Greenhouses

and Conservatories

ARCADIA GLASSHOUSE®

Ar-ca-di-a

n. a place of peace and serenity

Arcadia GlassHouse LLC

We have experienced greenhouse growers and professional installers available to discuss the many options you have for standard and custom sizes, shapes, glazing materials and price ranges. We can give you a quick quote over the phone, or a more detailed quote via email.

Contact us to discuss your plans.

440-357-0022
greenhouse@ArcadiaGlassHouse.com
www.ArcadiaGlassHouse.com

354 N. Lake St.
Madison, OH 44057

When you are ready to begin planning for your new greenhouse, call us and we will respond with experience, knowledge and trust to deliver the perfect greenhouse for you.

Arcadia GlassHouse is a Proud Member of the Better Business Bureau with a 5-Star, A+ Rating.

BBB ACCREDITED BUSINESS

A+ Rating

Who Is Arcadia GlassHouse?

Arcadia GlassHouse® was founded by a Horticulturist from Ohio State University who started designing and building commercial propagation greenhouses in 1980. The demand for very precise temperature and humidity controlled environments for propagation of woody ornamentals led to innovative engineering designs for high quality, reliable greenhouses that are air tight and energy efficient. These design improvements are what make Arcadia GlassHouse unique in providing an exceptional growing environment with strong extruded aluminum frames.

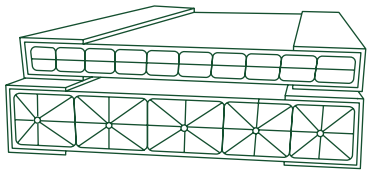
With decades of experience designing, manufacturing and installing high-end residential and botanical garden greenhouses all across the US, we can help you select the perfect greenhouse for your home, garden, school or nature center.

- All Structural Components Made in the USA
- Lifetime Warranty on the Frame
- 10-year Warranty on Polycarbonate


Made in
America

Quality Engineering

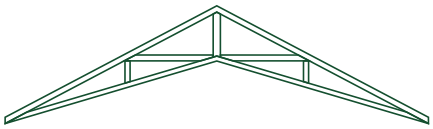
Innovative Design & High Quality Materials



Cutaway of our 8 mm and 16 mm polycarbonate glazing

Arcadia GlassHouse greenhouses are designed for gardening enthusiasts who want excellent quality at a reasonable price. Our strong extruded aluminum frame with stainless steel hardware will never rust. Standard models include 3/16" single-pane glass sidewalls, which is 50% thicker and stronger than any other greenhouse. We also have 8 mm triple-wall and 16 mm 5-wall polycarbonate options. We use full-length sheets of 8 mm or 16 mm tinted polycarbonate on the roof for maximum insulation and no overlapping seams to leak or collect debris. Snow and ice slides right off.

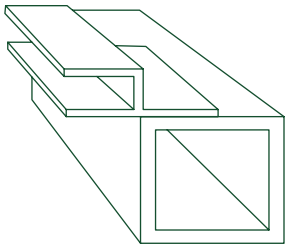
Strength in Engineering



Arcadia's proprietary scissor truss engineering

The Arcadia welded truss construction is engineering rated for 30 lb/ft^2 snow loads and 105 mph wind loads. Snow load capacities can be increased to 55 lb/ft^2 to meet requirements anywhere in the USA. Our unique scissor truss engineering allows for greater clear space without support posts, cross bracing, or bulky collar ties for a beautiful open, airy feeling inside your greenhouse.

Superior Energy Efficiency



Our extruded aluminum h-channel and square tube frame

Arcadia greenhouses are made with strong extruded aluminum h-channel, which is used to frame every pane of glass or polycarbonate. This unique design is much stronger and better insulating than traditional caps, clips, and overlapping glass systems. Glass panels have extra insulation with an EPDM rubber seal that goes all the way around the glass inside the channel for a waterproof seal that lasts a lifetime. (Other greenhouse manufacturers use foam tape that deteriorates in a few years.)

Arcadia greenhouses are made with strong extruded aluminum frames, welded scissor truss construction, and stainless steel hardware. Our glass panels are full-length extra high sidewalls.

Greenhouse Glazing

Glass or Polycarbonate

If you want the most beautiful greenhouse you can buy, then you'll want glass sidewalls. Nothing beats the beauty and character of a true glasshouse. We build our greenhouses with 3/16″ thick glass because it's 50 percent thicker, stronger, and less likely to break than traditional 1/8″ glass. We wrap all four edges of each glass pane with an EPDM rubber seal that fits inside our h-channel to provide air-tight and water-tight insulation. This rubber seal also protects the glass from breakage. We use full-length glass panels from top to bottom so there is no overlapping glass, no sightly lateral frame members, and no potential leaks.

If you want the most energy-efficient greenhouse, then you'll want polycarbonate sidewalls. Our 8mm high-clarity, triple-wall polycarbonate is an excellent insulator because it has two layers of dead air space. Polycarbonate is warmer in the winter and cooler in the summer. It also diffuses the sunlight better than glass and protects plants from burning. We use the highest quality polycarbonate available, with a UV protective coating on the outside and an anti-condensation coating on the inside.

The Best of Both

Many of our customers choose to select glass for the front wall or side wall most visible to them and then select polycarbonate glazing for the other two or three walls for best insulation. Whether you choose glass or polycarbonate sidewalls, Arcadia uses full-length polycarbonate panels on the roof. Polycarbonate is 200 times stronger than glass and is not damaged by hail, wind, snow and most tree branches. We put our best insulating material in the roof where heat will try to rise and escape.

For most applications we recommend our tinted polycarbonate for the roof because it provides 50% shade and keeps your greenhouse cooler in the summer. This bronze tinted material allows the Photosynthetically Active Rays (PAR) to come through while deflecting infrared heat waves.

Polycarbonate 8mm triple-wall and 16mm 5-wall
Polycarbonate is not as clear as glass, but it is unbreakable, it protects your plants from sunburn, and it is a low-cost, energy-efficient option with lower heating costs in winter.

Double-pane Glass
Double-pane glass greenhouses typically cost about double the price of single-pane glass and polycarbonate greenhouses. Learn more about our double-pane glass options on page 21.

Light Transmission and R-Value Specifications

	Light Transmission	R-Value
Single-pane Glass	90%	1.0
8mm Triple-wall Polycarbonate (clear)	80%	2.0
8mm Double-wall Polycarbonate (tinted)	50%	1.7
16mm Five-wall Polycarbonate (clear)	70%	3.0
16mm Five-wall Polycarbonate (tinted)	40%	3.0
Double-pane Glass (clear)	80%	2.3
Double-pane Glass (Low-E)	70%	4.0

Styles, Sizes and Shapes

Arcadia greenhouses are available in a wide range of standard and custom sizes, including even-span and lean-to styles that can be attached to your home or freestanding in a garden setting. Our standard 6′-10″ sidewall height is more than one foot taller than other greenhouses so you have plenty of headroom to hang baskets and work comfortably. Strength and beauty combined with an energy-efficient design makes Arcadia GlassHouse your best choice for a new greenhouse.

Beautiful Custom Designs with Strong, Energy-efficient Engineering.

Make Yours Unique

We encourage customers to design their greenhouse to complement their home, whether it is freestanding or attached. We can modify the pitch of the roof to match the architecture of your home, and we can add cresting and finials to the roof. We can build the greenhouse on a brick or stone kneewall. We also offer a high-quality powder coat paint finish in dark brown, green, black or white. Custom colors also available.

Freestanding Even-span

Advantages
Create your own beautiful garden setting and locate your greenhouse for optimal lighting.

Disadvantages
Four exposed side walls will cost a little more to heat in winter.

Gable Attached Even-span

Advantages
Convenient year-round access from your home and lower heating costs.

Disadvantages
Requires additional costs and permitting for frost-free foundation and footer.

Lean-to Greenhouses

Advantages
Convenient year-round access, low-pitch roof height, and lower heating costs.

Disadvantages
Requires additional costs and permitting for frost-free foundation and footer.

Reverse Gable Entries

We can build a beautiful, custom entry for single doors or double doors that adds a strong dimensional appearance to your greenhouse. These are typically on the long side of a greenhouse, but can also be stunning on a gable end wall.

Kneewalls

Custom stone or brick kneewalls make a beautiful addition to many greenhouses. They also act as an energy-efficient heat sink that holds the sun's warmth well into the night. While the cost of the greenhouse is a little less for these models, the cost of the foundation and stonework far exceeds the difference in cost of a glass-to-ground model.

Doors

Our standard greenhouse door is a high-quality, 36″ wide aluminum storm door by Andersen with retractable screen and lock. We can put two of our standard 36″ doors side by side, but they do require a vertical center bar. Six foot wide commercial doors are a popular option for larger public greenhouses and do not require a center bar, but they do not have screens.

Windows

Arcadia provides optional double-hung aluminum windows with screens that are 24″ wide by 36″ high.

Call us about custom muntin bars for your greenhouse doors.

Building Permits

Greenhouse installations often require a building and zoning permit. Frost-free footers and foundations are required for any structure attached to your home. Arcadia will provide engineering drawings to assist in your permitting process. Call us to learn more.

Tip:

Do not prop open any greenhouse doors because a good gust of wind can bend the hinges and aluminum frame. Doors are not air tight and water can get in near the threshold.

Even-span Greenhouses

Arcadia GlassHouse even-span models come with extra-tall 6′-10″ high side walls and full-length glass or poly panels for the best energy efficiency and low maintenance. Our standard 6/12 pitch roof looks great, provides lots of room to grow hanging baskets, and allows dust, leaves and snow to slide right off. We also offer custom roof pitches up to 12/12.

12x24 on kneewall with custom reverse gable entry

10x20 glass to ground with reverse gable entry & cresting

20x40 glass to kneewall with 12/12 pitch roof

White reverse gable entry with cresting and finials

Custom stained glass entry

16x32 glass to ground with reverse gable entry

10x20 glass to brick kneewall with cresting

10x24 with black frame and reverse gable entry on kneewall

6 ft. commercial door, 12/12 pitch roof, aluminum finish

Gable Attached Greenhouses

Our even-span greenhouse models can be customized to fit your home. We'll change the width, length, height and roof pitch to match the architecture of your home. We can locate doors anywhere that is convenient for your unique situation.

Beautiful custom attached with 12/12 pitch roof

Matching roof pitch with reverse gable entry on side

Enjoy your patio year round

10x10 walk-out greenhouse

10x12 beautiful home addition

Gable attached on brick kneewall with door on side wall

Note the saddle attachment here above the eave

Turn your deck into a greenhouse with windows

14 x 16 gable attached polycarbonate greenhouse

Polycarbonate Greenhouses

Polycarbonate glazing may not look as nice as glass, but it's more cost-effective, energy-efficient, unbreakable, and diffuses the light for optimum growing conditions.

Our 16mm 5-wall polycarbonate has the same R-value as double-pane glass at half the cost.

20 x 44 polycarbonate greenhouse with reverse gable entry

10 x 16 polycarbonate with cresting on stone kneewall

12 x 24 polycarbonate to ground

10 x 16 polycarbonate on block kneewall

20 x 40 polycarbonate greenhouse on brick kneewall

12 x 28 freestanding polycarbonate greenhouse

Lean-to Greenhouses

Our lean-to style greenhouses are energy efficient because one long side wall is up against the home or garage and provides convenient year-round access. The standard 3/12 pitch roof typically fits nicely under an overhang or eave.

Capture the sun's heat in winter and grow all year-round.

10x20 glass lean-to with polycarbonate roof

10x16 polycarbonate lean-to with reverse gable entry

8x12 glass front wall and polycarbonate side walls

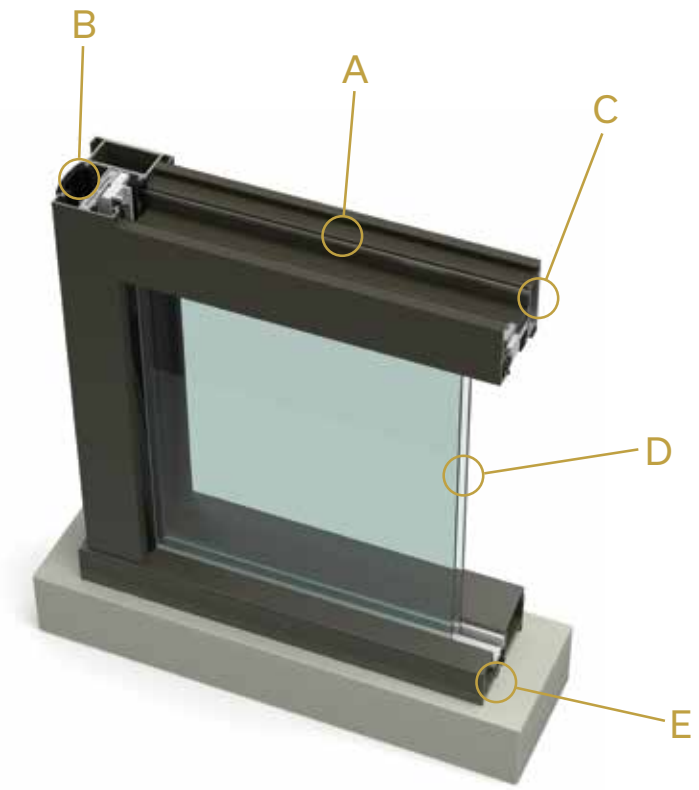
10x28 lean-to polycarbonate to ground

10x24 lean-to polycarbonate to kneewall

Lean-to greenhouses are a popular addition for barns

Double Pane Glass Greenhouses

Our premium quality greenhouses use 7/8″ thick double-pane tempered glass that is filled with clear argon gas, which is 21 times heavier than air and acts like an insulating blanket for optimal insulation. The strong, extruded aluminum frame features a thermal break so there is no inside-to-outside contact of the metal to keep the cold out and the warmth in.



Premium Quality Tempered Glass

A. Thermal break with no outside to inside contact for best insulation
B. HDPE rubber insulating seal
C. Strong extruded aluminum frame exterior and interior
D. 7/8″ argon-filled double-pane glass with low-e options
E. 3-5/8″ wide aluminum sill plate with condensation weeping

Glass Specification

Glazing Description	% Visible Light Transmittance	% UV Light Transmittance	Solar Heat Gain Coefficient	R-Value
Single-pane Glass *Our most cost-effective option for a great looking glass greenhouse.*	90	70	0.81	1.0
Double-pane Glass 7/8″ argon-filled, clear/clear *Good insulation with less condensation than single-pane glass.*	81	52	0.70	2.3
Double-pane Glass: Low-E 60 7/8″ argon-filled, Low-E/clear *One coating of Low-E on the inside of the external pane. Our best recommendation for sidewalls.*	69	14	0.37	4.0
Double-pane Glass: Low-E 80 7/8″ argon-filled, Low-E/Low-E *A coating of Low-E on the inside of each pane of glass. Our best recommendation for roofs.*	47	10	0.23	4.0

% Visible Light Transmittance - *The percentage of light in the visible spectrum that is directly transmitted through the glass.*
% UV Light Transmittance - *Percentage of ultra-violet radiation transmitted through the glass.*
Solar Heat Gain Coefficient - *The measureable amount of energy that penetrates the glass and is released inside the greenhouse.*
R-Value - *The resistance to heat loss through the glass. The higher the R-Value, the better the insulating properties.*

We can custom design any style greenhouse for you

16 x 24 with reverse gable entry on stone kneewall

20 x 30 with 12/12 pitch roof and motorized ridge vent

Monarch Conservatory with cresting & finial

2nd story hip roof conservatory

11 x 16 gable attached on stone kneewall

24 x 32 with side vents, roof vent and 9/12 roof pitch

10 x 13 gable attached on stone kneewall

16 x 24 with reverse gable entry on brick kneewall

Fresh from the greenhouse to your kitchen

Gable attached with matching roof pitch

8 x 20 lean-to on brick kneewall

8 x 16 curved eave, low-pitch lean-to

Extra tall straight-eave lean-to for citrus trees

Extra tall curved-eave lean-to greenhouse

Low-pitch lean-to fits under standard eave

Frank Lloyd Wright greenhouse restoration

Two-story, lean-to greenhouse w/ balcony

School Greenhouses

Arcadia GlassHouse manufactures ADA-compliant, energy-efficient, low-maintenance greenhouses designed for educational programs that include horticulture, organic gardening, hydroponics, aeroponics, aquaponics, and sustainability for all ages.

Teaching our youth how to grow organic vegetables for a healthy lifestyle.

Vocational agriculture education

Horticulture greenhouse

University horticulture programs

High school greenhouses

Middle school greenhouses

Elementary school greenhouses

Public Garden Greenhouses

Arcadia GlassHouse has designed, manufactured and installed destination-quality greenhouses at public gardens and nature centers all across the country. Our projects include:

- Arboretums
- Botanical gardens
- National parks
- Public zoos
- Conservatories

Boyce Thompson Arboretum BEFORE greenhouse replacement

Boyce Thompson Arboretum AFTER new greenhouse installed

Inside the new Boyce Thompson Arboretum greenhouse

Customers

Boyce Thompson Arboretum
Cincinnati Zoo
Cleveland Botanical Garden
Cleveland Metroparks Zoo
Coastal Maine Botanical Garden
Cuyahoga Valley National Park
Gardens on Spring Creek
Glacier National Park
Henry Ford Estate
Holden Arboretum
Hopewell Cutler Conservatory
Kalamazoo Nature Center

Greenhouse Accessories

We have all of the greenhouse equipment and accessories you need for healthy year-round growing.

- Benches and sinks
- Heaters
- Fans
- Grow lights
- Shutter covers

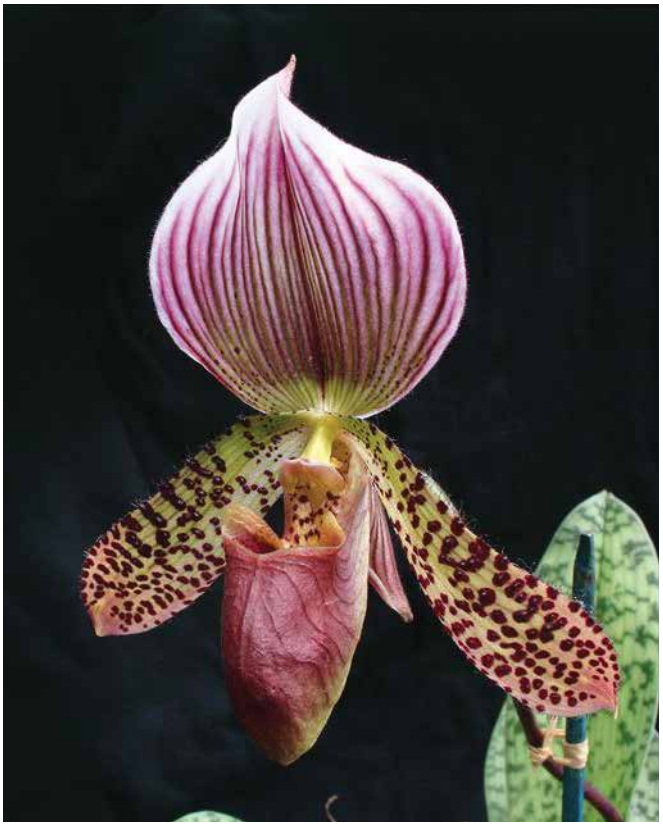
Shutter Covers
Covers the intake shutter with insulated polycarbonate in the winter and a bug screen in the summer

Heaters
We provide gas and electric heaters sized with the appropriate amount of BTUs to heat your greenhouse all year.

Fans
Air circulation is very important inside a greenhouse and we have all sizes of exhaust fans and circulation fans to keep your greenhouse cool and healthy.

Benches and Sinks
Our welded aluminum benches are 3′ x 8′ x 32″ high with a strong DuraBench acrylic top. Our aluminum sinks are 2′ x 5′ x 36″ high.

Grow Lights
Our T5 and LED grow lights provide long life in humid conditions with full light spectrum coverage for maximum photosynthesis.



Popular Greenhouse Sizes

8 x 12	8 x 16	8 x 20
10 x 16	10 x 20	10 x 24
12 x 20	12 x 24	12 x 28
16 x 24	16 x 28	16 x 32
20 x 32	20 x 36	20 x 40

**Arcadia can manufacture any custom size greenhouse to meet your needs.*

Talk with one of our experts to plan the perfect greenhouse for you.

440.357.0022

Greenhouse Sizing Guide

Our proprietary greenhouse design is based on a frame of 24-inch centers that can be easily modified to meet your own specific length, width and height requirements. Standard widths are in 2 ft. increments and standard lengths are in 4 ft. increments.

Standard Kneewall Height

32″ high kneewalls are our most popular size because that is typical bench height so it does not block any light to plants but it does block the view of the floor below. 24″ and 36″ heights are also popular for some personal preferences. Any size is possible.

Standard Roof Pitch

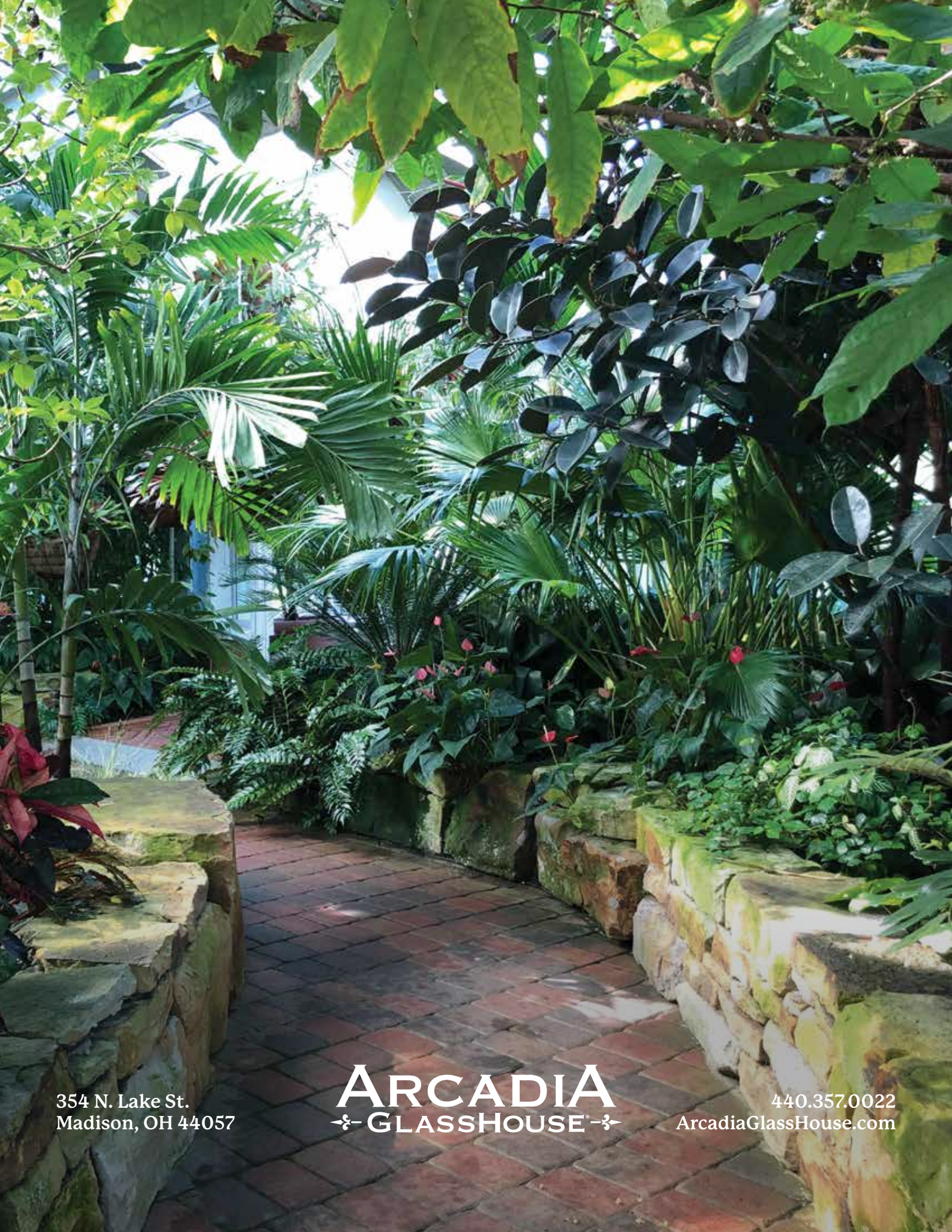
Our standard even-span greenhouses have a 6/12 pitch roof for optimal light penetration and attractive appearance. Custom roof pitches of 8/12, 9/12 and 12/12 are also available.

Our standard lean-to greenhouses have a 3/12 pitch roof to allow them to fit under most overhangs. Custom roof pitches are available.

Sidewall Height

Our standard glass-to-ground models have a 6′-10″ high sidewall for room to hang baskets along either side. This height can be easily modified if there are design limitations or other preferences.

Our standard kneewall models have a 4′ high glass sidewall on top of a 32″ kneewall. Both dimensions can be easily modified to meet any special needs.



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