

**KANE COUNTY**  
DIVISION of TRANSPORTATION

Carl Schoedel, P.E.  
Director of Transportation  
County Engineer



41W011 Burlington Road  
St. Charles, IL 60175  
Phone: (630) 584-1170  
Fax: (630) 584-5265

DATE: October 21, 2009

TO: Jean Weems  
County Board Office

FROM: Linda Haines

SUBJECT: Agreements

6 – IDOT Local Agency Agreement for Federal Participation for Preliminary Engineering for IL Route 64 from Randall Road to Burlington Road, Kane County Sec. #08-00389-00-TL with Document Vet Sheet. (Kane County Resolution #09-361) **(This agreement does NOT need to be signed by the County Clerk.)**

6 – Preliminary Engineering Services Agreement for Federal Participation with Delcan Corporation for IL Route 64 from Randall Road to Burlington Road, Kane County Sec. #08-00389-00-TL with Document Vet Sheet (Kane County Resolution #09-360)

TRANSMITTED FOR:

- ☐ YOUR INFORMATION AND FILE
- ☐ YOUR APPROVAL AND/OR CORRECTION
- ☐ AS REQUESTED
- ☒ SEE BELOW

REMARKS: Please have the Chairman sign, send to County Clerk for signature and seal, and then return to our office for further processing.

Thanks.

c: Steve Coffinbargar  
Tom Szabo

*Signed 10-27-09  
Forwarded to  
Pet. & to  
Linda Haines* ←

STATE OF ILLINOIS

COUNTY OF KANE

RESOLUTION NO. 09 - 360

**APPROVING A PHASE II ENGINEERING SERVICES AGREEMENT  
WITH DELCAN CORPORATION FOR ILLINOIS ROUTE 64 TRAFFIC SIGNAL INTERCONNECTS  
FROM RANDALL ROAD TO BURLINGTON ROAD  
KANE COUNTY SECTION NO. 08-00389-00-TL**

WHEREAS, Phase II Engineering services are required for the proposed Illinois Route 64 traffic signal interconnect improvement from Randall Road to Burlington Road with a connection to the Kane County Division of Transportation facility (hereinafter referred to as the "Project"); and

WHEREAS, in order to accomplish the Project, it is necessary to retain the services of a professional engineering firm to provide Phase II Engineering services; and

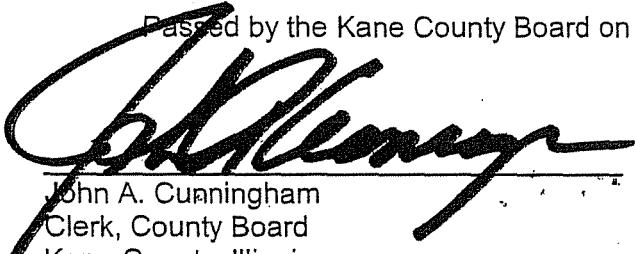
WHEREAS, Delcan Corporation, 650 East Algonquin Road, Suite 104, Schaumburg, IL 60173-3853 has experience and professional expertise in Phase II Engineering services and is willing to perform the required services for an amount not to exceed Three Hundred Ninety Nine Thousand Nine Hundred Fifty Two and 36/100 Dollars (\$399,952.36).


NOW, THEREFORE, BE IT RESOLVED by the Kane County Board that the Chairman thereof is hereby authorized to execute a Phase II Engineering services agreement for the Project with Delcan Corporation (a copy of which is on file with the County Clerk's Office).

BE IT FURTHER RESOLVED that the Kane County Board appropriate the not to exceed sum of. Three Hundred Ninety Nine Thousand Nine Hundred Fifty Two and 36/100 Dollars (\$399,952.36) from County Highway Fund #300, Line Item #50140 (Engineering) to pay for said Phase II Engineering services for the Project with approximately eighty percent (80%) reimbursement thereof from federal funds.

Line item	Line Item Description	Was personnel/item/service approved in original budget or a subsequent budget revision?	Are funds <u>currently</u> available for this personnel/item/service in the specified line item?	If funds are not currently available in the specified line item, where are the funds available?
300.520.520.50140	Engineering	Yes	Yes	

Passed by the Kane County Board on September 8, 2009.

  
John A. Cunningham  
Clerk, County Board  
Kane County, Illinois

  
Karen McConaughay  
Chairman, County Board  
Kane County, Illinois

Vote:  
Yes 24  
No 0  
Voice 0  
Abstentions 0

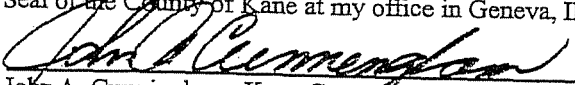
9IL64DLCANPHII.4LH

STATE OF ILLINOIS  
COUNTY OF KANE

DATE SEP 30 2009

I, John A. Cunningham, Kane County Clerk and Keeper of the Records in Kane County, Illinois do hereby certify that the attached is a true and correct copy of the original record on file.

In witness whereof, I have hereunto set my hand and affixed the Seal of the County of Kane at my office in Geneva, Illinois.

  
John A. Cunningham, Kane County Clerk

Local Agency	<b>L O C A L  A G E N C Y</b>	 <b>Illinois Department of Transportation</b>  <b>Preliminary Engineering Services Agreement For Federal Participation</b>	Consultant
Kane County DOT			Delcan Corporation
County			Address
Kane			650 E. Algonquin Road, Suite 104
Section			City
08-00389-00-TL			Schaumburg
Project No.			State
CMM-9003(204)			IL
Job No.			Zip Code
D-91-262-09			60173
Contact Name/Phone/E-mail Address			Contact Name/Phone/E-mail Address
Tom Szabo			Doug Brazelton
630-208-3139			847-925-0120
szabotom@co.kane.il.us			d.brazelton@delcan.com

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the PROJECT. Federal-aid funds allotted to the LA by the state of Illinois under the general supervision of the Illinois Department of Transportation (STATE) will be used entirely or in part to finance engineering services as described under AGREEMENT PROVISIONS.

### Project Description

Name Illinois 64 Interconnect and Arterial Ops Cnt Route IL 64/Burlington Length 5.5 mi. Structure No. N/A

Termini Illinois Route 64 – Randall Road to Burlington Road and Burlington Road – Illinois 64 to KDOT Office

Description Provide traffic signal interconnect services to bring the existing county Ethernet communications network back from Randall Road to the LA's KDOT offices. Provide engineering services to build and Arterial Operations Center (AOC) at the KDOT offices and develop an integration plan for system integration of the Intelligent Transportation System (ITS) infrastructure at the AOC. Optional task for an AOC addition and ITS integration services pending funding availability.

### Agreement Provisions

#### I. THE ENGINEER AGREES,

- To perform or be responsible for the performance, in accordance with STATE approved design standards and policies, of engineering services for the LA for the proposed improvement herein described.
- To attend any and all meetings and visit the site of the proposed improvement at any reasonable time when requested by representatives of the LA or STATE.
- To complete the services herein described within 550 calendar days from the date of the Notice to Proceed from the LA, excluding from consideration periods of delay caused by circumstances beyond the control of the ENGINEER.
- The classifications of the employees used in the work should be consistent with the employee classifications and estimated man-hours shown in EXHIBIT A. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are indicated in Exhibit A to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
- That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
- That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of work by the STATE will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or for clarification of any ambiguities.
- That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will affix the ENGINEER's professional seal when such seal is required by law. Plans for structures to be built as a part of the improvement will be prepared under the supervision of a registered structural engineer and will affix structural engineer seal when such seal is required by law. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the STATE.
- That the ENGINEER will comply with applicable federal statutes, state of Illinois statutes, and local laws or ordinances of the LA.

9. The undersigned certifies neither the ENGINEER nor I have:

- a. employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for me or the above ENGINEER) to solicit or secure this AGREEMENT,
- b. agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
- c. paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for me or the above ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
- d. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
- e. have not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property,
- f. are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (e) and
- ~~g. have not within a three-year period preceding this AGREEMENT had one or more public transactions (Federal, State or local) terminated for cause or default.~~

10. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LA.

11. To submit all invoices to the LA within one year of the completion of the work called for in this AGREEMENT or any subsequent Amendment or Supplement.

12. To submit BLR 05613, Engineering Payment Report, to the STATE upon completion of the project (Exhibit B).

13. Scope of Services to be provided by the ENGINEER:

- ☐ Make such detailed surveys as are necessary for the planning and design of the PROJECT.
- ☐ Make stream and flood plain hydraulic surveys and gather both existing bridge upstream and downstream high water data and flood flow histories.
- ☐ Prepare applications for U.S. Army Corps of Engineers Permit, Illinois Department of Natural Resources Office of Water Resources Permit and Illinois Environmental Protection Agency Section 404 Water Quality Certification.
- ☐ Design and/or approve cofferdams and superstructure shop drawings.
- ☐ Prepare Bridge Condition Report and Preliminary Bridge Design and Hydraulic Report, (including economic analysis of bridge or culvert types and high water effects on roadway overflows and bridge approaches).
- ☐ Prepare the necessary environmental and planning documents including the Project Development Report, Environmental Class of Action Determination or Environmental Assessment, State Clearinghouse, Substate Clearinghouse and all necessary environmental clearances.
- ☐ Make such soil surveys or subsurface investigations including borings and soil profiles as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations to be made in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE.
- ☐ Analyze and evaluate the soil surveys and structure borings to determine the roadway structural design and bridge foundation.
- ☐ Prepare preliminary roadway and drainage structure plans and meet with representatives of the LA and STATE at the site of the improvement for review of plans prior to the establishment of final vertical and horizontal alignment, location and size of drainage structures, and compliance with applicable design requirements and policies.
- ☐ Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
- ☒ Complete the general and detailed plans, special provisions and estimate of cost. Contract plans shall be prepared in accordance with the guidelines contained in the Bureau of Local Roads and Streets manual. The special provisions and detailed estimate of cost shall be furnished in quadruplicate.
- ☐ Furnish the LA with survey and drafts in quadruplicate all necessary right-of-way dedications, construction easements and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

## II. THE LA AGREES,

1. To furnish the ENGINEER all presently available survey data and information
2. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas:

Cost Plus Fixed Fee      ☐ CPFF = 14.5%[DL + R(DL) + OH(DL) + IHDC], or  
                                 ☒ CPFF = 14.5%[DL + R(DL) + 1.4(DL) + IHDC], or  
                                 ☐ CPFF = 14.5%[(2.3 + R)DL + IHDC]

Where:      DL = Direct Labor  
                 IHDC = In House Direct Costs  
                 OH = Consultant Firm's Actual Overhead Factor  
                 R = Complexity Factor

Specific Rate      ☐ (Pay per element)

Lump Sum      ☐ \_\_\_\_\_

3. To pay the ENGINEER using one of the following methods as required by 49 CFR part 26 and 605 ILCS 5/5-409:

☐ With Retainage

- a) **For the first 50% of completed work**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to 90% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **After 50% of the work is completed**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments covering work performed shall be due and payable to the ENGINEER, such payments to be equal to 95% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- c) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and the STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

☒ Without Retainage

- a) **For progressive payments** – Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

4. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31U.S.C. 3801 et seq.).

## III. IT IS MUTALLY AGREED,

1. That no work shall be commenced by the ENGINEER prior to issuance by the LA of a written Notice to Proceed.
2. That tracings, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LA and that basic survey notes, sketches, charts and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request, to the LA or to the STATE, without restriction or limitation as to their use.
3. That all reports, plans, estimates and special provisions furnished by the ENGINEER shall be in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE, it being understood that all such furnished documents shall be approved by the LA and the STATE before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.

4. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall not be construed to relieve the ENGINEER of any responsibility for the fulfillment of this agreement.
5. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General and the STATE; and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the STATE for the recovery of any funds paid by the STATE under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
6. The payment by the LA in accordance with numbered paragraph 3 of Section II will be considered payment in full for all services rendered in accordance with this AGREEMENT whether or not they be actually enumerated in this AGREEMENT.
7. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or ~~negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LA, the STATE, and their~~ officers, agents and employees from all suits, claims, actions or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.
8. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such material becomes the property of the LA. The LA will be responsible for reimbursement of all eligible expenses to date of the written notice of termination.
9. This certification is required by the Drug Free Workplace Act (30ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the State unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to, suspension of contract or grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the State for at least one (1) year but no more than five (5) years.

For the purpose of this certification, "grantee" or "contractor" means a corporation, partnership or other entity with twenty-five (25) or more employees at the time of issuing the grant, or a department, division or other unit thereof, directly responsible for the specific performance under a contract or grant of \$5,000 or more from the State, as defined in the Act.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

- a. Publishing a statement:
    - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
    - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
    - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
      - (a) abide by the terms of the statement; and
      - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
  - b. Establishing a drug free awareness program to inform employees about:
    - (1) The dangers of drug abuse in the workplace;
    - (2) The grantee's or contractor's policy of maintaining a drug free workplace;
    - (3) Any available drug counseling, rehabilitation and employee assistance program; and
    - (4) The penalties that may be imposed upon an employee for drug violations.
  - c. Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
  - d. Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.
  - e. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by,
  - f. Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
  - g. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.
10. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of DOT assisted contracts. Failure by the ENGINEER to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LA deems appropriate.

### Agreement Summary

Prime Consultant:	TIN Number	Agreement Amount
Delcan Corporation	36-3523452	395,750.66
Sub-Consultants:	TIN Number	Agreement Amount
N/A		
Sub-Consultant Total:		
Prime Consultant Total:		395,750.66
Total for all Work:		395,750.66

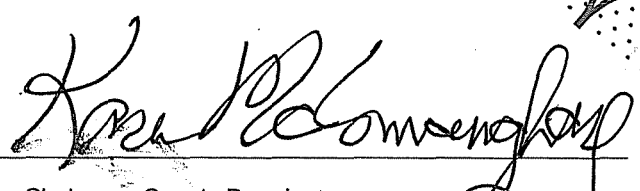
Executed by the LA:

County of Kane  
(Municipality/Township/County)

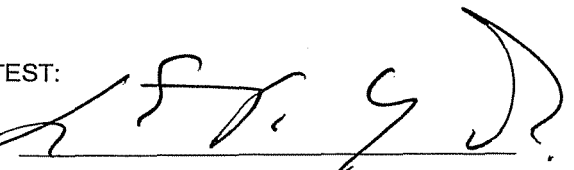
ATTEST:

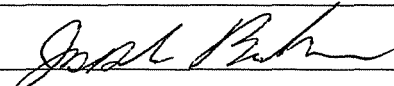
By: \_\_\_\_\_  
John A. Cunningham, County Clerk

(SEAL)

By:   
Title: Chairman, County Board

Executed by the ENGINEER:

ATTEST:  
By:   
Title: Lester T. Yoshida, President

Delcan Corporation  
By:   
Title: Regional Vice President

# Exhibit A - Preliminary Engineering

Route: IL 64 - Randall to Burlington and Burlington To KDOT  
 Local Agency: Kane County  
 (Municipality/Township/County)  
 Section: 08-00389-00-TL  
 Project: CMM-9003(204)  
 Job No.: D-91-262-09

\*Firm's **approved rates** on file with IDOT'S  
 Bureau of Accounting and Auditing:

Overhead Rate (OH) 1.835 %  
 Complexity Factor (R) 0.00  
 Calendar Days 550

## Method of Compensation:

Cost Plus Fixed Fee 1 ☐ 14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Cost Plus Fixed Fee 2 ☒ 14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 Cost Plus Fixed Fee 3 ☐ 14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate ☐  
 Lump Sum ☐

## Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
PS&E interconnect & Arterial Ops Center	Senior Mngmt.	37	70.00	2,590.00	4,752.65		7,117.00	1,933.29	16,392.94
	PS-5	191	56.39	10,770.49	19,763.85			3,748.13	34,282.47
	PS-4	224	54.84	12,284.16	22,541.43			4,274.89	39,100.48
	PS-3	351	39.69	13,931.19	25,563.73			4,848.05	44,342.97
	PS-1&2	504	25.02	12,610.08	23,139.50			4,388.31	40,137.89
	TS-2	326	17.33	5,649.58	10,366.98			1,966.05	17,982.61
	Contracts/Admin	10	17.55	175.50	322.04			61.07	558.61
Integration Study & Functional Reqmnts.	Senior Mngmt.	25	70.00	1,750.00	3,211.25		1,224.00	786.48	6,971.73
	PS-5	100	56.39	5,639.00	10,347.57			1,962.37	17,948.94
	PS-4	125	54.84	6,855.00	12,578.93			2,385.54	21,819.47
	PS-3	175	39.69	6,945.75	12,745.45			2,417.12	22,108.32
	PS-1&2	200	25.02	5,004.00	9,182.34			1,741.39	15,927.73
	TS-2	253	17.33	4,384.49	8,045.54			1,525.80	13,955.83
	Contracts/Admin	2	17.55	35.10	64.41			12.21	111.72
Optional Task - AOC	Senior Mngmt.	35	70.00	2,450.00	4,495.75		612.00	941.34	8,499.09
Addition and ITS	PS-5	100	56.39	5,639.00	10,347.57			1,962.37	17,948.94
Integration	PS-4	125	54.84	6,855.00	12,578.93			2,385.54	21,819.47
	PS-3	150	39.69	5,953.50	10,924.67			2,071.82	18,949.99
	PS-1&2	200	25.02	5,004.00	9,182.34			1,741.39	15,927.73
	TS-2	175	17.33	3,032.75	5,565.10			1,055.40	9,653.25
	Contracts/Admin	2	17.55	35.10	64.41			12.21	111.72
Optional Task - Construction Support	PS-5	5	56.39	281.95	517.38		612.00	186.86	1,598.19
	PS-4	55	54.84	3,016.20	5,534.73			1,049.64	9,600.57
<b>Totals</b>		<b>3370</b>		<b>120,891.84</b>	<b>221,836.53</b>		<b>9,565.00</b>	<b>43,457.29</b>	<b>395,750.66</b>



Name	N/A
Address	
Telephone	
TIN Number	

Local Agency \_\_\_\_\_  
 Section Number \_\_\_\_\_  
 Project Number \_\_\_\_\_  
 Job Number \_\_\_\_\_

This form is to verify the amount paid to the Sub-consultant on the above captioned contract. Under penalty of law for perjury or falsification, the undersigned certifies that work was executed by the Sub-consultant for the amount listed below.

[illegible]

*Joseph Brooker RFB V.P.*  
Signature and title of Prime Consultant

10/19/08

Date \_\_\_\_\_

Note: The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under state and federal law. Disclosure of this information is REQUIRED and shall be deemed as concurring with the payment amount specified above.

**DELCAN PAYROLL AND DIRECT COSTS EFFECTIVE 9/28/2009**  
**HOURLY WAGE RATES**

<b>CLASSIFICATION</b>	<b>LAST NAME</b>	<b>FIRST NAME</b>	<b>HOURLY RATE (\$)</b>	<b>WEIGHTED AVERAGE</b>
<u>Senior Management</u>	Brahm	Joseph	72.12	
				72.12
<u>Chief Engineer</u>	Paesani	Gordon	65.60	
				65.60
<u>Professional Staff 5 (PS 5)</u>	Brazelton	Doug	56.92	
	Gopol	Ranjit	55.84	
	Sanders	Barbara	54.20	
				55.65
<u>Professional Staff 4 (PS 4)</u>	Gibbons	Dan	56.32	
	Irwin	David	43.28	
	Lee	Scott	56.44	
	Reinholz	Jeff	54.08	
	Wu	Wei	60.48	
				54.12
<u>Technical Staff 4 (TS 4)</u>	Nistor	Mircea	55.44	
				55.44
<u>Professional Staff 3 (PS 3)</u>	Albert	Anita	37.48	
	Loosev	Dmitri	42.56	
	Puckett	Dustin	45.04	
	William	Bini	31.60	
				39.17
<u>Technical Staff 3 (TS 3)</u>	(Vacant)		25.00	
				25.00
<u>Professional Staff 1&amp;2 (PS 1&amp;2)</u>	Arora	Anshu	26.56	
	Clark	Peter	18.36	
	Hall	Deirdre	30.80	
	Judkins	Preston	23.56	
	Klos	Daniel	20.80	
	Malcolm	Joseph	28.08	
				24.69
<u>Technical Staff 2 (TS 2)</u>	Momotov	Yuriy	15.52	
	Walton	Sarah	18.68	
				17.10
<u>Technical Staff 1 (TS 1)</u>	(Vacant)		12.00	
				12.00
<u>Contracts &amp; Admin.</u>	Ledbetter	Laura	17.32	
				17.32

**Delcan Direct Expenses**

Travel (Car)	@	\$ 0.51/Mile
Automatic Traffic Recorder	@	\$ 10.00/Day
Count Boards	@	\$ 5.00/Day
Film / Developing	@	\$ Actual Cost
Photocopies	@	\$ 0.15/Copy
Cell Phone for Implementation	@	\$ 45.00/month/phone

# PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Delcan Corp.  
PRIME/SUPPLEMENT Prime

DATE 10/13/09  
PTB NO. AOC Design and IL 64 Interconnect

CONTRACT TERM 18 MONTHS  
START DATE 1/4/2009  
RAISE DATE 10/18/2009

OVERHEAD RATE 183.50%  
COMPLEXITY FACTOR 0  
% OF RAISE 3.00%

## ESCALATION PER YEAR

1/4/2009 - 10/18/2009

10/19/2009 - 6/18/2010

10  
18

8  
18

= 55.56%  
= 1.0133

45.78%

1.33%

The total escalation for this project would be:

## PAYROLL RATES

FIRM NAME Delcan Corp. DATE 10/13/09  
PRIME/SUPPLEMENT Prime  
PSB NO. AOC Design and IL 64 Interconnect

ESCALATION FACTOR 1.33%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Senior Management	\$72.12	\$70.00
Chief Engineer	\$65.60	\$66.47
Professional Staff 5	\$55.65	\$56.39
Professional Staff 4	\$54.12	\$54.84
Professional Staff 3	\$39.17	\$39.69
Professional Staff 1&2	\$24.69	\$25.02
Technical Staff 4	\$55.44	\$56.18
Technical Staff 3	\$25.00	\$25.33
Technical Staff 2	\$17.10	\$17.33
Technical Staff 1	\$12.00	\$12.16
Contracts & Administration	\$17.32	\$17.55
		\$0.00
		\$0.00
		\$0.00
		\$0.00
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		\$0.00
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		\$0.00
		\$0.00

DF-824-039  
REV 12/04

DATE 10/13/09

**DBE 0.00%**

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# EXHIBIT A-2 AVERAGE HOURLY PROJECT RATES

REV 12/04

**FIRM**  
**PSB**  
**PRIME/SUPPLEMENT**

Delcan Corp.  
AOC Design and IL 64 Interconnect  
Prime

**DATE** 10/13/09

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			1-Coord., Meet., and PM			2-Pre-meet/Plans/Vendors			3-Field Review/Inventory			4-Design Cable Route			5-Design Field Comm.		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Management	70.00	97	2.88%	2.01	4	6.06%	4.24												
Chief Engineer	66.47	0																	
Professional Staff 5	56.39	396	11.75%	6.63	16	24.24%	13.67	10	32.26%	18.19	8	20.00%	11.28	8	22.22%	12.53	4	4.17%	2.35
Professional Staff 4	54.84	529	15.70%	8.61	8	12.12%	6.65	10	32.26%	17.69	8	20.00%	10.97	8	22.22%	12.19	28	29.17%	16.00
Professional Staff 3	39.69	676	20.06%	7.96	8	12.12%	4.81	10	32.26%	12.80	4	10.00%	3.97	4	11.11%	4.41	15	15.63%	6.20
Professional Staff 1&2	25.02	904	26.82%	6.71	28	42.42%	10.61				8	20.00%	5.00	8	22.22%	5.56	45	46.88%	11.73
Technical Staff 4	56.18	0																	
Technical Staff 3	25.33	0																	
Technical Staff 2	17.33	754	22.37%	3.88							12	30.00%	5.20	8	22.22%	3.85	4	4.17%	0.72
Technical Staff 1	12.16	0																	
Contracts & Administration	17.55	14	0.42%	0.07	2	3.03%	0.53	1	3.23%	0.57									
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<b>TOTALS</b>		3370	100%	\$35.87	66	100.00%	\$40.52	31	100%	\$49.25	40	100%	\$36.42	36	100%	\$38.54	96	100%	\$37.00

PREPARED BY THE AGREEMENTS UNIT

Printed 10/13/2009 12:04 PM

# **EXHIBIT A-2** **AVERAGE HOURLY PROJECT RATES**

**FIRM**  
**PSB**  
**PRIME/SUPPLEMENT**

Delcan Corp.  
AOC Design and IL 64 Interconnect  
Prime

**DATE** 10/13/09

**SHEET** 2 **OF** 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6-Arterial Ops Center Design and			7-Preliminary Plan Submittal			8-Pre-Final Plan Submittal			9-Final PS&E			10-integration study and funct			11-Optional task - AOC additio		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Management	70.00	33	3.98%	2.79										25	2.84%	1.99	35	4.45%	3.11
Chief Engineer	66.47																		
Professional Staff 5	56.39	108	13.03%	7.35	20	5.52%	3.12	12	10.43%	5.88	5	7.35%	4.15	100	11.36%	6.41	100	12.71%	7.17
Professional Staff 4	54.84	120	14.48%	7.94	20	5.52%	3.03	12	10.43%	5.72	10	14.71%	8.06	125	14.20%	7.79	125	15.88%	8.71
Professional Staff 3	39.69	150	18.09%	7.18	100	27.62%	10.96	40	34.78%	13.81	20	29.41%	11.67	175	19.89%	7.89	150	19.06%	7.57
Professional Staff 1&2	25.02	215	25.93%	6.49	140	38.67%	9.68	40	34.78%	8.70	20	29.41%	7.36	200	22.73%	5.69	200	25.41%	6.36
Technical Staff 4	56.18																		
Technical Staff 3	25.33																		
Technical Staff 2	17.33	200	24.13%	4.18	80	22.10%	3.83	10	8.70%	1.51	12	17.65%	3.06	253	28.75%	4.98	175	22.24%	3.85
Technical Staff 1	12.16																		
Contracts & Administration	17.55	3	0.36%	0.06	2	0.55%	0.10	1	0.87%	0.15	1	1.47%	0.26	2	0.23%	0.04	2	0.25%	0.04
<b>TOTALS</b>		829	100%	\$35.99	362	100%	\$30.71	115	100%	\$35.77	68	100%	\$34.56	880	100%	\$34.79	787	100%	\$36.81

## AVERAGE HOURLY PROJECT RATES

FIRM	<u>Delcan Corp.</u>
PSB	<u>AOC Design and IL 64 Interconnect</u>
PRIME/SUPPLEMENT	Prime

DATE 10/13/09

**SHEET 3 OF 5**

PAYROLL	AVG	12-Optional task - Construction																	
CLASSIFICATION	HOURLY RATES	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Management	70.00																		
Chief Engineer	66.47																		
Professional Staff 5	56.39	5	8.33%	4.70															
Professional Staff 4	54.84	55	91.67%	50.27															
Professional Staff 3	39.69																		
Professional Staff 1&2	25.02																		
Technical Staff 4	56.18																		
Technical Staff 3	25.33																		
Technical Staff 2	17.33																		
Technical Staff 1	12.16																		
Contracts & Administra	17.55																		
TOTALS		60	100%	\$54.97	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00



## Exhibit A - Continued

### AOC and IL 64 Interconnect Direct Costs

Work Task	Direct Cost Calculations	Cost
Coord., Meet., and PM	20 round trips X 60 miles X \$0.51/mile @ KDOT and/or Vendors =	\$612.00
Pre-meet/Obtain Plans	10 round trips X 60 miles X \$0.51/mile @ KDOT =	\$306.00
Field Review/Inventory	20 round trips X 60 miles X \$0.51/mile @ KDOT =	\$612.00
Design Cable Route	N/A	\$0.00
Design Field Comm.	N/A	\$0.00
Arterial Ops Center Design and Concept of Operations	45 round trips X 60 miles X \$0.51/mile + \$1000 for renderings of up to 3 AOC locations	\$2,377.00
Preliminary Plan Submittal	6 sets X 120 sheets X \$1.25	\$900.00
Pre-Final Plan Submittal	6 sets X 120 sheets X \$1.25 + 6 sets (spec) X 100 Sheets X \$0.15/sheet	\$990.00
Final PS&E	8 sets X 120 sheets X \$1.25 + 8 sets (spec) X 100 Sheets X \$0.15/sheet	\$1,320.00
Integration Study and Functional Requirements	40 round trips X 60 miles X \$0.51/mile @ KDOT and/or Vendors =	\$1,224.00
Optional Task - AOC addition and ITS integration Services	20 round trips X 60 miles X \$0.51/mile @ KDOT and/or Vendors =	\$612.00
Construction Support	20 round trips X 60 miles X \$0.51/mile @ KDOT and/or Vendors =	\$612.00

Total for PS&E = \$7,117

Total = \$9,565.00

Location: Illinois Route 64 - Randall Road to Burlington Road and Burlington Road - Illinois Route 64 to KDOT office

Section No.: 08-00389-00-TL

Project No.: CMM-9003(204)

Job No.: D-91-262-09

Type of Funding: STA

## **INTRODUCTION**

This agreement provides for engineering services to prepare a PS&E package for the installation of Fiber Optic Interconnect to the Kane County Division of Transportation Offices north along Burlington Road from the signalized intersection at Illinois 64. The interconnect will also travel east along Illinois 64 to Oak Street where a proposed IDOT traffic signal is to be installed. The proposed installation from Oak Street east along Illinois 64 to Randall Road of IDOT fiber optic interconnect will complete the KDOT fiber network. Additionally, the PS&E package will include plans for an Arterial Operations Center (AOC) at the KDOT offices. The location, extent, and scope of the AOC will be determined through a concept of operations, availability of funding review, and a facility layout and design rating for potential locations at the County DOT Building. A system integration and implementation phasing plan study for the existing and proposed ITS devices will be performed. A detailed implementation phasing plan will be developed for the existing and proposed devices. As part of the Implementation Phasing Plan, functional requirements for the system integration will also be developed. Additional tasks that may be included in funding is available include the build-out of an Arterial Operations Center at the KDOT office and ITS integration services. Finally, if funding is available, construction support will be provided.

The work will be accomplished as detailed in the following tasks. Subtasks under each task further define the scope of work in the following sections:

- |         |                                                                                                                                                   |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| TASK 1  | Coordination, review meetings and project management                                                                                              |
| TASK 2  | Obtain roadway plans and pre-inventory meeting                                                                                                    |
| TASK 3  | Field review and inventory with KDOT traffic engineering/signal maintenance staff and coordinate with IDOT on traffic signal cabinet use/upgrades |
| TASK 4  | Design cable route                                                                                                                                |
| TASK 5  | Design field communications to vendor requirements and future uses                                                                                |
| TASK 6  | Arterial Operations Center (AOC) design, Concept of Operations and staffing plan                                                                  |
| TASK 7  | Prepare preliminary plan sheets                                                                                                                   |
| TASK 8  | Prepare pre-final plan sheets                                                                                                                     |
| TASK 9  | Prepare final PS&E package                                                                                                                        |
| TASK 10 | ITS system integration study and functional requirements                                                                                          |
| TASK 11 | Optional Task – AOC design for an addition to the DOT building and other ITS integration support services                                         |
| TASK 12 | Optional Task - Construction support                                                                                                              |

Detailed task descriptions are provided in the following sub-sections

### **TASK 1: COORDINATION, REVIEW MEETINGS, AND PROJECT MANAGEMENT**

#### **PURPOSE:**

The purpose of this task is to help KDOT coordinate the project, schedule meetings with necessary persons/agencies, and maintain budgets and schedules.

*INPUTS:*

- Delcan Project Management Information System.
  - Regular updates from all members of the project team concerning work completed and any outstanding issues.
  - This scope of work.
  - Monthly status meetings and/or reports.
- 

*ACTIVITIES:*

- Maintain project schedule, budget and scope.
- Coordinate and manage day-to-day project activities with the Delcan team and the client project team.
- Provide project invoices and status reports.
- Continuously monitor and track project schedules, budgets and critical path items. To the extent possible, anticipate potential problems so they can be addressed prior to causing unrecoverable damage to the project schedule, budget or scope.
- Work closely with the KCDOT project management team to resolve any identified issues.

*DELIVERABLES TO KANE COUNTY:*

- Monthly status reports on progress of the project with potential problems highlighted.
- Monthly invoices detailing work accomplished against anticipated progress.
- Minutes of meetings between the KDOT and Delcan, summaries of meetings with other interests.
- Baseline project schedule and applicable schedule updates as well as cost reports with any problems explained and solutions proposed.
- Correspondence relevant to project.

*ASSUMPTIONS*

- None

***TASK 2: OBTAIN ROADWAY PLANS AND PRE-INVENTORY MEETING***

*PURPOSE:*

The purpose of this task is to gather existing data about the current traffic signals along the fiber route and existing base maps for Illinois 64 and Burlington Road. The pre-inventory meeting will provide input to Delcan personnel to tailor the field review to be efficient and at the same time thorough.

*INPUTS:*

- Existing base maps preferably in Microstation format.
- Meeting with Kane County staff including IT and communications

- Kane County current communication standards for traffic signal interconnects
- PS&E packages from adjacent interconnect jobs

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Schedule and coordinate meeting with Kane County
  - Request required information from County
- 

*DELIVERABLES TO KANE COUNTY:*

- Meeting minutes summary
- Assumptions/Plan for entering the building with the fiber run

*ASSUMPTIONS:*

- Base maps will be in microstation format or in scannable format by Delcan personnel.

***TASK 3: FIELD REVIEW AND INVENTORY***

*PURPOSE:*

The purpose of this task is to due a complete field inventory of existing conditions of the traffic signal installations, communications network, and roadway elements that may affect installation.

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Open signal cabinets along fiber route that may be used
- Note existing communications equipment
- Photograph each open cabinet for documentation
- Takes notes on existing equipment, fiber termination, controller model and software version, space availability for Ethernet switches, and all other equipment/features as specified by KDOT
- Confirm existing handhole locations and conduit runs if possible
- Note and photograph any roadside elements that may interfere with the fiber run
- Hold coordination meeting with IDOT on cabinet use and upgrades required for Ethernet equipment

*DELIVERABLES TO KANE COUNTY:*

- Documentation of field review including notes, photographs, and inventory summary
- Notes from review meeting w/IDOT and course of action for cable route and traffic signal cabinet usage and upgrades

*ASSUMPTIONS*

- Delcan staff will be approved to access KDOT controller cabinets

#### ***TASK 4: DESIGN CABLE ROUTE***

##### *PURPOSE:*

The purpose of this task is to design the fiber optic cable route to maximize efficiency and cost through an Ethernet based communications network.

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##### *INPUTS:*

- Pre-inventory meeting minutes
- Field inventory notes, pictures, summary
- Existing base maps

Activities to be completed by Delcan:

- Design cable route for fiber backbone

##### *DELIVERABLES TO KANE COUNTY:*

- Draft cable route design for review

##### *Assumptions*

- None.

#### ***TASK 5: DESIGN FIELD COMMUNICATIONS TO KDOT REQUIREMENTS AND FUTURE USES***

##### *PURPOSE:*

The purpose of this task is to design the communications equipment necessary to complete the Ethernet communications network to go onto the fiber backbone.

##### *INPUTS:*

- Traffic controller vendor requirements for Ethernet communications
- Field review inventory and summary
- Cable route design

##### *ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Hold coordination meeting with traffic signal vendor and communications personnel (Brown/TSS)
- Design communications network to accommodate current transportation communications needs and include consideration for future use and integrations

*DELIVERABLES TO KANE COUNTY:*

- Communications network design with equipment call-out and wiring diagram

*ASSUMPTIONS:*

- None.
- 

***TASK 6: ARTERIAL OPERATIONS CENTER DESIGN***

*PURPOSE:*

The purpose of this task is to help KDOT plan and design an Arterial Operations Center (AOC) at the Kane County DOT offices. A concept of operations plan will be developed as part of this task as well as a staffing plan for the AOC.

*INPUTS:*

- Kane County ITS Strategic Plan
- Inventory of Devices
- Operational Characteristics
- Inter-agency operational relationships
- Input from KDOT staff

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Review of the existing Kane County ITS Strategic Plan and feasibility study for the Arterial Operations Center (AOC)
- KDOT Staff Interviews and Current Operations
- Review all current KDOT systems and perform assessment of future systems - this will include the review of 2 current Computer Aided Dispatch (CAD) systems for potential integration
- Review funding levels and compare to desired operations
- Facility Description Considerations & Design Criteria walk-through with KDOT
  - Review of common room types for an AOC including; Control Room, Equipment Room, Multipurpose/Conference Room, Operators Break Room, Engineering Offices, Lobby, Photocopy and Printer/Storage Room, Men's and Women's Restrooms, UPS and Battery Room, Emergency Generator, and Electrical Room.
  - Architectural Interior Design Criteria including; Interior Finish, Doors, Roof Access, Infinite Access Flooring System, Window Covering, Furniture, Acoustics, Day Lighting, Control Room Workstation Console, and Control Room Display Wall
  - Structural Design Criteria (If applicable)
  - Mechanical Design Criteria including; HVAC, Plumbing and Drainage, and Fire Protection (If applicable)
  - Electrical Design Criteria including; General electrical, Data/Communication System, Master Clock System, Cable Entry, Cable Raceway, Equipment Cabinets,

Public Address, Security/Access, Alarms and Controls, Power, Emergency Power Off, Emergency Generator, UPS, Grounding, and Lighting

- Develop up to 3 potential layouts for up to 2 locations for the AOC
- Review all existing equipment and develop draft ITS system network schematics and IP scheme
- Prepare an concept of operations document and staffing plan for the AOC

---

*DELIVERABLES TO KANE COUNTY:*

- Up to 3 different layouts for the AOC at up to 2 different locations in the KDOT building
- Cost comparisons of up to 3 different alternatives for future/desired operations of the AOC
- Renderings for the top layout as determined by the County (If requested)
- Network schematics and IP schema for the fiber network
- Concept of operations and staffing plan

*ASSUMPTIONS:*

- Delcan will not be responsible for permitting of the construction work
- The AOC will be a remodel of an existing location at the DOT offices

***TASK 7: PREPARE PRELIMINARY PLAN SHEETS***

*PURPOSE:*

The purpose of this task is to put together the beginning of the PS&E package.

*INPUTS:*

- All deliverables from the previous tasks

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- 50% plans sheets showing fiber backbone routing using existing and/or propose conduit
- 50% communications design
- 50% layout design of the AOC
- All required detail sheets
- Schedule 50% design review meeting

*DELIVERABLES TO KANE COUNTY:*

- 50% PS&E design package
- Summary of meeting minutes from 50% design review

*ASSUMPTIONS:*

- Currently it is assumed that a single PS&E package will be prepared for the fiber interconnect and AOC. Delcan can prepare a separate package for the interconnect and AOC if determined to be in the interest of the County

---

***TASK 8: PREPARE PRE-FINAL PLAN SHEETS***

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*PURPOSE:*

The purpose of this task is to prepare a 90% PS&E package.

*INPUTS:*

- All previous deliverables
- 50% PS&E package
- 50% design review meeting minutes

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Update 50% PS&E package to include design review notes
- Include special provisions for construction
- Include all required IDOT and Kane County standard detail sheets
- Provide Engineers Estimate of Cost and Construction time schedule
- Provide 90% PS&E package to both Kane County and IDOT
- Schedule 90% design review meeting with Kane County and IDOT
- 90% design review meeting minutes

*DELIVERABLES TO KANE COUNTY:*

- 90% PS&E package
- 90% Design review meeting minutes and notes

*ASSUMPTIONS*

- 4 (four) week turn-around time for KCDOT / IDOT review
- Special provisions used in previous interconnect projects will be the basis for this project. Minimal work will be required to produce the special provisions.

***TASK 9: PREPARE FINAL PS&E PACKAGE***

*PURPOSE:*

The purpose of this task is to provide the County with a complete PS&E package that is ready to be put out for bid to construct the updated Ethernet fiber communications network and the AOC.



*INPUTS:*

- 90% review comments from both Kane County and IDOT
- 90% review meeting minutes and notes

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

---

- Update 90% design to reflect all comments from the review meeting
- Prepare the complete 100% PS&E package for the County
- Deliver desired number of bid package documents to IDOT
- Assist the county with contract questions during the bid process

*DELIVERABLES TO KANE COUNTY:*

- Complete PS&E package ready for bidding by contractors
- Timely response to contractor inquiries in bid process

*ASSUMPTIONS:*

- 4 (four) week turn-around time for KDOT / IDOT review

***TASK 10: SYSTEM INTEGRATION STUDY AND FUNCTIONAL REQUIREMENTS***

*PURPOSE:*

The purpose of this task is to perform a system integration study and develop a listing of functional requirements. This package will guide the future system integration components and provide an implementation phasing plan for the AOC. There are several sub-tasks that will be carried out for this task. The sub-tasks will be useful in making important decisions about location, function, staffing, maintenance, and future considerations in conjunction with available funding.

*INPUTS:*

- Kane County ITS Strategic Plan
- Inventory of Devices
- Operational Characteristics
- Inter-agency operational relationships
- Task 6 components including:
  - Review of the existing Kane County ITS Strategic Plan and the Concept of Operations for the Arterial Operations Center (AOC)
  - KDOT Staff Interviews and Current Operations
  - Review all current systems and perform assessment of future systems
  - Review funding levels and compare to desired operations

*ACTIVITIES TO BE COMPLETED BY DELCAN:*

- Assessment of technology readiness and system requirements for ITS elements
  - Assessment of technology readiness for TACTICS/ACTRA signal system
  - Development of functional requirements
  - Development of Implementation phasing plan
- 

*DELIVERABLES TO KANE COUNTY:*

- Current and proposed systems review and assessment
- Functional Requirements document
- Implementation phasing plan for system integration

*ASSUMPTIONS:*

- Technology review of TACTICS/ACTRA does not include development of signal system requirements. The County is committed to TACTICS and will not be looking into new signal systems for the near future.

***TASK 11: OPTIONAL TASK – AOC ADDITION TO THE DOT BUILDING AND OTHER ITS INTEGRATION SUPPORT SERVICES - PENDING FUNDING AVAILABILITY***

*PURPOSE:*

The purpose of this optional task is to provide PS&E services for the addition of an AOC center to the DOT building instead of a room remodel. Also, other ITS integration support services may be provided under this task as negotiated and agreed by KDOT and Delcan. Items under this optional task will only be activated upon agreed scope and estimate and written approval by KDOT.

*INPUTS:*

- Implementation phasing plan
- Concept of Operations document
- Functional requirements document
- Staffing Plan

*POTENTIAL ACTIVITIES TO BE COMPLETED BY DELCAN:*

- PS&E design for a room addition for an AOC at the DOT building
- Architectural services to complete AOC design
- Additional ITS integration services as requested

*DELIVERABLES TO KANE COUNTY:*

- PS&E plans and architectural services to provide for construction of an AOC addition to the County DOT building
- ITS integration services as requested

*ASSUMPTIONS:*

---

- No work will be completed under this task without written authorization from Kane County.

***TASK 12: OPTIONAL TASK - CONSTRUCTION SUPPORT***

*PURPOSE:*

The purpose of the task is to assist the County and Construction contractor with any questions that may occur during the project. Delcan will also be available to provide communication equipment set-up, configuration and testing.

*INPUTS:*

- Construction of communication interconnect

*ACTIVITIES TO BE COMPLETED BY DELCAN:*





























- Timely response to County and Contractor questions
- Field set-up, configuration and testing of communications equipment
- Review of construction at rough framing for electrical and communications design
- Set up and programming of network equipment for Traffic Management system if requested and budget allows

*DELIVERABLES TO KANE COUNTY:*

- Completed and tested Fiber optic Ethernet interconnect.
- Network and Communications set up and trouble-shooting if requested and budget allows

*ASSUMPTIONS:*



- None

ID	Task Name	Duration	Start	Finish	Quarter	1st Quart	2nd Quart	3rd Quart	4th Quarter	1st Quart	2nd Quart	3rd Quart																
					o	e	Jan	e	Mar	Apr	a	Jun	Jul	u	e	Oct	o	e	Jan	e	Mar	Apr	a	Jun	Jul	u	e	
1	 Project Management, Coordination, and Meetings	415 days	Mon 1/4/10	Fri 8/5/11																								
2	 Pre-Meeting/Obtain Plans	2 days	Mon 1/4/10	Tue 1/5/10																								
3	 Field Review and Inventory	5 days	Mon 1/11/10	Fri 1/15/10																								
4	 Design Cable Route	10 days	Mon 1/18/10	Fri 1/29/10																								
5	 Design Field Communication	40 days	Mon 2/1/10	Fri 3/26/10																								
6	 Arterial Operations Center Design and Concept of Operations	160 days	Mon 2/8/10	Fri 9/17/10																								
7	 Preliminary Plan Submittal	120 days	Mon 9/6/10	Fri 2/18/11																								
8	 Plan Review KDOT and IDOT	10 days	Mon 2/21/11	Fri 3/4/11																								
9	 Pre-final Plan Submittal	40 days	Mon 3/7/11	Fri 4/29/11																								
10	 Plan Review KDOT and IDOT	10 days	Mon 5/2/11	Fri 5/13/11																								
11	 Final PS&E	35 days	Mon 5/16/11	Fri 7/1/11																								
12	 Integration Study and functional Requirements	200 days	Mon 5/17/10	Fri 2/18/11																								
13	 Optional Task - AOC Addition and ITS Integration Services	180 days	Mon 2/22/10	Fri 10/29/10																								
14	 Optional Task - Construction Support	20 days	Mon 7/11/11	Fri 8/5/11																								

**Project: IL 64 Interconnect &  
AOC Schedule  
October 13, 2009**

Task   
Split   
Progress 

Milestone   
Summary   
Project Summary 

External Tasks   
External Milestone   
Deadline 