Amendment #1 to Attachment A
North Development Access Road and Utility Improvements
Design Engineering Work Scope

Augusta Regional Airport (AGS)

Augusta, GA

June 14, 2024

Project Description

This project is intended to connect Cargo Road to Doug Barnard Parkway at Dixon Airline Road and provide new access to Future Hangars N1, N2, and N3 ("The Project"). A proposed 8" sanitary sewer line and 12" waterline will also be installed along the new North Development Access Road. Upon completion of this project, the new hangar parking areas will have access from Cargo Road to the south or Doug Barnard Parkway to the north at Dixon Airline Road. Minor intersection improvements (new radius returns and pavement markings) to the intersection of Dixon Airline Road and Doug Barnard Parkway will be considered. The total project length is approximately 2,000 linear feet. A preliminary budget estimate for the complete construction of the Project is $2,074,050 (Construction) + $188,550 (CA/CO) = **$2,262,600**.

The scope of services to be performed by Mead & Hunt, Inc. (Consultant) for Augusta Regional Airport (Client) includes all detailed work, services, materials, equipment and supplies necessary to provide Plans and Specifications, and perform bidding services for the North Development Access Road Project (Project). The project will be divided into four (4) phases, these services include:

PHASE I – PROJECT ADMINISTRATION

Project Administration will take place throughout the duration of the Project and will include communication of the Project progress with the Client, management of the team's activities, management of subconsultants work, quality control and quality assurance of checking of documentation, organizing the Project information and documentation and disseminating key issues. Other project administration responsibilities include overall project management, invoicing, accounting, and monitoring of the Project budget and project closeout. This phase also includes project scoping as detailed below.

PHASE II – DATA COLLECTION AND PRELIMINARY DESIGN (30%)

- Topographical Surveying – additional areas are required, refer to EMC proposal.
- Geotechnical Services – refer to NOVA proposal.
- Environmental Documentation and Permitting – Ongoing under a separate scope of work.
- Utility Coordination
- Subsurface Utility Engineering (SUE) – refer to Platinum Geomatics proposal.
- Preliminary Roadway Design
- Preliminary Hydrology and Hydraulics – refer to Aulick proposal.
- Preliminary Water Main Design
- Preliminary Sanitary Sewer Design

- Preliminary Electrical and Lighting Design

PHASE III – FINAL DESIGN AND CONSTRUCTION DOCUMENTS

- Final Roadway Design
- Final Hydrology and Hydraulics
- Final Water Main Design
- Final Sanitary Sewer Design
- Final Electrical and Lighting Design
- Water Quality Design

PHASE IV – BID ADMINISTRATION

The Consultant shall investigate and determine one or more recommendations for the most effective alignment location and construction of the North Development Access Road, water main extension and sanitary sewer extension during the preliminary phase of the project. The selected alternative will be shared with the Client prior to moving into the Final Design services phase of this scope of work. The Consultant will also review and analyze existing drainage systems within the project area to determine if improvements are necessary.

Construction Administration and Construction Observation services for the Project will be provided under a separate Work Authorization, to be negotiated at a later date.

The Consultant shall complete the scope of services in accordance with generally accepted standards of practice and shall include all work necessary to complete the tasks outlined in this Work Authorization.

Design Schedule

- Phase I – 1 weeks from Notice to Proceed (NTP)
- Phase II – 14 weeks from NTP
- Phase III – 20 weeks from NTP
- Phase IV – 24 weeks from NTP

This Project is proposed to be funded through a Congressional Directed Spending (CDS) Grant and will be completed in adherence to all FAA/Federal, GDOT, Augusta-Richmond County, and City of Augusta Utilities Department Standards.

PHASE I. Project Administration & Project Scoping

This phase involves those activities required for defining the scope of the project, project administration and project closeout work, including (but not limited to) the following activities:

Project Administration will take place throughout the duration of the Project and will include communication of the Project progress with the Client, management of the team's activities, management of subconsultants work, quality control and quality assurance of checking of documentation, organizing the Project information and documentation and disseminating key issues. Other project administration responsibilities include overall project management, invoicing, accounting, and monitoring of the Project budget.

1.0 Project Scoping

1.1 Preliminary Meetings with the Client

Consultant shall confer with the Client on, and ascertain, project requirements, finances, schedules, and other pertinent matters and shall meet with FAA/GDOT if needed and other concerned agencies and parties on matters affecting the project and shall arrive at a mutual understanding of such matters with the Client. The Consultant and Client shall discuss what type of environmental documentation (anticipated to be Categorical Exclusion) will be needed for the project and included in the work scope. Meetings with the Client shall also determine the need for topographical surveying and pavement/geotechnical testing. It is anticipated that there will be a maximum of three (3) meetings with the Client and/or the GDOT and/or the City of Augusta Utilities Department, with some meetings occurring at the project location and others being virtual.

1.2 Prepare Project Scope of Work and Proposal

This includes preparing the scope of work and fee proposal and negotiating the contract scope and fee with the Client. This also includes coordination with subconsultants for scopes and fees.

2.0 Prepare Contract and Subcontracts

This includes preparing the Consultant-Client contract and preparing subconsultant contracts.

3.0 Project Coordination (coordination with Client, State, etc.)

Consultant shall coordinate with the subconsultants, Client, State and other applicable agencies to complete the work elements described within Phase I.

4.0 Project Closeout

Prepare Project Financial Closeout Forms and Report and submit to the Client at the conclusion of the project.

PHASE II. Data Collection and Preliminary Design (30%)

5.0 Topographical Surveying – Scope to include locating the existing waterline/sewer along Doug Barnard Pkwy and Dixon Airline Road along with survey data along Dixon Airline Road where there proposed new sewer line is to be locate and necessary survey data along Dixon Airline Road and

Doug Barnard Parkway associated with the proposed roadway design. See Survey proposal from EMC.

5.1 Coordination to collect existing data and locate utilities

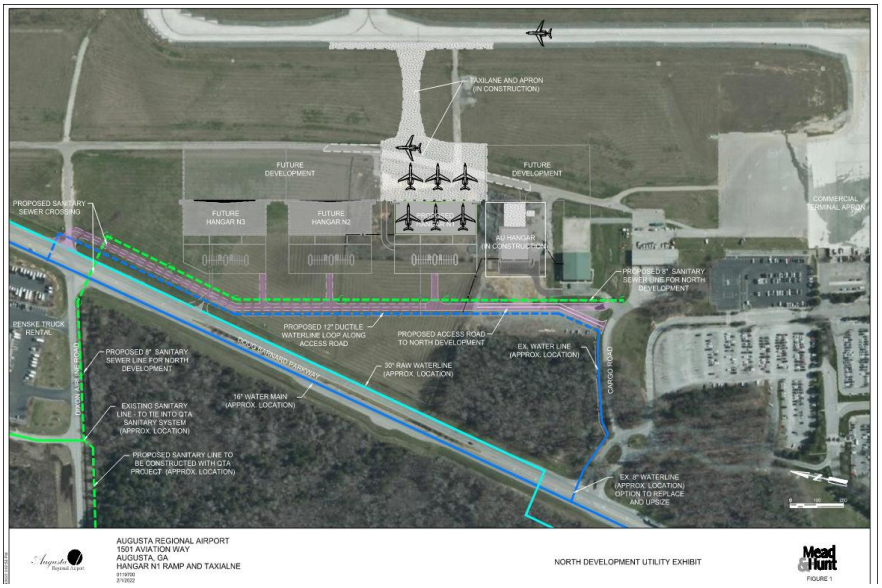
This task includes data collection and review of as-builts and available existing survey information to gather information on existing topography and utility information. This also includes coordination for field utility locates with the Airport. Coordination will be done with survey field crews to establish survey limits and coordination, survey schedule and available survey control information.

5.2 Survey Control

Survey control will be established based on existing USGS control information and used for design surveys. The Consultant shall provide a drawing showing the location of the existing or established control for the project. The Consultant shall perform necessary bench loop and traverse procedures to verify accuracy of vertical and horizontal control points.

5.3 Field Work

A topographic survey will be conducted by the Consultant. The data will be used to determine the existing pavement geometry, elevations, and drainage patterns. Ground shots will be taken in a minimum 25-foot grid pattern in paved areas, and a minimum of 50-foot grid pattern outside of paved areas. Locations of pavement markings, curbing, and utility structures will also be acquired vie the topographic survey. Limits of survey work include the boundary highlighted in yellow on the aerial map attached. All utilities visible within the project limits and surface markings of existing utilities will be located within the project limits.



5.4 Convert survey data for design software.

This work includes analyzing the topographical surveying data and preparing the data for use with computer modeling. Included are the following separate tasks:

- Establish design coordinate plan with Client/State to be used for CADD Drawings
- Input raw survey data into the computer program to sort data into company standard layers for efficient analysis.
- Sort all data points by layers and description for computer modeling.
- Verify surveyor horizontal and vertical control.
- Prepare digital terrain model (DTM) of existing ground contours, pavement edges, roadways, drainage features, and other miscellaneous items.
- General three-dimensional contour model from the DTM.
- Prepare and process data for pavement profiles, grading and/or paving cross sections, and drainage features.

6.0 Geotechnical Investigation – See geotechnical proposal from NOVA

6.1 Coordination to schedule geotechnical work.

This task includes data collection, and such as review of as-builts and available existing geotechnical information to gather information on existing soil conditions and past geotechnical or pavement test results. Coordination will be done with the geotechnical sub-consultant to schedule work and establish any work constraint parameters.

6.2 Establish project testing requirements.

The Consultant shall determine the type and frequency of geotechnical testing required for the project. The testing shall consider such items as existing pavement type, thickness, and existing pavement condition. The Consultant shall use this information to perform the following tasks:

- Determine soil boring locations and frequency of testing.
- Develop a project sketch showing location and coordinates of borings.
- Determine soil sampling locations and types of soils testing required.

6.3 Field Work

- Three (3) STBs within the proposed access road drilled to depths of 10 feet below the existing ground surface, or shallower if refusal if encountered.
- Seven (7) STBs within the proposed 8” sanity sewer alignment drilled to depths of 15 feet below the existing ground surface, or shallower if refusal if encountered.
- Five (5) STBs within the proposed 12” ductile waterline alignment drilled to depths of 15 feet below the existing ground surface, or shallower if refusal if encountered.

6.4 Analyze data

- A description of the site, field and laboratory testing, and general soil conditions encountered, with a Boring Location Plan and individual Boring Records.
- A discussion of geology for the subject area based upon readily available information.
- A discussion of subsurface conditions encountered including potential earthwork-related issues indicated by the exploration, such as materials that would require difficult excavation techniques, unsuitable or deleterious soils, unstable soils, and shallow groundwater table.
- Suitability of on-site soils for re-use as structural fill and backfill, including the criteria for suitable fill materials and the soil compaction requirements for foundations, structural fill, and pavements.
- Recommendations for controlling groundwater and/or run-off during construction and the need for permanent dewatering systems based on the anticipated post construction groundwater levels.
- Pavement design and preparation recommendations based on provided or assumed loading information.
- Recommended quality control measures (i.e. sampling, testing, and inspection requirements) for site grading and foundation construction.
- Recommendations for additional geotechnical evaluation, if appropriate.

7.0 Prepare Environmental Documentation

It is assumed that this project will require National Environmental Policy Act (NEPA) review and approval as this project is funded via federal dollars. In the event that NEPA is required, it is anticipated that an ongoing Focused Environmental Assessment (EA), not included within this scope of work, would suffice. If the Focused EA associated with the entirety of the development area is NOT completed or paused indefinitely due to reasons outside of the control by the Consultant and/or it is determined that wetlands (or other environmental concerns) are impacted by this construction, and mitigation is required, the required work must be done under an amendment to this scope.

7.1 Site visit and coordination

This subtask is expected to be completed under a separate agreement and is not included within this scope of work.

7.2 Wetland Delineation

If required, this subtask is expected to be completed under a separate agreement and is not included within this scope of work.

7.3 Jurisdictional Determination (JD) Request and 401/404 Permitting

This subtask is expected to be completed under a separate agreement and is not included within this scope of work.

7.4 Threatened and Endangered Species Survey

This subtask is expected to be completed under a separate agreement and is not included within this scope of work.

7.5 Cultural Resources Report

If a permit is necessary, a cultural resources report will be included as a contract amendment for this scope of services included with Task 7.0. This will require a separate fee, not included in this overall fee.

8.0 Utility Coordination and Subsurface Utility Engineering (SUE)

8.1 The Consultant shall identify and initiate early coordination with all utilities located within the project corridor which includes coordination with Georgia 811 to locate and identify all horizontal limits of utilities by performing a full SUE sweep by **Platinum Geomatics**.

8.2 The Consultant will be responsible for coordinating the design of the Project, it's intentions, and the pertinent construction plans and documents with all utilities that may be affected by the proposed improvements and their potential conflicts.

8.3 The Consultant will conduct a preliminary utility meeting with the utility companies to assess and explain the impact of the Project to the utility companies (or their designated representatives) on site.

8.4 The Consultant will coordinate any potential relocations with the Project's design team and the Client because of the proposed Project.

8.5 Subsurface utilities will be marked prior to the survey and collected during the field surveys. Vertical locations of these utilities will be collected.

9.0 Preliminary Roadway Design

9.1 The Consultant will establish preliminary design criteria and typical sections for the improvements along the new connector road connecting Cargo Road to Doug Barnard Pkwy at Dixon Airline Road intersection.

9.2 This includes the development of a pavement design based upon the future use of the roadway by the Client as well as any other proposed improvements that will take place and connect to the Project.

9.3 Preliminary Horizontal and Vertical geometrics based upon the best fit alignment will be established by the Consultant and provided to the Client for review and approval.

9.4 The Consultant will take the preliminary engineering and design and use that to prepare preliminary plans.

- These plans will include roadway signing and marking elements to clearly delineate the proposed improvements as well as any signing or marking necessary at the intersection of Cargo Road and Doug Barnard Parkway.

9.5 The Consultant will utilize the preliminary plans to develop a preliminary summary of estimated quantities and a preliminary cost estimate.

9.6 The Consultant will attend one (1) preliminary design field visit with the Client to review the proposed plans after received by the Client.

9.7 The Consultant will prepare preliminary technical specifications.

9.8 The Consultant will prepare the preliminary contract documents including invitation for bids, instruction to bidders, proposal, equal employment opportunity clauses, construction contract agreement, performance bond, payment bond, State Requirements, Federal Requirements, Preliminary Bid Schedule, Wage Rates, and general provisions. Preparation will include establishing the location for the bid opening, dates for advertisement, and description of the work schedule. Preliminary contract documents will be prepared as early as possible during the design phase and submitted to the Client for review by the Client. Review and incorporation of the Airport's general provisions and contract clauses, as required.

9.9 Prepare Preliminary Special Provisions

The Consultant will prepare Special Provisions to address, or expand on, conditions that require additional clarification. They will include but are not limited to the following items:

- Description of Work
- Haul Roads/Project Access
- Airport Security
- Work Schedule
- Additional Quality Control Requirements
- Pre-Construction Conference
- Sequencing of the Work
- Accident Prevention
- Underground Cables/Utilities
- Guarantees/Insurance/Taxes/Permits
- Contracts/Subcontracts
- Liquidated Damages
- Safety Standards and Impacts
- Additional Acceptance Testing Issues
- Grade Control and Surface Tolerance for Paving Work

- Special Testing Considerations
- Project Closeout Forms
- Construction Superintendent
- Contractor Insurance Requirements
- State Revenue Withholding
- Sales Tax Exemption
- Precedence of Specifications
- Disposal of waste materials
- Contract Time
- Temp. Facilities for Contractor

10.0 Preliminary Water and Sewer Design

The Consultant will evaluate the existing water and sewer facilities within the project area and provide preliminary design for the extension of water and sewer improvements along the new alignment roadway, including and evaluation of services to current and future facilities adjacent to the proposed roadway. The preliminary design will be in accordance with the City of Augusta and GDOT specifications. The preliminary water and sewer design will be incorporated into the preliminary plan set. These tasks include:

10.1 The Consultant will establish preliminary design criteria for:

- The connection of a sanitary sewer extension to existing sewer facilities Dixon Airline Road.
- The connection of a water main extension to existing potable water facilities along Doug Barnard Parkway
- This includes sizing of the proposed water and sewer extensions based upon current and future demands anticipated by the Client within the project area and identification of any required utility easements for connection to the existing water and sewer facilities.

10.2 Preliminary horizontal alignments and vertical profiles of the proposed water main and sanitary sewer line extensions will be prepared by the Consultant assuming that these alignments will parallel the proposed access road. These alignments and profiles will be provided to the Client and City of Augusta Utilities Department for review and approval.

10.3 The Consultant will take the preliminary alignments and profiles and use these to prepare preliminary plans consisting of plan and profile sheets for water and sewer line extensions, connection details to existing facilities, Location of boring/street crossings, location of valves/hydrants/manholes, and standard details for water and sewer appurtenances.

10.4 The Consultant will utilize the preliminary plans to develop a preliminary summary of estimated quantities and a preliminary cost estimate.

10.5 The Consultant will attend one (1) preliminary design field visit with the Client to review the proposed plans after received by the Client.

10.6 The Consultant will prepare preliminary technical specifications.

11.0 Preliminary Drainage Design / Erosion Control – see proposal from Aulick

The Consultant will perform all aspects of the preliminary hydraulics and drainage design including the evaluation of existing drainage elements (both open and closed systems), existing drainage areas, and all proposed drainage improvements. The preliminary drainage design will be incorporated into the preliminary plan set.

- Preliminary Drainage Design Report -The Consultant will compile the preliminary stormwater calculations, pre and post drainage areas, as well as other hydraulic elements into a preliminary drainage report with recommendations to be included into the final 90% construction plan set.

- Preliminary Erosion Control Plan - The Consultant will develop an Erosion Control Plan for the project that is in accordance with Best Management Practices (BMPs). The plan will detail types of erosion control measures recommended for the site in addition to other information needed for the NPDES permitting application. This information shall include, but not be limited to Project Location, Size of Disturbance of Project, Amount of Impervious Surface, Hydrologic Classification of Site, Receiving Waters and Site Drainage Overview.

12.0 Preliminary Lighting and Electrical Design

12.1 The Consultant will evaluate the existing lighting and electrical facilities within the project area to provide recommendations for the proposed improvements along the new alignment roadway between existing Lot E and Cargo Road. These recommendations will meet the National Electrical Code. This includes evaluation of existing facilities to replicate the existing lighting and electrical along Cargo Road. The preliminary lighting and electrical design will be incorporated into the preliminary plan set. These tasks include:

- Layout light locations.
- Site visit to inventory existing equipmen.t
- Determine functional characteristics of the system (ex. voltage/current, facility control, etc.).
- Calculate voltage drop and estimate wire size to meet the National Electrical Code.
- Layout conduit locations and sizes.
- Calculate fault current.
- Prepare narrative discussion (layout, equipment selection, sizes, electrical calculations).

PHASE III. Final Design and Construction Documents

13.0 The 60% final construction plans and specifications will include the following:

- The preliminary roadway design, Task 9 and its subtasks.
- The preliminary water and sewer design, Task 10 and its subtasks.
- The preliminary hydrology, hydraulics, and erosion / sediment control plans, Task 11, and its subtasks. Stormwater / NPDES permits will be compiled and submitted.
- The preliminary lighting and electrical design, Task 12, and its subtasks.
- Field Plan Review and 60% final construction plans cost estimate.

14.0 The 90% final construction plans and specifications will involve the updating of the 60% final construction plans, specifications, and cost estimate. A field plan review will be conducted. During this time, a drinking water project submittal form along with required documents and calculations will be submitted to City of Augusta Utilities Department and Georgia Department of Environmental Protection for review and approval. A sanitary sewer extension submittal from along with required documents and calculations will be submitted to City of Augusta Utilities Department and Georgia Department of Environmental Protection for review and approval.

15.0 The final design elements will be combined into a total 100% final construction plan set and final construction documents to assemble final quantities and a final construction cost estimate.

16.0 Prepare Advertisement for Bids
Provided by Augusta-Richmond County Procurement Department

17.0 Project Meetings
The Consultant will arrange and lead the meetings as described in the subtasks below. The Consultant will produce drawings and handouts as needed for the purpose of conducting each meeting.

17.1 Final Design Review
The Consultant will prepare and conduct a meeting at the Airport to present the final design documents.

17.2 Coordination meetings (with State, Local Agencies, Subconsultants, etc.)

17.3 Tenant coordination meeting
The Consultant will prepare and conduct up to two coordination meetings at the Airport to present design and phasing concepts.

PHASE V. Bid Administration

18.0 Furnish Bid Documents

Consultant shall prepare, submit, and provide electronic bid documents to the Augusta-Richmond Procurement Department for distribution.

19.0 Respond to Bidders Questions

During the bidding process, the Consultant will be available to clarify bidding issues with contractors and suppliers, and for consultation with the various entities associated with the project. This item also includes contacting bidders to generate interest in the project. All responses to questions will be provided to the Augusta-Richmond Procurement Department for distribution.

20.0 Prepare Addendums

Consultant shall prepare addenda as appropriate to interpret, clarify, or change the bidding documents as required by the Client or the FAA. Addenda will be submitted to the Augusta-Richmond Procurement Department for review and distribution. Any addenda that are generated as a sole result of the Client's error or omission will be considered as extra services and the Consultant shall be reimbursed for this effort as an amendment to this contract.

21.0 Pre-Bid Conference

Consultant shall attend the Pre-Bid Conference. The Project Manager and Project Engineer will attend the Pre-Bid Meeting with potential contractors and the Client to review the project and answer questions. The meeting will be conducted at the Augusta-Richmond Procurement Department offices and will include a site inspection at the Airport.

22.0 Bid Opening

Consultant shall attend the bid opening at the Augusta-Richmond Procurement Department, as identified in the Bid Advertisement and to process the bid documents.

23.0 Bid Review and Bid Tabulation

Consultant shall advise Client as to the acceptability of any subcontractors, suppliers, and other persons and organizations proposed by the bidders and as to the acceptability of substitute materials and equipment proposed by bidders. The Consultant shall prepare a spreadsheet that includes all bid items for the purpose evaluating the lowest bidder. The Consultant shall input the as-bid unit prices into the spreadsheet and to verify mathematical computations of the bids. The Consultant will then provide recommendations to the Client as to the name of the Apparent Low Bidder.

24.0 Prepare Recommendation for Award

The Consultant will prepare a recommendation of award for the Client to accept or reject the bids submitted. If rejection is recommended, the Consultant will supply an explanation for their recommendation and possible alternative actions the Client can pursue to complete the project. Once the Contract Award is made the Consultant will distribute the bid tabulations on request of the Client.

Schedule

The design for this project will take approximately 295 days to complete, not including Sponsor, FAA and GDOT review periods. The design schedule will be coordinated with the Sponsor. It is anticipated competitive bids will be received for the project in May of 2025 and a grant for construction will be awarded shortly after.

SPONSOR Responsibilities

The SPONSOR shall be responsible to provide the following information and activities:

- Provide access to the project site and assist with locating any known utilities.
- Provide a single point of contact with authority to review all documents and make decisions.
- Provide any known record drawing information to the Consultant.
- Provide coordination regarding construction safety and phasing plan reviews and project scheduling with airport tenants.

TASKS EXCLUDED FROM SCOPE OF SERVICES

The following items are excluded from this agreement. These services may be provided, if requested by the Owner, under an amendment or other contract and may require additional compensation.

- Any additional Environmental work
- Re-Design services, in the event of lack of funding, contractor pricing, bids exceeding project budget, changes in Owner or Tenant direction, or proposed changes by the contractor or other issues.
- Printing and distribution of documents for bidding or for construction use by the Contractor.
- Permitting services or fees other than those specifically noted.
- Wetland mitigation.