

**51<sup>st</sup>**  
**Annual Convention**



**HOTEL SCHROEDER**

**Milwaukee, Wisconsin**

**February 21-24, 1955**

## BOARD OF DIRECTION

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## TECHNICAL ACTIVITIES COMMITTEE

(In charge of convention program and of technical publications)

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†Address

AMERICAN CONCRETE INSTITUTE

18263 W. McNichols Road, Detroit 19, Michigan

## PROGRAM TIME TABLE

Saturday, February 19, and Sunday, February 20

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

### Monday, February 21

- 9:00 a.m.—Technical committee meetings (see p. 6)  
Registration opens — 4th Floor Foyer
- 10:00 a.m.—Exhibits open—5th Floor Foyer and Pere Marquette Room (see p. 19)  
Coffee for Ladies—East Room (see p. 18)
- 2:00 p.m.—Technical committee meetings (see p. 6)

### Tuesday, February 22

- 8:00 a.m.—Institute Officers' reception and breakfast for scheduled program participants (by prior invitation)—Parlor D
- 9:00 a.m.—Registration continues—4th Floor Foyer
- 10:00 a.m.—First General Session—Crystal Ballroom  
Ladies' bus trip to Jewish Welfare Center and Layton School of Art—Parlors B & C (see p. 18)
- 2:00 p.m.—Lightweight Aggregate Concrete Session—Crystal Ballroom
- 8:00 p.m.—Motion pictures on concrete—Crystal Ballroom

### Wednesday, February 23

- 9:00 a.m.—Pavement Session—Crystal Ballroom  
Construction Session—East Room
- 9:30 a.m.—Ladies' bus trip to Robert A. Johnston Co.—Parlors B & C
- 12:15 p.m.—Awards Luncheon—Crystal Ballroom
- 1:00 p.m.—Ladies' Luncheon—Empire Room
- 2:30 p.m.—Design and Research Session—Crystal Ballroom  
Construction Equipment Session—East Room
- 6:00 p.m.—Cocktails
- 7:00 p.m.—Dinner—Crystal Ballroom

### Thursday, February 24

- 8:30 a.m.—Tour of concrete equipment manufacturing plants
- 10:00 a.m.—Ladies' Coffee—Parlors B & C
- 2:00 p.m.—Annual Research Session—Crystal Ballroom

## MILWAUKEE CONVENTION COMMITTEE

### Committee on General Arrangements

ROBERT A. BURMEISTER, *Chairman*

ARTHUR W. DEVOS	WALTER H. TACKE
ROBERT H. HOPWOOD	J. W. TANGHE
ROBERT C. JOHNSON	GEORGE TEWS
W. D. KIMMEL	JAMES G. VAN VLEET
O. NEIL OLSON	KURT F. WENDT
J. W. POULTER	M. O. WITHEY

### Exhibits Committee

HAROLD S. HAIN, *Chairman*

FRED BARTEL	GENE GOEB	PAUL MUELLER
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### "First-Timers" Committee

GLENWAY MAXON, *Chairman*

A. W. BIGOTT	F. N. MENEFER
WESLEY BLIFFERT	WILLARD SCHUNCK

### Ladies' Committee

MRS. R. A. BURMEISTER, *Chairman*

MRS. W. D. KIMMEL and MRS. J. TANGHE, <i>Co-Chairmen</i>	
MRS. E. BARTLET	MRS. W. PATITZ
MRS. P. BRONSON	MRS. T. PAVEK
MRS. A. DEVOS	MRS. J. POULTER
MRS. G. GOEB	MRS. W. TACKE
MRS. H. HAIN	MRS. G. TEWS
MRS. R. JOHNSON	MRS. J. VAN VLEET
MRS. O. N. OLSON	MRS. G. WASHA
MRS. C. S. WHITNEY	

9 a.m.—5 p.m., DAILY

MONDAY, TUESDAY, and WEDNESDAY

FEBRUARY 21, 22, 23, 1955

### CONVENTION REGISTRATION

Registration fee—\$2.00

(All ladies and **registered** nonmember visitors are welcome at technical sessions, Awards Luncheon, and Dinner)

**Buy your tickets for the Wednesday noon AWARDS LUNCHEON at time of registration.**

**Tickets for Wednesday evening Cocktails and Dinner must be purchased by 2:00 p.m. Wednesday.**

See bulletin board for special notices.

**8 a.m. sharp, Tuesday—Breakfast for all scheduled program participants in the general convention sessions. (By invitation)**

### TECHNICAL COMMITTEE MEETINGS

See pp. 6 and 7 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.

9:00 a.m.—Registration—4th Floor Foyer

**TECHNICAL COMMITTEE MEETINGS**

9:00 a.m.—COMMITTEE MEETINGS

Committee 208, Bond Stress	Parlor F
Committee 209, Volume Changes & Plastic Flow	Parlor B
Committee 210, Resistance to Erosion of Hydraulic Structures	Parlor H
Committee 315, Detailing R/C Structures	Parlor A
Committee 324, Precast Concrete	Parlor E
Committee 327, Ultimate Load Design	Parlor D
Committee 604, Winter Concreting	Room 507
Committee 613, Proportioning Mixes	Parlor C

10:00 a.m.—COMMITTEE MEETINGS

Committee 323, Prestressed Concrete (Steering Committee only)	Parlor G
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10:00 a.m.—EXHIBITS OPEN—5th Floor Foyer and Pere Marquette Room

2:00 p.m.—COMMITTEE MEETINGS

Committee 214, Evaluation of Compression Tests	Parlor D
Committee 215, Fatigue of Concrete	Parlor F
Committee 323, Prestressed Concrete	Club Rooms
Committee 326, Shear and Diagonal Tension	Parlor C
Committee 327, Ultimate Load Design	Room 508
Committee 332, Concrete for Residential Work	Parlor G
Committee 611, Inspection of Concrete	Parlor B
Committee 612, Curing Practices	Parlor E
Committee 617, Pavements and Bases	Room 507
Committee 716, High-Pressure Steam Curing	Parlor A

3:00 p.m.—COMMITTEE MEETINGS

Committee 711, Precast Floor Systems	Committee Room
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7:00 p.m.—COMMITTEE MEETINGS

Committee 318, Standard Building Code Subcommittee 7	Parlor C
Committee 318 (Executive Session)	Club Rooms

**Crystal Ballroom**

President C. H. SCHOLER, *Presiding*

Opening remarks

Appointment of tellers to canvass annual election ballots

**GENERAL SESSION**

Correlation of the Results of Laboratory Tests with Field Performance under Natural Freezing and Thawing Conditions

F. H. JACKSON

Engineering Consultant, Washington, D. C.

European Precast Concrete

DOUGLAS MCHENRY, THOR GERMUNDSSON, and

EIVIND HOGNESTAD

Portland Cement Association, Chicago, Ill.

Concrete Facts and Fiction

ROBERT C. JOHNSON

Siesel Construction Co., Milwaukee, Wis.

**COMMITTEE MEETINGS**

9:00 a.m.—Steering Committee, Joint Committee

Report Parlor A

7:00 p.m.—Committee 318, Standard Building

Code (Executive Session) Club Rooms

2:00 p.m., TUESDAY, FEBRUARY 22

Crystal Ballroom

G. W. WASILA, *Chairman*

**LIGHTWEIGHT AGGREGATES AND LIGHTWEIGHT  
AGGREGATE CONCRETE**

Lightweight Aggregates and Concrete

G. W. WASILA

University of Wisconsin, Madison, Wis.

Lightweight Structural Concrete

R. W. KLUGE

University of Florida, Gainesville, Fla.

Lightweight Precast Concrete and Masonry Units

C. G. CARLSON

Portland Cement Association, Chicago, Ill.

Insulating Concrete

R. C. VALORI, JR.

National Bureau of Standards, Washington, D. C.

8:00 p.m., TUESDAY, FEBRUARY 22

**MOTION PICTURES**

Crystal Ballroom

"New Breakwater Construction Techniques"

"Prestressed Concrete Over Tampa Bay"

"Power from Niagara"

"Pumped Concrete"

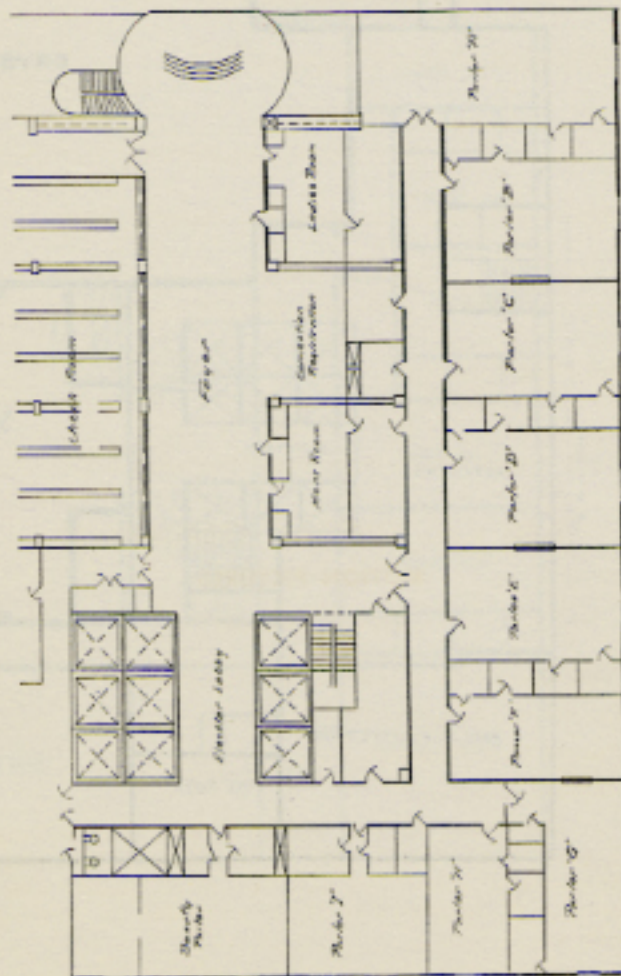
Time permitting, the two ACI-PCA films, "The Making of Quality Concrete" and "The Mixing, Handling, Transporting, Finishing, and Curing of Quality Concrete," will be shown to those interested in viewing them.

**ACI  
CONVENTION  
AREA**

4th Floor

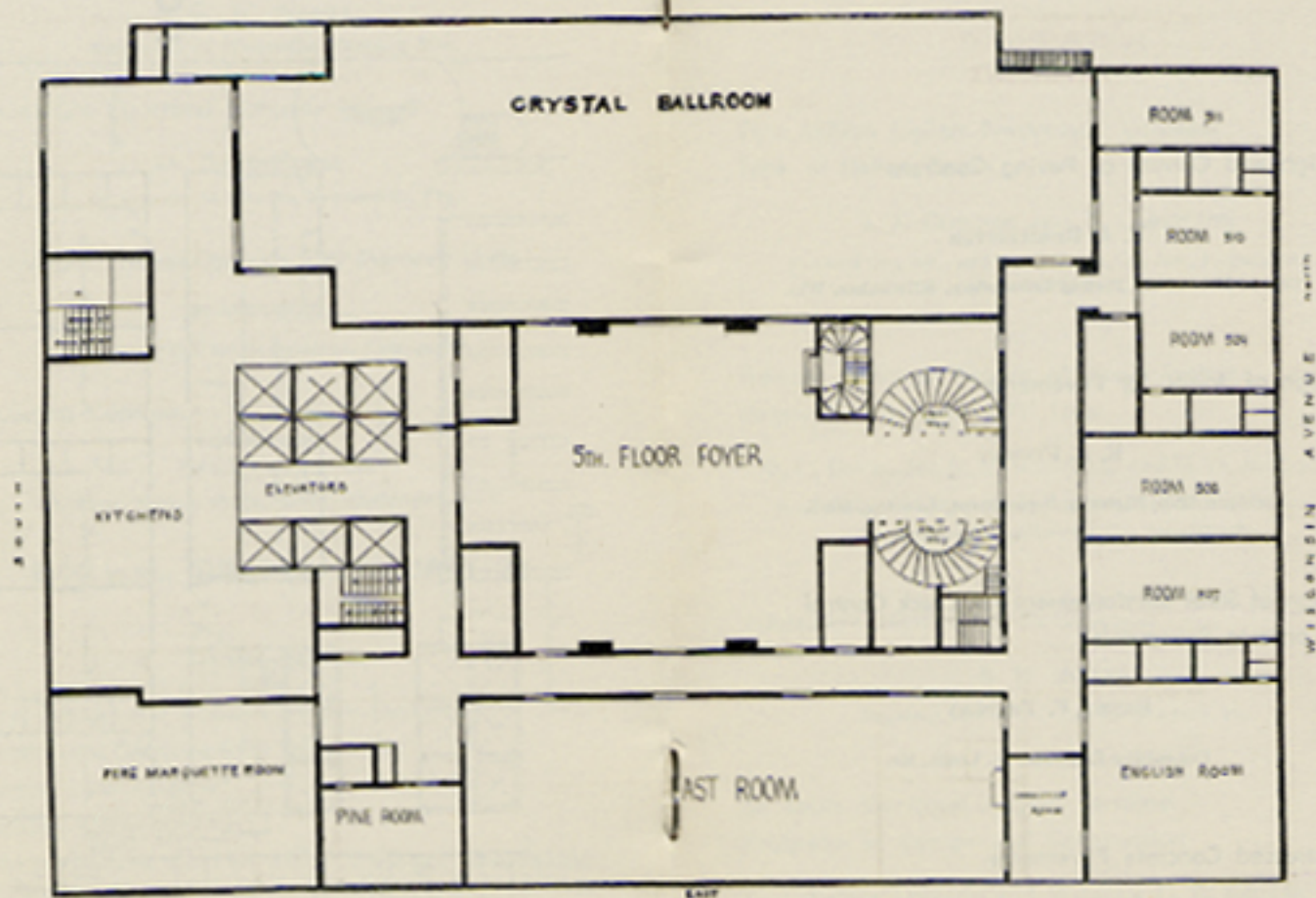
**HOTEL SCHROEDER**

**Registration  
Meeting Rooms**



# ACI Convention Area

HOTEL SCHROEDER  
MILWAUKEE



9:00 a.m., WEDNESDAY, FEBRUARY 23

Concurrent sessions morning and afternoon in  
Crystal Ballroom and East Room

**Crystal Ballroom**

President C. H. SCHOLER, *Chairman*

**PAVEMENTS**

Design and Control of Paving Concrete

R. A. BURMEISTER

City of Milwaukee Testing Laboratory, Milwaukee, Wis.

Design of Joints for Pavements

E. A. FINNEY

Michigan State Highway Department, Lansing, Mich.

Design of Steel Reinforcement for Crack Control  
in Concrete Pavements

BENGT F. FRIBERG

Consulting Engineer, St. Louis, Mo.

Prestressed Concrete Pavements

THOMAS CHOLNOKY

Frederick Harris, Inc., New York, N. Y.

9:00 a.m., WEDNESDAY, FEBRUARY 23

Concurrent sessions morning and afternoon in  
Crystal Ballroom and East Room

**East Room**

Vice-President FRANK KERÉKES, *Chairman*

**CONSTRUCTION**

Two Million Gallon Prestressed Concrete  
Tank in Dallas, Texas

J. J. CLOSNER and T. CARLWEITZ

Preload Co., Inc., and B. M. Heede Co., Inc., respectively,  
New York, N. Y.

Prepakt Concrete Backfill of Alcan Project  
Penstock and Turbine Pit Liner

R. E. DAVIS, JR., G. E. WENDELL, and G. D. JOHNSON

Prepakt Concrete Co., Cleveland, Ohio, and British Columbia  
International Engineering Co., respectively

Youtz-Slick Method of Construction

B. H. MILLER

Skyhook Lift Slab Corp., Kansas City, Mo.

St. Louis Municipal Airport Terminal —  
Problems of Design and Construction

ANTON TEDESKO and WILLIAM C. E. BECKER

Roberts and Schaefer Co., New York, N. Y., and Consulting  
Engineer, St. Louis, Mo., respectively

**AWARDS LUNCHEON**

**Crystal Ballroom**

Presentation of Awards

by President Scholer on behalf of the Board of Direction  
HENRY C. TURNER MEDAL (posthumously) to

RODERICK B. YOUNG

*"for notable achievements in the development and application of methods of field control of concrete, the development of methods of producing frost resistant concrete, and the development of cold weather concreting techniques"*

LEONARD C. WASON MEDAL for the "Most Meritorious Paper" of ACI *Proceedings* V. 50 (May and June 1954 JOURNAL) to

RUDOLPH C. VALORE, JR.

for his paper

"Cellular Concretes"

LEONARD C. WASON MEDAL for "Noteworthy Research" to

THOMAS B. KENNEDY and KATHARINE MATHER

for the work reported in their paper (*Proceedings* V. 50, October 1953 JOURNAL)

"Correlation Between Laboratory Accelerated Freezing and Thawing and Weathering at Treat Island, Maine"

Announcement of Election to Honorary Membership:

FRANK H. JACKSON

THOMAS E. STANTON

Presentation of Plaques to Past Presidents

Report of Tellers and Introduction of New Officers

Recognition of Retiring Directors and Officers

Retiring President's Address

C. H. SCHOLER

Kansas State College, Manhattan, Kan.

Concurrent sessions in Crystal Ballroom and East Room

**Crystal Ballroom**

Vice-President CHARLES S. WHITNEY, *Chairman*

**DESIGN AND RESEARCH**

Shear Strength of Reinforced Concrete Beams

K. G. MOODY, L. M. VIEST, R. C. ELSTNER, and

E. HOGNESTAD

Respectively, Bridge Division, Country Roads Board, Victoria, Australia; University of Illinois, Urbana, Ill.; and Portland Cement Association, Chicago, Ill.

Strength of Lap Splices in Tension

J. CHINN, P. M. FERGUSON, and J. N. THOMPSON

University of Texas, Austin, Texas

Strength of Reinforced Concrete T-Beams under Combined Direct Shear and Torsion

EARL I. BROWN, II

Alabama Polytechnic Institute, Auburn, Ala.

Live Load and Temperature Moments in Shells of Rotation Built into Cylinders

M. G. SALVADORI

Columbia University, New York, N. Y.



2:30 p.m., WEDNESDAY, FEBRUARY 23

Concurrent sessions in Crystal Ballroom and East Room

**East Room**

WALTER H. PRICE, *Chairman*

**CONSTRUCTION EQUIPMENT**

More Efficient Concrete Manufacture

GLENWAY MAXON

Consulting Engineer, Milwaukee, Wis.

Better Concrete in Slope Paving by Use of Slip-Forms

WILLIAM J. ROBINSON and LEWIS H. TUTHILL

U. S. Bureau of Reclamation, Denver, Colo.

Use of an Electrical Resistance Moisture Meter  
at Reservoir Dam 22, Denver

C. B. VAN ALSTINE

Concrete Engineer, Board of Water Commissioners, Denver, Colo.

Testing of Batching Controls and Recorders  
for Concrete Plants

W. L. BURGESS and C. H. WILLIAMS

Office Chief of Engineers, Washington, D. C.

8:30 a.m., THURSDAY, FEBRUARY 24

Tour of concrete equipment manufacturing plants in Milwaukee area. Arrangements by Milwaukee convention committee. See bulletin board for details.

2:00 p.m., THURSDAY, FEBRUARY 24

**Crystal Ballroom**

**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 of investigations now in progress.

Loading test of a continuous two-span prestressed beam

Concrete containing set retarding admixtures

Test apparatus and methods for determining abrasion and spark resistance of industrial concrete floors

Factors affecting measured flexural strength of concrete

Deep beams — theory and tests

Diffusion of water vapor in hardened paste

Transformation in crystal structure of binder as related to drying shrinkage

Properties and uses of initially retarded concrete

Eccentrically loaded columns subjected to high sustained loads

Tests of Carlson stress meters

## LADIES' PROGRAM

All ladies please register as soon as possible for the events you plan to attend. Registration slips are at ladies' reception room.

The reception room is for your convenience — each morning coffee and Danish pastry will be served at an informal coffee hour — come meet your old friends and make new ones.

### MONDAY, FEBRUARY 21

#### East Room

Registration 9:00 a.m. to 4:00 p.m.

### TUESDAY, FEBRUARY 22

#### Parlors B and C

9:00 a.m.—Coffee hour

10:00 a.m.—Bus trip to fabulous new Jewish Welfare Center on the shores of Lake Michigan.

1:00 p.m.—Luncheon at the Center. Sister Thomasita, Art Director of Cardinal Stritch College, will be guest speaker.

—Following luncheon there will be a visit to the Layton School of Art

### WEDNESDAY, FEBRUARY 23

#### Parlors B and C

9:00 a.m.—Coffee hour

9:30 a.m.—Bus trip to renowned Robert A. Johnston Co.

1:00 p.m.—Luncheon—Empire Room. Style show sponsored by Hixons. Miss Edith Quade, of Milwaukee Public Museum, will be guest speaker. The topic will be "Wisconsin Folkways and Byways."

6:00 p.m.—Cocktails

7:00 p.m.—Dinner—Crystal Ballroom

### THURSDAY, FEBRUARY 24

#### Parlors B and C

9:00 a.m.—"See You in Philadelphia in '56" Farewell Coffee Hour

*Don't fail to examine the exhibit area — a 1955 convention feature sponsored by the Milwaukee Convention Committee*

## EXHIBITORS

### 1955 ACI CONVENTION

American Concrete Pressure Pipe Assn.

Baldwin-Lima-Hamilton Corp.

Butler Bin Co.

Calcium Chloride Institute

Cen-Vi-Ro Manufacturing Co.

Chain Belt Co.

Chicago Fly Ash Co.

Copperweld Steel Co.

Ger-Bro Manufacturing Co.

Hunt Process Co.

Master Builders Co., The

Prestressing, Inc.

Pumice, Inc.

John A. Roebling's Sons Corp.

Sika Chemical Corp.

Sonoco Products Co.

Superior Concrete Accessories, Inc.

Symons Clamp and Manufacturing Co.

Techkote Co., Inc.

Water Seals, Inc.

Webrib Steel Corp.

Banquet - St. Lawrence Seaway

### 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.

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Detroit 19, Michigan