



CLARKSON CONSTRUCTION COMPANY

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www.clarksonconstruction.com

April 27, 2010

Mr. Matthew Killion, P.E.
Resident Engineer
Missouri Department of Transportation
908 E. Truman Road
Kansas City, MO 64106

RE: Job Nos. J4I1597, J4I1597B, J4S1965
Rts. I-70/I-435/US-40
Jackson Co., MO

Dear Mr. Killion:

We are writing to provide a Value Engineering Change Proposal (VECP) for the referenced project. This VECP is the outgrowth, and is in general conformance with, our final Alternate Technical Concept Proposal (ATCP) that we submitted on November 13, 2009. That ATCP was approved by the Missouri Department of Transportation (MoDOT) on November 18, 2009 with the caveat that final approval was subject to the approval of the Federal Highway Administration (FHWA). Our ATCP required an amendment to the Access Justification Report (AJR) and approval by the FHWA. It was determined that an amendment to the AJR would become public information which caused MoDOT, with our concurrence, to decide not to proceed with the AJR amendment request prior to the bid date for the project due to the confidentiality of our ATCP.

We wrote you on January 14, 2010, shortly after we were awarded the project, and notified you that we intended to submit a VECP for the concept which was included in our previously submitted ATCP and requested that MoDOT submit to the FHWA the request for approval of the amendment to the AJR. You responded on February 2, 2010 and indicated that you were proceeding with the approval process for the AJR amendment.

We were recently notified that the amendment to the AJR had been approved. We met with you and TranSystems, our design engineer during the ATCP process, to discuss the next steps in the VECP process with the understanding that MoDOT's intention is to contract with TranSystems to provide the final design for our VECP.

We understand that MoDOT will not execute the design contract with TranSystems until our VECP is submitted and a design proposal is received from TranSystems in order to determine the exact dollar amount of the VECP.



"An Equal Opportunity Employer"



We are enclosing herewith Form C-104 "Value Engineering Change Proposal – Missouri Department of Transportation" formally requesting approval of our VECP. The total savings in construction dollars for our VECP is \$2,074,685.65. This total savings less the cost of the design by TranSystems, in accordance with the Value Engineering Specifications, is to be shared fifty/fifty (50/50) by ourselves and MoDOT.

The breakdown of the total savings in construction costs is:

Recap of Eliminated Items						
<u>Bld Item Number</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>		<u>Total</u>
50	Clearing & Grubbing	2	AC	\$3,500.00/AC	=	\$7,000.00
*70	Class A Excavation	156,321	CY	\$8.50/CY	=	\$1,328,728.50
80	Class C Excavation	32,110	CY	\$18.00/CY	=	\$577,980.00
90	Compacting Embankment	11,433	CY	\$1.00/CY	=	\$11,433.00
260	Guardrail Type A	575	LF	\$15.71/LF	=	\$9,033.25
270	Guardrail Type A 7' Posts	312.5	LF	\$26.50/LF	=	\$8,281.25
300	Bridge Anchor Section	3	EA	\$1,450.00/EA	=	\$4,350.00
310	Transition Section	3	EA	\$350.00/EA	=	\$1,050.00
330	Type A Crashworthy End Terminal	1	EA	\$1,820.00/EA	=	\$1,820.00
490	Type A Gutter	844	LF	\$55.50/LF	=	\$46,842.00
1191	Aggregate Piers	189	LF	\$150.00/LF	=	\$28,350.00
1220	Mechanically Stabilized Earth Wall	3,162	SF	\$58.00/SF	=	\$183,396.00
1230	Form Liners for MSE Wall	351	SY	\$2.25/SY	=	\$789.75
1300	18" Class III RCP	75	LF	\$44.00/LF	=	\$3,300.00
1320	24" Class III RCP	96	LF	\$62.00/LF	=	\$5,952.00
2010	Type A2 Shoulders	206	SY	\$19.60/SY	=	\$4,037.60
	Bridge A7754					
4000	Bridge Approach Slab	131	SY	\$289.00/SY	=	\$37,859.00
4010	Structural Steel Piles (10")	395	LF	\$64.00/LF	=	\$25,280.00
4020	Pre-Bore for Piling	155	LF	\$75.00/LF	=	\$11,625.00
4030	Class B Concrete (Substructure)	37.50	CY	\$1,100.00/CY	=	\$41,250.00

4040	Slab on Concrete I-Girder	210	SY	\$635.00/SY	=	\$133,350.00
4050	Safety Barrier Curb	223	LF	\$113.00/LF	=	\$25,199.00
4060	Type 6 (54") Prestressed Concrete I-Girder	209	LF	\$197.00/LF	=	\$41,173.00
4070	Conduit System on Structure	1	LS	\$4,100.00/LS	=	\$4,100.00
4080	Steel Intermediate Diaphragm for P/S Concrete Girders	2	EA	\$440.00/EA	=	\$880.00
4090	Vertical Drain at End Bents	2	EA	\$2,600.00/EA	=	\$5,200.00
4100	Laminated Neoprene Bearing Pad (Tapered)	6	EA	\$280.00/EA	=	\$1,680.00
4110	Corrugated Metal Pipe Pile Spacers	10	EA	\$740.00/EA	=	\$7,400.00
	Bridge A-7758 (MSE Wall)					
4240	Concrete and Masonry Protection System	1	LS	\$1,245.00/LS	=	\$1,245.00
4250	Sacrificial Graffiti Protection System	1	LS	\$1,245.00/LS	=	\$1,245.00
4260	Mechanically Stabilized Earth Wall Systems	2901	SF	\$58.00/SF	=	\$168,258.00
4270	Form Liners for MSE Wall Systems	322	SY	\$2.25/SY	=	\$724.50
	Bridge A-7759 (MSE Walls)					
4280	Concrete and Masonry Protection System	1	LS	\$1,702.00/LS	=	\$1,702.00
4290	Sacrificial Graffiti Protection System	1	LS	\$1,702.00/LS	=	\$1,702.00
4300	Mechanically Stabilized Earth Wall Systems	2,900	SF	\$58.00/SF	=	\$168,200.00
4310	Form Liners for MSE Walls Systems	322	SY	\$2.25/SY	=	\$724.50
				Subtotal		\$2,901,140.35
Recap of Additional Items						
70	Class A Excavation	58,012	CY	\$7.00/CY	=	\$406,084.00
80	Class C Excavation	7,300	CY	\$18.00/CY	=	\$131,400.00
90	Compacting	37,425	CY	\$1.00/CY	=	\$37,425.00

Embankment						
150	Furnishing Rock Fill	24810	CY	\$5.75	=	\$142,657.50
320	Terminal Section Guardrail	2	EA	\$730.00/EA	=	\$1,460.00
330	Type A Crashworthy and Terminal	1	EA	\$1,820.00/EA	=	\$1,820.00
490	Type A Gutter	150	LF	\$55.50/LF	=	\$8,325.00
1200	Class B Concrete Culverts	36	CY	\$830.00/CY	=	\$29,880.00
1210	Reinforcing Steel Culverts	3,680	LB	\$0.90/LB	=	\$3,312.00
1330	30" Class III RCP	200	LF	\$74.00/LF	=	\$14,800.00
1930	Type 5 Aggregate for Base (4")	552	SY	\$6.40/SY	=	\$3,532.80
1960	Concrete Pavement (8.5")	552	SY	\$36.70/SY	=	\$20,258.40
New	Modified Barrier Wall (CIP) Type D	150	LF	\$170.00/LF	=	\$25,500.00
					Subtotal	\$826,454.70
					TOTAL VALUE ENGINEERING PROPOSAL SAVINGS	\$2,074,685.65

Design Costs - \$219,400.00
Total Savings \$1,855,285.65

*The unit price for Class A Excavation, for the eliminated item, is higher than the Contract Bid Unit Price due to the reduction in the quantity of excavation required to be hauled to waste. This unit price reflects the actual costs taking into account the effect of the changes in this VECP.

We appreciate your consideration of our VECP. We will be available to meet with you to discuss our proposal, answer any questions, or provide any additional information that you may request.

Very truly yours,

CLARKSON CONSTRUCTION COMPANY



T. F. Kellerman

CCC
 TFK:mt
 Enclosure

**ALTERNATE TECHNICAL CONCEPT PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION**

Date 10/22/09

Contract ID 091218-401

Job No. J411597

County Jackson

Route I-435/I-70

Contractor Clarkson Construction Company

Contractor Rep. T. F. Kellerman

Designed by TranSystems

Phone 816-483-8800

1. Details consistent with approx. 30% roadway and structural design which shall include if applicable, but not limited to: geometrics, hydraulic calculations, profiles, typical sections, and traffic control concepts; structures to include type, size, locations superstructure info, substructure info, etc and any other significant information. (See ATC JSP Section 4.5 paragraph (i) for specific details required)

This submittal is a Conceptual Alternate Technical Concept (CATC) Proposal and, therefore, does not include 30% design required for a final Alternate Technical Concept (ATC) Proposal.

2. Description of both the existing contract requirements for performing the work and the proposed ATC.

This CATC proposes reconfiguring the alignment for the ramp from I-435 SB to I-70 EB via the EB Collector Distributor Road, eliminating the proposed bridge over the I-435 NB Ramp to I-70 EB and to Blue Ridge Cutoff via the Collector Distributor Road. This CATC also involves minor reconfigurations of the alignments of Ramp I-435 NB to I-70 EB/Blue Ridge Cutoff and I-70 EB to Blue Ridge Cutoff both via the EB Collector Distributor Road. (See Plan Sheet entitled "Alternative Improvements" attached hereto.)

3. A detailed statement of the cost savings associated with the Implementation of the ATC. Including a total lump sum savings bid price for the ATC. Include quantities of unit bid items to detail lump sum savings.

At this time it is not possible to determine the amount of the cost savings. If our CATC is approved, a detailed statement of cost savings will be provided with the final ATC submittal. At this time we estimate that the cost savings will be in excess of \$2.0 million.

4. A statement of the probable effect the ATC will have on the contract completion time.

At this time we are not able to determine the effect of our proposed CATC on the Contract Completion Time since we have not yet been provided the Traffic Control Plans. We are certain that our proposal will not extend the Contract Completion time.

5. A description of any previous use or submission of the similar technical concept or value engineering proposal, including dates, job numbers, results, and/or outcome of the ATC/VE if previously submitted, as known by the contractor.

We are not aware of any similar technical concept or value engineering proposals being submitted previously.

6. Certification that the ATC proposal design meets all applicable federal and state design standards, or conforms to a pre-approved Applicable Specifications and Standards as defined in section 2.1.1 of the ATC provision.

Based on the information we have, it is our opinion that our CATC proposal meets all applicable standards.

7. A statement addressing any potential issues with utility conflicts, additional permits that may be required, keeping within existing right of way, and/or long term impacts related to maintenance and operations, due to the proposed change(s).

Our ATC proposal reduces the amount of right-of-way required and, as such, should not have any impact on additional utility conflicts or permits. Our proposal reduces maintenance due to the elimination of a bridge and potentially the elimination of some retaining walls.

8. A detailed statement of the estimated re-design cost and re-design hours for implementation of the ATC. A statement of qualifications of the design team designated by the bidder to complete the ATC re-design including but not limited to the submittal of an Architects-Engineer and Related Questionnaire (Form 254 or 330 are available on MoDOT's website) or proof of an existing updated form on file with MoDOT. If the bidder's in-house staff is completing the re-design an equivalent statement of qualifications will need to be submitted to prove the design teams ability to perform the final re-design.

Redesign costs and hours required for a CATC cannot be determined at this early stage. This information will be provided with the final ATC Proposal.

TranSystems' qualifications are on file at MoDOT headquarters.

Attach Additional Information if Necessary:

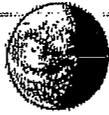
NOTE: Please use additional sheets if necessary. Four copies of the complete proposed alternate technical concept shall be submitted to the Commission for review. The contractor is encouraged to submit a conceptual ATC for consideration stating the basic proposal and approximate cost savings in order to provide the contractor with the opportunity to submit an idea without large initial development costs if the ATC is rejected. It is the contractor's responsibility to produce sufficient information within the ATC submittal to provide a clear and concise understanding of the proposed ATC in order to provide for adequate evaluation by the Commission and FHWA. Approval or disapproval of the ATC will be granted within ten working days of receipt of the proposal.

I-70 and I-435 ATC
 Preliminary VISSIM Analysis Results Comparison
 October 22, 2009



Location	Volume (veh/hr)		Speed (mph)		Density (veh/mi/in)		LOS		v/c	
	Original	Proposed	Original	Proposed	Original	Proposed	Original	Proposed	Original	Proposed
RAMPS	1503	1683	33.4	36.9	91.79	79.46	--	--	0.74	0.80
	686	686	46.1	46.3	16.10	14.89	--	--	0.32	0.32
	1144	1141	53.7	54.6	25.14	25.44	--	--	0.52	0.54
C-D	2493	2653	37.3	25.5	59.91	89.28	--	--	0.60	0.64
	2652	--	33.8	--	57.47	--	F	--	--	--
	--	1825	--	43.3	--	24.28	--	C	--	--
Mainline	3388	3504	40	32	33.06	60.31	D	F	--	--
	3589	3582	59.7	59.7	24.61	24.66	C	C	--	--
	6194	6198	28.9	24.5	77.98	77.48	F	F	--	--
	6637	6717	29.8	30	77.60	77.59	F	F	--	--

CONFIDENTIAL



<jdmckerrrow@transystems .co
m>

10/22/2009 04:11 PM

To <Richard.Orr@modot.mo.gov>

cc <flweatherford@transystems.com>,
<tkellerman@clarksonconstruction .com>,
<Joshua.Scott@modot.mo.gov>

bcc

Subject I-70/I-435 ATC

Rick, attached is the updated figure which shows the length of the weave areas. Per your request, we have also prepared the following table illustrating AASHTO recommendations, the previous plan and our proposal for the weave areas. Weave #1 is the first weave you encounter eastbound (where the first two ramps come together), weave #2 is from the point of the 3-lane CD road to the slip lanes onto I-70.

	Previous Plan	ATC Proposal	AASHTO Minimum
Weave #1	820 feet	960 feet	800 feet
Weave #2	1370 feet	1370 feet	1000 feet

Both the previous plan and the ATC Proposal meet AASHTO minimum's. The current proposal increases the Weave #1 length by approximately 140 feet. There is no change with Weave #2.

Please let me know if there is anything else you need from us right now. Thanks!

Jeff D. McKerrrow, PE, PTOE



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<cmitchell@drngineers .com
>
11/17/2009 04:26 PM

To <richard.orr@modot.mo.gov>
cc
bcc
Subject J411597 - ATC Review

Rick,

Here are our ATC Review Comments:

Plan Review:

- 1) 5'x5' RCB – The proposed plans show a 60' bend under the I-70 EB CD right shoulder. I would recommend the bend be moved to the north between Ramp G and the EB CD.

Exhibit C Review (Cost Savings Estimate):

- 1) The majority of the cost savings has to do with the earthwork. Exhibit C refers to 145,637 CY of Excavation to Waste at \$13.25/CY. In reviewing the three ramp alignments, there is approximately 159,500 CY of Class A material. About 108,000 CY of this material remains after the EB CD, Ramp C, and Ramp G fills are constructed. Some of this excess material can possibly be stockpiled nearby this cut area on the right of way within the interchange ramps, on the MoDOT maintenance property east of Blue Ridge Cutoff, and spread out within the right of way to the west of Stadium Drive and south of Ramp C/I-70 EB CD. The contractor may also negotiate with Jackson County to place some of this material in locations specified by the County and the Sports Authority (along the north side of Stadium Drive which would be outside of MoDOT right of way). Therefore, the \$13.25/CY unit cost for this material appears high.

Exhibit E Review (Redesign Estimate):

- 1) There appears to be excessive number of hours for meetings. The E5 has 26 hours, the E4 has 92 hours, and the E2 has 52 hours. What are the hours for line item "418 Meetings" for? In my opinion, there should be only about a third of those hours for the redesign.
- 2) Many of the redesign hours seem excessive since the Consultant already has 30% plans complete and have all of the Microstation base files in their possession. Overall, we feel that the redesign should take about half or two-thirds of the time shown in their estimate. A lot of the base work for their drawings has already been provided by DRG and been completed by the Consultant.
- 3) There appears to be a lot of "Field Revisions to Plans" hours in the estimate.
- 4) The IRS has set the mileage reimbursement at \$0.505/mile. The Consultant is using \$0.55/mile.
- 5) 500 miles travel time seems excessive.

Let me know if you have any questions.

Craig Mitchell, P.E.

Delich, Roth & Goodwillie, P.A.

1001 E. 101st Terrace, Suite 210

Kansas City, Missouri 64131

Phone: (816) 221-4225, ext. 238

CCO Form: DE01-SF
Approved: 04/94 (GWS)
Revised: 04/10 (MRA)
Modified:

Project Design Consultant Agreement
Route: I-435/I-70
County: Jackson
Job No.: J411597

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PROJECT DESIGN CONSULTANT AGREEMENT
(STATE FUNDED WITHOUT FEDERAL ASSISTANCE)**

THIS AGREEMENT is entered into by TranSystems Corporation (hereinafter, "Consultant") and the Missouri Highways and Transportation Commission (hereinafter, "Commission").

WITNESSETH:

WHEREAS, the Commission has selected the Consultant to perform professional services in the preparation of Final Roadway Plans to be used in the Value Engineering Construction Proposal for certain portions of the current interchange improvements being constructed at I-435 and I-70, Jackson County, from approximately 31st Street to Blue Ridge Cut-Off (I-70) and approximately 23rd Street to Eastwood Trafficway/55th Street (I-435), designated as Job No. J411597.

NOW, THEREFORE, in consideration of the payments to be made and the covenants set forth in this Agreement to be performed by the Commission, the Consultant hereby agrees that it shall faithfully perform the professional services called for by this Agreement in the manner and under the conditions described in this Agreement.

(1) DEFINITIONS: The following definitions apply to these terms, as used in this Agreement:

(A) "AASHTO" means the American Association of State Highway and Transportation Officials.

(B) "COMMISSION" means the Missouri Highways and Transportation Commission, an executive branch agency of state government, which acts by and through its Director, Chief Engineer and others in the Missouri Department of Transportation.

(C) "CONSULTANT" means the firm providing professional services to the Commission as a party to this Agreement.

(D) "CONSULTANT'S REPRESENTATIVE" means the person or persons designated in writing by the Consultant to represent that firm in negotiations, communications, and various other contract administration dealings with the

Commission's Engineers.

(E) "DELIVERABLES" means all drawings and documents prepared in performance of this Agreement, to be delivered to and become the property of the Commission pursuant to the terms and conditions set out in Section (12) of this Agreement.

(F) "DISADVANTAGED BUSINESS ENTERPRISE (DBE)" means an entity owned and controlled by a socially and economically disadvantaged individual as defined in 49 C.F.R. Part 26, which is certified as a DBE firm in Missouri by the Commission. Appropriate businesses owned and controlled by women are included in this definition.

(G) "ENGINEER" means the Chief Engineer or any other authorized representative of the Commission. Where the specific term "Chief Engineer" is used, it shall mean the Chief Engineer exclusively.

(H) "FHWA" means the Federal Highway Administration within the USDOT, headquartered at Washington, D.C., which acts through its authorized representatives.

(I) "INTELLECTUAL PROPERTY" consists of copyrights, patents, and any other form of intellectual property rights covering any data bases, software, inventions, training manuals, systems design or other proprietary information in any form or medium.

(J) "SUBCONSULTANT" means any individual, partnership, corporation, or joint venture to which the Consultant, with the written consent of the Engineer, subcontracts any part of the professional services under this Agreement but shall not include those entities which supply only materials or supplies to the Consultant.

(K) "SUSPEND" the services means that the services as contemplated herein shall be stopped on a temporary basis. This stoppage will continue until the Commission either decides to terminate the project or reactivate the services under the conditions then existing.

(L) "TERMINATE," in the context of this Agreement, means the cessation or quitting of this Agreement based upon the action or inaction of the Consultant, or the unilateral cancellation of this Agreement by the Commission.

(M) "USDOT" means the United States Department of Transportation, headquartered at Washington, D.C., which acts through its authorized representatives.

(N) "SERVICES" includes all professional engineering and related services and the furnishing of all equipment, supplies, and materials in conjunction with

such services as are required to achieve the broad purposes and general objectives of this Agreement.

(2) SCOPE OF SERVICES:

(A) The services covered by this Agreement shall include furnishing the professional, technical, and other personnel and the equipment, material and all other things necessary for developing Final Roadway Plans consisting of revisions to the approved Collector Distributor Ramp/Road facilities south of, and parallel to, I-70 in accordance with FHWA and Commission approvals for modified access.

(B) The specific services to be provided by the Consultant are set forth on Exhibit I to this Agreement, titled "Scope of Services," which is attached hereto and made a part of this Agreement.

(3) ADDITIONAL SERVICES: The Commission reserves the right to direct additional services not described in Exhibit I as changed or unforeseen conditions may require. Such direction by the Commission or its Engineer shall not be a breach of this Agreement. In this event, a supplemental agreement will be negotiated and executed prior to the Consultant performing the additional or changed services, or incurring any additional cost for those services. Any changes in the maximum compensation and fee, or time and schedule of completion, will be covered in the supplemental agreement.

(4) INFORMATION AND SERVICES PROVIDED BY THE COMMISSION:

(A) At no cost to the Consultant and in a timely manner, the Commission will provide available information of record which is pertinent to this project to the Consultant upon request. In addition, the Commission will provide the Consultant with the specific items or services set forth on Exhibit II to this Agreement, titled "Services Provided by the Commission," which is attached hereto and made a part of this Agreement. The Consultant shall be entitled to rely upon the accuracy and completeness of such information, and the Consultant may use such information in performing services under this Agreement.

(B) The Consultant shall review the information provided by the Commission concerning the project site, including without limitation, boring logs and subsurface data, pile driving and load testing, utility locations and layout survey data and will as expeditiously as possible advise the Engineer of any of that information which the Consultant believes is inaccurate or inadequate or would otherwise have an effect on its design or any of its other activities under this Agreement. In such case, the Commission shall provide the Consultant with new or verified data or information upon which the Consultant is entitled to rely. The Consultant shall not be liable for any errors, omissions, or deficiencies in the Consultant's services resulting from inaccurate or inadequate information furnished by the Commission which inaccuracies or inadequacies are not detected by the Consultant unless the errors should have been detected by the Consultant through reasonable diligence.

(5) RESPONSIBILITY OF THE CONSULTANT:

(A) The Consultant shall comply with applicable state and federal laws and regulations governing these services, as published and in effect on the date of this Agreement. The Consultant shall provide the services in accordance with the criteria and requirements established and adopted by the Commission; and if none are expressly established in this Agreement, published manuals and policies of the Commission which shall be furnished by the Commission upon request; and, absent the foregoing, manuals and policies of AASHTO, as published and in effect on the date of this Agreement.

(B) Without limiting the foregoing, design criteria and project planning will be in accordance with the information set out in Exhibit I.

(C) The Consultant shall be responsible for the professional quality, technical accuracy, and the coordination of designs, drawings, specifications, and other services furnished under this Agreement. At any time during construction of the Commission project associated with this Agreement or during any phase of work performed by others on said project that is based upon data, plans, designs, or specifications provided by the Consultant, the Consultant shall prepare any data, plans, designs, or specifications needed to correct any negligent acts, errors, or omissions of the Consultant or anyone for whom it is legally responsible in failing to comply with the foregoing standard. The services necessary to correct such negligent acts, errors, or omissions shall be performed without additional compensation, even though final payment may have been received by the Consultant. The Consultant shall provide such services as expeditiously as is consistent with professional performance. Acceptance of the services will not relieve the Consultant of the responsibility to correct such negligent acts, errors, or omissions.

(D) Completed plans, plans submitted for review by permit authorities, and plans issued for construction shall be signed, sealed, and dated by a professional engineer registered in the State of Missouri. Incomplete or preliminary plan(s), when submitted for review by others, shall not be sealed, but the name of the responsible engineer, along with the engineer's Missouri registration number, shall be indicated on the plan(s) or included in the transmittal document. In addition, the phrase "Preliminary - Not for Construction," or similar language, shall be placed on the incomplete or preliminary plan(s) in an obvious location where it can readily be found, easily read, and not obscured by other markings, as a disclosure to others that the plan(s) are incomplete or preliminary. When the plan(s) are completed, the phrase "Preliminary - Not for Construction" or similar language shall be removed and the plan(s) shall thereupon be sealed.

(E) The Consultant shall cooperate fully with the Commission and its Engineers, consultants, and contractors on adjacent projects, and with municipalities and local government officials, public utility companies and others as may be directed

by the Engineer. This shall include attendance at meetings, discussions, and hearings as requested by the Engineer. The minimum number and location of public meetings and public hearings shall be defined in Exhibit I.

(F) In the event any lawsuit or court proceeding of any kind is brought against the Commission, arising out of or relating to the Consultant's activities or services performed under this Agreement or any project of construction undertaken employing the deliverables provided by the Consultant in performing this Agreement, the Consultant shall have the affirmative duty to assist the Commission in preparing the Commission's defense, including, but not limited to, production of documents, trials, depositions, or court testimony. Any assistance given to the Commission by the Consultant will be compensated at an amount or rate negotiated between the Commission and the Consultant as will be identified in a separate agreement between the Commission and the Consultant. To the extent the assistance given to the Commission by the Consultant was necessary for the Commission to defend claims and liability due to the Consultant's negligent acts, errors, or omissions, the compensation paid by the Commission to the Consultant will be reimbursed to the Commission.

(6) NO SOLICITATION WARRANTY: The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Consultant, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Commission will have the right to terminate this Agreement without liability, or at its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee, plus costs of collection including reasonable attorney's fees.

(7) SUBCONSULTANTS:

(A) The Consultant agrees that except for those firms and for those services listed below, there shall be no transfer of engineering services performed under this Agreement without the proper written consent of the Commission. Subletting, assignment, or transfer of the services or any part thereof to any other corporation, partnership, or individual is expressly prohibited. Any violation of this clause will be deemed cause for termination of this Agreement.

EXCEPTIONS

<u>Firm Name</u>	<u>Complete Address</u>	<u>Nature of Services</u>
TREKK Design Group	1441 East 104 th , Suite 105 Kansas City, MO 64131	Surveying

(B) The Consultant agrees, and shall require the selected Subconsultants, to maintain books, documents, papers, accounting records, and other evidence pertaining to direct costs and expenses incurred under the Agreement and to make such materials available at their offices at reasonable times at no charge to the Commission and their designees and/or representatives during the Agreement period and for three (3) years from the date of final payment under the Agreement, for inspection by the Commission or any of its authorized representatives (or any authorized representative of the federal government), and copies thereof shall be furnished.

(C) Unless waived or modified by the Commission, the Consultant agrees to require, and shall provide evidence to the Commission, that those Subconsultants shall maintain commercial general liability, automobile liability, and worker's compensation and employer's liability insurance, for not less than the period of services under such subcontract agreements, and in not less than the following amounts:

1. Comprehensive General Liability: \$500,000 per claim up to \$3,000,000 per occurrence;
2. Automobile Liability: \$500,000 per claim up to \$3,000,000 per occurrence; and
3. Worker's Compensation in accordance with the statutory limits; and Employer's Liability: \$1,000,000.

(D) The subletting of the services will in no way relieve the Consultant of its primary responsibility for the quality and performance of the services to be performed hereunder and the Consultant shall assume full liability for the services performed by its Subconsultants.

(E) The payment for the services of any Subconsultants will be reimbursed at cost by the Commission in accordance with the submitted invoices for such services, as set forth in Section (9), titled "Fees and Payments."

(F) The Consultant agrees that any agreement between the Consultant and any Subconsultant shall be an actual cost plus fixed fee agreement if the amount of the agreement between the Consultant and Subconsultant exceeds twenty-five thousand dollars (\$25,000).

(8) EXECUTIVE ORDER:

(A) The Consultant shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or

supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement. By signing this Agreement, the Consultant hereby certifies that any employee of the Consultant assigned to perform services under this Agreement is eligible and authorized to work in the United States in compliance with federal law. In the event the Consultant falls to comply with the provisions of Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the Consultant has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.

(B) The Consultant shall include the above-provision concerning said Executive Order within every subcontract. The Consultant shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

(9) FEES AND PAYMENTS:

(A) The amount to be paid to the Consultant by the Commission as full remuneration for the performance of all services called for in this Agreement will be on the basis of the Consultant's actual costs plus a **fixed fee of \$22,013.19**, except that the combined costs and fee will not exceed a **maximum amount payable of \$219,400.00** which is shown in Exhibit III, "Estimate of Costs," attached hereto and made a part of this Agreement. Payment under the provisions of this Agreement is limited to those costs incurred as restricted by Commission reimbursement policy and in accordance with generally accepted accounting principles, to the extent they are considered necessary to the execution of the item of service.

(B) The Consultant's actual costs shall include the hourly salary of each associate and employee, salary-related expenses, general overhead, and direct non-salary costs as allowed by 48 C.F.R. Part 31, the Federal Acquisition Regulations (FAR), and 23 C.F.R. 172, Administration of Engineering and Design Related Service Contracts. The hourly salary of each associate and employee is defined as the actual productive salaries expended to perform the services. The other billable costs for the project are defined as follows:

1. Salary-related expenses are additions to payroll cost for holidays, sick leave, vacation, group insurance, worker's compensation insurance, social security taxes (FICA), unemployment insurance, disability taxes, retirement benefits, and other related items.

2. General overhead cost additions are for administrative salaries (including non-productive salaries of associates and employees), equipment rental and maintenance, office rent and utilities, office maintenance, office supplies, insurance, taxes, professional development expenses, legal and audit fees, professional dues and licenses, use of electronic computer for accounting, and other related items.

3. Direct non-salary costs incurred in fulfilling the terms of this Agreement, such as but not limited to travel and subsistence, subcontract services, reproductions, computer charges, materials and supplies, and other related items, will be charged at actual cost without any override or additives.

4. The additions to productive salaries for Item 8(B) 1 and 2 will be established based on the latest audit. If an audit determines that overhead has increased or decreased during the course of the services, the Consultant shall notify the Commission and utilize the latest audited data as the basis for interim payments and adjust overhead for prior periods. Upon completion of the services outlined under this Agreement, the final payment for these items will be based on accounting records of the Consultant incurred during the period of the Agreement. If, however, the Consultant's overhead has remained reasonably uniform during the period of the Agreement, the Consultant's latest audited rates may be accepted as a basis for establishing final payment for payrolls earned in the last fiscal year.

5. The property and equipment used on this project such as automotive vehicles, survey equipment, office equipment, etc., shall be owned, rented, or leased by the Consultant, and charges will be made to the project for the use of such property at the rate established by company policies and practices. Approval of the Commission will be required prior to acquisition of reimbursable special equipment.

(C) The Consultant shall submit an invoice for services rendered to the Commission not more than once every month. A graphic progress report indicating the current status of the services shall be submitted along with each invoice. Upon receipt of the invoice and progress report, the Commission will, as soon as practical, pay the Consultant for the services rendered, including the proportion of the fixed fee earned as reflected by the estimate of the portion of the services completed as shown by the progress report, less partial payments previously made. The payment, other than the fixed fee, will be subject to final audit of actual expenses during the period of the Agreement.

(10) PERIOD OF SERVICE:

(A) The services, and if more than one then each phase thereof, shall be completed in accordance with the schedule contained in Exhibit IV, "Schedule," attached hereto and made a part of this Agreement. The Consultant and the Commission will be required to meet this schedule.

(B) The Commission will grant time extensions for delays due to unforeseeable causes beyond the control of and without fault or negligence of the Consultant. Requests for extensions of time shall be made in writing by the Consultant, before that phase of work is scheduled to be completed, stating fully the events giving rise to the request and justification for the time extension requested. Such extension of time shall be the sole allowable compensation for all such delays, except as otherwise

provided in Section (3) for additional/changed work and differing/unforeseen conditions.

(C) The Consultant and Commission agree that time is of the essence, and the Consultant and Commission will be required to meet the schedules in this Agreement. In the event of delays due to unforeseeable causes beyond the control of and without fault or negligence of the Consultant, no claim for damage shall be made by either party. The anticipated date of completion of the work, including review time, is stated in Exhibit IV of this Agreement. An extension of time shall be the sole allowable compensation for any such delays, except as otherwise provided in Section (3) for additional/changed work and differing/unforeseen conditions.

(D) As used in this provision, the term "delays due to unforeseeable causes" includes the following:

1. War or acts of war, declared or undeclared;
2. Flooding, earthquake, or other major natural disaster preventing the Consultant from performing necessary services at the project site, or in the Consultant's offices, at the time such services must be performed;
3. The discovery on the project of differing site conditions, hazardous substances, or other conditions which, in the sole judgment of the Engineer, justifies a suspension of the services or necessitates modifications of the project design or plans by the Consultant;
4. Court proceedings;
5. Changes in services or extra services.

(11) SUSPENSION OR TERMINATION OF AGREEMENT:

(A) The Commission may, without being in breach hereof, suspend or terminate the Consultant's services under this Agreement, or any part of them, for cause or for the convenience of the Commission, upon giving to the Consultant at least fifteen (15) days' prior written notice of the effective date thereof. The Consultant shall not accelerate performance of services during the fifteen (15) day period without the express written request of the Commission.

(B) Should the Agreement be suspended or terminated for the convenience of the Commission, the Commission will pay to the Consultant its costs as set forth in Subsection (9)(B), including actual hours expended prior to such suspension or termination and direct costs as defined in this Agreement for services performed by the Consultant, a proportional amount of the fixed fee based upon an estimated percentage of Agreement completion, plus reasonable costs incurred by the Consultant in suspending or terminating the services. The payment will make no other allowances for damages or anticipated fees or profits. In the event of a suspension of the services,

the Consultant's compensation and schedule for performance of services hereunder shall be equitably adjusted upon resumption of performance of the services.

(C) The Consultant shall remain liable to the Commission for any claims or damages occasioned by any failure, default, error or omission in carrying out the provisions of this Agreement during its life, including those giving rise to a termination for non-performance or breach by Consultant. This liability shall survive and shall not be waived, or estopped by final payment under this Agreement.

(D) The Consultant shall not be liable for any errors or omissions contained in deliverables which are incomplete as a result of a suspension or termination where the Consultant is deprived of the opportunity to complete the Consultant's services.

(E) Upon the occurrence of any of the following events, the Consultant may suspend performance hereunder by giving the Commission 30 days advance written notice and may continue such suspension until the condition is satisfactorily remedied by the Commission. In the event the condition is not remedied within 120 days of the Consultant's original notice, the Consultant may terminate this agreement.

1. Receipt of written notice from the Commission that funds are no longer available to continue performance.

2. The Commission's persistent failure to make payment to the Consultant in a timely manner.

3. Any material contract breach by the Commission.

(12) OWNERSHIP OF DRAWINGS AND DOCUMENTS:

(A) All drawings and documents prepared in performance of this Agreement shall be delivered to and become the property of the Commission upon suspension, abandonment, cancellation, termination, or completion of the Consultant's services hereunder; provided, however,

1. the Consultant shall have the right to their future use with written permission of the Commission;

2. the Consultant shall retain its rights in its standard drawing details, designs, specifications, CADD files, databases, computer software, and any other proprietary property; and

3. the Consultant shall retain its rights to intellectual property developed, utilized, or modified in the performance of the services subject to the following:

A. Copyrights. Commission, as the contracting agency, reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Governmental purposes:

I. The copyright in any works developed under this agreement, or under a subgrant or contract under this agreement; and

II. Any rights of copyright to which Commission, its consultant or subconsultant purchases ownership with payments provided by this agreement.

B. Patents. Rights to inventions made under this agreement shall be determined in accordance with 37 C.F.R. Part 401. The standard patent rights clause at 37 C.F.R. § 401.14, as modified below, is hereby incorporated by reference.

I. The terms "to be performed by a small business firm or domestic nonprofit organization" shall be deleted from Paragraph (g)(1) of the clause;

II. Paragraphs (g)(2) and (3) of the clause shall be deleted; and

III. Subsection (I) of the clause, entitled "communications" shall read as follows: "(I) Communications. All notifications required by this clause shall be submitted to the Chief Engineer."

IV. The following terms in 37 C.F.R. 401.14 shall for the purpose of this Agreement have the following meaning:

Contractor - Consultant

Government and Federal Agency - Commission

Subcontractor - Subconsultant

4. Basic survey notes, design computations, and other data prepared under this Agreement shall be made available for use by the Commission without further compensation and without restriction or limitation on their use.

(B) The Commission may incorporate any portion of the deliverables into a project other than that for which they were performed, without further compensation to the Consultant; provided however, that (1) such deliverables shall thereupon be deemed to be the work product of the Commission and the Commission shall use same at its sole risk and expense; and (2) the Commission shall remove the Consultant's name, seal, endorsement, and all other indices of authorship from the

deliverables.

(13) DECISIONS UNDER THIS AGREEMENT AND DISPUTES:

(A) The Engineer will determine the acceptability of the drawings, specifications, and estimates and all other deliverables to be furnished, and will decide the questions that may arise relative to the proper performance of this Agreement. The determination of acceptable deliverables may occur following final payment, and as late as during the construction of the project which decisions shall be conclusive, binding and incontestable, if not arbitrary, capricious or the result of fraud.

(B) The Engineer will decide all questions which may arise as to the quality, quantity, and acceptability of services performed by Consultant and as to the rate of progress of the services; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the Agreement on the part of the Consultant; the proper compensation for performance or breach of the Agreement; and all claims of any character whatsoever in connection with or growing out of the services of the Consultant, whether claims under this Agreement or otherwise. The Engineer's decisions shall be conclusive, binding and incontestable if not arbitrary, capricious of the result of fraud.

(C) If the Consultant has a claim for payment against the Commission which in any way arises out of the provisions of this Agreement or the performance or non-performance hereunder, written notice of such claim must be made in triplicate within sixty (60) days of the Consultant's receipt of final payment. Notwithstanding Section (21) of this Agreement, the notice of claim shall be personally delivered or sent by certified mail to the office of the Secretary to the Commission in Jefferson City, Missouri. The notice of claim shall contain an itemized statement showing completely and fully the items and amounts forming the basis of the claim and the factual and legal basis of the claim.

(D) Any claim for payment or an item of any such claim not included in the notice of claim and itemized statement, or any such claim not filed within the time provided by this provision shall be forever waived, and shall neither constitute the basis of nor be included in any legal action, counterclaim, set-off, or arbitration against the Commission.

(E) The claims procedure in Subsections (13)(C) and (D) do not apply to any claims of the Commission against the Consultant. Further, any claims of the Commission against the Consultant under this Agreement are not waived or estopped by the claims procedure in Subsections (13)(C) and (D).

(14) SUCCESSORS AND ASSIGNS: The Commission and the Consultant agree that this Agreement and all agreements entered into under the provisions of this Agreement shall be binding upon the parties hereto and their successors and assigns.

(15) INDEMNIFICATION RESPONSIBILITY:

(A) The Consultant agrees to save harmless the Commission from all liability, losses, damages, and judgments for bodily injury, including death, and property damage to the extent due to the Consultant's negligent acts, errors, or omissions in the services performed or to be performed under this Agreement, including those negligent acts, errors, or omissions of the Consultant's employees, agents, and Subconsultants.

(B) The Consultant shall be responsible for the direct damages incurred by the Commission as result of the negligent acts, errors, or omissions of the Consultant or anyone for whom the Consultant is legally responsible, and for any losses or costs to repair or remedy construction as a result of such negligent acts, errors or omissions; provided, however, the Consultant shall not be liable to the Commission for such losses, costs, repairs and/or remedies which constitute betterment of or an addition of value to the construction or the project.

(C) Neither the Commission's review, approval or acceptance of, or payment for, any services required under this Agreement, nor the termination of this Agreement prior to its completion, will be construed to operate as a waiver of any right under this Agreement or any cause of action arising out of the performance of this Agreement. This indemnification responsibility survives the completion of this Agreement, as well as the construction of the project at some later date, and remains as long as the construction contractor may file or has pending a claim or lawsuit against the Commission on this project arising out of the Consultant's services hereunder.

(16) INSURANCE:

(A) The Consultant shall maintain commercial general liability, automobile liability, and worker's compensation and employer's liability insurance in full force and effect to protect the Consultant from claims under Worker's Compensation Acts, claims for damages for personal injury or death, and for damages to property arising from the negligent acts, errors, or omissions of the Consultant and its employees, agents, and Subconsultants in the performance of the services covered by this Agreement, including, without limitation, risks insured against in commercial general liability policies.

(B) The Consultant shall also maintain professional liability insurance to protect the Consultant against the negligent acts, errors, or omissions of the Consultant and those for whom it is legally responsible, arising out of the performance of professional services under this Agreement.

(C) The Consultant's insurance coverage shall be for not less than the following limits of liability:

1. Comprehensive General Liability: \$500,000 per claim up to \$3,000,000 per occurrence;

2. Automobile Liability: \$500,000 per claim up to \$3,000,000 per occurrence;

3. Worker's Compensation in accordance with the statutory limits; and Employer's Liability: \$1,000,000; and

4. Professional ("Errors and Omissions") Liability: \$1,000,000, each claim and in the annual aggregate.

(D) In lieu of the minimum coverage stated in (16)(C)(1) and (C)(2), above, the Consultant may obtain insurance at all times in an amount equal to the Commission sovereign Immunity caps as stated in Section 537.600 RSMo and subsequently adjusted by the Missouri Department of Insurance. If the statutory limit of liability for a type of liability specified in this section is repealed or does not exist, the Consultant shall obtain insurance with the minimum coverage stated in (16)(C)(1) and (C)(2), above.

(E) The Consultant shall, upon request at any time, provide the Commission with certificates of insurance evidencing the Consultant's commercial general or professional liability ("Errors and Omissions") policies and evidencing that they and all other required insurance are in effect as to the services under this Agreement.

(F) Any insurance policy required as specified in Section (16) shall be written by a company which is incorporated in the United States of America or is based in the United States of America. Each insurance policy must be issued by a company authorized to issue such insurance in the State of Missouri.

(17) CONSTRUCTION PHASE OF THE PROJECT:

(A) This Agreement includes design services only, unless review of shop drawings and other construction phase services are specifically included. The Consultant shall not be responsible for bidding, award of the construction contract, or construction administration or observation except as provided by Section, (2), titled "Scope of Services," and Exhibit I to this Agreement.

(B) Because the Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the construction contractor(s)' methods of determining prices, or over competitive bidding or market conditions, any of the Consultant's opinions of probable project costs and/or construction cost, if provided for herein, are to be made on the basis of the Consultant's experience and qualifications and represent the Consultant's best judgment as an experienced and qualified design professional, familiar with the construction industry, but the Consultant cannot and does not guarantee that proposals, bids, or actual total project costs and/or construction costs will not vary from opinions of probable costs

prepared by the Consultant.

(18) NONDISCRIMINATION CLAUSE: The Consultant shall comply with all state and federal statutes applicable to the Consultant relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of the Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*).

(19) ACTIONS: No action may be brought by either party hereto concerning any matter, thing, or dispute arising out of or relating to the terms, performance, non-performance, or otherwise of this Agreement except in the Circuit Court of Cole County, Missouri. The parties agree that this Agreement is entered into at Jefferson City, Missouri, and substantial elements of its performance will take place or be delivered at Jefferson City, Missouri, by reason of which the Consultant consents to venue of any action against it in Cole County, Missouri. The Consultant shall cause this provision to be incorporated into all of its agreements with, and to be binding upon, all subconsultants of the Consultant in the performance of this Agreement.

(20) AUDIT OF RECORDS: For purpose of an audit, the Consultant shall maintain all those records relating to direct costs and expenses incurred under this Agreement, including but not limited to invoices, payrolls, bills, receipts, etc. These records must be available at all reasonable times to the Commission or its designees and representatives, at the Consultant's offices, at no charge, during the Agreement period and any extension thereof, and for the three (3) year period following the date of final payment made under this Agreement. If the Commission has notice of a potential claim against the Consultant and/or the Commission based on the Consultant's services under this Agreement, the Consultant, upon written request of the Commission, shall retain and preserve its records until the Commission has advised the Consultant in writing that the disputed claim is resolved.

(21) NOTICE TO THE PARTIES: All notices or communications required by this Agreement shall be made in writing, and shall be effective upon receipt by the Commission or the Consultant at their respective addresses of record. Letters or other documents which are prepared in 8.5 x 11 inch format may be delivered by telefax, provided that an original is received at the same address as that to which that telefax message was sent, within three (3) business days of the telefax transmission. Either party may change its address of record by written notice to the other party.

(A) Notice to the Commission: Notices to the Commission shall be addressed and delivered to the following Engineer, who is hereby designated by the Commission as its primary authorized Engineer for administration, interpretation, review, and enforcement of this Agreement and the services of the Consultant hereunder:

Elizabeth Wright, P.E.
District Engineer

Missouri Department of Transportation
600 NE Colbern Road
Lee's Summit, Missouri 64086
Telefax No.: (816) 622-6323
Telephone No.: (816) 622-6300

The Commission reserves the right to substitute another person for the individual named at any time, and to designate one or more other Engineers to have authority to act upon its behalf generally or in limited capacities, as the Commission may now or hereafter deem appropriate. Such substitution or designations shall be made by the Chief Engineer in a written notice to the Consultant.

(B) Notice to the Consultant: Notices to Consultant shall be addressed and delivered to Consultant's representative, as follows:

Frank Weatherford, P.E.
Principal
TranSystems Corporation
2400 Pershing Road, Suite 400
Kansas City, MO 64108
Telefax No.: (816) 329-8601
Telephone No.: (816) 329-8775

The Consultant reserves the right to substitute another person for the individual named at any time, and to designate one or more Consultant's Representatives to have authority to act upon its behalf generally or in limited capacities, as the Consultant may now or hereafter deem appropriate. Such substitutions or designations shall be made by the Consultant's president or chief executive officer in a written notice to the Commission.

(22) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The Consultant shall comply with all local, state, and federal laws and regulations which govern the performance of this Agreement.

(23) CONFIDENTIALITY: The Consultant agrees that the Consultant's services under this Agreement is a confidential matter between the Consultant and the Commission. The Consultant shall not disclose any aspect of the Consultant's services under this Agreement to any other person, corporation, governmental entity, or news media, excepting only to such employees, subconsultants, and agents as may be necessary to allow them to perform services for the Consultant in the furtherance of this Agreement, without the prior approval of the Commission's Engineer; provided, however, that any confidentiality and non-disclosure requirements set out herein shall not apply to any of the Consultant's services or to any information which (1) is already in the public domain or is already in the Consultant's possession at the time the Consultant performs the services or comes into possession of the information, (2) is received from

a third party without any confidentiality obligations, or (3) is required to be disclosed by governmental or judicial order. Any disclosure pursuant to a request to the Commission under Chapter 610, RSMo, shall not constitute a breach of this Agreement. The content and extent of any authorized disclosure shall be coordinated fully with and under the direction of the Commission's Engineer, in advance.

(24) SOLE BENEFICIARY: This Agreement is made for the sole benefit of the parties hereto and nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the Commission and the Consultant.

(25) SEVERABILITY AND SURVIVAL:

(A) Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Commission and the Consultant.

(B) All express representations, indemnifications, or limitations of liability made or given in this Agreement will survive the completion of all services by the Consultant under this Agreement or the termination of this Agreement for any reason.

(26) PAYMENT BOND: In the event a subconsultant is used for any services under this Agreement, Consultant shall provide a payment bond under Section 107.170 RSMo., as amended, for any services which are printing, aircraft, archaeology, hazardous waste or geotechnical including but not limited to the collection of soil samples. Any payment bond must be acceptable to the Commission and must be provided prior to the performance of service. The cost for the payment bond must have been included in the fee of the Consultant under this Agreement.

(27) ATTACHMENTS: The following Exhibits and other documents are attached to and made a part of this Agreement:

- (A) Exhibit I: Scope of Services.
- (B) Exhibit II: Services provided by the Commission.
- (C) Exhibit III: Estimate of Costs.
- (D) Exhibit IV: Schedule.

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the Consultant this 4th day of June, 2010

Executed by the Commission this 15 day of JUNE, 2010

MISSOURI HIGHWAYS AND
TRANSPORTATION COMMISSION

By: Roberto Kueker

Title: Chief Financial Officer

ATTEST: (Commission seal)

Dana Kauer
Secretary to the Commission

APPROVED AS TO FORM:

Micha Ray Alexander
Commission Counsel

TRANSYSTEMS CORPORATION

By: Frank L. Weatherford

Title: Principal

ATTEST: (Consultant seal, if existing)

By: Robert P. Miller

Title: VICE-PRESIDENT

APPROVED AS TO FORM:

By: Frank L. Weatherford
Title: Principal

Exhibit I
Scope of Services
J411597

Project Description: This scope of services is the result of a Value Engineering Proposal (VEP) for the project referenced above. The VEP resulted in ramp realignments to the bid plan set.

Final plans will be developed for the reconfiguration of the alignment for the ramp from I-435 SB to I-70 EB via the EB Collector Distributor Road (approximately 1,800 feet) eliminating the proposed bridge over the I-435 NB Ramp to I-70 EB and to Blue Ridge Cutoff via the Collector Distributor Road. The ramp alignments also include I-435 NB to I-70 EB/Blue Ridge Cutoff (approximately 800 feet) and I-70 EB to Blue Ridge Cutoff (approximately 1,500 feet) both via the EB Collector Distributor Road.

TranSystems will prepare a separate plan set complete with title sheet and quantities for the improvements referenced above. This plan set will be separate from the existing bid set. The existing bid set of plans will be modified by crossing out the improvements that are redesigned and modifying the quantity tables.

TranSystems will perform the following Scope of Services:

TASK 100 SURVEY

- 101 Obtain hard shots for elevations of existing roadways where our proposed improvements will tie-in with the existing and proposed roadways.
- 102 Perform field surveys to verify the flow lines and headwall elevations of the culverts.
- 103 Project Management and administrative tasks.

TASK 200 ROADWAY DESIGN

Prepare separate plans for revised ramp value engineering design. Plans will consist of title sheet, typical sections, quantity sheets, plan & profile sheets, reference & coordinate point sheets, special sheets, traffic control sheets, temporary erosion control sheets, lighting sheets, signing sheets, pavement marking sheets, culvert section sheets, wall plans, ITS plans sheets and cross sections. The revised plans will be sealed by a Missouri P.E. and will include "Value Engineering" on the title sheet.

TranSystems will revise the existing plan sheets by hatching out or clouding the portions of the plans affected by the revised ramp alignments. Quantity tables will be revised with reduced quantities. The revised plan sheets will be for information only and will not be sealed by a TranSystems Missouri P.E.

- 201 Prepare a title sheet.
- 202 Typical Sections will show the same alternate pavement sections as the original bid plans.
- 203 Design ramp realignments and prepare plan sheets.
- 204 Design vertical profiles and prepare profile sheets.
- 205 Drainage Plan and Profile Sheets will be developed for the revised drainage systems.

- 206 TranSystems will create Reference & Coordinate Point sheets for the revised ramp alignments.
- 207 Special sheets will be developed for gore details, super elevation diagrams, modified barrier wall details, and guard rail.
- 208 Traffic Control sheets will be updated with the current design. We assume the existing detour is adequate.
- 209 Temporary Erosion Control will be designed and plans will be developed for the revised ramp alignments.
- 210 The lighting plans will be updated to reflect the revised ramp alignments.
- 211 Signing plans will be updated to reflect the revised ramp alignments.
- 212 Pavement marking plans will be updated to reflect the revised ramp alignments.
- 213 TranSystems will develop plans for extension of two RCB's. The culverts will be extended at the same size of the existing. No detailed hydraulic calculations will be performed. TranSystems to utilize MODOT standard plans for structural details. Culvert sections will be developed
- 214 Bridge A7754 will be eliminated. TranSystems will revise the existing plan sheets by hatching out or clouding the portions of the plans affected by the elimination of the bridge. The revised plan sheets will be for information only and will not be sealed by a TranSystems Missouri P.E.
- 215 TranSystems will modify the plan and profile to CIP Wall A7766. MSE Wall A7759 will be eliminated and Wall A7758 will be converted into a cast in place modified barrier wall. TranSystems will develop plan and profile, and details for the modified barrier wall.
- 216 The ITS plans will be modified to reflect the changes in the ramp alignments. Conduit and pavement sensors will be relocated.
- 217 Cross Sections will be created for the revised ramp alignments.
- 218 Provide quality assurance/quality control on the plans.
- 219 Modify the existing plans.
- 220 Develop revised quantities and a cost estimate.
- 221 Transystems to review the current JSP's for the project. JSP's will be eliminated or added as needed.
- 222 Submit revised plans to MoDOT
- 223 Attend final plan review meeting
- 224 Revise plans

- 225 Submit final plans to MoDOT
- 226 Electronic Data will be submitted to MoDOT. This will include microstation files, GPK file, and cross section reports.
- 227 TranSystems to attend bi-weekly Core Team Meetings during the design process.
- 228 TranSystems has budget to attend four meetings during construction.

Project Assumptions:

- 1. A work day study is not needed.
- 2. No additional permit work is necessary.
- 3. The right-of-way plan sheets in the bid set of plans do not need to be update since the right-of-way will not change.
- 4. Utility relocations will not be designed by TranSystems as part of our services.
- 5. We will not identify, survey, design or provide environmental services for proposed borrow or waste sites.
- 6. Public Involvement is not required for this project.
- 7. There will not be any landscaping or sound walls needed as part of this project.
- 8. No additional geotechnical work will be performed.
- 9. Traffic Signals are not part of this project.

Exhibit II

SERVICES PROVIDED BY THE COMMISSION

1. As-built plans for existing I-70, I-435, Ramp C, and Ramp G.
2. Electronic design files for the current J411597 construction project.
3. Current or past survey information applicable to these contract services.
4. Contract Plans for the current J411597 construction project including all addendums and value engineering changes applicable to these contract services.
5. Aerial mapping and photography of facilities applicable to these contract services.
6. Geotechnical investigations and reports completed for the original design of the facilities applicable to these contract services.

Exhibit III
J411597-170 & 1435 Improvements
MoDOT
Jackson County, Missouri

WORKFORCE AND FEE ESTIMATE
ESTIMATE OF HOURS

	E5 \$106	E4 \$63	E3 \$30	E2 \$33	E1 \$26	T4 \$33	T3 \$27	T2 \$20
100 Survey								
101 Pavement survey		1		2				
102 Culvert survey		1		2				
103 Project Management/Prepare Invoices/Internal meetings	24	60						
#VALUE!	\$2,544	\$3,906	\$0	\$132	\$0	\$0	\$0	\$0
Total Hours for TranSystems (Item 100)	24	61	0	4	0	0	0	0
200 Final Design Services								
201 Title sheet				2		8		
202 Typical sections		4		8		16		
203 Ramp alignments and plan sheets		8		48		24		
204 Profiles and profile sheets		8		40		24		
205 Drainage design		2		10		16		
206 Reference and Coordinate Point sheets		1		8		12		
207 Special sheets (gores, super, barrier wall, guard rail)		8		48		40		
208 Traffic control		16		60				32
209 Erosion control		4		24		24		
210 Lighting design		4		2				
211 Signing		4		2				
212 Pavement markings		16		36				60
213 RCB extension		2		16				
214 Bridge removal		2		6				
215 Wall modifications		4		48		32		
216 ITS revisions		16		48				40
217 Cross sections		8		40		40		
218 QA/QC	4	16		16		16		4
219 Modify Existing Plans		4		40		64		
220 Revise quantities and develop cost estimate		4		40		40		
221 Job Special Provisions		4		8				
222 Submit revised plans to MoDOT		2		4		4		
223 Attend final plan review meeting	4	4		4				
224 Revise plans		4		16		20		
225 Submit plans to MoDOT		2		2		4		
226 Provide electronic data to MoDOT		2		8		6		
227 Core Team meetings	8	28		26				
228 Construction Meetings (4)		20		20				
229 Field Revisions to plans		8		50		24		24
	\$53,787	\$1,696	\$12,789	\$0	\$22,440	\$0	\$13,662	\$0
Total Hours for TranSystems (Item 200)	16	208	0	660	0	414	0	160
Total Hours for TranSystems	40	265	0	684	0	414	0	160

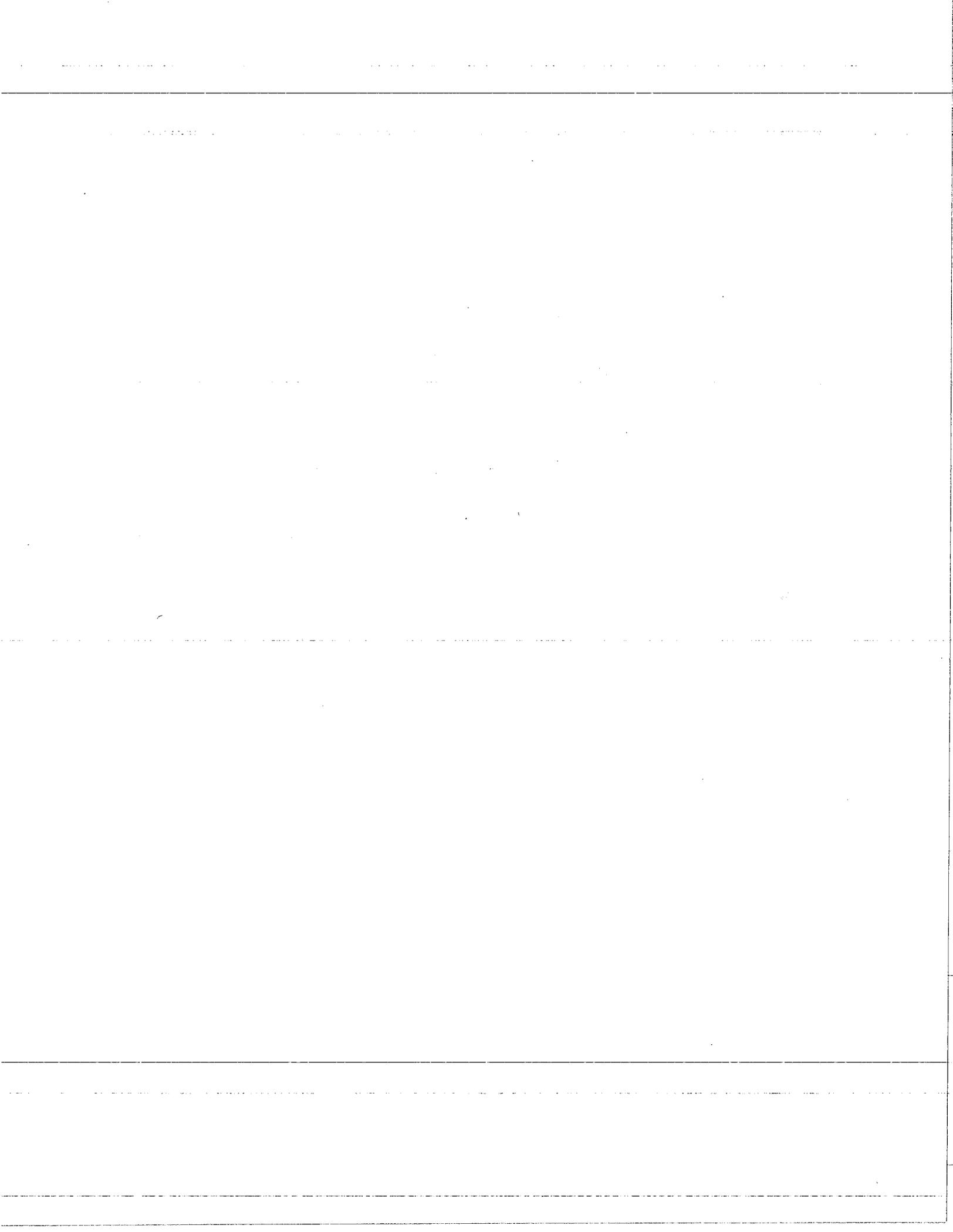


EXHIBIT III

Personnel	Title	Total Hr.	Est. Avg. Rate for Proj. Dur.	Raw Labor Cost	Expenses	Units	Unit Price
Project Mgr./Team Leader	PM, TM	154	54.84	8,445.36	Travel, meals (est)	80	0.50
Senior Engineer	SE	0	45.00	0.00	Hotel, gas, phone	100	0.25
Junior Project Engineer	SPE	0	40.00	0.00	Full Size Paper	0	1.00
Project Engineer, Associate Engineer	PE, AE	0	30.00	0.00	Equipment Charge	0	7.50
Assistant Engineer, Design Technician, Technician	ASE, DT	148	25.00	3,700.00			
Administrative	ADMIN	0	22.00	0.00			
Survey Project Manager, Office Supervisor	SPM, OS	2	27.00	0.00			
Survey Party Chief	SPC	0	35.00	0.00			
Survey Crew	SC	8	50.00	400.00			
TOTAL		314		\$12,875.36			

Phase	Total Price
Final Plans Development	\$9,653
TOTAL	\$9,653

MAN-HOUR AND FEE ESTIMATE

Item No.	Description of Work Items/Tasks	PM	TM	SPE	PE	AE	ASE	TECH	ADMIN	SPM	OS	TOTAL MAN-HOUR	TOTAL RAW LABOR COST (A)	TOTAL OVERHEAD COST (B)	TOTAL LABOR PLUS OVERHEAD (A+B)	PROFIT (C)	TOTAL LABOR FEE (A+B+C)
	Final Plans Development											0	0.00	0.00	0.00	0.00	0.00
1	Develop existing plan sheets (4 sheets)	24					30					56	2,116.16	3,244.13	5,360.29	750.00	6,110.29
2	Verify map and plan sheets	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
3	Writing diagram	16					8					24	960.00	1,077.24	2,037.24	270.00	2,307.24
4	Modify original plan sheets as required	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
5	Lighting 2/8 sheets	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
6	Lighting 2/8 sheets	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
7	Develop existing plan sheets (4 sheets)	24					30					56	2,116.16	3,244.13	5,360.29	750.00	6,110.29
8	2-Sheets	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
9	Sign Face Detail Sheets	4					16					20	800.00	837.24	1,637.24	210.00	1,847.24
10	Sign Section Sheets	16					16					32	1,280.00	1,334.40	2,614.40	340.00	2,954.40
11	Sign 2/8 sheets	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
12	Modify original plan sheets as required	8					8					16	640.00	676.50	1,316.50	150.00	1,466.50
13	Project Administration	12					12					24	960.00	1,016.52	1,976.52	260.00	2,236.52
14	Verify / Survey Proposed Tie Points to Existing TM Model	2					2					4	160.00	170.00	330.00	40.00	370.00
15												0	0.00	0.00	0.00	0.00	0.00
	TOTAL MAN-HOURS AND LABOR FEE											314	\$12,875.36	\$18,567.70	\$31,443.06	\$4,465.86	\$35,908.92
	TOTAL WARDAYS											314					
	TOTAL LABOR COST AND FEE											314	\$12,875.36	\$18,567.70	\$31,443.06	\$4,465.86	\$35,908.92
	TOTAL EXPENSES																
	TOTAL LABOR, OH, PFT & EXPENSES																

3 of 3

Exhibit IV
 J411597 - I70&I435
 Jackson County, Missouri

	June '10	July	August	Sept.
Notice to Proceed	★			
Core Team Meetings	◆	◆	◆	◆
Submit Updated Geometrics		★		
Final Design				
Approved Geometrics		★		
Submit Final Plans for Review			★	
MoDOT Review				
Update Plans				
Plans Available for Construction				★

Matthew D Killion/D4/MODOT

To Perry J Allen/D4/MODOT@MODOT

06/30/2010 08:40 AM

cc

bcc

Subject VE for J4I1597

Perry, attached is the VE form that needs your signature. Let me know if I need to revise the RE Comments.

Also attached is the supporting documentation. Cost savings breakdown, consultant design agreement, and figures from the ATC. Please let me know if you need anything else.

Thanks

Matt



AR-M237_20100630_075442.pdf

1 attachment



AR-M237_20100630_075621.pdf

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- X Bridge/Structure/Footings
- Drainage Structures (RCP, RCB, CMP's, ect.)
- TCP/MOT
- Paving (PCCP, ect.)
- Grading/MSE Walls
- Signal/Lighting/ITS
- Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

_____ Alternative technical concept that will eliminate structures and retaining walls. _____

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

_____ Scan proposal only.
