

HCWP (690519, CT #2074) & DRWP (690520, CT #2075) STANDBY POWER

Information to be included in all Legislation Modifying a Contract:

- 1. The names, contract compliance no. & expiration date, location by City/State and status of all companies (NPO, MAJ, MBE, FBE, HL1, AS1, or MBR) submitting a competitive bid or submitting an RFP or RFSQ.**

<u>Name</u>	<u>C.C. No./Exp. Date</u>	<u>DAX #</u>	<u>City/State</u>	<u>Status</u>
ARCADIS U.S., Inc.	57-0373224 - 5/18/19	9409	Columbus, OH	MAJ
Dynamix Engineering, Ltd.	31-1536631 - 11/30/18	5545	Columbus, OH	MBE
GPD Group	34-1134715 - 6/29/19	6560	Columbus, OH	MAJ
Varo Engineers, Inc.	31-0722508 - 10/23/19	4243	Dublin, OH	MBE

- 2. What type of bidding process was used (ITB, RFP, RFSQ, Competitive Bid).**

Requests for Proposals (RFP's) were opened on 2/28/14.

- 3. List the ranking and order of all bidders.**

1. Arcadis U.S., Inc.
2. GPD Group
3. Dynamix Engineering, Ltd.
4. Varo Engineers, Inc.

- 4. Complete address, contact name, phone number, e-mail address, and contract number for the successful bidder only.**

Arcadis U.S., Inc.,
100 E. Campus View Blvd., Suite 200, Columbus, OH 43235
Jim Hays, PE, BCEE, (614) 985-9204, jim.hays@arcadis-us.com
EL016353 – original CT
EL017666 – Mod #1

- 5. A description of work performed to date as part of the contract and a full description of work to be performed during any future phasing of the contract.**

This is a contract for Professional Engineering Services (Design Professional or “DP” services) for the Hap Cremean Water Plant and the Dublin Road Water Plant Standby Power projects (CIP Nos.: 690519 and 690520). These projects will provide standby power generators at the Hap Cremean Water Plant and the Dublin Road Water Plant. These standby generators will allow the plants to continue to operate during a utility power outage, thereby improving the reliability of the water supply system.

The original contract (Phase I) provided Professional Engineering Services for Preliminary Design.

Preliminary Design included the following tasks: investigations and evaluations of existing facilities, review and evaluation of master plan recommendations, evaluation and selection of system sizing and design criteria, review of construction documents and records, review of Federal, State, and local regulatory requirements including building codes, an evaluation of the available types of standby power units, an evaluation of locations for the standby power station and generators at each plant, preparing a preliminary design and sketches for the facilities, evaluating scheduling of construction work, preparing a preliminary estimate of

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probable construction costs, presenting the results of the total preliminary investigation and evaluation as a bound Preliminary Design Report (PDR) containing descriptions, drawings, photographs as appropriate, and suppliers' data, and holding regular review meetings to present findings at various stages of Preliminary Design.

Modification No. 1 provided Professional Engineering Services for Detailed Design (Phase II) and Bidding Services (Phase III).

Upon the City's approval of the PDR and after implementation of Modification No. 1, Detailed Design began. Detailed Design prepared construction contract documents (including specifications and drawings) in accordance with City of Columbus Division of Water standards, guidelines, and direction for construction and implementation of the proposed facilities. Detailed Design included plan and specification review meetings, assisting in negotiations, permitting, and other matters with the Ohio EPA, site surveying, geotechnical investigation, Reliability-Centered Maintenance Analysis, construction cost estimating, scheduling, constructability reviews by another entity. Bidding Services included secure bidding services, assisting at the Pre-Bid Conference and bid opening, tabulating bids, making an award recommendation for lowest and best bid, and preparing Conformed to Contract documents.

This modification (No. 2) will provide Engineering Services During Construction (Phase IV). Engineering Services During Construction will include technical project representation (TPR) duties to interpret contract requirements and to verify the construction contractor's compliance with the project's technical requirements, construction phase engineering, start-up and commissioning assistance, record documentation, Operation and Maintenance documentation, staff training, troubleshooting, development of Standard Operating Procedures (SOPs), performance of Power Systems Studies, updates to the plants' Stormwater Pollution Prevention Plans (SWPPP) and Spill Prevention, Control, and Counter Measures (SPCC), and development of Lockout – Tagout procedures.

The actual emplacement of the work will be by construction contract.

Construction Management, Field Project Representation (FPR), and Materials Testing and Evaluation Services will be performed by others.

The Community Planning Areas for both projects is "N/A" as the water treatment plants provide service to several communities.

6. An updated contract timeline to contract completion.

At the outset of the project, it was estimated that Preliminary Design for the projects would be complete five months after NTP. The DP began Preliminary Design after Notice to Proceed (NTP) in November of 2014 and completed it in August, 2015; so, Preliminary Design was completed in approximately nine months. The reason for this longer duration was due to DOW's desire to re-confirm the type of fuel that would be used, to seek alternate locations for the standby generators at Dublin Road Water Plant, and to ensure the management of the onsite fuel was documented.

Detailed Design (Phase II) commenced in December, 2015, after Preliminary Design work was approved and after the implementation of Modification No. 1. It was estimated that 11 months would be required for completion of Detailed Design, but it was actually completed

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in November, 2017 and took 24 months. The reason for this longer duration was the longer than anticipated time to design, submit, and receive approvals for stormwater elements.

After the completion of Detailed Design, Bidding Services (Phase III) commenced. Advertisement and bidding for the Hap Cremean Water Plant construction contract occurred between December, 2017 and January, 2018. NTP for that construction contract is estimated to occur in the second quarter of 2018. Advertisement and bidding for the Dublin Road Water Plant construction contract is expected to occur in the second quarter of 2018. NTP for that construction contract is estimated to occur in the third quarter of 2018. The estimated duration of the construction contracts is 2 years; so, at this point, completion of these projects is estimated to be in the second and third quarter of 2020.

7. A narrative discussing the economic impact or economic advantages of the project; community outreach or input in the development of the project; and any environmental factors or advantages of the project.

This project will provide the residents of the City of Columbus and a large part of Franklin County with a reliable supply of clean water for customer potable water uses and for the City's fire protection purposes during a regional area-wide power outage. This project benefits the economy by providing uninterrupted water service and fire protection during a power outage.

Public informational meetings are not anticipated for this project, because all proposed work is anticipated to occur within the boundaries of the water plants. Regulatory agencies will be notified of the proposed work as appropriate.

8. A description of any and all modifications to date including the amounts of each modification and the Contract Number associated with any modification to date. (List each modification separately.)

The original Professional Engineering Services contract for Preliminary Design Services (Phase I) was entered into for the contract amounts shown in #12 below.

Modification No. 1 (EL017666, \$1,034,450.00) to the original contract for Detailed Design Services (Phase II) and Bidding Services (Phase III) was entered into for the contract amounts shown in #12 below. This contract modification was planned and anticipated and the final amount was negotiated between Arcadis and DOW. Accurate estimates of costs for all phases of engineering services and project construction are difficult to produce during a project due to the many alternatives for the facility improvements that will be considered. At the inception of this project, it was necessary to estimate the costs for Modification No. 1 for Detailed Design. That estimate was \$650,000.00 for each plant; however, it is difficult to determine and define all the items that will need to be considered during Detailed Design; therefore, an increase from the original estimated fee for Modification No. 1 was due to items determined during the Preliminary Design that will improve the overall implementation and effectiveness of the project, but will require additional effort during Detailed Design and due to the need for a contingency to address unforeseen issues that may arise during the course of detailed design.

9. A full description of the work to be performed as part of the proposed contract modification. (Indicating the work to be a logical extension of the contract is not sufficient explanation.)

This Modification (No. 2) to the original contract was previously planned and anticipated and is for Engineering Services During Construction (Phase IV). Engineering Services During Construction will provide, but will not be limited to, the following: General Management and Administration, Technical Project Representation (TPR) including attendance at the Pre-Construction, Progress, and Coordination Meetings, responding to Requests for Information (RFIs), reviewing submittals, preparing of Requests for Proposals (RFPs), and Site Visits, attending factory witness tests, generating a Power Systems Study, assisting with start-up, generating Record Drawings, compiling Maintenance and Operation Manuals, providing training services, providing commissioning assistance, generating Standard Operating Procedures (SOPs) Manuals, generating online training assistance, updating SWPPP and SPCC, and development of Lockout – Tagout procedures.

Engineering Services During Construction (Phase IV) increased from an estimated total of \$1,400,000.00 to \$3,000,150.00. The complexity of the project, and the estimated construction costs, increased during Preliminary Design and Detailed Design; so, the estimated Engineering Services During Construction costs have increased accordingly.

10. If the contract modification was not anticipated and explained in the original contract legislation, a full explanation as to the reasons the work could not have been anticipated is required. (Changed or field conditions is not sufficient explanation. Describe in full the changed conditions that require modification of the contract scope and amount.)

This modification was anticipated and fully explained in the original legislation under Ordinance No. 1839-2014, as well as Modification No. 1 under Ordinance No. 2535-2015.

11. An explanation of why the work to be performed as part of the contract modification cannot be bid out. (Indicating the work to be a logical extension of the contract is not sufficient explanation.)

The work included in this modification was planned and fully anticipated and explained under Ordinance No. 1839-2014 and Ordinance No. 2535-2015. Due to the highly complex and technical nature of this water treatment plant infrastructure, it is not reasonable or cost effective to undertake a new procurement to acquire these services. The lengthy process for initiating a new procurement and for a new entity to gain understanding of the project would likely cause an unacceptable project delay and additional cost.

12. A cost summary to include the original contract amount, the cost of each modification to date (list each modification separately), the cost of the modification being requested in the legislation, the estimated cost of any future known modifications and a total estimate of the contract cost.

The following is an estimate of the total costs for the contract:

HCWP (690519-000000)

Original Contract (for Preliminary Design Services (Phase I))	\$130,041.50
Modification No. 1 (for Detailed Design Services (Phase II) and Bidding Services (Phase III))	\$1,034,450.00
Modification No. 2 (for Engineering Services During Construction (Phase IV))	\$1,713,550.00
CURRENT PROPOSED TOTAL	\$2,878,041.50

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DRWP (690520-000000)

Original Contract (for Phase I Preliminary Design Services)	\$130,041.50
Modification No. 1 (for Detailed Design Services (Phase II) and Bidding Services (Phase III))	\$1,034,450.00
Modification No. 2 (for Engineering Services During Construction (Phase IV))	\$1,286,600.00
CURRENT PROPOSED TOTAL	\$2,451,091.50

13. An explanation of how the cost of the modification was determined.

Cost Proposals were provided by Arcadis, reviewed and negotiated by the Division of Water, and deemed acceptable.