custom sawyer. The sawmill is trailered to site, and uses hydraulic assist for an effortless processing of logs to lumber. Onsite evaluation is provided free of charge.

Modelling Surface Water Limited
45 Wigmore Dr
Toronto, ON, M4A 2E6
416-757-1749
rdewey@pathcom.com

A side line of the business is wood turning - bowls, segmented vases and urns. We provide unique wooden products that are popular as gifts. All products are food-safe and bowls can be used as salad bowls for example.

North on Sixty
756 Markham Street
Toronto, ON, M6G 2M5
416-538-3325
www.northonsixty.com
yuili@northonsixty.com

From forest management, to design/build, to restoration, and everything in between... we're involved every step of the way. Ultimately, minimizing waste is about creating harmony between people and their environment – which is the guiding principle in all we do.

Norwood Portable Sawmills
660 Highway 11 North
Kilworthy, ON, P0E 1G0
1-800-567-0404
www.norwoodsawmills.com
info@norwoodsawmills.com

No other company has more portable sawmill patents than Norwood – period. And every Norwood is quality-built in the USA and Canada. They're designed, and built to mill millions of board feet reliably and smoothly. Dollar for dollar, you won't find any portable sawmill that's more productive, or easy-to-use, than a Norwood.

Ontario Tree Experts
22 Passmore Avenue
Toronto, ON, M1V 4T1
416-412-2100
info@ontree.ca
www.ontree.ca

Ontree, your tree care specialist, helps clients in the GTA beautify their landscapes and increase the value of their properties. With over two decades of experience, and a long list of appreciative clients, Ontree has positioned itself as a go-to company for tree care in the GTA.

Paccione Construction
Tremaine Rd.
Milton, ON, L9T 2Y1
905-808-0586
www.paccioneconstruction.com
salpaccione@gmail.com

Paccione Construction provides reliable and Eco-Friendly wood services like Portable Sawmilling, Log Salvage, Wood Surfacing, Live Edge Forest Products, Custom Furniture and More. I work with local Arborists & property owners to re-purpose trees, saving them from becoming wood waste. Book an appointment and check out my new Live Edge Urban Wood Showroom located on the border of Oakville and Milton.

Paus+Grün Woodwork Design

442 Dufferin St., Unit B1
Toronto, ON, M6K 2A3
416-996-1667
www.customliving.ca
r@customliving.ca

We balance traditional joinery techniques with cutting-edge processes, materials, and innovative design to create custom furniture and millwork with our clients that is fresh, beautiful and enduring.

Portal Studio

380 Alliance Ave.
Toronto, ON, M6N 2H8
416-735-5431
<http://emilioportal.com>
eportal@emilioportal.com

Emilio Portal's art and design practice in wood is holistic and interdisciplinary. He aims to create long-lasting work that ultimately honours its source: the tree & the forest from which it came from. His practice seeks to continuously reduce its impact through using local domestic and urban lumber, non-toxic adhesives & finishes, and creating less waste. He believes in collaboration; Portal works closely with clients to develop the right design for the right context. His goal: to create healthy, ecological and memorable work.

Rekindle

50 Roosevelt Road
Toronto, ON, M4J 4T7
www.rekindleyourlife.ca
info@rekindleyourlife.ca

High quality goods that are meant to last, made from materials that age gracefully, supporting experiences that bring people together.

Roca Wood Works Inc.

3355 Kingston Rd., Unit 1
Toronto, ON, M1M 3M3
416-505-5054
www.rocawoodworks.ca
info@rocawoodworks.ca

Roca Wood Works Inc. is a local company focused on reusing local wood, flexible in services, we market the lumber as well as create finished products.

Sawmill Sid

390 Concession 8 East
Perkinsfield, ON, L0L 2J0
705-543-2508
www.sawmillsid.ca
gendrongroup@yahoo.com

Professional courteous service & more than competitive prices is exactly what you'll find at Sawmill Sid Lands & Housing. We know you're tired of getting half of what you wanted for twice the cost, give us a call and those days will be behind you. Just look at some of our most recent projects: Beautiful Flooring from Recycled Logs. Sawmill Sid Lands & Housing its principle business being sawmilling, building and landscaping. From Renovations to Design + Consulting + Building, we have done it all. Then we added the Sawmill business to our plan. If you're planning on any projects big or small, call Sawmill Sid to get professional advice on how to save big money, from your basement renovations to your backyard or even your new custom built home. If you are planning on building we can save you thousands with your woodlot on your new construction project. BUILDERS - FARMERS - BARN DISMANTLERS - DEMO CONTRACTORS we cut the post, the beams and the sleepers (nails + all) into usable timbers and lumber. We bring the mill right to you.

Sean Martindale

Downtown / West End
Toronto, ON, M6H 1M2
647-989-7936

www.seanmartindale.com
sean.martindale@gmail.com

Sean Martindale is an emerging and internationally recognized interdisciplinary artist and designer currently based in Toronto, Canada. His interventions activate public and semi-public spaces to encourage engagement, often focused on ecological and social issues. His playful works question and suggest alternate possibilities for existing spaces, infrastructures and materials found in the urban environment. Frequently, Martindale uses salvaged goods and live plants in unexpected ways that prompt conversations and interaction.

Shady Lane Tree Care
17474 Warden Ave.
Newmarket, ON, L3Y 4W1
905-773-5906

www.shadylanetreecare.com
jonathan@shadylanetreecare.com

Shady Lane provides all aspects of tree care including large crane removals with our bucket trucks and 102 ft crane. We have our own mill, kiln and wood shop. We build beautiful live edge furniture and can provide unique hardwood flooring. Please check us out on face book, twitter and you tube to see more about our urban wood division or products. Thank you.

South Street Boat Builders

442 Dufferin, Unit F
Toronto, ON, M6K 2A3

www.southstreetboatbuilders.ca
tim@southstreetboatbuilders.ca

We are South Street Boatbuilders, makers of fine lighting, furniture, accessories and, as the name suggests, boats. Founded by young and vibrant designers Hilary Hayes and Tim Richards

in 2012, South Street Boatbuilders aim to bring contemporary Canadian design to the cottage and country home lifestyle.

Storyboard Furniture

1024 Dupont St.
Toronto, ON, M6H 1Z6
416-894-9684

www.storyboardfurniture.ca
dennis@storyboardfurniture.ca

Our main goal at Storyboard Furniture is to make profoundly beautiful and meaningful furniture with ecological integrity. By salvaging a dying tree from our client's own yard we create unique personal conversation pieces that will enrich their lives in a way that store bought furniture cannot. In our Toronto workshop we take these salvaged trees through the entire process – from tree to table. As artists and craftsmen this gives us the flexibility and pleasure to create something of singular quality and character our clients will want to keep in their family for generations.

Strata Various

302 Jones Ave
Toronto, ON, M4J 1B3
416-462-0563

No website
stratavarious@gmail.com

Strata Various has been providing custom woodworking services to local architects, designers, contractors, and referred homeowners since 1990. We have a commitment to using sustainable materials whenever possible.

The Dovetail Shop

145 Bombay Ave
Toronto, ON, M3H 1C5
647-274-4135

barry@thedovetailshop.ca
www.thedovetailshop.ca

A small cabinet making business which focuses on custom free-standing pieces.

The Michael Fortune Studio
1623 County Rd 4
Douro-Dummer, ON, K0L 3A0
705-652-0037
www.michaelfortune.com
michael.fortune@sympatico.ca

Design and make unique furniture for private residences and commercial sites. Also design site specific public art installations. Specialize in unusual techniques, vacuum forming, steam bending, laminating, hot pipe bending. Studio is 4400sq. ft. Have our own sawmill on site.

Urbanproduct

251 Sorauren Ave., Unit 205
Toronto, ON, M6R 2G3
416-857-3202
www.urbanproduct.ca
Stephen@urbanproduct.ca

'up' is a creative force in the Industrial, Furniture and Product Design disciplines. We strive to use locally sourced materials, environmentally responsible finishes and methodologies, whilst providing a standard of quality rarely seen in today's market.

Urban Tree Salvage

753 Warden Ave.
Toronto, ON, M1L 4B2
647-438-7516
www.urbantreesalvage.com
info@urbantreesalvage.com

Urban Tree Salvage utilizes urban forestry waste to turn into lumber and furniture.

We Care Tree Care

5 Third St.
Toronto, ON, M5J 2B1
647-238-1328
www.wecaretreecare.com
www.snakeislandfurniture.ca
tylerganton@hotmail.com

Our company specializes in having a personal touch, helping our clients understand the value of their trees and if trees are being removed the value and uses for the wood they provide. We can provide garden health care plans, planting, pruning, removal and milling trees into usable wood products. We provide free quotes.

White Glove Tree

296 Rosewell Ave.
Toronto, ON, M4R 2A8
416-920-3838
www.whiteglovetree.com
info@whiteglobetree.com

We operate an Urban tree service in conjunction with University Firewood. We repurpose 100% of all wood revoked from the GTA. Zero Waste.

Wychwood Contracting

182 Wychwood Ave.
Toronto, ON, M6C 2T3
416-525-8893
www.wychwoodcontracting.com
wychwoodcontracting@gmail.com

General contracting company serving the residential market in southern Ontario. Also custom wood turning and furniture.

Associations (Non-Commercial)

Local Enhancement and Appreciation of Forests (LEAF)

601 Christie St., Suite 253
Toronto, ON, M6G 4C7
416-413-9244
www.yourleaf.org
info@yourleaf.org

LEAF is a not for profit organization dedicated to the protection and improvement of our urban forest. We raise awareness about the value of urban trees and engage residents in urban forest stewardship through planting, education and training programs. We are currently working to raise awareness and remove barriers so that more urban wood can be captured for the highest possible uses.

Ontario Wood Carvers Association

c/o 51 Cedarview Dr.
Scarborough, ON, M1C 2K5
416-420-8184
www.ontariowoodcarvers.com
show@ontariowoodcarvers.com

Ontario Wood Carvers Association (OWCA)
OWCA was founded in 1978 to promote wood carving. We are a non-profit charitable organization, Adult classes are offered locally and in our Youth Outreach program volunteers work with local schools to teach students to carve. Our magazine provides information to members on carving subjects. Our annual competition and show provides scope for artists in wood to display their skills. We have donated carvings to provincial and municipal governments and seek further opportunities to provide high-quality and lasting artwork to benefit our city and environment. Our website at www.ontariowoodcarvers.com includes examples of our art.

Woodturners Guild of Ontario

c/o 18 Milroy Crescent
Toronto, ON, M1C 4H1
416-937-5066
www.wgo.ca
mikepinto@sympatico.ca

The Woodturners Guild of Ontario (the "WGO") exists for the advancement and promotion of the craft of woodturning

Case Studies

From waste to workable: how a Sawyer helped build this chair



Photo 2: A sawyer cutting a log on site (source: Lija Skobe/LEAF)

This saw log eventually became the *Elbow “Ollie” Lounge and Work Chair*, a unique Toronto designed piece of furniture, and part of the Brothers Dressler’s *Ash out of Quarantine* series of designs made from ash wood.

The Elbow “Ollie” chair was made completely from ash wood obtained from Toronto’s trees. More information on this design and others in the Woodshop exhibition can be found at: <http://www.iidexcanada.com/2013/features/special-features/iidex-woodshop>

The **IIDEX Woodshop Exhibition**, sponsored by the **City of Toronto** and the **Ontario Ministry of Natural Resources**, featured the designs of 15 of Ontario’s top designers using ash wood from Toronto that had been killed by the Emerald Ash Borer. The **Brothers Dressler**, one of Toronto’s most innovative design firms, was one of the firms selected for the exhibition.

The Brothers Dressler hired **Sawmill Sid** to mill this large Ash saw log supplied by the City of Toronto. With his portable mill, Sid was able to produce large live edge slabs from which the Dressler’s could make their products from.

Sawyer’s are typically better suited than sawmill’s for the type of job where your tree or saw log is too large to handle or move on your own, as they are able to come directly to your site with their portable mills, and can cut saw logs to specific dimensions and types.



Photo 3: Elbow “Ollie” chair (source: Brothers Dressler)

Lumber supply: what is live edge urban lumber?



Photo 4: Live Edge Ash Board (source: Lija Skobe/LEAF)

This gives urban wood a very high design quality, by providing unique grains and textures not found in other wood. Live edge lumber is a perfect way to capture the characteristics of your favourite tree if it must be removed due to illness, safety hazards or other reasons.

The stacked lumber in the right-hand photo shows the air drying process, and the wide variety of shapes and sizes for urban lumber. Many of the lumber suppliers in this directory offer a large variety of species, sizes, thicknesses, shapes and finishes of wood.

From flooring to cabinetry, millworks to stair casings, if you have a project in mind, consider sourcing your wood supply from one of our many urban wood lumber suppliers here in the GTA.

Live edge is a type of furniture (and lumber!) where the builder fuses the natural, bark covered edge of the wood into their design.

This photograph demonstrates live edge ash lumber produced and sold by **Urban Tree Salvage**. The unique patterns along the board edges is caused by the burrowing of the Emerald Ash Borer (EAB) beetle, which attacks the bark and outside edges (where the feeding system is) of ash trees. EAB only attacks the surface of the tree – the interior wood is not affected.

Unlike a forest stand, where typically trees grow uninhibited and straight in form, urban trees are subjected to many challenges and obstacles, often growing in strange shapes and directions.



Photo 5: Urban Wood stacked up at Urban Tree Salvage (source: Lija Skobe)

Creating artisanal heirlooms: carving and wood turning

When considering the unfortunate removal of your favourite backyard tree that brought you shade, fresh air, and beauty over the years, consider contacting a wood craftsperson.

Those listed in the directory as artists, or as carvers and wood turners are able to make unique, heirloom wood products to remember your tree by.

These products can come in many shapes and sizes, from pens and cutting boards, to kitchen utensils and coat hook, to bowls and light fixtures, wood can do it all.

The pendant lights, 'SLASH + BURN' , pictured at the top are made of ash wood and produced for the IIDEX Woodshop exhibition by the design collective **Fieldhouse, Ford & Reed** using a unique Japanese burning technique.



Photo 7: "Slash + Burn" lights by Fieldhouse, Ford & Reed (Source: the national design collective)



Photo 6: Red maple bowl (Source: Michael Finkelstein)

This red maple bowl pictured on the left was made by **Eco-Woodturner**, who uses an environmentally friendly process for their wood turning products.

Large or small, your valued tree does not have to end up as waste wood in a landfill. The many talented woodworkers in the GTA are able to create a wide range of products for your home or business using beautiful, locally grown GTA trees.

Lumber Characteristics of Toronto's Trees

Toronto has at least 116 different tree species, and the urban forest consists of a significant portion of hard wood trees such as maples, ash and oaks that are highly valued for products such as flooring, cabinetry and furniture. Toronto also has some unique trees whose wood is highly valued for specific commercial uses. Toronto, for example, has one of the largest elm tree forests left in North America due to local efforts to control the spread of Dutch elm disease. This now rare wood was once commonly used in furniture building across the continent.

The following chart illustrates the number of trees of the most popular tree genus in Toronto¹. For lumber, there can be significant differences in the properties of species in a genus. Maples compose about one third of the city's tree canopy but there are significant differences in lumber characteristics between Silver (a soft maple) and Sugar (a hard maple).

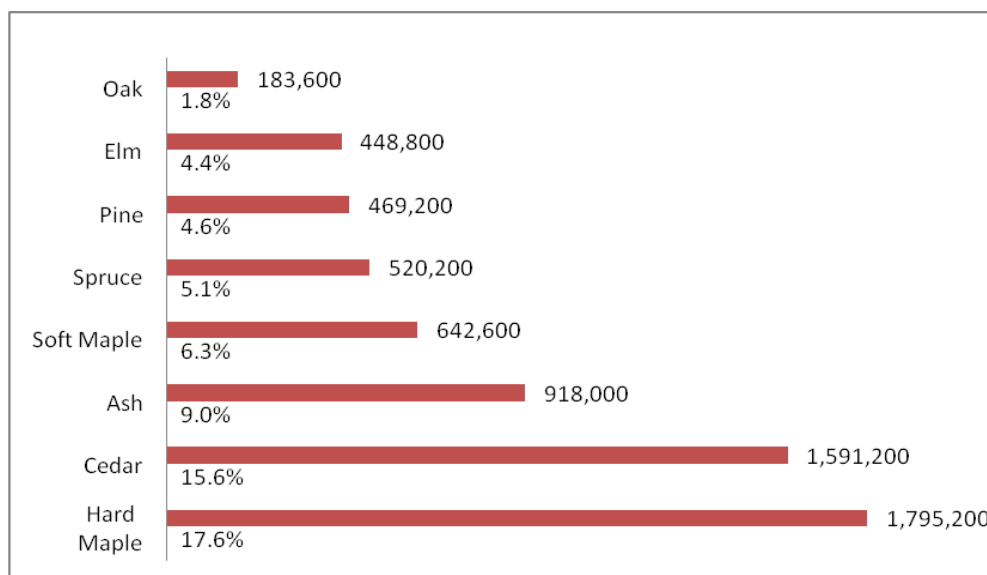


Figure 2: The number of trees in Toronto (includes the percentage of the total tree population)

On the next page you will find the lumber properties and some of the potential commercial applications of Toronto's most popular tree species. Due to the die off of ash trees in Toronto caused by the Emerald Ash Borer, additional details on ash trees' lumbering characteristics can be found in addition to the tree characteristics chart.

¹ Statistical information on the number of tree species was obtained from the report Every Tree Counts which can be downloaded at http://www.toronto.ca/trees/every_tree_counts.htm

Table 3: Lumber Characteristics of Toronto’s Most Popular Trees

Tree Species		Estimated Number of Trees in Toronto		General Description	Working Properties	End Use Applications
Genera Type	Species	%	Number			
Ash	Green	3.6%	367,000	Ash wood is very much preferred by carpenters and craftsmen because of its flexibility, versatile properties and strength. Green ash has similar properties to white ash wood. Heartwood and sapwood is a bit lighter in colour.	See White Ash	See White Ash
Ash	White (American)	5.3%	541,000	The sapwood is light coloured to nearly white and the heartwood varies from greyish brown to light brown, to pale yellow streaked with brown. The wood is generally straight grained with a coarse uniform texture with a visible wood grain.	Ash has very good overall strength properties relative to its weight. It has excellent shock resistance and is good for steam bending. Ash machines well, is good in nailing, screwing and gluing, and can be stained and polished to a very good finish. It dries fairly easily with minimal degrade, and good stability means there is little movement in performance.	One of the most versatile woods it has a wide ranges of uses. Furniture, flooring, doors, architectural interiors, high class joinery and moulding, kitchen cabinets, panelling, tool handles, sports goods and turning. A versatile, good-looking wood, offering great value for a wide range of joinery and furniture applications.
Cedar	Northern (Eastern) White	15.6%	1,591,000	Considered one of the most decay resistant trees in North America, its softwood contains natural oils that protect the wood against mould, temperature variations, moisture, and insects. Eastern white cedar is generally an attractive wood for consumers because of its variations in grain and patterns, and its lightness in colour accepts stains and paints well for customization. Knots are commonly found in the wood (created from the branches formed off the main trunk of the tree) which limits it for commercial use. Artisans however prefer the knots in the wood as it adds character and creates unique patterns and colours for woodturning crafts and sculptures.	Northern White Cedar has good overall working characteristics, and works easily with both hand and machine tools. However, the wood is both soft and weak, giving it poor screw-holding capabilities. Northern White Cedar glues and finishes well. Rated as durable to very durable in decay resistance; it is also resistant to termites and other wood eating insects. Generally air drying the wood is sufficient for it to become very stable and resistant to warping and shrinking over other wood species (such as maple, ash, oak, and cherry) that require kiln drying.	Often used for items that must resist decay even in contact with moisture and extreme temperatures. Popular for home renovation because of the lightness in weight for easy transportation, its ease to work with and little movement. Uses include many outdoor applications including posts, rails for fences, shingles on roofs, saunas, decks, and docks. Popular for carving art sculptures. Bark and edge pieces use to be used for insulation, sawdust is popular for use in animal bedding. A very good mulch.
Elm	American (Red) & Slippery	1.7%	173,000	The American Elm was one of the most popular woods for furniture making until the Dutch Elm Disease decimated the species. Red elm has a greyish white to light brown narrow sapwood.	Elm is moderately heavy, hard and stiff with excellent bending and shock resistance. It is difficult to split because of its interlocked grain. The wood of red elm is fairly easy to work; it nails screws and glues well and can be sanded, stained and polished to a good finish. It dries well with minimal degrade and little movement in performance.	Furniture, cabinet making, flooring, internal joinery, hockey sticks and panelling.

Tree Species		Estimated Number of Trees in Toronto		General Description	Working Properties	End Use Applications
Genera Type	Species	%	Number			
Maple (hard)	Norway	6.5%	663,000	Ranges from cream, white, to off white with a slight reddish tinge in the heartwood and the colour changes can be attractive in furniture. The grain can be straight, but is often interlocked. The wood	See sugar maple. The wood takes stains easily for consumers who prefer to have darker wood products made from Norway maple trees.	The wood is commonly used to manufacture cabinets, furniture handles and decorative mouldings for furniture because of its uniform grain pattern. The density and hardness of Norway maple wood also makes it a great source for flooring. It is resistant to shock and to abrasive wear, making it good for high traffic areas where wear could be a problem. The density of the wood also makes a great soundboard for musical instruments such as guitars and violins.
Maple (hard)	Sugar	10.2%	1,040,000	The sugar maple tree is considered the “king” of all of the maple tree species commercially available for lumber because its wood is strong, stiff, hard and dense. Its sapwood is white to pinkish-white in colour, changing abruptly to the pinkish-brown heartwood. The sapwood is creamy white with a slight reddish brown tinge and the heartwood varies from light to dark reddish brown. Both sapwood and heartwood can contain pith fleck. The wood has a close fine texture and is generally straight grained, but it can also occur as “curly”, “fiddleback”, and “birdseye” figure.	The wood is hard and heavy with good strength properties, in particular its high resistance to abrasion and wear. It also has good steam bending properties. Hard maple dries slowly with a large shrinkage, so it can be susceptible to movement in performance. Pre-boring is recommended when nailing and screwing. With care it machines well, turns well, glues satisfactorily, and can be stained and polished to an outstanding finish.	Flooring, furniture, panelling, kitchen cabinets, worktops and table tops, interior joinery: stairs, handrails, mouldings, and doors. The hard wearing properties and tight smooth grain make this species ideal for high traffic flooring applications, such as theatres, concert halls, gymnasiums and basketball courts. Its durability and resiliency to shock makes it great for tool handles, cutting blocks, sporting goods, bowling pins, and musical instruments. The wood accepts many stains and paints well, allowing for customization in colours for flooring. Sugar maple also makes for a good alternative to oak wood due to similar characteristics.
Maple (soft)	Manitoba (Box elder)	5.0%	510,000	Manitoba Maple is a moderately soft and weak wood with heartwood that is reddish brown to dark brown in colour.	Its popularity for woodturning comes from the red hues the grains form in the wood and the burls and knots that form when a tree is injured throughout its growth.	Manitoba maple wood is often used in woodworking projects, specifically those involving woodturning. Manitoba maple wood is also used in rough construction such as creating boxes and crates and other products alike that do not require long-term durability and strength.

Tree Species		Estimated Number of Trees in Toronto		General Description	Working Properties	End Use Applications
Genera Type	Species	%	Number			
Maple (soft)	Silver	0.9%	92,000	Silver Maple is a fairly hard, even texture, brittle wood which is easily worked. It is a moderately heavy wood with a coarse texture.	Soft maple is about 25% less hard than hard maple, has medium bending and crushing strength, and is low in stiffness and shock resistance. It has good steam bending properties. Soft maple machines well and can be stained and polished to an excellent finish. It glues, screws, and nails satisfactorily. It dries slowly with minimal degrade and has good stability which means there is little movement in performance. Heartwood often develops a swirled pattern that is sold as "bird's eye maple". Soft maple is often used as a substitute for hard maple or stained to resemble other species such as cherry. Its physical and working properties also make it a possible substitute for beech.	Furniture, panelling, interior joinery, kitchen cabinets, mouldings, doors, musical instruments, and turning.
Oak	Red	0.6%	61,000	The sapwood of red oak is white to light brown and the heartwood is often a pinkish reddish brown. The wood is mostly straight grained with a coarse texture.	The wood is hard and heavy, with medium bending strength and stiffness and high crushing strength. It is very good for steam bending. Rated slightly non-resistant to heartwood decay, moderately easy to treat with preservatives. Red oak machines well; nailing and screwing is good although pre-boring is recommended, and it can be stained and polished to a very good finish. It performs best when dried slowly, reducing the opportunity for degrade such as splits and warp. It has a high shrinkage and can be susceptible to movement in performance under variable moisture conditions.	Construction, furniture, flooring, architectural interiors, internal joinery, stairs and mouldings, doors, kitchen cabinets, and panelling.

Tree Species		Estimated Number of Trees in Toronto		General Description	Working Properties	End Use Applications
Genera Type	Species	%	Number			
Oak	White	1.0%	102,000	The sapwood of white oak is light coloured and the heartwood is light to dark brown.	A hard and heavy wood with medium bending and crushing strength, low in stiffness, but very good in steam bending. Its good overall strength means it is increasingly being used by architects and designers in structural applications. White oak machines well, nails and screws well, although preboring is advised. As it reacts with iron, galvanised or copper nails are recommended. Its adhesive properties are variable, but it stains and polishes to a good finish. The wood dries slowly and care is needed to avoid checking. Due to its high shrinkage, it can be susceptible to movement in performance under variable moisture conditions. The heartwood is resistant to decay, extremely resistant to preservative treatment, and the sapwood is moderately resistant to treatment. Its natural durability means that white oak heartwood can be used externally without preservative treatment.	Construction, furniture, flooring, architectural joinery, exterior joinery, mouldings, doors, kitchen cabinets, panelling, boat building, timber bridges, barrel staves, and various uses outdoor.
Pine	Austrian	1.4%	143,000	Heartwood is light reddish brown, while sapwood is pale yellow to nearly white. Grain is straight, with a medium, even texture.	Austrian Pine is easy to work with both hand and machine tools. Glues and finishes well.	Mainly used for construction lumber, but also used for outdoor landscaping, furniture and ornamental use, and boxes and crates
Pine	Eastern White	1.5%	153,000	Eastern White Pine is one of the most common and widely used timbers for construction lumber in the North American northeast. Heartwood is a light brown, sometimes with a slightly reddish hue; sapwood is a pale yellow to nearly white. Color tends to darken with age. Grain is straight with an even, medium texture.	Eastern White Pine is easy to work with both hand and machine tools. Glues and finishes well. The heartwood is rated as moderate to low in decay resistance.	The long, straight trunks of Eastern White Pine were once prized for use as ship masts. Flag masts, crates, boxes, interior millwork, furniture, construction lumber, carving, and boatbuilding.
Spruce	White	3.3%	336,000	White Spruce is typically creamy white, with a hint of yellow wood which darkens with age. White Spruce has a fine, even texture, and a consistently straight grain. Wood is soft, but firm and generally light in weight. It is one of the primary woods used for making paper.	Easy to work, as long as there are no knots present. Glues and finishes well, though it can give poor (blotchy and inconsistent) results when being stained due to its closed pore structure. A sanding sealer, gel stain, or toner is recommended when coloring Spruce.	Construction lumber (framing, sheathing, roofing, sub-flooring), millwork, interior finishing, boxes, sounding boards in musical instruments, paddles and oars, shelving, ladder rails. Custom paper making. A very versatile soft wood.

Characteristics of Ash

White (American) Ash

White ash and ash trees in general are among the least expensive utility hardwoods available domestically and compares similarly to oak in price and texture if properly stained. Due to its high bending strength and shock resistance, ash wood is a popular source for producing furniture, flooring, millwork, cabinets, sports equipment (i.e. baseball bats and rackets), long tool handles (i.e. shovels and oars), face veneers and industrial blocking and pallets. Ash wood is also used for making food bowls and spoons. Since ash wood has no resistance to decay, it is not good for outdoor applications where it can become wet. Both the colour and texture of ash lumber vary from tree to tree. The sapwood provides a more whitish colour in the wood, while the heartwood is a light brown with darker lines and whitish spots on a rare occasion.

Green Ash

Green ash has many similar properties of white ash trees. The flexibility and coarse grain of green ash wood is ideal for producing furniture, sports equipments (i.e. baseball bats, paddles, and oars), tool handles, and the construction of specialty items where strength is required.

Table 4: Lumber Characteristics of Ash

Workability	Wood from the white ash group is very hard and firm and rated above average in planing, shaping, and boring and average in turning
Strength	At 12% moisture content, ash wood is heavy and weighs about 42 pounds per cubic foot. Ash is one of the strongest wood species, almost as strong as white and red oak. It is popular for tool handle stock and sporting equipment (i.e. baseball bats).
Bending	While white ash is only rated average for bending, it is very popular for bending due to its combination of average bending and superior strength.
Drying	Ash wood has a low initial green moisture content and can be easily dried with a moderate kiln schedule.
Shrinkage	As a heavy wood, all ash species have a substantially high volumetric shrinkage.
Durability	Ash is vulnerable to staining if allowed to sit before processing and to insect damage even after drying and during storage.

Characteristics of Ash Wood for Flooring

Ash has a nice solid grain pattern and takes a stain very well so it is available as flooring in a wide variety of colours from light to dark. Its availability and consistent grain pattern drives the demand for ash flooring and as a consequence it is sold at prices similar to oak hardwood. Ash wood flooring is popular for hallways, living areas, entryways, baths and kitchens as it is less likely to dent compared to most other woods used for flooring.

Valuable Toronto Trees for Commercial Applications

Toronto has a number of tree species which, while making up only a very small percentage of Toronto’s urban forest, are considered valuable for various commercial applications. Black walnut, for example, is one of the most expensive lumbers sold globally. While it makes up only 0.2% of the urban forest, that still equals about 20,000 Black Walnut trees in Toronto! Below are some of Toronto’s most valued tree species for various commercial applications.

Regardless of if you find your tree listed in here, or in the previous section, we encourage you to do further research on possible uses for the wood if you have to have a tree removed. The next section provides links to good resources which can help you identify potential opportunities for creating lasting uses for your dead tree.

Table 5: Lumber Characteristics of Commercially Valuable Trees

Common Name	Estimated Number of Trees in Toronto		Comments
	%	Number	
Black Walnut	0.2%	20,000	One of the most valuable for lumber. Of the several species of Walnut, those of highest commercial value are the Black Walnut and the Butternut (or White Walnut).
White Oak	1.0%	102,000	See Table 3. The Oaks are among the most valuable of all lumber trees; and among the Oaks, the White Oak is the most prized.
Red Oak	0.6%	61,000	See Table 3.
Butternut	0.2%	20,000	Related to the black walnut tree, the spread of the butternut canker disease is a major threat to the survival of this species in North America. Because of its increasing rarity and high demand for its wood in the furniture industry it is increasing in economic value.
Fruit trees	7.0%	714,000	While individual species numbers are low, the combined number of fruit trees is high. Fruit wood is much in demand for various uses.
Hard Maples	17.6%	1,795,000	See Table 3. All hard maples wood is highly priced but the sugar maple is the most valuable for lumber.
Black Cherry	2.3%	235,000	The Black and Red Cherry is one of the most valuable hardwoods. It is strong, fine-grained, and takes a beautiful polish. Highly valued by fine cabinet and furniture makers
Bur Oak	0.2%	20,000	-
White Cedar	15.6%	1,591,000	See Table 3.
Hickory	0.3%	31,000	-
American Elm	1.5%	153,000	See Table 3. A very rare wood nowadays - much in demand by the wood using industry. About half price of oaks.
Ash	9.0%	900,000	See Table 3. Due to a flood of ash on to the market created by the EAB die-off the price of this wood had dropped. It remains one of most popular wood used in the hard wood industry.
Black Locust	0.2%	20,000	It is very rot-resistant wood, ideal for outdoor uses, and is one of the hardest woods in North America.
Basswood	1.4%	143,000	The basswood is fairly low in value but it is much in demand by carvers.
Beech	0.9%	92,000	-

Links to Additional Resources

Information on Wood Characteristics

Three excellent sources of information (and where much of the information on wood characteristics was obtained from) are:

1. The Wood Database Online Project - www.wood-database.com

2. Sustainable American Hardwoods – a Guide to Species, a publication by the American Hardwood Export Council - www.ahec.org/publications/AHEC%20publications/AHEC%20SPECIES_English.pdf

3. Ontario Ministry of Natural Resources – Types and Characteristics of Ontario’s Trees: A good source of information on the commercial uses that wood from trees in Ontario can be used for. www.mnr.gov.on.ca/en/Business/OntarioWood/2ColumnSubPage/STDU_139030.html

Ideas on How to Use Urban Wood

1. Urban Wood Utilization in Toronto

LEAF is working with the City of Toronto and other key stakeholders to increase the utilization of wood from urban trees in Toronto and Southern Ontario. This page is your place for Ontario events, workshops, and resources related to urban wood.

www.yourleaf.org/urban-wood-utilization

2. IIDEX Woodshop

The City of Toronto, IIDEX Canada and the Ministry of Natural Resources and Forestry have teamed up to present the IIDEX Woodshop: 15 innovative wood prototypes that utilize Toronto’s untapped Ash resource. These unique prototypes feature the work of 15 local designers each year. Now in its 3rd year, the annual exhibition happens at the IIDEX Canada show held in Toronto in late November or early December. To learn more about the Woodshop exhibition visit:

www.iidexwoodshop.com

3. Emerald Ash Borer

This Website is part of a multinational effort in the north-east US and Canada to bring you the latest information about emerald ash borer. It has a good section on the utilization of ash (and other at-risk tree species). www.emeraldashborer.inf



Economic Development and Culture

The City of Toronto's Economic Development & Culture Division (EDC) provides services that contribute to an economically strong, socially enjoyable and culturally vibrant city. Our combined service responsibilities heighten Toronto's ability to sustain and promote itself as one of the world's leading creative cities. Our objective is to advance Toronto's prosperity, opportunity and liveability by:

- Improving the business climate within the city to enable, accelerate and attract economic growth;
- Diversifying Toronto's international portfolio by substantially increasing economic activity with cities beyond North America with a focus on emerging markets;
- Anchoring and expanding strategic industry sectors through increased competition and collaboration;
- Enhancing and expanding Toronto's labour force to ensure that all residents have equitable access to the benefits of Toronto's enhanced economic competitiveness and growth.

Interested in being listed in the directory?

If you're a business in the GTA and provide one of the services listed in this directory then you can get listed in the next issue of the directory by emailing your contact details and a brief description to: greentech@toronto.ca