

To: Ellis Mitchell, City Manager

From: Christopher J. Cook, PE

Re: Project Update

Date: December 31, 2020

2020 has been a very active year for projects in the City of Benton Harbor. Several projects are underway, recently completed or being contemplated involving sewer, water, and infrastructure issues that are summarized below for your information.

### **Projects Underway**

1. Clean Water State Revolving Loan Fund/Drinking Water State Revolving Fund (CWSRF/DWRF) – The city was successful in getting loan approval, scoring the highest of the new projects submitted for DWSRF, qualifying for a loan in excess of \$10M with \$1.4M in loan forgiveness. Individual project updates are being provided for each project and collectively on a weekly basis. A copy of the most recent update from December 18 is attached to this report. Dan Dombos, Corey Kandow, and Jason Marquardt are Project Managers.
2. Hydrant Flow Testing & Repairs – Wachs Water is complete with their project to address the hydrant testing and marking the hydrants based upon their flow rate. This work was required by DEQ/EGLE. They have identified the hydrants that do not work or are in need of repair. The City Commission approved proceeding with quotes for the work by Wachs for hydrant repairs and valve assessments and Kalin for hydrant replacements. The hydrant replacement project consists of 21 hydrants throughout the city. 5 hydrants have been replaced. The rest will be done in early 2021. The valve turning/assessment program will commence in the Spring of 2021. Corey Kandow is the Project Manager.

3. EPA Grant – We submitted a grant application to EPA to replace all or most of the lead services in the City. The grant request was in excess of \$15M. The EPA approved this grant for \$5.6M. We have been working with EPA to coordinate important details on execution of the grant from EPA and are ready to go on this in the first quarter of 2021. We expect to begin public notices and information gathering at that time. The governor proclaimed that \$500M will be available to communities for water-related improvements, including specific set-asides for disadvantaged communities to locate, plan, and replace lead services. Since the EPA grant didn't cover the entire magnitude of lead services in the city, we made application yesterday for the first round of EGLE funds for \$1M to field locate lead services and prepare an Asset Management Plan. The next application for lead service line replacements is due January 31, 2021. Chris Cook and Jason Marquardt are the Project Managers.
4. Signal Removals - The removal of the signal at the corner of Britain and Riverview was completed in September. Additionally, the remaining signal poles will be removed at the corner of Wall & Market in Spring 2021 as part of the CWSRF/DWRF project in that area. Dan Dombos is the Project Manager.
5. Arts District Light Replacement – Chris Cook coordinated with Beaudoin electric to replace three lights replaced that were damaged in the Arts District. These light replacements should be complete by the first week of January 2021. Chris is also coordinating with AEP to see if they will be able to take over these lights and other decorative lights in the city just like the city has with the basic street lights in the residential areas of the city. Also, need one light (different style) installed at Jean Klock Park and another on Main Street.
6. Fiscally Distressed Cities, Villages and Township Grant (FDCVT 2) - FDCVT grant funds are awarded to cities for infrastructure and public safety enhancements. FDCVT 1 (Summit and Cherry Street watermain replacements and fire hydrant work) was closed out in 2019 with total expenses of approximately \$360k. FDCVT 2 plans were to replace water main on Pavone. However, McAlister was approved by FDCVT as an amendment to the original plan. McAllister water main replacement was completed at a cost of \$106k. Clay Street plans are being prepared with inclusion of CDBG funds. We are awaiting approval from CDBG and FDCVT to proceed with this project in the Spring of 2021. Jason Marquardt is the Project Manager/Engineer for this and the other FDCVT projects below.
7. FDCVT 3 - B&Z is complete on Sherman Court (\$202k). Territorial is now complete (\$246k). FDCVT amendment to apply funds from Summit, Cherry, McAlister, and Clay to cover the costs of Territorial was approved. Valve replacements are also part of this grant (\$50k).

8. FDCVT 4 - The City previously received a \$2M grant from DEQ/EGLE for the development of a Stormwater and Wastewater Asset Management Plan (SAW Grant) which was completed in 2017. \$1M of these funds went to the replacement of 92% of the City's water meters. Bids were received and B&Z was awarded the work to replace the remaining 8% of residential meter replacements to be funded by FDCVT. This was approved by the City Commission. Work started and has now been paused due to Covid-19. We expect that the work will be completed in 2021 for approximately \$300,000 (including meter purchase and installation).
9. Bridge Inspection/Recommended Repairs – required by MDOT every two years – completed required inspections along with required Scour analysis and provided a summary to City Staff. Eric Kamps has completed plans and specifications for contractors to complete the work. He is preparing a summary report for you to share with the City Commission underscoring the importance of these repairs. This project is pending in the Spring of 2021 upon confirmation and approval of funding.
10. I&M Drainage issues – We have been staying on top of this issue and corresponding with I&M and MDOT to see when/if/how they are going to complete their improvements to alleviate flooding on and around their property on Main Street. Many options have been considered, including temporary pumping into the MDOT system and permanent pumping from the city's system to possibly alleviate issues in the Riverview area. Tim Drews prepared several plan review memoranda to update the Planning Commission on the situation.
11. City Works/GIS training – We are coordinating with the software vendor for continued staff training and implementation. Chris Cook is coordinating this. We will be discussing how to keep the GIS system updated in the coming weeks.
12. Water Street Lift Station – We are going to renew efforts to address the situation at this lift station, including Closed Circuit TV (CCTV) inspection or exploratory excavation of the sewer pipes and settling around the Lift Station. Then we can determine plans for abandonment of the above ground lift station. Currently, people have been breaking into the station and living inside. This has caused damage to the sewer system and poses a health risk.
13. Storm Sewer/Sanitary Sewer Connections – We are nearly complete with a detailed sewer study to locate current sources of infiltration and inflow in the sewer system. We are currently mapping the system in target areas, studying lift station flow data, and conducting field investigations. Previous studies (in 2008 and 2014) identified locations of concern. Some of those areas have been fixed and others have not due to funding. With high groundwater and lake/river levels at this time the problem has gotten much more severe and costly to the city.

14. TwinCATS – Currently Chris Cook serves as the City's representative on the Technical Advisory Committee. He is also the alternate for the Policy Committee. The City needs to designate a new representative on the Policy Committee, preferably the City Manager or Mayor. This group serves to fund road improvements throughout Berrien County. With Abonmarche assistance, the City has been successful in receiving significant funding for the eligible major street network – the most recent win was for funding Empire Avenue improvements.
  
15. Michigan Gas Utilities has prepared plans and a permit for improvements to the Ox Creek between highland and Main Streets. We met with representatives of MGU and city staff to better understand their plans. We are now coordinating review with the city's legal counsel before it is brought to the City Commission.
  
16. Lift Station Maintenance Plan – We will assist the city with the preparation of a lift station maintenance plan in early 2021.
  
17. Parking Plans – At the request of Public Safety, we are assisting with the preparation of downtown and neighborhood parking plans to address the possibility of paid parking and accessibility issues with two-sided parking on narrow streets.
  
18. Water Department – we are assisting as needed on various issues for the water department, including recently the water plant roof repairs, as built locations of existing facilities, gear drive contractors, etc. Other issues that are currently being addressed by the water department include ACO, TMF, filter to waste, alum sludge, optimization, alum feed, SCADA, intake, coagulation, and disinfection.

### **Projects Recently Completed**

1. Public Facility Water Meters - Completed installation of water meters in currently unmetered locations such as city parks to address comments/concerns raised by Michigan Department of Environment, Great Lakes, and Energy (EGLE), formerly Michigan Department of Environmental Quality (DEQ). Munawar Azam is the Project Manager.
  
2. Empire Avenue Resurfacing Project from Pipestone to the east City Limits was approved by TwinCATS for funding in 2022. The construction estimate is \$562,000 with \$384,000 federal participation. The project is being advance constructed in 2020 with reimbursement in 2022. Work is complete and open to traffic. Tim Drews is the Project Manager.

3. Street Repairs - The 2019 plan repaired the worst streets to make them safe and passible. Approximately \$1M from Income Tax funds was used to complete improvements to numerous streets around town. For 2020, the low bidder was Kalin Construction. The expenditure will be around \$350k, considering streets and alleys. Work is complete and open to traffic. Planning is now underway for the 2021 program. Tim Drews is the Project Manager.
4. Pavement Markings - The major street pavement markings were last completed in 2016. The markings were refreshed this summer to make the streets safer. We utilized Berrien County Road Department crews to complete the work. Planning is underway for the Spring of 2021 for pavement markings and intersection markings – stop bars, arrows, crosswalks, etc. Tim Drews is the Project Manager.
5. Sign Replacements – Sign Inventory was completed in September 2016. Focus is on stop/yield/street name replacement adjacent to major streets. Rathco was awarded the bid for the work. They are complete with their work and planning is underway for more sign replacements in 2021. Tim Drews is the Project Manager.
6. Address Markings - Street numbers were added in several areas of the City: Empire, Pipestone, Colfax, Britain, Riverview, and Market Street. Bret Witkowski led this project along with Kinexus. Local youths completed around 300 properties. We are planning for doing more with Kinexus and local youth in 2021.
7. Waterfront Emergency Plan – We completed a coastal emergency section addressing current and potential high-water issues to be added to the City/County emergency Preparedness Plans. The Public Safety Department is responsible for implementation of the plan. We have been put on the river elevation warning system to track high water events that may be of concern to the city.
8. Main Street Drainage Issues - Main Street west of the roundabout at Riverview Drive has been experiencing ponding after rains for the past year or more. Tim Drews has been coordinating with Michigan Department of Transportation (MDOT) to facilitate improvements. Discussions with MDOT and state legislators has been on-going. MDOT has installed a pump station to alleviate the ponding on their road. An issue was also defined at the roundabout adjacent to TCATA. A lack of storm sewer connection was noted and Abonmarche/City staff assisted TCATA and MDOT in preparing plans to address the situation.
9. DPW Storage Area Improvements – Improvements included site grading, concrete apron for salt storage, and additional material storage areas. The contractor, Yoder Construction, is complete with the work. Eric Kamps has been working the lead engineer on this. Also, door replacement with Roggow Construction was completed for \$4800.

10. The Lead Service Pilot Grant - DEQ/EGLE awarded \$284,000 in May 2018 to fund an inventory and replacement of lead service lines. A total of 94 homes had service line material verified by "pot holing" where a 3'x3' hole was excavated around the curb stop so that pipe material could be identified on both the privately-owned side and the City-owned side. Additionally, 17 lead service lines that measured the highest lead readings when last tested were replaced from the main to the house. The cost for each replacement ranged from \$4,800-\$7,200. DEQ/EGLE approved using funds for work at the Water Plant, which were handled by Mike. The grant has been completed and is now closed out. Jason Marquardt is the Lead Engineer/Project Manager.
11. Benton Township – We met with the Township to discuss issues of common concern, including water/sewer/road issues at the common borders. The focus is now on the Township's river crossing to the WWTP. It is expected that the Township will begin work in 2021 to remove their sewers from the siphon under the St. Joseph River.
12. Paw Paw Drainage Issues - Low point in road near the City public works building and railroad tracks had drainage problems contributing to potholes and flooding. The road is now repaired and open. B & Z completed the work. Project cost \$250,000. Tim Drews is the primary contact.
13. City Hall Fire Department Door Replacement Project – Previous doors were too narrow to accommodate firefighting equipment. Roggow Construction completed the work with a contract cost of \$146,200.
14. City Hall Fire Department Window Replacement Project - Roggow Construction completed the work with a contract cost of \$77,414 to replace failing, energy inefficient windows.
15. Farmer's Market –USDA Rural Development grant awarded City \$60,000 for construction with \$150,000 local share. Completed May 2019. We are preparing an application for a second pavilion structure to be funded by USDA. Evan LeDuc and Jason Ficklen are leading this project.

### **Projects Being Contemplated**

1. Hall Park - Gast Manufacturing has reached out to the city to assist with funding improvements to the park, including a new play structure, benches, railings for safety, etc. We are expecting more details from Gast in the future. This has been holding due to the COVID-19. Tom Runkle is the Project Manager.
2. Riverfront Shoreline - Review of stability of riverfront shoreline from the Bicentennial Bridge to Yarbrough Park is complete. Looking for funding for the recommended short-term improvements to protect the shoreline (expected to cost up to \$150,000). Project is on hold pending funding. Mike Morphey is the Project Manager.

3. Armory Renovation - The Armory formerly served as a community center until it was closed in 2009. Several renovations are required to make it functional again. Phase I work to make the building weathertight is complete. Abonmarche prepared a summary of options for next phases. The city is considering options for recreational programming at the site along with necessary improvements for occupancy. Grant applications are being started to assist with funding the repairs and programming at the site. The grant applications will require a Parks Master Plan to be included with a Community Master Plan Update to be eligible for grant funds.
4. Pipestone & Market Traffic Signal - Additional signal work in accordance with the long-term master plan for Pipestone was approved by the Congestion Mitigation Air Quality (CMAQ) Committee. This is the last of 5 intersections to be improved. Wall St, Jefferson/Broadway, Britain, and Empire are already complete. Project cost is \$235k CMAQ funds and \$59k local match. Project not scheduled until 2023.
5. Sidewalk Asset Management - Completed assessment of sidewalk conditions and prepared 3-year capital improvement plan to repair sidewalks and install ADA ramps. Total cost estimates per year are: 2019- \$860k, 2020- \$775k, 2021- \$506k. This project is not active, pending funding availability. Current focus is more on streets and alleys.
6. Kartar sewer connection -Township has been collecting sewer fees, but it is unexpectedly connected to the BH system. The township plans to complete the connection to their sewer system in 2022.
7. Electric Vehicle Charging Stations – looking into options for providing these stations on city property in early 2021.
8. Urban Waters Restoration Grant – we are preparing an application to EGLE for a grant to fund improvements to Ox Creek. The application is due January 28, 2021.