PROGRAM

SPECIAL EVENTS

65th ANNUAL EXHIBITS-CONVENTION
Palmer House Hotel
Chicago, Illinois
March 30-April 4, 1969
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
P.O. Box 4754
Detroit, Michigan 48219

--- CONVENTION REGISTRATION ---
Sunday, March 29 through Thursday,
April 3 8:00 a.m. to 6:00 p.m.
Friday, April 4 8:00 a.m. to 2:00 p.m.

REGISTRATION FEES:
ACI Members $15.00
Nonmembers $25.00
Students Free

Registration fees cover attendance at all ACI technical committee meetings, general sessions, symposia, tours, and the social hour.

** ** SPECIAL EVENTS ** **

* Technical-Educational Exhibits . . . Tuesday through Thursday in the Upper Exhibit Hall on the fourth floor.

* “Concrete Mixer” Social Hour . . . Tuesday, 6:30 p.m. in the Red Lacquer Room. Please wear your badge.

* Chapter Forum . . . Wednesday 9:00 a.m. in Dining Room #9. Scheduled by the Board Committee on Chapter Activities. An informal roundtable on chapter activities and organization.

* Portland Cement Association Alumni Social Hour . . . Wednesday, 5:00 p.m., Dining Room #11.

* Awards Luncheon and Installation of New ACI Officers . . . Thursday, 12:15 p.m., in the Red Lacquer Room. One may purchase tickets up to 2:00 p.m., Wednesday, April 2, at the Registration Desk.

* University of Illinois “Cash Bar” Reception . . . Thursday, 5:30 p.m. in Dining Room #18. Tickets are available from alumni and University of Illinois staff members.

* Photo Display . . . 15-20 panels of unusual and outstanding concrete structures from all over the world. Monday through Friday.

* Student Architectural Designs . . . Sketches and models representing classwork.

NOTE TO ACI MEMBERS
Each ACI member will be given a packet of ballots at registration. It is the only set that will be issued you at this meeting. It is therefore important to protect them from loss and to bring them with you to the General Session at which matters will be presented for vote.
BREAKFASTS

7:30 a.m. (By invitation only)
Tuesday, April 1 — Breakfast for newly appointed chairman of technical committees. Dining Room #11.

Wednesday, April 2 — Program participants in Wednesday Bridge Symposium and Menzel Symposium. Dining Room #11.

Thursday, April 3 — Program participants in Thursday Bridge Symposium and Research Sessions. Dining Room #11.

Friday, April 4 — Program participants of Friday’s sessions. Dining Room #4.

TECHNICAL COMMITTEE MEETINGS
Meeting topics are in italics. Be sure to check the bulletin board near the Registration Desk for last-minute changes or added meetings.

MONDAY, March 31 9 a.m. to 12 noon

COMMITTEE

Meeting Room

117 Tolerances
209 Subcommittee 1 of Committee 209, Creep and Shrinkage in Concrete (State of the art; 1970 Symposium)
215 Subcommittee II of Committee 215, Fatigue of Concrete
301 Specifications for Structural Concrete (Revised drafts for new Guide)
309 Consolidation of Concrete (Draft reports; Research needs)
316 Construction of Concrete Pavements and Concrete Bases (Revised draft)
344 Circular Prestressed Concrete Structures (Final report)
345 Concrete Bridge Decks (Proposed standard)
347 Formwork for Concrete (Revised Manual)
423 Prestressed Concrete—Joint ACI-ASCE (Tentative recommendations of flat slabs)
426 Shear and Diagonal Tension—Joint ACI-ASCE Sub-committee structure and task reports
504 Joint Sealants (Revised report)
524 Portland Cement Plastering (Rough draft of recommended practice)

MONDAY, March 31

2:00 p.m. to 5:00 p.m.

COMMITTEE

Meeting Room

209 Sub-committee 2 of Committee 209, Creep and Shrinkage in Concrete (State of the art; 1970 Symposium) Rm. #784
224 Cracking (Sub-committee reports)
301 Specifications for Structural Concrete (Revised drafts for new Guide) Dining Rm. #18
307 Reinforced Concrete Chimneys (Proposed standard)
309 Consolidation of Concrete (Draft reports; Research needs) Dining Rm. #14
315 Detailing Reinforced Concrete Structures (Revision of Detailing Manual beyond 315-70)
344 Circular Prestressed Concrete Structures (Final report) Dining Rm. #785
349 Criteria for Nuclear Containment Vessels (Draft and Task group) Dining Rm. #11
352 Joints and Connections in Monolithic Structures (Recommendations for design of beam-column and slab-column joints) Dining Rm. #8
354 Design Practice (Procedures for 1-story industrial building) Rm. #779
441 Insulating and Cellular Concretes Dining Rm. #5
523 Insulating and Cellular Concretes Dining Rm. #7
524 Portland Cement Plastering Dining Rm. #16

7:00 p.m.

201 Durability of Concrete (Revised report) Monroe
209 Creep and Shrinkage in Concrete (State of the art; 1970 Symposium) Dining Rm. #9
309 Consolidation of Concrete (Draft reports; Research needs) Dining Rm. #14
322 Design of Structural Plain Concrete Dining Rm. #7
MONDAY, March 31

COMMITTEE

349 Criteria for Nuclear Containment Vessels (second draft) Dining Rm. #6
437 Strength Evaluation of Existing Concrete Structures (Subcommittee 2 report) Dining Rm. #8
512 Precast Structural Concrete (Proposed standard) Dining Rm. #18
515 Coatings for Concrete (Draft of recommended practice) Dining Rm. #16
517 Low Pressure Steam Curing (Revised standard) Dining Rm. #17

TUESDAY, April 1 9 a.m. to 12 noon

— Board Committee on Research Dining Rm. #4
116 Nomenclature (Supplements to ACI’s SP-19, Cement and Concrete Terminology) Rm. #783
207 Mass Concrete (Committee report) Dining Rm. #7
212 Admixtures Dining Room #14
213 Lightweight Aggregates and Lightweight Aggregate Concrete (Subcommittee reports; 1970 Symposium) Dining Rm. #18
223 Expansive Cement Concretes (Future activities) Dining Rm. #8
303 Architectural Concrete (Final report) Dining Rm. #17
305 Hot Weather Concreting (Final draft) Dining Rm. #16
308 Curing Concrete (Recommended Practice) Dining Rm. #9
344 Circular Prestressed Concrete Structures (Final report) Rm. #785
350 Sanitary Engineering Structures (Recommended Practice) Dining Rm. 6
438 Torsion (Current research and design recommendations) Rm. #779
443 Concrete Bridge Design Dining Rm. #5
503 Adhesives for Concrete Rm. #786
543 Concrete Piles (Chapter II—Design) Rm. #784

2:00 p.m. to 5:00 p.m.

— Ad hoc Committee on Structural Models Rm. #786
114 Research and Development Dining Rm. #7
118 Use of Computers (Symposium details) Dining Rm. #16

TUESDAY, April 1

COMMITTEE

119 Education (Implementation of local programs) Dining Rm. #9
211 Proportioning Concrete Mixes (Revised standard) Dining Rm. #8
213 Lightweight Aggregates and Lightweight Aggregate Concrete (Subcommittee reports; 1970 Symposium) Dining Rm. #18
344 Circular Prestressed Concrete Structures (Final report) Rm. #785
350 Sanitary Engineering Structures (Recommended Practice) Dining Rm. #6
408 Bond Stress (Committee report) Dining Rm. #14
435 Deflection of Concrete Building Structures Dining Rm. #11
438 Torsion (Current research and design recommendations) Rm. #779
443 Concrete Bridge Design Dining Rm. #5
506 Shotcreting (Draft of specification) Dining Rm. #4
516 High Pressure Steam Curing (‘69 Convention Symposium; future business) Dining Rm. #17
543 Concrete Piles (Chapter II—Design) Rm. #784

6:30 p.m.

“Concrete Mixer” social hour . . . Red Lacquer Room

WEDNESDAY, April 2 9 a.m. to 12 noon

— Chapter Forum (Chapter organization) Dining Rm. #9
222 Corrosion of Metals in Concrete Dining Rm. #6
302 Concrete Floor Finishes (Future activities) Dining Rm. #14
311 Inspection of Concrete (Codification of inspection; update Manual SP-1) Dining Rm. #18
332 Residential Concrete Work (Task groups) Rm. #779
333 Composite Construction—Joint ACI-ASCE Dining Rm. #17
334 Concrete Shell Design and Construction Rm. #783
428 Limit Design—Joint ACI-ASCE (Committee report) Dining Rm. #5
439 High Strength Reinforcement in Concrete Dining Rm. #7
### WEDNESDAY, April 2

#### COMMITTEE

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<td>2:00 p.m.</td>
<td>Response of Buildings to Lateral Forces (Preparation of committee report)</td>
<td>Dining Rm. #8</td>
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<td>2:00 p.m.</td>
<td>Precast Panels (Subcommittee agenda; Committee report)</td>
<td>Dining Rm. #16</td>
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<td>2:00 p.m.</td>
<td>Concrete Piles (Chapter II—Design) Rm. #786</td>
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<td><strong>2:00 p.m. to 5:00 p.m.</strong></td>
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<td>Fatigue of Concrete (Committee report on design of structures)</td>
<td>Dining Rm. #7</td>
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<td>Measuring, Mixing, Transporting and Placing Concrete (Committee reports; revised standard)</td>
<td>Dining Rm. #18</td>
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<td>Structural Design of Concrete for Highways and Airports (Reports of subcommittee V and VII) Rm. #785</td>
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<td>Concrete Shell Design and Construction Rm. #783</td>
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<td>Combined Footings and Pier Foundations (Draft report)</td>
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<td>Structural Safety</td>
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<td>Reinforced Concrete Slabs—Joint ACI-ASCE (Future activities)</td>
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<td>Limit Design—Joint ACI-ASCE</td>
<td>Dining Rm. #5</td>
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<td>Lightweight Concrete Masonry</td>
<td>Dining Rm. #4</td>
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<td>Precast Panels (Subcommittee agenda; committee report)</td>
<td>Dining Rm. #16</td>
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<td>Concrete Piles (Chapter II—Design) Rm. #786</td>
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<td>Fiber-Reinforced Concrete (Outline for state of art)</td>
<td>Dining Rm. #9</td>
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<td>7:00 p.m.</td>
<td>Evaluation of Results of Strength Tests of Concrete Rm. #779</td>
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<td>7:00 p.m.</td>
<td>Fire Resistance and Fire Protection of Structures (Guide on rational design)</td>
<td>Dining Rm. #17</td>
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<td>7:00 p.m.</td>
<td>Concrete Bins and Silos</td>
<td>Rm. #785</td>
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<td>7:00 p.m.</td>
<td>Concrete Masonry Structure (Report ready for final ballot)</td>
<td>Dining Rm. #14</td>
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<tr>
<td>7:00 p.m.</td>
<td>Precast Panels (Subcommittee agenda; committee report)</td>
<td>Dining Rm. #16</td>
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### SECOND INTERNATIONAL SYMPOSIUM ON CONCRETE BRIDGE DESIGN (ACI 443)

- **General Chairman:** Shu-tien Li, chairman, ACI Committee 443, professor, College of Engineering, South Dakota School of Mines and Technology, Rapid City
- **Co-Chairman:** T. Y. Lin, vice-chairman, ACI Committee 443, professor, Department of Civil Engineering, University of California, Berkeley

**Opening Remarks on the Symposium — Leonidas T. Delyannis**

**Opening Address — Shu-tien Li**

**Subject:** Loads, Skew Decks, and Fatigue

#### CHAIRMAN

- **Arthur R. Anderson**
- **J. Dudra, partner**
- **Phillips, Barratt, Hiller, Engineers, Inc.**
- **Vancouver, B.C., Canada**

**Consulting Engineers**


**A Highlight Introduction — Arthur R. Anderson, session chairman**

**Comparison of Live Loads Used in Highway Bridge Design in North America with Those in Western Europe — Alfo Seni, senior structural engineer, Lalonde, Valois, Lamarr, Valois & Associates, Consulting Engineers, and lecturer for bridge engineering, University of Montreal, Montreal, Quebec, Canada**

**Design of Simplic-Supported Skew Concrete Girder Bridges — Amin Ghafl, associate professor, Department of Civil Engineering, University of Calgary, Calgary, Alberta, Canada**
Expected Fatigue Life of Prestressed Concrete Highway Bridges as Related to the Expected Load Spectrum — Paul W. Abeles, visiting professor, and Earl I. Brown, II, professor, Department of Civil Engineering, Duke University, Durham, North Carolina

Lateral Displacements and Rotations of Skew Continuous Prestressed Concrete Bridge Decks — Jacob Shimoni, partner, Yaron-Shimoni, Consulting Engineers, Tel Aviv, Israel, and senior lecturer, Israel Institute of Technology, Haifa

2:00 p.m. to 5:00 p.m.

SUBJECT: Slab Bridges

CHAIRMAN
T. Y. Lin, professor
Department of Civil Engineering
University of California
Berkeley

CO-CHAIRMAN
Ben C. Gerwick, Jr.
president
Ben C. Gerwick, Inc.
San Francisco, California

SECRETARY: John J. Fiala, partner, Hardesty & Hanover, Consulting Engineers, New York, N.Y.

A Highlight Introduction — T. Y. Lin, session chairman

Wide Slab Bridge Behavior and Design — I. Hossain, research assistant; and R. Green, associate professor, Department of Civil Engineering, University of Waterloo, Ontario, Canada

Influence Characteristics for Slab Bridges — Gyan Chandra Nayak, reader, Department of Civil Engineering, University of Roorkee, Roorkee, U. P., India; and John Duncan Davies, reader, Department of Civil Engineering, University of Wales, Swansea, Wales, United Kingdom

Analysis of Slabs with Edge Beams — John Duncan Davies, reader; C. J. Parekh, research assistant; and O. C. Zienkiewicz, head, Department of Civil Engineering, University of Wales, Swansea, Wales, United Kingdom

The Second 24-Mile Prestressed Concrete Bridge Over Lake Pontchartrain — David G. Volkert, president; and Lewis Levine, chief structural engineer, David Volkert & Associates, Consulting Engineers, Washington, D.C.

7:30 p.m.

SUBJECT: Box and Cellular Girder Bridges

CHAIRMAN
Anthony R. Cusens, professor and head, Civil Engineering Department, University of Alberta, Edmonton, Alberta, Canada

CO-CHAIRMAN
Laurence Cazaly, principal Consulting Engineers

SECRETARY: Karl G. Tamberg, bridge research engineer, Ontario Department of Highways, Downsview, Ontario, Canada

A Highlight Introduction — Anthony R. Cusens, session chairman

Stresses in Continuous Concrete Box Girder Bridges — A. C. Scordelis, professor, Department of Civil Engineering, University of California, Berkeley; and R. E. Davis, senior bridge engineer, California Division of Highways, Sacramento

Model Analysis of a Curved Prestressed Cellular Bridge — H. W. Chung, lecturer, Department of Civil Engineering, University of Hong Kong, Hong Kong; and N. J. Gardner, assistant professor, Department of Civil Engineering, University of Ottawa, Ottawa, Ontario, Canada

An Experimental and Analytical Investigation of a Horizontally Curved Box-Beam Highway Bridge Model — I. K. Anej, structural research engineer, Sun Shipbuilding and Dry Dock Co., Chester, Pennsylvania; and Frederic Roll, professor, Department of Civil Engineering, University of Pennsylvania, Philadelphia

Analysis of Interconnected Box-Girder Bridges with Longitudinal Overhangs — P. S. Dravid, associate director, Concrete Technology Research, South Dakota School of Mines and Technology, Rapid City; and V. S. Shah, lecturer, L. D. College of Engineering, Ahmedabad, Gujarat, India
THURSDAY, April 3  9 a.m. to 12 noon
BRIDGE SYMPOSIUM (continued)

SUBJECT: Ultimate Load Analysis and Ultimate Strength Design

CHAIRMAN
Noel J. Everard, professor
Department of Engineering Mechanics
University of Texas at Arlington

CO-CHAIRMAN
Frederic Roll, professor
Department of Civil Engineering
University of Pennsylvania

A Highlight Introduction — Noel J. Everard, session chairman

Torsional Strength of Rectangular Concrete Beams in Bridge Design — Mahmoud A. Helmy, lecturer, Department of Structural Engineering, Alexandria University, Alexandria, U.A.R.

The Effect of Fatigue on Ultimate Load Behavior of Concrete Bridge Decks — F. Sawko, professor, Department of Civil Engineering, University of Liverpool, Liverpool, U. K.; and Gouranga Prasad Saha, Highway & Bridges Department, West Riding County Council, Wakefield, U. K.

Ultimate Shear Tests of Large Prestressed Concrete Bridge Beams — John M. Hanson, principal research engineer, Structural Research Section, Research and Development Division, Portland Cement Association, Skokie, Illinois; and C. L. Hulakos, chairman, Department of Civil Engineering, University of New Mexico, Albuquerque

Limit Design for Concrete Bridges — V. Ramakrishnan, head; S. Rajasekaran, lecturer; and R. Krishnamoorthy, lecturer, Department of Civil Engineering, P. S. G. College of Technology, Coimbatore, South India

A Load Distribution Method of Analyzing Statically Indeterminate Concrete Bridge Decks — Ricardo P. Pama, research fellow and honorary lecturer; and Anthony R. Cusens, head, Department of Civil Engineering, University of Dundee, Dundee, Scotland

Torsional Stiffness of Reinforced Concrete Bridge Girders — G. S. Pandit, head, Department of Structural Engineering, Malaviya Regional Engineering College, Jaipur, India

Evaluation of the Concrete Code Resistances by Compression While Calculating Reinforced Concrete Bridges — Oleg Ja. Berg, professor and department head, All Union Research Institute for Transport Construction, Moscow, USSR

Post-Tensioning with Threadbars — Richard Heinen, structural engineer, Dyckerhoff & Widmann KG, New York, N.Y.

A Continuous Composite Steel-Concrete Bridge Pressurized by Deformations of the Interior Supports — Carl Berwanger, associate professor, Department of Civil Engineering, University of Ottawa, Ottawa, Ontario, Canada

Subject: Service Load Analysis and Working Stress Design

CHAIRMAN
V. Ramakrishnan, head
Department of Civil Engineering
P. S. G. College of Technology
Coimbatore, South India

CO-CHAIRMAN
W. Gene Corley, manager
Structural Development Section
Research and Development Division
Portland Cement Assn.
Skokie, Illinois

SECRETARY: Thomas T. C. Hsu, associate professor, Department of Civil Engineering, University of Miami, Miami, Florida

A Highlight Introduction — V. Ramakrishnan, session chairman

A Load Distribution Method of Analyzing Statically Indeterminate Concrete Bridge Decks — Ricardo P. Pama, research fellow and honorary lecturer; and Anthony R. Cusens, head, Department of Civil Engineering, University of Dundee, Dundee, Scotland

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A Continuous Composite Steel-Concrete Bridge Pressurized by Deformations of the Interior Supports — Carl Berwanger, associate professor, Department of Civil Engineering, University of Ottawa, Ottawa, Ontario, Canada

Predeflected Composite Steel-Concrete Beams — Barrington de V. Batchelor, associate professor, Department of Civil Engineering, Queen's University, Kingston, Ontario, Canada; and Sat P. Setya, project engineer, Robert Haltsall & Associates, Ottawa, Ontario, Canada
FLOOR PLANS

Third, Club, Fourth and Sixth Floors

The seven hundred (700) series rooms, meeting rooms for technical committees, Monday through Wednesday, are located on the seventh floor.

Technical-Educational exhibits will be on display in the Upper Exhibition Hall . . . Tuesday through Thursday.
MENZEL SYMPOSIUM ON HIGH PRESSURE STEAM CURING

(Sponsored jointly by ACI Committee 516 and the Autoclave Division Committee of the National Concrete Masonry Association ... in honor of Carl A. Menzel)

SESSION CHAIRMAN: William H. Kuennig, chairman, ACI Committee 516, and principal engineer, Technical Services Department, Research and Development Division, Portland Cement Association, Skokie, Illinois

The Work of Carl Menzel — Cedric Willson, vice-president of engineering, Texas Industries, Arlington, Texas

Some Physical and Chemical Aspects of High Pressure Steam Curing — George Verbeek, director of materials research; and L. E. Copeland, manager of cement research, Research and Development Division, Portland Cement Association, Skokie, Illinois

Laboratory Evaluation of Binders for Autoclaved Concrete Products — R. C. Valore, Jr., principal, Valore Research Associates, Ridgewood, New Jersey

Single Crystals of Calcium Silicate and Aluminate Hydrates and Their Aggregations in Autoclaved Cement Paste* — Yuri M. Butt, professor, Mendeleev Institute of Chemical Technology, Moscow, USSR

Rapid Autoclave Curing Cycles for Concrete Masonry Units — Thomas B. Redmond, manager, Research and Development, National Concrete Masonry Association, Arlington, Virginia


*To be presented by title only. Paper to be printed in symposium volume.

CHAIRMAN: Clyde Stewart, Autoclave Division Committee, NCMA, and vice-president, Illinois Brick Company, Chicago, Illinois

Highlights of the SECOND INTERNATIONAL SYMPOSIUM ON AUTOCLAVED CALCIUM SILICATE BUILDING MATERIALS, Hannover, Germany — Cedric Willson, vice-president of engineering, Texas Industries, Arlington, Texas

Influence of Temperature Deformations and Pressure of Steam-Air Environment on Autoclave Hardening Concrete* — S. A. Mironov, L. A. Malinina, and S. Cheryachakina, Research Institute of Concrete and Reinforced Concrete, Moscow, USSR

A New Process for Calcium Silicate Brick Manufacture* — J. S. Wheeler, president, The Ontario Building Materials Group, Toronto, Ontario, Canada

Autoclaved Asbestos-Cement Products — Julie C. Yang, research associate, Corporate Research and Development, Johns-Manville Research and Engineering Center, Manville, New Jersey

Trends in the Design of Manufacturing Facilities for the Automated Production of Autoclaved Concrete Block — James C. Bailey, president; and E. C. Clay, engineer, Concrete Manufacturing Company, Atlanta, Georgia

Color in Autoclaved Products — C. James Guilde, vice-president and general manager, Concrete Masonry and Concrete Division, Crowe-Guilde Cement Company, Amarillo, Texas

*To be presented by title only. Paper to be printed in symposium volume.
THURSDAY, April 3

9:00 a.m. to 12:00 noon . . . . . Grand Ballroom

RESEARCH ON PLAIN CONCRETE

These two research sessions on "Plain" and "Reinforced Concrete" are under the supervision of ACI Committee 115 — Current Research Brief.

CHAIRMAN: J. H. Walker, secretary of ACI Committee 115, and vice-president, Research and Development Division, Portland Cement Association, Skokie, Illinois

Local Extensibility and Tensile Strength of Concrete or Rock and the Theorems of Limit Analysis — Wallace Chen, Department of Civil Engineering, Lehigh University, Bethlehem, Pennsylvania

Winter Use of Epoxy Resin Concrete — C. L. Chapin; B. Kellam; and T. G. Clendenning, Ontario Hydro Electric Power Commission, Toronto, Ontario, Canada

Weathering and Durability of Highway Concrete — John Lemish; J. H. Elwell; and David Simon, Department of Earth Science, Iowa State University, Ames

Optimum Proportioning of Gap-Graded Air-Entrained Concrete — Shu-tien Li and P. S. Dravid, Civil Engineering Department, South Dakota School of Mines and Technology, Rapid City

An Alternative Approach to Determination of Tricalcium Aluminate in Portland Cement by X-Ray Diffraction — Katharine Mather, Petrography Section, Concrete Division, U.S. Army Engineer Waterways Experiment Station, Jackson, Mississippi

Strength of Plain Concrete under Combined Compressive Loads — R. M. Zimmerman and L. L. Mills, Department of Civil Engineering, New Mexico State University, Las Cruces

Concrete Fracture — F. Moavenzadeh and T. W. Brommer, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge

Viscoelastic Study of Mortars — Joseph Nemec, Jr. and T. C. Brown, Department of Civil Engineering and Applied Mechanics, McGill University, Montreal, Quebec, Canada

Study of Time-Dependent Deformations of Concrete — E. S. Perry and T. W. Kennedy, Department of Civil Engineering, University of Texas, Austin

Influence of Fine, Lightweight Aggregate Particle Shape on Concrete Mixing Water Requirement and Strength — Milton H. Wills, Jr., Martin-Marietta Cement & Lime Division, Baltimore, Maryland

THURSDAY, April 3

2:30 p.m. to 5:00 p.m . . . . . Grand Ballroom

RESEARCH ON REINFORCED CONCRETE

confidential reports will be featured. As for all ACI research in progress sessions, request is made that the proceedings be regarded as confidential.

CHAIRMAN: Adrian Pauw, chairman of ACI Committee 115, and professor, College of Engineering, University of Missouri, Columbia

Stiffness Degradation of Reinforced Concrete Structures Subjected to Reversal Actions — Vitelmo Bertolli; B. Breier; and H. Liao, Department of Civil Engineering, University of California, Berkeley

Continuous Cylindrical Thin-Shell Concrete Model — Peter Darvall and Robert Mark, Department of Civil and Geological Engineering, Princeton University, Princeton, New Jersey

Development of Design Criteria for Continuous Composite Steel-Concrete Bridges — J. W. Fisher; R. G. Slutter; and J. H. Daniels, Department of Civil Engineering, Lehigh University, Bethlehem, Pennsylvania

Precast, Prestressed Concrete for Bridge Decks — M. J. Gutzwiller; R. H. Lee; and C. F. Scholer, Department of Civil Engineering; Purdue University, Lafayette, Indiana

Shear Stresses in Flat Plates near Columns — Paul E. Mast and W. Gene Corley, Design Research Section, Research and Development Division, Portland Cement Association, Skokie, Illinois

The Strength and Behavior of Spandrel Beams — J. O. Jirska and J. L. Baumgartner, Department of Civil Engineering, Rice University, Houston, Texas

Investigation of Bond Characteristics of Prestressing Strand — M. F. Stocker, Department of Civil Engineering, University of Illinois, Urbana

A Comparative Study of the Rotational Capacity and Ductility of Reinforced Concrete Beams — E. F. Smith; W. A. Sussman; and G. R. Underhill, Department of Civil Engineering, West Virginia University, Morgantown

Shear Capacity of Beams with Web Openings — Norman F. Somes and John M. Hanson, Structural Research Section, Research and Development Division, Portland Cement Association, Skokie, Illinois
THURSDAY, April 3
12:15 p.m.  AWARDS LUNCHEON . . .

Angeles  Carlson  Corbetta  Erickson
Huang  Kori  Korb  Mather
Siefried  Siess  Thornton

Red Lacquer Room  12:15 p.m.

Ersoy  Farmer  Ferguson  Foster
May  Nervi  Reese  Rippstein

HONORARY MEMBERSHIP
RAYMOND C. REESE
BRYANT MATHER
CHESTER P. SIESS
PIER LUIGI NERVI
ROY W. CARLSON

Henry C. Turner Medal to . . . ROGER H. CORBETTA
... "for pioneering in concrete construction and more
recently for promoting and implementing coordination
and cooperation among the various segments of the
concrete industry."

Alfred E. Lindau Award to ... E. E. RIPPSTEIN
and J. F. SEIFRIED . . . "for outstanding service in
improving and standardizing the detailing of rein-
forced concrete and particularly for their work on the
preparation and updating of the ACI Manual of
Standard Practice for Detailing Reinforced Concrete
Structures."

Henry L. Kennedy Award to . . . BRUCE E. FOSTER
... "for significant contributions to ACI progress
through long and forward-looking service on admin-
istrative committees, technical committees, and the
Board of Direction."

Charles S. Whitney Award to . . . ERIC L. ERICKSON
and the BRIDGE DIVISION, U.S. BUREAU OF PUB-
LIC ROADS . . . "for distinguished contributions to
the development of concrete bridge design and
construction."

Wason Medal for Most Meritorious Paper to . . . the
late G. N. J. KANI . . . for his paper, "How Safe
are Our Large Reinforced Concrete Beams?" ACI
128-141."

Wason Medal for Research to . . . LARRY E. FARM-
ER, PHIL M. FERGUSON, and UGUR ERSOY . . .
to LARRY E. FARMER and PHIL M. FERGUSON
for their paper, "T-Beams Under Combined Bending,
Shear, and Torsion," ACI JOURNAL, Proceedings V.
64, No. 11, Nov. 1967, pp. 757-766; and . . . to UGUR
ERSOY and PHIL M. FERGUSON for their paper,
"Behavior and Strength of Concrete L-Beams Under
Combined Torsion and Shear," ACI JOURNAL,
Proceedings V. 64, No. 3, March 1967, pp. 128-141."

Construction Practice Award to . . . LIN Y. HUANG,
N. P. ANGELES, HOWARD R. MAY, KEITH C.
THORNTON, and JACK L. KORB . . . for their paper,
"Design and Construction of North Terminal
Building at the Detroit Metropolitan Airport," ACI
JOURNAL, Proceedings V. 64, No. 8, August 1967,
pp. 476-491."

* Recognition of Retiring Officers
* Report of Tellers and Introduction of New Officers
* Presentation of Memento to Retiring President
FRIDAY, April 4  9 a.m. to 12:00 noon
                . . . Grand Ballroom

GENERAL SESSION

Welcome to Chicago — J. H. Walker, general chairman, 65th Annual ACI Convention, and vice-president, Research and Development Division, Portland Cement Association, Skokie, Illinois

Presidential Address—Graydon E. Burnett, President, ACI, and chief research scientist, U.S. Bureau of Reclamation, Denver, Colorado

ACI Bylaws Revision — presented by S. D. Burks, chairman, Board Committee on Bylaws, and Western Area manager, Construction Products Division, W. R. Grace & Company, San Leandro, California

Presentation of new standard “Recommended Practice for Concrete Floor and Slab Construction” — ACI Committee 302. Presentation by Lewis H. Tuthill, chairman, ACI Committee 302, and concrete engineer, California Department of Water Resources, Sacramento

Presentation of revised standard ACI 305-54 “Specification for the Design and Construction of Reinforced Concrete Chimneys” — ACI Committee 307. Presentation by Max Zar, chairman, ACI Committee 307, and partner and manager of Structural Department, Sargent and Lundy, Chicago, Illinois

BREAK

Teamwork in Concrete Technology — Harry N. Hutzicker, president, Portland Cement Association, Skokie, Illinois


Report of Technical Activities Committee — Robert E. Phillee, chairman, TAC, and civil engineer, Office, Chief of Engineers, Department of the Army, Washington, D.C.

SYNOPSIS OF STANDARDS TO BE PRESENTED

Presentation by ACI Committee 302

Quality of a concrete slab floor is highly dependent on achieving a hard and durable surface which is plane and free of cracks. The properties that the surface have are determined by the quality of the concreting operations. Furthermore, timing of these concreting operation and finishing techniques is critical. Otherwise, undesirable changes occur at the wearing surface; these may lead to soft or dusting surfaces, permeable concrete, cracking, and poor durability.

This recommended practice tells how to produce good quality floors and slabs for various classes of service, emphasizing such aspects of construction as site preparation, concreting materials, concrete mixture proportions, concreting, workmanship, and curing. Adequate supervision and inspection are required of all job operations including particularly those of finishing.

Presentation by ACI Committee 307

This report gives material, construction, and design requirements for reinforced concrete chimneys. The report sets forth recommended loadings for the design of reinforced concrete chimneys and recommended methods for determining the stresses in the concrete and reinforcement resulting from these loadings. Charts containing curves to aid in the rapid solution of the specified formulas are included. While the method of analysis applies primarily to chimneys, it can be used for other hollow circular cross sections, with or without openings, where the shell thickness is small in proportion to the diameter.

Formulas are recommended for determining the temperature gradient through the concrete resulting from the difference in temperature of the gases inside the chimney and surrounding atmosphere, together with methods for determining the stresses in the concrete and reinforcement both vertically and circumferentially due to the temperature gradient through the concrete.
CONCURRENT
FRIDAY, April 4
2:00 p.m.

DESIGN AND ANALYSIS
... Red Lacquer Room

CHAIRMAN: Paul E. Mast, manager, Design Research Section, Research and Development Division, Portland Cement Association, Skokie, Illinois

A Proposed Design Procedure for Slender Columns (A 2-part presentation) — J. G. MacGregor, associate professor, Department of Civil and Municipal Engineering, University of Alberta, Edmonton, Alberta, Canada; J. E. Breen, associate professor, Department of Civil Engineering, University of Texas, Austin; and E. O. Pfrang, chief, Structures Section, Building Research Division, IAT, National Bureau of Standards, Washington, D.C.

BREAK

Compressive Strength of Slender Concrete Masonry Walls — Robert G. Mathey, assistant chief; and Felix Y. Yokel, engineer, Structures Section, Building Research Division, IAT, National Bureau of Standards, Washington, D.C.

Reinforced Concrete Design Computer Program STRUDL II (A 2-part presentation) — John M. Biggs, professor, Civil Engineering Department, Massachusetts Institute of Technology, Cambridge; and Harry N. Wenke, project engineer, Design Research Section, Research and Development Division, Portland Cement Association, Cambridge, Massachusetts

SESSIONS
FRIDAY, April 4
5:00 p.m.

CONSTRUCTION AND MATERIALS
... State Ballroom

CHAIRMAN: M. L. Burgener, director, Construction Methods Department, Research and Development Division, Portland Cement Association, Skokie, Illinois

Mass Housing in Concrete — Past and Future Efforts — John L. Hagel, research architect, Construction Research Section, Research and Development Division, Portland Cement Association, Skokie, Illinois

A Precast Concrete System for Office and Warehouse Facilities — Harry L. Scoggin, structural engineer/architect, Hinsdale, Illinois

BREAK

Concrete in Rapid Transit — Colonel Harold E. Nelson (USA Ret.), engineer of construction, Department of Public Works, City of Chicago, Chicago, Illinois

Polymer Concrete—A Potential Construction Material — J. T. Dikeou, supervisory physical scientist; J. E. Backstrom, head, Concrete Properties Section, Division of Research, Bureau of Reclamation, Denver, Colorado; L. E. Kukacka, chemical engineer; and M. Steinberg, supervisor, Radiation Processing Section, Radiation Division, Brookhaven National Laboratory, Upton, New York

To be presented by: Elmo C. Higginson, chief, Concrete and Structures Branch, Bureau of Reclamation, Denver, Colorado

Construction of the Epoxy-Bonded Reinforced Concrete Sydney, Australia, Opera House — 16mm/sound movie
TECHNICAL-EDUCATIONAL EXHIBITS

Be sure to visit each of these exhibits...
Discover for yourself the latest materials,
equipment, and services that are available
to help you in your endeavor.

Acme Highway Products Corp., Buffalo, N.Y.
Adhesive Engineering Co., San Carlos, Calif.
Almar Specialty Machines, Inc.,
Maple, Ontario, Canada
Atlas Prestressing Corp., Van Nuys, Calif.
Bethlehem Steel Corp., Bethlehem, Pa.
Calcium Chloride Institute, Washington, D.C.
Conesco Midcontinent, Inc., Brookfield, Ill.
Decor-Cem, Inc., Rockford, Ill.
Erico Products, Inc., Cleveland, Ohio
Fly Ash Group
Cambridge, Mass.
Hilti, Inc., Stamford, Conn.
Hohmann & Barnard, Inc., Woodside, N.Y.
Illinois Slag & Ballast Co., Chicago, Ill.
Imoco-Gateway Corp., Chicago, Ill.
Inland-Ryerson Construction Products Co.,
Milwaukee, Wis.
Master Builders, Cleveland, Ohio
Molded Fiber Glass Concrete Forms Co.,
Ashtabula, Ohio
National Ash Association, Washington, D.C.
Nelso Stud Welding, Lorain, Ohio
The Prescon Corp., Corpus Christi, Texas
Protex Industries, Inc., Denver, Colo.
Sika Chemical Corp., Lyndhurst, N.J.
Soiltest, Inc., Evanston, Ill.
Sonoco Products Co., Hartsville, S.C.
Symons Mfg., Des Plaines, Ill.
TESTlab Corp., Chicago, Ill.
The Tube Slab Co., Hartford, Conn.
The Upco Co., Cleveland, Ohio

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