

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 RFSO.**

<u>Name</u>	<u>C.C. No./Exp. Date</u>	<u>City/State</u>	<u>Status</u>
Arcadis U.S., Inc.	57-0373224 / 07/10/2015	Columbus, OH	MAJ

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

3. **List the ranking and order of all bidders.**
Arcadis U.S., Inc.

4. **The name, address, contact name, phone number and contract number of the firm awarded the original contract.**
Malcolm Pirnie, Inc., (now known as Arcadis U.S., Inc.) 100 East Campus View Blvd., Suite 200, Columbus, OH 43235-1447
Contact: Jim Hayes, PE; (614) 985-9209

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.**

The basic services to be provided under this Agreement are professional engineering services necessary for, and incident to: Overall Engineering Consultant (OEC) Services for the Wastewater Treatment Facilities Upgrade - General Program. OEC services are necessary to provide technical and engineering assistance to the City and its design professionals in planning and coordination of the work. The OEC services are separated into the following tasks:

- Task 1 – Planning Services
- Task 2 – Design Services
- Task 3 – Construction Related Services
- Task 4 – Commissioning and Start-up Services
- Task 5 – General and Additional Services

The engineering services provided by Arcadis U.S., Inc. for each of these tasks and proposed additional funds for each task from April 2014 through March 2015 are as follows:

1A. WWTP Master Planning: \$0

Not funded for 2014.

1B. Process Inventory and Analysis: \$275,000

Work shall include as requested process analysis including primary clarifier settling analysis as needed during wet weather periods until CEPT designers are on board. Work shall also include process investigations including BioCrack analysis. Work shall also include ongoing digestion process support, Incinerator BCE support, and as requested solids analysis. Deliverables will be defined as needed by the City.

1C. Basis of Design: \$61,180

Work shall include updating the wastewater treatment plants' Basis of Design, incorporating the PPM projects that are now complete. Effort shall include gathering information on the current Basis of Design, and project solids and wet stream improvements. This effort will support the future CEPT, Asset Management and Blueprint Columbus efforts. Deliverables will include an updated Basis of Design.

1D. Water Quality Sampling, Analysis, and Modeling: \$0

Not funded for 2014.

1E. Plants Contracting Program Definition Support: \$0

Not funded for 2014.

1F. SSO Master Planning and Coordination: \$0

Not funded for 2014.

1G. General Engineering Report: \$0

Not funded for 2014.

2A. Project Management: \$186,350

The Engineer shall provide project management services to direct and coordinate the various tasks being performed under the OEC contract. Also included under this task are project status meetings with the City's project manager, coordination with subconsultants, project workload projections, and record keeping tasks to ensure proper documentation of the project. Also included is coordination with City staff regarding invoicing, task allocations, total project status, and schedule. Deliverables will be defined as needed by the City.

2B. DDM Review: \$0

Not funded for 2014.

2C. General Design Review: \$0

Not funded for 2014.

2D. Value Engineering: \$0

Not funded for 2013.

2E. Guide Specification Product Support: \$0

Not funded for 2014.

2F. Guide Specifications Update: \$0

Not funded for 2014.

3A. Software Programming and Training: \$153,197

Work shall include ongoing improvements to the Online O&M Application. The scope includes the following annual tasks: inventory reviews, programming updates, content modifications (for removed or moved equipment) and application training. Scope also includes upload of new content for existing equipment, plant-modified equipment or new equipment, and upload of updated SOPs (for approximately 60 manuals and/or equipment and 5 SOPs annually as selected by plant staff). Uploads to the City's server would also be conducted quarterly. Deliverables will be defined as needed by the City.

3B. Instrumentation and Control Assistance: \$12,480

Work includes providing as requested assistance to Treatment Engineering for electrical and instrumentation control work to support capital projects. Deliverables will be defined as needed by the City.

3C. Bid Review Assistance: \$0

Not funded for 2014.

3D. Construction Document Review: \$0

Not funded for 2014.

3E. Construction Claims Assistance: \$0

Not funded for 2014.

4A. Construction Training Assistance: \$0

Not funded for 2014.

4B. Start Up and Commissioning Plans: \$0

Not funded for 2014.

5. GENERAL AND ADDITIONAL SERVICES: \$452,880

This task includes items anticipated in the contract, but which do not have concrete cost estimates and/or scopes of work at the time of the contract modification. As directed by the City, additional services that the Malcolm Pirnie team may provide includes: Aerial photography, photogrammetry and mapping; topographic, planimetric, land or construction surveys; easement descriptions, plats and deeds for real property acquisition; soils and geotechnical engineering; laboratory analyses and studies; specialized plans, applications and reports in conjunction with funding; economic studies; materials inspections and tests; assistance in establishing and optimizing facility operation; preparing detailed comprehensive maintenance and operation manuals to supplement maintenance and operation instructions furnished by material suppliers and construction contractors; short circuit studies, studies and analyses in conjunction with shop, mill, field or laboratory tests and inspection of materials and equipment; technical resources for the preparation of grant or loan applications and regulatory documents; assistance in negotiations with the Ohio EPA and USEPA concerning permitting requirements; and, other professional services related to the overall engineering coordination of the City's capital improvements projects. Deliverables will be defined as needed by the City.

5A. CSSOMP: \$0

Not funded for 2014.

5B. Reference Drawings: \$ 91,256

Work includes working with the City on a document management plan. Work shall include document discovery workshops for DOSD, including gathering information, performing document discovery workshops and document discovery site visits. It is anticipated that this work shall be coordinated with the Asset Management Office. Deliverables shall include meeting summaries that highlight the documents generated by DOSD, discuss what information DOSD finds important to retain, and determine how the documents are currently being kept on site.

5C. Flood Impact Study: \$0

Not funded for 2014.

5D. WWMP Implementation and Impacts: \$ 1,426,902

Work shall include tasks directed toward a September 15, 2015 submission of the Blueprint Columbus plan which is an Integrated Plan. The Integrated Plan will include three tracks for consideration. The first is an update of the current gray-focused plan (WWMP), utilizing the new collection system model (through coordination with the SSCM) and generating updated cost estimates and schedules. The second is development of a green infrastructure plan, which will utilize green infrastructure alongside sewer system lining to meet project goals. The effort will also include a mix of gray and green technologies for the third track to be investigated for the Blueprint Columbus Integrated Plan. All of the plans will also include incorporation of the output of the City's Stormwater Strategic Plan and development of other stormwater considerations of the Integrated Plan.

Efforts shall include: beginning to draft the document for submission on September 15, 2015, water quality analysis planning, development of a cost methodology, calculating prioritization for the identified Blueprint Columbus areas, performing TBL calculations, attending and supporting steering committee meetings and members, assistance with overall Blueprint public meetings, Advisory Board meetings, OEPA meetings, and CAP meeting assistance. Work shall also include coordination with consultants for final reports (what is needed and when) for the Blueprint Columbus Integrated Plan concerning:

- Third Avenue
- Real Time Control
- DSR 083 Weir Raise
- Legal Investigations
- Public Outreach
- Barthman Parsons Pilot
- Clintonville Pilot
- Linden Pilot
- Suburban Projects
- Affordability
- Stormwater Strategic Plan
- SSCM (collection system modeling)
- CEPT

Efforts shall also include providing the City with renderings of potential street scape changes, assistance in evaluating a private property I/I program, its effectiveness and feasibility, and as needed assistance with the City's pilot projects. Work shall also include providing QA/QC and general expertise in the areas of private I/I removal and green infrastructure implementation on an as requested basis. Work shall also include support of development and implementation of the green infrastructure technologies and methods, pilot programs, and general incorporation of green infrastructure into the Blueprint Columbus Integrated Plan.

Work shall also include a review of up to 15 completed Sewer System Evaluation Study reports to be submitted by the satellite communities to the OEPA in February 2014 as required by the 2009 DFFOs. A summary report shall be generated compiling information from each community to identify how I/I was estimated and quantity of the estimated I/I. Within the report, the material sources of excessive I/I, and the remediation and implementation actions proposed by the satellite to address the I/I discharged to the City of Columbus sewer system shall also be summarized. This report shall be the basis for prioritizing which communities (and which areas in the communities) should receive focus and further attention as part of Blueprint Columbus. In addition, the completed phases (and the proposed approach to subsequent phases) from Dublin, Worthington, and Franklin County shall also be reviewed. Deliverables will be defined by the City.

5E. Toxicity Reduction Evaluation: \$0

Not funded for 2014.

5F. Air Permitting and Assistance: \$0

Not funded for 2014.

5G. Local Limits: \$0

Not funded for 2014.

5H. DOSD Environmental Audit: \$0

Not funded for 2014.

5I. DOPW Environmental Audit: \$0

Not funded for 2014.

5J. Grant Funding: \$0

Not funded for 2014.

5K. MHI4 Repair and Rehabilitation: \$0

Not funded for 2014.

5L. Nutrient Analysis: \$0

Not funded for 2014.

5M. OSIS Structural Review: \$0

Not funded for 2014.

5N. Jackson Pike Chlorination: \$0

Not funded for 2014.

5O. WQS Technical Review: \$0

Not funded for 2014.

5P. Environmental Oversight Contract Review: \$0

Not funded for 2014.

5Q. Sewer Cost of Service Update: \$ 55,148

Work shall include 2014 rate work as requested by the City. This includes determining the water and sewer rates for each rate class, updating sewer and water capacity fee model, and revising the Rate Study report. Deliverables will be defined by the City.

5R. SWMM Methodology Review: \$0

Not funded for 2014.

5S. NPDES Permitting and Assistance: \$ 113,110

Work includes NPDES permit renewal application for the City's wastewater treatment plants. A renewal application for the City's permits is required to be submitted to the Ohio EPA by February 1, 2015. The Engineer shall work with the City to gather the necessary information and prepare applications for submission to the Ohio EPA.

5T. Utility Analysis Document Review: \$0

Not funded for 2014.

5U. Long Street Siphon: \$0

Not funded for 2014.

5V. Asset Management Support: \$0

Not funded for 2014.

5W. WWTP Energy Audit: \$0

Not funded for 2014.

5X. Green Infrastructure Investigation: \$0

Not funded for 2014.

5Y. Manual Updates: \$ 355,068

Work includes initial development of SOP Guides, which are a quick description of the SOPs for a particular process area so that operators from another area can read the SOP Guide and be up-to-speed on the operation of a particular process. The scope of work includes development of an SOP Guide for each of the City's two wastewater treatment plants as a pilot.

Using the SOP Guide format as a template, work shall continue to a total of a possible 36 process areas through each wastewater treatment plant (18 for each plant), upon City approval.

Work also includes finalizing the remaining S76 SOPs (Skimmings and Centrifuge Thickening) and finalizing SWWTP Headworks SOPs (Raw Sewage Pumping and Screening).

5Z. Flap Gate Engineering Assessment: \$0

Not funded for 2014.

5AA. I/I Study Area Report Integration: \$0

Not funded for 2014.

5AB. STUMP Implementation and Impacts: \$ 22,848

Work includes as needed assistance in working on the RFPs associated with the Draft 2009 STUMP submission. Efforts could include assistance with the regional storage RFP and the Biogas RFP response and as needed assistance. Deliverables will be defined by the City.

5AC. 3D System Model: \$0

Not funded for 2014.

5AD. NSPS SSI Rule Assistance: \$0

Not funded for 2014.

5AE. BCE Assistance: \$0

Not funded for 2014.

5AF. Private Source I/I: \$0

Not funded for 2014.

5AG. CMOM Continuation: \$ 224,484

Work shall include continued as needed assistance in developing the Employee Development Binder, providing root foam contract assistance, developing a plan for inspection and operational assessment of force mains, continued support of the CMOM program sustainability plan, and an update of the retirement analysis.

Efforts on the Employee Development Binder development shall include assisting in the composition and/or quality review of future chapters as well as assisting SMOC with reviewing and revising Employee Performance Appraisal procedures and documents to reflect new protocols to be included in the binder. Deliverables shall be defined by the City. Root foam contract assistance shall include continued support to the new contract administrator with the continued alignment of locations for contract years 2014 and 2015 which shall provide for the sustainability of the program into the following contract cycles. This may include review of CCTV inspections and determination of whether a location should be on the EPM program and update of WAM to support tracking of root foam activities, as well as display of locations in GIS. Assist with optimization of communication between field crews and contract administrator for new locations to be included on the contract.

Work shall also include plan development for inspection and operational assessment of force mains. This shall involve assisting DOSD in developing a specific plan for conducting inspection and condition assessment testing of the force mains. This effort is expected to address the mains associated with the 10 sanitary pump stations and shall exclude the inspection of force mains that cross the flood wall, which had been inspected by SMOC in 2012. Under this task, the appropriate inspection technologies (and potential vendors) shall be determined, modifications needed for the force mains to facilitate inspection shall be identified, and the specific approach for each inspection shall be developed, including step by step instructions.

Work shall also include CMOM program sustainability plan implementation. Efforts shall include continued support of SMOC in implementation and status review of the CMOM Program Sustainability Plan. This may include support of SMOC staff in Programmatic Measures reporting at SMOC staff meetings to inform management on the status of each program. The effort shall include coaching of staff prior to reporting of measures at monthly SMOC staff meeting and attendance at the meetings to observe the quality of reporting. Additionally, once the telemonitoring group has been re-aligned to allow for remote coding of robotic CCTV inspections, the SMOC Manager has requested that the current Resource Allocation Guidance document for the telemonitoring group be revised and submitted. It is also anticipated that assistance shall be needed with program modifications due to the retirement of key SMOC staff who have been identified as program leaders under the Sustainability Plan. This shall include providing background information and guidance to newly defined program leaders who replace the retired staff.

Also as part of the work an update of the retirement analysis shall be performed. This effort shall update an analysis performed in 2005 identifying staff members with the potential for retirement, 87% of the employees identified have left City service. The SMOC manager is required to provide projections of annual retirements for each budget cycle. The Engineer shall collect the current data, update the 2005 report and provide results to the SMOC manager. This task shall reassess the potential retirees at SMOC through 2019 to determine if additional documentation is needed to retain the knowledge of those employees and refine future hiring strategies to provide DOSD with a well-trained and knowledgeable staff.

5AH. Stormwater Master Plan Review: \$0

Not funded for 2014.

5AI. Headworks Followup: \$ 5,304

Work shall include continued Headworks followup efforts including inspection of a variety of rubber products exposed to plant conditions to determine the effects of the exposure. The task deliverable will be inspection and a memo to describe the status of the rubber after exposure

5AJ. Key System Components: \$0

Not funded for 2014.

5AK. System Model Support: \$0

Not funded for 2014.

5AL. 114 Response: \$0

Not funded for 2014.

5AM. Incineration Assistance: \$0

Not funded for 2014.

5AN. Electric Rate Study: \$ 11,995

Work shall include additional work as followup to the 2013 electric rate study. Deliverables will be defined by the City.

REIMBURSABLE EXPENSES \$ 64,028

MODIFICATION 4 TOTAL: \$ 3,512,000

6. An updated contract timeline to contract completion.

The Contract notice to proceed was issued on March 18, 2010. The contract duration is for six (6) years, ending in December 2015. The professional services shall be funded by incremental appropriation, through the use of approximately annual modifications. This award is planned to provide the services listed above until the next planned modification in April 2015.

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.

The performance of this project's activities to provide engineering and technical services for CIPs at DPU facilities will help them maintain peak operational performance. If left unperformed, the required work could become larger and more expensive that could produce a major impact to the budget. No community outreach is considered for this project.

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.)

Original Contract	\$2,000,000.00 (EL010117)
Modification No. 1	\$4,840,000.00 (EL011835)
Modification No. 2	\$3,216,000.00 (EL013654)
Modification No. 3	\$40,000.00 (EL014348)
Proposed Modification No. 4	\$3,512,000.00
Proposed Modification No. 5 (est. 2015 funding)	<u>\$3,000,000.00</u>
CURRENT PROPOSED TOTAL	\$16,608,000.00

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 contract is being incrementally funded through the use of modifications. The work to be provided as part of this modification includes Process Inventory and Analysis, Water Quality

Sampling, Analysis and Modeling, Project Management, Guide Specifications Update, General and Additional Services, WWMP Implementation and Impacts, Air Permitting and Assistance, Local Limits, Sewer Cost of Service Update, Asset Management Support, STUMP Implementation and Impacts, 3D System Model, CMOM Continuation, Headworks Followup, and Incineration Assistance.

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 Contract Modification No. 4 was planned and anticipated, and so stated in the original contract's legislation. It is a planned continuation of the services originally included within the existing contract's scope of service.

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.)

In so much as the majority of this work was planned for and anticipated within the original procurement, and due to the highly complex and technical nature of the engineering assistance provided to the City, it is not reasonable or cost efficient to undertake a new procurement effort to acquire these services.

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.

Original Contract	\$2,000,000.00 (EL010117)
Modification No. 1	\$4,840,000.00 (EL011835)
Modification No. 2	\$3,216,000.00 (EL013654)
Modification No. 3	\$40,000.00 (EL014348)
Proposed Modification No. 4	\$3,512,000.00
Proposed Modification No. 5 (est. 2015 funding)	\$2,194,000.00
CURRENT PROPOSED TOTAL	\$16,608,000.00

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

The cost of this modification was determined by the Division of Sewerage and Drainage, based upon current estimated needs. The cost of this contract modification is consistent with the direct labor, and overhead, rates established within the original proposal.

14. Sub-Consultants identified to work on this contract, their contract compliance no. & expiration date, and their status (NPO, MAJ, MBE, FBE, HL1, AS1, or MBR):

<u>Name</u>	<u>C.C. No./Exp. Date</u>	<u>Status</u>
See attached Subcontractor Work Identification Form.		

15. Scope of work for each subcontractor and their estimate of dollar value to be paid.

See attached Subcontractor Work Identification Form.

Note: The Contract should be considered to include any and all work that is anticipated to be awarded to the company awarded the original contract throughout the contract/project timeline. This includes the original contract and any and all future anticipated modifications to the contract to complete the contract/project.

Updated as of 4-10-10