The Bryan Fire Department was organized on December 18, 1857 in response to a devastating fire in December of 1855. The organization was known as the Hook and Ladder Company. The organization was permitted to have 100 members. A wooden building was erected on the north side of the square to house the fire equipment. Numerous cisterns were built around Bryan to serve as water sources for the bucket brigade in the event of a fire. In 1863, Bryan purchased a used hand engine from Toledo. In 1865 the wooden Engine House was moved to the northwest corner of Beech and High. The wooden structure remained in use until the brick building currently being used was constructed in 1874. The following year a steam powered fire engine known as the "Patterson Engine" and 1,000 feet of fire hose was purchased for the sum of \$5,500. In 1876, Bryan hired a fulltime person to operate the steamer and maintain the Engine House. In 1879, an addition was built on the Engine House on the west end with a jail constructed in the rear. The old jail is currently used as office space by the Fire Department. Beginning in 1881, the Fire Chief was appointed by the Mayor instead of being elected.

When water lines were laid in Bryan and water became readily available from hydrants in 1894, the hand engine was sold to Edgerton. The steamer was relegated to reserve status and a four wheeled hose wagon was purchased to haul fire hose to a fire. The hose was hooked directly to the hydrant. The Fire Department was reorganized and the number of members was reduced to 12 plus a Chief, Assistant Chief and Steam Engineer. An aerial ladder was also purchased. The aerial ladder had a 50 foot self extending ladder. In 1918, the Patterson Steamer was replaced by a 1900 American Metropolitan Steamer. In 1948, when a fire broke out in the Carroll Ames Hardware, the Metropolitan Steamer was pressed into service for the last time. The Metropolitan is on loan to the Williams County Historical Society Museum.

Bryan hosted the 1921 Northwestern Volunteer Fireman's Association Convention. Motorized fire apparatus was acquired to showcase Bryan at the event. Two trucks were purchased; a Nash with a chemical unit and a GMC with a chemical unit and a 500 GPM centrifugal pump. 1936 Ahrens Fox was the next addition to the fleet. As Bryan Fire Department began to provide fire protection for Center and Pulaski Townships, a 1938 International truck with enclosed cab, water tank and centrifugal pump was bought. Bryan currently provides protection for all of Pulaski, the eastern half of Center and a portion of Jefferson Townships.