

## CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

	REQUISITION NUMBER	DUE DATE	TIME DUE
MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)	
DESCRIPTION			
<b>MDOT PROJECT MANAGER:</b> Check all items to be included in RFP  WHITE = REQUIRED ** = OPTIONAL  Check the appropriate Tier in the box below		<b>CONSULTANT:</b> Provide only checked items below in proposal	
<input type="checkbox"/> <b>TIER I</b> (\$50,000 - \$150,000)	<input type="checkbox"/> <b>TIER II</b> (\$150,000-\$1,000,000)	<input type="checkbox"/> <b>TIER III</b> (>\$1,000,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Organizational Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team
Not required as part of Official RFP	Not required as part of Official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control **
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Location:</b> The percentage of work performed in Michigan will be used for all selections unless the project is for on-site p=inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	<input type="checkbox"/>	Presentation **
N/A	N/A	<input type="checkbox"/>	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) ( <b>No Resumes</b> )	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP <b>not including key personnel resumes.</b> Resumes limited to 2 pages per key staff personnel.

**PROPOSAL AND BID SHEET EMAIL ADDRESS – [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov)**

### GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

### MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

**5100D** – Request for Proposal Cover Sheet

**5100J** – Consultant Data and Signature Sheet (Required only for firms not currently prequalified with MDOT)

**(These forms are not included in the proposal maximum page count.)**

# REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest (Consultant/Vendor Selection Guidelines for Services Contracts” and “Guideline for Completing a Low Bid Sheet(S)\*, if a low bid is involved as part of the selection process. **Reference Guidelines are available on MDOT’s website under Doing Business > Vendor/Consultant Services >Vendor/Consultant Selections.**

**RFP SPECIFIC INFORMATION**

ENGINEERING SERVICES                       BUREAU OF TRANSPORTATION PLANNING                       OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS  
 NO     YES    DATED \_\_\_\_\_ THROUGH \_\_\_\_\_

<input type="checkbox"/> <b>Prequalified Services</b> – See the attached Scope of Services for required Prequalification Classifications.	<input type="checkbox"/> <b>Non-Prequalified Services</b> – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT’s Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. <b>Form 5100J is required with Proposal for firms not currently prequalified with MDOT</b>
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**Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

**For all Qualifications Based Selections**, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

**For a cost plus fixed fee contract**, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor’s job-order accounting system.

**Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

**Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

**Low Bid** (no qualifications review required – no proposal required.) See Bid Sheet Instructions below for additional instructions.

**BID SHEET INSTRUCTIONS**

Bid Sheet(s) must be submitted in accordance with the “Guidelines for Completing a Low Bid Sheet(s)\* (available on MDOT’s website). Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the email address: [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov). Failure to comply with this procedure may result in your bid being rejected from consideration.

**PARTNERSHIP CHARTER AGREEMENT**

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the [ACEC-MDOT Partnership Charter Agreement](#) and are asked to follow all communications, issues resolution and other procedures and guidance’s contained therein.

**NOTIFICATION  
MANDATORY ELECTRONIC SUBMITTAL**

**Proposals submitted for this project must be submitted electronically.**

**The following are changes to the Proposal Submittal Requirements:**

- Eliminated the Following Requirements:
  - Safety Program
  - Communication Plan
  - Past Performance as *a separate section*
  - Separate section for DBE Statement of goals. Include information in Qualification of Team section
  
- Implemented the Following Changes:
  - All proposals require an Organization Chart
  - Resumes must be a maximum of two pages
  - Only Key (lead) staff resumes may be submitted
  - Tier III proposal reduced from 19 to 14 pages
  - Forms 5100D, 5100I, and 5100G combined – 5100D
  - Forms 5100B and 5100H combined – 5100B
  - RFP's will be posted on a weekly basis -- on Mondays

**The following are Requirements for Electronic Submittals:**

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include “N/A” after the bookmark title.  
**Example:** Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to [MDOT-RFP-Response@michigan.gov](mailto:MDOT-RFP-Response@michigan.gov)
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
  - Requisition#XXX\_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

**If the submittals do not comply with the requirements, they may be determined unresponsive.**

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

**\*\*Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response\*\***

**Required Bookmarking Format:**

- I. Request for Proposal Cover Sheet Form 5100D
  - A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
- II. Understanding of Service
  - A. Innovations
- III. Qualifications of Team
  - A. Structure of Project Team
    - 1. Role of Firms
    - 2. Role of Key Personnel
  - B. Organization Chart
  - C. Location
- IV. Quality Assurance / Quality Control Plan
- V. Resumes of Key Staff
- VI. Pricing Documents/Bid Sheet (if applicable)

**2/14/12**

**NOTIFICATION  
E-VERIFY REQUIREMENTS**

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: <http://www.dhs.gov/E-Verify>.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

9/13/12

**SCOPE OF SERVICE  
FOR  
SPECIALTY SERVICE  
NONDESTRUCTIVE EVALUATION OF BRIDGE DECKS  
USING INFRARED THERMOGRAPHY AT OR NEAR HIGHWAY SPEEDS**

**CONTROL SECTION(S)**: 82191, 82252, and 13033

**JOB NUMBER(S)**: 124916

**PROJECT LOCATION**: The bridges to be scanned are located in Wayne and Calhoun counties, Michigan, in the MDOT Metro and Southwest Regions (see Attachment No. 1, Work Package Listing for specific bridge numbers, locations, and traffic restrictions.)

**DESCRIPTION OF WORK**:

The work associated with this project includes nondestructive evaluation (NDE) of bridge deck top surface and deck top near sub-surface condition using Infrared Thermography at, or near, highway speeds. The work includes: Site inspection, data gathering, plotting the results, and submitting a report to MDOT. All tasks must be complete for the successful completion of the project.

Deck top near sub-surface is defined as the deck material from the deck top surface to one inch below the top row of steel reinforcement.

**ANTICIPATED START DATE**: September 15, 2014

**ANTICIPATED COMPLETION DATE**: June 30, 2015

**PRIMARY PREQUALIFICATION CLASSIFICATION**: None

**SECONDARY PREQUALIFICATION**: None

**DBE REQUIREMENT**: N/A

**MDOT PROJECT MANAGER**:

Linda Reed, P.E.

Bridge Scoping Engineer

425 W. Ottawa St.

Lansing, MI 48912

[reedl@michigan.gov](mailto:reedl@michigan.gov)

## **DURATION & SCHEDULE**

### **A. Work Plan & Schedule**

The Consultant must review the Work Package Listing to develop a work plan that details the process of the NDE deck scan for each bridge listed to complete the work in a manner that is as efficient as possible. The Work Plan will be submitted after the Vender has been selected. Changes to the Work Plan after the contract is authorized must be submitted to the MDOT Project Manager for approval.

### **B. Meeting Dates**

The Consultant is required to participate in a Project Kickoff Meeting approximately one week after Contract Authorization is announced, to be held in Lansing or at a location that is mutually agreed to. If necessary, a Progress Meeting and/or a Project Closeout Meeting will be held, at the MDOT Project Manager's discretion.

## **GENERAL INFORMATION:**

The Consultant shall use a vehicle mounted Infrared Thermography camera to locate, map, and quantify (both as area affected and as percentage of bridge deck) delaminations and spalls in the top surface/near top subsurface of the bridge decks. The Infrared camera shall be mounted either on the front or on the back of the vehicle. Data is to be collected at or near highway speed, defined as 45 mph minimum or at maximum speed limit if lower, without the use of lane or shoulder closures. Per the ASTM D4788-03 standard, a conventional video image is to be used with the IR image to isolate spalls, patches and surface defects from delaminations, as well as to rule out false positives from debris, tire marks, or other material. Cameras oriented to collect data vertically, or perpendicular to the deck surface, are preferable in order to minimize distortion/skewing of defect imagery and dilution of image resolution far forward or aft of the vehicle. Consultants should also collect data normal to the deck surface to facilitate accurate geo-location of defects, whether this is done with survey grade GPS or mechanical systems. Accurate location of defects at the stated collection speed is essential.

IR Thermography operates on the principle that as the deck warms up (or cools down), the delaminated area heats up at a faster rate and reaches a higher temperature than the solid areas. Since effective application of this technology is highly dependent on environmental conditions, the Consultant assumes full responsibility for determining the optimum conditions for data collection. Environmental conditions in which data is collected will be documented as a prerequisite to data collection.

Analysis of the infrared data is completed with the aid of a computer program. During the analysis, the recorded energy variations are interpreted to identify specific delaminated areas. Each delamination is identified and plotted onto plan view drawings of the bridge deck. Square footage and percentage of delaminated deck are calculated and shall be furnished, mapped to scale and location as well as in tabular format, for MDOT assessments and repair planning.

Consultants shall be responsible for differentiating energy variations in the deck caused by heat transfer from beams, passing vehicles, and other foreseeable anomalies.

## **CONSULTANT RESPONSIBILITIES:**

## **A. Equipment**

The Consultant is responsible for supplying all equipment necessary to complete this work in an efficient and safe manner. This includes a vehicle mounted Infrared Thermography camera with a minimum rate of 30 fps (frames per second), 320 x 240 pixel resolution and a thermal sensitivity measured by NETD (Noise Equivalent Temperature Difference) of 0.1 degree C to ensure image quality, thermal resolution, and clarity. It is noted that this camera requirement exceeds the camera standard as outlined in ASTM D4788-03. Additional equipment includes, but is not limited to: a conventional video camera, supporting equipment used to measure sensor height and distance, applicable software, and a distance measuring device with an accuracy of  $\pm 3''$  over the longest span of the deck. The vehicle used for the project must have room to accommodate MDOT staff as necessary.

As an additional safety measure, the Consultant must supply a shadow vehicle (and driver) with a flashing light bar for use where required per the Work Package Listing (Attachment 1).

## **B. Team**

The Consultant PM will be the primary contact with MDOT's PM and will immediately report any unusual findings to the MDOT PM. The Consultant PM is considered key staff and if he/she is unable to finish the work of the entire project, the authorization may be terminated and in this event, incomplete work will not be paid for.

The Consultant must assign additional staff as necessary to complete the work in the required time frame, including qualified technician(s) with experience and training in nondestructive testing of bridge decks with infrared thermography to perform data collection, analysis, plotting, and reporting.

## **C. Safety**

MDOT requires safe working operations at all times. The Consultant and its employees must be trained in all applicable state and federal regulations as well as industry practices for the work being performed. The Consultant must provide all of the necessary personal safety equipment for each employee at the work sites. All equipment must be in sound working order, meeting applicable standards for safe operation. Lost time due to equipment failures will not be paid for.

It is not the responsibility of MDOT or the MDOT PM to regulate the Consultant's safety practices, however, the MDOT PM has the authority to have any individual who is found working unsafely removed from MDOT right of way. If the Consultant is found to be working unsafely, the MDOT PM can stop all operations and terminate the contract.

## **D. Maintenance of Traffic**

At no time shall there be any lane or shoulder closures in performing this work. All work shall be completed at or near highway speeds; near highway speed being defined as 45 MPH or at maximum speed limit if lower. The Consultant shall at no time be allowed to impede traffic with or without the use of a vehicle. Any traffic control issues / comments / concerns shall be addressed with the MDOT Project Manager prior to field work.

Specific Traffic Restrictions include:

For bridges 1-7 (on I-75), the data collection may take place on Saturday or Sunday morning between 6 am and 10 am, with no shadow vehicle required OR on any weekday between 9am and 2pm WITH a shadow vehicle. A shadow vehicle is described as a car, truck, or van with a mounted flashing light bar, and both vehicle and driver will be supplied by the Consultant. A mobile attenuator or arrow board will not be necessary. Note that no overtime or additional compensation of any sort will be made for work performed on the weekend.

For bridges 8 & 9 (over I-75), data collection is to take place any weekday between the hours of 9am and 2pm, but a shadow vehicle will not be required.

For bridges 10 & 11 in Battle Creek, the data collection is allowed to take place Monday – Thursday from 9am to 3pm WITH a shadow vehicle. The speed limit on I-194 at these locations is 55 mph but due to the proximity of on and off ramps a shadow vehicle is required.

These traffic restrictions are also summarized on the Work Package Listing in Attachment 1. Failure to comply with any of the requirements listed above will be considered unsatisfactory performance by the Consultant.

**DELIVERABLES:**

The Consultant will examine the information and data obtained in the field for each bridge and assemble it into a report for delivery to MDOT. The report will contain information as to the types of anomalies and their location. This discussion may include graphs, pictures or videos, and to-scale drawings of the bridge deck and each anomaly, identifying deck top surface and deck top near sub-surface defects and any existing concrete and hot mix asphalt patches. The Consultant shall include the total area of deficiencies as square footage and as a percentage of the deck. The Consultant shall also provide individual areas of each type of deficiency as a square footage and as a percentage.

The Consultant's report will contain a number of standard observations and measurements as follows:

1. Consultant PM Name
2. Type of Equipment Used
3. Date and Time of Deck Scan
4. Bridge Number
5. Roadway carried
6. Feature Intersected
7. Location of Structure
8. Map of the Location
9. Atmospheric Conditions (approximate air temperature/wind speed...)
10. Bridge Deck Type (ex. concrete/latex modified overlay/epoxy overlay/slag...)
11. Visible condition of bridge deck
12. Deck plan views with distress plotted
13. Photos, images, and video of the collected bridge data may also be requested at the discretion of MDOT.

Two (2) draft hard copies of the complete report, including all bridges, will be provided to the MDOT PM plus one in Adobe Acrobat electronic format. One of these will be marked up by MDOT with comments and returned to the Consultant for review and to incorporate revisions into the final reports. MDOT reserves the right to request additional drafts for review and/or request a Progress Meeting if, in the opinion of the MDOT PM, the changes required are extensive. Incomplete reports or failure to make the required changes will be considered a failure to meet the terms of the scope of work.

After revisions are complete, the Consultant will submit three (3) copies of the final reports of all bridges in three-ring binders separated by tabs, as well as one electronic copy on CD or DVD in Adobe Acrobat format. At MDOT's discretion, the Consultant shall provide download access to digital copies of all reports and native CAD files.

### **MDOT RESPONSIBILITIES:**

MDOT will furnish the Consultant access to any available pertinent information, (such as plan sheets) related to the structure(s) being evaluated. Information furnished to the Consultant is not to be released or distributed to any outside agency without written permission from MDOT's Project Manager.

### **SCORING:**

Consultants submitting proposals will be evaluated using established selection methods. Scores will be assigned to each Consultant based on five categories. A description of criteria and point value assigned to each category is shown below:

- A. **Understanding of Service – 35 points:** Statement of understanding of project requirements and a technical explanation of procedures and work plans used to perform work, including a description of equipment to be used to complete work.
- B. **Qualifications and Team Experience – 30 points:** Describe your team and the roles of key personnel. List qualifications and experience of key staff assigned to each component of work.
- C. **Past Performance and Experience with Similar Projects – 35 points:** Provide a list and description of similar projects you have provided services for in the past five years. Provide references, including name, title, address and phone number of a project leader.
- D. **Price – 35 points:** Provide a list of unit prices per square foot of deck area for each bridge using the attached form.
- C. **Location – 5 points:** Indicate the percentage of work that will be performed in Michigan.

## **CONSULTANT PAYMENT – Unit Price:**

Compensation for this project shall be on a **unit price** basis. This basis of payment typically includes a maximum quantity of units and a maximum reimbursable cost per unit.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at [http://www.michigan.gov/documents/mdot/Final\\_Travel\\_Guidelines\\_05-01-13\\_420289\\_7.pdf?20130509082418](http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418). MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at [http://www.michigan.gov/documents/mdot/Final\\_Overtime\\_Guidelines\\_05-01-13\\_420286\\_7.pdf?20130509081848](http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848). MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

## **CONSULTANT BID SHEET – UNIT PRICE**

This bid sheet is required with the response to the Request for Proposal (RFP). All entries on this page must be handwritten in ink or computer generated. Compensation for this project shall be on a **Unit Price** basis.

Priced proposal costs will be required after selection, in accordance with MDOT's Price Proposal Guidelines which can be found on the MDOT web page under Consultant/Consultant Services. Payment to the Consultant for services rendered shall not exceed the total bid price.

Note: MDOT reserves the right to reject any or all bids.

PROJECT DESCRIPTION: Bridge Deck Evaluation with IR Thermography

	<b>BRIDGE ID</b>	<b>ROUTE OVER/UNDER</b>	<b>LOCATIO N</b>	<b>QUANTIT Y DECK AREA (sft)</b>	<b>UNIT PRICE (per sft)</b>	<b>COST PER BRIDGE (\$)</b>
1	B03-1-82191	I-75 NB / Goddard Rd	Allen Park	94,745		
2	B03-2-82191	I-75 SB / Goddard Rd	Allen Park	97,393		
3	S13-82191	I-75 SB / US-24 Conn	Taylor	10,412		
4	S14-1-82191	I-75 NB / Eureka Rd	Taylor	13,776		
5	S14-2-82191	I-75 SB / Eureka Rd	Taylor	12,514		
6	S17-1-82191	I-75 NB / North Line Rd	Southgate	11,362		
7	S17-2-82191	I-75 SB / North Line Rd	Southgate	11,362		
8	S05-82252	Holbrook Ave / I-75	Detroit	15,763		
9	S10-82252	M-102 (8 Mile Rd) / I-75	Detroit	98,481		
10	B01-13033	I-194 over Kalamazoo R	Battle Creek	32,316		
11	S03-13033	I-194 over Burnham St	Battle Creek	12,995		

**TOTAL PRICE:**

**\$ \_\_\_\_\_**

<b>Legal Business Name:</b>	
<b>Consultant's Authorized Legal Signer:</b>	
<b>Consultant's Address:</b>	
<b>Date:</b>	

## Attachment 1 - Work Package Listing

Job # 124916

### TRAFFIC RESTRICTIONS

	Bridge ID	Str. #	Facility Carried	Feature Intersected	Location	Surface Type	Deck Length ft	Deck Width ft	Deck Area sft	Days Allowed	Time Allowed	Shadow Vehicle req'd?*
1	82191-B03-1	11627	I-75 NB	Goddard Rd, Sexton-Kilfoil Drain	Allen Park	latex concovly	1,938.32	48.88	94,745	Sat. or Sun.  OR  Mon. - Fri.	6am - 10am  9am - 2pm	NO  YES
2	82191-B03-2	11628	I-75 SB	Goddard Rd, Sexton-Kilfoil Drain	Allen Park	latex conc ovly	1,992.49	48.88	97,393			
3	82191-S13	11655	I-75 SB	US-24 Conn	Taylor	latex conc ovly	190.39	54.69	10,412			
4	82191-S14-1	11656	I-75 NB	Eureka Rd	Taylor	latex conc ovly	229.99	59.90	13,776			
5	82191-S14-2	11657	I-75 SB	Eureka Rd	Taylor	latex conc ovly	227.99	54.89	12,514			
6	82191-S17-1	11660	I-75 NB	North Line Rd	Southgate	latex conc ovly	206.99	54.89	11,362			
7	82191-S17-2	11661	I-75 SB	North Line Rd	Southgate	latex conc ovly	206.99	54.89	11,362			
8	82252-S05	11845	Holbrook Ave	I-75	Detroit	latex conc ovly	156.50	100.72	15,763	Mon. - Fri.	9am - 2pm	NO
9	82252-S10	11850	M-102 8 Mile Rd	I-75	Detroit	latex conc ovly	1,068.24	92.19	98,481			
10	13033-B01	1200	I-194	Kalamazoo River	Battle Creek	latex conc ovly	371.70	86.94	32,316	Mon. - Thurs.	9am - 3pm	YES
11	13033-S03	1208	I-194	Burnham St	Battle Creek	concrete	132.91	97.77	12,995			

**411,118 TOTAL AREA**

*\*NOTE - Shadow Vehicle requires a flashing light bar but not a mobile attenuator or arrowboard.*