

# AMERICAN CONCRETE INSTITUTE



**1979**

## ANNUAL CONVENTION



**MARC PLAZA  
MILWAUKEE, WISCONSIN**

**March 18-23, 1979**

# PROGRAM 75th ANNUAL CONVENTION

March 18-23, 1979  
Milwaukee, Wisconsin

Registration fees cover attendance at all ACI technical and educational committee meetings, general session, symposia, and the Concrete Mixer. They do not cover the educational seminars on Tuesday and Wednesday nor the Awards Luncheon on Thursday for which there are separate charges.

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## SUSTAINING MEMBERS OF THE AMERICAN CONCRETE INSTITUTE

Master Builders  
Division of Martin Marietta Corporation  
Cleveland, Ohio

Southwestern Portland Cement Company  
Los Angeles, California

Portland Cement Association  
Skokie, Illinois

Sika Chemical Corporation  
Lyndhurst, New Jersey

Marquette Company  
Nashville, Tennessee

Martin Marietta Cement  
Bethesda, Maryland

W. R. Grace & Company  
Cambridge, Massachusetts

# SCHEDULE

## SUNDAY, MARCH 18

8:30 a.m. - 6:00 p.m.  
Administrative committee meetings

## MONDAY, MARCH 19

8:30 a.m. - 10:00 p.m.  
Administrative, technical, and educational committee meetings

## TUESDAY, MARCH 20

8:30 a.m. - 10:00 p.m.  
Administrative, technical, and educational committee meetings  
1:30 p.m. - 5:30 p.m.  
Concrete Construction Clinic (Registration fee: \$10.00)

## WEDNESDAY, MARCH 21

8:15 a.m. - 9:00 a.m.  
Breakfast Assembly  
9:00 a.m. - 10:30 a.m.  
General Session  
10:30 a.m. - 11:30 a.m.  
ACI Rap Session  
1:30 p.m. - 5:30 p.m.  
Symposium on Deterioration of Concrete (ACI Wisconsin Chapter)  
2:00 p.m. - 5:00 p.m.  
Research on Plain and Reinforced Concrete (Committee 115)  
2:00 p.m. - 5:00 p.m.  
Building Nuclear Power Plant Components to ASME Section III, Division 2 (ACI Standard 359) (Committee 359)  
2:00 p.m. - 6:00 p.m.  
Seminar: Seismic Design of Concrete Structures (Committee E-702) (Registration fee: \$25.00 ACI Members; \$30.00 Nonmembers)  
2:00 p.m. - 6:00 p.m.  
Administrative, technical, and educational committee meetings  
8:00 p.m. - 8:00 p.m.  
Concrete Mixer

## THURSDAY, MARCH 22

8:30 a.m. - 12:30 p.m.  
Symposium on Sanitary Engineering Structures (Committee 350)  
8:30 a.m. - 6:00 p.m.  
International Symposium on Foundations for Equipment and Machinery (Committee 351)

8:30 a.m. - 10:00 p.m.  
Administrative, technical, and educational committee meetings  
9:00 a.m. - 5:30 p.m.  
Practical and Potential Applications of High-Strength Concrete (Ad Hoc Committee)  
12:15 p.m. - 2:30 p.m.  
Awards Luncheon  
2:30 p.m. - 5:30 p.m.  
Symposium on Accelerated Curing (Committees 516 and 517)  
7:30 p.m. - 10:00 p.m.  
Forum: Concrete Parking Structures—Do They Have Problems? (Committee 114)

## FRIDAY, MARCH 23

8:00 a.m. - 1:00 p.m.  
Technical and educational committee meetings  
9:00 a.m. - 12:00 noon  
Design Philosophies for Shear Walls (Committees 442 and 445)  
9:00 a.m. - 12:00 noon  
Concrete Transportation and Placing Equipment: Past, Present, and Future (Committee 304)



### Special recognition for ACI Fellows & Members

A lapel pin especially created to recognize ACI Fellows. The pins are approximately of 1/2-in. size and feature the ACI emblem as well as Fellow indication. Price is \$6.50 each. Order (using your member reference number) including check or money order from ACI Headquarters. A lapel pin in blue enamel is also available for members at \$6.00 each.

## SPECIAL EVENTS

**Information Booth** . . . on the fourth floor all week. This booth has been set up by the Local Convention Committee to help you explore Milwaukee. Take advantage of it!

**Publications Display** . . . on the fourth floor all week. See the latest ACI publications now available. Orders are taken at the ACI Registration Desk which is also on the fourth floor.

**Breakfast (by invitation only)** . . . 7:00 a.m., Tuesday, in the Regency Room, for technical committee chairmen.

**Film on Shotcrete** . . . starting at 11:00 a.m., Tuesday, in the Empire Room. As a special added attraction, ACI Committee 506, Shotcreting, will show a slide presentation entitled, "Refractory Shotcrete and Gun Casting." It will be incorporated as part of their regular committee meeting and visitors are invited to attend.

**Education at the Convention** . . . Two half-day programs are being presented, each of which require a separate registration fee. Since enrollment is limited, early registration is advised.

**Concrete Construction Clinic** . . . Tuesday, 1:30 p.m. - 5:30 p.m., in the Crystal Ballroom. Designed to show the participants how concrete should be considered as a total system of construction.

**Seismic Design of Concrete Structures** . . . Wednesday, 2:00 p.m. - 6:00 p.m., in the Empire Room. Arranged to help engineers handle the problems associated with the design of structures in seismic zones.

**Breakfast Assembly** . . . Wednesday, 8:15 a.m. - 9:00 a.m., in the Crystal Ballroom. A complimentary continental breakfast will be served buffet style prior to the start of the General Session.

**Members' Rap Session** . . . 10:30 a.m., Wednesday, in the Crystal Ballroom. This is your chance to talk informally with ACI Officers and Staff.

**"Concrete Mixer"** . . . 6:00 p.m. - 8:00 p.m., Wednesday. This traditional event will be held at the Wisconsin Club which is a beautiful old mansion located a short distance from the hotel. Buses will shuttle you to and from the Club. Please wear your badge and bring your ticket.

**Awards Luncheon** . . . Thursday, 12:15 p.m. - 2:30 p.m., in the Empire Room. Good food and drink and multi-media presentations are combined into a pleasurable format. Get your tickets early!

**Special Tours** . . . have been planned by the Local Convention Committee. Be sure to check the Women's Program in the back of this booklet for tours of interest to you. There will be at least one and probably several. Don't miss them!

**Technical Tours** . . . have also been planned by the Local Convention Committee. Since both men and women are invited to come, further information on these tours is included in the Women's Program in the back of this booklet. Tickets are available from the Information Booth on the fourth floor.

## COMMITTEE MEETINGS

Be sure to check the bulletin board for last minute changes or added meetings.

### COMMITTEE MEETINGS SUNDAY

	Meeting Room
<b>MARCH 18</b>	<b>8:30 a.m. - 12:30 p.m.</b>
- Technical Activities Committee Subgroup	Da Vinci
- Technical Activities Committee Subgroup	Chagall
- Technical Activities Committee Subgroup	Dali
	<b>2:00 p.m. - 6:00 p.m.</b>
- Technical Activities Committee	Da Vinci

### MONDAY

	Meeting Room
<b>MARCH 19</b>	<b>8:30 a.m. - 10:30 a.m.</b>
- Educational Activities Committee	Rembrandt
- Technical Activities Committee	Da Vinci
- Ad Hoc Committee on Membership	Governor's Suite
<b>118</b> Use of Computers	Chagall
<b>211</b> Subcommittee 1, Lightweight Concrete Mixes	Parliament
<b>211</b> Subcommittee 7, Mass Concrete Mixture Proportioning	Matisse
<b>304</b> Measuring, Mixing, Transporting, and Placing Concrete	Regency
<b>318</b> Subcommittee 3, Details, Development and Splices of Reinforcement	Renoir
<b>318</b> Subcommittee 11, Alternate Design Methods	Conference
<b>349</b> Working Group on Design	Crystal Ballroom
<b>349</b> Working Group on Impact and Impulse	Monarch
<b>349</b> Working Group on Embedments	Ballroom Foyer
<b>349</b> Working Group on Materials	Westminster
<b>355</b> Anchorage to Concrete	Dali
<b>423</b> Prestressed Concrete	Picasso
<b>435</b> Deflection of Concrete Building Structures	Empire
<b>531</b> Masonry Structures	Van Gogh
- ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
	<b>10:30 a.m. - 12:30 p.m.</b>
- Institute and Industry Advancement Committee	Matisse
- Educational Activities Committee	Rembrandt
- Technical Activities Committee	Da Vinci
<b>118</b> Use of Computers	Chagall
<b>120</b> History of Concrete	Michelangelo
<b>201</b> Subcommittee on Sulfate Resistance	Board Room, Admiral Inn
<b>211</b> Proportioning Concrete Mixes	Regency
<b>318</b> Subcommittee 3, Details, Development, and Splices of Reinforcement	Renoir
<b>318</b> Subcommittee 4, Analysis and Safety	Churchill
<b>318</b> Subcommittee 11, Alternate Design Methods	Conference
<b>349</b> Working Group on Design	Crystal Ballroom

349	Working Group on Impact and Impulse	Monarch
349	Working Group on Embedments	Ballroom Foyer
349	Working Group on Materials	Westminster
355	Anchorage to Concrete	Dali
423	Prestressed Concrete	Picasso
435	Deflection of Concrete Building Structures	Empire
437	Strength Evaluation of Existing Concrete Structures	Parliament
531	Masonry Structures	Van Gogh
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
2:00 p.m.-4:00 p.m.		
—	Planning Committee	Dali
—	Board Committee on Metrication	Renoir
—	Educational Activities Committee	Rembrandt
223	Expansive Cement Concretes	Picasso
302	Construction of Concrete Floors	Parliament
315	Details of Concrete Reinforcement	Chagall
318	Subcommittee 7, Shear and Torsion	Piccadilly
318	Subcommittee 12, Performance Code Concept	Churchill
318	Task Group on Code Simplification	Michelangelo
343	Concrete Bridge Design	Regency
349	Working Group on Design	Crystal Ballroom
349	Working Group on Impact and Impulse	Monarch
349	Working Group on Embedments	Ballroom Foyer
349	Working Group on Materials	Westminster
408	Bond and Development of Reinforcement	Matisse
441	Reinforced Concrete Columns	Da Vinci
506	Shotcreting	Empire
531	Masonry Structures	Van Gogh
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
4:00 p.m.-6:00 p.m.		
—	Planning Committee	Dali
—	Educational Activities Committee	Rembrandt
201	Durability of Concrete	Westminster
207	Mass Concrete	Ballroom Foyer
302	Construction of Concrete Floors	Parliament
308	Curing Concrete	Crystal Ballroom
315	Details of Concrete Reinforcement	Chagall
317	Subcommittee 7, Shear and Torsion	Piccadilly
318	Subcommittee 12, Performance Code Concept	Churchill
318	Task Group on Code Simplification	Michelangelo
336	Combined Footings and Pier Foundations	Renoir
343	Concrete Bridge Design	Regency
349	Concrete Nuclear Structures	Monarch
408	Bond and Development of Reinforcement	Matisse
441	Reinforced Concrete Columns	Da Vinci
444	Models of Concrete Structures	Picasso
506	Shotcreting	Empire
531	Masonry Structures	Van Gogh
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh

104	Notation	Matisse
207	Mass Concrete	Ballroom Foyer
318	Subcommittee 1, General	Churchill
318	Task Group on Liaison with Other Materials Groups	Conference
336	Combined Footings and Pier Foundations	Renoir
351	Subcommittee 2 (Foundations for Equipment and Machinery)	Dali
358	Concrete Guideways	Parliament
444	Models of Concrete Structures	Picasso
504	Joint Sealants	Michelangelo

## TUESDAY

		7:30 p.m.-9:30 p.m.
104	Notation	Matisse
207	Mass Concrete	Ballroom Foyer
318	Subcommittee 1, General	Churchill
318	Task Group on Liaison with Other Materials Groups	Conference
336	Combined Footings and Pier Foundations	Renoir
351	Subcommittee 2 (Foundations for Equipment and Machinery)	Dali
358	Concrete Guideways	Parliament
444	Models of Concrete Structures	Picasso
504	Joint Sealants	Michelangelo
<b>TUESDAY</b>		
		8:30 a.m.-10:30 a.m.
—	Board of Direction	Rembrandt
—	Standards Board	Board Room, Admiral Inn
225	Hydraulic Cements	Michelangelo
303	Architectural Concrete	Dali
311	Inspection of Concrete	Picasso
313	Concrete Bins and Silos	Monarch
318	Subcommittee 6, Flexure and Axial Loads	Churchill
318	Subcommittee 9, Prestressed, Precast and Composite Concrete	Piccadilly
318	Task Group on Plain Concrete	Conference
344	Circular Prestressed Concrete Structures	Renoir
347	Formwork for Concrete	Crystal Ballroom
352	Joints and Connections in Monolithic Concrete Structures	Westminster
360	Design of Slabs on Grade	Ballroom Foyer
442	Response of Buildings to Lateral Forces	Matisse
503	Adhesives for Concrete	Chagall
506	Shotcreting	Empire
531	Masonry Structures	Van Gogh
543	Concrete Piles	Parliament
E-601	Seminars and Workshops	Da Vinci
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
		10:30 a.m.-12:30 p.m.
—	Board of Direction	Rembrandt
—	Standards Board	Board Room, Admiral Inn
225	Hydraulic Cements	Michelangelo
303	Architectural Concrete	Dali
306	Cold Weather Concreting	Chagall
311	Inspection of Concrete	Picasso
313	Concrete Bins and Silos	Monarch
318	Subcommittee 6, Flexure and Axial Loads	Churchill
318	Subcommittee 9, Prestressed, Precast and Composite Concrete	Piccadilly
318	Task Group on Plain Concrete	Conference
332	Residential Concrete Work	Parliament
344	Circular Prestressed Concrete Structures	Renoir
347	Formwork for Concrete	Crystal Ballroom
352	Joints and Connections in Monolithic Concrete Structures	Westminster

360	Design of Slabs on Grade	Ballroom Foyer
442	Response of Buildings to Lateral Forces	Matisse
506	Shotcreting	Empire
531	Masonry Structures	Van Gogh
E-601	Seminars and Workshops	Da Vinci
E-701	Materials for Concrete Construction	Regency
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
		1:30 p.m.-5:30 p.m.
	<b>CONCRETE CONSTRUCTION CLINIC</b>	Crystal Ballroom
		2:00 p.m.-4:00 p.m.
351	Subcommittee 4 (Foundations for Equipment and Machinery)	Board Room, Admiral Inn
		2:00 p.m.-6:00 p.m.
—	<b>Board of Direction</b>	Rembrandt
117	Tolerances	Chagall
121	Quality Assurance Systems for Concrete	Regency
213	Lightweight Aggregates and Lightweight Aggregate Concrete	Da Vinci
221	Aggregates	Michelangelo
224	Cracking	Picasso
303	Architectural Concrete	Dali
313	Concrete Bins and Silos	Monarch
318	Subcommittee 2, Concrete Quality and Construction Requirements	Churchill
318	Subcommittee 5, Serviceability	Piccadilly
318	Subcommittee 8, Two-Way Slabs	Conference 
332	Residential Concrete Work	Parliament
340	Strength Design Handbook	Westminster
344	Circular Prestressed Concrete Structures	Renoir
345	Concrete Bridge Construction and Maintenance	Ballroom Foyer
348	Structural Safety	Matisse
506	Shotcreting	Empire
531	Masonry Structures	Van Gogh
—	ACI-ASCE Joint Committee on Masonry Structures	Van Gogh
		7:30 p.m.-9:30 p.m.
—	Ad Hoc Committee on Publications	Westminster
115	Research and Development	Parliament
212	Admixtures	Chagall
214	Evaluation of Results of Tests Used to Determine the Strength of Concrete	Dali
305	Hot Weather Concreting	Regency
318	Subcommittee 10, Seismic Provisions	Conference
318	Task Group on Metrication	Piccadilly
325	Concrete Pavements	Matisse
351	Foundations for Equipment and Machinery	Monarch
532	Concrete Masonry	Churchill

## WEDNESDAY

MARCH 21

BREAKFAST ASSEMBLY

8:15 a.m.-9:00 a.m.

Crystal Ballroom

		8:30 a.m.-12:30 p.m.
359	Subgroup on Testing for Protection vs. Overpressure	Rembrandt
359	Working Group on Quality Assurance and Stamping	Da Vinci
359	Working Group on Duties and Responsibilities	Chagall
544	Fiber Reinforced Concrete	Picasso
		9:00 a.m.-10:30 a.m.
	<b>GENERAL SESSION</b>	Crystal Ballroom
		10:30 a.m.-11:30 a.m.
	<b>ACI MEMBERS' RAP SESSION</b>	Crystal Ballroom
		1:30 p.m.-5:30 p.m.
	<b>DETERIORATION OF CONCRETE</b>	Monarch
		2:00 p.m.-4:00 p.m.
—	Chapter Activities Committee	Picasso
—	Convention Committee	Michelangelo
209	Creep and Shrinkage in Concrete	Piccadilly
301	Specifications for Structural Concrete	Churchill
318	Standard Building Code	Van Gogh
344	Circular Prestressed Concrete Structures	Renoir
350	Sanitary Engineering Structures	Westminster
359	Subgroup on Testing for Protection vs. Overpressure	Rembrandt
359	Working Group on Quality Assurance and Stamping	Da Vinci
359	Working Group on Duties and Responsibilities	Chagall
439	Steel Reinforcement	Conference
517	Accelerated Curing of Concrete at Atmospheric Pressure	Matisse
547	Refractory Concrete	Dali
E-702	Designing Concrete Structures	Parliament
		2:00 p.m.-5:00 p.m.
	<b>RESEARCH ON PLAIN AND REINFORCED CONCRETE</b>	Regency
	<b>BUILDING NUCLEAR POWER PLANT COMPONENTS TO ASME SECTION III, DIVISION 2 (ACI STANDARD 359)</b>	Crystal Ballroom
		2:00 p.m.-6:00 p.m.
	<b>SEMINAR: SEISMIC DESIGN OF CONCRETE STRUCTURES</b>	Empire
		4:00 p.m.-6:00 p.m.
—	Chapter Activities Committee	Picasso
—	Convention Committee	Michelangelo
116	Nomenclature	Rembrandt
209	Creep and Shrinkage in Concrete	Piccadilly
216	Fire Resistance and Fire Protection of Structures	Matisse
301	Specifications for Structural Concrete	Churchill
318	Standard Building Code	Van Gogh
344	Circular Prestressed Concrete Structures	Renoir
350	Sanitary Engineering Structures	Westminster
439	Steel Reinforcement	Conference
544	Fiber Reinforced Concrete	Chagall
547	Refractory Concrete	Dali
E-702	Designing Concrete Structures	Parliament

## THURSDAY

MARCH 22

	8:30 a.m.-10:30 a.m.	
114	Research and Development	Westminster
309	Consolidation of Concrete	Chagall
318	Standard Building Code	Van Gogh
356	Industrialized Concrete Construction	Piccadilly
359	Subgroup on Design	Parliament
359	Subgroup on General Requirements	Da Vinci
359	Working Group on Core Support Structures	Matisse
359	Working Group on Component Supports	Michelangelo
359	Working Group on Concrete	Churchill
359	Working Group on Liners	Renoir
359	Working Group on Reinforcing and Prestressing	Picasso
547	Refractory Concrete	Dali
548	Polymers in Concrete	Rembrandt
E-801	Student Concrete Projects	Empire

### FOUNDATIONS FOR EQUIPMENT AND MACHINERY (first session)

Regency

### SANITARY ENGINEERING STRUCTURES

8:30 a.m.-12:30 p.m.

Monarch

### PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE (first session)

Crystal Ballroom

10:30 a.m.-12:30 p.m.

114	Research and Development	Westminster
309	Consolidation of Concrete	Chagall
318	Standard Building Code	Van Gogh
356	Industrialized Concrete Construction	Piccadilly
359	Subgroup on Design	Parliament
359	Subgroup on General Requirements	Da Vinci
359	Working Group on Core Support Structures	Matisse
359	Working Group on Component Supports	Michelangelo
359	Working Group on Concrete	Churchill
359	Working Group on Liners	Renoir
359	Working Group on Reinforcing and Prestressing	Picasso
547	Refractory Concrete	Dali
548	Polymers in Concrete	Rembrandt

### AWARDS LUNCHEON

12:15 p.m.-2:30 p.m.

Empire

	2:30 p.m.-4:30 p.m.	
—	New Board of Direction	Rembrandt
318	Standard Building Code	Van Gogh
359	Subgroup on Design	Parliament
359	Subgroup on General Requirements	Da Vinci
359	Working Group on Core Support Structures	Matisse
359	Working Group on Component Supports	Michelangelo
359	Working Group on Concrete	Churchill
359	Working Group on Liners	Renoir
359	Working Group on Reinforcing and Prestressing	Picasso
515	Coatings for Concrete	Westminster
523	Insulating and Cellular Concretes	Piccadilly
546	Repair of Concrete	Chagall
547	Refractory Concrete	Dali

2:30 p.m.-5:30 p.m.

### PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE (second session)

Crystal Ballroom

### ACCELERATED CURING

Monarch

2:30 p.m.-6:00 p.m.

### FOUNDATIONS FOR EQUIPMENT AND MACHINERY (second session)

Regency

4:30 p.m.-6:30 p.m.

—	New Board of Direction	Rembrandt
—	International Activities Committee	Matisse
215	Fatigue of Concrete	Parliament
222	Corrosion of Metals in Concrete	Renoir
307	Reinforced Concrete Chimneys	Michelangelo
318	Standard Building Code	Van Gogh
359	Subgroup on Materials, Construction and Examination	Picasso
515	Coatings for Concrete	Westminster
523	Insulating and Cellular Concretes	Piccadilly
546	Repair of Concrete	Chagall
547	Refractory Concrete	Dali
E-703	Concrete Construction Practices	Churchill

7:30 p.m.-9:30 p.m.

215	Fatigue of Concrete	Parliament
307	Reinforced Concrete Chimneys	Michelangelo
318	Standard Building Code	Van Gogh
359	Subgroup on Materials, Construction and Examination	Picasso
428	Inelastic Behavior of Reinforced Concrete Structures	Rembrandt
515	Coatings for Concrete	Westminster

7:30 p.m.-10:00 p.m.

### FORUM: PARKING STRUCTURES

Regency

## FRIDAY

MARCH 23

8:00 a.m.-1:00 p.m.

359	Concrete Components for Nuclear Reactors	Van Gogh
		8:30 a.m.-12:30 p.m.
533	Precast Panels	Matisse

9:00 a.m.-12:00 noon

### CONCRETE TRANSPORTATION AND PLACING EQUIPMENT

Monarch

### DESIGN PHILOSOPHIES FOR SHEAR WALLS

Regency



## TECHNICAL ACTIVITIES COMMITTEE

JOHN E. BREEN, Chairman  
SAMUEL J. HENRY, Secretary\*  
W. GENE CORLEY  
RICHARD D. GAYNOR  
JAMES G. MACGREGOR  
T. E. NORTHUP  
CHARLES J. PANKOW  
THOMAS J. PASKO, JR.  
ROBERT E. PRICE  
THOMAS J. READING  
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JOSEPH A. DOBRZOWSKI  
EDWIN G. HEDSTROM  
EDWARD L. KAWALA  
WILLIAM J. WILHELM

## CONVENTION COMMITTEE

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C. A. CLAPP, Secretary\*  
WILLIAM D. CROMARTIE  
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GEORGE C. HOFF  
EDWARD L. KAWALA  
EVERETTE OSGOOD  
EDWARD O. PFRANG  
HERMAN G. PROTZE III  
RAYMOND J. SCHUTZ  
DANIEL J. SLADEK  
PAUL ZIA

\*American Concrete Institute  
P.O. Box 19150  
Detroit, Michigan 48219

**TUESDAY, MARCH 20**

**1:30 p.m. - 5:30 p.m.**

## MAKE CONCRETE CONSTRUCTION PREDICTABLE

### A PRACTICAL CONCRETE CONSTRUCTION CLINIC

sponsored by American Concrete Institute and cosponsored by  
AGC of Greater Milwaukee, Wisconsin Chapter of AGC, and the  
Southeast Chapter of Wisconsin Society of Architects, AIA

*Empire Room*

A clinic on the practical planning and construction of concrete structures. Concrete construction will be likened to a manufacturing process. All parts of the work must be related and mesh with other parts for the results to be successful. Materials, mix proportioning, reinforcing details, forms, placement, compaction, equipment and project management are parts of the system. Each part will be discussed and their most important features described.

The clinic will be especially beneficial and helpful to architects, engineers, construction managers, specifiers, estimators, project superintendents, concrete supervisors, and field inspectors. It will be conducted by James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas, and Allan R. Kenny, also of The Concrete Associates, Inc.

#### PROGRAM

##### Introduction

##### Concrete Planning and Construction as a System

##### The Concrete Documents and Quality Assurance Planning

##### Reinforcing Steel Details: Congestion, Alternatives, and Constructability

##### Materials and Mixes for Quality and Efficient Use of Available Resources

##### Advances in Forming and Systems

##### Selection of Placement, Processes, and Equipment

##### The Basics of Architectural Concrete

##### Contract Management, Supervision, and Controls

##### Summary

NOTE: A separate registration fee of \$10.00 is charged for this clinic. Since enrollment is limited, early registration is advised.



## WEDNESDAY, MARCH 21

8:15 a.m.

### Continental Breakfast Assembly

*Crystal Ballroom*

### 9:00 a.m. - 10:30 a.m. GENERAL SESSION

*Crystal Ballroom*

**Session Chairman:** Donald R. Buettner, general chairman, 1979 Annual Convention, and president, Computerized Structural Design, Inc., Milwaukee, Wisconsin

#### Welcome

Donald R. Buettner, session chairman

#### The Outlook for Cement in 1979 and Beyond

Richard E. Reuss, president, Portland Cement Association, Skokie, Illinois

#### Acknowledgment of Chapter Officers

#### Presentation of the Delmar L. Bloom Distinguished Service Awards

Recipients: PETER D. COURTOIS  
I. LEON GLASSGOLD  
ERIC C. SMITH

10:30 a.m.

### ACI Member's Rap Session

*Crystal Ballroom*

#### WHAT DO YOU WANT TO KNOW ABOUT ACI?

John L. Goetz, President  
&  
George F. Leyh,  
Executive Director  
Invite YOU to Ask Them

## WEDNESDAY, MARCH 21

1:30 p.m. - 5:30 p.m.

### SYMPOSIUM ON DETERIORATION OF CONCRETE

sponsored by ACI Wisconsin Chapter

*Monarch*

**Session Chairman:** Tarun R. Naik, assistant professor of structural engineering, Department of Civil Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

#### Keynote Address: Concrete Need Not Deteriorate

Bryant Mather, acting chief, Structures Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

#### Cathodic Protection of a Reinforced Concrete Bridge Deck

Gerald H. Anderson, bridge research engineer, Bridge Section, Wisconsin DOT, Madison, Wisconsin

#### Deterioration of Concrete—A View on the Problems, Causes and Control

K. Ganesh Babu, scientist, and Zacharia George, assistant director, Structural Engineering Research Center, Madras, India

#### Investigation and Repair of Hoist Dam

Gary R. Mass, concrete and material engineer, Harza Engineering Company, Chicago, Illinois; and John G. Meier, project engineer - Hoist Dam, The Cleveland-Cliffs Iron Company, Ishpeming, Michigan

#### How to Eliminate Concrete Sealing

Frank W. Madderom, vice president, engineering, Central Ready-Mixed Concrete, Milwaukee, Wisconsin

#### Detecting Delamination in Concrete Bridge Decks

David G. Manning, research officer, and Frank B. Holt, research technician, Ministry of Transportation and Communications, Downsview, Ontario, Canada

#### Repair of Concrete Surfaces Subjected to Abrasion-Erosion Damage

James E. McDonald, chief, and Tony C. Liu, research structural engineer, Structures Branch, Structures Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

#### Deterioration of Reinforced Concrete Wharf

Hiroshi Seki, associate professor, Civil Engineering Department, Waseda University, Tokyo, Japan

#### Analysis in Retrofit of Concrete Structures

James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas

#### Engineered Approach to Dealing with the Naggling Problem of Concrete Deterioration

Yogindra N. Anand, senior engineer, Generation Engineering Department, Detroit Edison, Detroit, Michigan

## WEDNESDAY, MARCH 21

2:00 p.m. - 5:00 p.m.

### RESEARCH ON PLAIN AND REINFORCED CONCRETE

sponsored by ACI Committee 115

*(Brief and confidential reports)*

*Regency*

**Session Chairman:** Boris Bresler, chairman, ACI Committee 115, and senior consultant, Wiss, Janney, Elstner & Associates, Inc., Emeryville, California

**Secretary:** Charles F. Scholer, secretary, ACI Committee 115, and professor, Department of Civil Engineering, Purdue University, West Lafayette, Indiana

#### **Behavior of Reinforced Concrete Two-Way Ribbed Floors with Orthogonal Unevenly Distributed Ribs**

Zenon A. Zielinski and Aris Nicolopoulos, Department of Civil Engineering, Concordia University, Chazy, New York

#### **Static and Dynamic Load Tests on Concrete Beams Reinforced with Fibers and Continuous Bars**

H. A. Kormeling and H. W. Reinhardt, Delft University of Technology, Delft, Holland; and S. P. Shah, professor of civil engineering, Department of Materials Engineering, University of Illinois at Chicago Circle, Chicago, Illinois

#### **Plastic Concrete Mix Designs and Quality Controls**

James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas

#### **Frost Resistance and Air-Void Characteristics in Hardened Concrete**

Odd E. Gjølrv, E. Bathen, R. Husevag, and J. Sliper, Department of Civil Engineering, University of Trondheim, Trondheim, Norway

#### **A Study of the Transition from a Shear Mode to a Flexural Mode of Failure in Short Reinforced Concrete Columns Subjected to Cyclic Bilateral Deformations**

Kyle Woodward, research assistant; and James D. Jirsa, professor, Department of Civil Engineering, University of Texas at Austin, Austin, Texas

### A. J. BOASE AWARD OF THE REINFORCED CONCRETE RESEARCH COUNCIL

Arthur R. Anderson has been selected by the Reinforced Concrete Research Council to receive the 1979 Arthur J. Boase Award . . . in recognition of his career-long series of major accomplishments that have advanced the art and science of reinforced and prestressed concrete design and construction."

#### **Sandwich Cylinders (Steel-Concrete-Steel) Under External Pressure**

C. Douglas Goods, Simon Engineering Laboratories, University of Manchester, Manchester, England

#### **A New Approach to the Design of Partially Prestressed Beams**

A. Siriakorn and A. E. Naaman, associate professor of structural design, Department of Materials Engineering, University of Illinois at Chicago Circle, Chicago, Illinois

#### **Analysis of Hollow Core Beams for Flexure**

P. Balaguru, assistant professor; and E. G. Nawy, professor of civil engineering, Rutgers, The State University of New Jersey, Piscataway, New Jersey

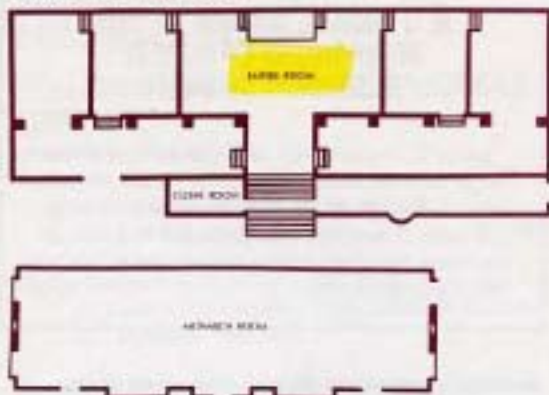
#### **Modified Dowel Bar Evaluation**

Frederic R. Ross, research project engineer, Wisconsin Department of Transportation, Madison, Wisconsin

#### **General Structural Integrity in Concrete Masonry Buildings**

N. W. Hanson, principal structural engineer; and D. M. Schultz, senior structural engineer, Portland Cement Association, Skokie, Illinois

### The Main Lobby Level



### Main Lobby Level Meeting Rooms

Empire  
Monarch

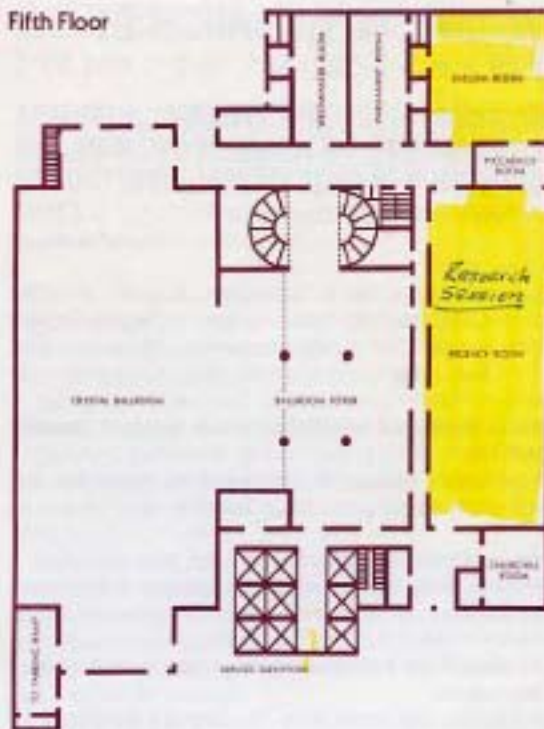
### The Fourth Floor



### Fourth Floor Meeting Rooms

Renoir  
Michelangelo  
Matisse  
Dali  
Chagall  
Da Vinci  
Rembrandt  
Picasso  
Van Gogh

### Fifth Floor



### Fifth Floor Meeting Rooms

Crystal Ballroom  
Westminster  
Parliament  
English  
Piccadilly  
Regency  
Churchill



## WEDNESDAY, MARCH 21

2:00 p.m. - 5:00 p.m.

### BUILDING NUCLEAR POWER PLANT COMPONENTS TO ASME SECTION III, DIVISION 2 (ACI STANDARD 359)

sponsored by ACI-ASME Committee 359

*Crystal Ballroom*

**Session Chairman:** Don K. Craneberger, chairman, ACI-ASME Committee 359, and manager of engineering and design, GPU Service Corporation, Mountain Lakes, New Jersey

#### Overall Scope of the Joint ACI/ASME Code Section III, Division 2 (ACI-359)

T.E. Northup, manager, Reactor Engineering Department, General Atomic Company, San Diego, California

#### Responsibilities and Duties

Frank W. Brady, Pacific Gas & Electric Company, San Francisco, California

#### Functions of the Authorized Inspection Agency and the Authorized Inspector

A.I. Snyder, field representative, The National Board of Boiler and Pressure Vessel Inspectors, Oakland, California

#### Nuclear Regulatory Commission Endorsement of the Section III, Division 2 Code

Frank Rinaldi, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulations, Washington, D.C.

#### Nuclear Regulatory Commission Enforcement of the Section III, Division 2 Code and Comments on Third Party Inspection

Robert E. Shewmaker, Nuclear Regulatory Commission, Gaithersburg, Maryland

#### Qualification of Concrete Inspection and Test Personnel

Francis W. Joyce, Bechtel Corporation, San Francisco, California

#### Current Techniques Used in the Design of Concrete Containments

John D. Stevenson, J.D. Stevenson Consultants, Cleveland, Ohio

#### Code Implementation During Construction

Barry B. Scott, United Engineers and Constructors, Inc., Philadelphia, Pennsylvania

#### Testing of Concrete Containment Structures

T.M. Brown, Wiss, Janney, Elstner & Associates, Northbrook, Illinois

## WEDNESDAY, MARCH 21

2:00 p.m. - 6:00 p.m.

### SEMINAR: EARTHQUAKE RESISTANCE OF MULTISTORY REINFORCED CONCRETE STRUCTURES CONTAINING STRUCTURAL WALLS

sponsored by ACI Committee E-702

*Empire Room*

Participants will be familiar with the most recent developments in the field of earthquake resistance in reinforced concrete multi-story buildings containing structural (shear) walls.

The summary of analytical and experimental research on structural wall structures carried out during the last five years at the University of California at Berkeley, and at the Portland Cement Association will be discussed in some detail. This research formed the basis for a more realistic proportioning of structural walls.

While the present methods of design and proportioning will be briefly discussed as a summary of the state-of-the-art, a recently developed alternate procedure based on dynamic inelastic analysis (response history analysis) will be explained and amplified by a design example of the earthquake response of a 16-story coupled wall system structure.

This seminar is for designers and engineers who want to be up-to-date on recent developments in the design of seismic resistant structures.

**Seminar Leader:** Mark Fintel, director, Advance Engineering Services, Portland Cement Association, Skokie, Illinois

**Instructors:** V.V. Bertero, professor, Department of Civil Engineering, University of California, Berkeley, California

A.T. Derecho, structural engineer, Portland Cement Association

A.E. Fierato, manager, Construction Methods Section, Portland Cement Association

S.K. Ghosh, senior structural engineer, Portland Cement Association

#### PROGRAM

State of the Art as Represented by Present Codes

Recent Research at Berkeley: Analytical and Experimental

Recent Research at PCI: Analytical and Experimental

Proportioning of Walls Based on Recent Research

Explicit Inelastic Dynamic Analysis: Description, Input, Method

Coupled Wall Systems: Design Example

NOTE: A separate registration fee is charged for this seminar of \$25.00 for ACI Members and \$30.00 for nonmembers. Since enrollment is limited, early registration is advised.

## THURSDAY, MARCH 22

8:30 a.m. - 12:30 p.m.

### SYMPOSIUM ON SANITARY ENGINEERING STRUCTURES

sponsored by ACI Committee 350

*Monarch*

**Session Chairman:** Timothy J. Fowler, chairman, ACI Committee 350, and senior fellow, Monsanto Company, St. Louis, Missouri

#### Concrete for Sanitary Engineering Structures

Carl R. Wilder, consultant, Escondido, California; and Ralph E. Spears, manager, Concrete Information Section, Portland Cement Association, Skokie, Illinois

#### Strength Design for Crack Control in Sanitary Structures

Paul F. Rice, vice-president engineering, Concrete Reinforcing Steel Institute, Chicago, Illinois

#### Application of Strength Design Methods to Sanitary Structures

Frank Klein and Edward S. Hoffman, principals, Klein and Hoffman, Chicago, Illinois

#### Joints in Sanitary Structures

Roger H. Wood, vice-president, Camp, Dresser and McKee, Boston, Massachusetts

#### Corrosion Resistance of Concrete Sanitary Engineering Structures

Philip H. Parkins, senior advisory engineer, Cement and Concrete Association, London, United Kingdom

#### Resistance of Concrete Structures to Gas Penetration

Harold N. Schneider, vice-president and chief structural engineer, Consoer, Townsend and Associates, Chicago, Illinois; and Larry Mrazek, associate, Consoer, Townsend and Associates, St. Louis, Missouri

#### Recommendations for Use of Expansive Cement Concrete in Sanitary Engineering Structures

Joe V. Williams, Jr., architectural marketing manager, Texas Industries, Inc., Arlington, Texas

## THURSDAY, MARCH 22

8:30 a.m. - 12:00 noon

### INTERNATIONAL SYMPOSIUM ON FOUNDATIONS FOR EQUIPMENT AND MACHINERY

sponsored by ACI Committee 351

*Regency*

**Session Chairman:** Tarun R. Naik, assistant professor of structural engineering, Department of Civil Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

#### Session I

#### Keynote Address: Pile Support Machine Foundations

M. Novak, professor of engineering science, University of Western Ontario, London, Ontario, Canada

#### Empirical Expressions for Frequency Dependent Soil Springs for Machine Foundation Design

Mohammed M. Eltouny, senior civil engineer, and Joseph A. Brennan, civil engineer, Burns and Roe, Inc., Woodbury, New York

#### Uplift Capacity of Static Equipment Foundation Anchors in Sand and Saturated Clay

Braja M. Das, assistant professor, Civil Engineering Department, University of Texas at El Paso, El Paso, Texas

#### Vibration Isolated Foundations for Boiler Feedpumps

Herbert A. Franklin, engineering supervisor, Research and Engineering Division, Bechtel National, Inc., San Francisco, California

#### Spring and Dashpot Coefficients for Machine Foundations on Piles

Michael J. O'Rourke, assistant professor; and Ricardo Dobry, associate professor, Department of Civil Engineering, Rensselaer Polytechnic Institute, Troy, New York

#### Foundation Design of Rod and Ball Mills

Bal K. Sanan, structural engineer; and Conrad E. Huss, department head, Structural Engineering, Mountain States Engineers, Tucson, Arizona

## THURSDAY, MARCH 22

9:00 a.m. - 12:00 noon

### PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE

sponsored by the ACI Ad Hoc Committee on High-Strength Concrete

*Crystal Ballroom*

**Session Chairman:** Richard D. Gaynor, vice-president of engineering and research, National Ready Mixed Concrete Association, Silver Spring, Maryland

#### *Session I*

##### **High-Strength Concrete, Past, Present, Future**

Kenneth L. Saucier, research civil engineer, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

##### **Design and Properties of Concretes with Strength Over 1500 Kg/cm<sup>2</sup>**

G. Tognon, P. Ursella, G. Coppetti, Central Research Laboratory, Italcementi S.P.A., Bergamo, Italy

##### **Quality Control of 55 MPa Concrete in Melbourne, Australia**

K.W. Day, director, Concrete Advice Pty. Ltd., Melbourne, Victoria, Australia

##### **Testing High-Strength Concretes: A Critical Review of the State-of-the-Art**

Weston T. Hester, assistant professor, Department of Civil Engineering, University of California, Berkeley, California

##### **High-Strength Concrete: Potential Economies and Potential Problems**

Michael A. Taylor, associate professor, Department of Civil Engineering, University of California, Davis, California

## THURSDAY, MARCH 22

2:30 p.m. - 5:30 p.m.

### PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE

sponsored by the ACI Ad Hoc Committee on High-Strength Concrete

*Crystal Ballroom*

**Session Chairman:** W. Gene Corley, director, Engineering Development Department, Portland Cement Association, Skokie, Illinois

#### *Session II*

##### **Structural Properties of High-Strength Concrete**

A.H. Nilson, professor and chairman; and F.O. Slate, professor, Department of Structural Engineering, Cornell University, Ithaca, New York

##### **High-Strength Concrete—Preliminary Results on Micro-Cracking and Creep**

F.O. Slate, professor; and A.H. Nilson, professor and chairman, Department of Structural Engineering, Cornell University, Ithaca, New York

##### **High-Strength Cast-in-Place Concrete in Major Structures in Ontario**

John A. Bickley, vice-president; and John C. Payne, manager, Concrete Technology Division, Trow Group Limited, Rexdale, Ontario, Canada

##### **Some Examples of Energy and Resource Conservation Utilizing High-Strength Concrete**

Arthur R. Anderson, chairman of the board, ABAM Engineers, Inc., Tacoma, Washington

#### **Panel Discussion**

**Moderator:** W. Gene Corley, session chairman

## BOARD OF DIRECTION

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\*American Concrete Institute  
P.O. Box 19150  
Detroit, Michigan 48219

## AWARDS LUNCHEON

Thursday  
March 22, 12:15 P.M.

### Empire Room

Come meet the awardees and new ACI officers.  
Have fun, enjoy a good lunch, and watch  
the multi-media awards presentation show.

### Honorary Memberships:

Edward A. Abdun-Nur  
Francisco de Assis Basilio  
John A. Blume  
Felix Candela  
Ben C. Gerwick

### Charles S. Whitney Award:

Center for Building Technology,  
National Bureau of Standards

### Henry C. Turner Award:

Solomon Cady Hollister

### Alfred E. Lindau Award:

Maurice P. van Buren

### Arthur R. Anderson Award:

Joseph J. Waddell

### Joe W. Kelly Award:

George Winter

### Cadric Wilson Award:

Robert E. Tobin

### Wason Medal for Most Meritorious Paper:

James M. Shilstone

### Wason Medal for Materials Research:

Phillip B. Bamforth  
Roger D. Browne

### Raymond C. Reese Structural Research Award:

John E. Breen  
James O. Jirsa  
C. O. Orangun

### Construction Practice Award:

David Brown

### Henry L. Kennedy Award:

Francis J. Principe

### Chapter Activities Committee Award:

Joseph A. Debrowski

### Recognition of Retiring Officers

### Introduction of New Officers

### Presentation of Memento to Retiring President

## THURSDAY, MARCH 22

2:30 p.m. - 5:30 p.m.

### SYMPOSIUM ON ACCELERATED CURING

sponsored by ACI Committees 516 and 517

*Moranck*

**Session Co-Chairmen:** Thomas B. Redmond, chairman, ACI Committee 516, and vice-president, Technical Services Department, National Concrete Masonry Association, McLean, Virginia

and

Robert M. Barnoff, chairman, ACI Committee 517, and professor of civil engineering, Pennsylvania State University, University Park, Pennsylvania

#### **Energy Consumption in the Curing of Precast Concrete Products**

Weston T. Hester, assistant professor of civil engineering, University of California, Berkeley, California

#### **Accelerated Curing of Concrete Masonry Units**

Clyde L. Stewart, vice-president, Block Division, Denver Brick & Pipe Company, Denver, Colorado

#### **Shortened Time for Curing Asbestos-Cement Pipe**

Thomas H. Sadler, senior research engineer, Johns-Manville Research Center, Denver, Colorado

#### **Energy Savings in Accelerated Curing of Concrete**

Lee Polisner, Omnia Engineering, Inc., Needham, Massachusetts

#### **Solar Industrial Process Hot Water for Cement Block Manufacture**

Hal Wilkening, AAI, Inc., Baltimore, Maryland

#### **Internal Insulation of Steam Kilns and the Use of Pozzolans for Reducing Curing Costs**

James V. Zacor, manager, Energy Management Division, Scientific Services, Inc., Redwood City, California

## THURSDAY, MARCH 22

2:30 p.m. - 6:00 p.m.

### INTERNATIONAL SYMPOSIUM ON FOUNDATIONS FOR EQUIPMENT AND MACHINERY

sponsored by ACI Committee 351

*Regency*

**Session Chairman:** Ira W. Pearce, principal engineer, Design Engineering Department, Duke Power Company, Charlotte, North Carolina

#### *Session II*

#### **Analysis and Design of Paper Machine Foundations**

C. Raymond Hays, manager of quality assurance, T. H. Springfield, director of technical development; and John R. Bayliss, senior geotechnical engineer, Rust Engineering Company, Birmingham, Alabama

#### **Calculated Response of Pile Supported Machines**

Gerald M. Diaz, associate-in-charge; and Mir Azizi, project engineer, Hardin-Lawson Associates, Los Angeles, California

#### **Foundation Analysis for a Rotary Machine Using a Coupled Model**

Raymond A. Schmidt, design engineer, Civil Design Department, Ebasco Services, Inc., Atlanta, Georgia

#### **Power Plant Turbine Pedestal Structure**

Philip N. Fletcher, engineering consultant; and Kenneth Y. Lee, engineering specialist, Bechtel Power Corporation, Gaithersburg, Maryland

#### **Low-Tuned Concrete Turbine-Generator Foundations**

H. N. Jagadeesh, chief civil engineer, W. P. Landon and Associates Limited, Niagara Falls, Ontario, Canada

#### **Applications of New Research for Pile Supported Machine Foundations**

William E. Saul, professor and chairman, Department of Civil and Environmental Engineering, University of Wisconsin-Madison, Madison, Wisconsin; and Thomas W. Wolf, assistant project engineer, Soil Testing Services of Wisconsin, Inc., Green Bay, Wisconsin

#### **Precision Grouting—Theory and Practice**

John C. King, consulting engineer, Cleveland, Ohio



## THURSDAY, MARCH 22

7:30 p.m. - 10:00 p.m.

### FORUM: CONCRETE PARKING STRUCTURES—DO THEY HAVE PROBLEMS?

sponsored by ACI Committee 114

*Regency*

**Chairman:** Robert L. Henry, chairman, ACI Committee 114, and chief engineer, Texas Testing Laboratories, Dallas, Texas

**Moderator:** Richard L. Tucker, professor of civil engineering, University of Texas at Austin, Austin, Texas

**Panelists:** Val H. Canon, president, Architectural Concepts, Inc., Dallas, Texas

Carl A. Peterson, senior structural engineer, Wiss, Janney, Elstner and Associates, Inc., Northbrook, Illinois

John Dooley, general manager, Sealtreat Systems, Inc., Sun Prairie, Wisconsin

The objective of this Forum is to bring designers, contractors and owners of parking structures together to consider construction, service and maintenance problems.

Parking structures are unique. They are classified as buildings, but are not enclosed and are thus subject to environmental cycles. They are subject to moving loads and automobile traffic and should perhaps be suitably characterized as bridges. Yet, present budgets for parking structures are much less than for comparable bridges. Their economic viability is heavily dependent upon low construction costs and low maintenance costs.

Particular questions to be explored will include the following:

- Is it possible to keep a parking structure from leaking?
- How can spalling and subsequent exposure of reinforcement be eliminated?
- Is it possible to achieve adequate quality for the present prices? Do we need more stringent standards?
- Are problems unfairly emphasized since structural details and connections are exposed?

The Forum will consist of prepared presentations and then the session will be opened for discussion with the speakers remaining as a panel through the discussion.

## FRIDAY, MARCH 23

9:00 a.m. - 12:00 noon

### DESIGN PHILOSOPHIES FOR SHEAR WALLS

sponsored by ACI Committees 442 and 445

*Regency*

**Session Chairman:** Paul Zia, chairman, ACI-ASCE Committee 445, and professor and acting head, Department of Civil Engineering, North Carolina State University, Raleigh, North Carolina

**Earthquake Resisting Shear Walls—New Zealand Design Trend**  
T. Paulay, professor, Department of Civil Engineering, University of Canterbury, Christchurch, New Zealand

**Design Concept of Special Shear Walls Failing in Shear**  
Masahide Tomii, professor of structural engineering, Department of Architecture, Kyushu University, Fukuoka, Japan

**Design Criteria for Earthquake Resistant Structural Walls**  
A. F. Fibrato, manager, Construction Methods Section; and W. G. Corley, director, Engineering Development Department, Portland Cement Association, Skokie, Illinois

**Design of Reinforced Concrete Shear Wall Structural Systems**  
Viteimo V. Bertero and E. P. Popov, professors of civil engineering, University of California, Berkeley, California

#### Panel Discussion

**Moderator:** S. M. Uzumeri, chairman, ACI Committee 442, and professor of civil engineering, University of Toronto, Toronto, Ontario, Canada

## FRIDAY, MARCH 23

9:00 a.m. - 12:00 noon

### CONCRETE TRANSPORTATION AND PLACING EQUIPMENT: PAST, PRESENT, AND FUTURE

sponsored by ACI Committee 304

*Monarch*

**Session Chairmen:** Robert E. Tobin, chairman, ACI Committee 304, and Portland Cement Association, Arcadia, California

#### **Introduction**

Robert E. Tobin, session chairman

#### **Ready Mix Trucks and Batch Plants**

William J. D'Connell, industry manager, Ready Mix Equipment, Rexford, Inc., Milwaukee, Wisconsin

#### **Buckets and Buggies**

Roland E. Garlinghouse, president, Gar-Bro Manufacturing Company, Los Angeles, California

#### **Conveyors**

James L. Cope, president, Morgen Manufacturing Company, Yankton, South Dakota

#### **Pumping**

Wayne G. Anderson, owner, Wayne Anderson Construction, Inc., Yankton, South Dakota

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## ACI FUTURE CONVENTIONS

#### 1979 Fall Convention

October 28-November 2  
The Capital Hilton Hotel  
Washington, D.C.

#### 1980 Annual Convention

March 2-7  
with World of Concrete  
Aladdin Hotel  
Las Vegas, Nevada

#### 1980 Fall Convention

September 21-26  
Condado/La Concha  
San Juan, Puerto Rico

## MILWAUKEE CONVENTION COMMITTEE

#### **General Chairman**

Donald R. Buehner  
Computerized Structural Design, Inc.

#### **Committee**

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Tews Lime and Cement  
Vern Cosnen  
Spancrete Industries, Inc.  
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Jack Isnard  
Strass-Maguire and Associates  
Edward Korpady  
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Klug and Smith Company  
Henry Nagy  
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Orton Spanley  
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The officers, staff, and members of ACI would like to thank the Local Committee, the Hostesses, and the Wisconsin Chapter for their part in the 1979 Annual Convention!



## LADIES' PROGRAM

Hospitality: English Room, Fifth Floor

Every day of the Convention complimentary coffee and sweet rolls will be provided to the ladies in their hospitality suite starting Monday morning at 8:00 a.m. "Guten morgen."

The suite will open all day and will act as a meeting and gathering place for attendees.

## SCHEDULE

### Monday, March 19

8:00 a.m.  
Registration  
2:00 p.m. - 5:40 p.m.  
Tour of the City  
2:00 p.m.  
Walking Tours

### Tuesday, March 20

8:30 a.m. - 12:00 noon  
Technical Tour No. 1  
9:00 a.m. - 12:40 p.m.  
Tour of the City  
2:00 p.m.  
Walking Tours  
2:00 p.m. - 5:00 p.m.  
Technical Tour No. 2

### Wednesday, March 21

2:00 p.m.  
Walking Tours  
2:00 p.m. - 5:00 p.m.  
Tour of the City  
6:00 p.m. - 8:00 p.m.  
"Concrete Mixer" at the Wisconsin Club

### Thursday, March 22

8:30 a.m. - 12:00 noon  
Technical Tour No. 3  
2:30 p.m. - 5:30 p.m.  
Shopping Tour to Cedar Creek Village

### Friday, March 23

8:00 a.m. - 10:00 a.m.  
Coffee and sweet rolls

## LOCAL INFORMATION

In the registration area we have a "local information booth" staffed from 8:00 a.m. to 6:30 p.m. every day. Our hosts and hostesses are able to give you directions, ideas for shopping or tours or help to get tickets to cultural attractions. They also have menus from some of Milwaukee's world famous restaurants. Have some sauerbraten prime steaks, veal parmigiana or knackwurst and sauerkraut. We have German, Italian, Serbian, Polish, Sicilian and Continental restaurants that will warm your heart and fill your "tummy." "Wilkommen."

## GENERAL TOURS

Hostesses are available to guide each group on every tour. Conventioneers are asked to sign up in advance for tours so that sufficient buses can be provided. There are no charges for any tours.

**A. CITY TOUR**—This tour includes a 50-mile drive through the Milwaukee Metropolitan Area. You will travel along Lake Michigan shores into some of the fine old residential neighborhoods to the north and see the campuses of Milwaukee's two great universities. A visit to the Civic Center will be followed by a stop at the famous Mitchell Park Domes to view "fantabulous" floral and plant displays from every corner of the world. Finally you will sample some of Milwaukee's "gemutlichkeit" (friendship and fun) with a stop at the ultra modern Miller Brewery for a tour and some of Milwaukee's favorite beverage.

**B. SHOPPING TOUR**—This tour will take you to "Cedar Creek Settlement" where you can browse among quaint shops and have some wine and cheese at the local winery.

**C. MUSEUM TOUR**—The Milwaukee Museum is only a short walk from the Marc Plaza Hotel. It is a unique and "different" kind of museum. You can browse through the "streets of Old Milwaukee," see native Americans in fantastic panorama displays, and learn about the life our Wisconsin ancestors lived. This is a "don't miss" activity.

**D. ART CENTER TOUR**—Only a short shuttle bus ride from the hotel is the fabulous Saarinen War Memorial Building which houses the Milwaukee Art Center. Milwaukee has an outstanding collection of paintings and sculpture including the \$5 million Bradley Art Collection.

**E. SPECIAL TOURS**—We have Hostesses available to help you with special "on your own" tours in small groups to visit some historic houses and other unique special attractions. Special places you may enjoy include:

Pabst Theater  
Kalvege-Schloss House  
Milwaukee Journal  
Joan of Arc Chapel

## TECHNICAL TOURS

Both men and women will enjoy the technical tours  
and all are welcome.

### TOURS No. 1 and 2

Tours are available to two precast concrete plants. The first tour will take you to the "home" of Spancrete. You will see extrusion of hollow core slabs, wall panel and other precast concrete construction as well as demonstrations of testing and quality control. Also included is concrete block manufacture. If you have never seen hollow core slab construction—don't miss this.

The second tour will be to the Hufschmidt Engineering Company where examples of architectural precast concrete can be observed in various stages of construction.

### TOUR No. 3

A tour will be made of the University of Wisconsin-Milwaukee Structural Engineering Laboratories where full scale testing of large structural concrete systems will be underway. The laboratories have been used for testing a wide variety of large scale structural systems.



