

DEPARTMENT OF PUBLIC WORKS

Mark L. Wetzel, P.E., Superintendent
Dan Van Schalkwyk, P.E. Town Engineer
Pamela J. Martin, Business Manager

25 BROOK STREET
AYER, MASSACHUSETTS 01432
T: (978) 772-8240
F: (978) 772-8244

Memorandum

Date: December 29, 2016

To: Robert Pontbriand, Town Administrator
Ayer Board of Selectmen
Ayer Capital Improvement Committee

From: Mark Wetzel P.E., Public Works Superintendent

Re: Ayer Department of Public Works Facility Improvement Program Recommendation

Purpose of Study- The Ayer Department of Public Works is a critical operation in the Town. The DPW operates and maintains public utilities including water, sewer and stormwater and maintains the roads, building grounds and snow and ice removal and Solid Waste Disposal. The DPW responds to emergencies and is available 24 /7. The DPW facilities are aging and in need of replacement and /or upgrades. A detailed needs and alternatives study was completed in 2015 and this memorandum summarizes the proposed plan and recommends a phased approach to implementing this important town project.

Existing Conditions and Operations - Current staff consists of 24 full-time personnel across five divisions, Administration, Highway, Water, Wastewater and Solid Waste. The existing operations are spread between four sites, 1) the DPW administration and highway garage, 2) Grove Pond Water Treatment Plant (WTP), 3) Wastewater Treatment Plant (WWTP) and the solid waste Transfer Station.

The current facilities are summarized as follows:

Facility	Staff	Use	Vehicles inside/outside	Square footage	Year constructed
DPW Administration	4+	Customer Service Business, Engineering, Operations Management	0 / 2	850	1995
Highway Garage	6		15/1	7900	1970
Shed/Tank/Pump Station (3 locations)	-	Equipment storage and off season vehicle storage	3	4000	?
Grove Pond WTP	4.5	Water Treatment operations, vehicle and equipment storage	2/4	1300	1996/2013
WWTP	6.5	Wastewater Treatment operations, vehicle and equipment storage	0/5	2280	1984
Transfer Station	2	Solid Waste operations and equipment storage	0/3	224	

The evaluation of the condition and code existing facilities are summarized as follows:

- Existing buildings do not comply with today's Building Code
 - Toilet facilities do not meet current Plumbing Code
 - Does not comply with Accessibility Code
 - OSHA / Safety Deficiencies
- Building does not meet current Mechanical Code
 - Building envelope insulation
 - Ventilation and air exchanges
- Non-code compliant vehicle washing facilities
- Building envelopes and systems have exceeded their useful life
- Operational inefficiencies impact operations
 - Inadequate storage areas
 - Inadequate employee facilities
 - Inadequate site security
 - Cannot function as Emergency Operations Center
 - Undersized material storage areas
 - Undersized maintenance work

Space Needs Assessment - An evaluation of the programmatic requirements for current and future DPW operations was performed as part of the feasibility study. The recommendations were as follows:

Category	Quantity	Square footage - Optimum	Square footage- Minimum
Administration	4 employees	2,680	2,276
Employee Facilities	20 employees	2,600	2,200
Shops	3 per division	10,662	9,063
Vehicle / Equipment Storage	27 vehicle	22,069	18,759
Wash / Other	1 unit	2,955	2,512
Total Needed		40,966 SF	34,810 SF
Existing		17,000 SF	

Benefits of upgrading the DPW Facilities

Alternatives – The Feasibility Study evaluated several alternatives for upgrading and or replacing the Public Works Facility. Several alternatives were developed and evaluated. Preliminary Alternatives for Ayer DPW Facility Plan. The alternatives considered the different divisions, functions, response times, and existing operations centers. The preliminary list of alternatives included:

1. Administration
 - a. Existing building at 0 Brook Street (Maxant)
 - b. New stand-alone building

- c. Admin offices as part of new Highway Operations Center / Garage
2. Water
 - a. 40 x 60 pre-engineered building at Grove Pond WTP
 - b. Seasonal equipment stored at central location
3. Solid Waste
 - a. 30 x 40 pre-engineered building
 - b. Seasonal equipment stored at central location
4. Highway
 - a. Rehab existing facilities and expand as necessary
 - b. Construction of new garage and operations building
 - c. Garage at WWTP
5. Wastewater
 - a. 40 x 60 pre-engineered building at WWTP
 - b. Addition to Existing WWTP Building
 - c. Seasonal equipment stored at central location
6. Seasonal storage
 - a. Construction of storage garage on DPW site
 - b. Off-site space
7. Salt
 - a. Replace existing salt storage
 - b. Repair existing structure

Based on the preliminary alternatives, three options were developed including conceptual site plans / layouts and cost estimates. These three options are:

Option 1- Use existing garage

- Construct off site storage at Transfer Station, WTP and DPW site
- Purchase Maxant building on Brook Street and renovate for DPW Administration / Operations Center
- Renovate existing garage and salt shed
- Construct building addition with wash bay, active vehicle storage and employee facilities
- Estimated project cost - \$16,064,000

Option 2 – Separate Administration Building and Garage / Operations Building

- Construct off site storage at Transfer Station, WTP and DPW site
- Construct new DPW Administration / Operations Center at location of current garage
- Construct new salt shed
- Construct new garage / operations building with wash bay, mechanics bays, active vehicle storage and employee facilities
- Estimated project cost - \$17,980,000

Option 3 – New Consolidated DPW Facility

- Construct off site storage at WTP facility
- Construct new DPW facility to include Administration / Operations Center, new salt shed, wash bay, mechanics bays, active vehicle storage, seasonal vehicle storage and employee facilities
- Estimated project cost - \$17,715,000

The preliminary concepts for each option are shown on the attached figures and the detailed cost estimates are included in Appendix A.

I have attached a summary of costs for recent DPW facilities in other Massachusetts Towns. As this shows, a modern DPW facility represents a significant cost to the Town

Implementation will have a significant impact on the Town's finances as well as being a "tough sell" at Town Meeting. In addition, implementation would have an impact on the DPW operations during construction.

Recommended Plan - I have used the information presented in the Feasibility study to develop a more affordable phased approach. This approach has the following advantages:

- It allows more flexibility in implementation and funding
- Specific design criteria can be developed for each phase
- More accurate cost estimates can be developed for each phase
- It is less disruptive to DPW operations
- It maximizes the use of the existing facilities
- Projects related specifically to the Enterprise Fund utilities are separated from General Fund projects

Project	FY17	FY18	FY19	FY20	FY21	FY22
Admin / Operations Building Preliminary Design	\$75,000					
Water Division Garage	\$350,000					
Admin / Operations Building Construction		\$900,000				
Highway Storage Garage		\$750,000				
Salt Storage Facility				\$250,000		
Highway Garage Renovation				\$3,800,000		
Highway Garage Addition						\$6,000,000
Solid Waste Garage			\$350,000			
Wastewater Garage					\$390,000	
TOTAL	\$425,000	\$1,650,000	\$350,000	\$4,050,000	\$390,000	\$6,000,000