

**Ag Center Building Advisory
Committee**



Davie County Government
Center
154 Government Center Drive
Mocksville NC 27028
August 26, 2025
4:00 PM

MINUTES

**Davie County - Ag Center Building Advisory Committee
AG CENTER BUILDING ADVISORY COMMITTEE**

1. Call to Order - Chair Weatherman

The meeting was called to order at 4:03 p.m.

2. Adopt Agenda - Chair Weatherman

Keith Beck made a motion to adopt the agenda. Paul Moore seconded the motion. All were in favor, and the motion passed.

3. Approval of Minutes - Chair Weatherman

Keith Beck made a motion to approve the minutes. Chasity Robertson seconded the motion. All were in favor, and the motion passed.

a. July 21, 2025 Minutes

4. Old or New Business

a. Davie Ag Center Schematic Design Proposal - Kevin Marion

Kevin Marion presented the conceptual design plan. Following the discussion, the group agreed to make notes and submit them to Kevin within two weeks. Kevin will return on September 23 to present the revised plan.

5. Discussion Items

6. Adjourn - Chair Weatherman

Jesse Ledbetter made the motion to adjourn. Keith Beck seconded the motion. All were in favor, and the motion passed.



FULLER
Architecture

DAVIE COUNTY AGRICULTURAL/CIVIC CENTER
CONCEPTUAL DESIGN MEETING #1 AGENDA

DATE: August 26, 2025

AGENDA ITEMS:

1. Introduction with Overall Site Plan
2. Focused Site Plan and Discussion
3. Agricultural/Civic Center Floor Plan and Discussion
4. Livestock Show Facility Floor Plan and Discussion
5. Exterior Aesthetics/Structural System Discussion
 - a. Mass Timber Information
 - b. Precedent Design Images
6. Next Meeting/Expectations
 - a. Updated Floor plans
 - b. Preliminary 3D Model Images

68 Court Square Suite 200
Mocksville, NC 27028

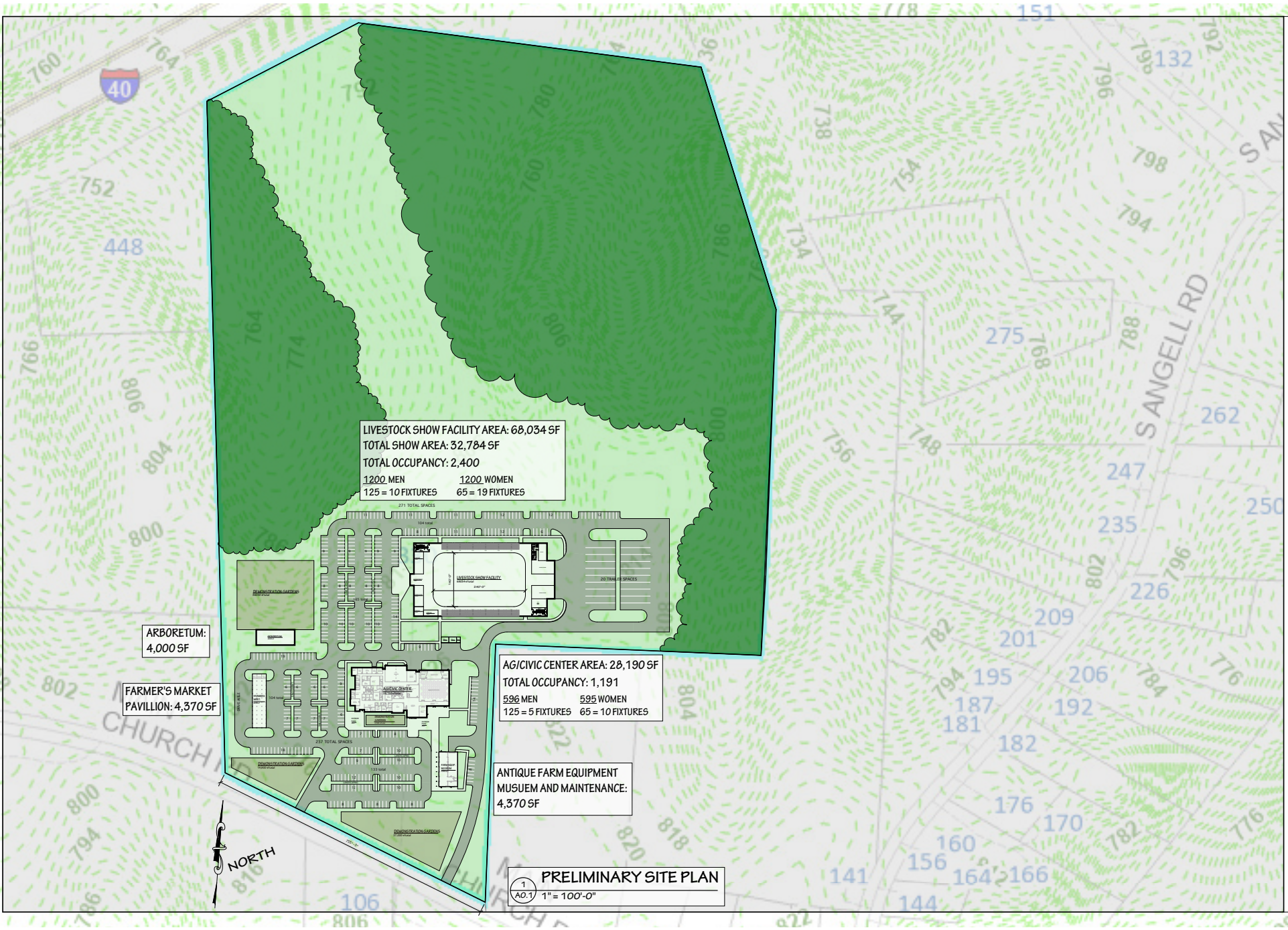
p: 336.751.0400
f: 336.751.1660



Future home of

DAVIE COUNTY
Agricultural
CENTER

336-753-6000



LIVESTOCK SHOW FACILITY AREA: 68,034 SF
TOTAL SHOW AREA: 32,784 SF
TOTAL OCCUPANCY: 2,400
1200 MEN 1200 WOMEN
125 = 10 FIXTURES 65 = 19 FIXTURES

ARBORETUM:
4,000 SF

FARMER'S MARKET
PAVILLION: 4,370 SF

AG/CIVIC CENTER AREA: 28,190 SF
TOTAL OCCUPANCY: 1,191
596 MEN 595 WOMEN
125 = 5 FIXTURES 65 = 10 FIXTURES

ANTIQUE FARM EQUIPMENT
MUSEUM AND MAINTENANCE:
4,370 SF

1
A0.1
PRELIMINARY SITE PLAN
1" = 100'-0"



FULLER
ARCHITECTURE

68 COURT SQUARE
SUITE 200
MOCKSVILLE NC
27028
336 751 0400

DAVIE COUNTY
AGRICULTURAL/CIVIC
COMPLEX
MOCKSVILLE, NORTH CAROLINA

SITE PLAN

DATE:
AUGUST 26, 2025
FOR REVIEW
REVISIONS:

A0.1



68 COURT SQUARE
SUITE 200
MOCKSVILLE NC
2 7 0 2 8
336 751 0400

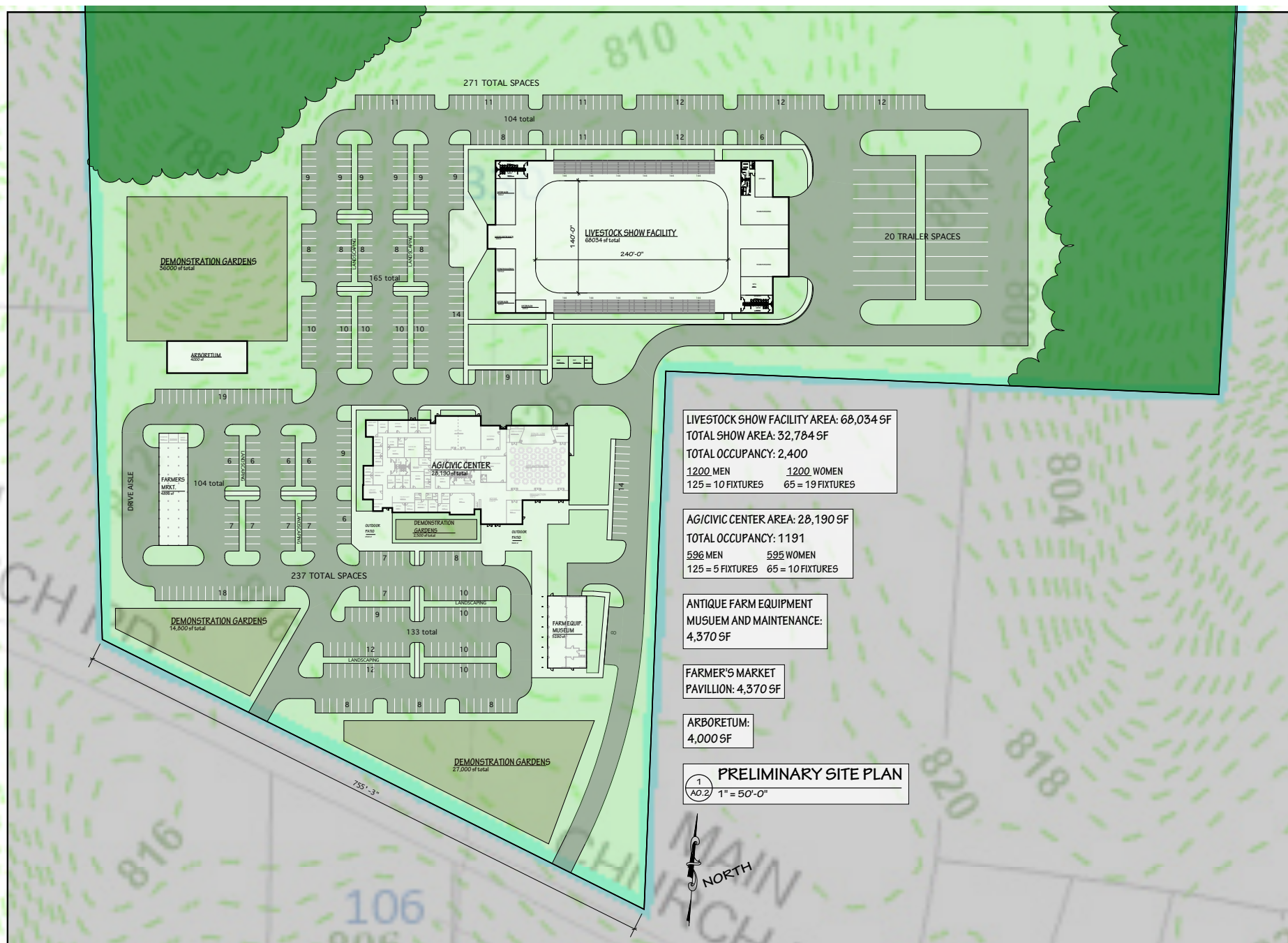
**DAVIE COUNTY
AGRICULTURAL/CIVIC
COMPLEX**

SITE PLAN

DATE:
AUGUST 26, 2025
FOR REVIEW

REVISIONS:

A0.2





FULLER
ARCHITECTURE

68 COURT SQUARE
SUITE 200
MOCKSVILLE NC
2 7 0 2 8
336 751 0400

DAVIE COUNTY
AGRICULTURAL/CIVIC
COMPLEX
MOCKSVILLE, NORTH CAROLINA

AG CENTER
FLOOR PLAN

DATE:
AUGUST 26, 2025
FOR REVIEW

REVISIONS:

A1.0



1
A1.0
PRELIMINARY AG CENTER FLOOR PLAN
3/32" = 1'-0"



FULLER
ARCHITECTURE

68 COURT SQUARE
SUITE 200
MOCKSVILLE NC
270 28
336 751 0400

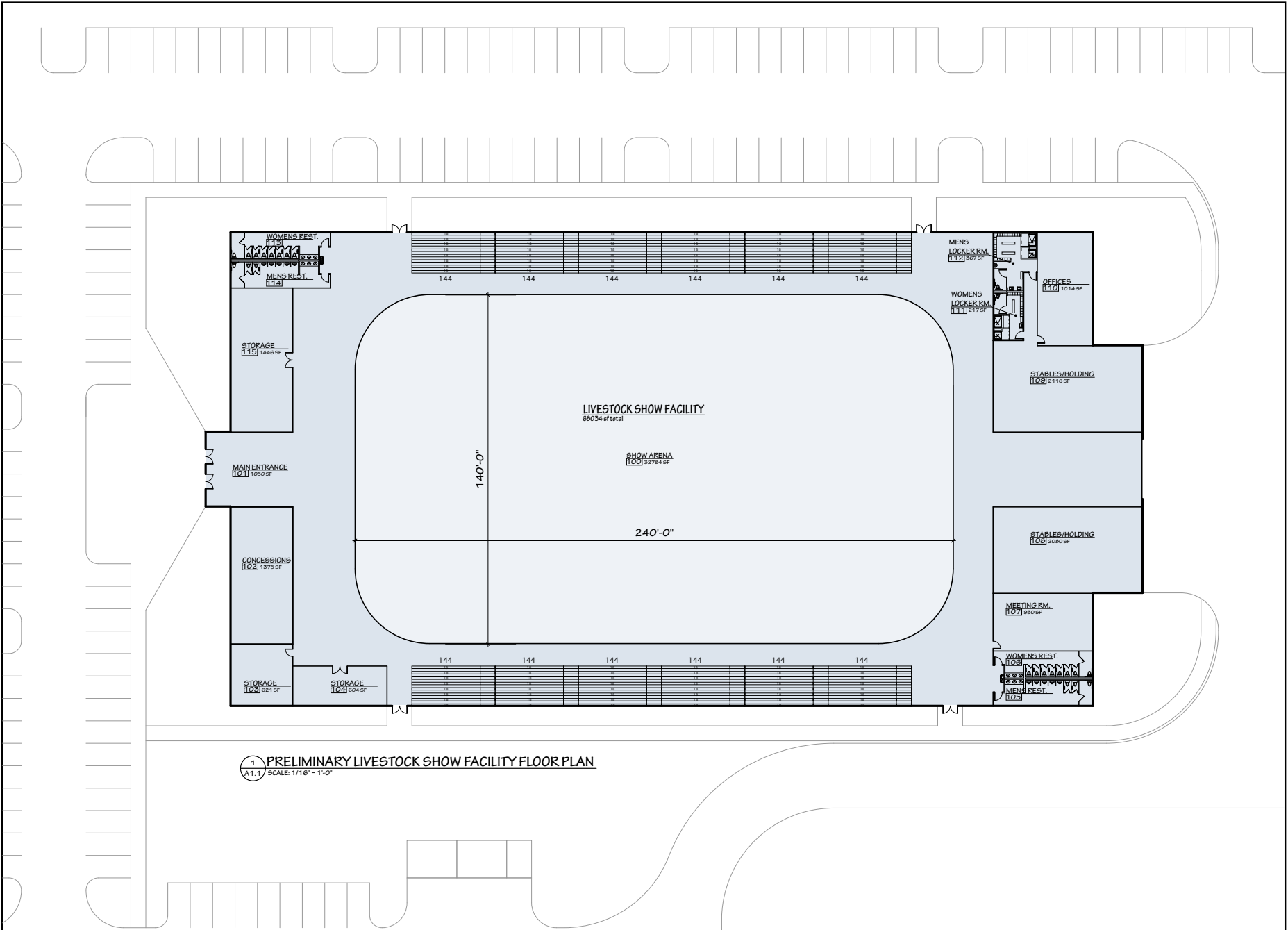
DAVIE COUNTY
AGRICULTURAL/CIVIC
COMPLEX
NORTH CAROLINA
MOCKSVILLE

LIVESTOCK
SHOW FACILITY
FLOOR PLAN

DATE:
AUGUST 26, 2025
FOR REVIEW

REVISIONS:

A1.1



Mass Timber Construction: Why Is It Important?

Did you know that mid-rise and high-rise buildings can now be built out of wood? Mass timber is quickly gaining momentum as a viable alternative to traditional construction methods.

What is mass timber? What is mass timber made of?

Mass timber is an emerging building typology that replaces steel, masonry, and concrete with wood. With mass timber, architects and engineers can pursue sustainable construction, warmer aesthetics, and remarkable improvements in construction efficiency.

Although mass timber is a relatively new category, it already features a wide variety of products. Below, we'll cover nail-laminated timber, glued-laminated timber, dowel-laminated timber, and the mass timber product gaining the most traction: cross-laminated timber.

2019: Mjøstårnet in Norway becomes world's tallest timber building (for context, it's 25 feet shorter than the Statue of Liberty. That said, you can't beat Mother Nature because the biggest known Douglas Fir tree happens to be the same height...)

What's the big deal with mass timber?

Because of the potential to significantly reduce carbon emissions in the atmosphere and reverse climate change, these benefits are plausible due to two key facts about construction:

- First, carbon emissions from the building industry account for approximately 40% of global carbon emissions.
- Second, the manufacture of concrete and steel contributes about 10% of current global carbon emissions.

Andrew Ruff of Connecticut-based Gray Organschi Architecture explains, "If you look 30 years down the road to 2050, we're projected to have 2.3 billion new urban dwellers. That is a huge amount of construction. Every day that goes by that we don't convert from mineral-based extractive construction techniques to carbon sequestering building systems, we tend to dig ourselves further in a hole" (**Yale Environment 360: As Mass Timber Takes Off, How Green is this New Building Material?, April 2019**).

Conversely, using wood in mass timber building actually *removes* carbon dioxide (CO₂) from the atmosphere. Scientists refer to the process as carbon sequestration, but we like to think of wood as a carbon sponge. A tree is nature's solar-powered CO₂ storage machine, until the day it dies. Then, if left to rot—whether in a forest or landfill, or the wood burned—the sponge is wrung out and the CO₂ returned to the atmosphere.

Here's where it gets interesting: take that same wood and keep it dry, as part of a

building in the form of mass timber—whether a timber frame, glulam trusses, or cross-laminated timber walls and floors—and it will last indefinitely. Hundreds of years. Longer than concrete.

Mass timber is part of the solution to our climate change problem.

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Try watching this video on www.youtube.com, or enable JavaScript if it is disabled in your browser.

Mass timber, or solid wood construction, in more depth

What to Know About Mass Timber

The term mass timber might be confusing to some of us. First things first – a mass timber definition: the term mass timber refers to a building typology—a way in which the building itself is made of large, solid wood structural pieces for wall, floor, and roof construction.

What is Mass Timber Made Of?

As large solid pieces of timber become more expensive to source, mass timber is being fabricated using many smaller individual pieces of wood—literally tons of wood go into the making of these manufactured structural pieces. With mass timber, the large engineered wood structures of a building are made entirely of wood—usually the beams, columns, arches, floors and roofs—and fabricated offsite to engineered specifications.

Hence, the term *mass* refers to the large, solid components, and the term *timber* refers to a solid or manufactured wood product.

What is a Mass Timber Building?

One more thing that might help – the criterion to define a mass timber building is as follows: If the primary load-bearing structure is made of either engineered or solid wood, we can call it a mass-timber building. If the building uses mass timber as an accent and not as a primary structural element, then it is not mass timber.

(**Construction Dive: Mass Timber 101: Understanding the Emerging Building, May 2017**)

Advantages of Mass Timber

- **Faster and Cheaper Construction:** Because mass timber is fabricated and sometimes even assembled offsite, it allows for a more efficient and more cost-effective construction process.
- **Improved Fire and Earthquake Safety:** In contrast to stick-built structures, mass timber buildings are more fire resistant—largely due to the larger, heavier, and more compressed timber.
- **Reduced Emissions:** Steel and concrete are highly embodied building materials—meaning they produce a tremendous amount of carbon emissions. Mass timber is made from wood, which is a carbon sink and a renewable resource.

Types of Mass Timber Systems

- **Post and Beam:** With its vertical posts and horizontal beams, **post and beam construction** is ideal for buildings with open interior spaces. Although it's related to timber framing, post and beam uses metal connectors and fasteners.
- **Floor and Wall:** Mass timber can completely replace steel and concrete to form floors and walls of mid- and high-rise buildings. Floor and wall systems often use a honeycomb structure to manage vertical and lateral loads.
- **Hybrid Systems:** In addition to timber, hybrid systems include materials like concrete and steel. With hybrid systems, you can choose the best material for the job while still enjoying the benefits of mass timber.

What are the most common timber products?

Sawn Solid Timber (timber framing, post & beam construction)



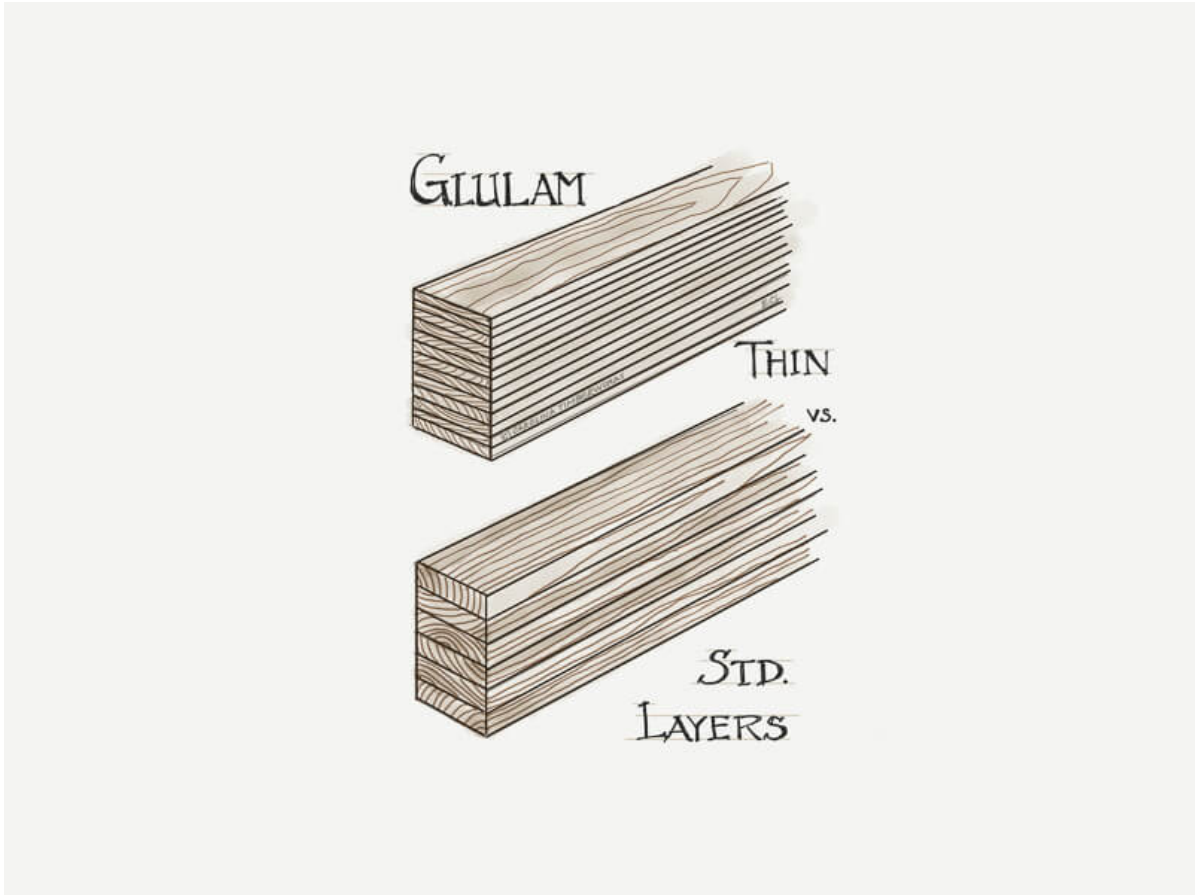


Traditional timber framing is the more than 2,000 year old building method (some would argue it's an art) of connecting two or more pieces of timber using wood-to-wood joinery. Prior to the discovery of metal, this is how timber posts and beams were connected to frame the homes, barns, and businesses our ancestors lived and worked in. Held together without nails, bolts, or metal connectors—timber frames tend to withstand the test of time—many with a lifespan measured in centuries instead of decades.

What is a timber frame? [Learn more.](#)

What's the difference between timber frame and post and beam construction? [Learn more.](#)

Glue-laminated Timber (glulam)



Art Gallery of Ontario, image courtesy of Structurlam

Glued laminated timber (glulam) is an engineered wood product made by laminating smaller pieces of solid lumber together with moisture-resistant adhesives into a single, usually large and very strong, structural member. These large structural members are used to create vertical columns, horizontal beams and floors, as well as curved arches.

Glulam technology allows architects to design bold curved shapes, in a range of wood species and appearances. And because of their strength and stiffness, glulam timbers can be used to create beams and arches that span large distances—up to 300 feet—without using supporting columns.



We used glulams in our new shop because they are an efficient way to create a large open space (70' in this case).

Cross-laminated Timber (CLT)

CROSS
LAMINATED
TIMBER



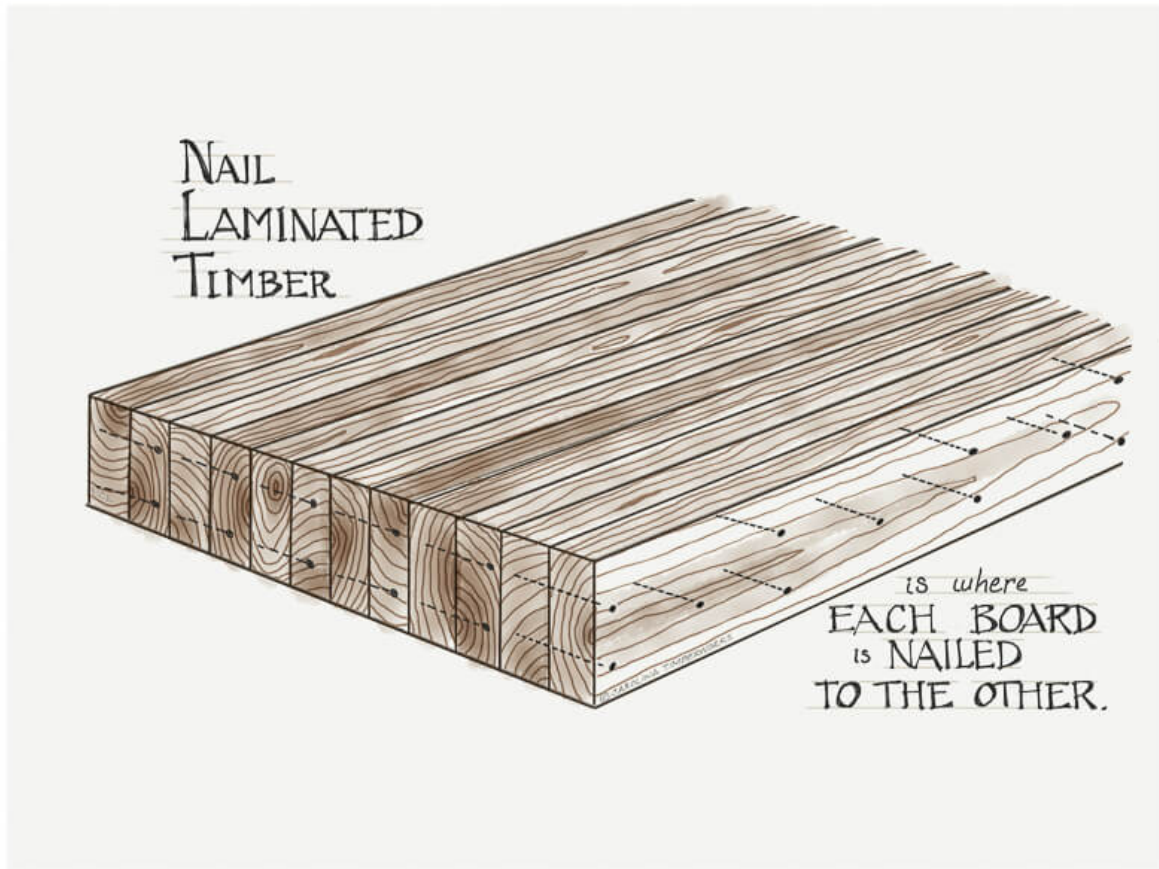


CLT floor panel (image courtesy Structurlam)

CLT was first developed in Germany and Austria in the early 1990s in response to an increasing shortage of old-growth timber. A CLT is a large, prefabricated, engineered solid-wood panel commonly used for long spans in walls, floors, and roofs. Finished panels are typically 2 to 10 feet wide, with lengths up to 70 feet and thicknesses up to 20 inches. They are light-weight and very strong, with superior acoustic, fire, seismic, and thermal performance.

CLT's are manufactured by combining layers of lumber boards which are stacked in alternating directions, then bonded with structural adhesives, and finally pressed together to form a solid rectangular panel. CLT's are fast and easy to install, and because they are engineered and fabricated offsite, do not generate any waste at the jobsite. As an alternative to traditional concrete and steel, CLT's are eco-friendly, offer increased design flexibility, provide better thermal insulation, and lower construction costs due to prefabrication. Did we mention that they are beautiful to look at?

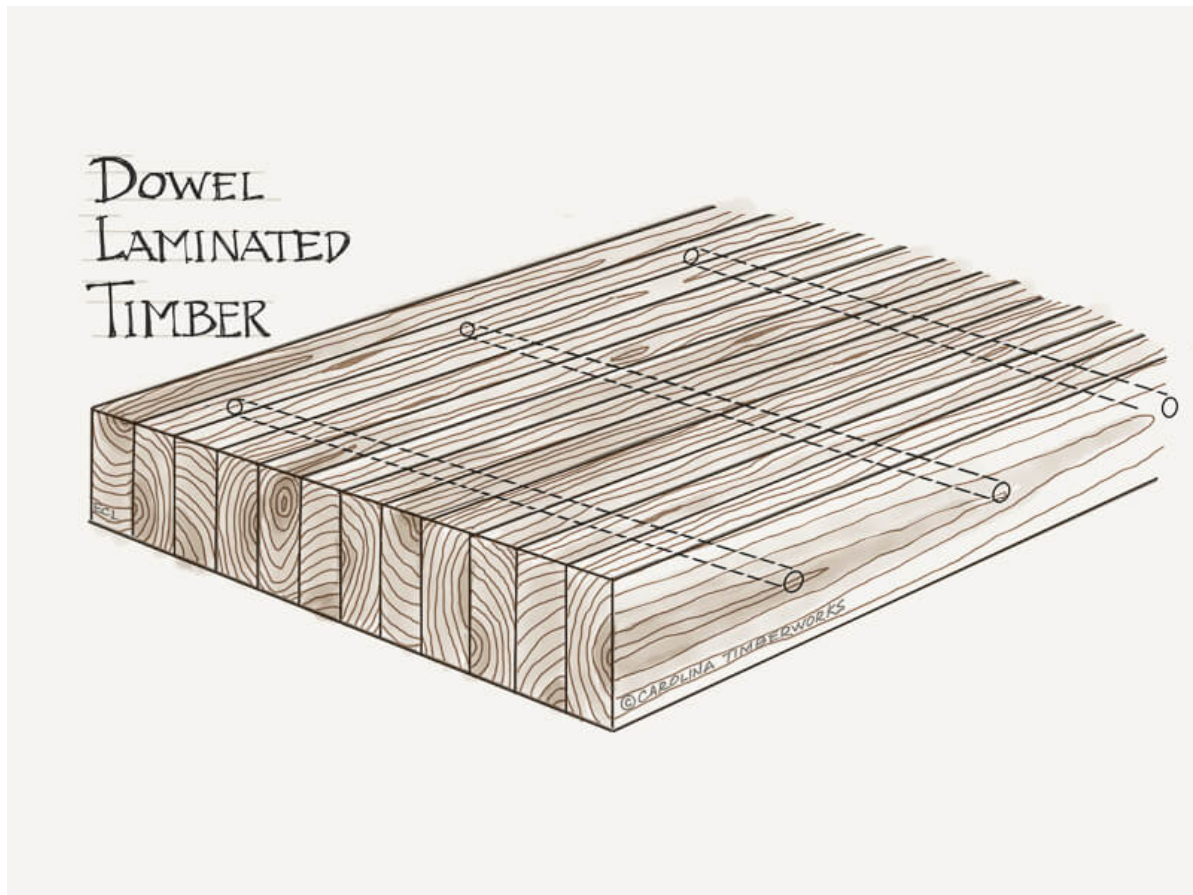
Nail-laminated Timber (NLT)



Nail-laminated timber (NLT). NLT has been around for more than a century, and used to be known as heavy timber or mill decking. To create an NLT, you simply stack layers of dimensional lumber on end and fasten them together with nails or screws. NLT is commonly used in floors and roofs as a valid substitute for concrete slabs and steel decking, with the added benefit of creating a unique, exposed wood aesthetic.

Whereas CLT is a newer technology in North America, and not always fully understood by building inspectors, NLT works well for simple spans—it's also less expensive, and is firmly accepted in the building codes. The downside? Your saw is not going to be happy if you have to cut openings in NLT panels.

Dowel-laminated Timber (DLT) (no glue, no nails)



Dowel-laminated timber (DLT). The same as NLT, except instead of using glue or nails to fasten the lumber, wooden dowels are used. A major benefit is the lack of off-gassing from adhesives.

<https://soundcloud.com/architectmag/episode-13-timber-on-the-rise-part-1-dowel-laminated-timber>

(In this podcast from Architect Magazine, you'll learn what dowel-laminated timber borrowed from timber framing)

Why invest in mass timber?

Besides offering a low-carbon alternative to traditional building technology, the exposed wood interiors in mass timber buildings are warmer than other materials and far more aesthetically pleasing than concrete and steel. People love them, and literally want to hug the wooden interiors. This is because there's still no other building material quite as warm and welcoming as wood.

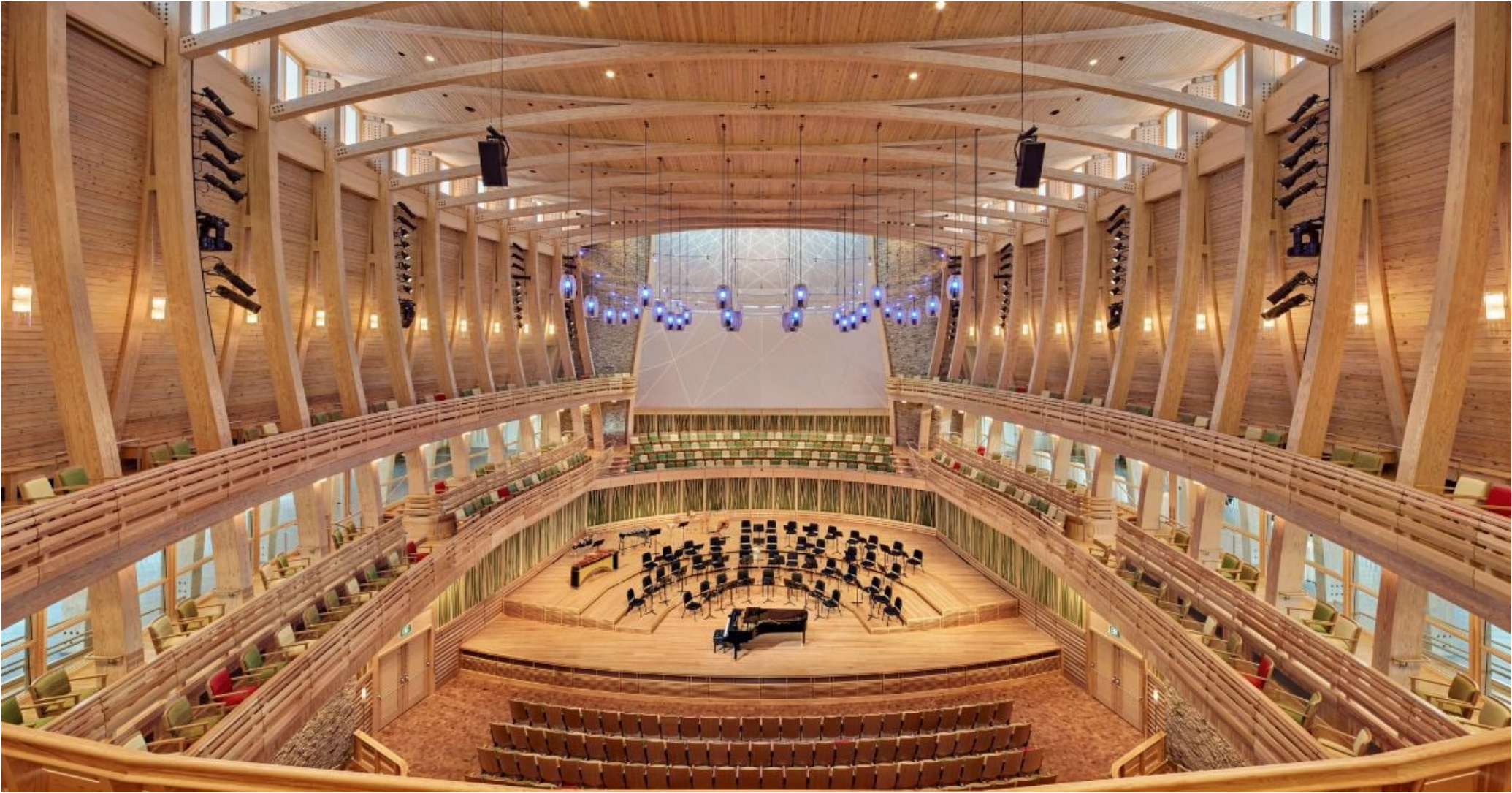
In addition to the calming psychological effects of living in a wooden building, there are the physiological benefits. The buildings actually smell of wood, usually pine and spruce.

One last reason might convince you to consider CLT—the business case—developers and builders using mass timber are getting a lot of attention.

If you are getting really inspired about wood buildings, we recommend watching **Michael Green's TedTalk** on "Why we should build wooden

skyscrapers”

Carolina Timberworks is proud to design, fabricate, and install timber framing, glulams, and CLT panels anywhere in the United States, starting in our home of North Carolina. Send us a message or call us at **828-266-9663** to learn more.





















August 26, 2025

Ag Center

Karen Logan

KEVIN MARION

JESSE LEBETIER

Keith Beck

Colleen Church

Colleen Church

Brian Barnett

Peter M.

Boyd M.

Chassey Roberts



Ag Center Board Resignation

From Karen Logan <klogan@daviecountync.gov>

Date Mon 8/25/2025 7:08 PM

To JOHNSIE M WEATHERMAN <pweatherman@yadtel.net>; Brian Barnett <bbarnett@daviecountync.gov>;
Jonathan Annas <jannas@green-resource.com>

Jonathan,

I appreciate your phone call and we are thankful to have dedicated citizens like you in Davie County. I can accept this as your resignation from the committee if that is your wish. Once things start moving along and subcommittees are made I am certain there will be a need for your input then. We will not forget about you and I will be happy to keep you informed of the goings on to see where you would be interested in plugging in. Thank you again.

Karen Logan
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