



**CHAMPAIGN COUNTY BOARD  
HIGHWAY & TRANSPORTATION COMMITTEE  
Friday – April 5, 2013 – 9:00 a.m.**

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Highway Building  
1605 East Main Street, Urbana

**Committee Members:**

Lorraine Cowart – Chair  
Lloyd Carter – Vice-Chair  
Christopher Alix  
John Jay

Jim McGuire  
Diane Michaels  
Max Mitchell  
Michael Richards

**AGENDA**

- I. Call to
- II. Roll Call
- III. Approval of Agenda/Addendum
- IV. Public Participation
- V. Approval of Minutes – March 8, 2013
- VI. County & Township Motor Fuel Tax Claims –March 2013
- VII. Resolution - Award of Sealcoat Oil Bids
- VIII. I-74/I-57 Interchange follow up
- IX. Pavement Management System Update
- X. Designation of Items to be Placed on Consent Agenda
- XI. Approval of Closed Session Minutes – March 8, 2013
- XII. Other Business
- XIII. Adjournment



**CHAMPAIGN COUNTY**  
**Highway & Transportation Committee Minutes**

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*Friday, March 8, 2013 – 9:00 am*  
*Highway Building Conference Room*  
*1605 E. Main St. St., Urbana, IL*

**MEMBERS PRESENT:** Christopher Alix, Lloyd Carter, Lorraine Cowart, John Jay, Jim McGuire, Diane Michaels, Max Mitchell

**MEMBERS ABSENT:** Michael Richards

**OTHERS PRESENT:** Al Kurtz (County Board Chair), Jeff Blue (County Engineer), Deb Busey (County Administrator), Gary Maxwell (County Board Member), Dave Clark (City of Champaign), Rita Mororcoima-Black (RPC), Eileen Sierra (RPC), Amy Marchant (CEO CRIS Rural Transit), Linda Lane (Administrative Assistant)

**CALL TO ORDER**

Chair Cowart called the meeting to order at 9:02 am.

**ROLL CALL**

Secretary called roll and the following members were present: Alix, Carter, Cowart, Jay, McGuire, and Michaels. The chair declared a quorum and proceeded with the meeting. Mitchell arrived after roll call.

**APPROVAL OF AGENDA**

Chair Cowart asked for approval of agenda for meeting. **MOTION** by Carter to approve agenda; **seconded** by Michaels. Cowart opened the floor for discussion. **MOTION APPROVED UNANIMOUSLY.**

**PUBLIC PARTICIPATION**

None

**APPROVAL OF MINUTES**

Chair Cowart asked for approval of minutes from the February 8, 2013 meeting. **MOTION** by McGuire; **seconded** by Jay. **MOTION APPROVED UNANIMOUSLY.**

**COUNTY & TOWNSHIP MOTOR FUEL TAX CLAIMS – JANUARY 2013**

**MOTION** by Alex to receive and place on file the County & Township Motor Fuel Tax claims for January 2013; **seconded** by Michaels. **MOTION APPROVED UNANIMOUSLY.**

## **RESOLUTIONS**

Blue explained Resolution A. He noted that the estimates sent to IDOT included labor, equipment and materials. He further noted that equipment included rentals. Blue stated that 99% of the contracts will be seal. **Motion by Alix** to approve resolution A; **seconded by Jay**. Maxwell asked if equipment rental was a different number than last year. Blue said it is the same number but they didn't do a good job of tracking last year. Blue noted they are doing inventory monthly now. Maxwell asked if the dollar amount is the same or more than last year. Blue said it is more because they haven't done a seal-coat for more than three years due to a lack of available materials. **MOTION APPROVED UNANIMOUSLY.**

Blue next explained Resolution B. He stated they had applied for and received assistance from the Illinois Bridge Fund. He said the resolution needs to be approved so the project can be sent to the engineers. **Motion by Michaels** to approve Resolution B; **seconded by Carter**. Michaels asked if the road was going to be closed. Blue said yes because it would add to the costs if they closed half at a time. Maxwell asked if the engineering had been started. Blue said no, they do have an agreement, but no resolution. Maxwell asked how and engineer was decided upon. Blue said they got a good deal from the firm that did the north side. Alix wanted to know why that was a County road. Blue said the County had tried to give it to the Village of Rantoul a long time ago, but the Village said no because of the bridge issues. Alix stated he would like to see it given back as soon as the bridge is done. Blue said that might be hard because the road is in almost as bad of shape as the bridge. **MOTION APPROVED UNANIMOUSLY.**

Blue lastly explained Resolution C. He stated that this road is north of Penfield and is the last oil and chip seal-coat road on the County system. **Motion by Mitchell** to approve Resolution C; **seconded by Michaels**. Michaels asked if this was one of the last bad roads. Blue said that it was. **MOTION APPROVED UNANIMOUSLY.**

Busey suggested that items in Other Business be looked at before the right of way negotiations because of the possibility of going into closed session. Cowart agreed to the change.

## **OTHER BUSINESS**

Rita Mororcoima-Black explained the issues pertaining to the CRIS Rural Transportation. She stated that IDOT requires an intergovernmental agreement and operating contract. She noted that the agreement was sent in July 2012 but never heard back from them. In December they received a phone call from IDOT saying they couldn't approve the agreement sent to them because of comments they had made. She noted that CRIS has been providing services for those six months without funding. She stated IDOT is also requesting a lease agreement for the vehicles CRIS is using and to get an ordinance in place in order for them to provide the funding. Michaels asked if no funding was being received, what does that do to RPC money and are they waiting for money from the County. **Motion by Alix** to approve the ordinance, intergovernmental agreement, and vehicle lease agreement; **seconded by Mitchell**. Marchant stated that they are fronting the money because they have a contract with the County Board and IDOT owes it to the County Board. McGuire asked if IDOT has sent any money. Mororcoima-Black said not for seven months. She stated that she has been assured that payment is being processed for the federal portion and state funding will be approved once they receive the agreement. Michaels asked what the approval would change for the County compared to what have been doing before. Mororcoima-Black said the agreement states specific services and makes the relationship between CRIS and the County more clear. Sierra noted that they had followed the IDOT template and worked out oversights on the agreement, but they were told this fiscal year

by IDOT there needs to be an intergovernmental agreement on file. She stated that when CRIS first started in Champaign County they rented vehicles from Vermilion County, but now they are owned. Jay asked how long IDOT will honor the agreement. Mororcoima-Black said that changes can be made but the fundamental agreement will remain the same and that it must be submitted annually. Jay asked if the State could decide at any time to get out. Mororcoima-Black said no. Carter suggested that this is something that should be on the RPC agenda. Kurtz asked what the number of monthly riders is. Marchant answered about 70 per day. Kurtz said that most people were unaware that they have not been receiving money from IDOT and felt the Board should have been informed sooner. Mororcoima-Black stated that Stan James was aware and told her to tell the committee that if they had any questions to call him. Sierra stated that a reimbursement grant must be submitted quarterly. Alix agreed that the Board should have been informed and RTAG is there for that purpose. Maxwell asked if heard correctly that the service is at capacity. Mororcoima-Black stated yes but that service can be expanded. She stated they are working on a plan to do so. Jay asked if it was serving areas other than Rantoul. Marchant stated there is an extra grant to serve all seniors in the county at no charge, but they recently received a letter stating that due to the sequestration the services were being deleted and seniors must pay full price. Jay asked how seniors used the service. Marchant answered about 300. **MOTION APPROVED UNANIMOUSLY.**

#### **RIGHT OF WAY NEGOTIATION FOR OLYMPIAN DRIVE**

**Motion** by Jay at 9:31 AM to enter into executive session pursuant to 5 ILCS 120/2 (c) (5) to consider the purchase of real property for use by Champaign County. He further moved that the following individuals remain present: Dave Clark, County Engineer, County Administrator, and Recording Secretary, **seconded** by Carter. **MOTION CARRIED by roll call vote with Alix, Carter, Cowart, Jay, McGuire, Michaels, and Mitchell, voting yes.**

Meeting was re-opened at 9:51 AM.

#### **CONSENT AGENDA**

Item VII, A, B and C, and VIII to be placed on the consent agenda.

#### **CLOSED SESSION MINUTES APPROVAL – FEBRUARY 8, 2013**

**Motion** by Mitchell to approve the closed session minutes of February 8, 2013; **seconded** by Michaels. **MOTION APPROVED UNANIMOUSLY.**

#### **SEMI-ANNUAL REVIEW OF CLOSED SESSION MINUTES**

Pursuant to the statutory requirement to conduct a semi-annual review of all closed meeting minutes, **Jay motioned** that the closed meeting minutes of the Highway Committee be maintained as closed to protect the public interest or the privacy of individuals, with the exception of the minutes from: November 9, 2007; February 8, 2008; March 7, 2008; June 6, 2008; and April 17, 2009 which may now be determined as open session minutes. **Seconded by Mitchell.** McGuire stated that he was not here for those meetings as wasn't comfortable voting on something he hadn't seen. Busey stated that this was just a recommendation and that the minutes could remain closed and be reviewed again in September. **Original Motion failed.**

Jay **motioned** to maintain closed session minutes as closed. **Seconded** by Michaels. **Motion passed by majority.**

### **OTHER BUSINESS**

Alix mentioned the tractor-trailer roll that happened on the I-57 interchange ramp. He wanted to know if they could ask IDOT to put rumble strips on those ramps. He noted there are several rollovers each year and it is only a matter of time before there is a haz-mat incident or a death. Blue noted that they received another grant for a safety issue and this could be approached as a safety issue. He stated that he will talk to the IDOT District 5 representative. Alix noted that he is not suggesting re-doing the interchange, just adding safety factors.

### **ADJOURNMENT**

Meeting declared adjourned at 10:03 am.

Respectfully submitted,

Linda Lane  
Administrative Assistant

# CHAMPAIGN COUNTY HIGHWAY DEPARTMENT

JEFF BLUE  
COUNTY ENGINEER

1605 E. MAIN STREET

(217) 384-3800  
FAX (217) 328-5148

URBANA, ILLINOIS 61802

April 5, 2013

## COUNTY MOTOR FUEL TAX CLAIMS FOR MARCH

<u>Req. No.</u>	<u>Payee</u>	<u>Description</u>	<u>Amount</u>
18	S Drain Engineering of Illinois	Engineering Services – CH. 22 Section #13-00433-00-RS	3,500.00
19	Cargill, Inc.	584.54 T. De-icing Salt	40,187.14
20	Fehr Graham Engineering	Engineering Services – CH. 1 Section #12-00432-00-RS	14,190.00
21	S Drain Engineering of Illinois	Engineering Services – CHS. 8 & 30 Section #11-00431-00-RS	4,300.00
22	Cargill, Inc.	505.57 T. De-icing Salt	34,757.95
23	Champaign County Treasurer	County Equipment Rental – February	43,632.80
24	Illinois Association of County Engineers	Registration – Spring Meeting – Effingham, IL May 8-10, 2013	75.00
25	Open Road Asphalt Company	7.14 T. Cold Mix	<u>714.00</u>
			<b>\$141,356.89</b>

## TOWNSHIP MOTOR FUEL TAX CLAIMS FOR MARCH

<u>Req. No.</u>	<u>Payee</u>	<u>Description</u>	<u>Amount</u>
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RESOLUTION NO. \_\_\_\_\_

RESOLUTION AWARDING OF CONTRACT  
FOR THE FURNISH AND SPREAD ON THE ROAD  
OF BITUMINOUS MATERIAL FOR  
2013 MAINTENANCE OF VARIOUS ROAD DISTRICTS  
IN CHAMPAIGN COUNTY

WHEREAS, On the attached sheet and as part of this resolution is the listing of low bid which was received at a Public Letting held on March 28, 2013 in Urbana, Illinois, for the furnish and/or spread on the road of Bituminous Materials for the 2013 Maintenance of Various Road Districts In Champaign County; and

WHEREAS, The Highway and Transportation Committee of the Champaign County has awarded the low bid as listed, subject to concurrence of the County Board;

NOW, THEREFORE, BE IT RESOLVED, By the County Board of Champaign County that it concurs in the action taken by the Committee and approves the bid received on the attached "2013 Bituminous Materials Tabulation" to Illiana Construction Co. - Urbana, Illinois.

PRESENTED, ADOPTED, APPROVED and RECORDED this 18<sup>th</sup> day of April A.D., 2013.

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Alan Kurtz, Chair  
County Board of the County of  
Champaign, Illinois

ATTEST: \_\_\_\_\_  
Gordy Hulten, County Clerk and  
ex-Officio Clerk of the County Board

Prepared by: Jeff Blue  
County Engineer

2013 BITUMINOUS MATERIALS TABULATION

	<u>MATERIAL</u>	<u>VOLUME</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
ITEM I	HFE-90, 150, HFRS & CRS Furnished and spread on the road	746,513 Gal.	2.34	\$ 1,746,840.42
ITEM II	MC-30 Furnished and spread on the road	26,300 Gal.	3.60	\$ 94,680.00
ITEM III	CM-300 Furnished and mixed	21,300 Gal.	3.52	\$ 74,976.00
ITEM IV	CRS-2 Furnished and spread on the road	16,000 Gal.	2.34	\$ 37,440.00
ITEM V	CM-90 Furnished and spread on the road	14,500 Gal.	3.33	\$ 48,285.00
ITEM VI	HFRS-2 Furnished and spread on the road	33,753 Gal.	2.34	\$ 78,982.02
ITEM VII	SC-800-3000 Furnished and spread on the road	19,500 Gal.	3.50	\$ 68,250.00
ITEM VIII	HF-P Furnished and spread on the road	10,000 Gal.	2.77	\$ 27,700.00
ITEM IX	CSS-1H Furnished and spread on the road	5,000 Gal.	2.70	\$ 13,500.00
TOTAL AMOUNT AWARDED:				<u>\$ 2,190,653.44</u>



February 28, 2013

Jeff Blue, P.E.  
County Engineer  
Champaign County  
1605 E. Main St.  
Urbana, IL 61802  
(217) 384-3800 telephone  
(217) 328-5148 fax

**Subject: Champaign County Pavement Management System Update—2013-17  
Maintenance and Rehabilitation Plan. ARA Project No. 000273**

Dear Mr. Blue:

Applied Research Associates, Inc. (ARA) appreciates the opportunity to submit to Champaign County your annual Pavement Management System (PMS) update, including the 2013-17 maintenance and rehabilitation plan.

It has been a pleasure providing pavement management services to Champaign County and we look forward to our continued relationship.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Steele".

Douglas A. Steele, P.E.  
Senior Engineer

A handwritten signature in black ink, appearing to read "W. Vavrik".

William R. Vavrik, Ph.D., P.E.  
Vice President and Principal Engineer

Attachment

cc: Joe Stefanski, ARA

**TRANSPORTATION SECTOR**

100 TRADE CENTRE DRIVE, SUITE 200 ■ CHAMPAIGN, IL 61820  
(217) 356-4500 ■ FAX: (217) 356-3088 ■ WWW.ARA.COM/TRANSPORTATION

**REPORT**

**Champaign County Pavement Management System  
2013-17 Maintenance and Rehabilitation Plan**

Prepared for:

**Champaign County Highway Department**

1605 E. Main St.  
Urbana, IL 61802  
Tel. (217) 384-3800

Prepared by:

**Applied Research Associates, Inc.**

**Transportation Sector**  
100 Trade Centre Dr., Suite 200  
Champaign, IL 61820  
Tel. (217) 356-4500

February 28, 2013

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## BACKGROUND

The Champaign County Highway Department maintains a pavement management system (PMS) to objectively evaluate, assess, and manage the approximately 400 lane miles of County-maintained roads in Champaign County. Applied Research Associates, Inc. (ARA) developed and manages the PMS through a multiyear contract with the County. In addition to providing an objective means of evaluating roadway conditions and optimizing limited construction funds, the County's PMS has served as a resource for addressing other issues, including preparing for the impact of new enterprises such as windfarms that may affect County roads, selecting suitable candidates for additional funding sources when they become available, and providing construction history and condition data for project-level design purposes.

This report summarizes the 2013-17 update to the County's five-year maintenance and rehabilitation plan and long-term pavement condition forecast. ARA performed this analysis using previously collected pavement condition data and updated construction history information provided by the County. ARA will update this plan using a new round of field data collection in 2013.



Figure 1. Champaign County's PMS optimizes the expenditure of construction funds over the long-term by choosing the most appropriate treatment and timing for road improvements.

## **UPDATED RECORDS**

In January 2013, the County Highway Department and ARA personnel met to provide updated information on Champaign County's network, including maintenance and rehabilitation projects performed in 2012.

### **Maintenance and Rehabilitation Activities Performed in 2012**

County Highways 8 and 30 between Fisher and Foosland were the major 2012 construction projects. The County performed cold-inplace recycling (CIR) consisting of a 1-in mill followed by recycling of 4 in of the existing asphalt concrete (AC) pavement and placement of a new 3-in AC surface. The work on CH 8 included the portion through Foosland, which transferred to County jurisdiction with its construction.

The County also performed crack sealing on several highways between 2011-12, including CH's 9, 12, 15, 17, 18, 20, 50, and 54. They did not perform any surface treatments in 2012, due to an ongoing difficulty in obtaining the slag aggregate used for chip seals; however, this supply problem has been resolved for 2013.

### **Funding Updates**

The County does not plan to use any funds in addition to their state MFT funding for 2013 projects; however, they are planning on a total of \$3.9 million of combined STR, HSIP, and TARP funds to assist in financing the CR 1 rehabilitation work tentatively programmed for 2014.

### **Other**

Champaign County plans to add the one-mile section of CR 32 through Gifford to their jurisdiction in 2013.

## PAVEMENT CONDITION

The County's PMS uses the Pavement Condition Index (PCI) to characterize pavement condition and for selection of the optimal treatment and timing of improvements. In 2011 we performed this condition survey using an automated digital camera and global positioning system (GPS) mounted on a survey vehicle that filmed 100 percent of Champaign County's highway network. For 2012, ARA projected the deterioration of each road based on the deterioration curve in figure 2, which we determined originally in 2009 and verified with the 2011 data. In general, new or resurfaced roads begin at a PCI of 100 and deteriorate over time at a rate similar to the curve.

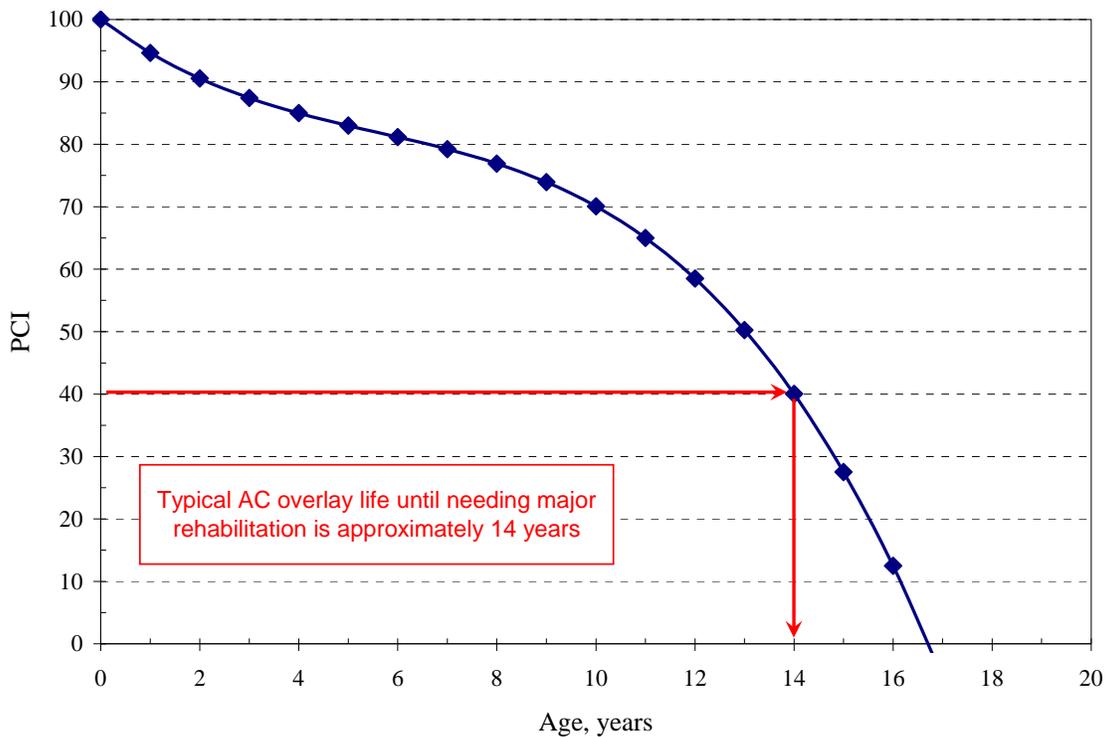


Figure 2. AC overlay deterioration curve developed based on Champaign County data.

The spatial distribution of projected PCI values at the end of 2012, including the benefit of any maintenance and construction activities performed in 2012, is shown in figure 3. In general, the predominant pavement distresses on the Champaign County network are transverse cracking (thermal cracking and reflective cracking of underlying PCC joints), longitudinal cracking of the centerline joint, longitudinal cracking due to lane widening, and fatigue (alligator) cracking in the wheelpaths. Minor distresses include block cracking, edge cracking, patching, and bleeding.

The projected 2012 overall network PCI value is 69.0, corresponding to a good condition rating.

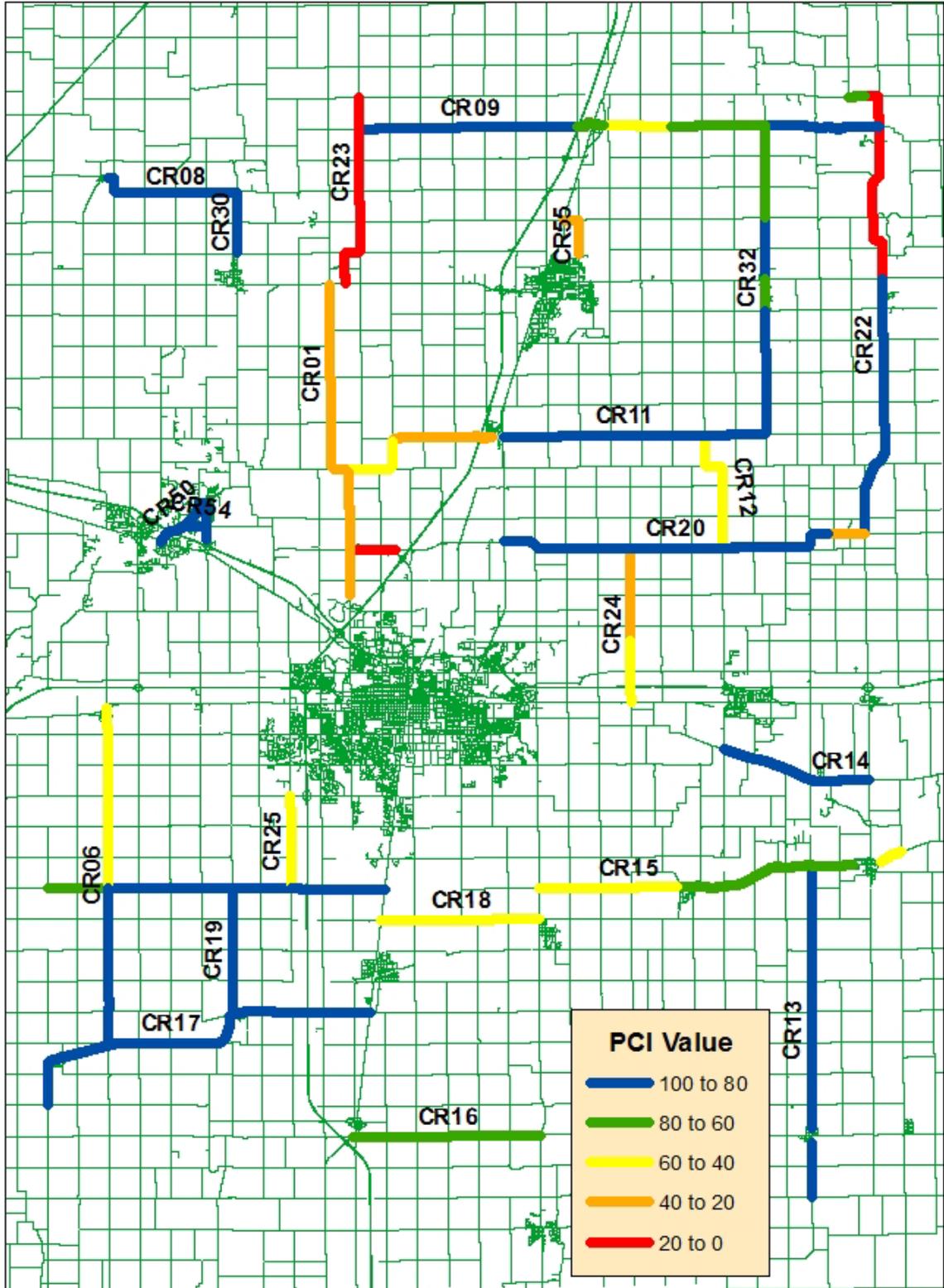


Figure 3. 2012 PCI ratings (end of year projection).

## PMS UPDATE

ARA updated Champaign County’s RoadCare PMS database with 2012 maintenance and construction projects and performed a 10-year simulation of pavement deterioration and improvements to determine the projects to include in the 2013-17 maintenance and rehabilitation (M&R) plan. The analysis used the following information as inputs.

### Unit Costs for Treatments

Champaign County provided estimated unit cost data for typical work activities, such as placing chip seals, AC milling, and placing AC overlays. From this, ARA determined typical unit costs for each M&R alternative listed in the treatment matrix. The County provided costs on a per lane-mile basis and we subsequently converted to units of cost per square yard. Table 1 presents the 2013 estimated unit costs.

Table 1. 2013 estimated unit costs.

Activity Description	Budget Category	Unit Cost (\$/sy)	Unit Cost (\$/cl-mi) <sup>a</sup>
Crack Sealing	Maintenance	\$ 0.98	\$ 13,798
Distress Repair & Crack Seal	Maintenance	\$ 1.54	\$ 21,683
Chip (slag) Sealing	Maintenance	\$ 1.99	\$ 28,019
Double Chip Seal	Maintenance	\$ 4.10	\$ 57,728
Microsurfacing	Maintenance	\$ 2.25	\$ 31,680
Cape Seal	Maintenance	\$ 5.18	\$ 72,934
2” Mill and 2” AC Overlay	Construction	\$ 13.50	\$ 190,080
2” Mill and 3” AC Overlay	Construction	\$ 19.20	\$ 270,336
2” Mill, Patch and 4” AC Overlay	Construction	\$ 27.46	\$ 386,637
3” Mill and 3” AC Overlay	Construction	\$ 19.45	\$ 273,856
3” Mill, Patch and 4” AC Overlay	Construction	\$ 27.71	\$ 390,157
3” Mill, Patch and 5” AC Overlay	Construction	\$ 33.41	\$ 470,413
Reconstruction	Construction	\$ 37.89	\$ 533,491

<sup>a</sup> Based on two 12-ft lanes.

### Treatment Matrix

Figure 4 shows the Champaign County treatment matrix. In general, the PCI value determines the required depth of AC milling (i.e., the worse the condition, the greater the depth of milling), while the RWD deflection determines the required net increase in AC thickness, if any. If deflection currently is adequate for the given traffic level, a mill and overlay of the same thickness is sufficient. If the pavement is lacking in structural capacity, as indicated by a medium or high deflection, the matrix recommends an AC overlay of either 1 or 2 in greater than the mill depth.

The matrix also distinguishes between high- and low-traffic roads, recommending less extensive treatments for low-volume roads relative to high-traffic roads in the same condition. This is because low-traffic roads can tolerate less-extensive treatments than those with high truck traffic.

PCI Value	PCI Rating	High Truck Traffic			Low Truck Traffic		
		Design RWD Deflection, mils			Design RWD Deflection, mils		
		< 35 Good	35 - 50 Fair	> 50 Poor	< 45 Good	45 - 75 Fair	> 75 Poor
100	Very Good	Defer Maintenance			Defer Maintenance		
80		Crack sealing (maximum 1 time)			Crack sealing (maximum 1 time)		
60	Good	Microsurfacing (maximum 1 times)	Distress Repair & Crack Seal (max 2 time)		Chip seal, (maximum 2 times)	Double Chip Seal (maximum 2 times)	Defer Improvements
40		Cape Seal (maximum 1 times)			Mill 2 - Replace 2	Mill 2 - Replace 3	Mill 2 - Patch - Replace 4
20	Failed	Mill 3 - Replace 3	Mill 3 - Patch - Replace 4	Mill 3 - Patch - Replace 5	Mill 2 - Replace 2	Mill 3 - Patch - Replace 4	
0		Reconstruction (FDR, Rubblize, CIR)			Mill 3 - Patch - Replace 4	Reconstruction (FDR, Rubblize, CIR)	

Figure 4. The Champaign County treatment matrix.

\*\*Beginning in 2012, all roads rehabilitated with a new AC surface will be crack sealed every year beginning in the third year after construction, and chip sealed in the fifth year after construction.

## **FIVE-YEAR M&R PLAN AND CONDITION FORECAST**

### **Maintenance and Rehabilitation Plan**

ARA updated the maintenance and rehabilitation plan for 2013-17 by simulating pavement deterioration and improvements in RoadCare over a 10-year period. RoadCare simulates deterioration of each road section based on the performance curve determined specifically for Champaign County roads and increases conditions accordingly for any roads receiving a maintenance or construction treatment during the simulation period. RoadCare selects projects with the highest benefit-to-cost ratio that are feasible within the allocated budget. If money remains in the budget at the end of the year, this amount is rolled into the next year's budget. Additional anticipated funding from sources other than State MFT funds (such as Federal STR or State HSIP funds) are added to the annual \$2,500,000 MFT construction and maintenance fund. ARA and the County Engineer finalized the maintenance and rehabilitation program based on practical considerations, such as spatial distribution of selected projects.

Table 2 presents the proposed 5-year plan for 2013 to 2017. Figure 5 presents the rehabilitation and surface treatment projects for all five years. The main rehabilitation and reconstruction projects over the next five years include:

- Cold-inplace recycling and thin overlay of the northern half of CH 22 in 2013.
- Mill and overlay of CH 1 in 2014.
- Reconstruction of CH 23 in 2015.
- Mill and overlay of portions of CH 15 in 2016.
- Mill and overlay of CH 12 and 24 in 2017.

Table 3 presents the expected pavement expenditures for the next 5 years, based on the RoadCare simulation results. In several cases, ARA modified the annual budget based on input from the County Engineer, including the addition of \$3.9 million of combined STR, HSIP, and TARP funding in 2014.

Table 2. Detailed work activities for 2013 to 2017.

Year	Route	Begin MP	End MP	Activity	Cost
2013	CR22	8.523	15.673	CIR w/thin overlay	\$1,200,000
	CR06	0	5.123	Chip Seal	\$131,581
	CR06	5.123	10.989	Chip Seal	\$150,664
	CR12	0	4.171	Chip Seal	\$107,129
	CR14	0	4.912	Chip Seal	\$126,161
	CR32	6.985	10.013	Chip Seal	\$84,814
	CR50	0	1.889	Chip Seal	\$44,107
	CR50	1.889	2.902	Chip Seal	\$23,630
	CR50	2.902	3.317	Chip Seal	\$11,628
	CR54	0	0.7	Chip Seal	\$19,585
2014	CR01	0	10.556	3" Mill & 3" ACOL	\$6,000,000
	CR18	0	1.959	Distress Repair & Crack Seal	\$42,477
	CR09	10.276	13.306	Chip Seal	\$77,823
	CR22	0	8.523	Chip Seal	\$198,983
	Various	4.97	6.985	Crack Seal	\$159,605
2015	CR23	0	6.488	Reconstruction	\$2,000,000
	CR18	7.937	10.958	Microsurface	\$95,705
	Various	0	3.959	Crack Seal	\$309,889
2016	CR15	4.498	10.352	3" Mill & 3" ACOL	\$1,700,000
	CR15	11.336	12.096	3" Mill & 3" ACOL	\$300,000
	CR19	0	4.124	Double Chip Seal	\$238,070
	Various	15.171	15.673	Crack Seal	\$82,215
2017	CR12	0	4.171	2" Mill & 2" ACOL	\$1,200,000
	CR24	0	5.019	2" Mill & 2" ACOL	\$800,000
	CR08	0	4.661	Chip Seal	\$119,689
	CR30	0	1.925	Chip Seal	\$67,386
	CR20	12.867	16.628	Microsurface	\$114,184
	Various	4.721	10.556	Crack Seal	\$145,656

Table 3. Projected expenditures for 2013 to 2017.

Budget Source	2013	2014	2015	2016	2017
Maintenance	\$ 699,299	\$ 478,889	\$ 405,594	\$320,286	\$446,915
Construction	\$1,200,000	\$6,000,000 <sup>a</sup>	\$2,000,000	\$2,000,000	\$2,000,000
<b>Total</b>	<b>\$1,899,299</b>	<b>\$6,478,889</b>	<b>\$2,405,594</b>	<b>\$2,320,286</b>	<b>\$2,446,915</b>

<sup>a</sup> Includes anticipated STR, HSIP, and TARP funds.

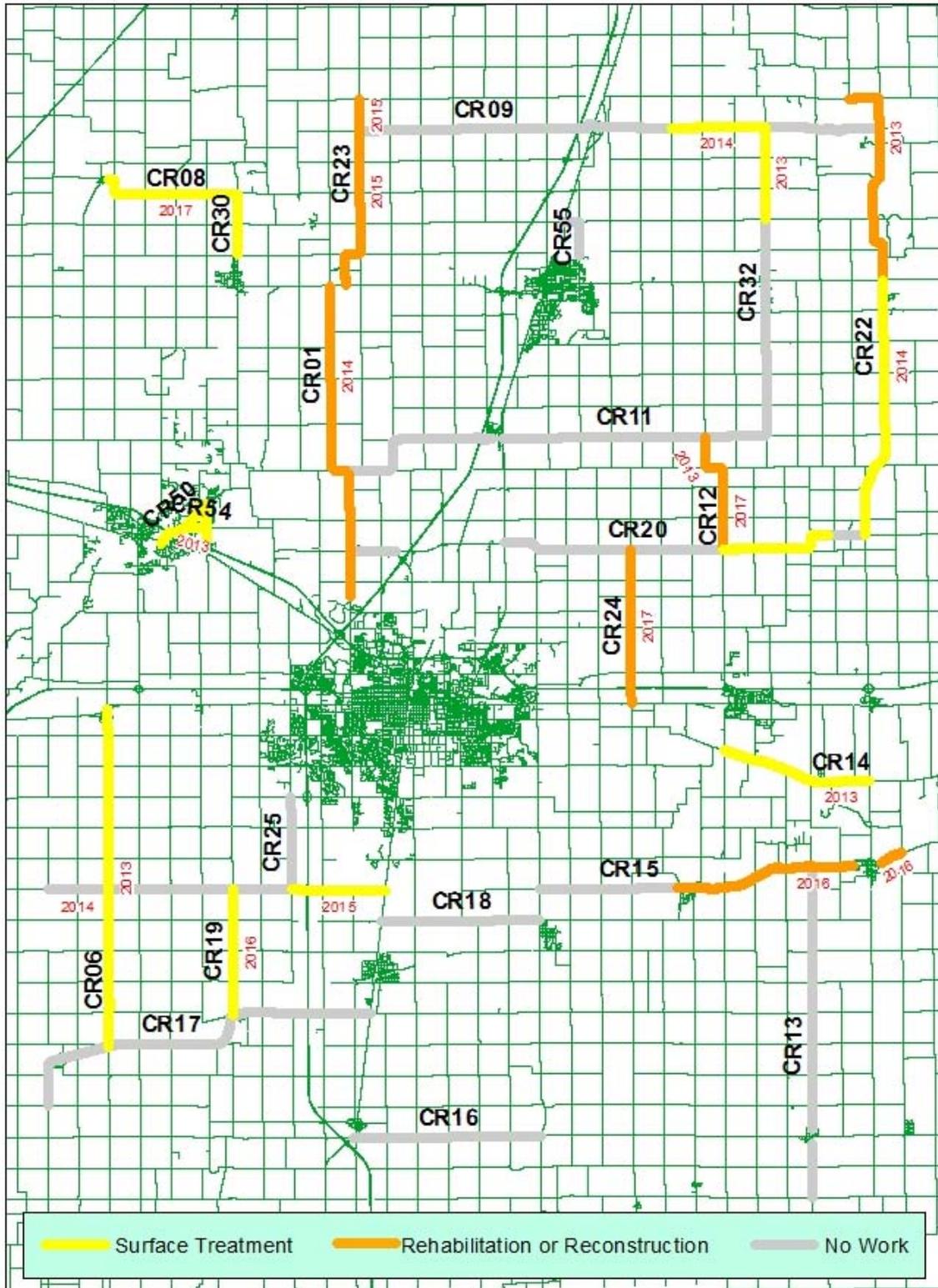


Figure 5. Rehabilitation and surface treatment plan, 2013 to 2017 (event year shown in red).

### 10-Year Network Condition Forecast

ARA used the RoadCare simulation to predict the network road condition for the next 10 years, as presented in figure 6. The figure shows the percentage of lane mileage in each PCI bracket (i.e., ranging from very good to very poor), as well as the overall network PCI value. The simulation shows that the mean PCI value of the entire network is expected to remain fairly stable over the next 10 years, averaging a PCI value of approximately 68 (i.e., good).

Figure 6 shows that while the overall mean network value is expected to remain fairly constant over the next 10 years that the percentage of network at a given condition rating is expected to vary. Based on the results, the amounts of pavements in fair and poor condition are expected to decrease, while the number in good condition is projected to increase. This is reflected in a slightly higher network PCI value at the end of the 10 years.

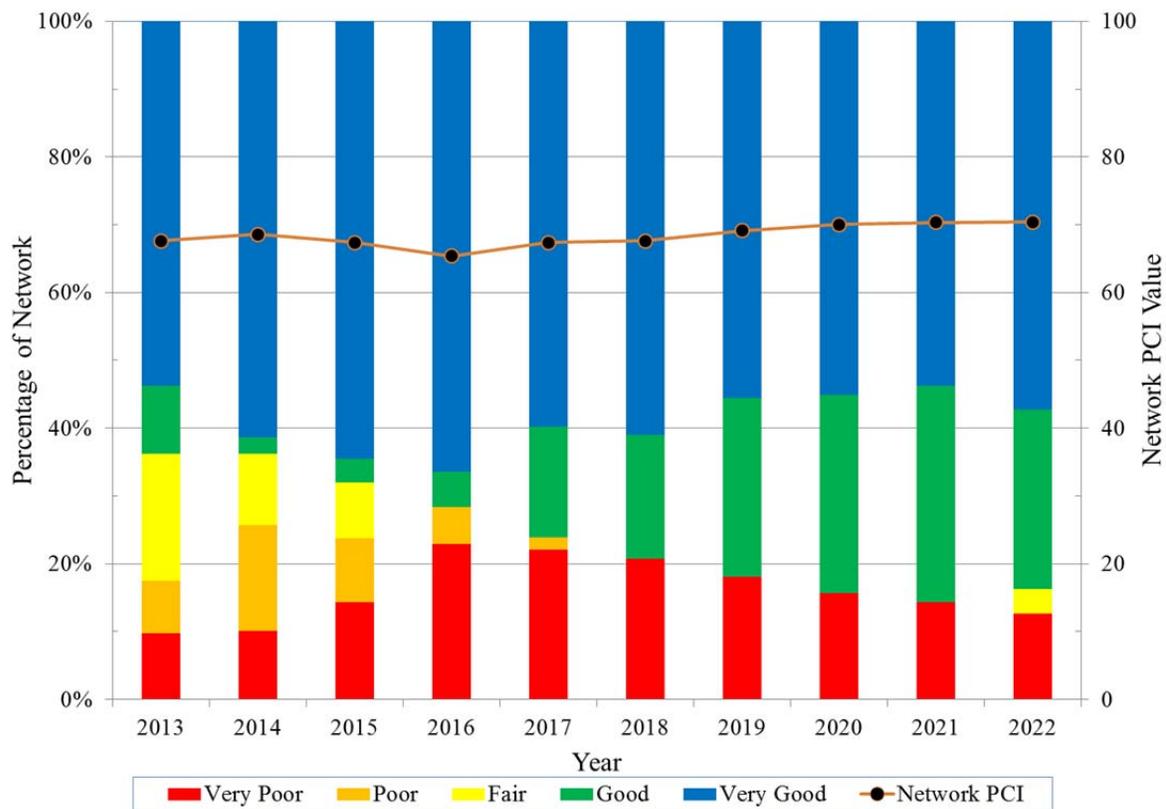


Figure 6. Predicted network condition for 2013 to 2022.