



Legislation Text

File #: 2214-2019, Version: 1

1. **BACKGROUND:** This legislation authorizes the Director of Public Utilities to enter into a professional engineering services agreement with Arcadis U.S., Inc. for the Sewer System Capacity Model Update 2020 Project, CIP 650460-100002 for the Division of Sewerage and Drainage. The initial contract covers work for the first year with four subsequent planned annual contract modifications.

The sewer collection system model developed and enhanced by the Model Update Project, is the principle tool used to manage the planning and operations of the City's sewer collection system. Enhancement of this tool is vital to minimizing sewer overflows and backups and thereby minimizing negative impacts to the environment caused by the City's sewer system. The continual updating of this model is necessary to ensure compliance with the Ohio Environmental Protection Agency's Consent Orders.

The City's system-wide sanitary and combined system models have been developed since the late 1980s' and recently updated under the Sewer System Capacity Model Update 2012 (SSCM 2012) project. All current models use PCSWMM (PC based Storm water Management Modeling software) as the user interface platform and SWMM5 as the modeling engine. These models are categorized into Detailed Models and Reduced Pipe Models (RPMs). Detail models represent sanitary sewers of 8 inch and larger in all Blueprint areas and 12 inch and larger outside Blueprint areas, and combined sewers of 12 inch and larger. The RPMs represent the backbone of the collection system and have been used as a tool for planning purposes.

The SSCM 2020 project will enhance the City's existing system-wide sewer collection models and apply them to support the Blueprint Columbus Program, operation & maintenance (O&M) of the collection system, operation of two Wastewater Treatment Plants, Capital Improvement Projects (CIPs), real time control initiatives (RTC) and sewer capacity evaluations. The selected consultant will be required to keep the model up to date as new data becomes available and new development occurs and to perform model runs and analyses as directed by the City.

2. **PROCUREMENT:** The Department of Public Utilities issued a Request for Proposals (RFP's) on September 13, 2019 pursuant to the overall requirements of City Code Section 329 in order to solicit proposals for the Sewer System Capacity Model Update 2020 Project. One proposal was received and reviewed, and it was determined that Arcadis U.S., Inc. proposal best meet the needs of the Department of Public Utilities.

Name	C.C. No.	Exp. Date	Vendor#	City/State	Status
Arcadis U.S., Inc.		57-0373224		03/19/2021	009409 Columbus, OH MAJ

3. **SUMMARY OF TASKS:**
- Update and refine SWMM 5 models developed under the Sewer System Capacity Model - Update 2012 (SSCM 2012) to conditions of year 2020, 2025, and 2050
 - Perform various model applications to support the City's Blueprint Columbus Program, CIPs, O&M and sewer capacity evaluations
 - Perform rain gauge data review and rainfall analysis
 - Perform flow monitoring data review and dry/wet weather flow analysis in focused areas
 - Perform field investigations as needed
 - Provide instruction and workshops to City staff
 - Prepare and deliver technical reports and memorandum
 - Prepare delivery of the detailed model upon request by the City

These tasks will be realized through completion of the Sewer System Capacity Model - Model Update 2012 through a series of five (5) phases hereinafter referred to as: Year 1, Year 2, Year 3, Year 4 and Year 5.

4. **MULTI-YEAR CONTRACT:** The Department anticipates requesting additional future modifications to this contract.
5. **PROJECT TIMELINE:** This project will cover a five year period with yearly modifications.
6. **Contract Compliance No.:** 57-0373224 | MAJ | 03/19/2021 | Vendor#: 009409
7. **Emergency Designation:** Emergency legislation **is not requested** at this time.
8. **Economic Impact:** The collection system model developed and enhanced by the Model Update 2020 Project, is the principle tool used to manage the planning and operations of the City's sewer collection system. Enhancement of this tool is vital to minimizing sewer overflows and backups and thereby minimizing negative impacts to the environment caused by the City's sewer system. This contract is also a major component of City's Blueprint Columbus Integrated Plan program.
9. **Fiscal Impact:** The legislation authorizes the transfer within and an expenditure of up to \$1,773,099.16 from the Sanitary Sewer General Obligation Fund, Fund 6109, and an amendment to the 2019 Capital Improvements Budget.

To authorize the Director of Public Utilities to enter into a professional engineering services agreement with Arcadis U.S., Inc., for the Sewer System Capacity Model Update 2020; to authorize the transfer within and an expenditure of up to \$1,773,099.16 from the Sanitary Sewer General Obligation Fund; and to authorize an amendment to the 2019 Capital Improvements Budget. (\$1,773,099.16)

WHEREAS, it is necessary for the City to enter into an engineering agreement with for the Sewer System Capacity Model Update 2020 Project, CIP 650460-100002 for the Division of Sewerage and Drainage to continue to comply with the Ohio EPA Consent Orders; and

WHEREAS, the sewer system model is the principal tool used to manage the planning and operations of the City's sewer collection system; and

WHEREAS, it is necessary to authorize the transfer within and a total expenditure of up to \$1,773,099.16 from the Sanitary Sewer General Obligation Bond Fund, Fund 6109 project; and

WHEREAS, it is necessary to amend the 2019 Capital Improvements Budget for purposes of providing sufficient budget authority for the project expenditure; and

WHEREAS, it is necessary for City Council to authorize the expenditure of funds from the Sanitary Sewer General Obligation Fund, Fund 6109 for the Sewer System Capacity Model Update 2020; and

WHEREAS, it has become necessary in the usual daily operation of the Division of Sewerage and Drainage, Department of Public Utilities, to authorize the Director to enter into a professional engineering agreement with Arcadis U.S., Inc. for the Sewer System Capacity Model Update 2020 Project for the immediate preservation of the public health, peace, property, safety and welfare; **now, therefore,**

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBUS:

SECTION 1. That the Director of Public Utilities is hereby authorized to enter into an engineering agreement with Arcadis U.S., Inc., 100 E Campus View Blvd., Ste. 200, Columbus, Ohio 43235 for professional engineering services for the Sewer System Capacity Model Update 2012, in accordance with the terms and conditions as shown in the contract modification on file in the office of the Division of Sewerage and Drainage.

SECTION 2. That the City Auditor is hereby authorized to transfer \$1,773,099.16 within the Sanitary Sewer General Obligation Bond Fund 6109, per the account codes in the attachment to this ordinance.

SECTION 3: That the 2019 Capital Improvements Budget Ordinance is hereby amended as follows:

Project No. | Project Name | Current Authority | Revised Authority | Change

P650871-110171 | Roof Redir. Clintonville1 Cooke / Glenmont | \$590,883 | \$178,201 | (-\$412,682) (Carryover)

P650871-100000 | Blueprint Downspout Redir. | \$1,360,418 | \$0 | (-\$1,360,418) (Carryover)

P650460-100002 | Sewer System Capacity Model 2020 (carryover) | \$0 | \$1,773,100 | +\$1,773,100

SECTION 4. That the Director is hereby authorized to expend up to \$1,773,099.16 within the Sanitary Sewer General Obligation Bond Fund 6109 per the account codes in the attachment to this ordinance.

SECTION 5. That said engineering company, Arcadis U.S., Inc., shall conduct the work to the satisfaction of the Director of Public Utilities and the Administrator of the Division of Sewerage and Drainage.

SECTION 6. That the funds necessary to carry out the purpose of this ordinance are hereby deemed appropriated and the City Auditor shall establish such accounting codes as necessary.

SECTION 7. That the City Auditor is hereby authorized and directed to transfer any unencumbered balance in the project account to the unallocated balance within the same fund upon receipt of certification by the Director of the Department administering said project that the project has been completed and the monies no longer required for said project; except that no transfer shall be made from a project account by monies from more than one source.

SECTION 8. That the City Auditor is authorized to establish proper project accounting numbers as appropriate.

SECTION 9. That the City Auditor is authorized to make any accounting changes to revise the funding source for all contracts or contract modifications associated with this Ordinance.

SECTION 10. That this ordinance shall take effect and be in force from and after the earliest period allowed by law.