Michigan Department
Of Transportation
5100B (03/10)

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

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Coreen Strzalka	various	various

DESCRIPTION
Value Engineering Studies

MDOT PROJECT MANAGER: Check all items to be included in RFP

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal

☐ **TIER 1 ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☑ **TIER III (>$250,000)**	
☐	☐	☑	Understanding of Service
☐	☐	☑	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☐	☑	Organizational Chart
☐	☐	☑	Qualifications of Team
☐	☐	☑	Past Performance
Not required As part of Official RFP	Not required As part of Official RFP	☐	Quality Assurance/Quality Control
☐	☐	☑	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site 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	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) **(No Resumes)**	7 pages (MDOT Forms not counted)	19 pages (MDOT Forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

Michigan Department
of Transportation
5100H (05/11)

REQUEST FOR PROPOSAL

Clear Form

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 Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services >Vendor/Consultant Selections.**

RFP SPECIFIC INFORMATION

☑ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☑ NO ☐ YES DATED _____ THROUGH _____

☑ **Prequalified Services** – See page 1 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalified Services** - 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. (**Form 5100J Required with Proposal**)

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the section team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

****For RFP's that originate in Bureau of Transportation Planning only**, a priced proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The priced proposal must be submitted in a sealed envelope, clearly marked **"PRICE PROPOSAL."** The vendor's name and return address MUST be on the front of the envelope. The priced proposal will only be opened for the highest scoring proposal. Unopened priced proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your priced proposal being opened erroneously by the mail room.

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.

☐ **Qualifications Review / 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 and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **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

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet(s) is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked **"SEALED BID."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL/BID DUE DATE	TIME DUE
4	7/25/11	4:30 pm

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Coreen Strzalka, MDOT
425 West Ottawa,
P.O. Box 30050
Lansing, MI 48909

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

	Lansing Regular Mail	OR	Lansing Overnight Mail
☑	Secretary, Contract Services Div - B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Secretary, Contract Services Div - B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933
☐	Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933

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 four (4) 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 Non-Prequalified Work)

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

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES
As-Needed Value Engineering Studies
Revised 6/23/2011

CONTROL SECTIONS: Various

JOB NUMBERS: Various

PROJECT LOCATION: Various

PROJECT DESCRIPTION:
Value Engineering Studies shall occur on an "as needed" basis. Work involved in the studies will consist of a Value Engineering (VE) study of Resurfacing Restoration and Rehabilitation (3R) and/or New Construction/Reconstruction (4R) of Road and Bridge projects. At times, specialized work experience may be necessary.

MDOT reserves the right to request services on other projects located in the Region/TSC area that are not listed above, under the conditions of this "as needed" scope of services.

Full time services will not be required on all projects at all times. This scope is for "as needed" services, based on the intermittent needs of MDOT. It must be noted that this is not a guarantee that MDOT will use the Consultant's services.

ANTICIPATED SERVICE START DATE: August, 2011

ANTICIPATED SERVICE COMPLETION DATE: August, 2013

PRIMARY PREQUALIFICATION CLASSIFICATION(S):
Value Engineering Studies

SECONDARY PREQUALIFCIATION CLASSIFICATION(S) N/A

DBE REQUIREMENT N/A

MDOT VE PROJECT MANAGER:
Coreen Strzalka, P.E.
State Value Engineer Coordinator
Design Division
425 West Ottawa, P.O. Box 30050
Lansing, MI 48909
517 373-3397

strzalkac@michigan.gov

UP TO FOUR CONSULTANTS MAY BE SELECTED FOR THESE PROJECTS

REQUIRED MDOT GUIDELINES AND STANDARDS:

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

Conflict of interest: MDOT will not consider a VE firm to perform a VE Study on projects where that firm is also providing design services. If a current employee of a construction company is selected by the VE firm and participates as a member of the VE study team, the construction company will not be eligible to bid to construct the project as a prime contractor or as a subcontractor. The construction company employing any VE team member must provide a signed statement agreeing to this provision before the start of the VE study.

ASSEMBLING THE VE TEAM

The consultant will assemble a multi-disciplined VE project team of 5-7 persons, led by a VE Facilitator. The team should be structured so there is appropriate expertise to evaluate the major problem areas anticipated within the project. MDOT may add one or two MDOT personnel to participate with the VE team. MDOT personnel will provide additional assistance and expertise but will not replace consultant VE team members.

Recommended qualification of VE team members:

VE Facilitator: This member must be a qualified VE practitioner, experienced in performing and leading VE studies (have participated in several VE studies as a team member and as a team leader), and have sufficient VE training, education, and experience to be recognized by SAVE International as meeting the requirements for certification.

Design, construction, maintenance and traffic engineering members: These team members should have at least ten years experience in design, construction, maintenance or operations. The VE team must also include member(s) experienced in estimating construction costs and cost-benefit analysis. All members should have completed a 40-hour Value Engineering training seminar or have prior Value Engineering experience. The composition of the expertise should reflect the complexity of the project design to be studied. At least two members of the team should be experienced in the high-cost areas of the project. ~~At least two members of the team should have 10 years of experience in segmental box bridges with Post Tension Concrete Box Beams.~~

Work Zone Safety and Mobility member: The Department's Guidance Document #10177 addresses the Work Zone Safety and Mobility Policy. The VE Team should include expertise to review and provide recommendations in accordance with this policy.

Constructability expert member: This member should be an experienced construction professional with who is able to add the contractor's perspective to the VE Study. If the VE firm does not have access to constructability experienced member based on their own associations, the can use the list provided by MITA. This list will be available on with the posting. **As stated above, if a current employee of a construction company is selected by the VE firm and participates as a member of the VE study team, the construction company will not be eligible to bid on the project nor partake in any of the construction activities as a subcontractor.**

Additional requirements: The VE team should have CAD capability to develop, analyze, and propose modifications within the VE time schedule. For all VE Studies, 'Read-Only' CAD files in Micro-Station format will be made available to the VE team.

REQUIRED STUDY ELEMENTS

Several steps in the application of VE have been determined by the Department to be of such significance that special attention is needed. These nine (9) items shall be required in conducting every VE study:

1. Define the original project objective.
2. Identify the design criteria for the project.
3. Verify all valid project constraints.
4. Identify specifically the components and elements of high cost.
5. Determine basic and secondary functions.
6. Evaluate the alternatives by comparison.
7. Consider life cycle costs of alternatives.
8. Evaluate constructability of project and elements
9. Develop a detailed implementation plan.
10. Develop recommendations to address the Work Zone Safety and Mobility Policy requirements.

In addition to the required elements listed above, VE studies on bridge projects shall include the following:

1. Bridge substructure requirements based on construction materials.
2. Evaluation of acceptable bridge designs based on engineering and economic basis.
3. Evaluate using life cycle costs and construction duration.

DEVELOPING THE VE WORK PLAN

After notification of approval of the authorization, the selected consultant will contact the Project Manager of the job receiving the VE Study to learn additional details of the design project and establish study dates. NOTE: Pavement Type and Fix Life are not to be VE'd since they receive their own rigorous analysis.

The consultant will develop and submit a VE work plan geared toward the assigned project. In general, a 5 day 40-hour VE Study is expected; the duration of the VE Study shall be determined by the VE Consultant after discussion with MDOT staff. Actual dates of the VE Study must be coordinated with the MDOT Project Manager and VE Project Manager, Coreen Strzalka.

The consultant is requested to hold the Briefing, Presentation and Decision Phases at a location within the county of the project(s) or at a location within a county adjacent to the project. The consultant may choose to conduct the other phases of this VE Study in the same near-site location or may return to an office where their phone, CAD, and other support are more readily available. If available, MDOT conference rooms may be used for the Presentation (Monday) and VE Team's Recommendations and Decision phases.

INVESTIGATION PHASE

Basic project information must be available and organized before a VE study is begun; this is initiated by the Consultant VE team leader talking with or meeting with the Project Manager. The VE team leader gathers readily available data, distributes to the VE team, and all members review the items in order to be as fully knowledgeable of the project as possible prior to commencing the formal VE session. This information may include but not be limited to the following:

Images:
1. Existing aerials
2. Project photographs
3. As Built plans
4. Project area map

General project information:
1. Environmental clearance document or issues
2. Right of Way plans or concerns
3. Permit restrictions
4. Cooperative agency agreements
5. Utility plans or encroachment issues
6. Detour, staging concepts, or restrictions
7. Traffic Data
8. Crash data
9. Context Sensitive Design issues
10. Constructability issues

Road information:
1. Set of plans (size and quantity)

2. Latest project cost estimate

Structure information:
1. Current set of bridge plans
2. Bridge inspection reports
3. Geological, soils reports and foundation reports
4. Log of borings
5. Hydrology/hydraulic information
6. Latest project cost estimate

One of the first steps of the VE session will be a presentation and briefing of the VE team by the MDOT project manager and other MDOT participants. The following steps continue the VE study.

ANALYSIS PHASE

In the Analysis phase, the team identifies the elements with the greatest potential for value improvement, bringing the three fundamental concepts of VE (function, cost and worth) to bear on the project. This phase requires the team to ask and answer the following basic questions, after which the team identifies the high-cost elements, functionally analyzes them, and assesses their cost / worth relationships.

What is it?
What does it do? (What is the function?)
What must it do? (Is its function Basic?)
What is it worth?
What does it cost?

SPECULATION PHASE

The team applies brainstorming techniques to develop good alternatives to the proposed project design, generating a list of potential (creative) solutions to items identified in the Investigation or Analysis phases. The team uses the generic format of the function to speculate on all possible solutions to the problem presented in the function statement. All ideas have merit; the team should be creative and leave the evaluation and judgment for the next phase.

At the end of the speculation phase, the MDOT Project Manager(s) will be available (either by phone or to come and meet) to review the speculation, answer questions or provide information to assist the VE team in the following phases.

EVALUATION PHASE

This phase determines the best alternatives by listing the advantages and disadvantages, described in general terms, of each alternative. A weighted matrix analysis might also be used to determine which alternative is best, based on the relative importance of each of the desirable criteria which must be addressed. This analysis satisfies the VE objective to achieve the best blend of performance, cost, and schedule. If the disadvantages far outweigh the advantages of any alternative, that is noted and the alternative is dropped at this point.

DEVELOPMENT PHASE

The best alternatives are fully developed through sketches, cost estimates, validation of test data, and other technical work to verify the validity of assumptions made during the study. The final step before presenting the team's analyzed recommendations to MDOT is to formulate an implementation plan which describes the process MDOT must follow to implement each recommendation.

PRESENTATION OF RECOMMENDATIONS

At the completion of the VE Study, the VE team presents its recommendations to the MDOT Project Manager and support staff. This presentation is a high level overview of the recommendations developed by the VE Team. Included with the presentation should be a brief handout of the recommendations and costs. It is a two-way discussion that helps provide questions and issues that should be addressed in the draft VE report of recommendations. All members of the VE team should present but participation in the presentation is optional.

DRAFT VE STUDY REPORT

Two weeks after the study is complete, or at a time requested by the MDOT Project Manager, the VE Team will send by email (pdf format) a draft of the VE Report. This draft should only contain the recommendations, all information and sketches, calculations, and design suggestions. The information on the VE study process should not be included (this is included in the final report only). The draft VE Study Report should be emailed to the MDOT and VE Project Managers. If email does not work, a CD may be requested.

DECISION/IMPLEMENTATION PHASE

The VE Project Manager will coordinate with the MDOT Project Manager(s) and distribute the Draft VE Study Report to the MDOT/FHWA Decision Team. This will be at least two weeks prior to the Decision Meeting. The Decision meeting will be coordinated by the VE Project Manager, including MDOT and FWHA attendance and location. The VE Team should designate at least one person to attend, answer questions and document decisions for the final VE Report.

The Decision Team will make full and fair evaluation of all proposals and implementation of those determined to be viable are also a major part of the Value Engineering program, along with conducting a VE Study. All recommendations will receive serious consideration, but MDOT might not be able to implement all recommendations. MDOT and FHWA staff attending the Decision Meeting will determine one of three dispositions of each recommendation: Accept for Implementation; Accept for Further Study before Determining Implementation; or Reject for These Reasons.

FINAL VE STUDY REPORT

A VE Study Report is compiled during the VE Study as a step-by-step record of the VE analysis. The record should be complete and understandable, as it serves as documentation to support the VE team's recommendations, track their deliberations and considerations, and aids in MDOT

implementing the recommendations. It also becomes a reference for similar components on future MDOT projects.

Typical Report format:

A typical report format is as follows:

- Executive Summary
- List of VE recommendation with the following (determine which is appropriate for each recommendation):
    - Existing condition
    - Life Cycle Cost Estimate
    - VE Alternative Description
    - VE Alternative Cost Calculations
    - Evaluation by Comparison
    - Proposed Design
    - Detail Findings or Analysis
    - Specific Recommendations and Costs
- List of Design Suggestions

In the appendix:
- Participant List
- VE Study Process
- Research Sources
- Project History (including project criteria, commitments, and constraints)
- Potential Study Areas
- Performance Criteria
- Basic Functions

PROJECT DELIVERABLES

In addition to conducting the VE Study, the VE consultant shall deliver the high level presentation, the Draft VE Study Report and Final VE Study Report. This will be done electronically (pdf format) unless email does not work then a CD copy will be requested. The Final VE report shall fully document the Value Engineering process as applied to the specific project/corridor, and include a summary of the items discussed during each VE phase, a detailed description of the evaluation of each alternative carried forward for investigation, the advantages and disadvantages of each, the cost of constructing the primary function and secondary functions of each alternative carried forward, and the VE Recommendations and MDOT Decision on each recommendation. A list of VE design suggestions shall also be included.

MDOT will consider these and other VE Outcomes on any future jobs in the VE Corridor or elsewhere statewide.

CONSULTANT PAYMENT

Compensation for this project shall be on a **lump sum** basis. One lump sum payment will be made once the deliverable is received and approved by the MDOT Project Manager. The MDOT Project Manager may authorize partial payment if the project is delayed due to circumstances beyond the consultant's control.

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. Refer to your contract for your specific contract terms.