RESOLUTION NO. 3854

A RESOLUTION APPROVING A SHORT FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES BETWEEN THE CITY OF MILES CITY, MONTANA, AND INTERSTATE ENGINEERING, INC., FOR DEVELOPMENT OF THE MILES CITY LONG RANGE TRANSPORTATION PLAN

WHEREAS, the City of Miles City desires to engage the services of Interstate Engineering, Inc., for professional services related to the development of the Miles City Long Range Transportation Plan;

AND WHEREAS, Interstate Engineering, Inc., has agreed to provide such services pursuant to the agreement attached hereto as Exhibit "A;"

NOW THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF MILES CITY, MONTANA AS FOLLOWS:

1. The Short Form of Agreement Between Owner and Engineer for Professional Services, between the City of Miles City, Montana, and Interstate Engineering, Inc., attached hereto as Exhibit "A", and made a part hereof, is hereby approved and adopted by this Council.

2. The Mayor of the City of Miles City is hereby empowered and authorized to execute said agreement on behalf of the City of Miles City and bind the City of Miles

3. The Mayor of the City of Miles City is hereby empowered and authorized to execute such further documents as are necessary to carry out the terms of said proposal and bind the City

SAID RESOLUTION FINALLY PASSED AND ADOPTED BY A DULY CONSTITUTED QUORUM OF THE CITY COUNCIL OF THE CITY OF MILES CITY, MONTANA, AT A REGULAR MEETING THIS 22nd DAY OF SEPTEMBER, 2015.

C. A. Grenz, Mayor

ATTEST:

Lorrie Pearce, City Clerk

SHORT FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

Prepared by

EJCDC

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

ACEC
American Council of Engineering Companies

AGC of America
The Associated General Contractors of America
Quality People. Quality Projects.

ASCE American Society of Civil Engineers

National Society of Professional Engineers
Professional Engineers in Private Practice

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

SHORT FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of _____ ("Effective Date") between

City of Miles City, Montana ("Owner")

and

Interstate Engineering, Inc. ("Engineer").

Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

Miles City Long Range Transportation Plan ("Project").

Engineer's Services under this Agreement are generally identified as follows:

See Attachment #2: Scope of Work, Dated August 26, 2015

Owner and Engineer further agree as follows:

1.01 *Basic Agreement and Period of Service*

A. Engineer shall provide, or cause to be provided, the services set forth in this Agreement. If authorized by Owner, or if required because of changes in the Project, Engineer shall furnish services in addition to those set forth above. Owner shall pay Engineer for its services as set forth in Paragraphs 7.01 and 7.02.

B. Engineer shall complete its services within a reasonable time, or within the following specific time period: 12 Months from the Effective Date of this Agreement.

C. If the Project includes construction-related professional services, then Engineer's time for completion of services is conditioned on the time for Owner and its contractors to complete construction not exceeding N/A months. If the actual time to complete construction exceeds the number of months indicated, then Engineer's period of service and its total compensation shall be appropriately adjusted.

2.01 *Payment Procedures*

A. *Invoices*: Engineer shall prepare invoices in accordance with its standard invoicing practices and submit the invoices to Owner on a monthly basis. Invoices are due and payable within 45 days of

receipt. If Owner fails to make any payment due Engineer for services and expenses within 45 days after receipt of Engineer's invoice, then the amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said forth-fifth day. In addition, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Engineer has been paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension. Payments will be credited first to interest and then to principal.

3.01 *Termination*

A. The obligation to continue performance under this Agreement may be terminated:

1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party. Failure to pay Engineer for its services is a substantial failure to perform and a basis for termination.

b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or

2) upon seven days written notice if the Engineer's services for the Project are delayed for more than 90 days for reasons beyond Engineer's control.

Engineer shall have no liability to Owner on account of a termination by Engineer under Paragraph 3.01.A.1.b.

c. Notwithstanding the foregoing, this Agreement will not terminate as a result of a substantial failure under Paragraph 3.01.A.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of notice; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience, by Owner effective upon Engineer's receipt of written notice from Owner.

B. The terminating party under Paragraph 3.01.A may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

C. In the event of any termination under Paragraph 3.01, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all reimbursable expenses incurred through the effective date of termination.

4.01 *Successors, Assigns, and Beneficiaries*

A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 4.01.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

C. Unless expressly provided otherwise, nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any contractor, subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.

5.01 *General Considerations*

A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services. Subject to the foregoing standard of care, Engineer and its consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

B. Engineer shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.

C. This Agreement is to be governed by the law of the state or jurisdiction in which the Project is located.

D. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between Owner and such contractor. Engineer is not responsible for variations between actual construction bids or costs and Engineer's opinions or estimates regarding construction costs.

E. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees) at the Project site or otherwise furnishing or performing any construction work; or for any decision made regarding the construction contract requirements, or any application, interpretation, or clarification of the construction contract other than those made by Engineer.

F. The general conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (EJCDC C-700, 2007 Edition) unless the parties agree otherwise.

G. All documents prepared or furnished by Engineer are instruments of service, and Engineer retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the Project is completed. Owner shall have a limited license to use the documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment for all services relating to preparation of the documents and subject to the following limitations: (1) Owner acknowledges that such documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and consultants; (3) Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the documents without written verification, completion, or adaptation by Engineer; and (4) such limited license to Owner shall not create any rights in third parties.

H. To the fullest extent permitted by law, Owner and Engineer (1) waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project, and (2) agree that Engineer's total liability to Owner under this Agreement shall be limited to $50,000 or the total amount of compensation received by Engineer, whichever is greater.

I. The parties acknowledge that Engineer's scope of services does not include any services related to a Hazardous Environmental Condition (the presence of asbestos, PCBs, petroleum, hazardous substances or waste as defined by the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq., or radioactive materials). If Engineer or any other party encounters a Hazardous Environmental Condition, Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultants or contractors to

identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

J. Owner and Engineer agree to negotiate each dispute between them in good faith during the 30 days after notice of dispute. If negotiations are unsuccessful in resolving the dispute, then the dispute shall be mediated. If mediation is unsuccessful, then the parties may exercise their rights at law.

6.01 *Total Agreement*

A. This Agreement (including any expressly incorporated attachments), constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

7.01 *Basis of Payment—Hourly Rates Plus Reimbursable Expenses*

A. Using the procedures set forth in Paragraph 2.01, Owner shall pay Engineer as follows:

1. An amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times standard hourly rates for each applicable billing class for all services performed on the Project, plus reimbursable expenses and Engineer's consultants' charges, if any.

2. Engineer's Standard Hourly Rates are attached as Attachment 1.

3. The total compensation for services and reimbursable expenses is $122,950.00.

7.02 *Additional Services:* For additional services of Engineer's employees engaged directly on the Project, Owner shall pay Engineer an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees' times standard hourly rates for each applicable billing class; plus reimbursable expenses and Engineer's consultants' charges, if any. Engineer's standard hourly rates are attached as Attachment 1.

Attachments: *Attachment 1: Engineer's Standard Hourly Rates*

Attachment #2: Scope of Work, Dated August 26, 2015

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER:	ENGINEER:
By:	By: Jed E. Kirkland, P.E.
Title: Mayor	Title: Western Regional Vice President
Date Signed: 9-23-15	Date Signed: 9/9/15
	Engineer License or Firm's Certificate Number: MT 19589
	State of: Montana
Address for giving notices:	Address for giving notices:
City of Miles City	Interstate Engineering, Inc.
P.O. Box 910	P.O. Box 20953
Miles City, MT 59301	Billings, MT 59104-0953
(406) 234-3493	406-256-1920

ATTACHMENT #1 SCHEDULE OF RATES

1.	Engineers		
	(A) Staff Engineer	$95.00	per hour
	(B) Project Engineer	$125.00	per hour
	(C) Senior Project Engineer	$185.00	per hour
	(D) Hydrogeologist	$190.00	per hour
	(E) Senior Traffic Engineer	$200.00	per hour
	(F) Senior Project Manager	$200.00	per hour
	(G) Principal Engineer	$250.00	per hour
	(H) Principal Engineer / Land Surveyor	$250.00	per hour
2.	Surveyors		
	(A) Field Assistant	$58.00	per hour
	(B) Party Chief	$87.00	per hour
	(C) Land Surveyor	$115.00	per hour
	(D) GPS / Party Chief	$122.00	per hour
	(E) Senior Land Surveyor	$127.00	per hour
	(F) GPS / Robotic Surveyor	$150.00	per hour
	(G) Senior Survey Manager	$200.00	per hour
3.	Technicians		
	(A) Field Assistant	$58.00	per hour
	(B) Technician	$87.00	per hour
	(C) Project Technician	$97.00	per hour
	(D) Senior Technician	$130.00	per hour
4.	Administrative – Draftspersons - Computer		
	(A) Administrative Assistant	$58.00	per hour
	(B) Draftsperson	$87.00	per hour
	(C) Senior Draftsperson	$100.00	per hour
	(D) Computer Specialist	$135.00	per hour
5.	Chargeable Expenses		
	(A) Subsistence at actual cost		
	(B) Travel Vehicle	$.69	per mile
	Survey Vehicle	$.79	per mile
	Aircraft	Actual Cost	
	(C) Any but ordinary first – class postage at actual cost.		
	(D) Cost of surveying materials, filing fee, drafting materials and other materials required for the job at actual cost plus 25%.		
	(E) Recordation Per Monument	$35.00	per monument
	(F) Plat Certification	$35.00	per certification
	(G) Printing		
	1. 8½" x 11"	$0.15	per page B & W
		$0.50	per page Color
	2. 11" x 17"	$0.25	per page B & W
		$0.50	per page Color
	3. 24" x 36"	$9.00	per sheet
	4. Mylar	($3.00 ft^2)	
	(H) Equipment Rental Rates		
	1. ATV	$75.00	per day
	2. UTV	$150.00	per day
	3. UTV with Tracks / Snowmobile	$200.00	per day
	(I) Subconsultant Services at Actual Cost Plus 10%		
	(J) Any and all sales and use tax, TERO or other special fees, which apply to this contract.		

ATTACHMENT #2

MILES CITY LONG RANGE TRANSPORTATION PLAN SCOPE OF WORK

GENERAL:
This scope of work is intended to develop the Long Range Transportation Plan for the City of Miles City and meet the goals outlined in Agreement Exhibit A of the Subrecipient Agreement for the Miles City Area Transportation Plan between the City of Miles City and the Montana Department of Transportation.

PRE-CONTRACT ACTIVITIES:

1. INITIAL SCOPING MEETING (Telecom or Polycom)

   Interstate Engineering (Engineer) will schedule a telephone conference call meeting with the City of Miles City (City) to review the Agreement Form, Scope of Work (Work Plan), Schedule, and Fee Estimate. The City will invite teleconference participants consisting of City Staff, Montana Department of Transportation (MDT) Staff, and possibly Custer County Staff and City or County elected official(s). Engineer will include Key Project Staff from the Engineer and its Subconsultant (Peaks to Plains Design).

   The Objectives of the Initial Scoping Meeting are as follows:

   a. Review written scope of work, revise if necessary
   b. Review written schedule, revise if necessary
   c. Review work tasks and responsibilities, revise if necessary
   d. Establish format and timing of deliverables
   e. Formulate Project Advisory Committee (PAC)
   f. Identify Focus Groups and Group Contacts for Focus Group Meetings

PLAN ACTIVITIES:

1. INITIAL DATA GATHERING

   Engineer will conduct initial data gathering activities ahead of the kick-off meeting. Data to be acquired will include, but not necessarily be limited to:

   a. Existing traffic volume data: Engineer will utilize data from the MDT web site, data present within the TransCAD Travel Demand Model (Model), and will request any additional traffic volume data from both the City and the MDT. In addition to traffic volume data, the Engineer will also seek out any available turn movement counts for major intersections within the study area. Should the Engineer and City agree to the need for additional traffic volume data, traffic volume counts for up to six (6) locations and peak period turning movement counts for up to six (6) intersections are included within this Scope of Work.

b. Crash data: Engineer will request available crash data for the most recent three year period from the MDT, City Police, and County Sheriff for the entire study area.
c. Socio-economic data (employment, household, population): Engineer will utilize travel demand model (by TAZ) data provided by the MDT, and will obtain U.S. Census data. Data compiled by the State Department of Commerce, University System, and/or Local Officials, where available, will be provided by the City.
d. Existing land use / zoning data: The City will provide mapping depicting existing land use and zoning within the study area. We anticipate data will be provided in electronic map format (GIS or AutoCAD).
e. Inventory of existing motorized transportation facilities: Engineer will utilize the model network as the primary source for motorized facility inventory. It is anticipated that the model network will contain necessary facility data such as number of lanes, speed limits, functional classification, etc. The Engineer will request additional, supplemental inventory data from the City and will use it in conjunction with the model data to compile a complete inventory of the motorized facilities. Field inspections or inventory of facilities is not included in this Scope of Work.
f. Inventory of existing non-motorized transportation facilities: Engineer will request available mapping and inventory data for existing non-motorized transportation facilities from the City.
g. Miles City – Custer County Growth Policy: Engineer will request a copy of the most recent Miles City - Custer County Growth Policy document from the City for use with development of this Long Range Transportation Plan. We anticipate using the Growth Policy document to assist with development/confirmation of socioeconomic data and projected growth.
h. Other plans / studies performed for the Miles City Metro Area: Engineer will discuss other, available plans and/or studies completed within the study area with the City and will request copies of relevant studies. Relevant studies include any Traffic Impact Studies completed for development projects, Safety Studies, Project-specific Design Studies completed for transportation system improvement projects, etc.

2. COMPILE, MAP, AND SUMMARIZE DATA: Engineer will develop maps depicting system inventory, traffic volumes, land use/zoning and crash history for use with Initial Project Meetings and Project Advisory Committee Meetings. Where appropriate, tables and graphs will be developed to summarize data, specifically data related to socioeconomics (households, population, employment, etc.) and land use.

3. REVIEW STUDY AREA BOUNDARY: Engineer will perform a review of the proposed Study Area boundary in light of data collected and make recommendation(s) for any changes for consideration at Initial Project Advisory Committee Meetings. This review will consider information/data received about projected growth, the planning jurisdiction boundary, and limits of growth planning considered with the Growth Policy document.

4. PROJECT ADVISORY COMMITTEE: Together with the Engineer, the City will establish a Project Advisory Committee (PAC). The PAC will provide plan guidance through periodic meetings with the Engineer and review of technical memos and plan products developed as the plan progresses. It is suggested that the PAC include representatives of City & County staff, MDT staff, and elected officials from the City and/or County. It is anticipated that six (6) meetings of the PAC will be required throughout the course of Plan development, with three (3) meetings taking place in Miles City and three (3) meetings conducted via teleconference. Meetings are intended to be scheduled at key milestones of the Plan development (see Schedule, attached). It is anticipated PAC meetings will occur at City Hall with no cost to the project. Engineer will provide teleconference capabilities for those meetings anticipated to take place via telephone conference call. Meetings and their objectives are outlined below:
    a. PAC Meeting #1 (in person, to occur in advance of Town Hall Meeting #1 and Focus Group meetings)
        i. Present final project scope, schedule, and deliverables
        ii. Establish project goals
        iii. Review project process
        iv. Understand PAC concerns & expectations
        v. Establish project and community contacts
    b. PAC Meeting #2 (telecom)
        i. Review data collected
        ii. Review growth projections
        iii. Review key findings of Town Hall Meeting #1
    c. PAC Meeting #3 (in person)
        i. Review E+C Model results
        ii. Review List of Improvement Alternatives
    d. PAC Meeting #4 (in person)
        i. Review model results of Alternatives
        ii. Complete decision matrix of consult recommended preferred alternatives
        iii. Obtain concurrence on Preferred Alternatives
    e. PAC Meeting #5 (telecom)
        i. Review Draft Report Document
        ii. Review Executive Summary Presentation
    f. PAC Meeting #6 (telecom)
        i. Final Report edits

ii. Project Close-out

5. TRAVEL DEMAND MODELING: Travel Demand Modeling necessary for development of this Plan will be conducted by the MDT with input/direction from the Engineer. A Model Scoping Meeting will be scheduled with the MDT and the City to discuss technical aspects of model development and coordination for modeling activities. Objectives for the Model Scoping Meeting are as follows:
    a. Model Scoping Meeting (telecom / polycom)
        i. Determine format for data exchange
        ii. Determine format for presentation of results and data
        iii. Determine schedule for modeling activities

    Base Model Development: The MDT will develop a travel demand base model. The MDT will research and assemble all necessary socioeconomic and geographic information necessary for the development of the base year model. The MDT will calibrate the base year model to base year traffic counts. The Engineer will review the base year model for acceptance. Engineer's review of the base year model will entail the following general tasks:

        i. Confirm Network Model is representative
        ii. Confirm TAZ socioeconomic data is representative
        iii. Confirm acceptable calibration to ground counts

    The Engineer will work with the City to divide the study area into "neighborhoods" for growth allocation and model evaluation. We anticipate neighborhoods will represent areas of similar land use (residential, commercial, industrial, etc.), and that the study area will consist of 10-15 neighborhoods. Once accepted for use with the Plan, the Engineer will provide an analysis of base year model results. It is assumed that the MDT will provide the "loaded" network(s) from the base year model and necessary O/D results to enable the Engineer's analysis and reporting of the following general model result.

        iv. Congestion/capacity issues
        v. Travel time and travel miles statistics
        vi. Origin/Destination statistics (band widths) at neighborhood level

    Develop Future Socioeconomic Data: The Engineer will research historic and projected land use patterns to identify historic and projected growth rates within the study area. Research will consist of review and evaluation of existing data and documentation (Growth Policy, Downtown Urban Renewal Plan, etc.). In consultation with the City and the MDT, the Engineer will determine final growth rates and develop future housing and employment totals for 10-year and 20-year growth horizons. In addition to the targeted growth, the Engineer will work with the City and the MDT to

develop up to two (2) additional growth scenarios representing alternative growth rates/locations for use with future year modeling.

Allocation of Future Growth: The Engineer, in consultation with the City, will coordinate allocation of the future 10-year and 20-year housing and employment throughout the study area to study area neighborhoods for up to three (3) growth scenarios. The growth allocations will be mapped and provided to the MDT. The MDT will translate the neighborhood distribution map information to achieve distribution of socioeconomic data to the TAZ level.

Model Future 20-Year Growth Scenarios with E+C Network: The MDT will model future 20-year growth scenarios (3) with the Existing plus Committed (E+C) roadway network. The City will work with the MDT to develop a list of committed transportation projects for this modeling. The MDT will develop the E+C network model. Once E+C modeling is completed, the MDT will provide the results of the modeling to the Engineer for analysis. The Engineer will provide analysis of model results in a similar fashion as the base year model results for easy comparison. It is assumed that the MDT will provide the "loaded" network(s) model and necessary O/D results to enable the Engineer's analysis and reporting. In general, model analysis results will include the following:

vii. Congestion/capacity issues
viii. Travel time and travel miles statistics
ix. Origin/Destination statistics (band widths) at neighborhood level

Develop list of improvements for alternatives network modeling: Based on an analysis of the E+C modeling, the Engineer, in consultation with the City and the MDT, will develop a list of potential improvement alternatives for additional modeling. The Engineer will develop model variables required for each improvement alternative. The Engineer will develop "packages" of improvement alternatives for additional modeling such that performance of each alternative improvement might be assessed without the need to model each improvement alternative separately. We anticipate the need to develop up to three (3) network improvements packages for modeling. Modeling of improvement alternative packages (up to three) will be performed by the MDT for the 20-year future horizons (three growth scenarios), for a total of nine (9) model runs. The results of the modeling will be provided to the Engineer for review and analysis. It is assumed that the MDT will provide the "loaded" network(s) model and necessary O/D results to enable the Engineer's analysis and reporting. In general, model analysis results will include the following:

x. Congestion/capacity issues
xi. Travel time and travel miles statistics

xii. Origin/Destination statistics (band widths) at neighborhood level

Select & Prioritize Preferred Network Improvement Alternatives: Following the analysis of the alternatives network modeling, the Engineer, in consultation with the City and the MDT will select preferred alternatives for final modeling. Final improvement alternatives will be modeled with final 10-year and 20-year growth scenarios selected by the City. The results of the final modeling will be provided to the Engineer for review and analysis. It is assumed that the MDT will provide the "loaded" network and necessary O/D results to enable the Engineer's analysis and reporting. In general, model analysis results will include the following:

xiii. Congestion/capacity issues
xiv. Travel time and travel miles statistics
xv. Origin/Destination statistics (band widths) at neighborhood level

The Engineer will utilize results from the final model to recommend preferred alternative implementation priorities to develop short- and long-range plans for the transportation system.

6. TRANSPORTATION SYSTEM ANALYSIS: In addition to travel demand modeling, the Engineer will also assess multiple aspects of the transportation system of the study area. Anticipated are analyses to assess mobility, safety, and community goals. Listed below are the additional assessments anticipated, along with the methodology/tools anticipated to be used for each assessment:

Transportation system implications of the Growth Policy:

i. Determined through modeling of E+C network against expected future growth defined by the Growth Policy document.

System-wide vehicle miles of travel (VMT) and Travel Time:

ii. Determined from model output for various scenarios.

Continuity/completeness of Arterial and Collector street network:

iii. Examine E+C network, determine need for additional facilities to achieve continuity through examination of mapping and modeling (origin-destination travel demand).

Non-motorized transportation needs assessment:

iv. Examine inventory of non-motorized system.
v. Examine recommendations of other studies (Growth Policy, Downtown Urban Renewal Plan, etc.).
vi. Focus Group and Public Meeting input for system needs.
vii. Land Use examination (schools, parks, public facilities, etc.) for system connectivity and needs for both commuter and recreational non-motorized travel.

Capacity analysis for intersections and corridors:

viii. Planning-level assessments for the Base Year model, as well as the E+C network modeled against future land use scenarios will be performed to assist with identification of needed improvements and the timing of those improvements.
ix. Collection of peak period turning traffic counts to assist with more detailed assessment of up to six (6) intersections.

Problems / opportunities with special generators:

x. Planning-level capacity assessment for access locations (intersections).
xi. Mobility assessment for special needs (trucks, non-motorized, etc.).

Crash Assessment:

xii. Map crash records using GIS.
xiii. Use crash data to determine crash rates and identify high crash locations.
xiv. Identify crash type trends at high crash locations (up to six (6) locations).
xv. Use trends to identify potential improvements projects (up to six (6) locations)

Truck & Freight Traffic Analysis:

xvi. Identify origins & destinations for freight traffic, including through trips without a local origin or destination.
xvii. Identify logical routes & route constraints, including truck by-pass routes.
xviii. Identify improvement alternatives for existing routes and/or potential alternative routes.

Access Management & Approach Ordinance/Permitting:

xix. Research "model" ordinances for applicability and implementation.
xx. Identify corridors likely to benefit most from access management projects.

Transportation System Management (TSM) Improvements:

xxi. Identify corridors likely to benefit most from TSM improvements.
xxii. Utilize public and focus group input to identify corridors where traffic calming measures will provide the most benefit.
xxiii. Identify locations/corridors where viewing streets as "places" can provide commerce benefits without hindering mobility.

Capital Cost & Funding Assessment:

xxiv. Research historical funding mechanisms and levels.
xxv. Identify potential new sources for funding.
xxvi. Provide details of each potential funding source (criteria, availability, restrictions, etc.) and applicability for identified improvement priorities.

xxvii. Develop concept-level cost estimates for preferred improvements.
xxviii. Develop a comparison of anticipated capital costs with projected revenue.

7. PUBLIC PARTICIPATION: The Engineer will conduct a public participation program that includes three (3) general public meetings and two (2) focus group meetings. The Engineer will also develop and maintain a plan web page to inform the public and receive input to the plan. The elements of the public participation program are outlined in the following sub-sections:

Three Community Engagement Opportunities:

a. Town Hall Meeting #1 (Open House). Engineer will schedule meeting at a venue selected by the City. Any costs associated with the use of the meeting space are the responsibility of the City. The Engineer will provide the meeting agenda and all necessary exhibits, handouts, comment sheets, etc. necessary to conduct the meeting. The objectives of this meeting are as follows:
   i. Opportunity to explain plan purpose and scope.
   ii. Announce through print, radio, etc. Engineer will develop print advertisements for publication. Any publication costs are the responsibility of the City.
   iii. Allow public input with a "blank slate" to express concerns regarding congestion, safety, aesthetic issues, etc.
   iv. Formal presentation of plan, followed by open house format meeting with "stations" for issue areas and public input. Potential stations include:
      1. Motorized and Non-motorized transportation system
      2. Safety
      3. Congestion
      4. Freight (truck routes and access)
      5. Railways
      6. Air
      7. Anticipated growth
      8. Held at the beginning of the project (Item #2c above)
   v. Town Hall Meeting #2 (Open House). Engineer will schedule meeting at a venue selected by the City. Any costs associated with the use of the meeting space are the responsibility of the City. The Engineer will provide the meeting agenda and all necessary exhibits, handouts, comment sheets, etc. necessary to conduct the meeting. The objectives of this meeting are as follows:
      1. Inform public on data collection.
      2. Inform public on results of listening sessions (focus group meetings).

3. Inform public on model findings (congestion, mobility, opportunities and constraints).
4. Inform public of selected, preferred improvements projects.
5. Solicit input for any additional projects not on the plan

vi. Public Hearing(s) for Draft Final Plan. Public hearings for adoption of the plan are assumed to take place in conjunction with regularly scheduled City Council meetings. The Engineer will attend up to two (2) Public Hearings. The Engineer will develop and present an "Executive Summary" of the plan at the Public Hearing(s).

Community Listening Sessions: The Engineer will conduct two (2) separate focus group meetings to reach out to those that may not ordinarily participate in public meetings. Meetings will be scheduled to coincide with the Town Hall Meeting #1 scheduled trip. Letters of invitation will be sent to contacts representing groups such as:

vii. Hospital workers
viii. Senior centers
ix. Service organizations
x. School District
xi. Chamber of Commerce
xii. Fairground users
xiii. Miles City Community College
xiv. Freight community
xv. Mobility impaired community
xvi. Non-motorized advocates

Project Web Site: The Engineer will develop and host a plan wet site to provide information to the public about the plan and to provide a forum for public input. The web site will also be utilized to advertise public meetings and public hearings for the plan, and to provide periodic updates. The City will provide a link to the plan web page on the City's web page.

8. DELIVERABLES:
    a. Package of recommended improvements projects
        i. Concept-level cost estimates for improvements.
        ii. Prioritized improvements list based on significance of system needs and benefits of each improvement project.
        iii. Potential funding sources applicable for each improvement project
    b. "Executive Summary" of project development and resulting package of recommended improvements
        iv. Written document suitable for posting on the project web page.
        v. Presentation (with graphics) suitable for use at the 2nd Public Meeting and at Public Hearings.
        vi. Documentation of public comments received at Public Meetings.
    c. Draft Final Study Document
        vii. Incorporate Model Documentation prepared by MDT.
        viii. Document Transportation System Analysis, motorized and non-motorized.
        ix. Include preferred improvements projects with concept-level cost estimates.
        x. Include potential funding source applicability, levels, and anticipated revenue; compare to preferred improvements costs.
        xi. 25 hard copies plus unbound reproducible, an electronic copy (PDF) and web-formatted version will also be developed
            1. Revise once based on Local Officials review
            2. Revise once based on Public Hearing
            3. Revise once based on review by City Council
    d. Final Study Document
        xii. 11 hard copies (City and MDT)
        xiii. Editable electronic format document (MS Word)
        xiv. PDF format electronic document
    e. Mapping
        xv. Mapping compatible with City of Miles City GIS platform
    f. Miscellaneous Deliverables
        xvi. Agendas for Public Meetings, Focus Group Meetings, and PAC Meetings.
        xvii. Record of meetings, including public comments.