



Books

Additional Resources in MSEL Fazlur Khan and Skyscrapers

Title: Engineering legends: great American civil engineers 32 profiles of inspiration and achievement/ Richard G. Weingardt
MSEL Call Number Eisenhower Stacks TA139.W35 2005

Title: Technique and aesthetics in the design of tall buildings: proceedings of the Fazlur R. Khan Session on Structural Expression in Buildings, Annual Fall Meeting, American Society of Civil Engineers/ David P. Billington and Myron Goldsmith, editors.
MSEL Call Number Eisenhower Stacks TH845.A531 1983

Title: Engineering architecture: the vision of Fazlur R. Khan / Yasmin Sabina Khan.
MSEL Call Number Eisenhower Stacks TA140.K48 K48 2004

Title: Building big / by David Macaulay.
MSEL Call Number Eisenhower Stacks NA2555.M24 2000 QUARTO

Title: Empire: a tale of obsession, betrayal, and the battle for an American icon / Mitchell Pacelle.
MSEL Call Number Eisenhower Stacks HD268.N5 P33 2001

Title: Architectural wonders [video recording] directed by Rich Brian Dipirro.
MSEL Call Number Eisenhower AV Center Video A5791

Title: The Empire State Building: the making of a landmark / John Tauranac.
MSEL Call Number Eisenhower Stacks F128.8.E46 T38 1995

Title: Empire State Building [video recording] / Nash, Bruce M.
MSEL Call Number Eisenhower AV Center Video A2213

Tips on finding these and more books on structures in the MSEL.

<http://www.library.jhu.edu/researchhelp/engr/structures/books.html>

Journal Articles

Title: Top Foreign-Born Civil Engineers Speak Their Minds
In: Civil Engineering (New York)
Volume: v 50 Issue: n 10 Oct 1980 p 115-119
Abstract: Six distinguished civil engineers born and educated abroad discuss their careers and explore: the differences in the civil engineering marketplace and in the public image of the CE here and overseas; the comparative quality of CE education and research here and abroad; and the extent to which those interviewed encountered discrimination in American society. The engineers interviewed are: Fazlur Khan, Pakistani-born structural engineer; T. Y. Lin, Chinese-born educator and structural design consultant; Anton Tedesko, a structural consultant born in Austria; Gregory Tschebotarioff, Russian-born soil mechanics pioneer and educator; George Winter, Austrian-born educator and structural engineer; and Nai Yang, Chinese-born consulting engineer.
MSEL Call Number Libraries Service Center TA1.C59
Database: Compendex

Title: 100 Storey John Hancock Center, Chicago: A Case Study Of The Design Process.

Authors: Khan, Fazlur R.

In: Engineering Structures

Volume: v 5 Issue: n 1 Jan 1983 p 10-14

Abstract: The design process of any major architectural project requires continuous interaction between architectural concepts and structural system developments. For a building like the 100-story John Hancock Center in Chicago the structure played a dominant role and eventually became the apparent architectural expression. The author describes the process of interaction between architecture and engineering and illustrates how purity of engineering systems needs to be maintained in order to strengthen the final architectural expression of such a building.

MSEL Call Number Libraries Service Center TA1A49ST

Database: Compendex

Title: Performance Of One Shell Plaza Deep Mat Foundation

In: American Society of Civil Engineers, Journal of the Geotechnical Engineering Division

Volume: v 104 Issue: n 5 Issue May 1978 p 593-608

Abstract: The mat foundation for One Shell Plaza is 172 ft x 232 ft (52. 46 m x 70. 76 m) in plan, 8. 25 ft (2. 52 m) thick and 60 ft (18. 3 m) below street level. The mat was designed using an iterative analytical procedure to include the effects of soil-mat interaction in determining foundation movements. To provide factual information on soil-structure interaction, the mat was instrumented to measure soil contact pressures and steel stresses. In addition, observations were made to determine total and differential mat movements. Performance observations during the 3-yr construction period and for about 6 yr since the structural frame was completed are examined and then compared in a limited way with design predictions.

MSEL Call Number Libraries Service Center TA1.A49GT

Database: Compendex

Title: Future Of Highrise Structures.

In: Progressive Architecture

Issue Oct 1972 p 78-85

Abstract: After discussing the present and future of tall buildings in the U. S., the author concludes that the development of these new systems is pointless unless these structures will result in the creation of better city environment. In the final analysis, the development of tall buildings closely follows the development of the urban centers in America. It is undoubtedly the concentration of population in these centers, combined with the high cost of land that results in buildings with high-density population.

MSEL Call Number Libraries Service Center NA1.P7

Database: Compendex

Title: John Hancock Center Authors: Khan, F.R.

In: Civil Engineering (New York)

Volume: v 37 n 10 Oct 1967 p 38-42

Abstract: Structural system developed for 100-story Center in Chicago is described as "optimum column-diagonal trusstube"; it consists of regularly spaced exterior columns interconnected with diagonal members and horizontal spandrel beams in such way that exterior columns act together in carrying gravity loads and resisting horizontal wind forces; in effect, exterior columns form rigid

tube cantilevering out of ground to top of building; system provides maximum stiffness without resorting to flexural stiffness of individual columns and girders, thus enabling considerable savings in materials; average weight of steel in entire project is 29.7 psf.

MSEL Call Number Libraries Service Center TA1.C59

Database: Compendex

Title: Computer design of 100-Story John Hancock Center

In: American Society of Civil Engineers Proceedings, Journal of the Structural Division

Volume: v 92 n ST6 Dec 1966 p 55-73

Abstract: John Hancock Center in Chicago, Ill, with approximately 2,800,000 sq ft of floor area had to be completely designed within one year; because of unique structural system and tapered shape of building, large volume of analysis and design work was anticipated; extremely short schedule necessitated development of detailed program of coordinated usage of large and small computers; it was recognized that complexity of structure would require special use of large computers; various phases of small-to-large computer coordination that led to successful completion of design of this unusual and complicated structure, are described in detail.

MSEL Call Number Libraries Service Center TA1.A49ST

Database: Compendex

Title: The Empire State building

In: Architectural Forum

Volume: v 53 n 1, Part 2 July 1930 p 99-104

Abstract: Window-spandrel-wall detail and its relation to building progress; sections and plan showing windows, trim and spandrels outside line of stone facing; assembly of window-spandrel-wall.

MSEL Call Number Gilman NA1.A68

Database: Compendex

Title: Empire state building general design

In: Architectural Forum

Volume: v 56 Issue: n 1 Jan 1931p 1-8

MSEL Call Number Gilman Stacks NA1.A68

Database: Compendex

Title: Wind pressure on model of Empire State building

In: United States Bureau of Standards -- Journal of Research

Volume: v 10 Issue: n 4 Apr 1933 p 493-523

Abstract: Measurements of distribution of wind pressure over model of building for purpose of comparing results of model tests with measurements on actual building, now in progress under direction of Research Committee of American Institute of Steel Construction; overturning moments measured for same wind directions; procedure for comparison of results on model with those on actual building.

MSEL Call Number Libraries Service Center QC1. U51

Database: Compendex

Tips for finding these articles and more journal articles like these.

<http://www.library.jhu.edu/researchhelp/engr/structures/journalarticles.html>