

Memorandum

Date: 21 February 2019
To: Streets and Utilities Committee
From: Keith R. Dalton, Town Manager 
Cc: Town Council
Department Heads
Town Clerk
Subject: Streets and Utilities Committee Meeting 26 February 2019

Item 3: Rappahannock Electrical Cooperative

Representatives of REC will be in attendance to discuss street lighting. This discussion was scheduled because of concerns expressed by several citizens about LED lights that are being installed as older high pressure sodium lights fail.

Item 4: Storm Water Concerns

The Committee discussed its findings with the Town Council on 12 February. The Town Council agreed to hold a public hearing on 12 March to determine whether it would amend the FY2019 budget to provide funds for preliminary review of several issues. The Council discussed transferring as much as \$35,000 from Stormwater Reserves into the FY2019 budget in order to fund a portion of that review.

Item 5: Water and Sewer Rate Study

It appears that Pennoni is on schedule to provide their draft report to staff on or before 4 March. The next scheduled step in this process is a presentation to the Committee.

The dates available for that presentation are 13 March, 14 March, and 15 March at 10:30 am. Pennoni will meet when the Committee wants but staff has had them pencil in 14 March at 10:30 am. The Committee is asked to schedule that meeting.

Item 6: Future Capital Improvements

The Town Manager wrote a memorandum to the Town Council on 15 February 2018 in order to begin a discussion on future needs in the Town's water system (attached). These and other such items/projects will be discussed as a part of the water and sewer rate study.

Item 7: Street Work

FY2019

The VDOT Funded Secondary System Maintenance / Street Work Priorities for FY2019 were last amended on 27 March 2018 (attached). Much of the work programed Spring/Summer 2019 was to be in the Rockcrott subdivision (totaling \$41,000). The water project that was planned for that area has not completed; therefore, the streets in question should not be paved in this cycle. Staff will provide a list of streets to the Council that should be paved with the funds that will be made available because of the elimination of the Rockcrott Streets (as well as any funds remaining from Work Items and Equipment Purchase). One street in particular is being discussed is Freemont Court.

FY2020

Please find attached the VDOT Funded Secondary System Maintenance / Street Work Priorities for FY2020. No changes have been made in this document since it was provided to the Town Council in November. The paving of Hermitage Blvd. will consume the lion's share of FY2020 funds.

Item 8: Traffic on Josephine Street

Concerns have been expressed regarding truck traffic on Josephine Street.

In response to those concerns Town staff has:

- Worked with Berryville Graphics shipping to ensure that trucks are routed to Jack Enders Blvd.
- Worked with Berryville Graphics to have them erect signage discouraging trucks leaving the facility from using Josephine Street.
- Discussed options with VDOT officials
- Gathered traffic information on several Town streets
- Discussed routing with GPS providers to determine if advisories can be inserted into their mapping

Chief White has provided a report on his findings (see attached).

The Town Manager will brief the Committee regarding his discussions with VDOT.

Item 9: Logo on NW Elevated Water Tank

Mayor Dickinson has been negotiating with SUEZ to have "TOWN OF BERRYVILLE" painted on the NW Elevated Water tank at no cost to the Town. She turned the matter over to Town Staff to finalize the agreement. Town staff has been unable to secure confirmation of this agreement from SUEZ. Mr. Brown of SUEZ has informed staff that he has not secured approval of this project from corporate.

**BERRYVILLE TOWN COUNCIL STREETS AND UTILITIES COMMITTEE
MEETING AGENDA
Berryville-Clarke County Government Center
101 Chalmers Court, Second Floor
Meeting Room A/B
Regular Meeting
February 26, 2019
10:30 am**

Item

Attachment

- | | |
|------------------------------|-------------------------------------|
| 1. Call To Order | Diane Harrison, Chair |
| 2. Approval of Agenda | |
| 3. Discussion | Rappahannock Electrical Cooperative |
| 4. Discussion | Stormwater Concerns |
| 5. Discussion | Water and Sewer Rate Study |
| 6. Discussion | Future Capital Improvements |
| 7. Discussion | Street Work |
| 8. Discussion | Traffic on Josephine Street |
| 9. Discussion | Logo on NW Elevated Water Tank |
| 10. Closed Session - | No Closed Session Scheduled |
| 11. Other | |
| 12. Adjourn | |

↑ Denotes an item on where a motion for action is included in the packet

Memorandum

Date: 15 February 2018
To: Town Council
From: Keith R. Dalton, Town Manager
Cc: Department Heads
Mia Jackson, Town Clerk

Subject: Water Fund Projects Fiscal Year 2022 / Borrowing

During the course of the last year, I have been giving thought to how the Town should approach water projects that need to be done. Last year's iteration of the CIP blocked several water treatment plant projects in FY22. As that was being developed, I began to consider funding for this work. My thinking at this point is that the Council should consider borrowing the funds to complete several water related projects (we have some reserves that can be brought bear but not enough). The annual debt service would have to be addressed in water rates.

This somewhat informal document (and the project list below) is a working document and does not represent any sort of final recommendation. This memo is intended to inform Council and continue an important conversation about utility improvements and utility rates.

PROJECTS

Water Distribution System Upgrades \$615,000

Public Works Department

These funds would be utilized to complete water distribution system upgrades during the subject fiscal year.

Projects under consideration are:

- 1) Water main and lateral replacement on Josephine Street \$330,000
Josephine Street is making its way up the list for streets that need to be paved. The Council will have to decide whether they want this project (proposed in engineering analysis in 1989) completed prior to paving. The planned project would replace the 4" main with a 12" main (this is already been extended some 400' into Josephine Street from Church Street). The project would eliminate two dead ends (by extending the main under the RR tracks) and would serve to connect the loop line to the main on South Church.

There are alternatives to the full project that staff would be like to discuss with Council.

It is important to note that the updated hydraulic model of the water system will aid staff and the council in evaluating this project. In fact, I am considering seeking authorization to complete that project in the near future (we are in the process of updating our system map (I am meeting with Rick today) and with that in hand, our engineer should be able to do this pretty quickly). I will write to you on that matter soon.

- 2) Water main and lateral replacement on Bel Voi Drive \$135,000
Bel Voi Drive is making its way up the list for streets that need to be paved. Staff is of the opinion that this main should be replaced because it is undersized and is approaching the end of its useful/dependable life. The 4' main would be replaced with an 8" main. It is important to note that the biggest challenge of this project will be found where the main extends between two houses near the end of the cul de sac.

- 3) Yet to be determined water distribution projects \$150,000

Meter Replacement **\$400,000**

Public Works Department

The Public Works Department reports that majority of the Town's water meters are approaching 20 years in age. While industry standards regarding meter replacement intervals vary, Mr. Boor recommends that the replacement should occur near the 20 year mark. As the meters age, they tend to miss usage or fail completely and provide no reading.

The meters that would be replaced are "touch read meters". The new meters would be "radio read meters". With radio read meters in place, the Town will have reading options available currently not available. These meter reading options will allow the Town to greatly reduce the cost of meter reading and may open the door to a great deal more real time monitoring options.

Filter Maintenance and pump replacement **\$530,000**

Public Utilities Department

The Water Treatment Plant utilizes two mixed media filters to treat the Town's potable water. The filters were installed when the Water Treatment Plant was constructed in 1984. The media was replaced approximately 15 years ago. The flocculators were upgraded approximately 8 years ago. The air scour equipment, underdrains, and settling tubes are original.

This project would include the following work on the Water Treatment Plant Filters: media replacement, air scour and underdrain repair/replacement, settling tubes replacement, and coating of the interior of the filter tankage.

Then each of the two filters are taken out of service, the media will be removed and necessary part replacement and filter repair will be completed. After that work has been completed the media will be replaced and upgraded filter will be placed in service allowing the second filter to be upgraded in the same fashion.

Various pumps (original from 1984) would be replaced at this time.

Pre-sedimentation Basin Repair \$200,000

Public Utilities

The Water Treatment Plant utilizes two Pre-sedimentation basins to treat the Town's potable water. Water is pumped from the river into these basins where silt and the like settle from the water prior to being pumped into the next phase of the treatment process. These tanks were constructed with the WTP in 1984.

Both tanks have developed leaks are require repair and maintenance

The repair will be accomplished by that application of a coating on the interior of the tanks.

Water Treatment Plant Building Upgrades \$80,000

Public Utilities

This item would provide for roof replacement and replacement of insulation as needed.

Total cost of enumerated projects is \$1,825,000.

We also need to be discussing whether the Council wants to complete wholesale replacement of utilities in either Main Street or Buckmarsh Street or both. Any work there should be done in conjunction with VDOT paving to save on pavement restoration. Buckmarsh Street was last paved in October 2015 and will likely be on an 8-10 year paving cycle (next paving should be in 2023-2025). Main Street was last paved in June 2014 and will likely on a 10-12 year paving cycle (next paving should in 2024-2026). Staff does not have estimates for this work but will develop them if needed.

With all of this said, we need to determine what is to be done (and what will not be done), when it will be done, and how it will be funded.

As for borrowing, I think we would be looking at two options USDA/RDA or VML/VACO Financing. USDA/RDA generally provides a good rate and loans can be amortized out 40 years but there are a good many hoops to jump through. VML/VACO Financing would likely provide a better rate and less red tape. The downside of this option is that the loan would be amortized out 20 years. With all of that said, the life of the water lines will exceed 40 years but the life of the plant work will likely be less than 40 years. Further new water regulations will be heading down the pike and we will have to do additional work on the system. Accordingly, my sense of the matter is that 20 years would be where we would want to be.

I would like to discuss these issues in detail with Council. Let me know when you would like to do so.

VDOT Funded Secondary System Maintenance / Street Work Priorities

FY 2019

<u>VDOT Reimbursement Limit</u>		\$ 521,000
 <u>Work Items and Equipment Purchase</u>		
Patch/Repair trouble areas in streets		\$ 20,000
Sidewalk repair		\$ 17,000
Engineering	\$ 5,000	<u>\$ 4,000</u>
Equipment Purchase/Maintenance/Repair (1/2 Purchase 1 ton truck (26,000) Maintenance/Repair (25,000))		\$ 51,000
Routine Street Maintenance (snow removal, tree trimming, drainage ditch cleaning, street cleaning, etc.)		\$ 100,000
 <u>Subtotal</u>	 \$ 193,000	 <u>\$ 192,000</u>
 <u>Funds available within Reimbursement</u>	 \$ 328,000	 <u>\$ 329,000</u>

Specific Street Repair Work Priorities

Summer and fall (2018) Paving

Treadwell Street (from Smith Street to Dorsey Street and from Willow Lane to Buckmarsh Street)		\$ 50,000
South Church Street (from Taylor Street to South Buckmarsh Street)		\$ 71,000
Rosemont Circle		\$ 37,000
Swan Avenue (from South Buckmarsh Street west to terminus)		\$ 50,000 ¹

Total Summer/Fall (2018) \$ 208,000

Spring and summer (2019) Paving

Rice Street		\$ 40,000
First Street		\$ 80,000
Ridge Road		\$ 14,000
Rockcroft Drive		\$ 18,000
Circle Drive		\$ 9,000

Total Spring/Summer (2019) ~~\$ 120,000~~ \$ 121,000

¹ Estimated cost includes paving, engineering and construction of improvements to shoulder and engineering and construction a drainage improvement

Future Paving Projects to consider

Hermitage Blvd. \$260,000

This is one of four collector roads in Berryville. This important street section is showing its age and needs attention in the near future. While it is desirous to complete this work, Phase 5 of the Hermitage Subdivision has not been completed. The construction of Phase 5 will put a good bit of wear on the street. It is staff's understanding that work on Phase 5 is expected to start this year. As such, at this time staff recommends review of this matter next year and giving strong consideration to completing this project in FY20.

Josephine Street \$125,000

At this point this dead end street is holding up well. The eastern portion of the street (from Berryville Graphics entrance to the eastern terminus), which was in poor condition, was paved in 2015. While the street does not get a great deal of traffic and is a present in good condition, it will be an expensive paving project and it is important for the Council to have it on its radar.

The Town utilities on the street also need to be a part of the discussion. Several years ago a water main was extended just over 400 feet into Josephine Street from Church Street. The 10-inch main was extended to improve fire protection in the area. In the future it is desirous to extend the new main, replace laterals, and abandon original 4" water main. This work should be done before any paving project is completed.

Bel Voi \$ 40,000

This low volume dead end street is deteriorating. The street that feeds this section (Battletown Drive), was paved in 2016.

The Town utilities on the street need to be a part of this project. The water main in Battletown Drive was updated in 2016. It is expected that a portion of the water main that extends from Main Street to the western terminus of Bel Voi will be replaced when the property surrounding the hardware store is developed. Before the street is paved the water main in Bel Voi should be replaced.

Town Funded Street Maintenance / Street Work Priorities
FY 2019

Repair and seal Virginia Avenue _____ \$ 16,000

Please note that this project has been included in the current CIP. It is also important to note that staff would like to discuss expanding the project beyond that which was anticipated when the CIP was first submitted. Further, staff will discuss drainage issues that exist in the area.

Draft Submitted to Streets and Utilities 10/24/17 amended 3/27/18

VDOT Funded Secondary System Maintenance / Street Work Priorities

FY 2020

Revised 11/12/18

<u>VDOT Reimbursement Limit</u>	\$ 521,000
<u>Work Items and Equipment Purchase</u>	
Patch/Repair trouble areas in streets	\$ 20,000
Sidewalk repair	\$ 20,000
Engineering	\$ 5,000
Salt Building Maintenance (roof and doors)	\$ 20,000
Equipment Purchase/Maintenance/Repair (Equipment Purchase \$10,000 (hydraulic salt box), Maintenance/Repair \$25,000)	\$ 35,000
Routine Street Maintenance (snow removal, tree trimming, drainage ditch cleaning, street cleaning, etc.)	\$ 100,000
<u>Subtotal</u>	\$ 200,000
<u>Funds available within Reimbursement</u>	\$ 321,000
<u>Specific Street Repair Work Priorities</u>	
<i>First Half of FY2020</i>	
Hermitage Blvd.	\$ 300,000
Total First Half 2020	\$ 300,000
<i>Second Half FY 2020</i>	
Undetermined	\$ 21,000
Total Second Half 2020	\$ 21,000

Sent to TC on 11/12/18

Paving Projects under consideration for Second Half of 2020

Osborne Street

This paving project, which if possible would include construction of a hammerhead turnaround at the eastern terminus, would be done subsequent to water and sewer improvements.

Freemont Court

Future Paving Projects to consider

Josephine Street \$125,000

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Town Funded Street Maintenance / Street Work Priorities

FY2020

Evaluate drainage concerns on Virginia Avenue \$10,000

Storm water management concerns have been identified at two locations on Virginia Avenue. At one location water flows from the south (toward Town Run) but is partially blocked by a detached garage. At another location, water ponds along the street because it is unable to continue flowing to Town Run. The matter would have to be evaluated by an engineer to determine whether (and how) water can be better directed to Town Run.

FY 2021

Repair Virginia Avenue \$25,000 *

Virginia Avenue is a Town Street that was not in the Virginia Secondary Street System. Its maintenance costs are to be paid from the Town's General Fund. Portions of street's pavement and shoulder are in poor condition.

This project provides for base repairs in several trouble areas, pavement overlay of trouble areas, and installation of a stone shoulder as needed.

A hammerhead turnaround area would be constructed at the southern terminus of the street (to complete this aspect of the project easements must be secured from at least one property owner).

* Addressing two known drainage concerns would increase the cost of the project. No estimate for this work has been developed. Said budget would need to include engineering (anything needed above and beyond previously completed, survey, legal (easements), and actual construction costs).

Sent TC on 11/12/18



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W. Neal White – Chief of Police

Josephine Street

Truck Traffic Discussion
Streets & Utilities Committee

February 26, 2019

Background

Concerns about semi-trucks and trailers using Josephine Street to access the shipping and receiving departments of Berryville Graphics have been discussed with staff, Council Committees, and the full Council since October 2017. Currently, Josephine is not nor has ever been one of the routes established by Council and the Virginia Transportation Board as prohibited to the use of trucks and trailers. However, some residents of Josephine Street have interpreted signs erected by Berryville Graphics many years ago near their entrance as official signs restricting truck traffic.

The general concern relayed to the Town is that Josephine Street is not a street designed to accommodate truck traffic, there are many families with small children that are fearful playing children may be struck by the large vehicles and that power lines may be damaged by the vehicles.

Data

In order to capture an overview of the issue, traffic studies were conducted on Josephine Street to determine how many trucks and trailers were using the street. The police department traffic counter was deployed on Josephine Street as well as three other sites to compare data about trips from vehicles in excess of 60' in length. The table below represents this data collection effort.

Location	Dates	Direction & Count	Direction & Count
Josephine Street	10/9-10/16, 2018	EB – 5	WB - 1
First Street	2/4 – 2/11, 2019	NB – 19	SB - 8
Mosby Boulevard *	11/2 – 11/9, 2018	EB – 99 *	WB – 26 *
Hermitage Boulevard *	11/29 – 12/6, 2018	EB – 81 *	WB – 82 *

The data showed that on average there is less than one vehicle in excess of 60' utilizing Josephine Street on a daily basis. Data was collected on First Street as it is also a street that has both residential and industrial access similar to Josephine Street.

* The data for Mosby and Hermitage Boulevards was collected for comparison as they both have been restricted for the use by tractor trailers by act of Council. However, the data collected most likely is faulty. When the data was reviewed, the vendor of the apparatus utilized for the study was contacted in order to determine why the volume was so disproportionate to other studies. What was determined



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was that because the apparatus was placed so close to intersections, turning motions of smaller vehicles would be captured as longer vehicles because the turning vehicle slow and stay in the path of the radar beam for a longer period of time. Since the data was collected, it is appropriate that it be referenced in this document although it is apparent that the data is not an accurate reflection of the true number of tractor trailers using those streets.

External Modification Efforts

Since the beginning of the concern, Berryville Graphics (BVG) has acted as a true community partner in helping to address the concerns of Josephine residents. The Berryville Police Department developed a map and advisement for drivers going to and from the BVG site. The document advised drivers of the truck restrictions in place and recommended the best route to utilize for deliveries. This document further directed drivers away from Josephine Street. The document was given to the shipping and receiving departments of BVG which both posted the document and delivered copies to drivers as they came to the site.

Berryville Graphics also supplies routing information to drivers making deliveries to the site to use the Jack Enders Boulevard entrance as opposed to the Josephine Street access.

In March of 2018, Berryville Graphics purchased and posted new signage on their site to direct drivers leaving from the site to utilize Jack Enders Boulevard to access East Main Street and beyond.

In February of 2018, Town staff contacted Rappahannock Electric Cooperative (REC) to request data concerning any electric drops along Josephine Street that were damaged by larger vehicles. There were no incidents of power drops being damaged by large vehicles, only one pole that was struck in 2011 by a standard size vehicle. In addition, REC evaluated the height of drops across Josephine Street and raised any that would be problematic for vehicles of larger height.

Town staff also contacted Garmin, a company that supplies navigation information to drivers. In discussions with Garmin it was determined that the actual truck restriction routes are identified on their devices when the trucking applications are purchased by the drivers.

In conversations with Garmin representatives, they did advise that routes can be identified as “truck accessibility unknown” to help direct trucks to a preferred route of travel in cases where an official restriction does not exist, but road conditions may not be conducive for larger vehicles. Garmin has agreed to work with the town in order to better route trucks to the “front door” of BVG as opposed to utilizing Josephine Street. This information will be included in an update to their mapping which is scheduled to be released in the near future.

Town staff has also consulted VDOT with regards to this issue in efforts to determine if additional signage could be posted to direct truck traffic away from Josephine Street.



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Analysis

The data that has been compiled in relation to this concern does not support a volume issue with truck and trailer traffic on Josephine Street. Further, there is no data to support that larger vehicles have been involved with traffic crashes or utility disruptions along Josephine Street. Town staff and stakeholders such as BVG, REC, and VDOT have worked diligently and cooperatively to address concerns from the residents of Josephine Street as they arise.