

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			
MDOT PROJECT MANAGER: Check all items to be included in RFP WHITE = REQUIRED ** = OPTIONAL Check the appropriate Tier in the box below		CONSULTANT: Provide only checked items below in proposal	
<input type="checkbox"/> TIER I (\$50,000 - \$150,000)	<input type="checkbox"/> TIER II (\$150,000-\$1,000,000)	<input type="checkbox"/> TIER III (>\$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"/>	Location: 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) (No Resumes)	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP not including key personnel resumes. Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET EMAIL ADDRESS – 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 _____

Prequalified Services – See 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 is required with Proposal for firms not currently prequalified with MDOT**

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. 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
- 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

Michigan Department of Transportation

**SCOPE OF SERVICE
FOR
“AS-NEEDED” CONSTRUCTION SERVICES**

CONTROL SECTION: Various

JOB NUMBERS: Various

LOCATION:

These projects will be at various locations throughout the Jackson TSC area. See **ATTACHMENT A** for the list of projects in the Jackson TSC area which may require “as-needed” inspection, testing services and technical assistance. The information on **ATTACHMENT A** was compiled with the most current data at the time of solicitation and is subject to change.

DESCRIPTION OF WORK:

The Consultant shall provide, to the satisfaction of the Department, as-needed Construction Engineering & Construction Staking Services as generally described herein: inspection; quality assurance testing and reporting; measurement, computation, and documentation of quantities; technical assistance, including establishing and maintaining project files; and reporting and record keeping for construction work to be performed by the Construction Contractor. Performing staking services during construction and office work to close out projects after construction for the staking work performed for a duration as determined by the Project Manager.

The Technical Assistant shall be dedicated for the duration of the contract and will be provided a workstation at the Jackson TSC office.

ANTICIPATED PROJECT START DATE: March 2014

ANTICIPATED PROJECT COMPLETION DATE: March 2015

PRIMARY PREQUALIFICATION CLASSIFICATIONS:

Construction Staking

SECONDARY PREQUALIFICATION CLASSIFICATIONS:

Bituminous Pavement Inspection
Portland Cement Concrete Inspection and Testing
Density Inspection and Testing
Technical Assistance

DBE REQUIREMENT: N/A

ESTIMATED CONSTRUCTION COSTS: N/A

MDOT PROJECT MANAGER (PEM):

Robb Welch, P.E.
Delivery Engineer
Jackson TSC
2750 N. Elm Road
Jackson, MI 49201
Phone: (517) 749-6887
Fax: (517) 780-5099
Email: welchr1@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 all projects 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 during the active construction season:

<u>Description</u>	<u>Estimated Full or Part Time Staff</u>
Road Construction Inspectors (Part Time)	One
Construction Staking (Part Time)	Two
Office Technician (Part Time)	One
Material & Density Technician (Part Time)	One

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 4740 total hours. The exact distribution of staff for these hours will be coordinated with and determined by the PEM.

GENERAL:

The specific projects to be worked on will be at the direction of the MDOT PEM. 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 agrees to be responsible for any staking errors/omissions which are determined to be attributable to the Consultant and to reimburse the Department for any additional costs incurred due to such errors/omissions. If a staking error/omission is discovered, the Consultant will meet with the Project Manager to discuss options to rectify the error/omission. Once final costs, if any, are received from the Contractor and agreed to by the Project Manager, a copy of the invoice will be forwarded to the Consultant for reimbursement.
- E. The Department reserves the right to perform and/or assist with any of the Construction Staking services described herein as deemed necessary by the Project Manager. This will not relieve the Consultant of responsibility for the integrity of the work.

- F. 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.

- G. 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. **Environmental Issues:**

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. **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.
- E. **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.
- F. **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.

- G. **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.
- H. **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.
- I. **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.
- J. **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.
- K. **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. The Consultant is expected to supply all stakes, survey equipment, personnel and other devices necessary for checking, marking, preserving and maintaining all points, lines and grades. Set and mark stakes in a manner that will permit checking of the work.
- L. **Quality Assurance/Quality Control Reviews:** The 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.
- M. **Technical Assistance:** The Consultant shall provide reporting, measurement, computation, and documentation requirements directed by the Project Engineer Manager and/or as referenced in the Specifications, Plans, Proposal, the Michigan Construction Manual, the MDOT Materials Source Guide and all other applicable references, guidelines, procedures and manuals.

- N. **Safety:** Perform field operations in accordance with the Department's Personal Protective Equipment (PPE) Policy as stated in the MDOT Guidance Document #10118. Perform field operations in accordance with MIOSHA regulations and accepted safety practices.
- O. **Staking:** Perform all staking in accordance with Department standards including, but not limited to, all staking to be performed by the Engineer and the Contractor in Section 104 of the 2012 Standard Specifications for Construction, project Special Provisions, plans and all other contract documents. Pay items for Contractor Staking will not be utilized on this project. Verify all plan grades, sewer invert and outlet grades, top of casting grades, curb grades and all other grades necessary for construction of the project prior to staking. This verification must include ensuring that such grades are constructible with regard to existing topography. Respond to staking requests by the Contractor or the Engineer within 24 hours or as agreed upon by the Engineer.
- P. **Plan Errors/Omissions:** Notify the Engineer immediately upon discovering an apparent plan error, failure of the Contractor to comply with a plan or specification, trends toward borderline compliance, or any other occurrence which may require resolution by the Engineer. In consultation with the Engineer, resolve any plan errors, discrepancies or omissions identified by the Contractor and/or Consultant.
- Q. **Transportation:** Provide transportation to, from and on the project site to perform the required services.
- R. **Drawings & Details:** Provide all equipment and supplies necessary to create detailed drawings, profiles, cross sections, etc., as requested by the Engineer. Provide original and final plotted cross sections and final volume calculations in a format meeting the approval of the Engineer for all earthwork, undercuts, muck excavation, swamp backfill and topsoil stripping. Determine final quantities for these items by plan sheet Breakdown ID. Provide intermediate plotted cross sections to verify interim earthwork quantities when requested by the Engineer.
- S. **Meetings:** Attend the pre-construction meeting, progress meetings and any other project related meetings as requested by the Engineer.
- T. **Reference Materials:** Provide all required reference materials including, but not limited to, the 2012 Standard Specifications for Construction, the Michigan Construction Manual, and any other necessary references, guidelines and procedures manuals.

- U. **Consultant Deliverables:** Provide a final “As Constructed” full size set of paper plans documenting all changes of vertical and horizontal alignment, all drainage and subsurface changes and other miscellaneous changes. Collect, properly label or identify, and deliver to the Department all original diaries, logs, notebooks, accounts, records, reports, and other documents prepared by the Consultant in the performance of the services. All such documents shall become the property of the Department upon completion of the work. Staking documentation, computations and field notes shall be legally bound, signed, checked and dated and presented in a neat and orderly manner. All staking documentation, computations and field notes may be inspected at any time. Failure to provide staking documentation, computations and field notes upon completion of the work or to allow inspection of such at any time may result in non-payment for Consultant services.

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 as described in the 2003 Specifications for Construction and as specified in Appendix B, Concrete PWL Requirements, 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 may be requested to assist with these duties as deemed necessary by the PEM.

- G. The Project Manager shall determine if a staking error or omission has occurred. The Project Manager will notify the Consultant in writing within 10 business days of discovery of the error or omission.
- H. The Project Manager may allow the use of office space, if available and upon request, for the Consultant to aid in the performance of the services required herein.

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

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.

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. 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. 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.

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.

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.

ATTACHMENT A

38131-103376A

Scope of Work: Complete reconstruction of US-127 from Parnell Rd to Henry Rd in Jackson County.

38111-118478A

Scope of Work: Deck replacement and beam repairs on both structures carrying US-127 over I-94 in Jackson County.

46101-120139A

Scope of Work: One course mill and fill on US-12 from M-50 to M-52 in Lenawee County

ATTACHMENT B
Concrete PWL Requirements

General

- Include field sampling and testing through initial jobsite cylinder storage/cure in all full CE Consultant contracts. They must supply and calibrate all equipment and molds. Back-up air meters must be available on the project site in case a discrepancy arises between the Contractors QC meter.
- Cylinder storage, curing and testing will be accomplished at the Region C&T lab. Delivery to lab must be made after initial set on the jobsite or within a few days of the specimen being cast. MDOT will not pay the consultant for any storage/curing of the test specimens.
- A single coordinator of all concrete sampling and testing for every project is recommended. This person needs to be identified in the consultant proposal.

Pre-Placement Items

- Develop the QA plan which include specific project field and lab. (Region C&T) personnel plus sampling and testing protocol.
- Schedule a pre-placement meeting with the Contractor(s), Region C&T will facilitate the meeting.
- Prepare random number selection sheets.

Pre-Placement Meeting

- Obtain Contractor mix designs and supporting mortar bar / mix compatibility laboratory testing. Review submittals for any Consultant conflict of interest issues.
- Obtain project specific Contractor Job Mix Formulas (JMF's) on the MDOT JMF form based upon the mix designs.
- Determine how MDOT/Consultant inspectors will be able to verify mix compatibility from Concrete delivery tickets. MDOT must be able to verify sources and constituency/dosage of aggregate (especially fine aggregate), cementitious materials and admixtures for all Concrete delivered.
- Obtain the Contractor(s) QC plan for later review.
- Facilitate signing of random number selection sheets by MDOT/Consultants and Contractor(s) staff.

- Determine which concrete items will be accepted via PWL and non-PWL (Small Incidental and Small Production) methods.
- Determine lot and sub-lot make up for project concrete mixes.
- Discuss Contractor supplied devices for initial cylinder cure and security, plus the means by which the storage compartment will maintain a temperature between 60 and 80 degrees.
- Review specification requirement for 24 hour Contractor notification prior to concrete placement. Determine how the notification will be accomplished.
- Determine how the Contractor will communicate QC results to MDOT/Consultant, this must be done prior to QA results being released to the Contractor.
- Determine how requests for dispute resolution will be made to the MDOT/Consultant project staff and Region laboratory.
- Determine how dispute resolution results will be communicated through MDOT/Consultant and then to the Contractor(s).

Sampling & Testing

- For PWL concrete, sub lot and lot sizes are quantified by volume in cubic yards. Multiply the random number (signed sheet from pre-placement meeting) by the sub lot quantity to determine when to sample.
- If the random number sampling location is missed on accident, apply the next random number to the remaining sub lot material that is being placed.
- If the random number sampling location occurs after concrete placement has ceased for the project or a major construction stage, group the partial sub lot materials with the previous sub lot and the lot test results.
- Location of sampling needs to be identified on MDOT form 1174.
- PWL material acceptance applies to a given mix with a given Job Mix Formula (JMF). The acceptance continues for the specific JMF concrete even if it is used for several different project items.
- Lot adjustments can only be made by the MDOT Project Manager.
- Concrete QA cylinders must be cast regardless of the outcome of the plastic concrete test results. QA re-testing after a supplier makes any field adjustment is not allowed.

- The test results stand unless the Contractor elects to remove the entire sub lot of material placed. QA re-testing is not allowed if a single material load is removed and or rejected.

Concrete Cylinders

- 6” diameter cylinders must be used for paving mixture.
- 4” diameter cylinders will be used for all non-paving mixture unless the coarse aggregate size is too large. MDOT makes this determination.
- Make sure proper consolidation rods, relative to cylinder mold diameter, are used. A smaller diameter rod is required for 4” diameter cylinders.
- For PWL acceptance 4 cylinders will be cast at every sample location, 2 for QA testing and 2 for potential dispute resolution.
- Continue to identify cylinders with metal identification tags.

Air Content

- As part of QC the Contractor must quantify air content loss after the paver or after pump discharge at least once per week. If the loss is greater than 2% the Contractor must suspend operations and make a correction.
- Air meters **must be** calibrated every 3 months.
- Have at least 1 spare QA air meter available on the project site or within ½ hours drive time to the project.
- Run correlation between QA and QC air meters at the beginning of each day’s production. The test results must be within 0.8% of each other.
- If the QA and QC meters don’t correlate (within 0.8%) at the beginning of the day or at any time during production call for the spare QA air meter for further comparison and resolution.
- If resolution is not obtained with the spare QA air meter, call for MDOT Region C&T staff to perform an Independent Assurance Test (IAT). This is required for consultant QA testing projects also.

Concrete Truck Tickets

- Every truck ticket must be signed by the agency QA inspector upon receipt.

- Through the tickets, verify that delivered concrete is the same mixture that had acceptable laboratory compatibility attributes. All sources of cementitious and aggregate materials must be identified with proportion amounts. Admixture manufacturer, supplier, trade name, type and dosage rates also must be clearly stated for comparison.

Cylinder Storage and Transport (Reference ASTM C-31)

- Newly cast cylinders must be stored on the jobsite in the following fashion;
 1. In a moist condition.
 2. Always between 60 and 80 ambient degrees.
 3. Out of direct sunlight.
 4. On a level surface. The cylinder surface can be refinished if the concrete is still plastic.
 5. In a secure container that only the QA personnel has access to.
 It is highly recommended the cylinders go directly into the Contractor supplied storage device immediately after casting.
- The Contractor must supply a maximum/minimum thermometer for temperature monitoring and items for the QA tester to maintain the cylinders between 60 and 80 degrees.
- The cylinders can not be transported from jobsite storage to cure tank storage until **8 hours** after initial set. If the initial set time is unknown it is advised to wait at least **16 hours** after casting before transporting.
- The cylinders must be transported to cure tank storage within **48 hours** from casting.
- Cylinder must be transported in the following fashion;
 1. In a moist condition.
 2. With adequate cushioning (proper diameter racks).
 3. At an ambient temperature between 60 and 80 degrees.
 4. With adequate insulation in cold weather.
 5. Transport time not to exceed **4 hours**.
- Upon removing the cylinder mold the cylinder must be placed in the cure tank within **1 hour**.

Laboratory Test Results and Pay Calculations

- With PWL acceptance, payment is made based on the entire completed lot of material. All sub lot test results need to be obtained before pay is calculated.
- Pay is based on MDOT calculations using the MDOT spreadsheet only. Do not accept Contractor supplied assessment or spreadsheets.

- QA test results do not get reported to the Contractor until they provide their QC test results.
- Once QA test results are shared and a lot of material is complete the Contractor must communicate a desire for dispute resolution testing per the requirements in the special provision. They must prove proper QC protocol was followed and that they obtained more favorable test results.
- The Project staff needs to notify Region C&T when a Contractor has properly requested dispute resolution cylinder testing.
- Region C&T will transport dispute cylinders to Lansing C&T for testing. Lansing C&T will not be informed which project or Contractor the cylinders are from.
- Region C&T will obtain dispute test results from Lansing C&T and communicate the new test results which are to be included into the PWL pay spreadsheet.
- The project staff needs to inform Region C&T when a lot of material is accepted by MDOT/Consultant and the Contractor without going to dispute resolution testing. Region C&T will then dispose of the excess dispute resolution samples.