



INTERNATIONAL SOCIETY FOR CONCRETE PAVEMENTS

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ISCP e-NEWSLETTER
 VOLUME 7, NUMBER 5
 SEPTEMBER 2010

WHAT'S NEW AT ISCP:

ISCP Newsletter Goes Monthly!

In an effort to provide more up-to-date coverage of international concrete paving developments, ISCP is pleased to announce that it is increasing the frequency of its e-newsletter to 12 times per year (rather than 6). In addition, the newsletter will be featuring an increased emphasis on technical developments, academic achievements and construction projects and programs from around the world!

If you have concrete pavement-related news that might be of interest to Society members, please share it by submitting a draft article to the newsletter editor at newsletter@concretepavements.org. All contributions will be received gratefully and properly acknowledged in the newsletter.

New Organizational Member of ISCP ~ Cement and Concrete Institute of Chile

ISCP would like to welcome a new organizational member: Instituto del Cemento y del Hormigón de Chile (ICH) or Cement and Concrete Institute of Chile. ICH was founded in 1966 as a non-profit organization by the Chilean Construction Chamber and the three cement companies: Cementos Bío-Bío S.A., Cementos Melón S.A. and Cementos Polpaico S.A.



ICH mission is to promote new and better uses of cement and concrete - through technology development and practices in concrete construction. Its objectives are to improve the quality, reduce costs and improve the productivity of concrete construction in Chile.

The ICH was founded in 1966 as a non-profit organization by the Chilean Construction Chamber & the 3 major companies in the area ...

ICH promotes better concrete pavement solutions through the development and transfer of knowledge, while achieving good practices in design, construction, rehabilitation and repair of concrete pavements.

ICH leads and works with the construction industry and universities as the main reference source for technical solutions of concrete pavements.

Also, ICH is an active participant within the consortium of the Highway Development and Management System (HDMGlobal), responsible for the management and development of the HDM-4 - a software system for research and investing in road transport infrastructure.

As an organizational member of ISCP, ICH will help to enhance the Society's continued growth and development as an international organization for the promotion of technological advancements concerning concrete pavements.

The organization details were provided by Mauricio Salgado Torres. For more information about ICH, please visit its website at www.ich.cl.

Reviewers Needed for ISCP Conferences

"Powered by Google"

The Editorial Committee of ISCP is creating a panel of reviewers to assist in reviewing abstracts and papers for the various conferences that ISCP is involved in, as well as any technical publications which the Society may wish to publish. If you, as an ISCP member, would like to be a reviewer in the future, please either contact Bryan Perrie at bryan@cnci.org.za or fill out the review panel form online at:

<https://spreadsheets.google.com/viewform?formkey=dFQ0am55MGVlYmstRklkV0k0b2o4ZGc6MQ>
 Any questions can be directed to editorial@concretepavements.org

ORGANIZATIONAL MEMBERS:



Conference Announcement and First Call For Papers has been Published for Québec Conference 2012



“SUSTAINABLE SOLUTIONS TO GLOBAL TRANSPORTATION NEEDS”



ISCP has announced its First Call For Papers for the 10th International Conference on Concrete Pavements in Québec City, Québec, Canada **July 8-12, 2012**. The conference is to be held at the [Fairmont Le Château Frontenac](#). Conference sponsors are being solicited. Please contact Tim Smith, Conference Co-Chair, tsmith@cement.ca, to learn about sponsorship opportunities. Please refer to the conference website: **10th International Conference on Concrete Pavements** <http://www.concretepavements.org/10thiccip/>

10th INTERNATIONAL CONFERENCE ON CONCRETE PAVEMENTS QUÉBEC 2012

TECHNOLOGY TRANSFER POSTINGS

Read More with CP Road Map E-News

The CP Road Map E-News is the newsletter of the Long-Term Plan for Concrete Pavement Research and Technology (CP Road Map), a United States national research plan developed and jointly implemented by the concrete pavement stakeholder community across the US. The most recent edition of the CP Road Map E-news included articles about the following:

- Intro to the Special Issue: Updates from the International Technology Scanning Tour on Long-Life Concrete Pavements
- New “Moving Advancements into Practice” (MAP) Briefs describe promising technologies that can be used now to enhance concrete paving practices.
- Two-Lift Concrete Paving reduces cost of materials and materials transportation, reduces the environmental impact, increases social benefits and provides a long-lasting pavement.
- Concrete Pavement Design Catalog that simplifies pavement design
- High quality concrete pavement foundations result in better long-term pavement performance.
- Improved Concrete Mixture Design in Europe . . . typically exhibits higher flexural strength values than concrete in the United States.
- Geotextile Interlayers for Cement-Bound Layers is gaining momentum in the United States
- Exposed Aggregate Concrete Pavement Surfacing to minimize noise caused by tire-pavement interaction.

CP Road Map E-News is the newsletter of the Long-Term Plan for Concrete Pavement Research & Technology

Further information about the CP Road Map can be found at <http://www.cproadmap.org/index.cfm>.



If you'd like to find out more about the CP Road Map or learn how you can get involved, contact Program Manager Dale Harrington, dharrington@snyder-associates.com or visit the CP e-news homepage at: <http://www.cproadmap.org/publications/e-news.cfm>.

International Conference on Concrete Sustainability Attracts 200-Plus

More than 200 attendees participated in the recent International Conference on Sustainable Concrete Pavements, which was organized by the U.S. Federal Highway Administration and the U.S. National Concrete Pavement Technology Center, and held in Sacramento, California, USA on September 15-17, 2010. The program included more than 40 presentations on aspects of concrete pavements sustainability ranging from sustainability practices around the world; to pavement sustainability rating systems; to innovative and sustainable concrete pavement systems; and much more. Nearly 20 exhibitors were also on hand to promote sustainable products for concrete paving.

The conference proceedings are available for download (free of charge!) at: <http://rcpt.yousendit.com/952100411/81de6db585fc624d10ff2fb49dca88d5>

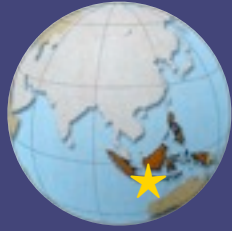
In addition, the ISCP Technical Committee on Concrete Pavement Sustainability will be preparing an overview of each of the conference technical sessions and will be posting this summary on its committee webpage on the ISCP website at <http://www.concretepavements.org/committees/sustainability.htm>



TECHNOLOGY DEVELOPMENTS

Precast Concrete Placed for Toll Road in Indonesia

The construction of a Precast Prestressed Concrete Pavement (PPCP) project was recently completed on a portion of the Kanci-Pejagan Toll Road near Cirebon on the island of Java in Indonesia. The project, which is 35 kilometers (22 miles) in length, is located between the seaport city of Cirebon (a north coastal city of the West Java province) and Semarang (a north coastal city of the Central Java province). This particular toll road will become a section that connects the Trans-Jawa Toll Way System, which will have a total length of 829 kilometers (515 miles). As a main transportation infrastructure, it is a major economic development corridor for the movement of people and goods throughout the various provinces around the island of Java.



Fabrication Facility



photos below:
Panel Installation
Progression
Completed Project

The PPCP design thickness was determined based on the results of a PPCP experiment conducted in Texas, USA. First, the thickness of a jointed plain concrete pavement (JPCP) was designed using principles of fatigue analysis using the 1998 AASHTO Supplemental to the 1993 Pavement Design Guide. The design JPCP thickness was computed to be 343 mm (13.5 inches) over a 50-mm (2-in) lean concrete base. The contractor used multilayer elastic analysis to develop a more economical 200-mm (8-in) PPCP thickness. The differences in stresses between the two designs were offset by post-tensioning the slabs. The sources of stress differences included: environmental effects, edge load stresses, stress relaxation, creep effects, slippage in the post-tensioning system, and more.

The construction of PPCP involved placing paving units that were 97.5 m (320ft) in length and 8.2 m (27 ft) wide. Each paving unit consisted of eighteen base panels, two joint panels and a center panel to make one unit PPCP. The panels were post-tensioned using wire strands spaced at 658 mm (26 in), which provided 1.32 MPa (191 psi) of counter stress at the bottom of the panels.

This project is the first major PPCP project to be constructed in a remote area, and it demonstrated the advantages that PPCP can offer in overcoming the challenges of building toll roads in developing countries. Local contractors were able to easily design and construct this project without a large initial capital investment. However, some design modifications may be needed to make this type of pavement adaptable to other road classifications in isolated or remote areas. These applications might include rural two-lane economic development roads, small city access roads and airport pavements, where the cost of cement is relatively inexpensive. With more applications of PPCP in

the future, this type of concrete pavement will evolve as a pavement technique that can be successfully implemented in both developed and developing countries.

As a main transportation infrastructure, it is an economic development corridor to move people & goods around the island of Java.



~ Article and photographs provided by: Tommy Nantung
Indiana Department of Transportation tnantung@indot.in.gov

Infrastructure Improvements in South Africa

Over the last four to five years, a number of significant transport infrastructure projects have been and continue to be constructed. Some of these have been allied, to but not always driven by, the FIFA 2010 Soccer World Cup. Most soccer followers will have been exposed to some of the magnificent and iconic stadia that were constructed for this event. There have been some significant, yet less-publicized, transport projects around South Africa.



These include:

- Bus Rapid Transit (BRT) infrastructure in both Johannesburg and Pretoria
- The upgrading of Johannesburg's O.R. Tambo and Cape Town International airports
- The construction of a new airport in Durban
- A high-speed train link between Johannesburg, Pretoria and O.R. Tambo Airport
- The upgrading of freeways in the Johannesburg-Pretoria area.

The dedicated lanes for the BRT buses in Cape Town have been constructed using predominantly continuously-reinforced concrete pavements (CRCP) with a red pigment resulting in a very red pavement.

The upgrading of the airports included substantial work at the terminal buildings, using concrete and, in the case of O.R. Tambo Airport, upgrading the hardstandings and taxiways to accommodate the new Airbus A380 aircraft - which have already started flying to South Africa! The value of the new airport in Durban and the upgrades total approximately R11 billion (USD 1.6 billion).

The high speed train, named the Gautrain and serves the province of Gauteng, has a significant amount of concrete in the tunnel (both with precast and shotcrete) in a number of in-situ balanced cantilever and precast segment concrete viaducts. The link between Sandton and the airport was open for the World Cup, with the remaining links scheduled to open in April, 2011. Total cost of the Gautrain project is estimated at R28 billion (USD 4 billion).



BRT bus lane constructed with a red-pigmented CRCP.



Placement of the Ultra Thin CRCP on the N12 national road in South Africa.

From a roads point of view, the Gauteng Freeway Improvement Project (GFIP) is the most interesting. The first phase, which is almost complete, involves the widening of 150 km of freeways around Johannesburg and Pretoria. Widening is mostly to 8 lanes, in some cases 10 or 12 lanes, at a total cost of around R 20 billion (USD 3 billion). The improvements included interchange upgrades and a large number of new concrete bridges - including three double-curvature incrementally-launched bridges over existing traffic. One of these bridges is almost 500 m in length. A significant proportion of these freeways were concrete - both jointed and CRCP. Two contracts on lanes with slow-moving high-truck traffic (spanning approximately 25 km) covered the existing asphalt with a CRCP inlay. This inlay has a 250 mm-thick CRCP in the outer lanes and a 50 mm Ultra Thin CRCP in the two fast lanes. The CRCP inlay contracts resulted in three new slipform pavers being brought into South Africa.

As can be seen, there has been quite a significant investment in transport infrastructure over the past few years in South Africa.

~ Article by: Bryan Perrie
Managing Director of the Cement & Concrete Institute (South Africa)
and ISCP Board Member bryan@cnci.org.za

Most soccer followers have now been exposed to some of the magnificent & iconic stadia that were constructed for the FIFA 2010 Soccer World Cup.

CONFERENCE NEWS & UPDATES:

Last Chance Reminder: EUPAVE 11th International Symposium October 13-15



ISCP, the European Concrete Paving Association (EUPAVE), the Spanish Cement Association (OFICEMEN), the Spanish Institute of Cement and its Applications (IECA), the Andalusian Cement Association and the World Road Association (PIARC) remind you to take part in the exciting 11th INTERNATIONAL SYMPOSIUM ON CONCRETE ROADS to be held **October 13-15, 2010** in Seville, Spain, at the avant-garde Barceló Renacimiento Conference Centre. The emphasis lies on the exchange of knowledge and experience.



"The answer to new challenges": climate change, economical constraints, skills shortages, rising oil prices - no matter what obstacles our fast-changing world presents, concrete roads can meet the challenge. Please contact Mrs. Patricia Haro from Oficemen by email at marketing@oficemen.com for further information. A list of preliminary papers has been published and is available on the website: <http://www.2010concreteroads.org/>.



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CALL FOR PAPERS DUE:

Last Chance: Abstracts Due by Thursday, September 30 for Chile's 8th Conference on Managing Pavement

The Pontificia Universidad Católica de Chile and the Transportation Research Board would like to remind you to participate in the 8th International Conference on Managing Pavement Assets. The conference will be hosted in the Extension Centre of the Pontificia Universidad Católica de Chile and the Crowne Plaza Hotel on **November 15-19, 2011** in Santiago, Chile.

Seven themes have been selected to reflect recent developments and needs in the pavement and transportation asset management area. For information on abstracts and to **SUBMIT ABSTRACTS** by **September 30, 2010**: <http://www.icmpa2011.cl/abstract.html>.

For more information: www.icmpa2011.cl



IMPORTANT DATES:
September 30, 2010
Submission of Abstracts
January 14, 2011
Submission of Papers



Gold Sponsor:

Cintra

Bronze Sponsors:

Dynatest



Silver Sponsor:

APSA

International Host:



Organized by:



Call for Papers DEADLINES:

SEPTEMBER 30, 2010: CALL FOR ABSTRACTS for the 8th International Conference on Managing Pavement Assets, Santiago, Chile, November 15-19, 2011. Please refer to the specifications in the article on page 5 of this newsletter. Submit through <http://www.icmpa2011.cl/abstract.html>.

DECEMBER 1, 2010: SUBMISSION of 200-WORD ABSTRACTS for the 12th International Conference on Recent Advances in Concrete Technology and Sustainability Issues, Prague, Czech Republic, October 2012.

JANUARY 4, 2011: TO: Members of ASTM Committees C09 and C01: DEADLINE FOR ABSTRACT SUBMISSION, Call for Papers for the Symposium on Pervious Concrete, Tampa, Florida, December 4, 2011. Submit through: <http://www.astm.org/C09symp1211.htm>. Click on Go to Abstract Submittal Form at the top of the page. Heather J. Brown: hjbrown@mtsu.edu, Matthew Offenber: matthew.offenber@grace.com

JANUARY 14, 2011: SUBMIT PAPERS for the 8th International Conference on Managing Pavement Assets, Santiago, Chile, November 15-19, 2011. Please refer to the specifications in the article on page 5 of this newsletter. Submit through <http://www.icmpa2011.cl/abstract.html>

JANUARY 31, 2011: CALL FOR ABSTRACTS for the International Concrete Sustainability Conference, Boston, Mass., August 9-11, 2011.

MARCH, 2011: ABSTRACT SUBMISSIONS for the 7th RILEM Conference on Cracking in Pavements, in Delft, the Netherlands, June 20-22, 2012.

APRIL 30, 2011: CALL FOR ABSTRACTS for the 10th International Conference on Concrete Pavements, Quebec, Canada, July 8-12, 2012.

UPCOMING EVENTS Calendar thru 2011

OCTOBER
2010

Maintenance Superintendants Associations (MSA) Conference 2010
October 3-9, 2010 in Temecula, California, USA <http://www.gomsa.net/>

8th Malaysian Road Conference

October 10-13, 2010 in Kuala Lumpur, Malaysia <http://www.mrc.org.my/>



7th International DUT Workshop on the Design and Performance of Sustainable and Durable Concrete Pavements

October 10-11, 2010, Carmona, Spain

<http://www.citg.tudelft.nl/live/pagina.jsp?id=46c8bc2d-df2b-44c7-8cda-fc456c6c9648&lang=en>



ISCP Board Meeting

October 12, 2010, 2 p to 7 p, in Seville, Spain

Hotel Barcelo Renacimiento, Andalucia Room #5 (Hotel of the EUPAVE 11th Symposium hotel)

<http://www.concretepavements.org>



11th International Symposium on Concrete Roads, Organized by EUPAVE

October 13-15, 2010 in Seville, Spain

<http://www.2010concreteroads.org/>

Pavement Evaluation 2010 Conference

October 25-27, 2010 at the Hotel Roanoke and Conference Center in Roanoke, Virginia, USA
<http://www.cpe.vt.edu/pavementevaluation/>

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NOVEMBER
2010

International Conference on Future Concrete in Qatar

November 1-3, 2010 in Doha, Qatar

<http://www.actsconferences.com/> or send your inquiry to conference@acts-int.com

T&DI Green Streets and Highways Conference

November 14-17, 2010 in Denver, Colorado, USA

<http://content.asce.org/conferences/greenstreets-highways2010/index.html>

7th Russian Scientific and Technical Conference: Polytransport Systems

November 25-27, 2010 in Krasnoyarsk, Russia

ACPA's 47th Annual Meeting

November 30-December 3, 2010 in Bonita Springs, Florida <http://www.pavement.com>

DECEMBER
2010

2010 International Concrete Sustainability Conference

December 12-14, 2010, in Dubai, United Arab Emirates.

Co-hosted by Grey Matters, a consulting company based in Dubai. www.SustainabilityConf.org

JANUARY
2011



ISCP Board and Membership Meeting

January 22, 2011 in Washington, DC, USA

<http://concretepavements.org>

90th Transportation Research Board Annual Meeting

January 23-27, 2011 in Washington DC, USA <http://www.trb.org>

FEBRUARY
2011

International Symposium on Testing and Specification of Recycled Materials for Sustainable Geotechnical Construction

February 2-4, 2011 in Baltimore, Maryland, USA

<http://www.astm.org/d18symp0211.htm>

MARCH
2011

1st ASCE T&DI Congress: Integrated Transportation & Development for a Better Tomorrow

March 13-16, 2011 in Chicago, Illinois

www.tdi-congress.org

APRIL
2011



International Conference on Concrete Pavement Design, Construction and Rehabilitation

April 18-20, 2011 in Xi'an, Shaanxi Province, P.R. China

http://www.concretepavements.org/China_2011_cfp.pdf

<http://pavement.chd.edu.cn/iccpdcr>

JULY
2011

10th International Conference on Low-Volume Roads

July 24-27, 2011 in Lake Buena Vista, Florida, USA

<http://www.trb.org/conferences/2011/10LVR>

AUGUST
2011

2011 International Concrete Sustainability Conference

August 9-11, 2011, in Boston, Massachusetts, USA.

Co-hosted by the Massachusetts Institute of Technology.

<http://www.sustainabilityconf.org/> or contact Lionel Lemay, Lemay@nrmca.org, 847-918-7101.

SEPTEMBER
2011

24th World Road Congress

September 25-30, 2011 in Mexico City, Mexico

<http://www.piarc.org/en/congresses-seminars/road-congresses.htm>

OCTOBER
2011



2nd Conference on Best Practices for Concrete Pavements

October 18-20, 2011 in Florianopolis, Santa Catarina State, Brazil

<http://www.concretepavements.org>

NOVEMBER
2011

8th International Conference on Managing Pavement Assets

November 15-19, 2011 in Santiago, Chile <http://www.icmpa2011.cl/>

JULY
2012



10th International Conference on Concrete Pavements

Organized by ISCP

July 8-12, 2012 in Quebec City, Canada <http://www.concretepavements.org/>

Please visit the ISCP calendar at: <http://www.concretepavements.org/calendar.htm>



The ISCP Newsletter is produced by
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for their contributions
to this issue and invites ISCP members and friends to submit articles and calendar items
to the Editor-in-Chief for future issues.

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Please visit the ISCP website at www.concretepavements.org for more information about ISCP.