

City of Aurora


2017-2018 Bridge Inspection Program

**IDOT Standard Agreement Provisions for
Consultant Services**

**With
Attachments**

Prepared by
Alfred Benesch & Company
August 2016



Municipality City of Aurora	 Illinois Department of Transportation Engineering Services Agreement For Motor Fuel Tax Funds	C O N S U L T A N T	Name Alfred Benesch & Company
Township Various			Address 1230 East Diehl Road, Suite 109
County DuPage/Kane			City Naperville
Section 17-00316-00-BI			State IL

THIS AGREEMENT is made and entered into this _____ day of _____, 2016 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name 2017-2018 Biennial Bridge Safety Inspections

Route _____ Length _____ Mi. _____ FT (Structure No. _____)

Termini _____

Description:

2017-2018 Biennial Bridge Safety Inspections

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
 - a. Make such detailed surveys as are necessary for the preparation of detailed roadway plans
 - b. Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
 - c. Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
 - d. Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
 - e. Prepare Army Corps of Engineers Permit, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
 - f. Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
 - g. Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
 - h. Furnish the LA with survey and drafts in quadruplicate of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

Note: Four copies to be submitted to the Regional Engineer

- i. Assist the LA in the tabulation and interpretation of the contractors' proposals
 - j. Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
 - k. Prepare the Project Development Report when required by the DEPARTMENT.
 - l. See attached proposal in Exhibit A
- (2) That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
- (3) To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
- (4) In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that he will perform such work without expense to the LA, even though final payment has been received by him. He shall give immediate attention to these changes so there will be a minimum delay to the Contractor.
- (5) That basic survey notes and sketches, charts, computations and other data prepared or obtained by the Engineer pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
- (6) That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by him and will show his professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 1l, 2, 3, 5 and 6 in accordance with one of the following methods indicated by a check mark:
- a. A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
 - b. A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

Schedule for Percentages Based on Awarded Contract Cost

Awarded Cost	Percentage Fees	
Under \$50,000		(see note)
		%
		%
		%
		%
		%

- c. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas:
 - $DLM = (2.85+R)DL + DC$ (See attached Exhibit B for the estimated total cost.)

Where: DL = Direct Labor
 DC = Direct Costs
 R = Complexity Factor

Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.

2. To pay for services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j, 1k & 1l of the ENGINEER AGREES at actual cost of performing such work plus _____ percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j, 1k & 1l. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge.

"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:

ENGINEER shall submit monthly invoices for all services under this AGREEMENT and a final invoice upon completion of services. Invoices are due and payable within 15 days of LA's receipt of ENGINEER's undisputed invoice. In the event of a disputed or contested invoice, the LA will promptly notify ENGINEER of the reason for such dispute or contest, and LA will pay ENGINEER the undisputed portion. If LA fails to make payment in full to ENGINEER within sixty (60) days after the date of the undisputed invoice, ENGINEER may, after giving seven (7) days' written notice to LA, suspend services under this AGREEMENT until paid in full. ENGINEER shall have no liability for delays or damages caused by such suspension of services. LA agrees to pay all costs of collection, including reasonable attorney's fees, incurred by ENGINEER as a result of LA's failure to make payments in accordance with this AGREEMENT.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs plus _____ percent incurred up to the time he is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of THE LA AGREES.
 5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of THE ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus _____ percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of THE LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of his responsibility to prepare a complete and adequate set of plans and specifications.
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It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at his last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with Section 4 of THE LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.
5. That the Illinois Department of Transportation's *Standard Agreement Provisions for Consultant Services* ("SAPCS") are incorporated by reference and attached hereto as Exhibit C. For the purposes of this AGREEMENT, where used in the SAPCS the term DEPARTMENT will be replaced with LOCAL AGENCY ("LA"), and the term CONSULTANT will be replaced with ENGINEER.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

_____ of the
(Municipality/Township/County)

ATTEST:

State of Illinois, acting by and through its

By _____

Clerk

By _____

(Seal)

Title _____

Executed by the ENGINEER:

Alfred Benesch & Company

1230 East Diehl Road, Suite 109

ATTEST:

Naperville, IL 60563

By Florence Abdou

By E. Gallagher

Title Sr. Vice President

Title Elizabeth Gallagher Sr Vice President

Approved

Date
Department of Transportation

Regional Engineer

EXHIBIT A
Scope of Work

City of Aurora

2017-2018 Bridge Inspection Program

Scope of Work

Alfred Benesch & Company (Benesch) will provide NBIS Initial, Routine, Special and Element Level Inspections as well as on-call services as Consultant Program Manager for the City of Aurora (City), Illinois. The following outlines the scope, schedule and cost required to successfully complete the project.

1.0 General Assumptions and Understanding

- The inspections will be performed in accordance with the National Bridge Inspection Standards (NBIS), Structure Information and Procedure Manual (IDOT), and Manual of Bridge Evaluation (AASHTO).
- The City will provide Benesch with available existing plans for the bridges.
- All inspections will be performed in the daytime. No night inspections anticipated nor included in this proposal.
- No traffic control for lane/shoulder closures will be required.
- The use and rental of a bucket van is required for several bridges with tall substructure units. No other special equipment rental is anticipated nor included in this proposal.
- Detailed measurements of distressed areas of the superstructure or substructure required for the development of contract documents (PS&E) are not included in this proposal.
- NBIS Fracture Critical and Underwater Inspections are not required nor included in this proposal.
- Several bridges are on the National Highway System, therefore Element Level Inspection is required and included in this proposal.
- Bridge recommendations will include planning level cost estimates.
- No costs are included for railroad Right of Entry (ROE) permits or flagger services. Similar to 2015 and 2016, Benesch will coordinate with the City to secure these services for the applicable bridges.

2.0 NBIS Bridge Inspections

Benesch will perform the following NBIS Bridge Inspections:

1. 2017 (16 bridges)
 - a. Routine Inspection - eight bridges
 - i. Indian Trail Rd over Indian Creek (045-6016)
 - ii. Montgomery Rd over Waubonsie Creek (045-6015)
 - iii. Molitor Ave over Indian Creek (045-3064)
 - iv. Marshall Blvd over Indian Creek (045-6014)
 - v. Station Blvd over Waubonsie Creek (022-6952)
 - vi. Farnsworth Ave over Waubonsie Creek (045-3138)
 - vii. High St. over BN RR & Indian Creek (045-6017)
 - viii. E. New York St over EJ&E RR (CN) (022-0029)
 - b. Routine with Element Level Inspection – six bridges

- i. Indian Trail Rd over Fox River, W. Channel (045-3088)
 - ii. Indian Trail Rd over Fox River, E. Channel (045-3089)
 - iii. Farnsworth Ave over Indian Creek (045-6010)
 - iv. Farnsworth Ave over Indian Creek (045-6011) – including Special Inspection
 - v. Farnsworth Ave over Indian Creek (045-6012) – including Special Inspection
 - vi. Farnsworth Ave over BN RR (045-6052)
 - c. Initial Inspection – two bridges
 - i. Ohio St over BN RR & Indian Creek (045-9942)
 - ii. Sheffer Rd over Indian Creek (045-6053)
- 2. 2018 (14 bridges)
 - a. Routine Inspection - 12 bridges
 - i. Benton St over Fox River, E. Channel (045-6000)
 - ii. Benton St over Fox River, W. Channel (045-6001)
 - iii. North Ave over Fox River (045-6002)
 - iv. Eola Rd over Waubonsie Creek (022-6016)
 - v. Montgomery Rd over Waubonsie Creek (045-6015)
 - vi. New York St over Fox River (045-0012)
 - vii. Galena Blvd over Fox River, W. Channel (045-0056)
 - viii. Galena Blvd over Fox River, E. Channel (045-0057)
 - ix. Wood St over BN RR & Indian Creek (045-6022)
 - x. Sullivan Rd over Fox River (045-6018)
 - xi. Downer Pl over Fox River, E. Channel (045-6005)
 - xii. Downer Pl over Fox River, W. Channel (045-6006)
 - b. Special Inspection – one bridges
 - i. Farnsworth Ave over Indian Creek (045-6011)
 - c. Initial with Element Level Inspection – one bridge (Farnsworth)
 - i. Farnsworth Ave over Indian Creek (045-6027)

Four other bridges are on a 48-month inspection interval and are not due until 2019 or 2020:

- 1. Reckinger Rd over Indian Creek (045-3075)
- 2. Waterford Dr over Waubonsie Creek (045-6013)
- 3. Illinois Ave over Fox River, E. Channel (045-6008)
- 4. Illinois Ave over Fox River, W. Channel (045-6009)

The bridge inspection will involve a visual inspection of the entire structure and include digital photographs of both sound and deteriorated areas. Underside inspection of bridges over water will be performed from the banks and creek/river with the use of waders or a raft. Benesch will prepare and submit all applicable IDOT inspection forms including BBS-BIR, BBS-ELI, BBS-BFC (checklist), S-105-I, S-111-I, S-105, S-111 and S-114. Benesch will also prepare and submit to the City a Bridge Inspection Report including color photographs, findings and a summary of recommendations for each bridge.

3.0 On-Call Program Manager Services

Benesch will provide on-call services for the bridge on an as needed basis. On-call Bridge Program Manager tasks associated with this project shall be compensated based on the hourly billable rate of the Consultant Program Manager or as negotiated/agreed by both parties prior to beginning the work.

4.0 Quality Control

- Benesch will adhere to their Quality Control Plan developed for IDOT project work.
- Inspection forms and reports will be reviewed for quality prior to submittal.

5.0 Administration and Coordination

- Coordination meetings and discussions will be held via conference call and e-mail as required.
- Normal accounting and reporting procedures will be conducted.

SCHEDULE

The City bridges will be inspected within the month they are due. Initial inspection will take place within six month of opening the bridge to traffic. Per IDOT requirements, Benesch will submit the forms to IDOT and the inspection reports (one per year) to the City within 180 days (max.) after the inspection.

The duration of this contract will be until December 31, 2018.

COST

See attached breakdown. Additional services not outlines above or modifications to the agreement, including associated costs, shall be in writing and signed by both parties prior to beginning the work.

EXHIBIT B
Estimated Total Cost
With
Summary of Direct Costs



Payroll Escalation Table
Fixed Raises
New Formula

FIRM NAME Alfred Benesch & Co.
 PRIME/SUPPLEMENT Prime

DATE 08/12/16
 PTB NO. _____

CONTRACT TERM
 START DATE
 RAISE DATE

24 MONTHS
1/1/2017
1/2/2017

OVERHEAD RATE 158.60%
 COMPLEXITY FACTOR 0
 % OF RAISE 3.00%

ESCALATION PER YEAR

1/1/2017 - 1/2/2017

0 24

1/3/2017 - 1/2/2018

12 24

1/3/2018 - 1/2/2019

12 24

= 0.00%
 = 1.0455

51.50%

53.05%

The total escalation for this project would be:

4.55%

**City of Aurora
2017-2018 NBIS Inspections
Summary of Direct Cost**

Item	Quantity	Unit Cost	Cost	Comment
1 Vehicle Days	14	\$65	\$910	12 inspection days over two years
2 Bucket Van Rental	2	\$315	\$630	Two days for inspection of tall piers and bearings of four bridges over railroads
3 Mailing	2	\$50	\$100	One Final submittal per year
4 Railroad Permits/Flaggers	0	\$2,500	\$0	Application, permit and flagger fees
			\$1,640	