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November 9, 2006

Mr. Jerry Kuo, P.E.
Engineer IV
Department of Environmental Services
Arlington County
2100 Clarendon Blvd., Suite 813
Arlington, VA 22201

RE: Potomac Interceptor Sanitary Sewer Improvements
Final Proposal for Bidding and Construction Phase Services

Dear Mr. Kuo:

Attached is our final, revised proposal to perform bidding and construction phase services associated with the Potomac Interceptor Sanitary Sewer Improvements Project. The scope in Exhibit A and associated budget reflect our discussions over the last few weeks. As discussed, compensation for these services will be on a time and materials basis, with a not-to-exceed upper limit as indicated in the attached cost breakdown. Please forward the associated Agreement at your earliest convenience.

We are greatly looking forward to embarking on the next phase of the Potomac Interceptor project. If you have any questions, please do not hesitate to call me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'David J. Schwartz'.

David J. Schwartz, P.E.
Associate
Camp Dresser & McKee Inc.

File: 5002-23849-DN/2.1.1/1.2.1

Cc: T. Smith, C. Marshall

Att: Cost breakdown
Final Exhibit A

EXHIBIT A

**SCOPE OF SERVICES
FOR CONTRACT 85-95-CS**

Exhibit A to the Main Agreement (Scope of Services) includes the following services as part of the tasks indicated, in addition to the services originally called for:

General

The services covered by Part 1 of this Agreement include Bidding and Construction Phase Services for the Potomac Interceptor Sewer System Improvements project.

Scope of Services

I. The Basic and Special Services of the Contractor are as follows:

The Contractor shall provide professional engineering services during the Bidding and Construction Phases for the Potomac Interceptor Sewer System Improvements project. The services to be provided include:

- Task A - Basic Services - Project Management
- Task B - Basic Services During Bidding
- Task C - Basic Services During Construction
- Task D - Special Services During Bidding and Construction

The Director, Department of Environmental Services or his designee shall be the Engineer as defined in the Contract Documents. The Contractor shall assist the Engineer in performing his/her duties as described in this Agreement and as requested by the County. Neither the Contractor's authority or responsibility under this Agreement nor any decision made by the Contractor in good faith either to exercise or not exercise such authority or responsibility or the undertaking of the same shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by the Contractor to the construction contractor or its subcontractors, suppliers, or any other individual or entity, or to any surety for or employee or agent of them.

TASK A - BASIC SERVICES - PROJECT MANAGEMENT

The Contractor shall manage the work so as to provide the required level of support to the County as specified in this scope of services. Project management includes project supervision, coordination and all aspects of management and administration including the preparation, review, and submittal of project invoices and reports.

TASK B - BASIC SERVICES DURING BIDDING

1. The Owner shall be responsible for distributing Bidding Documents and for maintaining a record of prospective bidders to whom Bidding Documents have been issued.
2. In response to written requests for clarification from prospective bidders, the Contractor shall prepare and submit to the County for distribution addenda as appropriate to interpret, clarify or expand the Bidding Documents.
3. The Contractor shall attend a pre-bid meeting, to be conducted by the County.
4. The Contractor shall assist the County in evaluating bids received and assist and advise the County in determining the acceptability of the low bidder, subcontractors, suppliers and other persons and organizations for those portions of the work as to which such acceptability is required by the Bidding Documents.
5. The Bidding Phase will terminate and the services to be performed or furnished thereunder will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective construction contractors.

TASK C - BASIC SERVICES DURING CONSTRUCTION

1. Visits to Site and Observation of Construction

The Contractor shall make weekly visits to the site in order to make such observations as one would expect from an experienced and qualified design professional to determine the quality of various aspects of the construction contractor's work. Based on observations during such visits, Contractor shall endeavor to determine if such work is proceeding in accordance with the general design intent and shall keep County advised as to his determination.

Such visits and observations by the Contractor are not intended to be exhaustive or to extend to every aspect of the work in progress, or to involve detailed inspections of the work beyond the responsibilities specifically assigned to Contractor in this Agreement, but rather are to be limited to spot checking, selective sampling and similar methods of general observation of the work based on Contractor's exercise of professional judgment.

Day to day on-site observation will be performed by the County. Therefore, Contractor's observations will be limited to the activities actually in progress at the time the Contractor is actually on site and to completed work which is reasonably observable while Contractor is on the site.

The purpose of the Contractor's site visits will be to enable the Contractor to better carry out the duties requested by the County during the construction phase and, in addition, by the exercise of the Contractor's efforts, as an experienced and qualified design professional, to provide for the County a greater degree of confidence that the completed work of the construction contractor will conform in general to the Contract Documents and that the integrity of the design concept of the completed project as a

functioning whole as indicated in the Contract Documents has been implemented and preserved by the construction contractor.

The Contractor shall not, during such visits, supervise, direct or have control over the construction contractor's work or assume any of the construction inspection or administration responsibilities of the County, nor shall the Contractor have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by the construction contractor, for safety precautions and programs incident to the work of the construction contractor or for any failure of the construction contractor to comply with laws, rules, regulations, ordinances, codes, or orders applicable to the construction contractor furnishing and performing their work. Accordingly, the Contractor can neither guarantee the performance of the Contract by the construction contractor nor assume responsibility by the construction contractor's failure to furnish and perform their work in accordance with the Construction Contract Documents.

In addition, the Contractor shall provide specialist visits as needed to address issues that may arise from time to time during construction.

In addition, the Contractor shall provide the services of a specialty tunnel inspector at the site to assist the Contractor and to provide more continuous observations of the tunneling and pipe jacking work. The furnishing of such services will not extend Contractor's responsibilities or authority beyond the specific limits set forth elsewhere in this paragraph.

2. Meetings

Contractor will attend one preconstruction meeting, monthly progress meetings and other meetings as deemed necessary during the performance of the work. Contractor will prepare and distribute minutes to attendees. For estimating purposes, a total of 36 meetings have been assumed.

3. Defective Work

During such visits and on the basis of such observations, the Contractor may recommend that the County disapprove of or reject construction contractor's work while it is in progress if Contractor believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.

4. Inspections and Tests

Contractor may recommend to the County special inspections or tests of the work, and shall receive and review all certificates of inspections, tests and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents. Contractor's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests or

approvals comply with the requirements of the Contract Documents. Contractor shall be entitled to rely on the results of such tests.

The Contractor has included a level of effort of 80 hours for a Materials Quality Assurance/Quality Control Specialist to perform selected spot-checking of the construction contractor's materials and compaction testing.

5. Interpretations and Clarifications

The Contractor shall issue necessary clarifications and interpretations of the Contract Documents as requested by the County and appropriate to the orderly completion of the work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Contractor may recommend issuance of Field Orders (changes not affecting project schedule or cost) authorizing minor variations from the requirements of the Contract Documents.

6. Change Orders and Work Change Directives

Contractor shall recommend Change Orders and Work Change Directives to the County as appropriate, and shall prepare Change Orders and Work Change Directives as required.

7. Shop Drawings

Contractor shall review and approve (or take other appropriate action in respect of) Shop Drawings and Samples and other data which Construction contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. For budgeting purposes, this Agreement is based on an assumption of approximately 45 independent submittals and approximately 23 resubmittals.

8. Review of Cut Sheets

Contractor shall review cut sheets prepared by the construction contractor prior to excavation.

9. Substitutions

Contractor shall evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Construction contractor, but subject to the provisions of Task D, Paragraph 2.2.

10. Disagreements between the County and Construction Contractor

The Contractor shall render the initial decisions on all claims of the County and construction contractor relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work. In rendering such decisions, the Contractor shall be fair and not show partiality to the County or construction contractor and

shall not be liable in connection with any decision rendered in good faith in such capacity.

11. Applications for Payment

If requested, the Contractor shall assist the County in determination of the amounts the construction contractor shall be paid for each application for payment. Such recommendations will constitute the Contractor's representation to the County, based on observations and review of supporting documentation, including recommendations of the County's on-site construction representative, that, to the best of the Contractor's knowledge, information and belief, the work has progressed to the point indicated, the quality of such work is generally in accordance with the Contract Documents (subject to an evaluation of such work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and to any other qualifications stated in the recommendation), and the conditions precedent to construction contractor's being entitled to such payment appear to have been fulfilled in so far as it is Contractor's responsibility to observe the work.

By recommending any payment, the Contractor shall not thereby be deemed to have represented that review of supporting documentation or observations made by Contractor have been exhaustive, extended to every aspect of the work in progress, or involved detailed inspections of the work beyond the responsibilities specifically assigned to Contractor in this Agreement and the Contract Documents. Neither Contractor's review of construction contractor's work for the purposes of recommending payments nor Contractor's recommendation of any payment (including final payment) will impose on Contractor responsibility to supervise, direct or control such work or for the means, methods, techniques, sequences or procedures of construction or safety precautions or programs incident thereto, or Construction contractor's compliance with laws, rules, regulations, ordinances, codes or orders applicable to construction contractor's furnishing and performing the work. It will also not impose responsibility on Contractor to make any examination to ascertain how or for what purposes construction contractor has used the moneys paid on account of the Contract Price, or to determine that title to any of the work, materials or equipment has passed to the County free and clear of any liens, claims, security interests or encumbrances, or that there may not be other matters at issue between the County and construction contractor that might affect the amount that should be paid.

12. Project Photos

Review project photographs provided by the construction contractor for conformance with the requirements of the Specifications.

13. Construction Contractor's Completion Documents

Contractor shall receive, review and transmit to the County with written comments: maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, and marked-up record documents (including Shop Drawings, Samples and other data approved as

provided under this Agreement) which are to be assembled by Construction contractor in accordance with the Contract Documents to obtain final payment. Contractor's review of such documents will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

14. Substantial Completion

Following notice from construction contractor that construction contractor considers the entire work ready for its intended use, Contractor and the County, accompanied by construction contractor, shall conduct an inspection to determine if the work is substantially complete. If after considering any objections of the County, the Contractor considers the work substantially complete, the Contractor shall deliver a certificate of Substantial Completion to the County and construction contractor.

15. Final Notice of Acceptability of the Work

Contractor shall conduct a final inspection to determine if the completed work of construction contractor is acceptable so that Contractor may recommend, in writing, final payment to Construction contractor. Accompanying the recommendation for final payment, Contractor shall indicate that the work is acceptable (subject to the provisions of this Agreement and the Contract Documents) to the best of Contractor's knowledge, information and belief and based on the extent of the services performed and furnished by Contractor under this Agreement.

16. Limitation of Responsibilities

Contractor shall not be responsible for the acts or omissions of any construction contractor, or of any subcontractor, any supplier, or of any other person or organization performing or furnishing any of the work. Contractor shall not be responsible for construction contractor's failure to perform or furnish the work in accordance with the Contract Documents.

17. Record Drawings

The Contractor shall update the design drawings (electronic AutoCAD files) to reflect Change Orders, Field Orders, Work Change Directives, and other changes to the Contractor's design plans which were implemented during construction. This task assumes that drawing mark-ups showing changes will be furnished by the Construction contractor and will be coordinated by the Contractor. The County is aware of the potential errors that may arise through the electronic copying of the AutoCAD files.

The County recognizes that the information contained in the AutoCAD files was developed by the Contractor for the Project and is not intended or represented to be suitable for reuse by the County or others on extensions of the Project or any other project. The record information was compiled, in part, based on information provided to the Contractor by others and the Contractor does not warrant the accuracy or completeness of this information. The AutoCAD files are provided to the County as-is and any use of the

information contained therein at the sole risk of the County and without any liability or legal exposure to the Contractor. The copyright of information contained in the electronic files shall remain with the Contractor.

The Contractor makes no warranties, express or implied, including merchantability or fitness for a particular purpose relating to the accuracy or completeness of the information contained in the files or the media on which they are contained, or the subsequent use of the electronic files.

18. Survey Checking

The Contractor shall perform survey services for checking of project stake-outs and spot checking of new structure elevations during construction, as requested by the County. If adequate notification is provided, spot checking of structure elevations shall be performed externally prior to installation of backfill. Confined space entry operations will not be performed by survey crew members. Planned level of effort for survey in this task includes 5 one-day site visits for stake-out checking and 15 half-day visits for structure spot checking. Estimated costs include a premium for night work.

19. Tree Preservation Site Monitoring

Contractor shall engage the services of a certified arborist to perform site reviews of tree preservation structures and tree conditions, general health of the preserved trees, and site activity. Each visit shall be documented by a written report to maintain awareness of tree conditions, current needs, and potential problems. The following level of effort has been assumed: 2 sites visits per week for the first 3 weeks of construction activity in ANC, 1 site visit per week for the next 3 weeks of construction activity, and 1 site visit per month for up to one year from commencement of construction activity in ANC.

TASK D: SPECIAL SERVICES DURING BIDDING AND CONSTRUCTION

Contractor shall furnish or obtain from others Special Services of the types listed in Paragraphs D.1.1 through D.1.16, inclusive. The Special Services listed in Paragraphs D.1.1 through D.1.9 are not included as part of Basic Services, and shall require written authorization from the County. The Special Services listed in Paragraphs D.1.10 through D.1.16 represent required services beyond the level of effort authorized as Basic Services in this Agreement. The Contractor shall advise the County in writing before starting any such Special Services, except required by an emergency, and shall cease work upon notification by the County. Upon acknowledgement by the County and Contractor that these services exceed the authorized level of effort, these services will be paid for by the County as indicated in the Agreement.

- 1.1 Preparation of applications and supporting documents for private or governmental grants, loans or advances in connection with the Project; preparation or review of environmental assessments and impact statements, review and evaluation of the effect on the design requirements of the

project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the project.

- 1.2 Services resulting from significant changes in the scope, extent or character of the portions of the project designed or specified by Consultant or its design requirements including, but not limited to, changes in size, complexity, County's schedule, character of construction or method of financing; and revising previously accepted studies, reports, drawings, specifications or contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the effective date of this Agreement, or are due to causes beyond Consultant's control.
- 1.3 Preparing documents for alternate bids requested by County for construction contractor's work which is not executed or documents for out-of-sequence work.
- 1.4 Determining the acceptability of substitute materials, equipment or methods proposed during the bidding or negotiating phase when substitution prior to the award of contracts is allowed by the bidding documents.
- 1.5 Assistance in connection with bid protests, rebidding or renegotiating contracts for construction, materials, equipment or services.
- 1.6 Providing field surveys for design purposes, engineering surveys and staking to enable construction contractor to proceed with its work, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
- 1.7 Preparation of operation and maintenance manuals.
- 1.8 Preparing to serve as a consultant or witness for County in any litigation, arbitration or other legal or administrative proceeding involving the project.
- 1.9 Other special services performed or furnished by Contractor in connection with the project which are not otherwise provided for in the Agreement.
- 1.10 Services in connection with Work Change Directives and Change Orders to reflect changes requested by the County if, because of the method of compensation agreed upon by the County and the Contractor, the resulting change in compensation for Basic Services is not commensurate with the extent of the special services rendered.
- 1.11 Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the construction contract in evaluating and determining the acceptability of a substitution which is

inappropriate for the Project or an excessive number of substitutions.

- 1.12 Services resulting from significant delays, changes or price increases occurring as a direct or indirect result of materials, equipment or energy shortages.
- 1.13 Special or extended services during construction made necessary by (1) work damaged by fire or other cause during construction, (2) a significant amount of defective, neglected or delayed work of construction contractor, (3) acceleration of the progress schedule involving services beyond normal working hours, or (4) default by construction contractor.
- 1.14 Services (other than Basic Services) in connection with any partial utilization of any part of the Project by the County prior to its Substantial Completion.
- 1.15 Evaluating an excessive number of claims submitted by construction contractor or others in connection with the work.
- 1.16 Services to review a shop drawing or other submittal more than two times.

Arlington County, Virginia
Potomac Interceptor Sewer System
Other Direct Costs
30-Oct-06

Bidding Services

Assume 90 day bid period
Assume Arlington prints and distributes documents
Assume CDM prints 6 internal sets
Assume 2 trips for Todd (Prebid meeting, one other visit)

Printing/photocopying: 6 plans @ \$25, 6 specs @ 35, misc. say \$2000	\$2,360
Travel: 2@300 mile RT plus misc mileage, say 1000 miles total @ .405/mi	\$405
Lodging/Meals: 2@\$150	\$300
Phone/Fax/Shipping	<u>\$500</u>
	\$3,565
Say	\$4,000

General Services During Construction

Assume 24 month construction period
1 - 2day trip per month for Todd
1 specialist visit every 4 months with plane fare
Phone/fax/shipping./supplies @ \$100/mo
Photocopy/printing @ \$100/mo
Record Drawings--10 sets plus one set mylars

Mileage: 24@300 mi RT= 7200 miles x 1.25 = 9000 mi @ .45	\$4,050
Lodging/meals: 30 trips @ \$150	\$4,500
Air Fare: \$600x 6	\$3,600
Car Rental: \$80 x 6	\$480
Phone/fax/shipping/supplies @ 150/mo = 3600 plus misc	\$4,000
Printing/photocopying @ 100/mo = 2400	\$2,400
Photography	\$1,000
Initial Plans and specs for team: \$1000	\$1,000
Record Drawings 10@\$25 each plus 25 mylars @ \$25 = \$875	<u>\$875</u>
	\$21,905
Say	\$25,000

Field Services

Assume 50 miles/day per inspector
Tunnel Inspector 125 days
Total

Cell Phone: \$75/mo x 5 mo	\$375
Mileage: 125 days x 50 mi x .45/mi	\$2,812
Supplies \$100/mo x 5 mon	\$500
Postage \$50/mo x 5 mon	<u>\$250</u>
	\$3,937
Say	\$4,000

Subconsultants (Outside Professionals)

The Care of Trees	\$20,000
Burgess & Niple	\$60,000
Misc. (utility locating, materials testing)	<u>\$12,000</u>
Say	\$92,000