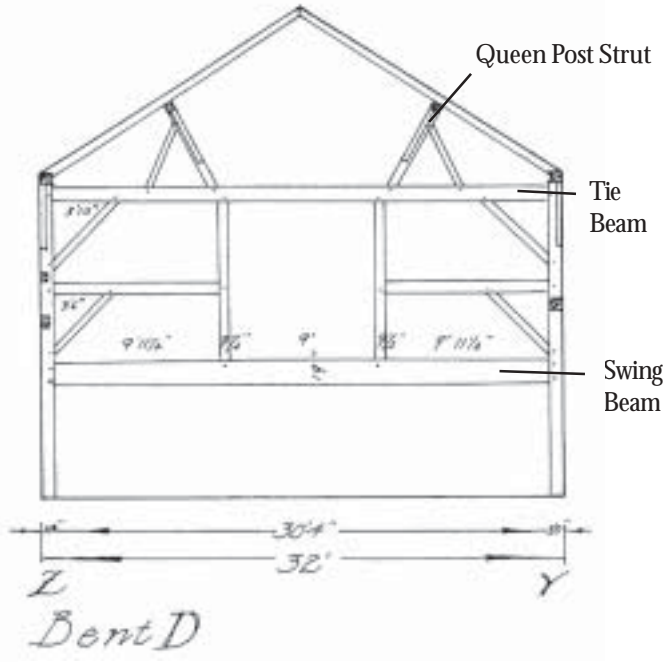
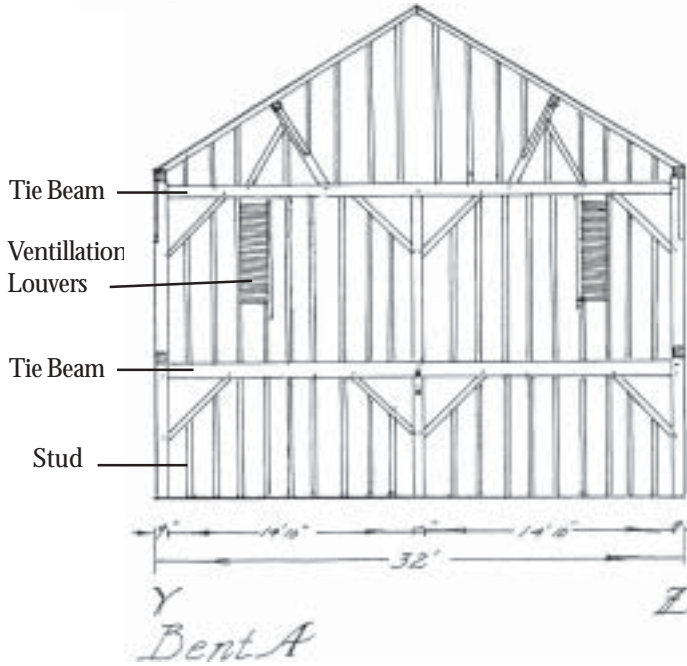
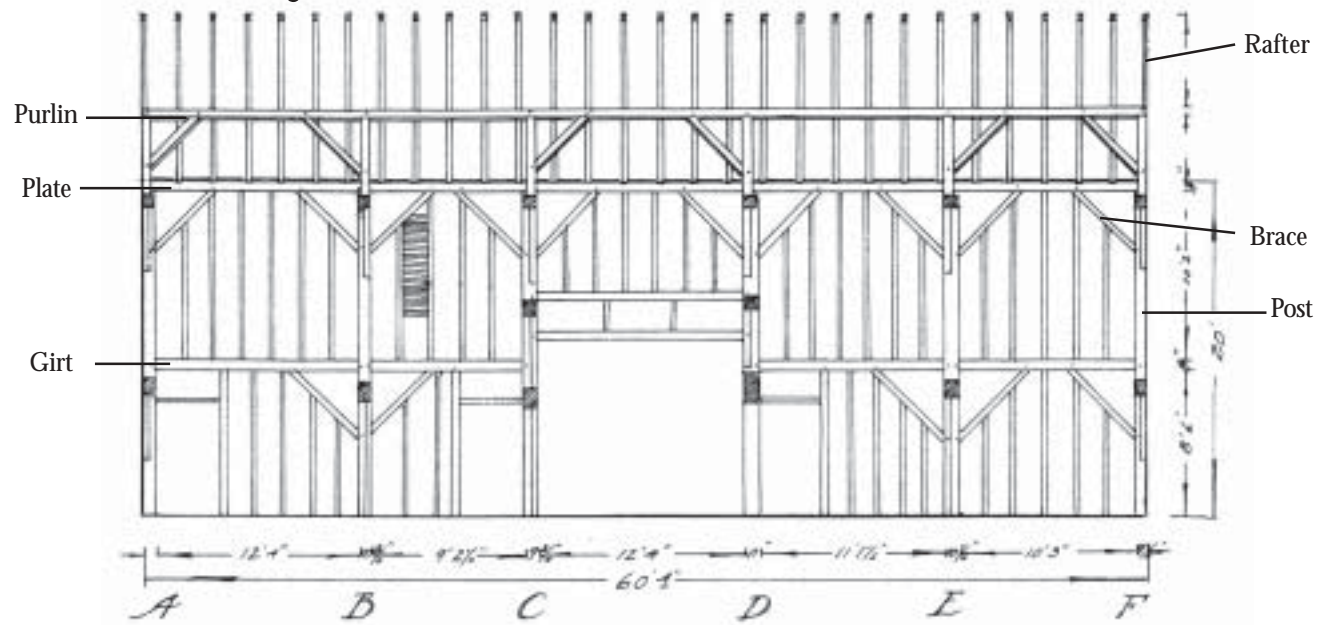


# Anatomy of the Charles Fish Barn ca. 1850



# The Charles Fish Barn - Basic Information

**Width:** 32 feet

**Length:** 60 feet, 4 inches

**Area:** 1915 square feet

**Height at plate:** 20 feet

**Height at purlin:** ca. 24 feet, 6 inches

**Height at peak:** ca 29 feet, 10 inches

**Siding:** Clapboard

**Special features:**

32 foot swing beam,

queen post strut purlin system

“W.F. Lemon 1861” engraved on a purlin by 12 year old William Foster

Lemon, son of neighborhood farmer John R. Lemon

“John Smith 1880” engraved on a timber by 19 year old John Smith, a farm

laborer boarding on the adjoining farm of Henry Blackwell

**Date of first raising:** ca 1850

**Original location:** 140 acre Charles Fish farm on Federal City Road, Hopewell Township, Mercer County, New Jersey

**Date of dismantling:** December 1996-February 1997

**Date and location of second raising:** May 14, 2005 - Howell Living History Farm

The Charles Fish Barn is an example of a large English style barn. This timber frame building tradition was brought to North America by early English colonists. Its basic purpose was to provide an area to process harvested grain, store grain, and house some of the farm animals and their feed.

The basic structural element is the bent, a frame made up of vertical timber posts connected by one or more horizontal tie beams and strengthened with diagonal braces. All the elements are held together by pegged mortise and tenon joints. The bents are raised and held together by horizontal beams (girts) and additional braces. Each bent may be different from the others so that the various work and storage spaces of the barn can be defined. The space between a pair of bents is called a bay.

The floorplan shows something of the structure of the barn, the five bays, and the various use areas it was divided into. The outside of the floor plan shows the sill plates that lay on the foundation and support the bents. The pattern of vertical studs on the outside walls shows wider gaps where doors were located. The horizontal clapboard siding was nailed to these studs. The four double dotted lines crossing the barn represent the tie beams of bents B, C, D and E. For bent D this includes the large swing beam above the threshing floor. Other bents show stud patterns connecting the tie beams to the floor joists. Boards were nailed to these studs to divide the barn into the use areas indicated. Again, door locations can be identified in these patterns.

Originally, farmers placed their harvested wheat on the threshing floor and then used flails or walked their horses over it to loosen the seeds from their covers (the chaff). They could then use the cross breeze between the two large open doors to winnow, or separate, the seeds from the chaff. A large swing beam over the threshing floor allowed horses to walk in a large circle over the grain being threshed with no obstructing support posts. Threshed grain was stored in the granary located in one of the side bays and animals had stalls in the other side bay. Hay for the animals was stored in the loft above.

The Charles Fish Barn was built at a time when many changes were being promoted to farmers and introduced on farms in New Jersey. Magazines aimed at farmers, including the New Jersey Farmer (1855-1861), were more available to interested farmers. The New Jersey Agricultural Society (1840) and the later New Jersey State Agricultural Society (1855) held several fairs in Trenton and nearby areas, while some counties experimented with holding agricultural fairs during the same decades. New machinery and farming techniques were advertised and promoted by these publications and organizations.

During these decades of transition, barns tended to be large and most were built of timber. Traditional styles, such as the English barn, persisted but were being adapted to changing needs. For example, machines for threshing grain were reducing the need for a large threshing floor at the center of the barn. The increase in the number of animals on the farm created a need for more stable space and storage for hay and grain to feed the animals. It was during this time of change that the Fish family built their barn. The large barn met their needs and continued to meet the needs of subsequent owners of the farm until changes occurring in the 20<sup>th</sup> century caused the barn to lose its functionality, fall into disuse, and begin to decay. When the farm became the Mercer County Equestrian Center there was no need to maintain this old barn.