

Dairy Freestall & Parlor Planning Guide



Overview

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Expansion of a dairy operation requires much thought and planning. As with anything in life, the time you spend planning in advance will help the project come together smoothly and may eliminate costly errors. Each farm and the needs of its owner are different. Herd size, labor and waste handling are among the many factors that must be considered.

This planning guide will walk you through your dairy project and get you thinking about factors affecting your unique situation. This guide is divided into sections. First, you will find several questions regarding various planning issues. The second section is an overview of several different layout options for freestall barns and parlors.

If you have any questions regarding this planning guide or need assistance with determining cost estimates, please contact your local Lester representative. He or she will be happy to go through this planning guide with you and explain how a Lester building system can meet the needs, goals and budget for your expansion.

Lester sales people have a team of experts at their disposal to assist in the total design of your new or expanding dairy. Take time to review the guide and then contact Lester to move into the next stage of your dairy project.

To find your local Lester representative or independent dealer in your area, call 1-800-826-4439 or use the Builder Locator on our website, www.lesterbuildings.com.

Dairy Facility Components

Use this list as a reminder of the many different components and items that will impact the total overall cost of your project. Please consult the Lester representative in your area for assistance on any of these items.

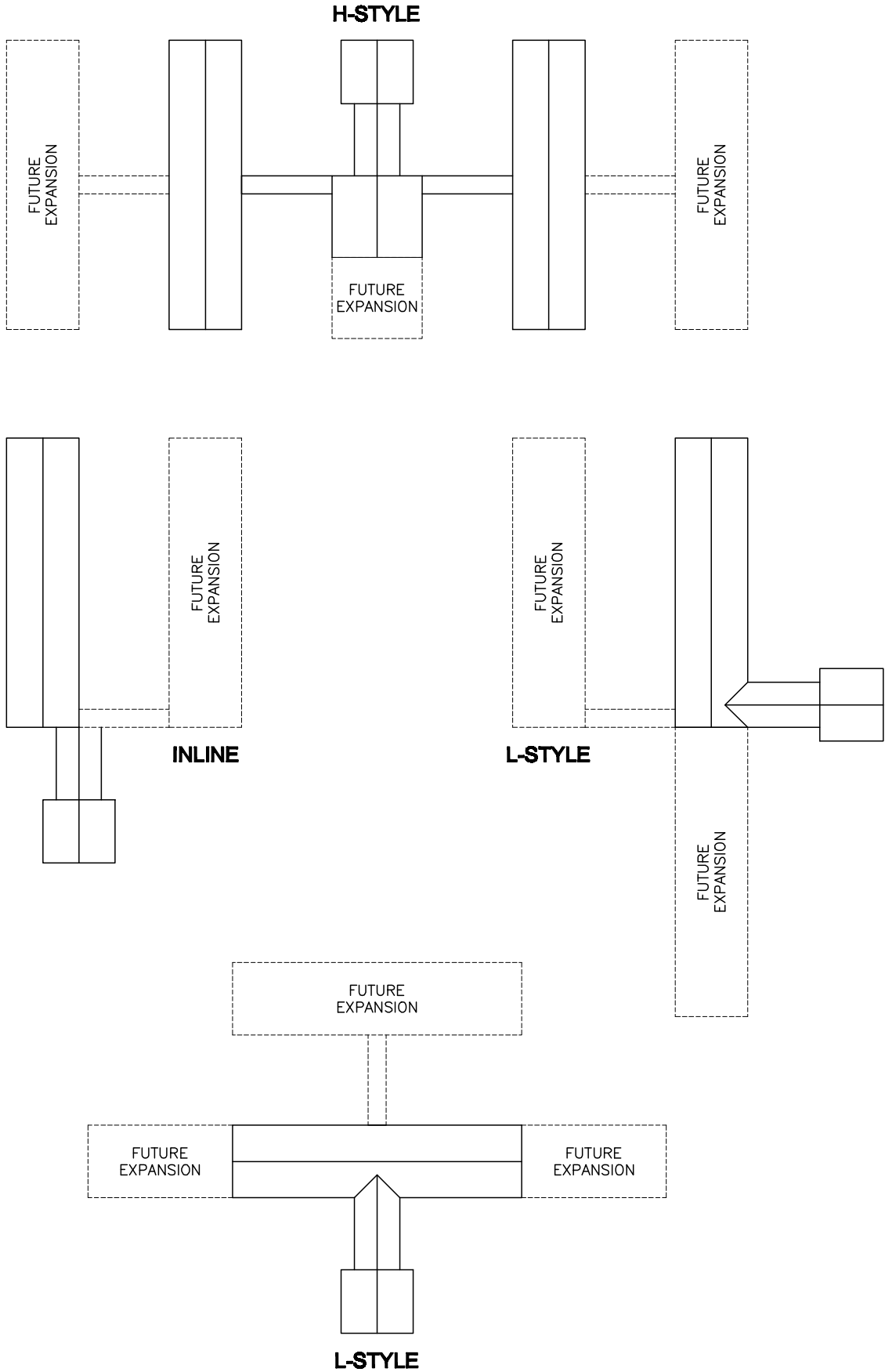
- Consulting / engineering fees
- Permits (building, manure storage, etc.)
- Excavating (site prep, road building, etc.)
- Septic system
- Concrete poured in place (walls, floors, misc.)
- Pre-cast concrete (walls, floors)
- Barn equipment
 - » Freestalls
 - » Freestall gates
 - » Gates
 - » Penning
 - » Feed troughs
 - » Misc.
- Building Structures
 - » Maturity Building
 - » Dry Cow Building
 - » Commodities Building
 - » Shop
 - » Freestall
 - » Holding Area
 - » Milking Center
- Milking center component
 - » Parlor equipment
 - » Milking equipment
 - » Cooling equipment
 - » Holding area equipment
 - » Misc.
- Manure system
 - » Handling equipment
 - » Storage
 - » Facility
 - » Misc.
- Feed storage / handling equipment
 - » Storage area
 - » Handling equipment
 - » Misc.
- Overhead doors
- Electrical service (utility company)
- Ventilation equipment
 - » Fans
 - » Curtains
 - » Misc.
- Well drilling
- Plumbing and water systems
- Heating systems
- Landscaping and signs
- Miscellaneous

Overall Dairy Considerations

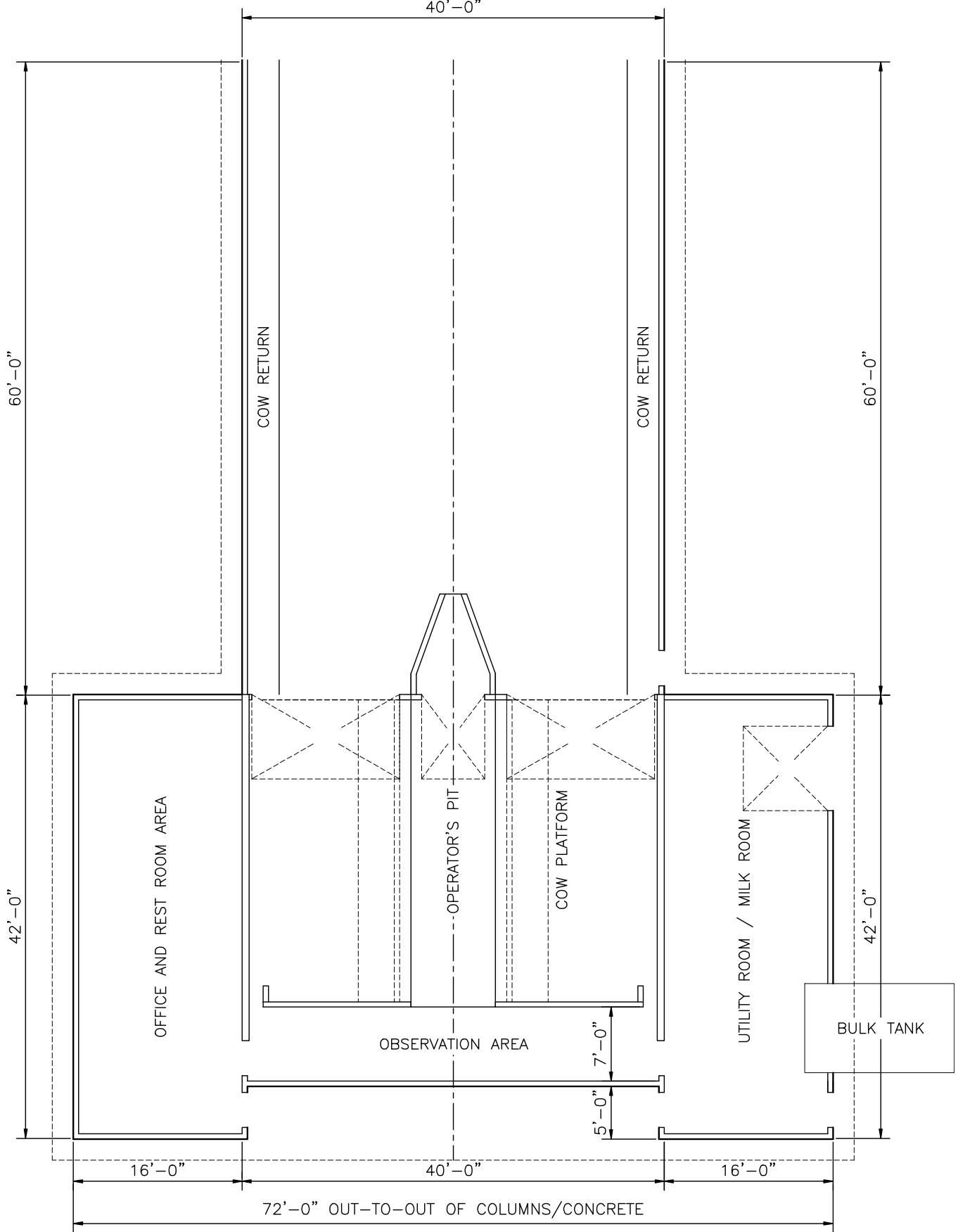
1. What size dairy do I want to operate? How many times per day will we milk (2x, 3x or 4x)? What production level do I expect to achieve and in what time period?
2. How will I market my milk? What are the short and long term trends for my area? Is there an alternative market for my milk if the primary source disappears? What about quality standards and premiums? Are there transportation charges?
3. Where will the dairy be located? Does land need to be purchased? If so, how much per acre can I afford to pay?
4. Will I grow all my feed, just forages or none at all? How many acres are needed to support the size dairy based on feed inputs? Can I contract with neighbors to supply feed?
5. What type of waste disposal system should the dairy utilize - flush, mechanical, tractor? How much land do I need for manure disposal? Can I contract with neighbors to use manure?
6. How much dairy support is there in the area? Consider location and availability of University and Extension staff, veterinarians, dairy equipment dealers, feed companies and consultants. What about financial resources, bank or FCS office?
7. How abundant is the local water supply? What quality is the water and what does it cost? City water or well?
8. What will my electricity cost? Is it 3 phase or single phase? Are off-hour rates available? Who pays to install service? Do I have a backup generator available?
9. How many head will be milked? Where will I find good replacement heifers if herd numbers are expanding? What is the cost per head?
10. What about permits and codes? City, county and state? Compliance for manure storage, run-off control, air pollution? Is an environmental impact study needed? The permit approval process may be lengthy. Have I allowed enough time in my construction plan for this? Do I need to send a written notice to my neighbors concerning this expansion? Should I consult an Environmental Engineering firm to aid in the planning/permitting process?
11. What about expansion? Can I double the size of this dairy in 5 years if I want to?
12. How will the dairy be managed? Am I a cow person or a people person? What will be the roles for myself and other family members in this operation? Where will I find good employees?
13. What financial package makes sense? Equity, debt, lease, limited partnership or a combination of sources? Do I have a realistic operating budget?
14. Do I use a dairy planner / architect? What do these services cost?

Dairy Facility Layout Options

(Not to Scale)

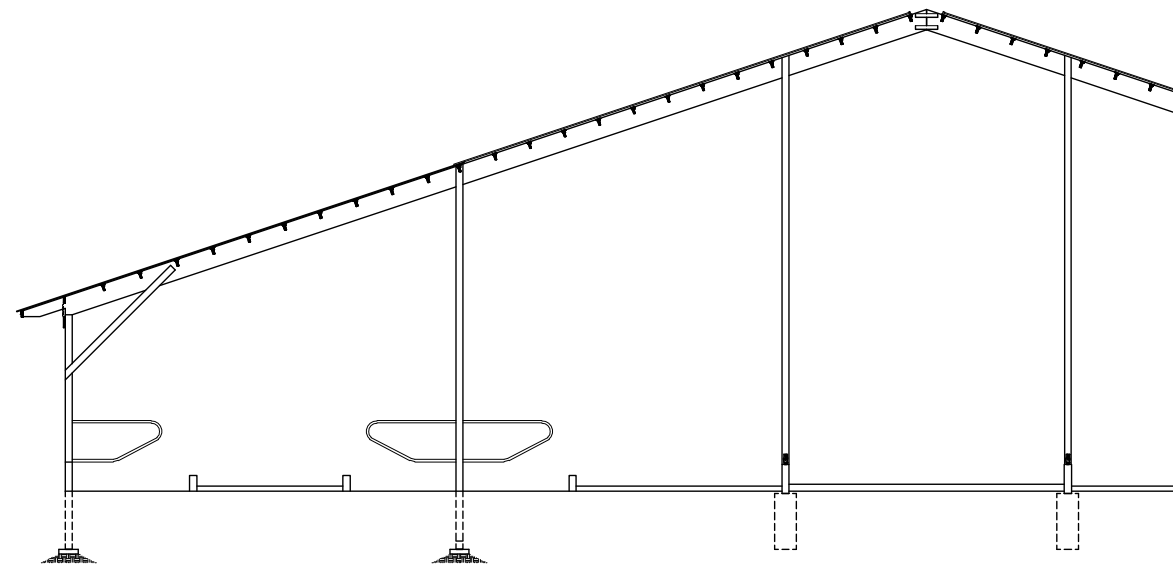


Double - 12 Parallel Parlor with Holding Area Double - 8 Herringbone Parlor with Holding Area (Not to Scale)

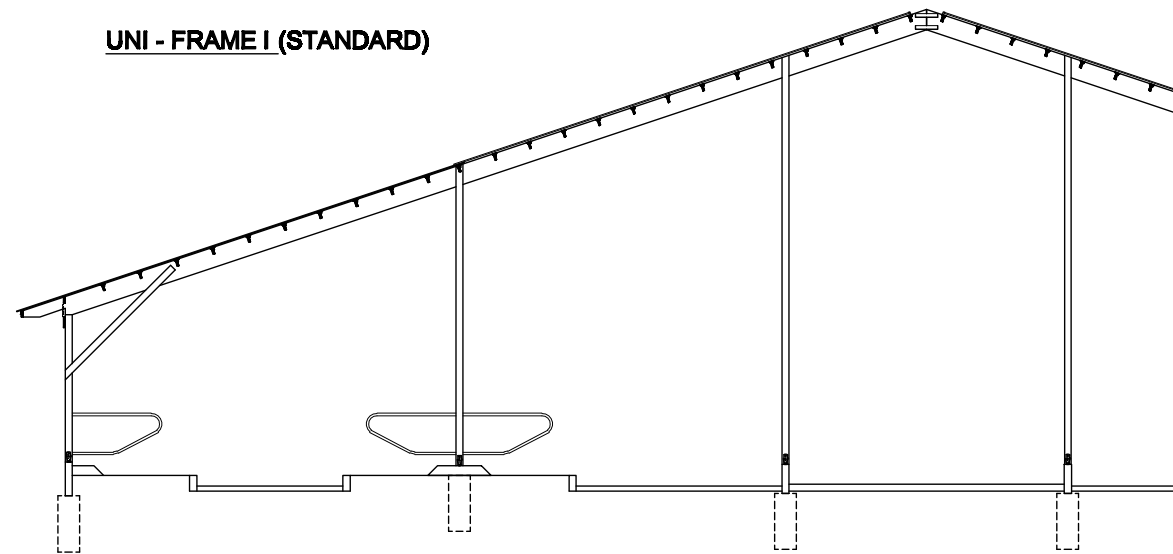


Dairy Freestall Foundation Options

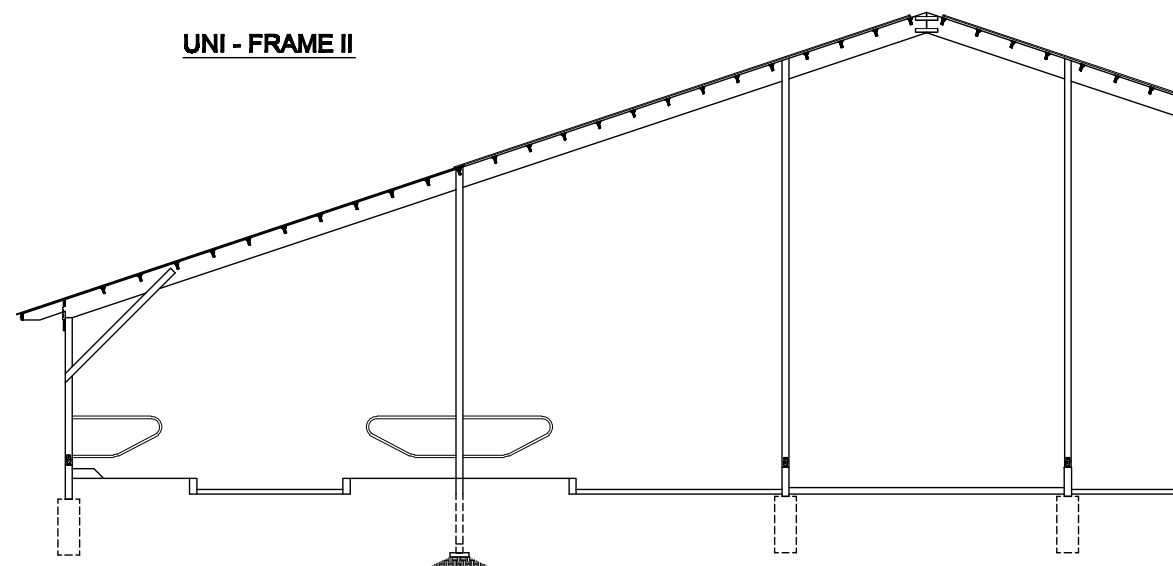
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UNI - FRAME I (STANDARD)



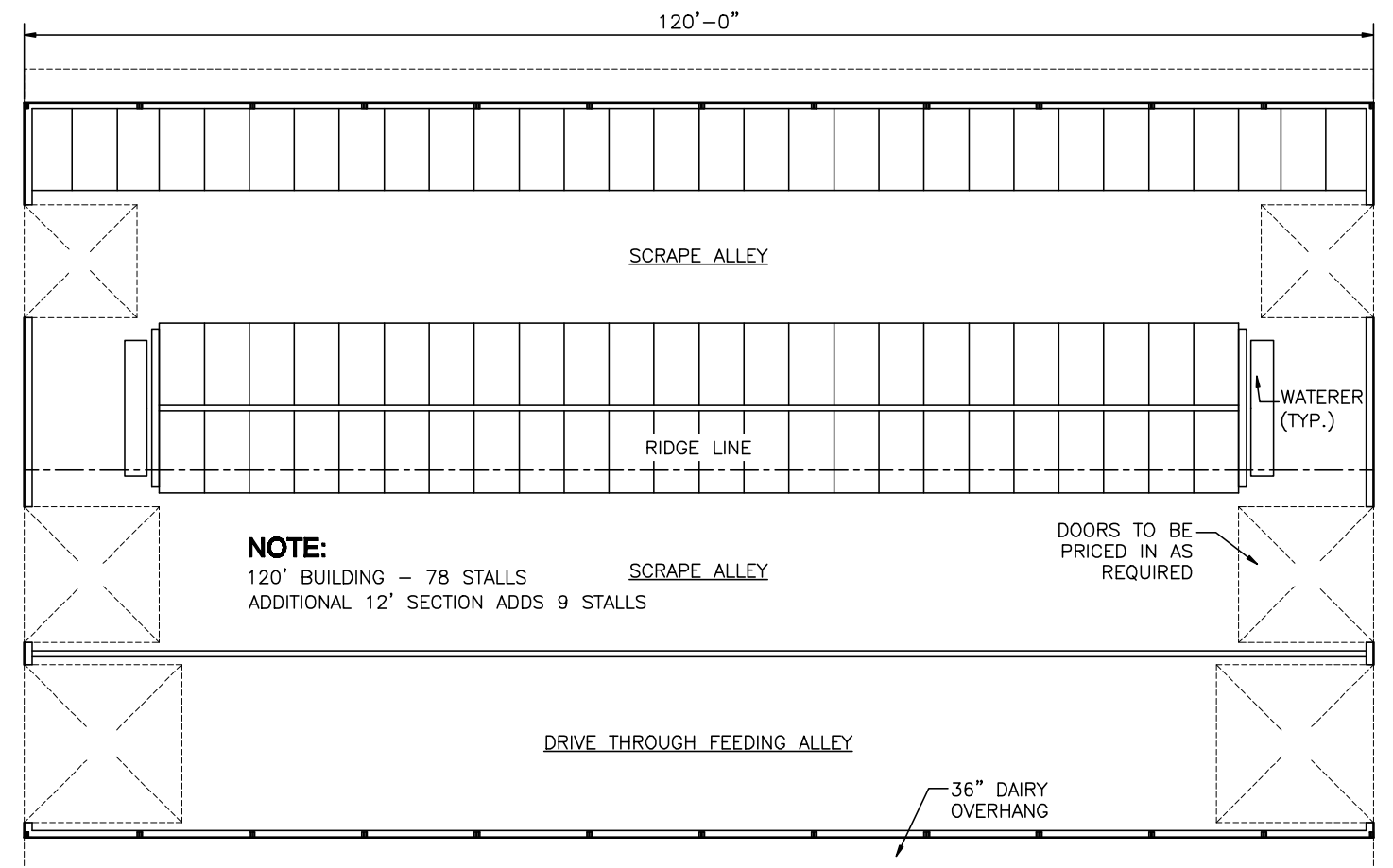
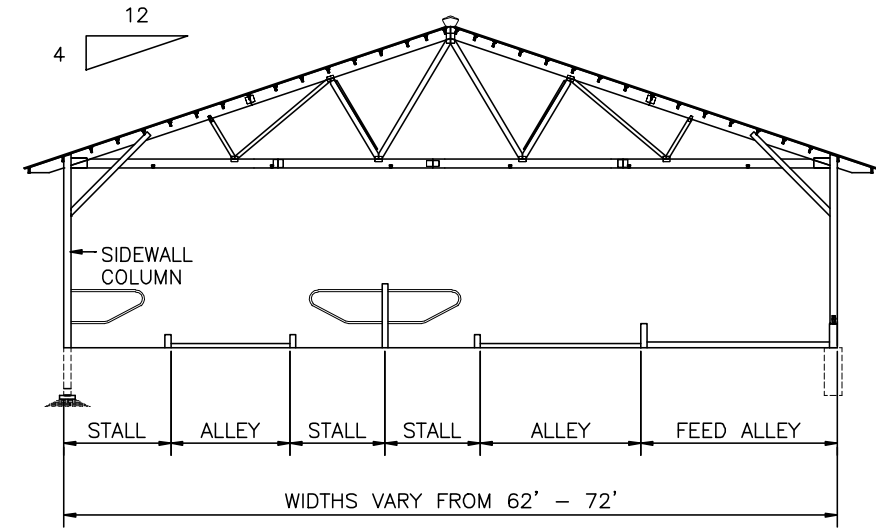
UNI - FRAME II



UNI - FRAME I / UNI - FRAME II

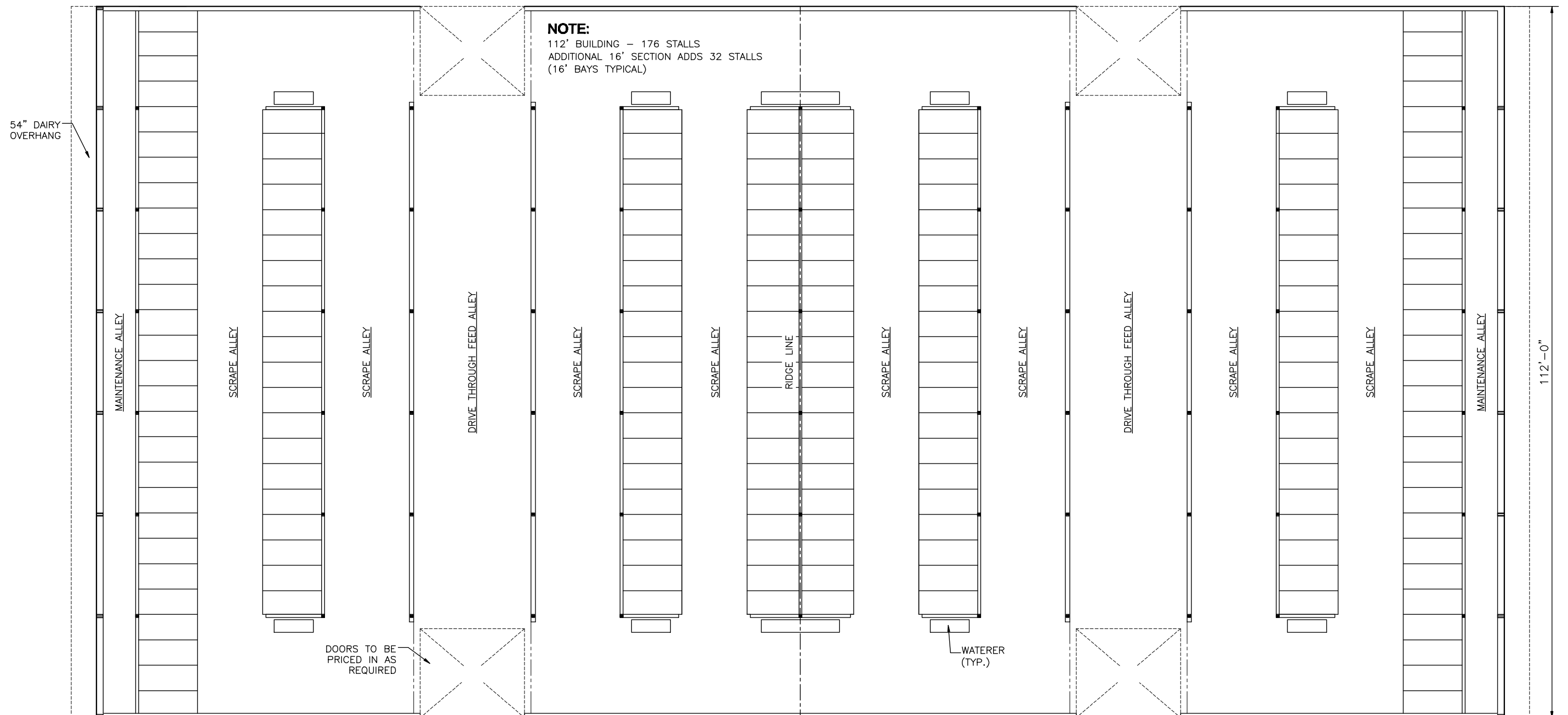
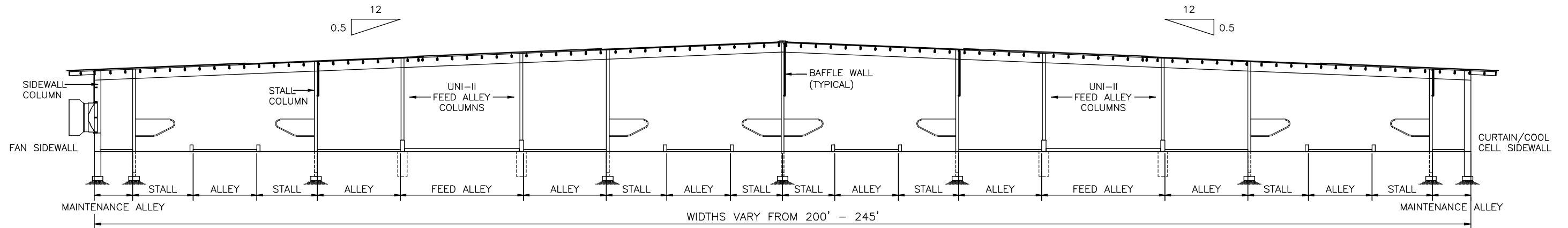
Lester® Three Row Clear Span Truss Style Freestall

(Not to Scale)



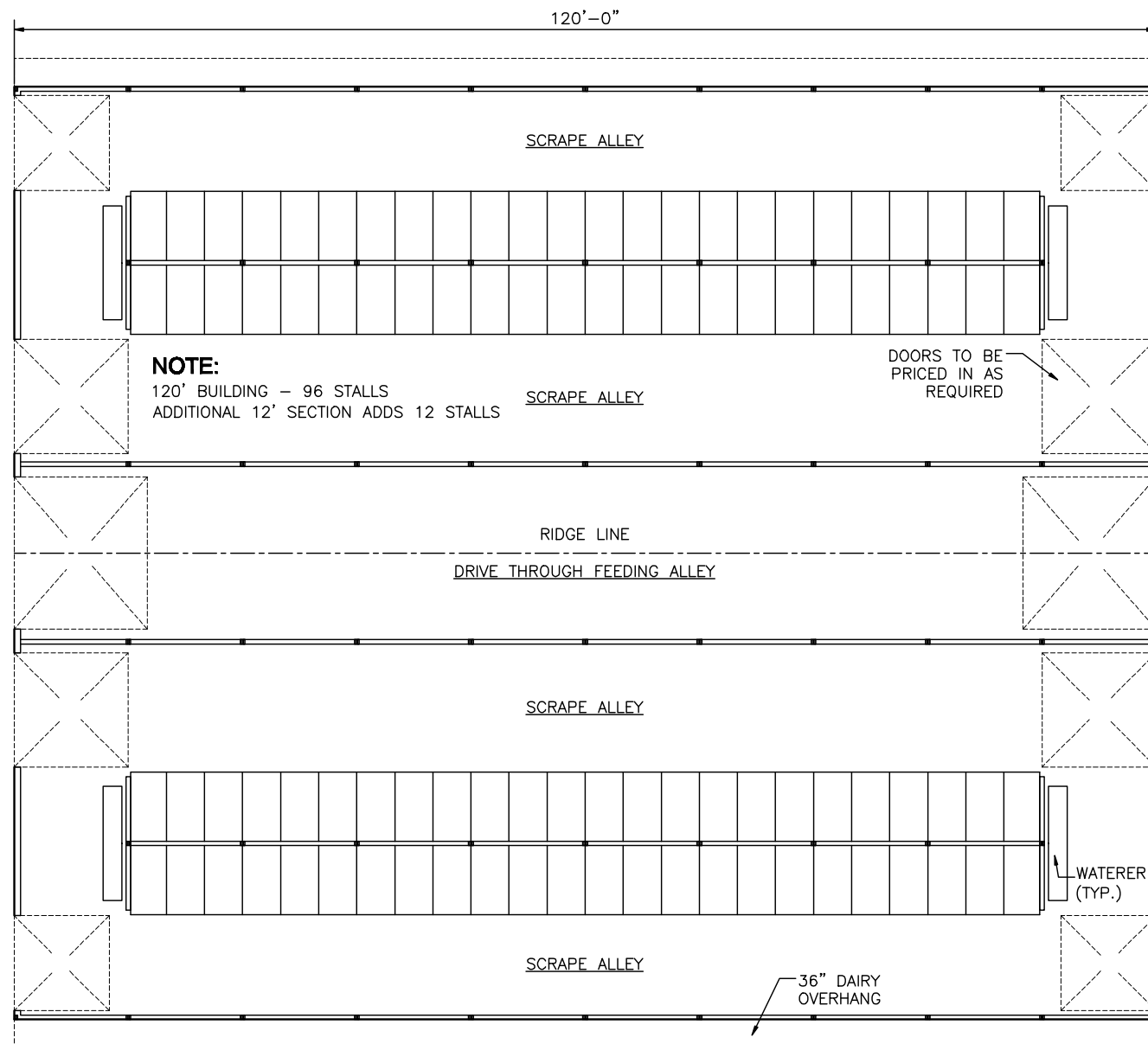
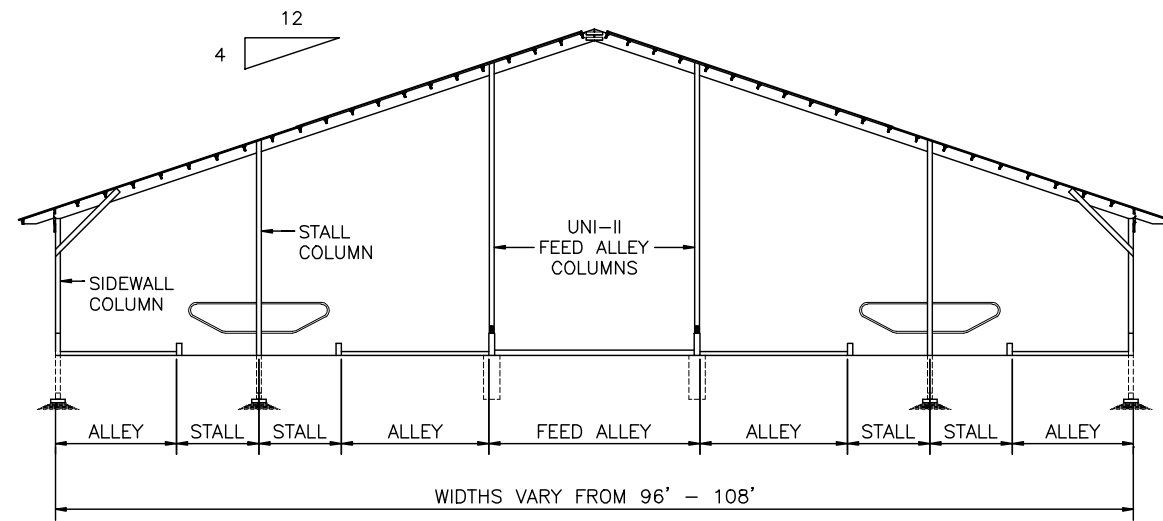
Lester® Rafter Style Eight Row Tail-to-Tail Power Ventilated Freestall

(Not to Scale)



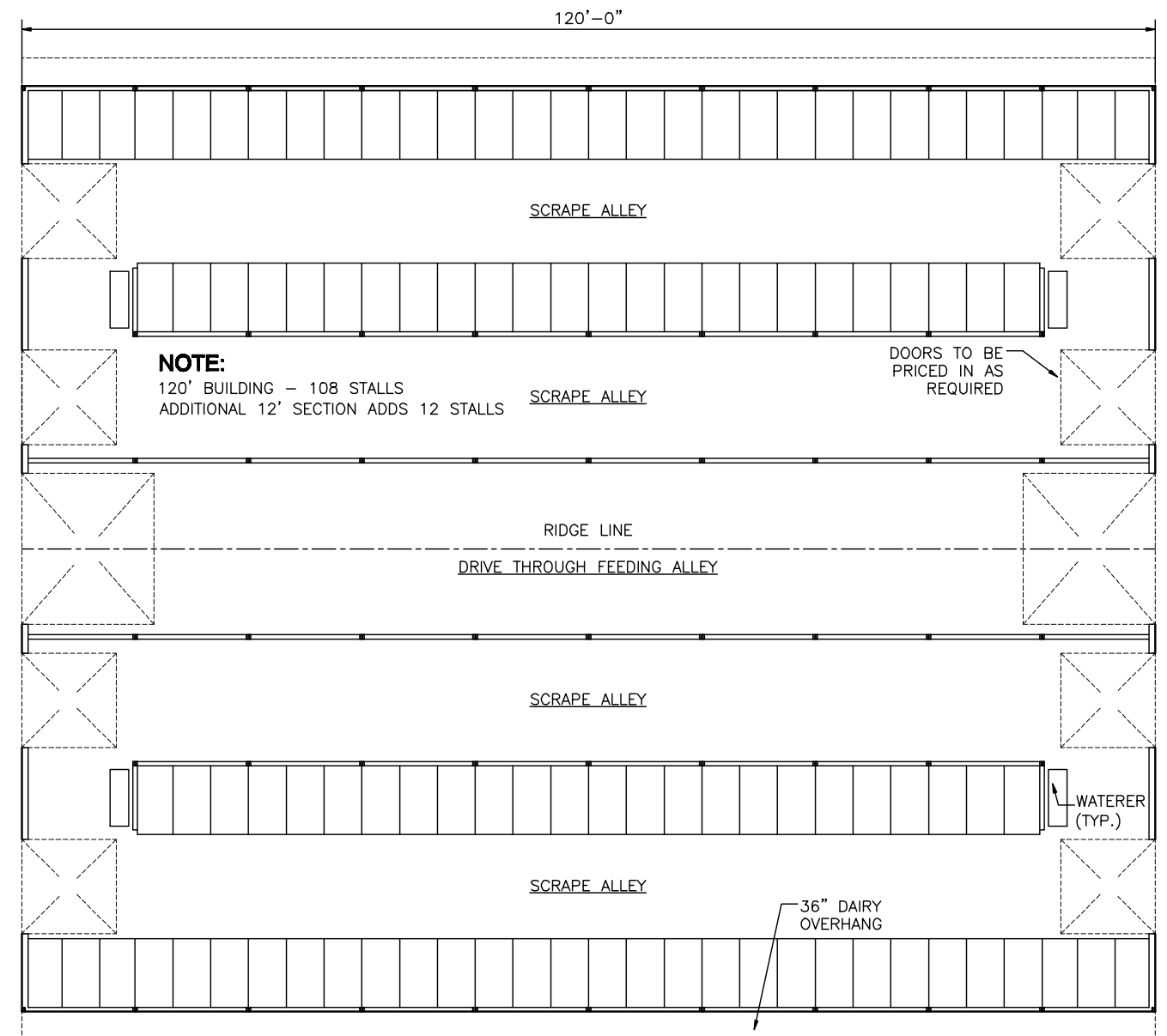
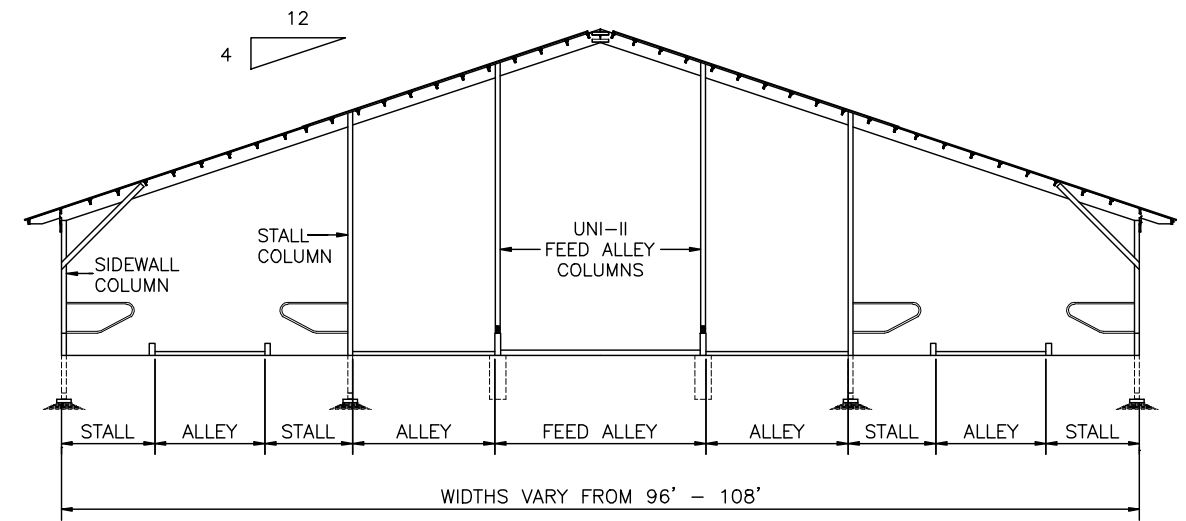
Lester® Rafter Style Four Row Head-to-Head Freestall

(Not to Scale)



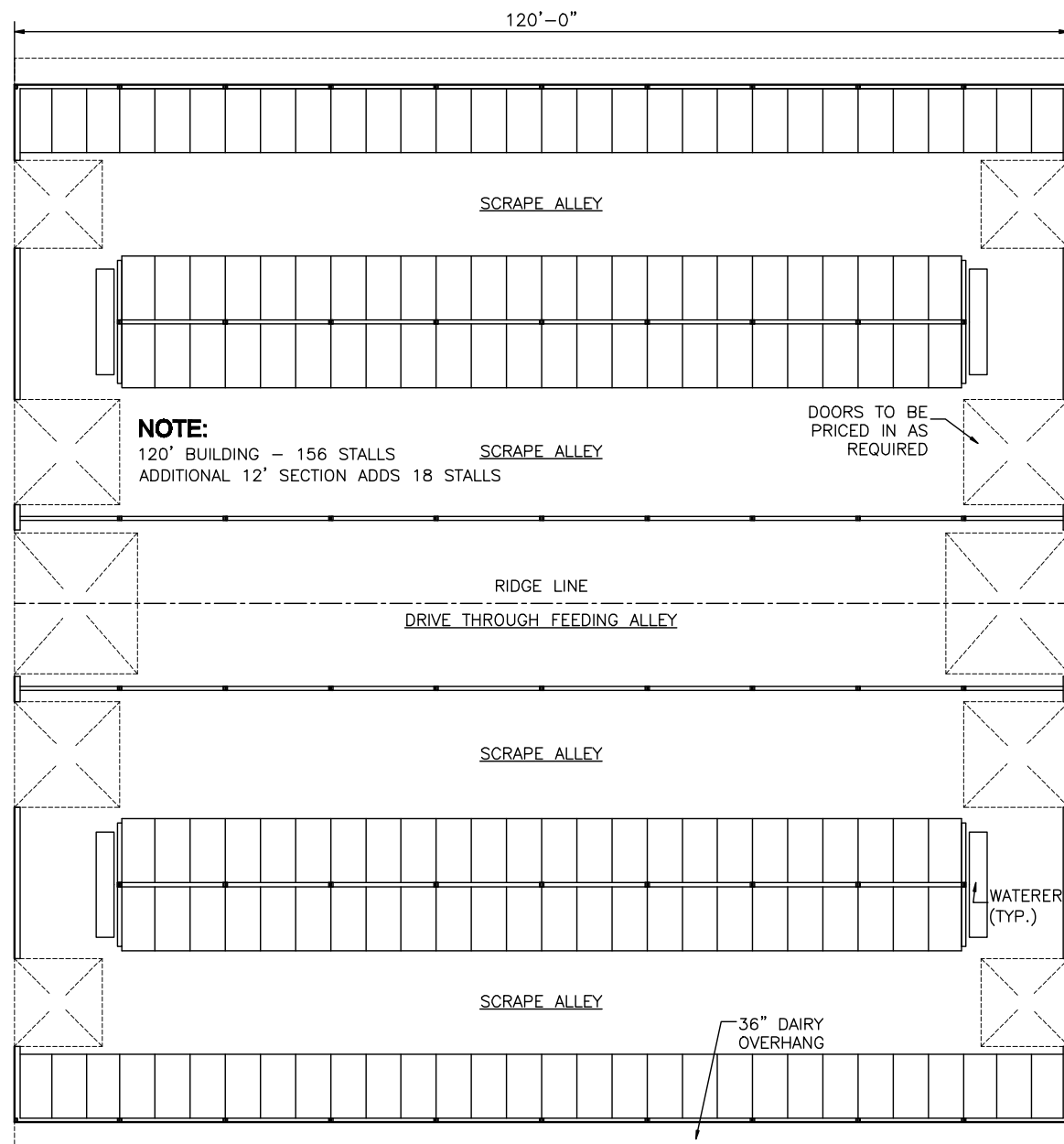
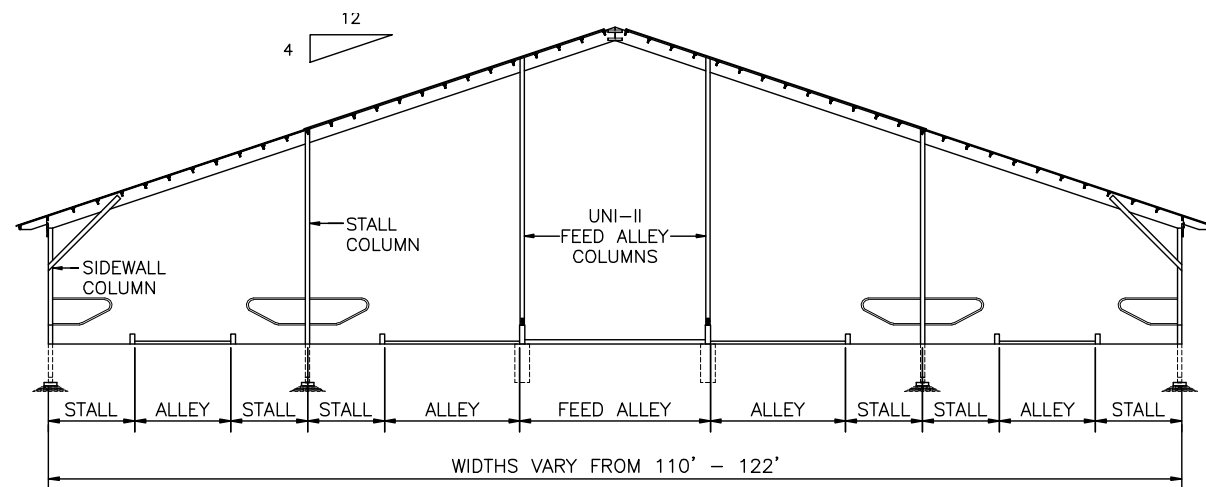
Lester® Rafter Style Four Row Tail-to-Tail Freestall

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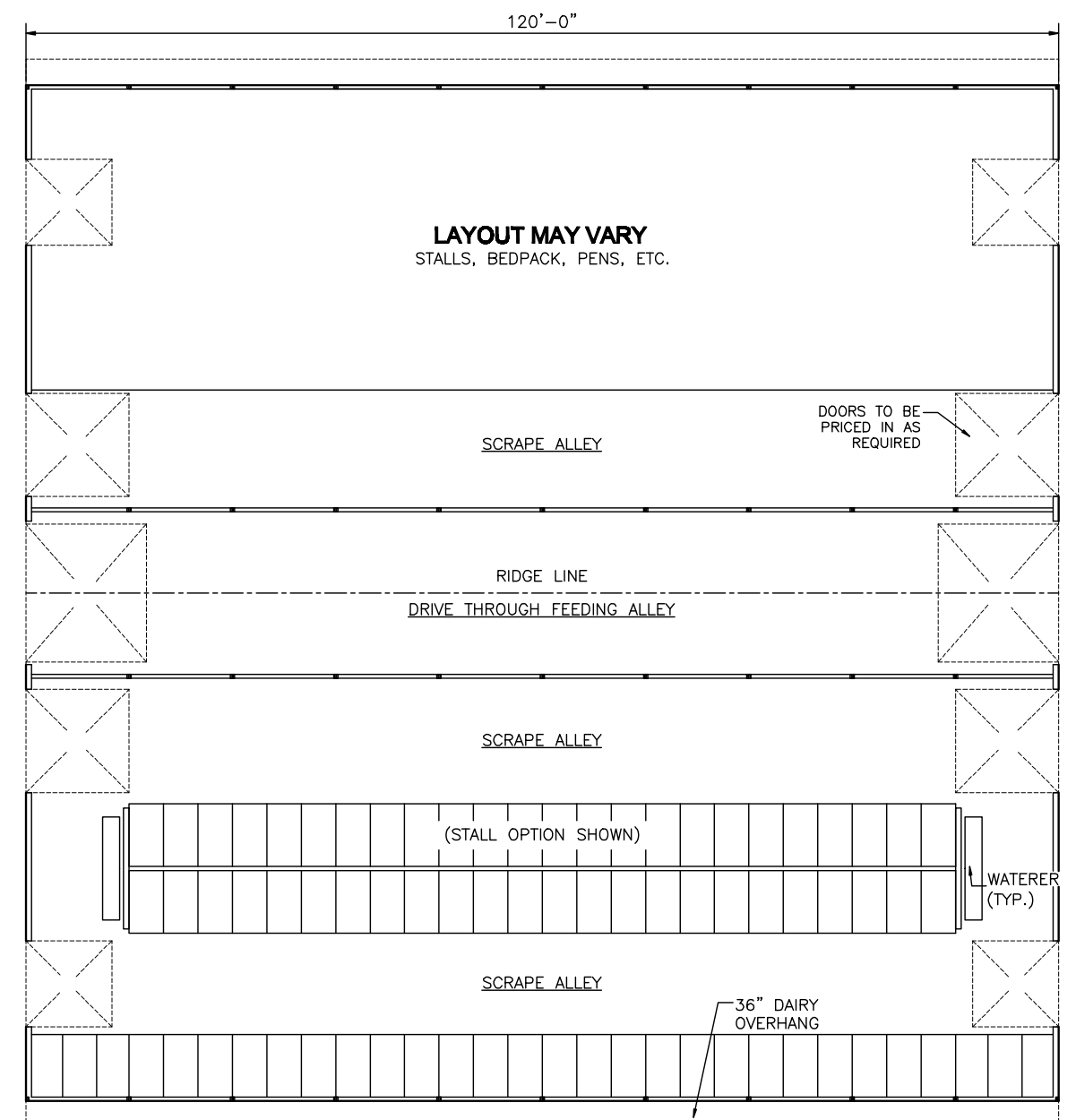
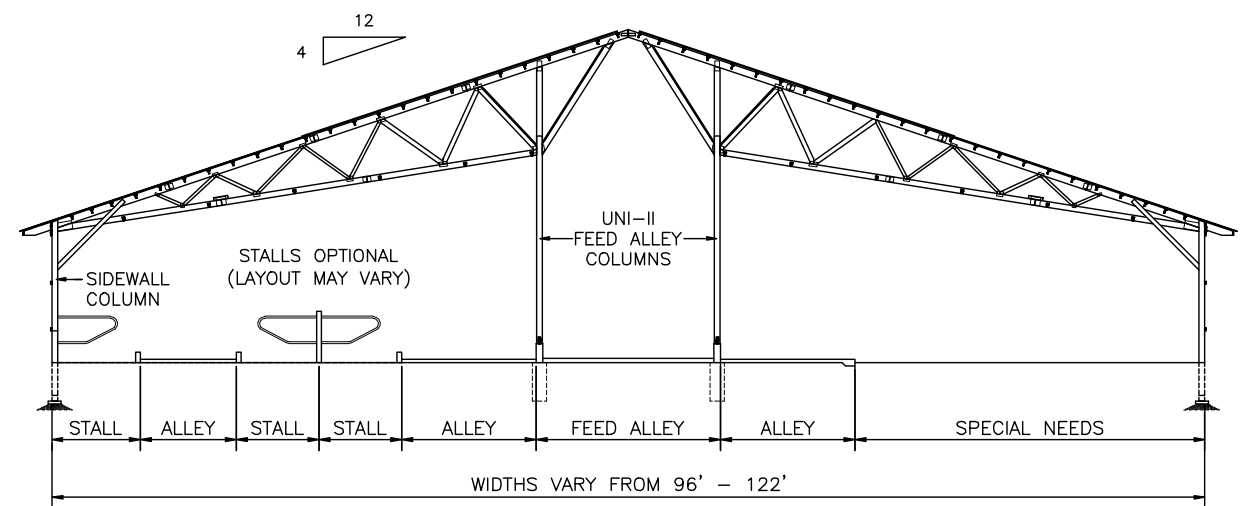
Lester® Rafter Style Six Row Freestall

(Not to Scale)



Lester® Truss Style Special Needs

(Not to Scale)



Accessory Options



Vertical Soffit (standard)



Tuff Roll or DuraSkrim (DS standard)



Steel Columns



Rafter Specs, Purlin Pockets (standard)



Curtain Framing, Bird Barrier, Cattle Panel Nailer, Cattle Panel Barrier (interior)



Curtain Framing
2x10 Treated Top Curtain Board (standard)



Overhead Doors - Vertical Lift, Hi-Lift, Carwash Kit (not shown)



Acrylit Panels



Ridge Options:

- Open Ridge (standard)
- Raised Ridge with Solid or Filon Cap
- Air Deflectors (small or large)
- Overshot Ridge
- Chimney Framed Ridge



Raised Ridge with Large Air Deflector



Overshot Ridge

Lester Building Systems is Ready to Help You With Your Dairy Project

Whether you are expanding an existing dairy, starting a new dairy or just looking to add additional storage space, Lester has the resources and knowledge to help you get the job done smoothly and efficiently.

What is the Design-Build Process?

Design-build is another term for time and material, or cost/plus agreements, with the added benefit of design included. This design-build agreement is signed after the contractor and estimator agree to a budget range, but before any firm costs have been established. From this point, the contractor works closely with the owner to obtain the building design and costs, including all subcontract work.

The contractor opens his book, so the customer knows all costs. The contractor earns a previously agreed-to percentage.

What are the Advantages to the Customer?

- Only one firm to contract
- Single source responsibility
- Quickly obtain realistic costs and schedules
- Design and budget are coordinated
- Flexibility, design and construction changes are not overpriced, even after the project has started
- Avoid worrying over minor details
- Always have a design professional on the project
- Quicker occupancy
- Customer and contractor form a working partnership
- Customer is involved in picking sub-contractors and all other major decisions concerning the building project

Conventional Project Management

Owner --> Architect --> Engineers --> Contractors --> Occupancy

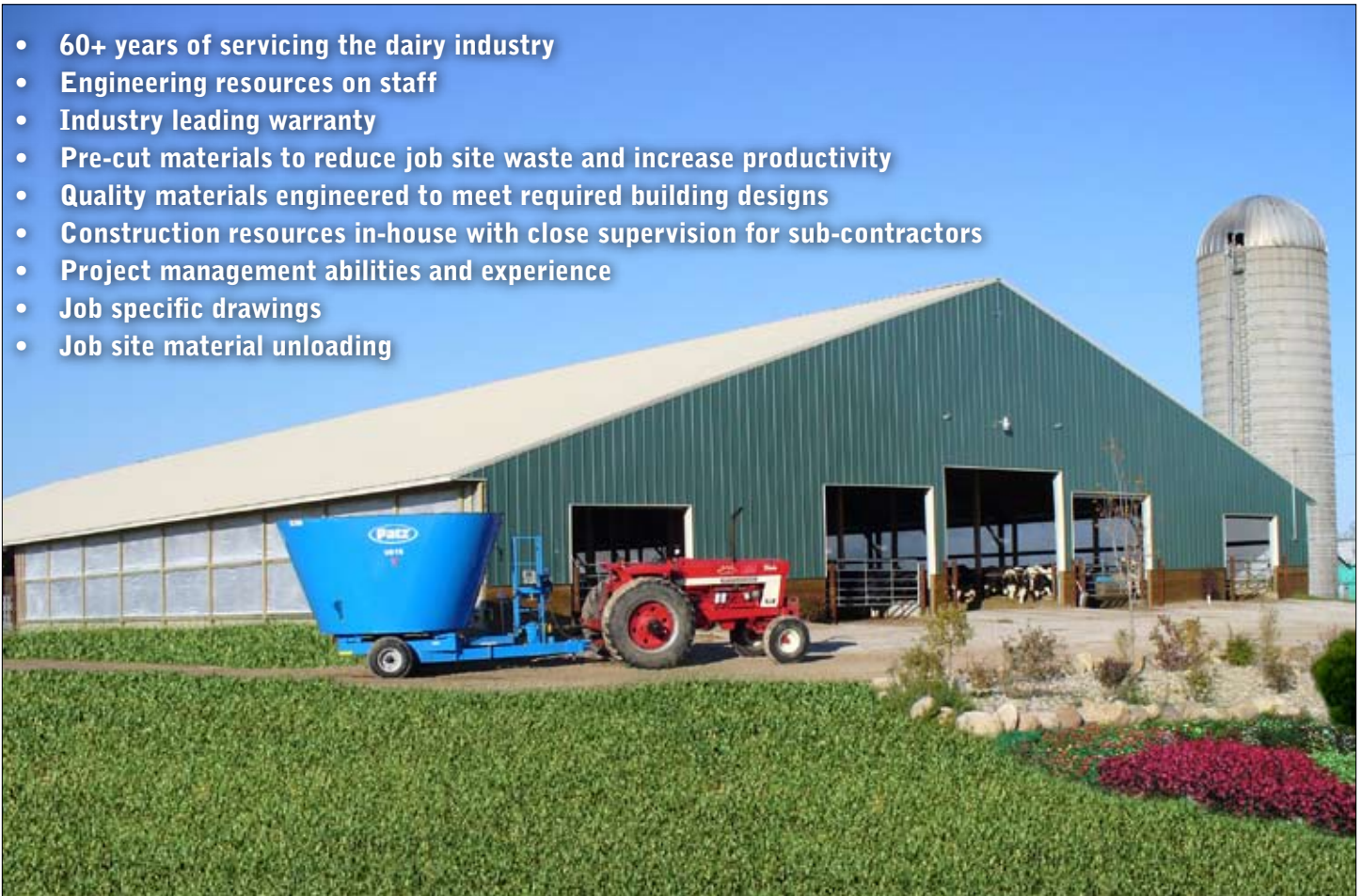
Design-Build Method

Owner --> Design-Build Team --> Occupancy

Discover the Lester Advantage

It will give you peace of mind during your dairy project.

- 60+ years of servicing the dairy industry
- Engineering resources on staff
- Industry leading warranty
- Pre-cut materials to reduce job site waste and increase productivity
- Quality materials engineered to meet required building designs
- Construction resources in-house with close supervision for sub-contractors
- Project management abilities and experience
- Job specific drawings
- Job site material unloading



Your local Lester representative or dealer:

LESTERBUILDINGS.COM

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1111 2nd Avenue South
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Central Region Office
890 West State Street
Charleston, IL 61920

Eastern Region Office
276 Woodbine Road
Clear Brook, VA 22624

As Lester products constantly improve, Lester Buildings reserves the right to change construction details and material specifications without prior notice.