

COUNCIL ACTION FORM

SUBJECT: 2022/23 TRAFFIC SYSTEM CAPACITY IMPROVEMENTS - S DUFF AVENUE CORRIDOR AND INTERCHANGE STUDY

BACKGROUND:

The Ames Area MPO’s 2045 Metropolitan Transportation Plan, Forward 2045, identified the need for a study of the S Duff Avenue corridor from S 16th St to Airport Rd (see Figure 1 below showing study limits). The reconstruction of the S Duff Ave and US 30 Interchange is listed as a mid-term project in Forward 2045’s fiscally constrained plan.

S Duff Ave is one of the primary regional connections into the Ames urban area and serves nearly 30,000 vehicles a day on average within the study area. The primary intersections along this study corridor are estimated to make up four of the top 15 highest volume intersections in the Ames region, including the highest volume intersection, S Duff Ave & S 16th St. Additionally, according to the MPO’s travel demand model, the traffic volumes along the study corridor are expected to continue to grow, particularly if anticipated future development occurs to the south.

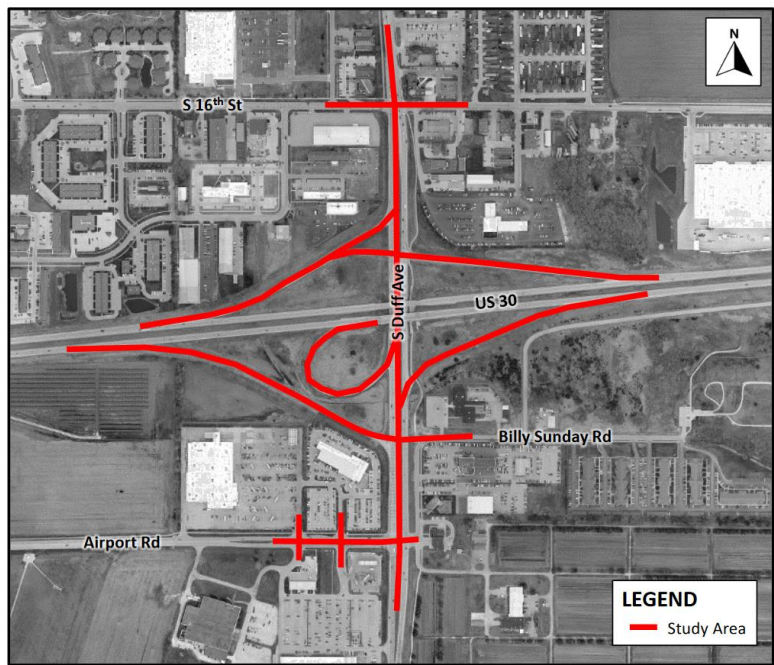


Figure 1. Study Limits

Earlier this year, the Ames Area MPO included this study in its Federal Fiscal Year (FFY) 2023 Transportation Planning Work Program (TPWP) as a special study. **The FFY23 TPWP allocated \$100,000 in MPO planning funds to this study with \$25,000 as the needed local match from the City of Ames as the local sponsor for the study for a total project budget of \$125,000. The City of Ames lists this project in its 2022-23 Capital Improvements Plan (CIP) within the Traffic System Capacity Improvements Program, with the \$25,000 local match coming from Road Use Tax funds.**

CONSULTANT SELECTION:

Following applicable federal and state mandated purchasing requirements, to allow use of federal planning funds, the City of Ames solicited a Request for Proposals (RFP) for the study. A total of six (6) proposals were received. Each of these proposals were evaluated and ranked by a project selection team consisting of Ames Area MPO, City of Ames, and Iowa DOT staff. Listed below are the criteria used for scoring the proposals (note that federal requirements prohibit cost from being considered in the criteria; cost is only negotiated with the selected firm):

<u>Scoring Criteria:</u>	<u>Points</u>
Project Understanding & Approach:	25
Project Team & Key Personnel:	25
Previous Experience:	20
Understanding of Study Area/Ames:	10
Ability to Perform Work:	10
Responsiveness:	10

The scores for the received proposals, utilizing the above criteria, are as follows:

Rank	Firm	Score
1	HDR Engineering, Inc.	97
2	Strand Associates, Inc.	92
3	SRF Consulting Group, Inc.	89
4	Snyder & Associates, Inc.	82
5	HR Green, Inc.	81
6	Shive-Hattery, Inc.	78

Given the above rankings, **staff has negotiated a contract with the highest ranked firm, HDR Engineering, Inc. of Omaha, Nebraska.** The contract cost for the services negotiated with HDR is in an amount not to exceed \$124,958.

STUDY SCOPE:

The key services the consultant will perform include the following:

1. Evaluation of existing conditions (vehicle traffic counts, crash data, transit usage, bicycle and pedestrian usage, multi-modal origin-destination behavior).
2. Traffic forecasting to years 2030 and 2045 by utilizing the Regional Travel Demand Model.
3. Develop and refine corridor and interchange alternatives by utilizing traffic modeling (including the use of microsimulation models) in coordination with City of Ames and Iowa DOT staff.
4. Provide planning-level cost estimates, conceptual layouts, estimated vehicle emissions, and a 20-year life-cycle cost-benefit analysis for the two refined build alternatives.
5. Provide support for a public open house.
6. Develop a report detailing the study's findings, including a presentation of the draft report to the Ames Area MPO Transportation Policy Committee for feedback.
7. Finalizing the report, including the development of a funding plan to design and build the recommended alternative as well as a desired timeline for implementation of the improvements.

ALTERNATIVES:

1. Approve the professional services agreement for the 2022/23 Traffic System Capacity Improvements – S. Duff Avenue Corridor & Interchange Study (S 16th St to Airport Rd) project with HDR Engineering, Inc., of Omaha, Nebraska, in an amount not to exceed \$124,958.
2. Direct staff to negotiate an agreement with another qualified firm.

CITY MANAGER'S RECOMMENDED ACTION:

The need for this study was originally identified in Forward 2045 and the results from this study will provide direction in programming future capital projects. Based on staff evaluation, HDR Engineering, Inc. will provide the best value to the city for this study.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

Standard Consultant Contract

This **AGREEMENT**, made as of the date of the last party's signature below, is by and

BETWEEN City of Ames, the **Owner**, located at:

515 Clark Avenue
Ames, Iowa 50010
Phone: (515) 239-5101

and HDR Engineering, Inc., the **Consultant**, located at:

1917 S. 67th Street
Omaha, NE 68106
Phone: (402) 399-1000

For the following Project: S Duff Ave Corridor & Interchange Study

The **Owner** desires to employ the **Consultant** to identify preferred corridor solutions along S Duff Avenue from Airport Road to S 16th Street, including preferred interchange solution at S Duff Avenue & US 30. The **Consultant** is willing to perform these services in accordance with the terms of this Agreement.

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ARTICLE 1 INITIAL INFORMATION

This Agreement is based on the following information and assumptions.

1.1 Project Parameters

The objective or use is: The overall purpose of this project is to identify preferred corridor solutions along S Duff Avenue from Airport Road to S 16th Street, including preferred interchange solution at S Duff Avenue & US 30.

1.2 Financial Parameters

1.2.1 Amount of the **Owner's** budget for the **Consultant's** compensation is:
\$124,958.00

1.3 Project Team

1.3.1 The **Owner's** Designated Representative, identified as the **Contract Administrator** is:
Kyle Thompson

The **Contract Administrator** is the authorized representative, acting as liaison officer for the **Owner** for purpose of coordinating and administering the work under the Agreement. The work under this Agreement shall at all times be subject to the general supervision and direction of the **Contract Administrator** and shall be subject to the **Contract Administrator's** approval.

1.3.2 The **Consultant's** Designated Representative is:
Mike Forsberg

1.4 Time Parameters

1.4.1 The **Consultant** shall begin work under this Agreement upon receipt of a written notice to proceed from the **Owner**.

1.4.2 Milestones for completion of the work under this Agreement as follows:

1. Completion of all work under this agreement shall be on or before December 31, 2023 unless extended by written approval of the **Contract Administrator** or adjusted by supplemental agreement.

ARTICLE 2 ENTIRE AGREEMENT AND APPLICABLE LAW

2.1 **Entire Agreement of the Parties.** This Agreement, including its attachments, represents the entire and integrated agreement between the **Owner** and the **Consultant** and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both **Owner** and **Consultant**. This Agreement comprises the documents listed as attachments in the Table of Contents. The work to be performed by the **Consultant** under this Agreement shall encompass and include all detail work, services, materials, equipment and supplies necessary to prepare and deliver the scope of services provided in Attachment A.

2.2 **Applicable Law.** The laws of the State of Iowa shall govern and determine all matters arising out of or in connection with this Agreement without regard to the choice of law provisions of Iowa law. In the event any proceeding of a quasi-judicial or judicial nature is commenced in connection with this Agreement, the exclusive jurisdiction for the proceeding shall be brought in the Story County District Court of Iowa, Nevada, Iowa. This provision shall not be construed as waiving any immunity to suit or liability including without limitation sovereign immunity in State or Federal court, which may be available to the **Owner**. The **Consultant** shall comply with all Federal, State and local laws and ordinances applicable to the work performed under this Agreement.

ARTICLE 3 FORM OF COMPENSATION

3.1 **Method of Reimbursement for the Consultant.**

3.1.1 Compensation for the **Consultant** shall be on the basis of Direct Labor Costs times a factor of 2.95 for the services of ENGINEER'S personnel engaged on the Project, plus Reimbursable Expenses, estimated to be \$638, for a total project cost not to exceed \$124,958.

The amount of any sales tax, excise tax, value added tax (VAT), or gross receipts tax that may be imposed on this Agreement shall be added to the ENGINEER'S compensation as Reimbursable Expenses.

Compensation terms are defined as follows:

Direct Labor Cost shall mean salaries and wages, (basic and overtime) paid to all personnel engaged directly on the Project. The Direct Labor Costs and the factor applied to Direct Labor Costs will be adjusted annually as of the first of every year to reflect equitable changes to the compensation payable to Engineer.

Reimbursable Expense shall mean the actual expenses incurred directly or indirectly in connection with the Project for transportation travel, subconsultants, subcontractors, technology charges, telephone, telex, shipping and express, and other incurred expense

ARTICLE 4 TERMS AND CONDITIONS

4.1 Ownership of Engineering Documents

4.1.1 All sketches, tracings, plans, specifications, reports on special studies and other data prepared under this Agreement shall become the property of the **Owner** and shall be delivered to the **Contract Administrator** upon completion of the plans or termination of the services of the **Consultant**. There shall be no restriction or limitation on their future use by the **Owner**, except any use on extensions of the project or on any other project without written verification or adaptation by the **Consultant** for the specific purpose intended will be the **Owner's** sole risk and without liability or legal exposure to the **Consultant**.

4.1.2 The **Owner** acknowledges the **Consultant's** plans and specifications, including all documents on electronic media, as instruments of professional service. Nevertheless, the plans and specifications prepared under this Agreement shall become the property of the **Owner** upon completion of the services and payment in full of all moneys due to the **Consultant**.

4.1.3 The **Owner** is aware that significant differences may exist between the electronic files delivered and the respective construction documents due to addenda, change orders or other revisions. In the event of a conflict between the signed construction documents prepared by the **Consultant** and electronic files, the signed construction documents shall govern.

4.1.4 The **Owner** may reuse or make modifications to the plans and specifications, or electronic files while agreeing to take responsibility for any claims arising from any modification or unauthorized reuse of the plans and specifications.

4.2 Subconsultant Contract Provisions and Flow Down

4.2.1 All provisions of this Agreement between the **Owner** and **Consultant** shall also apply to all subconsultants hired by the **Consultant** to perform work pursuant to this Agreement. It is the **Consultant's** responsibility to ensure all contracts between **Consultant** and its subconsultants contain all provisions required of Consultant in this Agreement.

4.2.2 The **Consultant** may not restrict communications between the **Owner** and any of the subconsultants. The **Consultant** will encourage open communication among the **Owner**, the **Consultant** and the subconsultants.

4.3 Consultant's Endorsement on Plans. The **Consultant** and its subconsultants shall endorse and certify the completed project deliverables prepared under this Agreement, and shall affix thereto the seal of a professional engineer or architect (as applicable), licensed to practice in the State of Iowa, in accordance

with the current Code of Iowa and Iowa Administrative Code.

4.4 Progress Meetings. From time to time as the work progresses, conferences will be held at mutually convenient locations at the request of the **Contract Administrator** to discuss details of the design and progress of the work. The **Consultant** shall prepare and present such information and studies as may be pertinent and necessary or as may be requested by the **Contract Administrator**, to enable the **Contract Administrator** to pass judgment on the features and progress of the work.

4.5 Additional Documents. At the request of the **Contract Administrator**, the **Consultant** shall furnish sufficient documents, or other data, in such detail as may be required for the purpose of review.

4.6 Revision of Work Product

4.6.1 Drafts of work products shall be reviewed by the **Consultant** for quality control and then be submitted to the **Contract Administrator** by the **Consultant** for review and comment. The comments received from the **Contract Administrator** and the reviewing agencies shall be incorporated by the **Consultant** prior to submission of the final work product by the **Consultant**. Work products revised in accordance with review comments shall constitute "satisfactorily completed and accepted work." Requests for changes on work products by the **Contract Administrator** shall be in writing. In the event there are no comments from the **Contract Administrator** or reviewing agencies to be incorporated by the **Consultant** into the final work product, the **Contract Administrator** shall immediately notify the **Consultant**, in writing, that the work product shall constitute "satisfactorily completed and accepted work."

4.6.2 In the event that the work product prepared by the **Consultant** is found to be in error and revision or reworking of the work product is necessary, the **Consultant** agrees that it shall do such revisions without expense to the **Owner**, even though final payment may have been received. The **Consultant** must give immediate attention to these changes so there will be a minimum of delay to the project schedule. The above and foregoing is not to be construed as a limitation of the **Owner's** right to seek recovery of damages for negligence on the part of the **Consultant** herein.

4.6.3 Should the **Contract Administrator** find it desirable to have previously satisfactorily completed and accepted work product or parts thereof revised, the **Consultant** shall make such revisions if requested and directed by the **Contract Administrator** in writing. This work will be paid for as provided in Article 4.7.

4.7 Extra Work. If the **Consultant** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement, and constitutes "Extra Work," it shall promptly notify the **Contract Administrator** in writing to that effect. In the event that the **Contract Administrator** determines that such work does constitute "Extra Work", the **Consultant** shall promptly develop a scope and budget for the extra work and submit it to the **Contract Administrator**. The **Owner** will provide extra compensation to the **Consultant** upon the basis of actual costs plus a fixed fee amount, or at a negotiated lump sum. The **Consultant** shall not proceed with "Extra Work" without prior written approval from the **Owner**. Prior to receipt of a fully executed Supplemental Agreement and written Notice to Proceed, any cost incurred that exceeds individual task costs, or estimated actual cost, or the maximum amount payable is at the **Consultant's** risk. The **Owner** has the right, at its discretion, to disallow those costs. However, the **Owner** shall have benefit of the service rendered.

4.8 Extension of Time. The time for completion of each phase of this Agreement shall not be extended because of any delay attributed to the **Consultant**, but may be extended by the **Contract Administrator** in the event of a delay attributed to the **Owner** or the **Contract Administrator**, or because of unavoidable delays beyond the reasonable control of the **Consultant**.

4.9 Responsibility For Claims And Liability

4.9.1 The **Consultant** agrees to defend, indemnify, and hold the **Owner**, the State of Iowa, the Iowa DOT, their agents, employees, representatives, assigns and successors harmless for any and all liabilities, costs, demands, losses, claims, damages, expenses, or attorneys' fees, including any stipulated damages or penalties, which may be suffered by the **Owner** as the result of, arising out of, or related to, the negligence, negligent errors or omissions, gross negligence, willfully wrongful misconduct, or breach

of any covenant or warranty in this Agreement of or by the **Consultant** or any of its employees, agents, directors, officers, subcontractors or subconsultants, in connection with this Agreement.

4.9.2 The **Consultant** shall obtain and keep in force insurance coverage for professional liability (errors and omissions) with a minimum limit of \$1,000,000 per claim and in the aggregate, and all such other insurance required by law. Proof of **Consultant's** insurance for professional liability coverage and all such other insurance required by law will be provided to the **Owner** at the time the contract is executed and upon each insurance coverage renewal.

4.10 Current and Former Agency Employees (Conflicts of Interest)

The **Consultant** shall not engage the services of any current employee of the **Owner** or the Iowa DOT unless it obtains the approval of the **Owner** or the Iowa DOT, as applicable, and it does not create a conflict of interest under the provisions of Iowa Code section 68B.2A. The **Consultant** shall not engage the services of a former employee of the **Owner** or the Iowa DOT, as applicable, unless it conforms to the two-year ban outlined in Iowa Code section 68B.7. Similarly, the **Consultant** shall not engage the services of current or former FHWA employee without prior written consent of the FHWA, and the relationship meets the same requirements for State and local agency employees set forth in the above-referenced Iowa Code sections and the applicable Federal laws, regulations, and policies.

4.11 Suspension of Work under this Agreement

4.11.1 The right is reserved by the **Owner** to suspend the work being performed pursuant to this Agreement at any time. The **Contract Administrator** may effect such suspension by giving the **Consultant** written notice, and it will be effective as of the date established in the suspension notice. Payment for the **Consultant's** services will be made by the **Owner** to the date of such suspension, in accordance with the applicable provisions in Article **4.12.2** or Article **4.12.3** below.

4.11.2 Should the **Owner** wish to reinstate the work after notice of suspension, such reinstatement may be accomplished by thirty (30) days' written notice within a period of one year after such suspension, unless this period is extended by written consent of the **Consultant**.

4.11.3 In the event the **Owner** suspends the work being performed pursuant to this Agreement the **Consultant** with approval from the **Contract Administrator**, has the option, after 180 days to terminate the contract.

4.12 Termination of Agreement

4.12.1 The right is reserved by the **Owner** to terminate this Agreement at any time and for any reason upon not less than thirty (30) days written notice to the **Consultant**.

4.12.2 In the event the Agreement is terminated by the **Owner** without fault on the part of the **Consultant**, the **Consultant** shall be paid for the reasonable and necessary work performed or services rendered and delivered up to the effective date or time of termination. The value of the work performed and services rendered and delivered, and the amount to be paid shall be mutually satisfactory to the **Contract Administrator** and to the **Consultant**. The **Consultant** shall be paid a portion of the fee identified in section 3.1.1. Actual costs to be reimbursed shall be determined by audit of such costs to the date established by the **Contract Administrator** in the termination notice, except that actual costs to be reimbursed shall not exceed the Maximum Amount Payable.

4.12.3 In the event the Agreement is terminated by the **Owner** for fault on the part of the **Consultant**, the **Consultant** shall be paid only for work satisfactorily performed and delivered to the **Contract Administrator** up to the date established by the termination notice. After audit of the **Consultant's** actual costs to the date established by the **Contract Administrator** in the termination notice and after determination by the **Contract Administrator** of the amount of work satisfactorily performed, the **Contract Administrator** shall determine the amount to be paid to the **Consultant**.

4.12.4 This Agreement will be considered completed when the scope of the project has progressed sufficiently to make it clear that all project deliverables have been completed and supplied to the **Owner** and project closeout including final invoicing to the **Owner** has occurred, or if the **Consultant** is released

prior to such time by written notice from the **Contract Administrator**.

- 4.13 Right to Set-off.** In the event that the **Consultant** owes the **Owner** any sum under the terms of this Contract, the **Owner** may set off the sum owed to the **Owner** against any sum owed by the **Owner** to the **Consultant** under any other contract or matter in the **Owner's** sole discretion, unless otherwise required by law. The **Consultant** agrees that this provision constitutes proper and timely notice of the **Owner's** intent to utilize any right of set-off.
- 4.14 Assignment or Transfer.** The **Consultant** is prohibited from assigning or transferring all or a part of its interest in this Agreement, unless written consent is obtained from the **Contract Administrator** and concurrence is received from the Iowa DOT and FHWA, if applicable.
- 4.15 Access to Records.** The **Consultant** is to maintain all books, documents, papers, accounting records and other evidence pertaining to this Agreement and to make such materials available at their respective offices at all reasonable times during the agreement period, and for three years from the date of final closure of the Federal-aid project with FHWA, for inspection and audit by the **Owner**, the Iowa DOT, the FHWA, or any authorized representatives of the Federal Government; and copies thereof shall be furnished, if requested.
- 4.16 Iowa DOT and FHWA Participation.** The work under this Agreement is contingent upon and subject to the approval of the Iowa DOT and FHWA, when applicable. The Iowa DOT and FHWA shall have the right to participate in the conferences between the **Consultant** and the **Owner**, and to participate in the review or examination of the work in progress as well as any final deliverable.
- 4.17 Nondiscrimination Requirements.**

4.17.1 During the performance of this Agreement, the **Consultant** agrees to comply with the regulations of the U.S. Department of Transportation, contained in Title 49, Code of Federal Regulations, Part 21, and the Code of Iowa, Chapter 216. The **Consultant** will not discriminate on the grounds of age, race, creed, color, sex, sexual orientation, gender identity, national origin, religion, or disability in its employment practices, in the selection and retention of subconsultants, and in its procurement of materials and leases of equipment.

4.17.2 In all solicitations, either by competitive bidding or negotiation made by the **Consultant** for work to be performed under a subcontract, including procurement of materials or equipment, each potential subconsultant or supplier shall be notified by the **Consultant** of the **Consultant's** obligation under this contract and the regulations relative to nondiscrimination on the grounds of age, race, creed, color, sex, sexual orientation, gender identity, national origin, religion, or disability.

4.17.3 In the event of the **Consultant's** noncompliance with the nondiscrimination provisions of this Agreement, the **Owner** shall impose such contract sanctions as it, the Iowa DOT, or the FHWA may determine to be appropriate, including, but not limited to withholding of payments to the **Consultant** under the Agreement until the **Consultant** complies, or the Agreement is otherwise suspended or terminated.

4.17.4 The **Consultant** shall comply with the following provisions of Appendix A of the U.S. DOT Standard Assurances:

During the performance of this contract, the **Consultant**, for itself, its assignees and successors in interest (hereinafter referred to as the "**Consultant**") agrees as follows:

1. Compliance with Regulations: The **Consultant** shall comply with the Regulations relative to non-discrimination in Federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The **Consultant**, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, national origin, sex, age, or disability in the selection and retention of subconsultants, including procurement of materials and leases of

equipment. The **Consultant** shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the **Consultant** for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subconsultant or supplier shall be notified by the **Consultant** of the **Consultant's** obligations under this contract and the Regulations relative to non-discrimination on the grounds of race, color, national origin, sex, age, or disability.

4. Information and Reports: The **Consultant** shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the **Owner**, the Iowa Department of Transportation or Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a **Consultant** is in the exclusive possession of another who fails or refuses to furnish this information the **Consultant** shall so certify to the **Owner**, the Iowa Department of Transportation or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the **Consultant's** noncompliance with the nondiscrimination provisions of this contract, the **Owner** shall impose such contract sanctions as it, the Iowa Department of Transportation or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. withholding of payments to the **Consultant** under the contract until the **Consultant** complies, and/or
- b. cancellation, termination or suspension of the contract, in whole or in part.

6. Incorporation of Provisions: The **Consultant** shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The **Consultant** shall take such action with respect to any subcontract or procurement as the **Owner**, the Iowa Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: provided, however, that, in the event a **Consultant** becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, the **Consultant** may request the **Owner** or the Iowa Department of Transportation to enter into such litigation to protect the interests of the **Owner** or the Iowa Department of Transportation; and, in addition, the **Consultant** may request the United States to enter into such litigation to protect the interests of the United States.

4.18 Compliance with Title 49, Code of Federal Regulations, Part 26

4.18.1 The **Consultant** agrees to ensure that disadvantaged business enterprises (DBEs) as defined in 49 CFR Part 26 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this Agreement. In this regard the **Consultant** and all of its subconsultants shall take all necessary and reasonable steps in compliance with the Iowa DOT DBE Program to ensure disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts.

4.18.2 The **Consultant** shall pay its subconsultants for satisfactory performance of their work no later than 30 days from receipt of each payment it receives from the **Owner** for such work. If the **Owner** holds retainage from the **Consultant**, the **Consultant** may also withhold retainage from its subconsultant(s). If retainage is withheld from a subconsultant, full payment of such retainage shall be made within 30 days after the subconsultant's work is satisfactorily completed.

4.18.3 Upon notification to the **Consultant** of its failure to carry out the requirements of this Article, the **Owner**, the Iowa DOT, or the FHWA may impose sanctions which may include termination of the Agreement or other measures that may affect the ability of the **Consultant** to obtain future U.S. DOT

financial assistance. The **Consultant** is hereby advised that failure to fully comply with the requirements of this Article shall constitute a breach of contract and may result in termination of this Agreement by the **Owner** or such remedy as the **Owner**, Iowa DOT or the FHWA deems appropriate, which may include, but is not limited to:

1. withholding monthly progress payments;
2. assessing sanctions;
3. liquidated damages; and / or

4.19 Severability. If any section, provision or part of this Agreement shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the Agreement as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their proper officials thereunto duly authorized as of the dates below.

HDR Engineering, Inc.

By _____ Date: _____

Matthew B Tondl
Sr Vice President

ATTEST:

By _____ Date: _____

City of Ames

By _____ Date: _____

John A Haila
Mayor

ATTACHMENT A
Scope of Services

S Duff Avenue Corridor Study
Airport Road to S 16th Street

City of Ames, Iowa

PROJECT DESCRIPTION

The overall purpose of this project is to identify preferred corridor solutions along S Duff Avenue from Airport Road to S 16th Street, including preferred interchange solution at S Duff Avenue & US 30. For reference, existing signalized intersections within the study area include.

- S Duff Avenue & Airport Road
- S Duff Avenue & EB US 30 Exit Ramp / Billy Sunday Road
- S Duff Avenue & WB US 30 Exit Ramp
- S Duff Avenue & S 16th Street

The following tasks are included in the scope of services for this project.

TASK 1. Project Management and Coordination

a. Project Management

HDR will provide project management and technical oversight throughout the duration of the contract. This task includes development of a Project Management Plan. HDR's project manager will serve as point of contact, use HDR project management tools for monitoring project schedule and budget, prepare monthly progress reports and invoices.

b. Quality Assurance / Quality Control (QA/QC)

An internal Quality Management Plan (QMP) will be prepared by the HDR project manager to guide the quality control process for major deliverables throughout the project.

c. Project Meetings

HDR will participate in up to six (6) project meetings, including:

- Kickoff Meeting (HDR and City of Ames staff) (virtual)
- Visioning Workshop (HDR, City of Ames and Iowa DOT staff) (virtual)
- Initial Alternatives Development Workshop (HDR and City of Ames staff) (virtual)
- Alternatives Refinement Meeting (HDR, City of Ames and Iowa DOT staff) (in-person)
- Draft Report Review Meeting (HDR and City of Ames staff) (virtual)
- Report Presentation to Ames Area MPO Transportation Policy Committee (HDR and City of Ames staff) (in-person)

Up to three (3) HDR staff will attend project meetings. HDR will coordinate the development and distribution of meeting agendas prior to all project meetings and preparation and distribution of meeting minutes.

TASK 2. Data Collection and Review

a. Weekday Traffic Counts

HDR will obtain and organize available traffic counts from Iowa DOT's website and counts collected by the City of Ames. The latest available Iowa DOT counts from 2019 will be obtained for the S Duff Avenue intersections at Airport Road, EB US 30 Exit Ramp, WB US 30 Exit Ramp and S 16th

Street. The City of Ames will collect and provide new 24-hour counts at Airport Road, EB US 30 Exit Ramp / Billy Sunday Road, WB US 30 Exit Ramp and S 16th Street for comparison to 2019 counts and to support future year forecast development. New counts will include bicycle and pedestrian count data. Note that new counts will not be collected at S Duff Avenue & S 16th Street due to ongoing construction of intersection improvements. HDR will not collect any new traffic counts as part of the project.

b. Signal Timings

The City of Ames will provide HDR existing signal timing information to support evaluations.

c. Ames Area MPO Travel Demand Model (TDM)

HDR will utilize the approved version of the TDM with recent sensitivity updates completed by HDR on Grand Avenue and Lincoln Way Mixed Use Development Traffic Impact Study projects to gather daily model assignment in the study area. This will be used to develop future year travel forecasts and test sensitivity of potential land use changes in south Ames.

d. Crash Data

HDR will gather and organize crash data from Iowa DOT's Crash Analysis Tool (ICAT) for years 2017-2021. Crash data will be used to determine areas with safety issues where safety improvements should be considered as part of alternatives development. This will include identifying locations with high crash severity and crash patterns.

e. StreetLight Data

HDR will access and analyze StreetLight data using the City of Ames subscription to StreetLight Insight. The StreetLight data will be used to identify key travel patterns for vehicles, trucks, bikes, and pedestrians within the study area.

f. Multimodal Data

HDR will gather CyRide data on routes, headway and dwell time through the study area. HDR will gather bike/ped data through Strava to supplement bike/ped data from traffic counts and StreetLight Data.

g. Existing Transportation Plans and Programs

HDR will reference the final report of the *Forward 2045 Metropolitan Transportation Plan* and latest CIP to identify the anticipated timing and type of multimodal improvements planned for the corridor. These MTP projects will be the starting point for development of alternatives in Task 5.

The final MTP document is here:

<https://www.cityofames.org/home/showpublisheddocument/59192/637396506644970000>

The Ames Area MPO will provide any MTP amendments that would affect any of these projects. HDR will coordinate with Iowa DOT to gather plans for US 30 improvements over and adjacent to Duff Avenue that may impact alternative development, selection and programmed implementation.

TASK 3. Traffic Forecasting

a. Existing Traffic Volume Development

HDR will develop existing daily, AM and PM peak hour traffic volumes for the study area based on collected count data. The existing traffic volumes will reflect the operation of the Grand Avenue extension south of S 4th Street (opened in fall 2021). Daily volumes will support crash rate calculations and future year volume development. AM and PM peak hour volumes will support future year operational analysis. HDR will develop a figure to display existing traffic volume information for inclusion in the study report.

b. Future Traffic Volume Development

HDR will develop year 2045 daily, AM and PM peak hour traffic volumes for the study area based on the developed existing traffic volumes and output from the Ames Area MPO TDM. The 2045 traffic volumes will be used to determine improvements needed to meet long-term traffic demands. HDR will coordinate with Ames MPO to determine potential adjustments of land use data in south Ames, external model input and roadway network to be incorporated into the model and run as an alternate for future traffic growth for consideration when developing year 2045 traffic volumes. This alternate model run will aim for consistency with the latest MTP and comprehensive plan. HDR will also develop interim year 2030 daily, AM and PM peak hour traffic volumes by interpolating between existing and year 2045 developed traffic volumes. The 2030 traffic volumes will be used to identify the potential for phased improvements triggered by demand levels likely to occur beyond year 2030. HDR will develop figures to display future traffic volume information for inclusion in the study report.

c. StreetLight Data Analytics

HDR will analyze the StreetLight data to identify key travel patterns for vehicles, trucks, bikes, and pedestrians (as data permit) within the study area. This will be used to support identification and magnitude of key origin-destination pairs through the US 30 interchange. HDR will develop figures to display StreetLight origin-destination patterns for inclusion in the study report.

TASK 4. Traffic Evaluations

a. Safety Evaluation

HDR will analyze crash data within the study area for the five-year period of 2017-2021 to identify locations with high crash severity and crash patterns. HDR will develop tables and figures to display safety evaluation results for inclusion in the study report. Solutions to improve safety will be identified through review of Iowa-specific crash reduction factors and Crash Modification Factor (CMF) Clearinghouse.

b. Multimodal Review

HDR will complete a transit and bike/ped qualitative assessment. Existing facilities will be reviewed for current service, system gaps and needs. This will be used to maintain or improve existing connections within build alternative. An emphasis will be on pedestrian and bicycle safety and relative levels of stress, while carrying forward and supporting the network and strategies identified in the MTP and Complete Streets Plan.

c. Synchro Operations Analysis

HDR will complete traffic operations analysis using Synchro software to evaluate study intersections for the scenarios listed below. This will primarily be used to identify operational deficiencies under existing and future year no-build conditions and screen sketch-level concepts. The evaluation will include tables and figures to display operations evaluation results for inclusion in the study report. Traffic operations will be completed for the following alternatives:

- Existing (Year 2022) – AM and PM peak hours
- Year 2045 No-Build – AM and PM peak hours
- Year 2045 Sketch-Level Build Alternatives (up to seven (7) build alternatives) – PM peak hour

HDR will provide all final Synchro files to the City of Ames at project completion.

d. Microsimulation Modeling and Visualization

HDR will complete microsimulation modeling using TransModeler software to evaluate study intersections for the scenarios listed below. This will be used to evaluate alternatives, support selection of a recommended alternative, timeline for buildout of recommended improvements

through interim year evaluation, quantification of environmental life-cycle costs and visualizations. The environmental costs will be completed to evaluate emissions and 20-year life-cycle costs for the no-build and refined build alternatives. The modeling limits will also include Airport Road west of S Duff Avenue to the Sam's Club/Lowes intersection to incorporate the City's planned improvements for this segment of Airport Road. The TransModeler models will be at a proof-of-concept level without detailed calibration to existing conditions; however, detailed data on origin-destination patterns will be incorporated into the models via Origin-Destination-Matrix-Estimation (ODME) and updates will be made to global driver behavior parameters based on Iowa modeling experience.

- Year 2045 No-Build – AM and PM peak hours
- Year 2045 Initial Build Alternatives (up to three (3) alternatives) – PM peak hour
- Year 2045 Refined Build Alternatives (up to two (2) alternatives) – AM and PM peak hours
- Year 2030 Interim Year Recommended Alternative – PM peak hour

HDR will develop two (2) visualizations from year 2045 refined build microsimulation models to be shared with agency staff, stakeholders and the public. One (1) visualization will be generated for each of the two (2) refined alternatives. Visualizations will capture up to four (4) minutes of simulation run time. Visualizations will be enhanced with post-processing software Camtasia or similar.

e. Analysis Technical Memorandum

HDR will develop a technical memorandum to summarize the existing conditions, no-build conditions and initial alternatives analysis results. This will be used to support alternatives refinement with City and Iowa DOT staff.

TASK 5. Alternatives Development

a. Sketch-Level and Initial Alternatives

HDR will develop up to seven (7) sketch-level build alternatives for review with City of Ames and Iowa DOT staff at the Initial Alternatives Development Workshop. Following the Initial Alternatives Development Workshop, HDR will advance up to three (3) sketch-level alternatives to initial alternatives with greater detail on lane geometrics, traffic control and multimodal facilities.

b. Refined Alternatives and Conceptual Layouts

HDR will develop up to two (2) refined build alternatives from the Alternatives Refinement Meeting. HDR will develop conceptual layouts for these alternatives to be included in project documentation and support sharing preferred alternative information with stakeholders and the public. Concept-level cost estimates will be developed for the two (2) Build alternatives.

TASK 6. Strategic Communications

a. Public Open House

HDR will coordinate with City of Ames staff to advertise and participate in an in-person public open house. Efforts will include assisting the City in developing a webpage on the City's website, press release, social media and email blasts. To support advertising and the public open house, HDR will develop up to ten (10) visual aids. Visual aids will illustrate the alternative geometrics, impacts and summarize the improvements relative to project goals. Visual aids will be digital for the City of Ames to share and print as needed for public outreach. It is assumed that the City of Ames will lead advertising for the public open house with HDR review/input and print open house materials. The open house will be used to share refined alternatives and 3D visualizations as well as gather feedback. In-person stakeholder meetings will be completed with adjacent car dealerships and the Hunziker Youth Sports Complex on the same day as the public open house. Up to two (2) HDR staff will attend the public open house and stakeholder meetings.

TASK 7. Conclusions and Implementation Plan

a. Funding Plan

HDR will develop a funding plan to design and build the recommended alternative through coordination with City of Ames staff and review of grant opportunities. Traditional funding sources for the City and potential grant opportunities will be reviewed. This will consider funding through state funds (NHPP, USTEP, TSIP 3R, ICAAP and similar applicable funds), MPO funds and federal grants, including discretionary grants through the Infrastructure Investment and Jobs Act (IIJA).

b. Study Report

HDR will develop a project report that includes a recommended alternative and steps for implementation. The report will summarize traffic forecasts, traffic evaluations, developed alternatives, recommendations and prioritization of improvements. HDR will provide an electronic draft report to the City of Ames for review and comment and will provide an electronic final report to the City of Ames following one (1) round of comments. Conceptual layouts and concept-level costs developed in Task 5 will be provided with the final report.

Key Assumptions

- HDR will not collect any new traffic counts as part of the project.
- The City of Ames will provide access to StreetLight Insight for HDR use on the project.
- TransModeler Version 6.1 Software will be used for microsimulation modeling.
- TransModeler models will be at a proof-of-concept level without detailed calibration to existing conditions; however, detailed data on origin-destination patterns will be incorporated into the models via ODME and updates will be made to global driver behavior parameters based on Iowa modeling experience.
- The City of Ames will advertise for the public open house and print open house materials. HDR will support this effort with up to 10 displays or visuals.
- No public meeting summary document is included in this scope of work.
- The City of Ames will provide CAD files with aerial photography that is georeferenced and scaled for base mapping used to develop conceptual layouts.

It is understood by the **Owner** and the **Consultant** that the level and frequency of Progress Reporting shall be mutually established for each project, taking into account the complexity and duration of the work to be performed. For this specific project it is agreed that progress reporting will be provided on a monthly basis.

It is understood by the **Owner** and the **Consultant** that the task detail associated with the 85% budget notification shall be mutually established for each project in relation to the complexity and duration of the work to be performed. For this specific project it is agreed that all work contemplated in the agreement will be considered as seven task(s). It is further agreed that the 85% budget notification requirements will be waived for this Agreement based on the volume of work assigned, duration, complexity, and rate of progress anticipated on the project.

Schedule

S Duff Avenue Corridor Study Airport Road to S 16th Street

City of Ames, Iowa

A general timeline for the activities associated with this project is as follows:

Activity	Date
Milestones	
Consultant Notice-to-Proceed	October 2022
Kickoff Meeting	October 2022
Visioning Workshop	November 2022
Initial Alternatives Development Workshop	January 2023
Alternatives Refinement Meeting	March 2023
Stakeholder Meeting / Public Open House	May 2023
Submit Draft Report	July 2023
Draft Report Review Meeting	July 2023
Submit Final Report	August 2023
Final Presentation	August 2023
Tasks	
Task 1 – Project Management and Coordination	October 2022 – September 2023
Task 2 – Data Collection and Review	October – November 2022
Task 3 – Traffic Forecasting	November – December 2022
Task 4 – Traffic Evaluations	December 2022 – May 2023
Task 5 – Alternatives Development	January – May 2023
Task 6 – Strategic Communications	April – May 2023
Task 7 – Conclusions and Implementation Plan	June – August 2023

ATTACHMENT B Consultant Fee Proposal

TASK	Project Manager	Senior Advisor	Sr Engr/ Planner	Engineer/ Planner	Traffic EIT	PI	Cont roller	Total
Billing Rate:	\$ 205.00	\$ 250.00	\$ 210.00	\$ 165.00	\$ 115.00	\$ 105.00	\$ 155.00	
1 Project Management and Coordination								
a Project Management	41						6	47
b Quality Assurance / Quality Control	6	4	12					22
c Project Meetings	32			40				72
2 Data Collection and Review								
a Weekday Traffic Counts				2	4			6
b Signal Timings				1	2			3
c Ames Area MPO Travel Demand Model (TDM)				2				2
d Crash Data				1	3			4
e StreetLight Data				4	3			7
f Multimodal Data			2	2	2			6
g Existing Transportation Plans and Programs			2	2				4
3 Traffic Forecasting								
a Existing Traffic Volume Development				4	6			10
b Future Traffic Volume Development			4	10	20			34
c StreetLight Data Analytics				14	8			22
4 Traffic Evaluations								
a Safety Evaluation	2			4	14			20
b Multimodal Review			6	6				12
c Synchro Operations Analysis	4			10	15			29
d Microsimulation Modeling and Visualization	8	4		89	57			158
e Analysis Technical Memorandum				8	16			24
5 Alternatives Development								
a Sketch-Level and Initial Alternatives	4	6	4	12				26
b Refined Alternatives and Conceptual Layouts	4	4	4	24	64			100
6 Strategic Communications								
a Public Open House	16					74		90
8 Conclusions and Implementation Plan								
a Funding Plan	2		10	16				28
b Study Report	4		8	32	32			76
TOTAL HOURS	123	18	52	283	246	74	6	802
SUBTOTAL	\$ 25,215.00	\$ 4,500.00	\$ 10,920.00	\$ 46,695.00	\$ 28,290.00	\$ 7,770.00	\$ 930.00	\$ 124,320.00

Direct Project Expenses

	QUANT	UNIT	UNIT COST	TOTAL COST
General Photocopies	300	Sheets	\$0.06	\$ 18.00
Rental Car	3	Day	\$100.00	\$ 300.00
Meals	12	Each	\$20.00	\$ 240.00
Telephone Expense - Conferene Calls	4	Each	\$20.00	\$ 80.00
TOTAL ESTIMATED DIRECT EXPENSE				\$ 638.00

TOTAL COST **\$ 124,958.00**