Michigan Department of Transportation 5100B (07/07)

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

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Mark Kleikamp	84193C	55011

DESCRIPTION IF NO JN/CS

Signal Modernization Design for Two Existing Signals, Four Temporary Signals & Staging Signal Design Plan during Construction

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

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

☒ **TIER I ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☐ **TIER III (>$250,000)**	**CONSULTANT:** Provide only checked items below in proposal.
☒	☐	☐	Understanding of Service
☐	☐	☐	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☐	☐	Organization Chart
☒	☐	☐	Qualifications of Team
☒	☐	☐	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☐	Quality Assurance/Quality Control
☒	☐	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted) **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

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 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 > Requests for Proposals.**

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 _____

☑ **Prequalifed Services** – See page 4 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalifed 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.

☑ **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 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 price 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 price proposal must be submitted in a sealed manila envelope, clearly marked in large red letters **"PRICE PROPOSAL – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. The price proposal will only be opened for the highest scoring proposal. Unopened price proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your bid 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 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 in large red letters **"SEALED BID – TO BE OPENED ONLY BY SELECTION SPECIALIST."** 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.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL DUE DATE	TIME DUE
5	3/6/09	4:00 p.m.

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

Gisso Shams,Consultant Coordinator Engineer
Division of Operations,MDOT
425 W. Ottawa Street
Lansing, MI 48909

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

Lansing Regular Mail	OR	Lansing Overnight Mail
☑ Secretary, Contract Services Div - B225 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Secretary, Contract Services Div - B225 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833
☐ Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833

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

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

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
TRAFFIC & SAFETY SERVICES
Signal Modernization Design for Two Existing Traffic Signal and
Four Temporary Traffic Signal and Staging plans as Part of Road Project

CONTROL SECTION: 55011

JOB NUMBER: 84193C

PROJECT LOCATION(S):

1) **US-41 (10th) @ M-35 (N. Shore Drive),** City of Menominee, Menominee County, 55011-01-007
2) **US-41(10th) @ 30th Avenue**, City of Menominee, Menominee County, 55011-01-010
3) **M-35 @ 48th Avenue,** City of Menominee, Menominee County, **Temporary Signal** used for US-41 detour during road construction maintaining traffic, 55011-01-996
4) **US-41 @ 48th Avenue,** City of Menominee, Menominee County, **Temporary Signal** used for US-41 detour during road construction maintaining traffic, 55011-01-997
5) **13th Street @ 30th Avenue,** City of Menominee, Menominee County, **Temporary Signal** used for US-41 detour during road construction maintaining traffic, 55011-01-998
6) **13th Avenue @ 23rd Avenue**, City of Menominee, Menominee County, **Temporary Signal** used for US-41 detour during road construction maintaining traffic, 55011-01-999

PROJECT DESCRIPTION:

Signal Modernization Design and Staging Plans for the two above mentioned existing signalized intersections and Design for Developing Signal Plans for the Four above mentioned Temporary Traffic Signals to be used for detouring/maintaining traffic during the road reconstruction project JN 84193C.

The Signal Modernization Design consists of ; the design for upgrading of the existing traffic signal equipment including but not limited to traffic signal controllers ("EPAC" type controllers), traffic and pedestrian heads, pedestrian push button actuated (if necessary), embedded loop and/or camera design (if necessary), illuminated case signs, span wire, signal support poles and supporting structures (if necessary). Radio Interconnect Design (if necessary), Replace all existing traffic and pedestrian signal heads crossing all legs with 12" heads.

1) US-41 (10th) @ M-35 (N. Shore Drive) Signal: Modernization Design for this two phase semi actuated traffic signal consists of; Design for upgrading of the existing traffic signal equipment including but not limited to, Traffic Signal Controller (Base Mounted EPAC MOD 50 controller with 16 load switch), Box Span Design, Pedestrian indication for crossing north leg of US-41 & east leg of M-35 with Pedestrian Actuated Push buttons for crossing north leg of US-41, Illuminated (LED) 1-way case sign facing north (No Left-Turn), and actuation design for M-35 (6 X 30 loops on each lane).

2) US-41 (10th) @ 30th Avenue: Signal Modernization Design consists of; Design for upgrading of the existing traffic signal equipment including but not limited to, Traffic Signal Controller (Base Mounted EPAC MOD 50 controller with 16 load switch), Box Span Design, Actuation design for 30th Avenue (6 X 30 loops on each lane), Pedestrian Indication for crossing north leg of US-41 and west leg of M-35 with Pedestrian Pushbuttons for crossing north leg of US-41.

3) M-35 @ 48th Avenue (Temp Signal for US-41 Detour): Design for developing signal plans for a Two Phase Fixed Time Temporary Traffic Signal to be used for detouring/maintaining traffic during road reconstruction of US-41 and must be removed upon completion of this road project. This includes design for traffic signal equipment including but not limited to, Traffic Signal Controller (Pole Mounted EPIC Controller). The signal timing for this Temporary Signal during construction period will be provided by the MDOT Signal Unit in Lansing.

4) US-41 @ 48th Avenue (Temp Signal for US-41 Detour): Design for developing signal plans for a Two Phase Fixed Time Temporary Traffic Signal to be used for detouring/maintaining traffic during road reconstruction of US-41 and must be removed upon completion of this road project. This includes design for traffic signal equipment including but not limited to, Traffic Signal Controller (Pole Mounted EPIC Controller). The signal timing for this Temporary Signal during construction period will be provided by the MDOT Signal Unit in Lansing.

5) 13th Street @ 30th Avenue (Temp Signal for US-41 Detour): Design for developing signal plans for a Two Phase Fixed Time Temporary Traffic Signal to be used for detouring/maintaining traffic during road reconstruction of US-41 and must be removed upon completion of this road project. This includes design for traffic signal equipment including but not limited to, Traffic Signal Controller (Pole Mounted EPIC Controller). The signal timing for this Temporary Signal during construction period will be provided by the MDOT Signal Unit in Lansing.

6) 13th Street @ 23th Avenue (Temp Signal for US-41 Detour): Design for developing signal plans for a Two Phase Fixed Time Temporary Traffic Signal to be used for detouring/maintaining traffic during road reconstruction of US-41 and must be removed upon completion of this road project. This includes design for traffic signal equipment including but not limited to, Traffic Signal Controller (Pole Mounted EPIC Controller). The signal timing for this Temporary Signal during construction period will be provided by the MDOT Signal Unit in Lansing.

Note: First option for signal design should be "Box Span" design. The signal designs should incorporate the use of LED technology. The consultant identifies and notes the existing posted speed limit on all approaches of the intersection(s) on the plan. Also the design of new ADA ramps on all the required quadrants will be done by the MDOT Escanaba TSC road design engineer for this project. Design for Radio Interconnect requires performing the Radio Survey and submitting the Signal Radio Survey Form. The Signal Radio Survey Form can be found in the "Traffic Consultant Files" at the following website: http://mdotwas1.mdot.state.mi.us/public/tands/plans.cfm

Road JN 84193C Description:
The Bituminous Reconstruction Road Project on US-41 from 20th Avenue to northerly to 48th Avenue in the City of Menominee, Menominee county consists of; Bituminous reconstruction and widening the existing 4-lane roadway to accommodate a designated center left turn lane on US-41.

Schedule and Target Dates for the Road Project:

GI	5/28/09
OEC Meeting	7/1/09
Plan Completion	7/8/09
Letting Date	1/8/2010

The signal design service will be coordinated and paid as part of the Road JN 84193C. The signal will be installed by the contactor who will be responsible for hiring a pre qualified sub-contractor to do the signal installation and paid by Road Construction JN 84193A.

The existing preliminary plans for the road project will be provided to the consultant.

ANTICIPATED SERVICE START DATE: April 10, 2009

ANTICIPATED SERVICE COMPLETION DATE: July 8, 2009

PROJECT MANAGER:
Mark A. Kleikamp, Development Engineer
Escanaba TSC
1818 3rd Avenue North
Escanaba, MI 49829
Ph # 906-786-1830, ext 357
Fax# 906-786-1816
Email: kleikampm@michigan.gov

PRIMARY PREQUALIFICATION CLASSIFICATION:
Traffic Signal Design

SECONDARY PREQUALIFICATION CLASSIFICATION(S):
None

DBE REQUIREMENT: N/A

GENERAL REQUIREMENTS:

Design and develop traffic signal contract plans, proposal package, engineering documents, and related work necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by contract bid letting. New traffic signal work typically includes installation of: signal support poles and/or pedestals, span wire, traffic and pedestrian signals, and traffic signal controller. Modernization traffic signal work typically includes the replacement, as needed, of: signal support poles and/or pedestals, span wire (if appropriate), traffic and pedestrian signals, traffic loops, handholes, and traffic signal control equipment.

If steel poles are required for a location, soil borings need to be taken. The first step is to request soil borings from the Region soils engineer (provide the proposed pole locations). The Region soils engineer will inform the consultant if existing soil boring data is available, or if the Region soils engineer can perform the borings, or if the consultant must perform the soil borings.

If it is determined during construction, the design is not constructible due to consultant design error; the signal design consultant will be responsible for correcting the design at no additional cost to MDOT. If the constructability is based on changes made by MDOT, the consultant will be compensated.

Justification for Use of Consultant:
This project was reviewed and scheduled to be included in the 2008 FY Call-for-Projects. This work load is beyond the staff time available within the unit. Pre-qualified traffic signal design professional services are required to meet the commitment to execute this project for this fiscal year and obligate the funds available.

CONSULTANT RESPONSIBILITIES:

A) Specific Responsibilities:

1) The designer shall arrange for an on-site design kick-off meeting with, MDOT Superior Region Electrician (Fred Bennett), MDOT Lansing Signals Unit, Escanaba TSC Traffic & Safety Engineer (Steve Cadeau), Escanaba TSC Utility/Permit Engineer (Jason DeGrand), and the Escanaba TSC Development Engineer/PM (Mike Kleikamp) to review the proposed signal modernization design plans.

B) General Responsibilities:

1) **Proposed plan views must have a 1"=30' scale when plotted to 11"x17".**

2) Perform design service including the design and preparation of base plans, preliminary (75%) plans, final plans, "E proposal" package, specifications, wiring diagrams, interconnect drawings, bills of materials, measurement and payment items, and cost estimates for all construction work for this project, including necessary alterations to power, lighting, and interconnect facilities. Traffic signal work may include installation of: signal support poles and/or pedestals, span wire, traffic and pedestrian signals, and traffic signal controller, traffic loops, handholes, wireless interconnect, and video detection.

3) Although the Utility coordination for this project will be done by MDOT TSC staff through the US-41 JN 84193C Road project, the consultant must incorporate all the utility information received into the design plans (both existing and proposed plans). **The consultant should anticipate attending utility coordination meetings as required (including on-site field meetings with the utility engineer and the affected utility companies in the area), a plan review meeting, and an OEC meeting.** The consultant will provide meeting minutes of all meetings for matters pertaining to traffic signal design.

4) Perform Design Service for drilled shaft foundations as required including soil boring information, identification of any suspected contamination of the boring site, and preliminary foundation investigation. (Refer to MDOT's website.) The following information must be provided for proper analysis of strain pole foundations:

   a) Accurate pole location information
   b) Soil classification
   c) Standard penetration values every 2.5 feet (750 mm) extending 20 feet (6.1 m) below the ground surface elevation (blows/foot in accordance with ASTM D1586)
   d) Unconfined compressive shearing resistance (PSF, for cohesive soils)
   e) Ground water table elevation

5) Perform strain pole foundation design as required. The MDOT has developed a strain pole foundation design table for box span signals. This table can be found on the Traffic and Safety website in the signals correspondence and guidelines area. A special foundation design may be necessary depending on site specific soil properties and proposed signal layout and geometry.

6) The Consultant shall contact the Region Materials/Testing Engineer or Soils Engineer before proceeding with any geotechnical work and submit the results of the preliminary subsurface investigation for their review, approval, and recommendations for foundation design.

7) In the performance of design service, govern all project design and plan work by the applicable codes, standards, and practices of the Michigan Department of Transportation, hereinafter referred to as the department, and the current *Michigan Manual of Uniform Traffic Control Devices*.

8) Supply all materials necessary for completion of the projects, except as hereinafter described, including incidental prints required.

9) All documents prepared by the Consultant, including, drawings, estimates, specifications, field notes, investigation studies, etc., are the property of the department.

10) All plan sheets shall be developed using computer-aided drafting technology. The system shall be Intergraph Microstation, or one that processes data exactly as Intergraph will, no translations or system revisions being necessary by the department.

11) Refer to Suggested Traffic Signal Design Procedure: MDOT website.

12) Refer to Requirements for Preliminary Geotechnical Investigations for Signal Foundations: MDOT website.

13) Plans are to be designed using the 2003 Standard Specifications.

14) Perform any design/coordination tasks with any railroad company involved within the project limits, including (but not limited to):
   a) Determine railroad contact person(s)

b) Complete any applications required by the railroad company to perform the proposed traffic signal work.
c) Include related notes and special provisions as required in the proposal.

15) Any existing or proposed pedestrian pushbuttons and ramps must be accessible per ADA guidelines and MDOT design practices including:

a) Pushbutton must be within 24" from edge of sidewalk
b) The pushbutton must be located in the middle of a 4' pushbutton landing (maximum slope of 2%).
c) ADA ramps are required at every crosswalk controlled by a pedestrian signal head.
d) Sidewalk is required to connect ADA ramps on a quadrant.

16) Perform sidewalk and ramp survey and design if not included in scope of road project on an as-needed basis to comply with MDOT design practices and ADA requirements. For all stop and go traffic signals, all ADA ramps will be replaced unless the existing ramps are compliant with MDOT design practices and ADA guidelines. For flashing signals, pedestrian ramps will not be replaced unless they are disturbed.

17) The ADA ramp survey data must be sufficient for ramp and pushbutton design including (but not limited to):

a) Relative elevations, including at least two horizontal and vertical control points for future layout control for construction staking
b) Curb (top back of curb) & gutter (at flow line and at edge) is to be collected through the curves with observations every 3 feet along the arc near existing or proposed ADA ramps. Outside existing or proposed ADA ramp areas, curb and gutter observations may be every 5 feet.
c) Drainage structures (and any other utility located in or adjacent to the curb and gutter) near existing or proposed ADA ramps must be located because they can affect ADA ramp design.
d) If an ADA ramp exists, enough information must be collected to properly define the existing conditions.
e) Both ends of existing sidewalk joints must be mapped to determine limits of sidewalk replacement during ADA ramp design.

Task 1: Base Plan Preparation

1) Design and develop contract base plans necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by contract bid letting. Base plans include (but are not limited to):

a) Existing road rights-of-way (ROW)
b) Field measured/surveyed road and lane geometry and posted speed limits
c) Field measured/surveyed locations of any visible utilities
d) Proposed types and locations of poles and controller
e) Proposed traffic and pedestrian signal head types and locations
f) Proposed pushbuttons, traffic loops, and antennas

g) Proposed traffic signal removal (if required) and installation plan(s)
h) Proposed phasing (as required)
i) POCH diagram for proposed attachments to wood poles (not required for steel pole attachments)

2) Where applicable, the intersection and ADA ramp survey will be used to develop base plans

3) If existing or proposed pole locations appear to be outside existing right-of-way, contact Douglas Adelman (517-373-2363), Traffic Signal Unit in Lansing.

Task 1: Deliverables (Base Plans):

1. All traffic signal plan and interconnect sheets (no details required) in the following formats:
- **a.** One 11x17 paper copy
- **b.** One 11x17 pdf file
- **c.** Distribute as follows:
  - i. Traffic Signals Unit: One (1) 11x17 paper copy and pdf file
  - ii. TSC Delivery Engineer: Pdf file
  - iii. TSC Traffic & Safety Engineer: Pdf file
  - iv. TSC Utilities Engineer: Pdf file
  - v. Region Soils Engineer: Pdf file
  - vi. Region Traffic & Safety Engineer: Pdf file
  - vii. Maintaining Agency (if applicable) : Pdf file
  - viii. Utility company supplying power: Pdf file

Task 2: Utility Documentation

1. Show existing utility information (as provided by utility companies) on both removal and proposed signal plans.
2. Identify and inform the TSC utility engineer of any utilities for which insufficient information was provided, and identify any utilities that may conflict with the proposed construction.
3. Attend utility coordination meeting(s) as required and document any additional utility information.

Task 3: Preliminary (75%) Plan Preparation

1. Design and develop preliminary (75%) contract plans necessary for new installation or modernization of electronic traffic control devices to be accomplished by contract bid letting. Preliminary (75%) plans include (in addition to base plan information):
- **(a)** Location and types of utilities as provided by the utility companies and resulting from utility coordination meeting(s) as required.
- **(b)** Separate Interconnect plan sheet (if the scope requires **"Radio Interconnect Design"**)
- **(c)** List of Materials and Quantities
- **(d)** Wiring diagram
- **(e)** ADA ramp and pushbutton design (including existing and proposed elevations)
- **(f)** Point of Contact Height (POCH) diagram(s)

(g) Appropriate note blocks for contact persons, etc.
(h) Proper file names, levels, and text sizes
(i) Any additional right-of-way required for existing and proposed traffic signal appurtenances
(j) Soil boring information including depths, soil description, water level, and depth of foundation (if required)

2. Attend plan review meeting at the local TSC.

Task 3: Deliverables Preliminary (75%) Plans:

1) All traffic signal plan and interconnect sheets including details.
2) All required special provisions, notices to bidders, and specifications in E-Proposal format including a draft progress clause, a draft coordination clause, and a draft special provision for maintaining traffic.
3) Checklist of "typical" signal details to be used
4) Format of Task 3 Deliverables
a) Nine (9) 11x17 paper copies
b) One electronic 11x17 pdf file (filename: Job#PLANHALF.pdf)
c) One electronic proposal pdf file (filename: Job#PROPOSAL.pdf)

5) Distribute Task 3 Deliverables as follows:
i) Traffic Signals Unit: Two (2) 11x17 paper copies, and pdf file
ii) TSC Delivery Engineer: One (1) 11x17 paper copy, and pdf file
iii) TSC Traffic & Safety Engineer: One (1) 11x17 paper copy, and pdf file
iv) TSC Utilities Engineer: One (1) 11x17 paper copy, and pdf file
v) Region Soils Engineer: One (1) 11x17 paper copy, and pdf file
vi) Region Traffic & Safety Engineer: One (1) 11x17 paper copy, and pdf file
vii) Lansing Signal Shop: One (1) 11x17 paper copy
viii) Maintaining Agency (if applicable): One (1) 11x17 paper copy, and pdf file
ix) Utility company supplying power: One (1) 11x17 paper copy

Task 4: Utility Coordination

1) Actively work with MDOT personnel until utility conflicts are resolved. This includes, but is not limited to:
a) Staking proposed foundation locations in the field prior to the utility coordination field review
b) Documenting additional utility information on the plans
c) Revising plans to avoid utility conflicts

Task 5: Final Plan and Proposal Preparation

1) Incorporate the department's comments on the plans and prepare complete detailed construction final plans, supplemental specifications, special provisions, measurement and payment items, estimates of quantities, span calculations, and engineer's final estimates of cost for all necessary construction and related work included in this project.

2) During preparation of the final plans, make such alterations, corrections, and revisions to said plans and supporting materials as are deemed necessary and desirable by the department to insure conformance of plans to good design and standard practices and to have said plans and other material in proper form for receiving bids.

3) During preparation of the proposal, work with the appropriate MDOT personnel to obtain final bid proposal documents including progress clause, coordination clause, special provision for maintaining traffic, and utility relocation status (form 2286).

4) Attend and provide electronic plans for the OEC meeting. Make any final changes necessary.

Task 5: Deliverables (Final Plans):

1. Upon completion of design services for this project and final approval thereof by the department, deliver to the department final plans, proposal and supporting documents compatible with **current"E- Proposal"** requirements (Refer to MDOT website: E-Proposal Training for MDOT Consultants Document). **All CAD files must be "Intergraph Microstation Version 8 file format" and all PDF files must be Adobe Acrobat version 6.**

Format of Task 5 Deliverables (Final Plans):

a) Two (2) 11"x17" paper copies of the full plan set. The title sheets must have original stamps and signatures and include a map of the area with work locations identified, a list of locations, and other items as determined by Traffic Signal Unit

b) Electronic files of all signal plans

c) Electronic (pdf) 11"x17" plan file (filename: Job#PLANHALF.pdf)

d) Electronic (pdf) proposal file (filename: Job#PROPOSAL.pdf)

e) Electronic (pdf) files of all required supporting documents

f) Editable electronic files of all supporting documents and of all files inserted into proposal document. For example, submit the progress clause as a word document in addition to the progress clause (pdf) which will also be inserted in the proposal pdf.

g) One set of estimates of cost of construction (8-1/2" x 11" paper copy).

h) One copy of all design computations as required for use by the department.

i) Upon request by the department, make available thereto all notes utilized in preparation of the plans, supplemental specifications, and cost estimates.

j) For all signal contracts, a "txt" or "csv" file compatible with Transport system detailing the materials used

k) Checklist of "typical" signal details to be used

l) All required checklists of MDOT Special Provisions extracted per E-Proposal format

Distribute Task 5 Deliverables to Lansing Traffic Signals Unit only as follows:

i) Two (2) 11x17 paper copies

ii) All electronic files to be delivered on a compact disk (CD) and sent via email

MDOT RESPONSIBILITIES:

Department Review:
The department will review and comment on the base plan, the preliminary (75%) plan, and the OEC plan submittals. Additional plan review may be required dependent on completeness and accuracy of the plans submitted.

Information services to be provided by the MDOT are:

- Control section numbers
- Job numbers
- Contact information for TSC/Region/C&T personnel
- Appropriate Traffic and Safety Notes
- Available signal design plans and/or layout drawings for each location
- Available signal phasing or operational information for each location
- A Proposal file will be made available to be used as a template
- **Items available on MDOT's website - www.michigan.gov/mdot**
  (Select: Doing Business with MDOT, Traffic & Safety Services, Typicals/Details/Guides)

  1. Signal Details
     a. MDOT Typical Signal Construction Detail Sheets
     b. MDOT Typical Signal Information Note Sheet
     c. MDOT Typical Signal Legend Sheet

  2. Traffic Consultant Files
     a. Cell libraries
     b. Microstation information
     c. CAD instructions for consultants
     d. MDOT sample layouts
     e. MDOT Suggested Traffic Signal Design Procedure
     f. MDOT Requirements for Preliminary Geotechnical Investigations for Signal Foundations
     g. Method of Measurement and Basis of Payment for Signal Contracts
     h. Signal Span Calculation Program (non-disclosure statement required)

  3. Traffic Guidelines
     - Traffic Signal Head Placement Diagrams

  Signal special provisions are now available on the Design IRS menu.

Reference Documents and Standards to be Used:

- National *Manual of Uniform Traffic Control Devices*
- *Michigan Manual of Uniform Traffic Control Devices* (MMUTCD)
- *Michigan Vehicle Code*
- Local and national electrical codes
- MDOT Standards, Specifications, and Construction Details
- MDOT Pay Item Code Book

From this list, the following documents can be ordered from MDOT Financial Services Division (517-335-2519). The Consultant must pay the cost.

- MMUTCD
- MDOT 2003 Standard Specifications for Construction
- MDOT Pay Item Code Book

PROJECT COORDINATION:

Coordinate design service with MDOT, Traffic and Safety Support Area, Traffic Signal Unit, Douglas Adelman (517-373-2363); overhead and/or underground utility/telephone companies; Miss Dig (800-482-7171).

PROJECT SCHEDULE:

Prepare and submit to the department a Gantt Chart schedule for each task and total calendar days for completing the project. The work shall be completed commencing from the date of work authorization to the Consultant. The time allocated for any necessary utility coordination meeting, soil boring investigations, and the department review shall be shown in the Consultant's work schedule. **For scheduling purpose, it is anticipated that this project will begin on April 20, 2009, and should be completed by July 8, 2009.**

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.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager.

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