

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

MDOT PROJECT MANAGER Jeff Bigelow		JOB NUMBER (JN) 38103	CONTROL SECTION (CS) 105785A
DESCRIPTION IF NO JN/CS I-94 Design Build Reconstruction - As Needed I&T			
MDOT PROJECT MANAGER: Check all items to be included in RFP. WHITE = REQUIRED GRAY SHADING = OPTIONAL		CONSULTANT: Provide only checked items below in proposal.	
Check the appropriate Tier in the box below			
<input type="checkbox"/> TIER I (\$25,000-\$99,999)	<input type="checkbox"/> TIER II (\$100,000-\$250,000)	<input checked="" type="checkbox"/> TIER III (>\$250,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Understanding of Service
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Safety Program</i>
N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organization Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Qualifications of Team
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Past Performance
Not required as part of official RFP	Not required as part of official RFP	<input checked="" type="checkbox"/>	Quality Assurance/Quality Control
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	<input type="checkbox"/>	Presentation
N/A	N/A	<input type="checkbox"/>	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

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 4	PROPOSAL/BID DUE DATE 10/12/09	TIME DUE 3:00 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

Jeff Bigelow
Jackson TSC
2750 N. Elm Road
Jackson, Michigan 49201-6802

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
- 5100G** – Certification of Availability of Key Personnel
- 5100I** – Conflict of Interest Statement
- 5100J** - Consultant Data and Signature Sheet (Required only for Non-Prequalified Work)

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

Notification

ARRA MONTHLY EMPLOYMENT REPORTS

Note: This Notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

The American Recovery and Reinvestment Act of 2009 (ARRA), requires states receiving stimulus funds for highway projects to provide monthly reports to the Federal Highway Administration (FHWA) regarding the number of employees of prime contractors, all-tier subcontractors and consultants on ARRA funded projects.

The cost for complying with this Notification must be borne by the prime contractor, and all-tiers of subcontractors and consultants, as part of their overhead and is deemed to be included in the payments made under this contract.

Within 10 days after the end of each month in which work is performed on this contract, all prime contractors, and all-tier subcontractors and consultants, must provide the Engineer a monthly report, in a format and on forms approved by the Engineer, which shall include, for work performed in that preceding month:

- The total number of employees who performed work on this contract
- The total number of hours worked by employees who performed work on this contract
- The total wages of employees who performed work on this contract

In addition, the prime contractor must provide a total payment amount made to any subcontractor who is a certified DBE in that preceding month.

This Notification shall be included as a part of each subcontract executed by the prime contractor, and all-tiers of subcontractors and consultants.

If necessary to conform to guidance provided by FHWA concerning the ARRA reporting requirements, the prime contractor, and all-tiers of subcontractors and consultants will revise their reporting as directed by the Engineer.

Failure to comply with the reporting requirements under ARRA would jeopardize the Department's continued receipt of ARRA funding.

Accordingly, if a contractor or any-tier of subcontractor or consultant fails to comply with this Notification, the Department may withhold contract payments until compliance is achieved. If the Department is compelled to incur costs because of such a breach, the amount of those costs may be deducted from payments otherwise to be made under this contract. Additional sanctions may include reduction or elimination of prequalification ratings and removal of bidding privileges.

NOTIFICATION
REQUIRED CONTRACT PROVISIONS TO IMPLEMENT AMERICAN
RECOVERY AND REINVESTMENT ACT (ARRA) SECTIONS 902 AND 1515

Note: This Notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

In accordance with requirements under section 902 of the American Recovery and Reinvestment Act of 2009 (ARRA), the following language is made a part of this contract and is to be made a part of all tier subcontracts or consultant contracts:

The U.S. Comptroller General and his representatives have the authority:

- (1) to examine any records of the contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and
- (2) to interview any officer or employee of the contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions.

The Comptroller General and his representatives have the authority and rights provided under Section 902 of the ARRA with respect to this contract. As provided in section 902, nothing in section 902 shall be interpreted to limit or restrict in any way any existing authority of the Comptroller General.

In accordance with the requirements of section 1515(a) of the ARRA any representatives of the Inspector General have the authority:

- (1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract, that pertain to, and involve transactions relating to the contract, subcontract, grant, or subgrant; and
- (2) to interview any officer or employee of the contractor, grantee, subgrantee or agency regarding such transactions.

Nothing set forth in section 1515 of the ARRA shall be interpreted to limit or restrict in any way any existing authority of an inspector general.



Michigan Department of Transportation

**SCOPE OF SERVICE
FOR
“AS-NEEDED” DESIGN BUILD
CONSTRUCTION SERVICES
Inspection and Testing**

CONTROL SECTION: 38103

JOB NUMBERS: 105785A

LOCATION: I-94 from east of Sargent Road to the Jackson/Washtenaw County Line.

DESCRIPTION OF WORK:

The Consultant shall provide, to the satisfaction of the Department, as-needed Construction Engineering Services as generally described herein: inspection; staking; quality control testing and reporting; measurement, computation, and documentation of quantities; reporting and record keeping; and assist in close out of project documentation; for construction work to be performed by the Construction Contractor for a duration as determined by the PEM.

ANTICIPATED PROJECT START DATE: March 2010

ANTICIPATED PROJECT COMPLETION DATE: December 2011

PRIMARY PREQUALIFICATION CLASSIFICATIONS:

Bituminous Pavement Inspection
Portland Cement Concrete Inspection and Testing

SECONDARY PREQUALIFICATION CLASSIFICATIONS:

Bridge Painting Inspection
Construction Staking
Density Inspection and Testing
Engineering Assistance
Technical Assistance

DBE REQUIREMENT: 5%

ESTIMATED CONSTRUCTION COSTS: \$52,000,000

MDOT PROJECT MANAGER (PEM):

Jeff Bigelow, P.E.
Delivery Engineer
Jackson TSC
2750 N. Elm Road
Jackson, MI 49201
Phone: (517) 780-5108
Fax: (517) 780-5099
Email: bigelowj@michigan.gov

CONSULTANT SERVICE NOTES:

The following requirements and/or clarifications are in addition to the Standard Construction Engineer service:

1. The selected Consultant will report directly to the Department’s construction staff members at the Jackson TSC. The main point of contact will be with the PEM however the Consultant may also be expected to work with Assistant Delivery Engineers, and senior field inspectors (Construction Technician 12).
2. The Department will be responsible for the administration of the project for which the Consultant provides the construction engineering services. This solicitation is for “as-needed” services.
3. The fixed fee shall be 11%.
4. The Consultant shall contact the PEM prior to beginning any work on this Project. Consultant personnel are required to attend any meetings (design, partnering, preconstruction, progress, utility, or post construction meetings) as determined by the PEM.
5. The Jackson TSC anticipates a need for the following staff:

<u>Description</u>	<u>Estimated Full or Part Time Staff</u>
Project Engineer (Part-Time)	One
Technical Assistant (Part Time)	One
Road Construction Inspectors	Two to Three
Bridge Construction Inspectors	One to Two
Material & Density Technician	Two
Surveyors (Part Time)	Two

The exact number of staff members (full or part time) will be coordinated with and determined by only the PEM and will be expected to fluctuate as required by the uncertain construction workload in the Jackson TSC and the capabilities of the Consultant supplied staff. Consultant principals/officers will not be included in the budgeted hours and are considered overhead expense. **The total hours for this solicitation will not exceed 20,000 total hours.** The exact distribution of staff for these hours will be coordinated with and determined by the PEM.

GENERAL:

All invoices submitted by the Consultant will be detailed to show: project control section, job number, dates, and hours for each employee. Employee hours are to be broken down on a weekly basis indicating regular and overtime hours, if applicable, for each employee.

The Consultant shall furnish all services and labor necessary to conduct and complete the as-needed Construction Engineering Services described herein. The Consultant shall also furnish materials, equipment, supplies, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Department), and check and/or test the materials, equipment, supplies, and incidentals as necessary in carrying out this work. The Services shall be performed to the satisfaction of the Department consistent with applicable professional standards.

- A. The Consultant's principal contact with the Department shall be through the designated PEM.
- B. The Services described herein are financed with public funds. The Consultant shall comply with all applicable Federal and State laws, rules, and regulations. The Consultant shall perform field operations in accordance with MIOSHA regulations and accepted safety practices. The Consultant shall supply and wear personal safety equipment in accordance with MDOT policy while on the project.
- C. The Consultant agrees to demonstrate knowledge of, and performance in compliance with, the standard construction practices of the Department; the Project construction contract, proposal, and plans; the Standard Specifications for Construction and applicable publications referenced within; the Michigan Construction Manual; the Density Control Handbook, the Materials Sampling Guide; the Materials Source Guide, the Materials Quality Assurance Procedures Manual; and all other references, guidelines, and procedures manuals needed to carry out the work described herein in an appropriate manner.
- D. The Consultant shall notify the PEM, in writing, prior to any personnel starting work and any changes from those specified in the Consultant's original approved proposal. Any personnel substitutions are subject to review and approval by the PEM.
- E. The Consultant shall be responsible for all decisions made by their employees, or any sub Consultant, on this project. If the Consultant, or any sub Consultant, makes an error or judgment, which results in increased project costs to the Department, the Consultant may be back charged for this cost to the project. Contact between the Department and the Consultant shall be made as soon as an error has been discovered, and a meeting shall be scheduled to discuss the error.

CONSULTANT RESPONSIBILITIES:

- A. **Inspectors:** Provide full and part time inspectors for the Projects consistent with the Department's practice and in accordance with the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and other applicable references, guidelines, and/or procedures manuals. The inspectors shall be technically qualified and experienced personnel to perform the Services required under the Agreement to avoid delay to the Construction Contractor.
- B. **Concrete Testing:** Inspectors may be required to perform concrete quality assurance testing and/or verification testing on any project they are performing inspection duties. Several inspectors shall be certified as a Concrete Technician Michigan Level I through a program certified by Michigan Concrete Association Board of Examiners or the Michigan Concrete Paving Association.

C. **Soil Erosion and Sedimentation Control:**

1. Soil Erosion and Sedimentation Control: Have a thorough working knowledge of the Department's SESC Manual and other contract documents regarding soil erosion and sedimentation control. Assign personnel that possess a current SESC training certificate and NPDES construction stormwater operator certification to perform inspection on areas where soil erosion and sedimentation controls are needed. Ensure that a person in possession of a current SESC training certificate is onsite at all times during normal working hours and available to meet with MDEQ personnel who may visit the site. Request that the MDEQ personnel provide a copy of any inspection report that may be generated as a result of the visit to the Project Manager.

Perform inspection of the construction site to assure that specified soil erosion and sedimentation controls are installed correctly, performing as intended, and maintained daily. Provide recommendations to the Project Manager for modification of the control measures shown on the plans as may be required to improve their effectiveness. Immediately report to the Project Manager any deficiencies in the soil erosion and sedimentation control measures or non-compliance by the Contractor with the specifications governing soil erosion and sedimentation control. If corrective action is necessary, document the action and the required timeframe for completion. Follow up to document that the action is completed within the statutory and/or MDOT-specified timeframes. Report the Contractor's failure to complete the corrective actions within the required timeframe to the Project Manager.

2. Storm Water Management: Have a thorough working knowledge of the Department's Storm Water Management Plan. Perform inspection of the construction site to ensure that the Contractor's operation is following pollution prevention and good housekeeping best management practices conforming to the Department's Storm Water Management Plan. Notify the Project Manager immediately of the occurrence of, or potential for, release of polluting material to the ground, groundwater, surface water, or storm water drainage system including open ditches, culverts, and enclosed storm sewers.

3. Environmental Permits: Have a thorough working knowledge of the construction requirements of all project specific environmental permits issued to MDOT by the MDEQ Land & Water Management Division, US Corp of Engineers, or other permitting agency. Inspect project areas covered by these permits and assure that the Contractor complies with the permit requirements. Report to the Project Manager any potential for or occurrence of violation of these permits. Fully document all site conditions and actions taken regarding potential or actual violations of the permit requirements.

4. Other Environmental Issues: Have a thorough working knowledge of the Department's specifications regarding bridge painting, diamond grinding, hydrodemolition, and hazardous materials. Ensure that the Contractor complies with these specifications, and maintain proper documentation.

- 5. Inspection Reports:** Complete inspection reports, including but not limited to, Inspector's Daily Report (Form 1122) and NPDES/SESC Inspection Report (Form 1126), as necessary to fully document all site conditions and any corrective action required and completed related to environmental issues. Provide digital photos as necessary to document conditions and all corrective actions.
- D. **Technical Assistance:** The Consultant shall provide an experienced construction technician to provide technical assistance on the project overseen by the Jackson Transportation Service Center. This technician shall be expected to: review force account submittals, review final field measured quantities, assist in the drafting of contract modifications, assist in reviewing certified payrolls, attend meetings, assist with project closeout, and work closely with MDOT technicians to finalize quantities and contract modifications.
- E. **Engineer Assistance:** Provide one (1) part time Project Engineer (PE) for the Projects to assist the Department construction personnel, consistent with the Department's practice and in accordance with the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and other applicable references, guidelines, and/or procedures manuals. Assign the PE as liaison between the Consultant and PEM. The primary objective of the PE will be to assist the PEM in administering the projects and managing the Consultant provided staff on all the projects. The secondary objective of the PE is to perform any other duties assigned by the PEM, which may include processing shop drawing reviews and investigating design questions which may arise during construction.
- F. **Meetings:** In the absence of the PEM, the PE may be requested to arrange and conduct progress and periodic meetings, prepare, and distribute meeting minutes for these meetings. The PE shall be requested to periodically arrange, attend, conduct and prepare meeting notes as deemed necessary by the PEM.
- G. **Coordination:** Provide appropriate coordination and contact, public relations, and cooperation with affected local, state, and/or federal agencies including the Department personnel, Federal Highway Administration; other Consultants and other Contractors; the general public; utilities and railroad companies; and local police, fire, and emergency services which may be affected by the Project as required by the PEM.
- H. **Staking:** Perform staking in accordance with Department standards, including, but not limited to, staking to be performed by the MDOT Engineer as indicated in Section 104.08 of the 2003 Standard Specifications for Construction to ensure accuracy and compliance with the contract documents. This includes preliminary project staking (pre-staking) and construction verification staking. Inform the PEM of any plan errors, discrepancies or omissions identified by the Contractor and/or Consultant and make recommendation of any resolution.
In addition to the minimum verification staking indicated in the specifications and the MDOT Construction Manual, the Consultant shall verify the Contractor's bench loops, and verify the "as constructed" plan information provided by the Contractor and incorporate it into the final As-Constructed plans as deemed necessary by the PEM.
In addition to checks indicated in the specifications and the MDOT Construction Manual, the Consultant shall: field verify plan grades for sewer invert and outlet

grades, top of casting grades, and ditch and other drainage grades; obtain cross section profiles at all connections to existing roadways and bridges to verify plan tie-ins; and check plan grades versus field verification at all bridges for underclearance as deemed necessary by the PEM.

- I. **Special Inspection:** Perform special inspections within the influence areas of construction projects as requested by the PEM. Any deficiencies shall be reported to the PEM with recommendations of any resolution.
- J. **Progress:** Keep daily diaries, sketches, logs, photographs and records consistent with Department practice as may be needed to record the Contractor's progress. Notify the PEM of any anticipated Contractor's claim proposals or requests for extensions of time. Notify the PEM upon receipt of any Contractor's claim proposals or requests for extensions of time.
- K. **Changes/Extras/Adjustments:** Notify the PEM immediately of any unanticipated Project conditions and any changes, extras, or adjustments to the contract and assist in developing Work Orders and/or Contract Modifications for signature by the PEM. Senior technicians shall be prepared to provide writ-o-grams or other forms of written documentation to Contractors on site to document changes within the authority of an inspector.
- L. **Contentious Issues:** Communicate with the PEM or designated MDOT employees and document any problems, issues, discrepancies, or other items brought to the attention of the Consultant by the Contractor. Provide written recommendations to the PEM for the resolution of these issues.
- M. **Staff Reductions:** Withdraw any personnel or halt any services no longer required, at the request of the Department, or within the period of time as determined by the PEM, after the lack of need becomes apparent to the Consultant or the PEM. The Consultant will not be reimbursed for the cost of personnel charged to a project that the PEM has determined was unnecessary.
- N. **Consultant Deliverables:** Collect, properly label or identify, and deliver to the Department any original diaries, logs, notebooks, accounts, records, reports, as constructed plans, photographs, other documents, and Project files prepared by the Consultant in the performance of the Agreement, upon completion or termination of the Agreement. Upon completion or termination of the Agreement, return Specifications, Manuals, guides, written instructions, construction contracts and plans, unused forms, and any other documents and materials furnished by the Department. The Consultant may be responsible for replacing lost documents or materials at a fair and reasonable price.
- O. **Equipment:** The Consultant shall be required to furnish laptop computers for employees as deemed necessary by the PEM, to perform the services as listed above. The Consultant is expected to provide their personnel with cellular phones, preferably Nextel phones with direct connect capabilities.
- P. **Quality Assurance/Quality Control Reviews:** The Prime Consultant shall be expected to collect copies of tests or reports and conduct random quality reviews of documents generated by the Consultant team. All original tests and reports shall be provided directly to the Department. This work requires part-time review by the project engineer or experienced technician. The Prime Consultant shall coordinate and obtain the approval of the PEM on the type and amount of tests or reports to be reviewed.

PROJECT INSPECTION:

- A. **Ongoing Inspection:** Provide as-needed inspection of Contractor construction work, provide quality control, and confirm substantial conformance with the Specifications, Plans, and Proposal. Arrange with the PEM for non-compliance work to be made whole by the Contractor or to find the non-compliance work acceptable to the Consultant. Inform the PEM of non-compliance work and trends toward borderline compliance.
- B. **Final Inspection:** Make a final inspection of work in conjunction with Department personnel or such portions thereof eligible for acceptance, as soon as possible after notification by the Contractor that the work is completed or after the Consultant's records show the work is completed. Notify the PEM in writing of particular defects to be remedied, if work is not acceptable to the Consultant. Invite the PEM and other department personnel, as directed by current Department policy, to participate in the final inspection.
- C. **Final Acceptance:** Ascertain that the Projects have been performed in accordance with the plans and specifications, or such modifications thereof as may have been approved. Invite the PEM and other Department personnel, as directed by current Department policy, to participate in the final acceptance.

TESTING AND REPORTING:

- A. **Material Testing and Density Control:** Sample or test, or both, materials including but not limited to, concrete quality assurance testing including concrete cylinder breaks, HMA sampling, on site material density testing and reporting, testing of required materials according to Materials Sampling Guide to be incorporated in the work, and reject Contractor's work and materials not meeting the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, Materials Quality Assurance Manual, and any and all other applicable references, guidelines, and/or procedures manuals. Determine the acceptability of materials found to be in non-compliance. Immediately inform the Project Manager of non-compliance work and trends toward borderline compliance.
- B. **Material Certification:** Make certain that acceptable test reports and/or material certifications from the supplier have been received, prior to the incorporation of materials in the work, for materials tested off the Project site.
- C. **Material Reports:** Submit Material test reports, including but not limited, the Inspector's Report of Concrete Placed 1174A, Aggregate Inspection Reports 1900 & 1901, Bituminous QA reports, Concrete QA reports, and the "Moisture and Density Determination, Nuclear Method", Form 582B, etc. to the distribution list within one day of the testing. The efficiency of the consultant in getting the "Moisture and Density Determination, Nuclear Method", Form 582B, copy to the Lansing, Density Technology Unit, 8885 Ricks Road, Lansing, MI 48909 will be measured by that unit and reflected on the consultant's evaluation.

The consultant and any sub-consultants contracted by the Michigan Department of Transportation (MDOT) to perform density testing services that use equipment regulated by the Nuclear Regulatory Commission (NRC) shall:

1. Possess a valid license issued by the NRC, or recognized Agreement State, for ownership and use of sealed sources contained within portable nuclear density gauges.
2. Provide the Radiation Safety Office (RSO) of MDOT with a copy of the aforementioned license.
3. Comply with all rules and regulations set forth by Title 10 (Energy) and 49 (Transportation).

Failure of any of the above will be found in noncompliance with the contract.

MEASUREMENT, COMPUTATION, DOCUMENTATION OF QUANTITIES:

- A. **Documentation:** Measure and compute quantities, and provide appropriate documentation of all materials incorporated in the work and items of work completed, and maintain an item record account using Field Manager software. **The Consultant must obtain and be able to use the FieldManager Suite of Software for this project. Contact Info Tech, Inc. at (352) 381-4400 or fax (352) 381-4444 or (www.fieldmanager.com) to obtain software and information on training. Since this software will be used on all MDOT projects in the future, the cost of this software cannot be charged as a direct expense for this project. Consultants must keep their version of the FieldManager Suite of software current with the version being used by MDOT.**
- B. **Insufficient Tested Materials:** Track insufficient tested materials and notify the Contractor on a bi-weekly basis.
- C. **Maintain As-Constructed Plans:** Update plans for the projects, showing any field changes, final utility locations, substantial quantity changes, etc. Verify the As-Constructed Plan information that is required to be provided by the Contractor. The PEM shall be contacted to determine which projects require the as-constructed plans and to coordinate the level of work required for each project.

REPORTING AND RECORD KEEPING:

- A. **Reports-Consultant Generated:** Prepare such periodic, intermediate and final reports and records as may be required by the Department and as are applicable to the Project, which may include, but are not limited to:
 - a. Inspector's Daily Reports
 - b. Work Orders (Form 1137)
 - c. Construction Item and Tested Material Records using FieldManager
 - d. Transfer of Tested Materials (Form 1178)
 - e. Monthly Report on Material Inspection (Form 1158)
 - f. Moisture and Density Determination Reports (Form 582BM)
 - g. Inspector's Report of Concrete Placed (Form 1174A-M)
 - h. NPDES Stormwater Operator Reports (Form 1126)
 - i. Labor Compliance, such as the Weekly Employment and OJT Report (Form 1199)
 - j. Bi-Weekly Construction Progress Report (Form 1102A) and Weekly Statement of Working Days Charged (Form 1116), if applicable
 - k. Force Accounts
 - l. Contract Modifications (Recommendation / Authorizations)

- m. Extension of Time and Liquidated Damages (Form 1100A)
 - n. Contractor Evaluation (Form 1182)
 - o. Reduction in Reserve, and
 - p. Other records and/or reports as required for the Project by the PEM and/or as required by Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and other applicable references, guidelines, and/or procedures manuals.
- B. Reports-Contractor Generated:** Provide the PEM and assist in the review, process, and/or approve Construction Contractor submittal of records and reports required by the Department as applicable to the projects which may include, but not limited to:
- a. Working Drawings
 - b. Weekly Employment Reports, Certified Payrolls (Form 1199)
 - c. Contractor's claims for additional compensation and extension(s) of time, and
 - d. Other reports and records as required for the individual Project by the PEM.
- C. Project Files:** Provide all necessary files to the Department personnel for the Department to maintain project files in accordance with the MDOT File Manual and Departmental procedures, to supply to the Department for the project files. Project files will be maintained in the Jackson Transportation Service Center by Department office personnel. The Consultant shall copy select correspondence and documentation which require the PEM attention or action.

CLOSING/FINALING ALL PROJECT DOCUMENTATION:

- A. Final Measure and Summarize:** Final field measure applicable items of work. Prepare final summaries for applicable items of work.
- B. Project Review/Certification:** Participate in and make recommendation to resolve items determined to be insufficient during the Department's review(s) of project records prior to submittal of the Final Estimate.
- C. Final Documents:** Assist the Department in preparing the Final Estimate, Final Quantity Sheets, Final Marked As-Constructed Plans, and the Design/Construction Package Evaluation (Form 285-2).

MDOT RESPONSIBILITIES:

- A.** The Project Manager shall furnish to the Consultant Project-specific construction contracts, proposals, plans, plan revisions, written instructions, and other information and/or data as deemed necessary by the Project Manager for the Services required herein.
- B.** The Department shall furnish off-site aggregate testing, off-site inspections and tests of steel, cement, HMA mixture designs, sewer and drainage pipe, structural steel, prestressed girders and beams, traffic signs, and any other materials customarily tested in the Department laboratories with its own forces or by statewide contracts. The customary testing is described in the Materials Quality Assurance Manual with exceptions noted within the Specifications, Plans, and Proposal. The Consultant may be responsible for the sampling and transportation of all the materials (including off-site) to be tested by Department personnel.
- C.** The PEM shall provide general monitoring and quality auditing inspection of the projects to assure that the projects have been completed in reasonable conformance with the plans and specifications for Project Acceptance and to determine that the

work performed to date by the Consultant for Services rendered is reasonable and appropriate before approving the Consultant's requests for progress payments.

- D. The Department shall provide the bituminous plant inspection required for Quality Assurance and will submit the applicable QA test reports to the PEM. The Consultant may be requested to analyze and recommend any further action. The Consultant shall be requested to assist with on-site bituminous inspection required, including, but not limited to, locating the required Quality Assurance loose samples and cores, coordinating with the Contractor regarding this sampling, and transporting these samples.
- E. The Department shall perform any necessary soil borings and subsurface investigations throughout the project.
- F. The PEM and/or other Department staff will arrange and conduct the Preconstruction and weekly progress meetings and prepare and distribute the meeting minutes. The Consultant shall be requested to assist with these duties as deemed necessary by the PEM.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee.

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.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

Reimbursement for overtime hours will be limited to time spent on this project in excess of forty hours per week, in a Sunday through Saturday week (no other combinations). Overtime worked is not required to be paid unless the PEM approves it before the overtime is worked. It is anticipated that overtime hours may be required on this project. Overtime worked without the prior knowledge and approval of the PEM is justification for non payment for the overtime worked.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

The hours provided are only an estimate. The Consultant will be reimbursed a proportionate share of the fixed fee based on the portion of the authorized total hours in which services have been provided to the Department. Fixed fee on “as needed” projects is computed by taking the percent of actual labor hours billed to labor hours authorized, then applying that percentage to the total fixed fee authorized.

During project shutdowns, the Consultant will not be paid direct expenses when staff is not actively working on this Project, without written approval from the PEM.

The only hours that will be considered allowable charges for this contract are those that are directly attributable to the Construction Engineering activities of this Project.

The hours billed for the inspector will not begin until the inspector reports to the project site or the Jackson TSC office. Timesheets shall be submitted to the PEM biweekly for approval by signature and a copy provided to the PEM, after PEM signature.

In addition to the above requirements, when each Consultant bill/invoice is submitted, the following table will be required:

- Construction contract time elapsed to date (percent vs. total construction contract time)
- Construction contractor revenue earned to date (percent vs. total construction contract value)
- Consultant billings to date (percent vs. total Consultant contract value)

In addition, a graph of these three parameters will be required. The X-axis shall have true calendar time as its ordinate and the Y-axis shall have all three percents plotted. The limits of the Y-axis shall be zero to 110. Prior to submitting the first Consultant invoice, the PEM shall approve the format of the table and graph.