

Union Elevated Railroad, Madison/Wabash  
Avenue Station  
Madison Street and Wabash Avenue  
City of Chicago  
Cook County  
Illinois

HAER No.

IL-1-I

HAER  
ILL  
16-CHIG,  
108I-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

**HISTORIC AMERICAN ENGINEERING RECORD**  
Rocky Mountain System Support Office  
National Park Service  
P.O. Box 25287  
Denver, Colorado 80225-0287

HISTORIC AMERICAN ENGINEERING RECORD  
UNION ELEVATED RAILROAD MADISON/WABASH STATION

Madison and Wabash  
City of Chicago  
Illinois

HAER No. IL-1-I

HAER  
ILL  
16-CHIG,  
108I-

Location: Madison Street and Wabash Avenue, 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 I. HISTORICAL INFORMATION

A. Physical History

1. Date of Erection: 1897
2. Architect: The designer of the Loop Elevated and the Madison/Wabash 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 Pencoyd Iron Works, Pencoyd, Pennsylvania. (CTA 1981, 3). Some of the architectural/engineering drawings specify re-use of materials from older stations in the process of demolition. (CTA Engineering Archives, reviewed by E. Goldsmith September 3, 1996).

4. **Original plans and construction:** A single, unsigned "type" drawing appeared as early as 1895, for all of the Wabash stations, depicting fanciful and ornate Art Nouveau metal grillwork, glass canopies and a central, arched entrance with surrounding staircases facing inward toward the intersection. By 1896, a more complete set of drawings for the Madison Street Station was produced by J. A. Waddell which became the working specifications from which the actual stations were built. The client's name is listed as Northwestern and Union Elevated Railroad, Chicago, Illinois. The drawings are on microfilm in the archives of the Chicago Transit Authority (CTA Archives, Engineering Dept., reviewed by Julia Schneiderman July 1, 1994).

It is unclear whether or not all of the planned construction and modification was implemented. For example, one of Waddell's 1896 drawings shows the dimensions and locations of double height exit stairs leading directly from platform to curbside level. At present, however, only four sets of stairs leading from curbside to the first level, or mezzanine crossover corridor, are in evidence. 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 Madison/Wabash Street Station has had numerous alterations over the years, however, its overall appearance and character is quite intact. Additions to the structure are clearer to document than removal of structural elements because they require drawings. The existing stations appears more massive at the west platform than the east, i.e., more massive from "inside" the Loop than from "outside" it because a portion of the east platform has been removed. (Mike Wimmer, McDonough & Associates, Engineers, personal conversation: September 1996). The CTA Engineering Department Archives do not include visual documentation of the removal of the eastern section of the east station house. Below is a chronological list of the more extensive alterations to the station:

1903: Platform extensions were added to the station.  
Platforms were lengthened to accommodate longer trains

in response to growing ridership demands. The platform extensions were symmetrical on both east and west sides and on the north and south sides of the platform level waiting areas, but were only intended for passenger traffic. Without the overhead canopies and seating areas of the main platform sections, these overflow areas discouraged loitering and were intended to provide access to and from trains during peak periods when longer trains were pulled up the station. During this same year, Schlesinger & Mayer department store planned for a corridor between one of its southeast entrances and a northwest platform entrance. There is no indication that an original corridor even existed at that date, nor that this alteration was ever executed. The planned access to private retail emporia proved controversial, as the City and the Union Consolidated fought over franchise privileges (Moffat, 1995: 177-181; CTA Archives, Engineering Department, reviewed by E. Goldsmith, September 3 1996).

- 1908 Drawings by B. B. Schrager show modifications of the interior of the East platform station including the removal of the north ticket booth and new handrails.
- 1913-1933 A series of changes were made to the Union Loop Elevated to allow for through-routing and unified service with free transfer between lines. These changes reflected the immense popularity of the Loop elevated train lines, civic recognition of the importance of the Loop trains to the downtown economy, and the profitability of the elevated lines which allowed for greater uniformity of design and construction from one station to the next.
- In addition, the advent of automobile traffic required the removal of structural columns along Wabash Avenue to allow for wider vehicle lanes beneath the tracks. As revealed in drawings from this period, these modifications included provision for turnstiles and partition gating to improve traffic flow at the mezzanine level, centralized ticketing, widening of existing stairways and the erection of an overhead transfer bridge which is suspended from the station house roofs on the

south side of the Madison Street Station. Drawings from this period specify replacing existing materials with those having greater durability (e.g., asphalt floor and stair tread covering over wood). By 1924, drawings indicate that the station was no longer held by the Northwestern Elevated, but instead as part of the larger Chicago Rapid Transit Company. (City of Chicago September 1981, II-4; CTA Archives, Engineering Department, reviewed by E. Goldsmith September 3, 1996).

ca. 1927 Holabird and Roche, Architects, proposed a bridge extending from the southeast mezzanine level of Mandel Brothers Department Store to the mezzanine level of the elevated station. Other drawings from this year depict the new locations of columns in relations to pavement modification along the the northeast corner of the intersection of Madison and Wabash. (CTA Engineering Archives, reviewed by E. Goldsmith, September 3, 1996).

1967 A program of system-wide modernization included at the Madison Street Station replacing multi-paned glass windows with corrugated fiberglass windbreaks. In this year, the east station house was demolished and the east portion of the east platform truncated. (City of Chicago September 1981, II-4)

## PART II. ARCHITECTURAL INFORMATION

### A. General Information:

1. Engineering Character: The Madison/Wabash 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 Madison/Wabash 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 Madison/Wabash station is fair to poor. Peeling paint and oxidized and corroded metal are in evidence throughout the station, especially the thinner metal roofs, but the overall condition does not appear to detract from its viability as a functioning structure.

3. Summary Description: The Madison/Wabash Station is a two 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 two levels. The first, or mezzanine, level serves as a transitional level for elevated passengers. The second level, or platform level, consists of two mirrored platforms separated by the elevated tracks. One platform serviced the Madison/Wabash Station to the west, the mirror platform serviced the Madison/Wabash Station to the east. On the east and west platforms were two centrally located station houses with adjacent canopied shelters. Over the years, the station houses have provided some degree of comfort and shelter from the elements, and the earliest architectural drawings make provisions for public amenities. On each of the platforms are conveniences such as benches in wood and metal, telephones and wastebaskets. The east platform no longer features an enclosed station house and waiting area. The west platform's station house is still in use for office and possible storage facilities, but is inaccessible to passengers. In general, the integrity of the Madison/Wabash Station remains intact despite general maintenance deterioration and numerous minor alterations (see Alterations and Additions Section for discussion).

B. Description of Substructure:

1. Overall Dimensions: Not applicable. The Madison/Wabash Station's substructure constitutes an integral and functionally dependent segment of the overall Union Loop elevated substructure. As such, the Madison/Wabash 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. As with the other Wabash Avenue stations that sit directly above street intersections, four I-beam columns are anchored into the sidewalk pavement, with two additional western columns supporting the west station house under its north and south corners, overhanging the pedestrian intersection and adjacent pavement along the west side of the Wabash at the Madison intersection. 1890s drawings indicate four additional columns positioned within the intersection itself. Today, only six of the eight columns remain.

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. The second level is supported and extended out from the buttressing system.

C. Description of Superstructure:

1. First level: The building's first level is in very poor condition. The ceiling is incomplete, layers of peeling paint with areas of heavy oxidation. It is apparent that there has been some attempt to repair damages throughout the years. In general, repairs have been conducted piecemeal but usually with an attempt to increased durability of materials.

The first level of the station is accessed via stairways which originate from the street level. There is one staircase on each corner of the Madison & Wabash intersection. Each of these four staircases features twenty-five stairs leading from the concrete sidewalk pavement to mezzanine, or first level, of the station. These steps measure 4' x 11" x 7". Two turnstiles, that serve as exits from the second level, exist on the west and north sides of the mezzanine level. In general, the entire first level serves as a transition bridge that provides access to the east and west bound trains. The first level provides this access above the street level and reduces passenger and vehicle traffic at the Madison/Wabash intersection. The passageway that accesses east to west halves of the station

is located at the south side of the mezzanine, while the ticketing area, with two booths and gates, half-height automatic ticket turnstiles, are located in the middle and northern section of the mezzanine. This ticketing area and four sets of stair to the platform are partitioned from the corridor with floor to ceiling height metal grillwork. The girders and columns themselves also provide structures from which traffic lights and signs are hung and as supports from which window and masonry cleaning equipment is suspended.

Some traces of original decoration are in evidence, especially near the top entrance to the southwest stairs. Wall tile is executed in 4" x 4" raised box floral design in an alternating pattern, while ceiling decoration is carried out on a larger scale (8" x 8").

The condition of these walls is fair; peeling paint has exposed the cast iron beneath, which has become badly oxidized. There are no exterior windows that are used by passengers on the first level of the station. There are, however, half walls, constructed in either plywood or fiberglass. The top half of these walls has been left open for ventilation.

2. Second level station: The second level is in poor condition. Roof oxidation and corrosion is severe. This level is laid out approximately the same on the north and south side. There are no longer any ticketing facilities on the second level. There are three benches on the west platform and two on the east. Plexiglas partitions around benches are all that remain of enclosed shelters for seated passengers. The roof of the station is slanted at each side and meets at a point in the middle. It is made of corrugated sheet metal. The roofs that cover the stairways are flat, slant down towards the street and are also made of corrugated sheet metal. The roofs that cover the stairs are in poor condition, the paint is peeling and the corrugated sheet metal is heavily oxidized.

At the south end of the train platform there is a pedestrian transfer bridge that connects the west bound train platform to the east bound train platform. This pedestrian transfer bridge crosses over the elevated tracks. The pedestrian transfer bridge allows passengers to switch train direction with paying an additional transfer fee.

The transfer bridge has twenty steps leading up the first landing, then four steps leading up to the actual bridge. The handrails on the outside of the staircase are wood and rail running up the middle of it is metal. The floor is wood slats. A metal swing gate is located in the middle of the bridge. There



are six fluorescent lights on the roof of the bridge and two on the roof of the staircase. The roof covering the stairs and bridge is made of corrugated sheet metal. On the outsides of the bridge at the center line are two vertical panels of corrugated sheet metal jutting out at right angles. These panels appear to provide some measure of stabilization from vibration when trains passed below.

D. Site and Surroundings:

1. General Setting and Orientation: The Madison/Wabash 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 Madison and Wabash Avenue. In particular, this station has enjoyed long-standing association with department stores that have served as commercial anchors in the central downtown business district for a century. At present, the Madison/Wabash station is girded by commercial buildings and parking garages.

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.

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

B. Bibliography:

*A History of the Yerkes System of Street Railways (from the Earliest Organization of the Horse Railway to the Present Development of Cable Electric and Elevated Railway of the North and West Districts)* Chicago, 1897.

Bach, Ira J. and Susan Wolfson. *A Guide to Chicago's Train Stations Past and Present*. Athens, Ohio: Ohio University Press, 1986.

Brown, Kathi Ann. *Diversity by Design: Celebrating Seventy-Five Years of Howard Needles Tammen & Bergendoff 1915-1989*. Kansas City: HNTB,

1989.

"Chicago Elevated Terminal Railway Ordinance," as passed by the City Council of the City of Chicago, November 5, 1981 and approved by His Honor the Mayor, November 9, 1981, by its President, Joseph T. Torrence and attested by its corporate seal.

Chicago Rapid Transit Company. Annual Reports for the years 1924, 1925, 1926, 1928, 1929, 1931, 1933, 1934.

Chicago Transit Authority. "The Story of the Chicago Rapid Transit Lines: The "L" System." *37th Anniversary Year Book of Division 308*, Elevated Railway Employees, reprinted May 1, 1940.

City of Chicago. "The Chicago Union Loop Elevated Structure: Reasons for Not Listing on the National Register of Historic Places" Submitted to the Illinois Historic Sites Advisory Council, October 13, 1976.

City of Chicago and Chicago Transit Authority. *Master Plan for the Loop Elevated: Rehabilitation and Historic Preservation*. September, 1981.

Clement, Dan. HAER IL-1 "Written Historical and Descriptive Data for the Union Elevated Railroad." *Historic American Engineering Record*, United States Department of the Interior, National Park Service, 1983.

Cudahy, Brian J. "Chicago's Early Elevated Lines and the Construction of the Union Loop," *Chicago History* Volume VIII, Winter 1979-80, pp. 194-205.

Cudahy, Brian J. *Destination Loop: The Story of Rapid Transit Railroad in and Around Chicago*. Brattleboro, VT: The Stephen Green Press, 1982.

Duis, Perry. "Whose City? Part Two," *Chicago History* Volume XII, No. 2, 1983.

*The Economist. Street Railway Supplement*. 1896.

Hayes, Dorsha B. *Chicago: Crossroads of American Enterprise*. A Cities of America Biography. New York: Julian Messner, Inc., Publishers, 1944.

Hirsch, Susan E. and Robert I. Goler. *A City Comes of Age: Chicago in the 1890s*. Chicago: The Chicago Historical Society, 1990.

Hood, Clifton. *722 Miles: The Building of the Subways and how they Transformed New York*. New York: Simon & Schuster, 1993.

*The Inter-Ocean*. "Lease of Loop is Signed: Elevated Trains will Soon be Running Down Town," Volume XXVI. Number 193, Chicago, Sunday, October 8, 1897.

*The Lakeside Annual Directory for the City of Chicago*. Chicago: Illinois: The Chicago Directory Company, 1897, 1898.

Malone, Dumas, ed. *Dictionary of American Biography*, Volume XX, New York: Charles Scribner's Sons, 1936.

Mayer, Harold M. and Richard C. Wade. *Chicago: Growth of a Metropolis*. Chicago: University of Chicago Press, 1969.

Missouri Highway and Transportation Department, "Written Historical and Descriptive Data for the Armour, Swift, Burlington Bridge (A.S.B.); Winner Bridge; Missouri River Bridge; Fratt Bridge; North Kansas City Bridge," *Historic American Engineering Record*, United States Department of the Interior, May, 1982.

Miszczuk, Edward J. "Fratt Bridge; Armour-Swift-Burlington Bridge," National Register of Historic Places nomination form, National Park Service, United States Department of the Interior, 1976.

Platt, Harold L. "Samuel Insull and the Electric City," *Chicago History*, Volume XV, No. 1, Spring 1986, pp. 20-35.

Sande, Theodore Anton. *Industrial Archeology: A New Look at the American Heritage*. Brattleboro, VT: The Stephen Greene Press, 1976.

Sinkevitch, Alice. *ALA Guide to Chicago*. San Diego: Harcourt Brace & Co., 1993.

Weber, Harry P. "An Outline History of Chicago Traction," (compiled for Chicago Railways Co. and Walter J. Cummings and Guy A. Richardson, Its Receivers and Chicago City Railway Co., Calumet & South Chicago Railway Co., and Edward E. Brown and Harvey B. Fleming, Their Receivers). Chicago, 1936.

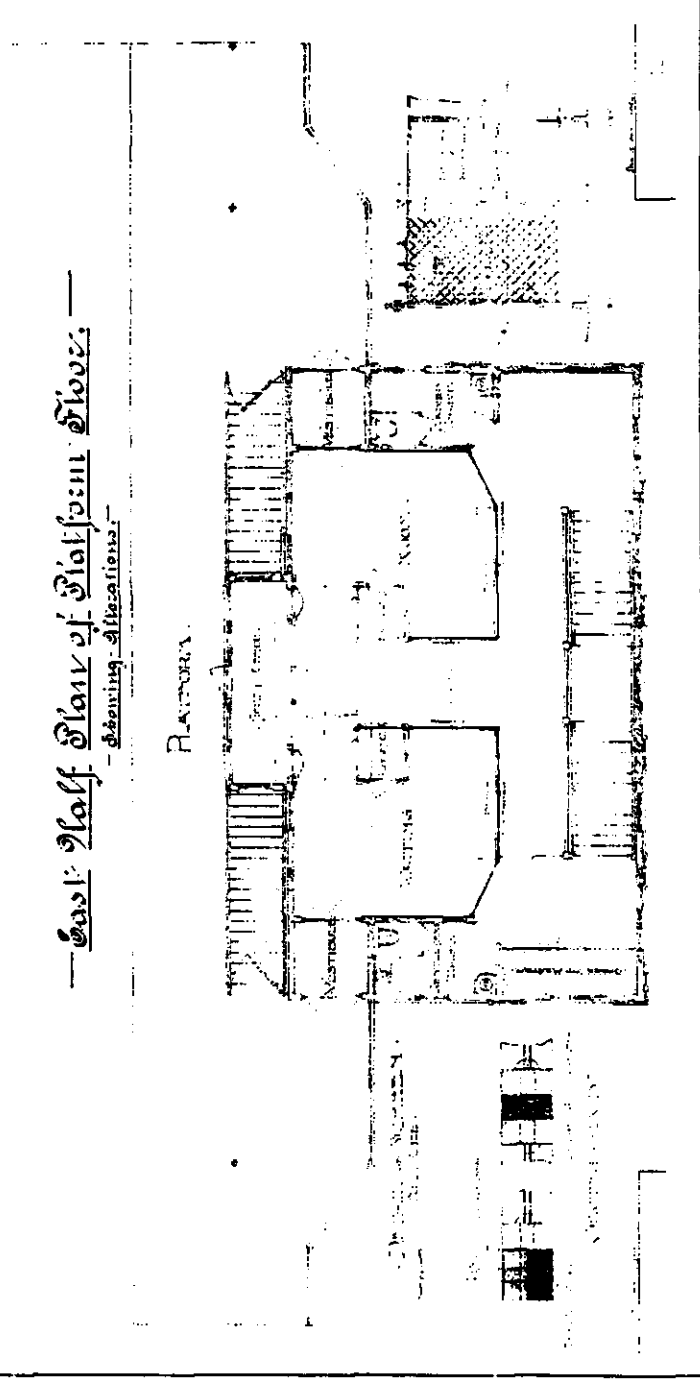
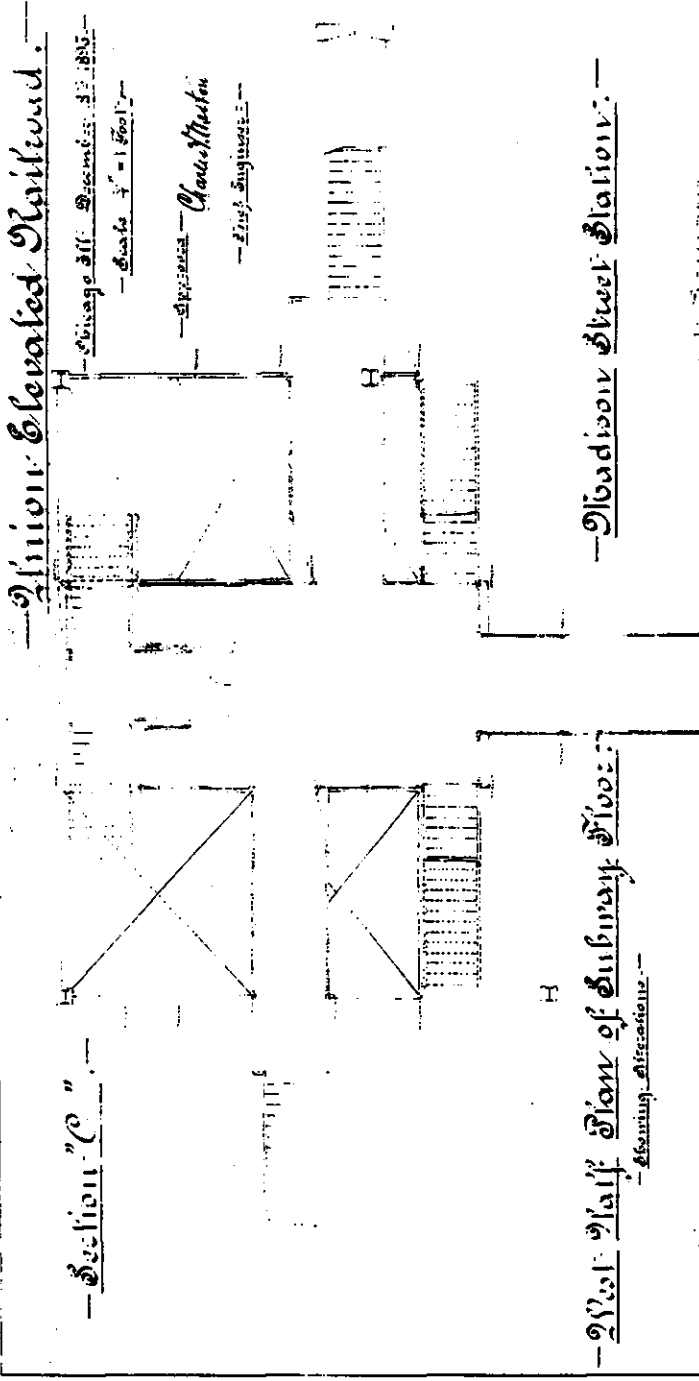
Weese, Harry. "Chicago Loop Elevated," National Register of Historic Places nomination form. National Park Service, United States Department of the Interior, 1978.

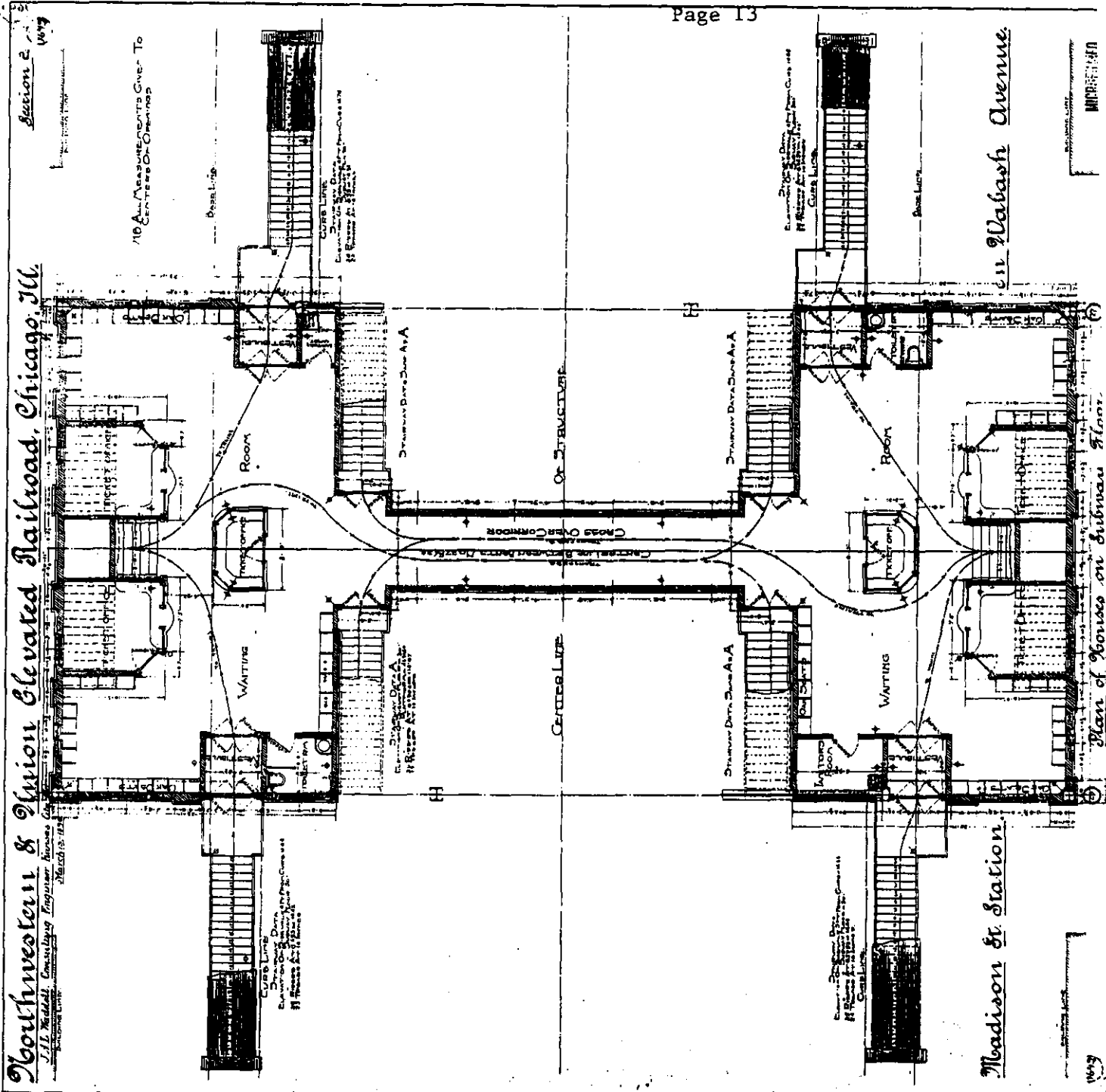
Prepared by:

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 Madison/Wabash 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.





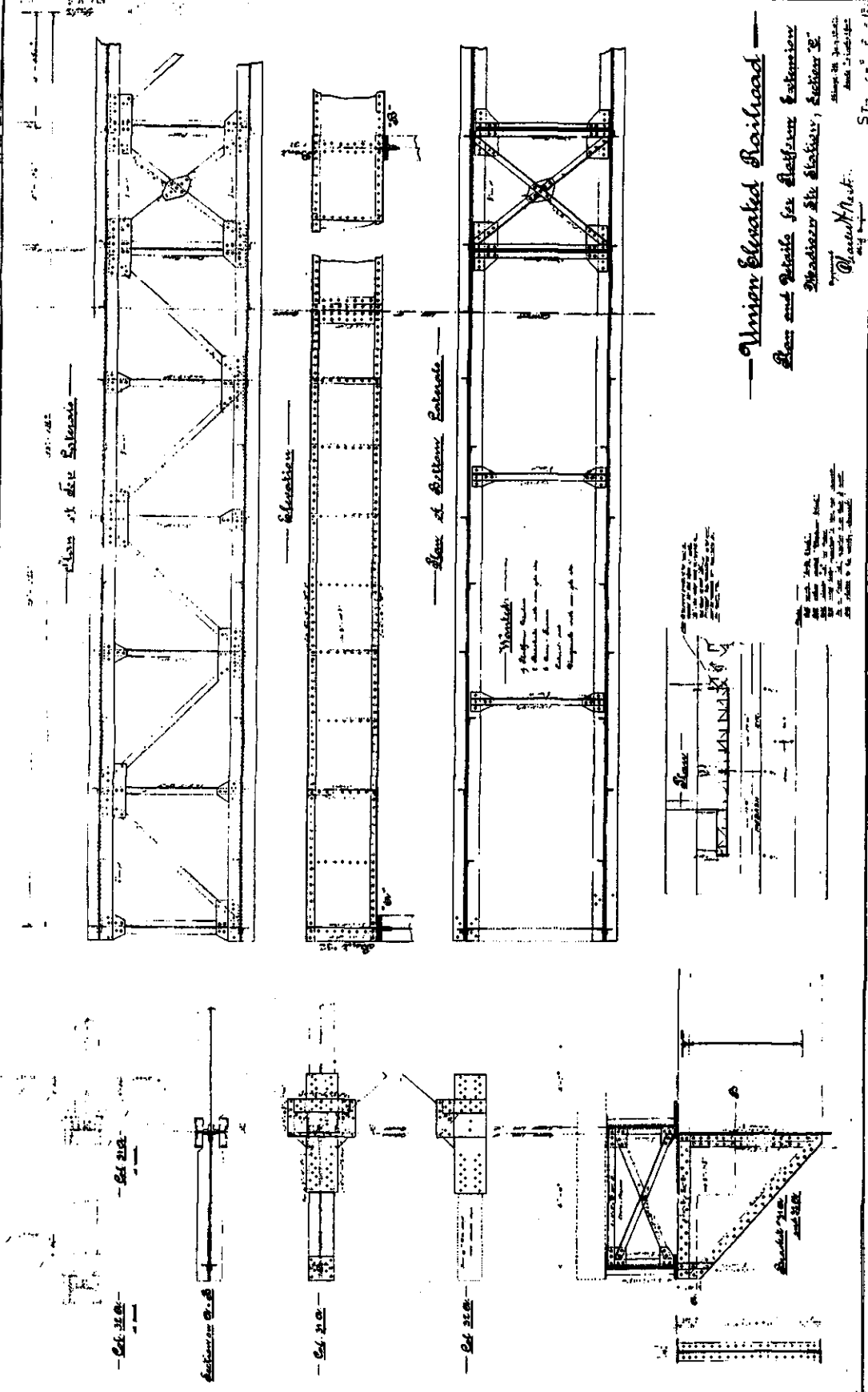
Northwestern & Union Elevated Railroad, Chicago, Ill.  
J. H. Madell Consulting Engineer  
March 1912

Madison St. Station

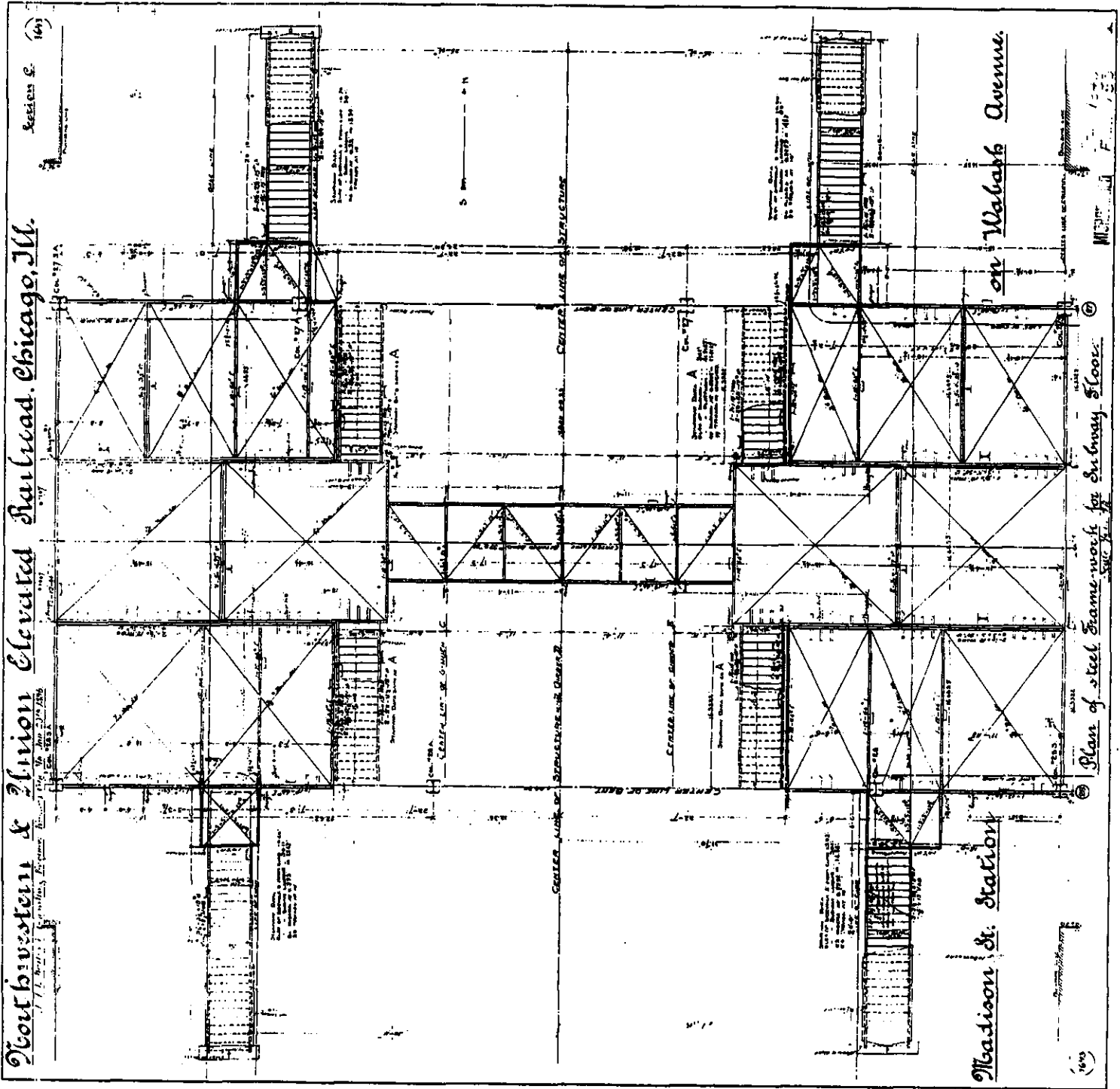
Wabash Avenue

W. H. Madell

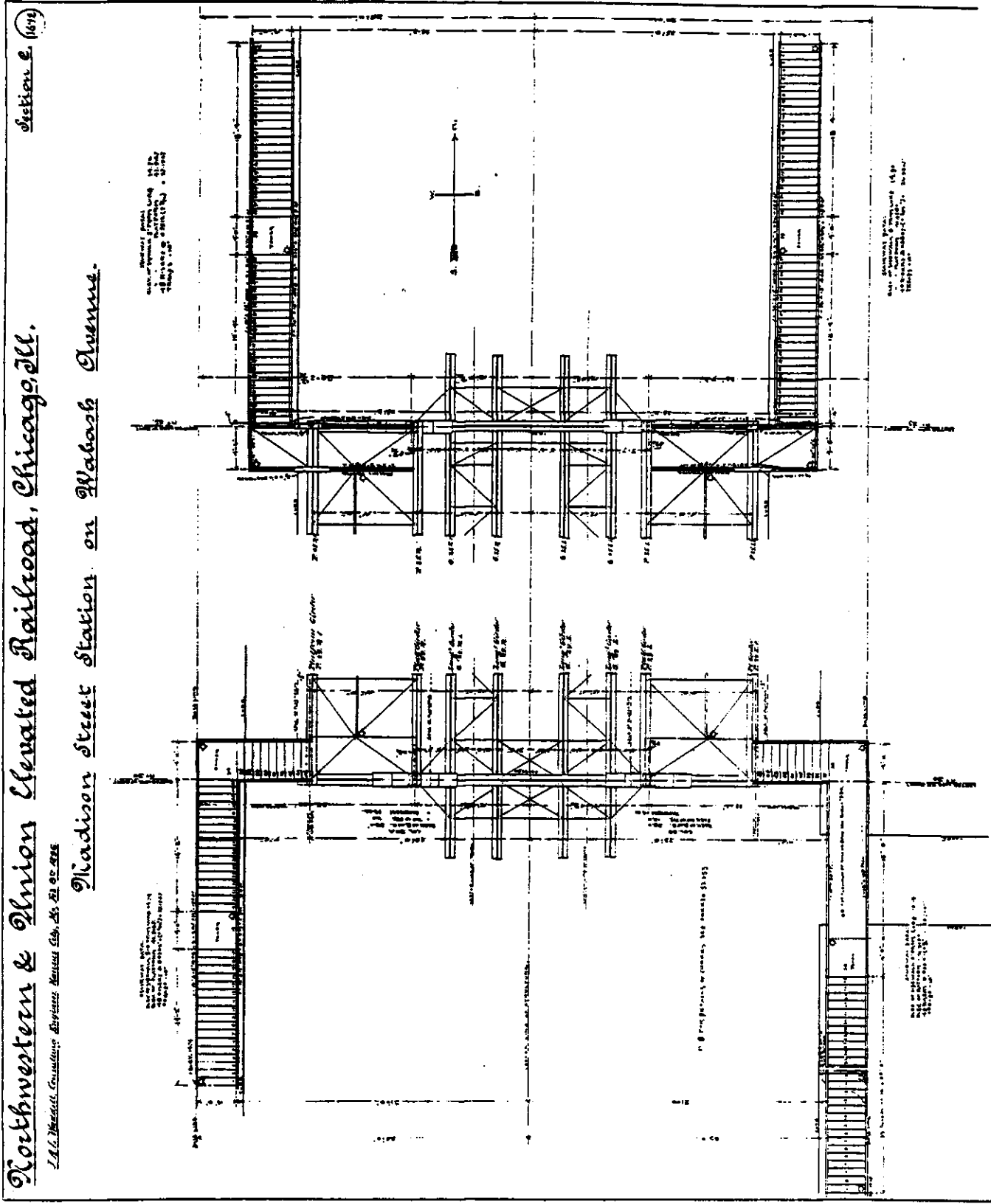
Plan of House on Subman Floor



— Union Elevated Railroad —  
 Plan and Details for Station Extension  
 Madison Wabash Station, Section 2  
 W. H. R. S. & Co. Engineers  
 111 Madison St. St. Louis, Mo.  
 S. T. 11-11-11







Northwestern & Union Elevated Railroad, Chicago, Ill.  
Madison Street Station on Wabash Avenue.

Section E. (1693)

Plan showing final location of Exit Stairways.  
Scale 1/2"=1'-0"

(1693)