NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

609

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

RECEIVED 2280
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NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Chicago, Burlington, & Quincy Steam Locomotive No. 710

other names/site number B.&M.R. No. 31, C.B.&Q. No. 910, NeHBS# LC13:C9-149

2. Location

street & number vicinity of 7th & Q Streets [N/A] not for publication

city or town Lincoln [N/A] vicinity

state Nebraska code NE county Lancaster code 109 zip code 68508

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register Criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally. ([ ] See continuation sheet for additional comments.)

Signature of certifying official — Date 5/12/97

Director, Nebraska State Historical Society
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] See continuation sheet for additional comments.)

Signature of certifying official/Title — Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

[X] entered in the National Register. [ ]See continuation sheet.
[ ] determined eligible for the National Register [ ] See continuation sheet.
[ ] determined not eligible for the National Register.
[ ] removed from the National Register.
[ ] other, (explain): _____

for Signature of Keeper: Edson H. Beall — Date of Action: 6.20.97

5. Classification

Ownership of Property
(Check as many boxes as apply)

[ ] private
[x] public-local
[ ] public-State
[ ] public-Federal

Category of Property
(Check only one box)

[ ] building(s)
[ ] district
[ ] site
[x] structure
[ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
2	0	structures
0	0	objects
2	0	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

TRANSPORTATION Rail-Related

Current Functions
(Enter categories from instructions)

Recreation and culture

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER: K-4 class (4-6-0) locomotive

Materials
(Enter categories from instructions)

foundation N/A
walls N/A
roof N/A
other iron, steel, brass, wood

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

See Continuation Sheets.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

[x] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] **B** Property is associated with the lives of persons significant in our past.

[x] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location.

[ ] **C** a birthplace or a grave.

[ ] **D** a cemetery.

[ ] **E** a reconstructed building, object, or structure.

[ ] **F** a commemorative property.

[ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Transportation
Engineering

Period of Significance

1901-1928

Significant Dates

1901, 1928

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N\A

Architect/Builder

The Havelock Shops of the Burlington & Missouri River Railroad in Nebraska

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)
See Continuation Sheets.

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):
[ ] preliminary determination of individual listing (36 CFR 67) has been requested.
[ ] previously listed in the National Register
[ ] previously determined eligible by the National Register
[ ] designated a National Historic Landmark
[ ] recorded by Historic American Buildings Survey
Record # _____
[ ] recorded by Historic American Engineering
Record # _____

Primary Location of Additional Data:
[ ] State Historic Preservation Office
[ ] Other State agency
[ ] Federal agency
[x] Local government
[ ] University
[ ] Other
Name of repository:
Lincoln/Lancaster County Planning Dept.

10. Geographical Data

Acreage of Property Less than one acre

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1.	14	690010	4520600	3.			
2.				4.			

See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)
See Continuation Sheet.

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Gregory R. Mathis, Preservation Intern

organization Lincoln-Lancaster County Planning Department date October 1996

street & number 555 S. 10th Street telephone (402) 441-7491

city or town Lincoln state NE zip code 68508

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name City of Lincoln, Nebraska

street & number 555 S. 10th Street telephone (402) 441-7491

city or town Lincoln state NE zip code 68508

DESCRIPTION

Chicago, Burlington, & Quincy Steam Locomotive No. 710 is a 4-6-0 "Tenwheeler" steam locomotive built in Havelock, Nebraska in 1901 and rebuilt in Havelock in 1928. The 78-ton coal-burning locomotive and its 18-ton tender were built for mainline passenger service and were rebuilt in 1928 for branchline freight and passenger work. The 710 has an overall length of 64' 11 3/4", is 10' 3" wide, and is 14' 10" tall over the smoke stack. It has 19x26" cylinders and 64" drivers. The locomotive has evolved over the years but has a high degree of integrity from its 1928 rebuild. This nomination consists of two contributing structures, Locomotive No. 710 and its tender. The locomotive is located on original B.&M.R. tracks, adjacent to the 1927 C.B.&Q. Lincoln Station, which is a contributing building to a federally-certified local landmark district.

Chicago, Burlington & Quincy No. 710 is a 4-6-0 "Tenwheeler" type of steam locomotive built in June of 1901 by the Havelock, Nebraska shops of the Burlington & Missouri River Railroad in Nebraska as B.&M.R. No. 31. The term "Tenwheeler" refers to the engine's wheel arrangement, which designates that the locomotive has a four wheel lead (pilot) truck which helps to guide the locomotive, six drivers that power the locomotive, and no trailing wheels. Larger locomotives often had a trailing (pony) truck to support the weight of their fireboxes, however the design of the 710 did not require such a feature. The locomotive is therefore classified as a "4-6-0" according to the Whyte locomotive classification system, which is based on a locomotive's wheel arrangement. The seventy-eight ton locomotive (ninety-six tons with its tender) burned coal for power and pulled a standard U-shaped tender that carried nine tons of coal and 5,000 gallons of water. The tender, which is coupled to the engine by a drawbar, carried fuel and water for the locomotive and was considered as part of the locomotive when the engine was in service. The locomotive and its tender have an overall length of 64' 11 3/4". The engine is 10' 3" wide and is 14' 10" tall over the smoke stack, with 19x26" cylinders and 64" drivers. The locomotive is a typical early twentieth century product, featuring a pilot (cow catcher), large driving wheels with side rods to connect them, a boiler and firebox, a smoke stack, headlight, steam and sand domes, and a cab at the rear of the locomotive.
Steam locomotives were by nature evolutionary objects. As technology advanced and parts wore out, parts were repaired or replaced and locomotives were refitted with new technology, in order to meet federal safety regulations and to extend the service life of the locomotive. The 710 is typical in this aspect and had substantial alterations made throughout her 53 years of service. Although the locomotive looks quite different from its as-built appearance, the engine still retains a high degree of integrity since the alterations made to its appearance were done during its years of service on the railroad, and the locomotive substantially reached its present appearance in 1928.

The 710 was originally designed and built to pull mainline high-speed passenger trains. To serve in this capacity, the locomotive was delivered with 72" driving wheels and 18x26" cylinders (which contain a piston that powers the drivers). The large diameter wheels allowed the locomotive to travel at high speeds. A special, original feature of the locomotive was the crescent-shaped counterbalance weights on the drivers, which were not a common feature of locomotives from this time period. Most locomotives of this era had counterbalances with "squared ends."

The exact dates of many of the alterations that were made to the locomotive cannot be documented, however, it is probable that the locomotive's original style Janey couplers and wood cab were replaced with automatic couplers and a steel cab when the locomotive was overhauled in Aurora, Illinois in late May 1906, prior to being placed in service pulling a then-new "daylight special" from Chicago to St. Paul, Minnesota.

Around 1928, as steam technology advanced and larger, more powerful locomotives were built, the 710 was downgraded to branchline passenger and freight train service. The demands placed on a secondary passenger and freight locomotive were quite different from those of a mainline, high-speed passenger locomotive. A branchline locomotive operated at slower speeds and

needed to be able to pull heavier trains than those the 710 was originally designed to pull. When the 710 was downgraded to this type of service (circa late-1928), it was overhauled and modified in order to better fulfill its new role. The 710 was repaired and rebuilt with smaller (64") drivers and one inch larger diameter (19x26") cylinders. The larger cylinders produced more power and the smaller drivers were better suited for slower speeds and improved adhesion ratios. Since the locomotive would be used at slower speeds, the larger cylinders would not exceed the steaming capacity of the locomotive, meaning that the boiler could still maintain adequate steam to the cylinders. These alterations increased the 710's maximum tractive effort from 22,200 pounds to 25,000 pounds, or increase of about 12 percent. This increase in pulling power made the engine more worthy as a freight locomotive. Other alterations at this time included replacing the 33" spoked wheels on the pilot truck with 25" solid core wheels and the addition of a cast pilot beam. The tender was likely lengthened at this time. The locomotive last received heavy repairs in 1940, however no major changes were made to the engine. The 710 has retained the same basic appearance since 1928, when it was converted into a branchline locomotive, a capacity it fulfilled for 25 of its 53 year career.

The locomotive was shopped and overhauled in December 1954, prior to being donated to the city of Lincoln in February 1955. The engine was cosmetically restored in 1991 to preserve and maintain the locomotive. At this time the asbestos boiler lagging was removed in order to deter corrosion and a steel and glass door was installed on the rear of the cab to preserve and protect the gauges and other furnishings found in the cab's interior. The engine is fully intact with all mechanical apparatus and instruments in place.

The 710 appears as it did in the latter half of its career, as a branchline locomotive. Once the locomotive and tender were restored in 1991, the 710 was placed on original B.&M.R. trackage, on Track 1, in front of the 1927 C.B.&Q. Station. The station is part of a federally-certified local landmark district, with the 710 being located just outside of the district. The boundary area of the locomotive includes the decorative iron fence that surrounds the locomotive and protects it from vandals. The eastern portion of this fence is contiguous with the boundary of the landmark district. This location is the most appropriate site in which to place an object of this nature, with its ties to the City of Lincoln, the community of Havelock, the Havelock Shops, and the C.B.&Q. Railroad. The 710 is one of only three "true" Havelock-built locomotives still extant. It is the best preserved and maintained locomotive of the three and the only one to be in a location with integrity, on original B.&M.R. trackage, while the others are located in parks, away from historic railroad settings. The 719 is on display in Alliance, Nebraska and the 915 (715) is in Council Bluffs, Iowa. A Havelock rebuild, the 967 is now on display at the Pioneer Village Museum in Minden, Nebraska. The 967 is a class K-10 4-6-0, and was rebuilt at the Havelock Shops in 1914 from a H-2 class 2-6-0 "Mogul".

Dimensions of Locomotive 710 as it appears today are as follows:

Length engine & tender.....64' 11 3/4"
Width (cab).....9' 10" (orig.)
.....10' 3" (now)
Height over stack.....15' 2" (orig.)
.....14' 10" (1928)
Cylinders (in.).....18x26 (orig.).
.....19x26 (1928)
Valve gear.....Stephenson
Drivers, dia. (in.).....72 (orig.)
.....64 (1928)
Wheel base, drivers.....14' 31/4"
Wheel base, total engine.....25' 9 1/4"
Wheel base, engine & tender....52' 5 3/4"
Steam pressure (psi).....200

Firebox.....Belpaire
Grate area (sq. ft.).....30
Total heating surface (sq. ft.)....2378.2
.....2394.3
Weight on drivers (lbs.).....121,400
Weight, total engine (lbs.).....156,600
Weight, tender empty (lbs.).....35,000
Tender capacity
Coal (tons).....9
Water (gal.).....5,000
Tractive force (lbs.).....19,890 (min.)
.....22,200 (max. orig.)
.....25,000 (max. 1928)
Adhesion ratio.....6.10 (min.)
.....4.85 (max.)

Section 8

STATEMENT OF SIGNIFICANCE

Chicago, Burlington & Quincy Steam Locomotive No. 710 is locally significant under Criterion A in the area of transportation for its connection to the Chicago, Burlington, and Quincy Railroad in the cities of Havelock and Lincoln, Nebraska. The city of Havelock developed around the Havelock Shops, which were built in 1892 by the Burlington & Missouri River Railroad in Nebraska, a subsidiary of the Chicago, Burlington, & Quincy Railroad. The B.&M.R. was fully-merged into the Burlington system in 1904. The prosperity of the city of Havelock directly corresponded to the activity occurring at the Havelock Shops, which employed a large percentage on the city's inhabitants. The 710 spent most of its career on the Lincoln Division of the Chicago, Burlington, & Quincy Railroad, both beginning and ending her career on this division. The locomotive is also locally significant under Criterion C in the area of engineering as the best preserved example of a locomotive produced by the Havelock Shops. Of the seventy locomotives produced by the Havelock Shops, only three examples remain, in addition to another locomotive that was extensively rebuilt by the shops in 1914. The three "true" remaining Havelock built locomotives are all members of the K-4 class, with the 710 being the oldest, best preserved, and the only one on display in a setting with integrity. The 710 is located on original B.&M.R. trackage in front of the Lincoln C.B.&Q. Station, which was built in 1927 and is a contributing building to a federally certified local landmark district. The other two K-4's are on located in parks, with the 715 on display in Alliance, Nebraska and the 919 (719) residing in a Council Bluffs, Iowa park. The 710 embodies locomotive production of the Havelock Shops and typifies the technological status of locomotive design of the period in which it was built.

Historical Background

INTRODUCTION

The significance of the 710 under criterion A is based of the significance of the Chicago, Burlington, & Quincy Railroad in Lincoln and Havelock. The locomotive's significance for criterion C is based upon its characteristic 1900 design. To comprehend the locomotive's importance, there first needs to be an understanding of the railroad and its significant relationship with Lincoln and Havelock. The context of the era in which the locomotive was built, where it was erected, and why it was constructed must also be understood to fully appreciate the significance of the 710.

RAILROAD

The beginnings of the Chicago, Burlington & Quincy Railroad can be traced to the Aurora Branch Railroad which was chartered in 1849 and completed in 1850 as a twelve mile railroad running from Aurora, Illinois to Turner Junction (now West Chicago). By 1854 the Aurora Branch had been renamed the Chicago, Burlington, & Quincy and shortly thereafter it merged with the Central Military Tract, the Peoria & Oquawka, and the Northern Cross railroads to create the genesis of the great Chicago, Burlington, & Quincy (C.B.&Q.) empire.

In January of 1852 the Burlington & Missouri River Railroad Company (B.&M.R.) was created by Burlington, Iowa businessmen. Grading was started on this railroad in 1854 and the first rails were laid in 1855. In 1867 this railroad was linked to the C.B.&Q. via a bridge spanning the Mississippi River. In November, 1869 tracks were completed to a point on the eastern banks of the Missouri River, at Pacific Junction, Iowa. As part of the Pacific Railway Act of 1864 the B.&M.R. received a federal land grant to build westward across Nebraska. On May 12, 1869, two days after the completion of the first transcontinental railroad at the Golden Spike Ceremony at Promontory Point, Utah and six months before the B.&M.R. (in Iowa) was to be completed to the banks of the Missouri River, the Burlington & Missouri River Railroad in Nebraska was chartered as a subsidiary of the B.&M.R. (Iowa)

and C.B.&Q. interests. Ground breaking started in Lincoln on June 12, 1869 and actual construction began on July 4th, 1869 in Plattsmouth, Nebraska. Rails were completed to Newton (near the present Havelock) on July 6, 1870 and to Lincoln three weeks later.

Once the B.&M.R. reached Lincoln in 1870, the community soon became the staging area for the railroad's westward expansion of the 1880's. Lincoln soon became a division point for the railroad, a type of regional headquarters for the railroad, where offices, switching yards, and extensive repair facilities were located. A division was a managerial division of a railroad, an entity which had control over the operation of a section of the railroad. The division was responsible for dispatching trains in its region, maintaining track and the division's assigned locomotives, and other assorted duties. The Lincoln Division was created in 1904, when the B.&M.R. was merged into the C.B.&Q. At that time, the division covered nearly 900 miles of railroad. The division had increased to 1,100 miles in length by 1907 and was soon thought to be too expansive. On April 14, 1909 the Omaha and Wymore Divisions were created and the Lincoln Division was reduced to approximately 700 miles. This "classic" Lincoln Division remained intact until November 29, 1953. Over time Lincoln developed into one of the most important points on the C.B.&Q. It became one of two "hubs" on the railroad, with Lincoln being the maintenance and control center for Burlington lines west of the Missouri River and Galesburg, Illinois being the hub for lines east of the Missouri River. The association between the City of Lincoln and the C.B.&Q. has been quite significant and long-lasting.

THE HAVELOCK SHOPS

The 1880's were a period of rapid development for both the B.&M.R. and the city of Lincoln. The railroad grew in length, in the amounts of traffic it carried, and in the numbers of locomotives and rolling stock that it acquired. As a result of the railroad's expansion, its original shops in Plattsmouth were no longer able to keep pace with railroad expansion, due to limited space. This required the railroad to look elsewhere for a location for its shops, one where there was adequate room to grow.

In 1890 the Lancaster Land Company donated 300 acres to the railroad in the unincorporated city of Havelock, located about five miles northeast of Lincoln. The B.&M.R. (later C.B.&Q.) Havelock Shops were then built on this parcel of land, 4.8 rail-miles east of the C.B.&Q.'s Lincoln Station. By 1893, a machine and erecting shop, a blacksmith shop, and a boiler and dynamo house had been completed. All three structures were of enormous proportions, as was befitting their purpose as the C.B.&Q.'s primary locomotive repair shop for its lines west of the Missouri River.

The Havelock Shops were the primary employer in Havelock for many years. As a result, the economy of the small town rose and declined in proportion to the prosperity of the shops. The shops' influence over the community of Havelock could be clearly seen in the 1920's. In 1922 there was a labor dispute between the shops' union workers and the railroad over wage cuts for shop workers. Over 900 of the roughly 1,000 shopmen went on strike. This strike was never resolved and as a result, the shops' activities and its labor force were greatly reduced for many years. The impact of the strike can be seen in the town's negligible population growth of 1% during the decade prior to 1930. This is in stark contrast to the population booms that occurred in Lincoln and its other suburban communities. Lincoln's population grew by 20% during the same period of time, while Lincoln's other three suburbs grew at an even greater rate with Bethany having a 28% increase, College View growing by 30%, and Havelock's neighboring town, University Place, had a 33% increase in population. Havelock's acceptance of annexation by the City of Lincoln in 1930 has also been linked to the economic decline that followed the strike.

The first steam locomotive built in the Havelock Shops was completed in 1895. The locomotive was a K-2 class 4-6-0 (a predecessor to the K-4 class) numbered as B.&M.R. No. 4. The shops produced four additional K-2's in 1895, and went on to produce a total of seventy steam locomotives between 1895 and 1913. The shops produced 31 G-class 0-6-0 switching locomotives and 39 K-class engines were built, including 4 G-1's, 23 G-3's, 4 G-6's, 7 K-2, 24 K-4's, and 8 K-5's. The shops extensively rebuilt and overhauled numerous other locomotives over a period of many years, until the demise of steam on the

Burlington in the 1950's. A unique practice at the Havelock shops, when the K-4's were built, is the way in which laborers were paid for building a locomotive. Typical practice was to pay by the hour, which is how most hourly workers are paid and the way most locomotive builders paid their employees. However, when the K-4's were built, workers in the Havelock Shops were paid on a piecemeal basis, meaning that a worker was paid a certain amount to complete a specific task, such as building a pilot (cow catcher) for a locomotive. Of the seventy locomotives built at the Havelock Shops, only three remain, all of the K-4 class. The 710 is the only one of these locomotives that remains in the Lincoln and Havelock area, and the only one resting on original B.&M.R. trackage, in an historically appropriate location.

THE LOCOMOTIVE

The Tenwheeler (4-6-0) configuration was first developed in 1847 and was quite popular after 1860. Originally, the 4-6-0 was designed to be employed on freight locomotives, however the stability of this wheel arrangement quickly made it the preferred type of passenger locomotive in the late nineteenth century and one of the most popular wheel arrangements ever. There were about a total of 17,000 Tenwheelers built in the United States between the 1850's and the end of steam locomotive production in the 1940's.

To fully understand the significance of the 710, the context of the time period in which it was built must be understood. In the 1890's, American railroads experienced a multi-year slump in activity as a result of the 1893 Depression. In an ensuing ten year period, from 1898 through 1907, American railroads rebounded and experienced their apex of development. At no other time in American history have railroads experienced such an explosive period of growth and development. In the seventy year period prior to this time, a total of 245,300 miles of rail lines had been constructed, however, this number grew by 34 percent in this ten year period to over 328,000 miles. Freight and passenger traffic carried by railroads grew by 107 percent between 1898 and 1907. Another characteristic of this time period was the consolidation of railroads to improve efficiency, productivity, and service. This explains why the Burlington-controlled B.&M.R. was merged into the C.B.&Q. in 1904. Motive power (locomotives) and rolling stock (freight and passenger cars) production in this era grew at a staggering rate. In 1897 there was a total of about 36,000 locomotives in service on American railroads. This number grew to over 55,000 locomotives by 1907. Locomotive production increased by nearly 760 percent from 1897 until 1907. Production grew from 865 units built in 1897, to 1,321 locomotives manufactured in 1898, to 1,951 engines in 1899, with 2,648 new locomotives being completed in 1900. By 1905, output had increased to 4,896 new units, and culminated in 1907 when 6,564 locomotives were erected. These numbers help to explain why the 710 was built in Havelock. During this boom period, railroads were growing and they needed more locomotives to pull ever-increasing numbers of trains. This resulted in large orders being placed to major locomotive builders for new engines, which meant that the major builders, such as Baldwin, were operating at full-capacity to produce locomotives and could not fill orders as fast as the railroads wanted them to. This is likely the reason why Locomotive 31 (710) and other K-4's were built in Havelock. The B.&M.R. needed more locomotives and the only way to acquire a steady stream of new motive power on a timely basis was to produce them in their own shops.

As railroads grew in length and consolidated with other roads, the results were larger railroads, which traversed a wide array of geographical terrains, so that no one type of locomotive was particularly well suited to all points on the railroad's system. The result was that the railroads' chief mechanical officers purchased a variety of locomotives that were well adapted to particular divisions of the railroad. Many of these locomotives might have shared interchangeable parts with other locomotives, yet each class of locomotive had special features which made it successful for its particular use. This is the reason why locomotives with the same wheel arrangement may have had quite different dimensions from another locomotive of the same wheel arrangement, since the two engines may have been designed for different types of service, or to operate in different geographical regions. This in part, explains why the 31 (710) was built with the specific design features it had.

The K-4's were designed and built for service pulling high-speed passenger trains across the wide open prairies and rolling hills

of the Midwest and the Great Plains. In their designed service the K-4's excelled, commonly running at speeds of seventy to eighty miles per hour. The 710's sister engine, No. 708, another Havelock K-4, set a world's speed record on March 24, 1902 when it ran between two station stops, a distance of 14.8 miles, in nine minutes at an average speed of 98.66 miles per hour, well exceeding 100 miles per hour during the run. The locomotives were often called to duty to pull many of the Burlington's named trains, which were usually on very tight schedules. Since speed, not power, was the major consideration when the K-4's were designed, they were constructed with large drivers and smaller cylinders. This combination allowed the locomotive to operate at high speed, however, this combination resulted in the locomotive having a tractive effort (pulling power) that would not be suitable for use as a freight locomotive or for use in mountainous terrain.

The 710 was built in June 1901 as Burlington & Missouri River Railroad No. 31 in the railroad's Havelock Shops. The 31 was the twenty-second locomotive produced by the shops and the eleventh of a total twenty-four K-4 locomotives built there between 1900 and 1904. When built it was noted that the 31 was "prettier, more shapely, and compactly built, and of finer finish than the others previously built."[1] Special mention was made of the shapely counterbalance weights on its drivers. "One of the many peculiarities about it is the shapely form of the counter balance weights on the drivers. It differs from most of the six drivers in service in that each driver carries a flange."[2] This reference implies that the 31 was the first K-4 to be built with crescent-shaped counter balance weights, rather than the more common arced with square-cornered counter weights. The crescent-shaped balances would have given the locomotive a more graceful appearance, which was very important to railroads, as a competitive measure in attracting passenger traffic. These types of measures were taken to extreme levels in the 1930's when railroads fully sheathed some locomotives to give them a streamlined appearance, so that they would match the contours of their trains more closely.

The locomotive made its first break-in run on a local freight train on July 9, 1901. After initial testing and a few break-in runs, the locomotive was assigned to pull high-speed passenger trains between Lincoln, Nebraska and Creston, Iowa. Within a year, the 31 was reassigned to the line running from Lincoln to Ravenna, Nebraska. A memorable occasion in the locomotive's career occurred on October 11, 1902. Early that morning, the 31 was pulling train No. 41 (an eight car passenger train) from Lincoln to Ravenna. At 1:24 a.m., approximately two miles west of Lincoln, the train's engineer, A. L. Clayburg, was flagged down by what he thought was a flagman but in fact was one of three robbers who stopped the train, blew open the train's safe, and made off with about $2,000. Although train robberies were becoming less common in the 1900's, this was the third time train No. 41 had been held up in three years.[3]

In an effort to make its operations more efficient, the C.B.&Q. consolidated all railroads it had a controlling interest in, such as the B.&M.R., into the Burlington system in October 1904. The absorption of these smaller railroads by the Burlington resulted in all of the smaller railroads losing their separate identities. When this happened, all equipment owned by the newly-merged railroads was relettered for the C.B.&Q. and numbered to fit into the Burlington's classification system. All twenty-four of the B.&M.R.'s K-4's were renumbered into the 700 series (700-723), with the 31 being relettered and numbered to C.B.&Q. No. 710.

By May 1906 the 710 had been assigned the Aurora, Illinois Division. On May 28th, the 710 and sister engine 713 were taken into the Aurora Shops to be overhauled, in preparation for service to pull a new "daylight special" between Chicago and St. Paul,

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[1]"Proud of the New Machine," in the daily column "News of the Railroads," Nebraska State Journal, July 10, 1901.

[2]Ibid.

[3]"Train 41 Held Up," Nebraska State Journal, Oct. 11, 1902, p. 1.

Minnesota. During this shopping (when the locomotive was taken into the railroad's shops or repair facilities for repairs), the 710 likely received automatic couplers to replace its original Janey couplers and the original wood cab was likely replaced with a steel cab. In August 1907 the locomotive returned again to the Aurora Shops, to receive light repairs, as part of its ongoing maintenance. The 710 remained on the Aurora Division through the middle of 1912. By September 1914 the 710 had been reassigned to the Brookfield (Missouri) Division (under the Hannibal Division) and as of June 1919 the locomotive was simply listed on the roster of the Hannibal Division, where she remained through June 1927. Two months later, the 710 was sent to serve on the LaCrosse (Wisconsin) Division, where she finished her career as a mainline passenger locomotive, remaining on this division into 1928.

According to the Burlington's locomotive assignment sheet, dated December 1, 1928, the 710 had been assigned to the Wymore (Nebraska) Division. When she was reassigned to the Wymore Division, the 710 was downgraded to secondary lines passenger and mixed train service. In mainline passenger service, the 710 pulled short trains of relatively light tonnage, at high speeds. This type of service necessitated the locomotive's original 72" drivers which were capable of high speeds, but were not meant to pull heavy trains. When the locomotive was reassigned to the Wymore Division and downgraded to secondary lines service, the locomotive was overhauled and modified, to make it more suitable for branchline service. During the overhaul, the engine was re-drivered with smaller, 64" drivers, its 18x26" cylinders were replaced with 19x26" cylinders, and its 33" spoked pilot wheels were replaced by solid core 25" wheels. Since the locomotive was to operate at slower speeds, the cylinders could be increased in size, to create more power, without exceeding the steaming capacity of the boiler. The smaller drivers were more suited to slower speeds and also increased the pulling power of the locomotive. This combination of alterations increased the tractive effort of the engine, which was needed in order for the 710 to be able to pull freight trains. Also during the overhaul, the 710 was relettered with the "modern" rectangular "Burlington Route" logo on its tender, which replaced a simpler design of using small C.B.&Q. initials on the cab and large numbers on the tender. The 710 retains the same general appearance it has had since she was rebuilt in 1928.

The 710 served on the Wymore Division for nearly twenty-five years, nearly until steam was discontinued on the division in October 1953. While serving on the Wymore Division, the 710 was usually assigned to (passenger) trains No. 89 and 90 which operated from Omaha, via Lincoln and Wymore, to Concordia, Kansas. This train used one train set to run from Omaha to Wymore and return, and another consist on the Wymore to Concordia route, with the 710 usually being assigned to the Wymore-Concordia run. A consist is the composition of a train, such as passenger coaches, boxcars, or flatcars. Trains 89 and 90 were reduced to mixed trains (trains carrying both freight and passengers) on November 26, 1932 and briefly reinstated as passenger-only trains in 1936, which was the last time that the 710 pulled a strictly passenger consist .

The C.B.&Q. began efforts to dieselize the railroad in the 1950's, since diesel locomotives offered greater efficiency than maintenance-intensive steam locomotives. In the summer of 1951 the K-4's were renumbered from the 700 series to the 900 series, in order to make room for increasing numbers of diesel locomotives on the Burlington's roster. The 710 was renumbered to 910, the number under which she was retired. The 910 (710) continued in mixed train service, usually on trains 89 and 90, between Wymore and Concordia, until September 1953. Steam was discontinued on the Wymore Division one month later, in October 1953. The 910 (710) was reassigned to the Lincoln Division and assigned to protection service, meaning that the locomotive would only be used when there was a larger volume of traffic on the railroad than what the railroad's active locomotive roster could handle.

The locomotive last received heavy repairs in January 1940, light repairs in June 1949, and its flues were replaced for the last time in June 1950. The locomotive logged only 3,000 miles in the seven months between August 1, 1953 and March 1, 1954. By August of 1954 the engine was stored as unserviceable. It was listed as condemned on the locomotive assignment sheet of November 1, 1954, and officially retired in December.

Upon the locomotive's retirement, a Lincoln railroad enthusiast persuaded the Burlington to donate a locomotive to the City of Lincoln for preservation and display. The 910 (710) was chosen, making it the first locomotive to be donated by the C.B.&Q. for preservation and display purposes. It was also the first locomotive to be donated, by any railroad, to a city in Nebraska for static display. In January of 1955 the locomotive was repaired, painted, and renumbered to 710 in the Lincoln Shops, and moved to a display site at Pioneers Park (a National Register district) in southwest Lincoln and officially dedicated to the city on February 1, 1955. In 1991 the 710 was cosmetically restored and moved to its present site on original B.&M.R. trackage, on track 1 in front of the 1927 C.B.&Q. Station, which is a contributing building to a federally certified local landmark district.

C.B.&Q. Steam Locomotive 710 is locally significant under criterion A based on the significance of the Chicago, Burlington, & Quincy Railroad in the communities of Lincoln and Havelock. The locomotive's significance for criterion C is based on the context of the era which it was built, its characteristic 1900 design, and as being the best preserved example of a locomotive produced by the Havelock Shops, which is located in a setting with a high degree of integrity.

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VERBAL BOUNDARY DESCRIPTION

The northwest third of lot 2, Lincoln Station Addition, City of Lincoln, Lancaster County, Nebraska.

BOUNDARY JUSTIFICATION

The boundary includes the length of Track 1 on which Chicago, Burlington, & Quincy Steam Locomotive No. 710 rests and the area around the locomotive that is enclosed by the fence that protects the locomotive.

PHOTOGRAPHS

Information for all photographs
Chicago, Burlington, & Quincy Locomotive No. 710 (LC13: C9-149)
Lincoln, Lancaster Co., NE
Negatives are in the Collection of the Lincoln-Lancaster County Planning Department

Photo 1 of 6
Photo by Alfred Holck courtesy Alfred Holck Collection, San Rafael, CA
January 19, 1939
Historical photo of the 710 in Concordia, KS, showing the engineer's side of the locomotive.

Photo 2 of 6
Photo by Richard "Dick" Rumbolz courtesy J.C. Seacrest Collection, North Platte, NE
September 13, 1952
Historical photo of the 710 (after the locomotive was renumbered 910) in front of the Wymore, NE coaling tower, showing the fireman's side of the locomotive.

Photo 3 of 6
Photo by Jim Seacrest courtesy J.C. Seacrest Collection, North Platte, NE
February 14, 1955
Historical photo of the 710 in the C.B.&Q.'s West Lincoln Yards, after being refurbished for its donation to the City of Lincoln for static display, showing the fireman's side of the locomotive.

Photo 4 of 6
Photo by Gregory R. Mathis
August 14, 1996
View of the 710 looking SW, showing the engineer's side of the locomotive.

Photo 5 of 6
Photo by Gregory R. Mathis
August 14, 1996
View of the 710 looking NW, showing the rear and the engineer's side of the tender.

Photo 6 of 6
Photo by Gregory R. Mathis
August 14, 1996
View of the 710 looking S, showing the front of the locomotive.