



CITY of NOVI CITY COUNCIL

Agenda Item K
September 28, 2009

SUBJECT: Approval to award a contract for design engineering services for the Beck Road/Cider Mill Signal to URS Corporation (URS) for a not-to-exceed design fee of \$12,197.19.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division

CITY MANAGER APPROVAL:  *R24* *BTC*

EXPENDITURE REQUIRED	\$12,197.19
AMOUNT BUDGETED	\$210,000
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	202-202.00-863.092

BACKGROUND INFORMATION:

As part of the Beck Road Scoping Study and Beck Road Paving Project in 2007, a traffic signal warrant study was completed by our traffic consultant at the time, Orchard Hiltz & McCliment. The study determined that a new traffic signal is warranted at Beck Road and Cider Mill Boulevard. The intersection was widened when Beck Road was repaved in 2007 in anticipation of the future signal. This installation of the traffic signal was approved in the 2009-10 Capital Improvement Program, however staff has recommended deferring construction of the project until 2010-11 so the funds can be used for the Novi Road Paving (Grand River Avenue to 12 Mile Road) that is currently underway. The design of the project is being proposed now so that when funding is available in the future (including grant opportunities should they arise), the project will be ready for construction. The signal construction will also include upgrades to the sidewalk ramps within the intersection to comply with Americans with Disabilities Act standards. The signal design and construction will be coordinated with Road Commission for Oakland County staff, who will maintain the signal for the City once in operation. A location map has been enclosed for reference.

This project is one of the first to be awarded under the new engineering consultant selection process, which was approved by City Council on August 10, 2009. Under the new process, three engineering consultants were pre-qualified, and each consultant will be awarded future projects on a rotating basis. The new process is governed by the Agreement for Professional Engineering Services for Public Projects, which has been executed by each consultant. Each project will be presented to Council for consideration of award with an accompanying supplemental agreement which will provide details related to a specific project's scope, budget and schedule.

URS's engineering fees are based on the fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects (the fee tables from the agreement are attached). The design fees for this project will be \$12,197.19 (8.75% of the estimated construction cost). The construction phase engineering fees will be awarded at the time of construction award and will be based on the contractor's bid price and the fee percentage established in the Professional Engineering Services for Public Projects. URS's proposed scope, estimate and budget and the draft supplementary agreement are enclosed.

URS has completed engineering services on many recent signal and roadway projects for the City including the Beck Road Repaving project, the Beck/Ten Mile Intersection project, the traffic signal upgrades for 13 Mile Road and Meadowbrook Road and 14 Mile Road and Novi Road, and the 2007 and 2008 Neighborhood Road Programs. Once funding is made available, construction of the signal is anticipated to begin in the spring of 2010 and be completed in July of 2010.

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the Beck Road/Cider Mill Signal to URS Corporation (URS) for a not-to-exceed design fee of \$12,197.19.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Gatt				
Council Member Burke				
Council Member Crawford				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Staudt				



cityofnovi.org

MEMORANDUM

TO: ROB HAYES, P.E.; DPS DIRECTOR/CITY ENGINEER
 FROM: BRIAN COBURN, P.E.; SENIOR CIVIL ENGINEER
 SUBJECT: NOVI ROAD REPAVING (GRAND RIVER TO 12 MILE)
 DATE: JUNE 18, 2009

6/18/09
 To: Mayor and City Council Members

Big needed project to resurface highly travelled Novi Rd; other upgrades. Project cost beyond Fed \$, need nearly \$800K City money to complete, take advantage of Fed \$.

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The Road Commission for Oakland County (RCOC) has submitted the final set of plans to Michigan Department of Transportation (MDOT) on June 16 for the Novi Road Repaving project from Grand River Avenue to 12 Mile Road. The submittal is for the construction of the first of two projects proposed along this segment of Novi Road, which includes the repair, mill and overlay of the road along with the extension of the northbound right turn lane from the northern entrance to Twelve Oaks to 12 Mile Road.

The second project has been deferred by RCOC until spring 2010 to allow additional time for the easements acquisitions required to complete the work. The second project will include the replacement of the traffic signals from Grand River Avenue to 12 Mile Road (excluding the signals at the I-96 off ramps which are under MDOT control) to decorative mast arms and the construction of accessible sidewalk ramps at the intersections to meet the requirements of the Americans with Disabilities Act (ADA).

The submittal to MDOT this week puts the project in line for an August 2009 bid letting. We anticipate confirmation of the bid letting from MDOT to come shortly. This would allow construction to begin in early September with a completion in early November (before the shopping season begins).

In the last update memo, it was anticipated that future tri-party money could be allocated for the City's share of the project costs. We have since learned that the tri-party program will be terminated. The City's share of the costs for the repaving project are approximately \$420,000 (previously \$140,000 using tri-party funding), of which \$210,000 would be due following execution of the cost sharing agreement (anticipated for City Council consideration in July) and the remaining \$210,000 would be due at the completion of the project in November. After reviewing the options for funding, we are recommending a deferral of the Beck Road and Cider Mill traffic signal installation (\$200,000) to facilitate the funding of the Novi Road repaving project.

Please let me know if you have any questions in this regard.

cc: Kathy Smith-Roy, Finance Director

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#49841 NOVI ROAD, GRAND RIVER TO 12 MILE

Proposed Federal Aid Project

(Fall 09)

-3R Work to be done with ARRA money (not including signal work, ADA ramps/crossings, channelization island removal):

Contractor Payment	
- participating	\$1,418,000
- non-participating	14,000
	<u>1,432,000</u>
C.E. (15% of participating)	215,000
Force Account -- Signing	11,000
(constr and perm, by RCOC)	
	<u>\$1,656,000</u>

Available Funding:

ARRA Funding:
Local Match Req'd

\$827,000 ← Federal Stimulus
\$829,000 / 2 (w/RCOC)

Proposed Future Local Project - (To occur simultaneously with Fed project)

(Spring 2010)

-Signalization project (includes 3 signals, ADA work, removal of channelization island, and replacement of rad. at widening).

Contractor payments	\$640,000
C.E. (15% of participating)	96,000
Force Account -- TOC	60,000
(signal controller programming)	
	<u>\$796,000</u>

Available Funding:

Local Match Req'd

\$796,000 / 2 (w/RCOC)

Total Project Cost:

\$2,452,000 ←

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

City Of Novi



Beck Road and Cider Mill Signal



SUPPLEMENTAL ENGINEERING AGREEMENT

BECK ROAD/CIDER MILL SIGNAL

This Agreement shall be considered as made and entered into as of the date of the last signature hereon, and is between the City of Novi, 45175 W. Ten Mile Road, Novi, MI 48375-3024, hereafter, "City," and URS Corporation – Great Lakes., whose address is 27777 Franklin Road, Suite 2000, Southfield, MI 48034, hereafter, "Engineer."

RECITALS:

This Agreement shall be supplemental to, and hereby incorporates the terms and conditions of the AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES FOR PUBLIC PROJECTS, and attached exhibits, entered into between the City and the Engineer on _____, 2009.

Project includes the design of a traffic signal and sidewalk ramp upgrades at the intersection of Beck Road and Cider Mill Road.

NOW, THEREFORE, in consideration of the foregoing, the City and Engineer agree as follows:

Section 1. Work

For and in consideration of payment by the City as provided under the "Payment for Engineering Services" section of this Agreement, Engineer shall perform the work described in the manner provided or required by the following Contract Documents, which are attached to and made a part of this Agreement as Exhibit A, all of said work to be done in a competent, efficient, timely, good and workmanlike manner and in compliance with all terms and conditions of this Agreement.

Exhibit A	Work Description
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Section 2. Payment for Engineer Services.

1. Basic Fee.
 - a. Design Phase Services: The Engineer shall complete the design phase services as described herein for a lump sum fee of \$10,092.60, which is 12.00% of the estimated construction cost (\$84,105.00) as indicated on the Design and Construction Engineering Fee Curve, attached.
 - b. Construction Phase Services will be awarded at the time of construction award, should it occur.

2. Payment Schedule for Basic Fee.

Engineer shall submit monthly statements for Basic Services rendered. The statements shall be based on Engineer's estimate of the proportion of the total services actually completed for each task as set forth in Exhibit A at the time of billing. The City shall confirm the correctness of such estimates, and may use the City's own Engineer for such purposes. The monthly statements should be accompanied by such properly completed reporting forms and such other evidence of progress as may be required by the City. Upon such confirmation, the City shall pay the amount owed within 30 days.

Final billing under this agreement shall be submitted in a timely manner but not later than three (3) months after completion of the services. Billings for work submitted later than three (3) months after completion of services will not be paid. Final payment will be made upon completion of audit by the City.

3. Payment Schedule for Expenses.

All expenses required to complete the scope of services described herein, including but not limited to costs related to mileage, vehicles, reproduction, computer use, etc., shall be included in the basic fee and shall not be paid separately. However, as compensation for expenses that are not included in the standard scope of services, when incurred in direct connection with the project, and approved by the City, the City shall pay the Engineer its actual cost times a factor of 1.15.

Section 4. Ownership of Plans and Documents; Records.

1. Upon completion or termination of this agreement, all documents prepared by the Engineer, including tracings, drawings, estimates, specifications, field notes, investigations, studies, etc., as instruments of service shall become the property of the City.

2. The City shall make copies, for the use of the Engineer, of all of its maps, records, laboratory tests, or other data pertinent to the work to be performed by the Engineer under this Agreement, and also make available any other maps, records, or other materials available to the City from any other public agency or body.

3. The Engineer shall furnish to the City, copies of all maps, records, field notes, and soil tests that were developed in the course of work for the City and for which compensation has been received by the Engineer.

Section 5. Termination.

1. This Agreement may be terminated by either party upon 7- days' prior written notice to the other party in the event of substantial failure by the other party to fulfill its obligations under this agreement through no fault of the terminating party.

2. This Agreement may be terminated by the City for its convenience upon 90 days' prior written notice to the Engineer.

3. In the event of termination, as provided in this Article, the Engineer shall be paid as compensation in full for services performed to the date of that termination, an amount calculated in accordance with Section 2 of this Agreement. Such amount shall be paid by the City upon the Engineer's delivering or otherwise making available to the City, all data, drawings, specifications, reports, estimates, summaries, and that other information and materials as may have been accumulated by the Engineer in performing the services included in this Agreement, whether completed or in progress.

Section 6. Disclosure.

The Engineer affirms that it has not made or agreed to make any valuable gift whether in the form of service, loan, thing, or promise to any person or any of the person's immediate family, having the duty to recommend, the right to vote upon, or any other direct influence on the selection of consultants to provide professional design services to the City within the two years preceding the execution of this Agreement. A campaign contribution, as defined by Michigan law shall not be considered as a valuable gift for the purposes of this Agreement.

Section 7. Insurance Requirements.

1. The Engineer shall maintain at its expense during the term of this Agreement, the following insurance:

- A. Worker's Compensation insurance relative to all Personnel engaged in performing services pursuant to this Agreement, with coverage not less than that required by applicable law.
- B. Comprehensive General Public Liability insurance with maximum bodily injury limits of \$3,000,000 (Three Million Dollars) each occurrence and/or aggregate and minimum Property Damage limits of \$3,000,000 (Three Million Dollars) each occurrence and/or aggregate.
- C. Automotive Liability insurance covering all owned, hired, and non-owned vehicles with Personal Protection insurance to comply with the provisions of the Michigan No Fault Insurance Law including Residual Liability insurance with minimum bodily injury limits of \$3,000,000 (Three Million Dollars) each occurrence and/or aggregate minimum property damage limits of \$3,000,000 (Three Million Dollars) each occurrence and/or aggregate.
- D. The Engineer shall provide proof of Professional Liability coverage in the amount of not less than \$3,000,000 (Three Million Dollars) per occurrence and/or aggregate, and Environmental Impairment coverage.

2. The Engineer shall be responsible for payment of all deductibles contained in any insurance required hereunder.

3. If during the term of this Agreement changed conditions or other pertinent factors should in the reasonable judgment of the City render inadequate insurance limits, the Engineer will furnish on demand such additional coverage as may reasonably be required under the

circumstances. All such insurance shall be effected at the Engineer's expense, under valid and enforceable policies, issued by the insurers of recognized responsibility which are well-rated by national rating organizations and are acceptable to the City.

4. All policies shall name the Engineer as the insured and shall be accompanied by a commitment from the insurer that such policies shall not be canceled or reduced without at least thirty (30) days prior notice to the City.

All insurance policies shall name the City of Novi, its officers, agents, and employees as additional insured. Certificates of Insurance evidencing such coverage shall be submitted to Sue Morianti, Purchasing Manager, City of Novi, 45175 West Ten Mile Road, Novi, MI 48375-3024 prior to commencement of performance under this Agreement and at least fifteen (15) days prior to the expiration dates of expiring policies.

5. If any work is sublet in connection with this Agreement the Engineer shall require each subcontractor to effect and maintain at least the same types and limits of insurance as fixed for the Engineer.

6. The provisions requiring the Engineer to carry said insurance shall not be construed in any manner as waiving or restricting the liability of the Engineer under this Agreement.

Section 8. Indemnity and Hold Harmless.

A. The Engineer agrees to indemnify and hold harmless the City, its elected and appointed officials and employees, from and against any and all claims, demands, suits, losses and settlements, including actual attorney fees incurred and all costs connected therewith, for any damages which may be asserted, claimed or recovered against the City by reason of personal injury, death and/or property damages which arises out of or is in any way connected or associated with the actions or inactions of the Engineer in performing or failing to perform the work.

The Engineer agrees that it is its responsibility and not the responsibility of the City to safeguard the property and materials used in performing this Agreement. Further, this Engineer agrees to hold the City harmless for any loss of such property and materials used pursuant to the Engineer's performance under this Agreement.

Section 9. Nondiscrimination.

The Engineer shall not discriminate against any employee, or applicant for employment because of race, color, sex, age or handicap, religion, ancestry, marital status, national origin, place of birth, or sexual preference. The Engineer further covenants that it will comply with the Civil Rights Act of 1973, as amended; and the Michigan Civil Rights Act of 1976 (78. Stat. 252 and 1976 PA 4563) and will require a similar covenant on the part of any consultant or subcontractor employed in the performance of this Agreement.

Section 10. Applicable Law.

This Agreement is to be governed by the laws of the State of Michigan and the City of Novi Charter and Ordinances.

Section 11. Approval; No Release.

Approval of the City shall not constitute nor be deemed release of the responsibility and liability of Engineer, its employees, associates, agents and consultants for the accuracy and competency of their designs, working drawings, and specifications, or other documents and work; nor shall that approval be deemed to be an assumption of that responsibility by the City for any defect in the designs, working drawings and specifications or other documents prepared by Engineer, its employees, subcontractor, agents and consultants.

After acceptance of final plans and special provisions by the City, Engineer agrees, prior to and during the construction of this project, to perform those engineering services as may be required by City to correct errors or omissions on the original plans prepared by Engineer and to change the original design as required.

Section 12. Compliance With Laws.

This Contract and all of Engineer's work and practices shall be subject to all applicable state, federal and local laws, rules or regulations, including without limitation, those which apply because the City is a public governmental agency or body. Engineer represents that it is in compliance with all such laws and eligible and qualified to enter into this Agreement.

Section 13. Notices.

Written notices under this Agreement shall be given to the parties at their addresses on page one by personal or registered mail delivery to the attention of the following persons:

City: Rob Hayes, P.E., Director of Public Services and Maryanne Cornelius, Clerk, with a copy to Thomas R. Schultz, City Attorney

Engineer: Matt Klawon, Manager, Traffic and ITS Engineering

Section 14. Waivers.

No waiver of any term or condition of this Agreement shall be binding and effective unless in writing and signed by all parties, with any such waiver being limited to that circumstance only and not applicable to subsequent actions or events.

Section 15. Inspections, Notices, and Remedies Regarding Work.

During the performance of the work by Engineer, City shall have the right to inspect the work and its progress to assure that it complies with this Agreement. If such inspections reveal a defect in the work performed or other default in this Agreement, City shall provide Engineer with written notice to correct the defect or default within a specified number of days of the notice. Upon receiving such a notice, Engineer shall correct the specified defects or defaults

within the time specified. Upon a failure to do so, the City may terminate this Agreement by written notice and finish the work through whatever method it deems appropriate, with the cost in doing so a valid claim and charge against Engineer, or, preserve the claims of defects or defaults without termination by written notice to Engineer.

All questions which may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, and the interpretation of plans and specifications shall be decided by the City. All questions as to the satisfactory and acceptable fulfillment of the terms of this agreement shall be decided by the City.

Section 16. Delays.

No charges or claims for damages shall be made by the Engineer for delays or hindrances from any cause whatsoever during the progress of any portions of the services specified in this agreement, except as hereinafter provided.

In case of a substantial delay on the part of the City in providing to the Engineer either the necessary information or approval to proceed with the work, resulting, through no fault of the Engineer, in delays of such extent as to require the Engineer to perform its work under changed conditions not contemplated by the parties, the City will consider supplemental compensation limited to increased costs incurred as a direct result of such delays. Any claim for supplemental compensation must be in writing and accompanied by substantiating data.

When delays are caused by circumstances or conditions beyond the control of the Engineer as determined by the City, the Engineer shall be granted an extension of time for such reasonable period as may be mutually agreed upon between the parties, it being understood, however, that the permitting of the Engineer to proceed to complete the services, or any part of them, after the date to which the time of completion may have been extended, shall in no way operate as a waiver on the part of the City of any of its rights herein set forth.

Section 17. Assignment.

No portion of the project work, heretofore defined, shall be sublet, assigned, or otherwise disposed of except as herein provided or with the prior written consent of the City. Consent to sublet, assign, or otherwise dispose of any portion of the services shall not be construed to relieve the Engineer of any responsibility for the fulfillment of this agreement.

Section 18. Dispute Resolution.

The parties agree to try to resolve any disputes as to contract administration or otherwise in good faith. In the event that the parties cannot resolve any reasonable dispute, the parties agree to seek alternative dispute resolution methods agreeable to both parties and which are legally permissive at the time of the dispute. The parties agree to use their best efforts to resolve any good faith dispute within 90 (ninety) days notice to the other party. In the event the parties cannot resolve that dispute as set forth above, they may seek such remedies as may be permitted by law.

WITNESSES

By: _____

Its: _____

The foregoing _____ was acknowledged before me this _____ day of _____,
200__, by _____ on behalf

Notary Public

_____ County, Michigan

My Commission Expires: _____

WITNESSES

By: _____

Its: _____

The foregoing _____ was acknowledged before me this _____ day of _____,
200__, by _____ on behalf of the City of Novi.

Notary Public

Oakland County, Michigan

My Commission Expires: _____

EXHIBIT A - WORK DESCRIPTION

Engineer shall provide the City professional engineering services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as the City's professional engineering representative for the Project, providing professional engineering consultation and advice and furnishing customary civil, structural, mechanical and electrical engineering services and customary engineering services incidental thereto, as described below.

A. Basic Services.

[see attached]

B. Performance.

1. The Engineer agrees that, immediately upon the execution of this Agreement, it will enter upon the duties prescribed in this agreement, proceed with the work continuously, and make the various submittals on or before the schedule specified here. The City is not liable and will not pay the Engineer for any services rendered before written authorization is received by the Engineer.
2. The Engineer shall submit:

[insert any time limits for submission of plans, etc.]
3. If any delay is caused to the Engineer by order of the City to change the design or plans, or by failure of the city to designate right-of-way, or to supply or cause to be supplied any data not otherwise available to the Engineer that is required in performing the work described; or by other delays due to causes entirely beyond the control of the Engineer; then, in that event, the time schedules will be adjusted equitably in writing, as mutually agreed between the City and the Engineer at the moment a cause for delay occurs.
4. Since the work of the Engineer must be coordinated with the activities of the City (including firms employed by and governmental agencies and subdivisions working with the City), the Engineer shall advise the City in advance, of all meetings and conferences between the Engineer and any party, governmental agency, political subdivision, or third party which is necessary to the performance of the work of the Engineer.



September 16, 2009

Mr. Brian Coburn, PE
City of Novi

Reference: Traffic Signal Design – Beck Road and Cider Mill Road

Mr. Coburn,

URS will participate in the completion of the following tasks as part of this contract and as discussed in our scope verification meeting:

Task 1 – RCOC Field Review Meeting

The intent of the field review meeting is to evaluate the site and develop the requirements for operations of this traffic signal in the overall countywide corridor. Since this signal is located on a SCATS corridor, both side street and main street vehicle detection will be required. Also a communications link will have to be established to the central SCATS system.

There should be a representative from the City of Novi, RCOC, and Detroit Edison Company in attendance at the meeting.

Upon completion of this meeting, the following tasks will begin in earnest:

- Utility Company solicitation for any facilities located in the vicinity of the project locations.

Task 2 – Survey

The intent of this task is to provide topographic survey mapping of the intersection in support of the project design engineer and leave control in the field for future construction.

Control - It is understood the control for this project has been set as a result of previous work by the City of Novi in the project area and that the use of the existing control will be suitable for this project.

Property - The Property component will focus on a review of available PLSS corners, right of way information, plats, deeds, and ownership information to sufficiently represent the right of way on the plan sets.

Mapping - The Mapping component will focus on that area from the existing curb and gutter to the right of way extents including sidewalk and sidewalk ramps. Data should be sufficiently detailed to determine ADA compliance of existing pedestrian facilities.



September 16, 2009

City of Novi
Traffic Signal Design
Beck Road and Cider Mill Road

Task 3 – Base Plans

URS will prepare base plans (20-30% complete) to identify the major design features and impact of the traffic signal design to the surrounding area. Most notably, these plans will be used by the City to ensure RCOC agreement with the proposed design. These plans will also be used to further the utility investigation and resolution of potential conflicts, geotechnical investigations, and right-of-way investigation/determinations, as well as generate comments regarding the layout of the traffic signal equipment by the stakeholders.

Included in this submittal, URS will prepare a plan showing ADA-compliant sidewalk ramps, landing areas, and pedestrian signals. On past projects, RCOC has requested that the ADA drawing is submitted and approved prior to designing the actual layout of the signals.

Base plans will include the results of the survey information, utility information from response to our solicitations, and the location of the primary traffic signal components.

Task 4 – Utilities

URS will distribute the base plan design set to the utility companies that have indicated that they have facilities in the project area. URS will incorporate the additional information that utility companies provide to URS into the plan set. On-site meetings may be necessary to further clarify coordination and clearance of particular overhead and underground utility facilities.

Task 5 – Preliminary Plans

Incorporating the information obtained from the above tasks, URS will prepare the preliminary plan set (90%) and proposal package. This submission will include items such as the utility locations, wiring diagrams, materials/quantities, detailed sidewalk/ramps, and applicable soil boring information. Also a draft submission of a City of Novi advertisement package will be submitted at this time.

Task 6 – Final Plans and Proposal

Incorporating comments from the City and RCOC on the preliminary plan set, URS will develop the Final plans and proposal to be submitted. The final plans and proposal will be used by the City to advertise and award a contract to perform the traffic signal modernization at the subject location.

Schedule

Upon notification to proceed, it is estimated that the following schedule could be maintained:

Task 1 – RCOC Field Review Meeting	Week 1
Task 2 – Survey	Week 1
Task 3 – Base Plans	Week 2
Task 4 – Utilities	Weeks 2 - 12
Task 5 – Preliminary Plans	Week 9
Task 6 – Final Plans and Proposal	Week 13



September 16, 2009

City of Novi
Traffic Signal Design
Beck Road and Cider Mill Road

Estimated Construction Duration

It is estimated that construction will take approximately twelve to sixteen weeks. The construction schedule is dependent upon the contractor that is awarded the work and availability of materials as well as RCOC time required to program the devices prior to implementation.

Preconstruction Meeting	April 2010
Underground Construction Complete	May 2010
Overhead Construction and Restoration Complete	June 2010
Close Out	July 2010

Estimated Cost of Construction

Preliminary conversations with the Road Commission for Oakland County indicate that an RCOC force account fee of approximately \$40,000 will be required for RCOC to provide and program various components of the traffic signal as well as general inspection of the signal prior to RCOC maintenance of the device.

Shown on the next page is the URS detailed construction estimate that was used to develop our cost in accordance with the approved fee curves from the City of Novi.

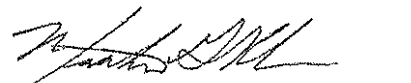
Traffic Signal Estimate - Beck and Cider Mill, City of Novi						Total	Unit	Total
Item Code	Description	Units	XX	Quantity	Price	Price	Cost	
8190261	Hh, Square	Ea	4	4	\$1,250.00		\$5,000.00	
8200035	Controller and Cabinet, Solid State Actuated	Ea	1	1	\$3,000.00		\$3,000.00	
8200036	Controller and Cabinet, Solid State Actuated, Delivered	Ea	1	1	\$17,500.00		\$17,500.00	
8200045	Controller Fdn, Base Mount	Ea	1	1	\$1,200.00		\$1,200.00	
8200120	Pushbutton	Ea	4	4	\$650.00		\$2,600.00	
8200121	Pushbutton and Sign	Ea	4	4	\$500.00		\$2,000.00	
8200123	Pushbutton Pedestal, Alum	Ea	4	4	\$550.00		\$2,200.00	
8200135	Serv Disconnect	Ea	1	1	\$750.00		\$750.00	
8200140	Span Wire	Ea	4	4	\$600.00		\$2,400.00	
8200155	Strain Pole, Steel, Anchor Base, 30 foot	Ea	4	4	\$3,650.00		\$14,600.00	
8200165	Strain Pole, Steel, Anchor Fdn	Ea	4	4	\$2,800.00		\$11,200.00	
8200022	Case Sign (LED), Two Way, 24 inch by 30 inch	Ea	2	2	\$2,250.00		\$4,500.00	
8200313	TS, One Way Span Wire Mtd (LED)	Ea	8	8	\$1,000.00		\$8,000.00	
8200339	TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	Ea	4	4	\$1,650.00		\$6,600.00	
8200378	Bracket, Truss, With 18 Foot Arm	Ea	4	4	\$900.00		\$3,600.00	
8207051	Underground service feed	LS	1	1	\$10,000.00		\$10,000.00	
8190026	Conduit, DB, 1, 1 1/4 inch	Ft	150	150	\$10.00		\$1,500.00	
8190029	Conduit, DB, 1, 3 inch	Ft	100	100	\$10.00		\$1,000.00	
8190032	Conduit, DB, 2, 3 inch	Ft	15	15	\$13.50		\$202.50	
8190036	Conduit, DB, 3, 4 inch	Ft	5	5	\$25.00		\$125.00	
8110035	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	Ft	450	450	\$4.00		\$1,800.00	
8110040	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	Ft	120	120	\$15.00		\$1,800.00	
8120077	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	100	100	\$1.00		\$100.00	
8127051	Maintenance of Traffic	LS	1	1	\$10,000.00		\$10,000.00	
2040006	Curb and Gutter, Rem	Ft	200	200	\$10.00		\$2,000.00	
2040011	Pavt, Rem	Syd	35	35	\$10.00		\$350.00	
2050016	Excavation, Earth	Cyd	32	32	\$8.00		\$256.00	
3010002	Subbase, CIP	Cyd	8	8	\$20.00		\$160.00	
3020002	Aggregate Base, LM	Cyd	28	28	\$30.00		\$840.00	
5020061	HMA, Approach	Ton	2	2	\$150.00		\$300.00	
6020052	Conc Pavt, Misc, Nonreinf, 7 inch	Syd	20	20	\$80.00		\$1,600.00	
8020015	Curb and Gutter, Conc, Det B1	Ft	200	200	\$25.00		\$5,000.00	
8030002	Sidewalk, Conc, 4 inch	Sft	575	575	\$5.00		\$2,875.00	
8030011	Sidewalk Ramp, ADA	Sft	720	720	\$10.00		\$7,200.00	
8160050	Slope Restoration	Syd	100	100	\$5.00		\$500.00	
	RCOC Force Account Fees (Est \$40,000, inc. video detectors)	LS	1	1			\$0.00	
	Construction Contingency 10% of Subtotal (Est. \$13,276)	LS	1	1			\$0.00	
					Sub-Total		\$132,758.50	
					5% Mobilization		\$6,637.93	
					Total		\$139,396.43	

Design Fee	8.75%	\$12,197.19
Construction Admin	5.30%	\$7,388.01
Inspection (at \$615 per day)	15	\$9,225.00

The summary total of the URS fees related to the Beck Road at Cider Mill traffic signal design and installation project would be in the amount of **\$28,810.20**. Please contact our project manager Matt Klawon at (248) 204-4921 or Jan Hauser our client manager for the City of Novi at (248) 204-4140 with any additional questions.

URS Corporation -- Great Lakes


Ron Henry, AIA NCARB
Vice President, General Manager
Michigan Operations


Matthew G. Klawon
Manager, Traffic and ITS Engineering

**EXHIBIT B
ENGINEERING FEES BY CONSTRUCTION VALUE AND TYPE OF PROJECT**

COST OF CONSTRUCTION From To		ROAD CONSTRUCTION			ROAD REHABILITATION			SIDEWALKS & PATHWAYS		
		Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)	Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)	Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)
\$ -	\$ 50,000	11.50%	8.00%	\$615.00	10.00%	6.00%	\$615.00	13.00%	8.00%	\$615.00
\$ 50,001	\$ 75,000	11.00%	7.50%	\$615.00	9.50%	6.00%	\$615.00	12.50%	7.50%	\$615.00
\$ 75,001	\$ 100,000	10.75%	7.50%	\$615.00	9.25%	6.00%	\$615.00	12.00%	7.50%	\$615.00
\$ 100,001	\$ 125,000	10.30%	7.00%	\$615.00	8.80%	5.50%	\$615.00	11.70%	7.00%	\$615.00
\$ 125,001	\$ 150,000	10.15%	7.00%	\$615.00	8.65%	5.50%	\$615.00	11.20%	7.00%	\$615.00
\$ 150,001	\$ 200,000	9.75%	7.00%	\$615.00	8.25%	5.50%	\$615.00	10.70%	7.00%	\$615.00
\$ 200,001	\$ 300,000	9.30%	7.00%	\$615.00	7.80%	5.00%	\$615.00	10.00%	6.50%	\$615.00
\$ 300,001	\$ 400,000	8.90%	7.00%	\$615.00	7.40%	5.00%	\$615.00	9.40%	6.50%	\$615.00
\$ 400,001	\$ 500,000	8.50%	6.50%	\$615.00	7.00%	4.50%	\$615.00	8.90%	6.50%	\$615.00
\$ 500,001	\$ 750,000	7.75%	6.40%	\$615.00	6.25%	4.00%	\$615.00	8.20%	6.00%	\$615.00
\$ 750,001	\$ 1,000,000	7.10%	6.00%	\$615.00	5.60%	3.25%	\$615.00	7.90%	5.50%	\$615.00
\$ 1,000,001	\$ 2,000,000	6.35%	5.30%	\$615.00	4.85%	2.50%	\$615.00	7.50%	5.00%	\$615.00
\$ 2,000,001	\$ 3,000,000	6.00%	4.50%	\$615.00	4.50%	2.25%	\$615.00	7.10%	4.50%	\$615.00
\$ 3,000,001	\$ 5,000,000	5.78%	4.10%	\$615.00	4.28%	2.00%	\$615.00	6.90%	4.00%	\$615.00
\$ 5,000,001	\$ 7,500,000	5.60%	3.80%	\$615.00	4.10%	2.00%	\$615.00	6.70%	3.50%	\$615.00

COST OF CONSTRUCTION From To		WATER MAIN CONSTRUCTION			SANITARY/STORM SEWER CONSTRUCTION			SANITARY LIFT STATION UPGRADES		
		Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)	Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)	Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)
\$ -	\$ 50,000	11.00%	8.00%	\$615.00	11.50%	8.00%	\$615.00	20.00%	9.00%	\$615.00
\$ 50,001	\$ 75,000	10.50%	7.50%	\$615.00	11.00%	7.50%	\$615.00	17.00%	8.45%	\$615.00
\$ 75,001	\$ 100,000	10.00%	7.50%	\$615.00	10.50%	7.50%	\$615.00	14.75%	8.10%	\$615.00
\$ 100,001	\$ 125,000	9.50%	7.00%	\$615.00	10.50%	7.00%	\$615.00	12.80%	7.50%	\$615.00
\$ 125,001	\$ 150,000	9.00%	7.00%	\$615.00	10.00%	7.00%	\$615.00	11.40%	7.30%	\$615.00
\$ 150,001	\$ 200,000	8.40%	7.00%	\$615.00	9.50%	7.00%	\$615.00	10.50%	7.20%	\$615.00
\$ 200,001	\$ 300,000	8.00%	6.50%	\$615.00	9.50%	6.50%	\$615.00	9.80%	6.85%	\$615.00
\$ 300,001	\$ 400,000	7.40%	6.50%	\$615.00	9.50%	6.50%	\$615.00	9.20%	6.75%	\$615.00
\$ 400,001	\$ 500,000	7.25%	6.50%	\$615.00	9.00%	6.50%	\$615.00	8.70%	6.55%	\$615.00
\$ 500,001	\$ 750,000	6.90%	6.00%	\$615.00	9.00%	6.00%	\$615.00	8.10%	6.20%	\$615.00
\$ 750,001	\$ 1,000,000	6.50%	5.50%	\$615.00	8.50%	5.50%	\$615.00	7.80%	5.80%	\$615.00
\$ 1,000,001	\$ 2,000,000	6.30%	5.00%	\$615.00	8.00%	5.00%	\$615.00	7.30%	5.15%	\$615.00
\$ 2,000,001	\$ 3,000,000	6.10%	4.50%	\$615.00	7.50%	4.50%	\$615.00	6.90%	4.50%	\$615.00
\$ 3,000,001	\$ 5,000,000	6.00%	4.00%	\$615.00	7.00%	4.00%	\$615.00	6.70%	4.05%	\$615.00
\$ 5,000,001	\$ 7,500,000	5.90%	3.50%	\$615.00	6.50%	3.50%	\$615.00	6.50%	3.65%	\$615.00

COST OF CONSTRUCTION From To		DETENTION BASIN RETROFIT			TRAFFIC SIGNALS		
		Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)	Design Phase (% Construction)	Contract Admin (% Construction)	Inspection Fees (cost per crew day)
\$ -	\$ 50,000	14.00%	8.00%	\$615.00	14.00%	6.00%	\$615.00
\$ 50,001	\$ 75,000	13.25%	7.50%	\$615.00	12.35%	5.80%	\$615.00
\$ 75,001	\$ 100,000	12.75%	7.00%	\$615.00	11.00%	5.60%	\$615.00
\$ 100,001	\$ 125,000	11.85%	6.50%	\$615.00	9.75%	5.40%	\$615.00
\$ 125,001	\$ 150,000	11.35%	6.50%	\$615.00	8.75%	5.30%	\$615.00
\$ 150,001	\$ 200,000	10.85%	6.50%	\$615.00	7.70%	5.10%	\$615.00
\$ 200,001	\$ 300,000	10.25%	6.00%	\$615.00	6.98%	5.00%	\$615.00
\$ 300,001	\$ 400,000	9.70%	6.00%	\$615.00	6.30%	4.80%	\$615.00
\$ 400,001	\$ 500,000	9.20%	6.00%	\$615.00	6.00%	4.70%	\$615.00
\$ 500,001	\$ 750,000	8.60%	5.50%	\$615.00	5.50%	4.50%	\$615.00
\$ 750,001	\$ 1,000,000	8.20%	5.50%	\$615.00	4.75%	4.40%	\$615.00
\$ 1,000,001	\$ 2,000,000	7.70%	5.00%	\$615.00	4.25%	4.20%	\$615.00
\$ 2,000,001	\$ 3,000,000	7.20%	4.50%	\$615.00	4.00%	4.10%	\$615.00
\$ 3,000,001	\$ 5,000,000	6.80%	4.10%	\$615.00	3.75%	3.90%	\$615.00
\$ 5,000,001	\$ 7,500,000	6.40%	3.80%	\$615.00	3.50%	3.80%	\$615.00

Notes:

1. Design fees are determined by multiplying the construction cost estimate by the % fee shown in the above tables.
2. Contract Administration fees are determined by multiplying the contractor's bid by the % fee shown in the above tables.
3. Inspection fees are determined by multiplying the number of crew days provided by the contractor in the bid by the cost per crew day as defined above.