

48th Annual Convention



**Cincinnati, Ohio
Netherland Plaza Hotel
February 26, 27, 28, 1952**

**—To provide a comradeship in finding the best ways to do
concrete work of all kinds and in spreading that knowledge.**

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†Address

AMERICAN CONCRETE INSTITUTE
18262 W. McNichols Road, Detroit 19, Michigan

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Program Time Table

Sunday, February 24 and Monday, February 25

Meetings of Executive Committee, Technical Activities Committee and Board of Direction

Tuesday, February 26

- 8:30 a.m.—Technical committees (See p. 10)—Parlors A, B, C, D, E, F, I, L
9:00 a.m.—Registration begins—4th floor foyer
10:30 a.m.—First general session—Bylaws changes—Pre-stressed concrete—Pavillon Caprice
12:00 noon—Institute Officers reception and luncheon for scheduled program participants (by prior invitation)—Parlor H
2:00 p.m.—General convention session—Durability and Curing—Pavillon Caprice
8:00 p.m.—Technical committees (See p. 10)—Parlors A, B, C, D, E, F, I, L

Wednesday, February 27

(Concurrent Sessions will be held morning and afternoon in the Pavillon Caprice and Parlors A-D)

- 9:00 a.m.—Convention session—Ultimate Load Design—Pavillon Caprice
9:00 a.m.—Convention session—Materials and Properties—Parlors A-D
12:15 a.m.—Annual Awards Luncheon—Hall of Mirrors
2:30 p.m.—Convention session—Design—Pavillon Caprice
2:30 p.m.—Convention session—Construction—Parlors A-D
7:30 p.m.—Technical committees (See p. 11)—Parlors A, B, C, D, E, F, I, L

Thursday, February 28

- 9:00 a.m.—Annual Research Session—Open meeting of ACI Committee 115, Research—Pavillon Caprice
12:15 p.m.—Harvey Whipple Luncheon—Pavillon Caprice
2:30 p.m.—Final convention session—Panel discussion—Pavillon Caprice

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9 a.m.—5 p.m., DAILY

TUESDAY, WEDNESDAY and THURSDAY

FEBRUARY 26, 27, 28, 1952

CONVENTION REGISTRATION

In charge of
ETHEL B. WILSON, Assistant Treasurer

Registration fee—\$2.00

(All registered nonmember visitors are welcome at general sessions)

Buy your tickets for the Wednesday noon AWARDS LUNCHEON and Thursday noon HARVEY WHIPPLE LUNCHEON at time of registration.

See bulletin board for special notices.

12 noon sharp, Tuesday—Luncheon for all scheduled program participants in the general convention sessions. (By invitation)

TECHNICAL COMMITTEE MEETINGS

See p. 10 and bulletin board at registration desk for time and location.

NOTES FOR PROGRAM PARTICIPANTS

- Participants in the program should not fail to leave with the stenotype reporter manuscripts from which papers or discussions are presented. The ACI Secretary will later provide opportunity for manuscript revision before consideration for JOURNAL publication.
- Upon recognition by the Chairman a discussor will please state his name and convention registration number distinctly and go to a microphone so he may be heard by all. If presented from manuscript, it should be left with the stenotype reporter.
- A "Convention Review" will be published in the News Letter section of the April ACI JOURNAL.

Information about ACI Membership and publications can be had at Convention Registration Desk or from ACI Headquarters, address: American Concrete Institute, 18263 West McNichols Road, Detroit 19, Michigan.

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10:30 a.m., TUESDAY, FEBRUARY 26

Pavillon Caprice

President HARRY F. THOMSON, Presiding

Opening Remarks

Appointment of tellers to canvass annual election ballots

Bylaws Changes

See News Letter, ACI JOURNAL, January 1951, pp. 13-16.

PRESTRESSED CONCRETE

Relative Economy of Conventional and Prestressed Reinforced Concrete Reservoirs

GEORGE C. EHRST, C. O. BRUNKEN and A. R. RIVELAND
University of Nebraska, Lincoln, Neb.

Field Problems in Constructing a Prestressed Concrete Bridge

CLAIR L. JOHNSON
Johnson and Anderson, Pontiac, Mich.

+ + +

2 p.m., TUESDAY, FEBRUARY 26

Pavillon Caprice

Vice-President A. T. GOLDBECK, Chairman

DURABILITY

General Condition of Concrete Railroad Structures and Research Program on Surface Waterproofers

C. B. PORTER
Chesapeake and Ohio Railway, Richmond, Va.

Presented by E. S. BIRKENWALD
Southern Railway System, Cincinnati, Ohio

Field Studies of Durability of Railroad Concrete

R. W. GILMORE
Baltimore and Ohio Railroad, Cincinnati, Ohio

* * *

Concrete Pavements Can be Durable

FRANK H. JACKSON
Bureau of Public Roads, Washington, D. C.

Concrete Can be Durable in Hydraulic Structures

LEWIS H. TUTTILL
Bureau of Reclamation, Denver, Colo.

Durability of Hydraulic Structures

BYRAM W. STEELE
Consulting Engineer, Miami, Fla.

CURING

Round-table discussion—Sponsored by Committee 612

MARK MORRIS, Chairman

Current Concepts of Fundamental Principles of Curing

A. G. TIMMS
National Bureau of Standards, Washington, D. C.

Current Practices in Curing Concrete Pavements

D. L. ROBINSON
Missouri State Highway Dept., Jefferson City, Mo.

Recommended Practices for Curing Structural Concrete

HERBERT J. GILKEY
Iowa State College, Ames, Iowa

Recommended Practices for Curing Mass Concrete

W. R. JOHNSON and ROY W. CARLSON
Corps of Engineers, Portland, Ore., and Consulting Engineer,
Berkeley, Calif., respectively

Recommended Practice for Curing Canal Lining

G. E. BURNETT
Bureau of Reclamation, Denver, Colo.

Curing Agents for Concrete

H. C. VOLLMER
Emergency Transportation Dept., Washington, D. C.

9 a.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions will be held morning and afternoon in
the Pavilion Coprice and Parlors A-D

Pavillon Coprice

Past-President FRANK H. JACKSON, Chairman

ULTIMATE LOAD DESIGN

Introduction

LEO H. CORNING, *Session Leader*
Portland Cement Ass., Chicago, Ill.

Why Design by Ultimate Load Theories?

BOYD G. ANDERSON
Ammann and Whitney, New York, N. Y.

Fundamental Concepts in Ultimate Load Design of Reinforced Concrete Members

EIVIND HOGNESTAD
University of Illinois, Urbana, Ill.

Research on Ultimate Strength of Reinforced Concrete Members

C. P. SISS
University of Illinois, Urbana, Ill.

Design of Sections by Ultimate Load Theories

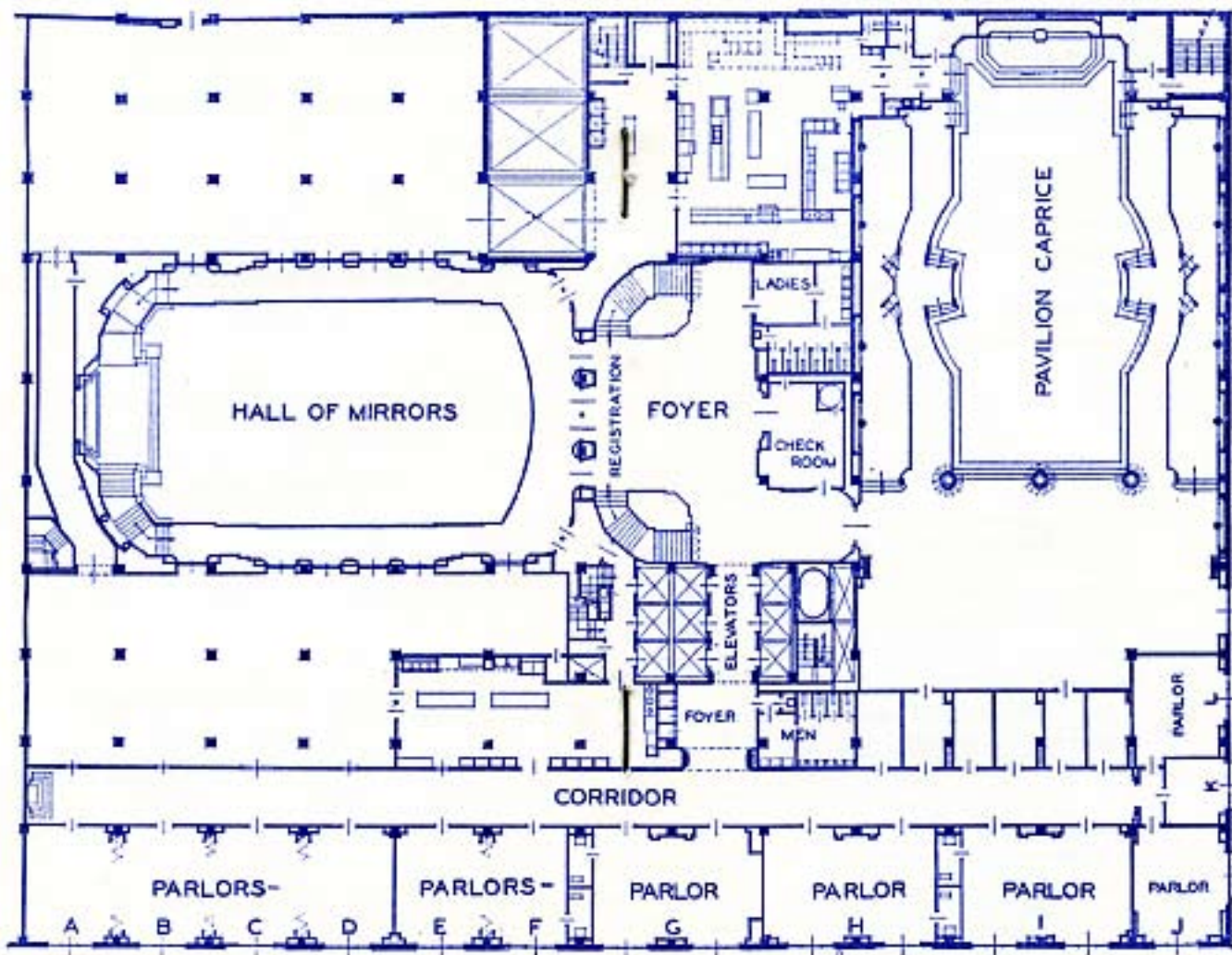
RAYMOND C. REESE
Consulting Engineer, Toledo, Ohio

Load Factors in Ultimate Design

T. Y. LAN
University of California, Berkeley, Calif.

ACI CONVENTION AREA

Netherland Plaza Hotel—Cincinnati



FOURTH FLOOR PLAN

TECHNICAL COMMITTEE MEETINGS**MONDAY, FEBRUARY 25**

- 8:00 p.m.—213 Properties of Lightweight Aggregate Concrete—G. W. Washa, chairman Parlor K
- 318 Standard Building Code, Subcommittee 7
Raymond C. Reese, chairman I
- 318 Standard Building Code, Subcommittee 10
N. M. Newmark, chairman L

TUESDAY, FEBRUARY 26

- 8:30 a.m.—318 Standard Building Code, Subcommittee 4
Frank Kerekes, chairman Parlor F
- 318 Standard Building Code, Subcommittee 8
J. DiStasio, chairman A
- 318 Standard Building Code, Subcommittee 9
N. D. Mitchell, chairman C
- 323 Prestressed Reinforced Concrete
A. E. Cummings, chairman I
- 326 Shear and Diagonal Tension
C. S. Whitney, chairman L
- 612 Recommended Practice for Curing Concrete
Mark Morris, chairman D
- 716 High Pressure Steam Curing
W. C. Hansen, chairman E

- 8:00 p.m.—314 Rigid Frame Bridges
D. H. Pietta, chairman Parlor C
- 315 Detailing Manual
R. C. Reese, chairman I
- 321 Design of Reinforced Concrete Slabs
N. M. Newmark, chairman B
- 324 Precast Reinforced Concrete Structures
A. Amirikian, chairman D
- 604 Winter Concreting Methods
M. F. Macnaughton, chairman E
- 711 Precast Floor Systems for Houses
F. N. Menefee, chairman F

- 8:30 p.m.—210 Resistance to Erosion in Hydraulic Structures
W. H. Price, chairman Parlor A

*Continued on p. 11***9 a.m., WEDNESDAY, FEBRUARY 27**

Concurrent sessions will be held morning and afternoon in the Pavilion Coliseum and Parlors A-D

Parlors A-D

President HARRY F. THOMSON, *Chairman*

MATERIALS AND PROPERTIES OF CONCRETE*Thermal Expansion of Aggregates and Concrete Durability*

EDWIN J. CALLAN

Waterways Experiment Station, Jackson, Miss.

Effect of Temperature Changes on Concrete as Influenced by Aggregates

DELMAR BLOOM, STANTON WALKER and W. G. MULLEN
National Sand and Gravel Ass., Washington, D. C.

Calcium Chloride in Concrete

J. J. SHIDLER

Bureau of Reclamation, Denver, Colo.

Use of Chicago Fly Ash to Reduce Cement-Aggregate Reaction

C. H. SCHOLEN and G. M. SMITH
Kansas State College, Manhattan, Kans.

Bond in Welded Wire Fabric Reinforced Concrete

ARTHUR R. ANDERSON

Consulting Engineer, Tacoma, Wash.

*Committee meetings, continued***WEDNESDAY, FEBRUARY 27**

- 7:30 p.m.—611 Inspection of Concrete
J. W. Kelly, chairman Parlor B
- 8:00 p.m.—115 Research (Executive Group)
S. J. Chamberlin, chairman C
- 318 Standard Building Code (General Meeting)
Frank Kerekes, chairman I
- 8:30 p.m.—613 Recommended Practice for Proportioning Concrete Mixes
W. H. Price, chairman A

12:15 p.m., WEDNESDAY, FEBRUARY 27

AWARDS LUNCHEON

Hall of Mirrors

Presentation of Awards

President THOMSON on behalf of the Board of Direction

HENRY C. TURNER Medal to

RAYMOND E. DAVIS

"in recognition of numerous outstanding and greatly diversified contributions to the technology of concrete as a material."

ALFRED E. LINDAU Award to

DOUGLAS E. PARSONS

"for his many years of quiet perseverance in directing and coordinating development of standards of practice for reinforced concrete design."

LEONARD C. WASON Medal for the "Most Meritorious Paper" of ACI Proceedings V. 47 (February 1951 Journal) to

WALTER H. PRICE

for his paper

"Factors Influencing Concrete Strength"

LEONARD C. WASON Medal for "Noteworthy Research" to

W. J. McCoy and A. G. CALDWELL

for the work reported in their paper (Proceedings V. 47, May 1951 Journal)

"New Approach to Inhibiting Alkali-Aggregate Expansion"

American Concrete Institute CONSTRUCTION PRACTICE AWARD for a "paper of outstanding merit" on concrete construction practice to

OTTO SAFIR

for his paper in the ACI Journal (February 1951) entitled "Precast Concrete Construction in Canada"

Report of Tellers and Introduction of New Officers

Recognition of Retiring Directors and Officers

Retiring President's Address

HARRY F. THOMSON

Ready Mixed Concrete Div., Material Service Corp., Chicago, Ill.

Luncheon Speaker

JOHN V. MAESCHER

President, Allied Construction Industries, Cincinnati

2:30 p.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions in Pavilion Caprice and Parlors A-D

Pavillon Caprice

Vice-President HENRY L. KENNEDY, Chairman

DESIGN

Field Practice in Lightweight Concrete

J. A. MURLIN and CEDRIC WILLSON

George L. Dahl, Architects and Engineers, and Texas Industries, Dallas, Texas, respectively

Economy of Concrete Beams

HERBERT A. SAWYER, JR.

University of Connecticut, Storrs, Conn.

Developments in Reinforcing Steel and Concepts of Safety

K. HAJNAL-KONTI

Consulting Engineer, London, England

Analysis of Skewed Rigid Frames

JAMES P. MICHALOS

Iowa State College, Ames, Iowa

2:30 p.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions in **Pavillon Caprice** and **Parlors A-D**

Parlors A-D

Past-President **ROBERT F. BLANKS**, *Chairman*

CONSTRUCTION

Applications of Vacuum Concrete

K. P. BILLNER
Vacuum Concrete Corp., Philadelphia, Pa.

Electric Heating of Concrete in Winter Construction

CHUZO ITAKURA
Hokkaido University, Sapporo, Japan

Small Building Construction

C. O. CHRISTENSEN
National Assn. of Home Builders, Washington, D. C.

Insulation for Protection of New Concrete in Winter

L. H. TUTTILL, R. E. GLOVER, C. H. SPENCER
and **W. B. BIERCE**
Bureau of Reclamation, Denver, Colo.

Centrline Process of Pipe Lining

A movie prepared by Raymond Concrete Pipe Co., New York, N. Y.

9:00 a.m., THURSDAY, FEBRUARY 28

Pavillon Caprice

Annual Open Session of ACI Committee 115, Research

STEPHEN J. CHAMBERLIN, *Chairman*
GEORGE W. WASHA, *Secretary*

This convention feature differs from general sessions in that the information is not released for publication. Request is made that proceedings be regarded as **CONFIDENTIAL**. A group of short papers will be presented on research techniques and preliminary results on fatigue testing of concrete beams, weathering and freezing and thawing tests, impulse loading, stress distribution, volumetric changes, and other subjects.

ATTENDANCE AT THE SESSION IS THE ONLY SURE WAY OF BEING IN ON THESE PREVIEWS OF THE MANY FUTURE DEVELOPMENTS IN CONCRETE.

Please clear the Pavillon promptly at the end of the session to permit hotel personnel to arrange it for the luncheon to follow.

12:15 p.m.—PAVILLON CAPRICE

HARVEY WHIPPLE LUNCHEON

Past-President **STANTON WALKER**, *Presiding*

Obtain tickets at time of registration—\$4.50

2:30 p.m.—PAVILLON CAPRICE

Panel discussion

HERBERT J. GILKEY, *Chairman*

M. D. CAYTON	F. N. MENEFEE
R. E. COPELAND	NOLAN D. MITCHELL
R. W. GILMORE	J. A. MURLIN
EDWARD C. HARDING	J. P. THOMPSON
EIVIND HOGNESTAD	C. E. WURFEL
CHARLES T. KENNEDY	

CINCINNATI CONVENTION COMMITTEE

(In charge of local arrangements)

EDWARD C. HARDING, *General Chairman*

JULIAN B. CARSON, *Publicity*

FRED F. McMINN, *Inspection trips*

H. K. JUSTICE, *Student and Engineering Club liaison*

HUNTER W. HANLY, *Advisor on technical program*

JOHN V. MAESCHER, *Finance*

L. W. HIXSON, *Arrangements and entertainment*

HENRY D. LORING

C. O. CHRISTY

The AMERICAN CONCRETE INSTITUTE

is a nonprofit, nonpartisan organization of engineers, architects, scientists, builders, manufacturers and representatives of industries associated in their technical interest with the field of concrete, dedicated to the public service. Its primary objective is to assist its members and the engineering profession generally, by gathering and disseminating information about the properties and applications of concrete and reinforced concrete and their constituent materials.

It is self-supported by membership dues and the sale of its publications. Since 1905 its primary objective has been achieved by the combined membership effort. Individually and through committees, and with the cooperation of many public and private agencies, members have correlated the results of research, from both field and laboratory, and of practices in design, construction and manufacture.

The work of the Institute has become available to the engineering profession in annual volumes of ACI Proceedings since 1905. Beginning 1929 the Proceedings have first appeared periodically in the *Journal of the American Concrete Institute* and in many separate publications.

AMERICAN CONCRETE INSTITUTE

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Detroit 19, Michigan