

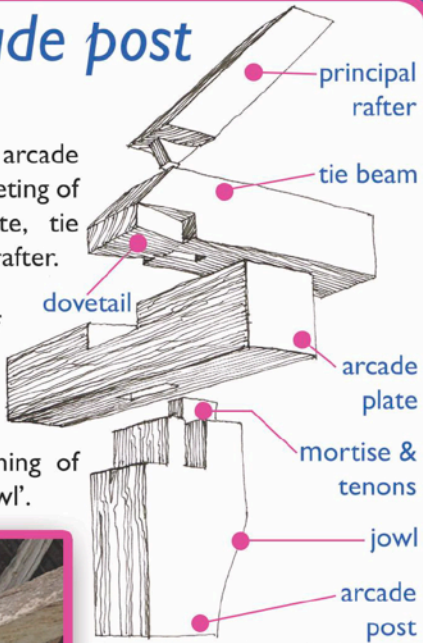
barn facts & figures

- **Dated:** Around 1403 (by dendrochronology)
- **Style:** Aisled oak frame & crown post roof truss
- **Original Length:** 65.6m (215ft 3")
- **Surviving Length:** 45.5m (149ft 3")
- **Width:** 10.6m (34ft 9")
- **Original Bays:** 13 plus 2 aisle ends
- **Surviving Bays:** 9 plus 1 aisle end
- **Bay Lengths:** 3.82m (12ft 6") to 5.18m (17ft 0")
- **Phases:** Built in one continuous phase north to south as indicated by the stop-splayed scarf joints

the arcade post joint

At the top of the arcade post there is a meeting of post, arcade plate, tie beam & principal rafter.

The complexity of this joint requires a large piece of timber to work, hence the thickening of the post into a 'jowl'.



Typically the jowl is formed by using an upside down trunk to make use of the wider girth at the base of the tree. The jowl can be subject to significant forces as can be seen in the failure of the joint pictured left, where the tie beam dovetail has popped out of its locating pocket in the arcade plate.



The Black Death first arrived on Britain's shores in 1358 and by 1450 around a third of England's population was dead, leaving a shortfall in labourers required to work the fields. The surviving labourers came to understand their new found worth to their feudal lords, demanding higher wages, better working conditions & lower taxes. This resulted in Wat Tyler's Peasants Revolt of 1381, in which Rochester Castle was attacked before the rebels turned their attention on London. Richard II managed to disperse the rebels with empty promises, but was eventually deposed in 1399 when Henry IV took the throne. A turbulent reign, fraught with rebellion, ended with his death in 1413, just two years before Henry V's famous victory over the French at Agincourt in 1415.

Snapshot 1403

The Manor of Frindsbury was demesne land of St. Andrew of Rochester, a foundation for secular canons that was later made Benedictine by Lanfranc in 1077. It is thought that the barn was constructed as part of a wider monastic complex in around 1403, although it seems probable that the farmstead in its present location was established at least 100 years earlier. The size and prestige of the barn suggests that its primary use was for crop storage from the fertile arable land surrounding the farmstead, although in latter years it was also used to shelter animals. It remained with the Benedictine order until dissolution under Henry VIII in 1541, when the Manor was granted to the Dean & Chapter of Rochester. The Manor was then leased to a long line of tenants including Thomas Lamplugh, (Archbishop of York 1688-91), the Boghurst family, the shipbuilding Brindley brothers & Ambrose Spong, a local industrialist.

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Welcome to Medieval Frindsbury Barn

'The Queen of Kentish Barns'

One of the Few Surviving
Great Barns
of
Medieval England

The original carpenters' marks, which were employed to help with the assembly and marriage of the joints, were incised on the tenon and thus hidden within the joint itself. Analysis subsequent to the fire damage has revealed them for the first time in 600 years. This detail is unusual and consistent with high status carpentry of the period.

carpenters' marks

- Collar Purlin
- Crown Post
- Arcade Plate
- Spandrel Struts
- Tie Beam
- 'Normal Assembly'
- Jowl
- Arch Brace
- Arcade Brace
- Eaves Plate
- Aisle Shore
- Ground Plate
- 'Reverse Assembly'
- Arcade Post
- Post Plate

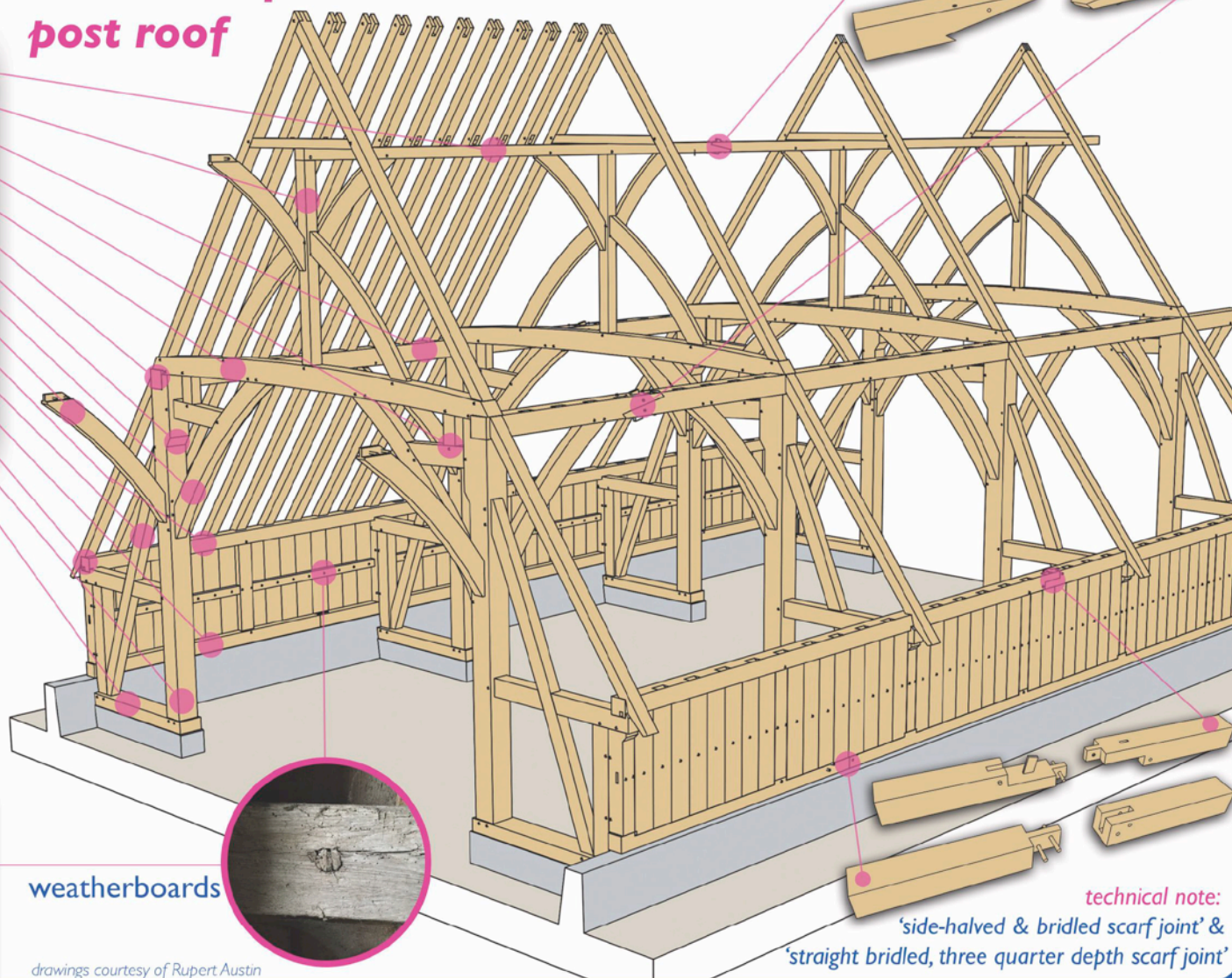
Spandrel struts connect the arcade post to the arch braces. Each east-west truss has a horizontal strut, but only some trusses exhibit a vertical strut, with no discernable pattern. It is certainly probable that the struts were to aid construction, but it is not understood as to why this variation occurs at Frindsbury.

spandrel struts

Unusual vertical weatherboarding is secured to a mid-rail with a wedged wooden peg or 'trunnel'. This is a small but significant indication of the high quality of the carpentry. Dendrochronological analysis has produced a last tree ring date of 1357 for one sample & it is quite likely that at least some of the boarding is original to construction. Medieval weatherboards very rarely survive.

Scarf joints are used to join two lengths of timber together end to end. Differing types of scarf joints were used dependant upon the size of the timbers and the structural properties required. It is quite remarkable that some of the arcade plates that have been 'scarfed' together at Frindsbury are over 50 feet long!

perspective view of the aisled oak frame & crown post roof



technical note: 'stop-splayed scarf joints, sallied & under-squinted abutments, single face key & four face pegs'

scarf joints

weatherboards

drawings courtesy of Rupert Austin

technical note:
'side-halved & bridled scarf joint' & 'straight bridled, three quarter depth scarf joint'