HISTORIC AMERICAN ENGINEERING RECORD

CHICAGO SKYWAY TOLL BRIDGE* (Calumet Skyway Toll Bridge)

HAER No. IL-145

Location: I-90, for 7.8 miles from S. State St. to Indiana state line, Chicago,

Cook County, Illinois.

USGS Quadrangle: Lake Calumet, Illinois-Indiana (7.5-minute series).

UTM Coordinates: 16/454800/4618380 (at Calumet River crossing)

Dates of Construction: 1956-1958.

Designers: DeLeuw, Cather & Co. (Chicago), consulting engineer. Design

work subcontracted to Alfred Benesch & Associates; A. J. Boynton

& Co.; Consoer, Townsend & Associates; Hazelet & Erdal; Friedman-Kornacker Engineering Co.; J. E. Greiner Co.; and H.

W. Lochner & Co. (all of Chicago).

Fabricators: Allied Structural Steel Co. (Chicago); American Bridge Division

of U.S. Steel Corp. (Gary, Indiana); Bethlehem Steel Co. (Steelton, Pennsylvania); and Mount Vernon Bridge Co. (Mount Vernon,

Ohio).

Builders: Arcole Midwest Corp. (Evanston, Illinois); Kenny Construction

Co. (Skokie, Illinois); E. J. Albrecht Co.; Robert R. Anderson Co.; M. J. Boyle & Co.; Consolidated Construction Co.; J. M. Corbett Co.; Hedges Construction Co.; Paschen Contractors; and Superior

Concrete Construction Co. (all of Chicago).

Present Owner: Chicago Department of Transportation.

Present Use: Toll highway, with vehicular bridge spanning Calumet River.

^{*} The name "Chicago Skyway Toll Bridge" refers to the entire limited-access highway system extending from S. State St. to the Indiana state line, including the high bridge over the Calumet River, entrance and exit ramps, the toll plaza, and the service building at 8801 S. Anthony Ave. As explained by the Chicago city council, "the Calumet Skyway Toll Bridge is officially designated as a Toll Bridge, but in physical character is a Toll Road approximately eight miles long of which the actual bridge over the Calumet River constitutes a relatively short length." See City of Chicago, City Council, *Journal* (23 Dec. 1960): 4131-2.

CHICAGO SKYWAY TOLL BRIDGE HAER No. IL-145 (Page 2)

Significance:

The Chicago Skyway Toll Bridge system crosses the Calumet River on a 650'-0"-long cantilever Warren through truss. This is Chicago's highest and longest bridge, and perhaps more importantly, its symbolic eastern gateway. The Skyway's completion marked the final link in a system of toll roads stretching from New York City to Chicago. This "toll bridge," however, also includes 7.8 miles of approach roads, which hint at an interesting legislative history. The Skyway's overpass and interchange structures contain specialty steel work such as welded rigid-frame bents and "hammer-head" piers, then relatively new designs. The toll plaza and service building, described in a separate report, are also significant for their innovative design.

Historian:

Justin M. Spivey, January 2001.

Project Description:

The Chicago Bridges Recording Project was sponsored during the summer of 1999 by HABS/HAER under the general direction of E. Blaine Cliver, Chief; the City of Chicago, Richard M. Daley, Mayor; the Chicago Department of Transportation, Thomas R. Walker, Commissioner, and S. L. Kaderbek, Chief Engineer, Bureau of Bridges and Transit. The field work, measured drawings, historical reports, and photographs were prepared under

the direction of Eric N. DeLony, Chief of HAER.

Introduction

The Chicago Skyway Toll Bridge (formerly known as the Calumet Skyway Toll Bridge) is unique among the city's highway structures. It belongs neither to the city's system of free expressways, nor to the regional toll roads operated by the Illinois Toll Highway Authority. Although subsequently connected to the Dan Ryan Expressway, the Skyway represents a standalone solution to a persistent problem: a lack of direct highway routes between northwestern Indiana and downtown Chicago. Traffic studies as early as 1928 recognized this deficiency, but none of the proposed solutions were ever implemented. The coincidence of Chicago's eastern boundary and the Indiana state line brought the matter to a crisis. Chicago found itself strapped with the financial burden of completing its expressway system when, in 1953, the Indiana Toll Road Commission announced plans to terminate its east-west turnpike at the state line, in a location miles from Chicago's planned network of free, limited access highways. A link between the two was not included in the city's "Comprehensive Superhighway System" adopted in 1945, nor possible in its budget. Although Chicago lacked the authority to issue bonds for a toll highway, the Calumet River provided an opportunity. Taking advantage of blanket toll bridge

authority, Chicago constructed a bond-financed, toll bridge – with 7.8 miles of approach roads completing the link.

New York to Chicago, Non-Stop

In the U.S., limited-access highways (i.e., those with grade-separated interchanges rather than at-grade intersections) began to appear en masse after Congress established the Interstate highway system with the Federal Aid Highway Act of 1957. The Chicago Skyway's construction spans the dawn of the Interstate highway era, and properly belongs to a less integrated period of highway construction that preceded it. Before a national system came about — even before World War II — some states constructed their own limited-access routes along heavily traveled corridors. Connecticut and New York planned and constructed a number of automobile-only parkways during the 1920s and '30s. Connecticut initially collected tolls to finance its Merritt Parkway, the first segment of which opened in 1938. The Pennsylvania Turnpike, completed two years later, allowed both trucks and cars to bypass towns along U.S. Route 30, and provided the example for high-speed toll highways in adjacent states. The Chicago Skyways' name was no doubt inspired by the Pulaski Skyway, a high-level structure over the Passaic and Hackensack rivers in New Jersey's Meadowlands. According to HAER Chief Eric DeLony, the Pulaski Skyway was "one of the first elevated expressway systems" when constructed in 1932.

By 1959, a continuous, intersection-free route existed between midtown Manhattan and downtown Chicago, via the Lincoln Tunnel; the New Jersey, Pennsylvania, and Ohio tumpikes, the Indiana Toll Road; and the Calumet Skyway. State-level authorities had constructed all but one of these links. The exception, the Calumet Skyway Toll Bridge, initially belonged to the Chicago Department of Public Works. The city began planning the Skyway in 1954, and broke ground two years later. Because construction began on the Skyway before Congress passed Interstate highway era, it did not benefit from the 90-percent federal funding share granted by the Federal Aid Highway Act of 1956. Following the example of other toll highway authorities, Chicago sold municipal bonds to finance the Skyway's construction.

Debate over federal funding for toll highways preceded the Skyway by several decades. (As will be discussed later, the same issues re-emerged after parallel Interstate highways opened to provide toll-free alternate routes.) After the turn of the twentieth century, exponentially increasing automobile ownership and the consequent Good Roads movement encouraged states

¹ Because the Calumet (Chicago) Skyway preceded the Federal Aid Highway Act of 1956, a detailed discussion of that legislation and the Interstate Highway System lies beyond the scope of this report. Interested readers should consult Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* (New York: Viking, 1997) for a popular approach including biographies of influential figures, or Henry Moon, *The Interstate Highway System* (Washington, D.C.: Association of American Geographers, 1995) for a more strictly academic approach.

² Eric N. DeLony, *Landmark American Bridges* (New York: American Society of Civil Engineers, 1993), 140.

to purchase the private tumpike companies that had previously maintained roads. Although state legislatures formed highway departments to maintain a toll-free road network, Pennsylvania's Turnpike Commission broke this trend. In a 1951 analysis of the toll road debate, economists Wilfred Owen and Charles Dearing noted that "the twentieth century now appears to hold more promise for the turnpike than the nineteenth century which rejected it." In 1939, the House of Representatives even debated a system of transcontinental toll highways. World War II intervened, however, and post-war plans focused on providing toll-free routes. Clearly siding with advocates of free roads, Owen and Dearing cited toll roads as a potential obstacle to developing an integrated highway system. Toll road authorities overlapped with state highway departments, both in jurisdiction and in the facilities they constructed. Furthermore, toll highways could not accommodate local traffic and cost more to build and operate. Chicago's Skyway would suffer from all of these drawbacks. In the Federal Aid Highway Act of 1957, Congress funded only new construction, reserving the fate of existing highways for later debate. Toll highways such as the Skyway did receive Interstate route numbers, but Congress ultimately declined to purchase them and free them of tolls.

Proposals for Chicago's Southeast Highway

Chicago's Department of Public Works supervised design and construction of the Chicago Skyway from 1954 to 1958, but did not originate the idea of a limited-access route to the southeast. The corridor from South Chicago to other manufacturing centers such as Hammond and Gary, Indiana, has been an important one since the arrival of railroads in the 1850s.⁵ An isthmus between Wolf Lake and Lake Michigan provides the most direct route from the southeast, but confines transportation routes to a narrow strip of land. Indianapolis Boulevard (formerly Indianapolis Avenue), the one direct surface road between Hammond and South Chicago, runs closely parallel to railroad tracks connecting the two cities. This geographically constricted approach is unlike other routes into Chicago, which distribute traffic among a web of roads and rails radiating north-, west-, and southward. Traffic on the Indianapolis Boulevard approach consistently exceeded any other single route into Chicago.

Chicago's parks put forth the first serious proposal for a highway to the southeast, along the shore of Lake Michigan. Inspired by existing lake-front parks, and Burnham and Bennett's plan of 1909, the city sought to dedicate its entire shoreline to park use. This continuous strip of undeveloped land appealed not only to park users, but to motorists as well. Even before the

³ Wilfred Owen and Charles L. Dearing, *Toll Roads and the Problem of Highway Modernization* (Washington, D.C.: Brookings Institution, 1951), 136-39; quote from ibid., 4.

⁴ Owen and Dearing, *Toll Roads*, 40-41, 66. Interest on bonds increases construction cost; maintaining and staffing toll-collection facilities increases operating cost.

⁵ See Justin M. Spivey, "Pittsburgh, Fort Wayne & Chicago Railway, Calumet River Bridge," HAER No. IL-156, Historic American Engineering Record, National Park Service, U.S. Department of the Interior. The railroads brought workers from Chicago to build many of the large mills and refineries in Indiana.

invention of automobiles, drivers used Lincoln Park's Lake Shore Drive (begun in 1869) to bypass the congestion of city streets. The South Park Commission had even created a Traffic Engineering Division in response to heavy automobile traffic on park roads. Its chief engineer, Otto K. Jelinek, supervised an upgrade of Eriksen Drive through Jackson Park. The Lincoln Park and South Park commissions planned to connect their lake-front drives across the Chicago River, as suggested by the 1909 plan, to create one continuous Outer Drive. The Chicago Plan Commission implied an extension of Outer Drive to the Indiana border when, in 1929, it reported that "plans for its [lake front park's] continuation both north and south to the city limits are under way." The Great Depression put a temporary halt to these plans, but not for long.

Federal recovery efforts, under Roosevelt's New Deal, helped revive the idea of a lake-front highway across Chicago from Evanston to Hammond. In 1934, a city-wide Chicago Park District replaced the patchwork of neighborhood park commissions. This new agency expertly used federal assistance, in the form of grants from the Public Works Administration (PWA) and labor from the Works Progress Administration (WPA), to improve parks throughout the city. The largest improvements, however, occurred along the lake shore. A PWA grant enabled the Park District to build the Outer Drive bridge across the Chicago River. Using WPA labor, the Park District's traffic engineers widened the drive to eight lanes and created Chicago's first truly limited-access highway, albeit one not designed for trucks. In a WPA-sponsored traffic study, the district prognosticated that its "famous 'Outer Drive' ... in time will form the nucleus for a magnificant [sic] limited way which will extend from the Indiana State Line on the south to the city limits on the north." The Park District's annual reports re-stated this ambition, which it might have realized if World War II had not brought the New Deal era to an end.

With the country at war, the Park District lost the federal money it had been using to improve the Outer Drive, also known as Lake Shore Drive. Unable to collect gasoline taxes or issue bonds to fund road construction, the Park District never resumed its pre-war plans. Meanwhile, various city council committees, the Regional Planning Association, and the Department of Subways and Superhighways had all put forth plans for a city-wide system of highways, many of which included extensions of Lake Shore Drive. Drawing from these proposals, the Department of Public Works and the Cook County highway department designed and built the expressway system that exists today — minus the Lake Shore Drive extensions. Construction started soon after the war ended and lasted for twenty-five years. 9 By that time,

⁶ Chicago Plan Commission, The Outer Drive Along the Lake Front, Chicago (Chicago, 1929), 5.

⁷ For a more detailed description of the Park District's role in Chicago-area transportation, see Justin M. Spivey, "Passerelle in Lincoln Park," HAER No. IL-155.

⁸ Chicago Park District, *A Traffic Survey*, vol. 1, *Summary: Scope and Methods* (Chicago, 1938), 4, Municipal Reference Collection, Chicago Public Library, Chicago, Ill. (hereinafter cited as MRC).

⁹ Carl W. Condit, *Chicago, 1930-70: Building, Planning, and Urban Technology* (Chicago: Univ. of Chicago Press, 1974), 235, 242.

CHICAGO SKYWAY TOLL BRIDGE HAER No. IL-145 (Page 6)

truck traffic had become too important to spend money on highways connecting with park roads that could not accommodate it.

Although eliminated from the superhighway plan of 1945, the southeast route was constructed separately as the Skyway. Rejecting the lake-front route, the Department of Public Works sited the Skyway a considerable distance to the southwest, along the Pennsylvania Railroad. It seems appropriate that the last link in a toll road from Philadelphia to Chicago ended up next to a railroad from Philadelphia to Chicago completed more than a century before. Before describing the route finally selected, however, it is worth noting the alternatives considered.

The first comprehensive highway plans for Chicago and for the surrounding region arrived in the 1920s, preceding the Lake Shore Drive improvements by more than a decade. None of the early studies resulted in actual construction, but they did nonetheless influence the shape of the 1945 superhighway system. Early proposals sought to eliminate the "disagreeable incidents" of land acquisition — a phrase which appeared in a 1928 report from the city council's Sub-Committee on Two-Level Streets and Separated Grades, chaired by John A. Massen. Recognizing that the railroad network's radiating spokes coincided with desirable routes for motor traffic, the sub-committee proposed elevated highways above eight active rail lines. The sub-committee even sought tentative agreement from the railroads, and obtained it from the Pennsylvania Railroad for a route to the southeast. 10 This came to naught, for Chicago never would build highways over railroad rights-of-way. The city did, however, eventually construct superhighways adjacent to two of the rail lines identified in the 1928 report. The Northwest (now Kennedy) Expressway follows the former Chicago & North Western Railway for about nine miles, a route which appeared consistently throughout the superhighway system's many permutations. Proposals for a southeasterly highway were not so consonant, with engineers suggesting several different routes during the intervening three decades. Nonetheless, the Chicago Skyway ended up parallel to the Pennsylvania Railroad tracks, a route favored by the 1928 report.

Five years later, another report proposed a highway of less ambitious length along the same corridor. Massen now chaired the Committee on Traffic and Public Safety, which produced three volumes of traffic studies and highway plans in 1933. The report noted that Indianapolis Boulevard was the most heavily traveled route crossing city limits, but lacked a direct connection to major thoroughfares, especially South Chicago Avenue. Instead of one highway from the Indiana state line to downtown, the report proposed two separate links to bypass the most congested areas — local streets in South Chicago, and Jackson Park. In South Chicago, Indianapolis Boulevard and South Chicago Avenue lay on opposite sides of a railroad embankment carrying not only the Pennsylvania Railroad tracks, but also those of the New York Central and the Baltimore & Ohio railroads. Neither street crossed the Calumet River. To

¹⁰ City of Chicago, City Council, Committee on Traffic Regulation and Public Safety, Sub-Committee on Two-Level Streets and Separated Grades, "A Memorandum and Preliminary Report with Reference to Elevated Through Highways for the Chicago Metropolitan Area" (Chicago, 1928), MRC; William Clark, "Retrospective Look at a Plan That Failed," *Chicago Tribune*, 2 Nov. 1961, Business: 7.

connect them, the first link would rise above Indianapolis Boulevard at 103rd Street and cross all three railroads. The elevated roadway would then run parallel to the tracks on their northeast side, cross the Calumet River on a bascule bridge, remain elevated to cross a complicated railroad junction at 95th Street, then descend to South Chicago Avenue at 93rd Street. Traffic could then follow South Chicago Avenue to Stony Island Avenue. The Skyway accomplishes this same task today, except it remains on the southwest side of the tracks and crosses the Calumet River on a high-level bridge. The 1933 proposal also included a limited-access road adjacent to Stony Island Avenue between 72nd to 56th streets, sweeping around the northwest corner of Jackson Park to connect with Eriksen (now South Lake Shore) Drive. This second portion re-surfaced in subsequent highway plans, but at present remains unbuilt.

One final pre-Skyway proposal merits description here. Charles E. DeLeuw, a partner in the firm that would eventually design the Skyway, served as consulting engineer to Chicago's Department of Superhighways, which set forth "A Comprehensive Superhighway Plan for the City of Chicago" in 1939. This report is the precursor of the plan adopted for construction in 1945, and they contain many of the routes. Extensions of Lake Shore Drive, proposed in the 1939 report, were dropped from the later plan because the existing drive could not accommodate commercial traffic. The omission is perhaps fortunate, though, because the southeast route would have bypassed Jackson Park via landfill in Lake Michigan, then cut through South Chicago neighborhoods on Commercial and Ewing avenues.¹³ Although it can be argued that the Skyway as built also cuts through neighborhoods, it does avoid the lake front and Jackson Park entirely.

A successful impetus for building the Skyway did not arrive until late 1953, when the Indiana Toll Road Commission announced that its east-west toll road would terminate at Indianapolis Boulevard and 106th Street. The Chicago city council reacted by passing a resolution expressing its "regret and dissatisfaction concerning the improper location of said toll highway," and asking Indiana to reconsider the proposed route. Whether Indiana's news actually caught the Chicago city council by surprise is not known, but the latter's resentment at not having been consulted seems genuine. Regardless, Indiana would not change the location of its toll road. Facing the prospect of additional traffic on already heavily traveled Indianapolis Boulevard, Chicago resurrected the southeast branch of its superhighway system. The city council contracted with two investment banking firms, Blyth & Company and John W. Clarke,

¹¹ City of Chicago, City Council, Committee on Traffic and Public Safety, "Limited Ways: A Plan for the Greater Chicago Traffic Area" (Chicago, Dec. 1933), 88, fig. 31, MRC.

¹² Committee on Traffic and Public Safety, "Limited Ways," fig. 33.

¹³ See City of Chicago, Department of Superhighways, "A Comprehensive Superhighway Plan for the City of Chicago," (Chicago, 30 Oct. 1939), fig. 18, MRC.

¹⁴ Chicago, City Council, *Journal* (25 Jan. 1954): 6746-47.

Incorporated, on 14 April 1954 for a feasibility study.¹⁵ The bankers in turn subcontracted to engineering firms: Coverdale & Colpitts for traffic estimates, and DeLeuw, Cather & Company (DLC) for preliminary engineering. No funding yet existed for the proposed highway, so the city borrowed from other accounts to pay the consultants. On 19 May 1954, the council approved a \$50,000 loan from the 1947 Superhighway Bond Fund to design what was then called the "Southeast Toll Bridge and Superhighway."¹⁶

The city planned to repay the superhighway fund from different bonds for the southeast route, clearly differentiating it from the rest of the superhighway system. The "Toll Bridge" part of the name hints at the reason for this. Superhighway bond money could not be used for a route not in the system when those bonds were issued (1947). The southeast route would have to be financed separately. Chicago lacked the authority to issue highway bonds to be repaid by tolls—that belonged to the Illinois Toll Highway Authority. The city did, however, have blanket authority under a 1953 state law to issue *bridge* bonds to be repaid by tolls. This provided the means to finance the Skyway, and the reason why its full name is the Calumet (later Chicago) Skyway Toll Bridge although only a small portion of its length is over water.¹⁷ Unlike the 1933 proposal for a bascule bridge, however, this was to be a high-level crossing. Due to frequent openings on existing bascule bridges across the Calumet River, the city decided on a fixed span meeting the U.S. Army Corps of Engineers' minimum clear height requirement of 125 feet.¹⁸

Design and Construction

DeLeuw, Cather & Company (DLC), the engineering firm selected to design the Skyway project, had previously designed and supervised construction on various segments of the New Jersey, Ohio, and Indiana turnpikes, and therefore undertook the Skyway work with a great deal of experience.¹⁹ Culling from Department of Public Works studies and his own earlier work,

¹⁵ DeLeuw, Cather & Co. (hereinafter cited as DLC), "The Calumet Skyway," *Bulldozer* 10, No. 4 (Sep. 1958): 6.

¹⁶ Chicago, City Council, *Journal* (19 May 1954): 7582. Interestingly, a previous version of the order specified that the route follow Indianapolis Boulevard and Anthony Avenue; an amendment removed this requirement, stating only that it would "extend from the Indiana State Line to a junction with the South Route of the Comprehensive Superhighway System ... at S. State Street."

¹⁷ Biographer Roger J. Biles credited mayor-to-be Richard J. Daley for this bit of "creativity," although he did not take office until the following year; see *Richard J. Daley: Politics, Race, and the Governing of Chicago* (DeKalb, Ill.: Northern Illinois Univ. Press, 1995), 49.

¹⁸ See section entitled "Why the Skyway Was Built," in DLC, "The Calumet Skyway," *Bulldozer* 10, No. 4 (Sep. 1958): 5. Although the Skyway's Calumet River span and the Dan Ryan Expressway's bridge over the South Branch of the Chicago River are both high-level crossings, there are bascule bridges on the Eisenhower Expressway (spanning the South Branch of the Chicago River) and the Ontario Street collector-distributor spur (North Branch of the Chicago River).

¹⁹ DLC, "The Calumet Skyway Toll Bridge," 2.

DeLeuw's company considered three routes. The first, a highway built on the little-used Baltimore & Ohio Railroad right-of-way, was rejected because its terminal at Stony Island Avenue would leave traffic in an already congested area. DLC also revisited the idea of a highway along the Lake Michigan shore line to Lake Shore Drive, but concluded that it could not accommodate truck traffic. The last option, on the southwest side of the Pennsylvania Railroad right-of-way to South State Street, proceeded into preliminary design. DLC's 1954 report to the Chicago city council included detailed plans and elevations of the route, a preliminary design for the Calumet River span by J. E. Greiner Co., and a cost estimate for the Pennsylvania Railroad route.²⁰

The Skyway reflects its designers' primary intention — to connect the Indiana Toll Road to downtown Chicago. As its original name might imply, the Calumet Skyway Toll Bridge flies over the Calumet region without providing much local access. Its status as a toll bridge dictates a pattern of exits which cannot allow traffic to leave until it passes through the toll booth. There is but one direct exit from the eastbound lanes, to Indianapolis Boulevard just before the Indiana state line. Eastbound entrances and westbound exits occur at State Street, St. Lawrence Avenue, 73rd Street, Stony Island Avenue, and 87th Street. Currently, eastbound motorists are allowed to make a U-turn after the toll booth and use the westbound exits.²¹ But even though some westbound exits allow southward turns, major ramps — to Stony Island Avenue, to Michigan and Indiana avenues (demolished in 1996), and to the Dan Ryan Expressway — direct traffic only northward. The Chicago Plan Commission, in 1956, praised the Skyway as a connection between South Chicago labor and jobs in the Calumet area, which then contained "Chicago's primary industrial land reserve."22 Considering the dearth of southward exits, however, it is unclear how this would be possible. Furthermore, the commission seems to have disapproved of the Skyway's location, although not explicitly naming the road: "The present common practice of placing new expressways closely parallel to railroad rights-of-way, while perhaps facilitating land acquisition, has the detrimental effect of cutting off potential industrial land across the expressway from direct rail access."²³ (Even though it appeared in a study of the Calumet Region, this remark could also apply to the Kennedy Expressway, which parallels the Chicago & North Western Railway as noted above.) Although the city might have preferred that the Skyway provide local access, the Skyway's toll bridge status — and to a lesser extent, the geography of its alignment — prevented it from doing so.

As with many large public works projects, the Skyway's cost rose during its construction. In fact, it rose ten percent before construction even began. On 4 November 1954, the council's

²⁰ DLC, "Report on Calumet Skyway Toll Bridge, City of Chicago: Engineering Studies and Estimates" (Chicago, Nov. 1954).

²¹ DLC, "Skyway Toll Bridge System 1995 Annual Report" (Chicago, 1996), 2-2, Bureau of Bridges and Transit, Chicago Department of Transportation, Chicago, Ill.

²² Chicago Plan Commission, The Calumet Region of Metropolitan Chicago (Chicago, 1956), iii, 47.

²³ Chicago Plan Commission, *The Calumet Region*, 42.

Committee on Traffic and Public Safety drafted an ordinance to issue \$80 million in bonds for construction. By the time DLC submitted its preliminary design to the city council on 26 November, this figure had risen to \$88 million.²⁴ Subsequent increases — the Skyway would eventually become "Chicago's New \$101,000,000 Toll Bridge" — accrued from design changes, a steel workers' strike, and construction delays.²⁵ (A supplemental \$13 million bond issue in 1957 made up the difference.) The ordinance authorizing the first bond sale also codified certain aspects of the Skyway's design, including the alignment, type of structure for the Calumet River bridge ("three span cantilever truss"), and locations of exits.²⁶ Again borrowing from the 1947 superhighway bond fund, the city council contracted for property surveys on 22 December 1954.²⁷ The next eighteen months showed no physical progress on the Skyway, but DLC kept busy with detailed design of the structure. Because of the Skyway's nearly eight-mile length — and the Indiana Toll Road's imminent completion — DLC divided the design work into seven segments and subcontracted each to a different engineering firm to speed the process along (see Table 1). All seven of the firms had offices in Chicago, allowing close coordination of the work.

Table 1. Chicago engineering firms subcontracted for Chicago Skyway design.

Segment	Location	Designer
1	S. State Street to E. 73rd Street	Friedman-Kornacker Engineering Co.
2	E. 73rd Street to S. Dante Avenue	Alfred Benesch & Associates
3	S. Dante Avenue to S. Elliott Avenue	H. W. Lochner & Co.
4	S. Elliott Avenue to S. Colfax Avenue	Consoer, Townsend & Associates
5	S. Colfax Avenue to approximately E. 96th Street	A. J. Boynton & Co.
6	E. 96th Street to approximately E. 99th Street	J. E. Greiner Co.
7	E. 99th Street to Indiana state line	Hazelet & Erdal

Source: DeLeuw, Cather & Co., "The Calumet Skyway," Bulldozer 10, No. 4 (Sep. 1958): 12.

During construction, each segment would be broken down further into tasks such as demolition, grading, structure fabrication and erection, lighting, etc. A large portion of the contractors also based their operations in Chicago. Notable exceptions occur among the fabricators. Structural steel came from the U.S. Steel Corporation's nearby Gary, Indiana, plant.

²⁴ Chicago, City Council, *Journal* (29 Nov. 1954): 8679 et seq.

²⁵ City of Chicago, "Travel Swiftly, Safely on Chicago's New \$101,000,000 Toll Bridge, Opening April 16, 1958: Calumet Skyway Bridge," map, n.d., MRC.

²⁶ Chicago, City Council, *Journal* (9 Dec. 1954): 8731-56.

²⁷ Chicago, City Council, *Journal* (22 Dec. 1954): 9055.

The American Bridge Division had operated in the Chicago area since 1891, ten years before its absorption into Andrew Carnegie's empire.²⁸ The most distant fabricator was Bethlehem Steel Company, but steel came from the former Pennsylvania Steel Company plant in Steelton rather than the main plant in Bethlehem.²⁹ These two fabricators could easily ship their steel by rail, being located along the Pennsylvania Railroad main line, as was the Skyway.

Although the National Wrecking Company began demolition work on 5 June 1956, the official dedication did not occur until 9 July at the Indiana state line, with the somewhat more glamorous task of excavating a foundation.³⁰ This was to be the first of many Skyway-related ceremonies attended by Mayor Richard J. Daley, then in his second year of administration. According to biographer Roger J. Biles, the mayor knew that "political capital could be mined over the entire length of a construction project." Although the Skyway had been initiated during the Kennelly administration, Daley adopted his predecessor's work as his own. Another ceremony on 3 May 1957 celebrated the first erection of structural steel, again with Daley in attendance.³²

Behind the fanfare, the Skyway was then suffering from increasing costs and a nationwide steel workers' strike. Steel production had slowed, delaying fabrication and erection contracts and driving up bid prices. Engineers on the Skyway project made changes where they could, for example, substitute concrete piles for steel H-piles under the Calumet River bridge piers.³³ Other modifications to the design were unrelated to the strike. DLC reported in August 1956 on a cost overrun of \$11.2 million. The engineers attributed most of it to changes in alignment at the Skyway's west end.³⁴ DLC's original plan showed the skyway turning north along State Street, with local exits at 60th and 61st streets. This alignment would have crossed the New York Central Railroad's Englewood Yard, which was evidently not acceptable to the railroad.³⁵ The engineers turned the main roadway west, avoiding the rail yard entirely, and substituted direct connections with Michigan and Indiana avenues for the ramps at 60th and 61st streets. The new ramps at Michigan and Indiana avenues became extremely long, circumnavigating the rail yard and crossing at its throat. Although this would provide a more direct connection to downtown Chicago via north-south avenues, it did nonetheless drive up the cost. The overrun had increased

²⁸ Victor C. Darnell, *A Directory of American Bridge-Building Companies*, 1840-1900, Occasional Publication No. 4 (Washington, D.C.: Society for Industrial Archeology, 1984), 7.

²⁹ DLC, "The Calumet Skyway," 21.

³⁰ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 19 (1 Sep. 1956): 1-2, MRC.

³¹ Biles, Richard J. Daley, 48.

³² DLC, "Calumet Skyway Toll Bridge Progress Report," No. 27 (1 May 1957): 3, MRC.

³³ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 15 (1 May 1956): 2-3, MRC.

³⁴ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 18 (1 Aug. 1956): 1-2, MRC.

³⁵ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 13 (Mar. 1956): 2, MRC.

to \$18 million by February 1957, again attributable to design changes and the increased cost of steel. The strike had then slowed construction to a point where the engineers asked for a two-month extension beyond the original deadline of 1 March 1958.³⁶

After the labor troubles dissipated, a fire set completion back another month. On 13 December 1957, according to that month's progress report, a conflagration "of undetermined origin" damaged the Calumet River bridge, burning hot enough to buckle floor members and disintegrate the concrete deck. Except for scorched paint, truss members fortunately escaped damage.³⁷ The contractor recovered from this setback, however, and completed the bridge by opening day. Although ramps to Michigan and Indiana avenues were still unfinished, the Skyway opened to traffic on 16 April 1958. When these ramps did open two months later, Michigan and Indiana avenues became one-way streets, carrying traffic between downtown and the Skyway.³⁸ Until the Dan Ryan Expressway opened in 1962, the avenues served as an interim link in the city's highway system.

Description

Because the Chicago Skyway is but one short segment of a major Interstate route, its boundaries are not readily apparent to the passing motorist. The Skyway officially begins at the east sidewalk line of South State Street, although I-90 diverges from the Dan Ryan Expressway several blocks further west. The Illinois Department of Transportation (IDOT) constructed connecting ramps in conjunction with the expressway, which unlike the Skyway was a federal-aid highway from the start of construction (1960). IDOT currently maintains the connecting roadway.³⁹ From State Street, the Skyway extends 7.8 miles to the southeast, deviating slightly from a straight line where it crosses the Calumet River bridge. The state line between Illinois and Indiana also marks the boundary between the Chicago Skyway and the Indiana East-West Toll Road, which occurs on an elevated viaduct. A stark contrast between the bright green paint on the Indiana section, and the burgundy that has appeared on this and other Chicago bridges during the Richard M. Daley administration, makes the line visible from beneath the viaduct. Even without the difference in color, rounded corners on Indiana's steel bents would distinguish them from their sharp-cornered Chicago counterparts. From a vehicle on I-90, however, one sees only a sign marking the state line.

Except at its extreme ends, the Skyway carries six 12'-0" lanes. (West of the State Street exit ramps, and east of the Indianapolis Boulevard exit ramps, it carries only four.) Paved

³⁶ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 24 (7 Feb. 1957): 7-9, MRC.

 $^{^{37}}$ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 35 (1 Jan. 1958): 3, MRC; ibid., "The Calumet Skyway," 25.

³⁸ Evidently these ramps opened in June 1958; see City of Chicago, "Travel Swiftly, Safely on Chicago's New \$101,000,000 Toll Bridge."

³⁹ DLC, "Skyway Toll Bridge System 1995 Annual Report," A-1.

shoulders, 11'-0" wide, occur on the embankment portions west of the Calumet River, but were omitted on bridge structures. To compensate for this omission, the original 4'-0"-wide raised median has subsequently been replaced by a vertical concrete barrier, allowing slightly wider roadways. To the southeast of the Calumet River bridge, the designers provided a short cantilevered break-down lane. On bridge structures, the guard rail originally consisted of a short concrete wall capped by a an aluminum pipe rail on cast aluminum brackets. Although a portion of this original guard rail remains in the toll plaza area, elsewhere it has been replaced by taller concrete barriers meeting current safety standards.

The following description follows the Skyway from west to east, with dimensions and other technical details placed in Table 2. From State Street to South Commercial Avenue, the Skyway travels on a combination of embankments and plate-girder overpasses and viaducts, maintaining a minimum 14'-0" vertical clearance above city streets. Ramps to and from State Street rise to meet the main roadway on an embankment, in the only east-west portion of the Skyway's alignment. Starting at South Michigan Avenue, the Skyway curves to the southeast on an elevated plate-girder viaduct until it crosses over East Marquette Road. From East 75th to East 79th streets, the Skyway runs on a variable-depth plate-girder viaduct, which also spans the Illinois Central Railroad tracks. DLC's original proposal shows camel-back through trusses at South Greenwood Avenue and the railroad crossing, but the plate girder was evidently less expensive to fabricate and erect.⁴⁰

Between 87th and 89th street, the Skyway's embankment widens for the toll plaza. Part of the toll plaza sits on a bridge of sorts, actually the roof of the service building below. The toll plaza and service building complex warrants its own detailed description, and is therefore covered in a separate report. The embankment continues to Commercial Avenue, where it gives way to a deck girder viaduct. This viaduct rises on a 3-percent grade, curving slightly to the southwest, to meet the Calumet River span. Although still parallel to the Pennsylvania Railroad tracks, the Calumet River span was offset slightly to avoid the John Mohr & Sons Boiler Works and a grain elevator complex. Both properties would have been costly to purchase and demolish when constructing the Skyway. Although the boiler works has since been demolished, and the elevator since abandoned, they nonetheless had a lasting influence over the Skyway's shape.

⁴⁰ See DLC, "Report on Calumet Skyway Toll Bridge," figs. 5, 33. Photographs of the plate-girder structure appear in an otherwise unrelated article by George C. Harris, "Economy of Bridge Design," *Midwest Engineer* 12, No. 9 (Apr. 1960): 12-14.

⁴¹ See Justin M. Spivey, "Calumet Skyway Toll Bridge, Toll Plaza and Service Building," HAER No. IL-145-A.

Table 2. Main-line elevated structures on Chicago Skyway.

Name of Main-Line Structure	Spans	Length (feet)	S = F =	Designer Substructure Fabricator Builder
Marquette RdIndiana Ave. Viaduct	16 deck girder	967	SB:	Friedman-Kornacker Engineering Co. Hedges Construction Co. Allied Structural Steel Co.
75th-79th St. Viaduct (northwest of Dante Ave.)	42 deck girder	3,935	S: F: B: D:	Alfred Benesch & Associates Paschen Contractors U.S. Steel Corp. Arcole Midwest Corp. H. W. Lochner Co.
				Robert R. Anderson Co. Allied Structural Steel Co.
Commercial Ave94th St. Viaduct	9 deck truss	2,381	S:	A. J. Boynton & Co. Consolidated Construction Co. Bethlehem Steel Co.
Calumet River Bridge	3 deck truss 3 through truss 3 deck truss	2,458	S:	J. E. Greiner Co. E. J. Albrecht Co. U.S. Steel Corp.
Ewing Ave100th St. Viaduct	9 deck truss	1,514	S:	Hazelet & Erdal Robert R. Anderson Co. Mount Vernon Bridge Co.
106th StEwing Ave. Viaduct	92 deck girder	4,736	S:	Hazelet & Erdal Arcole Midwest Corp. Bethlehem Steel Co.
Miscellaneous overpasses (22)	27 deck girder	2,600	Vario	ous
	Total	18,591		

Sources: DeLeuw, Cather & Co., "Skyway Toll Bridge System 1995 Annual Report" (Chicago, 1996), appendix A; ibid., "Calumet Skyway Toll Bridge Progress Report," No. 36 (1 Feb. 1958): 12-15.

The Skyway reaches its highest point over the Calumet River. The 650'-0"-long cantilever through truss span is, in fact, Chicago's highest and longest. Like the deck truss approaches, the Calumet River bridge's members are either I-beam sections or built-up box sections (channels riveted to perforated cover plates). I-beams form the K-bracing in the upper and lower planes of the through truss. All connections are riveted to gusset plates. The through truss portion of the bridge consists of the 650'-0" river span and 325'-0" anchor arms on either side, with a subdivided Warren pattern. Steel A-frame bents occur under the peaks of the cantilever truss, emphasizing their height. Vertical steel bents support the approach spans and

anchor arm ends. While the river span maintains a fairly level profile, the anchor arms curve downward below the roadway to meet the deck truss approaches. The transition is smooth in profile but awkward in perspective because the through trusses are spaced wider than the deck trusses. The former are 87'-0" on center with trussed floor beams, but the latter only 47'-0" with a roadway cantilevered on plate-girder floor beams. *Civil Engineering* magazine flattered the bridge by cropping the offset out of a photograph. The accompanying article noted that the Calumet River bridge was nearly a half-mile long. This length includes the deck truss approach spans (three, each 208'-0" long, on the west and three, each 178'-0" long, on the east) also designed by J. E. Greiner Company.

The deck truss spans continue east from the Calumet River bridge to about East 100th Street, a section designed by Hazelet & Erdal. Even though both horizontal and vertical curvature complicate the geometry of this section, its nine deck trusses are made continuous in groups of two and three. Concrete piers occur at the fixed end of each group, but from the Calumet River to the Indiana state line, all other supports are steel. Vertical steel bents under the 100th Street viaduct are riveted trusses, hinged at top and bottom. In the section east of 100th Street, also designed by Hazelet & Erdal, welded steel bents are the rule. The 106th Street viaduct's spans, continuous in groups of five, rest on three-legged rigid-frame bents. One- and two-legged variants support the ramps to and from Indianapolis Boulevard. As stated before, the Skyway's eastern end occurs at the Indiana state line, at which point traffic continues on a similar steel viaduct built by the Indiana Toll Road Authority.

The Skyway's many steel supports are atypical of highway bridge construction in the second half of the twentieth century. On other highways in the Chicago area, for instance, one usually finds concrete piers supporting steel plate girders. Because steel supports can be erected in less than a day, while ordinary concrete does not reach full strength for weeks after pouring, the faster pace of steel erection better fit the Skyway's tight construction schedule. Instead of separate contracts for concrete piers and steel girders, the Skyway's all-steel sections meant that a single contractor could work from foundation to deck. This prevalent use of steel attracted national attention. At the American Institute of Steel Construction (AISC) 1957 annual conference, Hazelet & Erdal presented a paper on their section of the Skyway design, highlighting the high-strength steels and welding details used. The 1959 article in *Civil Engineering* repeated much of this information, and also called attention to the hammer-head (T-shaped) piers on the Stony Island Avenue ramps.⁴³ Although a common feature on late twentieth-century highways, hammer-head piers were then a relatively new feature.⁴⁴

⁴² Hamm, "Calumet Skyway Toll Bridge," 162.

⁴³ Frederick A. Reickert, "Elevated Steel Highways in the Chicago Area," in *AISC National Engineering Conference Proceedings 1957* (New York: American Institute of Steel Construction, 1957); Hamm, "Calumet Skyway Toll Bridge."

⁴⁴ According to Patrick Harshbarger, historian with A. G. Lichtenstein Associates, e-mail correspondence with author, 30 July 1999, the first use of steel hammer-head piers is the 1940 Sikorsky Bridge over the Connecticut River between the Merritt Parkway and the Wilbur Cross Parkway. Concrete hammer-head piers began to appear in

CHICAGO SKYWAY TOLL BRIDGE HAER No. IL-145 (Page 16)

The ramps at Stony Island Avenue, like those at Indianapolis Boulevard and those since demolished at Michigan and Indiana avenues, have curves and grades suited to traffic traveling 45 miles per hour. These three pairs of high-speed ramp structures represent more than three miles of additional roadway (see Table 3). As described earlier, the Michigan-Indiana ramps functioned as an interim connection to downtown, and became somewhat obsolete when the Dan Ryan expressway opened. The Stony Island Avenue ramps, on the other hand, have yet to completely fulfill their intended purpose. Typical of many American cities after World War II, Chicago planned several inner-city highways that were never constructed. An expressway along Stony Island Avenue, according to one 1958 article about Chicago's Interstate highways, would be constructed "within the next decade" and be designated, along with Lake Shore Drive, as I-494. In addition to designing the Stony Island Avenue ramps for high-speed traffic, the section engineers also specified foundations that would accommodate a "future expressway underpass." The steel columns supporting the ramps, some of which reached a height of 49'-0", received partial concrete encasement to reduce their unsupported lengths.

A final set of high-speed ramps connect with Indianapolis Boulevard. Although the boulevard is not a limited-access highway, it does carry a heavy enough traffic load to warrant a high-speed ramp design. Like the Skyway viaduct from which they descend, the two ramps are plate-girder structures supported by welded rigid-frame bents. Where the ramps cross over Indianapolis Boulevard, the supporting bents have two out-rigger legs straddling the boulevard. Elsewhere, the bents are a hammer-head design. Although the Indianapolis Boulevard ramps are relatively short, their complicated geometry and welded construction merited discussion in the 1957 AISC conference proceedings.⁴⁷

the following decade.

⁴⁵ Hal Foust, "Officials Map Numbering System for Expressways Near Chicago," *Chicago Tribune*, 14 Dec. 1958, 1:25. This route also appears on a map in City of Chicago, Department of Public Works, "Accomplishments 1955-1956-1957" (Chicago, 1958), MRC.

⁴⁶ Hamm, "Calumet Skyway Toll Bridge," 163.

⁴⁷ Reickert, "Elevated Steel Highways," 12.

Table 3.	Elevated	entrance	and	exit ramp	structures	on	Chicago	Skyway.
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Name of Ramp Structure	Spans	Length (feet)	D = Designer S = Substructure F = Fabricator B = Builder	
Michigan AveIndiana Ave. (closed 1983, demolished 1996)	168 deck girder	10,400	D: Friedman-Kornacker Engineering (S: M. J. Boyle & Co. FB: Allied Structural Steel Co.	Co.
Stony Island Ave.	70 deck girder	5,509	D: H. W. Lochner & Co. S: M. J. Boyle & Co. FB: U.S. Steel Corp.	
106th StIndianapolis Blvd.	15 deck girder	770	D: Hazelet & Erdal S: Robert R. Anderson Co. FB: Bethlehem Steel Co.	
	Total	16,679		

Sources: DeLeuw, Cather & Co., "Skyway Toll Bridge System 1995 Annual Report" (Chicago, 1996), appendix A; ibid., "Calumet Skyway Toll Bridge Progress Report," No. 36 (1 Feb. 1958): 12-15.

The Long Road to Success

In typical Richard J. Daley style, an elaborate dedication ceremony marked the Skyway's opening. Programs distributed at the event featured a die-cut profile of the Calumet River bridge on the overleaf, which opened to reveal Daley's portrait and a table of "Skyway Facts and Figures." The program not only cited hard facts, however, but also extolled the Skyway's futuristic virtues. According to the lofty language, the Skyway "mak[es] possible almost literal flight on its six traffic lanes." Photographs in Skyway office files show the preparations for the event: bunting hung from the toll-booth canopies and a tourist information booth in the median south of the toll plaza. Another photograph shows Daley dropping a coin into the toll basket, with a school bus behind him. This backdrop is explained by an article in the Chicago *Tribune*. A student from the Jane A. Neil School for Crippled Children had written to Daley, asking permission for his school bus to be the first vehicle to travel on the Skyway, and his request was granted. Undoubtedly this was a publicity boon for the Daley administration. Like any dedication of a public project, the ceremony served to advertise the responsible parties as much as the structure itself. A builder's plate mounted in the vestibule of the service building listed the responsible city officials and consulting engineers (see Appendix).

Unfortunately for those responsible parties, the Skyway soon began to receive unwelcome negative publicity. Soon after its opening, it became evident that the Skyway's traffic load —

⁴⁸ City of Chicago, "Calumet Skyway Toll Bridge Dedication, April 16, 1958" (Chicago, 16 Apr. 1958), MRC.

⁴⁹ Foust, "Autos Begin Rolling Over Skyway Today," Chicago Tribune, 16 Apr. 1958, 1:1.

and therefore its toll revenue — would not meet expectations. For the next three decades, until it could earn enough money to pay interest on the construction bonds, the structure would be known as Chicago's "white elephant." The long struggle for financial success, which the Skyway achieved in 1989, was mostly due to overly optimistic traffic estimates. ⁵⁰ It is unclear how Coverdale & Colpitts had arrived at the original figure of 14.7 million vehicles per year, especially when the Indiana Toll Road (the primary motivation for constructing the Skyway) only projected 4 million on their road. ⁵¹ Local traffic between northwestern Indiana and Chicago could not possibly make up the difference.

DLC studied the problem upon the city's request, and generated a bevy of suggestions for minor improvements. These ranged from further traffic studies, to installing "trailblazer" signs, to personnel cuts.⁵² The city faithfully implemented these marketing techniques, instituted volume discounts for truckers, and employed some gimmicks as well. One example is the "Chicago Skyway Mobilgas Economy Run" of 30 August 1961, four months before the city's first interest payment on Skyway bonds was due. The U.S. Auto Club "supervised" a test of three routes between the Indiana border and O'Hare Airport, using three identical Chevy Impala sedans, and found the Skyway "the shortest, fastest and most efficient route." Given the small sample size and different drivers, the test was hardly scientific, but nonetheless well-publicized.⁵³ None of these efforts, however, could make up for a traffic load less than half that expected.

One popular explanation for low traffic counts during the Skyway's early years was that the last link, between State Street and the South Expressway, had not been constructed. DLC's 1959 report listed completion of the South (now Dan Ryan) Expressway among several "prospects for increased traffic." That would not occur until 1962, after the first interest payment came due. Rather than spend the Skyway's limited revenues on the connecting link, the city found other funding sources. By seeking designation of the Skyway as I-94, the city of Chicago obtained federal funds available for Interstate links with toll roads. The Interstate route number provided the additional benefit of identifying the Skyway as part of the nation's limited-access highway network. (The city had the number changed in 1965, to I-90, making the Skyway part of a longer and more heavily traveled Interstate route.)

⁵⁰ See Gillis, "'Shocking' Traffic Estimates Blamed for Financial Woes," *Chicago Sun-Times*, 4 Oct. 1992, 36.

⁵¹ U.S. Congress, House, *Chicago Skyway (Calumet Skyway Toll Bridge)*, 88th Cong., 1st sess., 1963, H. Rept. 798, 2.

⁵² DLC, "Calumet Skyway Toll Bridge Progress Report," No. 42 (1 Apr. 1959): 4-5, MRC.

⁵³ U.S. Auto Club, "Certificate of Performance," 30 Aug. 1961, office files, Chicago Skyway Toll Bridge, Chicago, Ill.

⁵⁴ DLC, "Calumet Skyway Toll Bridge Progress Report," No. 42 (1 Apr. 1959): 5.

⁵⁵ City of Chicago, City Council, Journal (23 Dec. 1960): 4131-32.

Still, the Skyway's toll booths could not bring in enough money to make the first interest payment on its construction bonds. Chicago newspapers ran a series of articles in late 1961 on the upcoming default. One five-part series, written by *Tribune* business columnist William Clark, expounded on reasons for the Skyway's low traffic counts. Although not yet complete, a competing toll-free Interstate route, via the Kingery and Calumet expressways, took traffic away from the Skyway.⁵⁶ (The Calumet Expressway's similar name, in fact, prompted a Chicago *Tribune* editor to suggest that the Calumet Skyway be renamed "Chicago Skyway.'⁵⁷) Completion of the Dan Ryan Expressway, once predicted to increase Skyway traffic, only exacerbated the competing route problem. The city raised tolls to 30 cents in 1962, and to 35 cents in 1967, but still could not meet interest payments.⁵⁸ Subsequent toll increases occurred not voluntarily, but in response to federal court orders. The Chicago Skyway Bondholders Protective Committee, a group of investors including New York's Emigrant Savings Bank, filed the first of a series of suits in 1972 to force toll increases.⁵⁹ The lawsuits continued more than two decades later, even after Chicago caught up with payments on Skyway bonds (see Table 4).

Table 4. Skyway toll rates, 1958-present.

Date	2-Axle Rate (\$)
16 Apr. 1958	0.25
15 Jan. 1962	0.30
June 1967	0.35
16 Aug. 1973*	0.50
15 Jan. 1978*	0.60
1 Jan. 1979*	0.75
25 Jul. 1980*	0.90
25 Aug. 1981*	1.00
1 Nov. 1987*	1.50
1 Jan. 1989*	1.75
Aug. 1993*	2.00

^{*} Toll increased by court order.

⁵⁶ William Clark, "Skyway Load Rises after Slow Start," Chicago Tribune, 2 Oct. 1961, 7.

⁵⁷ William Clark, "Skyway: Magnificent Structure with Problems," Chicago Tribune, 1 Oct. 1961, 2:12.

⁵⁸ Hal Foust, "City to Raise Skyway Toll to 30c Tonight," *Chicago Tribune*, 14 Jan. 1962, 1:21.

⁵⁹ Lee Strobel, "Court Orders Hike in Skyway Tolls," *Chicago Tribune*, 13 Dec. 1977, 3:1.

Steadily increasing traffic throughout the Chicago area now guarantees financial success for the Skyway, whose excess capacity has allowed it to absorb traffic from competing routes. The 1954 and 1957 bond issues have since been retired, with the aid of a 1994 bond refinancing. This latest series of bonds has also paid for recent capital improvements such as reconstruction of the Stony Island Avenue interchange, rehabilitation of bridges, and new toll collection systems. The Skyway, in fact, now generates revenue for the city of Chicago.

The Skyway Goes to Washington

Although the Skyway has since shed its "white elephant" image to become a valued revenue source, the 1960s and '70s saw a number of attempts to sell off the structure. Chicago first proposed a federal purchase of the Skyway in 1963. As stated before, the Federal Aid Highway Act of 1956 guaranteed a 90-percent federal share of new Interstate highway construction costs, which did not apply to the Skyway. Proposed House bills to reimburse highways then already constructed at states' expense, starting in 1958, resulted in nothing more than a cost estimate from the Secretary of Commerce. The Skyway had been constructed by a municipality rather than a state, a fact which, along with its bond default, gave it special status.

Through U.S. Representative John C. Kluczynski, Chicago had a listening ear in Congress. In 1963, the House Committee on Public Works considered a bill appropriating \$63.8 million for the federal government to purchase the Skyway and make it toll-free. Mayor Richard J. Daley spoke before the committee, defending Chicago's reimbursement claim against members whose home states had un-reimbursed highway mileage of their own. In its report, the committee recognized that the Skyway was "a hardship case" because Chicago built an "urgently needed" highway subsequently driven into default by competing free roads. This argument failed to win Congressional approval, however, because it would have set a precedent for reimbursing individual states for their pre-Interstate highway mileage; some legislators may have also been influenced by the committee's minority opinion that the Skyway was financially unsound from the beginning.

The next major push for removing tolls from the Skyway came from the Chicago Planning Commission in 1971. In addition to proposing additional exit ramps, the commission

⁶⁰ DLC, "Skyway Toll Bridge System 1995 Annual Report," 1-6.

⁶¹ Robert Erkenswick, Director of Operations for Chicago Skyway, interview by author, Aug. 1999.

⁶² U.S. Congress, House, Committee on Public Works, H. J. Res. 654, requested the report. H. R. 6303, a reimbursement appropriations bill proposed in 1959, failed to pass.

⁶³ House Committee on Public Works, *Chicago Skyway*, 8.

⁶⁴ House Committee on Public Works, *Chicago Skyway*, 10.

and a Chicago investment banking firm recommended that the city purchase the Skyway bonds.⁶⁵ Chicago representatives in the Illinois state legislature responded by introducing a "sneak" amendment allowing Chicago to use motor fuel tax funds for the purchase.⁶⁶ The city did not buy up the bonds, however. Instead, Daley went to Washington again in 1972, claiming that making the Skyway toll-free would cost less than reducing traffic congestion on the parallel free route via the Calumet and Dan Ryan expressways. Two U.S. Representatives from Illinois asked their colleagues to help defeat the proposal, calling it a "flat-out ripoff." Again, Congress refused to purchase the Skyway, not wanting to spend taxpayers' money in a way that might benefit bond holders.⁶⁷ Chicago repeated the effort in the state legislature a decade later, proposing that the Illinois Toll Highway Authority take over the Skyway.⁶⁸ This effort met with no success, leaving the Skyway in the city's hands to this day.

Responsibility for the Skyway has always rested with Chicago's chief financial officer, who serves as a liaison with bondholders. Because the Skyway is a unique part of the city's infrastructure, its operations and maintenance staff constitute discrete units, although affected by re-structuring of city agencies over the years. Not long after its opening, in December 1958, the Skyway became part of the Department of Streets and Sanitation. In 1981, responsibility returned to the Department of Public Works.⁶⁹ During his second term as mayor of Chicago, Richard M. Daley oversaw a reorganization of city agencies, creating the Department of Transportation in 1992. The new department's Bureau of Bridges and Transit assumed responsibility for the Skyway. At present, the Department of Streets and Sanitation conducts day-to-day operations such as snow removal and toll collection, while the Bureau of Bridges and Transit performs maintenance functions.⁷⁰

Conclusion

Because of its forward-looking design, the Chicago Skyway continues to serve as one of the primary links between northwestern Indiana and Chicago. The Calumet River bridge is among Chicago's most recognizable spans, being the city's highest and longest. But the entire Skyway is also significant for its engineering design. In addition to the Calumet River bridge,

⁶⁵ Ronald Koizol, "Finance Firm Asks Chicago to Purchase Skyway, Drop Tolls," *Chicago Tribune*, 1 Nov. 1971, 20.

⁶⁶ Charles Nicodemus and John Camper, "Skyway Bill Doubts Told by Ogilvie," *Chicago Daily News*, 21 Oct. 1971, 1.

⁶⁷ Harry Golden, Jr., and Michael Miner, "Daley Asks U.S. to Buy Skyway, Make It an Interstate," *Chicago Sun-Times*, 5 Oct. 1972, 7; Philip Warden, "House Denies Skyway Purchase," *Chicago Tribune*, 6 Oct. 1972, 1:1.

⁶⁸ Robert Davis, "Skyway Road Getting Rockier," Chicago Tribune, 2 Oct. 1987, 1:1.

⁶⁹ Chicago, City Council, Journal (19 Dec. 1980): 5073.

⁷⁰ Terry Levin, Director of Public Relations, Department of Streets and Sanitation, City of Chicago, telephone conversation with author, 7 Jan. 2000.

CHICAGO SKYWAY TOLL BRIDGE HAER No. IL-145 (Page 22)

the Skyway contains many examples of innovative steel work in its ramps, overpasses, and viaducts. Furthermore, the toll plaza and service building stepped ahead of their predecessors as a compact, integrated complex for highway administration and maintenance. All of these parts contribute to this unique artifact of mid twentieth-century highway legislation and engineering.

Fortunately the city did not defer maintenance during the Skyway's hard times, and with reconstruction efforts during the 1990s, its service life has been extended decades beyond that projected by its design engineers. Many of the original steel structures, especially the highly visible Calumet River bridge, remain. (First-generation bridge decks and railings have been removed, but because the Skyway is a working highway, it is unrealistic to expect that these be retained.) It seems that a current retrofit of the toll plaza will preserve the original toll canopies. After the Calumet River bridge, these are the Skyway's second-most defining feature. The pink neon letters atop the canopies have announced the bridge's name and greeted motorists since its opening. The Chicago Skyway Toll Bridge and its toll plaza are undoubtedly the city's symbolic eastern gateway for the motor age.

SOURCES CONSULTED

Published

Biles, Roger J. <i>Richard J. Daley: Politics, Race, and the Governing of Chicago.</i> DeKalb, Ill.: Northern Illinois Univ. Press, 1995.
"Car Toll on Skyway Rising to \$1 Aug. 25." Chicago Sun-Times, 11 Aug. 1981, 16.
Chicago Park District. <i>A Traffic Survey</i> , vol. 1, <i>Summary: Scope and Methods</i> . Chicago, 1938. Municipal Reference Collection, Chicago Public Library, Chicago, Ill.
<i>A Traffic Survey</i> , vol. 8, <i>A Problem in City Planning: Lake Shore Drive</i> . Chicago, 1938. Municipal Reference Collection, Chicago Public Library, Chicago, Ill.
Chicago Plan Commission. The Calumet Region of Metropolitan Chicago. Chicago, 1956.
The Outer Drive Along the Lake Front, Chicago. Chicago, 1929.
"Chicago Skyway Tolls Will Increase Jan. 1." Chicago Sun-Times, 24 Dec. 1988, 3.
City of Chicago. City Council. Journal.
Clark, William. "City Explores Means to Raise Cash for Interest on Skyway." <i>Chicago Tribune</i> , 3 Oct. 1961, Business:5.
"Retrospective Look at a Plan That Failed." <i>Chicago Tribune</i> , 2 Nov. 1961, Business:7.
"Skyway Bond Interest Default Could Do City's Credit No Good." <i>Chicago Tribune</i> , 4 Oct. 1961, Business:8.
"Skyway Load Rises after Slow Start." Chicago Tribune, 2 Oct. 1961, Business:7.
"Skyway: Magnificent Structure with Problems." Chicago Tribune, 1 Oct. 1961, 2:9.
"Skyway's Ills May Be Curable; Meeting Bond Payment Is Vital." <i>Chicago Tribune</i> , 5 Oct. 1961, Business:7.
Condit, Carl W. <i>Chicago</i> , 1930-70: Building, Planning, and Urban Technology. Chicago: Univ. of Chicago Press, 1974.
Darnell, Victor C. <i>A Directory of American Bridge-Building Companies, 1840-1900.</i> Occasional Publication No. 4. Washington, D.C.: Society for Industrial Archeology, 1984.
Davis, Robert. "Skyway Road Getting Rockier." Chicago Tribune, 2 Oct. 1987, 1:1.
DeLeuw, Cather & Co. "The Calumet Skyway." Bulldozer 10, No. 4 (Sep. 1958): 5-44.
"The Calumet Skyway Toll Bridge." Bulldozer 9, No. 7 (Oct. 1957): 2-9.

- DeLony, Eric N. *Landmark American Bridges*. New York: American Society of Civil Engineers, 1993.
- Duba, John G. "The Calumet Skyway." *Chicago Public Works Engineer* 1, No. 3 (Jul.-Aug.-Sep. 1957): 4-15.
- "15-Cent Auto Toll Increase OKd for Chicago Skyway." Chicago Sun-Times, 30 Nov. 1978, 3.
- Foust, Hal. "Autos Begin Rolling over Skyway Today." Chicago Tribune, 16 Apr. 1958, 1:1.
- . "City to Raise Skyway Toll to 30c Tonight." Chicago Tribune, 14 Jan. 1962, 1:21.
- _____. "Officials Map Numbering System for Expressways near Chicago." *Chicago Tribune*, 14 Dec. 1958, 25.
- Gillis, Michael. "Shocking' Traffic Estimates Blamed for Financial Woes." *Chicago Sun-Times*, 4 Oct. 1992, 36.
- _____. "Skyway Is Still a 'Financial Flop." *Chicago Sun-Times*, 4 Oct. 1992, 3.
- Golden, Harry, Jr., and Michael Miner. "Daley Asks U.S. to Buy Skyway, Make It an Interstate." *Chicago Sun-Times*, 5 Oct. 1972, 7.
- Hamm, R. C. "Calumet Skyway Toll Bridge." Civil Engineering 29, No. 3 (Mar. 1959): 162-3.
- Harris, George C. "Economy of Bridge Design." *Midwest Engineer* 12, No. 9 (Apr. 1960): 12-14.
- Koizol, Ronald. "Finance Firm Asks Chicago to Purchase Skyway, Drop Tolls." *Chicago Tribune*, 1 Nov. 1971, 20.
- Lewis, Tom. *Divided Highways: Building the Interstate Highways, Transforming American Life.* New York: Viking, 1997.
- Moon, Henry. *The Interstate Highway System*. Washington, D.C.: Association of American Geographers, 1995.
- Nicodemus, Charles, and John Camper. "Skyway Bill Doubts Told by Ogilvie." *Chicago Daily News*, 21 Oct. 1971, 1.
- Owen, Wilfred, and Charles L. Dearing. *Toll Roads and the Problem of Highway Modernization*. Washington, D.C.: Brookings Institution, 1951.
- Reickert, Frederick A. "Elevated Steel Highways in the Chicago Area." In *AISC National Engineering Conference Proceedings 1957*. New York: American Institute of Steel Construction, 1957.
- Shepherd, C. Owsley. Chicago Today, 16 Apr. 1973.
- "Skyway Toll Rises to 50 Cents Tuesday." Chicago Sun-Times, 11 Aug. 1973, 26.

- "Skyway Toll to Rise to 90 Cents for Cars." Chicago Tribune, 18 June 1980, 1:6.
- Strobel, Lee. "Court Orders Hike in Skyway Tolls." Chicago Tribune, 13 Dec. 1977, 3:1.
- "Summer or Winter The Chicago Skyway Is Your Best Route." Advertisement in *Illinois Truck News* 21, No. 3 (Mar. 1974): 17.
- U.S. Congress. House. [reimbursement] 85th Cong., 2nd sess., H. Doc. 301.
- _____. *Chicago Skyway (Calumet Skyway Toll Bridge)*. 88th Cong., 1st sess., 1963. H. Rept. 798.
- U.S. Congress. House. Committee on Public Works. *Reimbursement of Toll or Free Roads on the Interstate System: Hearings on H. R. 10422, 10921, 11365, 11533, and Other Bills.* 85th Cong., 2nd sess., 1958.
- _____. Highway Reimbursement: Hearings on H.R. 6303. 86th Cong., 1st sess., 1958.
- ______. Amendment to Federal-Aid Highway Act of 1958 to Extend Cost Estimates for Completing Interstate System and Reimbursement Recommendations for Certain Highways on the Interstate System: Hearing on H. R. 12808 and H. J. Res 654. 85th Cong., 2nd sess., 1958.
- _____. Subcommittee on Roads. *Chicago Skyway: Hearings on H.R. 6289 and Related Bills*. 88th Cong., 1st sess., 1963.
- Warden, Philip. "House Denies Skyway Purchase." Chicago Tribune, 6 Oct. 1972, 1:1.

Unpublished

- Brinskelle, Frank, engineer with Bureau of Bridges and Transit, Chicago Department of Transportation. Interview by author, August 1999.
- DeLeuw, Cather & Co. "Skyway Toll Bridge System 1995 Annual Report." Chicago, 1996. Bureau of Bridges and Transit, Chicago Department of Transportation, Chicago, Ill.
- Erkenswick, Robert, Director of Operations for Chicago Skyway Toll Bridge. Interview by author, August 1999.
- Harshbarger, Patrick, historian at A. G. Lichtenstein Associates. E-mail correspondence with author, 30 July 1999.
- Hartray, James. "Chronology of Major Skyway Milestone Events." Typescript, 2 Mar. 1999. Office files, Chicago Skyway Toll Bridge, Chicago, Ill.
- U.S. Auto Club. "Certificate of Performance," dated 30 Aug. 1961. Office files, Chicago Skyway Toll Bridge, Chicago, Ill.

CHICAGO SKYWAY TOLL BRIDGE HAER No. IL-145 (Page 26)

Located in Municipal Reference Collection, Chicago Public Library

City of Chi 195	icago. "Calumet Skyway Toll Bridge Dedication, April 16, 1958." Chicago, 16 Apr. 58.
	Travel Swiftly, Safely on Chicago's New \$101,000,000 Toll Bridge, Opening April 1958: Calumet Skyway Bridge." Map, n.d.
	City Council. Committee on Traffic and Public Safety. "Limited Ways: A Plan for the eater Chicago Traffic Area." Chicago, Dec. 1933.
Cor Pre	icago. City Council. Committee on Traffic Regulation and Public Safety. Submittee on Two-Level Streets and Separated Grades. "A Memorandum and diminary Report with Reference to Elevated Through Highways for the Chicago stropolitan Area." Chicago, 1928.
	A Further Preliminary Report with Reference to Elevated Through Highways for the icago Metropolitan Area." Chicago, May 1929.
City of Chi	icago. Department of Public Works. "Accomplishments 1955-1956-1957." Chicago 58.
•	icago. Department of Superhighways. "A Comprehensive Superhighway Plan for the y of Chicago." Chicago, 30 Oct. 1939.
DeLeuw, C	Cather & Co. "Calumet Skyway Toll Bridge Progress Report." Chicago, monthly.
	Report on Calumet Skyway Toll Bridge, City of Chicago: Engineering Studies and imates." Chicago, Nov. 1954.

APPENDIX: Builder's Plate

The builder's plate is located inside the vestibule of the service building:

CALUMET SKYWAY TOLL BRIDGE CITY OF CHICAGO RICHARD J. DALEY MAYOR

BUILT BY

DEPARTMENT OF PUBLIC WORKS GEORGE L. DEMENT COMMISSIONER JOHN G. DUBA . . . ADMINISTRATIVE ENGINEER

 \Diamond \Diamond \Diamond

JOHN C. MELANIPHY . CORPORATION COUNSEL JOHN F. WARD PURCHASING AGENT CARL H. CHATTERS COMPTROLLER

 $\Diamond \quad \Diamond$

DELEUW, CATHER & COMPANY CONSULTING ENGINEERS

 \Diamond

SECTION ENGINEERS

ALFRED BENESCH & ASSOCIATES A. J. BOYNTON & COMPANY CONSOER, TOWNSEND & ASSOCIATES HAZELET & ERDAL FRIEDMAN-KORNACKER ENGINEERING COMPANY INC. J. E. GREINER COMPANY H. W. LOCHNER & COMPANY

1955-1958