Needham Center and Needham Heights were the two original train stations, built when the line was laid in 1853. The ease of travel to Boston that the trains provided quickly became a benefit for merchants, commuters, and any resident who wanted easy access to the economic and cultural attractions of Boston.

The rail yard originally took in the whole area that is now the parking lot and business locations between Great Plain Avenue and May Street, and included sidings, a car shed, a coal shed, and a turntable. The first station house was a small shed built of wood; it burned down in 1887 during the huge fire that destroyed the Odd Fellows Hall (#13). The pink and brown stone structure in the picture was built to replace it. Parts of this building are still standing (currently housing a restaurant), though the turret and much of the attractive detail has been lost over the years.