

AMERICAN CONCRETE INSTITUTE



Annual Convention
March 2-7, 1980

ALADDIN
HOTEL

PROGRAM

76th ANNUAL CONVENTION

March 2-7, 1980
Las Vegas, Nevada

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 Monday, Tuesday, and Thursday 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

Portland Cement Association
Skokie, Illinois

Southwestern Portland Cement Company
Los Angeles, California

Marquette Company
Nashville, Tennessee

Martin Marietta Cement
Bethesda, Maryland

W.R. Grace & Company
Construction Products Division
Cambridge, Massachusetts

SCHEDULE

SUNDAY, MARCH 2

8:30 a.m.-6:00 p.m.

Administrative and technical committee meetings

MONDAY, MARCH 3

8:30 a.m.-10:00 p.m.

Administrative, technical, and educational committee meetings

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

The Great Debate: Where Have All the Bubbles Gone? (ACI Committee 201)

2:00 p.m.-5:30 p.m.

Seminar on Portland Cements (ACI Committee E-701) (Registration fees: \$30 ACI Members; \$35 NonMembers; \$10 Students)

TUESDAY, MARCH 4

8:30 a.m.-10:00 p.m.

Administrative, technical, and educational committee meetings

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

Forming and Shoring (ACI Committee 347)

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

Repair of Concrete (ACI Committee 546)

9:00 a.m.-5:00 p.m.

Seminar: Design of Sanitary Engineering Structures (ACI Committees 350 and E-702) (Registration fees: \$45 ACI Members, \$55 NonMembers; \$10 Students)

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

Cast-in-Place Architectural Concrete Can Be Practical (ACI Committee 303)

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

Mideast Concrete Construction

WEDNESDAY, MARCH 5

8:30 a.m.-6:00 p.m.

Administrative, technical, and educational committee meetings

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

Dynamic Modeling of Concrete Structures (ACI Committee 444)

9:00 a.m.-5:00 p.m.

Coatings and Waterproofing Barriers for Concrete (ACI Committee 515)

9:00 a.m.-5:30 p.m.

The Verbeck Memorial Symposium on Sulfate Resistance (ACI Committee 201)

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

Concrete Bridges (ACI Committee 343)

THURSDAY, MARCH 6

8:30 a.m.-9:30 a.m.

Members' Rap Session

9:30 a.m.-12:00 noon

General Session and Standards Presentation

12:00 noon-2:30 p.m.

Awards Luncheon

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

Research on Plain and Reinforced Concrete (ACI Committee 115)

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

Premature Failure in Monolithic Refractory Constructions: Preventive and Remedial Treatment (ACI Committee 547) (1st of 2 sessions)

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

Workshop Session-Major Changes in ACI 214 Document (ACI Committee 214)

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

Seminar: Shear and Torsion (ACI Committees 445 and E-702) (Registration fees: \$30 ACI Members; \$35 NonMembers; \$10 Students)

2:30 p.m.-10:00 p.m.

Administrative, technical, and educational committee meetings

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

Forum: Reevaluation of Recommended Practice for Mass Concrete (ACI Committees 114 and 207)

FRIDAY, MARCH 7

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

Inspection-An Aid to Contractors (ACI Committee 311)

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

Residential Concrete (ACI Committee 332)

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

Premature Failure in Monolithic Refractory Constructions: Preventive and Remedial Treatment (ACI Committee 547) (2nd of 2 sessions)



Special Recognition for ACI Fellows & Members

A gold 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 \$7.25 each.

A lapel pin in blue enamel is also available for members at \$7.25 each.

Buy your lapel pin at the registration desk.

THE WORLD '80 OF CONCRETE

The American Concrete Institute is one of the cosponsors of the World of Concrete and this year, for the first time, the ACI Annual Convention is being held concurrently with this exposition. In addition to the ACI meetings, seminars, and forums, the Institute will have an exhibit situated in a prominent location at the World of Concrete show in the Las Vegas Convention Center.

Your ACI registration fee covers free entry to the World of Concrete exposition but it is necessary to have your badge validated at the ACI Badge Verification Booth at the Las Vegas Convention Center.

Shuttle bus service will be provided to facilitate travel between ACI headquarters at the Aladdin Hotel and the World of Concrete exposition in the Las Vegas Convention Center. The bus will be marked "Route A" and will also stop at the MGM, Dunes, and Maxim hotels. The schedule will be at 15-20 minute intervals during these hours:

Sunday	9:00 a.m.-8:00 p.m.
Monday through Wednesday	7:15 a.m.-6:00 p.m.
Thursday	7:15 a.m.-5:00 p.m.

Please note that all seminars held at the exposition have a separate registration fee.

SPECIAL EVENTS

Publications Display. . . in Salon C all week. See the latest ACI publications now available. Orders are taken at the ACI Registration Desk which is also in Salon C.

Coffee Bar. . . Monday through Wednesday and Friday morning, 9:00 a.m.-11:00 a.m. in Salon C. Coffee, tea, and Sanka will be available.

Education at the Convention. . . Four seminars are being presented, three of which require a separate registration fee. Since enrollment is limited, early registration is advised.

- **Seminar on Portland Cements.** . . Monday, 2:00 p.m.-5:30 p.m., in the Emerald 2. Designed to introduce participants to the various types of portland cements available and their uses.
- **Creative Training for Committee Chairmen (by invitation only).** . . Tuesday, 7:00 a.m.-8:30 a.m., in the Oasis room. Sponsored by the Educational Activities Committee and the Technical Activities Committee, the purpose of this session is to challenge the committee chairman to reach a higher level of performance in the administration and operation of his committee. A complimentary continental breakfast will be served at the beginning of this session.
- **Design of Sanitary Engineering Structures.** . . Tuesday, 9:00 a.m.-5:00 p.m., in the Emerald 2. Designed to assist participants in the application of design principles in accordance with ACI Committee Report, "Concrete Sanitary Engineering Structures (ACI 350R-77)," including recently approved revisions.
- **Shear and Torsion.** . . Thursday, 2:30 p.m.-6:30 p.m., in the Emerald 3. Designed for practicing engineers and engineering students and will focus primarily on the new torsional provisions of the new 318-77 Code, "Building Code Requirements for Reinforced Concrete."

"Concrete Mixer" . . Wednesday, 6:30 p.m.-8:00 p.m., in the Sapphire Ballroom. This traditional event will be held conveniently within the Aladdin Hotel and we've been promised elegant flowing fountains in our decor! Please wear your badge and **bring your ticket.**

Breakfast Assembly and Members' Rap Session. . . Thursday morning in the Diamond Ballroom. A complimentary continental breakfast will be served from 8:00 a.m.-9:00 a.m. with the Rap Session starting at 8:30 a.m. The Rap Session is your chance to talk informally with ACI Officers and Staff.

Awards Luncheon. . . Thursday, 12:00 noon-2:30 p.m., in the Sapphire Room. Good food and drink and a multi-media presentation are combined into a pleasurable format. Get your tickets early. . . they're only \$10 this year!

Special Tours and Seminars. . . have been planned for the women but are not exclusive to them. Check them out in the back of this booklet. There is something of interest there for everyone!

Sports Program. . . we've got both tennis and golf tournaments this year and they promise to be fun! Information on tickets, etc., is located in the back of this booklet. Get your tickets early and come and play with us!

COMMITTEE MEETINGS

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

COMMITTEE MEETING ROOM

SUNDAY

MARCH 2

—	Technical Activities Committee Subgroup	Casablanca
—	Technical Activities Committee Subgroup	Ibis
—	Technical Activities Committee Subgroup	Rubaiyat

2:00 p.m.-4:00 p.m.

—	Technical Activities Committee	Casablanca
303	Architectural Concrete	Genie

4:00 p.m.-6:00 p.m.

—	Technical Activities Committee	Casablanca
210	Erosion of Concrete in Hydraulic Structures	Sultan
303	Architectural Concrete	Genie

MONDAY

MARCH 3

8:30 a.m.-10:30 a.m.

—	Technical Activities Committee	Casablanca
—	Educational Activities Committee	Sultan
—	Board Committee on Metrication	Emerald 3
—	Construction Review Committee	Mediterranea
211	Task Group on Evaluating Concrete Mixtures	Diamond C
301	Specifications for Structural Concrete	Emerald 1
302	construction of Concrete Floors	Diamond D
307	Subcommittee on Earthquakes	Sapphire A
313	Concrete Bins and Silos	Ibis
318	Standard Building Code	Caravan
346	Cast-in-Place Pipe	Diamond A
408	Bond and Development of Reinforcement	Sapphire B
437	Strength Evaluation of Existing Concrete	Salon A
516	High Pressure Steam Curing	Oasis

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

THE GREAT DEBATE: WHERE HAVE ALL THE BUBBLES GONE? Emerald 2

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

—	Technical Activities Committee	Casablanca
—	Educational Activities Committee	Sultan
—	Institute and Industry Advancement Committee	Salon A
—	Construction Review Committee	Mediterranea
211	Task Group on Evaluating Concrete Mixtures	Diamond C
301	Specifications for Structural Concrete	Emerald 1
307	Subcommittee on Wind	Sapphire A
308	Curing Concrete	Emerald 3
313	Concrete Bins and Silos	Ibis
318	Standard Building Code	Caravan
346	Cast-in-Place Pipe	Diamond A
350	Sanitary Engineering Structures	Diamond D
408	Bond and Development of Reinforcement	Sapphire B
544	Fiber Reinforced Concrete	Oasis
545	Concrete Railroad Ties	Rubaiyat

MONDAY (continued)

2:00 p.m.-4:00 p.m.

—	Educational Activities Committee	Sultan
—	Membership Recruitment Committee	Diamond C
213	Lightweight Aggregates and Lightweight Aggregate Concrete	Emerald 1
223	Expansive Cement Concretes	Mediterranea
307	Subcommittee on Ultimate Design	Sapphire A
308	Curing Concrete	Emerald 3
313	Concrete Bins and Silos	Ibis
318	Standard Building Code	Caravan
355	Anchorage to Concrete	Diamond D
358	Concrete Guideways	Diamond A
445	Shear and Torsion	Salon A
506	Shotcreting	Genie
544	Fiber Reinforced Concrete	Oasis
545	Concrete Railroad Ties	Rubaiyat
546	Repair of Concrete	Sapphire B

2:00 p.m.-5:30 p.m.

SEMINAR ON PORTLAND CEMENTS Emerald 2

4:00 p.m.-6:00 p.m.

—	Educational Activities Committee	Sultan
—	Membership Recruitment Committee	Diamond C
212	Admixtures	Emerald 3
313	Concrete Bins and Silos	Ibis
318	Standard Building Code	Caravan
355	Anchorage to Concrete	Diamond D
358	Concrete Guideways	Diamond A
435	Deflection of Concrete Building Structures	Mediterranea
445	Shear and Torsion	Salon A
504	Joint Sealants	Sapphire A
506	Shotcreting	Genie
544	Fiber Reinforced Concrete	Oasis
545	Concrete Railroad Ties	Rubaiyat
546	Repair of Concrete	Sapphire B
E-701	Materials for Concrete Construction	Emerald 1

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

211	Subcommittee 7, Proportioning Mass Concrete	Diamond C
222	Corrosion of Metals in Concrete	Ibis
225	Hydraulic Cements	Oasis
352	Joints and Connections in Monolithic Concrete Structures	Genie
356	See Committee 550	
362	Parking Structures	Sultan
363	High Strength Concrete	Casablanca
428	Inelastic Behavior of Reinforced Concrete Structures	Salon A
512	See Committee 550	
517	Accelerated Curing of Concrete at Atmospheric Pressure	Emerald 3
550	Precast Structural Concrete	Caravan
551	Tilt-Up Construction	Sapphire A
E-701	Materials for Concrete Construction	Emerald 1

TUESDAY

MARCH 4

		8:30 a.m.-10:30 a.m.
117	Tolerances	Caravan
122	Energy Conservation	Sapphire A
215	Fatigue of Concrete	Casablanca
216	Fire Resistance and Fire Protection of Structures	Diamond C
221	Aggregates	Ibis
309	Consolidation of Concrete	Sultan
315	Details of Concrete Reinforcement	Genie
318	Subcommittee 6, Flexure and Axial Loads	Diamond A
318	Subcommittee 8, Two-Way Slabs	Diamond D
318	Subcommittee 10, Seismic Provisions	Emerald 3
344	Circular Prestressed Concrete Structures	Rubaiyat
345	Concrete Bridge Construction and Maintenance	Salon A
E-902	Committee on Certification	Diamond B

FORMING AND SHORING

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

Las Vegas Hilton Hotel,
Rooms 7 & 8

REPAIR OF CONCRETE

Las Vegas Hilton Hotel,
Rooms 9 & 10

SEMINAR: DESIGN OF SANITARY ENGINEERING

STRUCTURES (first session) Emerald 2
— Board of Direction Mediterraneana

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

115	Current Research	Ibis
117	Tolerances	Caravan
207	Mass Concrete	Oasis
211	Subcommittee 1, Proportioning Lightweight Concrete	Diamond C
215	Fatigue of Concrete	Casablanca
301	Specifications for Structural Concrete	Sapphire A
309	Consolidation of Concrete	Sultan
315	Details of Concrete Reinforcement	Genie
318	Subcommittee 6, Flexure and Axial Loads	Diamond A
318	Subcommittee 8, Two-Way Slabs	Diamond D
318	Subcommittee 10, Seismic Provisions	Emerald 3
344	Circular Prestressed Concrete Structures	Rubaiyat
345	Concrete Bridge Construction and Maintenance	Salon A
549	Ferrocement	Emerald 1
E-902	Committee on Certification	Diamond B

2:00 p.m.-4:00 p.m.

—	Board of Direction	Mediterranea
—	International Activities Committee	Caravan
121	Quality Assurance Systems	Diamond B
224	Cracking	Ibis
307	Reinforced Concrete Chimneys	Sapphire A
318	Subcommittee 3, Details, Development, and Splices of Reinforcement	Diamond A
318	Subcommittee 4, Analysis and Safety	Diamond C
318	Subcommittee 9, Prestressed, Precast and Composite Concrete	Diamond D
332	Residential Concrete Work	Sultan

TUESDAY (continued)

(continued) **2:00 p.m.-4:00 p.m.**

344	Circular Prestressed Concrete Structures	Rubaiyat
348	Structural Safety	Sapphire B
351	Subcommittee 2, Foundations for Equipment and Machinery	Casablanca
506	Shotcreting	Genie
532	Concrete Masonry	Salon A
E-601	Seminars and Workshops	Oasis

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

SEMINAR: DESIGN OF SANITARY ENGINEERING

STRUCTURES (second session) Emerald 2

MIDEAST CONCRETE CONSTRUCTION Emerald 3

CAST-IN-PLACE ARCHITECTURAL CONCRETE CAN BE PRACTICAL Emerald 1

4:00 p.m.-6:00 p.m.

—	Board of Direction	Mediterranea
121	Quality Assurance Systems	Diamond B
211	Proportioning Concrete	Salon A
224	Cracking	Ibis
307	Reinforced Concrete Chimneys	Sapphire A
318	Subcommittee 3, Details, Development, and Splices of Reinforcement	Diamond A
318	Subcommittee 4, Analysis and Safety	Diamond C
318	Subcommittee 9, Prestressed, Precast and Composite Concrete	Diamond D
344	Circular Prestressed Concrete Structures	Rubaiyat
348	Structural Safety	Sapphire B
351	Subcommittee 2, Foundations for Equipment and Machinery	Casablanca
351	Subcommittee 3, Static Equipment Foundations	Sultan
351	Subcommittee 4, Grouting of Equipment Foundations	Caravan
506	Shotcreting	Genie
E-601	Seminars and Workshops	Oasis

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

114	Research and Development	Sapphire B
118	Use of Computers	Oasis
209	Creep and Shrinkage in Concrete	Diamond C
211	Proportioning Concrete	Salon A
225	Hydraulic Cements	Diamond A
304	Measuring, Mixing, Transporting, and Placing Concrete	Sapphire A
318	Task Group Liaison with Other Materials Groups	Ibis
318	Task Group on Plain Concrete	Rubaiyat
318	Task Group on Metrication	Genie
336	Combined Footings and Pier Foundations	Diamond D
351	Subcommittee 3, Static Equipment Foundations	Sultan
351	Subcommittee 4, Grouting of Equipment Foundations	Caravan
439	Steel Reinforcement	Casablanca
444	Models of Concrete Structures	Diamond B
515	Coatings for Concrete	Emerald 1
E-801	Student Concrete Projects	Mediterranea

WEDNESDAY

MARCH 5

8:30 a.m.-10:30 a.m.

—	Chapter Activities Committee	Caravan
—	Standards Board	Mediterranea
214	Evaluation of Results of Tests Used to Determine the Strength of Concrete	Sultan
318	Subcommittee 2, Concrete Quality and Construction Requirements	Diamond A
318	Subcommittee 5, Serviceability	Diamond B
349	Working Group on Materials	Sapphire A
349	Working Group on Embedments	Sapphire B
349	Working Group on Impact and Impulse	Diamond C
349	Working Group on Design	Diamond D
351	Foundations for Equipment and Machinery	Genie
360	Design of Slabs on Grade	Salon A
547	Refractory Concrete	Ibis
E-702	Designing Concrete Structures	Oasis

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

DYNAMIC MODELING OF CONCRETE STRUCTURES

Emerald 2

COATINGS AND WATERPROOFING BARRIERS FOR

CONCRETE (first session)

Emerald 1

9:00 a.m.-12:30 p.m.

THE VERBECK MEMORIAL SYMPOSIUM ON SULFATE

RESISTANCE (first session)

Emerald 3

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

—	Planning Committee	Rubaiyat
214	Evaluation of Results of Tests Used to Determine the Strength of Concrete	Sultan
305	Hot Weather Concreting	Caravan
318	Subcommittee 2, Concrete Quality and Construction Requirements	Diamond A
318	Subcommittee 5, Serviceability	Diamond B
349	Working Group on Materials	Sapphire A
349	Working Group on Embedments	Sapphire B
349	Working Group on Impact and Impulse	Diamond C
349	Working Group on Design	Diamond D
351	Foundations for Equipment and Machinery	Genie
360	Design of Slabs on Grade	Salon A
523	Insulating and Cellular Concretes	Mediterranea
547	Refractory Concrete	Ibis
E-702	Designing Concrete Structures	Oasis

2:00 p.m.-4:00 p.m.

—	Convention Committee	Sultan
—	Construction Liaison Committee	Mediterranea
—	Planning Committee	Rubaiyat
306	Cold Weather Concreting	Caravan
318	Subcommittee 1, General	Diamond A
318	Subcommittee 7, Shear and Torsion	Diamond B
318	Subcommittee 12, Performance Code Concept	Casablanca
349	Working Group on Materials	Sapphire A
349	Working Group on Embedments	Sapphire B
349	Working Group on Impact and Impulse	Diamond C

WEDNESDAY (continued)

(continued) 2:00 p.m.-4:00 p.m.

349	Working Group on Design	Diamond D
423	Prestressed Concrete	Salon A
547	Refractory Concrete	Ibis
548	Polymers in Concrete	Oasis

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

CONCRETE BRIDGES

Emerald 2

COATINGS AND WATERPROOFING BARRIERS FOR

CONCRETE (second session)

Emerald 1

2:00 p.m.-5:30 p.m.

THE VERBECK MEMORIAL SYMPOSIUM ON SULFATE

RESISTANCE (second session)

Emerald 3

4:00 p.m.-6:00 p.m.

—	Convention Committee	Sultan
—	Planning Committee	Rubaiyat
104	Notation	Genie
116	Nomenclature	Mediterranea
306	Cold Weather Concreting	Caravan
318	Subcommittee 1, General	Diamond A
318	Subcommittee 7, Shear and Torsion	Diamond B
318	Subcommittee 12, Performance Code Concept	Diamond D
349	Concrete Nuclear Structures	Casablanca
423	Prestressed Concrete	Salon A
547	Refractory Concrete	Ibis
548	Polymers in Concrete	Oasis

THURSDAY

MARCH 6

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

BREAKFAST ASSEMBLY

Diamond

8:30 a.m.-9:30 a.m.

ACI MEMBERS' RAP SESSION

Diamond

8:30 a.m.-10:30 a.m.

340	Strength Design Handbook	Mediterranea
441	Reinforced Concrete Columns	Caravan

9:30 a.m.-11:00 a.m.

GENERAL SESSION

Diamond

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

—	Ad Hoc Committee on Publications	Casablanca
340	Strength Design Handbook	Mediterranea
441	Reinforced Concrete Columns	Caravan

11:00 a.m.-12:00 noon

STANDARDS PRESENTATION

Diamond

12:00 noon-2:30 p.m.

AWARDS LUNCHEON

Sapphire

2:30 p.m.-4:30 p.m.

—	New Board of Direction	Mediterranea
311	Inspection of Concrete	Ibis
318	Standard Building Code	Caravan
325	Concrete Pavements	Sultan
347	Formwork for Concrete	Casablanca
442	Response of Buildings to Lateral Forces	Salon A
503	Adhesives for Concrete	Rubaiyat

THURSDAY (continued)

2:30 p.m.-5:30 p.m.
RESEARCH ON PLAIN AND REINFORCED CONCRETE
Oasis

PREMATURE FAILURE IN MONOLITHIC REFRACTORY CONSTRUCTIONS: PREVENTIVE AND REMEDIAL TREATMENT (first session)
Emerald 1

2:30 p.m.-6:30 p.m.
WORKSHOP: MAJOR CHANGES IN ACI 214 DOCUMENT
Emerald 2
SEMINAR: SHEAR AND TORSION
Emerald 3

— New Board of Direction
311 Inspection of Concrete Ibis
318 Standard Building Code Caravan
347 Formwork for Concrete Casablanca
442 Response of Buildings to Lateral Forces Salon A
503 Adhesives for Concrete Rubaiyat
533 Precast Panels Sultan

7:30 p.m.-9:30 p.m.
503 Adhesives for Concrete Rubaiyat
E-703 Concrete Construction Practices Ibis

7:30 p.m.-10:00 p.m.
FORUM: REEVALUATION OF RECOMMENDED PRACTICE FOR MASS CONCRETE
Emerald 1

FRIDAY

MARCH 7
8:30 a.m.-10:30 a.m.
201 Durability of Concrete Caravan
343 Concrete Bridge Design Oasis
346 Cast-in-Place Pipe Sultan

9:00 a.m.-12:00 noon
INSPECTION—AN AID TO CONTRACTORS
Emerald 2
RESIDENTIAL CONCRETE
Emerald 3
PREMATURE FAILURE IN MONOLITHIC REFRACTORY CONSTRUCTIONS: PREVENTIVE AND REMEDIAL TREATMENT (second session)
Emerald 1

10:30 a.m.-12:30 p.m.
343 Concrete Bridge Design Oasis
346 Cast-in-Place Pipe Sultan

2:00 p.m.-6:00 p.m.
343 Concrete Bridge Design Oasis



TECHNICAL ACTIVITIES COMMITTEE

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SAMUEL J. HENRY, Secretary*
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EDWARD O. PFRANG
RAYMOND J. SCHUTZ
DANIEL J. SLADEK

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MONDAY, MARCH 3
9:00 a.m.-12:00 noon

Emerald 2

THE GREAT DEBATE: WHERE HAVE ALL THE BUBBLES GONE?

sponsored by ACI Committee 201

Moderator: Bernard Erlin, president, Erlin, Hime Associates, Inc., Northbrook, Illinois

Air-Entraining Chemicals, Their Use and Application

Paul Klieger, director, Concrete Materials Research Department, Portland Cement Association, Skokie, Illinois

Obtaining and Maintaining Prescribed Air Content Levels

Richard D. Gaynor, vice president of engineering and research, National Ready Mixed Concrete Association/National Sand and Gravel Association, Silver Spring, Maryland

Specifications for Air-Entrainment

Richard C. Mielenz, consultant, geologist and petrographer, Gates Mills, Ohio

Placing and Finishing Air-Entrained Concrete

Ralph Vincill, manager of technical activities, Materials Service Corporation, Chicago, Illinois

Performance, Serviceability, and Durability of Air-Entrained Concrete

William A. Cordon, consultant, Logan, Utah

Devil's Advocate

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

Roving Panelist

Howard Newlon, Jr., associate head, Virginia Highway and Transportation Research Council, Charlottesville, Virginia

MONDAY, MARCH 3
2:00 p.m.-5:30 p.m.

Emerald 2

SEMINAR ON PORTLAND CEMENTS

sponsored by ACI Committee E-701

This seminar will introduce participants to the various types of portland cements available. The manufacturing process will be described, and the properties, specifications, and tests of the different types of cements will be covered in detail.

The seminar is aimed at educating the concrete technician but it will be of interest to ready-mixed producers, contractors, and others who have to select or specify materials for concrete.

Special registration fees:

ACI Member \$30, NonMember \$35, Student \$10

Moderator: J. Francis Young, professor, Department of Civil Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois

THE MAGIC POWDER: Includes the film: "The Magic Powder Called Portland Cement."

Thomas Pollock, technical services engineer, Hercules Cement Company, Stockertown, Pennsylvania

FREEDOM OF CHOICE: A review of the various kinds of portland cement and their specifications.

Frank J. Lahm, vice-president, technical service, River Cement Company, St. Louis, Missouri

BACK TO BASICS: An understanding of the properties of portland cement.

Milton Wills, head, Concrete Section, Cement Laboratory, Martin Marietta Laboratories, Baltimore, Maryland

CHECKS AND BALANCES: The requirements and interpretations of standard tests.

Richard W. Kriner, manager, technical services, Lehigh Portland Cement Company, Allentown, Pennsylvania

QUESTIONS AND ANSWERS

TUESDAY, MARCH 4
9:00 a.m.-12:00 noon

Las Vegas Hilton Hotel
2nd floor, Rooms 7 & 8

FORMING AND SHORING SYMPOSIUM

sponsored by ACI Committee 347

Session Chairman: N.J. Gardner, professor of civil engineering, University of Ottawa, Ottawa, Ontario, Canada

Pressure of Concrete Against Formwork

N.J. Gardner, session chairman

Recent Developments in Wood Engineering

Robert G. Sexsmith, design engineer, Buckland and Taylor, Ltd, Consulting Engineers, Vancouver, British Columbia, Canada

Modular Forming Systems

Ronald M. Merritt, concrete forming field product manager, Patent Scaffolding Company, Kent, Ohio

Design Considerations in Shoring and Reshoring Multistory Buildings

M.K. Hurd, engineer-writer, consultant, Farmington, Michigan

TUESDAY, MARCH 4
9:00 a.m.-12:00 noon

Las Vegas Hilton Hotel,
2nd floor, Rooms 9 & 10

REPAIR OF CONCRETE

sponsored by ACI Committee 546

Session Chairman: Myles A. Murray, director of technical services, Protex Industries Inc., Denver, Colorado

Evaluation of Repair Techniques for Concrete

Myles A. Murray, session chairman

Evaluation for Repair of Structural Concrete

Andrew Scanlon, senior structural engineer; E.A.B. Salse, manager, Structural Evaluation Section; W. Gene Corley, division director, Engineering Development Division; and R.A. Muenow, associate, Construction Technology Laboratories, Portland Cement Association, Skokie, Illinois

Epoxy Injection for Structural and Non-Structural Repairs

John Bukovatz, concrete research engineer; and F. Wayne Stratton, maintenance and materials development engineer, Research and Materials Laboratory, Kansas Department of Transportation, Topeka, Kansas

Patching Concrete—Partial Depth and Full Depth

Joseph F. Lamond, acting chief, Concrete Section, Engineering Division Civil Works, Office, Chief of Engineers, Washington, D.C.

Concrete Repair with Polymers

David W. Fowler, professor, Architectural Engineering Department, University of Texas, Austin, Texas

Repair of Concrete—Design vs. Construction

Robert R. Anderson, president, The Anderson Company, Independence, Ohio



TUESDAY, MARCH 4

9:00 a.m.-5:00 p.m.

Emerald 2

SEMINAR: DESIGN OF SANITARY ENGINEERING STRUCTURES

sponsored by ACI Committees 350 and E-702

The objective of this seminar is to assist participants in the application of design principles in accordance with ACI Committee Report, "Concrete Sanitary Engineering Structures (ACI 350R-77)," including recently approved revisions. Each participant will receive a copy of this report.

Special registration fees:

ACI Member \$45, NonMember \$55, Student \$10

Moderator: Timothy J. Fowler, chairman, ACI Committee 350, and senior engineering fellow, Monsanto Company, St. Louis, Missouri

Concrete for Sanitary Engineering Structures

Carl R. Wilder, P.E., consultant, Escondido, California

Structural Design of Reinforced Concrete Sanitary Structures—Past, Present and Future

Anand B. Gogate, P.E., Elgar Brown Consulting Engineers, Worthington, Ohio

Application of Strength Design Methods to Sanitary Structures

Frank Klein, partner, Klein and Hoffman, Inc., Chicago, Illinois

Structural Details for Sanitary Engineering Structures

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

Constructibility for Profitability (Maximize Quality-Minimize Cost)

W. Robert Little, director of research and development, J.W. Bateson Company, Inc., Dallas, Texas

Circular Prestressed Concrete Tanks

James P. Archibald, vice-president, Natgun Corporation, Dallas, Texas

Question and Answer Period by Panelists

TUESDAY, MARCH 4

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

Emerald I

CAST-IN-PLACE ARCHITECTURAL CONCRETE CAN BE PRACTICAL

sponsored by ACI Committee 303

Moderator: David O. Lower, chief engineer, Southwestern Portland Cement Company, Fairborn, Ohio

Introduction to Practical Architectural Concrete

Eugene H. Boeke, Jr., vice-president, Beers Construction Company, Atlanta, Georgia

Consolidation

Gary D. Pfuehler, field engineer, Portland Cement Association, Cincinnati, Ohio

Mix Design and Placement

Allen R. Kenny, vice-president, The Concrete Associates, Dallas, Texas

Formwork and Liners

R. Kirk Gregory, director, Research and Development, Symons Corporation, Des Plaines, Illinois

Surface Treatment

Joseph A. Dobrowolski, civil engineer-concrete consultant, Altadena, California

Contractor Profitability

Charles Wittmack, vice-president, Newmann Brothers Construction, Des Moines, Iowa

TUESDAY, MARCH 4

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

Emerald 3

MIDEAST CONCRETE CONSTRUCTION

Session Chairman: Joseph A. Dobrowolski, civil engineer and concrete consultant, Altadena, California

Construction Aggregates for Ready-Mixed Concrete in Saudi Arabia

Reid H. Brown, general manager of marketing and material control, Saudi Arabian Vulcan Limited, Khobar, Saudi Arabia

Concrete Aggregates in the Middle East

Charles M. Scholer, professor, School of Civil Engineering, Purdue University, West Lafayette, Indiana

Concrete Construction in Jordan—As They Know It

Gary R. Mass, concrete and materials engineer, Harza Engineering Company, Chicago, Illinois

Selection of Appropriate Concrete Systems in the Middle East

John Zils, associate partner and structural engineer, Skidmore, Owings and Merrill, Chicago, Illinois

Concrete Construction Operations Problems in the Middle East

Paul W. Burns, project manager, Gilbane Building Company, Providence, Rhode Island

Israeli Airbase Construction in the Negev

Robert K. Hughes, assistant director of military programs, Office of the Chief of Engineers, Washington, D.C.

WEDNESDAY, MARCH 5

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

Emerald 2

DYNAMIC MODELING OF CONCRETE STRUCTURES

sponsored by ACI Committee 444

Session Chairman: Harry G. Harris, associate professor of civil engineering, Drexel University, Philadelphia, Pennsylvania

Similitude Requirements for Dynamic Models

H. Krawinkler, associate professor; and P.D. Moncarz, research assistant, Department of Civil Engineering, Stanford University, Stanford, California

Contribution of Model Testing to the Analysis of the Dynamic Behavior of Concrete Structures

G. Oberti, professor; A. Castoldi; and M. Casirati, Experimental Institute for Model and Structures, Bergamo, Italy

Seismic Experiments with Arch Dam Models

Ray W. Clough, professor of civil engineering; and Akira Niwa, assistant research engineer, Earthquake Engineering Research Center, University of California, Berkeley, California

Static and Dynamic Loading Tests on Two Model Three-Dimensional Reinforced Concrete Frames

R. Park, professor and head; A.J. Carr, senior lecturer; and G. Wilby, post-graduate student, Department of Civil Engineering, University of Canterbury, Canterbury, New Zealand

Scale Modeling of Buried Reinforced Concrete Structures Under Air Blast Loading

James K. Gran and John R. Bruce, research engineers; and James D. Colton, assistant director, Engineering Mechanics Department, Poulter Laboratory, SRI International, Menlo Park, California

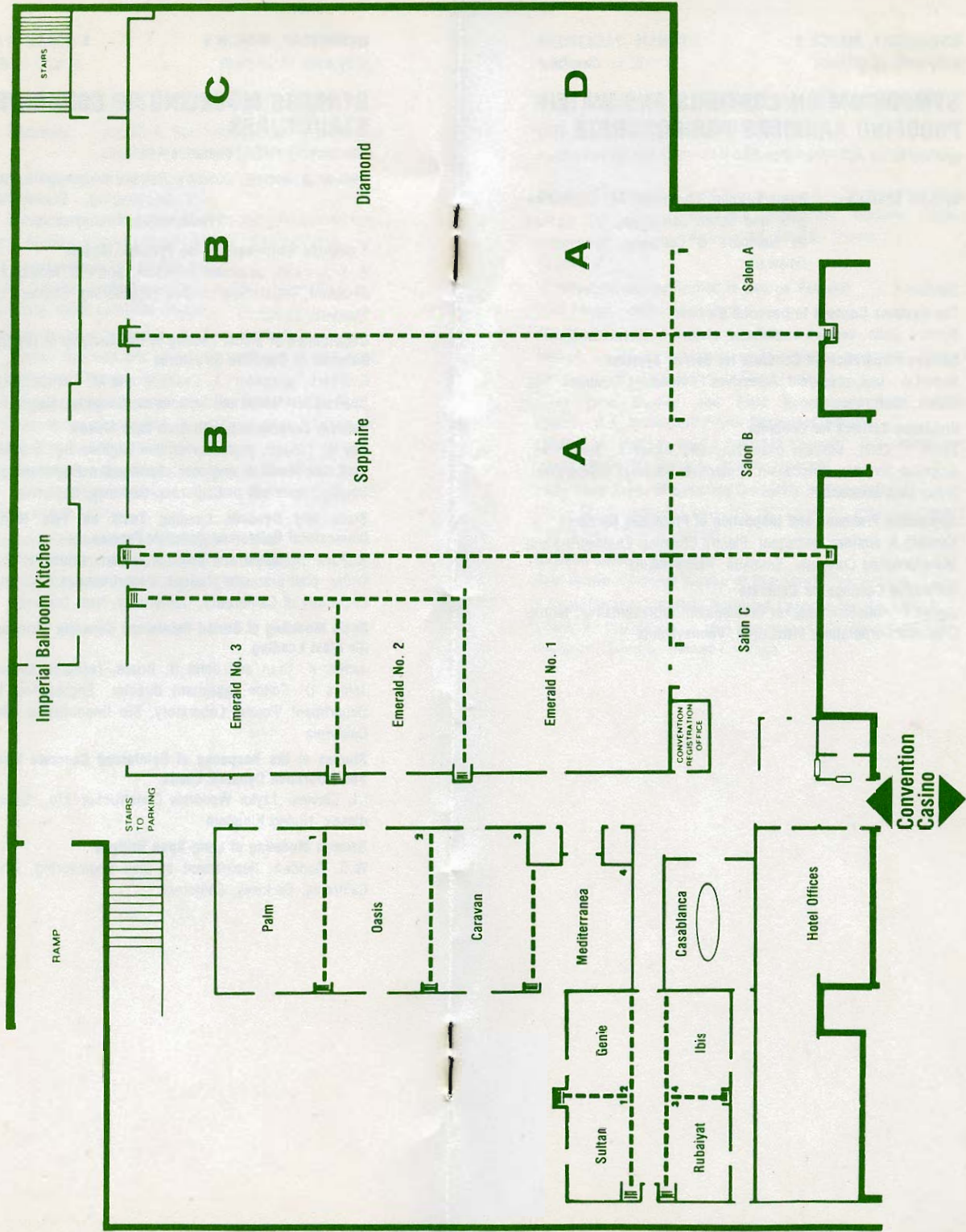
Studies of the Response of Reinforced Concrete Structures to Short Duration Dynamic Loads

I.L. Davies, Taylor Woodrow Construction Ltd., Southall, Middlesex, United Kingdom

Seismic Modeling of Long-Span Bridges

W.G. Godden, Department of Civil Engineering, University of California, Berkeley, California

ALADDIN HOTEL FLOOR PLAN



WEDNESDAY, MARCH 5

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

Emerald 1

SYMPOSIUM ON COATINGS AND WATER-PROOFING BARRIERS FOR CONCRETE

sponsored by ACI Committee 515

Session Chairman: Byron I. Zolin, chairman, ACI Committee 515, and senior consultant, E.I. DuPont de Nemours & Company, Wilmington, Delaware

Session I

The Systems Concept to Describe Barriers

Byron I. Zolin, session chairman

Surface Preparation on Concrete for Barrier Systems

Robert W. Gaul, president, Adhesives Engineering Company, San Carlos, California

Protective Barriers for Concrete

Byron I. Zolin, session chairman; and Albert L. Hendricks, technical director, Wisconsin Protective Coatings Corporation, Green Bay, Wisconsin

Application Problems and Inspection of Protective Barriers

Kenneth A. Heffner, president, Electro Chemical Engineering and Manufacturing Company, Emmaus, Pennsylvania

Decorative Coatings for Concrete

James E. Kubanick, market development representative, Mobay Chemical Corporation, Pittsburgh, Pennsylvania

WEDNESDAY, MARCH 5

9:00 a.m.-12:30 p.m.

Emerald 3

THE VERBECK MEMORIAL SYMPOSIUM ON SULFATE RESISTANCE

sponsored by ACI Committee 201

Session Chairman: Paul Klieger, director, Concrete Materials Research Department, Portland Cement Association, Skokie, Illinois

Session I

Introduction and Dedication to George Verbeck

Paul Kieger, session chairman

The Mechanisms of Sulfate Reactions

William L. Dolch, professor of engineering materials, Purdue University, West Lafayette, Indiana

Long Time Studies and Field Experiences with Sulfate Attack—U.S. Water and Power Resources Service

Edward M. Harboe, senior concrete engineer, U.S. Water and Power Resources Service, Denver, Colorado

Long Time Study of Concrete Durability in Sulfate Soils

David Stark, principal research petrographer, Portland Cement Association, Skokie, Illinois

Blended Cement Systems

Paul Brown, National Bureau of Standards, Washington, D.C.

A Spec Odyssey—Sulfate Resistant Concrete for the 1980's

Edwin R. Dunstan, Jr., civil engineer, U.S. Water and Power Resources Service, Denver Colorado

WEDNESDAY, MARCH 5

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

Emerald 1

SYMPOSIUM ON COATINGS AND WATER-PROOFING BARRIERS FOR CONCRETE

sponsored by ACI Committee 515

Session Chairman: Jere Rose, secretary, ACI Committee 515, and technical service engineer, Atlantic Cement Company, Stamford, Connecticut

Session II

Membrane Waterproofing—Design Criteria and Application Technique

Neil F. Thomas, executive vice-president, Gates Engineering Company, Inc., Wilmington, Delaware

Communication Between Waterproofing Contractor and Owner

Charles L. Bechtel, president, Harold J. Becker Company, Inc., Dayton, Ohio

How to Avoid Problems During Installation of Waterproofing Barriers

Dorothy M. Lawrence, technical director, Laurent Corporation, Twinsburg, Ohio; and Charles O. Pratt, Koppers Company, Inc., Monroeville, Pennsylvania

Panel Discussion

Speakers will remain to answer questions on barrier problems.

WEDNESDAY, MARCH 5

2:00 p.m.-5:30 p.m.

Emerald 3

THE VERBECK MEMORIAL SYMPOSIUM ON SULFATE RESISTANCE

sponsored by ACI Committee 201

Session Chairman: Nathan R. Greening, director of research, Ideal Cement Company, Fort Collins, Colorado

Session II

Current Research at the Waterways Experiment Station: Development of a Reliable Test Method; ASTM C01.29 Interlaboratory Cooperative Program

Katharine Mather, chief, Engineering Sciences Division, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

I Wonder Where the Sulfate Went?

Nathan R. Greening, session chairman

Group Discussions

Nathan R. Greening, session chairman

Reports from Group Leaders

Characterization of the Circumstances and Potential for Sulfate Attack

Howard Newlon, Jr., associate head, Virginia Highway Research Council, Charlottesville, Virginia

Physical-Chemical Characterization of Sulfate Resistance

James S. Pierce, head, Concrete Section, Concrete and Structural Branch, U.S. Water and Power Resources Service, Denver, Colorado

The Role of Blended Systems

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

Summation and Closure

Thomas J. Reading, concrete consultant, Omaha, Nebraska

WEDNESDAY, MARCH 5

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

Emerald 2

CONCRETE BRIDGES

sponsored by ACI Committee 343

Session Chairman: Neil M. Hawkins, professor and chairman, Department of Civil Engineering, University of Washington, Seattle, Washington

Denny Creek Bridge—Staged Construction with Movable Scaffold
George T. Markich, bridge design engineer, Washington State Department of Transportation, Olympia, Washington

Design of the I-205 Columbia River Bridge

R. Jack Allen, vice president; and Fred P. Blanchard, project manager, Transportation Facilities, Sverdrup & Parcel and Associates, Bellevue, Washington

Parrots Ferry Bridge

Man-Chung Tang, executive vice-president, DRC Consultants, Inc., New York, New York

The Intercity Bridge—A Half-Mile Long Concrete Girder

Arvid Grant, engineer, Arvid Grant and Associates, Inc., Olympia, Washington



THURSDAY, MARCH 6

8:00 a.m.-9:30 a.m.

Diamond

BREAKFAST ASSEMBLY AND RAP SESSION

A complimentary continental breakfast will be served from 8:00 a.m. to 9:00 a.m. with the Rap Session starting at 8:30 a.m.

WHAT DO YOU WANT TO KNOW
ABOUT ACI?

JOHN F. McLAUGHLIN, PRESIDENT
CHARLES J. PANKOW,
VICE-PRESIDENT

&

GEORGE F. LEYH,
EXECUTIVE DIRECTOR

Invite YOU to Ask Them.

THURSDAY, MARCH 6

9:30 a.m.-11:00 a.m.

Diamond

GENERAL SESSION

Presidential Address

John F. McLaughlin, President, ACI, and assistant dean of engineering, Purdue University, West Lafayette, Indiana

Construction Failure Investigation of Natural Draft Cooling Tower at Willow Island, West Virginia

H.W. Lew, structural research engineer, National Bureau of Standards, Washington, D.C.

Presentation of the Delmar L. Bloem Distinguished Service Awards

Recipients: James T. Dikeou
John R. Dise
Eivind Hognestad

ACI Business*

*The presentation and discussion of Standards will be held immediately following the conclusion of the Business Session.

11:00 a.m.-12:00 noon

Diamond

STANDARDS PRESENTATION

Moderator: John F. McLaughlin, President, ACI, and assistant dean of engineering, Purdue University, West Lafayette, Indiana

Presentation of Proposed Standard, "Details and Detailing of Concrete Reinforcement"

William C. Black, chairman, ACI Committee 315, and chief engineer, Reinforcing Bars, Piling and Construction Specialty Sales, Bethlehem Steel Corporation, Bethlehem, Pennsylvania

Presentation of Proposed Revisions to "Building Code Requirements for Reinforced Concrete (ACI 318-77)"

Chester P. Siess, chairman, ACI Committee 318, and professor emeritus of civil engineering, University of Illinois, Urbana, Illinois

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

AWARDS LUNCHEON

Thursday, March 6

12:00 noon

Sapphire 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 Cohen
W.C. Hansen
Robert L'Hermite

Charles S. Whitney Award:

Phil M. Ferguson Structural Engineering Laboratory
of the
University of Texas at Austin

Henry C. Turner Award:

William M. Avery

Roger Corbetta Constructor Award:

Gerald M. Miller

Arthur R. Anderson Award:

Paul Klieger

Joe W. Kelly Award:

Edward L. Kawala

Cedric Willson Award:

Truman R. Jones, Jr.

Wason Medal for Most Meritorious Paper:

Robert E. Tobin

Wason Medal for Materials Research:

H.S. Lew
T.W. Reichard

Raymond C. Reese Structural Award:

Anders Losberg

Construction Practice Award:

H.W. Chung

Henry L. Kennedy Award:

Samuel J. Henry

Chapter Activities Committee Award

Everette Osgood

Recognition of Retiring Officers

Introduction of New Officers

Presentation of Memento to Retiring President

THURSDAY, MARCH 6

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

Oasis

RESEARCH ON PLAIN AND REINFORCED CONCRETE

sponsored by ACI Committee 115

(Brief and confidential reports)

Session Chairman: James T. Dikeou, chairman, ACI Committee 115, and president, Dikeou Associates, Englewood, Colorado

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

Concrete with High-Range Water-Reducing Admixtures for Rehabilitation of Bridge Decks and Highway Pavements

V. Ramakrishnan and W.V. Coyle, professors of civil engineering, South Dakota School of Mines and Technology, Rapid City, South Dakota; and Thomas J. Pasko, chief of paving and structural materials group, U.S. Department of Transportation, Washington, D.C.

Cracking Resistance of Concrete Reinforced with Expanded Metal

S.T. Mandeltort, vice-president, Metalex Corporation, Libertyville, Illinois

Air Leakage Characteristics in Concrete

Sami H. Rizkalla, professor of civil engineering, University of Manitoba, Winnipeg, Manitoba, Canada

Assessment of EI for Biaxially Loaded Reinforced Concrete Columns

M.T. Shoraka, P & H Engineering Development Company, Los Angeles, California; and W.F. Chan, professor of structural engineering, School of Civil Engineering, Purdue University, West Lafayette, Indiana

Field Measurements of Lateral Pressures on Concrete Wall Forms

Bruce M. Douglas, professor; Robert Hayes, graduate assistant; Mahi Saiidi, assistant professor, University of Nevada, Reno, Nevada; and Grove Holcomb, president, Holcomb Construction Company, Inc., Reno, Nevada

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

Alfred L. Parme has been selected by the Reinforced Concrete Research Council to receive the 1980 Arthur J. Boase Award "...in recognition of his accomplishments over more than forty years that have advanced the art and science of structural design and construction in concrete."

This award is presented immediately prior to the midpoint break at the session.

Mechanical Properties of Internally Confined Concrete

S. Somayaji and M. Hur, Department of Civil Engineering, University of Pittsburgh, Pittsburgh, Pennsylvania

Vibration Testing of an Epoxy-Repaired Four-Story

Onder Kustu, project engineer; C.K. Chen, R.E. Scholl, vice-president; and John A. Blume, president, URS/Blume & Associates, San Francisco, California

Properties of an Unusual Pozzolan Made From Clay

Vladimir Paulon, M. Saad, and W.P. deAndrade, Sao Paulo, S.P., Brazil

Low Tuned Reinforced Concrete Turbine Generator

Mohammed M. Ettouney, senior civil engineer; and Peter Kask, civil engineer, Burns & Roe, Inc., Woodbury, New York

3L-Concrete—A Hydrophobe Lightweight Aggregate Concrete of Extremely Low Density Used as Structural Concrete Material

Anders Losberg, professor, Division of Concrete Structures, Chalmers University of Technology, Goteborg, Sweden

THURSDAY, MARCH 6

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

Emerald 1

PREMATURE FAILURE IN MONOLITHIC REFRACTORY CONSTRUCTIONS: PREVENTIVE AND REMEDIAL TREATMENT

sponsored by ACI Committee 547

Session Chairman: David R. Lankard, chairman, ACI Committee 547, and Lankard Materials Laboratory, Inc., Columbus, Ohio

Session I

Opening Remarks

David R. Lankard, session chairman

Recent Advances in Refractory Concrete Technology

Wate Bakker, Electric Power Research Institute, Palo Alto, California

Monolithic Refractory Design Requirements

Seymour A. Bortz, senior engineering advisor, Materials Technology Division, IIT Research Institute, Chicago, Illinois

Use of Finite Element Analyses to Define Critical Property Measurements Relative to the Design of Refractory Concrete Structures

Joseph Masaryk, Kaiser Refractories, Pleasanton, California

Advances in Nondestructive Evaluation Methods for Inspection of Refractory Concretes

William Ellingson, staff scientist, Argonne National Laboratory, Argonne, Illinois

Rational Design with Monolithic Refractories

Timothy Fowler, Monsanto Company, St. Louis, Missouri

General Discussion and Questions

THURSDAY, MARCH 6

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

Emerald 2

WORKSHOP—MAJOR CHANGES IN ACI 214 DOCUMENT

sponsored by ACI Committee 214

Session Chairman: V.M. Malhotra, chairman, ACI Committee 214, and head, Construction Materials Section, CANMET, Department of Energy, Mines and Resources, Ottawa, Ontario, Canada

An Introduction to the Workshop

V.M. Malhotra, session chairman

Random Sampling Made Easy

Edward A. Abdun-Nur, consulting engineer, Denver, Colorado

The Rationale for Change to Standard Deviation Concept and How to Deal with Small Number of Test Results

Robert E. Philleo, chief, Structures Branch, Engineering Division, Civil Works, Office, Chief of Engineers, Washington, D.C.

How ACI 214 Should be Used by a Readymixed Concrete Producer

Richard E. Gaynor, director of engineering, National Ready Mixed Concrete Association/National Sand & Gravel Association, Silver Spring, Maryland

Detailed Step by Step Treatment of Examples Given in ACI 214

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

Detailed Step by Step Treatment for the Preparation of Control Charts

James P. Schwartz, Jr., manager, Quality Control Department, JIMCO, Inc., Metairie, Louisiana

THURSDAY, MARCH 6

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

Emerald 3

SEMINAR: SHEAR AND TORSION

sponsored by ACI Committees 445 and E-702

This seminar is designed for practicing engineers and engineering students and will focus primarily on the new torsional provisions of the new 318-77 Code, "Building Code Requirements for Reinforced Concrete." The background and application of the new provisions will be explained. Included in the list of topics to be covered are: Design for torsion in reinforced and prestressed concrete; and the effects of torsion in combination with bending and shear.

Special registration fees:

ACI Member \$30, NonMember \$35, Student \$10

Moderator: William J. Wilhelm, dean, College of Engineering, Wichita State University, Wichita, Kansas

Background Philosophy of the ACI Method

J. Warwaruk, professor, Department of Civil Engineering, University of Alberta, Edmonton, Alberta, Canada

Designing for Combined Shear and Torsion

K.S. Rajagopalan, vice-president, Mullen and Powell, Inc., Dallas, Texas

Design for Equilibrium and Compatibility Torsion in Indeterminate Frames

Thomas T.C. Hsu, professor, Department of Civil Engineering, University of Houston, Houston, Texas

THURSDAY, MARCH 6

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

Emerald 1

FORUM: REEVALUATION OF RECOMMENDED PRACTICE FOR MASS CONCRETE

sponsored by ACI Committees 114 and 207

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

Moderator: Donald L. Houghton, chairman, ACI Committee 207, and head, Concrete Materials Design and Control, North Pacific Division, U.S. Army Corps of Engineers, Portland, Oregon

The objective of this forum is to bring concrete materials engineers, designers, suppliers, contractors, and owners together to consider current recommended practices for the use of mass concrete.

Introduction Donald L. Houghton, session moderator

Concrete Production, Transportation, Placing, and Joint Cleanup

- a. Slump Requirement and Loss in Slump for Mass Concrete
 - b. Vibration and Revibration of Mass Concrete
 - c. Omission of Mortar from Construction Lift Joints
- Lewis H. Tuthill, concrete engineering consultant, Sacramento, California

Construction Tolerances

- a. Practical Allowable Difference in Tolerances for Exposed Versus Unexposed Mass Concrete
- b. Use of Architectural Treatment and Practical Tolerance Limits in Mass Concrete

Woodrow L. Burgess, director of engineering services, Master Builders, Division of Martin Marietta, Cleveland, Ohio

Mix Design Considerations

- a. Proposed Revision of 211.1.77 for Design of Mass Concrete
- b. Practical Maximum Percentage of Pozzolan Replacement of Portland Cement in Mass Concrete

Gary R. Mass, concrete and materials engineer, Harza Engineering Company, Chicago, Illinois

Roller Compaction Requires Reevaluation

- a. Use of Roller Compacted Concrete in Permanent Massive Structures in Lieu of Conventional Concrete
- b. Bond at Horizontal Lift Joints Constructed with Roller Compacted Concrete

Robert W. Cannon, principal civil engineer, Tennessee Valley Authority, Knoxville, Tennessee

Field Problems as They Relate to Design Parameters

- a. Strength Versus Control of Internal Heat Requirements for Mass Concrete
 - b. Cavitation and Abrasion Resistance of Mass Concrete
 - c. Use of Small Size Aggregate Concrete in Mass Concrete
- James A. Rhodes, chief, Concrete Section, Civil Works Directorate, Office, Chief of Engineers, Washington, D.C.

The forum will consist of short presentations and then the session will be open for discussion with speakers remaining as a panel.

FRIDAY, MARCH 7

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

Emerald 2

INSPECTION-AN AID TO CONTRACTORS

sponsored by the ACI Committee 311

Session Chairman: Bertold E. Weinberg, chairman, ACI Committee 311, and project manager, Special Projects, Dormitory Authority of the State of New York, Elsmere, New York

Control Charts Catch Changes, Can Cut Costs

Oswin Keiter, Jr., district materials engineer, Omaha District, U.S. Army Corps of Engineers, Omaha, Nebraska

Accelerated Strength Testing: Is It a Solution to a Contractor's Dilemma?

V.M. Malhotra, head, Construction Materials Section, CANMET, Department of Energy, Mines and Resources, Ottawa, Ontario, Canada

So What Is New in Testing and Inspection?

Dixon O'Brien, Jr., president, O'Brien and Associates, Inc., Arlington Heights, Illinois

Inspection Doesn't Cost—It Pays

James Hanagan, chief engineer, Ernest F. Donley's Sons, Inc., Cleveland, Ohio

FRIDAY, MARCH 7

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

Emerald 3

SYMPOSIUM ON RESIDENTIAL CONCRETE

sponsored by ACI Committee 332

Session Chairman: J.W. Meusel, chairman, ACI Committee 332, and technical director, Atlantic Cement Company, Inc., Ravena, New York

Cellular Concrete in Residential Construction

Leo M. Legatski, professor emeritus of civil engineering, University of Michigan, Ann Arbor, Michigan

A Method for Insulating Concrete Walls

Richard R. Vandegriff, president, Vantage Construction Company, Noblesville, Indiana

Concrete Opportunities in Earth Sheltered Construction

Mario J. Catani, director, Buildings Division, Portland Cement Association, Skokie, Illinois

Underground Housing

Willard S. Norton, board chairman, Norton and Schmidt Consulting Engineers, Inc., Kansas City, Missouri

Minimizing Cracking in Slabs on Grade

Leo P. Nicholson, manager, Marketing and Technical Services, General Portland Inc., Los Angeles, California

FRIDAY, MARCH 7
9:00 a.m.-12:00 noon

Emerald I

PREMATURE FAILURE IN MONOLITHIC REFRACTORY CONSTRUCTIONS: PREVENTIVE AND REMEDIAL TREATMENT

sponsored by ACI Committee 547

Session Chairman: David R. Lankard, chairman, ACI Committee 547, and Lankard Materials Laboratory, Inc., Columbus, Ohio

Session II

Opening Remarks

David R. Lankard, session chairman

Analysis and Solution of Refractory Concrete Failure in Sinter Plant Mist Separator

Richard L. Shultz, senior research engineer, Armco, Inc., Middletown, Ohio

How to Make Quality Refractories Fail

Wesley C. Lueking, manager of product planning, A.P. Green Refractories Company, Mexico, Missouri

Performance of Refractory Concretes in Aluminum Melting and Holding Operations

Richard G. LaBar, manager, Ingot Casting Division, Alcoa Laboratories, Aluminum Company of America, Alcoa Center, Pennsylvania

Refractory Problems and Repair Techniques in Refining and Petrochemical Operations

Michael S. Crowley, material specialist, Standard Oil of Indiana, Naperville, Illinois

Premature Failure with Monolithic Refractories: The Manufacturers' Viewpoint

Robert E. Fisher, technical director, Plibrico Company, Chicago, Illinois

Repairing Monolithic Refractory Failures

I. Leon Glassgold, president, Masonry Resurfacing and Construction Company, Inc., Baltimore, Maryland; and Richard C. Olson, A.P. Green Refractories Company, Mexico, Missouri

General Discussion and Questions

Closing Remarks

David R. Lankard, session chairman

SPORTS PROGRAM

FRIDAY, MARCH 7

1:30 p.m.

Tennis Tournament: Tropicana Hotel Racquet Club
Every player will receive a can of tennis balls and there will be trophies to win! Four indoor courts have been reserved so tickets are limited. Reserve a space NOW by using the form on the back page. Some tickets may be available early at the women's registration desk in the Palm room. Cost includes court time, the professional referee, and trophies.

Cost: \$12.00

SATURDAY, MARCH 8

11:00 a.m.

Golf Tournament: Dunes Hotel Golf Course
Each player will receive 3 golf balls and there will be trophies. We've scheduled it late so you can sleep in but—tickets are limited so reserve NOW by using form on back page. Some tickets may be available early at the women's registration desk in the Palm room. Fees include greens fees, the two-person golf carts, and trophies. Clubs and shoes are available for rent; such rental is not included in the ticket price.

Cost: \$40.00

NOTE: These sports events will be cancelled if attendance guarantees are not met. All monies for such cancelled events will be refunded.



LADIES' PROGRAM

SUNDAY, MARCH 2, 1980

1:00 p.m.-5:00 p.m.

Registration

MONDAY, MARCH 3

8:30 a.m.

Coffee and rolls

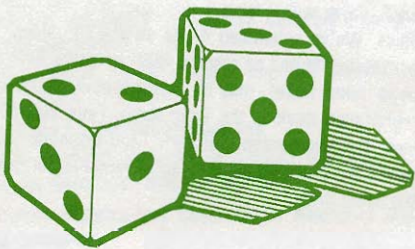
Registration

2:00 p.m.-3:00 p.m.

Seminar: "How to Gamble" by Sam Landy

Here's your chance to learn how it's done at the gaming tables.

No charge



TUESDAY, MARCH 4

9:30 a.m.-12:30 p.m.

Liberace Museum and Tour

Las Vegas is "home" to many show biz personalities. In this tour we will point out some areas where they reside and drive by some of their homes. Guides are thoroughly familiar with the area and will give you as much information as possible. You will enter two selected, outstanding homes of local residents. Then on to the new Liberace Museum to see the world's rarest piano collection, classic and customized automobiles, plus a look at the glittering and bejeweled million dollar wardrobe. Cost: \$12.50

2:30 p.m.-3:45 p.m.

Financial Self-Defense, Especially for Women:

"Every woman needs to mind her own business!" This seminar provides information on effective ways to manage your money. This is a revealing program for today's modern woman who has to cope with money management in the grocery store, credit in the department store and investments in the stock market.

Our lecturer, Donna Dahl, is a personnel director at one of Las Vegas' banks and is on the staff at the University of Nevada, Las Vegas, and Clark County Community College. She brings the big world of finance down to an everyday level.

Cost: \$6.00

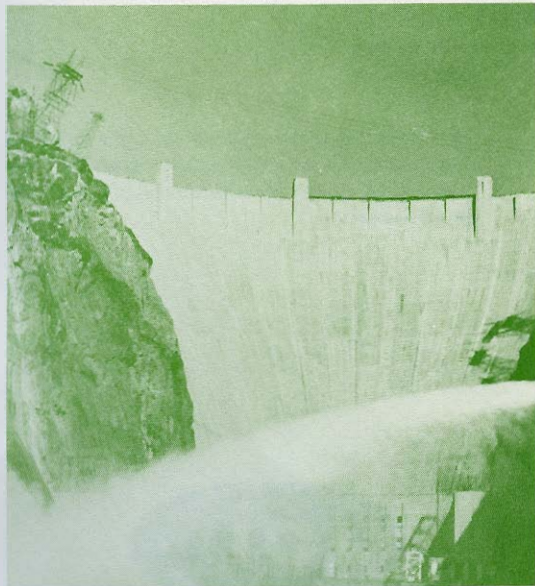
WEDNESDAY, MARCH 5

9:00 a.m.-3:00 p.m.

Hoover Dam Deluxe Tour:

This special "Land and Lake" tour includes a ground tour to the top of Hoover Dam, source of power for the southwestern United States, plus an excursion on Lake Mead aboard the Cruiser "Echo". A buffet luncheon is included.

Cost: \$20.00 (includes \$1.00 government fee)



6:30 p.m.-8:00 p.m.

"Concrete Mixer" social hour in the Sapphire Ballroom of the Aladdin Hotel. This traditional affair will be spectacular this year, complete with flowing fountains. Be sure to wear your badge.

THURSDAY, MARCH 6

9:30 a.m.-10:45 a.m.

Las Vegas Showgirl:

You will be entertained with a glimpse of the "behind the scenes life" of a Las Vegas Showgirl. She dazzles the audience with her appearance and her magnificent costume complete with headdress and then proceeds to detail her life on and off the stage. She is a most articulate and hilarious speaker.

Kathy Saxe is a retired showgirl who relives her career with her lectures. She has appeared for almost ten years before thousands of conventioners telling her story. She was your typical "girl-next-door", born in Chicago of Greek heritage, who found herself in Las Vegas, auditioned and became a glamorous queen of the stage. She is a college-trained speaker.

No charge.

(continued)

12:00 noon-2:30 p.m.

Awards Luncheon

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

Cost: \$10.00

NOTE: If you don't buy these tickets in advance you must purchase them at the regular registration desk, not in the Hospitality room.

FRIDAY, MARCH 7

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

Coffee and rolls

NOTE: Tour operator reserves the right to cancel any offering for which attendance guarantees are not met. All monies for such cancelled events will be refunded.



**ACI
FUTURE
CONVENTIONS**

1980 Fall Convention

September 21-26

Condado Beach/La Concha Hotels
San Juan, Puerto Rico

1981 Annual Convention

February 8-13

with World of Concrete
Hyatt Regency Dallas
Dallas, Texas

1981 Fall Convention

September 20-25

Quebec Hilton Hotel
Quebec, Quebec, Canada

NOTES

