



Illinois Department of Transportation

Office of Highways Project Implementation / Bureau of Construction
2300 South Dirksen Parkway / Springfield, Illinois 62764

Subject: CONSTRUCTION MEMORANDUM NO. 61
Guidelines for Establishing and Administering Agreements for Consultant Construction Engineering Services
Effective: August 1, 2018
Expires: Indefinite

This memorandum supersedes Construction Memorandum 03-61, effective August 15, 2003.

Periodically consultant engineering firms are utilized to provide construction engineering services during Phase III of an infrastructure improvement project. The purpose of this memorandum is to provide specific guidelines for the establishment and administration of consultant agreements/contracts associated with these construction engineering services. These guidelines are intended to supplement guidance contained in the following:

1. [Chapter 8 of the Bureau of Design and Environment \(BDE\) Manual](#)
2. The [Prime Process Procedures Guide \(Internal Link\)](#)
3. The [Engineering Prequalification and Agreement System \(EPAS\) District Instruction Manual \(Internal Link\)](#)
4. The policy and procedures sections on the [Central Bureau of Design and Environment's Preliminary Engineering internal SharePoint site \(Internal Link\)](#)
5. [Department Order 6-2: Selection and Control of Architect-Engineer Consultant Firms \(Internal Link\)](#)

I. Establishing an Agreement for Consultant Construction Engineering Services

Consultant construction engineering services are requested (i.e. advertised) and selected via the Department's Professional Transportation Bulletin (PTB). The procedures for advertising and selection are outlined in Chapter 8 of the BDE Manual and the EPAS District Instruction Manual. At the conclusion of the selection process, the Central Bureau of Design and Environment (BDE) notifies the top ranked prime consultant, on each advertised item, of their selection. In addition, the BDE instructs the prime consultant (along with any subconsultants they plan to use) to attend the negotiation meeting. The BDE will also notify the appropriate district contact. (The time and place of the negotiation meeting is included in the PTB advertisement.)

The District Project Manager (PM) initiates negotiations with the top ranked firm (and their subconsultants). The term "negotiation" includes all the steps necessary, following selection of a consultant, to arrive at an executed agreement. The first step in negotiations is a meeting. Typically, only one meeting is needed when working to establish an agreement for construction engineering services.

The District PM chairs the negotiation meeting, records attendance, and distributes information. The prime consultant is assigned the responsibility of completing meeting minutes.

To facilitate the negotiation meeting, the following information should be provided to the consultant prior to the meeting:

1. A written scope of services with tasks (along with the required timeline/schedule for the tasks if available)
2. Any available information to further the consultants' understanding of the project and Department expectations. Examples include (but are not limited to):
 - a. Specific details regarding the contract(s) for which construction engineering services are to be provided (e.g. contract #, state job number, letting date, contract plans, special provisions, contract cost information, etc...)
 - b. An electronic copy of the "Architectural & Engineering Report and Negotiation Guidelines for Engineering Agreements and Supplements" BDE form 17-09
3. Direction to review and become familiar with the [Standard Agreement Provisions for Consultant Services \(SAPCS\)](#) and [forms for preparing the proposal package](#) (e.g. BDE 2350, CECS worksheets BDE 3604 and BDE 3608 (not required by the BDE for work order contracts), EEO 1981, BDE 436, etc...)

The following should be discussed at the negotiation meeting:

1. The detailed scope, sequence and duration of the construction project. (Including contractor's schedule, if known, and any anticipated overtime needed.)
2. For work order agreements, how each work order will be negotiated and executed.
3. The detailed scope of the consultant's services with tasks.
4. The staffing plan; including the number and classifications of the consultant's employees associated with each task and any anticipated requirements for overtime. (See attached sample staffing plan.)

Note, any firm (whether the prime consultant or a subconsultant) performing construction engineering services must be prequalified in the category of work they will perform (e.g. if a consultant is performing construction inspection, they must be prequalified in "Construction Inspection", if a consultant is performing hot mix asphalt testing they must be prequalified in "Construction Inspection" or "Quality Assurance HMA & Aggregate", etc...). When a subconsultant is performing construction engineering services and is being used to meet a Disadvantaged Business Enterprise (DBE) goal the subconsultant must be prequalified in the category of work they will perform and certified as a DBE in the Architecture/Engineering Unified Certification Program category.

5. Conflicts of interest

6. The SAPCS (including subconsultant Utilization Plan requirements)
7. Lines and methods of communication between the prime consultant, subconsultants, IDOT and contractor.
8. Testing and engineering equipment to be furnished by the consultant.
9. Transportation and communications to be furnished by the consultant.
10. The Cost Plus Fixed Fee method of compensation. If a firm has multiple overhead rate types (e.g. field and office) the applicable rate should be discussed.
11. Allowable direct costs with any exceptions noted (e.g. through negotiation District practice may be to avoid expenses related to travel by utilizing personnel in close proximity to the worksite.)
12. The estimated engineering fee and contract term for Phase III various-various / work order construction engineering advertisements.
13. Quality Assurance / Quality Control (QA/QC) plan requirements. (A QA/QC plan may not be needed for construction engineering services agreements where consultant staff are serving as an extension of department inspection staff.)
14. Evaluation criteria
15. Invoicing guidelines

The District PM initiates completion of the BDE 17-09 at (or prior) to the negotiation meeting and finalizes the form as negotiations progress

During the negotiation meeting the consultant should be provided with the following:

1. A proposal package checklist for the consultant's use when developing the proposal packet (see attached example).
2. An invoice submittal checklist for the consultant's use when submitting invoices (see attached example).

As previously mentioned, the prime consultant shall prepare minutes for the 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 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 negotiation meeting, the consultant shall be instructed to prepare an estimate of man-hours and direct costs for the District PM's review and approval. Once the District is satisfied the man-hours and direct project costs are proper, the consultant shall be instructed to submit the proposal package for the District PM's review and approval.

Upon receipt of the consultant's proposal package, the District PM verifies the proposal is consistent with the completed negotiations, completes the proposal package (e.g. finalizes the BDE 17-09, prepares a cover memo, etc...) and submits the completed proposal package to the BDE via the [prime agreement proposal package submittal internal link](#) located in the procedures section of the [BDE Preliminary Engineering internal SharePoint site \(internal link\)](#).

The BDE utilizes the submitted proposal package to develop the prime agreement. The BDE executes the agreement by obtaining the appropriate signatures. The District PM and consultant are notified once the agreement is fully executed. Note, no work can be performed prior to having an executed prime (or start-up) agreement.

(If a successful conclusion to the negotiations with the top ranked firm cannot be obtained, negotiations must be formally terminated. Negotiations with the second ranked firm are then initiated. Similarly, if negotiations fail with the second ranked firm, negotiations with the third ranked firm are initiated. Prior to the second and/or third ranked firms being contacted, the director's concurrence is required.)

II) Administering an Agreement for Consultant Construction Engineering Services

The District is responsible for administering an executed agreement for consultant construction engineering services. Typically, a District Resident Engineer/Technician is charged with the day-to-day agreement administration. The Resident's field files should contain the consultant proposal package, the executed prime agreement, the start-up agreement (if applicable), and any supplemental agreements (if applicable). In addition to the provisions contained in the agreement and in Department Order 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 are 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.

- 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 one copy), prepared on Form [BDE 434 Cost Plus Fixed Fee Invoice for Phase III](#), to the Resident.

The consultant's invoice submittal must include, but is not limited, to a transmittal letter (see attached example invoice submittal checklist). The consultant must include the construction contract number and construction state job number for which construction engineering services were provided and the associated total invoice cost in the transmittal letter. If an invoice covers work performed on multiple construction contracts, the consultant must break the total invoice cost

down by construction contract on the transmittal letter. (This information is needed so the Department can accurately capture the construction engineering costs associated with specific construction contracts.)

The Resident must review the invoice. (See [Invoicing Process Procedure Guide](#) in the Procedures Invoicing & Evaluation section of the [BDE Preliminary Engineering internal SharePoint site \(internal link\)](#) for the invoice review process.). Once the invoice is deemed acceptable, the Resident shall transmit the original (including the consultants transmittal letter) to the District construction office for payment processing.

When processing an invoice for construction engineering services through the FOA system, the District must input the state construction job number associated with the construction contract for which the construction engineering services were performed. If an invoice (for construction engineering services) covers work performed on multiple construction contracts, the FOA record must be split as needed to accurately reflect the cost associated with each state construction job number (i.e. construction contract). (This situation commonly occurs on work order / various-various agreements for construction engineering services. Do not bill invoices to the "generic" job number, used for establishing the obligation, on a work order agreement.) In addition, function code (FUNC) 153 shall be used for Phase III construction engineering services. (See [Process Invoices in FOA Database Procedure Guide](#) in the Procedures Invoicing & Evaluation section of the [BDE Preliminary Engineering internal SharePoint site \(internal link\)](#) for additional information.)

- d. Supplemental Agreements - Supplements to the prime agreement are necessary when there is a change in the scope of the consultant's services or increases in man-hours or direct project costs require an adjustment to the upper limit of compensation. Supplements are also required to move money between labor and direct costs.

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 BDE for processing. The supplemental agreement must be executed prior to authorizing the consultant to proceed with any additional work unless a written prior approval is granted by the District. (See BDE Manual Chapter 8 for additional guidance on prior approval.)

- e. Performance Evaluation – By law, every engineering consultant (i.e. the prime consultant and subconsultants) on a project must be evaluated. Interim evaluations should be performed. Final evaluations must be performed.

Interim evaluations should be performed at six-month intervals until all major work items are complete. This will encourage excellent performance or communicate the need to improve performance. (Note, Departmental Order 6-2 provides that "during the performance of a project, the Department's representative administering the firm's work shall keep the principals of the firm advised of any specific areas of poor performance and summarize this information on the evaluation form if the rating is less than satisfactory.")

Final evaluations demonstrate the quality of a firm's work on a project. Final evaluations serve as indicators of the quality of a firm's work for future project selections.

By law a consultant can only see their evaluation. Therefore, the prime only sees their evaluation and a subconsultant can only see their firm's evaluation. In addition, only appropriate IDOT personnel can view performance evaluations. (If the prime desires a copy of the sub-consultant's evaluation, the prime may ask the subconsultant for a copy of the sub-consultant evaluation for the project. IDOT cannot share the information!)

Evaluations are performed using the Consultant Evaluation System (CES) database. See the [Evaluation Process Procedure Guide](#) and the [CES Database User's Guide](#) in the Procedures Invoicing & Evaluation section of the [BDE Preliminary Engineering internal SharePoint site \(internal link\)](#) for additional information regarding evaluations. (Note, the CES User's Guide provides an example prime consultant Phase III evaluation and an example subconsultant Phase III evaluation.)

- f. **Final Invoice and Affidavit of Completion** - When the consultant's work is complete, the firm will send the District a final invoice with an [Affidavit of Completion \(BDE 2357\)](#). Once the District Construction Office deems the final invoice and Affidavit of Completion acceptable, they process the final invoice accordingly.

Upon processing the final invoice, the District proceeds with closing out the agreement in accordance with procedures outlined in the [Closing Out Procedure Guide](#) located in the Close Out a Project OR Re-open a Project section of the [BDE Preliminary Engineering internal SharePoint site \(internal link\)](#)



Tim Kell, P.E.
Engineer of Construction

Attachment

Proposal Package Checklist

Below is a checklist for use when developing your Proposal Package. Please ensure the following is included:

- _____ Proposal Package cover letter from your firm (addressed to the District Regional Engineer Attn: Applicable District Project Manager)
- _____ Illinois Department of Human Resources (IDHR) Number for **Prime and Subs** (unless fewer than 15 employees)
- _____ BDE 17-09 - A/E Report and Negotiation Guidelines for Engineering Agreements & Supplements (A blank copy should have been e-mailed to you to fill out)
- _____ Minutes of the negotiation meeting and attendance roster
- _____ Scope of Services / Work
- _____ Detailed spreadsheet showing staffing plan
- _____ Cost Estimate of Consultant Services (CECS worksheets) BDE 3604 (Anniversary Raises Cost Plus Fixed Fee) and/or BDE 3608 (Fixed Raises Cost Plus Fixed Fee) for **Prime and Subs**. (Classification titles must match annual payroll submitted to the BDE). (CECS worksheets are not required as part of the proposal package for work order agreements.)
- _____ Allowable Direct Costs Check Sheet (BDE 436) for **Prime and Subs**. (The direct costs being shown must match direct costs items agreed to during the negotiation meeting.)
- _____ Consultant Employee Utilization form (BDE 2350) **Prime and Subs**
- _____ QA/QC plan for **Prime** (This may not be needed for construction engineering services agreements where consultant staff are serving as an extension of department inspection staff.)
- _____ Mentor protégé plan (when applicable)

Additional Issues:

- _____ Ensure Annual Payrolls have been submitted in accordance with guidance previously provided to the Prime from the BDE
- _____ Prime – Subconsultant Agreements will have to be submitted once the Prime Agreement is approved. (Use the standard prime / subconsultant agreement from IDOT's website. Sub-Consultant Agreements must be submitted to the [Vendor Documents System](#) by the prime consultant.)

BDE forms must be used when they exist. These forms are located on IDOT's website.

Please organize your proposal package in the order indicated above and submit two copies to the District Project Manager. Group the prime and subs separately. (Please make sure every submittal has the PTB and Item # clearly marked.) Do not staple (use removable binder clips).

Invoice Submittal Checklist

When submitting monthly invoices, please ensure the following information is included.

_____ Invoice transmittal letter from your firm (addressed to the District Regional Engineer Attn: Applicable Resident Engineer)

The Construction Contract Number and Construction State Job Number for which construction engineering services were provided and the associated total invoice cost must be included on the transmittal letter. If an invoice covers work performed on multiple construction contracts, the consultant must break the total invoice cost down by construction contract. (Do not bill invoices to the generic job number on a work order agreement.) This information is needed so the Department can accurately capture the construction engineering costs associated with specific construction contracts.

Note the Construction State Job Number is the job number associated with the construction contract (not the job number associated with the consultant agreement for construction engineering services).

_____ BDE 434 Cost Plus Fixed Fee Phase III (including progress report, personnel summary report, direct cost summary and invoice)

_____ All documentation associated with the invoice (including the BC 930 Consultant Engineer's Weekly Personnel and Vehicle Time Distribution Record and/or the BC 931 Consultant Engineer's Private Vehicle Weekly Mileage Record).

Distinguish between regular days, holidays, and overtime on the BC 930.

Supporting documentation for services by others (also complete BDE 434 invoices for your subconsultants)

_____ Direct Costs supporting documentation (i.e. paid invoices, receipts, monthly statements, etc.)

_____ Affidavit of Completion (required with last invoice only)

Additional Issues:

_____ Verify insurance information is up to date in the EPAS system

_____ Verify correct overhead rate is being used per the EPAS system

_____ Verify totals for Labor (Payroll and Overhead), Fixed Fee, and/or Direct Costs do not exceed the maximums (i.e. upper limits)

Two invoice submittal packages (one original and one copy) are required with each submittal. Alternatively, at the Districts discretion, invoices may be submitted electronically.

SAMPLE STAFFING PLAN

Month	Persons Working Each Week																													
	April		May				June				July				August				September				October							
Week Beginning Date	21	28	5	12	19	23	26	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	30	7				
Holidays in week								H X 1					H X 1								H X 1									
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				
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				
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	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	5	4	4	4	4	3	3	2	2			

Hours per week

40 h/wk
8 MW
320 MH

50 Hrs./Wk

89 MW =

4450 MH – 130 MH (Holidays) = 4320 MH

40 Hrs./Wk.

10 MW

400 MH

Total 5208 MH