

**DEPARTMENT OF  
ENGINEERING,  
PUBLIC WORKS & FACILITIES  
MANAGEMENT**

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**2017 Budget Presentation**

# 2016 ACCOMPLISHMENTS

## OFFICE OF DIRECTOR

### Bureau of Recycling

The Bureau of Recycling and Planning continued to host various one-day recycling collection events throughout Union County. Participation in all programs remains high.

Union County continued to assist public entities with shredding their confidential documents; five towns/agencies took advantage of the service.

Tonnage data for the 2016 recycling events are as follows:

- **Mobile Paper Shredding** – More events and additional trucks were added to 2016 to meet demand for this popular program. Participation rose to over 6,500 residents and the program successfully recycled over 227,000 pounds of confidential documents.
- **Electronics Recycling** – Union County sponsored two one-day events and more than 1,200 residents participated. The County also supports 15 municipal drop-off locations.
- **Household Hazardous Waste Days** – 1,925 residents brought in 153,400 lbs. of toxic waste for proper disposal. Six schools took advantage of our free school lab program in conjunction with these events.
- **Fluorescent Bulbs** - 39,325 feet of fluorescent bulbs were collected and recycled via nine (9) municipal drop-off locations.
- **Tire Recycling** – 463 tires collected and recycled.
- **Propane Tanks** – 292 propane tanks were collected and recycled in conjunction with our Household Hazardous Waste Day events.
- **Scrap Metal** – continued to sponsor bi-monthly collections programs from March thru November at two drop off locations. The program saw a marked increase in participation in 2016.
  
- Union County contracted with a recycling educator to develop and implement a classroom recycling program for the elementary schools. The educator conducted 41 presentations in 9 municipalities and provided recycling education to over 1,000 elementary school children.
- Union County purchased Curby, a recycling robot that will be utilized to promote recycling and litter education at various events and programs throughout the county.
- Union County assisted public entities with shredding their confidential documents; five towns/agencies took advantage of the service.
- Union County Recycling Rate – Union County exceeded the State's 60% total overall recycling rate mandate.
- On-Line Reporting Process – Union County developed an on-line reporting process to allow business and commercial institutions to report their annual recycling tonnage reports.
- CRP Agreement- In accordance with the new legislations requiring CRP to sign off on all tonnage reports, Union County staff maintained Certified Recycling Professional accreditation and continue to serve as the CRP to six (6) municipalities in 2016.

# **2017 GOALS & OBJECTIVES**

## **OFFICE OF DIRECTOR**

### **Bureau of Recycling**

- Implement a compliance assistance program in the commercial and institutional sector to encourage business to recycle mandated materials.
- Work with municipalities to develop and promote a new “Recycle Right” education program to clean up the curbside mix by reducing contamination in the recycle bin.
- Develop a recycling education program in conjunction with Curby the recycling robot.
- Provide ample opportunity for county residents to participate in various county-wide recycling events.

**ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT-  
DIRECTOR'S OFFICE**

<b>Description</b>	<b>2016 Adopted Budget</b>	<b>2016 Modified Budget</b>	<b>2016 Expenditures</b>	<b>2017 Budget Request</b>
Salaries	34,483	34,483	34,482.01	36,403
Other Expenses	22,000	22,000	6,689.11	22,000
<b>Total</b>	<b>56,483</b>	<b>56,483</b>	<b>41,171.12</b>	<b>58,403</b>

# 2016 ACCOMPLISHMENTS

## DIVISION OF ENGINEERING

- Emergency Generator for Engineering Building, Scotch Plains
- Traffic Signal at East Broad Street and Elm Street, Westfield
- Raritan Road Culvert, Scotch Plains
- Lake Surprise Dam, Mountainside
- Resurface Sky Top Road, Scotch Plains
- Resurface Parkway Drive, Winfield
- Madison Hill Bridge, Rahway/Clark (40% complete) delayed by Executive Order
- Mountain Avenue Bridge, Springfield
- Traffic Signal at Chestnut Street and Parkview/Caldwell, Union
- Traffic Signal at South Avenue and Center Street, Garwood
- 2016 Road Resurfacing Project (10% Complete) delayed by Executive Order

# 2017 INITIATIVES

## DIVISION OF ENGINEERING

- 2016 Road resurfacing (approx. 20 miles), in 14 Municipalities - delayed from 2016 by Executive Order
- 2017 Road Resurfacing (approx. 20 miles) in 13 Municipalities –
- Traffic Signal at 5<sup>th</sup> Avenue and Chestnut St. in Roselle
- Traffic Signal at 7<sup>th</sup> Avenue and Grant Avenue in Plainfield
- Traffic Signal at 7<sup>th</sup> Avenue and Plainfield Avenue in Plainfield
- Traffic Signal at 7<sup>th</sup> Avenue and Central Avenue in Plainfield
- Springfield Avenue Bridge in Berkeley Heights
- W.R. Tracy Avenue Bridge in Mountainside
- Netherwood Avenue Bridge in Plainfield
- East Hazelwood Avenue Minor Bridge in Rahway
- Short Hills Avenue Minor Bridge in Springfield
- Locust Avenue Bridge in Summit
- Central Avenue Bridge in Westfield
- Madison Hill Road Bridge in Rahway and Clark – delayed from 2016 by Executive Order
- Replace Fueling System and Canopy at Public Works Complex, Scotch Plains
- Gordon Street Bridge

## ENGINEERING

Description	2016 Adopted Budget	2016 Modified Budget	2016 Expenditures	2017 Budget Request
Salaries	961,329	961,329	924,559.95	1,071,126
Overtime	24,000	24,000	7,174.15	24,000
Seasonal	8,000	8,000	10,243.00	16,000
Other Expenses	347,400	347,400	219,268.71	449,000
<b>Total</b>	<b>1,340,729</b>	<b>1,340,729</b>	<b>1,161,245.81</b>	<b>1,560,126</b>
<b>Promotion requests</b>		10	Employees	
			22,800	County
			2,900	MV Fines
			1,800	Open Space

# 2016 ACCOMPLISHMENTS

## DIVISION OF FACILITIES MANAGEMENT

### **Elizabeth Complex**

The Justice Complex Project: Phase #3: Oriscello Correctional Facility – Installation of approximately 275 surveillance cameras was completed ; Cleaning and sanitizing of the Interior Air Ducts has been completed in the entire facility; Booking And Receiving Control Consoles were replaced; Roofing at all levels was replaced; Inmate Elevators# 3 & 4 were replaced , Elevator# 5 to be completed in early 2017.

### **UC Courthouse Tower and Old Annex Building**

Develop specifications and project time-line new Security and Camera system upgrade. Project currently on hold until the construction and full usage of the new UC Courthouse, Cherry Street Annex building and employee relocation anticipated in early 2017.

### **New Annex Courthouse Building**

Replaced the entire deteriorating Platform Slate Walkway with new Concrete Walkway.

### **Parks Restroom Renovation Project**

The Public Restrooms at Rahway River Park were completely renovated.

### **Bureau of Administrative Support**

Filled over 3,100 print/sign/paper requests from November 2015 through 2016.

Printed over 9 Million impressions from November 2015 through October 2016.

Printed and assembled an estimated 230 banners from November 2015 through October 2016.

Invoiced \$86,342.80 from January 2016 through October 5, 2016 to various townships, non-profit and government agencies.

Implementation of an internal digital print ordering system for three (3) Departments to increase efficiency, reduce costs, turn-around time and paper usage.

Installation of a direct to board printer has enhanced productivity, final output quality and a more cost effective final product.

Consolidated Sign Shop and Print Services work flow & equipment has increased efficiency and productivity.

Addition of Digital Envelope printing has increased turn -around time for smaller projects and save on press materials for shorter runs.

Continued to research and utilize cost efficient material for Sign & Print.

Implemented new Binding system thereby increasing productivity and job turn-around time.

Installed new highly efficient roll-to-roll Banner Print cutting material costs in half.



# 2017 INITIATIVES

## DIVISION OF FACILITIES MANAGEMENT

### **Administration Building**

Replacement of two (2) of our (4) Air Conditioning units. Both units are expected to be purchase and installed in 2017. Installation of a Kitchen Hood Fire System/Ventless Cooking System to comply with NJ State Fire Code mandates.

### **Cultural & Heritage Affairs**

Replacement of all Windows and Shutters expected to be completed in 2017.

### **Elizabeth Complex –**

The Justice Complex Project: Phase #3 – Oriscello Correctional Facility-Remaining one (1) inmate Elevator to be completed in addition to the replacement of eight (8) Control Consoles in the Command Center.

### **Engineering and Public Works (DPW) Buildings**

Installation of new Emergency Generator Systems in both buildings.

### **Motor Vehicle/Printing Services**

Stucco repairs and exterior renovations to the Storefront and Façade.

### **New Annex Building**

Installation of Kitchen Hood Fire System/Ventless Cooking System to comply with NJ State Fire Code Mandates.

### **Parks**

Continuation of Restroom renovations for a minimum of 17 public and employee restrooms located within the UC Parks area, employee work areas and Watchung Stables building. Project completion expected in late 2017 or early 2018.

### **Police Academy**

Purchase and installation of new Emergency Generator System.

### **UC Courthouse Tower/Stairwell/Rotunda Egress & Fire Upgrade Project**

Project intended to go out for Bid in April 2017.

### **Bureau of Administrative Support**

Modification research of Print Services digital ordering system that better fit our needs.

Substitute material used in the Sign Shop with more cost effective material

Replace an aging Scanner with a suitable efficient updated version.

Establish a higher rate of customer return and usage of the services provided by the Bureau of Administrative Support.

## FACILITIES MANAGEMENT

Description	2016 Adopted Budget	2016 Modified Budget	2016 Expenditures	2017 Budget Request
Salaries	7,180,477	7,180,477	6,647,150.96	7,663,940
Overtime	258,500	258,500	223,071.89	258,500
Other Expenses	7,773,050	7,773,050	6,256,559.07	7,995,900
<b>Total</b>	<b>15,212,027</b>	<b>15,212,027</b>	<b>13,126,781.92</b>	<b>15,918,340</b>
<b>Request for new positions</b>		5	179,477	
<b>Promotion requests</b>		10	Employees	
			27,000	County

# 2016 ACCOMPLISHMENTS

## DIVISION OF PUBLIC WORKS

### **Bureau of Roads and Bridges**

In 2016 the Bureau filled and repaired in excess of 1,200 potholes. Minor and major road surface repairs and preventive maintenance were completed throughout the county. Repairs to related infrastructure on county roadways were performed such as sink holes and storm line failures.

During County sponsored recycling events, the Bureau provides assistance through personnel and equipment. Assistance was provided to the Office of the County Clerk with hauling records to the incinerator from various agencies and municipalities throughout the county.

The Bureau provided mutual aid assistance to all municipalities in Union County. Some of the services provided include equipment, personnel, milling, paving of roadways, catch basin and sewer cleaning, street sweeping, curbing repair, and equipment transport.

The Bureau of Roads & Bridges, as a mutual aid project performed a complete reconstruction of a culvert behind the Columbia Middle School.

The Bureau of Road & Bridges, Welding Shop performed fabrication projects for various agencies such as, Park Maintenance, U.C. Department of Public Safety, Bureau of Shade Tree & Conservation, Bureau of Heavy Equipment and Truck Repair as well as repairs and modification to DPW Equipment.

The Bureau of Roads & Bridges performed a massive site cleanup at the U.C. Leaf Compost Facility in Springfield prior to the beginning of the leaf season. Work including cleaning of the filter basin and installation of an office trailer with generator, assisted by electricians from the Division of Facilities Management.

Bureau of Roads and Bridges Worker Order Request for 2016 – Total of 2,913.

### **Bureau of Inspections**

During 2016 the Bureau issued 397 road and curb permits, collected \$155,336.32 in permit fees and \$163,593.50 in refundable bond fees, for a total of \$318,929.82.

In addition to Roads & Bridges Inspectors, the Bureau personnel also include the Department's Safety Coordinator, who scheduled safety programs to ensure compliance with Local, Federal and State regulations. Examples of these regulations are: OSHA and Hazcom Right to Know Compliance, Commercial Driver's Licensing, CDL Medical Certifications, Storm Water Management, and Work Zone Safety.

# 2016 ACCOMPLISHMENTS

## DIVISION OF PUBLIC WORKS

In-house training was also performed. Examples of this training are: chainsaw, forklift, backhoe and bucket truck operations, fire extinguisher, ladder usage, and proper flagging techniques. The reporting and recording of all departmental employee injuries and motor vehicle accident issues also fall under this Bureau. Other safety training added in 2016 was, training in the precautions of slip and fall, lifting techniques, PPE (personal protective equipment) and Defensive Driving.

### **Bureau of Shade Tree & Conservation**

This year the Bureau has concentrated on completing all requests and to date the Bureau has completed over 1,150 work orders. The Bureau has continued to removed dead trees along county roads, close to 200 dead trees were removed. 500 trees were trimmed that posed a potential safety or traffic hazard. These trees were mainly identified through requests from the public as well as county personnel. This year the Bureau completed a large request for tree trimming and removal in Scotch Plains, Elizabeth, Plainfield, Cranford, Clark and Roselle Park. The Bureau continues to promote arboriculture and the preservation and planting of shade trees with the county.

The Bureau continues to work with the local electrical companies removed trees and limbs that are located in the power lines and as a result of this work the Bureau has been able to complete large number of requests and complaints.

The Shade Tree Bureau assisted with mutual aide to Summit, Mountainside, Roselle, Union and Garwood just to mention a few, in removing large trees and hanging branches. The Bureau also loaned equipment to assist in their duties.

The Bureau addressed concerns of trees in various parks: Cedar Brook – the bureau completed all work orders throughout the park, Echo Lake- this year the bureau removed a few dead trees located over the playground areas, and Rahway Park – in 2016 the bureau had a substantial request for work on the trees. All work was completed.

The Bureau planted 150 trees during the fall of 2016, throughout the County.

### **Bureau of Mosquito Control**

The Mosquito Control equipment was maintained and repaired during the off winter season. The Bureau also contributed our resources to the snow plowing and ice conditions throughout the winter season which extended in the spring season. This Bureau was able to address 25 different drainage ditches that were n need of cleaning.

# 2016 ACCOMPLISHMENTS

## DIVISION OF PUBLIC WORKS

The 2016 mosquito surveillance season began on March 1. Early moderate temperatures this spring kept the mosquito population lower in Union County at an average level and dry summer kept surveillance numbers lower than previous years.

This season was monitored by twenty three semi-permanent New Jersey Light traps for trends and populations. Our portable traps were used to locate the mosquito vectors of West Nile & Zika viruses.

This bureau handled 554 complaints for 2015-2016. There were 15 separate spraying operations conducted during evening hours to control adult populations of mosquito and in the process 583 sites targeted.

There were 3,180 work orders completed during October 2015 through October 2016. This includes the work the inspectors so on a daily basis to control breeding at the source in several locations throughout Union County where standing water cannot be eliminated. The Bureau also incorporated new methods of treatment for larviciding, both to become even more efficient and to keep resistance under control

The bureau is offering “Barrier” treatment” for problem yards of individual home sites. This process involves the use of a backpack blower that sprays a mist of a barrier pesticide that dries down in an hour and leaves a residue that can provide active mosquito control for up to 12 days. So far, the bureau has received positive feedback with the results, 1q64 barrier treatments were performed.

Our staff attended several public outreach venues in order to educate the public to health risks and public nuisance of mosquitoes and how to prevent breeding of them.

The Zika virus outbreak in the tropical regions of our hemisphere has caused an increased awareness of the need for mosquito control here in the United States. Fortunately, we are just north of the range of the prime carrier of the Zika virus, the *Aedes aegypti*. The concern was that *Aedes albopictus*, which we see in droves during the mosquito season, could also be a vector. All 57 pools of *Aedes albopictus* sent to our state labs were negative for Zika, Dengue and Chikungunya with one pool positive for West Nile Virus. The bureau was intrinsically a part of public education with out County Health Department in dispelling any false information and presenting factual information to the public regarding the potential of a Zika outbreak here in Union County.

### **Bureau of Heavy Equipment & Truck Repair**

There were 427 repair work orders. This figure includes the repair, welding and spreader shops in-house work performed by Bureau.

# 2017 INITIATIVES

## DIVISION OF PUBLIC WORKS

### **Bureau of Road & Bridges**

The Bureau will continue to flush, clean, repair and survey all storm sewer inlets, catch basins and manholes on roadways throughout Union County. The repairs will be prioritized according to results of the surveys conducted.

Street sweeping will be conducted on a monthly schedule. All County roads are scheduled to be swept twice per month, weather permitted.

Rights of Way maintenance will be conducted from March through November on all County roadways.

The Bureau's in-house paving program will provide resurfacing to various County facilities prioritized as requested through County departments, division, and bureaus. Requests are submitted to the Bureau of Road & Bridges and will commence on or about May 1, 2017.

Various park paving projects will be coordinated with the Division of Park Maintenance. Projects will include resurfacing paths, roadways and lots.

The Bureau of Roads & Bridges will continue to improve the in-house milling and paving, of County Roadways Program. Upon conclusion of winter operations, roadways and roadway sections will be evaluated and prioritized for resurfacing.

Preventative maintenance and surface repairs will be conducted on roadways on various County roads by work order requests. Surface repairs will be performed by removing deteriorated sections of roadway and replacing with new hot mix asphalt.

The Bureau will continue with efforts to augment training and improve safety awareness for all bureau employees.

### **Bureau of Inspections**

The Bureau will continue to closely monitor all construction, maintenance, and repair being performed on County roads as it pertains to the proper permitting for curing, road openings, excavations and alterations, and continue to assure compliance with County specifications.

The Safety Coordinator will continue to do more conduct training in areas, and will continue to assure compliance with Local, Federal, and State regulations. ***The Bureau goal is to become an injury and accident free workplace.***

# 2017 INITIATIVES

## DIVISION OF PUBLIC WORKS

### **Bureau of Shade Tree & Conservation**

The Bureau will continue to maximize all its efforts in completing all work orders and put in place a plan to assist the public's complaints and concerns, along with assistance required by various Departments. The Bureau will continue to observe tree throughout the County to identify dangerous or dying trees and their condition to determine which will be in need trimming or removal due to decay. The Bureau makes the determination of which tree may have the potential of being removed based on condition, structural integrity, life expectancy, infestations and diseases. For every tree removed the Bureau tries to replace them depending on location and condition.

The Bureau will continue to teach the public through the Arbor Day Program about how important it is to save our trees and through the Poetry Contest, which is geared towards school age students.

Employees of the bureau will continue to attend programs with regard to trees, pesticide training, electrical hazard safety programs, chainsaw safety programs, and any other program that may address their job duties.

### **The Houdaille Quarry**

The Division of Public Works has assumed the responsibility of Leaf Collection and Composting at the permitted site of the Houdaille Quarry located in Springfield. Participating municipalities throughout Union County utilizes the facility when leaf season commences on November 1<sup>st</sup>. The County offers a reduced rate to municipalities for the recycling of leaves collected on municipal streets.

Approximately 150,000 cubic yards is collected annually, which are then composted and then reduced by one-third to produce compost that is screened to produce a rich top soil additive which is in demand by private contractors. The County has purchased a windrow turner along with a front-end loader and is in the process of purchasing a screener.

The marketing of the end product will result in revenue dollars from in-bound material and out-bound compost being sold at market value. Yearly this facility is expected to produce approximately 100,000 cubic yards of compost. The County has also staffed the Conservation Center with a supervisor, heavy equipment operators, and laborers to run the day-to-day operations which also includes all required documentation.

# 2017 INITIATIVES

## DIVISION OF PUBLIC WORKS

### Bureau of Mosquito Control

Union County Mosquito Control is very focused on integrating and aerial larvicide program in to our Best Management Practices. We are on the threshold of securing inclusion to the State Air Spray contract, whereby we will have the opportunity to apply a larvicide to areas to vast or inaccessible by other means.

The Bureau had additional employees added to the staff which will result in handling complaints and regular assignments in a timely manner. This also will result in having additional personnel available for unforeseen storms and with the Bureau adulticiding operations.

The Bureau will continue to present information at educational venues to keep the public informed.



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**PUBLIC WORKS**

<b>Description</b>	<b>2016 Adopted Budget</b>	<b>2016 Modified Budget</b>	<b>2016 Expenditures</b>	<b>2017 Budget Request</b>
Salaries	2,261,076	2,261,076	2,077,806.30	2,508,724
Overtime	70,000	70,000	94,718.91	70,000
Other Expenses	92,600	92,600	46,486.69	55,000
<b>Total</b>	<b>2,423,676</b>	<b>2,423,676</b>	<b>2,219,011.90</b>	<b>2,633,724</b>

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<b>Request for new positions</b>		3	106,869	County
		6	291,561	MV Fines
<b>Promotion requests</b>		16	Employees	
			28,420	County
			9,580	MV Fines

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