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UNION ELEVATED RAILROAD,
STATE/LAKE STATION
(Union Elevated Railroad,
State/Lake Street Station)
State Street and Lake Street
Chicago
Cook County
Illinois

HAER No. IL-1-H

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Midwest Regional Office
1709 Jackson Street
Omaha, Nebraska 68102

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HISTORIC AMERICAN ENGINEERING RECORD

UNION ELEVATED RAILROAD, STATE/LAKE STATION (Union Elevated Railroad, State/Lake Street Station)

HAER No. IL-1-H

Location: State and Lake Streets, Chicago, Cook County, Illinois

Present Owner: Chicago Transit Authority

Present Use: Rapid Transportation

Significance: Significant in the history of American industrial archaeology, the Union Loop Elevated is also important for its association with financier and traction magnate, Charles T. Yerkes and for its role in defining and shaping Chicago's downtown. According to Theodore Anton Sande, author of *Industrial Archeology: A New Look at the American Heritage*, to "the industrial archeologist, the Chicago Loop provides an ideal case study" (1976, 113). Having made its first run in 1897, the Union Loop Elevated is one of only a few extant examples of transit systems that have remained in continuous operation for nearly a century. A "massive web of riveted steel girders and shining tracks," the Loop Elevated was designed by John Alexander Low Waddell, a Canadian-born engineer who played an important role in the history of American bridge design.

PART 1. HISTORICAL INFORMATION

A. Physical History

1. **Date of Erection:** 1895. The State/Lake Station predates the Union Loop Elevated as such, and was the second eastern-most elevated station along the Lake Street Elevated Railway line, itself the second oldest elevated system in Chicago. The Lake Street section was thus the segment of the Loop first completed before it came under Yerkes' ownership. Early architectural drawings reveal, in fact, that the State/Lake Station was never part of Yerkes' original Union Loop Elevated corporation, but instead was incorporated within the Yerkes'-owned Northwestern Elevated Railroad (Moffat: 1995)

2. Architect: The designer of the Loop Elevated and the State/Lake station was John Alexander Low Waddell (1854-1938), Consulting Engineer of Kansas City, Missouri. For additional information on Waddell, see HAER No. IL-1.
3. Builder, contractor, suppliers: Construction materials acquired from Phoenix Steel Company, Phoenix Pennsylvania. (CTA 1981, 3) According to the drawings these included not only fabricated metal, but also wood materials for the station house interiors.. (CTA Engineering Archives, reviewed by E. Goldsmith September 3, 1996).
4. Original plans and construction: Some of original plans for the State/Lake Station were developed in 1893 and 1894 by John Alexander Low Waddell. On these, the client's name is listed as the Lake Street Elevated Railway. The drawings which bear Waddell's signature relate to the structure of station house itself and are less concerned with substructural elements, i.e. the way in which the system was constructed at street level. The drawings related to substructural elements are anonymously attributed to the engineering department of the client railway firm itself.

A 1903 drawing, attributed to the engineering department of the Northwestern Elevated Railroad (a Yerkes concern by this time), already indicates proposed modifications of existing platforms and station houses. This drawing calls for the removal of certain architectural features and an overall streamlining of the station houses. Yet the features designated for removal are not the same as those drawn by Waddell, suggesting that Waddell's plans were never completely adopted at the State/Lake Elevated Station. The drawings are on microfilm in the archives of the Chicago Transit Authority (CTA Archives, Engineering Dept., reviewed by Julia Schneiderman July 1, 1994).

As with all of the drawings, it is unclear the extent to which proposed alterations and additions were actually implemented. The accompanying photographic documentation intends, among other goals, to show some of the modifications, phases in construction and materials replacement that resulted from the architects/engineering drawings as they were executed.

5. **Alterations and Additions:** The State/Lake Street Station has had significant alterations over the years, however, its overall appearance and character is relatively intact. A recent site inspection (April, 1997) revealed new construction on the platforms, whose drawings have not yet been added to the microfiche archive collection, especially new brushed metal partitions and automated ticket-taking turnstiles. In fact, several episodes of materials replacement that were never documented in the planning phase can nonetheless be observed (See Attached Photographs). Below is a chronological list of the more extensive alterations to the station that were documented:

1902: Engineering sketches detail a fracture in the old stone foundation below an existing staircase and proposed a new supporting element. (CTA Engineering Archives, reviewed by E. Goldsmith, 16 October 1996)

1903: The north and south platform station houses were modified and scaled down, using materials that were more durable, less ornate. Provisions were made for public amenities such as washrooms and inside newsstands. (CTA Engineering Archives, reviewed by E. Goldsmith 16 October 1996).

1910-1922: Within this twelve year time span, drawings detail proposed work to extend the east and west platforms of the State/Lake Street Station. This corresponds to the system-wide program of platform expansion, as the popularity of the Elevated system in the Loop grew, a demand was created for longer trains at peak rush hour periods. As with the other platform extensions, the elongated platforms were not intended to increase the size of the station houses but merely to facilitate the movement of passengers when long trains were pulled up. (CTA Engineering Archives, reviewed by E. Goldsmith 16 October 1996).

PART II. ARCHITECTURAL INFORMATION

A. General Information:

1. Engineering Character: The State/Lake Station is of engineering merit based on four criteria. First, the station is of merit in the history of American industrial archaeology. Second, it is of merit for its association with financier and traction magnate, Charles T. Yerkes. Third, it is of merit for its role in defining and shaping Chicago's downtown. Fourth, from its inception, the State/Lake Station was a key portion in a system that serves as an extant example of the nation's second oldest elevated rail mass transit system.

2. Condition of Fabric: The condition of the fabric at the State/Lake Station is fair to poor. In general, the material exhibiting the greatest extent of deterioration is that used for roofing, a function of exposure to the elements more than as a result of prolonged use by commuting passengers.

3. Summary Description: The State/Lake Station is a single level station that is elevated over the street by steel buttressing girders. The elevated is divided into two portions, the substructure and the superstructure. The substructure consists of a foundations, tress elevations, transverse sections, and a structural system. On older drawings, the substructure is referred to as the "subway." It is designated as substructure in this report to distinguish it from the underground subway mass transit system that was built in the 1930s and 1940s.

The superstructure consists of the platform level. Although structurally unrelated to the surrounding buildings, it is clear from both profile and elevation perspectives that the station house -- at least the extant north station house -- bears an intentional visual relationship to the adjacent architecture. With an unbroken sight line between the buildings to its east and west, the station house gives the appearance of belonging to the architectural cityscape as much as it does to an elevated rail system, providing a visual "bridge" between buildings.

B. Description of Substructure:

1. Overall Dimensions: Not applicable. The State/Lake Station's substructure constitutes an integral and dependent segment of the overall Union Loop elevated substructure. As such, the State/Lake Station's overall dimensions are not applicable because they cannot be considered independent of the entire system.
2. Foundation: The structural system is anchored in the street below the Union Loop elevated system and is surrounded by asphalt and/or concrete.
3. Structural system: The station is supported by a steel buttressing girder system. This buttressing girder system in part consists of vertical I-beam sections that are rooted into the street below and surrounded by asphalt. These vertical I-sections measure 1'3" x 1'4 1/2". The vertical I-sections directly support closely spaced flat I-beams. These closely spaced flat I-beams in turn form part of the inverted tress elevation. Specifically, the elevated tracks are superimposed on the tress elevations which in turn is supported by the vertical I-sections. Additionally, the first level of the station is framed within the buttressing system, crossing the center line of the tracks at the street intersection.

C. Description of Superstructure:

1. First level: The building's first level interior is in fair condition. It is apparent that there has been some attempt to repair damages throughout the years. Perhaps due to budget constraints, the repairs and modifications are generally partial and therefore reveal older building episodes alongside the newer ones.

The first level of the station is accessed via stairways which originate from the street level. There is one, triple-level staircase on each corner of the State/Lake intersection. Each of these four staircases features fifty-two stairs leading from the concrete sidewalk pavement to the platform level of the station. All staircases are covered in corrugated fiberglass. These steps measure 4'7" wide x 9" deep x 7" high.

The platform consists of symmetrical north and south platforms where all ticketing and passenger activity takes place. On the south platform, however, a greater degree of earlier construction is immediately visible: the central station house, comprised of wood is largely intact on this platform and the curvilinear metalwork evident in the trusswork supporting the hip roof canopy can be seen from inside as well as out, from a ground level view looking north along State Street. The north platform's central station house exterior facade, on the other hand, has been entirely covered over with metal and fiberglass paneling even though the north platform station house walls display the same interior appearance as do those on the south platform.

D. Site and Surroundings:

1. General Setting and Orientation: The State/Lake Station is located in the heart of downtown Chicago and contributes to the definition of the Loop area. Regional mass transit stations, buses and the underground subway system are within close proximity to the elevated trains at State and Lake Street. State Street the heart of Chicago's central downtown shopping area, and has enjoyed this commercial preeminence for well over a century. Some of the stores and office buildings which line State Street carry enormous architectural significance in the history of American early modern architecture. The State/Lake elevated station defines the northernmost edge of this district, overlooking State Street.

PART III. SOURCES OF INFORMATION

A. Architectural Drawings and Photographs:

Chicago Transit Authority Archives, Engineering Department, drawings on microfilm and photo-reproducible drawings made available by mssrs. Clifford Hayes and Moses Sampson, reviewed by E. Goldsmith September 3, 1996. *N.B.*: Specific drawings that were relevant to this document and were consulted but could not be included because the reproduced copies were too large for HAER submittal format included the following: 1) "*Lake Street Elevated Station, Chicago, IL: Cross-Section & Through Section.*" Kansas City, Missouri: J. A. L. Waddell, August, 1894; 2) "*Lake Street Elevated Railway Extension, Chicago, Ill.: Cross-Section Through Platform.*" Kansas City, Missouri: J. A. L. Waddell, August, 1894; 3) "*Lake Street Elevated Railway Extension, Chicago, Ill.: Elevation and Half-Cross Section of Station.*" n.p.: J. A. L. Waddell, October, 1894; 4) "*Layout of station at State Street, Wabash Avenue Extension: Lake Street R.R.*;" Chicago, IL: J. A. L. Waddell, September, 1894; 5) "*Layout of station-columns and stairways at State Street Station, Wabash Avenue Extension; Lake Street Elevated Railroad.*" Chicago, IL: Charles V. Weston, Chief Engineer, November, 1894; 6) "*Union Elevated Railroad: Alterations for Lake St. Station at State Street: Roof Plan.*" Chicago, IL: A. M. Hedley, Consulting Architect, April 1897.

Microfiched and original drawings are available to the public via the collection maintained by the Chicago Transit Authority's Engineering Department, 120 N. Racine Avenue, Chicago, Illinois, 60607. Because better quality documents that are easily accessible to the public exist at this repository, it was decided that reproductions would be an unnecessary inclusion to this document.

Chicago Transit Authority Library, photographs and reports made available by CTA staff librarian Violet Brooks, reviewed by E. Goldsmith September 4, 1996.

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Prepared by:

Archaeological Research, Inc.
900 West Jackson Boulevard, Suite 6E
Chicago, Illinois 60607

PART IV. PROJECT INFORMATION

This project was undertaken by the City of Chicago as it fulfilled Section 106 compliance requirements for a project that will affect the State/Lake Station. The station is slated for demolition. The firm of Ross-Barney Jankowski contracted Archaeological Research, Inc. for the HAER documentation. Key project personnel included Elizabeth Goldsmith, historical researcher, Karen Poulson project manager, Ron Gordon, photographer, and David Keene, principal investigator.