



Illinois Department of Transportation

Division of Highways / Bureau of Construction
2300 South Dirksen Parkway, Springfield, Illinois 62764

Subject:	CONSTRUCTION MEMORANDUM NO. 03-61
Guidelines for the Negotiation and Administration of Consultant Contracts for Construction Engineering Services	Effective: August 15, 2003
	Expires: Indefinite

This memorandum supersedes Construction Memorandum 01-61, effective July 1, 2001.

Because the Department does not always have the ability to provide in-house personal services for the peak staffing requirements of each year's construction program, periodic use of Consultant Engineering firms for Construction Engineering Services is sometimes needed. The purpose of this Memorandum is to provide specific guidelines for the Negotiation and Administration of Consultant Contracts for Construction Engineering Services.

Within these guidelines reference will be made to other published IDOT documents which contain applicable guidelines and procedures which contribute to this memorandum. The documents which this memorandum supplement are:

- Departmental Order 6-2, "Selection and Control of Architect - Engineer Consultant Firms" (D.O. 6-2)
- "Standard Agreement Provisions for Consultant Services" (SAPCS)
- BDE Procedure Memorandum 17, Architectural and Engineering Report and Negotiation Guidelines for Engineering Agreements and Supplements
- BDE Procedure Memorandum 16, Quality Assurance/Quality Control Guidelines for Work by Consulting Engineers
- BDE Manual, Chapter 8, Consultant Developed and/or Designed Projects

1. REQUEST FOR CONSULTANT SERVICES AND CONTROL OF ITS USE

- There are numerous steps and procedures which must be followed by all parties involved in the process of properly requesting, preparing, and executing an agreement for construction engineering services. As such, the required requesting documents must be prepared and submitted to the Director as far in advance as possible. The District Engineer is to submit the following to the Consultant Unit in the Central Bureau of Design and Environment (BDE):
- Form A/A-1
- Proposed Project Advertisement for the Professional Service Bulletin.
- Detailed Cost Estimate—(Not required for work order agreements)

Once the Director approves the project request, the project will be advertised in the Department's Professional Transportation Bulletin (PTB).

2. STATEMENT OF INTEREST

Once the project is advertised, prequalified interested consultants shall submit their statement of interest for a particular advertised project to the Central Bureau of Design and Environment. (See Section 3.E.4., D.O. 6-2)

The Consultant Unit (CU) of the Bureau of Design and Environment will then confirm the eligibility of each firm submitting a statement of interest. Eligible firms will then be reviewed and rated on their apparent ability to perform the work in the types of services required and the specific expertise of key personnel. Performance of each firm on previous services to the Department will also be considered. The CU will consolidate comments and will prepare a list for the District Engineers and IDOT's Consultant Selection Committee showing the rating of each firm.

3. CONSULTANT SELECTION COMMITTEE

The Selection Committee will review the merits of the firms for each project and reduce the number of firms for consideration to three; ranking them first, second and third choice firms.

4. NOTIFICATION OF SELECTIONS

The Agreements Unit (AU) in the BDE will contact each first-choice firm to inform it of its selection and alert it to the ensuing negotiations. The name of the first-choice firm will also be published in the next issue of the Professional Transportation Bulletin. On the date and time prescribed in the PTB advertisement, the District shall conduct a negotiation meeting with the consultant. To prepare the consultant for the negotiation, the District shall furnish to the consultant the following documents:

- Scope of Work and Attachment A (for Construction Engineering)
- "Standard Agreement Provisions for Consultant Services"
(<http://www.idot.illinois.gov/index>)
- Forms for Preparing Proposal (<http://www.idot.illinois.gov/index>)
- BDE Procedure Memorandum 17
- BDE Procedure Memorandum 16
- Latest copy of Departmental Order, "Travel Regulations"
- A copy of this Construction Memorandum.

Prior to the date of the negotiation meeting, the District should read and become familiar with the applicable provisions of BDE Procedure Memorandum 17.

Also, the consultant will be required to discuss the detailed provisions of the upcoming construction project for which he/she will be providing services. Therefore, effort should be made to obtain the preliminary plans and proposal from the District Program Development, together with the probable letting date and engineer's estimate for project specific phase III projects.

5. NEGOTIATION

At the initial negotiation meeting, the District should discuss with the consultant the following items:

- The detailed scope, sequence and duration of the construction project. (Include Contractor's schedule, if known, and any anticipated overtime needed.)
- For Work Order Agreements-How each work order will be negotiated and executed.
- The detailed scope of the consultant's services.
- The number and classifications of the consultant's employees and any anticipated requirements for overtime.
- Lines and methods of communication between consultant, IDOT and contractor.
- Testing and engineering equipment to be furnished by the consultant.
- Transportation and communications to be furnished by the consultant.
- Applicable provisions of BDE Procedure Memorandum 17.
- Net Fee Determination if basis of payment is Cost Plus Fixed Fee.

The Consultant shall prepare minutes of this and subsequent negotiation meetings and transmit a copy to the District. A copy of the draft Scope of Work, with changes noted thereon as agreed to in the initial negotiation meeting, should be made a part of the minutes and will serve as a basis for preparing the final agreement.

At the conclusion of the initial negotiation meeting, the consultant shall be asked to prepare a proposal containing the following documents. A second negotiation meeting should then be scheduled to discuss these documents:

- a. A brief outline of the scope of services on which his/her cost estimate is based.
- b. The staffing plan showing the average numbers of personnel, by classifications, required each week for the duration of the project (Attachment 1).
- c. A resume' of the experience and training of each proposed project employee.

- d. Form [SBE 1504](#), Consultant's Employee Utilization Form (Attachment 2)
- e. A fee proposal based on man hours and direct costs summarized on the "Cost Estimate of Consultant Services" form and supported by data sheets showing: (Not required for work order agreements.)

See Standard Agreement Provisions Section 2.86(b)(4).

- 1) The determination of the average regular payroll rate and overtime rate, if applicable.
 - 2) Itemized estimate of direct project costs. (A list of eligible direct costs is located in the Professional Transportation Bulletin (PTB))
 - 3) Proposed net fee amount (profit) if payment is Cost Plus Fixed Fee.
- f. The consultant's Quality Control/Quality Assurance Plan

It is important to clearly indicate on the estimate form any professional work which the consultant is required or intends to subcontract with the costs for such work indicated and included under the "Services by Others" column. These costs must be supported by a "Cost Estimate of Consultant Services" form prepared by the sub-consultant, including the same supporting data as described above. The sub-consultant must be prequalified or approved by the Department. Profit will not be allowed to the consultant on any subconsultant work. Once the District is satisfied the man hours and direct project costs are proper, the proposal package is complete, and the QC/QA plan is acceptable, three copies of the consultants' proposal should be submitted to the Central Bureau of Design and Environment (see BDE 17 for items that must be included).

For work order agreements, the type of work the subconsultant is anticipated to do along with the subconsultant's labor and direct costs rates are all that are needed.

6. EXECUTION OF AGREEMENT

The AU in the BDE will review the proposal documents for conformance with normal practices and obtain an audit review. After resolving any audit issues the AU in the BDE will obtain the Consultant's signature on the agreement.

The BDE will transmit the two original Agreements to the Secretary of Transportation for the signature(s) by the Department. The consultant will be notified the agreement has been executed and directed to contact the district for instructions on how to proceed.

The BDE will then send one of the executed Agreements to the consultant and retain the other. Copies will be made and distributed to the District and the Bureau of Accounting and Auditing.

7. CONTRACT ADMINISTRATION

Administration of the Agreement shall be the responsibility of the requesting District. The District's Liaison Engineer who is charged with the day-to-day

administration of the terms of the Agreement shall be the construction project Resident. The Resident's field files should contain the Consultant Proposal, the consultant agreement, negotiation meeting minutes, Standard Agreement Provision for Consultant Services, and supplemental agreements and Errors and Omissions policy. In addition to the provisions contained in the Agreement and of D.O. 6-2, the Resident shall be responsible for the following:

- a. Personnel - If the consultant plans to assign an employee to the project for whom a resume' was not submitted with his/her original Agreement, the Resident shall ask for a resume'. The employee's experience and training is to be reviewed and approved by the Construction Engineer or Resident before the employee's services are utilized on the project. The resume' shall be made a part of the project files. The Resident should give the consultant at least two weeks notice as to the need for additional personnel and services or a reduction in personnel and services. The Resident shall monitor the consultant's work force through the consultant liaison/RE for compliance with these notices.
- b. Equipment - The Resident shall inspect the surveying and testing equipment furnished by the consultant to ensure that it is appropriate for project needs, meets the minimum AASHTO or ASTM specification requirements and is in good working condition. The inspection should be documented in the project files.
- c. Partial Payments - Periodically, but not more often than monthly, the consultant will submit an Invoice (one original and two copies) prepared on Form [BDE 430 \(CPFF\)](#) or [BDE 428 \(DLM\)](#), to the Resident.

Copies of the original/source records which evidence all expenditures, are required to be attached to the Invoice. Direct cost rates allowable are specified in the contract. Proper cost documentation includes the following:

- 1) Personal Services costs:
 - (a) A tabulated list of employee names, the number of hours or days devoted to the project, the rates of pay, amounts per employee (computer printouts are acceptable providing source documents are available), and
 - (b) Copies of weekly or monthly time cards or Form [BC 930](#), Consultant Engineer's Personnel and Vehicle Time Distribution Record, for all personnel on the project.
- 2) Direct costs:
 - (a) Paid receipts for lodging, tolls and parking,
 - (b) Per Diem records,
 - (c) Form [BC 930](#), Consultant Engineer's Weekly Personnel and Vehicle Time Distribution Record, for all company vehicles used on the project.

- (d) Form [BC 931](#), "Consultant Engineer's Private Vehicle Weekly Mileage Record," for all personal vehicle mileage.
- (e) Contractual Services, commodities and equipment rental costs shall be documented with copies of invoices together with copies of canceled checks or copies of invoices certified as paid (invoices shall be identifiable to the project).
- (f) Equipment owned by the consultant shall be invoiced at the agreed rates with an itemized statement of usage.

The Resident shall review the Invoice for accuracy and transmit the original and all but one copy to the District Engineer, keeping one copy for the project files.

- d. Supplemental Agreements - Supplements to the prime Agreement will be necessary when there is a change in the scope of the consultant's services or increases in man hours or direct project costs which will require an adjustment to the upper limit of compensation.

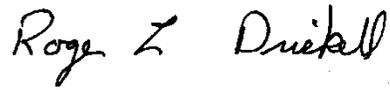
When conditions require a Supplemental Agreement, the Resident should instruct the consultant to submit a request with supporting data for review and approval. The District shall transmit all Supplemental Agreement proposals to the Central BDE for processing. The Supplemental Agreement must be executed prior to authorizing the consultant to proceed with any additional work.

- e. Performance Evaluation - In order for the Department to evaluate the consultant's performance, interim evaluations shall be submitted at six-month intervals until all major work items are complete. Interim evaluations are due in the BDE on April 1st and October 1st. The Resident shall prepare CONSULTANT PERFORMANCE EVALUATION FORMS FOR CONSTRUCTION ENGINEERING before the above dates if the consultant has been working at least four months. The District shall submit the original to the BDE and one copy to the consultant.

Departmental Order 6-2 provides that during the performance of a project by a consultant, the Department representative administering the consultant's work shall keep the principals of the firm advised of any specific areas of unacceptable performance. This type of information should also be summarized on the evaluation form if the rating is less than adequate.

- f. Pay for Performance - The consultant will be compensated or invoiced for performance as set forth in Section 4 of the consultant's agreement.
- g. When the consultant's work is complete, the firm will send the district a final invoice with an affidavit of completion. Once the final invoice has been approved, send a copy of the affidavit of completion, the final invoice, along with the final evaluation to the Bureau of Design and Environment.
- h. Final Audit - Upon receipt of the package under g. above, the Bureau of Design and Environment requests the Bureau of Accounting and

Administrative Services to perform the final audit. The district de-obligates any remaining funds and/or invoices the firm when money is owed the department after the audit is completed.

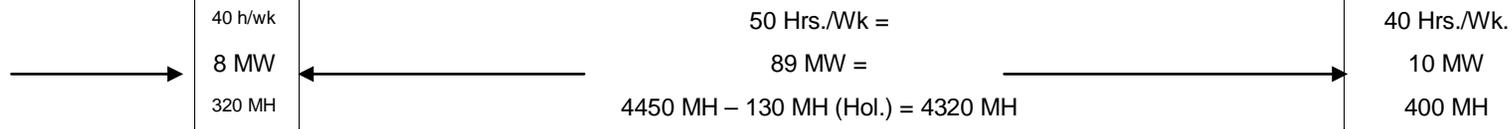
A handwritten signature in black ink that reads "Roger L. Driskell". The signature is written in a cursive style with a large initial 'R' and 'D'.

Roger L. Driskell
Engineer of Construction

Attach.

SAMPLE STAFFING PLAN

Week	April		May				June				July				August				September				October								
Beginning	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10					
Liaison Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Office Technician/Inspector	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Party Chief	1	1																													
Instrument Man	1	1	1	1	1	1	1						1	1	1	1	1	1													
Inspector – Grade			1	1	1	1	1	1					1	1	1	1	1	1													
Inspector – Drainage					1	1	1	2								1	1	1	1												
Technician – Conc./Bit.									2	2	2								2	2	2	2									
Inspector – Pavt. Mark, Misc.												1											1	1							
Rodman													1																		
Principal	48 Man Hours																														
Clerical	120 Man Hours																														
Man Weeks	4	4	4	4	5	5	5	5	4	4	4	4	5	4	5	5	5	5	4	4	4	4	3	3	2	2					



Total 5208 MH



Consultant's Employee Utilization

EXAMPLE

Part I. Workforce Projection

A. The undersigned consultant has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the consultant recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

Table A

Table B

Total Workforce Projection for Contract													Current Employees To Be Assigned To Contract					
Classification	Total Employee		Total Minorities		Black American		Asian American		Native American		Hispanic American		Total		Minorities			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Principal	1														1			
Asst. Resident Eng.	1														1			
Senior Engineer																		
Junior Engineer																		
Technician	2		1		1										1			
Party Chief	1														1			
Instrument Man	1		1				1								1		1	
Rodman	1																	
Clerical		1		1												1		1
TOTAL	7	1	2	1	1		1							5	1	1	1	1

Instructions:

Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work. The "Total Employees" column should include all employees including all minorities.

Table B - include all employees currently employed that will be allocated to the contract work.

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Part I. Workforce Projection - continued

- B. Included in "Total Employees" under Table A is the total number of new hires that would be employed in the event the undersigned consultant is awarded this contract.

The undersigned consultant projects that : (number) 2 new hires would be recruited from the area in which the contract project is located: and/or (number) _____ new hires would be recruited from the area in which the consultant's principal office or base of operation is located.

Part II. Affirmative Action Plan

- A. The undersigned consultant understands and agrees that in the event the foregoing minority and female employee utilization project included under Part I is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned consultant is awarded this contract, he will prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency.
- B. The undersigned consultant understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specification.

Company _____

Date Signed _____

Address _____

Telephone Number: _____

By _____

(Title)

EXAMPLE



**Illinois Department
of Transportation**

**Cost Estimate of
Consultant Services
(CPFF)**

Firm Construction Engineering Inc.

Date May 11, 2001

Route _____

Section _____

County _____

Job No. _____

PTB & Item _____

Overhead Rate 150.00 %

Complexity Factor 0

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
QC / QA	80	3370	5054	0	1221	0		9645	2.58%
Project Coord, Doc & Reco	2183	60928	91391	3776	22634	360		179189	47.85%
Surveys and Layout	1070	20576	30864	1440	7668	120		60668	16.21%
Grade and Drain	1030	22124	33187	4128	8619	360		68418	18.28%
Paving	730	16045	24068	2944	6243	240		49541	13.24%
Misc.	115	2408	3612	0	873	0		6893	1.84%
									%
									%
									%
									%
									%
									%
									%
									%
									%
Totals	5208	125451	188177	12288	47258	1080		374254	100.00%



**Cost Estimate of
Consultant Services
(Direct Labor Multiple)**

Firm Construction Engineering, Inc. Date May 15, 2001
 Route _____
 Section _____ Complexity Factor (R) 0
 County _____
 Job No. _____ Direct Labor Multiple (DLM) 2.80
 PTB & Item _____

Item	Manhours (A)	Payroll (B)	(DLM+R) Times Payroll (C)	Direct Costs (D)	Service By Others (E)	Total (C+D+E)	% of Grand Total
QC / QA	80	3370	9436	0		9436	%
Coordination, Doc, & Records	2183	60928	170598	4136		174734	%
Surveys & Layout	1070	20576	57613	1560		59173	%
Grade and Drain	1030	22124	61947	4488		66435	%
Paving	730	16045	44926	3184		48110	%
Misc.	115	2408	6742	0		6742	%
							%
							%
							%
							%
							%
							%
							%
							%
							%
Totals	5208	125451	351263	13368		364631	%



Average Hourly Project Rates

Route _____
 Section _____
 County _____
 Job No. _____
 PTB/Item _____

Consultant Construction Engineering, Inc. Date May 15, 2001

Sheet 1 of 2

Payroll Classification	Avg Hourly Rates	QC/QA			Coord, Doc, Records			Surveys & Layout			Grade & Drain		
		Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate
Principal	50.81	20	25	12.70									
Liaison Engineer	39.22	60	75	29.42	944	43	16.96				110	11	4.19
Proj Eng/Surveyor	25.63							48	4	1.15	15	1	0.37
Office Technician	19.50				1210	55	10.81						
Technician/Survey	19.25							974	91	17.52	905	88	16.91
Rodman	12.50							48	4	0.56			
Clerical	11.00				29	1	0.15						
Totals		730	100	21.98	2183	100	27.91	1070	100	19.23	1030	100	21.48



**Illinois Department
of Transportation**

Average Hourly Project Rates

Route _____
 Section _____
 County _____
 Job No. _____
 PTB/Item _____

Consultant Construction Engineering, Inc. Date May 15, 2001

Sheet 2 of 2

Payroll Classification	Avg Hourly Rates	Paving			Miscellaneous						Total		
		Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate	Hours	% Part.	WGTD Rate
Principal	50.81				28	24	12.37				48	1	0.47
Liaison Engineer	39.22	95	13	5.10	1	1	0.34				1210	23	9.11
Proj Eng/Surveyor	25.63	15	2	0.53							78	2	0.38
Office Technician	19.50										1210	23	4.53
Technician/Survey	19.25	620	85	16.35							2499	48	9.24
Rodman	12.50										48	1	0.12
Clerical	11.00				86	75	8.23				115	2	0.24
Totals		730	100	21.98	115	100	20.94				5208	100	24.09

Direct Costs

Project Coordination, Doc. & Records

Vehicles: 188 days at \$32.00 per day	\$3,776
Cell phones: 6 months at \$60.00 per month	<u>360</u>
Total	4,136

Surveys and Layout

Vehicles: 45 days at \$32.00 per day	1,440
Cell phones: 2 months at \$60.00 per month	<u>120</u>
Total	1560

Grade and Drain

Vehicles: 129 days at \$32.00 per day	4,128
Cell phones: 6 months at \$60.00 per month	<u>360</u>
Total	4,488

Paving

Vehicles: 92 days at \$32.00 per day	2,944
Cell phones: 4 months at \$60.00 per month	<u>240</u>
Total	3,184

TOTAL DIRECT COSTS = 13,368