



CITY of NOVI CITY COUNCIL

Agenda Item J
September 13, 2010

SUBJECT: Approval to award a contract for design engineering services for the Beck Road Rehabilitation (Nine Mile to Cheltenham) to Spalding DeDecker Associates, Inc. (SDA) for a not-to-exceed design fee of \$25,176.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *BTL*

CITY MANAGER APPROVAL: *874*

EXPENDITURE REQUIRED	\$25,176
AMOUNT BUDGETED	\$63,200 (Engineering only)
LINE ITEM NUMBER	202-202.00-805.234

BACKGROUND INFORMATION:

This project includes the reconstruction and rehabilitation of Beck Road between Nine Mile and Cheltenham Drive. This section of Beck Road has a PASER rating of 3 (poor). Staff anticipates that a portion of the road, between Nine Mile and Beckenham Blvd., will be reconstructed and the remaining portion of the road will be rehabilitated (e.g. mill and overlay). Some drainage improvements will be performed in the area where the road will be reconstructed. A location map has been included for reference.

SDA's engineering 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 \$25,176 (9.3% of the estimated construction cost of \$270,700). 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 Agreement for Professional Engineering Services for Public Projects. A draft of the Supplemental Professional Engineering Services Agreement for this project is enclosed and includes the project scope and estimate.

SDA has recently completed engineering services for the 2010 Pathway Upgrades project, and is currently providing design services for the 2010-2011 Neighborhood Roads Program. The project is anticipated to begin in the summer of 2011 and completed by fall 2011.

RECOMMENDED ACTION: Approval to award a contract for design engineering services for the Beck Road Rehabilitation (Nine Mile to Cheltenham) to Spalding DeDecker Associates, Inc. (SDA) for a not-to-exceed design fee of \$25,176.

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

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

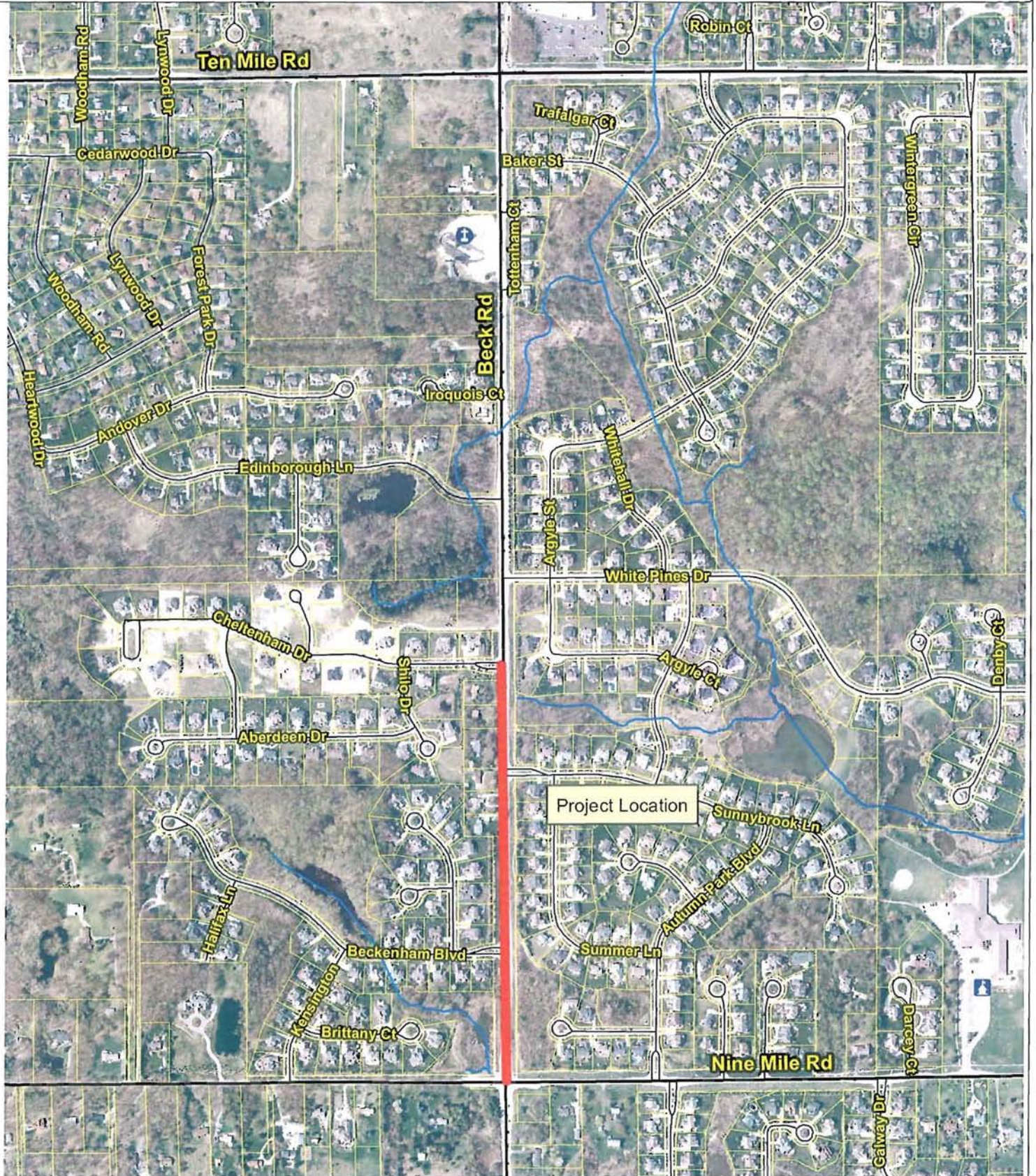
MAP INTERPRETATION NOTICE

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



BECK ROAD REHABILITATION Nine Mile to Cheltenham Dr.



SUPPLEMENTAL PROFESSIONAL ENGINEERING SERVICES AGREEMENT

BECK ROAD REHABILITATION
NINE MILE TO CHELTENHAM DRIVE

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 Spalding DeDecker Associates, Inc., whose address is 905 South Boulevard East, Rochester Hills, MI 48307, 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 Beck Road Rehabilitation project from Nine Mile to Cheltenham Drive. Following an evaluation of site conditions, the most cost-effective construction methods will be implemented based on the available budget and the City's asset management philosophy. Drainage improvements will also be performed in the area immediately north of Nine Mile.

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. Design Phase Services: The Consultant shall complete the design phase services as described herein for a lump sum fee of \$25,176, which is 9.3 % of the estimated construction cost (\$270,700) as indicated on the design and construction engineering fee curve provided in Exhibit B of the Agreement for Professional Engineering Services for Public Projects.

- b. 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 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 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: James L. Van Tiflin, P.E., Project Manager

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 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

Spalding DeDecker Associates, Inc.

By: James L. Van Tiflin, P.E.
Its: Project Manager

The foregoing _____ was acknowledged before me this ____ day of _____,
20____, by _____ on behalf of

_____.

Notary Public
_____ County, Michigan
My Commission Expires: _____

WITNESSES

CITY OF NOVI

By:
Its:

The foregoing _____ was acknowledged before me this ____ day of _____,
20____, 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.



City of Novi
Beck Road Rehabilitation - Nine Mile to Cheltenham
Project Scope

Spalding DeDecker Associates, Inc. (SDA) is pleased to have been selected to provide design and construction observation services for **Beck Road Rehabilitation from Nine Mile Road to Cheltenham Drive**. The following sections summarize the expected construction and scope of services SDA will provide for this project.

Overview and Understanding of Requested Services

During spring snow melt, water frequently overwhelms the drainage system at the intersection, resulting in standing water adjacent to and within Beck Road north of Nine Mile, generally on the east side of the road. One of the primary goals of this project is to investigate the existing drainage system, and propose improvements to alleviate this safety hazard.

Based on available information, there is no culvert under Beck Road to drain the ditch/swale from east to west. Pending a field survey and review of grades, placing a cross culvert in this location should help drain the eastern ditch and prevent water backing up onto Beck Road. Placing a culvert and controlling drainage may require a slight grade raise and sections of curb and gutter.

An additional goal is to improve the ride quality for this portion of Beck Road. The existing hot-mix asphalt (HMA) pavement on Beck Road from just north of Nine Mile Road to approximately 250' north of Beckenham Blvd is exhibiting significant cracking and distress, but appears stable overall (no dips or heaves). The "alligator" cracking of the lanes is indicative of expansion of the underlying base material due to absorbing water. This section of the road is a candidate for reconstruction to replace poor subgrade materials.

From north of Beckenham to approximately 100' south of Cheltenham, the existing HMA pavement is in better condition, but shows signs of rutting - longitudinal cracks or tears in the pavement, and heaved up sections between wheel tracks and at the centerline. This indicates problems with the HMA more than an issue with the base. It should be possible to mill and overlay the pavement in this area, using modern stable mixtures which will result in a long-life pavement. The existing concrete flares to subdivision entrances will not be overlaid, but will receive joint repairs to extend the life of the pavement and improve ride quality.

We are proposing to perform full topography survey for the entire project length instead of just the reconstruction area. This information will be used to evaluate and propose improvements to the drainage, flare lanes, and flare lane tapers.

Summary of Project Goals

- Investigate and improve drainage on Beck Road just north of Nine Mile Road
- Improve ride quality and service life of pavement from Nine Mile to just south of Cheltenham, a total distance of 2,000'

Proposed Scope of Services

SDA will provide design and construction phase services to achieve the goals described and summarized above. This section will describe and summarize the services.

Engineering Consultants

Infrastructure • Land Development • Surveying

Design Phase Services

- Geotechnical - We have reviewed pavement cores and soil borings provided by the City which were obtained as part of a corridor study performed in 2006. These cores / borings and the accompanying analysis will be sufficient for the requirements of this project, and we do not propose to obtain additional geotechnical information.
- Topographic Survey – SDA will perform complete topographic survey for the project, which will include the entire Nine Mile intersection and north to Cheltenham. The survey data will correspond to the State Plane Coordinate System Michigan, South Zone-6401, using NAD83, NAVD88 datum.
- Preliminary Report – following generation of the existing topography drawings and analysis of drainage patterns, SDA will provide options and a recommended plan to improve drainage. Pavement rehabilitation recommendations will also be included with an updated estimate of costs. Following a review of the report with the City, SDA will proceed with formal plan preparation.
- Preliminary Plans – Plans will be prepared showing existing and proposed typical cross sections, with profile for any portion of the road to be reconstructed; maintaining traffic plans; and supporting details and notes.
- Plan Review – Plans will be submitted to the City at approximately 75% completion, for review and comments to be received at a review meeting.
- Final Plan Preparation – Plans and specifications / contract documents will be finalized and prepared for advertising. Soil Erosion and Sedimentation Control (SESC) plans will be submitted for the City permit.
- Bidding Phase – The City will place an advertisement, and plans will be made available by SDA for potential bidders. SDA will respond to contractor inquiries and issue required addendum.
- Bid Opening and Award – SDA will review submitted bids, prepare bid tabulations, review references, and recommend award.

Assumptions:

- Based on a review of City and state wetland maps, the intersection of Beck with Nine Mile has wetland areas in all quadrants but the southeast. It appears that these areas are not tied to "waters of the State" and are under 5 acres each, but if considered to be combined would exceed 5 acres and an MNDRE permit (Part 303) required. If wetland delineation is needed to determine this, the City will have this work performed by others and provide SDA with the results and requirements.
- The sidewalk ramps on the north leg of the intersection, while outside the limits of expected pavement work, will require upgrades to current ADA standards. This is included in our scope. The SE and SW quadrants do not currently have ramps or sidewalk, and adding ramps or sidewalk will not be included with this project.

Construction Phase Services

After the construction contract has been awarded by Council, SDA will begin construction phase services which will include:

- Compile contract books for execution – includes reviewing bonds, insurance information, and warranty documents.
- Pre-construction meeting – setting up and running the pre-con meeting.

Engineering Consultants

Infrastructure • Land Development • Surveying

- Construction Observation – SDA will provide full-time construction observation for the project.
- Materials Testing – prior to project award, SDA will solicit quotes from three materials testing firms. The firm offering the best value to the City will be recommended for award and contracted directly with the City. SDA will direct the materials testing firm on behalf of the City.
- Construction Administration – SDA will provide office administration of the project, reviewing shop drawings, material testing reports, mix designs, etc. as well as reviewing payment requests.
- Project Closeout – Following the major contractor operations, SDA will prepare a preliminary punch-list, lead a final walk-through with the City and final punch-list, and recommend final payment and contract close-out when all work is completed.
- As-constructed drawings – SDA will prepare as-constructed drawings and submit the files electronically to the City in PDF as well as Auto-Cad format.

Construction Cost Estimate and Proposed Fees

Based on our pre-qualification status with the City, engineering design fees are based on a percentage of the pre-design construction cost estimate. The fee percentage is variable depending on whether the project is for full reconstruction or rehabilitation (e.g. mill and overlay).

Please refer to the attached cost estimate for a detailed breakdown of estimated costs and fees.

Based on our pre-design construction estimate of \$270,700 and the design phase rate of 9.30%, the proposed design fee is \$25,175.10.

The expected construction phase fees are based on the construction estimate, and are shown here for budgeting and planning purposes only as they won't be set until bids are received. Based on our pre-design construction estimate of \$270,700, estimated days of construction, and the construction phase rate of 7.00% for administration, the estimated construction fees are \$41,499.00.

The total project cost to the City (engineering, construction, construction observation, materials testing) is \$364,480.00


Please don't hesitate to contact me if you have any questions or comments regarding this submittal.

Kindest Regards,

SPALDING DEDECKER ASSOCIATES, INC.



David P. Eno, P.E.
Transportation Project Manager



James L. VanTifflin, P.E.
Municipal Project Manager

Engineering Consultants

Infrastructure • Land Development • Surveying



SPALDING DEDECKER ASSOCIATES, INC.

905 South Boulevard East • Rochester Hills • Michigan 48307 • Tel 248 844 5400 • Fax 248 844 5404

Project: Beck Road - Nine Mile to Cheltenham Drive Date: 9/2/2010
 Location: from north of Beck Rd to South of Cheltenham Project No. NV10-002
 Work: Drainage investigation and improvements, pavement reconstruction, pavement rehabilitation By: D. Eno
 Reviewed: J. Van Tiflin

Engineer's Estimate of Probable Construction Cost

Item No.	Item Description	Est. Quantity	Unit	Unit Price (\$)	Total Cost (\$)
Total roadway length = 2,000'					
1	Mobilization (5% max.)	1	LS	12,700.00	12,700.00
2	_Pre-Construction Video Review	1	LS	800.00	800.00
3	Excavation, Earth	600	CYD	6.00	3,600.00
4	Embankment, CIP	300	CYD	8.00	2,400.00
5	Ditching	400	FT	12.00	4,800.00
6	Pavt, Rem	3000	SYD	6.00	18,000.00
7	Curb and Gutter, Rem	60	LFT	5.00	300.00
8	Sidewalk, Rem	75	SYD	5.00	375.00
9	Cold Milling HMA Surface	3650	SYD	2.00	7,300.00
10	Geotextile Separator	3000	SYD	2.00	6,000.00
11	Pavt Joint and Crack Repr, Det 7	400	FT	6.00	2,400.00
12	Hand Patching	15	TON	110.00	1,650.00
13	Subgrade Undercut	200	CYD	18.00	3,600.00
14	Aggregate Base, 8 inch	3000	SYD	8.00	24,000.00
15	Shoulder, CI II, 6 inch	800	SYD	6.00	4,800.00
16	Underdrain, Subgrade, Open-Graded, 4 inch	1800	LFT	6.00	10,800.00
17	_Clean Existing Culvert	32	LFT	25.00	800.00
18	Dr Structure, 24 inch dia	1	EA	850.00	850.00
19	Dr Structure Cover	200	LB	1.00	200.00
20	Culv, CI E, 18 inch	72	LFT	35.00	2,520.00
21	Dr Structure, Tap, 4 inch	2	EA	200.00	400.00
22	Curb and Gutter, Conc, Det B2	200	LFT	18.00	3,600.00
23	_HMA in milled areas (3")	605	TON	65.00	39,325.00
24	_HMA in recon areas (6.5")	1073	TON	65.00	69,745.00
25	_Temp Pavement (place and rem hma surface)	600	SYD	35.00	21,000.00
26	Sidewalk, Conc, 4 inch	120	SFT	4.00	480.00
27	Sidewalk Ramp, ADA	300	SFT	10.00	3,000.00
28	_Restoration	2500	SYD	4.50	11,250.00

Item No.	Item Description	Est. Quantity	Unit	Unit Price (\$)	Total Cost (\$)
29	Maintenance of Traffic	1	LS	10,000.00	10,000.00
30	Soil Erosion & Sedimentation Control	1	LS	2,500.00	2,500.00
31	Pavement Marking	1	LS	1,500.00	1,500.00
	PRELIMINARY CONSTRUCTION ESTIMATE: Used in determining design fee				\$ 270,700.00
	Contingency (10%)	1	LS	27,100.00	27,100.00
	Inspector Days (SDA)	30	DAY	615.00	18,450.00
	Materials Testing (firm to be selected)	1	LS	4,100.00	4,100.00
	TOTAL CONSTRUCTION COST ESTIMATE:				\$ 320,350.00

Project Cost Summary

Design Fee (9.3% of construction estimate): \$ 25,175.10
Construction Administration (7% of bid): \$ 18,949.00 (for information only)
Total Project Cost Estimate: \$ 364,480.00