



## Legislation Text

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**File #:** 11-0543, **Version:** 1

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Resolution to Approve Amendment No. 4 with Malcolm Pirnie, Inc. for Design of the Facilities Renovations Project at the Wastewater Treatment Plant (\$2,410,347.00)

We request your approval of Amendment No. 4 to the Professional Services Agreement with Malcolm Pirnie, Inc. (MPI) in the amount of \$2,410,347.00 to complete the design and bid of the Facilities Renovations Project (FRP) at the City's Wastewater Treatment Plant (WWTP).

The purpose of the FRP is to construct the renovations identified in the Ann Arbor WWTP Facilities Master Plan. The WWTP Facilities Master Plan is a comprehensive, 25-year planning document that provides the basis and schedule for rehabilitation and replacement of major equipment at the WWTP. The older West Plant portion of the WWTP was first constructed in the 1930's and the newer East Plant was constructed in the late 1970's.

The West Plant has exceeded its useful life and was taken out of service in 2006 due to its dilapidated condition. Replacement of the West Plant is necessary for the WWTP to reliably meet current and future wastewater treatment capacity requirements. In addition to the complete demolition and replacement of the West Plant, the FRP includes miscellaneous renovations and improvements throughout the facility to maintain treatment viability and reliability. Construction of the FRP must be done without impeding the flow of wastewater into the WWTP or the plant's ability to effectively treat the flow in compliance with regulatory requirements.

Based on the selection criteria listed in RFP No. 584, MPI was selected as the most qualified engineering firm to provide the needed engineering design services. MPI is producing final bid drawings (approximately 600 sheets) and specifications to be used for securing necessary permits and soliciting bids from qualified contractors. Due to the magnitude and complexity of the FRP, the complete scope of services for design of the project could not be fully determined at the onset of design work. As such, the scope of the design was phased as decisions were made to address the WWTP's needs in the most effective and cost efficient manner.

On March 7, 2005, Council approved the original agreement with MPI in the amount of \$2,996,670. The scope of services in the original agreement included evaluation of alternatives, site assessments of geotechnical, hydrogeological and environmental site characteristics, utility investigation, temporary utility coordination, preliminary design and bidding support services for demolishing and replacing the West Plant, and modifying the East Plant to improve its reliability.

On June 14, 2006, Council approved Amendment No. 1 to the agreement with MPI in the amount of \$427,831.19. The scope of services in Amendment No. 1 included engineering services to evaluate and develop conceptual plans for the Administration and Maintenance Buildings, various treatment structures and stand-by power facilities. Also included in Amendment No. 1 was an expansion of the site-wide hydrogeological investigation, preparation of a laboratory data management system and a document management system, coordination with DTE regarding overhead line replacement and preparation of a flood response plan.

On February 19, 2008, Council approved Amendment No. 2 to the agreement with MPI in the amount of \$2,691,025. The scope of services in Amendment No. 2 included engineering services to complete the design of alternatives that were identified during the evaluations performed under the original agreement and Amendment No. 1. Also included was the design of various renovations that will enhance plant performance, reliability and flexibility and are most cost effectively completed as part of this project.

On November 6, 2008, Council approved Amendment No. 3 to the agreement with MPI in the amount of \$244,040.00. Amendment No. 3 included engineering services to assist in the preparation and submittal of an application for a Conditional Letter of Map Revision (CLOMR) to the Federal Emergency Management Agency (FEMA) for improvements to the earthen embankment that protects the WWTP site from the Huron River and Fleming Creek floodwaters. During the site plan review process, it was discovered that the existing earthen embankment and sheet pile floodwall constructed along the perimeter of the Huron River and Fleming Creek in 1978 do not meet FEMA's standards. Without FEMA certification, the WWTP site would be considered to be in the Huron River floodplain and all new construction would be required to include flood proofing of all new buildings to 500-year flood standards. By securing the CLOMR from FEMA, the City is now able to make improvements to the earthen embankment and floodwall during the FRP and ultimately secure FEMA certification that the WWTP is outside of the 100-year and 500-year floodplains.

At the request of WWTP staff, MPI submitted the proposed scopes of services and associated fees for the work to be done under Amendment No. 4. In general, Amendment No. 4 involves completing the design of the FRP, securing the necessary regulatory permits from township, county and state agencies and applying to the Michigan Department of Environmental Quality (MDEQ) for low interest loans from its 2012 State Revolving Fund (SRF) Program. More specifically, the scope includes design of changes in project elements to reduce costs, design of site stormwater system improvements including rain gardens, porous pavement and other best management practices, assistance with obtaining project site plan approval from Ann Arbor Township, natural features investigations, wetland investigations, assistance with applying to MDEQ for low interest SRF program loans, additional activities needed to complete the CLOMR application process including river flood modeling and design of improvements to the earthen embankment and floodwall, additional project management activities and coordination with Superior Township for work being performed in the portion of the plant located in that township. WWTP staff worked with MPI to ensure the scope of services is reasonable and appropriate to achieve the objectives of the WWTP Facilities Master Plan. Based on its review, WWTP staff determined that the proposed fee is consistent with the scope of services being provided.

Construction of the FRP will extend over five fiscal years and is estimated to cost \$80 million. Including the requested amount to fund Amendment No. 4, the total costs for design engineering services is \$8,769,913.00, which is approximately eleven percent of the anticipated project construction costs. Engineering design costs in the range of 10 - 15 percent of construction costs are reasonable for projects of this magnitude.

The budget for this project is included in the approved capital budget and is included in the approved FY 11-16 CIP.

MPI received Human Rights approval on May 2, 2011, and complies with the City's living wage requirements. The standard amendment to agreement for professional services without modification will be used for this amendment between the City and MPI.

Prepared by: Michael D. Amicangelo, P.E., Senior Engineer, WWTP

Reviewed by: Sue F. McCormick, Public Services Administrator

Whereas, A portion of the City's Wastewater Treatment Plant (WWTP) was constructed during the 1930's (West Plant), which had to be taken out of service in 2006 due to its dilapidated condition and is no longer operable;

Whereas, The City of Ann Arbor WWTP Facilities Master Plan identified various renovations that include demolition and replacement of the West Plant and other improvements to the WWTP required to improve process reliability and enable the plant to meet current and future wastewater treatment capacity requirements;

Whereas, The Facilities Renovations Project (FRP) was undertaken to construct the improvements identified in the WWTP Facilities Master Plan and is included in the City's approved FY11-16 Capital Improvements Plan;

Whereas, On March 7, 2005, Council authorized award of an agreement with Malcolm Pirnie, Inc. (MPI) in the amount of \$2,996,670.00 to begin a phased design of the FRP;

Whereas, Council subsequently approved three amendments to the agreement with MPI (No. 1 on June 14, 2006, for \$427,831.19, No. 2 on February 19, 2006, for \$2,691,025 and No. 3 on November 6, 2008, for \$244,040) to provide additional engineering services associated with the design of the FRP;

Whereas, Amendment No. 4 includes engineering services for completing the design of the FRP, securing the necessary regulatory permits from township, county and state agencies and applying to the Michigan Department of Environmental Quality (MDEQ) for low interest loans from its 2012 State Revolving Fund (SRF);

Whereas, Funding is available in the approved capital budget to fund Amendment No. 4; and

Whereas, MPI received Human Rights approval on May 2, 2011, and complies with the City's living wage requirements;

RESOLVED, That Council approve Amendment No. 4 to the agreement with Malcolm Pirnie, Inc. for \$2,410,347.00 to provide additional professional engineering services for completing the design and bid of the FRP;

RESOLVED, That the City make the following declaration for the purpose of complying with the reimbursement rules of Treasury Regulations 1.150-2 pursuant to reimburse itself for the expenditures for the cost of the Project with proceeds of Bonds;

RESOLVED, That Council approve the agreement for the life of the project with funds to be available until expended without regard to fiscal year and authorize the City Administrator to approve amendments to the Agreement; and

RESOLVED, That the Mayor and City Clerk be authorized to execute Amendment No. 4 after approval as to substance by the City Administrator and approval as to form by the City Attorney.