RESOLUTION 16-43

A RESOLUTION ADOPTING THE 2017-2021 FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM.

WHEREAS, a revised Five-Year Capital Improvements Program was prepared and submitted to City Council in accordance with Article XVII, Section 79 of the City Charter, and

WHEREAS, City Council has considered the proposed plan and has determined that it shall be the future public improvement plan for the City of Delaware, and

WHEREAS, Article XVII, Section 80 of the City Charter requires that City Council adopt, by resolution, the Five-Year Capital Improvements Program on or before October 15, and

WHEREAS, City Council will review the 2017-2021 CIP at Work Sessions before October 10.

WHEREAS, Council discussed possible amendments to the plan which may be considered as part of adopted the 2016 budget.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Delaware, State of Ohio:

SECTION 1. That the 2017-2021 Five-Year Capital Improvements Program for the General Fund, Airport, Fire, Police, Public Works, Parks, Equipment Replacement, Technology, Building Maintenance, Water, Sewer, Storm Sewer, Refuse, Parks Impact, Police Impact, and Fire Impact attached hereto as Exhibit A, is hereby adopted as the official plan for future public improvements.

SECTION 2. That this resolution shall take effect and be in force immediately after its passage.

PASSED: October 10, 2016 YEAS 6 NAYS 0
ABSTAIN 0

ATTEST: Elaine McCloskey
CITY CLERK

MAYOR

EST 1808

CITY OF

DELAWARE

OHIO

TO: Mayor Riggle and Members of City Council

FROM: R. Thomas Homan, City Manager

SUBJECT: 2017-2021 Capital Improvement Program

DATE: August 12, 2016

Pursuant to section 79 of the City Charter, submitted herewith is my proposed 2017-2021 Capital Improvement Plan, adoption of which must occur by October 15. The first reading of the Plan will take place Monday, September 12; the second reading on Monday, September 26, and the third reading and adoption on Monday, October 12. Additionally, work sessions should be scheduled, which will allow for more substantive discussion and review.

As with previous Plans, the city's limited general fund resources make it quite challenging to meaningfully address the city's increasing road and transportation needs. This point is underscored by the fact that the city's street resurfacing program in 2018 and 2019 will not include any local streets, with the exception of Community Development Block Grant paving projects. This is due to increased costs of the scheduled paving activity on collector and arterial projects for those years.

This challenge is being addressed as part of the city's Moving Delaware Forward initiative, which will be decided by voters in November. If approved, it will provide a permanent and sustainable source of new revenue dedicated to maintaining and expanding the city's street network.

As Council begins its review of this Plan, the following issues need to be considered, as they have the potential to impact this and future Plans.

Entrepreneurial Center (Gazette Building)

Staff is working with an architectural firm to develop a concept plan for an Entrepreneur Center in the former Gazette Building next to City Hall. This concept plan will include projected renovation costs that will then allow a stakeholder group of public and private partners to develop a funding model for completing the work. Therefore, the proposed CIP does not reflect costs for this project.

20 East William Street/Former Engineering Offices
With the engineering department having completely moved out of this building, a decision needs to be made about its future use, which is in the city's historic overlay district. Options, each of which has tradeoffs, include leasing, selling or demolition to provide additional public parking. What happens with the former Gazette building could also have an impact on re-use options.

Impact Fees
The city's impact fee program, in place since 2002, has helped the city address the impacts of new residential and commercial growth. The last update to the program was undertaken in 2006. Another update is warranted and it is my recommendation that this be undertaken in 2016. Completion of the report will aide greatly in establishing a plan for the future use of these funds, including the purchase of land on the city's southeast side for a community park.

Downtown Parking
As Council is aware, the city retained the firm of MKSK to undertake a comprehensive study of downtown parking needs, focusing on:

- How existing parking supply is used and ways it can be improved
- Identifying ways the parking experience can be enhanced for visitors
- Evaluating where there may be parking shortages and how these can be addressed

The draft study is undergoing a final review by the Steering Committee and staff. It will be reviewed with Council at a future work session.

Economic Development
With the approaching completion of the Sawmill Parkway Extension project, City staff has been working to develop a master plan of the area surrounding Sawmill Parkway, southeast of US42 to encourage economic development that is consistent with our 2014 Economic Development Plan. Such a master plan could allow us to develop a strong cluster park similar to the health and beauty park that has shown tremendous success in New Albany.

To date, we have worked with engineering consultants to assess storm water drainage in this area and potential associated costs. Similarly, Public Utilities have been developing estimated costs associated with providing water and sewer. The engineering report, when competed in 2016, will provide preliminary alignments and pipe sizes with construction costs for water and sanitary sewer mains. Public Works has been assembling costs for potentially needed access roads to allow companies to access Sawmill Parkway and a proposed JEGs Blvd. Once these costs are assembled, Economic Development will develop a finance model for paying for all needed infrastructure through a public and private partnership.

These costs and the draft utilities plans will allow us to develop a request for proposals to select a developer or developers to partner with us to achieve our collective economic development goals for the area. Staff has already had meetings with the largest owner of properties to introduce the concept of partnering with a developer or developers to master plan the area, put the land in contract and market the property to end users.

Separate but related, Economic and Community Development also has started to discuss the master planning of the near East Side Historic District to be able to continue the success of the historic Downtown core. With Downtown Delaware exceeding 95% first-floor occupancy, it is important for us to continue to redevelop this historic East Side to allow for continued options for housing, retail, restaurants and offices.

Parks and Natural Resources also have been part of these discussions because utilizing natural features, such as the Olentangy River, are an important revitalization component.

The city has also engaged the services of a transportation engineering consultant to evaluate traffic movements and access east of US23 to identify improvements that will reduce east side congestion and improve traffic flow.

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Over the next several weeks staff and I look forward to reviewing this CIP with City Council. I want to thank my staff for their hard work in putting this document together, in particular, my Executive Assistant Michele Kohler, and Finance Director Dean Stelzer.
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City of Delaware
Capital Improvement Plan
2017 - 2021

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CITY OF DELAWARE
CAPITAL IMPROVEMENT PLAN
GENERAL FUND SUMMARY
2017 - 2020

	2017	2018	2019	2020	2021
BALANCE FORWARD	**1,500,000**	**837,831**	**226,959**	**193,295**	**121,762**
REVENUES:					
INCOME TAX	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000
BALANCE PLUS REVENUE	**3,250,000**	**2,587,831**	**1,976,959**	**1,943,295**	**1,871,762**
EXPENDITURES:					
DEBT SERVICE					
2012 Streetscape ($2,542,516 through 2022)	282,860	284,058	282,635	269,904	269,904
2016 PW Building Maint. ($450,000 through 2027)	53,410	53,410	53,410	53,410	53,410
Advance from Reserve Fund Payback	150,000	147,452			
TOTAL DEBT SERVICE	486,270	484,920	336,045	323,314	323,314
AMOUNT AVAILABLE FOR CAPITAL IMPROVEMENTS AFTER DEBT	**2,763,730**	**2,102,911**	**1,640,914**	**1,619,981**	**1,548,448**
OTHER EXPENDITURES					
AIRPORT IMPROVEMENTS (pg. 4)	310,587	188,350	65,000	85,442	115,836
STREET IMPROVEMENTS (pg. 8)	191,155	266,527	311,571	525,828	451,440
PARK IMPROVEMENTS (pg. 15)	195,000	115,000	80,000	15,000	30,000
EQUIPMENT REPLACEMENT (pg.18)	650,000	500,000	500,000	525,000	625,000
TECHNOLOGY IMPROVEMENTS (pg. 22)	141,500	439,125	184,220	102,720	102,720
BUILDING MAINTENANCE (pg. 26)	312,657	241,950	181,828	119,229	77,482
SIDEWALK MAINTENANCE (pg. 28)	125,000	125,000	125,000	125,000	125,000
TOTAL OTHER EXPENDITURES	**1,925,899**	**1,875,952**	**1,447,619**	**1,498,219**	**1,527,478**
ENDING BALANCE	**837,831**	**226,959**	**193,295**	**121,762**	**20,970**

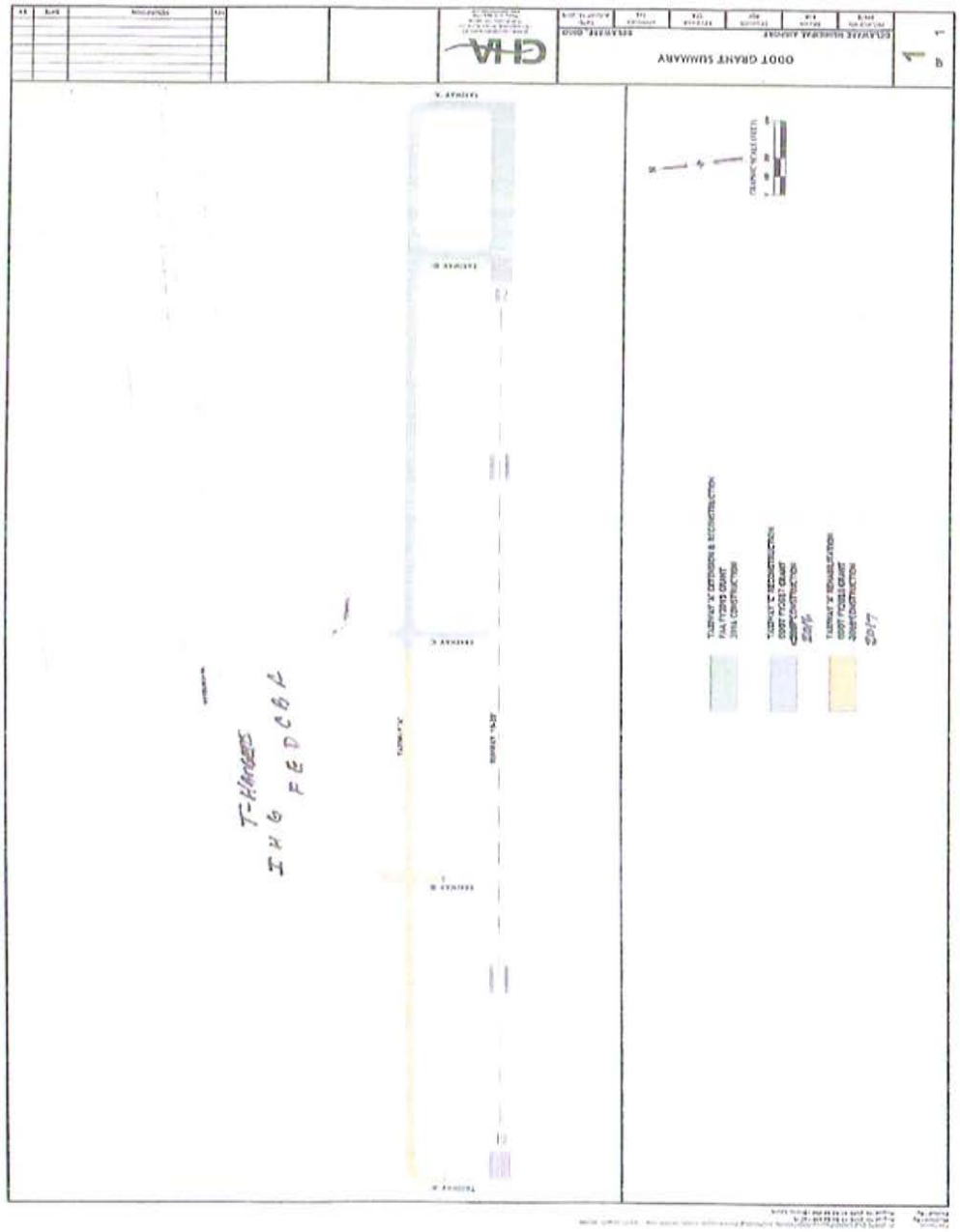
AIRPORT IMPROVEMENTS

Description:
The Delaware Municipal Airport (DLZ) is located in the heart of the Delaware Business Center at 1075 Pittsburgh Drive in Delaware, Ohio. The 315 acre facility is surrounded by the city's vital industrial district and is just three miles southwest of the historic center of Downtown Delaware. The City of Delaware owns, operates, maintains, and manages the airport and its facilities including the administration building, two maintenance hangars, six multi-unit T-hangers and a newly extended 5800 LF Runway 28. The Delaware Municipal Airport serves as a general aviation reliever for OSU's Don Scott Field. Today, the Delaware Municipal Airport has nearly 100 based aircraft including both single and multi-engine aircraft and helicopters, and sees an estimated 40,000 operations per year, including corporate jet activity, recreational, and military flying and flight instruction. The primary users of the airport and its facilities include recreational pilots from Delaware and the surrounding counties. The airport is also home to several area businesses including Jeg's High Performance Auto, Chris Lucas Auto Dealerships, Shamrock Aviation Maintenance, COAR Aerial Survey, Spencer Flight School, and McMichael's Avionics. The airport also serves transient users generally flying in to purchase jet and general aviation fuel.

In 2016, the new 800 LF Runway 28 extension project was completed allowing expanded use of the airport through more adverse weather conditions such as low ceiling. As part of the project, the existing runway was resurfaced along with the east end of taxiway 'A', and a new taxiway 'C' connector was constructed east of the existing connector. Future construction activities at the Airport include resurfacing of Taxiway 'A' to the west, expansion of the corporate ramp to the east, and the proposed paving of the taxi-aisles between the T-hanger units, all of which are pending securing additional state and federal funding.

Both the Airport Improvement Plan (AIP) and Strategic Business Plan are due for updating. The AIP primarily addresses the infrastructure maintenance and expansion needs of the airport, and is closely coordinated with our airport consultant CHA, and the Federal Aviation Administration. A successful Strategic Business Plan will identify the facilities, programs and services that could be offered and operated at the airport to better service local area businesses, and to attract new business and commercial opportunities. Since the major reconstruction of the airport runway fifteen years ago, the city in combination with private development interests, have invested over $11 million in improvements at the airport. Improvements include the construction of corporate and general aviation hangers, pavement expansion, security fencing installation, aviation guidance and system improvements, and general operations equipment.

Primary Strategic Plan Theme/Goals:
Effective Government - Effectively deliver the services that Delaware citizens need, want, and are willing to support
Master Planning Efforts:
2016 – Complete Runway 28 Extension
2017 – Jim Moore Field Business Plan
2018 – AIP Masterplan Update



CAPITAL IMPROVEMENT PLAN
AIRPORT IMPROVEMENT FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCE FORWARD	**0**	**0**	**0**	**0**	**0**
REVENUES:					
FAA Entitlement	150,000	150,000	150,000	150,000	150,000
FAA Entitlement - Carryover amount (needs verified)	93,065		150,000		150,000
FAA Discretionary	15,000		870,000		
ODOT - Taxiway A	22,034				
ODOT - Corp Ramp			65,000		
ODOT - Hangar A,B,C,D,E,F		64,182		47,652	
TIF Collections	25,745	25,745	25,745	25,745	25,745
CIP Advance	***150,000***	***147,452***			
CIP Allocation *(pg. 1)*	***160,587***	***40,898***	***65,000***	***85,442***	***115,836***
TOTAL REVENUES	**616,431**	**428,277**	**1,325,745**	**308,839**	**441,581**
EXPENDITURES:					
City Non-Grant					
Payback to General Reserve Fund ($447,452)	150,000	147,452			
Grant Improvements					
Corporate Ramp Expansion			1,300,000		
T-Hangar A, B & C Resurfacing		105,080			
T-Hangar D, E & F Resurfacing				133,094	
Main Parking Area & North Access Driveway					115,836
Taxiway A Design/Construction ($72,000 entitlement)	440,686				
TIF Improvements					
TOTAL EXPENDITURES	**590,686**	**252,532**	**1,300,000**	**133,094**	**115,836**
AIRPORT IMPR. FUND BALANCE	0	**0**	**0**	**0**	**0**

Entitlement Balance	**0**	*150,000*	-	*150,000*	*300,000*
TIF Balance	*63,760*	*89,505*	*115,250*	*140,995*	*166,740*

STREETS

Description:
Pavement maintenance remains the largest component of the Highway Maintenance Plan, and when considering the limited availability of funding, continues to directly compete with other priority highway maintenance needs including crash barrier repairs, street lighting, traffic signals, crack sealing, and signage and striping needs. Identifying additional funds for the city's highway maintenance program has been a primary focus during 2016, culminating with Council's approval of Ordinance 16-46 that proposes a 0.15% income tax levy to be designated for transportation improvements.

This CIP continues to allocate all Ohio Public Works Commission (OPWC) and Community Development Block Grant (CDBG) funds available for capital projects to the resurfacing program. The Delaware County Engineer has supported the City's OPWC applications with $50,000 in matching funding. The OPWC funds are awarded through a competitive application process.

State funds are available for street paving through the ODOT Urban Resurfacing Program which will include US 42 north of William Street in 2017. The Urban Resurfacing Program does require a 20% local match contribution.

CDBG funds have been reduced from prior year levels, allowing for only $60,000 per year to resurface one or more eligible streets. Though CDBG funds are limited to low/moderate income designated areas, the cost of maintaining these streets exceeds the funding available, thus necessitating additional local dollars.

The 2017-2021 Five-Year Resurfacing Program includes an average annual expenditure of $950,000 per year for roadway paving. Of this amount, 60% comes from grants while 40% is from local revenues. The majority of funds, 90%, are directed toward the arterial and collector roads while only 10% is available for local streets, though local streets make up 52% of the total lane miles within the city. This approach is necessary in order to prioritize and maintain the most travelled and visible streets. It should be further noted that the amount of funding available for local street resurfacing drops to zero dollars in 2018 and 2019 to accommodate increased costs of the scheduled paving activity on collector and arterial projects for those years. As the locally funded arterial streets age, all funding will be required to maintain these higher priority streets, leaving no local dollars for residential streets. However, with the successful approval of the proposed income tax levy, funding for residential streets could be increased by an additional $800,000 per year allowing for a program that begins to address the deteriorating condition of many local low-volume residential streets and cul-de-sacs.

Analysis continues to demonstrate the steady rate of pavement deterioration of the local street network with the average pavement condition for local streets

dropping on an annual basis. It is understood that the increasing quantity of new pavements added to the inventory by way of development activity, continues to artificially elevate the local street network pavement rating. When discounting the impact on the overall pavement condition rating from newly constructed streets, the actual pavement rating for the majority of the local street network is currently estimated at D+. While pavement conditions worsen, maintenance costs will increase as repairs continue to be deferred to future years. Various analyses have all yielded similar results when identifying the future funding needs to improve the local street network.

Bridge Improvements continues to be an area where funding limitations prevents the timely maintenance of certain non-critical items on several structures the City is responsible for. Examples include repair to abutment and wing walls, deck repairs, channel improvements and approach transition resurfacing. The City is required to inspect all structures annually and submit results to the State. Reports continue to identify certain repair areas and items that need to be addressed before more serious and critical deterioration occurs. Most recently, the bridge deck surface carrying South Sandusky Street over the Delaware Run was found to be severely deteriorated and in need of repair, which was subsequently completed in July of this year. Considering the number of structures managed by the City, it is anticipated such repairs will be an ongoing responsibility in future budget years.

Two minor projects are included at the request of residents. The first involves installing ADA compliant equipment upgrades to the signal system at the William and Sandusky Street intersection to accommodate a visually impaired student. The second project advances constructing the final phase of lighting improvements along North Houk Road between Jaguar Spur and Lamplight Drive.

<u>Primary Strategic Plan Theme/Goals:</u>
Great Community/Healthy Economy
GC2 - Provide an efficient transportation system with safe and complete streets
HE1 – Build and Maintain a Healthy Economy

<u>Master Planning Efforts:</u>
2016 – Update to the Transportation & Thoroughfare Plan
2016 – Implementation of In-house Pavement Evaluation
2017 – Expansion of resurfacing efforts pending outcome of income tax levy

CAPITAL IMPROVEMENT PLAN
STREET IMPROVEMENTS
2017 - 2020

	2017	2018	2019	2020	2021
REVENUES:					
PERMISSIVE TAX (License Fee Fund)	408,040	412,120	416,242	420,404	424,608
STATE LICENSE FEES	17,852	18,030	18,211	18,393	18,577
STATE GASOLINE TAXES	84,000	84,500	85,000	85,000	85,000
CIP Allocation *(pg. 1)*	***191,155***	***266,527***	***311,571***	***525,828***	***451,440***
TOTAL REVENUE	**701,047**	**781,178**	**831,023**	**1,049,625**	**979,625**
EXPENDITURES:					
DEBT SERVICE					
Bonds - S. Houk Road	31,047	31,178	31,023	29,625	29,625
TOTAL DEBT SERVICE	**31,047**	**31,178**	**31,023**	**29,625**	**29,625**
STREET RESURFACING					
City Grant Match Street Resurfacing	150,000	480,000	500,000	370,000	250,000
ODOT URP Street Resurfacing City Match	100,000				
City Street Resurfacing -					
Network Streets	260,000			550,000	600,000
Administrative/Inspection	50,000	50,000	50,000	50,000	50,000
TOTAL STREET RESURFACING	**560,000**	**530,000**	**550,000**	**970,000**	**900,000**
TRANSPORTATION IMPROVEMENTS					
City Grant Match Transportation Improvements	25,000		200,000		
ADA Improvements	35,000				
North Houk Road Lighting Phase II		150,000			
CSX Improvements (Curtis Street)		20,000			
Bridge Improvements	50,000	50,000	50,000	50,000	50,000
TOTAL TRANSPORTATION IMPROVEMENTS	**110,000**	**220,000**	**250,000**	**50,000**	**50,000**
TOTAL EXPENDITURES	**701,047**	**781,178**	**831,023**	**1,049,625**	**979,625**

GRANTS

Description:
Several key transportation projects are identified in the five year capital plan, all of which are in varying stages of planning efforts. These large initiatives are only possible through access to significant funding opportunities including the Surface Transportation Program (STP), State Highway Safety Program, and Federal Earmark funding. Federal funding generally requires a minimum local 20% matching contribution; however, careful planning and successful lobbying efforts by city staff has yielded 100% funding for two of the three major transportation projects now under construction in 2016, including the US23/SR315 Intersection Improvements and the US23/Pennsylvania Ave. Interchange. Both projects are anticipated to be completed and opened by October of this year. A third project, the E. William Street Corridor Improvement project, continues under design and is expected to advance into right-of-way acquisition in early 2017. The project will be bid and constructed by ODOT in 2019. The William Street Improvements, which was designated as an ODOT LPA project in 2013, is being partially funded through the successful repurposing of the Veteran's Parkway earmark. In addition to those funds, the city's $611,000 available balance in MORPC sub-allocated attributable funds has been allocated toward this project as well. If overall costs can be contained with minimal changes in scope, the project could be completed with limited local match required.

Many significant transportation initiatives are routinely discussed among staff, council, and the public including the Valleyside Drive Extension, Merrick Blvd. extension, Cheshire Rd realignment, Cottswold Drive extension, the Point bridge replacement, and various phases of Glenn Parkway. Other intersection improvements and roadway widening and turn lane projects throughout the community have also been identified and are included in the 2016 Transportation Plan update. Most recently, the need to address the rapidly deteriorating condition of Central Avenue, specifically between the Point and US23 has been gained notable attention.

There is insufficient funding to address all transportation needs in the city. Projects must be prioritized in association with the ongoing Transportation Plan update. The city has realized the successful completion of several large project initiatives over the past ten years including the Houk Road and Glenn Parkway extensions, the Peachblow/Glenn Parkway/US23 intersection, the Point Phase I improvements, the recently completed Houk Road Bikeway, and several smaller intersection and roadway improvement projects. Many of these projects were able to advance through partnerships with the local development community. The Sawmill Parkway project also reached a milestone this year in advancing to construction in the city following the establishment of the city-county construction funding agreement. To address some of the highest priority projects, City Council adopted Ordinance 16-46 in July, approving an income tax levy issue to be placed on the November ballot for voter

consideration. If approved, the 0.15% income tax levy will generate an estimated $2.2 million annually designated toward transportation improvements. The increase in revenue will allow for several priority project initiatives to advance to design beginning in 2017.

Two of the highest priority projects are 'the Point' intersection and the East Central Avenue corridor. Both contribute to daily traffic congestion and delay. Interim improvements were completed to the "Point Intersection" in 2009 to better manage peak hourly volumes of westbound US36/SR37 traffic. Over the past several years however, traffic along the 36/37 corridor has increased to the level where significant traffic delay and congestion is experienced both during morning and afternoon peak hours, especially in the eastbound direction. Delays are approaching several minutes per vehicle as traffic levels exceed the capacity of the intersection and narrow two-lane roadway below the railway bridge. The East Central corridor has been subject to increasing truck traffic leading to rapid deterioration of pavement. Efforts to maintain the pavement have been limited to placing leveling courses of asphalt as the surface continues to rut and break apart. Significant pavement reconstruction is required to address these issues, along with improvements to drainage, lane widths, and intersection geometry.

Detailed analysis under way in 2016 continues to evaluate the traffic patterns and volumes on the road network between US 23 and SR 521. Indications are that significant improvements will be required to manage projected traffic volumes. Common to all conceptual alternatives is the need to widen the existing Norfolk Southern Railway Bridge to accommodate five vehicle lanes with adjacent pedestrian lanes on either side. A project of this magnitude has been estimated to cost $23 million and will require assistance from State and federal funding sources.

The City had prepared and recently submitted two funding applications to request federal funding through MORPC and State transportation funds through the Transportation Review Advisory Council (TRAC). An additional application was submitted for State Safety Funds in August. In total, the city is requesting $17 million in assistance, leaving 6 million to be funded locally through public and private partnering efforts. The local contribution is more feasible with the successful approval of the proposed income tax levy issue. However, if the levy fails, the City will have to investigate alternatives to fund the required local match as the project is too critical to delay any further.

The city is contemplating submitting a similar application in 2018 for MORPC attributable funding for the East Central Corridor improvements project. Ongoing studies this year will aid in identifying several alternative approaches to managing traffic along the Central and William Street corridors, and those improvements which most effectively address these needs. Advancing such a project will necessitate identifying additional local matching funding for construction and funding for preliminary project development.

The city also submitted a federal funding application through MORPC for signal system upgrades to address the aging equipment and operating system initially installed over fifteen years ago. Congestion at certain locations in Delaware can be relieved through improved signal timing coordination. Advances in equipment and operating software allow a coordinated system to operate in a mode more responsive to traffic pattern and volume variations throughout the day in contrast to the limited time of day operation currently utilized in Delaware.

Two significant highway improvement projects have been able to advance, however only through the availability of (NCA) new community authority funding. The first project includes the reconstruction of Glenn Parkway from US36/SR37 to Mill Run Crossing. The second project in the early design stage is the extension of Glenn parkway from Sycamore Drive to Berlin Station Road. Both are available through the NCA funding put in place at the time the large developments were in planning.

Primary Strategic Plan Theme/Goals:
Great Community/Healthy Economy

GC2 - Provide an efficient transportation system with safe and complete streets

GC3 - Provide an effective stewardship of natural resources (parks, open space, Olentangy River, Delaware Run)

HE1 – Build and Maintain a Healthy Economy

Master Planning Efforts:
2014 – The Point Intersection Alternatives Analysis & Review
2015 – Transportation Model & Plan Update
2016 – East Corridor Traffic Analysis and Recommendations
2016 – The Point funding applications
2016 – 0.15% Income Tax Levy

CAPITAL IMPROVEMENT PLAN
GRANT PROJECTS
2017 - 2020

	2017	2018	2019	2020	2021
REVENUES:					
Grant Funds:					
ODOT Earmark E. William St.	350,000		3,000,000		
MORPC - STP Funds -US36/E. William			600,000		
OPWC - Street Rehabilitation	450,000	450,000	450,000	450,000	450,000
County OPWC Project	50,000	50,000	50,000	50,000	50,000
RLF Fund	40,000	50,000	45,000	25,000	30,000
CDBG Rehabilitation	60,000	60,000	60,000	60,000	60,000
City Match Transportation Improvements Total	***25,000***		***200,000***		
City Match Street Resurfacing	***150,000***	***480,000***	***500,000***	***370,000***	***250,000***
TOTAL REVENUE	**1,125,000**	**1,090,000**	**4,905,000**	**955,000**	**840,000**
EXPENDITURES:					
Transportation Improvements					
US 36/E. William St. Improvements (Design)	350,000		3,800,000		
The Point Improvements	25,000				
Street Resurfacing					
OPWC Projects					
- London Road	650,000				
- Pittsburgh Drive, Heffner St.		980,000			
- Houk Road (Pittsburgh to Merrick)			1,000,000		
- Liberty Rd., Belle Ave.				870,000	
- Hawthorn & Pennsylvania					750,000
CDBG Grant					
- Harrison St. (East and West)	100,000				
- Wade St., Moore St.		110,000			
- English Terrace, Pumphrey Terrace			105,000		
- Wootring				85,000	
- Flax St.					90,000
TOTAL EXPENDITURES	**1,125,000**	**1,090,000**	**4,905,000**	**955,000**	**840,000**

PARKS IMPROVEMENTS

Description

The Parks Improvement Fund will continue to update and improve parks including playground equipment, wayfinding and site furniture. The play structures are typically replaced on a 15 year rotation depending on how the equipment has aged. Parks and Natural Resource staff will inspect the equipment biannually to determine if the equipment life can be extended. The equipment rotation plan allows us to spread out replacement costs so we can have minimal impact on the Improvements budget.

The City is currently working on a park signage program that will provide updates to park entrance, directional and interpretive signs. This will provide easier access and promote a sign style consistent with the city wide sign standard. The program will be instituted over several years and provides the framework for a replacing outdated signs.

The Parks and Natural Resource staff will also begin a master planning process of all parks. The goal will be to perform assessments of park facilities and infrastructure to determine their expected life span so that we can responsibly plan for options that range from repair to rebuild and include in our planning budget. We will also be looking toward the future to determine what our anticipated athletic field needs will be based on athletic group surveys, national trends and local needs. This overall planning effort will allow us to effectively meet the recreation needs or our community and efficiently adapt to a rapidly changing population in our City.

CAPITAL IMPROVEMENT PLAN
PARKS IMPROVEMENT FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCE FORWARD	***205,177***	***8,936***	***8,936***	***8,936***	***8,936***
REVENUES:					
Neighborhood Park Exaction Fees	5,000	5,000	5,000	5,000	0
CIP Allocation (pg. 1)	***195,000***	***115,000***	***80,000***	***15,000***	***30,000***
TOTAL REVENUES	**200,000**	**120,000**	**85,000**	**20,000**	**30,000**
EXPENDITURES:					
COMMUNITY PARKS					
- Mingo	180,000	15,000	45,000		
- Smith Park	15,000		30,000		
- Blue Limestone				20,000	
NEIGHBORHOOD PARK IMPROVEMENTS					
- Carson Farms		10,000			
- Cheshire		10,000			
- Eastside		40,000			
- Lexington Glen			10,000		
- Nottingham		25,000			
- Oakhurst					30,000
- Stratford Woods		20,000			
- Willowbrook Park	*138,000*				
- Glen Ross Park	*63,241*				
TOTAL EXPENDITURES	**396,241**	**120,000**	**85,000**	**20,000**	**30,000**
ENDING FUND BALANCE	***8,936***	***8,936***	***8,936***	***8,936***	***8,936***

EQUIPMENT

Description:
The Public Works Fleet Division maintains an estimated 160 individual major pieces of major rolling stock equipment, and additional 100 minor pieces. Major equipment includes all service vehicles and construction equipment, while minor equipment includes lawnmowers, golf carts, generators, etc. The majority of this equipment is serviced by the fleet maintenance staff of the Public Works department. Replacement of equipment is generally a function of age, condition, reliability, safety, engine hours, vehicle miles, cost of repairs, and trade-in values. The Equipment Replacement fund includes vehicles operated by all divisions of the Public Works, Police, Parks and Natural Resources departments. Refuse, Fire and Utility vehicles appear in the CIP under those associated funds.

A critical piece of safety equipment being requested is a trailer mounted impact attenuator. The trailer will be utilized by any department performing infrastructure maintenance operations adjacent to active high speed traffic driving on US 23, US 42, US 36, SR 37 and SR 521. Increasing numbers of serious accidents are occurring between distracted motorists and service workers and equipment. The safety trailer will provide enhanced protection for our City Public Works, Utility and Parks staff.

The Parks and Natural Resources Department follows a comprehensive equipment inventory and replacement schedule that includes all rolling stock and mowing equipment. When replacing mowing equipment, the department continues to trade in mowers after a year of service to maximize trade in values while minimizing equipment service and maintenance cost and downtime.

Historically, police vehicles are decommissioned from police activity after three years of service due to safety and performance concerns. Though the vehicles generally have high mileage when retired from police use, the more substantial SUV's are generally in good condition and acceptable for continued use by other departments. An additional $4,000 per vehicle cost is being included in association with cruiser replacements to provide for replacement of the MDT's (Mobile data terminal) as the units are retired from the fleet. The updates in MDT's are necessary to remain current with the most reliable mobile technology and establish a system to replace older technologies in association with the vehicle replacement cycle. The changes to the police fleet vehicle exterior graphics have rendered the establishment of a uniform fleet appearance no longer possible without significant expense in repainting many vehicles. Nevertheless, the recently completed vehicle logo initiative has aided in maintaining a uniform identify throughout the general fleet.

Primary Strategic Plan Theme/Goals:
Effective Government/Safe City/Effective Government

Master Planning Efforts:
2014 – Comprehensive Update of Equipment Inventory
2015 – Evaluation of Equipment Fueling Procedures and Tracking Practices
2016 – Evaluation of Fleet Service and Parts Management Practices

CAPITAL IMPROVEMENT PLAN
EQUIPMENT REPLACEMENT FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**6,186**	**22,109**	**122,470**	**91,915**	**16,442**
REVENUES:					
CIP Allocation (pg. 1)	***650,000***	***500,000***	***500,000***	***525,000***	***625,000***
TOTAL REVENUE	**650,000**	**500,000**	**500,000**	**525,000**	**625,000**
EXPENDITURES:					
PUBLIC WORKS					
Pickup Trucks			33,800	31,000	73,000
Bucket Truck					130,000
2 Ton Dump Truck			159,959	164,700	
1 Ton Utility Truck	57,000				170,000
Backhoe	84,215			90,000	
Skid Steer			53,100		
Asphalt Recycler		85,000			
Fork Lift	26,500				
Scissor Lift	14,000				
12 Ton Ashpalt Paver Trailer	18,367				
Highway Safety Crash Trailer	22,000				
Utility Van				21,500	
TOTAL PUBLIC WORKS	***222,082***	***85,000***	***246,859***	***307,200***	***373,000***
PARKS AND RECREATION					
Pickup Trucks	32,425	102,139	35,668	37,451	38,574
Skid Steer			45,373		
Park Mowers	34,050	28,500	29,355	30,822	31,747
Flail/Rotary/Woods Mower	7,500	15,000			
Utility Vehicle	11,000				
Bucket Truck				80,000	
45 HP Tractor	31,020				
TOTAL PARKS AND RECREATION	***115,995***	***145,639***	***110,396***	***148,273***	***70,321***
AIRPORT					
Mower			16,000		
GPU		28,000			
Jet A Truck (Used)	115,000				
TOTAL AIRPORT	***115,000***	***28,000***	***16,000***	***0***	***0***
POLICE DEPARTMENT					
Police Cruiser Replacements (3/yr.)	139,000	141,000	143,000	145,000	147,000
Zero Motorcycle	0				
Detective Vehicle	29,000				
TOTAL POLICE	***168,000***	***141,000***	***143,000***	***145,000***	***147,000***
CEMETERY					
Mower Replacement	13,000		14,300		15,730
TOTAL CEMETERY	***13,000***	***0***	***14,300***	***0***	***15,730***
TOTAL EXPENDITURES	**634,077**	**399,639**	**530,555**	**600,473**	**606,051**
CARRY OVER BALANCE	**22,109**	**122,470**	**91,915**	**16,442**	**35,391**

INFORMATION TECHNOLOGY

Description

The City of Delaware Department of Information Technology exists to enable the various City departments to efficiently and effectively achieve their goals by delivering the high-quality services and technologies staff needs, while maintaining the fiscal responsibility our citizens expect. The technology related capital planning for the city can be classified into four major areas:

- Application Software Systems Support
- Internal Infrastructure and Network Services
- External Network Infrastructure
- Equipment Acquisition for End-User Support

Application Software Systems Support:

The major system-wide software systems utilized by the City are:

- Azteca Cityworks (City-wide Computerized Maintenance Management System, & Planning, Permitting, and Licensing)
- ESRI ArcGIS (City-wide Geographic Information System)
- Civica CMI (City-wide Financial and Revenue Collection software "suite" with specific modules for Payroll, Utility Billing, Income Tax Collection, and Financial and Budgetary Accounting)
- SunGard ONESolution (Police Record Management System / Computer Aided Dispatch)
- ZOLL FireRMS, ePCR, etc. (Fire and EMS integrated software)
- Microsoft Exchange (City-wide email, calendaring, and messaging software)

The current five year capital plan includes resources to replace/upgrade several existing software systems including the Police system in 2017 and several finance applications in 2017, 2018, and 2019.

Police Records Management System

The Delaware Police Department currently utilizes a Record Management System / Computer Aided Dispatch software suite that utilizes "green screen" technology dating from the late 1990's, and has existed in its current form since at least 2007.

The current software and support agreements do not include upgrades, and the most recent budgetary quote to move to a 21st century RMS came in at over three hundred thousand dollars. Beginning in 2016, the DPD has started to integrate certain systems (jail booking and control, video surveillance, and predictive policing,) with County systems. Accordingly, the planned 2017 RMS /CAD upgrade will have to strongly consider what direction the County is taking, but as of this writing, implementation of an integrated system is still planned to begin in 2017.

Microsoft Exchange
Beginning in 2018, it is anticipated that pricing on Microsoft's Office 365 products will drop to the point that end-user email and software licensing will be better served as an operational "Software-as-a-Service" cost, and not a capital cost.

Internal Infrastructure and Network Services
Networking Infrastructure
A critical component of the City's server and server hardware operating environment, the network switches and firewalls, are reaching the end of their supported service lives. Therefore, it is anticipated that a complete upgrade of more than 20 network switches and firewalls will be required in 2017.

Virtual Host Replacement
Due to the increased capacities from hardware purchased in 2014, the City will buy hardware warranties that extend at least four years for this hardware. The next projected server replacement should occur in 2018, (if at all: see the comments on hybrid computing for more information.)

Hybrid "Cloud Computing"
As discussed above, the City IT Department will be closely following the trend towards the remote hosting of computing assets and infrastructure, and by the next major hardware refresh cycle in 2019, if not before, it is entirely possible that the majority of the City's server and storage assets will be remotely distributed.

External Network Infrastructure
Fiber Optic Networks
The City has ten miles of fiber optic cable, both under- and above-ground connecting most of the City's assets. In the past the City has attempted to partner with external entities to further extend our fiber system capabilities. Moving forward we would like to take a more pro-active role in identifying fiber needs and opportunities. We hope to prepare a basic strategic plan with some outside contractual assistance in 2016 to identify strategic improvements that benefit not only internal city technology communication needs, but also foster economic development opportunities citywide.

Equipment Acquisition for End-User Support
PC Replacements:
This project has historically attempted to replace as many older and failing computers as possible. The City has increased the life expectancy of deployed machines from 3 to 5 years, and as expected, the trend of moving away from traditional desktops to tablets and mobile technologies began in 2016 with the release of Windows 10. Further trends will see hardware replacement move into a "subscription" model, much like software replacement has done.

Copier/Scanner Replacement

In 2016, the City started a project of replacing the worst of its 29 network-attached, multi-function copiers. This project will continue through 2020, replacing printers based on usage and service call analysis. After that time, it is anticipated that hardware capabilities and costs will have reached a point where this project can run every other year.

Strategic Plan Theme/Goals

Effective Government

(EF1—effectively deliver the services that Delaware citizens need, want, and are willing to support, by maintaining high quality technology.)

Master Planning Efforts

2017—Application Software Systems Support possible integrated Police RMS and CAD software systems upgrade or replacement.

2017—Internal Infrastructure and Network Services network switch and firewall replacements.

2018—Application Software Systems Support improvements with integrated Budgetary Forecasting and Planning software system. Transition to SaaS model for email and "Office" desktop applications.

2018— Internal Infrastructure and Network Services virtual server acquisitions.

2019—Application Software Systems Support improvements with integrated Local Income Tax Collection software systems.

2019—Infrastructure and Network Services improvements (difficult to forecast) probably migration to "cloud-based" Infrastructure as a Service offerings

2017-2021—Equipment Acquisitions for yearly PC Desktop, Laptop, Tablet hardware replacements and Copier / Scanner replacements.

2017-2021—External Network Infrastructure yearly fiber optic network expansion and maintenance.

CAPITAL IMPROVEMENT PLAN
TECHNOLOGY IMPROVEMENTS
2017 - 2021

	2017	2018	2019	2020	2021
REVENUES:					
CIP Allocation *(pg. 1)*	***141,500***	***439,125***	***184,220***	***102,720***	***102,720***
TOTAL REVENUE	**141,500**	**439,125**	**184,220**	**102,720**	**102,720**
EXPENDITURES:					
Equipment Acquisition					
PC Replacement	16,000	16,000	35,000	16,000	16,000
Copier Replacement	22,000	22,000	22,000	22,000	22,000
Internal Network Acquisition					
High Capacity Storage Replacements					
Network Switch and Firewall Replacements	75,000				
Virtual Server Acquisition		40,000			
Migration to Cloud Based Infrastructure			40,000		
External Nework Infrastructure					
Fiber System Expansion	10,000	10,000	10,000	10,000	10,000
Software Application Acquisition/Retention					
Payroll, Human Resource Mgmt.	18,500	18,500	18,500	18,500	18,500
Police Records Management System		302,625	18,220	18,220	18,220
Budgetary Accounting System		30,000	10,500	9,000	9,000
Income Tax Collection System			30,000	9,000	9,000
TOTAL EXPENDITURES	**141,500**	**439,125**	**184,220**	**102,720**	**102,720**

FACILITY MAINTENANCE

Description:
The city maintains multiple facilities, each with complex components, systems and equipment requiring periodic maintenance, adjustment and replacement. The Public Works Department currently manages the maintenance and custodial needs of two of the largest and most visible public buildings in the city being the Justice Center and City Hall. Staff also manages maintenance activities for the former Engineering division building at 20 E William St, the recently acquired Gazette Building, and the Public Works Facility, current facilities on Cherry Street, Ross Street, and the city owned rental units on W. Central Ave. Facilities require a variety of daily, weekly, quarterly, and annual maintenance activities to guarantee the operation of critical systems including building security, back-up power, fire suppression, elevators, heating & cooling, plumbing & electrical, roofing and other related systems. For effective management of the facilities, assessments are performed to develop the appropriate maintenance and cost schedules for each system. Assessments shall include roofing, flooring, painting, and backup power systems. The majority of this work is funded through the Public Works Facility Maintenance operations budget, though certain large expenses, such as HVAC replacements, roof repairs, flooring replacement and facility expansions are managed through the CIP.

In 2014, a comprehensive inspection of the HVAC system at City Hall identified multiple failed components which were attributed to the poor operation and performance of the HVAC systems. In 2015, the first of several major improvements was completed which included the replacement of the 50 ton rooftop chiller unit on City Hall at a cost of $125,000. The second phase of improvements to the HVAC system at City Hall was complete in 2016 including operating systems, controllers, VAV boxes and associated equipment to provide improved monitoring and operation. Similar repairs are required at the Justice Center and are being included as part of the CIP.

Recent improvements to the Public Works Facility include the replacement of the facility's 50 year old roof with a membrane system (2016): Construction of a 2,240 SF administrative addition to accommodate the consolidation of the Engineering Division within the Public Works operation (2015): Construction of the new 3000 ton capacity Salt Storage Barn and associated Brine Production Machine (2014). Several other priority improvements have been identified and include upgrades to the 50-year old fire suppression lines in areas, demolition of the old concrete sawdust silo, and the demolition and replacement of approximately 9000 SF of building space to house the Traffic Division.

As part of the 2013 service operations review, a recommendation to consolidate the Parks & Natural Resources Division at the Public Works Facility was included as a primary goal to improve coordination and cooperation between departments. In order to relocate the department to the Public Works facility,

it is first necessary to construct a new refuse vehicle storage building on site and make improvements to the old refuse vehicle building to accommodate the Parks operations. As part of the new refuse vehicle building project, a new recycling loading facility will also be constructed in order to abandon, and eventually demolish the undersized and deteriorating facility on Cherry Street. The area housing the current recycling facility will be converted to open space adjacent to the new river canoe launch facility. The cost to construct the new facilities and make improvements for the Parks & Natural Resources division is estimated at $2 million. The majority of this cost is shown in the Refuse Fund budget.

Primary Strategic Plan Theme/Goals:
Effective Government
SC1 - Effectively deliver the services that Delaware citizens need, want, and are willing to support

Master Planning Efforts
HVAC Inventory & Assessment
Roofing Inventory & Assessment
Flooring Inventory & Assessment

CAPITAL IMPROVEMENT PLAN
BUILDING MAINTENANCE IMPROVEMENTS
2017 - 2021

	2017	2018	2019	2020	2021
REVENUES:					
CIP Allocation *(pg. 1)*	***312,657***	***241,950***	***181,828***	***119,229***	***77,482***
TOTAL REVENUE	**312,657**	**241,950**	**181,828**	**119,229**	**77,482**
EXPENDITURES:					
Carpet Replacement	10,000	11,000	24,000	0	12,000
City Hall HVAC					
Justice Center HVAC/Other Building Improvements	25,000	150,000	25,000	25,000	25,000
Roof Repairs City Hall, Justice Center	30,000	32,000	35,000	35,000	
Public Works Building					
- Fire Suppression System	40,482		43,983		40,482
- Sign Building	17,175				
- Backup Generator		48,950			
Parks Maintenance Building @ 440 E. William St.	190,000				
Justice Center Generator Replacement			53,845	59,229	
TOTAL EXPENDITURES	**312,657**	**241,950**	**181,828**	**119,229**	**77,482**

SIDEWALK IMPROVEMENTS

Description:
The Safe Walks initiative is included as part of the Highway Maintenance Plan's sidewalk maintenance program. Since its inception in 2006, the Safe Walks program has identified and repaired an estimated 15,000 tripping hazards throughout the community. The value of the 10-year initiative is estimated at $3.25 million with approximately 45 percent of the cost being covered by property owners, and the remaining 55 percent by the city.

The most recent area to be evaluated for repairs is the city's southwest side, including all neighborhoods south of US 36 and west of the CSX railway. Once the final west side phase has been completed, the entire community will have been evaluated and addressed for sidewalk deficiencies. Because it is anticipated that additional deficiencies will arise as sidewalk sections age and street trees grow, it is being recommended as part of an ongoing sidewalk maintenance efforts to continue routine sidewalk evaluations throughout the community to identify additional deficiencies in accordance with the regulations included in Chapter 909 of the City Codified Ordinances. The process by which evaluations are completed however will be adjusted from the practices implemented during the comprehensive Safe Walks initiative. It's being proposed to limit annual evaluations to those streets included with the annual resurfacing effort for that year, and address sidewalk concerns as well as signage, striping, lighting and other related infrastructure needs, concurrently with the paving project.

Sidewalk maintenance improvements, including ADA Ramp repairs, sidewalk infill projects, downtown streetscape paver repairs, and bike network maintenance activities are included as part of the Public Works Street Maintenance and repair budget. Work will be prioritized and managed accordingly based on funding levels and staff availability. Citizen requests for sidewalk repairs will continue to be received and addressed through a demand driven approach.

Primary Strategic Plan Theme/Goals:
GC2 - Provide an efficient transportation system with safe and complete streets

Master Planning Efforts
2016 – Repairs to Northwest Area
2017 - Repairs to Southwest Area
2017 – Evaluation of Downtown sidewalk utility
2018 - Revised evaluation approach coordinating with resurfacing program

CAPITAL IMPROVEMENT PLAN
SAFEWALK SIDEWALK PROGRAM
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**47,488**	**54,165**	**20,380**	**9,180**	**19,700**
REVENUES:					
Resident Direct Payment	95,000	65,000			
Property Tax Assessments					
Prior Years	18,910				
2012	10,858	9,681			
2013	7,609	7,609			
2014	4,280	4,280	4,280		
2015	27,520	27,520	27,520	27,520	387
2016		15,000	15,000	15,000	15,000
2017			30,000	30,000	30,000
Note Issue	1,050,000	800,000	625,000	475,000	325,000
CIP Allocation Safewalk	125,000	125,000	125,000	125,000	125,000
Total CIP Allocation (pg. 1)	***125,000***	***125,000***	***125,000***	***125,000***	***125,000***
TOTAL REVENUE	**1,339,177**	**1,054,090**	**826,800**	**672,520**	**495,387**
EXPENDITURES:					
RESIDENT REPAIR RESPONSIBILITY					
Invoice	150,000	10,000	10,000	10,000	10,000
Assessment	150,000	10,000	10,000	10,000	10,000
CITY REPAIR RESPONSIBILITY					
City Invoice	225,000	10,000	10,000	10,000	10,000
SIDEWALK INSPECTION SERVICES	50,000				
DEBT SERVICE	757,500	1,057,875	808,000	632,000	480,000
Total Safewalk Expenditures	**1,332,500**	**1,087,875**	**838,000**	**662,000**	**510,000**

PARKS IMPACT FEE

Description

The City has opened three new parks in 2016 and added 3/4 miles of trails that have been a tremendous success to the park system. The park system has also experienced increased attendance that has stressed the existing facilities and will require staff to effectively plan for future facilities as populations climb. The growth and demand of the parks and natural resource system will require the City to focus on park operations and recreation planning efforts to maximize the existing parks and open space resources. The parks impact fee will primarily be focused on trail improvements that will be leveraged with grant resources. The City will also be updating the impact fee study which will help guide future CIP planning and address the recreation needs of the community.

The Bikeway Master Plan was completed in 2016 and the City will begin instituting the improvement plan which will initially emphasize the completion of gap projects on W. Central Ave and W. William St. that will greatly improve active transportation safety. The City will simultaneously look at larger active transportation system expansion projects to continue to provide recreational and transportation options for residents. In addition, we will work with local partners to promote safe biking programs and increase awareness in the community. The City will look to leverage CIP spending with state and federal funding to extend the trail system and work with regional partners to provide connections beyond municipal boundaries. The growing trail system will also consider a sustainable trail system that utilizes sound maintenance to extend the trail life.

The completion of gaps along Central Ave. will improve safety and access along heavily traveled route. Gaps between Trotters Circle and Westfield and Houk Rd to Buehlers are main priorities that will involve the majority of 2017 CIP funding. The routes have been engineered and are ready to bid. They involve two stream crossings, challenging slopes and a difficult utility corridors but will provide a much anticipated connections for residents to commercial areas.

Design will begin on several trail segments on William St. and Liberty Road. The William St. connections will fill gaps east of Applegate, west to Houk Rd. and will be a major east-west route in the City. The Liberty Road section design will focus on the segment between London Rd. and Belle Ave. This section of trail will create a vital north-south link and be the initial trail phase to provide connections to the south.

The completion of the Bikeway Plan is extremely important for trail development in the City of Delaware. The plan has a 10 year planning horizon and provides an action plan for Delaware to become a pedestrian and bike friendly city. The plan outlines over $14 million in projects to be implemented

over the next 10 years with a significant amount of funding through park impact fees. The staff will utilize the plan to aid in applying for grants to supplement the trail improvements.

CAPITAL IMPROVEMENT PLAN
PARK IMPACT FEE IMPROVEMENT FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCE FORWARD	**777,438**	**278,438**	**200,938**	**125,938**	**525,938**
REVENUES:					
Impact Fees	250,000	225,000	225,000	225,000	225,000
Trail Improvement Grants		682,500	500,000	500,000	400,000
TOTAL REVENUES	**250,000**	**907,500**	**725,000**	**725,000**	**625,000**
EXPENDITURES:					
COMMUNITY PARK IMPROVEMENTS					
Ross St. Parkland Expansion (bldg. demo)	100,000				
Ross St. Park Improvement		75,000			
COMMUNITY TRAIL IMPROVEMENTS					
SR 37 (Westfield-Trotters)	407,500				
SR 37 (Buehlers-Lexington)	166,500				
SR 37 (Lexington-Houk)				250,000	
Springfield Trail Branch Extension	0				
Liberty Road (London-Belle)				75,000	750,000
William St. (east of Applegate to Houk)	75,000	910,000			
Stratford Road (Olentangy-River Oaks)			800,000		
London Road					350,000
TOTAL IMPACT FEE EXPENDITURES	**749,000**	**985,000**	**800,000**	**325,000**	**1,100,000**
IMPACT FEE BALANCE	**278,438**	**200,938**	**125,938**	**525,938**	**50,938**

CAPITAL IMPROVEMENT PLAN
POLICE IMPACT FEE FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**253,779**	**268,552**	**267,529**	**268,319**	**269,109**
REVENUES					
Police Impact Fees	75,000	60,000	60,000	60,000	60,000
TOTAL REVENUE	**75,000**	**60,000**	**60,000**	**60,000**	**60,000**
IMPACT FEE EXPENDITURES					
DEBT SERVICE					
Justice Center ($890,000, 19yrs 2.94%, 2032)	60,227	61,023	59,210	59,210	59,210
TOTAL IMPACT FEE EXPENDITURES	**60,227**	**61,023**	**59,210**	**59,210**	**59,210**
IMPACT FEE BALANCE	**268,552**	**267,529**	**268,319**	**269,109**	**269,899**
Debt Balance Outstanding	**673,715**	**628,966**	**583,975**	**539,469**	**493,952**

CAPITAL IMPROVEMENT PLAN
FIRE IMPACT FEE FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**326,562**	**326,562**	**313,562**	**303,562**	**293,562**
REVENUES:					
Fire Impact Fees	100,000	87,000	90,000	90,000	90,000
TOTAL REVENUE	**100,000**	**87,000**	**90,000**	**90,000**	**90,000**
IMPACT FEE EXPENDITURES:					
DEBT SERVICE					
Station 303/304	100,000	100,000	100,000	100,000	100,000
TOTAL IMPACT FEE EXPENDITURES:	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**
IMPACT FEE BALANCE	**326,562**	**313,562**	**303,562**	**293,562**	**283,562**

CAPITAL IMPROVEMENT PLAN
MUNICIPAL SERVICES IMPACT FEE FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCE FORWARD	**436,708**	**494,710**	**538,908**	**579,273**	**619,638**
REVENUES:					
Impact Fees	125,000	110,000	110,000	110,000	110,000
Sewer Fund Reimbursement Cherry St. Facility	65,000	65,000	65,000	65,000	65,000
TOTAL REVENUES	**190,000**	**175,000**	**175,000**	**175,000**	**175,000**
EXPENDITURES:					
DEBT SERVICE					
Public Works Facility ($1,060,000 19yrs, 2.94%, 2031)	71,094	69,094	72,094	72,094	72,094
Justice Center ($900,000, 19yrs 2.94%, 2032)	60,904	61,708	62,541	62,541	62,541
TOTAL EXPENDITURES	**131,998**	**130,802**	**134,635**	**134,635**	**134,635**
IMPACT FEE BALANCE	**494,710**	**538,908**	**579,273**	**619,638**	**660,003**

Debt Outstanding Balance	**1,481,286**	**1,386,034**	**1,285,783**	**1,185,531**	**1,086,048**

FIRE DEPARTMENT

Description

The Fire Department continues to move forward with the plans voters approved with the 2010 Fire Levy. Fire Station 304 will be constructed and operational in the City's southeast quadrant on Cheshire Rd. This will have a significant improvement in response times from the current of 9-12 minutes from the existing fire stations to meeting the goal of 6 minute travel time 90% of the time in that area when the new station is completed. Fire Station 304 will be staffed with 3 personnel and will provide fire and EMS response capability.

Vehicle and apparatus replacement will continue throughout this plan. Police vehicles that are approximately 3 years old will be transitioned into the Fire Department for an additional 5 years being used for the Risk Reduction and Professional Development Divisions and for general station usage, preventing a fire apparatus from being used. The plan also includes the replacement of emergency response staff vehicles in 2017 and 2021. In 2020, the Fire Department will add a 5th paramedic unit that will be housed at Fire Station 304. An engine will also be purchased replacing the 1989 fire engine, thus having 5 engines that includes 1 in a reserve status. Finally, in 2018 the cardiac monitors are scheduled for replacement. These are used on the majority of medical calls to monitor the patient's heart from 12 different views, transmit the ECG to the hospital and perform heart defibrillation and pacing as necessary to sustain life.

CAPITAL IMPROVEMENT PLAN
FIRE/EMS FUND
2017 - 2020

	2017	2018	2019	2020	2021
BALANCES FORWARD	**621,583**	**771,091**	**672,477**	**935,148**	**24,343**
REVENUES:					
Fire/EMS Income Tax	770,000	805,000	840,000	840,000	840,000
Fire Impact Fee Funds	100,000	100,000	100,000	100,000	100,000
Capital Lease Proceeds					
Bond Issue - Station 304	4,000,000				
TOTAL REVENUE	**4,870,000**	**905,000**	**940,000**	**940,000**	**940,000**
EXPENDITURES:					
DEBT SERVICE					
Station 302 ($573,416, 10 yrs, 1.502%, 2022)	63,794	64,064	63,743	60,872	60,872
Station 303 ($2,755,000, 2.94%, 2032)	181,518	176,519	176,518	174,569	174,569
Station 304 ($4,000,000, 20 yrs, 4.0%, 2035)	165,000	292,446	292,446	292,446	292,446
Ladder Truck Lease (1,090,176, 1.83%, 7yrs, 2019)	166,294	166,294	41,573		
EMS Vehicles (3) - (800,000, 10 yrs. 2024)	93,950	92,350	90,750	94,150	94,150
STATION CONSTRUCTION					
Station #304 - Cheshire Rd.	4,000,000				
APPARATUS/VEHICLES					
Engine/Pumper Truck				823,401	
Paramedic Units				392,699	
Staff/Utilility Vehicles	49,936	11,941	12,299	12,668	32,048
EQUIPMENT					
Defibrillators/Cardiac Monitors		200,000			
TOTAL EXPENDITURES:	**4,720,492**	**1,003,614**	**677,329**	**1,850,805**	**654,085**
ENING BALANCE	**771,091**	**672,477**	**935,148**	**24,343**	**310,258**

PUBLIC UTILITIES DEPARTMENT
CAPITAL IMPROVEMENT PROGRAM

Capital Improvement Program

In order to continue to fulfill the Public Utilities Department's vision of continuous delivery of high quality drinking water and wastewater services in compliance with all regulatory requirements, the Department has planned a systematic and responsible multi-year Capital Improvement Program. The plan will provide the necessary upgrades and maintenance needed of the Utility Infrastructure to maintain the service levels expected by the City residents and for the anticipated continued growth of the City.

The Public Utilities Department utilizes the following strategies to develop the Capital Improvement Program.

1. **Quality and Reliability:**
   - Efficiency improvements utilizing proven and improved technology and delivery methods.
   - Decreasing the chance of pipe failures, water service loss and the need for boil orders.
   - Increased reliability of water and wastewater treatment plants.
2. **Regulatory Compliance:**
   - Avoidance of potentially hazardous conditions, adverse environmental and economic development impacts, and fines and penalties.
   - Continued rehabilitation of an aging sewer system to ensure public health.
3. **Environmental Protection:**
   - Prevention of water leaking from the distribution system, allowing the City to continue to be good stewards of one of the City's most precious natural resources.
   - Decreased the chance for sanitary sewer pipe failures that could result in untreated sewage entering the City's waterways.
4. **Economic Expansion and Increased Capacity:**
   - Reduce constraints in the water distribution system and the wastewater collection system to support economic development and revitalization.
   - Increase system capacity for anticipated growth of the City.
5. **Enhanced Fire Protection:**
   - Improved fire protection, reduced water pipe failures and enhanced water pressure as failing or undersized water mains are replaced.
6. **Replacement Costs/Emergency Repairs**
   - Cost savings through proactive replacement. Emergency repairs may restrict procurement options and can cost as much as ten times the cost of planned rehabilitation/replacement.

WATER CAPACITY FUND

The City owns and operates the recently expanded Water Treatment Plant which treats both surface water drawn from the Olentangy River downstream of Delaware Lake and groundwater from wellfield aquifers located at Riverview Park and on Penry Road. In addition to the Water Treatment Plant, the City has four million gallons of water storage with three elevated water tanks located in the City and one million gallons at the Water Plant clearwell.

In 2005, the City began a Water Master Planning process to provide a comprehensive master plan to evaluate raw water resources, future water treatment processes and additional water distribution improvement projects. The Master Plan completed in 2006 by the Floyd Browne Group with a subsequent review by Malcolm Pirnie Inc., recommended the City move forward with the following water capacity enhancement projects:

1. Up to 13 MGD of water treatment capacity is needed for the City's 20-year planning period.
2. An up-ground reservoir will be needed.
3. New surface water intake structures should be constructed.
4. Enhanced water treatment processes are needed to meet EPA regulations.
5. Membranes are proven to be a viable treatment technology.

Dating back for the past ten years, the City identified major water plant upgrades in the five-year CIP. In 2010 the City began the design and in 2012 the construction of the improvements and rehabilitation of the existing plant. The new 7.2 MGD water plant project was completed in 2015 for $30,300,000. The current peak water demand is 5.8 MGD. The water plant has the capability to expand up to 11.2 MGD with the addition of membrane skids and clearwell capacity which should provide adequate treatment capacity for the next 20 years at the City's current growth rate.

In addition to the new water treatment plant, the City has completed several major water capacity projects including the 24-inch westside water transmission main, Penry Road raw water main the 2-million gallon SE Highland water storage tank. These projects provided the City with the necessary infrastructure to support the growth and development of City and in addition of meeting all regulatory requirements.

The City's current water supply consists of 2.5 MGD of groundwater from the Riverview Park and Penry Road wellfields and surface water from the Olentangy River. Per the Army Corps of Engineers, the City is currently permitted to withdraw water when the river flow rate is above the minimum release rate of 3.2 MGD. Over the past 20 years the City has explored several additional options for a safe and secure source of water supply. Options included

additional wellfields, raising Delaware Lake and the construction of an up-ground reservoir. The driving force for additional water supply is water quality and water quantity (drought conditions). The water quality of Delaware Lake and the river remain a concern during times when agricultural runoff negatively impacts the lake and river. The membrane water plant removes the pollutants below the maximum contaminant levels at an increase in operational and maintenance costs. The 2006 Water Master Plan concluded that "raising the summer pool level of Delaware Lake by 2 feet is not a viable alternative and that an up-ground reservoir is a necessary component of the City's future water supply". Therefore, the City should remain committed to the construction of a 450 million gallon reservoir, preferably at the 120 acre Horseshoe Road site owned by the City. The engineering cost estimate for the final design and construction of the reservoir is $18,400,000 which includes the river intake and pump station, transmission mains and the reservoir. The 2017-2021 CIP includes the design of the reservoir in 2020 ($400,000) with construction estimated to commence in 2023 ($18,000,000).

In 2016, the City entered into a contract with an engineering firm to complete an evaluation of alternatives and development of preliminary alignments with construction costs for water and sanitary sewer mains along US Route 42 and Sawmill Parkway in the City's Southwest quadrant. The City is anticipating industrial and commercial growth in this southwest area of the City and the 2017 – 2021 CIP addresses future water capacity extensions for economic development sites in the Southwest Industrial Park corridor.

Additional water capacity projects included in the 2017-2021 CIP include water main extensions with a river crossing on Olentangy Avenue to provide water service to the Pollock/Armstrong Road area and to loop the water main with the construction of the water main for the Terra Alta development by the developer for reliability and water quality. An additional project in the CIP is for the continued extension of a water main on Buttermilk Hill and Troy Roads within the City's service area.

It is also recommended the City update our Water Master Plan in 2021. The last comprehensive plan was completed in 2006 and is becoming outdated as development occurs within the City's existing service area. The plan will include updates for future water transmission and water storage requirements and also water rates and capacity fees.

CAPITAL IMPROVEMENT PROGRAM
WATER FUND CAPACITY PROJECTS
2017 - 2020

	2017	2018	2019	2020	2021
BALANCES FORWARD	**5,448,029**	**4,967,684**	**4,267,339**	**3,897,094**	**3,707,051**
REVENUES:					
Water Capacity Fees	1,350,000	1,200,000	1,200,000	1,200,000	1,200,000
Water Debt Meter Fee Allocation	250,000	255,000	260,100	265,302	270,608
TOTAL REVENUES	**1,600,000**	**1,455,000**	**1,460,100**	**1,465,302**	**1,470,608**
EXPENDITURES:					
DEBT SERVICE					
Westside Trans Line ($2,225,051, 25 yrs, 3.67%, 2036)	136,750	136,750	136,750	136,750	136,750
Penry Rd. Waterline ($1,000,000, 25 yrs, 3.55%, 2037)	62,976	62,976	62,976	62,976	62,976
Kingman Hill Tower ($3,545,000, 25 yrs, 4.51%, 2031)	243,005	243,005	243,005	243,005	243,005
Plant Expansion ($9,600,000, 25yrs., 3.23%, 2039)	562,614	562,614	562,614	562,614	562,614
TOTAL DEBT SERVICE	**1,005,345**	**1,005,345**	**1,005,345**	**1,005,345**	**1,005,345**
WATER SYSTEM IMPROVMENTS					
Water Master Plan					250,000
Water System Financial Plan	75,000				
WATER SUPPLY PROJECTS					
Upground Reservoir Design				400,000	
DISTRIBUTION CAPACITY PROJECTS					
Olentangy Ave. River Crossing		650,000			
Buttermilk Rd./Troy Rd. Waterline			575,000		
New Line Oversizing/Extension	*1,000,000*	*500,000*	*250,000*	*250,000*	*250,000*
TOTAL WATER CAPACITY PROJECTS	**1,075,000**	**1,150,000**	**825,000**	**650,000**	**500,000**
ENDING FUND BALANCE	**4,967,684**	**4,267,339**	**3,897,094**	**3,707,051**	**3,672,314**

WATER MAINTENANCE FUND

The 2017-2021 water maintenance CIP provides a schedule for the design and construction of water rehabilitation and/or replacement infrastructure projects within the existing system or at the water treatment plant. The recommended projects will be needed during the term of the CIP to provide an adequate and dependable supply of treated water to the City's customers.

The City has experienced a high rate of residential, commercial and industrial growth over the past decade. As a result, there have been numerous additions and expansions to the City's distribution systems which require additional maintenance of the system and the replacements of failing and aged infrastructure. The City owns and operates a potable and fire suppression water distribution system consisting of 190 miles of water pipe ranging in size from 2 inches to 24 inches and over 1,900 fire hydrants. The majority of the City's water pipes are in good to fair condition with less than 5 percent of the system demonstrating some type of failure in the past 10 years. Water pipes that are currently in good to fair condition will move towards their replacement in the next 25 years. Water pipes in failed condition typically have had more than three failures whereas pipes in poor condition have only experienced one to two failures. It is likely the water pipes in poor condition will experience additional failures and reach the end of their useful life. Most of the water pipes recommended for replacement are primarily cast iron pipes that were installed from 1940 to 1975. At this time, approximately 25% of the City's water pipes are cast iron pipe. In the last six years the City has replaced approximately 6,000 linear feet of water pipe per year. In addition, the City has averaged 11 water pipe breaks per year or 6 per hundred miles of water pipe for the past 6 years.

The 2009 Water Distribution Master Plan identified water distribution replacement projects totaling over $5,000,000 of planned construction. Many of the projects listed in the report have been completed, including the construction of the Route 23 North, Curtis Street and Park Avenue water lines. The City has in place a Computerized Maintenance Management System (CMMS) that maps and inventories the existing and new water system components, identifies and prioritizes needed replacements or improvements and serves as a tool for planning projects and maintaining funding for these improvements. The replacement of water pipes improve the service levels for City residents, improve fire flow protection, and reduce water quality complaints in addition to the replacement of water mains with a history of failures.

In 2016, the City achieved a major accomplishment with the implementation of a city wide Advanced Metering Infrastructure (AMI) system. The AMI system will significantly improve meter reading and utility billing service levels for City customers by providing real-time water consumption data, eliminating

estimated utility bills, monitoring water meter tampering and water conservation by allowing customers to set water usage alerts via a consumer web-portal. The installation of the system started in July of 2016 and should be fully implemented for all City customers by the 2nd quarter of 2017.

The 2017-2021 CIP recommends funding for the maintenance of water plant equipment and the replacement of several water mains including the Blymer Street water line in 2017 and the rehabilitation of the existing Public Utilities maintenance building on Cherry Street. The painting of the West Water Tank is scheduled for 2018 at the cost of $500,000. The tank was last fully painted in 2002 after the tank raising project in 1997. The painting project will include the repair of rust areas on the tank to strengthen the structural integrity of the tank.

CAPITAL IMPROVEMENT PROGRAM
WATER FUND MAINTENANCE PROJECTS
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**1,726,214**	**1,473,069**	**1,209,924**	**738,071**	**441,218**
REVENUES:					
Transfer from Water Fund	750,000	775,000	800,000	800,000	800,000
Water Debt Meter Fee Allocation	1,064,620	1,064,620	1,085,912	1,085,912	1,107,630
TOTAL REVENUES	**1,814,620**	**1,839,620**	**1,885,912**	**1,885,912**	**1,907,630**
EXPENDITURES:					
DEBT SERVICE					
Treatment Plant ($22,400,000 - 25 yrs, 3.23%, 2039)	1,312,765	1,312,765	1,312,765	1,312,765	1,312,765
WATER PLANT MAINTENANCE					
WTP Settling Basins Chain & Valve Replacement					
Plant Maintenance	95,000	75,000	75,000	75,000	75,000
Lagoon Cleaning			300,000		
Pressure Filter Media Replacement	75,000				
Well Screen Cleaning				95,000	
Nano and Ultra Filtration Membrane Replacement					600,000
WATER DISTRIBUTION PROJECTS					
West Water Tank Painting		500,000			
Water Tank Maintenance	15,000		15,000		15,000
Large Meter Replacement	25,000		25,000		25,000
Water Line Improvements:					
Small Main/Service Replacement	50,000	50,000	50,000	50,000	50,000
Fire Flow Improvement	75,000	75,000	75,000	75,000	75,000
Campbell St. Waterline					150,000
S. Washington St. Waterline				150,000	
Blymer St. Waterline	150,000				
Pennsylvania Ave. Waterline			475,000		
East St./Fair Ave. Waterline		60,000			
Lincoln Ave. Waterline				425,000	
Utilities Maintenance Bldg. Rehab	165,000				
Equipment Replacement	105,000	30,000	30,000		
TOTAL WATER REPAIR AND MAINT.	**2,067,765**	**2,102,765**	**2,357,765**	**2,182,765**	**2,302,765**
ENDING FUND BALANCE	**1,473,069**	**1,209,924**	**738,071**	**441,218**	**46,083**

SEWER CAPACITY FUND

The City owns and operates the Upper Olentangy Water Reclamation Center for the wastewater treatment of all domestic and industrial wastewater from City customers. The UOWRC was most recently expanded and upgraded in 2007 in two different phases with a daily design flow of 10 MGD and a peak daily flow of 20 MGD. In 2016, the average daily flow has been 5.25 MGD with a peak of over 20 MGD. The plant's effluent discharges into the Olentangy River, a state designated scenic Ohio waterway, with one of the most stringent permit limits in the State of Ohio. The NPDES permit includes an inorganic nitrogen limit of 6.3 mg/l in the summer and 8.1 mg/l in the winter, as well as a total phosphorus limit of 1.0 mg/l year-round. The capacity of the UOWRC should be sufficient for the 15 years.

In addition to the expansion of the UOWRC, a major accomplishment for the City has been the construction of the $18 million dollar SE Highland sewer which provides sanitary sewer service to the City's SE area from the plant to Peachblow Road. The construction of this sewer has enabled major residential growth to occur and provides for future commercial development in the City's SE quadrant. The City is able to recoup the cost of this sewer with capacity fees and a SE Highland sewer ERU fee as sewer permits are approved.

To better meet the future sanitary sewer needs of the City, an update to the City's 2000 sewer master plan is currently being completed. The current capacities of all sewers 10 inches and larger will be determined through flow monitoring to further define areas of the City with insufficient sewer capacity. In addition, tributary areas of the City not currently served by the City will be defined for the expansion of sanitary sewer mains. A sewer capacity model will be populated by the engineering consultant that will be used to determine future capacity requirements of the City with real-time flow data. The master plan when completed before the end of 2016 will contain anticipated future CIP projects with estimated construction costs.

In 2016 the City will complete the upgrade to the Slack Road pump station for additional sanitary sewer capacity for the southwest industrial corridor as recommended in the 2007 Airport Industrial Park Sewer and Water Master Plan report. This upgrade follows the City investment in 2011 to upgrade the Route 42/Route 23 trunk sewers for the necessary downstream improvements to serve the City's southwest corridor.

New sanitary sewer projects programmed for the 2017-2021 include funding for the final design and construction of sanitary sewers to support economic development project sites within the southwest industrial park area including Sawmill Parkway and Route 42 south.

CAPITAL IMPROVEMENT PROGRAM
SEWER FUND CAPACITY PROJECTS
2017 - 2020

	2017	2018	2019	2020	2021
BALANCES FORWARD	**3,003,447**	**2,267,786**	**2,277,983**	**2,155,830**	**1,568,042**
REVENUES:					
Sewer Capacity Fees	1,300,000	1,250,000	1,150,000	1,150,000	1,150,000
SE Highland Sewer ERU Fees	250,000	225,000	200,000	200,000	200,000
Sewer Fees Transfer - 2007,2008,2009	2,099,039	2,099,039	2,099,039	2,141,020	2,141,020
TOTAL REVENUES	**3,649,039**	**3,574,039**	**3,449,039**	**3,491,020**	**3,491,020**
EXPENDITURES:					
DEBT SERVICE					
Land Armstrong Rd. ($2,915,000 10 yrs. 1.49%, 2022)	327,350	324,400	324,400	324,400	324,400
23 North Sewer ($1,000,000, 25 yrs, 4.51%), 2031	67,260	67,260	67,260	67,260	67,260
SE Highland Sewer ($15,000,000, 25 yrs, 4.49%, 2037)	995,771	995,771	995,771	995,771	995,771
SE Highland Sewer ($2,750,000, 20 yrs, 3.59%, 2026)	186,737	187,563	188,418	189,305	189,305
Plant Expansion ($20,882,000, 20 yrs, 3.59%, 2026)	1,417,582	1,423,849	1,430,343	1,437,073	1,437,073
TOTAL DEBT SERVICE	**2,994,700**	**2,998,843**	3,006,192	**3,013,809**	**3,013,809**
SEWER SYSTEM IMPROVEMENTS					
Sewer System Financial Plan	*75,000*				
COLLECTION CAPACITY PROJECTS					
SW New Pump Station				500,000	
Transfer to Sewer Reserve Fund - Oversizing	500,000				
Sewer Oversizing/Extension	*750,000*	*500,000*	*500,000*	*500,000*	*500,000*
Reimbursement for Cherry St. Maint. Facility	65,000	65,000	65,000	65,000	65,000
TOTAL SEWER CAPACITY PROJECTS	**1,390,000**	**565,000**	**565,000**	**1,065,000**	**565,000**
ENDING FUND BALANCE	**2,267,786**	**2,277,983**	**2,155,830**	**1,568,042**	**1,480,253**

SEWER MAINTENANCE FUND

The City's sanitary sewer collection system consists of 180 miles of sewer pipe and over 3,200 manholes. The system has over 16 major trunk sewers 15 inch or larger serving as the backbone of the system. The majority of the pipes within the system are concrete, vitrified clay pipe or plastic (polyvinyl chloride) with the manholes composed of brick or concrete. The sizes of sanitary sewer pipe range in size between 8-inch and 66-inch in diameter. Included in the collection system is the operation and maintenance of 12 sanitary pump stations throughout the City sewer area.

For the past 15 years the City has performed a closed circuit televising program to identify defects in the sewer system such as infiltration and inflow, root intrusion and failures in sewer pipe segments. In the past decade the City has funded nearly $750,000 in an annual sliplining and grouting program of the sewer mains. This program has reduced the number of sanitary sewer overflows in the City to an average of less than two per year and reduced the amount of I&I received at the wastewater treatment plant. In 2014 and 2015 the City conducted a smoke testing study of areas of the sewer system suspected to be of concerned from the review of pipe conditions from the City's CCTV program. Based on these investigations the City's existing collection system the City has been able to complete spot repairs of the sewers and notify residents of private sewer laterals issues for repair by the resident. The City will continue to program funding in the 2017-2021 CIP for the sliplining and grouting of sanitary sewer mains.

Significant CIP projects that will be completed in 2016 include aeration system improvements at the wastewater treatment plant with the installation of two new direct drive turbo blowers and dissolved oxygen monitoring equipment. The new aeration system will replace the existing blowers that have been in operation since 1974 and 1987 and are prone to costly repairs and inefficiencies. These upgrades will reduce overall electric costs at the plant with improved oxygen transfer and energy efficiency. The City will also start the design and equipment selection for a new tertiary treatment process at the wastewater plant. The construction and installation of the new equipment is programmed for 2017. The new tertiary system will aid in the removal of suspended solids and phosphorus to achieve compliance with EPA regulations. The City will also complete the annual sliplining and grouting of approximately 7,500 linear feet of sanitary sewer pipe for the continued reduction of inflow and infiltration in the sewer system.

CAPITAL IMPROVEMENT PROGRAM
SEWER FUND MAINTENANCE PROJECTS
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**2,372,612**	**1,572,811**	**2,245,172**	**2,800,228**	**3,223,519**
REVENUES:					
Transfer from Sewer Fund	1,391,532	1,419,363	1,447,750	1,476,705	1,506,239
TOTAL REVENUES	**1,391,532**	**1,419,363**	**1,447,750**	**1,476,705**	**1,506,239**
EXPENDITURES:					
DEBT SERVICE					
Plant Rehabilitation ($2,230,000 20 yrs. 3.59%, 2026)	151,333	152,002	152,695	153,414	153,414
TOTAL DEBT SERVICE	**151,333**	**152,002**	**152,695**	**153,414**	**153,414**
WASTEWATER TREATMENT PROJECTS					
Tertiary Filtration System	1,200,000				
Belt Filter Press				500,000	
Plant Maintenance	50,000	75,000	75,000	75,000	75,000
Influent Pump Replacement		25,000			25,000
Settling Tank Upgrades					250,000
Concrete EQ Basin Repairs	115,000		250,000		
Electrical Transformers Upgrades	50,000				
WASTEWATER COLLECTION PROJECTS					
Large Meter Replacement	25,000		25,000		25,000
Inflow/Infiltration Remediation	175,000	175,000	175,000	175,000	175,000
Sanitary Sewer Replacement	75,000		100,000		100,000
Weselyan Woods Sewer Rehav				150,000	
Hayes Colony Sewer Rehab		200,000			
Pump Station Repair/Upgrade	100,000		25,000		25,000
Utilities Maint. Bldg Rehab	165,000				
Equipment Replacement	85,000	120,000	90,000		
TOTAL SEWER REPAIR/MAINTENANCE	**2,191,333**	**747,002**	**892,695**	**1,053,414**	**828,414**
ENDING FUND BALANCE	**1,572,811**	**2,245,172**	**2,800,228**	**3,223,519**	**3,901,344**

STORM WATER FUND

The City's first storm water report was completed in 1990 to review and revise storm water drainage districts and storm water design calculations, develop a priority list of improvements, discuss methods for financing the improvements and prepare an estimate of annual maintenance costs. A storm water task force was established by City Council in 1998 to investigate storm water system conditions and provide recommendation for establishing a mechanism to fund the necessary improvements. In 2001 the City implemented a storm water utility fee for the maintenance, operation and expansion of the City's storm water system. The fund collects approximately $800,000 annually base on a $2.50 per month ERU fee for property owners. The City is also required by OEPA to complete on an annual basis the requirements of our MS4 storm water permit to implement best management practices for the reduction and treatment of storm water prior to discharge into the Olentangy River.

The City has approximately 160 miles of 6-inch to 48-inch storm water pipe including over 80 storm water detention basins. The City provides hydraulic maintenance to approximately 50 of these basins on a as needed basis. The City has over 1,500 catch basin to maintain as part of the system . The City cleans and televises approximately 5 miles of storm water mains per year. Based on CCTV system maintenance, flooding reports, and prior storm water reports the City can program storm water projects. The City is addressing street and yard flooding on a yearly basis. The City has seen the number of flooding events decrease in the past several years as projects are completed.

The City has proactively responded to storm water flooding issues since the 1998 report was prepared. Subsequent storm water update reports have been completed in 2007 and 2012 for existing projects updates and revised construction estimates. Storm water projects completed in recent years to improve drainage and reduce flooding include Curtis Street/London Road, Berne/Kirkland/Spencer Streets, Pennsylvania Avenue, Joy Avenue, Troy Road, Fountain Avenue, South Sandusky Street, Pumphrey Terrace, West Lincoln Avenue and Olentangy Avenue.

Storm water projects that will be completed in 2016 include phase one of the Bernard Avenue corridor project. Phase one is the lining and rehabilitation of the existing storm water pipe from South Sandusky Street to Route 23 through the OWU campus. The 2016 CIP also includes funding for the design and construction of storm water improvements to an open ditch in the rear yards along Dogwood Drive. The current ditch sides slopes have worsen over the past several years from erosion and now dangerous to maintain.

The 2017-2021 CIP includes funding for repairs to storm water culverts under Route 23 and Stratford Road and the rehabilitation of the of the existing Public Utilities maintenance building on Cherry Street.

It is recommended that the City evaluate the initial storm water fee of $2.50 per ERU that was established by Ordinance in 2001 and implemented in 2002. An increase in the fee may allow for the funding of curbs and gutters with the City's street resurfacing program. The current fee is below the average fee of $3.88 for Central Ohio communities. Storm Water Ordinance No. 01-06 states that "subsequent to the initial establishment of Utility Services Charges pursuant to this Ordinance, the Director in each even numbered year shall prepare a Utility report with recommended Utility Service Charges. This report shall contain data utilized in the determination of the recommended Utility Services Charges and shall present to the Council on or before October 1 of each even numbered year for referral to the appropriate committee. The committee shall make a recommendation to Council on or before November 15 of each numbered year concerning the Utility Service Charges to become effective for a two year period beginning January 1 of each odd numbered year." City staff will prepare the report with the possible assistance of a consulting firm.

CAPITAL IMPROVEMENT PLAN
STORM WATER FUND
2017 - 2021

	2017	2018	2019	2020	2021
BALANCES FORWARD	**628,195**	**1,729**	**(557,766)**	**(555,152)**	**(510,284)**
REVENUES:					
Storm Water Fees	348,534	355,505	362,615	369,867	377,264
TOTAL REVENUE	**348,534**	**355,505**	**362,615**	**369,867**	**377,264**
EXPENDITURES:					
Storm Water System Financial Plan	35,000				
Storm Water Repair	100,000	100,000	100,000	100,000	100,000
Storm Water I&I Remediation		125,000		125,000	
Bernard Avenue (Sandusky to Liberty St.)		600,000			
Vernon Ave.				100,000	
Birch Terrace			200,000		
US 23/R 42 ODOT Culvert Repair	400,000				
Chamberlain/Channing St.					350,000
Stratford Rd Culvert Repair	200,000				
Utilities Maintenance Bldg Rehab	165,000				
Equipment Replacement	75,000	90,000	60,000		
TOTAL EXPENDITURES	**975,000**	**915,000**	**360,000**	**325,000**	**450,000**
ENDING FUND BALANCE	**1,729**	**(557,766)**	**(555,152)**	**(510,284)**	**(583,020)**

CAPITAL IMPROVEMENT PLAN
EQUIPMENT REPLACEMENT FUND
2017 - 2020

	2017	2018	2019	2020	2021
REVENUES:					
Water Fund Allocation	105,000	30,000	30,000		
Sewer Fund Allocation	85,000	120,000	90,000		
Storm Water Fund Allocation	75,000	90,000	60,000		
TOTAL REVENUE	**265,000**	**240,000**	**180,000**	**0**	**0**
EXPENDITURES:					
Tandem Axle Dump Truck	135,000				
Sewer Camera Truck		180,000			
Backhoe			120,000		
One-ton Truck - Sewer	40,000				
Utility Truck - Water	60,000				
Pickup Truck - Water		30,000	30,000		
Pickup Truck - Sewer		30,000	30,000		
Pickup Truck - Storm Sewer	30,000				
TOTAL PUBLIC UTILITIES EQUIPMENT	***265,000***	***240,000***	***180,000***	***0***	***0***

REFUSE FUND

Description:
Refuse fees are utilized primarily for supporting the daily operation of the solid waste division of Public Works Department. The city currently provides weekly residential and commercial refuse collection service and recycling service for fiber (newspaper and cardboard) and mixed materials (glass, plastic and aluminum). The city also provides seasonal yard waste collection for eight months of the year. In 2015, the city collected over 15,200 tons of refuse and 3,277 tons of recyclable materials representing a 5% increase over 2014 collections. The combined annual waste collection would fill a football field with a pile of waste over three and a half stories tall.

The refuse collection operation grows with the expansion of the community. The current fleet consists of six "Lodal" side load residential service vehicles, three commercial rear load trucks, and five recycling vehicles. These vehicles are replaced at the end of their respective service life averaging 7-8 years per vehicle. The transition to the residential tipcart "Toter" system in 2001 allows for the city to continue providing a high level of service to community residents and businesses while maintaining low collection rates. Both operations and rates are periodically reviewed and adjusted to continue the efficient refuse service offered the community. The rates and service levels are again being reviewed in 2106 to compare to independent refuse collection costs. Adjustments to rates may be necessary depending on the final cost of proposed refuse facility expansion.

The current refuse operation is dependent on the existence of the County owned and operated solid waste transfer station located directly north of the city on US 42. All residential and commercial waste is delivered to this location. Potential changes to this operation are being closely monitored as the city's operational efficiency or the refuse operation is tied directly to the availability of the local transfer station. Short term contingency plans have been developed this year for a proposed temporary closure of the station for required repairs and improvements.

The city also manages two closed landfills at Cherry Street and Curve Road. Improvements have been completed at both to control leachate breakouts from entering area waterways and drainage systems. In 2015/2016, the leachate collection system at Curve Road was modified by installing a gravity sewer line to direct leachate to an existing sanitary sewer line located approximately 1,750 feet north of the landfill. With this system in place, the Public Works Department will be able to cease the leachate hauling operation and eliminate associated costs estimated to be $100,000 per year.

A design-build contract is currently being contemplated for the construction of a combined recycling processing and vehicle cold storage facility. Originally, two separate buildings to house the operations were considered however site

restrictions concerning buildable footprint area necessitate a single building be constructed and positioned toward the northeast corner of the Public Works facility property. The construction type may also be adjusted so that any new facility could serve dual use should Public Works operations be adjusted and expanded in the future. The existing recycling facility on Cherry Street is undersized for the size of the recycling operation and is in need of significant repair and expansion in order to be maintained at that location. The preference is to relocate the operation to the Public Works Facility so the old building can be demolished and the site returned to natural open space adjacent to the Olentangy River. The CIP includes expenditures for the construction of both facilities.

Strategic Plan Theme/Goals
Safe City

SC2 – Provide safe and reliable drinking water, sewage and solid waste disposal and drainage systems.

Master Planning Efforts

2014 - Refuse Collection Transfer Facility Contingency Plan
2015 - Recycling Service Agreement with Sims Recycling
2016 – Refuse rate and service level review
2017 – Construction of new Refuse Vehicle/Recycling Building
2017 – City/County Task Force on Future of Transfer Station

CAPITAL IMPROVEMENT PLAN
REFUSE FUND
2017 - 2020

	2017	2018	2019	2020	2021
BALANCES FORWARD	**1,000,000**	**320,689**	**326,126**	**273,366**	**286,606**
REVENUES:					
Refuse Fees	600,000	612,000	624,240	624,240	636,725
Bond Revenue	1,500,000				
TOTAL REVENUE	**2,100,000**	**612,000**	**624,240**	**624,240**	**636,725**
EXPENDITURES:					
Debt Service					
Refuse Buildings ($1.5m, 3%, 5 yrs. 2021)	180,000	180,000	180,000	180,000	180,000
Building Improvements					
Refuse Equipment Storage Bldg 18000 sq. ft.	1,400,000				
Recycling Processing Bldg. 8100 sq. ft.	660,000				
Equipment					
Rear Load 20-Yard Packer - Commercial	163,000	169,500		179,000	
Side Load Lease Payments (2 units. 5 yrs., 2.5%)	80,311	20,063			
Side Load Truck	230,000	237,000	245,000	252,000	260,000
Recycling Vehicle - Recycling			252,000		267,000
1 Ton Dump w/liftgate	66,000				
TOTAL EXPENDITURES	**2,779,311**	**606,563**	**677,000**	**611,000**	**707,000**
ENDING FUND BALANCE	**320,689**	**326,126**	**273,366**	**286,606**	**216,331**