REQUEST FOR PROPOSALS

Resilience Plan – Transportation System Vulnerability & High-Level Risk Assessment

The Atlanta Regional Commission (ARC) is seeking proposals from firms or teams of firms experienced in sketch-level hydrologic modeling, transportation infrastructure criticality assessment, transportation policy & engineering, and climate resilience planning. These skills will be necessary to support ARC in undertaking certain tasks during calendar years 2018-2020 related to assessing the vulnerability and risks of the transportation system and its users to extreme weather and future climatic conditions. The Scope of Services for the work is attached as Exhibit A and provides information regarding the level of effort required, as well as specific tasks to be accomplished.

The assignment of highly qualified and experienced staff to project deliverables and tasks is critical and will be closely evaluated during the proposal review process. Successful firms or teams of firms must also be skilled at working with local and MPO staff in deploying tools and analysis techniques.

Available funds in 2018-2020 for completion of the project will be approximately $175,000. ARC reserves the right to award all or part of the available funds for this project. The exact level-of-effort and scope of the individual tasks will be negotiable with ARC to keep the project in scope and in budget.

Firms or teams of firms must respond to this RFP with hardcopy and electronic proposals in either Microsoft Word compatible format or a PDF file. Proposal evaluation will focus initially on the written proposals. Should it be determined that interviews are required, a “short-list” of firms will be selected from the proposals received.

Interested firms should submit a proposal that addresses the requirements listed below and the Scope of Services in Exhibit A. Consultant(s) should provide a detailed breakdown of the proposed budget and a task breakdown following the general formats provided in Exhibits B and B-1.

Proposals must include the following to be considered responsive:

1. Name of lead firm and any sub-consultants.
2. Point of contact (name, title, phone number, mailing address, and email address) at lead firm.
3. Qualifications and technical competence of consultant/or sub-consultants in the type of work required.
4. Description of experience on similar projects including a list of at least 3 references within the past 5 years, with current contact information.

5. Listing of key project personnel and their qualifications.
6. Geographic location of consultant's office performing the work.
7. A detailed description of the technical approach proposed for accomplishment of the work.
8. A proposed schedule and work plan for the accomplishment of the work described in Exhibit A.
9. A proposed project budget in the format of Exhibits B and B-1.
10. A DBE Utilization Plan in the format of Exhibit C.
11. Any other pertinent information.

The review of written proposals will be based on the following evaluation criteria, with the relative weights in parentheses:

1. Related experience, strength of qualifications, versatility in subject matter expertise, and references of the firm or project team (30%)
2. Technical approach, including the appropriateness and creativity of proposed approach to the work scope (50%)
3. Work plan and schedule (10%)
   Note: This includes consultants' ability to demonstrate a balanced workload for its staff to carry out its responsibilities to ARC in balance with any other contracts consultant may have.
4. Consultant's cost estimate versus worked provided. The cost estimate shall follow the format outlined in Exhibit B. (10%)

If your firm does not wish to propose for this work, please notify ARC as soon as possible. A negative response will not prejudice consideration of your firm in competition for future ARC contracts.

It is the policy of ARC that Disadvantaged Business Enterprises ("DBEs") (49 CFR Part 26) have the maximum opportunity to participate, either as contractors or as subcontractors, in the performance of Commission contracts to the extent practical and consistent with the efficient performance of the contract. ARC's current DBE goal is 15.64%. Information regarding ARC's DBE Program can be found at www.atlantaregional.org/about-us/business-opportunities.

Additional information should not be required to respond to this RFP. However, technical questions should be submitted in writing to David D'Onofrio no later than 4:00 pm on Monday, August 6, 2018. Questions should be mailed to the address provided below or submitted by email to ddonofrio@atlantaregional.org. All questions received, and responses to those questions, will be posted on ARC's website no later than 4:00 pm on Monday, August 13, 2018.

ARC must receive four (4) hard copies and one (1) copy in digital format, either in Microsoft Word or PDF format, no later than 4:00 pm on Friday August 31, 2018.

Proposals shall not exceed a total of 25 single sided pages (8.5" x 11"), or 12 ½ double sided pages, inclusive of resumes and firm experience. Covers, end sheets, budget exhibits, DBE documentation, and a 1-2 page introductory letter shall not count against this maximum. Font size shall be a minimum of 11 point in all cases.

Proposals must be submitted to the following address:

Atlanta Regional Commission
ATTN: David D'Onofrio
International Tower
229 Peachtree Street NE, Suite 100
Atlanta, Georgia 30303

If interviews are necessary, the short-listed firms will be invited to participate in an interview process with an evaluation committee to be held between three and four weeks after proposals are due on August 31, 2018. ARC reserves the right to award this contract based on initial proposals received without formal interviews and to award all or part of this project to one or more firms. ARC also reserves the right to negotiate the final scope and budget with the selected firm.

EXHIBIT A
SCOPE OF SERVICES

I. General:

The work to be accomplished by the consultant is in support of the following ARC work program component:

Cost Center 806ERD

II. Background and Objectives

ARC is the federally designated Metropolitan Planning Organization (MPO) for the 20-county Atlanta Transportation Management Area. As the MPO for the region, and pursuant to the Fixing America's Surface Transportation Act (FAST Act), ARC is required to (among other responsibilities):

- Prepare a long-range plan and TIP [23 U.S.C. 134(c)(1)]
- Improve the resiliency and reliability of the transportation system [23 U.S.C. 134(h)(1)(I)]

There are two primary objectives outlined in this RFP:

- An analysis of critical infrastructure as it relates to current and future weather conditions from a hydrological perspective
- An assessment of exposure to heat for transportation systems and users

These objectives are broken down below. Much of the work proposed by consultants should fit within, and build on top of, ARC's adaptation of FHWA's Vulnerability and Resilience Framework.[1]

Hydrological

A critical concern for the region's transportation system is loss of access due to flooding. Ensuring planners understand the risks and vulnerability of vital transportation assets to flooding is a cornerstone of a successful resilience plan. Numerous tools, methods, and techniques exist to better understand hydrological vulnerabilities. Finding the balance between level of detail and regional focus is a challenge, and ARC staff plan on implementing a set of tools that can help answer key questions outlined in the hydrological task below.

The goal of this tool would be to highlight current and future asset vulnerabilities to flooding for future in-depth hydrological and engineering analysis. Given information about future hydrological conditions, the tool should be able to provide information about inundated assets and changes to flood plains. ARC considers it vital that this information is easily digested by stakeholders and policy-makers and final products should be visually appealing and easily understandable.

[1] https://atlantaregional.org/wp-content/uploads/arc-vulnerability-and-resiliency-framework.pdf

Heat Exposure

Climate models indicate that the Atlanta region will experience a significant increase in extreme weather days and in consecutive days of high temperatures in the future. High temperatures, especially when occurring in consecutive days, can potentially affect highway construction materials; heat exposure to system users, contractors and transportation staff; landscaping; drought; and wildfires. In examining other vulnerability assessments, ARC staff found that in most cases the extreme temperature discussion occurs in very general terms or in comparing expected temperatures to threshold temperature values for materials specifications. In this RFP, ARC is most interested in learning about the impacts of heat on system users regionally, especially in interaction with equitable-target areas and in urban heat islands.

The resulting hydrological and heat analyses will flow into a high-level risk-based project prioritization appraisal of vulnerabilities to critical assets and users. Risk, in this case, refers to the: 1) level of vulnerability an asset faces relating to a hazard, 2) the likelihood that given the hazard the asset will fail, and 3) the costs to the owner of the asset and to the users (or society, in general) if failure occurs (and for how long the asset is disrupted). This work will result in a prioritized list of regional high-risk assets/locations. The high-risk locations will then be flagged by ARC staff for monitoring and special analysis in future planning studies and efforts, such as through future transportation planning work.

III. Work Tasks:

Specific deliverables which must be provided are identified, but consultants may propose additional ones which will contribute to the project.

Task 1: Establish a Baseline of Resilience Issues in the Atlanta Region

Task 1 will explore areas in the region where weather and resilience issues already exist. Part of the scope of this task will be to assess if there are other extreme weather issues to target for work other than heat and flooding. This information will help feed into resilience stories for policy makers and the public, which will be supported by ARC staff, as well as to serve as a starting point to catalogue resilience issues in the transportation system. For example, the consultant should explore data records from GDOT or local governments on areas that typically flood and currently require ongoing maintenance so they can be addressed ahead of any vulnerable locations identified by future changes in climate.

Deliverables

- Memo detailing any other extreme weather or climate issues of concern to the Atlanta region (besides flooding and heat)
- Shapefile and/or excel file with data mapping out existing resilience issues in the MPO area

Task 2: Criticality Assessment for Regional Transportation Assets

Generally, risk-appraisals for climate and weather-related assessments rely on the determination of how important a facility, asset, or service is to the targeted community. The consultant will be tasked with developing a methodology to assess the criticality of regional transportation infrastructure and services. Existing tools and methods developed by other MPOs or USDOT for such an analysis should be reviewed and a final method proposed and executed in the Atlanta MPO area. This component should include some stakeholder outreach to identify critical community facilities, which will be supported by ARC staff.

Subtasks may include developing lists of key community facilities, exploring relevant transportation performance metrics, and compiling data on the characteristics of existing assets such as bridges.

Deliverables

- Cataloged lists of key community facilities, characteristics of existing transportation facilities and relevant data files
- Criticality assessment of regional transportation assets to include replicable methodology and relevant data files for the MPO area

Task 3: Development and/or Deployment of a Hydrological Tool

A critical concern for the region's transportation system is loss of access due to flooding. Ensuring planners understand the risks and vulnerabilities of critical transportation assets to flooding is a cornerstone of a successful resilience plan. Numerous tools, methods, and techniques exist to better understand hydrological vulnerabilities. As part of ARC's 2017 resilience work program, consultants prepared a memo evaluating many of these tools.[2] Finding the balance between level of detail and regional focus is a challenge, and the consultant should assist ARC staff on implementing a tool (or a set of tools) that can help answer the following key questions geared towards assets identified as critical to the success of the transportation system:

- Given current and historical data, which transportation assets are already in need of resilience-oriented fixes?
- Considering future weather conditions, from downscaled climate models that ARC has already prepared, what hydrological vulnerabilities will exist to critical transportation assets in the future?
- What types of solutions are appropriate to address short- and long-term hydrological challenges to critical assets?
- How should we incorporate a concern for future hydrological conditions into transportation planning and decision-making?

[2] https://atlantaregional.org/wp-content/uploads/tools-report-final.pdf

To answer these questions, the consultant should assess existing platforms and both recommend and support the deployment of a screening level GIS-focused hydrological tool. The goal of this tool would be to highlight current and future asset vulnerabilities to flooding for future in-depth hydrological and engineering analysis. Given information about future precipitation, the tool should provide information about inundated assets and anticipated changes to flood plains. ARC considers it vital that this information is easily digested by stakeholders and policy makers and that the final products be visually appealing and easily understandable.

Depending on the level of effort of the tool, and the required inputs, this task can be carried out for critical resources regionally, or as a pilot on an ARC-selected drainage basin or at specific points of interest, with the intent that ARC staff would then do the work to expand this work out regionally over time. This decision should be made in consultation with ARC staff.

Deliverables

- Sketch-level hydrological tool for assessing inundation of assets and changes to flood plains from future precipitation estimates
- Analysis of to-be-determined number of critical assets to feed into Task 5
- User manual and training on implementing the tool for ARC staff

Task 4: Assessment of the Risk to System Users/Assets from Heat Exposure

Similar to the approach in Austin,[3] an ARC resilience study should identify the threshold temperature ranges that will likely affect transportation system condition and performance, compare them to what is likely going to occur, and identify strategies to mitigate these impacts. Particular attention should be given to the impact of higher temperatures on transit riders, pedestrians and bicyclists. Public health input should be sought in determining what temperature levels constitute unhealthy conditions whereby physical activity outdoors should be discouraged. Given the urban spatial structure of the region and the concentration of activities in well-known clusters, the effects of urban heat islands on the residents and users of the transportation system should be considered by the consultant team in their analysis of the risks and vulnerabilities related to extreme heat.

As part of this task, the consultant should assist ARC in understanding the answers to the following questions:

- How do we incorporate a concern for extreme temperatures into transportation planning and decision-making?
- What are the expected extreme heat-related risks to users of the transportation system (such as transit riders and active transportation users) and to transportation workers who work outdoors?

[3] https://austintexas.gov/sites/default/files/files/CAMPO_Extreme_Weather_Vulnerability_Assessment_FINAL.pdf

- How do urban heat islands influence the "heat experience" of transportation system users?
- Do these risks disproportionately impact environmental justice communities that often rely more heavily on transit and active modes?
- What are the types of short- and long-term strategies that transportation agencies (and other agencies in partnership with transportation agencies) can implement to reduce these risks?

Deliverables

- Documentation outlining risks and thresholds for action on temperature-related transportation assets and users to include:
    - Consideration of urban heat islands
    - Consideration of equitable target area and environmental justice communities
    - Strategies that transportation agencies could deploy to reduce these risks
- Analysis of a to-be-determined number of critical assets to feed into Task 5

Task 5: Vulnerability Assessment & Risk Appraisal Framework

This task will require the consultant to develop a methodology for a vulnerability assessment and risk appraisal for the Atlanta region's critical infrastructure. Work from tasks 4 and 5 will directly feed into this task.

This analysis should consider FHWA's recommended examination by exposure, sensitivity, and adaptive capacity and methodologies outlined in existing tools such as VAST[4] and discussed in ARC's Vulnerability and Resiliency Framework (see pages 36-45). The output of this tool will be used by ARC staff to identify resilience hotspots, prioritize funding for vulnerable assets/users and inform the transportation decision-making process.

Deliverables

- Spreadsheet tool (or other tool) to integrate information from Tasks 4, 5, and any other considerations into a final vulnerability assessment
- Documentation to support ARC staff's future use of the developed tool

[4] https://toolkit.climate.gov/tool/vulnerability-assessment-scoring-tool-vast

EXHIBIT B
Proposed Project Budget

1.	Direct Labor *(List by position all professional personnel participating in project)*	Estimated Hours	Rate/Hour	Total Est. Cost
	Total Direct Labor			**$_____**
2.	Overhead Cost *(OMB circulators A-87 and A-122)* *(Overhead percentage rate) X (Total Direct Labor)*			
	Total Overhead			**$_____**
3.	Other Direct Costs *(List other items and basis for computing cost for each. Examples include computer services, equipment, etc.)*			
	Total Other Direct Costs			**$_____**
4.	Subcontracts *(For each subcontract, identify purpose and rate)*			
	Total Subcontracts			**$_____**
5.	Travel *a. Travel by common carrier from/to the ARC offices. (List number of trips and Economy class airfare, plus taxi and shuttle fares, etc.)* *b. Travel by private automobile within ARC area. (List # of days x rate)*			
	Total Travel			**$_____**
6.	Profit *(Percentage rate X basis)*			
	Total Profit			**$_____**
TOTAL PROPOSED BUDGET (all costs and profit)				**$_____**

EXHIBIT B-1
Proposed Project Budget by Task

Task	Amount
Task 1: Establish a Baseline of Resilience Issues in the Atlanta Region	
Task 2: Criticality Assessment for Regional Transportation Assets	
Task 3: Development and/or Deployment of a Hydrological Tool	
Task 4: Assessment of the Risk to System Users/Assets from Heat Exposure	
Task 5: Vulnerability Assessment & Risk Appraisal Framework	
TOTAL	

EXHIBIT C

Title VI and DBE Requirements
For Prime Contractors and Sub-grant Recipients

TITLE VI

ARC, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000D to 2000D4, and Title 49, Code of Federal Regulations, Department of Transportation Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally assisted programs of the Department of Transportation, issued pursuant to such Act, hereby notifies all Respondents that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises shall be afforded full opportunity to submit proposals in response to this invitation and shall not be discriminated against on the grounds of race, color, sex, handicap, or national origin in consideration for an award.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

Overall DBE Goal: As part of its DBE Plan, ARC has an established overall goal of 15.64 percent.

Program Intent. ARC has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26 ("Part 26" or "DBE Regulations"). ARC has received federal financial assistance from the Department of Transportation for this contract opportunity, and as a condition of receiving this assistance, ARC has signed an assurance that it will comply with Part 26.

It is the policy of ARC to ensure that DBEs, as defined in Part 26, have an equal opportunity to participate in its DOT-assisted contracting opportunities. It is also ARC's policy:

(a) To ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department's highway, transit, and airport financial assistance programs;

(b) To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;

(c) To ensure that the Department's DBE program is narrowly tailored in accordance with applicable law;

(d) To ensure that only firms that fully meet this part's eligibility standards are permitted to participate as DBEs;

(e) To help remove barriers to the participation of DBEs in DOT-assisted contracts; and

(f) To assist the development of firms that can compete successfully in the marketplace outside the DBE program.

Definitions. Disadvantaged Business Enterprise (DBE) as used in this Contract shall have the same meaning as defined in 49 CFR Part 26. A DBE is a firm in which one or more individuals who are women or eligible minorities own and control at least 51% of the firm.

Compliance. All Bidders/Proposers, potential contractors, or subcontractors for this Contract are hereby notified that failure to carry out the policy and the DBE obligations, as set forth above, shall constitute a breach of Contract which may result in termination of the Contract or such other remedy as deemed appropriate by ARC.

Prompt Payment Requirement. In the event of contract award, the prime contractor agrees to pay each subcontractor under the prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contract receives from ARC. The prime contractor agrees further to return retainage payments to each subcontractor within 10 days after the subcontractors work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of ARC. This clause applies to both DBE and non-DBE subcontracts.

Any contractor found not to be in compliance with this clause will be considered in breach of contract and any further payments will be withheld until corrective action is taken. If contractor does not take corrective action, contractor may be subject to contract termination.

Substitution. Substitution of any subcontractor, including DBEs, must be coordinated and approved by ARC.

Documentation. The Bidder should submit copies of the DBE certification with the DBE Utilization Plan. DBE's must be certified in the State of Georgia by the time contracts are awarded to qualify as a DBE for this project. The Bidder/Proposer shall establish and maintain records and submit regular reports, as required, which will identify and assess progress in achieving DBE subcontract levels and other DBE affirmative action efforts.

Additional information on ARC's Disadvantaged Business Enterprise Program can be obtained from Brittany Zwald, Contract & Grants Officer, Financial Services Division, Atlanta Regional Commission, 229 Peachtree Street NE, Suite 100, Atlanta, Georgia 30303, 470-378-1494, bzwald@atlantaregional.org.

DBE UTILIZATION PLAN

This plan will be included in a Title VI and DBE Attachment to all USDOT funded ARC bids and proposals.

Name of bidder/offeror's firm: ____________________________

Address: ____

City: ______________________________State: _______Zip: ______

Name of DBE firm: _______________________________________

Address: ____

City: ________________________________State: _______Zip: _____

Telephone: ___________________

Description of work to be performed by DBE firm:

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The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is $_______________. The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as state above.

By ____
(Signature)

____
(Title)

If the bidder/offeror does not receive award of the prime contract, any and all representations in this DBE Utilization Plan shall be null and void.

(submit this page for each DBE subcontractor).

PLEASE ATTACH A COPY OF THE OFFICIAL STATE of GEORGIA DBE CERTIFICATION FORM