

# The Joint Transportation Research Program & Purdue Library Publishing Services

Presentation at the March 2011 Road School  
West Lafayette, Indiana

Paul Bracke

Associate Dean, Purdue University Libraries

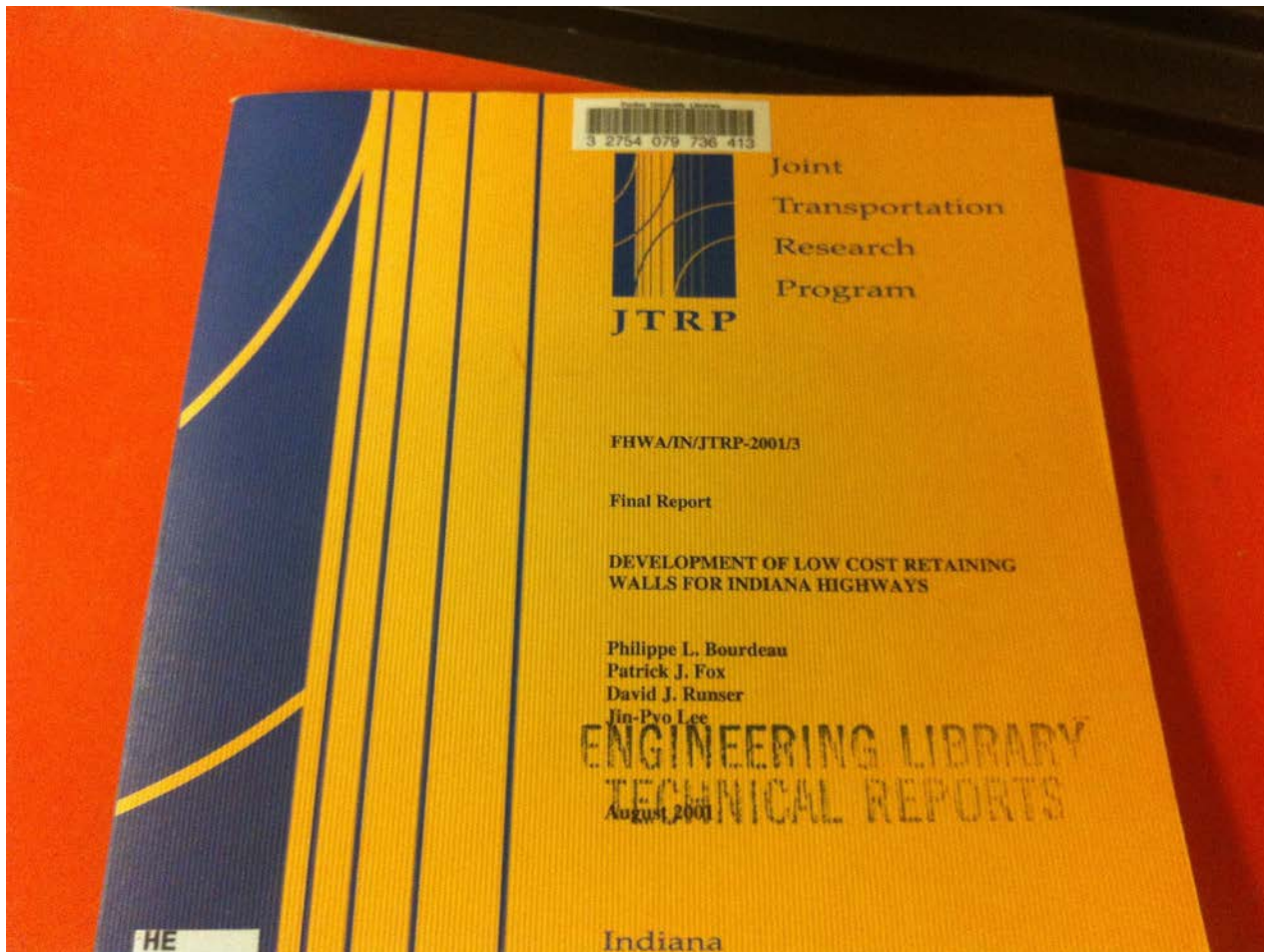
Mark Newton

Assistant Professor, Purdue University Libraries

Charles Watkinson

Director, Purdue University Press

# Technical Report Publishing (the old way)



# Moving to Digital JTRP Reports

- Looking at the library's collection today
- Looking Backward: Building a Retrospective Archive of JTRP Reports
- Looking Forward: Establishing Publishing Procedures for New Reports



## JOINT TRANSPORTATION RESEARCH PROGRAM

### Technical Reports from 2008

FHWA/IN/JTRP-2008/06, Assessment of Axially-Loaded Pile Dynamic Design Methods and Review of INDOT Axially-Loaded Design Procedure, Dimitrios Loukidis, Rodrigo Salgado, and Grace Abou-Jaoude

FHWA/IN/JTRP-2008/09, Traffic Signal System Real Time Performance Measures, Christopher M. Day, Edward J. Smaglik, Darcy M. Bullock, and James R. Sturdevant

FHWA/IN/JTRP-2008/11, Earthquake Resistance of Integral Bridges, Robert J. Frosch, Michael E. Kreger, and Aaron M. Talbott

FHWA/IN/JTRP-2008/12, Performance-Based Contracting for Highway Preservation and Maintenance, Bob G. McCullough, Kumares C. Sinha, and Panagiotis Anastasopoulos Anastasopoulos

<http://docs.lib.purdue.edu/jtrp/>



---

## Evaluation of the Cost-Effectiveness of Pavement Surface Maintenance Activities

---

Ibrahim Moussa Mouaket

Abdullah Al-Mansour

Kumares C. Sinha

---

### Date of Submission

1-1-1990

### Report Number


FHWA/IN/JHRP-90/12

### Keywords

cost-effectiveness evaluation, surface routine maintenance, chip and sand seal coating, life cycle costing


### Abstract

This study covers pavement surface maintenance on three surface types: rigid, flexible and composite (asphalt overlay on rigid pavement). It addresses 3 main issues as follows: 1) Do routine maintenance activities make a difference in terms of pavement serviceability? If yes, how much? 2)

 Download


Tell a Colleague 

Print 

Download Adobe  
Reader 

 BOOKMARK    

# Uploading Reports



Home About FAQ My Account

Enter search terms:  
   
in this series

**Advanced Search**

Notify me via email or [RSS](#)

**Links for Authors**

Policies and Help Documentation

**Links**

Purdue Libraries  
Purdue University Press Journals  
Joint Transportation Research Program

**Browse**

Collections  
Authors

---

**REQUIRED Title**

Use headline-style capitalization (e.g., *Stiffness of Hot-Mix Asphalt*)



Enter title:

---

**REQUIRED Authors**

1. Use the green "plus" button to add co-authors.
2. Order the authors by using the number field to the left of the author names.

Search For An Author Using: Last Name, First Name, Email, or Institution

1   

# Purdue e-Pubs: Content Management and Digital Publishing

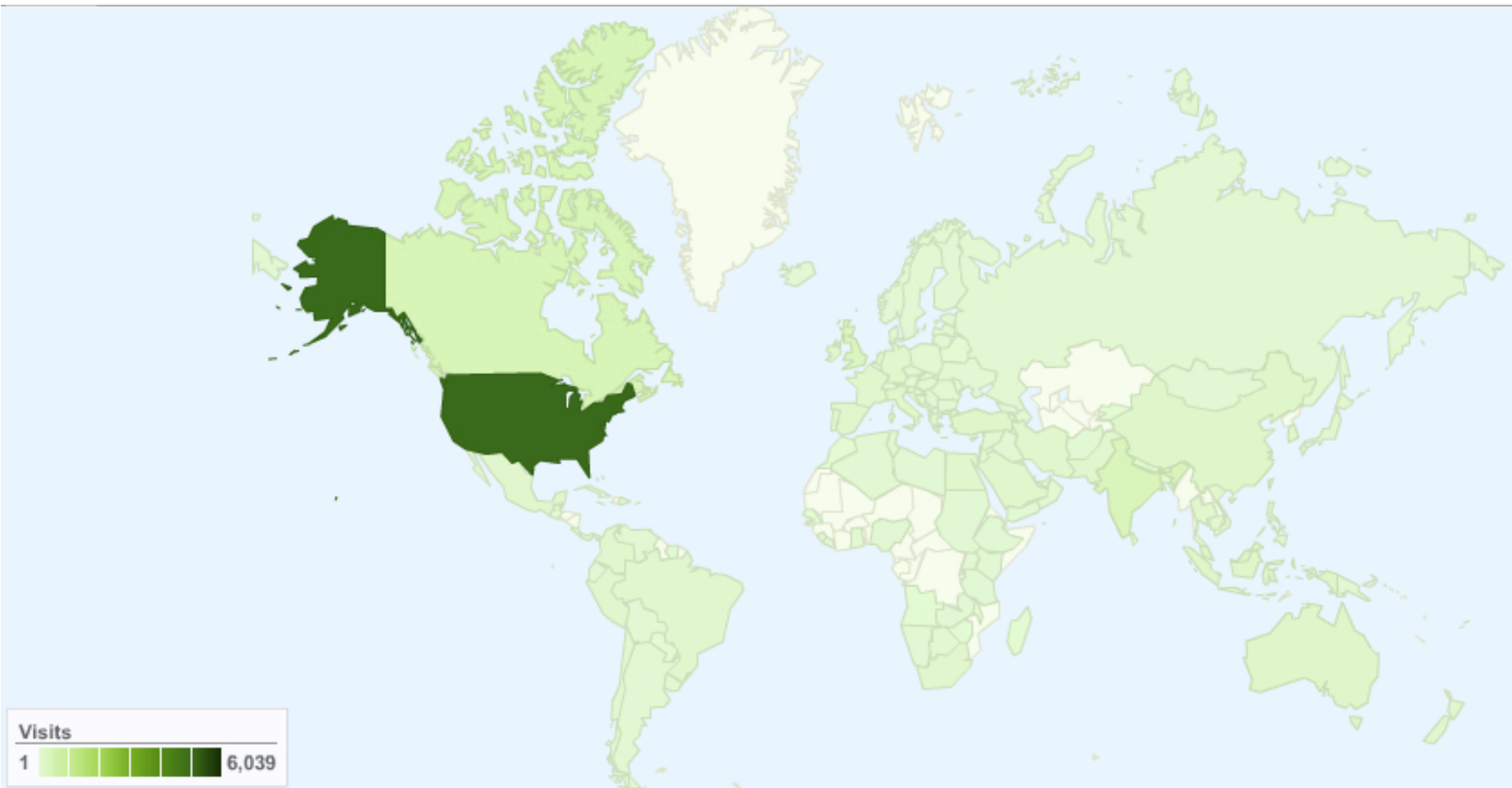
<a href="#">press</a>	<a href="#">Manage Technical Reports</a>	<a href="#">Upload Technical Report</a>	<a href="#">Usage Reports</a>	<a href="#">Configuration</a>	<a href="#">Mailing Lists</a>	<a href="#">My Account</a>	<a href="#">power be</a>
<b>Joint Transportation Research Program</b>							
<a href="#">Technical Reports</a>	<b>Title:</b> Life and Cost Comparison of Three Rehabilitation Techniques on I-65 Between SR-2 and SR-114						
<a href="#">upload XML</a>	<b>Authors:</b> Sedat Gulen, John Weaver, Samy Noureldin						
<a href="#">upload Excel</a>	<b>Last Event:</b> Revision uploaded (Mon Jan 4 2010)						
<a href="#">revise Excel</a>	<b>Waiting for Administrator:</b> <input type="button" value="No"/> <b>Locked by Administrator:</b> <input type="button" value="No"/>						
<a href="#">Technical Report details</a>	<b>Administrator:</b> No administrator assigned <b>Manuscript:</b> #1826 <a href="#">PDF</a>						
<a href="#">View Technical Report</a>	<hr/>						
<a href="#">overs</a>	<b>Download:</b> <a href="#">PDF (title page added) (12/23/2009), 1.5 MB</a>						
<a href="#">Technical Report</a>	<a href="#">preflight version 2009-12-23 13:40:03</a>						
<a href="#">revisions</a>	<a href="#">read PDF modified for publication (force regeneration)</a>						
<a href="#">emental Content</a>	<b>Important Dates:</b>						
<a href="#">re Technical Report</a>	Submitted: December 23, 2009						
<a href="#">Z</a>	<b>Sort Year (Grant Year):</b> 2004						
<a href="#">Administrator Notes</a>	<b>Type:</b>						
<a href="#">r_series</a>	<b>Abstract:</b>						
<a href="#">w site</a>	Construction of hot mix asphalt (HMA) overlays on top of old concrete pavements is the most common concrete pavement rehabilitation strategy. These overlays, however, are usually subject to reflection cracking related to the movement of the old concrete slab. In addition, these overlays may also be vulnerable to rutting when subjected to large traffic volumes of trucks. Concrete overlays have the advantage of being rut resistant compared to HMA overlays. However, the current national experience of the performance of these overlays is still, relatively, limited compared to HMA overlays. In addition, doubts are often raised about the cost effectiveness of these overlays, the ease of their rehabilitation at the end of their design and the period of time required closing the road to traffic for ongoing and post construction operations.						
<a href="#">e site</a>	This report presents an evaluation of three concrete pavement rehabilitation techniques employed on interstate highway I – 65;						
<a href="#">site</a>							
<a href="#">t</a>							
<a href="#">Administrator report</a>							

# JTRP Report Usage

- Download statistics are COUNTER compliant (publishing industry standard)
- 360 reports in the current collection
- Nearly 160,000 downloads since October 2006 (7.9% of all downloads)
- Top document downloaded over 7,900 times
- Median of 290 downloads per report
- 30 reports with over 1,000 downloads
- Over 100 with over 500 downloads

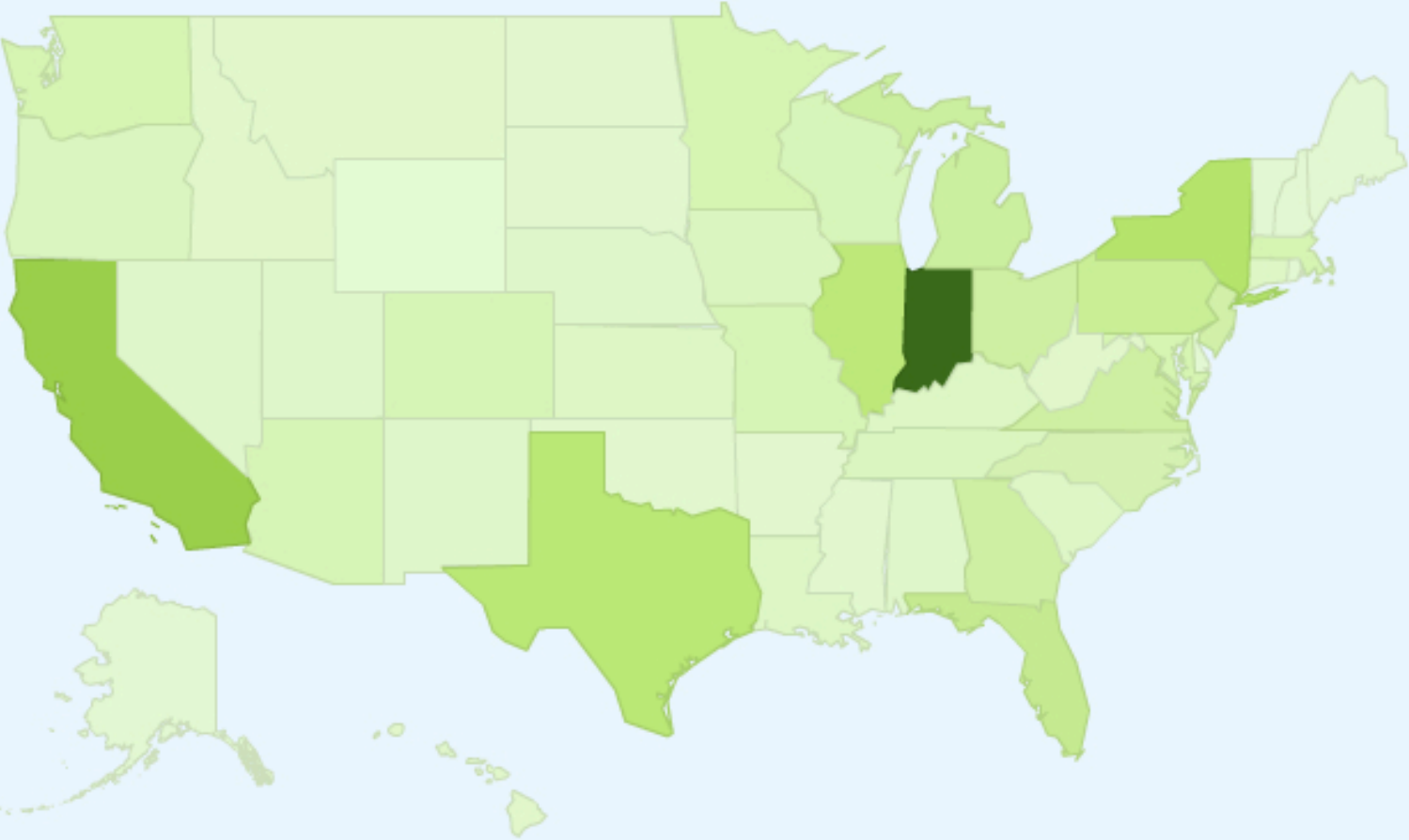


# Google Analytics -> Global Access

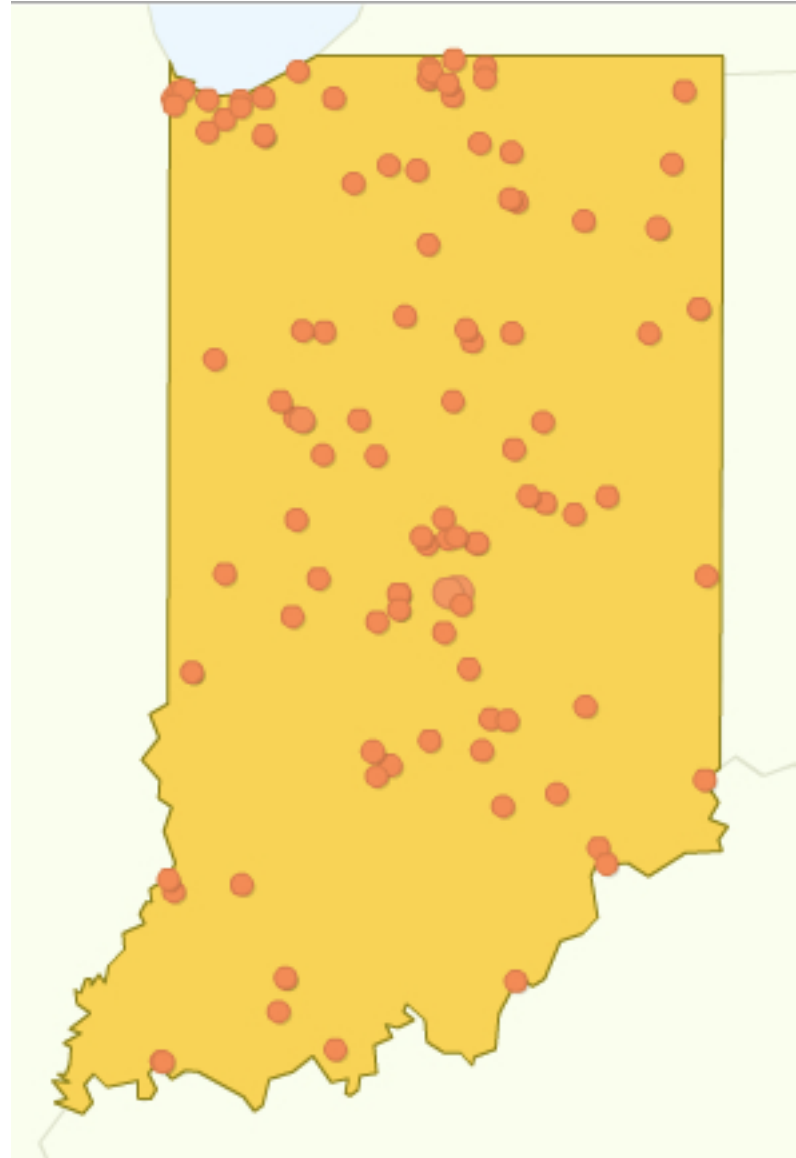


# National Reach

Zoom Out



# Access in Indiana



# Google Analytics / Traffic Sources

## Top Traffic Sources

Sources	Visits	% visits	Keywords	Visits	% visits
google (organic)	8,060	74.27%	dynamic cone penetration test	301	3.31%
(direct) ((none))	1,089	10.04%	dcpt	75	0.82%
yahoo (organic)	467	4.30%	dynamic cone penetration	56	0.62%
bing (organic)	252	2.32%	dynamic cone penetrometer	54	0.59%
search (organic)	99	0.91%	crack and seat	46	0.51%



[PDF] [Evaluation of Selected Video Detection Systems at Signalized Intersections](#)

[purdue.edu](#) [PDF]

J Grenard, D Bullock, A Tarko - Final Report, FHWA/IN/JTRP- ..., 2001 - [docs.lib.purdue.edu](#)  
... Andrzej Tarko This paper is posted at Purdue e-Pubs. <http://docs.lib.purdue.edu/jtrp/91> Page  
2. FHWA/IN/JTRP-2001/22 Final Report ... Page 3. Final Report FHWA/IN/JTRP-2001/22  
EVALUATION OF SELECTED VIDEO DETECTION SYSTEMS AT SIGNALIZED INTERSECTIONS ...

[Cited by 14](#) - [Related articles](#) - [All 4 versions](#)

[CITATION] Final Report: SPR-2201, Real-Time Determination of Soil Type, Water Content, and Density  
Using Electromagnetics, FHWA/JTRP

VP Dnevich, CP Lin, Q Yi, J Lovell - 2001 - IN-2000/20

[Cited by 3](#) - [Related articles](#)

[PDF] [Effect of fine aggregate angularity on asphalt mixture performance](#)

[purdue.edu](#) [PDF]

C Lee, TD White, TR West - Federal Highway Administration, ..., 1999 - [docs.lib.purdue.edu](#)  
... <http://docs.lib.purdue.edu/jtrp/104> Page 2. JOINT TRANSPORTATION RESEARCH PROGRAM  
FHWA/IN/JTRP-98/20 Final Report ... Page 3. Final Report FHWA/INDOT/JTRP-98/20 EFFECT OF  
FINE AGGREGATE ANGULARITY ON ASPHALT MIXTURE PERFORMANCE by ...

[Cited by 7](#) - [Related articles](#) - [All 3 versions](#)

[PDF] [The effectiveness of maintenance and its impact on capital expenditures](#)

[purdue.edu](#) [PDF]

S Labi, KC Sinha - JTRP Final Report, FHWA/IN/JTRP-2002/27, ... [docs.lib.purdue.edu](#)  
... 3. Recipient's Catalog No. FHWA/IN/JTRP-2002/27 4. Title and Subtitle THE EFFECTIVENESS  
OF MAINTENANCE AND ITS IMPACT ON CAPITAL EXPENDITURES ... 7. Author(s) Samuel Labi  
and Kumares Sinha 8. Performing Organization Report No. FHWA/IN/JTRP-2002/27 ...

[Cited by 10](#) - [Related articles](#) - [All 3 versions](#)

[PDF] [Conditions for Stripping Using Accelerated Testing](#)

[purdue.edu](#) [PDF]

C Pan, TD White - Joint Transportation Research Program, 1999 - [docs.lib.purdue.edu](#)  
... Changlin Pan Thomas D. White This paper is posted at Purdue e-Pubs. <http://docs.lib.purdue.edu/jtrp/352> Page 2. FHWA/IN/JTRP-97/13 Final Report ... February 1999 Page 3. Final Report  
FHWA/IN/JTRP-97/13 CONDITIONS FOR STRIPPING USING ACCELERATED TESTING by ...

[Cited by 9](#) - [Related articles](#) - [All 2 versions](#)

[PDF] [Constructability, Maintainability, and Operability of Fiber Reinforced Polymer \(FRP\) Bridge Deck Panels](#)

[purdue.edu](#) [PDF]

[\[PDF\] Joint Transportation Research Program](#)[purdue.edu \[PDF\]](#)A Tarko, M Kanodia - 1998 - [docs.lib.purdue.edu](#)

Page 1. Civil Engineering **Joint Transportation Research Program** Purdue Libraries Year 2004  
Hazard Elimination Program - Manual ... School of Civil Engineering Purdue University **Joint  
Transportation Research Program** Project No. C-36-59GG File No. 8-5-33 SPR-2485 ...

[All 2 versions](#)[\[PDF\] Joint Transportation Research Program](#)[purdue.edu \[PDF\]](#)E Sotelino, A Asgari, A Saksa, G Cedeno - 2005 - [docs.lib.purdue.edu](#)

Page 1. Civil Engineering **Joint Transportation Research Program** Purdue Libraries Year 2005 ...  
Purdue University **Joint Transportation Research Program** School of Civil Engineering West  
Lafayette, IN 47907-1284 Phone: (765) 494-9310 Fax: (765) 496-7996 Page 5. ...

[A model for the mechanics of jointed rocks](#)RE Goodman, RL Taylor, TL Brekke - J. of Soil Mechanics and ..., 1968 - [pubsindex.trb.org](#)

... Behavior; Classification; Deformation curve; Discontinuity; Dislocation (Geology); Failure; Finite  
element method; Finite elements; **Joint**; Jointing of rock; Joints (Engineering); Mathematical models;  
Matrices (Mathematics); Mechanics; Models ... **Transportation Research Board**. ...

[Cited by 740](#) - [Related articles](#) - [Cached](#) - [All 2 versions](#)[Transit-oriented development and joint development in the United States: A literature review](#)R Cervero, C Ferrell, S Murphy - ... , DC: **Transportation Research** ..., 2002 - [pubsindex.trb.org](#)

... Oriented Development: State of the Practice and Future Benefits." This digest provides definitions  
of transit-oriented development (TOD) and transit **joint** development (TJD ... TCRP **Research Results**  
Digest Issue Number: 52 more icon Publisher: **Transportation Research Board**. ...

[Cited by 48](#) - [Related articles](#) - [Cached](#) - [All 2 versions](#)[Sources, Measurements, and Effects of Segregated Hot Mix Asphalt Pavement](#)RC Williams, G Duncan, T White - ... **Transportation Research** ..., 1996 - [docs.lib.purdue.edu](#)

There are several factors that lead to segregation. Segregation can occur during stockpiling and  
handling of aggregate and during mixing, storage, **transport** and lay down of the asphalt  
mixture. Sometimes segregation may result from a single source or from a combination of ...

Looking Backward

# Why Digitize?

- Enhance *access* to important resources
  - Accessible wherever there is a web browser and internet connection
  - Integrated into research collections and search engines (e.g., Google Scholar)
- *Preservation* of at-risk materials
  - Create digital surrogates for materials
  - Reduce handling and wear & tear on print



# Steps Toward Digital Collections



# Metadata and Indexing

- Descriptive information about each individual report
  - Author(s), Title, Report Number, Date of Publication, Keywords, etc.
- Enhances findability of reports
- DOIs
- Name Authority

# DOIs

- DOI = Digital Object Identifier
- Publishing industry standard for creating unique, persistent identifiers for content
- Used for:
  - Citation doi:10.3141/1634-17
  - Persistent link  
(<http://dx.doi.org/10.3141/1634-17>)
  - Dynamically linking content

# Name Authority

- Practice of using consistent forms of names in indexing
- Allows for consistent retrieval of all works by an author
- For example:
  - John Smith, John M. Smith, J. Smith, JM Smith
  - Selecting one form and consistently using it enables consistent retrieval

# Metadata and Indexing Steps

Verify and update  
existing database

- Migrating existing metadata, filling in gaps
- Assign DOIs
- Name authorities clean-up for authors

Export for Loading

- Purdue e-Pubs
- External Research Databases  
(HathiTrust, Internet Archive, Google Books, etc.)

Subject Analysis  
(After the fact)

- Map JTRP Classification Scheme to DC-based metadata

# Scanning

- Scanned to archival standards, following best practices for long-term preservation
  - High resolution TIFF master (Preservation, Print-on-Demand)
  - Converted to PDF for dissemination
- All scans go through OCR to generate full-text transcript and enable full-text search
- Issues:
  - Paper Quality
  - Print Quality
  - Photographic Inserts
  - Oversized Inserts (e.g., maps)

# Scanning and Loading

## Scan Reports

- Scan, at minimum, print-only reports

## Post-Processing

- Save master copies to distributed dark storage, gold DVDs for preservation
- Generate access PDFs
- OCR

## Loading

- Batch loading into Purdue e-Pubs

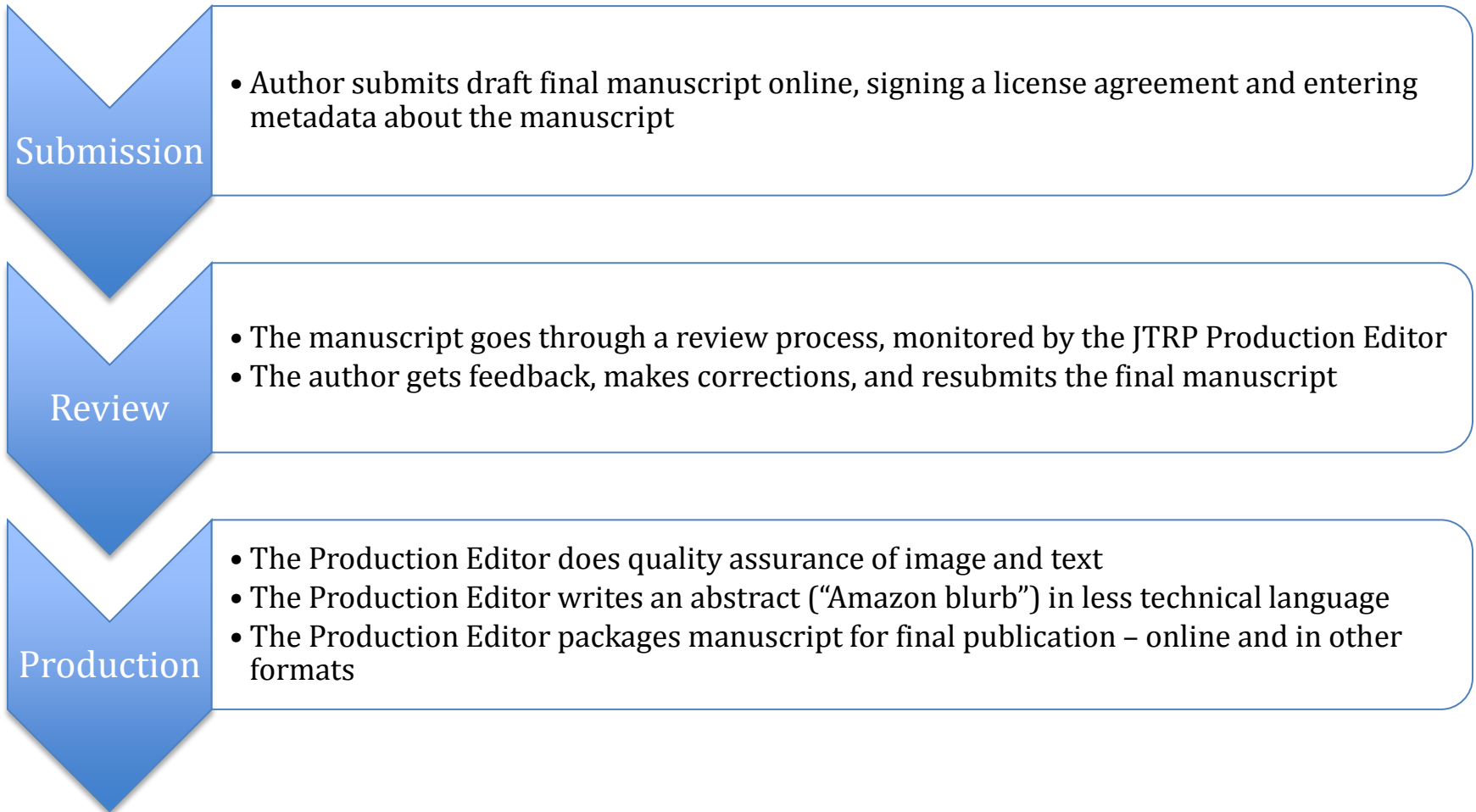
# Dissemination

- JTRP Reports would be available to the public
  - As a browsable and searchable collection in Purdue e-Pubs
  - Through Google Scholar
- They could also be made available
  - Transparently through through the JTRP website, or other websites
  - In other research databases (e.g., Internet Archive, HathiTrust)
  - As print-on-demand through Amazon



Looking Forward

# Publishing Workflow



# Submission

[Home](#) > [ENGR](#) > [CIVL](#) > [JTRP](#)



## JOINT TRANSPORTATION RESEARCH PROGRAM

Follow the instructions below to upload your draft final report to the Joint Transportation Research Program.

**Before you begin, please be sure you have the following information at hand:**

- The draft final report in an editable file format (e.g., Microsoft Word)
- A Technical Summary ([Word template available here](#))
- The project title
- The full names and institutional affiliations of the authors
- An abstract of about 250 words
- A list of descriptive keywords
- The project SPR number

**The upload process consists of the following steps:**

1. Read and accept the Purdue Libraries license agreement below
2. Enter information collected in the steps above
3. Upload your draft final report, technical summary, and any supplementary documentation

# Review

ID	Author	Title	Last Event	Date of Last Event	Waiting for Editor	Type	Locked by Editor	Issue	Editor	Submitted	Reminder
1182		<a href="#">Call: Research on Current Deve...</a>	Editor assigned	Mon Jul 12 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2010-07-12	
1181	<a href="#">Grainne O'Donoghue</a>	<a href="#">Problem Based Learning in prof...</a>	Initial submission	Wed Jul 7 2010	●	Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2010-07-07	
1180	<a href="#">Marjahan Begum</a>	<a href="#">Book Review: Research on PBL P...</a>	Editor assigned	Tue Jul 6 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2010-07-06	
1179	<a href="#">Brent K. Jesiek Ph.D.</a>	<a href="#">Guest Editor's Introduction</a>	Editor assigned	Tue Jul 6 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2010-07-06	
1178	<a href="#">Mike Burns</a>	<a href="#">Navigating the Change Process:...</a>	Major revisions required	Tue Jul 6 2010		Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2010-06-14	
1176	<a href="#">Judith C. Williams</a>	<a href="#">Do Students' Observations Of T...</a>	Review completed	Mon Jul 12 2010	●	Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2010-06-01	
1175	<a href="#">Christina De Simone</a>	<a href="#">Problem-Based Learning in Teac...</a>	Review completed	Tue Jul 20 2010	●	Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2010-05-31	
1170	<a href="#">Anila Asghar Dr</a>	<a href="#">Supporting STEM Education in S...</a>	Major revisions required	Fri Jun 4 2010		Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2010-04-16	
1166	<a href="#">Päivi Hakkarainen</a>	<a href="#">Promoting Meaningful Learning ...</a>	Editor assigned	Mon Apr 19 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2010-03-27	
1142	<a href="#">Kacey D. Beddoes</a>	<a href="#">Identifying Opportunities for ...</a>	Editor assigned	Tue Jun 29 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2009-10-16	
1135	<a href="#">Nachamma Sockalingam</a>	<a href="#">Characteristics of Problems fo...</a>	Minor revisions requested	Wed Jun 2 2010		Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2009-09-01	
1134	<a href="#">Lyanda Vermeulen</a>	<a href="#">Influence of Different Learnin...</a>	Major revisions required	Sun Jan 24 2010		Article		<a href="#">Assign</a>	<a href="#">Assign</a>	2009-08-12	
1125	<a href="#">Jennifer Turns</a>	<a href="#">I thought this was going to be...</a>	Editor assigned	Mon Jul 12 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2009-07-17	
1120	<a href="#">Xun Ge</a>	<a href="#">An Investigation of an Open-So...</a>	Editor assigned	Tue Jun 29 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2009-07-16	
1103	<a href="#">Olga Pierrakos</a>	<a href="#">Understanding Undergraduate Re...</a>	Editor assigned	Tue Jun 29 2010	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2009-07-01	
1091	<a href="#">Christopher Mong</a>	<a href="#">Editorial Board and Reviewer I...</a>	Editor assigned	Sun Jan 11 2009	●	Article		<a href="#">Assign</a>	<a href="#">Gilroy</a>	2009-01-11	

# Production

- The Production Editor is a member of Purdue University Press – a publishing professional
- No copyediting or design needed, but quality assurance
- Translating technical language into a more readable abstract
- Allocating identifiers – not only DOIs but also ISBNs
- Submitting to Abstracting and Indexing services (including TRB Publications Index)
- Producing publicity materials and e-mail alerts
- Making reports available in the formats users want

# Free Availability Online

Home > ENGR > CIVL > JTRP > 315 < Previous Next Article >



## JOINT TRANSPORTATION RESEARCH PROGRAM

### Citizen Band (CB) Radio Communication Commenting on Indiana State Police Enforcement Activity

**Download**  
**Tell a Colleague**  
**Print**

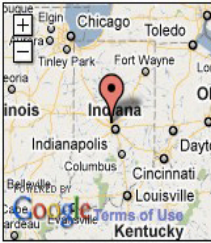
**Alex M. Hainen**, *Purdue University*  
**Steve M. Remias**, *Purdue University*  
**George H. Goble**, *Purdue University*  
**Jason S. Wasson**, *Indiana Department of Transportation*  
**Darcy M. Bullock**, *Purdue University*

**Persistent Identifier**  
doi:10.4231/3dzvr.1288284313124

**Abstract**  
This audio was recorded from Citizen Band (CB) radio traffic on Channel 19 adjacent to mile marker 127.8 on I-65 in Indiana (Latitude 39.918554, Longitude -86.329367). The audio recording represents selected transmissions recorded at approximately 9:30am on 21 July 2010 documenting the public perception of an Indiana State Police enforcement detail that was occurring along I-65 and I-865 in Boone and Marion County. Approximately 12 different Indiana State Police personnel were involved in the enforcement detail at the time of the recording.

**Date of this Version**  
7-21-2010

**LOCATION**



**BOOKMARK**

Example of potential extra functionality

# “For Fee” Availability in Print

## Print-on-Demand for users who still want hard copies

amazon.com **Prime** Hello, Charles Watkinson. We have [recommendations](#) for you. ([Not Charles?](#)) [Learn More](#)

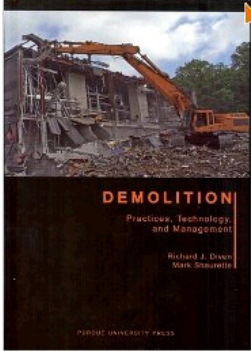
Charles's Amazon.com [Today's Deals](#) [Gifts & Wish Lists](#) [Gift Cards](#) [Your Account](#) [Help](#)

Shop All Departments

Books [Advanced Search](#) [Browse Subjects](#) [New Releases](#) [Bestsellers](#) [The New York Times® Bestsellers](#) [Libros en español](#) [Bargain Books](#) [Textbooks](#)

**Prime** Member: Charles Watkinson **Charles Watkinson:** This item is eligible for Amazon Prime. [Click here to turn on 1-Click](#) and make Prime even better for you. (With 1-Click enabled, you can always use the regular shopping cart as well.)

**Demolition: Practices, Technology, and Management** and over 810,000 other books are available for **Amazon Kindle** – Amazon's new wireless reading device. [Learn more](#)



Click to **LOOK INSIDE!**

[Share your own customer images](#)  
[Search inside this book](#)

Start reading [Demolition: Practices, Technology, and Management](#) on your Kindle **in under a minute.**

Don't have a Kindle? [Get your Kindle here](#), or download a **FREE Kindle Reading App.**

**Demolition: Practices, Technology, and Management [Hardcover]**  
Richard J. Diven  (Author), Mark Shaurette (Author)

★★★★☆  (1 customer review) |  (0)

List Price: ~~\$75.00~~  
Price: **\$66.18** & eligible for free shipping with **Amazon Prime**  
You Save: **\$8.82 (12%)**

**In Stock.**  
Ships from and sold by **Amazon.com**. Gift-wrap available.

Only 5 left in stock--order soon (more on the way).

**Want it delivered Friday, March 4?** Order it in the next 6 hours and 12 minutes, and choose **One-Day Shipping** at checkout. [Details](#)

[10 new](#) from \$66.18 [3 used](#) from \$74.99

Formats	Amazon Price	New from	Used from
Kindle Edition	\$47.99	--	--
Hardcover	\$66.18 <input checked="" type="checkbox"/> Prime	\$66.18	\$74.99

Quantity:

or  
[Sign in](#) to turn on 1-Click ordering.

or  
[Buy with PayPhrase](#)

---

**Kindle Edition \$47.99**

(You can always move it to a different device later with Whispersync)

Also on Kindle, iPhone, iPad, Android, BlackBerry, PC and Mac

---

**More Buying Choices**

[13 used & new](#) from \$66.18

Have one to sell?

or

Get a \$19.50 Amazon.com Gift Card

# What we can deliver

- **Efficiency:** Comprehensive and persistent access to past reports and a platform for creating and delivering new reports
  - Scanning and Indexing older reports
  - Implementing publishing workflows in Purdue e-Pubs for new reports
- **Impact:** Increased, measurable exposure for JTRP reports by
  - Providing exposure in venues ranging from Google Scholar to Amazon.com
  - Integrating with publishing industry infrastructure through the use of ISBNs and DOIs



# Thank You

Questions?

Project Contact:

Mark Newton, [newton@purdue.edu](mailto:newton@purdue.edu)