

CONSULTANT WORK PLAN for Construction Engineering Services Directions for Completing Independent Cost Estimate (ICE) Forms

This workbook has been designed to simplify the cost estimating process and to create a standard approach for Consultants, Local Public Agencies (LPA) and Nebraska Department of Roads--in an effort to coordinate the scoping, estimating, and negotiation process.

For NDOR projects, Consultants will submit their completed ICE workbook to the Agreements Engineer. For LPA projects, Consultants will submit the completed ICE workbook to the LPA Responsible Charge (RC). The LPA may not receive the Consultants ICE until the LPA has received from NDOR written notice approving the LPA's ICE.

Start by opening the tab labeled Staffing Plan and following the directions listed below. All Grey fields in the workbook may require information to be entered. Not all fields need to be filled in. Once information is entered the cell will turn white.

Note: If modifications have been made to the Scope of Services, do not change this workbook. This is a dynamic tool and modifications to any of the worksheets will affect other worksheets.

Staffing Plan

This worksheet calculates direct labor costs and serves as the Staffing Plan.

FOR HEADER:

- Enter project information at top of sheet; this information will self-populate in the remaining sheets.

FOR LABOR COSTS:

- Enter direct labor rates or actual rates for personnel classifications based on:
 - (1) project staffing needs in consideration of the project size and complexity,
 - (2) the Consultant's proposed staffing in consideration of level of experience and geographical location, and
 - (3) information on salary ranges as provided on the work sheet.
- Hours for each Classification will self-populate once the Consultant Estimate of Hours Worksheet is completed.
- Assign values for the firm's most recent audited Overhead Rate, and the Fee for Profit Rate calculated from the NDOR Fixed Fee Worksheet (available on the NDOR website).

FOR CLASSIFICATIONS:

- There are nine standard personnel classifications; however, the workbook allows for two additional user-defined classifications. If user-defined classifications are needed, they must be added to the Classifications Legend located below the Labor Costs table. To enter a new classification, replace "UD1" with its abbreviation (ex. GRA) and replace "User Defined 1" with the corresponding title (ex. Graphic Artist). Once the user-definitions are added, they will self-populate in the Labor Cost table, as well as the remaining sheets. If a User Defined classification is used, the corresponding section in the Blended Rates Table must be completed.

FOR BLENDED RATES TABLE:

- The Blended Rates Worksheet is used to:
 - (1) determine rates for personnel categories with more than one individual,
 - (2) to document the Consultant's proposed project staffing.
- Once information is added to the Blended Rates Worksheet, it will self-populate the top table.
- Begin by assigning employees to the provided personnel classifications. List their name and classification according to the company.
- Enter direct salary rates used by your company for each employee.
- Assign a value to the % Assigned column based on the estimated percentage of hours that each employee will use.
- The total of % Assigned must equal 100% for each personnel classification category.
- The Blended Rate should populate in the gray cell and also generate in the Labor Cost table.

Consultant's Estimate of Hours

This worksheet serves as the Work Plan Matrix referenced in the NDOR LPA Manual.

FOR TASKS:

- Descriptions of the tasks are listed in the Scope of Services.
- Assign hours to tasks based on personnel classifications provided, and the project requirements.

Survey/Staking

- Hours for Survey-Staking should be entered on this Worksheet, not in the LPA's Estimate of Hours Worksheet. These hours will then populate in the LPA's Estimate of hours under the Construction Survey/Staking Task
- A separate workbook is available if a Subconsultant is doing the Survey-Staking. If a sub is being used then their cost must be entered on the Direct Expenses Worksheet under the Subconsultants heading.
- If a Personnel Classification needs to be added it must be done on the Staffing Plan Worksheet.

Material Testing Assumptions

- To paste NDOR's Material Testing Frequency Assumptions into this worksheet. First, copy the entire assumptions sheet and then click into the Dark Blue cell and paste the information.

Direct Expenses

- Examples of direct expense entries are provided on the Direct Expenses worksheet.
- Direct Expenses are categorized into six categories:
 - Subconsultants: If using a Subconsultants for a project, enter their fee here as a unit cost.
 - Printing and Reproduction: Used for printing and reproduction costs. Several examples are provided on the example expense cost located at the bottom of the worksheet
 - Mileage/Travel: Used for mileage and travel. Use the Standard Rates provided on the Worksheet.
 - Lodging/Meals: Used for lodging and meals . Use the Standard Rates provided on the Worksheet.
 - Material Testing: The number of test will self-populate once the Material Testing Worksheet it completed. A cost per test should be entered.
 - Other Miscellaneous Costs: Used for expense items that don't fit in to any of the other five categories
- To enter an expense, determine which of the six categories is applicable. Then enter a description, quantity, and unit cost. The amount will self-populate and be generated throughout the workbook.

Project Cost

- Once Overhead Rate and Fixed Fee values are entered; the sheet will then populate from previously entered information.

Cost By Task

- This sheet is provided for information purposes to summarize the level of effort estimated by major task.
- All data on this tab should self-populate from other sheets in the workbook, including Overhead Rate and the Fee for Profit Rate (these percentages are assigned on the Staffing Plan worksheet.)

Travel Calculations

- This sheet is used for documenting assumptions used when estimating hours. Assumptions should be noted in the Assumptions table provided on this sheet.
- There are three calculation tables provided which should be used to estimate travel time. Each table should be used for a different trip. An example would be if project staff is coming from two different offices located in different cities.
- For the calculations, enter the starting and ending location of the trip, the total roundtrip distance in miles, and the estimated roundtrip total travel time in minutes. Then enter the number of trips each Personnel Classification is anticipated to make.
- The Travel Summary Table will calculate the total miles traveled and hours of travel time for each Personnel Classification.
- Enter the Number of working days and the assumed number of hours per working day on the project.

UPDATE: February 27, 2012

CONSTRUCTION ENGINEERING SERVICES

Consultant's Estimate of Hours

Project Name: _____
 Project Number: _____
 Control Number: _____
 Location (City, County): _____
 Firm Name: _____
 Consultant Project Manager: _____
 Phone/Email: _____
 LPA Responsible Charge: _____
 Phone/Email: _____
 NDOR Project Coordinator: _____
 Phone/Email: _____
 Date: _____

**Add
Logo Here**

TASKS	PERSONNEL CLASSIFICATIONS**										Total
	PR	PM	ENG	DES	SCC	SCM	INSP 2	INSP 1	ADM		
For Construction Engineering Services:											
1. Project Management and Coordination											
1.1 Project Management											
Subtotal											
2. Meetings											
2.1 Construction Inspection Planning Meeting											
2.2 Pre-Construction Meeting											
2.3 Construction Progress Meetings											
2.4 Public Meeting (If Required)											
2.5 Trips to Site (Travel Time) for Meetings											
Subtotal											
3. Traffic Control Plan											
3.1 Prepare Traffic Control Plan											
3.2 Review Traffic Control Plan (If Completed by Contractor)											
3.3 Sign and Submit Plans to the RC											
Subtotal											
4. SWPPP Inspections/Manual Updates											
4.1 Conduct Inspections											
4.2 Update SWPPP Manual											
4.3 Trips to Site (Travel Time) for SWPPP Insepctions											
Subtotal											
5. Construction Survey/Staking											
5.1-5.10 Totals From Survey-Staking Worksheet (enter hours in grey cells)											
5.11 Trips to Site (Travel Time) for Construction Survey/Staking											
Subtotal											
6. Construction Consultation/Site Manager & Daily Work Report (DWR)											
6.1 Construction Consultation/Site Manager & Daily Work Report (DWR)											
Subtotal											
7. Girder Shim Surveying (Bridge Projects Only)											
7.1 Girder Shim Surveying											
Subtotal											
8. Perform Bearing Calculations											
8.1 Perform Bearing Calculations											
Subtotal											
9. Construction Inspection											
9.1 Construction Inspection											
9.2 Measure, calculate, and document quantities of pay items											
9.3 Maintain records/data and prepare the Weekly Report of WDs											
9.4 Trips to Site (Travel Time) for Construction Inspection											
Subtotal											
10. Perform Material Sampling and Testing											
10.1 Collect, verify, document and deliver all samples to testing lab											
10.2 Provide all required material certifications to the NDOR M & R Lab											
10.3 Review and document all test results of all samples											
10.4 Trips to Site (Travel Time) for Delivery and Collecting Samples											
Subtotal											
11. As-Built Drawings											
11.1 Prepare As-Built Drawings											
Subtotal											
12. Final Inspections											
12.1 Walkthrough of Site and Preparation of Punch List											
12.2 Review Project to verify that Punch List has been completed											
Subtotal											
13. Project Closeout											
13.1 Project Closeout											
Subtotal											
14. Other											
14.1 Other											
14.2 Other											
Subtotal											
Total Hours											
Total Days (8 hrs)											
Total Travel Time											
Total Hours minus Travel Time											

CONSTRUCTION ENGINEERING SERVICES

Survey/Staking by Prime Consultant

Project Name: _____
Project Number: _____
Control Number: _____
Location (City, County): _____
Firm Name: _____
Consultant Project Manager: _____
Phone/Email: _____
LPA Responsible Charge: _____
Phone/Email: _____
NDOR Project Coordinator: _____
Phone/Email: _____
Date: _____



TASKS	PERSONNEL CLASSIFICATIONS						Total
	SCC	SCM	INSP 2	INSP 1			
For Construction Survey/Staking:							
5. Construction Survey/Staking							
5.1 Provide coordination of staking needs with Contractor							
5.2 Verify and re-establish, if necessary, the survey control							
5.3 Stake limits of construction throughout project							
5.4 Mark removal limits. Stake right-of-way and construction easements							
5.5 Provide slope stakes for grading							
5.6 Provide paving hubs							
5.7 Provide cross-section for new culverts							
5.8 Stake fence relocation and guardrail							
5.9 Stake silt fence							
5.10 Verify existing tie-in elevations and adjust pavement grades							
5.11 Trips to Site (Travel Time) for Construction Survey/Staking							
Total Hours							
Total Days (8 hrs)							
Total Hours minus Travel Time							

CLASSIFICATIONS*:

SCC = Survey Crew Chief
 SCM = Survey Crew Member

INSP 2 = Inspector 2
 INSP 1 = Inspector 1

UD1 = User Defined 1
 UD2 = User Defined 2

** If a Personnel Classification needs to be added it must be done on the Staffing Plan Worksheet.*

CONSTRUCTION ENGINEERING SERVICES
Material Testing Assumptions

Project Name: _____
Project Number: _____
Control Number: _____



To paste NDOR's Material Testing Frequency Assumptions into this worksheet. First, copy the entire assumptions sheet and then click into the above [Dark Blue](#) cell and paste the information. This text will disappear once the information is pasted into this worksheet.

CONSTRUCTION ENGINEERING SERVICES
Material Testing Assumptions

Project Name: _____

Project Number: _____

Control Number: _____

CONSTRUCTION ENGINEERING SERVICES

Direct Expenses

Project Name: _____

Project Number: _____

Control Number: _____

Location (City, County): _____

Firm Name: _____

Consultant Project Manager: _____

Phone/Email: _____

LPA Responsible Charge: _____

Phone/Email: _____

NDOR Project Coordinator: _____

Phone/Email: _____

Date: _____

**Add
Logo Here**

Subconsultants:	Quantity	Unit Cost	Amount
Subtotal			

Printing and Reproduction:	Quantity	Unit Cost	Amount
Subtotal			

Mileage/Travel:	Quantity	Unit Cost	Amount
Subtotal			

Lodging/Meals:	Quantity	Unit Cost	Amount
Subtotal			

Material Testing:	Quantity	Unit Cost	Amount	Material Testing:	Quantity	Unit Cost	Amount
Subtotal				Subtotal			

Other Miscellaneous Costs:	Quantity	Unit Cost	Amount
Subtotal			
TOTAL DIRECT EXPENSES			

CONSTRUCTION ENGINEERING SERVICES Project Cost

Project Name: _____
Project Number: _____
Control Number: _____
Location (City, County): _____
Firm Name: _____
Consultant Project Manager: _____
Phone/Email: _____
LPA Responsible Charge: _____
Phone/Email: _____
NDOR Project Coordinator: _____
Phone/Email: _____
Date: _____



Direct Labor Costs:	Hours	Rate	Amount
Personnel Classification			
Principal			
Project Manager			
Engineer			
Designer/CADD Technician			
Survey Crew Chief			
Survey Crew Member			
Inspector 2			
Inspector 1			
Administrative			
TOTALS			

Direct Expenses:	Amount
Subconsultants	
Printing and Reproduction Costs	
Mileage/Travel	
Lodging/ Meals	
Material Testing	
Other Miscellaneous Costs	
TOTALS	

Total Project Costs:	Amount
Direct Labor Costs	
Overhead @	
Total Labor Costs	
Fee for Profit Rate (
Direct Expenses	
PROJECT COST	

CONSTRUCTION ENGINEERING SERVICES

Cost by Task

Project Name: _____

Project Number: _____

Control Number: _____

Location (City, County): _____

Firm Name: _____

Consultant Project Manager: _____

Phone/Email: _____

LPA Responsible Charge: _____

Phone/Email: _____

NDOR Project Coordinator: _____

Phone/Email: _____

Date: _____



Tasks	Total Hours	Direct Labor Cost	Overhead	Fee for Profit	Total Project Cost
For Construction Engineering Services:					
1. Project Management and Coordination					
2. Meetings					
3. Traffic Control Plan					
4. SWPPP Inspections/Manual Updates					
5. Construction Survey/Staking					
6. Construction Consultation/Site Manager & Daily Work Report (DWR)					
7. Girder Shim Surveying (Bridge Projects Only)					
8. Perform Bearing Calculations					
9. Construction Inspection					
10. Perform Material Sampling and Testing					
11. As-Built Drawings					
12. Final Inspections					
13. Project Closeout					
14. Other					
Direct Expenses					
TOTAL					

