#### STATE OF ILLINOIS

COUNTY OF KANE

#### RESOLUTION NO. 09 - 294

#### APPROVING A PHASE II ENGINEERING SERVICES AGREEMENT WITH DELCAN CORPORATION FOR ORCHARD ROAD TRAFFIC SIGNAL INTERCONNECTS FROM RANDALL ROAD TO ROCHESTER DRIVE KANE COUNTY SECTION NO.09-00272-01-TL

WHEREAS, Phase II Engineering services are required for the proposed Kane County Highway No. 83 (also known as Orchard Road) traffic signal interconnect improvement from Randall Road to Rochester Drive (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 Ninety Four Thousand Five Hundred Fifty Four and 03/100 Dollars (\$94,554.03).

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 Ninety Four Thousand Five Hundred Fifty Four and 03/100 Dollars (\$94,554.03).from County Highway Fund #300, Line Item #50140 (Engineering) to pay for said Phase II Engineering services for the Project with approximately sixty percent (60%) reimbursement thereof from federal funds.

¢,

Г	Line item	Line Item	Was	Are funds currently	If funds are not currently
		Description	personnel/item/service	available for this	available in the specified
1			approved in original	personnel/item/service in	line item, where are the
	]		budget or a subsequent	the specified line item?	funds available?
	•		budget revision?		
L	300.520.520.50140	Engineering	Yes	Yes	· · · · · ·
/ C	Pasted by the Kar ohn A. Cunningham Clerk, County Board Cane County, Illinois	ne County Boar	Chairma	09. AcConnaughay an, County Board ounty, Illinois	marghay
Ý	Yote: Yes <u>ステ</u> Io <u>。</u> Yoteいのにた <u></u>	STATE OF II COUNTY OF			DATE AUG 2'7 2009
	tote UDICE				
v		I, Jo	ohn A. Garden, Ka	me County Clerk and Ke	eper of the Records in Kane County
Α	bstentions <u>c</u>	Illinois do he	ereby	ached is a true and correc	t copy of the original record on file.
	Product Contract of Contract of Contract	Illinois do he			t copy of the original record on file.
	ORCRND-RCHSTRDLCANP		States States	witness whereof, I have l	nereunto set my hand and affixed the
	Product Contract of Contract of Contract		States States	witness whereof, I have l	
	Product Contract of Contract of Contract		States States	witness whereof, I have l	nereunto set my hand and affixed the
	Product Contract of Contract of Contract			witness whereof, I have l	nereunto set my hand and affixed the at my office in Geneva, Illinois.

# DOCUMENT VET SHEET for Karen McConnaughay Chairman, Kane County Board

Name of Document:	Agreement with Delcan for Orchard Road Interconnect from
Randall Road to Rock	iester
Submitted by:	Paul LaFleur
Date Submitted:	May 13, 2009
Examined by:	Pat Jaeger (Print name) (Signature)
	<u>May</u> , 2009 (Date)
Comments:	
Chairman signed:	$\begin{array}{c} \textbf{Yes} \\ \textbf{(Date)} \end{array} \qquad \begin{array}{c} 9 - 29 - 9 \\ \hline \end{array}$
Document returned	to: <u>County Clerk</u>

Rev. 8/05

Local Agency	I	Illinois Department		Consultant
Kane County	Ō	of Transportation	С	Delcan Corporation
County	C		0	Address
Kane	Δ		N	650 E. Algonguin Road, Suite 104
Section	$\neg$		S	City
09-00272-01-TL	<sup>6</sup>			Schaumburg
Project No.		Preliminary Engineering	U	State
CMM-9003(206)		Services Agreement		
Job No.	G	For		Zip Code
D-91-263-09	E	Federal Participation	A	60173
Contact Name/Phone/E-mail Address	N	rederar rancipation	N	Contact Name/Phone/E-mail Address
Paul LaFleur	C	PURCHASE ORDER #2009-2315	Т	Doug Brazelton
630-406-7355	Y	PURCHASE ORDER #2009-2315		847-925-0120
LaFleurPaul@co.kane.il.us				d brazelton@delcan.com

THIS AGREEMENT is made and entered into this day of <u>September</u>, <u>2009</u> 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	Orchard Road	Route	CH 83	Length	6.17	Structure No.	N/A
Termini	Randall Road to Rochester Drive	· · ·			anna an M <sub>anna</sub> an an an an an an an a		

Description Provide engineering services to provide upgrades to the traffic signal interconnect to provide Ethernet communications and traffic signal upgrades. Provide full PS&E package for construction and construction support.

#### Agreement Provisions

#### I. THE ENGINEER AGREES,

- 1. 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.
- 2. 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.
- 3. To complete the services herein described within <u>365</u> 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.
- 4. The classifications of the employees used in the work should be consistent with the employee classifications and estimated manhours 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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 p	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 o 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:

b.

- (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.
- 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
	36-3523452	91,554.48
Sub-Consultants:	TIN Number	Agreement Amount
	Sub-Consultant Total:	0.00
	Prime Consultant Total:	91,554.48
	Total for all Work:	91,554.48
		AT AT
		/::*
		X
Executed by the LA:	County of Kane	
	(Municipality/Township/Cou	inty)
	1	No. 1
		$\mathbf{\Lambda}$
ATTEST:		
Dv <i>r</i>	By: Man / Clow	RINGING
Ву:	- Three wine	V W W W W
John A. Cunningham, County Clerk	Title: Čhairman, County Board	V
(SEAL)		

Executed by the ENGINEER:

ATTEST:

By: Ð

Title: Chief Technology Officer

Delca	n Corporation
By:	alth
Title:	Regional Vice President

#### Exhibit A - Preliminary Engineering

Route:	Orchard Road: Randall Rd to Rochester Dr
Local Agency	/: Kane County
	(Municipality/Township/County)
Section:	09-00272-01-TL
Project:	CMM-9003(206)
Job No.:	D-91-263-09

*Firm's <b>approved rates</b> Bureau of Accounting a		
Overhead Rate (OH)	1.83	%

Complexity Facto	or (Ŕ)	0.00
Calendar Days	365	

#### 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
PM, Coord., Meetings	Senior Mngmt.	2	70.00	140.00	256.90		172.80	73.78	643.48
	PS-5	8	54.96	439.68	806.81			153.01	1399.50
	PS-4	8	51.01	408.08	748.82			142.12	1299.02
	PS - 3	6	36.15	216.90	398.01			75.48	690.39
	PS – 1&2	12	25.61	307.32	563.93			106.95	978.20
	Contracts/Admin	2	17.05	34.10	62.57			11.87	108.54
Plans, Specifications	PS - 5	62	54.96	3407.52	6252.80		2336.10	1524.55	13520.97
	PS-4	98	51.01	4998.98	9173.13			1739.65	15911.76
	PS-3	227	36.15	8206.05	15058.10			2855.71	26119.86
<u></u>	PS-1&2	256	25.61	6556.16	12030.55			2281.54	20868.25
, , , , , , , , , , , , , , , , , , ,	TS - 2	109	18.15	1978.35	3630.27			688.47	6297.09
	Contracts/Admin	5	17.05	85.25	156.43			29.67	271.35
Construction Support	PS-4	20	51.01	1020.20	1872.07		172.80	380.09	3445.16
		-							
Totals		815		27,798.59	51,010.39		2,681.70	10,063.79	91,554.48



#### **Prime Consultant**

Name Address Telephone TIN Number	N/A
Project Information	
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.

Sub-Consultant Name	TIN Number	Actual Payment from Prime
	Sub-Consultant Total:	
	Prime Consultant Total: Total for all Work	
	Completed:	

Signature and title of Prime Consultant

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 9/29/2008 HOURLY WAGE RATES

CLASSIFICATION	LAST NAME	FIRST NAME	HOURLY RATE (\$)	WEIGHTED AVERAGE
Senior Management	Brahm	Joseph	72.12	20 Mil
				72.12
Chief Engineer	Paesani	Gordon	63.84	
				63.84
Professional Staff 5 (PS 5)	Brazelton	Doug	55.24	
	Gopol	Ranjit	54.32	
	Sanders	Barbara	52.88	
				54.15
Professional Staff 4 (PS 4)	Gibbons	Dan	54.28	
	Irwin	David	39.36	
	Lee	Scott	54.92	
	Reinholz	Jeff	52.48	
				50.26
Technical Staff 4 (TS 4)	Nistor	Mircea	53.96	
				53.96
Professional Staff 3 (PS 3)	Puckett	Dustin	41.16	
	William	Bini	30.08	
				35.62
Technical Staff 3 (TS 3)	(Vacant)		25.00	
	(			25.00
Professional Staff 1&2 (PS 1&2)	Arora	Anshu	25.76	
	Hall	Deirdre	28.48	
	Klos	Daniel	20.20	
	Malcolm	Joseph	26.48	
				25.23
<u>Technical Staff 2 (TS 2)</u>	Walton	Sarah	17.88	
<u> </u>				17.88
Technical Staff 1 (TS_1)	(Vacant)		12.00	
	ζ ,			12.00
Contracts & Admin.	Ledbetter	Laura	16.80	
				16.80
Delcan Direct Expenses				

Travel (Car) Automatic Traffic Recorder Count Boards	000	\$ 0.48/Mile \$ 10.00/Day \$ 5.00/Day
Film / Developing Photocopies Cell Phone for Implementation	00	<ul><li>\$ Actual Cost</li><li>\$ 0.15/Copy</li><li>\$ 45.00/month/phone</li></ul>

# **PAYROLL RATES**

FIRM NAME PRIME/SUPPLEMENT PSB NO. Delcan Corp. DATE Prime Drchard Road Interconnect/Upgrade

ESCALATION FACTOR

1.50%

09/09/09

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Senior Management	\$70.00	\$70.00
Chief Engineer	\$63.84	\$64.80
Professional Staff 5	\$54.15	\$54.96
Professional Staff 4	\$50.26	\$51.01
Professional Staff 3	\$35.62	\$36.15
Professional Staff 1&2	\$25.23	\$25.61
Technical Staff 4	\$53.96	\$54.77
Technical Staff 3	\$25.00	\$25.38
Technical Staff 2	\$17.88	\$18.15
Technical Staff 1	\$12.00	\$12.18
Contracts & Administration	\$16.80	\$17.05
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

PREPARED BY THE AGREEMENTS UNITPrinted 9/9/2009 10:19 AM

\$0.00

#### EXHIBIT A-1 COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

DF-824-039 REV 12/04

											112/04
	FIRM	Delcan Corp	).							DATE	09/09/09
	PSB	Orchard Roa		ect/lingrade	OVERHEAD	RATE		1.835			
	PRIME/SUPPLEMENT	Prime			COMPLEXIT			0			
	PRIME/SOFFLEMENT	rime				TACION					
DBE	Ι	1		OVERHEAD	IN-HOUSE		Outside	SERVICES	<b></b>	1	% OF
DROP	ITEM	MANHOURS	PAYROLL	&	DIRECT	FIXED	Direct	BY	DBE	TOTAL	GRAND
BOX				FRINGE BENF	COSTS	FEE	Costs	OTHERS	TOTAL		TOTAL
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(B-G)	
	Coord., Meet., and PM	38	1,546.14	2,837.17	172.80	563.11				5,119.22	5.59%
	Pre-meet/Obtain Plans	7	301.31	552.91	43.20	111.12		1		1,008.54	1.10%
	Field Review/Inventory	52	2,055.62	3,772.06		748.76				6,806.84	7.43%
·	Design Cable Route	44	1,661.56	3,048.95		578.22				5,288.73	5.78%
	Design Field Comm.	108	4,282.20	7,857.84		1,490.21				13,630.25	14.89%
	Design Traffic Sig. Mod.	90	3,266.29	5,993.64		1,136.67				10,396.60	11.36%
	Preliminary Plan Submittal	318	8,954.06	16,430.69	562.50	3,197.57				29,144.82	31.83%
	Pre-Final Plan Submittal	81	2,739.40	5,026.81	562.50	1,034.88				9,363.58	10.23%
	Final PS&E	57	1,972.78	3,620.06		822.47				7,352.81	8.03%
	Construction Support	20	1,020.28	1,872.21	172.80	380.11				3,445.40	3.76%
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Subconsultant DL

TOTALS

815 27,799.64

# EXHIBIT A-2 AVERAGE HOURLY PROJECT RATES

FIRM	Delcan Corp.
PSB	Orchard Road Interconnect/Upgrade
PRIME/SUPPLEMENT	Prime

DATE 09/09/09

SHEET

\_\_\_\_\_ OF \_\_\_\_\_

PAYROLL	AVG	TOTAL PROJECT RATES			Coord.,	Meet., and	РМ	Pre-mee	et/Obtain	Plans	Field Re	view/Inve	ntory	Design	Cable Rou	te	Design	Field Com	ım.
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg	l	Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Senior Management	70.00	2	0.25%	0.17	2	5.26%	3.68												
Chief Engineer	64.80	0																	
Professional Staff 5	54.96	70	8.59%	4.72	8	21.05%	11.57	2	28.57%	15.70	12	23.08%	12.68	8	18.18%	9.99	8	7.41%	4.07
Professional Staff 4	51.01	126	15.46%	7.89	8	21.05%	10.74	2	28.57%	14.58	12	23.08%	11.77	8	18.18%	9.28	40	37.04%	18.89
Professional Staff 3	36.15	233	28.59%	10.34	6	15.79%	5.71	2	28.57%	10.33	12	23.08%	8.34	12	27.27%	9.86	28	25.93%	9.37
Professional Staff 1&2	25.61	268	32.88%	8.42	12	31.58%	8.09				8	15.38%	3.94	12	27.27%	6.98	28	25.93%	6.64
Technical Staff 4	54.77	0																	
Technical Staff 3	25.38	0																	
Technical Staff 2	18.15	109	13.37%	2.43							8	15.38%	2.79	4	9.09%	1.65	4	3.70%	0.67
Technical Staff 1	12.18	0																	
Contracts & Administration	17.05	7	0.86%	0.15	2	5.26%	0.90	1	14.29%	2.44									
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TOTALS		815	100%	\$34.11	38	100.00%	\$40.69	7	100%	\$43.04	52	100%	\$39.53	44	100%	\$37.76	108	100%	\$39.65

# EXHIBIT A-2 AVERAGE HOURLY PROJECT RATES

FIRM PSB	Delcan Co Orchard I		terconne	ct/Upgra	de									DATE		09/09/09	1		
PRIME/SUPPLEMENT	Prime		•											SHEET		2	OF	2	-
PAYROLL	AVG Design Traff		Fraffic Sig. N	/lod.	Prelimin	ary Plan Su	bmittal	Pre-Fina	Pre-Final Plan Submittal			Final PS&E			Construction Support		1	u	
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Senior Management	70.00																		
Chief Engineer	64.80															1			
Professional Staff 5	54.96	8	8.89%	4.89	8	2.52%	1.38	8	9.88%	5.43	8	14.04%	7.71						1
Professional Staff 4	51.01	12	13.33%	6.80	8	2.52%	1.28	8	9.88%	5.04	8	14.04%	7.16	20	100.00%	51.01			
Professional Staff 3	36.15	40	44.44%	16.07	90	28.30%	10.23	28	34.57%	12.50	15	26.32%	9.51						
Professional Staff 1&2	25.61	30	33.33%	8.54	135	42.45%	10.87	28	34.57%	8.85	15	26.32%	6.74						
Technical Staff 4	54.77																		
Technical Staff 3	25.38																		
Technical Staff 2	18.15				75	23.58%	4.28	8	9.88%	1.79	10	17.54%	3.18						
Technical Staff 1	12.18																		
Contracts & Administration	17.05				2	0.63%	0.11	1	1.23%	0.21	1	1.75%	0.30						

PREPARED BY THE AGREEMENTS UNIT

100%

\$33.82

57

100%

\$34.61

20

100%

\$51.01

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\$0.00

TOTALS

100%

90

\$36.29 318

100%

\$28.16

81

# Exhibit A - Continued

# **Orchard Road Interconnect Direct Costs**

Work Task	Direct Cost Calculations	Cost
Coord., Meet., and PM	6 round trips X 60 miles X \$0.48/mile @ KDOT =	\$172.80
Pre-meet/Obtain Plans	2 round trips X 45 miles X \$0.48/mile @ IDOT =	\$43.20
Field Review/Inventory	8 round trips X 60 miles X \$0.48/mile @ KDOT =	\$230.40
Design Cable Route	N/A	\$0.00
Design Field Comm.	N/A	\$0.00
Design Traffic Sig. Mod.	N/A	\$0.00
Preliminary Plan Submittal	5 sets X 90 Sheets X \$1.25/sheet =	\$562.50
Pre-Final Plan Submittal	5 sets X 90 Sheets X \$1.25/sheet =	\$562.50
	7 sets X 90 Sheets X \$1.25/sheet + 5 sets X 200	
Final PS&E	Sheets X \$0.15/sheet =	\$937.50
Construction Support	6 round trips X 60 miles X \$0.48/mile @ KDOT =	\$172.80

Total = \$2,681.70

Location: Orchard Road: Randall Road to Rochester Drive Section No.: 09-00272-01-TL Project No.: CMM-9003(206) Job No.: D-91-263-09 Type of Funding: STA

# SCOPE OF WORK

# **INTRODUCTION**

This agreement provides for engineering services to prepare a PS&E package for the upgrade of traffic signal interconnect along Orchard Road from Rochester Street to Randall Road.

The work will be accomplished as detailed in the following 10 tasks.

TASK 1 TASK 2	Coordination, Review Meetings and Project Management Obtain Roadway Plans and pre-inventory meeting
TASK 3	Field Review and Inventory with KDOT traffic engineering/signal maintenance staff
TASK 4	Design cable route using existing conduit and potential new conduit
TASK 5	Design field communications to vendor requirements and future uses
TASK 6	Design traffic signal modernization
TASK 7	Prepare Preliminary Plan sheets
TASK 8	Prepare Pre-final plan sheets
TASK 9	Prepare final PS&E package
TASK 10	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 KCDOT coordinate the upgrade 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.

# Location: Orchard Road: Randall Road to Rochester Drive Section No.: 09-00272-01-TL Project No.: CMM-9003(206) Job No.: D-91-263-09 Type of Funding: STA

- 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 KCDOT 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 signal system interconnect. 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.
- Signal system or intersection controller software and versions if available
- Meeting with Kane County staff
- 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:

• Base maps will be available in pdf format and scanned by Delcan. No survey work will be required.

# 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 and communications network.

#### ACTIVITIES TO BE COMPLETED BY DELCAN:

- Open every cabinet along Orchard Road in the project area
- 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

#### Deliverables to Kane County:

• Documentation of field review including notes, photographs, and inventory summary

#### ASSUMPTIONS

• None

# TASK 4: DESIGN CABLE ROUTE (EXISTING AND POTENTIAL NEW CONDUIT)

#### PURPOSE:

The purpose of this task is to complete and/or update the existing fiber optic cable route to maximize the use of existing conduit if possible, while still meeting the goal of establishing an Ethernet based communications network.

#### INPUTS:

- Pre-inventory meeting minutes
- Field inventory notes, pictures, summary
- Existing base map with existing conduit run

#### ACTIVITIES TO BE COMPLETED BY DELCAN:

- Design and/or update cable route for fiber backbone
- Calculate conduit fills for existing conduit they may be re-used

#### Deliverables to Kane County:

• Draft cable route design for review

#### Assumptions

• Cable route is established and will only need to be verified and checked for conduit sizing requirements.

# TASK 5: DESIGN FIELD COMMUNICATIONS TO KCDOT 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:

- If necessary, meet with traffic signal vendor
- Design communications network to vendor and Kane County standards and potential future use

#### Deliverables to Kane County:

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

#### ASSUMPTIONS:

• Existing radio interconnect sections will not need an RF analysis for upgrade to Ethernet communications.

# TASK 6: DESIGN TRAFFIC SIGNAL MODERNIZATION

#### PURPOSE:

The purpose of this task is to design the upgrades needed to modernize the existing traffic signal installations to current KDOT standards.

#### INPUTS:

- KDOT standards for traffic signal installations
- KDOT Orchard Road System Modernization Recommendations spreadsheet (attached).
- Field review inventory and summary of existing traffic signal installations. Items to be included in the review include:
  - o Controller and software
  - Phase designations and phase rotation
  - o Controller cabinet, poles, and mast arms
  - o Existing/Desired Emergence vehicle pre-emption
  - o Signal head size and type (LED vs. Incandescent)
  - o Existing/Desired video detection
  - Existing/Desired PTZ camera

#### ACTIVITIES TO BE COMPLETED BY DELCAN:

- If necessary, meet with KDOT staff to finalize upgrades recognized and recommended by KDOT staff
- Design signal upgrades to Kane County standards

#### Deliverables to Kane County:

• Signal upgrade plan summary by signal installation location for review and final input into Task 7.

#### ASSUMPTIONS:

- The following upgrade recommendation items will not require signal or cable plan sheets but will be provided in the schedule of quantities and the specifications:
  - MMU with Ethernet port
  - EPAC M52 traffic signal controller with Ethernet port
  - UPS with Ethernet port and new cabinet
  - o EVP confirmation beacon to LED
  - Traffic signal cabinet TS2 type 1
  - Upgrade of Pedestrian signals to countdown timers
- The following upgrade recommendation items will require signal and/or cable plan sheets:
  - Remote controlled video monitoring system with PTZ camera
  - Additional grounding of signal installation
  - Upgrade of video detection system (cameras and processor)

# 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
- 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:

• None

# TASK 8: PREPARE PRE-FINAL PLAN SHEETS

#### 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

- 2 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 for Orchard Road.

#### 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:

• 2 week turn around time for KCDOT / IDOT review

# Location: Orchard Road: Randall Road to Rochester Drive Section No.: 09-00272-01-TL Project No.: CMM-9003(206) Job No.: D-91-263-09 Type of Funding: STA

# TASK 10: 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 updated communication interconnect

#### ACTIVITIES TO BE COMPLETED BY DELCAN:

- Timely response to County and Contractor questions
- Field set-up, configuration and testing of communications equipment

#### Deliverables to Kane County:

• Completed and tested Fiber optic Ethernet interconnect for the Orchard Road signal system.

#### ASSUMPTIONS:

• None

ID	0	Task Name		Duration	Start	Finish	4th Quarter 1s Oct Nov Dec Ja	t Quarter n  Feb   Mar	2nd Quarter Apr May Jun	3rd Quarter Jul Aug Sep	4th Quar Oct No
1		Project Managem Meetings	ent, Coordination, and	258 days	Wed 11/4/09	Fri 10/29/10					
2		Pre-Meeting/C	Obtain Plans	2 days	Wed 11/4/09	Thu 11/5/09	Į				
3		Field Review a	and Inventory	5 days	Mon 11/9/09	Fri 11/13/09	Q				
4		Design Cable	Route	10 days	Mon 11/16/09	Fri 11/27/09	<u></u>				
5		Design Field C	Communication	40 days	Mon 11/30/09	Fri 1/22/10		<u>〕</u>			
6	11 M	Design Traffic	Signal Modernization	40 days	Mon 12/7/09	Fri 1/29/10	<u>esteroresterore</u>	<u>ei.</u> )			
7		Preliminary Pl	an Submittal	100 days	Mon 12/14/09	Fri 4/30/10	Contraction of the Contraction o				
8		Plan Review K	DOT and IDOT	10 days	Mon 5/3/10	Fri 5/14/10					
9		Pre-final Plan	Submittal	40 days	Mon 5/17/10	Fri 7/9/10					
10		Plan Review K	DOT and IDOT	10 days	Mon 7/12/10	Fri 7/23/10					
11		Final PS&E		30 days	Mon 8/2/10	Fri 9/10/10				-	
12		Construction	Support	5 days	Mon 10/25/10	Fri 10/29/10					Q
Interd	conne	rchard Road ect Schedule r 3, 2009	Task Constraints Split Progress Constraints	Su	estone mmary oject Summary		External Task External Miles Deadline				