REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: January 17, 2012

Project Name & Number: West Chicago and Staton Place Reconstruction and Drainage Improvements Project No. 12-1187 Project Description: To provide professional engineering services.						
Consultant: Ferbe	er Engineering	Company, I	nc.			
Original Contract Amount:	\$170,730.00	Or	iginal ontract Date:	April 16, 2012	Original Completion Date:	March 31, 2013
Addendum No:						
Amendment Descrip	tion:					
Cha	Current Contract Amount: Change Requested: New Contract Amount: \$0.00 Current Completion Date: New Completion Date:					
Funding Source This	s Request:		1		-	
Amount	Dept.	Line Item	Fund		Comments	
\$47,675.0	0 833	4223	604			
\$93,090.0		4223	602			
\$29,965.0	8911	4223	505			
\$170,730.00	Total					
Agreement Review & Approvals						
Project Manager Date Date Division Manager Date Date Date Division Manager Date Date Date Date Date Date						

ROUTING INSTRUCTIONS

Route **two** originals of the **Agreement** for review and signatures.

Finance Office - Retain one original

Project Manager - Retain second original for delivery to Consultant

cc: Public Works

Engineering Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write	date of Agreement in appropriate space in t	he Agreemen	t document)
	Date Initials	Appr	oved .
Appropriation		Y.	N
Cash Flow		Y	N

Agreement Between City of Rapid City and Ferber Engineering Company, Inc. for Professional Services for West Chicago and Staton Place Reconstruction and Drainage Improvements, Project No. 12-1187 / CIP No. 50364

AGREEMENT made,	2012, between the City of Rapid City, SD
(City) and Ferber Engineering Company, Inc.	., (Engineer), located at 729 E. Watertown
Street Rapid City, SD 57701. City intends	to obtain services for West Chicago and
Staton Place Reconstruction and Drainage	Improvements, Project No. 12-1187, CIP
No.50364. The scope of services is as describ	ped in Exhibits A and B.

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project as defined in Exhibits A and B, serve as the City's professional engineering representative for the Project, and give professional engineering consultation and advice to the City while performing its services.

Section 1—Basic Services of Engineer

1.1 General

- 1.1.1 The Engineer shall perform professional services described in this agreement, which include customary engineering services. Engineer intends to serve as the City's professional representative for those services as defined in this agreement and to provide advice and consultation to the City as a professional. Any opinions of probable project cost, approvals, and other decisions provided by Engineer for the City are rendered on the basis of experience and qualifications and represent Engineer's professional judgment.
- 1.1.2 All work shall be performed by or under the direct supervision of a professional Engineer licensed to practice in South Dakota.
- 1.1.3 All documents including Drawings and Specifications provided or furnished by Engineer pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership therein. Reuse of any documents pertaining to this project by the City on extensions of this project or on any other project shall be at the City's risk. The City agrees to defend, indemnify, and hold harmless Engineer from all claims, damages, and expenses including attorney's fees arising out of such reuse of the documents by the City or by others acting through the City.

1.2 Scope of Work

The Engineer shall:



- 1.2.1 Consult with the City, other agencies, groups, consultants, and/or individuals to clarify and define requirements for the Project and review available data.
- 1.2.2 Perform the tasks described in the Scope of Services. (See Exhibits A and B.)
- 1.2.3 Conduct a location survey of the Project to the extent deemed necessary to provide adequate site information.
- 1.2.4 Prepare a report presenting the results of the study as outlined in the scope of services.

Section 2—Information Provided by City

The City will provide any information in its possession for the project at no cost to the Engineer.

Section 3—Notice to Proceed

The City will issue a written notification to the Engineer to proceed with the work. The Engineer shall not start work prior to receipt of the written notice. The Engineer shall not be paid for any work performed prior to receiving the Notice to Proceed.

Section 4—Mutual Covenants

4.1 General

- 4.1.1 The Engineer shall not sublet or assign any part of the work under this Agreement without written authority from the City.
- 4.1.2 The City and the Engineer each binds itself and partners, successors, executors, administrators, assigns, and legal representatives to the other party to this agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, regarding all covenants, agreements, and obligations of this agreement.
- 4.1.3 Nothing in this agreement shall give any rights or benefits to anyone other than the City and the Engineer.
- 4.1.4 This agreement constitutes the entire agreement between the City and the 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.



- 4.1.5 The Engineer shall make such revisions in plans which may already have been completed, approved, and accepted by the City, as are necessary to correct Engineer's errors or omissions in the plans, when requested to do so by the City, without extra compensation therefore.
- 4.1.6 If the City requests that previously satisfactorily completed and accepted plans or parts thereof be revised, the Engineer shall make the revisions requested by the City. This work shall be paid for as extra work.
- 4.1.7 If the City changes the location from the one furnished to the Engineer, or changes the basic design requiring a new survey for the portions so changed, the redesign will be paid for as extra work.
- 4.1.8 The City may at any time by written order make changes within the general scope of this Agreement in the work and services to be performed by the Engineer. Any changes which materially increase or reduce the cost of or the time required for the performance of the Agreement shall be deemed a change in the scope of work for which an adjustment shall be made in the Agreement price or of the time for performance, or both, and the Agreement shall be modified in writing accordingly. Additional work necessary due to the extension of project limits shall be paid for as extra work.
- 4.1.9 Extra work, as authorized by the City, will be paid for separately and be in addition to the consideration of this Section.
- 4.1.10 For those projects involving conceptual or process development services, activities often cannot be fully defined during the initial planning. As the project does progress, facts and conditions uncovered may reveal a change in direction that may alter the scope of services. Engineer will promptly inform the City in writing of such situations so that changes in this agreement can be renegotiated.
- 4.1.11 This Agreement may be terminated (a) by the City with or without cause upon seven days' written notice to the Engineer and (b) by the Engineer for cause upon seven days' written notice to the City. If the City terminates the agreement without cause, the Engineer will be paid for all services rendered and all reimbursable expenses incurred prior to the date of termination.

If termination is due to the failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete it. In such case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer's action.



- 4.1.12 The City or its duly authorized representatives may examine any books, documents, papers, and records of the Engineer involving transactions related to this agreement for three years after final payment. All examinations will be performed at reasonable times, with proper notice. Engineer's documentation will be in a format consistent with general accounting procedures.
- 4.1.13 The City shall designate a representative authorized to act on the City's behalf with respect to the Project. The City or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Engineer in order to avoid unreasonable delay in the orderly and sequential progress of the Engineer's services.
- 4.1.14 Costs and schedule commitments shall be subject to renegotiation for delays caused by the City's failure to provide specified facilities or information or for delays caused by other parties, excluding subcontractors and sub-consultants, unpredictable occurrences including without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God, or the public enemy, or acts of regulations of any governmental agency or any other conditions or circumstances beyond the control of the City or Engineer. Temporary delays of services caused by any of the above which results in additional costs beyond those outlined may require renegotiation of this agreement.
- 4.1.15 The City will give prompt written notice to the Engineer if the City becomes aware of any fault or defect in the Project or nonconformance with the Project Documents.
- 4.1.16 Unless otherwise provided in this Agreement, the Engineer and the Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos products, polychlorinated biphenyl (PCB), or other toxic substances.
- 4.1.17 In the event asbestos or toxic materials are encountered at the jobsite, or should it become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of Engineer's services, Engineer may, at their option and without liability for consequential or any other damages, suspend performance of services on the project until the City retains



- appropriate specialist CONSULTANT(S) or contractor(s) to identify, abate, and/or remove the asbestos or hazardous or toxic materials.
- 4.1.18 This agreement, unless explicitly indicated in writing, shall not be construed as giving Engineer the responsibility or authority to direct or supervise construction means, methods, techniques, sequences, or procedures of construction selected by any contractors or subcontractors or the safety precautions and programs incident to the work of any contractors or subcontractors.
- 4.1.19 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants.
- 4.1.20 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or any way involving the specification or recommendation of asbestos, in any form, or any claims based upon use of a product containing asbestos.
- 4.1.21 Engineer hereby represents and warrants that it does not fail or refuse to collect or remit South Dakota or City sales or use tax for transactions which are taxable under the laws of the State of South Dakota.

4.2 City of Rapid City NonDiscrimination Policy Statement

In compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination act of 1975, the Americans with Disabilities Act of 1990, and other nondiscrimination authorities it is the policy of the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701-5035, to provide benefits, services, and employment to all persons without regard to race, color, national origin, sex, disabilities/handicaps, age, or income status. No distinction is made among any persons in eligibility for the reception of benefits and services provided by or through the auspices of the City of Rapid City.

Engineer will permit access to any and all records pertaining to hiring and employment and to other pertinent data and records for the purpose of enabling the Commission, its agencies or representatives, to ascertain compliance with the above provisions.

This section shall be binding on all subcontractors or suppliers.



Section 5—Payments to the Engineer

5.1 Schedule of Pay Rates

The City will pay the Engineer for services rendered or authorized extra work according to the Engineer's hourly rate schedule. (See Exhibit C.)

5.2 **Fee**

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed \$170,730.00 unless the scope of the project is changed as outlined in Section 4. If expenses exceed the maximum amount, the Engineer shall complete the design as agreed upon here without any additional compensation. Sub task dollar amounts may be reallocated to other tasks as long as the total fee is not exceeded. Prime consultant may not mark up subconsultant or sub-contractor services.

5.3 **Progress Payments**

Monthly progress payments shall be processed by the City upon receipt of the claim as computed by the Engineer based on work completed during the month at the rates established in Section 5.1 and approved by the City.

Net payment to the Engineer shall be due within forty-five (45) days of receipt by the City.

Section 6—Completion of Services

The Engineer shall complete services on or before March 31, 2013 based on an award date of April 16, 2012.

Section 7—Insurance Requirements

7.1 Insurance Required

The Engineer shall secure the insurance specified below. The insurance shall be issued by insurance company(s) acceptable to the City and may be in a policy or policies of insurance, primary or excess. Certificates of all required insurance including any policy endorsements shall be provided to the City prior to or upon the execution of this Agreement.

7.2 Cancellation

The Engineer will provide the City with at least 30 days' written notice of an insurer's intent to cancel or not renew any of the insurance coverage. The



Contractor agrees to hold the City harmless from any liability, including additional premium due because of the Contractor's failure to maintain the coverage limits required.

7.3 City Acceptance of Proof

The City's approval or acceptance of certificates of insurance does not constitute City assumption of responsibility for the validity of any insurance policies nor does the City represent that the coverages and limits described in this agreement are adequate to protect the Engineer, its consultants or subcontractors interests, and assumes no liability therefore. The Engineer will hold the City harmless from any liability, including additional premium due, because of the Engineer's failure to maintain the coverage limits required.

7.4 Specific Requirements

- 7.4.1 Workers' compensation insurance with statutory limits required by South Dakota law. Coverage B-Employer's Liability coverage of not less than \$500,000 each accident, \$500,000 disease-policy limit, and \$500,000 disease-each employee.
- 7.4.2 Commercial general liability insurance providing occurrence form contractual, personal injury, bodily injury and property damage liability coverage with limits of not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate, and \$2,000,000 aggregate products and completed operations. If the occurrence form is not available, claims-made coverage shall be maintained for three years after completion of the terms of this agreement. The policy shall name the City and its representatives as an additional insured.
- 7.4.3 Automobile liability insurance covering all owned, nonowned, and hired automobiles, trucks, and trailers. The coverage shall be at least as broad as that found in the standard comprehensive automobile liability policy with limits of not less than \$1,000,000 combined single limit each occurrence. The required limit may include excess liability (umbrella) coverage.
- 7.4.4 Professional liability insurance providing claims-made coverage for claims arising from the negligent acts, errors or omissions of the Engineer or its consultants, of not less than \$1,000,000 each occurrence and not less than \$1,000,000 annual aggregate. Coverage shall be maintained for at least three years after final completion of the services.



Section 8—Hold Harmless

The Engineer hereby agrees to hold the City harmless from any and all claims or liability including attorneys' fees arising out of the professional services furnished under this Agreement, and for bodily injury or property damage arising out of services furnished under this Agreement, providing that such claims or liability are the result of a negligent act, error or omission of the Engineer and/or its employees/agents arising out of the professional services described in the Agreement.

Section 9—Independent Business

The parties agree that the Engineer operates an independent business and is contracting to do work according to his own methods, without being subject to the control of the City, except as to the product or the result of the work. The relationship between the City and the Engineer shall be that as between an independent contractor and the City and not as an employer-employee relationship. The payment to the Engineer is inclusive of any use, excise, income or any other tax arising out of this agreement.

Section 10-Indemnification

If this project involves construction and Engineer does not provide consulting services during construction including, but not limited to, onsite monitoring, site visits, site observation, shop drawing review and/or design clarifications, City agrees to indemnify and hold harmless Engineer from any liability arising from the construction activities undertaken for this project, except to the extent such liability is caused by Engineer's negligence.

Section 11-Controlling Law and Venue

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

Section 12-Severability

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.

Section 13—Funds Appropriation

If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this agreement, this agreement shall impose no obligation on the City for payment. This agreement is null and void except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, and no right of action or



damage shall accrue to the benefit of the Engineer, its successors or assignees, for any further payments. For future phases of this or any project, project components not identified within this contract shall not constitute an obligation by the City until funding for that component has been appropriated.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

City of Rapid City:	Engineer:
MAYOR	FERBER ENGINEERING COMPANY, INC.
DATE:	DATE:
ATTEST:	
FINANCE OFFICER	
Reviewed By:	
KEITH JOHNSON, PROJECT MANAGER	₹
DATE:	·
CITY'S DESIGNATED PROJECT REPRESENTATIVE	ENGINEERING FIRM'S DESIGNATED PROJECT REPRESENTATIVE
NAME Keith Johnson PHONE 605-394-4154 EMAIL keith.johnson@rcgov.org	NAME Dave Muck PHONE 605-343-3311 EMAIL davemuck@ferberengineering .com



EXHIBIT A

The City has determined the need to procure professional services including Preliminary Design Services, Final Design Services, Bidding Services, Basic Construction Services, and Expanded Construction Services for the West Chicago Street and Staton Place Reconstruction project. The project includes reconstruction of the sanitary sewer and water mains, sewer and water service lines, streets, ADA improvements and the construction of major drainage improvements to South Canyon.

It is anticipated that the improvements will include the following:

- 1. South Canyon Drainage design will include evaluation of drainage alternatives including 1) an approximately 800-foot long box culvert capable of handling approximately 1,650 cfs that extends under the existing split lanes of West Chicago Street and the existing median as well as 2) evaluation of reconstructing West Chicago Street as a head-to-head street, modifying the north side local streets and constructing an open channel with an approximately 150-foot box culvert under West Chicago Street. Determination of alternative will be in consultation with City Staff and local residents.
- 2. West Chicago Street Reconstruction of the sanitary sewer main from San Marco Boulevard to Seeaire Street along the existing east bound West Chicago Street; reconstruction of the Pinedale High-High Zone water main from Wedgewood Drive to Seeaire Street; Reconstruction of West Chicago Street with street section determined in Item 1 (above) including reconstruction of curb and gutter, pavement and sidewalk. A sidewalk will also be constructed along the north side of the right-of-way extending from N 48th Street to the existing sidewalk along the north side of West Chicago Street. A median landscape irrigation system will be constructed between South Canyon Road and Seeaire Street.
- 3. Staton Place Reconstruction of the cul-de-sac including sanitary sewer main and services, water main and services, curb and gutter, pavement and sidewalk.

Tasks 1 through 3 presented in this Exhibit are "Standard" items, requested by the City. Tasks 4 and 5 (not shown) are "Standard" construction tasks and, at the City's request, will be completed for this Project by Ferber Engineering Company, Inc., with scope and budget to be negotiated prior to the completion of Task 3.

TASK 1 - PRELIMINARY DESIGN SERVICES:

- 1.1 Kick-off Conference: The Engineer shall meet with City staff to detail project concept and scope. The Engineer shall prepare a n agenda, take minutes and distribute minutes.
- 1.2 Gather and review background information listed in the Request for Proposals and any other resources as necessary.
- 1.3 Develop and distribute a survey questionnaire to property owners adjacent to proposed construction areas approximately 3 months or more ahead of soliciting bids for construction. The questionnaire should be developed to obtain information on site-specific



concerns such as landscaping or irrigation systems, service line locations, special needs such as access considerations during construction, or history of utility or infrastructure problems at the property. Questionnaires would be returned to and evaluated by the consultant, who would follow up with appropriate individual contact with property owners prior to completion of 100% plans and contract documents to review project considerations that may be addressed or mitigated by the project work.

- 1.4 Perform site surveys sufficient for design plan preparation. The route and topography survey shall be tied to at least two City of Rapid City Monument Control system monuments utilizing State Plane coordinates.
- 1.5 Engineer will provide the following geotechnical services through Subconsultant contract with American Engineering Testing, Inc.
 - 1.5.1 Soil borings at two locations to verify information collected under project ST02-1071.
 - 1.5.2 Installation of piezometers in the two boreholes for collection of groundwater elevations during design of the project.
 - 1.5.3 Complete three (3) resistivity tests along the West Chicago Street water main alignment.
 - 1.5.4 Prepare a report summarizing lab testing and provide recommendations.
- 1.6 Engineer will provide the following structural services through Subconsultant contract with Albertson Engineering, Inc.
 - 1.6.1 Preliminary designs of concrete wall or MSE block retaining wall options.
 - 1.6.2 Prepare construction drawings and specifications for retaining walls.
- 1.7 Engineer will provide the following landscape design services through Subconsultant contract with Designworks, Inc.
 - 1.7.1 Coordination of concepts for drainage channels, erosion control, retaining walls and slope stabilization.
 - 1.7.2 Prepare preliminary concepts for irrigation and landscape sy stems.
 - 1.7.3 Evaluate and determine topsoil requirements and supplemental soil amendments.
 - 1.7.4 Prepare construction drawings and specifications for landscaping improvements.
- 1.8 Engineer shall complete a preliminary design investigation.
 - 1.8.1 Street
 - 1.8.1.1 Engineer will prepare two (2) horizontal and vertical layouts of West Chicago Street: 1) reconstruction of the street and intersecting streets in their existing locations to accommodate underground regional drainage facilities, and 2) reconstruction of the street as head-to-head along the existing east bound lane of West Chicago Street to accommodate limited underground regional drainage facilities.
 - 1.8.1.2 Engineer will select a street alternative based on local property owner input as well as City staff input.
 - 1.8.1.3 Engineer will provide selected alternative in plan and profile sheets for 50% design submittal.
 - 1.8.1.4 Engineer will prepare horizontal and vertical layout for intersecting streets for selected West Chicago Street alternative.



1.8.1.5 Engineer will evaluate sidewalk/bikepath, driveways, etc with regard to the selected horizontal and vertical layouts and typical sections and ADA compliance.

1.8.2 Sanitary Sewer

- 1.8.2.1 Engineer will estimate design sewer flows using RCIDCM criteria based upon contributing neighborhood at San Marco Boulevard and N. 48th Street in order to determine minimum allowable sanitary sewer slope such that d/D = 0.7.
- 1.8.2.2 Engineer will provide horizontal and vertical layout of sanitary sewer main in West Chicago Street to intercept northward flow at San Marco Boulevard and direct flow eastward to new manhole at Gray's Drive.
- 1.8.2.3 Engineer will provide horizontal layout of sanitary sewer main in Staton Place to change the flow direction from north to south.
- 1.8.2.4 Engineer will show sanitary sewer mains to be abandoned.
- 1.8.2.5 Engineer will show new sanitary sewer service locations to reconnect to existing or proposed sanitary sewer mains along West Chicago Street and South Canyon Road.
- 1.8.2.6 Engineer will show proposed resolutions of noncompliant and combined sanitary sewer services.

1.8.3 Water

- 1.8.3.1 Engineer will provide horizontal and vertical layout of Pinedale High-High water main in West Chicago Street between Wedgewood Drive and Seeaire Street.
- 1.8.3.2 Engineer will provide horizontal and vertical layout of water main in Staton Place.
- 1.8.3.3 Engineer will show existing water mains to be abandoned.
- 1.8.3.4 Engineer will evaluate conversion of the Staton Place residences from the South Canyon High pressure zone to the Pinedale High-High pressure zone.
 - 1.8.3.4.1 No water system modeling will be completed for this project. Evaluation will be completed based upon the Pinedale and South Canyon reservoir overflow elevations.
- 1.8.3.5 Engineer will show proposed resolutions of noncompliant and combined water services.

1.8.4 Drainage

- 1.8.4.1 Engineer shall provide two alternative horizontal and vertical layouts of possible major drainage facilities for South Canyon: 1) full length of box culvert from north side of west bound West Chicago Street to the south side of the east bound West Chicago Street; and 2) open channel up to the existing intersection of Staton Place and West Chicago Street and box culvert under realigned West Chicago Street. The extent of the preliminary layouts will be from downstream of West Chicago Street to San Marco Boulevard.
- 1.8.4.2 Engineer shall evaluate the <u>South Canyon Lime Creek Drainage Basin</u>

 Design Plan discharges by areal reduction of the United States Army Corps



- of Engineers prepared discharges for the 2010 Preliminary Digital Flood Insurance Rate Maps (DFIRM)
- 1.8.4.3 Engineer shall provide typical sections at critical locations within the proposed drainage improvements for evaluation purposes.
- 1.8.4.4 Engineer shall hydraulically evaluate the proposed layouts utilizing HEC-RAS.
 - 1.8.4.4.1 City will provide the HEC-RAS model developed by the United States Army Corps of Engineers for the 2010 FEMA DFIRM mapping.
- 1.8.4.5 Street drainage facilities, including storm inlets and storm sewer, will be evaluated on an as needed basis per the RCIDCM. Proposed local drainage facilities will be provided in the appropriate street plan and profile drawings.
- 1.8.4.6 Engineer will develop stormwater quality treatment areas within proposed landscaping. Proposed stormwater quality treatment facilities will be sized for local contributing flows and in accordance with the Rapid City Stormwater Quality Manual, current edition.
- 1.9 Prepare Project Design Report: Engineer shall establish and indicate project specific design criteria and standards within the Project Design Report (including ADA requirements). Engineer shall submit all design assumptions for typical section (pavement width, sidewalk location, water and sewer main locations, etc.), design life, design criteria, and reference of design resources. The Project Design Report shall evaluate and recommend preliminary horizontal and vertical alignment for utilities and other public improvements. Establish pipe sizes, complete water quality assessment, determine irrigation and landscaping limits, etc. Provide justification for the facility and analysis of alternatives. Engineer shall use the City Infrastructure Design Criteria Manual to establish design criteria and standards. The project's geotechnical report shall be included within the Project Design Report, and include soil classifications, N values, water levels, proctors, and testing recommendations.
- 1.10 Prepare preliminary plan and profile sheets including locations of existing and new utilities and street alignment. Existing utility locations with probable depths will be shown.
- 1.11 Prepare preliminary opinion of probable construction costs for the project.
- 1.12 Identify right-of-way (ROW) and permanent and temporary construction easements acquisition needs. Include size and extent of such ROW and easements.
- 1.13 Attend submittal review meeting with City staff.

TASK 2 - FINAL DESIGN SERVICES:

- 2.1 Address City comments from the Task 1 City review(s) and finalize Project Design Report. Provide three (3) copies and a pdf file.
- 2.2 Arrange and conduct individual meetings with affected property owners. Tabulate owners concerns and provide written recommendations for staff review regarding possible inclusion or exclusion of such requests.
- 2.3 Facilitate permanent and/or temporary construction easement acquisition, and obtain property owner contact information, prepare easement and ROW exhibits as necessary, conduct property owner meetings for easement and ROW acquisition, and document



- acquisition meetings. Provide copies of current deeds of properties where easements are needed and the City will prepare the necessary legal documents. The Engineer will not negotiate compensation for easements with property owners.
- 2.4 Coordinate directly with utility companies' engineering divisions to ensure that all existing utilities are completely and accurately identified and located in the field; that pertinent information regarding depth, material, size, etc. are noted on the plans; and that conflicts requiring relocation of utilities or special construction techniques are fully specified in the contract documents. Plans shall be provided to the pertinent utilities for comment at the time they are complete followed by a specific private utility coordination meeting in two to three weeks.
- 2.5 Arrange and conduct a public open house with affected area residents and property owners. The open house shall be held sufficiently ahead of the project advertisement for bids such that public comments and concerns may still be addressed within the final project documents. Notice of the open house shall be mailed to all property owners adjacent to the proposed work area(s), as well as those in the immediate area who may be directly impacted by the construction. Tabulate the public comments and concerns and provide written recommendations for staff review regarding possible inclusion or exclusion of such requests.
- 2.6 Provide complete plans and specifications for a unit price construction contract. Plan sheets shall be prepared utilizing the latest City of Rapid City Drafting Standards.
 - 2.6.1 Plans documents shall adhere to current City of Rapid City guidelines.
 - 2.6.2 Staking information shall include the following as necessary:
 - 2.6.2.1 Station offsets or coordinates for all items of work requiring field staking
 - 2.6.2.2 Coordinates and description of inter-visible control points with benchmark information.
 - 2.6.3 Provide project layout to include lot lines (front and side) and addresses of all properties adjacent to construction.
 - 2.6.4 If desiring exceptions from City requirements or specifications, Engineer will request and secure exceptions. Failure by the City to comment on a nonconforming item during a review does not constitute the granting of an exceptions
- 2.7 Incorporate design features as necessary to meet the required ADA standards.
- 2.8 Determine removal limits with approval of City of Rapid City representative.
- 2.9 Provide a detailed traffic control plan showing all streets and alleys that may be impacted by the construction of this project. Show all existing signage, pavement markings, etc. All work zones, road closures, lane closures, and pavement marking removals shall be indicated on the plan. Traffic control plans shall be sufficiently detailed to be used as a bid document and shall indicate suggested sequence, intent, and all required traffic control devices.
- 2.10 Provide full Erosion and Sediment Control Plans, and include the appropriate bid items in the bidder's proposal.
- 2.11 Provide detailed specifications supplementing the City of Rapid City Standard Specifications, as necessary. Project drawing specific issues should be indicated as a General Note on the drawings. Material types and material specific items would be included as a detailed specification.



- 2.12 Prepare applicable permits with exhibits required for the City. Identify permits that will be required for the Contractor. Identify permit costs and indicate if any permit costs are paid for directly by the owner or if it is a Contractor cost.
 - 2.12.1 A USACOE 404 permit will be obtained for this project.
 - 2.12.2 A City Floodplain Development Permit will be obtained for this project.
- 2.13 Prepare final "Engineer's Estimate" of probable construction cost for the project.
- 2.14 Provide three (3) copies of the Final Design Services submittal. The submittal shall consist of complete plans, specifications, contract documents, and opinion of probable construction cost to the City of Rapid City's project manager for review. The Final Design Services submittal will be made to the City when the Engineer believes the plans, specifications, contract documents, and opinion of probable construction cost are 100% complete.
- 2.15 Address 95% submittal staff comments as necessary.
- 2.16 Deliver the following:
 - Provide complete plans on CD compatible with current AutoCAD Release.
 - Provide all topographic, control, and design points in the .dwg file and in tabular format, both on CD and on hard copy printout.
 - Provide complete specifications on CD in current version of Microsoft Word.
 - Provide a unit price cost estimate on CD in current version of Microsoft Excel on the City of Rapid City "Engineer's Estimate" form.
 - Provide Engineer's Estimate of probable construction costs as a component of this submittal.
 - 2.16.1 All submittals (drawings and specifications) believed by the Engineer of Record to be final, shall contain a Certification Statement of Conformance with City Standards which shall read, "I (insert Engineer of Record's name) Certify that I have read and understand the provisions contained in the City of Rapid City Standard Specifications for Public Works Construction, current edition and the City of Rapid City's adopted Design Criteria Manuals. The drawings and specifications contained here within, to the best of my knowledge, were prepared in accordance with these documents or a properly executed exception to the Standard Specifications and/or Infrastructure Design Criteria Manual has been secured ". This statement shall appear on the title sheet of the drawings and on the first page of specifications after the cover sheet. The "Certification Statement of Conformance with City Specifications" shall be signed and dated by the Engineer of Record.
- 2.17 Submit plans and specifications to the Department of Environment and Natural Resources for approval, and address any comments or corrections required.
- 2.18 Following completion of construction, Engineer shall complete an as-built survey of the major drainage facilities, make appropriate adjustments to the proposed conditions HEC-RAS model, prepare appropriate mapping information and prepare a Letter of Map Revision (LOMR) for City submittal to the Federal Emergency Management Agency.



TASK 3 - BIDDING SERVICES:

- 3.1 Submit sufficient information to the City of Rapid City project manager for completion of City Advertising Authority form.
- 3.2 Provide one hard copy and a PDF version of final plans and specifications, stamped and signed by a Professional Engineer, for City printing and distribution.
- 3.3 Conduct a Pre-bid Conference. Record attendance and minutes. Distribute copies to all attendees.
- 3.4 Issue addenda to the bid docum ents as required.
- 3.5 Attend Public Works Committee and Council Meetings as required.
- 3.6 Engineer shall review Bidder's Proposals and review and sign the City Engineering Services prepared Bid Tab and Award Summary.
- 3.7 Engineer shall review construction contract documents and supporting information from the contractor and submit to the City of Rapid City project manager for distribution to City Attorney's office for approval and signatures of the Mayor and Finance Officer.

PROJECT TEAM, MEETINGS, AND SUBMITTALS

Project team members will include:

- Ferber Engineering Company, Inc.
 - American Engineering Testing, Inc. (geotechnical engineering)
 - Albertson Engineering, Inc. (structural engineering)
 - Designworks, Inc. (landscape architecture)
 - RUSTNOT Corrosion Control S ervices (cathodic protection)
- City Engineering Services staff
 - Operations Division staff
 - Utility Maintenance Division (Service area and O&M related issues)
 - Water Division
 - Water Reclamation Division
- Parks Division

Engineer will attend the following meetings:

- Kick-off meeting, Task 1
- Project Design Report and 50% Plans and Specifications submittal review meeting, Task 1
- Public Meetings
- Property owners meetings (coordination and easement acquisition), Task 1
- Project Open House
- Private Utility coordination meeting, Task 2
- 95% Plans, Specifications and Contract Documents review, Task 2



- Prebid Conference, Task 3
- Committee and Council Meetings as required, All Tasks

Engineer will make the following submittals:

- · Kick-off meeting, Task 1 meeting minutes
- Project Design Report and 50% Review Submittal, Task 1 including meeting minutes
- · Final Project Design Report, Task 2 including m eeting minutes
- 95% complete plans, specifications, contract documents and opinion of probable construction cost.
- · Public meeting minutes
- · Property owners meeting minutes
- Open house comments/concerns and consultant's recommendations for inclusion or exclusion
- Final submittal of bid documents including complete plans, specifications, contract documents, and Engineer's Estimate of probable construction cost, Task 2
- Pre-bid conference meeting minutes, Task 3

The Engineer will allow 10 working days for City review of the Project Design Report and 50% Plans review submittal and the 95% complete plans; specifications; contract documents; and opinion of probable construction cost Contract Documents submittal.



EXHIBIT A – CORROSION PROTECTION STANDARDS

Under the West Chicago Street and Staton Place Reconstruction and Drainage Improvements project, the City has determined the need to create cathodic protection design critiera and standard corrosion protection specifications. The Corrosion Protection (Plastic Pipe) Design Criteria will be added to Section 3 (Water and Wastewater Utilities) of the Rapid City Infrastructure Design Criteria Manual (RCIDCM). The Corrosion Protection (Plastic Pipe) Standard Specification and associated details will be added to the City of Rapid City Standard Specifications for Public Works Construction, current edition.

Services provided will include review of current standard specifications, existing draft specifications and design information and other relevant information as necessary to develop design criteria for the design of corrosion protection and standard specifications to guide the construction of cathodically protected water system infrastructure for PLASTIC PIPE ONLY (Plastic Pipe refers to a piping system constructed of PVC pipe with Metallic Fittings, Valves, etc.) Both the new corrosion protection design criteria and standard specifications will state that metallic pipelines shall have a project-specific corrosion protection design completed and that project-specific detailed specifications shall be developed based on that design.

Tasks 1 through 5 presented in this Exhibit are items requested by the City.

TASK 1 – CORROSION PROTECTION KICKOFF CONFERENCE AND EXPECTATION DEVELOPMENT:

- 1.1 Kick-off Conference: The Engineer shall meet with City staff to discuss the following:.
 - 1.1.1 Discuss Standards of Practice
 - 1.1.2 Develop Deliverable Expectations with City Staff
 - 1.1.3 Following the kickoff conference, Engineer shall prepare a memorandum detailing the final deliverable expectations. The memorandum shall include a detailed outline of the Design Criteria and of the Standard Specifications.

TASK 2 - DRAFT CORROSION PROTECTION (PLASTIC PIPE) DESIGN CRITERIA:

- 2.1 Engineer shall review background information, including but not limited to:
 - 2.1.1 American Water Works Association (AWWA) Manuals of Practice and AWWA Standards.
 - 2.1.2 National Association of Corrosion Engineers (NACE) applicable Standards
 - 2.1.3 American National Standards Institute (ANSI) applicable Standards
 - 2.1.4 American Society of Testing and Materials (ASTM) applicable Standards
 - 2.1.5 Rapid City Primer Basics of Corrosion (DRAFT)
 - 2.1.6 Rapid City Corrosion Control Manual (DRAFT)
 - 2.1.7 Rapid City Specifications and Standard Details for Corrosion Control (DRAFT)
 - 2.1.8 Section 8 (Water Piping Systems) City of Rapid City Standard Specifications for Public Works Construction, 2007 Edition
- 2.2 Engineer shall prepare Corrosion Protection (Plastic Pipe) Design Criteria to include, but not be limited to:



- 2.2.1 Basic discussions of corrosion and cathodic protection
- 2.2.2 Definitions of terminology
- 2.2.3 Description of minimum field testing requirements
- 2.2.4 General description of corrosivity zones
- 2.2.5 Description and use of cathodic protection test stations
- 2.2.6 Discussion of Operation and Maintenance of test stations and passive cathodic protection systems
- 2.2.7 Discussion of cathodic protection design around foreign pipelines
- 2.2.8 Discussion of cathodic protection information required in construction plans
- 2.2.9 Discussion of as-constructed information required to be submitted after construction is complete.

<u>TASK 3 – DRAFT CORROSION PROTECTION (PLASTIC PIPE) STANDARD SPECIFICATION DEVELOPMENT:</u>

- 3.1 Engineer shall prepare Corrosion Protection (Plastic Pipe) Standard Specifications to include but not be limited to:
 - 3.1.1 This will become Section 8B of the Standard Specifications.
 - 3.1.2 Materials discussions, including but not limited to:
 - 3.1.2.1 T-bolts and other fastener coating requirements
 - 3.1.2.2 Water system restraint, fitting, valve and hydrant coating requirements
 - 3.1.2.3 Anodes and lead wires
 - 3.1.2.4 Tracer wire
 - 3.1.2.5 Thermite weld materials
 - 3.1.2.6 Limited pipe coating materials for field repairs
 - 3.1.2.7 Casing pipe
 - 3.1.3 Construction requirements for the installation of specified corrosion protection items.
 - 3.1.4 Testing requirements for constructed corrosion protection items, including functional testing and final acceptance testing.
 - 3.1.5 Method of measurement and Basis of Payment for Corrosion Protection items.
- 3.2 Engineer shall prepare Corrosion Protection (Plastic Pipe) Standard Details commensurate with the Corrosion Protection Standard Specifications outlined in 3.1(above).
 - 3.2.1 The Standard Details will be prepared in City's format, similar to existing standard details.
- 3.3 Engineer shall review Section 8 of the Standard Specifications and extract tracer wire color schemes, fitting, valve, etc coating require ments, etc.
 - 3.3.1 Existing Section 8 will become Section 8A in the revised specifications.
 - 3.3.2 Section 8A will include PVC pipe up to 20-inch diameter as standard pipe.
- 3.4 Engineer shall submit a draft version of the Corrosion Protection (Plastic Pipe) Design Criteria, Standard Specifications (Plastic Pipe) and Standard Details (Plastic Pipe) to City for Review.



- 3.5 Engineer shall attend a DRAFT review meeting with City Staff.
 - 3.5.1 Engineer's corrosion pro tection subconsultant will attend review meeting.

TASK 4 – FINAL CORROSION PROTECTION (PLASTIC PIPE) DESIGN CRITERIA AND CORROSION PROTECTION (PLASTIC PIPE) STANDARD SPECIFICATIONS:

- 4.1 Engineer shall address City comments from the Task 3 City review(s).
- 4.2 Engineer shall prepare final documents including:
 - 4.2.1 Section 3.11 Corrosion Protection (Plastic Pipe) Design Criteria of the Rapid City Infrastructure Design Criteria Manual.
 - 4.2.2 Section 8A Water System Piping of the City of Rapid City Standard Specifications for Public Works Construction, current edition.
 - 4.2.3 Section 8B Corrosion Protection (Plastic Pipe) of the City of Rapid City Standard Specifications for Public Works Construction, current edition.
 - 4.2.4 Section 8B Cathodic Protection (Plastic Pipe) Standard Details.
- 4.3 Engineer shall submit a final draft version of the design criteria and standard specifications for review by the City.
- 4.4 Engineer shall attend a final draft review meeting with City Staff.
- 4.5 Engineer shall address City comments from the final draft review meeting.
- 4.6 Engineer shall prepare FINAL submittal materials, which shall include:
 - 4.6.1 One (1) hardcopy of each document outlined in 4.2 of this contract.
 - 4.6.2 Digital document submittal shall include a pdf version and Microsoft Word version of items outlined in 4.2.1 through 4.2.3.
 - 4.6.3 Digital versions of the items in 4.2.4 shall be in AutoCAD 2012.
 - 4.6.4 Engineer shall attend Public Works Committee and City Council meetings, as necessary.
- 4.7 Engineer shall conduct a one-half day review session with City Inspectors and Engineering Staff.

PROJECT TEAM, MEETINGS, AND SUBMITTALS

Project team members will include:

- · Ferber Engineering Company, Inc.
 - RUSTNOT Corrosion Control Services (corrosion protection)
- City Engineering Services staff
- · Operations Division staff
 - > Utility Maintenance Division (Service area and O&M related issues)
 - > Water Division

Engineer will attend the following meetings:

- Kick-off meeting, Task 1
 - Subconsultant will attend by telephone conference
- Draft Cathodic Protection Design Criteria and Draft Standard Specifications submittal review meeting, Task 3
 - o Subconsultant will attend Draft review meeting in person
- Final Draft Cathodic Protection Design Criteria and Final Draft Standard Specifications submittal review meeting, Task 4
 - o Subconsultant will attend by telephone conference
- Review session with City Inspectors and Engineering S taff, Task 4



Engineer will make the following submittals:

- Kick-off meeting, Task 1 meeting minutes
- Draft Review Submittal, Task 3 including meeting minutes
- Final Draft Review Submittal, Task 4 including meeting minutes
- Final Cathodic Protection Design Criteria and Standard Specifications Submittal, Task 4



WEST CHICAGO STREET AND STATON PLACE RECONSTRUCTION AND DRAINAGE IMPROVEMENTS

PROJECT NO. 12-1187 / CIP 50364

EXHIBIT B

Task#	Description	Subtask Total
1.1	Kickoff Conference	\$970.00
1.2	Gather/Review Background Information	\$2,875.00
1.3	Property Owner Questionnaire	\$1,520.00
1.4	Topographic and Legal Survey	\$19,925.00
1.5	Geotechnical Investigation	\$1,960.00
1.6 1.7	Structural Design Landscaping Design	\$4,230.00 \$10,150.00
1.7	Preliminary Design Investigation	\$10,130.00 \$29,590.00
1.0	Project Design Report	\$6,040.00
1.10	Preliminary Plan and Profile	\$10,080.00
1.11	Preliminary Opinion of Probable Construction Costs	\$930.00
1.12	Identify ROW and Permanent and Temporary Easement Needs	\$1,630.00
1.13	Preliminary Design Review Meeting	\$600.00
	TASK 1 TOTAL	\$90,500.00
2.1	Finalize Project Design Report	\$2,800.00
2.2	Individual Affected Property Owners Meetings	\$2,400.00
2.3	Easement/ROW Preparation and Acquisition	\$2,540.00
2.4	Utility Company Coordination	\$640.00
2.5	Public Open House with Affected Residents and Property Owners	\$1,560.00
2.6	Prepare Project Plans and Specifications	\$17,300.00
2.7	Incorporate ADA Compliance Items	\$630.00
2.8	Determine Removal Limits	\$960.00
2.9	Prepare Detailed Traffic Control Plans	\$3,890.00
2.10 2.11	Prepare Full Erosion and Sediment Control Plans Prepare Detailed Specifications	\$1,930.00 \$1,080.00
2.12	Prepare Detailed Specifications Prepare/Identify Permits and Exhibits	\$1,080.00 \$160.00
2.13	Final Opinion of Probable Construction Costs	\$1,070.00
2.14	Final Design Services Submittal	\$1,940.00
2.15	Address 95% Staff Comments	\$600.00
2.16	Construction Plans and Specifications Submittal	\$580.00
2.17	DENR Submittal and Address Comments	\$80.00
2.18	As-Built Survey, Modeling and Letter of Map Revision Preparation	\$2,410.00
	TASK 2 TOTAL	\$42,570.00
3.1	Assist City Project Manager with Advertising Authority	\$110.00
3.2	Final Plans and Specifications PDF Submittal	\$1,290.00
3.3	Arrange and Attend Pre-bid Conference	\$760.00
3.4	Issue Addenda as Necessary	\$540.00
3.5	Attend Public Works and Council Meetings as necessary	\$220.00
3.6 3.7	Review Bidder's Proposal, Bid Tab and Award Summary Review Construction Contract Documents	\$110.00 \$110.00
3.7	TASK 3 TOTAL	\$3,140.00
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	CONTRACT TOTAL FOR TASKS 1 - 3	\$136,210.00



City of Rapid City Corrosion Protection Design Criteria and Specifications -- 2nd Part to West Chicago Street Reconstruction Project PROJECT NO. 12-1187 / CIP 50364

EXHIBIT B -- CORROSION PROTECTION STANDARDS

Task#	Description	Subtask Total
1	Corrosion Protection Kickoff Convference and Expectation Development	\$4,785.00
2	Draft Corrosion Protection (Plastic Pipe) Design Criteria	\$6,715.00
3	Draft Corrosion Protection (Plastic Pipe) Standard Specification Development	\$14,995.00
4	Final Corrosion Protection Design Criteria and Corrosion Protection Standard Specifications	\$8,025.00
CO	RROSION PROTECTION DESIGN CRITERIA AND SPECIFICATIONS TOTAL	\$34,520.00





Civil Engineering • Water Resources • Transportation • Land Surveying 729 East Watertown St, Rapid City, SD 57701 ~ Phone: (605) 343-3311

EXHIBIT C

2012 SCHEDULE OF CHARGES

FERBER ENGINEERING COMPANY, INC.

EMPLOYEE CLASSIFICATION	HOURLY RATE
Principal-In-Charge	\$120.00
Registered Land Surveyor	\$120.00
Principal Professional Engineer	\$110.00
Professional Engineer II	\$80.00
Professional Engineer I	\$70.00
GIS	\$75.00
Graduate Engineer II	\$65.00
Graduate Engineer I	\$60.00
Senior Technician	\$75.00
Technician II	\$60.00
Technician I	\$55.00
Drafter	\$50.00
Clerical	\$60.00
Mileage	\$ 0.55

AMERICAN ENGINEERING TESTING, INC. (GEOTECHNICAL ENGINEERING)

EMPLOYEE CLASSIFICATION	HOURLY RATE
Senior Geotechnical Engineer	\$130.00
Geotechnical Engineer	\$90.00
Materials Engineer	\$85.00
Senior Field Technician	\$70.00
Draft Person	\$65.00
Field Technician	\$52.00
Clerical	\$42.00
2-Man Drill Crew & CME 75 Rig	\$185.00



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ALBERTSON ENGINEERING, INC. (STRUCTURAL ENGINEERING)

EMPLOYEE CLASSIFICATION	HOURLY RATE
Principal Engineer	\$145.00
Project Engineer II	\$120.00
EIT	\$90.00
Drafting	\$60.00
Clerical	\$50.00

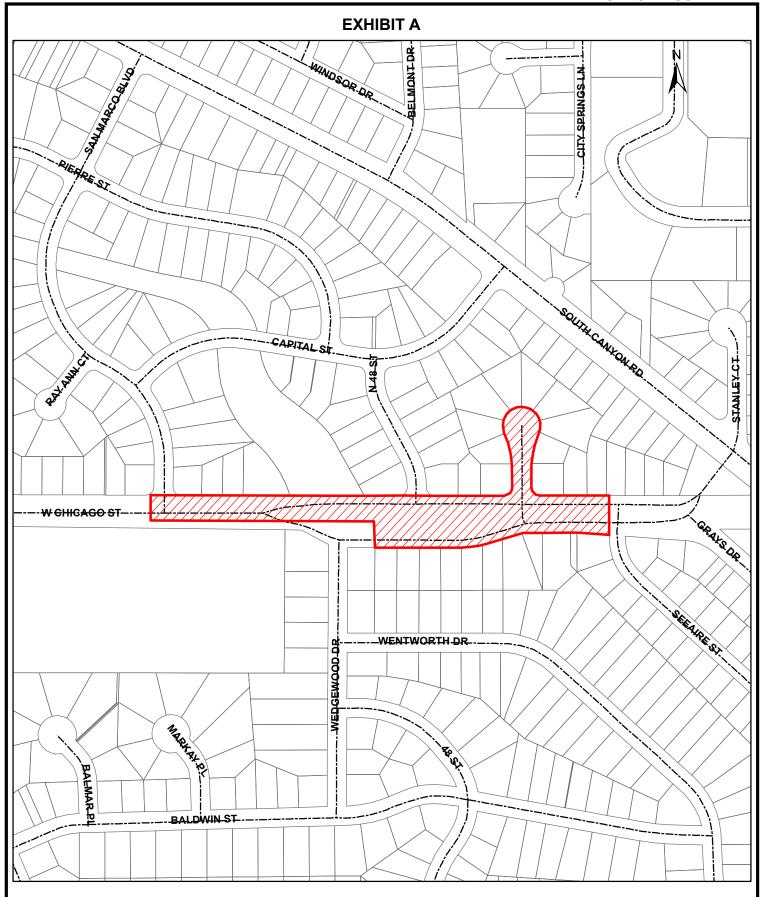
DESIGNWORKS, INC. (LANDSCAPE ARCHITECTURE)

EMPLOYEE CLASSIFICATION	HOURLY RATE
Landscape Architect 2	\$95.00
Landscape Architect 1	\$80.00
Landscape Designer	\$65.00
CAD Technician & Support	\$50.00

RUSTNOT CORROSION CONTROL SERVICES, INC. (CORROSION PROTECTION)

EMPLOYEE CLASSIFICATION	HOURLY RATE
Office Support	\$30.00
Administrative Assistant	\$45.00
Review and Editor Support	\$50.00
Drafting / Field Technicians	\$65.00
NACE Certified Cathodic Protection Specialists/Corrosion Consultan	ts \$130.00
Infrastructure Pipeline Senior Engineer	\$160.00
Meals/Lodging per diem	\$135.00/day
Mileage \$.55/mile regular / \$1.00/mi fe	our-wheel drive
Communication Charges	\$3.00 per hour
Utilization of field/office equipment	\$30.00/day
Utilization of standard corrosion test equipment	\$40.00/day
Specialized test equipment	\$50.00/day

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WEST CHICAGO STREET AND STATON PLACE RECONSTRUCTION AND DRAINAGE IMPROVEMENTS Proj. No. 12-1187 CIP No. 50364