



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

PLANNING DEPARTMENT

300 Sixth Street

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MEMORANDUM

TO: Legal and Finance Committee

FROM: Patsy Horton, Transportation Planning Coordinator

DATE: November 1, 2002

RE: Professional Service Agreement with Ferber Engineering, Inc. for the Eglin Street (SD Highway 230) Corridor Analysis in an amount not to exceed \$101,545

Staff is requesting approval of the contract with Ferber Engineering, Inc. for the completion of a transportation study for the Eglin Street (SD Highway 230) Corridor Analysis. This corridor analysis and street network study will address Eglin Street transportation issues and the proposed reconstruction of Exits 60 and 61. Based on the anticipated development expansion in the area surrounding this transportation corridor, staff recommends careful study of transportation and other infrastructure issues. This process will prepare the City for the infrastructure demands of development and allow better coordination with developers.

The Executive Policy Committee of the Metropolitan Planning Organization approved the Request for Proposals at its July 24, 2002 meeting. Funding for this project is provided by 80% Federal highway planning funds and 20% local match. The local match is available from funds within the Transportation Planning Division Budget (706).

Please feel free to contact me anytime if you have questions regarding this study.

STAFF RECOMMENDATION: Staff recommends approval of the contract with minor language changes from SDDOT legal staff review, if appropriate, between Ferber Engineering, Inc. and the City of Rapid City for the Eglin Street Corridor Analysis in an amount not to exceed \$101,545.

c: Marcia Elkins, Planning Director

**AGREEMENT
FOR PROFESSIONAL SERVICES**

EGLIN STREET CORRIDOR ANALYSIS

THIS IS AN AGREEMENT made on this ____ day of November, 2002 between the City of Rapid City, 300 Sixth Street, Rapid City, South Dakota 57701, hereinafter referred to as OWNER, and Ferber Engineering Company, a South Dakota Corporation, hereinafter referred to as ENGINEER. This project is a corridor analysis and street network study of the surrounding existing and proposed roads within the Eglin Street Corridor boundary, as defined on the attached map labeled Eglin Street Corridor Study.

OWNER and ENGINEER in consideration of their mutual covenants herein agree in respect of the performance of professional engineering services by ENGINEER and the payment for those services by OWNER as set forth below.

SECTION 1 - BASIC SERVICES OF ENGINEER

1.1 General

ENGINEER shall provide to OWNER professional engineering services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as OWNER's professional engineering representative for the Project, providing professional engineering consultation and advice and furnishing selected transportation planning services.

1.2 Scope of Work

The Basic Services Scope of Work is described in Exhibit A and shall include mapping, civil engineering, transportation planning, and traffic engineering with selected professional services to be performed by Interstate Engineering, Inc., Billings, Montana.

SECTION 2 - ADDITIONAL SERVICES OF ENGINEER

2.1 Services Requiring Authorization in Advance

If authorized in writing by OWNER, ENGINEER shall furnish or obtain from others Additional Services of the types listed in paragraphs 2.1.1 through 2.1.7, inclusive. These services are not included as part of Basic Services except to the extent provided otherwise in Exhibit A; these will be paid for by OWNER as indicated in Section 5.

2.1.1 Services resulting from significant changes in the general scope, extent or character of the Project including, but not limited to, changes in size, complexity, or method of financing; and revising previously accepted studies, reports or design documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents.

2.1.2 Investigations and studies involving, but not limited to detailed consideration of operations, maintenance and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing and assisting OWNER in obtaining process licensing; detailed quantity surveys of material,

equipment and labor; and audits or inventories required in connection with construction performed by OWNER.

- 2.1.3 Furnishing services of independent professional associates and consultants for other than Basic Services (which include, but are not limited to, customary civil, structural, mechanical and electrical engineering and customary architectural design incidental thereto);
- 2.1.4 Services during out-of-town travel required of ENGINEER other than visits to the site, attendance at OWNER's office as required by Section 1, or other services as detailed in Exhibit A.
- 2.1.5 Providing any type of property surveys or related engineering services needed for the transfer of interests in real property and field surveys for design purposes and providing other special field surveys.
- 2.1.6 Preparing to serve or serving as consultant or witness for OWNER in any litigation, arbitration or other legal or administrative proceeding involving the Project (except for assistance in consultations which is included as part of Basic Services).
- 2.1.7 Additional services in connection with the Project, excluding services, which are to be furnished by OWNER in accordance with Section 3, and services not otherwise provided for in this Agreement.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall do the following in a timely manner so as not to delay the services of ENGINEER:

- 3.1 Ms. Patsy Horton, Transportation Planning Coordinator with the Rapid City Planning Department, shall act as OWNER's representative with respect to the services to be rendered under this Agreement. Ms. Horton shall have complete authority to transmit instructions, receive information, interpret and define OWNER's policies and decisions with respect to ENGINEER's services for the Project.
- 3.2 Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the Project including previous reports and any other data relative to the Project.
- 3.3 Examine all studies, reports, sketches, drawings, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance counselor and other consultants as OWNER deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ENGINEER.
- 3.4 Give prompt written notice to ENGINEER whenever OWNER observes or otherwise becomes aware of any development that affects the scope or timing of ENGINEER's services.
- 3.5 Furnish or direct ENGINEER to provide Additional Services as stipulated in paragraph 2.1 of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICE

- 4.1 The ENGINEER'S period of service shall complete the scope of work stated in Exhibit A by December 31, 2003, provided a written "Notice to Proceed" is issued by *November 19, 2002*. A Draft Report shall be submitted for review by *March 1, 2003*. The ENGINEER'S services shall be provided in general accordance with the schedule as defined in EXHIBIT B.

SECTION 5 - PAYMENTS TO ENGINEER

5.1 Methods of Payment for Services and Expenses of Engineer

- 5.1.1 *For Basic Services.* OWNER shall pay ENGINEER for Basic Services rendered under Section 1 (as amended and supplemented by Scope of Work in Exhibit A) an amount not-to-exceed \$101,544.54.

5.1.1.1 *Direct Labor Costs and Overhead.* Direct labor costs and overhead shall be paid at a rate equal to ENGINEER's salary cost times a factor as defined in the attached EXHIBIT C for all Basic Services rendered on the Project.

5.1.1.2 *Fixed Fee.* A fixed fee of twelve percent (12%) shall be paid on a prorated share based on the amount of work completed upon each billing.

5.1.1.3 OWNER shall pay ENGINEER the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by OWNER. The term "Reimbursable Expenses" has the meaning assigned to it in paragraph 5.4. In accordance with 48CFR Part 31.

- 5.1.2 *For Additional Services.* OWNER shall pay ENGINEER for Additional Services rendered under Section 2 as follows:

5.1.2.1 *General.* For additional services of ENGINEER's principals and employees engaged directly on the Project and rendered pursuant to paragraph 2.1 on the same basis as outlined in paragraphs 5.1.1.1, 5.1.1.2 and 5.1.1.3.

5.2 Times of Payments

- 5.2.1 ENGINEER shall submit monthly statements for Basic and Additional Services rendered and for Reimbursable Expenses incurred. OWNER shall make prompt monthly payments in response to ENGINEER's monthly statements.

For these services the OWNER shall make prompt monthly payments to the ENGINEER based on monthly billings submitted by the ENGINEER up to 90% of the maximum fee for each Task as shown on Appendix C. The remaining 10% shall be due upon final approval of the Final Report for the Project by the OWNER.

5.3 Other Provisions Concerning Payments

- 5.3.1 If OWNER fails to make any payment due ENGINEER for services and expenses within forty-five (45) days after receipt of ENGINEER's statement therefor, the amounts due ENGINEER will be increased at the rate of 1.5% per month from said forty-fifth day, and in addition, ENGINEER may, after giving seven (7) days written notice to OWNER, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses and charges.

- 5.3.2 In the event of termination by OWNER upon completion of any phase of Basic Services, progress payments due ENGINEER for services rendered through such phase shall constitute total payment for such services. In the event of such termination by OWNER during any phase of the Basic Services, ENGINEER also will be reimbursed for the charges of independent professional associates and consultants employed by ENGINEER to render Basic Services incurred through such phase. In the event of any such termination, ENGINEER will be paid for unpaid Reimbursable Expenses previously incurred.
- 5.3.3 The employees of ENGINEER, professional associates and consultants, whose time is directly assignable to the program shall keep and sign a time record showing the element of the Project, date and hours worked, title of position and compensation rate.
- 5.3.4 *Records.* The ENGINEER shall maintain an accurate cost keeping system as to all costs incurred in connection with the subject to this Agreement and shall produce for examination books of accounts, bills, invoices and other vouchers or certified copies thereunder if originals be lost at such reasonable time and place as may be designated by the OWNER, South Dakota Department of Transportation or Federal Highway Administration and shall permit extracts and copies thereof to be made during the contract period and for three years after the date of final payment to ENGINEER.
- All personnel employed by ENGINEER shall maintain time records for time spent performing work on study described in this Agreement for a period of three years from the conclusion of the study. Time records and payroll records for said personnel shall be similarly retained by ENGINEER for a period of three years from the conclusion of the study.
- Upon reasonable notice, the ENGINEER will allow OWNER auditors to audit all records of the ENGINEER related to this Agreement. These records shall be clearly identified and readily accessible. All records shall be kept for a period of three (3) years after final payment under Agreement is made and all other pending matters are closed.
- 5.3.5 *Inspection of Work.* OWNER auditors shall at reasonable times be accorded proper ENGINEER facilities for review and inspection of the work in this Agreement. OWNER shall have access to ENGINEER's premises and to all books, records, correspondence, instructions, receipts, vouchers and memoranda of every description pertaining to this Agreement.
- 5.3.6 *Audits.* The ENGINEER shall, with reasonable notice, afford representatives of the OWNER reasonable facilities for examination and audits of the cost account records; shall make such returns and reports to a representative as he may require; shall produce and exhibit such books, accounts, documents and property as he may determine necessary to inspect and shall, in all things, aid him in the performance of his duties.
- 5.3.7 Payment shall be made subject to audit by duly authorized representatives of the OWNER.
- 5.3.8 In the event the services of the contract are terminated by the OWNER for fault on the part of the ENGINEER, the agreement shall be null and void, and, the OWNER

shall be entitled to recover payments made to the ENGINEER on the work which is the cause of the at-fault termination. The ENGINEER shall be paid only for work satisfactorily performed and delivered to the Owner up to the date of termination. After audit of the ENGINEER'S actual costs to the date of termination and after determination by the ENGINEER of the amount of work satisfactorily performed, the ENGINEER shall determine the amount to be paid to the OWNER.

5.4 Definitions

5.4.1 Reimbursable Expenses means the actual expenses incurred by ENGINEER or ENGINEER'S independent professional associates or consultants directly in connection with the Project, including expenses for: transportation and subsistence incidental thereto; reproduction of reports, graphics, and similar Project related items; and if authorized in advance by OWNER, overtime work requiring higher than regular rates. In addition, if authorized in advance by OWNER, Reimbursable Expenses will also include expenses incurred for computer time and other highly specialized equipment, including an appropriate charge for previously established programs and expenses of photographic production techniques times a factor of 1.0.

5.5 Ownership of Data

Documents and all products of this Agreement are to be the property of the OWNER.

5.6 Publication and Release of Information

The ENGINEER shall not copyright material developed under this Agreement without written authorization from the OWNER. The OWNER reserves a royalty-free non-exclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, the work for government purposes.

5.7 Acquisition of Property or Equipment

The acquisition of property or equipment will be in accordance with 49 CFR 18.32.

5.8 Subcontracting

ENGINEER shall perform all work except specialized services. Specialized services are considered to be those items not ordinarily furnished by ENGINEER which must be obtained for proper execution of this Agreement. Specialized services required by the study, if any, are itemized in EXHIBIT C of this Agreement.

Neither this Agreement nor any interest therein shall be assigned, sublet or transferred unless written permission to do so is granted by the OWNER. Subcontracts are to contain all the required provisions of the prime contract as required by 49 CFR Part 18, definitions.

5.9 Personnel Employment

The ENGINEER warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this agreement, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts, or any other considerations, contingent upon or resulting from the award of making of this Agreement. For breach or violation of this warranty, the OWNER

shall have the right to annul this Agreement without liability, or, in its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such fees, commission, percentage, brokerage fee, gift or contingent fee.

5.10 Nondiscrimination/ADA

The ENGINEER agrees to comply with the requirements of Title 49, CFR Part 21 and Title VI of the Civil Rights Act of 1964. The ENGINEER agrees to submit upon request quarterly Title VI (Civil Rights) State of Contractor reports to the State. The ENGINEER agrees to provide services in compliance with the Americans With Disabilities Act of 1990.

5.11 Claims

To the extent authorized by law, the ENGINEER shall indemnify and hold harmless the OWNER, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses and attorney fees, to the extent such claims are caused by any negligent performance of professional services by, the ENGINEER, its employees, agents, subcontractors or assignees.

To the extent authorized by law, the OWNER shall indemnify and hold harmless the ENGINEER, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses and attorney fees, to the extent such claims are caused by OWNER'S negligent acts in connection with the PROJECT and acts of its employees, agents, subcontractors or assignees.

It is further agreed that any and all employees of either party, while engaged in the performance of any work or services, shall not be considered employees of the other party, and that any and all claims that may or might arise under the Worker's Compensation Act of the State of South Dakota on behalf of said employees, while so engaged on any of the work or services provided to be rendered herein, shall in no way be the obligation or responsibility of the other party.

5.12 Acceptance and Modification

This Agreement together with the Exhibits and schedules identified above constitute the entire agreement between OWNER and ENGINEER and supersede all prior written or oral understandings. This Agreement and said Exhibits and schedules may only be amended, supplemented, modified or canceled after consultation with, and approval in writing by, the parties to this Agreement.

5.13 Termination or Abandonment

The ENGINEER and the OWNER share the right to terminate this Agreement upon giving thirty (30) days written notice of such cancellation to the other party. If this Agreement is terminated under this paragraph, ENGINEER shall deliver to OWNER all work product produced up to the time of termination. OWNER shall reimburse ENGINEER for all work completed to the date of termination.

SECTION 6- GOVERNING LAW

This agreement and any dispute arising out of this agreement shall be governed by the laws of the State of South Dakota.

6.1 Forum Selection

Any dispute arising out of this contract shall be litigated in the state court in South Dakota, which includes the City of Rapid City, currently, the Seventh Circuit Judicial Court for the State of South Dakota.

SECTION 7 - MERGER CLAUSE

This written agreement including Exhibit A "Scope of Work – Eglin Street Corridor Study," Exhibit B "Project Schedule" and Exhibit C "Manhour Estimate" constitutes the entire agreement of the parties. No other promises or consideration are a part of this agreement.

SECTION 8 - COMPLIANCE WITH CLEAN AIR ACT

ENGINEER stipulates that any facility to be utilized in the performance of this contract, under the Clean Air Act, as amended, Executive Order 11738, and regulations in implementation thereof is not listed on the U.S. Environmental Protection Agency List of Violating Facilities pursuant to 40 CFR 15.20 and that the OWNER and the State Department of Transportation shall be promptly notified of the receipt by the ENGINEER of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

SECTION 9 - CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

ENGINEER certifies, by signing this agreement, that neither it nor its Principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement by their duly authorized officers on the day, month and year first written above.

OWNER: BY: _____
Mayor

BY: _____
Finance Officer
City of Rapid City
300 Sixth Street
Rapid City, South Dakota 57701

ENGINEER: BY: _____
Dan Ferber, P.E.
Principal
Ferber Engineering Company
3471 Sturgis Road
Rapid City, South Dakota 57702

STATE OF SOUTH DAKOTA

COUNTY OF PENNINGTON

On this ____ day of November, 2002, before me, a Notary Public, personally appeared _____, known to me to be the Mayor of the City of Rapid City, and acknowledge to me that he did sign the foregoing document as such officer and for the purposes therein stated.

Notary Public

My Commission Expires:

(SEAL)

STATE OF SOUTH DAKOTA

COUNTY OF PENNINGTON

On this _____ day of November, 2002, before me, a Notary Public, personally appeared Dan Ferber, known to me to be a Principal of Ferber Engineering, and acknowledge to me that he did sign the foregoing document as such officer and for the purposes therein stated.

Notary Public

My Commission Expires:

(SEAL)

Address for Giving Notices:

City of Rapid City
Planning Department
300 Sixth Street
Rapid City, South Dakota 57701

Address for Giving Notices:

Ferber Engineering Company
3471 Sturgis Road
Rapid City, SD 57702

EXHIBIT A
SCOPE OF WORK
EGLIN STREET CORRIDOR STUDY

EGLIN STREET CORRIDOR STUDY – SCOPE OF WORK

100 - DATA REVIEW AND COLLECTION

110 - Review Documents and Coordinate With Appropriate Staff Regarding the Following:

- Rapid City Major Street Plan
- Future Land Use Plans
- Northeast Area Analysis
- East Anamosa Street Corridor Analysis
- I-90 Corridor Study
- Current and Proposed Interchange Designs
- SDDOT Crash Statistics

The consultant team will make contact with, and conduct activities necessary to collect listed documents from City, MPO and SDDOT sources. Where available, electronic files will be provided for document maps and figures. Consultant team will review available, relevant documents for consistency and accuracy with respect to current city and SDDOT planning. Inconsistencies discovered through the consultant review will be reported to the City for clarification and/or resolution.

The Consultant will contact City & SDDOT to obtain crash data and accident reports for the following study area segments and intersections:

- Street Segments:
 - Eglin Street, East North Street to Elk Vale Avenue
 - LaCrosse Street, I-90 to Anamosa
 - East North Street, Campbell to I-90
 - Elk Vale Road, I-90 to south of Eglin Street
- Intersections:
 - Eglin / Elk Vale
 - Eglin / Dyess
 - Eglin / East North
 - LaCrosse / Farnwood
 - LaCrosse / I-90
 - LaCrosse / Meridian
 - LaCrosse / Anamosa
 - East North / Anamosa

120 - Review Existing Conditions

- Roadway Network
- Existing Land Use
- Traffic Volumes
- Digital Topography and Photography

EXHIBIT A
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City will provide current and historical traffic count data in electronic (Excel) format. Traffic count data will include daily and hourly traffic counts with separate counts for large vehicles (trucks). Peak period turning movement counts will be provided for all critical study area intersections. Traffic count data will be provided for the following study area streets, highways and intersections:

- Streets / Highways:
 - Interstate Highway 90 (including ramps)
 - LaCrosse Street
 - Anamosa Street
 - Eglin Street
 - Elk Vale Road
 - Dyess Avenue
 - East North Street
- Intersections:
 - Eglin / Elk Vale
 - Eglin / Dyess
 - Eglin / East North
 - LaCrosse / Farnwood
 - LaCrosse / I-90
 - LaCrosse / Meridian
 - LaCrosse / Anamosa
 - East North / Anamosa
 - East North / I-90

Consultant team will review existing conditions traffic data for consistency and adequacy with respect to study activities and objectives. The consultant will notify the City immediately in the event of inconsistent or faulty data. No traffic count activities are included within this scope of services.

Consultant team will utilize parcel information, GIS centerline files and MrSid images already in its possession to formulate existing land use, roadway network and aerial photography database. Existing land use conditions will be tabulated, summarized, and mapped at the traffic analysis zone (TAZ) level using the TAZ structure developed for the ongoing Travel Demand Model Update project. Mapping will be developed using the TransCAD (GIS) platform to graphically document existing land use and development intensity. The city will provide electronic digital topography for use with study development. Digital topography will be provided in ArcINFO (.e00) or AutoCAD (.dxf) format for use with GIS and CADD software.

130 - Review Existing Drainage Information

- Review Flood Insurance Rate Maps
- Field Reconnaissance of Area to Include Major Channels, Bridges, Detention Cells and Primary Culverts
- Note Results on Base Maps

EXHIBIT A
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EGLIN STREET CORRIDOR STUDY

140 - Review Existing Utility Information

- Review Existing Water and Sewer Base Maps
- Review Northeast Area Interceptor Study
- Review Visitor Information Center Utility Study
- Review Existing Water and Sewer Master Plans

150 - Review Existing Traffic Information (Existing Conditions Assessment)

- Review Existing City and SDDOT Traffic Counts and Crash Reports for Area
- Review Existing Peak Hour Information for Study Area
- Review Existing Percent Trucks and Directional Splits for Study Area
- Review Crash History

Consultant team will utilize traffic count information to perform existing conditions assessment. Capacity analysis will be conducted for key study area intersections (8 each) and arterial segments (4 each) utilizing the Synchro/SimTraffic software platform. Capacity analysis results will be reported in Highway Capacity Manual format using the Synchro/SimTraffic software. Capacity analysis will be conducted to identify current and future do-nothing conditions and to document existing/predicted deficiencies. Planning level capacity analysis will be conducted to assess the ability of the existing roadway network to support current development and to provide reasonable access and connections to other city transportation system elements.

Crash reports will be utilized to develop crash rates for key study area intersections (8 each) and street segments (4 each). Crash rates for study area intersections and street segments will be compared against state or national averages for similar facilities to identify high-crash locations/segments. Where crash history indicates higher-than-average crash rates, crash reports will be utilized to identify crash type trends and to develop appropriate countermeasures.

160 - Prepare Project Location Map at Scale of 1" = 500'

- Show Project Boundaries, Existing and Proposed Arterial and Collector Streets, and Major Utility Features

Digital aerial photography provided by the City will be utilized as a background for project mapping where appropriate for easy orientation and identification of physical constraints. Use of both CADD and GIS mapping is anticipated. It is anticipated that project location maps will show roadway features (existing and proposed), drainage features, railroads, major utilities and parcel boundaries, if available. Project location maps may be produced using aerial photography as a background, where appropriate. We anticipate up to three (3) different project location maps will be required to depict all information clearly.

170 - Prepare Project Book

EXHIBIT A
SCOPE OF WORK
EGLIN STREET CORRIDOR STUDY

- Data Resource Inventory
- Contact List
- Project Standards
- Design Criteria
- Schedules
- Contract Documents

200 - PUBLIC INFORMATION AND PARTICIPATION

210 - Obtain and Format Microsoft Access 7.0 Database File:

The City will develop a Microsoft Access 7.0 database file for landowners within the study area. The file will be “tied to” parcel mapping (GIS) and both the database file and parcel mapping will be made available to the consultant for use with project development.

The database will be utilized to develop a mailing list of corridor study landowners for notification of meetings and presentations.

220 - Develop Presentation for Public Meetings regarding the Road Network Analysis:

Presentations will be developed to show the existing land use and roadway network of the study area. Presentations will include summary results of capacity and crash analyses, and will include identification of existing system deficiencies. Where appropriate and useful, SimTraffic animations will be utilized to demonstrate operational deficiencies.

Presentations will also show anticipated future road network and future capacity analysis. Drawings/graphics will also be developed to depict conceptual designs of key study area intersections/interchanges. Where appropriate and useful, SimTraffic animations will be utilized to demonstrate operational aspects of anticipated future improvements.

The agendas and announcements for public meetings will be developed by the consultant team and reviewed/approved by the City. The consultant team will conduct public meetings and document proceedings. The City will advertise public meetings, and provide meeting space for public meetings.

230 - Ten (10) Total Landowner Meetings or Public Presentations:

We anticipate up to ten (10) public/landowner meetings will be conducted to coordinate corridor study planning and obtain public/landowner input. Meetings will be utilized to communicate and refine expected access/circulation issues.

Three (3) general public meetings are anticipated. Public meetings will be conducted with a combination of consultant presentation and open house formats. The first public meeting will be scheduled early in the study to notify the public of the study, present existing information (traffic counts, land use, utilities, etc.). Study goals and objectives will also be presented. A second public meeting is

EXHIBIT A
SCOPE OF WORK
EGLIN STREET CORRIDOR STUDY

anticipated to present preliminary findings and anticipated recommendations. The final public meeting will present the final report and recommendations/findings. The final public meeting may be scheduled to coincide with the presentation of the final report to the Council or Planning Commission.

Up to seven (7) landowner meetings are anticipated. Landowner meetings may include meetings with single landowners or land owner groups. Landowner meeting will be held to discuss specific landowner access and circulation issues or utility needs/concerns. Meetings with landowners will be scheduled as necessary, as requested by the City, or as requested by landowners.

240 - Two (2) Each Meetings with Council, Planning Commission, EPC, TCC Presentations for the draft and final reports are anticipated for the Council, Planning Commission, EPC and TCC. Presentations are anticipated to include a combination of hard copy graphics and computerized presentation methods.

Presentations to Council, Commission, EPC and TCC groups will be scheduled by the City.

300 - EGLIN STREET CORRIDOR ANALYSIS AND STREET NETWORK STUDY

310 - Examine Relationship between Existing & Proposed Street Network Re: Eglin St.

- Future Cross Connection Between East Anamosa St. and Eglin St.
- Realignment of Eglin St. west of SDDOT (Menards Frontage Rd.)
- Eglin St., Beale St., Logan St. Intersection and Alignment
- Turbine Dr. extension at Eglin St. Intersection
- Future Access to Areas South of DME Railroad between East North St. and Elk Vale Rd.
- Future Access to Areas South of DME Railroad East of Elk Vale Rd.

The need for, and specific alignments of future study area streets will be developed as part of the corridor study. Current and/or future transportation needs will be assessed to determine the need (capacity, circulation or access) for additional transportation system elements.

Future land use projections will be utilized to develop study corridor travel demands on both a micro and macro scale. The magnitude of expected travel demands (see Task 320) will be utilized to plan the appropriate number and size of transportation elements. Expected modifications to the East North Street (Exit 60) and Elk Vale Road (Exit 61) interchanges will also be considered. Mapping of transportation element constraints (topography, existing/planned transportation elements, etc.) will be utilized to formulate transportation alternatives to meet expected demands.

Potential street and intersection improvements will be developed to the concept-design level to allow examination of capacity and operational elements. Concept

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designs will be depicted graphically to show the scale of improvements (number and length of auxiliary lanes, traffic controls, access constraints, etc.) and to enable operational assessments. Capacity/operational assessments for re-aligned streets and modified/new intersections are anticipated for up to 8 intersections and 4 street segments. Conceptual designs will also be utilized to develop estimates of probable construction and right-of-way costs.

320 - Develop Future Traffic Volume Projections Including: Twenty-Five (25) Yrs, Anticipated Buildout, and No Build Option

- Morning and Evening Peaks, Movements, and Directions
- Design Hourly Volumes (DHV)
- Peak Hour Factor (PHF)
- Level of Service
- Traffic Composition

Future traffic projections will be developed based on both historic growth of traffic volume and projected land use. ITE Trip Generation rates will be utilized to quantify daily travel demand for the study area and its individual traffic analysis zones for both existing and future land use. By comparing existing study area travel demand to existing traffic counts, the amount of through traffic (traffic with neither a trip origin or destination within the study area) will be determined. Future land use of the study area and surrounding areas will be utilized to quantify future study area trips and through traffic. Refinements of daily traffic demands will be made to develop estimates of future design hour volumes, directional demands, peak hour factors and traffic composition. Refinements of daily traffic demands will be based on ITE Trip Generation methodologies and on existing conditions traffic characteristics.

Future land use characteristics (type and magnitude) will be developed based on completed neighborhood plans and from information provided by the City. Future land use characteristics will be developed at the traffic analysis zone level. Future land use estimates will be submitted to the city for approval prior to their use for development of future travel demands and traffic volume estimates.

330 - Develop Recommendations for Eglin Street Alignment Based on Analyzing the Proposed Interchange Locations and Potential Traffic Weaving Movements Exiting the Interchange.

- East North Street Interchange (Exit 60)
- Elk Vale Road Interchange (Exit 61)

The SDDOT will be contacted to ascertain the status of, and current planning for both the East North Street and Elk Vale Road interchanges with I-90. We anticipate interchange reconstruction will have the potential to restrict access movements at current Eglin Street intersections and could change circulation patterns and traffic volumes within the study corridor. Current interchange

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planning and design will be utilized to develop recommendations for the location and configuration for Eglin Street alignments and intersections.

Interchange capacity assessments will be conducted using Highway Capacity Manual procedures using either Highway Capacity Software or Synchro/SimTraffic software. Anticipated are analysis of signalized intersections, arterial signal systems (coordination), and weaving sections.

Based on operational analyses, the Consultant Team will develop recommendations for City streets and intersections in light of interchange reconstruction impacts identified. Recommendations are anticipated to include intersection location, geometry, and traffic control.

340 - Develop Conceptual Design for Existing and Future Roadway and Intersection / Interchange Needs

- Identify and Prepare Preliminary Designs for 3 Alternatives between East North St and Lacrosse St
- Intersection Alignment at Lacrosse St and Eglin St
- Intersection Alignment at Eglin St and East North St intersection
- Intersection Alignment at Eglin St and Menards Frontage Rd
- Dyess Avenue Alternatives
- Eglin St, Beale St, Logan St Intersection and Alignment
- Intersection Alignment at Eglin St and Elk Vale Road
- Railroad Crossings at East North St, Logan St, and East of Elk Vale Rd

Based on the transportation elements identified in Task 310, conceptual designs will be developed for key study area intersections listed above. Based on capacity analysis and estimated future travel demands, conceptual intersection designs will include types of intersection treatments (auxiliary lane needs, traffic control requirements). The need for traffic signal control will be determined through an assessment of traffic signal warrants listed in the Millennium Edition of the Manual of Traffic Control Devices. We anticipate conducting signal warrant assessments for up to four (4) locations. Where traffic signal control is anticipated, operational requirements (phasing, timing, etc.) will be ascertained. Pedestrian requirements will be included with development of signal timing parameters. The need/desire for coordination with adjacent traffic signals will also be assessed. We anticipate assessing coordination recommendations for North Street and LaCrosse Street.

Conceptual designs and alignments will also be developed for roadway segments listed and potential crossings of the DM&E Railway. Concept plans will include roadway plan and profile alignment and show auxiliary lane requirements. Any proposed crossings of the DM&E will be coordinated with the DM&E to ensure current planning of the DM&E is considered. Plans will be developed based on topographic and mapping information provided by the City. No physical survey

EXHIBIT A
SCOPE OF WORK
EGLIN STREET CORRIDOR STUDY

of alternative corridors or existing infrastructure is included with this scope of services. The need for, and geometric requirements of auxiliary lanes will be quantified to support development of conceptual drawings sufficient to identify magnitude of improvements and right-of-way requirements.

400 - REPORTS AND MEETINGS

410 - Provide CORC and SDDOT with 15 Copies of Draft Corridor Analysis and Street Network Study Prior to Completion of Final Draft Reports.

The consultant will publish fifteen (15) copies of the Draft Corridor Analysis and Street Network Study and deliver such reports to the City. The City will distribute study copies to appropriate city, county and state agencies. The draft study will include an executive summary, contain preliminary findings and recommendations, and will include other information developed as part of the study that is relevant to findings/recommendations.

420 - Review and Become Familiar With Requirements of the Federal Highway Administration Pertaining to Federal Aid Road Projects and Include all necessary Items to Satisfy those Requirements.

430 - Provide Originals of Revised Draft Reports throughout the Public Meeting and Comment Process.

In addition to the fifteen (15) copies of the Draft Corridor Analysis and Street Network Study referenced in Task 410, the consultant shall also provide a camera-ready original to the City for reproduction and distribution during the public meeting and comment phase of the project.

440 - Provide CORC, FHWA, and SDDOT 40 Copies of Final Report.

Following completion of the public comment/review phase, the consultant will provide forty (40) copies of the final report to the City for distribution to city, county, state and federal agencies. A camera-ready original will also be provided to the City for their records and potential subsequent reproduction needs.

450 – Prepare for, and present the Draft and Final Reports of the Corridor Analysis and Street Network Study to the Rapid City Council, Citizens Advisory Committee, Technical Coordinating Committee, and the Executive Policy Committee.

500 –EGLIN STREET CORRIDOR UTILITY ANALYSIS

510 –Evaluate Impact of Road Alignment on Sanitary Sewer in the Eglin Street Area.

After reviewing and familiarizing ourselves with the Sanitary Sewer Plans for the Eglin Street area as detailed in the Northeast Area Analysis and the East Anamosa Street Corridor Study, Consultant Team will evaluate impact of roadway alternatives on development of sewer collection system within the Study area.

EXHIBIT A
SCOPE OF WORK
EGLIN STREET CORRIDOR STUDY

520 –Prepare and Submit Report on Utility Analysis.

Consultant Team will prepare a Report on the extent and results of our Analysis.

EXHIBIT B

Eglin Street (SD Highway 230) Corridor Analysis

PROJECT SCHEDULE

TASK	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03
Form Project Advisory Committee - Project Kick-off	■					
Data Collection & Review	■	■				
Existing Conditions Analysis & Mapping		■	■			
Future Traffic Projections		■				
Future Conditions Analysis / Deficiencies Identification			■	■		
Development of Potential Solution Alternatives			■	■		
Evaluation / Selection of Improvement Alternatives						
Draft Report				■		
Final Report						■
Public Meetings/Presentations		■		■		■
Project Team/Coord. Committee Meetings	■	■		■	■	■

EXHIBIT C

**EGLIN STREET (SD HIGHWAY 230)
CORRIDOR ANALYSIS**
Manhour Estimate - 10/04/02

Task No.	Task Item	Dan Ferber	Chuck Strum	Ron Moore	John Van Beek	Will Ralph	Whitney Jagelski	Donna Schoenberner	Total Hours	Reimbursable Expenses
100	Data Review and Collection								0	
110	Review Documents and Coordinate With Appropriate Staff		4			8			12	
	Rapid City Major Street Plan	1			1				2	
	Future Land Use Plans	2			1				3	
	Northeast Area Analysis	2			1				3	
	East Anamosa Street Corridor Analysis	2			1				3	
	I-90 Corridor Study	2			1				3	
	Current and Proposed Interchange Designs	3			1				4	
	SDDOT Accident Statistics	1			1				2	
120	Review Existing Conditions		6			12			18	
	Roadway Network	1			1				2	
	Existing Land Use	1			1				2	
	Traffic Volumes	1							1	
	Digital Topography and Photography	1			8			12	21	
130	Review Existing Drainage Information								0	
	Review Flood Insurance Rate Maps	1			2				3	
	Field Reconnaissance of Area to Include Major Channels, Bridges,	1			8				9	
	Note Results on Base Maps	1			4			12	17	
140	Review Existing Utility Information								0	
	Review Existing Water and Sewer Base Maps				2				2	
	Review Northeast Area Interceptor Study				1				1	
	Review Visitor Information Center Utility Study				1				1	
	Review Existing Water and Sewer Master Plans				2				2	
150	Review Existing Traffic Information		8			18			26	
	Review Existing City and SDDOT Traffic Counts and Accident Reports	1							1	
	Review Existing Peak Hour Information for Study Area	1							1	
	Review Existing Percent Trucks and Directional Splits for Study Area	1							1	
	Review Accident History	1							1	
160	Prepare Project Location Map at Scale of 1" = 500'		4			6			10	
	Show Project Boundaries, Existing and Proposed Arterial and Collector	4			16			24	44	
170	Prepare Project Book								0	
	Data Resource Inventory	2			2				4	
	Contact List	2			1				3	
	Project Standards	4			4				8	
	Design Criteria	2			1				3	
	Schedules	2			1				3	
	Contract Documents	2			8			16	26	
	Section 100 Manhour Subtotal	42	22	0	70	44	0	64	242	0
200	Public Information and Participation									
210	Obtain and Format Microsoft Access 7.0 Database File	2	2			4	4	8	20	
220	Develop Presentation for Public Meetings regarding the Road	8	8		12	16		24	68	\$ 800.00
230	Ten (10) Total Landowner Meetings or Public Presentations	24	32		16	8	4	8	92	\$ 800.00
240	Two (2) Each Meetings with Council, Planning Commission, EPC,	32	48		16	8			104	\$ 1,200.00
	Section 200 Manhour Subtotal	66	90	0	44	36	8	40	284	\$ 2,800.00

EXHIBIT C

**EGLIN STREET (SD HIGHWAY 230)
CORRIDOR ANALYSIS**

Manhour Estimate - 10/04/02

Task No.	Task Item	Dan Ferber	Chuck Strum	Ron Moore	John Van Beek	Will Ralph	Whitney Jagelski	Donna Schoenberner	Total Hours	Reimbursable Expenses
300	Eglin Street Corridor Analysis and Street Network Study									
310	Examine Relationship between Existing & Proposed Street Network		12			18			30	
	Future Cross Connection Between East Anamosa St and Eglin St	4			16				20	
	Realignment of Eglin St west of SDDOT (Menards Frontage Rd)	4			12				16	
	Eglin St, Beale St, Logan St Intersection and Alignment	2			8				10	
	Turbine Dr at Eglin St Intersection	2			8				10	
	Future Access to Areas South of DME Railroad between North St and Elk	4			12				16	
	Future Access to Areas South of DME Railroad East of Elk Vale Rd	4			8				12	
320	Develop Future Traffic Volume Projections Including: Present Conditions, Twenty-Five (25) Yrs, Anticipated Buildout, and No	4	12			24			40	
	Morning and Evening Peaks, Movements, and Directions								0	
	Design Hourly Volumes (DHV)								0	
	Peak Hour Factor (PHF)								0	
	Level of Service								0	
	Traffic Composition								0	
330	Develop Recommendations for Eglin Street Alignment Based on Analyzing the Proposed Interchange Locations and Potential Traffic	12	24		8	8			52	
	North Street Interchange								0	
	Elk Vale Road Interchange								0	
340	Develop Conceptual Design for Existing and Future Roadway and Intersection / Interchange Needs		24	32		32			88	
	Identify and Prepare Conceptual Designs for 3 Alternatives Between	6			32			32	70	
	Intersection Alignment at Lacrosse St and Eglin St	4			8			6	18	
	Intersection Alignment at Eglin St and North St intersection	4			8			6	18	
	Intersection Alignment at Eglin St and Menards Frontage Rd	4			8			6	18	
	Dyess Avenue Alternatives	4			8			6	18	
	Eglin St, Beale St, Logan St Intersection and Alignment	4			8			6	18	
	Intersection Alignment at Eglin St and Elk Vale Road	4			8			6	18	
	Railroad Crossings at North St, Logan St, and East of Elk Vale Rd	4			12			8	24	
350	Street Network Study	8				12			16	36
	Section 300 Manhour Subtotal	78	72	32	176	82	0	92	532	\$ -
400	Reports and Meetings									
410	Provide CORC and SDDOT with 15 Copies of Draft Corridor Analysis and Street Network Study Prior to Completion of Final Draft Reports	16	18	2	12	8	8	12	76	\$ 50.00
420	Review and Become Familiar With Requirements of the Federal Highway Administration Pertaining to Federal Aid Road Projects and Include all necessary Items to Satisfy those Requirements.	4	4						8	
430	Provide Originals of Revised Draft Reports throughout the Public Meeting	4			8			8	20	
440	Provide CORC, FHWA, and SDDOT 40 Copies of Final Report.	4	4	2	8	4		8	30	\$ 500.00
450	Present the Draft and Final Reports of the Corridor Analysis and Street Network Study to the Rapid City Council, Citizens Advisory Committee, Technical Coordinating Committee, and the Executive Policy Committee.	40	40		20	4		20	124	\$ 800.00
	Section 400 Manhour Subtotal	68	66	4	48	16	8	48	258	\$ 1,350.00

EXHIBIT C

**EGLIN STREET (SD HIGHWAY 230)
CORRIDOR ANALYSIS**

Manhour Estimate - 10/04/02

Task No.	Task Item	Dan Ferber	Chuck Strum	Ron Moore	John Van Beek	Will Ralph	Whitney Jagelski	Donna Schoenberner	Total Hours	Reimbursable Expenses
500	Eglin Street Corridor Utility Analysis									
510	Evaluate Impact of Road Alignment on Sanitary Sewer in the Eglin								0	
	Evaluate Impact of Alternative Roadway Alignments on Sewer Outfall	6			24				30	
	Prepare and Submit Report on Analysis	4			8				12	
520	Section 500 Manhour Subtotal	10	0	0	32	0	0	0	42	0
	Manhour Totals	264	250	36	370	178	16	244	1358	\$ 4,150.00

FERBER / INTERSTATE LABOR RATES	Direct Labor	Total	Total Direct-
Dan Ferber	\$28.85	264	\$7,616.40
John Van Beek	\$19.90	370	\$7,363.00
Donna Schoenberner	\$15.50	244	\$3,782.00
Chuck Strum	\$40.96	250	\$10,240.00
Ron Moore	\$35.48	36	\$1,277.28
Will Ralph	\$17.31	178	\$3,081.18
Whitney Jagelski	\$5.19	16	\$83.04

Ferber Engineering Direct Labor Cost	\$18,761.40
Ferber Engineering Company Overhead (159.19%)	\$29,866.27
Ferber Engineering Company Facilities Capital Cost of Money (12.59%)	\$2,362.06
Ferber Engineering Company Labor Total	\$50,989.73
Ferber Engineering Company Fixed Fee (12%)	\$6,118.77
Ferber Engineering Company Reimbursable Expense	\$1,350.00
Ferber Engineering Company Total	\$58,458.50

Interstate Engineering Direct Labor Cost	\$14,681.50
Interstate Engineering Company Overhead (145.0%)	\$21,288.18
Interstate Engineering Company Labor Total	\$35,969.68
Interstate Engineering Company Fixed Fee (12%)	\$4,316.36
Interstate Engineering Company Reimbursable Expense	\$2,800.00
Interstate Engineering Company Total	\$43,086.04

PROJECT TOTAL:	\$101,544.54
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