

WARWICK SEWER AUTHORITY
Quarterly Report to City Council
January 22, 2019

WSA Budget

See attached MUNIS budget report for FY19 to date as of December 31st (50% of fiscal year complete). In summary:

- Revenues -- \$8,882,992 (42.1%)
- Expenses -- \$14,765,670 (69.9%)

Please note that debt service payments are made twice a year (September and April) with the most substantial principal payments due in September. As a result, the above percentages represent a typical snapshot of the WSA budget at this time of year.

Major WSA Board Actions in Last Quarter

At the September meeting, the Board approved the following expenditures:

- Extension of Laboratory Services Contract with RIAL for a six month term;
- Rehabilitation of sanitary sewer interceptor in the vicinity of Veterans Memorial High School, Green Mountain Pipeline Services: \$64,856; increased to \$73,700 at October meeting to include engineering certification and debris disposal; and,
- Purchase of duplex grinder pump, F.R. Mahony & Assoc., Inc.: \$7,171.

The Board agreed to move forward the Industrial Pretreatment Rate Study Implementation Plan, as well as amendments to local limits specific to breweries.

At the October meeting, the WSA Board approved the following expenditures:

- Repair of pump for the Cedar Swamp pumping station, Universal EMS: \$7,890;
- Renewal of annual software license for asset management system, eRPortal: \$10,890;
- Additional expenses related to the Cedar Swamp line collapse, C.B. Utility Co., Inc.: \$159,652.62 (total expense \$367,652.62);
- Change Order No. 1 to Contract 97 (pump station flood hardening), R.P. Iannuccillo & Sons Construction Co.: \$29,516.79 for additional work and supplies;
- Change Order No. 1 to Contract 85B (Governor Francis Farms - Phase 3) for ledge removal, C.B. Utility Co., Inc.: \$271,028.41; and,
- Several sewer usage abatements.

At the November meeting, the Board modified the award of Bid #2019-010 (wastewater chemicals) after the previously awarded vendor for liquid sodium chlorite went out of business. The bid was awarded to the next lowest bidder, Coyne Chemical. The Board approved two administrative abatements.

The Board held two public hearings on December 10th; one was regarding a long-overdue increase in Industrial Pretreatment Program (IPP) permit fees and surcharges, the second was regarding the proposed Sewer Access Charge to be assessed in cases where a private developer has paid to install a public sewer line.

At the December meeting, the Board approved the following expenditures:

- Change Order No. 2 to Contract 97, R.P. Iannuccillo & Sons Construction Co.: \$4,087.77 for pump rental as a result of WSA's pumps being utilized on the Sandy Lane emergency;
- Bid #2019-171 (Professional Engineering Services for Wastewater Related Projects) to various firms under several categories of work.

The Board also reviewed the public hearing minutes and comments on the increased IPP charges and the new Sewer Access Charge. The Board referred the items back to the Finance Committee for a few changes to the proposals.

Most recently, the Board held a special meeting on January 9th to approve repairs to the 700 or so feet of bad pipe remaining in Sandy Lane. Based on staff recommendations, the Board approved an award of contract with Green Mountain Pipeline Services, Inc. using Cured-in-Place Pipe (CIPP), which will not require digging and should only impact traffic on Sandy Lane for a few days during the preparation.

The WSA Finance Committee continues to meet on a monthly basis. In 2019, the Finance Committee meeting schedule was standardized to the Tuesday the week before the Board meeting. The annual meeting schedule for both the Board and the Finance Committee have been posted on the Secretary of State and the City of Warwick websites. Major initiatives of the Finance Committee include a master plan for rehabilitating the collection system.

Treatment Facility & Collection System Operations and Maintenance (O&M)

Over the last quarter, daily flows to the treatment facility have averaged about 5.5 million gallons per day (facility design capacity is 7.7 mgd), which is up by about a million gallons from the last report. This is due to the significant amount of rainfall we had starting in late September, peaking in November with over 10 inches of rain for that month. Average monthly discharges for all pollutants complied with permit limits, including better than 98% removal efficiency for conventional pollutants such as suspended solids and biological oxygen demand.

The following is a summary of treatment performance for 2018:

Regulated Water Pollutant	Units	Permit Limit	Average Annual Monthly Discharge	Range of Monthly Discharges	Violations
Total Suspended Solids (TSS)	mg/l	20 -- 30 (varies seasonally)	3.85	2.9 -- 5.5	NO
Carbonaceous Biological Oxygen Demand (CBOD)	mg/l	10 - 25 (varies seasonally)	1.56	0.5 - 2.5	NO
Fecal Coliform	MPN	200	2.97	1.2 -- 5.7	YES; exceeded daily maximum due to power loss on May 29th
Phosphorus	mg/l	0.1 - 1.0 (varies seasonally)	0.22	0.1 -- 0.4	NO
Nitrogen	mg/l	8 (May -- October)	7.77	6.7 -- 10.3	NO
Ammonia	mg/l	2 - 14.2 (varies seasonally)	0.82	0.1 -- 2.7	NO
Daily Flow	mgd	7.7	5.27	4.35 -- 6.48	NO

There were two (2) failures in the collection system this quarter resulting in Sanitary Sewer Overflows (SSOs). On August 26th, the WSA responded to a pipe collapse in the vicinity of the Cedar Swamp pumping station. That failure resulted in sewer backups into three homes and about \$400,000 in expenses to replace the failed section of pipe and several manholes. On November 21st, the WSA responded to a pipe collapse on Sandy Lane which resulted in many more sewer back-ups. In total, sixteen (16) claims from property owners were filed with WSA's insurance company. The amount of failed pipe replaced was similar to the August 26th incident, however the location of the break with respect to traffic and other underground utilities caused the repair to be much more expensive, currently estimated to be about \$550,000.

Contract 97 Flood Hardening Project

The most recent progress report has been included with this report.

Sewer Extension Planning & Construction (projects included in \$33 million bond authorization)

Governor Francis Farms Phase III (Contract 85 B) – The most recent progress report has been included with this report. Also included is an updated construction schedule.

East Natick Phase III/O'Donnell Hill (Contract 69 A) – The most recent progress report has been included with this report.

Northwest Gorton Pond (Contract 88) – The project has been split into two phases. The project engineers are working with the WSA to identify and secure a parcel of land for a pumping station in Phase I. Phase II will also require a pumping station.

Bayside (Contracts 86B) – The most recent progress report has been included with this report.

See attached Construction Project Data Table for a summary of information related to all projects being paid for using revenue bond authorization.

Warwick Sewer Authority FY19 Budget Report

Fund 80 - Sewer Operations, Maintenance, and Administration

As of December 31, 2018 (50% of fiscal year complete)

	FY19 Budget	Transfer/ Adjustments	Revised Budget	Expensed/ Received as of December 31	% Expended/ Collected
Personnel					
Sick Time & Other Leave	\$0			\$26,881	34.97%
Salaries	\$2,304,299		* thru 12/21/18	\$805,727	100.69%
Overtime	\$80,000		* thru 12/21/18	\$80,554	28.72%
Overtime Storm/Snow	\$10,000		* thru 12/21/18	\$2,872	53.39%
Easement Overtime	\$15,000		* thru 12/21/18	\$8,009	0.00%
Temporary Services	\$7,000			\$0	0.00%
Fringe Benefits	\$1,047,611			\$0	0.00%
Contractual Obligation	\$65,000			\$0	0.00%
Commodities					
Office Supplies & Equipment	\$9,500			\$2,182	22.97%
Print, Bind & Reproduction	\$24,700			\$6,489	26.27%
Advertising	\$4,000			\$528	13.20%
Postage	\$37,475			\$13,082	34.91%
Laboratory Supplies	\$24,000			\$8,332	34.72%
Gasoline	\$40,000			\$10,866	27.17%
Natural Gas	\$48,000			\$10,588	22.06%
Electricity	\$790,000			\$290,855	36.82%
Supplies - Computer	\$2,000			\$0	0.00%
Supplies - Safety Equipment	\$11,100			\$44	0.40%
Chemicals - Ferric Chloride	\$10,000			\$0	0.00%
Chemicals - Polymer	\$76,000			\$41,499	54.60%
Chemicals - Chlorine	\$57,000			\$18,850	33.07%
Chemicals - Dechlor	\$35,000			\$14,870	42.49%
Chemicals - Odor Control	\$150,000			\$69,574	46.38%
Chemicals - Alum	\$93,000			\$48,086	51.71%
Chemicals - Caustic	\$245,000			\$128,211	52.33%
Clothing	\$9,350			\$3,479	37.21%

	FY19 Budget	Transfer/ Adjustments	Revised Budget	Expensed/ Received as of December 31	% Expended/ Collected
Maintenance Materials	\$125,000			\$51,891	41.51%
Small Tools	\$3,000			\$1,275	42.50%
Deduct Meters	\$5,000			\$266	5.32%
Grinder Pumps	\$160,000			\$60,433	37.77%
Easement/CMOM Commodities	\$20,500			\$9,787	47.74%
Services					
Travel	\$1,000			\$144	14.40%
Training & Education	\$12,000			\$7,264	60.53%
Telephone	\$19,000			\$7,368	38.78%
Water Usage	\$15,000			\$4,489	29.93%
Equipment Repair	\$80,000			\$19,641	24.55%
Tax Sale	\$125,000			\$0	0.00%
Insurance	\$237,283			\$0	0.00%
Auto Maintenance	\$24,000			\$8,674	36.14%
Emergency Assistance	\$0	\$25,000	\$25,000	\$0	
Service Contracts	\$91,008			\$47,592	52.29%
Insured Accidents	\$0			\$45,225	
Professional Services	\$76,000			\$17,294	22.76%
Construction Services	\$155,000			\$69,689	44.96%
Sludge Removal	\$1,057,240			\$460,001	43.51%
Administration	\$111,716			\$0	0.00%
DEM - User Fees & Permits	\$3,370			\$370	10.98%
Testing & Lab Samples	\$50,400			\$11,935	23.68%
Engineering Services	\$73,000			\$8,772	12.02%
Sewer Connection Grants	\$41,100		\$16,100	\$0	0.00%
Public Outreach	\$4,000			\$90	2.25%
Services - Other	\$93,960	(\$25,000)	\$68,960	\$14,417	15.34%

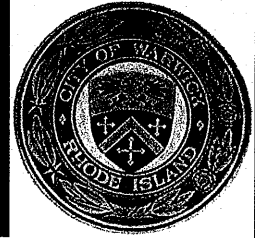
	FY19 Budget	Transfer/ Adjustments	Revised Budget	Expensed/ Received as of December 31	% Expended/ Collected
Debt Service					
Paying Agent Fees	\$14,150			\$1,100	7.77%
Renew & Replacement	\$10,000			\$0	0.00%
Debt Service	\$11,249,893			\$11,249,893	100.00%
Debt Interest	\$2,062,635			\$1,076,482	52.19%
Sewer Connection Loan Default	\$5,000			\$0	0.00%
Infrastructure Replacement	\$0			\$0	0.00%
Misc Capital Expenditures	\$0			\$0	0.00%
Total Expenses	\$21,120,290			\$14,765,670	69.91%

Revenues	FY19 Budget	Transfer/ Adjustments	Revised Budget	Expensed/ Received as of December 31	% Expended/ Collected
Industrial Pretreatment Fees	\$390,000			\$118,201	30.31%
Sewer Usage Fees	\$11,787,123			\$6,439,220	54.63%
Capital Account/Meters	\$5,000			\$955	0.00%
Energy Buyback Revenue	\$35,678			\$998	2.80%
Pretreatment Application Fees	\$6,000			\$3,850	64.17%
Sewer Service Charge	\$4,291,842			\$2,188,100	50.98%
Engineering Review Fees	\$6,600			\$4,500	68.18%
Sewer Assessment Fees	\$4,136,447			\$0	0.00%
Septage Dumping Fees	\$34,000			\$0	0.00%
Lease Income	\$41,100			\$0	0.00%
Pretreatment Fines	\$0			\$9,150	
Miscellaneous Income	\$4,000			\$1,288	32.20%
Sewer Connection Permits	\$45,000			\$25,900	57.56%
Reimburse - Grinder Pumps	\$25,000			\$27,623	110.49%
Sewer Tax Title Revenue	\$0			\$0	0.00%
Interest on Investments	\$6,000			\$1,650	27.50%
Interest Income	\$300,000			\$61,057	20.35%
SLA Administrative Fee	\$4,000			\$500	12.50%
SLA Inspection Fee	\$2,500			\$0	0.00%
Total Revenues	\$21,120,290			\$8,882,992	42.06%

NOTES:

1. **Depreciation expense** of approximately \$1.5 Million will be added by auditors when preparing the Sewer Fund balance sheet.
2. Current balance in **Renewal & Replacement Fund** is approximately \$1,098,000 (with an additional \$2,030,000 due from Fund 80 and \$159,000 due from billings).
3. **Debt Service Reserve Funds** (created with a portion of the proceeds from all revenue bond loans) currently totals \$5,800,000 to be used for final years of loan payments (starting in about 5 years).
4. There are other smaller Funds established and maintained for various purposes including Inflow & Infiltration Fund approximately (\$86,000), Sewer Line Agency Fund (revolving account for miscellaneous sewer line extensions paid for by private developers and property owners, about \$250,000).

Warwick Sewer Authority
125 Arthur Devine Blvd
Warwick, RI 02888



PROJECT STATUS REPORT

PROJECT SUMMARY

REPORT DATE	PROJECT NAME	PREPARED BY
1/16/2019	Contract 97	Earl Bond

STATUS SUMMARY

The project has been substantially completed as of 12/31/2018. Below is a list of remaining punch list items:

Natick 1 pump station:

- Check valve for floor drain to be installed
- Platform to be built and installed to access electrical meter (being built in shop now)

Natick 2 pump station:

- Fence to be installed around station
- Station alarms to be programed (scheduled on 1/22/2019)
- Landscaping and surface restoration (weather permitting)

Knight St. pump station:

- National Grid utility easement (to be docketed for an upcoming Council meeting)
- Cupolas to be completed and exhaust fan installed and wired (work progressing)

TASK	% DONE	DUE DATE	DRIVER	NOTES
Natick 1	98	12/31/2018	Federal Funding	
Natick 2	98	12/31/2018	Federal Funding	
Knight St.	98	12/31/2018	Federal Funding	

BUDGET OVERVIEW

CATEGORY	BUDGET	INCURRED	REMAINING	TOTAL
Dewberry	\$166,850.00	\$144,031.00	\$22,819.00	
RP Iannuccillo	\$406,500.00	\$395,417.00	\$11,083.00	
Change Order #1		\$29,516.79		
Change Order # 2	Pending advice/consent of Mayor	\$4,087.77		

BUDGET NUMBERS ARE AS OF 1-16-2019



Gordon R. Archibald, Inc.
Civil and Environmental Engineers

December 17, 2018

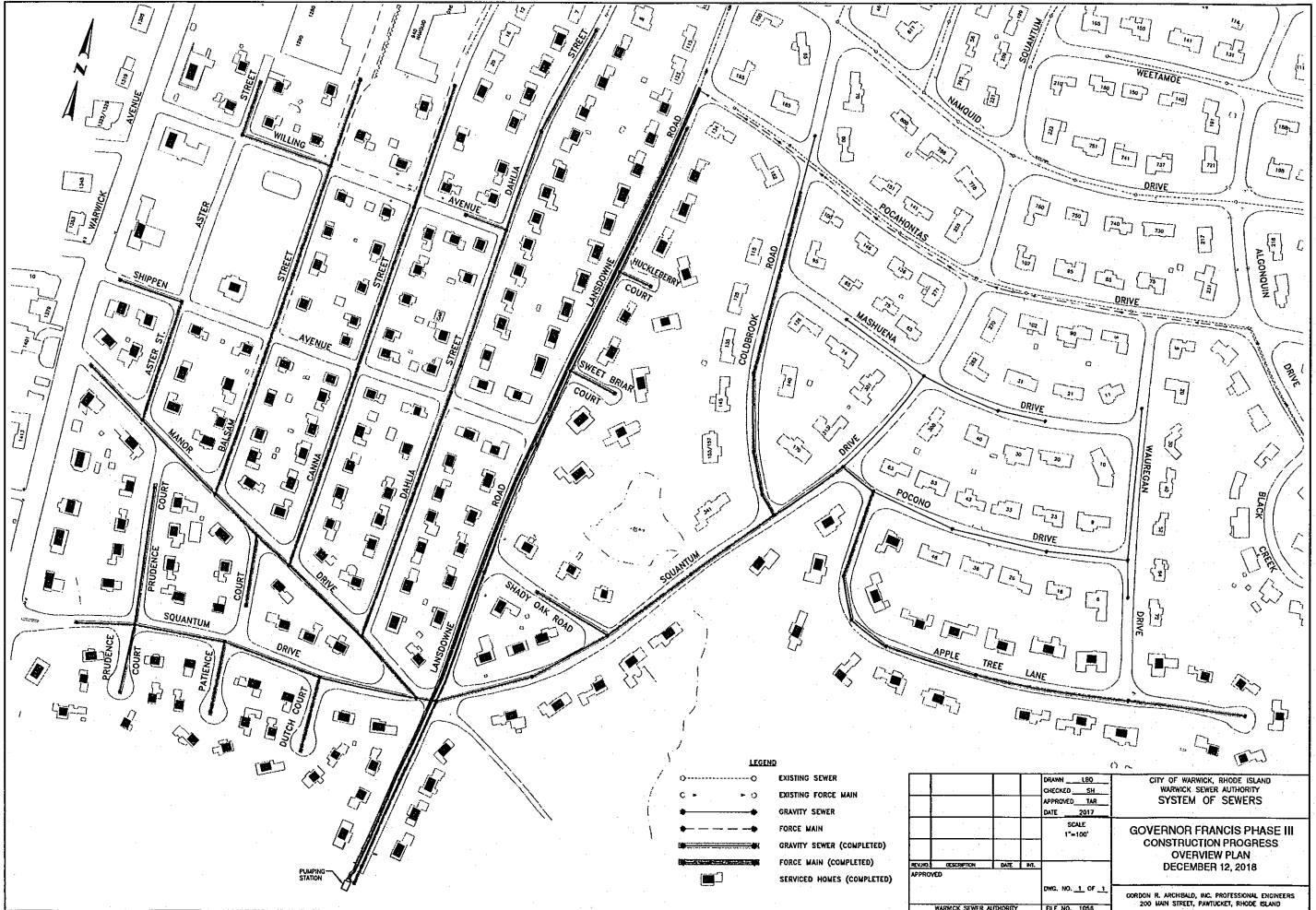
PROGRESS REPORT
GOVERNOR FRANCIS PHASE III

Summary of Work:

1. GRA continues to coordinate and meet with residents to assist with completing sewer service connection cards.
2. GRA continues coordination with National Grid on the pump station electrical service. The design team has determined that single phase power can be utilized. The specified generator can be modified and utilized with single phase power. Documentation has been submitted to National Grid for approval. Assuming National Grid approves of the service, the quoted fee of \$127,648 for three phase power should be substantially reduced.
3. Construction meetings were held on December 3, 2018 and December 12, 2018.
4. Project Budget is attached.
5. Plan indicating completed work is attached.
6. Contractor's Construction Schedule is attached.

Summary of Major Quantities / Completion (Period Ending November 30, 2018)

ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	PREVIOUS QUANTITY	MONTHLY QUANTITY	QUANTITY TO DATE	PERCENT COMPLETE
6" PVC Service Connections	6,000.00	Linear Foot	4040	33.00	4,073.00	67.88%
8" PVC Gravity Sewer	15155	Linear Foot	12738	881.00	13,619.00	89.86%
12" PVC Gravity Sewer	520.00	Linear Foot	461	-	461.00	88.65%
6" PVC Force Main	2,125.00	Linear Foot	2116	-	2,116.00	99.58%
6" Ductile Iron Force Main	225.00	Linear Foot	0	-	-	0.00%
8" x 6" PVC Y-Branch	259.00	Each	198	7.00	205.00	79.15%
12" x 6" PVC Y-Branch	6.00	Each	7	-	7.00	116.67%
Precast Concrete Manholes	70.00	Each	62	5.00	67.00	95.71%



- LEGEND**
- ——— ○ EXISTING SEWER
 - EXISTING FORCE MAIN
 - GRAVITY SEWER
 - FORCE MAIN
 - GRAVITY SEWER (COMPLETED)
 - FORCE MAIN (COMPLETED)
 - SERVICED HOMES (COMPLETED)

DESIGNED	DATE	BY	SCALE
CHECKED	DATE	BY	1"=100'
APPROVED	DATE	BY	
DATE	2017		
APPROVED			
WARWICK SEWER AUTHORITY			

CITY OF WARWICK, RHODE ISLAND
 WARWICK SEWER AUTHORITY
 SYSTEM OF SEWERS

GOVERNOR FRANCIS PHASE III
 CONSTRUCTION PROGRAM
 OVERVIEW PLAN
 DECEMBER 12, 2018

GORDON R. ARCHIBALD, INC. PROFESSIONAL ENGINEERS
 200 MAIN STREET, PAWTUCKET, RHODE ISLAND

GOVERNOR FRANCIS FARMS PHASE III SEWER PROJECT - PROJECT BUDGET
 CONTRACT #58
 WARWICK, RHODE ISLAND
 PAYMENT FOR LATERAL SEWERS

THROUGH PROGRESS PAYMENT NO. 8
 11/30/2018

ITEM NO.	ITEM DESCRIPTION	UNITS	CONTRACT QUANTITY	UNIT PRICE	TOTAL CONTRACT PRICE	QTY. THIS PERIOD	PREVIOUS QUANTITY	QUANTITY TO DATE	PERCENT COMPLETE	\$ AMOUNT DUE TO DATE	ESTIMATED FINAL COST	Comment
1	SITE PREPARATION	L.S.	1.00	\$40,000.00	\$40,000.00	0.00	0.50	0.50	50.00%	\$20,000.00	\$40,000.00	
2	ROCK EXCAVATION	C.Y.	100.00	\$10,000.00	\$1,000,000.00	0.00	130.41	130.41	130.41%	\$1,304,100.00	\$1,305,000.00	
3	MISC. EARTH EXCAVATION	C.Y.	250.00	\$60.00	\$15,000.00	0.00	393.24	393.24	157.30%	\$23,594.40	\$26,000.00	
4	EARTH EXCAVATION BELOW GRADE	C.Y.	150.00	10.00	\$1,500.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
5	ADDITIONAL SELECT MATERIAL	C.Y.	150.00	12.00	\$1,800.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
6	CALCIUM CHLORIDE	L.B.	15,000.00	1.00	\$15,000.00	0.00	11,500.00	11,500.00	76.67%	\$11,500.00	\$12,500.00	
7	ADDITIONAL GRAVEL BORROW	C.Y.	400.00	17.00	\$6,800.00	0.00	0.00	0.00	0.00%	\$0.00	\$1,000.00	
8	6-INCH PVC SERVICE CONNECTIONS	L.F.	6,000.00	65.00	\$390,000.00	33.00	4,940.00	4,073.00	67.88%	\$264,745.00	\$390,000.00	
9	6-INCH D.I. SERVICE CONNECTIONS	L.F.	750.00	70.00	\$52,500.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
10	8-INCH PVC GRAVITY SEWER PIPE	L.F.	15,155.00	70.00	\$1,060,850.00	881.00	12,738.00	13,619.00	89.86%	\$953,330.00	\$1,060,850.00	
11	8-INCH D.I. GRAVITY SEWER PIPE	L.F.	500.00	75.00	\$37,500.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
12	12-INCH PVC GRAVITY SEWER PIPE	L.F.	520.00	130.00	\$67,600.00	0.00	461.00	461.00	88.65%	\$59,930.00	\$67,600.00	
13	6-INCH D.I. FORCE MAIN	L.F.	2,125.00	50.00	\$106,250.00	0.00	2,116.00	2,116.00	99.58%	\$105,800.00	\$106,250.00	
14	6-INCH D.I. FORCE MAIN	L.F.	225.00	50.00	\$11,250.00	0.00	0.00	0.00	0.00%	\$0.00	\$11,250.00	
15	8"x6" PVC Y-BRANCH	EA.	259.00	50.00	\$12,950.00	7.00	186.00	203.00	78.15%	\$10,250.00	\$12,950.00	
16	8"x6" D.I. Y-BRANCH	EA.	5.00	380.00	\$1,900.00	0.00	0.00	0.00	0.00%	\$0.00	\$1,900.00	
16A	12"x6" PVC Y-BRANCH	EA.	6.00	150.00	\$900.00	0.00	7.00	7.00	116.67%	\$1,050.00	\$1,050.00	
17	6" PVC CHIMNEYS	V.F.	125.00	110.00	\$13,750.00	0.00	142.00	142.00	113.60%	\$15,620.00	\$15,620.00	
18	PRECAST CONCRETE SEWER MANHOLES	EA.	70.00	3,600.00	\$252,000.00	5.00	62.00	67.00	95.71%	\$241,200.00	\$252,000.00	
19	PRECAST CONCRETE FORCE MAIN CLEANOUT MANHOLES	EA.	3.00	7,200.00	\$21,600.00	0.00	3.00	3.00	100.00%	\$21,600.00	\$21,600.00	
20	DROP CONNECTION <= 5 FEET	EA.	7.00	1,500.00	\$10,500.00	0.00	8.00	8.00	114.29%	\$12,000.00	\$12,000.00	
21	DROP CONNECTION >= 5 FEET	EA.	3.00	1,600.00	\$4,800.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
22	BITUMINOUS PAVEMENT PATCH TYPE 1 (ITEM DELETED)	L.F.	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
23	REMOVE BITUMINOUS SURFACE BY COLD PLANING (GUTTERS)	S.Y.	7,000.00	6.30	\$44,100.00	0.00	0.00	0.00	0.00%	\$0.00	\$44,100.00	
24	2-INCH BITUMINOUS PAVEMENT PATCH, HMA CL 12.5	L.F.	26,000.00	21.00	\$546,000.00	1,130.00	16,827.00	18,057.00	68.45%	\$379,197.00	\$546,000.00	
25	1-1/2" PERMANENT PAVEMENT OVERLAY, HMA CL 12.5	TON	8,000.00	82.00	\$656,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$656,000.00	
26	PERMANENT PAVEMENT PATCH, HMA CL 12.5	TON	655.00	150.00	\$98,250.00	0.00	0.00	0.00	0.00%	\$0.00	\$98,250.00	
27	2 1/2" DRIVEWAYS & SIDEWALKS HMA CL 12.5	TON	460.00	185.00	\$85,100.00	0.00	0.00	0.00	0.00%	\$0.00	\$85,100.00	
28	BITUMINOUS BERM RI STD. 7.5.1	L.F.	2,000.00	3.00	\$6,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$6,000.00	
29	SAWCUTTING BITUMINOUS CONCRETE DRIVEWAYS	L.F.	4,500.00	4.20	\$18,900.00	0.00	0.00	0.00	0.00%	\$0.00	\$18,900.00	
30	MISCELLANEOUS CONCRETE (SEE MINIMUM BID PRICE)	C.Y.	100.00	100.00	\$10,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$2,000.00	
31	8-INCH COMPOST FILTER SOCK (SEE MINIMUM BID PRICE)	L.F.	1,130.00	6.00	\$6,780.00	0.00	735.00	735.00	65.04%	\$4,410.00	\$6,780.00	
32	BALED HAY EROSION CHECK WITH SILT FENCE (SEE MINIMUM BID PRICE)	L.F.	500.00	8.40	\$4,200.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
33	4-INCH LOAM AND SEED	S.Y.	400.00	8.40	\$3,360.00	0.00	0.00	0.00	0.00%	\$0.00	\$3,360.00	
34	6" THUJA OCCIDENTALIS "EMERALD ABBORVITAE" BALLED AND BURLAPPED	EA.	30.00	300.00	\$9,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$9,000.00	
35	4-INCH DEPTH TREATED PINE BARK MULCH	S.Y.	100.00	8.40	\$840.00	0.00	0.00	0.00	0.00%	\$0.00	\$840.00	
2	PRECAST DRAINAGE STRUCTURES-ALL DEPTHS	EA.	10.00	4,100.00	\$41,000.00	0.50	6.50	6.50	65.00%	\$26,650.00	\$41,000.00	
37	REMOVE AND DISPOSE DRAINAGE PIPE ALL SIZES	L.F.	200.00	16.00	\$3,200.00	354.00	0.00	354.00	177.00%	\$5,664.00	\$3,200.00	
38	REMOVE AND DISPOSE EXISTING DRAINAGE STRUCTURE	EA.	10.00	300.00	\$3,000.00	1.50	5.00	6.50	65.00%	\$1,950.00	\$3,000.00	
39	12-INCH DRAINAGE PIPE	L.F.	200.00	60.00	\$12,000.00	477.00	132.00	609.00	304.50%	\$36,540.00	\$37,000.00	
40	12-INCH D.I. DRAINAGE PIPE	L.F.	50.00	85.00	\$4,250.00	0.00	0.00	0.00	0.00%	\$0.00	\$4,250.00	
41	18-INCH RCP DRAINAGE PIPE	L.F.	50.00	65.00	\$3,250.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
42	18-INCH D.I. DRAINAGE PIPE	L.F.	50.00	110.00	\$5,500.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
43	24-INCH RCP DRAINAGE PIPE	L.F.	20.00	80.00	\$1,600.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
43A	REMOVE AND RESET 24-INCH DRAINAGE PIPE	L.F.	400.00	70.00	\$28,000.00	0.00	595.00	595.00	148.75%	\$41,650.00	\$41,650.00	
44	ISOLATING AND REACTIVATING WATER MAINS LESS THAN 40 FEET	EA.	5.00	3,500.00	\$17,500.00	0.00	15.00	15.00	300.00%	\$52,500.00	\$70,000.00	
45	ISOLATING AND REACTIVATING WATER MAINS GREATER THAN 40 FEET	EA.	5.00	3,500.00	\$17,500.00	0.00	1.00	1.00	20.00%	\$3,500.00	\$3,500.00	
46	6-INCH PVC WATER PIPE	L.F.	820.00	60.00	\$49,200.00	0.00	175.00	175.00	21.34%	\$10,500.00	\$49,200.00	
47	8-INCH PVC WATER PIPE	L.F.	50.00	70.00	\$3,500.00	0.00	310.50	310.50	621.00%	\$21,735.00	\$21,735.00	
48	WATER SERVICE CONNECTIONS	EA.	16.00	1,400.00	\$22,400.00	0.00	0.00	0.00	0.00%	\$0.00	\$5,000.00	
49	6-INCH GATE VALVE	EA.	4.00	1,000.00	\$4,000.00	0.00	2.00	2.00	50.00%	\$2,000.00	\$4,000.00	
50	8-INCH GATE VALVE	EA.	2.00	1,400.00	\$2,800.00	0.00	4.00	4.00	200.00%	\$5,600.00	\$5,600.00	
51	ITEMS #1-56 DELETED FROM CONTRACT	EA.	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
57	TAPPING SLEEVE AND VALVE ALL SIZES	EA.	3.00	5,600.00	\$16,800.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
58	NEW FIRE HYDRANTS	EA.	1.00	4,200.00	\$4,200.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
59	ITEM DELETED	EA.	5.00	0.00	\$0.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	

60	SOIL COMPACTION TESTING (ALLOWANCE)	L.S.	1.00	10,000.00	\$10,000.00	0.03	0.04	0.07	7.19%	\$716.90	\$10,000.00	
61	MISCELLANEOUS UTILITY WORK (ALLOWANCE)	L.S.	1.00	100,000.00	\$100,000.00	0.52	0.00	0.52	51.70%	\$51,695.00	\$100,000.00	Gas & Miscellaneous
62	CONSTRUCTION ROAD SIGNS	S.F.	400.00	9.00	\$3,600.00	0.00	400.00	400.00	100.00%	\$3,600.00	\$3,600.00	
63	TRAFFIC BARRELS 2/TYPE A OR TYPE C LIGHT	EA	60.00	130.00	\$7,800.00	0.00	15.00	15.00	25.00%	\$1,950.00	\$1,950.00	
64	TRAFFIC BARRICADES	EA	10.00	110.00	\$1,100.00	0.00	0.00	0.00	0.00%	\$0.00	\$1,100.00	
65	POLICE PROTECTION (PAID BY WSA)	0	0.00	0.00	\$0.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
66	PLUG VALVE AND BOX	EA	2.00	6,000.00	\$12,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$12,000.00	
67	TREE TRIMMING (ALLOWANCE)	L.S.	1.00	15,000.00	\$15,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
68	PUMPING STATION - ELECTRICAL POWER (ALLOWANCE)	L.S.	1.00	75,000.00	\$75,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$35,000.00	Power
69	PUMPING STATION - WETWELL - EMERGENCY POWER	L.S.	1.00	870,000.00	\$870,000.00	0.06	0.00	0.06	6.49%	\$56,118.80	\$870,000.00	
70	PUMP STATION BORING	L.S.	1.00	3,000.00	\$3,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$3,000.00	
71	PUMPING STATION - LANDSCAPE	L.S.	1.00	10,000.00	\$10,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$10,000.00	
72	PUMPING STATION - DEWATERING (ALLOWANCE)	L.S.	1.00	25,000.00	\$25,000.00	0.00	0.00	0.00	0.00%	\$0.00	\$0.00	
									Completed to Date	\$2,459,637.10		
1									Total Bid Items Cost	\$	4,821,435.00	
2									Change Order 1 Rock Excavation	\$	271,028.41	
3									Total Estimate Construction Cost	\$	5,092,463.41	
4									Bid Price	\$	4,995,180.00	
									Over/Under Bid Price	\$	97,283.41	

Board Update Report **O'Donnell Hill Sewer Project** **as of December 20, 2018**

Since the November Board meeting there have been the following activities related to this project:

- 2323 feet of 8 inch PVC gravity sewer has been installed, along with 9 manholes and 15 six (6) inch PVC service connections.
- 2 inch permanent pavement patch along 1830 feet of Jambray Road that has been approved by the City's DPW. As a result the City is responsible for all snowplowing of the project area. Riverdale Court which provided access to the bike path was also patched.
- Construction activities stopped after Thanksgiving as D'Ambra's crew was moved to Sandy Lane to work on the sewer break at that location.
- D'Ambra has cleared the site of all equipment and material moving it to D'Ambra's property on Jefferson Blvd.

Next Steps

- D'Ambra will sweep Jambray Road on Friday the 21st.
- Catch basins in the project area will be cleaned within the next month.
- Update residents in project area as to project status.
- D'Ambra will return to the project area in early March and resume construction. At which time the landscape restoration at 2 & 6 Jambray will commence.



Gordon R. Archibald, Inc.
Civil and Environmental Engineers

December 17, 2018

PROGRESS REPORT
BAYSIDE SEWERS PROJECT

Work this Period:

1. GRA distributed design plans to the WSA, Warwick Water Department, Warwick Department of Public Works, PAL, Inc., and Environment One for review and comment.
2. GRA provided final sewer layout to Environment One for system analysis.
3. GRA began preparation of the RIDEM and RICRMC regulatory permits.
4. GRA continues preparation of the contract bid quantities and specifications.
5. PAL, Inc. completed and provided final archaeological report.

PROJECT STATUS

Projects Included in \$33 Million Revenue Bond Authorization

Project Name	Design Completion Date	Design Percent Complete	Design Certificate of Approval	Construction Certificate of Approval	Order of Approval	Construction Completion Date	Construction Percent Complete
East Natick III (O'Donnell Hill)	06/01/18	100%	N/A	5/16/16	N/A		
Northwest Gorton Pond I	Still Planning for 2019	85%	N/A				
Northwest Gorton Pond II	Planning for 2020	30%	N/A				
Governor Francis III	04/01/18	100%	8/4/2008	12/27/2016	9/19/2016		60%
Bayside 86A-1 (Tidewater Interceptor)	05/01/15	100%	5/16/2006	7/7/2015	7/7/2015	09/04/15	100%
Bayside 86B (Tidewater Interceptor and Lateral Pressure Sewers)	Still Planning for 2019	60%	5/16/2006				

Projects Included in \$23 Million Revenue Bond Authorization

Project Name	Design Completion Date	Design Percent Complete	Design Certificate of Approval	Construction Certificate of Approval	Order of Approval	Construction Completion Date	Construction Percent Complete
AWT Phosphorus Upgrade	12/31/13	100%	N/A	3/14/2014	4/3/2013	03/30/17	100%
AWT Levee Improvement	12/31/13	100%	N/A	3/14/2014	4/3/2013	08/30/17	100%
Primary Clarifier Rebuild	12/01/16	100%	N/A	3/7/2017	N/A		98%

PROJECT EXPENSES

Projects Included in \$33 Million Revenue Bond Authorization

Project Name	Design Expenditures	Land Acquisition	Construction Expenditures	Inspection Expenditures	Traffic Details Expense	Miscellaneous Expenditures	Administration	Expenditures to Date	RI Infrastructure Bank Payments
East Natick III (O'Donnell Hill)	\$55,246.71	\$36,000.00	\$436,217.75	\$33,405.00	\$0.00	\$13,098.00	\$22,700.00	\$596,667.46	\$571,907.46
Northwest Gorton Pond	\$283,628.33	\$0.00	\$0.00	\$0.00	\$1,427.43	\$1,800.00	\$0.00	\$286,855.76	\$0.00
Northwest Gorton Pond II	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$0.00
Governor Francis III	\$262,578.77	\$70,000.00	\$2,594,132.25	\$215,669.04	\$86,445.31	\$6,472.41	\$29,600.00	\$3,264,897.78	\$3,097,816.89
Bayside 86A-1 (Tidewater Interceptor)	\$11,511.25	N/A	\$302,841.88	\$26,793.73	\$1,105.19	\$0.00	\$0.00	\$342,252.05	\$330,740.80
Bayside 86B (Tidewater Interceptor and Lateral Pressure Sewers)	\$1,828,209.79	N/A	\$0.00	\$0.00	\$87,862.53	\$130,910.34	\$0.00	\$2,046,982.66	\$2,046,982.66

Projects Included in \$23 Million Revenue Bond Authorization

Project Name	Design Expenditures	Land Acquisition	Construction Expenditures	Inspection Expenditures	Traffic Details Expense	Miscellaneous Expenditures	Administration	Expenditures to Date	RI Infrastructure Bank Payments
AWT Phosphorus Upgrade	\$749,457.85	N/A	\$12,578,858.69	\$1,615,852.82	\$0.00	\$448,190.96	\$0.00	\$15,392,360.32	\$15,239,298.35
AWT Levee Improvement	\$147,312.96	N/A	\$4,563,962.91	\$411,796.10	\$0.00	\$0.00	\$0.00	\$4,975,758.71	\$0.00
Primary Clarifier Rebuild	\$42,243.44	N/A	\$227,845.00	\$68,814.62	\$0.00	\$30,485.15	\$0.00	\$369,388.21	\$369,388.21

Cost of Issuance and Debt Service Reserve for all borrowing: \$2,043,432.00
 Total Bond Authorization Utilized: \$23,699,566.37
 Total Bond Authorization Remaining (of \$56 Million): \$32,300,433.63