



CITY of NOVI CITY COUNCIL

Agenda Item ^D
January 4, 2010

SUBJECT: Approval to award a contract for design engineering services for the 2010 Regional Detention Basin Improvements to the C&O and Cedar Springs Regional Detention Basins to URS Corporation (URS) for a not-to-exceed design fee of \$30,791.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *B/C*

CITY MANAGER APPROVAL: *[Signature]* *A4*

EXPENDITURE REQUIRED	\$22,412 C&O Basin <u>\$ 8,379 Cedar Springs Basin</u> \$30,791 TOTAL
AMOUNT BUDGETED	\$289,085 C&O Basin <u>\$ 96,860 Cedar Springs Basin</u> \$385,945 TOTAL (Engineering and Construction)
LINE ITEM NUMBER	210-211.00-865.131 C&O Basin 210-211.00-865.134 Cedar Springs Basin

BACKGROUND INFORMATION:

The purpose of this project is to repair and improve two of the city's regional storm water detention basins: the C&O basin and the Cedar Springs basin. The C&O basin is located on city property north of Ten Mile east of the CSX railroad tracks, serves a considerably large area upstream along the Walled Lake Branch of the Middle Rouge River, and is the final storm water detention basin upstream of Meadowbrook Lake. The Cedar Springs basin is located on city property east of Christina Lane and serves an area to the west including a portion of Cedar Springs Estates and extending west beyond Taft Road. The basins are maintained by the City of Novi, were identified as a high priority improvement in the 2007 Storm Water Master Plan Phase II, and were funded in the 2009-10 Capital Improvement Program. The locations are shown on the attached map.

The project will include retrofitting the basin control structures to restrict high frequency storms, the repair or replacement of pipes within the basins, improved access, and the stabilization of eroded areas. A sidewalk will be constructed along the Ten Mile frontage of the C&O basin property, and an in-line sediment trap will be installed in the Cedar Springs basin. The complete scope is detailed in the attached supplemental agreement.

URS's design and construction administration fees are based on the fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects. The design fees for this project will be \$27,291 (10.25% 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 and the fee percentage in the Agreement for Professional Engineering Services for Public Projects. URS's proposed scope of services, estimate and budget, and the supplemental agreement are enclosed.

The C&O basin project may be eligible for a Great Lakes Restoration Initiative grant through the U.S. Environmental Protection Agency (EPA). The 15-page grant application is due January 29, 2010 and is best suited for completion by a consultant to meet the strict requirements and deadline. The preparation of the grant application is outside of the standard contractual scope for design phase services; therefore, an additional \$3,500 is recommended for this task and is included in the \$22,412 design fee for C&O basin. URS is currently working on applications for this grant for several other communities and is familiar with the requirements.

URS has completed engineering services for the 2009 storm water basin modeling project, as well as several road projects. Design engineering for this project will be completed this winter, bids solicited in early spring 2010, and construction completed in summer 2010. (Schedule is subject to change based on the outcome of the grant application).

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the 2010 Regional Detention Basin Upgrades (C&O and Cedar Springs) to URS Corporation (URS) for a not-to-exceed design fee of \$30,791.

	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				

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



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2010 REGIONAL DETENTION BASIN UPGRADES



SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

2010 DETENTION BASIN UPGRADES

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, "Consultant."

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 Consultant on September 24, 2009.

The project includes the design and the preparation of plans and specifications for the proposed upgrades to the C&O and Cedar Springs regional detention basins.

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

Section 1. Professional Engineering Services.

For and in consideration of payment by the City as provided under the "Payment for Engineering Services" section of this Agreement, Consultant shall perform the work described in the manner provided or required by the following Scope of Services, which is attached to and made a part of this Agreement as Exhibit A, all of said services 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 Scope of Services

Section 2. Payment for Professional Engineering Services.

1. Basic Fee.
 - a. Grant Application: The Consultant will prepare the application for the U.S. EPA Great Lakes Restoration Initiative on behalf of the City for a not-to-exceed fee of \$3,500.
 - b. Design Phase Services: The Consultant shall complete the design phase services as described herein for a lump sum fee of \$27,291, which is 10.25% of the estimated construction cost (\$266,254) as indicated on the design and construction engineering fee curve provided in Exhibit B of the Agreement for Professional Engineering Services for Public Projects.

- c. Construction Phase Services will be awarded at the time of construction award, should it occur.

2. Payment Schedule for Professional Engineering Services Fee.

Consultant shall submit monthly statements for professional engineering services rendered. The statements shall be based on Consultant'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 Consultant 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 Consultant, 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 Consultant, of all of its maps, records, laboratory tests, or other data pertinent to the work to be performed by the Consultant 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 Consultant 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 Consultant.

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 Consultant.

3. In the event of termination, as provided in this Article, the Consultant 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 Consultant'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 Consultant in performing the services included in this Agreement, whether completed or in progress.

Section 6. Disclosure.

The Consultant 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 engineering 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 Consultant 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 Liability insurance with maximum bodily injury limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate and minimum Property Damage limits of \$1,000,000 (One 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 \$1,000,000 (One Million Dollars) each occurrence and/or aggregate minimum property damage limits of \$1,000,000 (One Million Dollars) each occurrence and/or aggregate.
- D. The Consultant shall provide proof of Professional Liability coverage in the amount of not less than \$1,000,000 (One Million Dollars) per occurrence and/or aggregate, and Environmental Impairment coverage.

2. The Consultant 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 Consultant will furnish on demand such additional coverage as may reasonably be required under the circumstances. All such insurance shall be effected at the Consultant'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 Consultant 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.

With the exception of professional liability, 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 Moranti, 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 Consultant shall require each subconsultant to effect and maintain at least the same types and limits of insurance as fixed for the Consultant.

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

Section 8. Indemnity and Hold Harmless.

A. The Consultant 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 Consultant in performing or failing to perform the work.

The Consultant 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 Consultant agrees to hold the City harmless for any loss of such property and materials used pursuant to the Consultant's performance under this Agreement.

Section 9. Nondiscrimination.

The Consultant 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 Consultant 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 subconsultant 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 Consultant, its employees, associates, agents and subconsultants for the accuracy and competency of their designs, working drawings, and specifications, or other documents and services; 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 Consultant, its employees, subconsultants, and agents.

After acceptance of final plans and special provisions by the City, Consultant 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 Consultant and to change the original design as required.

Section 12. Compliance With Laws.

This Contract and all of Consultants professional services 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. Consultant 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

Consultant: Jan M. Hauser, P.E., Vice President Water/Wastewater

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 professional services by Consultant, City shall have the right to inspect the services 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 Consultant with written notice to correct the defect or default within a specified number of days of the notice. Upon receiving such a notice, Consultant 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 being a valid claim and charge against Consultant; or, the City may preserve the claims of defects or defaults without termination by written notice to Consultant.

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 Consultant 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 Consultant either the necessary information or approval to proceed with the work, resulting, through no fault of the Consultant, in delays of such extent as to require the Consultant 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 Consultant as determined by the City, the Consultant 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 Consultant 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 Consultant of any responsibility for the fulfillment of this agreement.

Section 18. Dispute Resolution.

The parties agree to try to resolve any disputes as to professional engineering services 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 permissible 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

URS Corporation – Great Lakes

By: Jan M. Hauser
Its: Vice President

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

Notary Public
_____ County, Michigan
My Commission Expires: _____

WITNESSES

CITY OF NOVI

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 - SCOPE OF SERVICES

Consultant 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 Consultant 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 dates specified in the attached schedule. The City is not liable and will not pay the Consultant for any services rendered before written authorization is received by the Consultant.
2. The Consultant shall submit, and the City shall review and approve a timeline for submission of plans and/or the completion of any other work required pursuant to this Scope of Services. The Consultant shall use its best efforts to comply with the schedule approved by the City.
3. If any delay is caused to the Consultant 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 Consultant that is required in performing the work described; or by other delays due to causes entirely beyond the control of the Consultant; then, in that event, the time schedules will be adjusted equitably in writing, as mutually agreed between the City and the Consultant at the moment a cause for delay occurs.
4. Since the work of the Consultant must be coordinated with the activities of the City (including firms employed by and governmental agencies and subdivisions working with the City), the Consultant shall advise the City in advance, of all meetings and conferences between the Consultant and any party, governmental agency, political subdivision, or third party which is necessary to the performance of the work of the Consultant.



December 21, 2009

City of Novi
Department of Public Services
Ben Croy, P.E., Civil Engineer
Field Services Complex
26300 Delwal Drive
Novi, MI 48375

Reference: Great Lakes Restoration Initiative Application

Dear Mr. Croy:

It is our understanding that the City of Novi may seek funding for improvements to the C&O and Cedar Springs Detention Basins under the Great Lakes Restoration Initiative (GLRI). To be eligible, the applications for funding must be received by 12:00 Noon (CST) on January 29, 2010. Applications are submitted electronically to the USEPA.

The application document is limited to 15 pages (excluding resumes and other attachments), formatted on 8.5 x 11 paper with 11 point Times New Roman with 1" margins as single Microsoft Word, WordPerfect or Adobe Acrobat file.

The scoring criteria for applicants includes: Strategic Approach- 25 points; Technical/ Scientific Merit- 20 points; Measuring Progress toward Outcomes, Outputs and Results- 10 points; Programmatic Capability- 15 points; Appropriate Budget- 10 points; Project Effectiveness and Efficiency- 5 points; Collaboration/ Partnerships- 10 points; Education/ Outreach- 5 points.

The format for the applications is presented below:

Cover Page (one page maximum)

1. Funding Opportunity Number, Focus Area and Program
2. Name of Proposal (limit to 60 characters)
3. Points of Contact (provide name, organization, address, phone and fax numbers, email address and DUNS number)
4. Type of Organization (Select from the following: State Agency, Interstate Agency, Tribe or Tribal Organization, College or University, Other Public or Non-Profit Agency, Institution or Organization)
5. Proposed Funding Request (Total dollar amount requested)
6. Brief Project Description (595 character limit. Include key terms that can be used in a search.
7. Project Location (Specify, and include (if applicable) 8-12 digit HUC code, lat and long, and state. County/ city/ZIP code.

Project Narrative (14 page maximum):

8. Full Project Description
 - A. Overview
 - B. Goals, Objectives and Approach
 - C. Relevance to Great Lakes Needs and Priorities (GLRI, USPEA Strategic Plan, Great Lakes regional Collaboration Strategy)
 - D. Methodology (Key Steps) and Deliverables (demonstrate comparability/ compatibility)



with existing programs, if relevant)

- E. Milestones and Schedule
- F. Project Design (highlight cost-effective approach that facilitates USEPA oversight and administration)
- G. Education Outreach Plan (to disseminate project results and demonstrate transferability)

9. Outcomes, Outputs, and Expected Results

- A. Quantitative and Qualitative Outcomes, Outputs, and Results (including, as applicable, affected pollutants, industry sectors, economic impacts, habitats and/or species.)
- B. Measurements to Track Progress (Identify quantitative and qualitative measures and any limitations.)

10. Collaboration, Partnerships, and Overarching Plans

- A. Collaborators and Partners
 - i. Identify specific parties and projects that complement your proposed project.
 - ii. Describe their role in your proposed project and associated benefits
 - iii. Explain how related projects will be coordinated (i.e., elements of a Collaboration and Partnership Plan)
- B. Overarching Plans
 - i. Identify any overarching plans or programs within which your proposed project fits (provide URL)
 - ii. Explain how your proposed project support their goals and objectives
- C. Voluntary Match/ Additional Funds and Other Resources
 - i. Describe nature, origin, amount and usage of any voluntary match funds or other resources supporting your proposed project.
 - ii. Demonstrate how such funds will be provided over the course of the project.

11. Programmatic Capability and Past Performance

- A. Relevant Project Experience (list up to 5 assistance agreements- grants, not contracts- within last 3 years, preferably with USEPA)
 - i. Describe how agreements were successfully managed.
 - ii. Demonstrate history of meeting reporting requirements and submitting technical reports.
 - iii. Explain how progress was documented/ reported.
- B. Plan for Achieving Project Objectives
 - i. Plan elements
 - ii. Staff expertise and qualifications
 - iii. Staff knowledge
 - iv. Resources/ ability to obtain them (e.g., subcontractors)

12. Budget

- A. Overview
- B. Budget Chart (To include the following "budget object classes": Personnel/ salaries (applicant only); Fringe Benefits; Travel; Equipment; Supplies; Contract Costs; Other Costs; Total Direct Charges; Indirect Charges; Total Coast. Include column to total cost of proposal. Identify matching funds.)

13. ACORN Statement (Provide statement indicating that the applicant is not subject to a Congressional prohibition on the use of federal funds to award grants to the Association of Community Organizations for Reform Now (ACORN) or its affiliates. Applies to all subawards, subgrants and contracts as well.)



14. Attachments

- A. Cover page for any overarching plan for which there is no URL (see 10B above)
- B. Resumes/ CV of Principal Investigators and critical staff
- C. Letters of Support from Collaborators
- D. Relevant scientific peer review already completed
- E. Applicable maps/ charts

URS will prepare the GLRI application on behalf of the City of Novi in accordance with the above format. To prepare the application URS will meet with the City staff to obtain the required information and will develop the necessary documentation for preparation of the application. URS proposes a not-to-exceed fee of **\$3,500.00** to complete the application.

We are available to begin this project immediately upon written authorization. If you have any questions, please feel free to contact me at (248) 204-4140. URS appreciates the opportunity to work with the City of Novi on this project.

Sincerely,

URS Corporation

Jan Hauser, PE
Vice President, Water Resources Department

Attachments:

WORK PLAN AND SCHEDULE

Background

The City of Novi will be upgrading two regional detention basins (C & O Basin and Cedar Springs Basin) in accordance with recommendations in the 2007 Storm Water Master Plan Phase II. The detention basin improvements for the C & O Basin consist of restoring the channel through the basin, retrofitting the outlet control structure, replacing a section of outlet piping between the outlet structure and the road, vegetative plantings, access improvements and erosion control. The Cedar Springs Basin improvements include cleanout of inlet and outlet piping, creation of an inline sediment trap, retrofitting of the outlet control structure, replacement of the concrete outlet apron with rip rap, vegetative plantings and erosion control.

Work Plan

This work plan describes URS' approach to providing engineering services for the C & O and Cedar Springs Regional Detention Basin Improvements. Our approach will focus on meeting the City's needs as described in the Storm Water Master Plan Phase II, while also incorporating recommendations of our ongoing storm water detention basin analysis project.

Components of the engineering services include the following:

- Topographic survey
- Environmental assessments (wetland, floodplain, threatened and endangered species)
- Preliminary engineering
- Construction plans and specifications
- Permitting
- Bid phase assistance
- Construction phase services

To complete this project in an efficient manner URS proposes to break it into four tasks.

Task 1: Topographic survey, environmental assessments and preliminary design;

Task 2: Preparation of construction plans and specifications and permitting;

Task 3: Bid phase assistance

Task 4: Construction Administration.

WORK PLAN AND SCHEDULE

Each of these four tasks has specific subtasks and deliverables that are described in the following paragraphs:

Task 1: Topographic survey, environmental assessments and preliminary design

In this task URS will review existing information, such as record drawings, standard details and specifications and benchmark data; complete a topographic survey of the project area; coordinate with utility companies to obtain information on site utilities; and complete environmental studies of the area of potential effects for the project.

Based on the information obtained, an existing site plan will be prepared, indicating wetland and floodplain boundaries, site contours, utility locations and elevations, benchmark data and property boundary information. Preliminary design (30%) will be completed to illustrate the location and extent of the proposed improvements.

For the C & O Basin, the following improvements will be identified:

- Replacement of the 84-inch C.M.P. between the outlet structure and the box culvert (approx. 48 ft.);
- Restoration of the channel through the basin;
- Retrofit control structure to restrict high frequency flow (bank full, 2-year) events;
- Stabilization of the streambank adjacent to the railroad tracks on the south side of 10 Mile Road;
- Provide for vehicle access to north side of outlet structure and stabilization area on south side of 10 Mile Road;
- Provide new sidewalk along north side of 10 Mile Road;
- Provide soil erosion control along stream channel; and
- Provide a vegetated buffer area (native plantings) and "no mow zone" signage.

For the Cedar Springs Basin, the following improvements will be identified:

- Cleanout of vegetation and debris from the inlet and outlet pipes;
- Installation of an inline sediment trap at the upstream end of the basin;
- Retrofit of a control structure to restrict high frequency flow (bank full, 2-year) events;
- Stabilization of an eroded area behind headwall of outlet pipe;
- Removal of an existing concrete apron at outlet and replacement with rip rap
- Development and distribution of informational flyers to residents on impact of fertilizer use on algae growth
- Provide a vegetated buffer area (native plantings) and "no mow zone" signage

WORK PLAN AND SCHEDULE

Deliverables will include preliminary plans, specifications and a cost estimate to meet the City's desire to review 30% complete plans. Technical memorandum discussing the results of the environmental surveys will also be provided.

Task 2: Preparation of construction plans/specifications and permitting

After reviewing and discussing the preliminary plans with the City, the concepts and comments in the preliminary plans will be finalized into plans suitable for bidding and construction. An updated construction cost estimate will be prepared. Specifications and a Soil Erosion and Sedimentation Control (SESC) plan will be developed for the construction activities during this phase.

Deliverables for this phase will include final plans, specifications, updated cost estimate and a SESC plan. Plans will be provided to the City at 90% completion for review. Comments and changes will be incorporated and final plans completed for bidding. Permit applications (RCOC, MDEQ/USACE, etc.) will be developed and submitted as part of this task.

Task 3: Bid phase assistance

Upon approval of the final design documents, URS will prepare bid documents and provide assistance to the City with bidding of the project. Bidding assistance will include coordinating and facilitating the pre-bid meeting, preparing contract addenda, making plan revisions, responding to bidder inquiries, review of bids and preparing a recommendation of award.

Task 4: Construction administration

URS will provide construction administration services that will include the activities listed below.

- Reviewing shop drawings;
- Coordinating/ running pre-construction meeting;
- Reviewing compliance with contract documents;
- Consultation with City Engineering staff;
- Interpretation of plans and specifications;

WORK PLAN AND SCHEDULE

- Preparation and certification of pay estimates;
- Construction Staking;
- Construction inspection during active construction;
- Administering the soil erosion and sedimentation control plan;
- Material testing;
- Attend to resident concerns and complaints, and;
- Prepare record drawings within 3 months of construction completion.

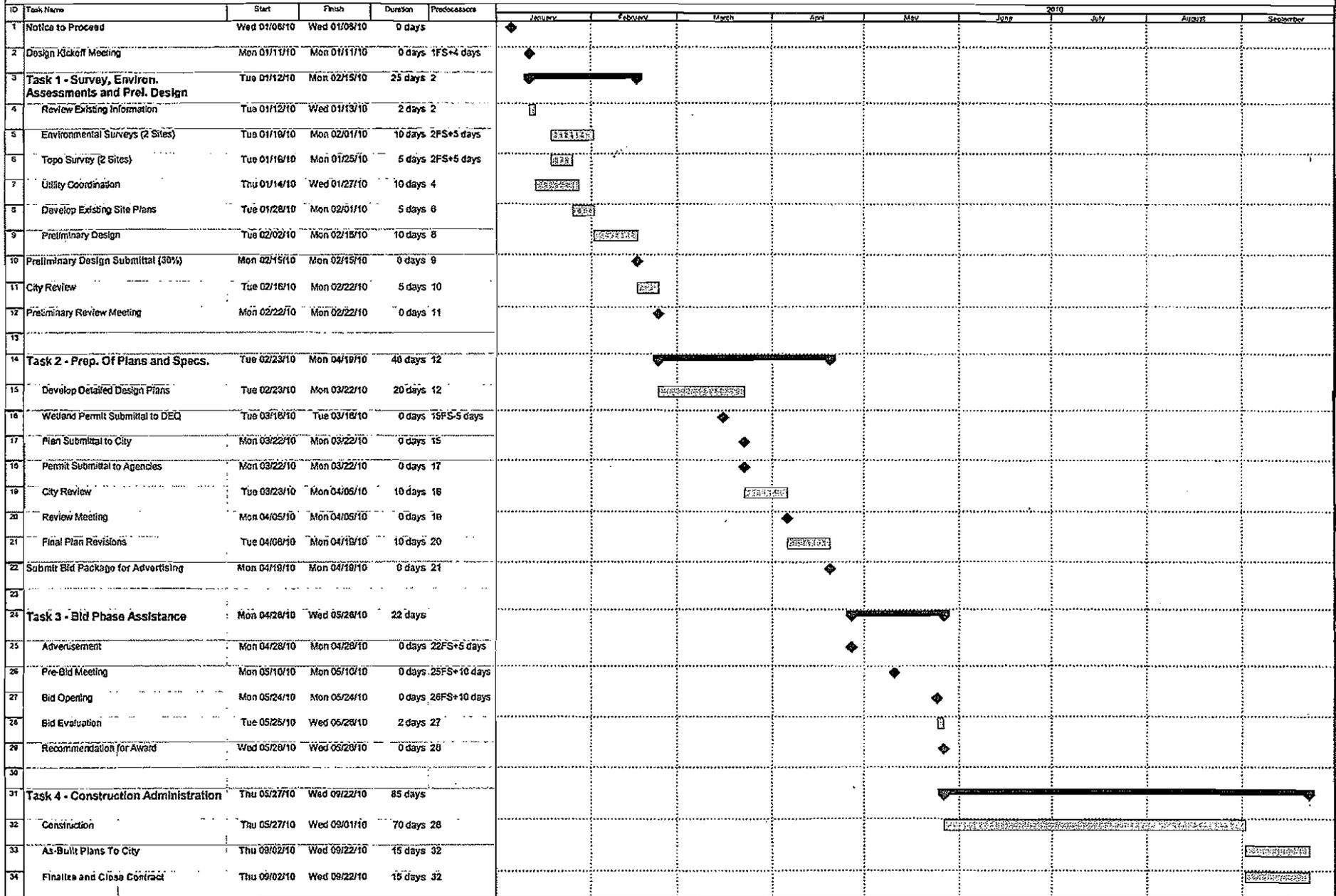
Deliverables for this task include meeting minutes, daily inspection reports, and preparation of record drawings.

Schedule

A bar chart schedule for completion of the design of the improvements is attached.

Project Implementation Schedule

C & O and Cedar Springs Regional Detention Basin Improvements
City of Novi



CONSTRUCTION COST ESTIMATE

Provided below is a description of the work to be performed at each detention basin, along with assumption used in preparing the construction cost estimate for the project. The construction cost estimates are included in the attached tables

Work Included

For the C & O Basin, the following improvements will be completed:

- Replacement of the 84-inch C.M.P. between the outlet structure and the box culvert (approx. 48 ft.);
- Restoration of the channel through the basin;
- Retrofit control structure to restrict high frequency flow (bank full, 2-year) events;
- Stabilization of the streambank adjacent to the railroad tracks on the south side of 10 Mile Road;
- Provide for vehicle access to north side of outlet structure and stabilization area on south side of 10 Mile Road;
- Provide new sidewalk along north side of 10 Mile Road;
- Provide soil erosion control along stream channel; and
- Provide a vegetated buffer area (native plantings) and "no mow zone" signage.

For the Cedar Springs Basin, the following improvements will be completed:

- Cleanout of vegetation and debris from the inlet and outlet pipes;
- Installation of an inline sediment trap at the upstream end of the basin;
- Retrofit of a control structure to restrict high frequency flow (bank full, 2-year) events;
- Stabilization of an eroded area behind headwall of outlet pipe;
- Removal of an existing concrete apron at outlet and replacement with rip rap
- Development and distribution of informational flyers to residents on impact of fertilizer use on algae growth
- Provide a vegetated buffer area (native plantings) and "no mow zone" signage

Assumptions

Assumptions made in preparing the construction cost estimate are shown below:

CONSTRUCTION COST ESTIMATE

C & O Basin Assumptions

- Native buffer plantings will be spread over a 2 acre area, and will consist of 40% wetland seed mix area and 60% natural features setback seed mix area. Shrubs will cover approximately 10% of the natural features area, and plugs will be placed in the wetland seed mix area.
- Channel restoration will be approximately 500 ft. long
- Bypass pumping will be required to replace the 84-inch CMP outlet pipe.
- Clay core material will be stockpiled and replaced
- Vehicle access to the access structure area will be a 12' wide by 60 ft. porous paver drive, with a 25 ft. by 50 ft. crushed stone pad parking/turnaround area.
- Vehicle access to the streambank area to be stabilized south of 10 Mile will be a 12 ft. wide by 50 ft. long porous paver drive.
- Sidewalk along 10 Mile Road will be 250 ft. by 4 ft. wide

Cedar Springs Basin Assumptions

- Native buffer plantings will cover an area approximately 20 ft. wide around the perimeter of the basin, and will consist of 40% wetland seed mix area and 60% natural features setback seed mix area. Shrubs will cover approximately 10% of the natural features area, and plugs will be placed in the wetland seed mix area.
- The inline sediment trap will be an earthen berm constructed upstream of the basin. The berm will allow access from the road along both sides of the sediment basin. The top of the basin will be approximately 80 ft. by 130 ft. with a 15 ft. wide berm width at the top and 1:4 side slopes.
- The control structure will be modified by raising the walls of the overflow structure.