Sixth Street Viaduct
Spanning Burlington Northern Railroad and Valley Street on Sixth Street
Burlington
Des Moines County
Iowa

HAER No. IA-36

HAER
IOWA,
29-BURL,
6-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

HAER
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29-BURL,
6-

Historic American Engineering Record

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Sixth Street Viaduct

Location:	Carrying Sixth Street over the Burlington Northern Railroad tracks and Valley Street in Burlington, Des Moines County, Iowa. Section 5, Township 69 North, Range 2 West. UTM: 15.659735.4519115
USGS Quadrangle:	Burlington, Iowa - Illinois (7.5 Minute Series, 1964)
Date of Construction:	1886; 1903-04
Designer:	1886 - Chicago, Burlington and Quincy Railroad 1903 - Emmet Steece, Burlington City Engineer
Fabricator:	1886 - Lassig Bridge and Iron Works, Chicago IL 1903 - unknown
Contractor:	1886 - Chicago, Burlington and Quincy Railroad 1903 - Superstructure: James B. Diver Bridge Co. Keokuk IA Substructure: Cameron, McManus and Joyce, Keokuk IA
Present Owner:	City of Burlington, Iowa
Present Use:	Two-lane urban grade separation (scheduled for replacement)
Significance:	The Sixth Street Viaduct is actually comprised of two separate structures: a pin-connected Pratt truss built over the tracks of the Chicago, Burlington and Quincy Railroad in 1886 and a girder overpass that was built as an approach in 1903-04. Both bridges are technologically significant as rare survivors of their type. The 1886 span is one of only three pinned through trusses remaining in Iowa's urban areas. Similarly, the open-web design of the 1903 girders is the only example of this uncommon configuration known to remain in the state. The viaduct as a whole is historically significant for its role in the development of downtown Burlington and its representation of the sometimes uneasy relationship between the city and the railroad that supported it.
Report Assembled by:	Carl W. McWilliams **Fraser**design Loveland Colorado

January 1992

The Historic American Engineering Record (HAER) documentation for the Sixth Street Viaduct was conducted by Fraserdesign of Loveland, Colorado, under contract with the City of Burlington, Iowa. The Burlington City Engineer's office has proposed replacing the viaduct, and this recordation is intended to mitigate in part the impact by this action. Located between Market and Jefferson Streets, the viaduct is comprised of two separate structures, which carry Sixth Street over Valley Street and the Burlington Northern railroad tracks. The older of the two structures is a single-span Pratt through truss, built in 1886 by the Chicago, Burlington and Quincy Railroad. Situated immediately north, the second structure crosses Valley Street, and is comprised of three open-web girder spans built in 1903. The two-part structure furnishes insight into Burlington's historical development. In particular, the bridge reflects the city's close association with the railroad, and it provides a glimpse of Burlington's development over the years.

In the fall of 1832 General Winfield Scott negotiated a punitive settlement of the Black Hawk War with the Sauk and Fox Indians. Known as the Black Hawk Purchase Treaty or "Scott's Purchase", the agreement formally opened to settlement much of what was to become eastern Iowa. Thousands of settlers made their way into the region during the 1830s, attracted by reports of fertile farmlands and new opportunities. Many arrived by way of the Great Lakes and then overland, while other immigrants came by boat via the Ohio and Mississippi Rivers. Although most of the settlers moved on to lands farther west, others stayed to establish communities on the western banks of the Mississippi. Iowa's principal Mississippi River cities - Dubuque, Davenport, Muscatine, Bellevue, Burlington, Fort Madison, Keokuk - were thus founded during the 1830s.[1]

Typical of the river towns, Burlington's early development was tied almost exclusively to the city's location on the Mississippi River. Founded in 1834 and incorporated in 1837, Burlington served initially as a jumping-off point for settlers moving into the hinterlands. Before long, though, the nascent community established itself as a regionally important economic and political center. Burlington was designated the temporary territorial capital for the Iowa District of the newly created Wisconsin Territory in 1836. When Iowa became a territory two years later, Burlington was again named the temporary capital. The city served as the seat of territorial government until Iowa City was named the permanent capital in 1841.[2] In the ensuing years, settlement along the upper Mississippi intensified, and Burlington developed as a center of river-borne commerce and trade. By the late 1850s, the city boasted a well-established commercial district, with a number of grist and lumber mills. Three pork packing plants were also in operation, giving the town its pungent appellation, "Porkopolis".

As regional settlement continued, one of the more pressing concerns was for the development of reliable transportation. A means of transport for both people and products, the Mississippi River was also an obstacle to overland travel. During the 1840s and 1850s, two steamers ferried passengers and supplies back and forth across the river at Burlington. Ferries, though, had their drawbacks. Goods often had to be unloaded and then reloaded at the other side, delays were frequent, and the boats were inoperable when the river froze during the coldest winter months. Once across the river, overland travelers were faced with a budding network of dirt roads. Often clogged with mud or snow, with frequent washouts and haphazard maintenance, these roads made travel an arduous undertaking.

Of chief concern to Burlingtonians was the dirt road leading to Mount Pleasant, some 25 miles northwest. To facilitate the movement of trade goods west, a group of Burlington businessmen planned the construction of a plank toll road between the two towns in 1849. The Burlington-to-Mount Pleasant Plank Road, completed two years later, was a modest improvement over the earlier dirt roadway. A toll gate was placed at each terminus of the road and along the way at the villages of Middletown, Danville, Jimtown, New London and at the Billy tollhouse, the last stop before Mount Pleasant.[3] Although opened with great fanfare, the Burlington-to-Mount Pleasant Plank Road proved obsolete within a few years of its debut. In fact, even before the road was completed, the men who had spearheaded its construction were plotting strategy to build a rail line that would quickly supersede it. At a celebration marking the plank road's completion in December 1851, the event's organizers issued a resolution:

> **While we regard our plank roads as emphatically the farmers highways to market and prosperity, yet we ardently look for the time when the Mississippi shall be connected with the Missouri by railway, thus facilitating communication between remote points and constituting a part of the railroad to the Pacific Ocean through southern Iowa.[4]**

Efforts to bring rails to Burlington were mobilized by William F. Coolbaugh, a prominent merchant and banker, and by James W. Grimes, a strong railroad supporter who had previously found success as an attorney and real estate speculator. On January 15, 1852, Coolbaugh and Grimes, along with other members of Burlington's business elite, incorporated the Burlington and Missouri River Railroad (BMRR). As the name implied, the objective of the enterprise was to establish a rail line from Burlington across southern Iowa to the Missouri River. A board of directors was named on January 17th, with Coolbaugh as the corporation's first president. Grimes was assigned the task of traveling to Washington to lobby for railroad lands across southern Iowa. In a cooperative spirit, the Burlington City Council appropriated $500.00 to help pay for the cost of Grimes' trip. Support for the venture spread all along the proposed route across southern Iowa. At a meeting held in early February in Ottumwa, delegates from fourteen counties enthusiastically endorsed the proposed line, pledging economic and other incentives to facilitate its construction.[5]

Although local backing was important, the success of fledgling railroads was largely dependant on outside financial support. In the case of the BMRR, financial backing came indirectly from Boston financier John Murray Forbes. Forbes headed a group that in 1846 had purchased the floundering Michigan Central Railroad from the state of Michigan. By 1852 Forbes' group had extended the Michigan Central from Detroit to Chicago. West of Chicago, meanwhile, four other, smaller railroads had been established. Known as the Chicago & Aurora, the Peoria & Oquawka, the Central Military Tract and the Northern Cross, these regional lines represented a disorganized and uncertain effort to link Chicago with the Mississippi by rail. These companies faced limited operating capital and no outlets to established lines, however. With Forbes again providing financial backing, the four Illinois lines became part of the Michigan Central Group. By the mid-1860s they had consolidated into a single entity: the Chicago, Burlington and Quincy Railroad.[6]

Even earlier, by the mid-1850s, portions of the Michigan Central Group had been incorporated into a single line across northern Illinois. What was to become the CB&Q extended from Chicago to Aurora, west to Mendota, then southwestward to Galesburg. By 1855 the line had been completed to East Burlington, which due largely to the efforts of Grimes and the BMRR, had replaced Oquawka as the line's western terminus.[7]

The BMRR also made great progress across Iowa at this time. The Burlington-Mount Pleasant segment opened in June 1857, and by the start of the Civil War the tracks had been laid as far west as Ottumwa. By 1870 the BMRR extended across the southern part of the state. From Burlington, through Fairfield to Ottumwa, the towns along the route included Chariton, Creston, Corning, Villisca, Red Oak and Pacific Junction. Plattsmouth, at the junction of the Platte and Missouri Rivers, formed the line's western terminus. During these formative years, the BMRR aligned itself closely with the CB&Q. James Grimes, in particular, had been influential in helping organize the Illinois railroads under a single ownership group and in steering the tracks away from Oquawka and to East Burlington. With the completion of a permanent bridge over the Mississippi River at Burlington in 1868, the BMRR and CB&Q became forever linked. During the 1870s, the influence of the CB&Q over the BMRR continued to increase, until in July 1880 the line across southern Iowa was officially consolidated under the CB&Q umbrella.[8]

Like the Mississippi River, the railroad was both a boon and an impediment to travel in Burlington. Delays to city street traffic due to trains passing through town had been foreseen as a concern as early as the 1850s. When the BMRR began laying tracks through Burlington, the company and the city discussed the terms of construction. The agreement they forged called for the city to help pay for the railroad's initial construction if the BMRR would locate its car repair shops between Seventh and

Fifth Streets. Additionally, the railroad agreed to build a viaduct over the tracks on Sixth Street at some future point when the city had grown enough to justify its construction. The railroad, though, would only build the bridge itself; the city would have to build the approaches.[9]

In August 1859 the Burlington City Council stated its commitment to the agreement under which the BMRR would grade portions of Sixth and Market Streets and erect a viaduct on Sixth Street, "when required to do so by the city council." Although the city grew steadily, the viaduct had not yet been built by the early 1870s. Finally, in early 1874 the city council contacted the railroad about building the structure. The railroad's initial response was lukewarm, at best. J.M. Walker, President of the CB&Q, wrote to Burlington's mayor and city council: "In examining the point designated for this bridge when at Burlington, it occurred to us that it could not be of much practical value when constructed." He then conceded grudgingly, "In this, however, we may be mistaken."[10] In June 1874 the city council concluded that Walker had indeed been mistaken, resolving:

> **Whereas the Burlington and Missouri River Railroad Company have offered to comply with their contract in erecting a bridge on their railroad on Sixth Street, and whereas there is a great public necessity for a more commodious and safe route of travel between the two sections north and south of the city than is now afforded by any of the crossings on said railroad and believing that the interest of the public and of said company are identical in this affording safety and convenience for the public travel. Therefore, be it resolved that said company be required to comply with their contract in erecting said bridge.**[11]

To comply with the contract, the railroad erected a timber structure over the tracks, leaving the approaches to be built by the city. Due to a shortage of funds, however, Burlington was unable to build the approaches. The overpass thus stood awkwardly in place - the center spans standing over the railroad tracks but no way to get to them. With the approaches still unbuilt two years later, the unfinished overpass had become an embarrassment to the city. In May 1876 the *Burlington Hawk-Eye* suggested "the feasibility of deriving a modicum of benefit from that venerable structure by opening it for foot passengers," and asked:

> **If it cannot be used this year for vehicles it can at least be made to serve the public as a safe and pleasant passageway for pedestrians... It would lessen the dangers at the Fifth street railroad crossing and be an easy grade from Valley to Market. Who will be the hero to rescue the Sixth street bridge from its present ignominy and uselessness?**[12]

Although perhaps used by pedestrians earlier, the crossing was not opened to wagon traffic for another five years. In May 1881 the *Hawk-Eye* reported that the overpass had at long last been completed: "The earth fill on Valley street has reached the level of the north end of the bridge and as soon as the earth settles and hardens a little, the famous Sixth street bridge, made famous from one end of the union to the other by good natured allusions to it... will be open for public use."[13]

The structure's utility proved short-lived, however. Less than three years after its completion, the Sixth Street Bridge was in need of major repairs. The city expected the railroad to repair the structure, but the CB&Q declined, apparently contending that the company was responsible only for the bridge's initial construction.[14] The matter dragged on for more than 2½ years, as City Solicitor P.H. Smyth dickered with attorneys for the railroad in an effort to resolve the issue. Meanwhile, the bridge continued to deteriorate, eventually beyond the point of repair. In September 1884 the CB&Q finally offered to build an iron viaduct at Sixth Street. The offer, however, was contingent on the city's vacating land between Front and Main Streets, along Division, Elm, Maple, Vine, Pine and Walnut Streets. The city rejected the proposal, and for a time the two sides appeared stalemated.[15] The attorneys, though, continued behind-the-scenes negotiations, eventually coming to terms. In July 1885 Burlington agreed to vacate portions of land east of Main Street between Market and South Streets. And by the end of the year the CB&Q had agreed to build a new Sixth Street Viaduct.[16] Plans and specifications for the new structure were prepared in early 1886 by railroad engineers, in consultation with Burlington's city engineer.[17] On March 15th, the city council formally approved the design. Construction began shortly thereafter.[18]

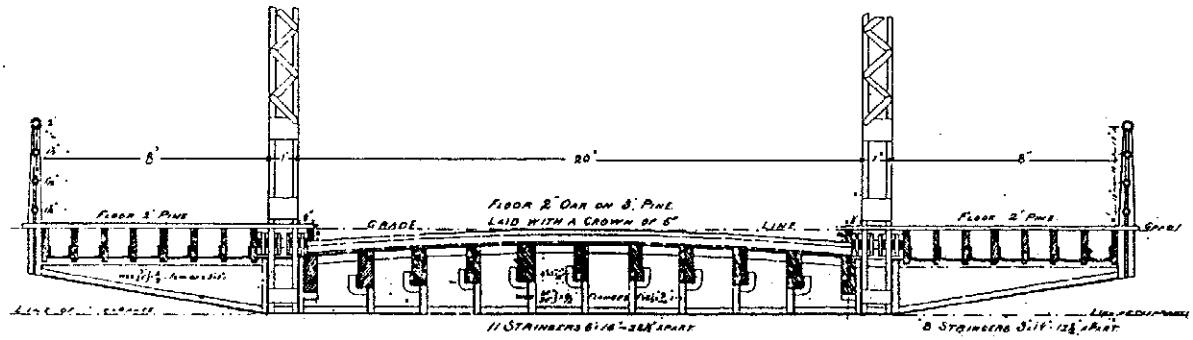


Figure 1. Cross section of bridge, from construction drawings by Chicago, Burlington and Quincy Railroad, 1886. Original drawings located at Galesburg, Illinois, Office of Burlington Northern Railroad.

The new iron viaduct, erected by a railroad construction crew that summer, contrasted sharply with its predecessor. The 235-foot-long structure stretched from Valley Street on the north to Market Street on the south, sloping slightly uphill along its length. The

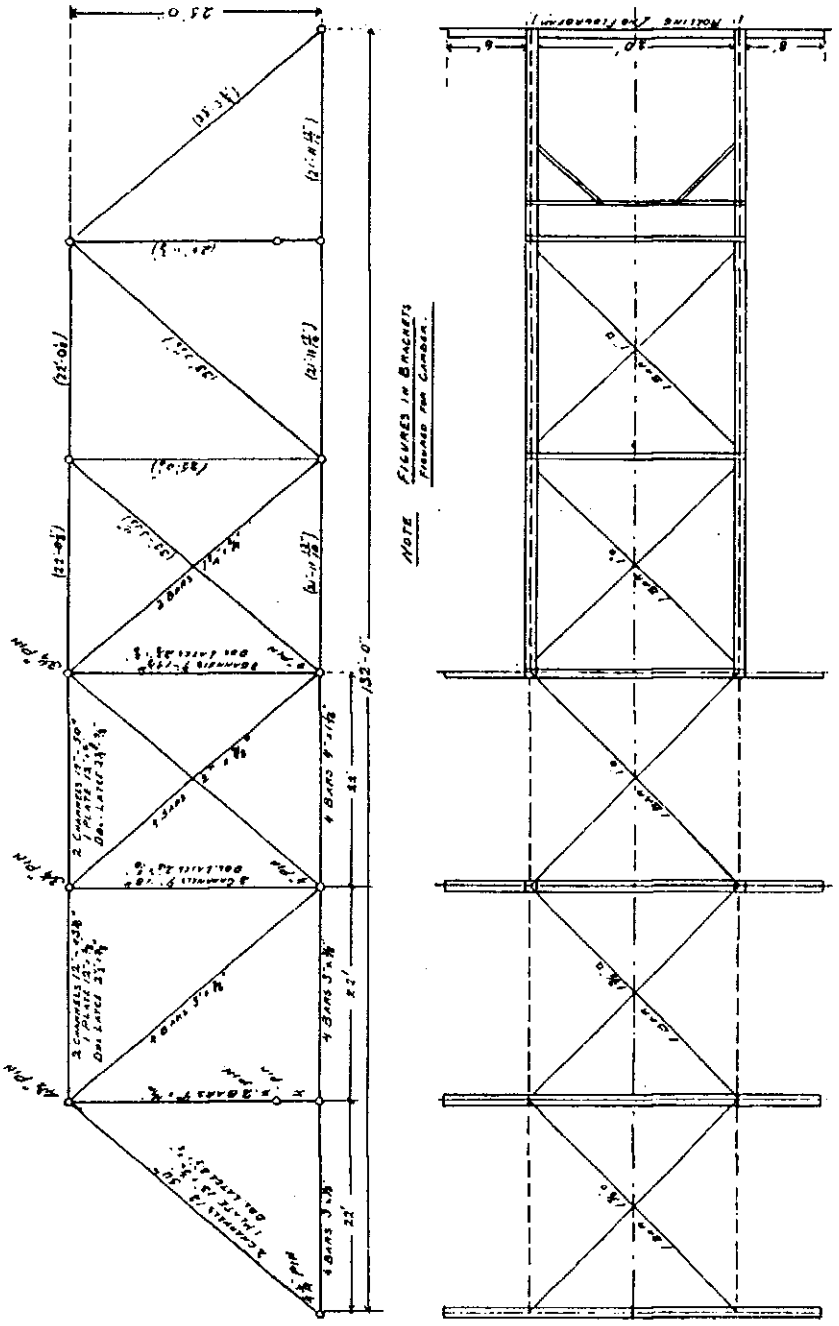


Figure 2. Plan and profile of bridge, from construction drawings by Chicago, Burlington and Quincy Railroad, 1886. Original drawings located at Galesburg, Illinois, Office of Burlington Northern Railroad.

viaduct featured a pin-connected Pratt through truss over the railroad tracks, flanked on both sides by 60-foot and 43-foot plate deck girder approach spans.[19] These were supported by stone masonry abutments and laced steel channel piers on concrete pedestals. With a 132-foot span and a 20-foot roadway, the truss was designed with a cambered deck to provide additional clearance over the tracks below. Eight-foot-wide, wood-floored sidewalks extended beyond the webs on both sides, supported by cantilevered extensions of the floor beams (*see Figure 1*). Guardrails consisted of gas pipe railing with cast iron pedestals.[20]

Designed to carry wagon and pedestrian traffic by engineers who ordinarily delineated railroad structures, the truss incorporated elements of both railroad and wagon bridges. The upper and lower chords and massive pinned connections were much heavier than typical wagon spans of the time. On the other hand, the floor system was too light to carry trains. The structure clearly reflected its mixed lineage. Fabricated by the Lassig Bridge and Iron Works of Chicago using members rolled in Pittsburgh by Carnegie,[21] the truss was made up entirely of built-up wrought iron components. *(See Figure 2)*. These were comprised as follows: upper chord and inclined endpost, two front-to-front channels with cover plate and double lacing; lower chord, four punched rectangular eyebars; vertical, two front-to-front channels with lacing; hip vertical, two punched rectangular eyebars, fastened to a steel plate; diagonal, two punched rectangular eyebars; counter, two rectangular bars with turnbuckles; upper lateral bracing, round rod with threaded ends; lower lateral bracing, looped round eyerod with turnbuckles; strut, two angles with angle knee braces; portal strut, two pairs of laced channels with lateral bracing. Plate girder floor beams were bolted to the verticals beneath the lower chord pins. These supported a floor system comprised of timber stringers and a timber deck. The truss consumed almost 130,000 pounds of iron; the two girders over 83,000 pounds, for a total superstructural weight of 212,890 pounds. Fabrication cost for the superstructure was $8098.55.[22]

The Sixth Street Viaduct carried horses, wagons and pedestrians across the tracks of the CB&Q for almost twenty years with only minor modification to its stone abutments. In early 1903, however, City Engineer Emmet Steece determined that the steep approach on the viaduct's north end needed to be re-configured. That May the city council approved Steece's plans and specifications for a new structure north of Valley Street, as an extension to the existing viaduct.[23]

Steece had drawn a steel structure comprised of three 36-foot girder spans supported by steel columns on concrete pedestals. With their built-up flanges, through-deck configuration and upper chords radiused continuously to form the endposts, the structures resembled most girders of the time. What made these girders noteworthy was their latticed webs. Instead of solid plates, which was the industry standard, the webs of Steece's

girders were made up of angle sections, riveted into a series of triangles with curved gusset plates - resembling a Vierendeel Warren truss. Steece evidently reasoned that the additional shop work involved in fabricating the trussed girders would be offset by the savings in materials. Whether he was correct is unknown, but the Sixth Street Viaduct is the only such open-web girder known to exist in Iowa. The floor system was typical: plate girder floor beams that supported timber stringers and a timber deck.[24] A sidewalk was cantilevered outside the girders on either side.

The city solicited construction bids for the viaduct extension in May; a month later proposals were received from eight regional bridge builders: the Van Buren Iron Works, John W. Towle, N.M. Stark, the Midland Bridge Company, Clinton Bridge and Iron Works, Stupp Brothers Bridge and Iron Works, the Missouri Bridge and Iron Company and the James B. Diver Company. Diver's bid of $6500.00 for the superstructure plus $2.00 per foot for the guardrails was the lowest of those tendered; in June the Keokuk-based contractor was awarded the contract. Proposals for the substructure were received from the Burlington Construction Company and from Cameron, McManus and Joyce of Keokuk. With a bid of $4.00 per cubic yard for "natural cement concrete in piers and footings" and $7.25 per cubic yard for "portland cement concrete in walls, coping and curb," plus 75¢ per cubic yard for excavation, the latter firm received the contract.[25]

The substructural contractors began work on the abutments that autumn. In December Cameron notified the city that only the fill work behind the main walls remained to be done. Diver had yet to begin work on the superstructure, however. The contract with Diver, "is being needlessly delayed, the time for completion having expired," the council complained in December. The city clerk notified Diver that "in case the work is not pushed without further delay such legal action as is necessary to work a forfeiture of the contract will be resorted to." Using steel components rolled by the Cambria mills in Pittsburgh, Diver erected the structure the following year, completing it by July.[26]

Completion of the new structure extended the viaduct for nearly two blocks between Market and Jefferson streets. Valley Street, which separated the two structures, had been split into two routes: one ascending as an approach to the viaduct, the other passing beneath the through girder spans. The 1903 extension provided a better approach to the railroad overpass, lessening the incline from the north. The newly configured viaduct was greeted with skepticism, however, by the editors of the *Hawk-Eye*:

> **For some reason the people, as a rule, prefer to drive over the grade crossings, notwithstanding their far greater peril. Only a small fraction of the traffic crossing the railway tracks utilizes the Sixth street bridge. The grade crossings are necessarily barred at frequent intervals by passing freight trains of great length and slow movement, yet the people who are driving will endure the delay rather than use the viaduct... Of course location and convenience have something to do with this, but not all... In view of this habit and experience, it may well be doubted whether the sum of money expended last year for the improved approaches to the Sixth street viaduct was wisely invested.**[27]

The *Hawk-Eye* also questioned the clearance beneath the new approach spans, lampooning the new structure in a cartoon as it neared completion in March 1904 (*see figure 3*). Nevertheless, Burlington's city officials were proud of the new viaduct. They championed the structure as a much-needed civic improvement, and to commemorate the mayor, city councilmen, the city engineer and James B. Diver, ten separate cast iron plates were affixed along the girders' upper chords.[28]

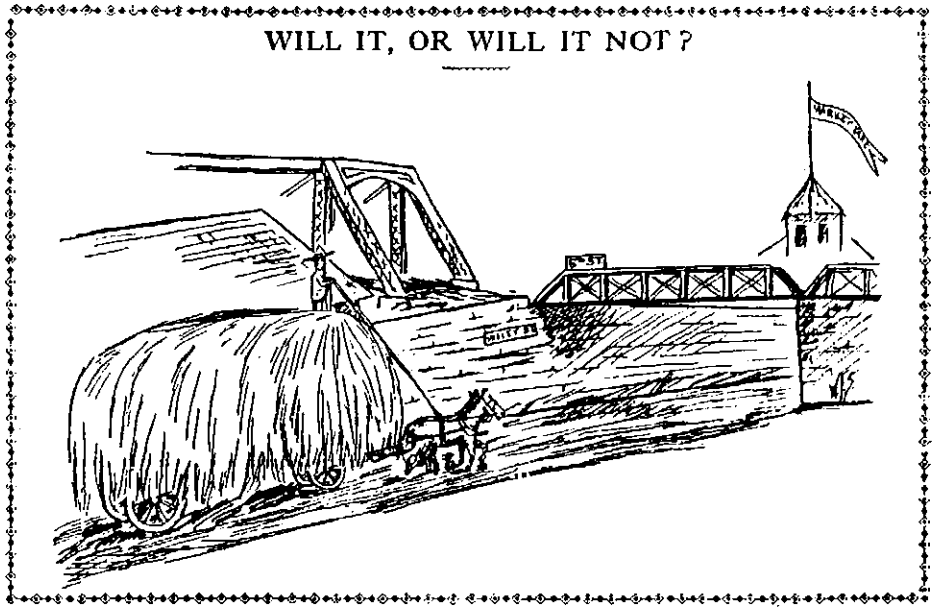


Figure 3. Reproduced from *Burlington Hawk-Eye*, 6 March 1904.

In time, the Sixth Street Viaduct gained acceptance and became part of the urban fabric of downtown Burlington. Recently, though, the structure has again become a topic of concern. The railroad truss underwent repairs in the 1920s, 1930s and 1950s (*see Appendix for list of drawings of alterations, dating from 1895 to 1959*). The Valley Street overpass underwent major renovation in 1948. Despite this work, the structure has been deemed insufficient to carry contemporary traffic loads, and its replacement has been proposed by the city. Built to provide access over the railroad tracks in the 1880s, the Sixth Street Viaduct has become a symbol of Burlington's growth and progress. Ironically, the viaduct itself now faces demolition in the face of the progress that it has come to represent.

Endnotes

[1]Leland L. Sage, *A History of Iowa* (Ames: The Iowa State University Press, 1974), p. 52.

[2]Ibid., p. 57.

[3]Helen Turner McKim and Helen Parsons, eds., *Burlington on the Mississippi* (Burlington: Doran and Ward Lithograph Co., 1983), p. 28.

[4]This quote, which appeared in the *Burlington Daily Telegraph* on 22 December 1851, was taken from Richard C. Overton, *Burlington Route: A History of the Burlington Lines* (New York: Alfred A. Knopf, 1965), p. 22.

[5]Overton, *Burlington Route*, pp. 23-24.

[6]Ibid., p. 38.

[7]Ibid., p. 42.

[8]Ibid., p. xxvii.

[9]City of Burlington Council Record 6, p. 515 (27 August 1859), located at Burlington City Hall, Burlington, Iowa; "Viaducts Are Needed," *Burlington Hawk-Eye*, 8 March 1907.

[10]City of Burlington Council Record 6, p. 515 (27 August 1859).

[11]City of Burlington Council Record 10, pp. 510-511 (22 June 1874).

[12]"The Sixth Street Bridge," *Burlington Hawk-Eye*, 9 May 1876.

[13]"Sixth Street Bridge," *Burlington Hawk-Eye*, 11 May 1881.

[14]City of Burlington Council Record 14, p. 14 (31 December 1883) and p. 39 (7 March 1884).

[15]City of Burlington Council Record 14, p. 164 (1 September 1884).

[16]City of Burlington Council Record 14, p. 322 (6 July 1885), p. 429 (18 January 1886), and p. 433 (1 February 1886).

[17]An obituary for CB&Q engineer Theodore Parker, printed in 1923, attributes the design of the Sixth Street Viaduct to Parker. No other sources corroborate this, however, and neither Parker's name nor his initials appear on the original construction drawings. "Theo. Parker Dead - Civil Engineer Who Designed Sixth Street Bridge Succumbs at Atlantic, Mass.," *Burlington Gazette*, 16 June 1923.

[18]City of Burlington Council Record 14, p. 449 (15 March 1886), p. 467 (12 April 1886), p. 514 (7 June 1886), p. 548 (19 July 1886), p. 590 (20 September 1886).

[19]For more descriptive and historical information about Pratt trusses, see T. Allen Comp and Donald Jackson, "Bridge Truss Types: A Guide to Dating and Identifying," (Nashville: American Association for State and Local History, 1977); and David Plowden, *Bridges: The Spans of North America* (New York: The Viking Press, 1974).

[20]Details regarding the viaduct's original construction were taken from original drawings of "Bridge 205.99 Over CB&Q RR at Sixth Street, Burlington, Iowa," dated January - May 1886. The originals of these drawings are located at the Galesburg, Illinois, office of the Burlington Northern Railroad. A full set of ozalid copies is on file at the Burlington City Engineer's Office.

[21]For a brief chronology of the Lassig Bridge and Iron Works, see Victor C. Darnell, *American Bridge Building Companies: 1840-1900* (Washington, D.C.: Society for Industrial Archeology, 1984), p. 11.

[22]Now more than 100 years old, the truss appears little changed from its original construction. The cantilevered sidewalk beams have been truncated, reducing the walks' width somewhat. At least two of the plate girder floor beams appear to have been replaced, and some of the members have been repaired using welded connections. The original gas pipe railing has also given way to a new guardrail comprised of wood posts, wire rope and chain link fence. The structure's timber deck presumably has also been replaced at various intervals.

[23]City of Burlington Council Record 23, pp. 53-54 (18 May 1903).

[24]The original floor system was replaced in 1948. It is now comprised of asphalt over interlocking steel channels riveted to form deep corrugations.

[25]City of Burlington Council Record 23, pp. 68-72 (15 June 1903), p. 81 (17 June 1903).

[26]City of Burlington Council Record 23, p. 89 (6 July 1903), p. 130 (8 September 1903), p. 149 (5 October 1903), pp. 180-181 (7 December 1903), p. 309 (6 June 1904), p. 340 (6 July 1904).

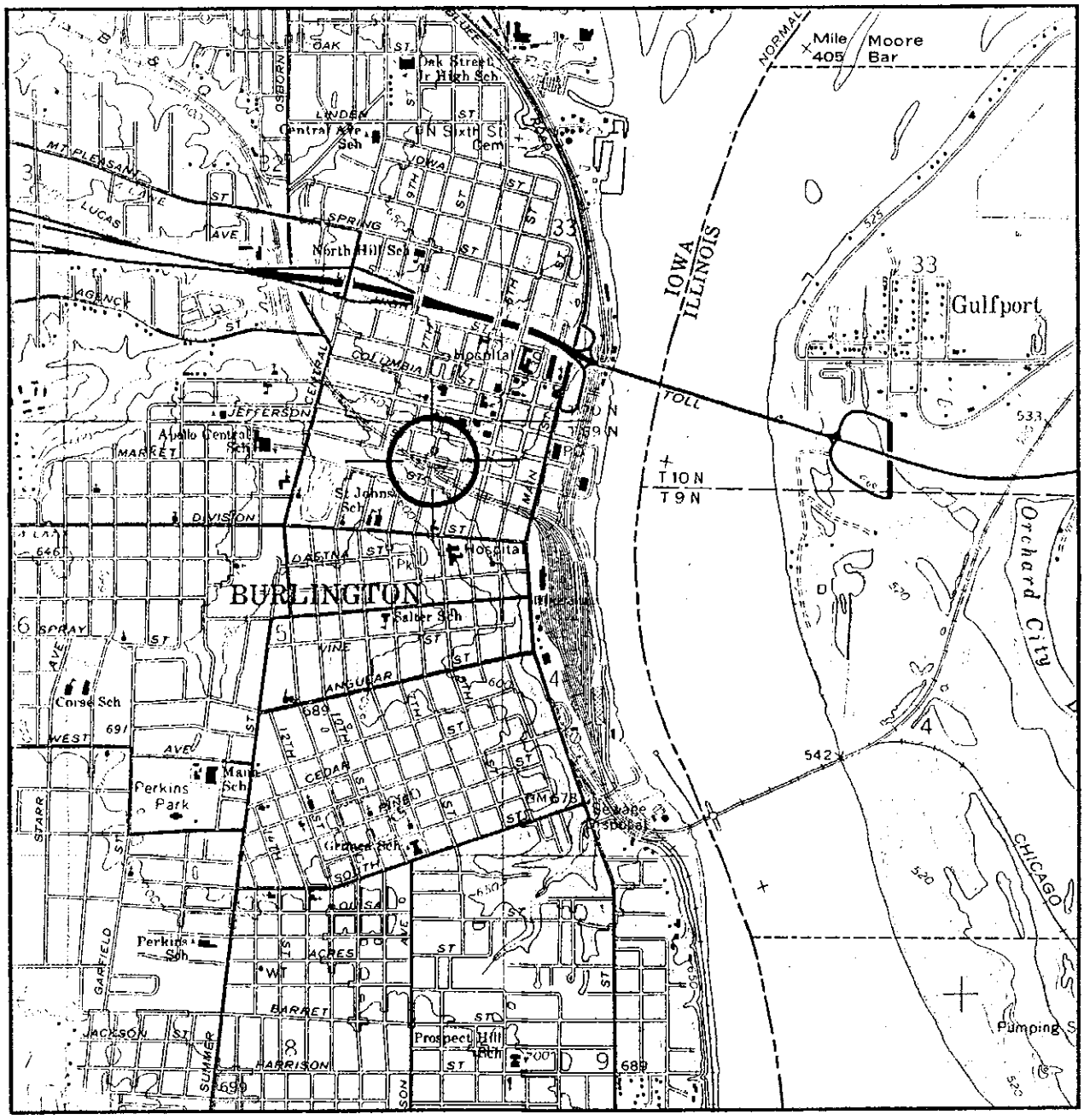
[27]"The Sixth Street Bridge an Example," *Burlington Hawk-Eye*, 7 January 1904.

[28]These bridge plates were removed prior to the bridge's documentation. Their texts read as follows:

1903 C.F. Friedel Councilman 1st Ward
1903 A.D. Burhans Councilman 2nd Ward
1903 M.W. Murphy Councilman 3rd Ward
1903 Jno. Sterling Councilman 4th Ward
1903 Wm. E. Roche Councilman 5th Ward
1903 Jno. W. McLain Councilman 6th Ward
1903 J.J. Little Councilman At Large
1903 H.G. Marquardt Mayor
1903 Emmet Steec[e] City Engineer
1903 James B. Diver Bridge Co. Keokuk, Iowa

Another bridge plate, also removed prior to documentation, was set in the concrete wall along Valley Street. Commemorating the bridge's renovation work in 1948, its text read as follows:

Sixth Street Railroad Bridge Approaches Erected 1903 - Restored 1948 Mayor Thomas J. Smith Commissioners John R. Dwight, Harry H. Staff, Charles L. Zaiser, Charles H. Foehlinger City Solicitor Frederic M. Holsteen City Engineer Harry A. Vollmer Consulting Architect & Engineer Edwin A. Thornquist Contractor Western Waterproofing Co.



Reduced from USGS Burlington, Iowa-Illinois quadrangle map [7.5 minute series, 1964].

Appendix

List of drawings of additions and alterations for the Sixth Street Viaduct. (related only to the 1886 truss erected by the CB&Q) Original drawings are located at the Galesburg, Illinois office of the Burlington Northern Railroad. A set of copies is on file at the Burlington City Engineer's Office.

18 July 1895, drawing Bridge #206A CB&Q RR "Additions to Present Abutments" - stone addition to stepped abutments.

4 November 1926, by CB&Q RR Ottumwa Division, 6th Street Viaduct, Drawing #62030, Drawer 580 "Repairs to Truss Span" - plates added to reinforce lower chord.

12 May 1930, by CB&Q RR Ottumwa Division, Drawing #68100, Drawer 580, Bridge #205.99, 6th Street Viaduct - repairs to floor beams L_2 and L_3 (stiffeners added).

3 April 1933, by CB&Q RR Ottumwa Division, Bridge #205.99 - New Floor Beams, New I-beam floor beams @ L_2 and L_3, Material for this job furnished by Vierling during August 1933 on order #HL3177-X.

8 April 1933, by CB&Q RR Ottumwa Division, Drawing #71935, Drawer 580 - lower chord connections of verticals U_3L_3 U_2 L_2.

19 December 1933, by CB&Q RR Ottumwa Division, Drawing #72460, Drawer 580, Bridge #205.99 - Splice plates added to diagonals U_2L_3 and U_5L_3.

20 August 1953, by CB&Q RR Ottumwa Division, Drawing #98978^B, Drawer 580, Repairs to member L_2U_3 - splice of diagonal at lower pin.

3 January - 14 March 1957, Drawing #s 103830^B, 103831^B, 103832^B, 103833^B, 103834^B, 103835^B, 103836^B - extensive repairs to deck, floor beams, stringer replaced.

11 March 1958, by CB&Q RR Ottumwa Division, Drawing #105027, Drawer 580, grade raise details and falsework - raising 60' span slightly.

7 October 1959, by CB&Q RR Ottumwa Division, Bridge #205.99, Drawing #106992^B, Drawer 580, finger plate expansion joint in roadway.

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