ICPI BOOKSTORE

ICPI publications...
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TECH SPECS

Make technically-sound decisions on every type of segmental concrete pavement project. ICPI's Tech Specs provide vital guidance for design pros and contractors on practically every aspect of design, construction and maintenance. Keep your set of these must-have references complete and up to date.

Note: A minimum order of 10 is required for each Tech Spec.

Download single copies for free on www.icpi.org

Order online at www.icpi.org
Permeable Pavement Resources

Maintain cutting edge knowledge by putting the latest industry-consensus guide to permeable pavements at your fingertips. Permeable Interlocking Concrete Pavements—Design, Specification, Construction, Maintenance (4th Edition) includes 60 color illustrations, figures and tables, drawing on a wealth of current permeable pavement research on stormwater management, structural design, and performance. It’s a must-have for design professionals, as well as for agency staff with responsibilities for stormwater, transportation or parking. Permeable pavement is being widely adopted as a proven “green” infrastructure that mitigates a variety of sustainability concerns. This publication has been popular since it was first published in 2000—but permeable pavement knowledge has never been more in demand than today.
Members: $26
Retail: $52

Download free single copies at www.icpi.org.

Project Profiles—Permeable Interlocking Concrete Pavements
Concerned about the ability of permeable interlocking concrete pavements to hold up in nearly all conditions? Use these profiles of eight projects across North America to show that PICPs work in practically all climates and soils while addressing local, state and national mandates to reduce runoff and water pollution.
Package of 10
Members: $12.50
Retail: $25.00

Permeable Pavement Comparison Brochure
Turn to this brochure to educate someone quickly about the similarities and differences among permeable interlocking concrete pavement, pervious concrete and porous asphalt.
Package of 10
Members: $12.50
Retail: $25.00

Order online at www.icpi.org

PICP Fact Sheets

Created by the Low Impact Development Center, ICPI offers four fact sheets, each at four pages, that provide an overview for various users. Download free single copies at www.icpi.org.

Municipalities – Provides convincing rationale for municipal use or mandates for private sector use of PICP in reaching low impact development goals. These include reducing flooding and damage to storm drainage systems, land preservation, increased tree health and property values, as well as reduced stormwater volumes and pollutants.
Package of 10
Members: $12.50
Retail: $45.00

Design Professionals – Summarizes rationale for convincing clients to use PICP as a means to comply with NPDES permit requirements. Briefs the reader on technical guidelines, construction, performance and maintenance.
Package of 10
Members: $12.50
Retail: $45.00

Developers – Introduces PICP as a means to satisfy local stormwater runoff regulations. A project example compares savings which eliminates the storm drainage system and makes a PICP street have a lower initial cost compared to a conventional asphalt or concrete street. PICP can translate to reduction or elimination of detention facilities which means more useable land for buildings.
Package of 10
Members: $12.50
Retail: $45.00

Schools and Universities – With most educational institutions implementing sustainable land use plans, this brochure introduces PICP benefits and provides university project examples. These include how PICP can also be used as an educational tool for students to learn this low impact development tool facilities sustainable land use through stormwater infiltration.
Package of 10
Members: $12.50
Retail: $45.00

Download free guide construction specifications on www.icpi.org/resource-library/guide_specification
and detail drawings on www.icpi.org/resource-library/detail_drawing
Continuing Education Presentations for Design Professionals

ICPI presentations provide learning opportunities for design professionals and city officials! Providing these presentations is an effective way to build relationships. Plus, most design professionals need to earn continuing education credits in order to maintain their professional licenses. All ICPI presentations include presenter’s notes, are registered with AIA (HSW) and ASLA and each provides one continuing education hour. Presenters must qualify by taking the speaker training for ICPI presentations for design professionals. All presentations include a PowerPoint file, instructions, presenter notes, and all forms necessary for offering AIA and ASLA continuing education credit.

Guide Specifications for Interlocking Concrete Pavements
Learn how to specify and detail interlocking concrete pavements that follows ICPI Tech Spec 9.
Members Only: $50

The Pattern Language of Concrete Pavers
Master the unique design vocabulary of pavers through this presentation, progressing from basic paving patterns to more intricate variations.
Members Only: $50

Structural Design of Streets Using Interlocking Concrete Pavement
This presentation explains the structural design process for roads constructed with interlocking concrete pavers, and is based on the methods presented in ICPI Tech Spec 4 and ASCE Standard 58-10, “Structural Design of Interlocking Concrete Pavement for Municipal Streets and Roadways.” The narrative demonstrates how the AASHTO flexible pavement design methodology is applied to interlocking concrete pavement. Guidelines for developing appropriate pavement structures for various traffic and subgrade conditions are covered.
Members Only: $50

Inspection of Interlocking Concrete Pavement
This presentation for design professionals, inspectors, contractors and industry sales personnel covers the essential inspection points during the construction of interlocking concrete pavement for vehicular traffic. The presentation begins with the objectives and content of a post-bid, pre-construction meeting and covers how to verify critical aspects of interlocking concrete pavement construction from submittals to final inspection.
Members Only: $50

Life-Cycle Cost Analysis for Municipal Interlocking Concrete Pavements
Design pros who need to understand life-cycle cost analysis (LCCA) — and its importance as a tool to justify municipal pavement investment decisions — will highly value this presentation. Discover how interlocking concrete pavements with their low maintenance costs can compare favorably in many situations to asphalt and concrete pavements. Learn the details of life-cycle costing and each input variable.
Members Only: $50

Interlocking Concrete Pavement: Asset Management and Pavement Performance Prediction through Pavement Condition Surveys
Municipal engineers and infrastructure managers will find this presentation helpful for understanding ASTM E2840 methods for using the Pavement Condition Index (PCI) for interlocking concrete pavements. With a growing number of budget-challenged municipalities using computerized asset management to maintain permanent infrastructure (including water, sewer, lighting, bridges and roads), applying pavement condition assessment—and PCI in particular—is vital for helping to guide city street construction and maintenance budgets.
Members Only: $50

Permeable Interlocking Concrete Pavement: A Low Impact Development Tool for Design Professionals
This introductory presentation for design professionals explains the multi-faceted benefits and uses of permeable interlocking concrete pavement (PICP). The presentation includes project examples on how PICP reduces overall drainage infrastructure costs, making it cost competitive with conventional paving and drainage systems. A specific PICP based sizing example is worked through to give the audience the basic inputs and outputs for design. The presentation also provides a brief overview of ICPI’s Permeable Design Pro Software.
Members Only: $50

Permeable Interlocking Concrete Pavement: A Low Impact Development Tool for Developers
This is an introductory presentation on the multi-faceted benefits of permeable interlocking concrete pavement (PICP). Residential and commercial project examples are aimed at developers, each demonstrating benefits including stormwater management, cost reduction/recovery and environmental advantages for project marketing. The presentation provides an overview of the construction process and maintenance requirements.
Members Only: $50

Presentations not available online. To order, contact Anya Plana-Hutt, CVEP, at aplanahutt@icpi.org, 703.657.6897
Permeable Interlocking Concrete Pavement: A Low Impact Development Tool for Schools and Universities
As unique design environments school and university campuses present special opportunities to use sustainable, low impact development tools like permeable interlocking concrete pavement (PICP). This presentation for campus planners and facilities personnel speaks to the multi-faceted benefits beyond stormwater management. PICP projects can also be monitored by professors and students, thus providing an academic purpose, as well as environmental and economic benefits to the campus.
Members Only: $50

Permeable Interlocking Concrete Pavement: A Low Impact Development Training Tool for Municipal Officials, Design Professionals, Developers and Universities
Purchase four previously described presentations together for municipal officials, design professionals, developers and universities.
Members Only: $100

Permeable Interlocking Concrete Pavement (PICP) Maintenance
Whether publicly or privately built, the number one question from owners about PICP is maintenance. This presentation covers research and experience on surface vacuum cleaning to maintain infiltration rates, test methods for assessing when surface cleaning is needed, and repairs and reinstatement of the paver surface. In addition, budget cost estimates demonstrate that a key advantage of PICP is its ability to receive the same maintenance as impermeable pavements in some situations, thereby making PICP more cost-effective in the long term.
Members Only: $50

Designing Permeable Interlocking Concrete Pavements with Permeable Design Pro Software
This presentation provides introductory slides to preface a demonstration of Permeable Design Pro software. The program calculates the structural and hydrological design for PICP. The purpose of the presentation is to demonstrate its use and with emphasis on the considering input variables and their impact on outputs. This is assisted by several example designs in the software that can be demonstrated to the audience. This is a very hands-on presentation and to make it so, participants should have a copy of the software loaded and ready to run on laptop computers.
Members Only: $50

Inspection of Permeable Interlocking Concrete Pavement Systems
This presentation teaches inspectors what to check in permeable interlocking concrete pavement (PICP) construction projects. The presentation is also informative to designers, project superintendents, crews and product suppliers. The content covers pre-construction meetings, submittals, and what to verify in excavation, soil compaction, subbase/base, and edge restraints. The program provides detailed inspection of materials and installation of bedding aggregates, concrete pavers and jointing aggregates, as well as surface infiltration testing, project closeout and site protection.
Members Only: $50

Provide continuing education to design professionals from the ICPI presentation library.
These presentations cover the latest design insights and technical developments on interlocking concrete pavers, and have been approved for AIA and ASLA continuing education credit.

Presentations not available online. To order, contact Anya Plana-Hutt, CVEP, at aplana-hutt@icpi.org, 703.657.6897

ASAE Publications

Structural Design of Interlocking Concrete Pavement for Municipal Streets and Roadways
ASCE/T&D/ICPI 58-10
As a must-have guide for any design professional working on municipal projects, this standard was prepared by the ASCE Interlocking Concrete Pavement Committee to establish guidelines for developing appropriate pavement structures for various traffic and subgrade conditions. Includes preparatory information for design, key design elements, tables for pavement equivalent structural design, construction considerations, applicable standards, definitions and best practices.

Permeable Pavements
Bethany Eisenberg, Kelly Lindow, PE and David R. Smith, Editors
Synthesizes current technology and presents an overview of typical permeable pavement systems and reviews the design considerations. Detailed design, construction, use, and performance information is provided for porous asphalt, pervious concrete, permeable interlocking concrete pavement, and grid pavements. Fact sheets and checklists help to successfully incorporate permeable pavement systems into design projects. Additional chapters summarize emerging technologies, maintenance considerations, hydrologic design approaches, key components for specification writing, and key areas for additional research. Appendices include a fact sheet clarifying information on common concerns, as well as data tables summarizing water quality treatment performance and costs.
Installer Course Manuals

Order online at www.icpi.org

Concrete Paver Installer Course Student Manual 8th Edition
This manual is vital for preparing installers for certification. From soils classification and base compaction, to paver cutting and job layout, this 200+ page course curriculum covers every area of knowledge an installer must master to become ICPI certified.

Manual in English: Members: $30
Retail: $100
Manual in Spanish (7th ed.): Members: $30
Retail: $100

Permeable Interlocking Concrete Pavement Specialist (PICPS) Course Student Manual 2nd Edition
With stormwater runoff regulations on the rise, the need for permeable interlocking concrete pavements increases. This manual contains a comprehensive curriculum for preparing new PICP specialists to understand everything from job planning and documentation to soil and site characteristics and PICP maintenance.

Members: $30
Retail: $100

Advanced Residential Paver Technician (ARPT) Course Student Manual 1st Edition
The content of the Advanced Residential Paver Technician Course was assembled by some of the segmental concrete paver industry’s top contractors, and covers topics that build on the knowledge of basic paver installation. Topics include job site planning and logistics, site management, calculation of materials, site conditions and building code considerations for the construction of raised patios, pool decks, overlays, fireplaces, fire pits, grills and outdoor kitchen elements. Maintenance and service after installation are also discussed, as well as best practices when working with developers, and considerations for installing permeable interlocking concrete pavement systems.

Members: $30
Retail: $100

Need Technical Support?
Contact ICPI Technical Staff at 703.657.6900 for answers to design, construction & maintenance questions.

Continuing Education Presentations for Contractors
ICPI Certified Installers must earn continuing education credits in order to maintain certification. Members can offer these presentations as a service to contractors in their area or contractor companies can deliver these continuing education presentations to their ICPI Certified Installers on staff. All ICPI presentations are approved for ICPI Certified Installer Continuing Education Credit.

Construction of Permeable Pavements
Learn the steps in building permeable interlocking concrete pavements including pavement types, system components, construction and maintenance best practices, plus design and layout ideas.

Members: $25
Retail: $50

How to Sell and Market Concrete Pavers
Gain a wealth of ideas, including marketing principles for installers, market analysis and selling strategies.

Members: $25
Retail: $50

Estimating Labor and Materials for Segmental Concrete Pavements
Make accurate job cost approximations of labor hours, materials, equipment and subcontractors.

Members: $25
Retail: $50

The Pattern Language of Concrete Pavers
Every installer needs to understand the design vocabulary of pavers, from basic paving patterns to more intricate variations.

Members: $25
Retail: $50

Theory of Base Installation
A pavement is only as good as its base. Learn the right way to prepare the soil (or subgrade) and base material.

Members: $25
Retail: $50

Maintenance and Management of Interlocking Concrete Pavements
Recognize pavement distresses and learn proper remediation.

Members: $25
Retail: $50

Raised Patio Construction
Understand the principles that guide good design choices for raised patios using segmental retaining walls and pavers.

Members: $25
Retail: $50

Geosynthetics in Hardscape Construction
This presentation covers geosynthetic types, polymers, functions, and terms used in hardscape construction applications. The focus is on interlocking concrete pavements with segmental retaining walls and articulating concrete blocks. Illustrated installation practices and pitfalls show what to avoid in the field with emphasis placed on selecting geotextiles and geogrids specific to project types.

Members: $25
Retail: $50

Presentations not available online. To order, contact Anya Plana-Hutt, CVEP, at aplana-hutt@icpi.org, 703.657.6897
Joint Sand
Stabilized sand can be used instead of mason joints. Ask your concrete paver manufacturer that can be simply replenished with dry sand. Sealer can be used to prevent weeds and ants from lodging in the joints. Helping to hold the sand in place. Besides stabilizing the joint sand, sealers can not damage adjacent vegetated areas. Use the bedding sand, base materials, and taxes. Be sure to ask for a written change order. Change orders may require additional supplies, labor and expenses. Be clear on your expectations. Bring any concerns to your contractor in writing immediately and adjustments.

Choosing the Right Contractor
“Who can I trust? How do I find someone highly competent to do this work?” Those are just two of the questions your residential prospect has in mind while trying to find a trustworthy and competent installer. This brochure helps you position yourself as an educator rather than a salesperson, which boosts your credibility and perceived authority as an ICPI Certified Installer. Minimum order quantity of 10 required.

Members: $0.93
Retail: $1.85

Building Your Interlocking Concrete Pavement to Last a Lifetime
Use this brochure to help your prospects understand what to expect during the construction of their new paver patio, walkway, driveway, pool deck or entryway. Minimum order quantity of 10 required.

Members: $0.93
Retail: $1.85

Peak Performance from Concrete Pavers
This tri-fold brochure shows the homeowner how to protect an important investment and keep their new pavers beautiful for many years of enjoyment. It provides tips on preventing and remediating stains, weeds, ants and efflorescence. Minimum order quantity of 10 required.

Members: $0.93
Retail: $1.85

The Complete Business Manual for Concrete Paver Contractors
This book gives concrete paver contracting companies of all sizes the keys to business success. Written by Charles Vander Kooi, one of the leading consultants to the construction industry, this 240-page manual includes forms and diagrams to help you run your business well, from estimating and bidding to people and company management. (not available for free download)

Members: $30
Retail: $60

Fact Sheets
Sometimes potential users better respond to a simple, straightforward one-pager. That’s all he or she has time to digest. With ICPI’s themed fact sheets, one minute is all they’ll need.

Aesthetics Fact Sheet
As a beautiful surface, nothing can match how ICPs and PICPs transform places. This brochure provides some great examples.

Package of 10
Members: $7.95
Retail: $15.90

Durability Fact Sheet
When you need to quickly illustrate the fact that ICPs and PICPs can offer reduced pavement maintenance and replacement costs, plus longer life than other pavements, this fact sheet makes the case — instantly.

Package of 10
Members: $7.95
Retail: $15.90

Sustainability Fact Sheet
This fact sheet should be in the hands of every commercial pavement specifier. ‘Going green’ means ‘going smart’ with PICP’s ability to reduce stormwater runoff. Greater adoption of PICP is vital for sustainably managing stormwater runoff. This fact sheet helps you prove it.

Package of 10
Members: $7.95
Retail: $15.90

Pavements Built for the Future – Durable, Sustainable, Attractive
Municipalities are turning to interlocking concrete pavements (ICP) and permeable interlocking concrete pavements (PICP) because they offer initial lower life-cycle costs while providing environmentally sustainable solutions. This brochure provides examples among hundreds of municipalities who have used millions of square feet (m²) of interlocking concrete pavement or permeable interlocking concrete pavement.

Package of 10
Members: $12.50
Retail: $25.00

INDUSTRY STATISTICS
Industry Sales Profile
Published Annually
Support your business planning with this profile of industry sales statistics. The study provides data on paver sales per manufacturer and average paver sales per plant location for the past three years, and much more industry information. (not available for free download)

Members: $99.00
Retail: $500.00
Software

Permeable Design Pro Software 2.0
Save permeable pavement design time—and access free updates 24/7—by downloading this software today. Permeable Design Pro Software provides hydrological and structural solutions for permeable interlocking concrete pavement (PICP) via this all-in-one application. The program calculates inflow and outflow from PICP under a variety of design options and base thicknesses required for supporting traffic and now offers CAD drawing output. The program automatically checks for updates and prompts for downloads of the latest version at no cost.

Download a free 30-day trial at www.permeabledesignpro.com.
Members: $95
Retail: $190

Download free software from our website at www.icpi.org/resource-library/software-programs

- Structural Design of Interlocking Concrete Pavements
- Life Cycle Cost Analysis
- Pavement Condition Index Calculator
- Permeable Pavement Project Evaluation Tool
- PICP Structural Design
- ASTM C1781 PICP Surface Infiltration Rate Calculator