

# LPA 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 and Nebraska Department of Roads--in an effort to coordinate the scoping, estimating, and negotiation process.

Start by opening the tab labeled Staffing Plan.

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.

For question regarding this workbook please contact:

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#### **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 are provided on the work sheet. These rates are only to be used as a tool to check for reasonableness.
- For LPA estimates, use the actual rates provided by the Consultant during the scoping/negotiations meeting. If the actual rates are not available, the worksheet contains a list of salary ranges provided by NDOR that may be used. The value selected must be placed in the Actual Rate column for each classification title to calculate the project cost.
- Hours for each Classification will self-populate once the LPA's Estimate of Hours Worksheet is completed.
- Assign values for the firm's most recent audited Overhead Rate (Consultant to provide), and the Fee for Profit Rate for profit percentage calculated from the NDOR Fee for Profit Rate Worksheet (available on the NDOR website).

FOR CLASSIFICATIONS:

- Obtain personnel classifications from the Consultant's Staffing Plan.
- 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, a corresponding labor rate must also be entered under the Actual Rate column.

#### **LPA's Estimate of Hours**

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

FOR TASKS:

- Descriptions of the tasks are listed in the Scope of Services.
- Assign hours to tasks based on the Consultant's personnel classifications.

#### **Survey/Staking by Prime Consultant**

- This should only be used if the prime consultant is doing the Survey-Staking on the project. 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.
- 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
- If a Personnel Classification needs to be added it must be added on the Staffing Plan Worksheet.

#### **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 LPA shall request a testing summary from NDOR, which includes the type and number of tests required for a project. These numbers along with 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**

- The LPA Responsible Charge (RC) will sign and date this page and submit the ICE workbook to NDOR Local Projects Division (LPD) for review and approval.
- After written approval from NDOR, the LPA may receive the Consultants ICE, including hours and costs.
- All data on this tab will self-populate from other sheets in the workbook.

#### **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 will self-populate from other sheets in the workbook.

#### **Consultant's Estimate of Hours**

- After the LPA has completed their Estimate of Hours and received approval by NDOR, they may insert the Consultant's Estimate of Hours into the Worksheet.
- Copy the entire Consultant's Estimate of Hours Worksheet from their ICE workbook (Copy from cell A1 to W83 from the Consultant's ICE workbook).
- To paste the Consultant's Estimate of Hours into this worksheet. First, copy the entire workbook and then click into the Dark Blue cell and paste the information.
- The Consultant's Estimate of Hours will then populate in the Negotiations Worksheet along side the LPA's Estimate of Hours.

#### **Negotiations**

- Worksheet will self-populate once the Consultant's Estimate of Hours has been pasted in the appropriate sheet.
- Based on negotiations with the Consultant, enter the agreed upon Negotiated Hours in the grey boxes.
- Enter the agreed upon Negotiated Fix Fee rate.

#### **Final Hours**

- Sheet will self-populate once the Negotiated Hours have been entered on the Negotiations worksheet.
- LPA will then ask Consultant to resubmit their ICE with the negotiated hours and fee for profit rate.

#### **Travel Calcs**

- This sheet is used for documenting assumptions used when estimating hours. Assumptions should be noted in the Assumptions table provided on this sheet.
- A calculation for travel time is provided. 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.



# CONSTRUCTION ENGINEERING SERVICES

## LPA's Estimate of Hours

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

LPA: \_\_\_\_\_

TASKS	PERSONNEL CLASSIFICATIONS**											Total
	PR	PM	ENG	DES	SCC	SCM	INSP 2	INSP 1	ADM			
<b>For Construction Engineering Services:</b>												
<b>1. Project Management and Coordination</b>												
1.1 Project Management												
<b>Subtotal</b>												
<b>2. Meetings</b>												
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												
<b>Subtotal</b>												
<b>3. Traffic Control Plan</b>												
3.1 Prepare Traffic Control Plan												
3.2 Review/Approve Traffic Control Plan (If Completed by Contractor)												
3.3 Submit Plans to the RC for their records												
<b>Subtotal</b>												
<b>4. SWPPP Inspections/Manual Updates</b>												
4.1 Conduct Inspections												
4.2 Update SWPPP Manual and Temporary Erosion Control Plan												
4.3 Trips to Site (Travel Time) for SWPPP Insepctions												
<b>Subtotal</b>												
<b>5. Construction Survey/Staking</b>												
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												
<b>Subtotal</b>												
<b>6. Construction Consultation/Site Manager &amp; Daily Work Report (DWR)</b>												
6.1 Construction Consultation/Site Manager & Daily Work Report (DWR)												
<b>Subtotal</b>												
<b>7. Girder Shim Surveying (Bridge Projects Only)</b>												
7.1 Girder Shim Surveying												
<b>Subtotal</b>												
<b>8. Perform Bearing Calculations</b>												
8.1 Perform Bearing Calculations												
<b>Subtotal</b>												
<b>9. Construction Inspection</b>												
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												
<b>Subtotal</b>												
<b>10. Perform Material Sampling and Testing</b>												
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												
<b>Subtotal</b>												
<b>11. As-Built Drawings</b>												
11.1 Prepare As-Built Drawings												
<b>Subtotal</b>												
<b>12. Final Inspections</b>												
12.1 Walkthrough of Site and Preparation of Punch List												
12.2 Review Project to verify that Punch List has been completed												
<b>Subtotal</b>												
<b>13. Project Closeout</b>												
13.1 Project Closeout												
<b>Subtotal</b>												
<b>14. Other</b>												
14.1 Other												
14.2 Other												
<b>Subtotal</b>												
<b>Total Hours</b>												
<b>Total Days (8 hrs)</b>												
<b>Total Travel Time</b>												
<b>Total Hours minus Travel Time</b>												

# CONSTRUCTION ENGINEERING SERVICES

## Survey/Staking by Prime Consultant

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

LPA: \_\_\_\_\_

TASKS	PERSONNEL CLASSIFICATIONS						Total
	SCC	SCM	INSP 2	INSP 1			
<b>For Construction Survey/Staking:</b>							
<b>5. Construction Survey/Staking</b>							
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							
<b>Total Hours</b>							
<b>Total Days (8 hrs)</b>							
<b>Total Hours minus Travel Time</b>							

CLASSIFICATIONS\*:

SCC = Survey Crew Chief	INSP 2 = Inspector 2	UD1 = User Defined 1
SCM = Survey Crew Member	INSP 1 = Inspector 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

## Direct Expenses

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

LPA: \_\_\_\_\_

Subconsultants:	Quantity	Unit Cost	Amount
<b>Subtotal</b>			

Printing and Reproduction:	Quantity	Unit Cost	Amount
<b>Subtotal</b>			

Mileage/Travel:	Quantity	Unit Cost	Amount
<b>Subtotal</b>			

Lodging/Meals:	Quantity	Unit Cost	Amount
<b>Subtotal</b>			

Material Testing:	Quantity	Unit Cost	Amount	Material Testing:	Quantity	Unit Cost	Amount
<b>Subtotal</b>				<b>Subtotal</b>			

Other Miscellaneous Costs:	Quantity	Unit Cost	Amount
<b>Subtotal</b>			

<b>TOTAL DIRECT EXPENSES</b>			
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# CONSTRUCTION ENGINEERING SERVICES

## Project Cost

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

LPA: \_\_\_\_\_

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

Direct Expenses:	Amount
Subconsultants	
Printing and Reproduction Costs	
Mileage/Travel	
Lodging/ Meals	
Material Testing	
Other Miscellaneous Costs	
<b>TOTAL</b>	

Total Project Costs:	Amount
Direct Labor Costs	
Overhead @	
Total Labor Costs	
Fee for Profit @	
Direct Expenses	
<b>PROJECT COST</b>	

\_\_\_\_\_  
Signature of Responsible Charge

\_\_\_\_\_  
Date

# CONSTRUCTION ENGINEERING SERVICES

## Cost by Task

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Control Number: \_\_\_\_\_

Location (City, County): \_\_\_\_\_

Consultant Project Manager: \_\_\_\_\_

Phone/Email: \_\_\_\_\_

LPA Responsible Charge: \_\_\_\_\_

Phone/Email: \_\_\_\_\_

NDOR Project Coordinator: \_\_\_\_\_

Phone/Email: \_\_\_\_\_

Date: \_\_\_\_\_

LPA: \_\_\_\_\_

Tasks	Total Hours	Direct Labor Cost	Overhead	Fee for Profit	Total Project Cost
<b>For Construction Engineering Services:</b>					
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					
<b>TOTAL</b>					



To paste Consultant's Estimate of Hours into this worksheet. First, copy the entire Consultant's Estimate of Hours worksheet (from cell A1 to W83) 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

## Negotiations

Project Name: \_\_\_\_\_  
 Project Number: \_\_\_\_\_  
 Control Number: \_\_\_\_\_

Negotiated Fee for Profit Rate: \_\_\_\_\_

LPA: \_\_\_\_\_

= LPA's Estimate of Hours     
  = Consultant Estimate of Hours     
  = Negotiated Hours

TASKS	PERSONNEL CLASSIFICATIONS											Negotiations*				
	PR	PM	ENG	DES	SCC	SCM	INSP 2	INSP 1	ADM			Total	Pre LPA-Cons	Post LPA-Final		
<b>For Construction Engineering Services:</b>																
<b>1. Project Management and Coordination</b>																
1.1 Project Management															0	0
Subtotal															0	0
<b>2. Meetings</b>																
2.1 Construction Inspection Planning Meeting															0	0
2.2 Pre-Construction Meeting															0	0
2.3 Construction Progress Meetings															0	0
2.4 Public Meeting (If Required)															0	0
2.5 Trips to Site (Travel Time) for Meetings															0	0
Subtotal															0	0
<b>3. Traffic Control Plan</b>																
3.1 Prepare Traffic Control Plan															0	0
3.2 Review/Approve Traffic Control Plan (If Completed by Contractor)															0	0
3.3 Submit Plans to the RC for their records															0	0
Subtotal															0	0
<b>4. SWPPP Inspections/Manual Updates</b>																
4.1 Conduct Inspections															0	0
4.2 Update SWPPP Manual and Temporary Erosion Control Plan															0	0
4.3 Trips to Site (Travel Time) for SWPPP Insepctions															0	0
Subtotal															0	0
<b>5. Construction Survey/Staking</b>																
5.1-5.10 Totals From Survey-Staking Worksheet (enter hours in grey cells)															0	0
5.11 Trips to Site (Travel Time) for Construction Survey/Staking															0	0
Subtotal															0	0
<b>6. Construction Consultation/Site Manager &amp; Daily Work Report (DWR)</b>																
6.1 Construction Consultation/Site Manager & Daily Work Report (DWR)															0	0
Subtotal															0	0
<b>7. Girder Shim Surveying (Bridge Projects Only)</b>																
7.1 Girder Shim Surveying															0	0
Subtotal															0	0
<b>8. Perform Bearing Calculations</b>																
8.1 Perform Bearing Calculations															0	0
Subtotal															0	0

# CONSTRUCTION ENGINEERING SERVICES Negotiations

Project Name: \_\_\_\_\_  
 Project Number: \_\_\_\_\_  
 Control Number: \_\_\_\_\_

Negotiated Fee for Profit Rate: \_\_\_\_\_

LPA: \_\_\_\_\_

= LPA's Estimate of Hours     
  = Consultant Estimate of Hours     
  = Negotiated Hours

TASKS	PERSONNEL CLASSIFICATIONS											Negotiations*		
	PR	PM	ENG	DES	SCC	SCM	INSP 2	INSP 1	ADM			Total	Pre LPA-Cons	Post LPA-Final
<b>For Construction Engineering Services:</b>														
<b>9. Construction Inspection</b>														
9.1 Construction Inspection													0	0
9.2 Measure, calculate, and document quantities of pay items													0	0
9.3 Maintain records/data and prepare the Weekly Report of WDs													0	0
9.4 Trips to Site (Travel Time) for Construction Inspection													0	0
<b>Subtotal</b>													0	0
<b>10. Perform Material Sampling and Testing</b>														
10.1 Collect, verify, document and deliver all samples to testing lab													0	0
10.2 Provide all required material certifications to the NDOR M & R Lab													0	0
10.3 Review and document all test results of all samples													0	0
10.4 Trips to Site (Travel Time) for Delivery and Collecting Samples													0	0
<b>Subtotal</b>													0	0
<b>11. As-Built Drawings</b>														
11.1 Prepare As-Built Drawings													0	0
<b>Subtotal</b>													0	0
<b>12. Final Inspections</b>														
12.1 Walkthrough of Site and Preparation of Punch List													0	0
12.2 Review Project to verify that Punch List has been completed													0	0
<b>Subtotal</b>													0	0
<b>13. Project Closeout</b>														
13.1 Project Closeout													0	0
<b>Subtotal</b>													0	0
<b>14. Other</b>														
14.1 Other													0	0
14.2 Other													0	0
<b>Subtotal</b>													0	0
<b>Total Hours</b>													0	0
<b>Total Days (8 hrs)</b>													0	0
<b>Travel Time</b>													0	0
<b>Total Hours minus Travel Time</b>													0	0

\* The Negotiations Columns can be used to help develop the pre and post-negotiation memos.

**CLASSIFICATIONS:**

PR = Principal                      ENG = Engineer                      SCC = Survey Crew Chief                      INSP = Inspector 2                      ADM = Administrative                      UD2 = User Defined 2  
 PM = Project Manager              DES = Designer/CADD Technician              SCM = Survey Crew Member              INSP = Inspector 1                      UD1 = User Defined 1



