ACI Committee Document Abstracts

The following ACI documents are, or will soon be, available:

"Decorative Concrete—Guide (ACI/ASCC PRC-310-25)"

Reported by Joint ACI-ASCC Committee 310, Decorative Concrete

Clark Branum, Chair; Ben Wiese, Secretary; Jason Barnes, Lance Boyer, James A. Farny, John D. Fauth, Bruce Ferrell, William Gaspar, Robert Patrick Harris, Patrick J. Harrison, Roy E. Harvey, Michael G. Hernandez, Theodore G. Jessop Jr., Ryan J. Klacking, Byron A. Klemaske II, Michael A. Linn, Allyn C. Luke, Scott C. Metzger, Michael Payne, Larry Rowland, Nicholas J. Sorrentino, David E. Stephenson, James Vermillion, and Christopher J. Wright, Members; Daniel P. Dorfmueller, Harry P. Moats, Mike Murray, Joseph V. Nasvik, Michael S. Smith, and Cori Sutton, Consulting Members; Vijay R. Kulkarni, Liaison Member.

Abstract: This Guide describes techniques for imparting aesthetic finishes to concrete flatwork, many of which can be combined for unique effects. The owner and architect/engineer will acquire detailed, practical guidance for achieving aesthetic effects using proven techniques. Recommendations are made for the production of cast-in-place decorative concrete flatwork, decorative stains, and overlays. In addition to attention to the specified materials, mixture designs, concrete placement, curing, protection, sealing, and other treatments, this Guide also considers the effects of these treatments on the overall aesthetics of the project.

"Building Code for Structural Concrete—Code Requirements and Commentary (ACI CODE-318-25)"

Reported by ACI Committee 318, Structural Concrete Building Code

Andrew W. Taylor, Chair; Gregory M. Zeisler, Secretary (Non-voting); Theresa M. Ahlborn, Sergio M. Alcocer, Neal S. Anderson, John F. Bonacci, JoAnn P. Browning, Ned M. Cleland, David Darwin, David C. Fields, Catherine E. French, Robert J. Frosch, Edith Gallandorm, Wassim M. Ghannoum, Satyendra Ghosh, James R. Harris, Carol Hayek, Mary Beth D. Hueste, Shana Kelley, Dominic J. Kelly, Gary J. Klein, Michael E. Kreger, Neven Krstulovic-Opara, Andres Lepage, Colin L. Lobo, Raymond Lui, Frank Stephen Malits, Jack P. Moehle, Miguel Mota, Daniel T. Mullins, Lawrence Novak, Carlos E. Ospina, Gustavo J. Parra-Montesinos, Viral B. Patel, Long T. Phan, Jose A. Pincheira, Randall W. Poston, Carin L. Roberts-Wollmann, David H. Sanders, Thomas C. Schaeffer, Andrea J. Schokker, Stephen J. Seguirant, John F. Silva, Lesley H. Sneed, Amy M.R. Trygestad, John W. Wallace, James K. Wight, and Loring A. Wyllie Jr., Members; Saman Ali Abdullah, Michael E. Ahern, Hamid Ahmady, Rashid Ahmed, Scott D.B. Alexander, Carlos A. Arteta, Suzanne Aultman, Robert W. Barnes, F. Michael Bartlett, Asit N. Baxi, Abdeldjelil Belarbi, Raul D. Bertero, Agnieszka Bigaj-Van Vliet, K. Dirk Bondy, Sergio F. Brena, Jared E. Brewe, Julie K. Buffenbarger, Nicholas J. Carino, Julian Carrillo, Min Yuan Cheng, Eamonn F. Connolly, Juan Francisco Correal Daza, Martin A. Cuadra, Mary Cuthbert, Matthew D. D'Ambrosia, Austin Devin, Jeffrey J. Dragovich, Jason L. Draper, Kenneth J. Elwood, Scott D. Erickson, Robert B. Esplin, Luis B. Fargier-Gabaldon, Lisa R. Feldman, Joe Ferzli, Damon R. Fick, Rudolph P. Frizzi, Werner A.F. Fuchs, Harry A. Gleich, Alana G. Guzzetta, David L. Hartmann, Richard Henry, Robert B. Holland, Terence C. Holland, Augusto H. Holmberg, R. Doug Hooton, Kenneth C. Hover, Matias Hube, Jonathan Hurff, Hyeon Jong Hwang, Jose M. Izquierdo-Encarnacion, Maria G. Juenger, Thomas Kang, Keith E. Kesner, John Kilpatrick, Insung Kim, Ronald Klemencic, Donald P. Kline, James E. Klinger, Larry B. Krauser, Jason J. Krohn, Daniel A. Kuchma, Anthony J. Lamanna, Justin D. Lazenby, Hung-Jen Lee, Dawn E. Lehman, Remy D. Lequesne, Emily B. Lorenz, Laura N. Lowes, Adam S. Lubell, Kevin A. MacDonald, Adolfo B. Matamoros, Ian S. McFarlane, Gregory S. McKinnon, Fred Meyer, Christopher Motter, Antonio Nanni, William H. Oliver, Enrique Pasquel, Conrad Paulson, Santiago Pujol, Jeffrey Rautenberg, Kyle Austin Riding, Kelly Levy Roberts, Mario E. Rodriguez, Bruce W. Russell, Guillermo Santana, Christopher L. Segura Jr., Hitoshi Shiohara, Anurag Sinha, Seymour M.J. Spence, John F. Stanton, Roberto Stark, Daniel S. Stevenson, Fernando Reboucas Stucchi, George I. Taylor, Julio Timerman, Nancy Larson Varney, Jeffery S. Volz, Roman Wan-Wendner, Jason Weiss, Benjamin L. Worsfold, Teng Wu, Zuming Xia, Fernando Yanez, Fouad H. Yazbeck, and Alec Zimmer, Subcommittee Members; James R. Cagley, Charles W. Dolan, Neil M. Hawkins, James O. Jirsa, Basile G. Rabbat, and Sharon L. Wood, Consulting Members.

Abstract: The "Building Code for Structural Concrete" ("Code") provides minimum requirements for the materials, design, and detailing of structural concrete buildings and, where applicable, nonbuilding structures. This Code was developed using a consensus process, and it addresses structural systems, members, and connections, including cast-in-place, precast, shotcrete, plain, nonprestressed, prestressed, and composite construction. Among the subjects covered are design and construction for strength, serviceability, and durability; load combinations, load factors, and strength reduction factors; structural analysis methods;

deflection limits; mechanical and adhesive anchoring to concrete; development and splicing of reinforcement; construction document information; field inspection and testing; methods to evaluate the strength of existing structures; design verification using nonlinear response history analysis in Appendix A; performance-based wind design in Appendix B; and sustainability and resilience in Appendix C.

"Building Code for Concrete Thin Shells—Code Requirements and Commentary (ACI CODE-318.2-25)"

Reported by ACI Committee 318, Structural Concrete Building Code

Andrew W. Taylor, Chair; Gregory M. Zeisler, Secretary (Non-voting); Theresa M. Ahlborn, Sergio M. Alcocer, Neal S. Anderson, John F. Bonacci, JoAnn P. Browning, Ned M. Cleland, David Darwin, Kenneth J. Elwood, David C. Fields, Catherine E. French, Robert J. Frosch, Edith Gallandorm, Luis E. Garcia, Wassim M. Ghannoum, Satyendra Ghosh, James R. Harris, Carol Hayek, Terence C. Holland, Mary Beth D. Hueste, Shana Kelley, Dominic J. Kelly, Gary J. Klein, Michael E. Kreger, Neven Krstulovic-Opara, Andres Lepage, Colin L. Lobo, Raymond Lui, Frank Stephen Malits, Jack P. Moehle, Miguel Mota, Daniel T. Mullins, Lawrence Novak, Carlos E. Ospina, Gustavo J. Parra-Montesinos, Viral B. Patel, Long T. Phan, Jose A. Pincheira, Randall W. Poston, Carin L. Roberts-Wollmann, David H. Sanders, Thomas C. Schaeffer, Andrea J. Schokker, Stephen J. Seguirant, Lesley H. Sneed, Amy M.R. Trygestad, John W. Wallace, James K. Wight, Sharon L. Wood, Loring A. Wyllie Jr., and Alec Zimmer, Members; Saman Ali Abdullah, Michael E. Ahern, Hamid Ahmady, Rashid Ahmed, Carlos A. Arteta, Suzanne Aultman, Robert W. Barnes, Asit N. Baxi, Abdeldjelil Belarbi, Raul D. Bertero, Agnieszka Bigaj-Van Vliet, K. Dirk Bondy, Sergio F. Brena, Jared E. Brewe, Julie K. Buffenbarger, William Camp, Nicholas J. Carino, Ramon L. Carrasquillo*, Julian Carrillo, Min Yuan Cheng, Eamonn F. Connolly, Juan Francisco Correal Daza, Martin A. Cuadra, Matthew D. D'Ambrosia, Austin Devin, Jeffrey J. Dragovich, Jason L. Draper, Scott D. Erickson, Robert B. Esplin, Luis B. Fargier-Gabaldon, Lisa R. Feldman, Joe Ferzli, Damon R. Fick, Dylan Freytag, Rudolph P. Frizzi, Werner A.F. Fuchs, Harry A. Gleich, Alana G. Guzzetta, David L. Hartmann, Richard Henry, Robert B. Holland, Augusto H. Holmberg, R. Doug Hooton, Kenneth C. Hover, Matias Hube, Matthew Huizinga, Hyeon Jong Hwang, Jose M. Izquierdo-Encarnacion, Maria G. Juenger, Thomas Kang, Keith E. Kesner, John Kilpatrick, Insung Kim, Ronald Klemencic, Donald P. Kline, James E. Klinger, Larry B. Krauser, Jason J. Krohn, Daniel A. Kuchma, Anthony J. Lamanna, Justin D. Lazenby, Hung-Jen Lee, Dawn E. Lehman, Remy D. Lequesne, Emily B. Lorenz, Laura N. Lowes, Adam S. Lubell, Kevin A. MacDonald, Adolfo B. Matamoros, Steven L. McCabe, Ian S. McFarlane, Gregory S. McKinnon, Fred Meyer, Christopher Motter, Antonio Nanni, William H. Oliver, Enrique Pasquel, Conrad Paulson, Santiago Pujol, Jeffrey Rautenberg, Kyle Austin Riding, Kelly Levy Roberts, Mario E. Rodriguez, Bruce W. Russell, Guillermo Santana, Hitoshi Shiohara, John F. Silva, Anurag Sinha, John F. Stanton, Roberto Stark, Daniel S. Stevenson, George I. Taylor, Julio Timerman, Nancy Larson Varney, Miroslav Vejvoda, Jeffery S. Volz, Roman Wan-Wendner, Jason Weiss, Teng Wu, Zuming Xia, Fernando Yanez, and Fouad H. Yazbeck, Subcommittee Members; James R. Cagley, Charles W. Dolan, David P. Gustafson, Neil M. Hawkins, James O. Jirsa, and Basile G. Rabbat, Consulting Members.

*Deceased.

Abstract: This document governs the design of thin shell concrete structures. Where required for the design of thin shell concrete structures, provisions of ACI CODE-318 are to be used to complement the provisions of this Code.

"Structural Precast Concrete—Code Requirements and Commentary (ACI/PCI CODE-319-25)"

Reported by Joint ACI-PCI Committee 319, Precast Structural Concrete Code

Andrea Schokker*, Chair; Harry Gleich*, Vice Chair; Trey Hamilton, Secretary (Non-voting); Suzanne Aultman*, Robert Barnes, James Baty, Ned M. Cleland*†, Jason Krohn, Jon Mohle*, Chuck Pizzano, Jared Reigstad, Carin L. Roberts-Wollmann*, Brandon Ross, Thomas C. Schaeffer, David Schneider, Stephen J. Seguirant, and Larbi Sennour, Members; Charles W. Dolan and Edith Gallandorm, Consulting Members; Edith Gallandorm, PCI Staff Liaison; Paul Arthur, Sergio F. Brena, Matt Gombeda, Mohammad S. Habib, Perry D. Schram, Roksana Taghizadeh Daloui, and Heidi Ziemann, Members of Design Standard Committee of the Precast/Prestressed Concrete Institute.

*Members of Joint ACI-PCI Committee 319 and the Design Standard Committee of the Precast/Prestressed Concrete Institute.

†Chair of the Design Standard Committee of the Precast/Prestressed Concrete Institute.

Abstract: The "Structural Precast Concrete—Code Requirements and Commentary" ("Code") provides minimum requirements for the materials, design, and detailing of structural precast concrete buildings and, where applicable, nonbuilding structures. This Code was developed using a

consensus process, and it addresses plant-produced and site-produced structural precast concrete that contains nonprestressed reinforcement, pretensioned reinforcement, or both. The Design Standard Committee of the Precast/Prestressed Concrete Institute was instrumental in the development of code provisions and commentary for this Code. Their efforts are gratefully acknowledged. Among the subjects covered are design and construction for strength, serviceability, and durability; load combinations, load factors, and strength reduction factors; structural analysis methods; deflection limits; mechanical and adhesive anchoring to concrete; development and splicing of reinforcement; construction document information; field inspection and testing; and methods to evaluate the strength of existing structures.

"Post-Tensioned Structural Concrete—Code Requirements and Commentary (ACI/PTI CODE-320-25)"

Reported by Joint ACI-PTI Committee 320, Post-Tensioned Structural Concrete Code

Carol Hayek*, Chair; Trey Hamilton, Secretary (Non-voting); Hamid Ahmady, Tim D. Christle, Martin A. Cuadra*, Thomas Kang, Donald P. Kline*†, Martin R. Maingot, Jared Reigstad, Carin L. Roberts-Wollmann*, Brandon Ross, Andrea J. Schokker*, and Zuming Xia, Members; Tim D. Christle, PTI Staff Liaison; Rashid Ahmed, Bryan Allred, Asit Baxi, Jonathan Hirsch, Frank Malits, and Miroslav Vejvoda, Members of Technical Advisory Board Task Group of the Post-Tensioning Institute.

*Members of Joint ACI-PTI Committee 320 and the Technical Advisory Board Task Group of the Post-Tensioning Institute.

†Chair of the the Technical Advisory Board Task Group of the Post-Tensioning Institute.

Abstract: The "Post-Tensioned Structural Concrete—Code Requirements and Commentary" provides minimum requirements for the materials, design, and detailing of post-tensioned concrete buildings and, where applicable, nonbuilding structures. This Code was developed using a consensus process, and it addresses structural concrete members and systems that contain post-tensioned tendons. The Technical Advisory Board Task Group of the Post-Tensioning Institute was instrumental in the development of code provisions and commentary for this Code. Their efforts are gratefully acknowledged. Among the subjects covered are design and construction for strength, serviceability, and durability; one-way slabs; two-way slabs; beams; post-tensioning anchorages; construction document information; and field inspection and testing.

"Assessment, Repair, and Rehabilitation of Existing Concrete Structures—Code Requirements and Commentary (ACI CODE-562-25)"

Reported by ACI Committee 562, Evaluation, Repair and Rehabilitation of Concrete Structures

F. Michael Bartlett, Chair; Khaled Nahlawi, Secretary (Non-voting); Tarek Alkhrdaji, Michael D. Brown, Nicholas J. Carino, Matthew D. D'Ambrosia, Lisa R. Feldman, Nessa Galati, Karim Helmi, Keith E. Kesner, Jonah Kurth, Ming Liu, Katelyn Low, John S. Lund, John Silva, Kyle D. Stanish, J. Gustavo Tumialan, Jeffrey S. West, David Whitmore, Mark E. Williams, and Paul H. Ziehl, Members; Ali Abu-Yosef, Will Beckwith, Sergio F. Brena, Michael C. Brown, Liam Butler, Richard Cantin, Jeffery Carlson, Kevin Conroy, Ziad Elaghoury, Mohamed ElBatanouny, Chad Enders, Siamak Fakhrayee Nejad, Jeremiah D. Fasl, Kip Gatto, Thomas Gernay, Matthew Graziano, Pawan R. Gupta, Jose Hernandez, R. Doug Hooton, Barry Jackson, Mohammad Jalalpour, Gaur Johnson, Insung Kim, Vincent Lapointe, Aaron Larosche, Michael Lee, Kenton McBride, Kevin Moore, Kevin Mueller, Javeed Munshi, Sivakumar Munuswamy, Jose Pacheco, Conrad Paulson, Nicolas Pinoteau, Giovanni Plizzari, Diego Romero, George Seegebrecht, Stephen Stacey, Gene Stevens, Pericles Stivaros, Peter Stynoski, Michael Thomas*, Eric Van Duyne, John Vincent, Joshua White, John Wilcher, and John Wilson, Subcommittee Members; Paolo Casadei, Kelly Cobeen, Kent Harries, and Carl "Chuck" Larosche, Consulting Members.

*Deceased.

Special acknowledgement to the previous Chair, Carl "Chuck" Larosche, whose vision and initiative were the driving force behind the launch of ACI CODE 562-25. His foresight and commitment set a clear path forward, inspiring collaboration throughout the process.

Abstract: This Code provides minimum requirements for the assessment, repair, and rehabilitation of existing concrete structures, members, and systems. This Code was developed by an American National Standards Institute (ANSI)-approved consensus process. This Code can supplement the International Existing Building Code (IEBC), supplement the code governing existing structures of an authority having jurisdiction, or act as a stand-alone code in a locality that has not adopted an existing building code.

"Repair of Concrete in Buildings—Specification (ACI SPEC-563-25)"

Reported by ACI Committee 563, Specifications for Repair of Structural Concrete in Buildings

John S. Lund, Chair; Karen Polanco*, Secretary; Jason

Coleman, Jorge Costa, Peter Emmons, Paul E. Gaudette, Timothy R.W. Gillespie, Matthew R. Hansen, Susan Isble, Jason S. Johnson, Kevin R. Krawiec, Kenneth M. Lozen, Marjorie M. Lynch, Paul A. Noyce, Jose Pacheco, Clyde Porter Jr., Brian E. Pulver, James A. Ragland, Michael M. Sprinkel†, Kyle Stanish*, Michael S. Stenko, Gene R. Stevens, David A. VanOcker, and David W. Whitmore, Members; Fred R. Goodwin, Lawrence F. Kahn, Tracy D. Marcotte, Kevin A. Michols, and Jay H. Paul, Consulting Members.

*Editorial committee members.

†Michael Sprinkel was a member of ACI Committee 563 from its inception in 2007 and was Chair of ACI Subcommittee 563-M, Polymer Concrete/Overlays, at the time of his death in December 2022. The committee expresses its deepest appreciation for his friendship and leadership.

Abstract: This is a Reference Specification that the architect/engineer can apply to any construction repair and rehabilitation project involving structural concrete by citing it in the project specifications. Mandatory requirements and optional requirements checklists are provided to assist the architect/engineer in supplementing the provisions of this Specification, as required or needed, by designating or specifying individual project requirements. The first section covers general construction requirements for repair work. The second section covers shoring and bracing of the structure or member to be repaired and addresses sequencing of repair work as the structure is unloaded and reloaded. The third section covers concrete removal and preparation of the concrete substrate for repair and defines common equipment and methods. The next five sections cover materials and proportioning of concrete; proprietary cementitious and polymer repair materials; reinforcement; production, placing, finishing, and curing of repair materials; formwork performance criteria and construction; treatment of joints; embedded items; repair of surface defects; mockups; and finishing of formed and unformed surfaces. New sections included in this edition of the Specification are waterproofing cracks by chemical grout injection, architectural concrete repair, structural precast concrete repair, unbonded post-tensioned concrete repair, overlays, protective membranes, and cathodic protection by galvanic anodes. Provisions governing testing, evaluation, and acceptance of repair materials, as well as acceptance of the repair work, are included. Sections 16, 17, and 18 incorporate by reference other ACI specifications into this ACI document: ACI SPEC-503.7 for crack repair by epoxy injection, ACI SPEC-506.2 for shotcrete, and ACI SPEC-440.12 for wet-layup fiber-reinforced polymer (FRP).