

CITY OF BETHLEHEM

Department of Community and Economic Development Interoffice Memo

To: J. William Reynolds, City Council President
From: Darlene L. Heller, Director of Planning and Zoning
Re: 2017-2021 Capital Improvement Program
Date: September 26, 2016

Attached is the draft Capital Improvement Program for the years 2017 through 2021.

It was recommended for approval by the Planning Commission at its September 22, 2016 meeting.

Please place this item on an upcoming City Council agenda for consideration.



Darlene L. Heller, AICP
Director of Planning and Zoning *tes*

CC: Mayor Donchez
City Clerk
City Council members
A. Karner
D. Brong
M. Sivak
Department Heads
M. Dorner
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NON-UTILITY CAPITAL IMPROVEMENT PROGRAM

2017-2021

PROJECT DESCRIPTION

Last revised September 16, 2016

I. PUBLIC SAFETY

1. Ambulance Replacement / Remounting Plan (EMS)

The plan is to replace/remount ambulances as necessary to maintain a fully operational fleet of seven (7) ambulances, minimizing breakdowns and expenses incurred from heavy usage and high mileage. The plan involves the on-going replacement or remounting from BOND, CDBG or other alternate funding sources.

The mechanical bureau will determine which ambulance will need to be replaced / remounted regardless of age based on warranty information, mechanical maintenance records and visual inspections of the fleet at the time of replacement.

2. Fire Apparatus Replacement Plan

The Bethlehem Fire Department has purchased a new Ladder Tower Aerial Truck.

This vehicle replaced an aging 1997 Sutphen Aerial Tower that has exceeded its useful service life, and was in constant need of repair. The tower was delivered in August of 2016. The manufacturing company is Pierce Fire Apparatus, Ohio. This ladder tower should serve the residents and businesses in the City of Bethlehem for the next 15-20 years. Two remaining lease payment are to be made in 2017 and 2018.

3. Flood Control System

The City inherited the responsibility for maintaining the Flood Control dike, buildings, the electrical system, pumps and motors at the Flood Control Station on the South Side on the Lehigh River from Bethlehem Steel. This account is to provide for capital expenditures for maintenance of this system. As a result of mounting needs (replacement of transformers and possibly pumps) and historical use of the pump house component of the station, the City re-evaluated the need for this component and recommended de-commissioning to the Corp of Engineers. In 2009 the Corp of Engineers and FEMA agreed that the pump component is not providing additional flood protection. Nevertheless, a re-delineation of the 100-year floodplain since abandoning the pumps is a change to the Flood Control System. The re-delineation results in minor additional shallow flooding areas, all within the former Bethlehem Steel plant, due primarily to storm sewer system capacity limitation, which exists regardless of the status of the pump stations. Although we are confident the pumping component of the Flood Control Station is no longer needed, this line item budgets for upgraded design and replacement in the event the City desires to restore the pump component of the system and restore the system to acceptable status under USACE regulations. Funds may be used for repairs to the remaining system and, in the event the pumps are permanently abandoned, funds may be used to abandon parts of the system.

4. Fire Apparatus Replacement Plan – Quint Ladder Truck

Quint Ladder Truck – Our back-up ladder truck is in need of replacement. It is currently out of service due to engine failure on 8/20/2016. The city garage should be consulted on the life expectancy of this vehicle in the fire fleet. The replacement apparatus would have both a ladder and fire pump which can serve dual roles within the department. The total cost of the vehicle is \$1,027,002 spaced over 3 years.

5. **Fire Apparatus Replacement Plan – Rescue Engine Replacement**

Rescue Engine Replacement – Our current Rescue Engine #6 will need to be replaced in the next few years. Rescue Engine #6 is dispatched to every section of the City of Bethlehem and is showing it's the wear & tear. This engine should be removed from the fleet as the rescue engine and can be used at another fire station for regular fire calls. The cost of this vehicle is \$960,000 spread over 3 years.

6. **Self-Contained Breathing Apparatus**

The Bethlehem Fire Department will need to replace the entire Self-Contained Breathing Apparatus System [S.C.B.A.] which will be reaching the end of its service life. The target date to replace the S.C.B.A. would be at the end of 2019. The Bethlehem Fire Department the Bethlehem Haz Mat Team, Bethlehem Police Swat Unit and the Bethlehem Water Bureau will also be included in this upgrade.

In addition to the air-packs, a new compressed air filling station would be required to meet the needs of the “next-generation” S.C.B.A.

The new air pack system would also include a Personal Accountability System [P.A.S.S.] that would monitor firefighters and their air supply while doing interior firefighting.

The estimated cost for this system would be \$887,900 spread over 3 years.

7. **In Car Dash Cameras**

Not a day goes by where someone accuses a police officer of misconduct or excessive force somewhere in the United States and we view the alleged confrontation on television. All show some type of altercation between a law enforcement officer and a suspect. There are often claims of unlawful use of force by police against suspects that result in thousands of dollars in legal fees that a municipality pays to argue the civil litigation. U.S. Department of Justice statistics show that dash cameras systems and body cameras have proven that the majority of these complaints are unfounded when a video of the incident exists. They often show that the officer's actions were appropriate and within legal guidelines and directives.

The City of Bethlehem Police Department, at one time, had multiple dash camera video units. Over the past two years only 6-9 remained in working order. Presently none of these 6-9 in car units are in operational order, and the Department's secure server that stores the recordings is also no longer operational.

The Bethlehem Police Department is basically “video dead.” We are at a critical time right now. We have no dash camera systems and/or body cameras in a world where the public and Courts demand and/or request that type of independent evidence. This places this department and the City in a very dangerous position.

This is an extremely important issue that affects liability issues for the City, the safety of officers and citizens, and potential public relation issues. Most departments of our size across this country have at least in car camera systems with many also having body cameras. We have neither.

This proposal supports a two phase program to purchase and re-introduce in car camera systems and then to introduce body cameras. Of the two systems, the first phase would be the purchase of in car camera systems and a secure server. The second phase would be the purchase of body cameras. These two phases would greatly enhance public safety and policing, and bring the police department back in line with national accepted and recommended standard from the Department of Justice.

Federal, State and Local Grant funds would also be applied for and utilized along with funding from this proposal. Gaming Grants could also be utilized during those five years. Whatever grant funds or outside source funds that could be obtained would be utilized before budgeted funds.

The department currently has (34) Police Vehicles that are utilized for patrol purposes. Estimated project costs for those (34) police vehicles include, camera units for (30) police cruisers, camera units for (4) Police Motorcycles, all hardware, wireless video transfer and networking, licensing and warranties, software maintenance and CLOUD-share, installation and tech services.

The total cost for this project is \$220,000 over a 5 year period.

8. Body Cameras for Police Officers

Currently, the Bethlehem Police Department does not deploy body cameras. Allentown Police are introducing them. Lehigh University Police have already deployed them. Other agencies in the Lehigh Valley are also deploying them. This proposal is for funds to support the purchase of police body cameras for BPD Officers over a five year funding period. This proposal would cover the purchase of 125 body cameras for 125 uniform patrol officers and some specialized Officers. The budgeted strength of BPD is 155. These cameras would greatly enhance policing in this City and also would bring BPD up to modern standards that the Department of Justice is suggesting to all departments across the country.

The average price of a police body camera ranges from \$750.00 to \$1500 each. Allentown City Council recently provided funds to APD in the amount of \$200,000 for body cameras. This proposal is for \$150,000 over a five year funding period. This \$30,000.00 per year investment would be a program to outfit all uniform Officers with body cameras and certain specialized units. This is an issue that affects civil liability claims against police, thus may well save the City money if a lawsuit is filed against the Police for some action or allegation of police misconduct.

Federal, State and Local Grant funds would also be applied for and utilized along with funding from this proposal. Gaming Grants could also be utilized during those five years. Whatever grant funds or outside source funds that could be obtained would be utilized before budgeted funds.

II. PUBLIC WORKS

A. TRAFFIC

1. TR/Isolated Intersections

Install new or upgrade existing signals at various locations. Each intersection costs between \$150,000 and \$180,000. Proposed potential new signal locations include East Boulevard & Linden Street, Butztown Road & Easton Avenue, Linden Street & Elmhurst Avenue, and Third Avenue & Union Boulevard. Needed upgrade locations include Goepp and Center Streets, Goepp and New Streets, Goepp and Main Streets, Broad and Linden Streets, Market and Center Streets, Market and New Streets, Center and Church Streets and Linden and Geopp Streets. Design and construction of the new traffic signals at the intersections of Broad Street & Linden Street and Broad Street & Center Street will be completed in 2017 at an estimated cost of \$160,000 each for construction and \$40,000 for design. Design work for the new traffic signals at the

intersections of Linden & Goepp Streets and Main & Goepp Streets will be completed in 2018.

2. **TR/Traffic Safety Improvements**

Replacement of outdated traffic controllers and cabinets at various locations for our 128 signalized intersections and flashers. Purchase of video detection cameras to replace damaged or broken in-roadway traffic loop detection is also budgeted under this item.

III. **STREETS**

1. **Carlton Avenue - Broadway to Summit Street**

Remove and reconstruct curb, sidewalk, and road reconstruction due to extensive water and sewer upgrades. Remove existing and plant new street trees. Water and sewer replacement was completed in 2016. This project is planned in three (3) phases.

2. **West Garrison Street Reconstruction – Main Street to N. New Street**

Reconstruction of W. Garrison Street to alleviate crowning and badly settled gutter flowlines on this concrete surface road. Fix numerous utility trenches, mill and overlay and replace water service lines. Water service line work will be budgeted separately.

3. **City Hall Complex Parking Lay-bys Reconstruction (Phase III)**

Reconstruction of deteriorated Granite block Lay-bys on New Street (east side of City Center). This project was done in phases. The final phase is currently projected to occur in 2017.

4. **E. Fifth Street – William to Arnold (curb & sidewalk)**

Replace curb, sidewalks, overlay and remove some street trees. Water service lines were completed in 2016. The project was designed in-house, bid and awarded in 2016 and construction began in 2016 as well with funding carried over to 2017 to complete construction.

5. **Third & Fourth Street Streetscape/Sidewalks**

This project is to renew/upgrade the streetscape on selected sections of Third and Fourth Streets from Hayes Street to Wyandotte Street. The work would include repair/replacement of brick and concrete sidewalk in deficient areas, curb, street furniture, and trees. The project is to be completed in three phases which are: Phase I - Fourth Street from Hayes to Adams, Phase II - Fourth Street from Adams to Wyandotte, and Phase III – Third Street from Buchanan to Wyandotte. A TAP grant in the amount of \$400,000 was received for Phase I. Some sidewalk and curb ramp improvements have or will be completed by developers along 3rd Street. Phase I was designed in-house, permitted, and will be bid and construction will begin in 2016. The grant is being carried over to 2017 to complete work and make payments.

6. **New Street – Third Street to Fourth Street**

This project is for improvements to this section of roadway in connection with a turnback to the city from Penn DOT. In exchange for the turnback, the city will receive payment for the repairs/improvements needed to bring the road up to acceptable condition. The work would include mill and overlay, trench and base repair, upgraded curb ramps, and new pavement markings. This work has been postponed due to ongoing construction and excavation by the ongoing development along New Street.

7. **Broad Street Crosswalks**

Remove and replace in-kind existing degraded brick crosswalks and ADA curb ramps

along Broad Street in the Downtown Historic District at Broad and New Streets. The crosswalks to be replaced include: both north-south crossings of Broad Street at the intersection of New Street along with mid-block north-south crossings of Broad Street just west and east of that intersection. Bids for crosswalks came in much higher than anticipated which resulted in a change in planned work. One crosswalk will be completed in 2016. \$25,000 will be carried over to 2017, another crosswalk will be completed in 2017, and two more in 2018.

8. **Public Works Engineering Costs for CDBG Eligible Street Projects**
Design fees for street reconstruction projects.
9. **West Broad Street – Mangan Street west to Old Coke Plant**
Replace curb and sidewalk and plant trees.
10. **Fourth Avenue – Prospect Avenue to Kichline Street**
Replace curb and sidewalks. Remove and replace street trees.
11. **Lehigh Way**
This project is for reconstruction of portions of Lehigh Way to address long standing drainage issues.
12. **West Packer Avenue – Montclair to Brodhead Avenue**
Remove and reconstruct curb, sidewalk, overlay and water service lines. Remove and plant new street trees. Water service lines and tree work budgeted separately. Road was repaved in 2011 due to heavily deteriorated conditions and hence the sidewalk work will be postponed to the later years due to that and budget constraints. This project is planned in two (2) phases (Montclair to Birkel and Birkel to Brodhead).
13. **West Packer Avenue – Carlton Avenue to Montclair Avenue**
Replace curb, sidewalks, overlay, and renew water service lines. Water service lines work budgeted separately. Road was repaved in 2011 due to heavily deteriorated conditions and hence the sidewalk work will be postponed to the later years due to that and continued budget constraints.
14. **Street Overlay Program**
Overlay various streets throughout the City in accordance with our road management program. Proper upkeep/maintenance of the City's 260 miles plus of roadway would ideally require approximately \$2,000,000 in annual expenditures.
15. **ADA Curb Ramps**
To fund ADA curb ramp work associated with street paving in CDBG eligible areas.
16. **Street Equipment**
The replacement of and purchase of new road maintenance equipment for the Bureau of Streets.
17. **MACK – Pinnacle Tractor (Tandem)**
This unit will be used for our paving operation and replace Unit #215 that we currently share with the Recycling Bureau. The current unit is not always available for use when paving operations are being prepared. The unit hauls the milling machine from job site to job site. The Streets Bureau relies on the weather to get our paving operations done, so it is critical to have access to a tractor at all times. Also, this tractor can assist our Mechanical Bureau haul trucks or equipment for repairs during break downs or emergency situations.

18. **Streets Mack Heavy Duty Medium Dump Truck**
These purchases will replace Unit #158/1998 Chevy dump truck/Unit #170/2002 Chevy dump truck, and Unit #196/2001 Chevy dump truck that are used for plowing, pulling leaf loaders, cleanup, and assisting with the paving operations. The current units are in poor condition and need to be replaced. Two are planned for replacement in 2017 and one in 2019.
19. **Streets- Caterpillar Backhoe Loader**
This purchase will replace the 2004 Cat 420D Backhoe/Unit #743 used for repairs to sinkholes, trenches, major and minor road repairs, maintaining detention ponds, etc. This unit is in poor condition and is needed to improve and maintain roads throughout the city.
20. **Streets Leaf Loaders – ODB Extreme Vac Model SCL65TMS**
This is a plan for the periodic replacement of our leaf loaders as needed based on their age and condition. The current cost estimate of each loader is \$76,000. Two planned in 2017 are 1998 American loaders, one in 2019 is a 2000 American loader, and one in 2020 is a 2005 Giant Vac.
21. **Caterpillar Model 930M Wheel Loader**
This unit would replace Unit #723/2006 CAT front end wheel loader that is used for loading salt into trucks during winter operations, to load fallen trees during storm, and for road construction during our paving operations.
22. **John Deere Model 624K Wheel Loader**
This unit would replace Unit #715/2008 John Deere front end wheel loader that is used for loading salt into trucks during winter operations, to load fallen trees during storms, and for road construction during our paving operations.
23. **GMC Pickup Trucks**
This is to replace Unit #172/2006 Ford pickup, Unit #169/2002 Chevy pickup, and Unit 197/2002 Chevy pickup that are used for plowing and road maintenance work. The frames are rusted out and need to be replaced. Two are planned in 2017, and one each in 2018 and 2019.
24. **2018 GMC Small Dump Truck**
This will replace Unit #153/2004 GMC small dump truck used for cleanup and road maintenance work. The existing unit is worn out and in need of replacement.
25. **2018 Marathon Asphalt Crack Sealer**
This unit will be used for the paving operation to seal newly paved streets and seal cracked roads.
26. **2020 Elgin Pelican Broom Sweepers**
This will replace Unit #717/1998 Elgin street sweeper and Unit #707/2005 Elgin street sweeper that are used to clean the City's curb lines and sweep streets prior to being paved.

IV. STORM SEWERS

1. **West Broad Street - 1st Ave to 2nd Ave**
This project is for the replacement of an old section of Storm Sewer that frequently clogs requiring significant regular maintenance and backs up causing temporary

shallow street flooding.

2. **West Laurel Street to the Monocacy Creek**

This project is for a new storm sewer to connect the existing system at Moravian Hillside Townhouses, along West Laurel Street, along and across Mauch Chunk Road to the Monocacy Creek. The existing system currently discharges to the surface of West Laurel Street and frequently causes flooding by Damper Design. Moravian College has previously committed to pay for the design and 65% of construction costs. Moravian College purchased the Damper Design property in 2016 and this Storm Sewer Improvements project will now be completed in conjunction with the development of that property in 2017.

3. **Linden Street Storm Sewer Upgrade/Replacement**

Replacement of the existing stormwater system providing service to Linden Street between East Boulevard and Santee Mill Road. This system is comprised of the original CMP installed by PennDOT in conjunction with the roadway, which is severely corroded and beginning to collapse in some areas. Since most of this system exists underneath Linden Street, roadway collapse has been a concern and has already occurred in a couple areas along this trunkline. This system will continue to cause problems, specifically reduced service capacity and roadway collapse due to pipe failure, unless addressed and replaced within the next few years. This project will be done in phases due to funding constraints. Phase I will begin on the east side of Linden Street approximately 500' south of East Boulevard and continue north to a point 250' north of East Blvd. Phase II will begin where Phase I ends and cross over to the west side of Linden Street. From there the work continues 1150' north ending at the northwest intersection of Santee Mill Road. Phase I was completed in 2014 and Phase II (final) was designed in-house, permitted, and will begin construction in 2016 and be completed in 2017.

4. **Stanford Road - Storm Sewer Extension**

This project is to extend the storm sewer along Stanford Road west of Ralston Road to drain the low street areas that have ponded water during heavy rain events.

5. **East Boulevard – Boyd Street to Lansdale Avenue**

The storm sewer needs to be extended due to the flooding at the intersection of East Boulevard and Boyd Street.

6. **Old Brick Sewer on Broadway - Jischke to Third Street**

This project is to rehabilitate or repair an old 8-foot diameter brick sewer on Broadway from Jischke Street to Third Street.

7. **Millside Drive & Traveller Avenue - Drainage Improvements**

This project is to replace an undersized and poorly sloped storm sewer from the intersection of Millside Drive and Traveller Avenue to the Saucon Creek. This area (grass and street) frequently backs up during heavy rains.

8. **Stefko Drainage Swale**

This project was originally to upgrade existing drainage channel between Broad Street and Lehigh River to eliminate flooding at the former Bethlehem Steel Power Plant and to reclaim existing city owned property for future use. Due to changed conditions, this project has been re-evaluated to principally include a possible culvert under Lehigh Canal and selected improvements along the swale to reduce erosion and sediment transport to the river. A Growing Greener grant was received in 2013 for design. Most engineering was completed in 2016 with planned construction work in 2019 and 2020.

Once the design is finalized, we will seek grant funding for the construction.

9. **W. Goepf Street – Masslich Street to New Street**
Upgrade storm water system (inlets and/or main) to address flooding along this street (south side curbline) during heavy rain (anything greater than a 6-month storm). Additional investigations will be performed to identify potential issues with the existing system and we will conduct a detailed H&H study to define the final scope of work.
10. **E. Fifth Street Storm Sewer Replacement**
This project is to replace the existing clay pipe along E. Fifth Street from Buchanan to Fillmore and along Fillmore from Fifth to Packer. The existing clay pipe was installed in the 1950s and video inspection shows the pipe is deteriorating and has holes in the invert. Considering the age of the pipe, continued deterioration is anticipated. The proposed replacement of the system will eliminate the exfiltration and prevent future damage to the road and adjacent utilities.
11. **Creek Road Culvert Replacement**
The Creek Road Culvert project is to replace the existing deteriorated culvert along Creek Road north of Friedensville Road. The culvert has been damaged by repeated flooding and the roadway is often overtopped during storms. In addition, the existing culvert is narrow, allowing only a single lane to cross. The replacement culvert will be sized to allow two lanes of traffic and reduce flooding of the road. The guiderail also needs to be upgraded to meet current safety standards. The culvert replacement project was bid in 2015 but the bids came in significantly above the available funding. We completed repairs to address the most urgent issues, including guiderail and concrete deterioration in 2015/2016, and defer the full replacement of the culvert until 2020 due to the interim improvements.
12. **Johnston Drive Swale Improvement**
Improvement of an open swale south of Johnston Drive from East Boulevard, under Shakespeare Road, to the City/Bethlehem Township line. The City has problems in maintaining this swale, which is often the subject of dumping of debris. Preliminary plans call for enclosure of this swale.
13. **Easton Avenue to Stefko Blvd Storm Sewer Upgrades (Various locations – Phase I and II)**
This project is to replace and upgrade the storm sewer from Easton Avenue, down Barbara Street, Sycamore Street, Walters Street, Minsi Trail Street, and Wallace Street, to Stefko Boulevard and Pembroke Road. The flow then discharges into the Stefko Swale and ultimately into the Lehigh River. In heavy storms there have been drainage issues along this run. Phase I would be the addition of a second pipe in the lower end of the system from Washington Avenue to Stefko Boulevard. Phase II would be collection system improvements to the system from Easton Avenue to Washington Avenue. Estimated costs are very preliminary as they are not yet based on a detailed analysis.
14. **Miscellaneous Drainage Structures**
These funds are used to make repairs to catch basins, headwalls, culverts, pipes, etc. throughout the City's extensive storm sewer system. We will also replace storm sewer at Santee Mill Road (\$12,000), and at Keim Street (\$65,000). The Santee Mill Road project is for the replacement of a deteriorated section of pipe. The Keim Street project is to extend the storm sewer from Barbara Street to drain Keim Street.

V. PUBLIC WORKS - FACILITIES

1. Facility Capital Improvement Plan

Funding to cover a comprehensive evaluation (in-house/consultant as necessary) of City facilities and preparation of a plan identifying any needed major improvements, modifications, or change in use. Funding to cover some of the identified improvements as a result of the evaluation and already identified needs such as the engineering/planning/design for a new Grounds Maintenance facility to replace the Quonset huts.

2. City Center Improvements

Funding to support already identified and unexpected major necessary capital improvements to the City Center over the 2-year bond issue. Currently identified improvements include garage floor resurfacing, exterior improvements to sidewalks and steps, railings, landscaping, new windows on ground floor for the Police Department, water fountain replacements, HVAC component replacement, building security upgrades, replacement of asbestos floor tiles, and replacement of pavers on the plaza.

3. Fire House Improvements

Improvements/renovations to interior/exterior of the City's Fire Houses as identified during the course of the 2-year bond issue focusing on functional concerns of the facilities and energy efficiency improvements. Work already identified/known includes the installation of an emergency generator at several north-side Fire Stations, replacing/upgrading heating/cooling/ventilation systems, paving, replacement of doors/windows, other facility interior/exterior improvements and renovations, and purchases for living areas.

4. Mechanical System Upgrades

Upgrades/improvements/replacements of mechanical systems to improve reliability and energy efficiency of systems/facilities not covered under the Energy Savings Performance Contract. Projects may include replace HVAC, refurbish/modernize chillers, air handlers, heat exchangers, cooling towers, pumps, boilers, pneumatic controls, air filters, and condenser/water pumps/motors at City-owned facilities. Funding is also to cover unforeseen repairs to facilities/equipment to extend the life of a capital asset and as other projects may become necessary. Current immediate projects include: Motors for fan coil units; new fan coil units/controls in DCED and Health; Police ductless split/heat pump system in CSI and Detective Areas, and installation of second Lochinvar boiler in City Hall.

5. Roof/Safety/and Code Requirements

Address safety concerns and code issues as identified by Public Works, Safety Committee, Fire Department, and Inspections. Projects for city-owned facilities may include roof renovations/replacement, exhaust/air systems to improve air quality, emergency lighting, renovation/replacement of unsafe structures, purchase of special equipment as deemed necessary to handle safety/code requirements, and other unforeseen repairs/improvements to facilities/equipment to extend the life of a capital asset.

VI. PUBLIC WORKS - GROUNDS

1. Grounds Capital Improvements Plan

Funding is to cover a comprehensive evaluation of the City's Parks and Recreation

system. Plan outcome is to identify needed capital improvements as well as recommendations as to best use of facilities. Funding is also to cover some of the needs identified as a result of this plan as well as already identified needs such as improvements and renovations to athletic fields (grading, aerating, topsoil, and backstops), tennis court resurfacing, landscaping, tree removal/replacements, playground equipment, fencing, lighting, signage, parking lot improvements, pathway improvements, pavilion improvements, parks buildings, and equipment.

2. **Monocacy Park Improvements (Illick's Mill area)**

Design, engineering and implementation of creek bank restoration/stabilization in the area of Illick's Mill and picnic pavilions. Project will include creek bank stabilization, create a highly vegetated attached floodplain to provide flood flow storage, and infiltration opportunities to improve aquatic and riparian habitat.

3. **Monocacy Creek Watershed Environmental Assessment (Act 167)**

Conduct an analysis of the Monocacy Creek watershed and establish current baseline data that will allow for understanding of current flooding/water quality issues within the watershed and City of Bethlehem and identify strategies for watershed restoration. The use of this grant has been modified and approved and LVPC was awarded a contract to prepare an updated Monocacy Creek Act 167 plan. Tasks include data collection, watershed modeling, update of water quality standards and stormwater management plan, along with public meetings prior to adoption of the updated plan.

4. **Northampton/Lehigh Footbridge**

This project is to replace the wood deck/steel supported pedestrian bridge crossing the Monocacy Creek in Johnston Park adjacent to the Main Street ramp. An iron bridge was acquired to replace this bridge. Re-evaluation and engineering design must be completed prior to construction. Grants have been received from Northampton County and DCNR to cover engineering and construction costs.

5. **South Bethlehem Greenway**

Continue design and construction of a linear park with various amenities along the greenway such as extension of the trail southward to Saucon Park. Phase 4 design and permitting was completed in 2016. Construction began in 2016 and will be completed in 2017.

6. **Eastern Gateway**

Grant funds are utilized for development of physical improvements along both 4th Street and the Route 412 corridor.

7. **Greenway/Saucon Park Ball Fields Connection**

This project provides for an extension of the Greenway to the ball fields at the north end of Saucon Park off of Millside Drive, along with storm water improvements. Design was completed in 2016 and permitting will be completed early in 2017. Construction is anticipated in 2017.

8. **Vehicles/Equipment - Acquisition/Replacement**

Purchases for 2017 include a 2500 series pickup truck with snow plow package to replace a 2003 GMC pickup (Unit 85) that has extensive rust and body damage, a small dump truck with plow and spreader to replace a 2005 Chevy dump truck (Unit 94) which has severe corrosion to the frame, and a front end loader with rock and tree auger attachments which would be an addition to the fleet and eventually replace a 2008 Case loader.

9. **Greenway-Hobart Street Connection**
Complete construction of Greenway connection to Hobart Street and Daly Avenue, along with storm water improvements. This project was originally part of Phase 3 and was bid in 2016. Construction is expected to be completed early in 2017.
10. **Greenway – Plaza Development**
Grant funds were received for two additional plaza areas along the greenway. One will be an active area for children located behind Holy Infancy School and Boys & Girls Club. The other will be a Memorial Plaza located at the southern end of Founder’s Way.

VII. **OTHER PROJECTS**

1. **Lynn Avenue Bridge**
Remove and replace structurally deficient bridge. The scope is a single span that will span the existing LVRM track and a portion of the greenway. Final design was completed December 31, 2014. Delays have occurred with the acquisition of the necessary easements due to the death of a property owner and subsequent set up of the estate. A let date is currently set for 2016 and construction is anticipated to begin in late 2016 and be completed in 2017.
2. **High Street Bridge**
Provide for the engineering and replacement of the structurally deficient wooden bridge over a former Norfolk Southern line. The bridge was closed to all traffic on 6/16/11, which combined with the previous closing of the Seidersville Road Bridge equates to the residents along Ravena Street having only one point of access to their residences: the intersection of Ravena and Fire Lane Road. Final design has been completed and we are awaiting final approvals from PennDOT. The City has successfully had the bridge placed on the TIP for construction funding to replace the structure with a new 2-lane bridge meeting current standards. This also preserves future recreational access beneath the structure. Norfolk Southern will be responsible for a portion of the replacement costs per agreement, specifically preliminary and final design engineering efforts. The let date is currently set for September 2016 with construction expected to begin in winter and be completed in 2017.
3. **W Broad Street Lighting-3rd Ave to 5th Ave**
A Multimodal Transportation Fund Grant was applied for and received for this work. This project is for the installation of street lights along West Broad Street from 3rd Avenue to 5th Avenue (application was for 3rd Avenue to 8th Avenue, but award of grant was not in full and project was scaled back). This is a continuation of previous work from 1st Avenue to 3rd Avenue completed as a part of the Elm Street Program.
4. **Bridge Repairs**
The project is for repair of nine (9) bridges the City is responsible for maintaining. Two of our bridges are going through the design process to be replaced in the near future (Lynn Avenue and High Street). All but one of the remaining bridges is in need of significant repairs. The City receives regular inspection reports through the National Bridge Inspection System (NBIS). These reports detail needed repairs including concrete repair, deck overlay, deck and bearing rehabilitation and painting. The Public Works Department annually completes repairs that are within our expertise utilizing in-house forces. Much of the more complex work requires specialized bridge contractors. In addition, the NBIS inspections sometimes result in “Priority 1” repairs which must be addressed within a few months. Failure to make these repairs may result in further deterioration and greater future costs, as well as possible closures in extreme instances.

Fire Lane Bridge improvements (\$140,000) have been designed and permitted and construction will be completed in 2017.

5. **Route 378 Lighting Replacement (Phase 1 & 2)**

The scope of this project has been significantly reduced based on a design to only light the on and off ramps. Tests have been conducted starting in late 2015 by turning off the lights that are not located at the ramps. The results were found to be acceptable. Further evaluation and design will be conducted to finalize the plan to remove the unnecessary poles, replace the ramp poles and the underground electrical in a phased approach at a reduced cost to both the city and the state. The light poles and electrical system conduits on PA Route 378 were installed in the early 1960s and have outlasted their expected lifespan. This replacement will be done in two phases. Phase 1 is to replace damaged light poles and break-a-way bases and remove unnecessary light poles. Phase 1 will be funded and completed in 2018. Phase 2 is the replacement of the underground electrical system. Phase 2 will be funded and completed in 2019. Some of the pole structures are rusted and the metal has deteriorated at the bases from years of weather and salt causing them to become structurally unsound. All of the underground electrical system in PA 378 from the Hill to Hill Bridge to the PA 22 interchange including all of the ramps and overpasses is failing. There are 338 light poles on PA Route 378. The City owns the light poles and equally shares the maintenance and replacement costs with the State. We are requesting this project be placed on the TIP for federal/state funding. The revised project cost estimate is very preliminary, including pole replacements and underground electrical system upgrades, and will be refined during final design.

6. **Geographic Information System**

This project is the development of a Geographic Information System (GIS) for the City. The GIS will include City infrastructure and comprehensive data that will enable all departments to use it for analysis, monitoring of performance and work flow improvements. Phase 1 began in 2006 and included development of the base map, viewer, road centerline, data layers and public safety applications. Modified phases 2 & 3 included upgrading of the server, increasing base map coverage area, data updates to the base map, sanitary sewer database construction and preliminary storm sewer database construction. Currently, we are planning the next phase of the GIS implementation. Next phase will include updating the server and viewer software, development of certificate of occupancy addressing, continue development of the storm sewer and water systems networks, base map maintenance, integration with the SunGard Software, tools, training, and various workflow applications. Additional tasks for future phases are being considered. Currently, GIS data is being migrated to the local government model. Once complete, updates to the storm sewer layer can be completed.

7. **Citywide Wayfinding Signage**

A comprehensive effort to install a network of wayfinding signage is underway in both downtown areas and at several gateway entrances to the City. This project is proposed to brand Bethlehem and also to provide improved wayfinding for tourists and visitors. The wayfinding program is the outcome of a public design process that took place over the last eighteen months and included a steering committee and several public meetings. A phase I of the project was bid and is expected to be installed in late 2016. A phase II is being prepared for bid and is expected to be installed in early 2017. Additional funds are needed to complete installation of the overall project and replace and enhance the program as the project progresses. This project is widely supported by the public. Operating costs will be affected long term, but the signs are designed with durability and efficient maintenance in mind.

8. **Aerial Bucket Trucks (3 Replacements) for Electrical Bureau**
In 2014 we began phasing in the replacement of the Electrical Bureau's four (4) 42-foot bucket trucks (estimated cost of \$140,000-\$160,000 per truck), which have exceeded their 10-year recommended replacement intervals. These vehicles are used daily and are developing signs of failure, stress, and increased maintenance costs. Due to safety and reliability concerns, these vehicles need to be replaced at a much higher frequency compared to most fleet vehicles. Two are planned for replacement in 2017 and one in 2019.

9. **Service Truck-Mechanical Bureau (New)**
The Mechanical Bureau is requesting a replacement service truck. Currently the truck that is called a "service truck" is a 2000 Chevy pick-up truck with a fuel tank in the bed. It has no air compressor and there are no provisions for tools. Equipment items transported must be placed on the seat or behind the seat and must be transferred in and out as needed. This is time consuming and inefficient, especially for emergency call-outs. The Mechanical Bureau must perform maintenance and repair work on vehicles and equipment at various facilities and locations around the city as well as emergency repairs and refueling on the road. Ideally, to perform these tasks in an efficient, timely manner a service truck, designed and equipped with the proper tools and materials, is needed. This truck would be on a heavy-duty pick-up chassis with a mechanic service body. This body will incorporate cabinets and drawers for gas cans, jacks, tools, fluids, consumable aerosols and other items needed for on-site repairs. It would be equipped with an auxiliary fuel tank and pump for refueling pavers and heavy equipment at construction sites and fire apparatus at fire scenes and refilling several small refueling sites at bureaus around the city. It would also be equipped with a heavy-duty air compressor for repairing tires on the road and for running multiple air tools including impact guns to remove lugs on large rims. It includes a lift gate to help transport large tires, oil drums and other heavy parts and is four-wheel drive for all weather use. A municipality responsible for maintaining a public works and emergency services fleet as large as ours must provide a professional, competent support structure and purchasing this unit is an important step in the continued revamping of the mechanical bureau.

VIII. RECREATION

1. **General Pool Improvements**
Funding is to cover a comprehensive evaluation of the City's pool system. Following analysis and plan development, improvements/renovations will be allocated to pools, bathhouses, filter systems and related buildings. Other unforeseen repairs/improvements to facilities/equipment to extend the life of a capital asset.

2. **Municipal Ice Rink**
Improvements/emergency repairs/ purchases of equipment as needed for operations and capital upgrades to extend the life of a capital asset. 2017 – Plan to replace the Zamboni unit.

3. **Memorial Pool Complex Improvements**
The City will undergo a Master Plan and Feasibility Study for the substantial upgrade and improvement of this pool complex. Design costs are reflected in 2017 and construction costs are reflected in outlying years.

IX. ADMINISTRATION

1. IT Improvement Projects – 2017-2021

By the end of 2016 we will have completed the complete upgrade of the New World Public Safety System as well as the SunGard Finance+ and Community+ applications. The items listed below are requested in order to improve Mobile Networking capabilities as well as designing system interfaces to address duplication of data across systems.

- **Field Network Reporting Applications**
As part of the SunGard upgraded all applications will be running in a browser based language and will now be mobile device friendly. This will allow us to explore applications that can be run on mobile devices out in the field without having to rely on bulky laptops. In addition, there are 3rd party vendors who partner with SunGard to provide field applications which will interface with our newly upgraded versions of software.
- **TraCS to New World Interface**
TraCS is a Police Digital Citation System which is being championed by the state of PA. It will allow us to take advantage of digital technology to process Citations and eliminate all manual data entry. However, an interface will need to be written which will transfer the data collected in the field into our current New World system so we will not have to search (2) different systems for Citation information.
- **SunGard C+ to New World Interface**
Currently our Inspectors collect information found while out in the field and this information is entered into our SunGard C+ applications. However, there currently is no automated method to transfer this information from the SunGard C+ application into the New World system. Therefore, this is being done manually which is not timely and causes errors. A well designed interface will update the information in a much timelier manner and eliminate human intervention and errors.
- **Virtual Cloud Hardware Upgrade/Replacement**
As of today, our virtual hardware components are around 3 years old. In addition, all of our servers will be running in our virtual environment by the end of the year. With so much being expected of our virtual environment I believe it would be wise to replace our hardware about every 5-7 years in order to take advantage of newer faster technology improvements.

X. COMMUNITY & ECONOMIC DEVELOPMENT

1. Blighted Building Acquisition Funds

Capital funds are needed to acquire buildings that have been deemed as blighted per the Blighted Property Review Committee and Planning Commission. Without funding to purchase buildings, owners of these properties tend to retain them as they fall further into disrepair, and negatively affect neighborhoods. Funds will be used to conduct the necessary appraisals, due diligence and finally purchase the property. Properties will be subject to sale to qualified developers for a below market price, but at a price high enough to help replenish this initial funding. Recaptured funds from sales will be reincorporated in to available funds for blighted property acquisition.

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
SUMMARY SHEET
(2017-2021)**

<u>FUNDING</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTALS</u>
BOND	6,856,333	-	8,384,000	-	6,423,000	21,663,333
BOND (2013)	350,000	-	-	-	-	350,000
BOND (2015)	611,200	-	-	-	-	611,200
CDBG	500,000	400,000	500,000	454,000	1,711,000	3,565,000
CDBG (2016)	293,500	-	-	-	-	293,500
FEDERAL	5,244,000	500,000	500,000	600,000	1,200,000	8,044,000
STATE	2,428,039	-	-	-	-	2,428,039
LIQUID FUELS	1,085,542	1,194,000	1,458,000	966,000	655,000	5,358,542
LIQUID FUELS 2016	245,450	-	-	-	-	245,450
COUNTY	329,789	-	-	-	-	329,789
DCNR	200,000	-	-	-	-	200,000
OTHER	2,698,584	872,334	2,362,334	2,300,000	2,500,000	10,733,252
TOTALS	\$ 20,842,437	\$ 2,966,334	\$ 13,204,334	\$ 4,320,000	\$ 12,489,000	\$ 53,822,105

<u>SPENDING SCHEDULE</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
	17,777,037	7,325,984	9,207,834	8,404,500	7,815,500	\$ 50,530,855

LAST REVISED 09/16/16

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE 2017-2021
PUBLIC SAFETY**

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. Ambulance Replacement/Remount Plan	135,000	135,000	135,000	135,000	-	540,000
<u>FUNDING</u>						
SPENDING SCHEDULE	135,000	135,000	135,000	135,000	-	540,000
<u>BOND</u>						
OTHER	135,000	-	135,000	-	-	270,000
2. Fire Apparatus Replacement Plan	297,183	297,183	-	135,000	-	594,366
<u>FUNDING</u>						
SPENDING SCHEDULE	297,183	297,183	-	135,000	-	594,366
<u>BOND</u>						
OTHER	594,366	-	-	-	-	594,366
3. Flood Control System	-	-	-	600,000	1,200,000	1,800,000
<u>FUNDING</u>						
SPENDING SCHEDULE	-	-	-	600,000	1,200,000	1,800,000
<u>FEDERAL</u>						
OTHER	342,334	342,334	342,334	-	-	1,027,002
4. Fire Apparatus Replacement Plan - Quint Ladder Truck	342,334	342,334	342,334	-	-	1,027,002
<u>FUNDING</u>						
SPENDING SCHEDULE	342,334	342,334	342,334	-	-	1,027,002
<u>BOND</u>						
OTHER	-	-	320,000	320,000	320,000	960,000
5. Fire Apparatus Replacement Plan - Rescue Engine Replacement	-	-	640,000	-	320,000	960,000
<u>FUNDING</u>						
SPENDING SCHEDULE	-	-	640,000	-	320,000	960,000
<u>BOND</u>						
OTHER	295,967	295,967	300,000	300,000	-	895,967
6. Self-Contained Breathing Apparatus Replacement Plan	295,967	-	600,000	-	-	895,967
<u>FUNDING</u>						
SPENDING SCHEDULE	295,967	-	600,000	-	-	895,967
<u>BOND</u>						
OTHER	44,000	44,000	44,000	44,000	44,000	220,000
7. In-Car Dash Cameras (Police)	88,000	-	88,000	-	88,000	264,000
<u>FUNDING</u>						
SPENDING SCHEDULE	88,000	-	88,000	-	88,000	264,000
<u>BOND</u>						
OTHER	30,000	30,000	30,000	30,000	30,000	150,000
8. Body Cameras	60,000	-	60,000	-	60,000	180,000
<u>FUNDING</u>						
SPENDING SCHEDULE	60,000	-	60,000	-	60,000	180,000
<u>BOND</u>						
OTHER	848,517	1,144,484	1,171,334	1,429,000	1,594,000	6,187,335
FEDERAL	1,173,333	-	1,523,000	-	468,000	3,164,333
OTHER	342,334	477,334	342,334	135,000	-	1,297,002
FEDERAL	-	-	-	600,000	1,200,000	1,800,000
TOTALS	1,515,667	477,334	1,865,334	735,000	1,668,000	6,261,335

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - TRAFFIC**

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. TR/Isolated Intersections	360,000	40,000	320,000	40,000	320,000	1,080,000
<u>FUNDING</u>						
BOND	400,000	-	360,000	-	360,000	1,120,000
2. TR/Traffic Safety Imprv.	55,000	55,000	50,000	50,000	50,000	260,000
<u>FUNDING</u>						
BOND (2015)	10,000	-	-	-	-	10,000
BOND	100,000	-	100,000	-	100,000	300,000
<hr/>						
PUBLIC WORKS - TRAFFIC	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
SPENDING SCHEDULE	415,000	95,000	370,000	90,000	370,000	1,340,000
<u>FUNDING</u>						
BOND (2015)	10,000	-	-	-	-	10,000
BOND	500,000	-	460,000	-	360,000	1,320,000
TOTALS	510,000	-	460,000	-	360,000	1,330,000

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - STREETS

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. Carlton Avenue Broadway to Summit St.	SPENDING SCHEDULE FUNDING 265,000	265,000	265,000	-	-	795,000
2. West Garrison Street Main Street to N. New Street	CDBG SPENDING SCHEDULE FUNDING 145,000	265,000	265,000	-	-	795,000 145,000
3. City Hall Complex Parking Lay-bys Reconstruction Phase III	BOND SPENDING SCHEDULE FUNDING 145,000 140,000	-	-	-	-	145,000 140,000
4. E. 5th Street William to Arnold	BOND SPENDING SCHEDULE FUNDING 140,000 100,000	-	-	-	-	140,000 100,000
5. 3rd & 4th Streets Streetscape/ Sidewalks	CDBG (2016) SPENDING SCHEDULE FUNDING 100,000 400,000	-	195,000	-	-	100,000 745,000
6. New Street - 3rd to 4th Streets (Turnback project)	OTHER SPENDING SCHEDULE FUNDING 400,000 80,000	195,000	150,000	-	-	745,000 80,000
7. Broad Street Crosswalks	OTHER SPENDING SCHEDULE FUNDING 80,000 50,000	-	-	-	-	80,000 150,000
8. Public Works Engineering Costs for CDBG Eligible Street Projects	BOND BOND (2015) SPENDING SCHEDULE FUNDING 125,000 25,000 10,000	-	-	-	10,000	125,000 25,000 50,000
9. West Broad Street (Mangan Street west to old Coke Plant-curb and sidewalk)	CDBG SPENDING SCHEDULE FUNDING 10,000	10,000	10,000	10,000	10,000	50,000
10. Fourth Avenue Prospect Ave. to Kichline St.	OTHER SPENDING SCHEDULE FUNDING -	50,000	-	-	-	50,000
11. Lehigh Way	OTHER SPENDING SCHEDULE FUNDING -	-	50,000	-	-	50,000
12. West Packer Ave Montclair Ave to Brodhead Ave	SPENDING SCHEDULE FUNDING -	120,000	-	-	-	120,000
	BOND SPENDING SCHEDULE FUNDING -	-	-	322,000	-	120,000 322,000
	CDBG	-	-	322,000	-	322,000

PROJECT DESCRIPTION

		<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
13. West Packer Ave Carlton to Montclair	SPENDING SCHEDULE FUNDING	-	-	-	-	219,000	219,000
	CDBG	-	-	-	-	219,000	219,000
14. Street Overlay Program	SPENDING SCHEDULE FUNDING	777,542	830,000	940,000	950,000	1,050,000	4,547,542
	BOND	1,000,000	-	1,200,000	-	1,400,000	3,600,000
	CDBG	-	-	-	-	-	-
15. ADA Curb Ramps	LIQUID FUELS	277,542	330,000	340,000	350,000	350,000	1,647,542
	SPENDING SCHEDULE FUNDING	25,000	25,000	25,000	25,000	25,000	125,000
16. Street Equipment	CDBG	25,000	25,000	25,000	25,000	25,000	125,000
	SPENDING SCHEDULE FUNDING	285,000	290,000	295,000	300,000	305,000	1,475,000
17. Streets Mack- Pinnacle Tractor (Tandem)	LIQUID FUELS	285,000	290,000	295,000	300,000	305,000	1,475,000
	SPENDING SCHEDULE FUNDING	-	-	130,000	-	-	130,000
18. Streets Mack Heavy Duty Medium Dump Truck	BOND	-	-	130,000	-	-	130,000
	SPENDING SCHEDULE FUNDING	390,000	-	195,000	-	-	585,000
	BOND	195,000	-	195,000	-	-	390,000
	LIQUID FUELS	195,000	-	-	-	-	195,000
19. Streets Caterpillar Backhoe Loader	SPENDING SCHEDULE FUNDING	116,000	-	-	-	-	116,000
	BOND	116,000	-	-	-	-	116,000
20. Streets Leaf Loaders ODB Extreme Vac- Model SCL65TM5	SPENDING SCHEDULE FUNDING	152,000	-	76,000	76,000	-	304,000
	BOND	152,000	-	76,000	-	-	228,000
	LIQUID FUELS	-	-	-	76,000	-	76,000
21. Caterpillar Model 930M Wheel Loader	SPENDING SCHEDULE FUNDING	-	-	195,000	-	-	195,000
	BOND	-	-	195,000	-	-	195,000
22. John Deere Model 624K Wheel Loader	SPENDING SCHEDULE FUNDING	-	-	230,000	-	-	230,000
	BOND	-	-	230,000	-	-	230,000
23. GMC Pickup Trucks	SPENDING SCHEDULE FUNDING	128,000	70,000	73,000	-	-	271,000
	LIQUID FUELS	128,000	70,000	73,000	-	-	271,000
	SPENDING SCHEDULE FUNDING	-	120,000	-	-	-	120,000
24. GMC Small Dump Truck	LIQUID FUELS	-	120,000	-	-	-	120,000
25. Marathon Asphalt Crack Sealer	SPENDING SCHEDULE FUNDING	-	120,000	-	-	-	120,000
	LIQUID FUELS	-	50,000	-	-	-	50,000
	LIQUID FUELS	-	50,000	-	-	-	50,000

**PROJECT
DESCRIPTION**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
26. Elgin Pelican Broom Sweepers	-	-	230,000	240,000	-	470,000
LIQUID FUELS	-	-	230,000	240,000	-	470,000
PUBLIC WORKS - STREETS						
SPENDING SCHEDULE FUNDING	3,063,542	2,125,000	2,864,000	1,923,000	1,609,000	11,584,542
BOND	1,993,000	-	2,026,000	-	1,400,000	5,419,000
BOND (2015)	25,000	-	-	-	-	25,000
CDBG (2016)	100,000	-	-	-	-	100,000
CDBG	300,000	300,000	300,000	254,000	1,511,000	2,665,000
OTHER	480,000	245,000	200,000	-	-	925,000
LIQUID FUELS	885,542	860,000	938,000	966,000	655,000	4,304,542
TOTALS	3,783,542	1,405,000	3,464,000	1,220,000	3,566,000	13,438,542

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - STORM SEWERS

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. West Broad St 1st Ave to 2nd Ave	SPENDING SCHEDULE FUNDING 200,000	-	-	-	-	200,000
2. West Laurel Street to the Monocacy Creek	LIQUID FUELS SPENDING SCHEDULE FUNDING 200,000 225,000	-	-	-	-	200,000 225,000
3. Linden Street Storm Sewer Upgrade/Repl.	LIQUID FUELS (2016) OTHER (MORAV COL) SPENDING SCHEDULE FUNDING 78,750 146,250 329,900	-	-	-	-	78,750 146,250 329,900
4. Standford Rd - Storm Sewer Extension	LIQUID FUELS (2016) BOND (2015) SPENDING SCHEDULE FUNDING 166,700 163,200 100,000	-	-	-	-	166,700 163,200 100,000
5. East Boulevard Boyd Street Southwardly to Landsdale Avenue	LIQUID FUELS SPENDING SCHEDULE FUNDING 100,000 234,000	-	-	-	-	100,000 234,000
6. Old Brick Sewer on Broadway - Jischke St to 3rd St	LIQUID FUELS SPENDING SCHEDULE FUNDING 234,000	-	200,000	-	-	234,000 200,000
7. Millside Drive & Traveller Avenue - Drainage Improvements	LIQUID FUELS SPENDING SCHEDULE FUNDING 200,000 120,000	-	-	-	-	200,000 120,000
8. Stefko Drainage Swale	LIQUID FUELS SPENDING SCHEDULE FUNDING 120,000 1,000,000 250,000	-	-	250,000	-	120,000 1,250,000
9. West Goepp Street - Masslich Street to New Street	LIQUID FUELS OTHER SPENDING SCHEDULE FUNDING 200,000 800,000 250,000	-	-	250,000	-	200,000 1,050,000
10. Fifth Street - Buchanan to Fillmore Street	OTHER SPENDING SCHEDULE FUNDING 250,000 220,000	-	-	220,000	-	250,000 220,000
11. Creek Road Culvert Repl.	OTHER SPENDING SCHEDULE FUNDING 220,000	-	-	200,000	-	220,000 200,000
12. Johnston Drive Swale Improvements	OTHER SPENDING SCHEDULE FUNDING 200,000	-	-	-	1,000,000	200,000 1,000,000
	OTHER	-	-	-	1,000,000	1,000,000

PROJECT DESCRIPTION

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
13. Easton Ave to Stefko Blvd Storm Sewer System upgrades - various locations Phase I&II	-	-	-	1,900,000	1,000,000	2,900,000
14. Miscellaneous Drainage Structures	87,500	87,500	87,500	87,500	87,500	437,500
	175,000	-	175,000	-	175,000	525,000

PUBLIC WORKS - STORM SEWERS

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
SPENDING SCHEDULE FUNDING	842,400	421,500	1,657,500	2,657,500	2,087,500	7,666,400
BOND	175,000	-	175,000	-	175,000	525,000
BOND (2015)	163,200	-	-	-	-	163,200
LIQUID FUELS	200,000	334,000	520,000	-	-	1,054,000
LIQUID FUELS (2016)	245,450	-	-	-	-	245,450
OTHER	146,250	-	1,470,000	2,150,000	2,000,000	5,766,250
TOTALS	929,900	334,000	2,165,000	2,150,000	2,175,000	7,753,900

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - FACILITIES**

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. Facility Capital Improvement Plan	75,000	900,000	400,000	400,000	400,000	2,175,000
<u>FUNDING</u>						
BOND	-	-	800,000	-	800,000	1,600,000
BOND (2015)	75,000	-	-	-	-	75,000
2. City Center Improvements	200,000	200,000	400,000	350,000	400,000	1,550,000
<u>FUNDING</u>						
BOND	300,000	-	750,000	-	750,000	1,800,000
BOND (2015)	100,000	-	-	-	-	100,000
3. Fire House Improvements	50,000	40,000	50,000	40,000	40,000	220,000
<u>FUNDING</u>						
BOND	90,000	-	90,000	-	90,000	270,000
4. Mechanical System Upgrades	62,500	62,500	200,000	200,000	200,000	725,000
<u>FUNDING</u>						
BOND	125,000	-	400,000	-	400,000	925,000
5. Roof/Safety/Code Requirements	37,500	37,500	120,000	120,000	120,000	435,000
<u>FUNDING</u>						
BOND	75,000	-	240,000	-	240,000	555,000
PUBLIC WORKS - FACILITIES	2017	2018	2019	2020	2021	TOTAL
SPENDING SCHEDULE	425,000	1,240,000	1,170,000	1,110,000	1,160,000	5,105,000
BOND 2015	175,000	-	-	-	-	175,000
BOND	590,000	-	2,280,000	-	2,280,000	5,150,000
TOTALS	765,000	-	2,280,000	-	2,280,000	5,325,000

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - GROUNDS**

PROJECT DESCRIPTION	2017	2018	2019	2020	2021	TOTAL
1. Grounds Capital Improvements Plan SPENDING SCHEDULE	316,000	275,000	275,000	275,000	275,000	1,416,000
<u>FUNDING</u>						
BOND	400,000	-	400,000	-	400,000	1,200,000
CDBG	100,000	100,000	100,000	100,000	100,000	500,000
BOND (2015)	41,000	-	-	-	-	41,000
2. Monocacy Park Improvements (Illick's Mill area)	339,578	-	-	-	-	339,578
<u>FUNDING</u>						
COUNTY	119,789	-	-	-	-	119,789
STATE	219,789	-	-	-	-	219,789
3. Monocacy Creek Watershed Environmental Assessment (Act 167)	150,000	-	-	-	-	
<u>FUNDING</u>						
STATE	150,000	-	-	-	-	410,000
4. Northampton/Lehigh Footbridge	410,000	-	-	-	-	410,000
<u>FUNDING</u>						
COUNTY	210,000	-	-	-	-	210,000
DCNR	200,000	-	-	-	-	200,000
5. South Bethlehem Greenway	450,000	-	-	-	-	450,000
<u>FUNDING</u>						
STATE	-	-	-	-	-	-
BOND	50,000	-	-	-	-	50,000
OTHER	400,000	-	-	-	-	400,000
6. Eastern Gateway	325,000	-	-	-	-	325,000
<u>FUNDING</u>						
STATE	225,000	-	-	-	-	225,000
OTHER	100,000	-	-	-	-	100,000
7. Greenway/Saucon Park Ballfield Connections	950,000	-	-	-	-	950,000
<u>FUNDING</u>						
STATE	450,000	-	-	-	-	450,000
BOND (2013)	350,000	-	-	-	-	350,000
OTHER	150,000	-	-	-	-	150,000
8. Vehicle/Equipment Acquisition/Replacement	240,000	-	250,000	-	-	490,000
<u>FUNDING</u>						
BOND	240,000	-	250,000	-	-	490,000
9. Greenway - Hobart Street Connection	250,000	-	-	-	-	250,000
<u>FUNDING</u>						
OTHER	250,000	-	-	-	-	250,000
10. Greenway - Plaza Development	50,000	350,000	-	-	-	400,000
<u>FUNDING</u>						
STATE	200,000	-	-	-	-	200,000
OTHER	200,000	-	-	-	-	200,000

**PROJECT
DESCRIPTION
PUBLIC WORKS - GROUNDS**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
SPENDING SCHEDULE	3,480,578	625,000	525,000	275,000	275,000	5,180,578
BOND 2013	350,000	-	-	-	-	350,000
BOND 2015	41,000	-	-	-	-	41,000
BOND	690,000	-	650,000	-	400,000	1,740,000
CDBG	100,000	100,000	100,000	100,000	100,000	500,000
STATE	1,244,789	-	-	-	-	1,244,789
COUNTY	329,789	-	-	-	-	329,789
DCNR	200,000	-	-	-	-	200,000
OTHER	1,100,000	-	-	-	-	1,100,000
TOTALS	4,055,578	100,000	750,000	100,000	500,000	5,505,578

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - OTHER PROJECTS

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. Lynn Ave. Bridge	5,355,000	-	-	-	-	5,355,000
SPENDING SCHEDULE						
<u>FUNDING</u>						
CDBG	-	-	-	-	-	-
CDBG (2016)	193,500	-	-	-	-	193,500
FEDERAL	4,284,000	-	-	-	-	4,284,000
STATE	803,250	-	-	-	-	803,250
SPENDING SCHEDULE	1,200,000	-	-	-	-	1,200,000
<u>FUNDING</u>						
FEDERAL	960,000	-	-	-	-	960,000
STATE	180,000	-	-	-	-	180,000
OTHER (RAILROAD)	60,000	-	-	-	-	60,000
3. W Broad St Lighting 3rd Ave to 5th Ave	285,000	-	-	-	-	285,000
SPENDING SCHEDULE						
<u>FUNDING</u>						
BOND	85,000	-	-	-	-	85,000
STATE	200,000	-	-	-	-	200,000
4. Bridge Repairs	185,000	70,000	70,000	70,000	70,000	465,000
SPENDING SCHEDULE						
<u>FUNDING</u>						
BOND (2015)	45,000	-	-	-	-	45,000
BOND	140,000	-	140,000	-	140,000	420,000
5. Route 378 Pole Replacement	-	500,000	500,000	-	-	1,000,000
SPENDING SCHEDULE						
<u>FUNDING</u>						
BOND	-	-	-	-	-	-
FED/STATE	-	500,000	500,000	-	-	1,000,000

PROJECT DESCRIPTION	2017	2018	2019	2020	2021	TOTAL
6. Geographic Information System	80,000	-	-	-	-	80,000
	SPENDING SCHEDULE FUNDING					
	BOND (2015)					
7. Citywide Wayfinding Signage	80,000	-	-	-	-	80,000
	SPENDING SCHEDULE FUNDING					100,000
	BOND					
8. Aerial Bucket Truck (3-Replacements) Electrical Bureau	300,000	-	150,000	-	-	450,000
	SPENDING SCHEDULE FUNDING					
	BOND					
9. Service Truck (new) Mechanical Bureau	300,000	-	150,000	-	-	450,000
	SPENDING SCHEDULE FUNDING					80,000
	BOND					
	BOND		80,000	-	-	80,000

PUBLIC WORKS - OTHER PROJECTS

	2017	2018	2019	2020	2021	TOTAL
SPENDING SCHEDULE	7,505,000	570,000	800,000	70,000	70,000	9,015,000
BOND (2015)	125,000	-	-	-	-	125,000
BOND	625,000	-	370,000	-	140,000	1,135,000
CDBG (2016)	193,500	-	-	-	-	193,500
CDBG	-	-	-	-	-	-
FEDERAL	5,244,000	500,000	500,000	-	-	6,244,000
STATE	1,183,250	-	-	-	-	1,183,250
OTHER	60,000	-	-	-	-	60,000
TOTALS	7,430,750	500,000	870,000	0	140,000	8,940,750

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
RECREATION**

<u>PROJECT DESCRIPTION</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
1. General Pool Improvements	372,000	100,000	300,000	100,000	300,000	1,172,000
<u>FUNDING</u>						
BOND	400,000	-	400,000	-	400,000	1,200,000
BOND (2015)	72,000	-	-	-	-	72,000
2. Municipal Ice Rink	150,000	50,000	50,000	50,000	50,000	350,000
<u>FUNDING</u>						
BOND	100,000	-	200,000	-	500,000	800,000
3. Memorial Pool Project Complex Improvements	40,000	630,000	500,000	200,000	50,000	1,420,000
<u>FUNDING</u>						
BOND	-	-	-	-	-	-
OTHER	570,000	-	200,000	-	500,000	1,270,000
PARKS						
<u>SPENDING SCHEDULE</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
SPENDING SCHEDULE	562,000	780,000	850,000	350,000	400,000	2,942,000
BOND 2015	72,000	-	-	-	-	72,000
BOND	500,000	-	600,000	-	900,000	2,000,000
OTHER	570,000	-	200,000	-	500,000	1,270,000
TOTALS	1,142,000	-	800,000	-	1,400,000	3,342,000

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
ADMINISTRATION**

**PROJECT
DESCRIPTION**

1. IT Improvement Plan

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
SPENDING SCHEDULE	260,000	-	-	-	-	260,000
<u>FUNDING</u>						
BOND	260,000	-	-	-	-	260,000
<hr/>						
SPENDING SCHEDULE	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>TOTAL</u>
<u>FUNDING</u>	260,000	-	-	-	-	260,000
BOND	260,000	-	-	-	-	260,000
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TOTALS	260,000	-	-	-	-	260,000

**CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT**

PROJECT DESCRIPTION	2017	2018	2019	2020	2021 TOTAL
1. Blighted Property Acquisition	375,000	325,000	300,000	500,000	250,000
<u>FUNDING</u>					<u>1,750,000</u>
BOND	350,000	0	300,000	0	300,000
CDBG	100,000	100,000	100,000	100,000	100,000
OTHER	0	150,000	150,000	150,000	0
					450,000
C&ED					
<u>FUNDING</u>	<u>375,000</u>	<u>325,000</u>	<u>300,000</u>	<u>500,000</u>	<u>250,000</u>
BOND	350,000	0	300,000	0	300,000
CDBG	100,000	100,000	100,000	100,000	100,000
OTHER	0	150,000	150,000	150,000	0
					450,000
TOTALS	450,000	100,000	400,000	100,000	1,450,000