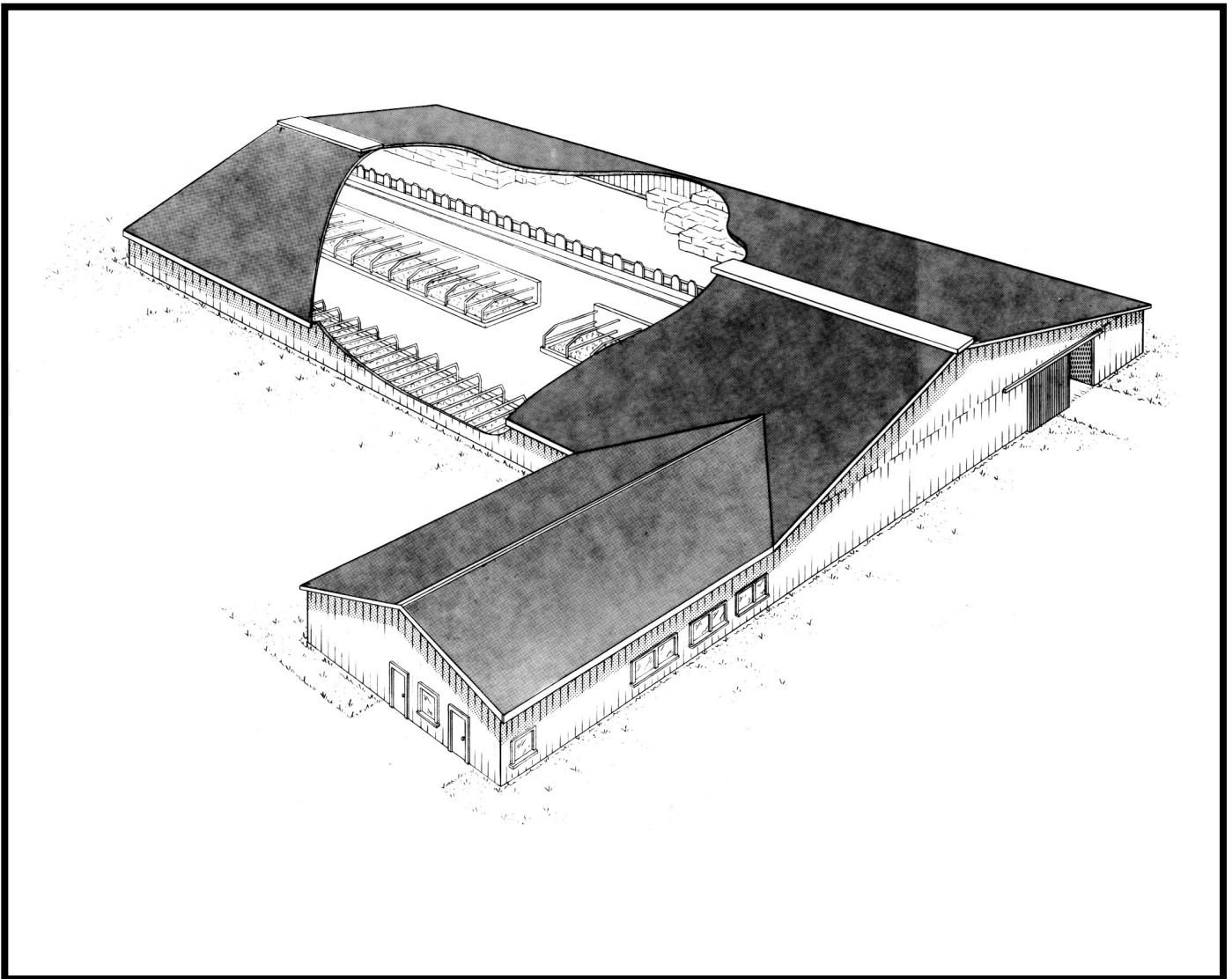
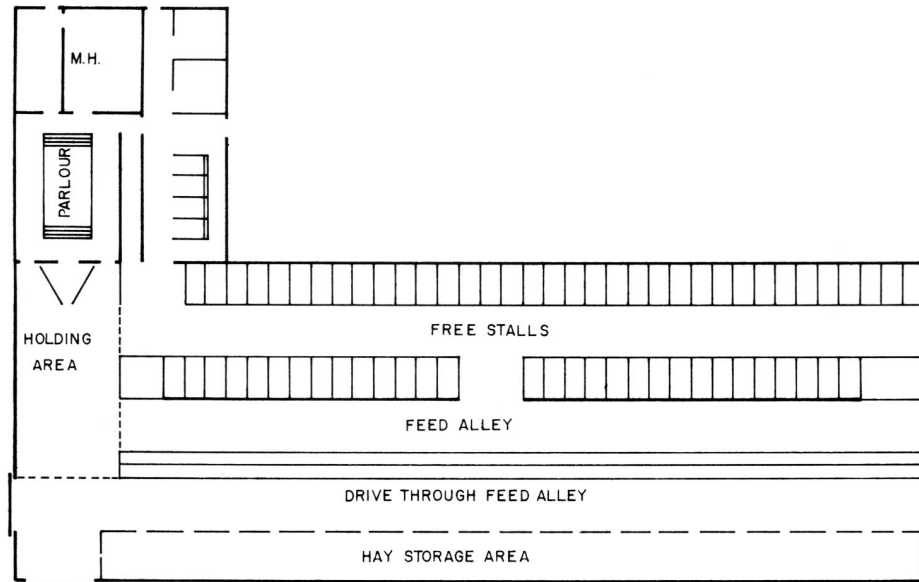


FREE STALL DAIRY SYSTEM - DRIVE THROUGH FEED BUNK, 60 COWS AND REPLACEMENTS





This is a detailed plan set for a free stall dairy barn to house, feed and milk a herd of 60 cows. The length of the building can, however, be adjusted to suit different herd sizes. Basically the plan consists of a 60 foot wide clear span building with two rows of free stalls on one side of a drive through feed alley. Space is provided on the other side of this alley for hay storage of approximately one ton per head. The building can be constructed with 15 feet as headroom in order that hay trucks can drive in to off load hay.

MILKING SYSTEM

The milking center, Plan 324-6, is located off to the side at one end of the barn. A holding area is provided across the end of the free stall area. A double-4 herringbone milking parlour is recommended.

REPLACEMENT STOCK

Alternate floor plan sheets are available which include space for young stock housing.

FEEDING SYSTEM

The main feature of this barn is the drive-through feed alley. This allows all types of feed (green chop, silage, chopped hay, hay cubes and concentrates) to be delivered to the cows with a self-unloading power box in amounts desired. A feed saving tombstone feeding fence separates the cow passage from the feed alley.

A further advantage is the elimination of expensive, often troublesome feeding conveyors. Feed storage can

also be located away from the main housing structure providing more flexibility in site selection.

VENTILATION

The building is designed as a relatively cold, modified environment building. Temperatures will be only 2° – 10°C warmer than outside temperature during the winter months.

Air changes in the building must rely on natural air convection. Cool air enters the building through a slot under the eaves. As the air warms slightly, moisture is picked up and the warm air rises to be exhausted through a continuous slot in the roof ridge.

The open eave and open ridge ventilation system can be supplemented by panels which extend continuously along each side wall of the building and by large sliding doors near the corners of the building on warm days.

MANURE HANDLING

Manure is scraped from the cow alleys by means of a tractor mounted scraper or a mechanical scraper. Manure can then be scraped, conveyed or pumped into the manure storage structure.

Sufficient manure storage should be provided to eliminate spreading manure on snow, frozen ground, fields with high water table, or sensitive crops. A minimum of 90 days storage is recommended.