

# REPORT OF THE SOLID WASTE & RECYCLING LONG RANGE PLANNING COMMITTEE



AUGUST 31, 2015

**REPORT**

**OF THE**

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# REPORT

## **EXECUTIVE SUMMARY**

One of the Town Council Goals for FY15 was to complete a comprehensive review of the Town's 37 year old transfer station and Recycling Center. After a fatal accident at the Center in November 2014, the review process was accelerated and a 5-person Solid Waste and Recycling Long Range Planning Committee (SWLRPC) was appointed to begin a study of all aspects of the current Recycling Center and to recommend "long term solutions for the handling of solid waste" in Cape Elizabeth.

The Recycling Center has evolved dramatically since 1978 when the Town's burning dump was closed and the current transfer station was constructed. Although the Town's overall population has barely changed since then, there have been two significant developments which challenge operational safety and use: the growth of the Town's aging population and the increase in all types of refuse and recycling activities at the site.

Currently, not only household trash (municipal solid waste or MSW) is brought to the facility, but bulky waste and demolition materials, hazardous waste, universal waste, and yard waste are also deposited. The popular Swap Shop and Bottle Shed were added in the 1990s. In addition, recycling has dramatically increased since the single-sort "silver bullets" were added in 2008. Cape's Recycling Center has become a hub of constant activity.

The Committee took a hard look at safety, level of service, ease of use, and costs. Over eight months of extensive study and research, and while keeping both community desires and needs in mind, the Committee's overall focus stayed on the following:

- How will residents be using the Recycling Center twenty five to thirty years from now?
- What are the trends in municipal transfer station operation?
- What site designs and waste disposal methods will maximize safety and level of service?
- How can current community needs be met while also ensuring that the Town plans for the future and an aging Cape Elizabeth demographic?
- How can the Town minimize costs?

Early during the review process, the Committee realized that the 37 year old compactor and building were in need of repairs or replacement. The Town's engineering firm Woodard & Curran (W&C) determined that just to continue to use the current building and equipment, with no improvements in service or safety, would cost the Town \$471,000 (not a good use of tax dollars, the Committee felt.) Given this determination, the Committee decided to explore how to use such an investment as a down payment toward creating an improved and safer operational plan.

The Committee agreed on several overriding principles as future design options for the Recycling Center were studied. Specifically, site plan designs must, as much as possible, keep all traffic moving forward, eliminate the need for vehicles backing up, enhance pedestrian safety, and promote ease of use for the Town's aging population.

Given these principles, and, in an effort to balance safety, level of service, ease of use, and costs, the Committee recommends a redesign of the Recycling Center's traffic patterns and a change from using the current hopper/compactor building to using outdoor stationary compactor units for MSW disposal. The proposed "Recommended Design" incorporates multiple drive-forward-only lanes for both recycling and MSW disposal at the outdoor stationary compactors, providing a tremendous safety improvement for both residents and employees. There is a bypass lane for citizens who want to use only other ancillary services. To reduce unsafe congestion near the Swap Shop, traffic islands separate Swap Shop and Bottle Shed patrons from other users wanting to exit the site. The existing compactor building will be re-purposed to hold electronic waste as well as to house the office, the required electrical panels, and the Town's radio communications system.

The majority of the Recommended Design's costs relate to site work and alterations in traffic patterns. Not only will these changes best serve Town residents now and in the years to come, but they will also prove to be a more efficient use of taxpayer dollars. The Recommended Design requires no expansion of the Recycling Center, no costly retaining walls, and no new buildings, thus eliminating significant potential costs.

**Importantly, going forward, the recycling and MSW outdoor compactor units will save over \$50,000 each year in hauling fees. The proposed new design will result in a total annual cost of only \$13,799 more than the current operation would cost after required repairs. It will also provide substantial safety and service improvements over the next twenty five to thirty years.**

**The Solid Waste and Recycling Long Range Planning Committee is pleased to give to the Town Council its strong and unanimous endorsement for its "Recommended Design" proposal for the future of the Cape Elizabeth Recycling Center.**

SWRLRP Committee Members:

Jessica Sullivan, Chairman and Town Council representative

William Brownell

James Garvin, Recycling Committee representative

Anne Swift-Kayatta

Charles Wilson, Chairman of 2003 Refuse Materials Planning Committee

Robert Malley, Public Works Director



## **ORGANIZATION**

### **CE Town Council**

Katharine N. Ray, Chair  
Patricia K. Grennon  
Caitlin R. Jordan  
Martha (Molly) MacAuslan  
Jessica L. Sullivan  
Jamie Wagner  
James T. Walsh

### **Town Manager**

Michael K. McGovern

### **Director of Public Works (and Staff Liaison for SWLRPC)**

Robert Malley

### **Solid Waste and Recycling Long Range Planning Committee (SWLRPC)**

Jessica Sullivan, Chair  
William Brownell  
James Garvin, Recycling Committee  
Anne Swift-Kayatta  
Charles Wilson

## **SWLRP COMMITTEE CHARGE**

On December 8, 2014, the Town Council voted unanimously on agenda Item #23-2015 to establish a “Citizens Committee to Review Municipal Solid Waste and Recycling Options.” The Solid Waste and Recycling Long Range Planning Committee’s charge, as approved by the Town Council, follows:

“The Cape Elizabeth Town Council authorizes the town council chairman to appoint a five member committee to review solid waste and recycling options for the community. The committee shall consist of one representative of the town council, one representative of the recycling committee and three other citizens. The committee will seek citizen input into its deliberations. The committee will review recommendations from an independent engineering firm and will look at long term solutions for the handling of solid waste and recyclable materials. Its recommendations shall be submitted to the town council by June 30, 2015.”

In Item #84-2015 on June 15, 2015, the Town Council voted unanimously to extend the SWLRP Committee’s report deadline to August 31, 2015.

**TAB**

## **COMMITTEE PROCESS**

The Town Council on December 8, 2014 agreed to establish a five-member Solid Waste and Recycling Long Range Planning Committee to review long range (i.e., 25 to 30 years) solid waste and recycling options for the town. The review, recommended as part of the 2015-2024 Capital Improvement Plan, was put on a fast track in the wake of a fatal accident that occurred at the Transfer Station hopper on November 24, 2014. The Committee includes one representative of the Town Council, one of the Recycling Committee, and three members of the public appointed by the Town Council Chair.

As part of its process, the SWLRP Committee has:

- Met 20 times; all sessions were open to the public.
- Worked with an independent engineering firm (Woodard & Curran)
- Investigated the history of the current Recycling Center site and completed site walks of the facilities
- Reviewed the May 2003 Refuse Materials Planning Committee report on waste disposal in Cape Elizabeth
- Solicited and received extensive public input via email, at Committee meetings, during a public input session, and from a town-wide citizen survey
- Reviewed a wide variety of potential options (curbside pickup, conveyors, drive-through buildings, minimal repairs to the current “compactor” building, continuing the current process, and many more)
- Taken, after extensive fact-finding, analysis and discussion, formal votes on each significant issue and recommendation
- Kept minutes of its meetings and ensured that all materials were maintained as publicly accessible records. Maine’s Right to Know/Right to Access laws were followed at every step to ensure that all proceedings were both lawful and easily accessible to the public.

The final step of the SWLRP Committee’s process is the documentation of its work and recommendations in this formal report to the Town Council.

## **COMMITTEE OUTREACH AND PUBLIC INPUT**

Over the course of its eight months of work, the Solid Waste and Recycling Long Range Planning Committee solicited, received, reviewed, and analyzed a great deal of input from the citizens of Cape Elizabeth. The Committee maintained a page on the Town website to keep citizens up-to-date and informed about its work. The Committee's website page is accessible at: [http://www.capeelizabeth.com/government/bds\\_commissions/ad\\_hoc/solid\\_waste\\_planning/home.html](http://www.capeelizabeth.com/government/bds_commissions/ad_hoc/solid_waste_planning/home.html).

At each of its meetings, the Committee made time available for citizens to speak on topics both on and off the agenda. The Committee put several articles in the Cape Courier to keep citizens up-to-date and to ask for their thoughts on how solid waste and recycling should be handled in Cape Elizabeth. In addition, the Committee ran a public input session at Town Hall on April 9, 2015 for citizens to provide in-person feedback and to ask questions. Lastly, in April 2015, the Committee surveyed (both online on the town website and via hard copies inserted into the Cape Courier) citizens to let them give the Committee their feedback and ideas. All of this input is publicly available per Maine's Right to Know/Right to Access laws.

### **Survey Highlights**

Almost 800 people responded, many with detailed comments, to the April 2015 survey. Results indicated that:

- 61% of respondents preferred to stay with the current trash disposal system even if it meant higher fees or taxes.
- 68% of respondents were not in favor of a "pay per bag" or "pay per throw" system.
- 75% of respondents did not want curbside pickup of trash and recycling.
- 77% of respondents supported charging fees for disposing of large items, brush, weed waste, demolition material, and so on.
- 66% of respondents did not want commercial haulers to be allowed to bring to the transfer station unlimited amounts of household refuse and recycling for an annual fee.
- The great majority of respondents want to continue the Swap Shop and the Bottle Shed.

Full results of the citizen survey are available in Appendix A in this report.

The following information is available for those interested in more detail:

<b>Type of Public Input</b>	<b>Where Available</b>
Citizen input at Committee meetings	In meeting minutes at Committee's page on town website (see link on previous page)
Emails/letters from citizens	Listed in Appendix B in this report; also archived at Town Hall
Articles in Cape Courier and other print media	Listed in Appendix C in this report; also accessible at the Courier's website online.
Articles on Town website	At Committee's page on town website (see previous link)
Citizen input at 4/9/15 public input session at Town Hall	Listed in Appendix D in this report
April 2015 survey results	See Appendix A in this report

## **CURRENT OPERATIONS**

### **History of Refuse Disposal Area, Transfer Station and Recycling Center**

The Town started utilizing the area once identified as the Refuse Disposal Area as a dump in the 1940s. An open burning dump was maintained by the Town until 1978, when the landfill was closed per a Maine DEP-approved plan and a Transfer Station was constructed at the current site off of Spurwink Avenue. This effort coincided with the Town becoming a charter member of Regional Waste Systems (now known as ecomaine), which was formed to regionally manage the solid waste for several communities in Cumberland County. Transfer stations were being built around the state and Cape Elizabeth was one of the first towns to construct one.

The Transfer Station waste disposal process involved depositing solid waste into a steel hopper feeding a compactor that would then compress the waste into a container or trailer for transport to another location. The Town initially elected to go with a single transfer trailer and out-sourced its hauling to a local contractor. In 1979, the Town purchased a used tractor unit and started hauling the solid waste, using Public Works staff and equipment, to Regional Waste Systems, which compressed the waste into bales that were then buried in a nearby landfill. In 1988 a second transfer trailer was added to address operational challenges. In 1989, Regional Waste Systems constructed a new trash-to-energy facility which was built adjacent to the baler building in Portland off of outer Congress Street. Using a process perfected in Europe, municipal solid waste (MSW) was burned and converted to electrical power and then sold to energy providers such as Central Maine Power. The plant is still operational to this day.

In 1995, the area known as the “stump and demolition area” was closed under a DEP-approved closure program known as “ICAG” or “Interim Cover & Grading.” The Town was burying inert fill, stumps and wood chips in an area northeast of the compactor building. Brush was being chipped by an industrial wood grinder and wood and demolition materials were burned during acceptable weather conditions. Given the prevailing winds and location of the property, the burning of wood-waste was eliminated in 1995. Also at this time, areas were set aside for specific materials, such as masonry, gypsum board, batteries, white goods and asphalt shingles. Recycling containers known better as “silver bullets” were provided by ecomaine and have been the mainstay of the Town’s recycling program.

In addition to closing the “brush area”, a number of site improvements were made in 1995. A “Swap Shop” building was added to facilitate the transfer of used books and goods between residents, additional paving was completed, and a retaining wall was built to improve access to roll-off containers for the disposal of metals, shingles and gypsum board.

In 1997, a new building (replacing a smaller one) was constructed adjacent to the Swap Shop to store redeemable containers (bottles, cans, etc.). Initially the program was managed by several non-profit organizations and booster clubs in town. These groups would sort the containers and then receive the proceeds at the end of each month. Due to a decline in the number of groups wishing to participate in the sorting program, the Town switched to a “no sort” program in

February 2015. Containers are picked up by a private third party provider each week that then sends the monetary proceeds to the Town. The Town is establishing a three-person committee that will review requests and disburse funds to non-profit groups that benefit youth activities in the Town of Cape Elizabeth.

In 2000, the Town out-sourced composting operations to a company called CE Compost, Inc. CE Compost was owned by Cape resident Scott Collins, who accepted all of the leaf and yard waste generated by the citizens and the Town. In 2005, the William H. Jordan Farm, LLC, purchased the assets and business from Mr. Collins; it has been running the composting operation since then. Jordan Farm manages the incoming leaf and yard waste, screen the product and then market it to area residents and sell it to local nurseries. It is also available to residents (for a fee) and to contractors, who use it in gardens and for other landscaping projects. The Town signed a five-year agreement with William H. Jordan Farm, LLC which expires in August 2019. The relationship continues to be mutually beneficial for both the Town and the Jordan family.

Also in 2000, the Transfer Station was renamed the Recycling Center and the compactor building was connected to the sanitary sewer. Previously, sewerage and grey water were conveyed into a holding tank and pumped out on a regular basis. The building was connected to a new pumping station which pumps all of the sanitary and floor drain flows via a force main to the Southern Cape Treatment Facility on Spurwink Avenue. The pumping station is maintained by the Portland Water District.

## **Current Services**

### **1. Hours & Staffing**

The Recycling Center hours have been essentially kept the same since the facility was opened in 1978, although the hours were modified in 2010, when the Center was closed on Thursdays in an effort to save expenses. Currently, the Center is open on Mondays from 10:00 am to 7:00 pm, Wednesdays from 8:00 am to 5:00 pm, and Fridays and Saturdays from 8:00 am to 5:00 pm. It is closed on Sundays, Tuesdays and Thursdays. The area is also opened for eight Sundays a year, four in the spring and four in the fall, for the disposal of leaf and yard wastes only. This arrangement has worked well and the citizens appreciate this opportunity.

The Recycling Center is staffed by one full-time attendant and one part-time (0.85 FTE) attendant, who works an average of 34 hours per week all year during the normal hours of operation. These two positions handle monitoring of incoming materials, collection of fees, and issuance of residential permits. They are assisted by other Public Works personnel who not only haul the transfer trailers, but who remove bulky items (televisions and other electronic waste, or E-waste), maintain the grounds and plow the area during the winter months. They assist with the Town's annual Hazardous Wastes Collection Day, which is held on the second Saturday in May of each year at the Public Works Facility.

## **2. Services Provided**

The Recycling Center is probably the most widely used service provided by the Town. Though there are contractors who offer the curbside collection of solid waste and recyclables, it is assumed that a vast majority of the residents use the facility on a weekly basis to dispose of MSW. Recyclables can be co-mingled and deposited in containers known as “Silver Bullets” at both the Recycling Center and behind Town Hall. Leaf/yard waste, appliances, e-waste, wood products, brush, bulky wastes and masonry can be dropped off at easily accessible areas of the Recycling Center. The Swap Shop continues to be a popular attraction. The Bottle Redemption Building provides an outlet for residents to drop off containers and the coin-operated vacuum cleaner and donation boxes are valuable additions to the site.

The Town currently outsources the hauling of roll-off containers used for recycling and demolition materials. It also contracts with a company to grind up brush and demolition wood-waste on-site. This material is then transported to biomass facilities in Maine and Quebec.

## **3. Interim Changes to Service Delivery**

In September 2014, the town manager proposed funding in the Town’s Capital Stewardship Plan to perform a comprehensive review of the Recycling Center. This had not been done since the Refuse Materials Planning Committee performed a similar review back in 2003. Following a tragic accident in November 2014, the Town asked a local engineering firm to provide a safety assessment of the vehicular and drop-off patterns in place at the time of the accident. The firm (Woodard & Curran) proposed a new traffic pattern which eliminated the backing of vehicles into the hopper area. Parking stalls were created out in front of the hopper area and, since then, residents have been required to walk their MSW into the hopper area. The configuration, which was approved by the Town Council, was implemented on January 21, 2015. The new temporary traffic pattern is meant to provide a safer environment for users in the interim until a more comprehensive review could be completed by the Solid Waste & Long Range Planning Committee during the summer of 2015.



## Current Financials

### Overview

Disposing of waste and recycling is a costly business. Waste disposal in Cape Elizabeth is one of the largest single expense lines in the town's municipal budget. Any changes made in this area may have significant impacts on the Town's overall budget.

The largest components of the Refuse and Recycling (R&R) budget are personnel and ecomaine service fee expenses. These are offset somewhat by fees paid by citizens to dispose of bulky waste and demolition materials, for permits, and so on. These revenues are budgeted at \$95,000 in FY2016. The bulk of the expense of waste disposal, however, is paid for by property taxes.

Per the town charter, each year the Town Council reviews (and may change) the R&R budget for the coming year proposed by the Director of Public Works and recommended by the Town Manager. Once the Council is satisfied with the R&R budget, a public hearing is held to allow citizens to comment. After this public input and often extensive discussion, councilors vote to approve the R&R budget (as well as the budgets of other municipal departments.) At the same meeting, the Council votes to set a property tax rate based upon the upcoming budget for the Town.

In short, all property owners in Cape Elizabeth, even those who do not use the Recycling Center, pay for waste disposal in the town via their property taxes. User fees currently cover only a small portion of the R&R budget.

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Following is the Fiscal Year 2016 Refuse and Recycling budget document which details R&R expense lines since FY2014 as well as specific explanations of each line item. (This information is also available to the public on the Town's website.)

**Refuse Recycling Budget  
FY 2016**

			BUDGET	ACTUAL	BUDGET	EST. EXP.	BUDGET	\$ Change	% Change
320	REFUSE & RECYCLING		FY 2014	FY 2014	FY 2015	FY 2015	FY 2016	Y 15 to FY 16	FY 15 to FY 16
1001	FULL TIME PAYROLL		75,530	75,469	77,032	77,032	78,785	\$ 1,753	2%
1002	PART TIME PAYROLL		23,695	24,462	25,180	26,000	26,872	\$ 1,692	7%
1003	OVERTIME PAYROLL		2,480	2,084	2,530	2,530	2,570	\$ 40	2%
1020	SOCIAL SECURITY		7,780	7,532	8,013	8,075	8,279	\$ 267	3%
	<b>SUBTOTAL PERSONNEL</b>		<b>109,485</b>	<b>109,547</b>	<b>112,755</b>	<b>113,637</b>	<b>116,506</b>	\$ 3,752	3%
2002	POWER		7,420	2,286	2,500	2,500	2,500	\$ -	0%
2003	WATER & SEWER								
2004	RECYCLING PRINTING & PROMOTION		4,000	3,984	4,000	4,000	4,000	\$ -	0%
2012	ECOMAINE FEES		439,995	419,072	282,960	275,000	278,000	\$ (4,960)	-2%
2014	DEMOLITION MATERIAL DISPOSAL		43,950	38,927	45,650	50,000	51,100	\$ 5,450	12%
2015	HAZARDOUS MATERIALS DISPOSAL		19,000	15,340	19,000	17,000	17,000	\$ (2,000)	-11%
2021	EQUIPMENT RENTAL		300	51	300	150	200	\$ (100)	-33%
2022	UNIFORM RENTAL		1,300	1,267	1,295	1,295	1,300	\$ 5	0%
2032	VEHICLE MAINTENANCE		5,400	5,044	5,600	5,600	5,600	\$ -	0%
2062	MISC. CONTRACT SVCS.		2,200	2,083	2,000	2,000	2,000	\$ -	0%
2063	ALARM SERVICE		1,600	977	1,600	1,000	1,600	\$ -	0%
3002	GASOLINE		536	536	550	550	365	\$ (185)	-34%
3006	MISCELLANEOUS SUPPLIES		1,500	1,375	1,500	1,500	1,500	\$ -	0%
3040	DIESEL FUEL		7,310	7,315	7,500	7,500	5,600	\$ (1,900)	-25%
	<b>SUBTOTAL</b>		<b>534,511</b>	<b>498,257</b>	<b>374,455</b>	<b>368,095</b>	<b>370,765</b>	\$ (3,690)	-1%
<b>320</b>	<b>REFUSE DISPOSAL</b>		<b>643,996</b>	<b>607,804</b>	<b>487,210</b>	<b>481,732</b>	<b>487,271</b>		<b>0%</b>

**TOWN OF CAPE ELIZABETH  
 REFUSE & RECYCLING BUDGET (320)  
 ACCOUNT SUMMARY – FY 2016 (July 1, 2015 to June 30, 2016)  
 PERSONNEL & SALARY INFORMATION**

<b>FULL-TIME PAYROLL (1001)</b>	<b>Actual FY 2015</b>	<b>Budget FY 2016</b>
Recycling Center Attendant (40 hrs. @ \$868.75/wk. @ 52 wks.)	\$44,507	\$45,175
Equipment Operator (40 hrs. @ \$884.75/wk. @ 38 wks.)	32,525	33,610*

**PART-TIME PAYROLL (1002)**

Part-Time Recycling Center Attendant

(35 hrs./wk./yr. (average) @ \$14.74/hr. @ 52 wks.)	25,180	26,872*
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**Note: The pay amounts shown (an increase of 1.5% from FY 2015) for FY 2016 were approved in the current collective bargaining (CBA) agreement with the Teamsters Local #340. \*Denotes individuals who are eligible for a step increase per the CBA.**

**Full-Time Payroll (1001) \$78,785**

Due to grounds maintenance duties, hauling of the Transfer Trailers, and materials handling at the Transfer Station; one Equipment Operator is charged off to Refuse & Recycling for 38 weeks. The remaining 14 weeks is charged off to the Sewer Fund budget (815)

**Part-Time Payroll (1002) \$26,872**

The part-time attendant is currently working Mon., Wed., Fri., and Sat., for a total of 34.5 hours week. This individual also covers portions of the shift of the full-time attendant on occasion, which why that position is budgeted for 35 hours/week for the year.

**Overtime (1003) \$2,570**

The Full Time Attendant is required to work overtime when we open for the disposal of leaf and yard wastes in the Spring and Fall (8 Sundays/year). In addition, the attendants are required to work certain holidays when other Town services are closed and the Recycling Center is kept open.

**Recycling Printing & Promotion (2004)**

**\$4,000**

This account pays for printed materials, recycling promotional items, the purchase of recycling containers (if needed) and educational materials. For example in FY 2015, we used a portion of the funds to subsidize the cost of compost bins for residents who purchased a bin as part of that program. It is proposed to offer that program again in the Spring of 2016.

**ecomaine & Contracted Services Fees (2012)**

**\$278,000**

The tonnage sent to ecomaine is anticipated to total approximately 2,550 tons by June 30, 2015, which is 100 tons under our projected amount. This compares to 2,443 tons that were hauled in FY 2013 and 2,474 tons that were hauled in FY 2014.

The Town has reached a plateau with our recycling rate. We saw an immediate gain with the implementation of “single stream” several years ago, but since that time the rates generated by the “Silver Bullet” program have been flat; in what is essentially a voluntary recycling program. The only way to make more measurable gains is to provide financial incentives to recycle, such as the implementation of a “Pay per Bag” program.

The Recycling Committee is doing their best to promote the benefits of recycling in the community. They are currently trying to promote the benefits of food-waste composting to the citizens, which is another way for us to reduce the tonnage that gets sent to ecomaine. The Town has subsidized the sale of backyard compost bins to residents for the last two years. The program has helped but we still need to extract more food-waste from the waste stream.

This will be the fourth year of our relationship with Maine Waste Solutions, LLC, who transport food waste generated at both cafeterias (including the kitchen at Community Services) to a licensed facility in Portland. The material is volume-reduced and composted at the Riverside Recycling Facility. They provide annual training, the containers and the transportation (2x/per week). The program is budgeted at \$1,165/month for 10 months. We have been extracting approximately 1- 1.5 tons of food-waste from the cafeterias each month.

Listed below is a breakdown of the expenditures programmed for this account:

Estimated Compactor Refuse: 2,600 tons @ \$70.50/ton = \$183,300

HS/MS/PC School Campus Container Pulls (Refuse & Single Stream Recycling):

- 320 services/year for refuse container @ \$10.00/service = \$3,200

- 215 services/year for single-stream recycling container @ \$10.00/service = \$2,150
- Contracted Food Waste Removal Services = \$11,650
- ecomaine Recycling Containers: “Silver Bullets” located at the Recycling Center and Town Hall:  
800 pulls/year @ \$74.00/pull = \$59,200
- Corrugated Cardboard Recycling: 250 pulls/year @ \$74.00/pull = \$18,500

**Brush & Demolition Removal (2014)**

**\$51,100**

This account covers the volume reduction and removal of brush, woodwastes, white goods and demolition material (asphalt shingles, sheetrock, and concrete). In lieu of a heavy item collection, fees are waived for two full weeks so residents (not commercial haulers) can bring their own material to the Recycling Center at no charge. It is difficult to gauge the amount of material that is brought in, especially bulky wastes, wood-waste (demolition) and white goods. Most of the disposal services are being maintained at the FY 2015 levels, with the exception of bulky wastes, where a math error was corrected and the number of “pulls” is being increased.

Clean Wood (Brush & Limbs) Grinding: No charge for this service

Demolition Wood Disposal: 600 tons/year @ \$23.00/ton = \$13,800

Demolition Wood Residue Disposal: 150 tons @ \$10.00/ton = \$1,500.00

Gypsum Board Container Pulls: 14 pulls/year @ \$60.00/pull @ \$50.00/ton per 5.9 tons of gypsum (avg.) = \$4,970

Asphalt Shingle Container Pulls: 12 pulls/year @ \$60.00/pull @ \$55.00/ton per 9.3 tons of shingles (avg.) = \$6,858

Glass (Inc. Porcelain) Container Pulls: 2 pulls/year @ \$60.00/pull @ \$36.00/ton per 8.0 tons of glass (avg.) = \$700

Aluminum Container Pulls: 2 @ \$70.00/pull = \$140

Bulky Wastes: 85 pulls/year @ \$70.00/haul, per 2.10 tons of waste (avg.) @ \$49.00/ton = \$14,700

White Goods/Metal Container Pulls: 55 pulls/year @ \$70.00/pull = \$3,850

Tire Disposal: 400 tires @ \$2.00/tire = \$800

Propane Tanks: 200 tanks @ \$3.00/tank = \$600

Concrete/Brick Disposal: 180 tons/year @ \$8.50/ton = \$1,530

Freon Removal: 325 units @ \$8.00/unit = \$2,600

Stump Disposal: \$250

**Household Hazardous Waste & E-Waste Collection Event (2015) \$17,000**

It is proposed to continue to host Household Hazardous and E-Waste Collection in May of 2016. This is truly the best way to coordinate the disposal of chemicals, protect the environment, and meet one of the requirements of our stormwater and CSO management plans. Residents took full advantage of the program last May with over 300 vehicles dropping off items. The collection is held at the Public Works Facility and facilitated by two licensed consolidators, with the assistance of our personnel.

**Equipment Rental (2021) \$200**

This account covers rental or contracted equipment for use at the Recycling Center.

**Uniform Rental (2022) \$1,300**

A portion of the uniform rental for the Recycling Center personnel is charged off to this budget

**Facility & Site Maintenance (2032) \$5,600**

This account covers signage replacement, minor facility maintenance, repairs to the compactor unit, transfer trailers, the tractor-unit and the bulldozer. It has been increased slightly to continue the upgrade of signage at the Center.

**Misc. Contractual Services (2062) \$2,000**

This account primarily pays for our monthly EZ-Pass expense to utilize the Maine Turnpike to transport refuse to EcoMaine. It also covers the monthly transaction fees that we now pay to accept debit and credit cards at the Recycling Center.



## **MSW and Recycling Tonnage Trends in Cape Elizabeth and Impact on Costs**

Between 1990-91 and 2014-15, the amount of municipal solid waste (MSW) disposed in Cape Elizabeth varied between 3439 and 2422 tons per year. Over the same period, recycling tonnage from Cape Elizabeth steadily increased from 236 to 1159 tons. The peak recycling year was 2010-11 with 1262 tons.

After seven years of decreases, MSW tons peaked again in 2005-06 at 3755 tons. At about the same time, recycling tonnage experienced a dip after steady gains for 15 years.

In 2007, ecomaine, the regional provider of waste services for 21 local communities, introduced single stream recycling. This easier (i.e., less sorting of materials) method for citizens to dispose of recyclable waste had an immediate impact on Cape Elizabeth's MSW and recycling tonnage. MSW tonnage quickly started declining from its 2005-06 high of 3755 tons. The decrease flattened out somewhat in 2010-11 and are currently holding steady at around 2450 tons per year.

Recycling tonnage increased sharply after the implementation of single stream. It jumped to a peak of 1262 tons in 2010-11 and has plateaued since then to levels consistent with other voluntary recycling programs like Cape Elizabeth's.

In June 2015, Cape Elizabeth recycled about 31.3% of its waste. For the last full fiscal year (2014-15 or FY15), the town recycled about 32.4% of its waste.

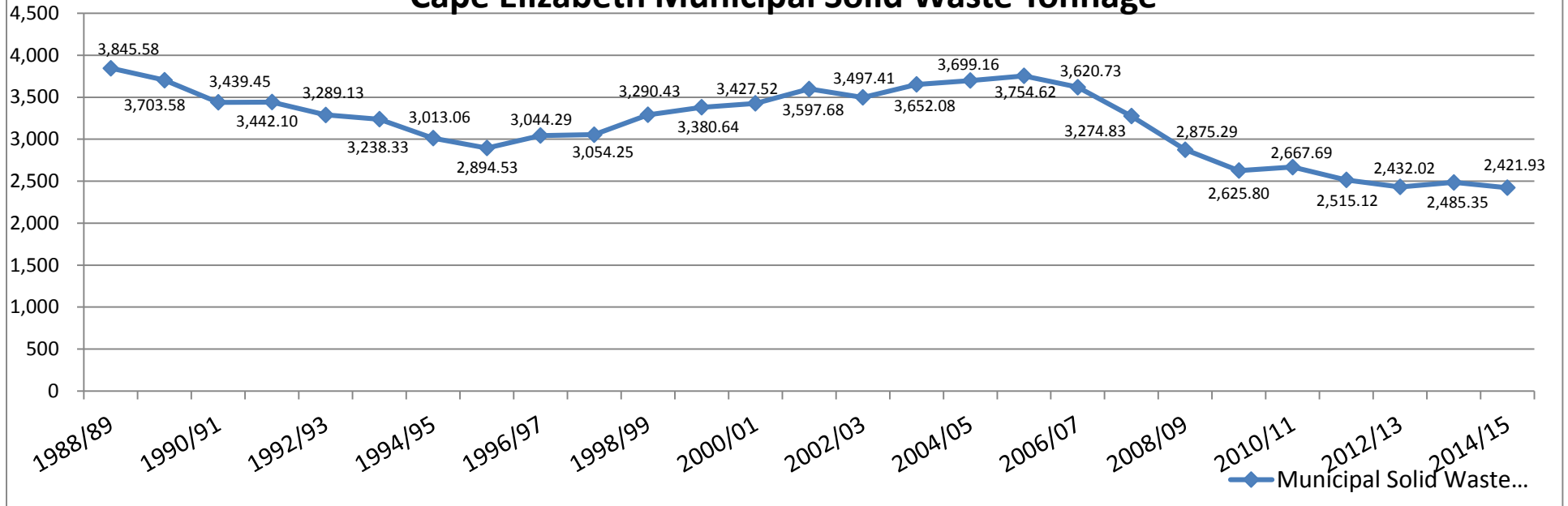
The charts on the following page show trends in Cape Elizabeth's MSW and recycling tonnage. Ecomaine recycling data for June 2015 and FY15 are included after the trend charts.

## **Impact of Relative Costs of Disposing of MSW vs. Recycling**

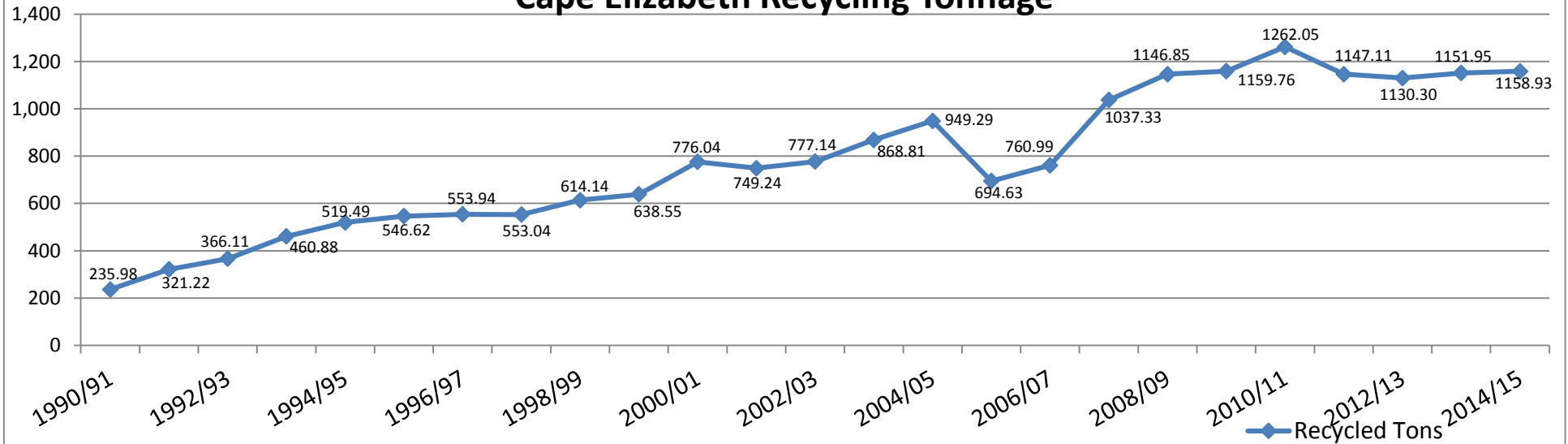
According to the Director of Public Works, based on current expenses and processes, it costs Cape Elizabeth approximately \$130 per ton (including the current tip fee and hauling costs) to dispose of MSW. It costs \$74 per ton to transport the town's single stream recyclables to ecomaine. Thus, it is apparent that every ton of waste that is recycled versus going to ecomaine as "trash" costs Cape Elizabeth \$56 less—a clear cost savings for the town and its property taxpayers as well as a benefit for the environment.



### Cape Elizabeth Municipal Solid Waste Tonnage



### Cape Elizabeth Recycling Tonnage



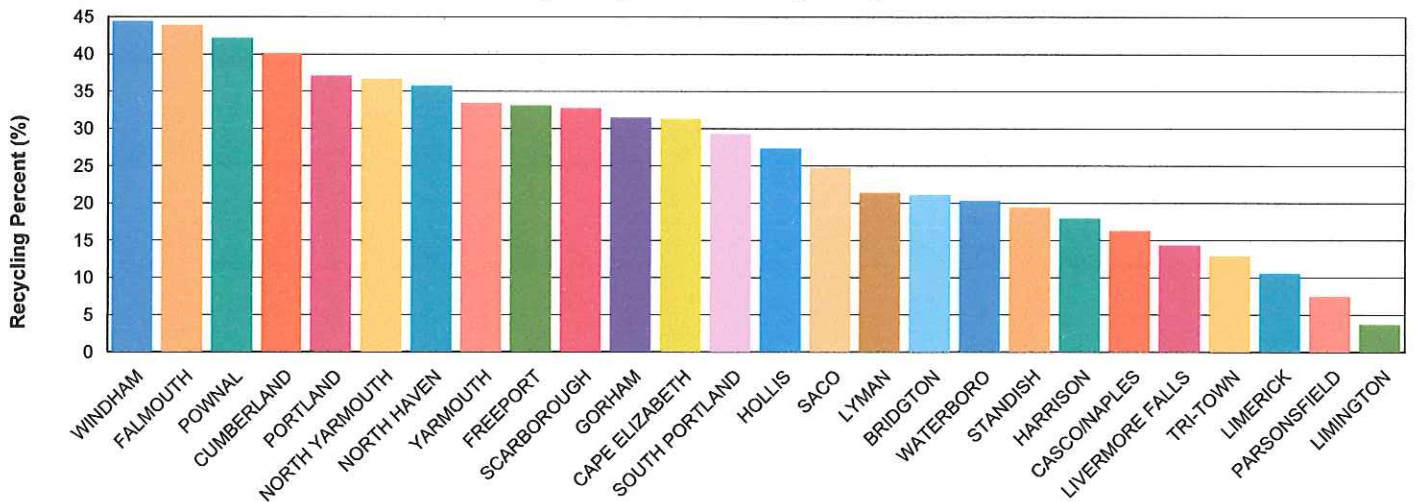


## Neighborhood Recycling Monthly Totals

For the period: 6/1/2015 to 6/30/2015

Origin	Population	Town Tons MSW	Town Tons - Rec Drop-Off	Town Tons -Rec Curb	Town Tons -Rec Total	Town MSW + Rec Total	Town % Rec
BRIDGTON	5,120	188.31	50.26	-	50.26	238.57	21.1%
CAPE ELIZABETH	9,015	229.31	104.24	-	104.24	333.55	31.3%
CASCO/NAPLES	7,614	177.27	34.27	-	34.27	211.54	16.2%
Casco MSW Actual; Recycling Split (45%):		79.76	15.42	-	15.42	95.18	16.2%
Naples MSW Actual; Recycling Split (55%):		97.51	18.85	-	18.85	116.36	16.2%
CUMBERLAND	7,211	125.92	-	84.07	84.07	209.99	40.0%
FALMOUTH	11,185	168.01	27.78	103.51	131.29	299.30	43.9%
FREEPORT	7,879	135.02	45.31	21.33	66.64	201.66	33.0%
GORHAM	16,381	238.53	26.67	82.66	109.33	347.86	31.4%
HARRISON	2,730	85.58	18.66	-	18.66	104.24	17.9%
HOLLIS	4,281	86.60	-	32.53	32.53	119.13	27.3%
LIMERICK	2,892	100.90	11.78	-	11.78	112.68	10.5%
LIMINGTON	3,713	148.77	5.59	-	5.59	154.36	3.6%
LIVERMORE FALLS	3,187	61.05	10.17	-	10.17	71.22	14.3%
LYMAN	4,344	107.32	29.06	-	29.06	136.38	21.3%
NORTH HAVEN	355	11.37	6.31	-	6.31	17.68	35.7%
NORTH YARMOUTH	3,565	53.38	-	30.80	30.80	84.18	36.6%
PARSONSFIELD	1,898	80.74	-	6.41	6.41	87.15	7.4%
PORTLAND	66,194	863.57	112.09	394.72	506.81	1,370.38	37.0%
POWNAL	1,474	16.63	-	12.07	12.07	28.70	42.1%
SACO	18,482	468.49	6.99	145.95	152.94	621.43	24.6%
SCARBOROUGH	18,919	507.35	55.10	191.11	246.21	753.56	32.7%
SOUTH PORTLAND	25,002	487.00	15.59	185.82	201.41	688.41	29.3%
STANDISH	9,874	252.71	60.70	-	60.70	313.41	19.4%
TRI-TOWN	4,643	142.47	20.98	-	20.98	163.45	12.8%
WATERBORO	7,693	168.96	42.91	-	42.91	211.87	20.3%
WINDHAM	17,001	203.24	18.60	143.23	161.83	365.07	44.3%
YARMOUTH	8,349	200.55	86.55	13.88	100.43	300.98	33.4%
Grand Total:	269,001	5,309.05	789.61	1,448.09	2,237.70	7,546.75	29.7%

## Recycling Percent by Origin



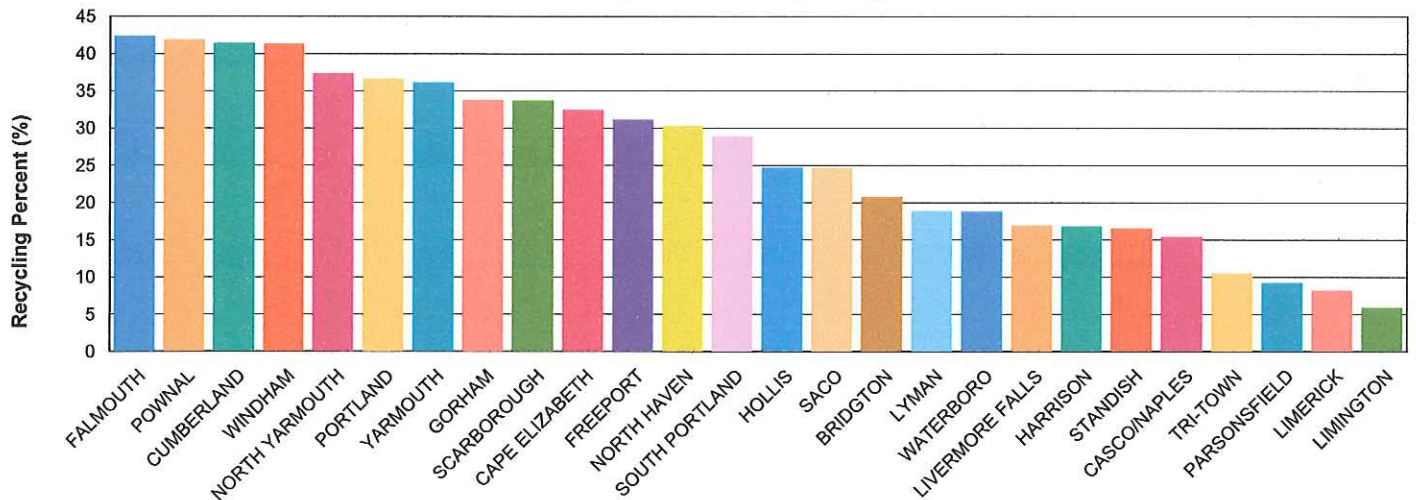


## Neighborhood Recycling Monthly Totals

For the period: 7/1/2014 to 6/30/2015

Origin	Population	Town Tons MSW	Town Tons - Rec Drop-Off	Town Tons -Rec Curb	Town Tons -Rec Total	Town MSW + Rec Total	Town % Rec
BRIDGTON	5,120	2,129.08	556.54	-	556.54	2,685.62	20.7%
CAPE ELIZABETH	9,015	2,421.38	1,158.93	-	1,158.93	3,580.31	32.4%
CASCO/NAPLES	7,614	2,000.30	362.68	-	362.68	2,362.98	15.3%
Casco MSW Actual; Recycling Split (45%):		900.69	163.21	-	163.21	1,063.89	15.3%
Naples MSW Actual; Recycling Split (55%):		1,099.61	199.47	-	199.47	1,299.08	15.4%
CUMBERLAND	7,211	1,282.91	-	906.00	906.00	2,188.91	41.4%
FALMOUTH	11,185	1,972.31	319.77	1,130.19	1,449.96	3,422.27	42.4%
FREEPORT	7,879	1,510.57	508.44	172.27	680.71	2,191.28	31.1%
GORHAM	16,381	2,416.05	290.32	937.00	1,227.32	3,643.37	33.7%
HARRISON	2,730	898.50	181.16	-	181.16	1,079.66	16.8%
HOLLIS	4,281	1,026.44	-	335.54	335.54	1,361.98	24.6%
LIMERICK	2,892	1,184.46	105.27	-	105.27	1,289.73	8.2%
LIMINGTON	3,713	1,493.65	92.84	-	92.84	1,586.49	5.9%
LIVERMORE FALLS	3,187	673.22	137.08	-	137.08	810.30	16.9%
LYMAN	4,344	1,132.04	262.79	-	262.79	1,394.83	18.8%
NORTH HAVEN	355	173.27	75.13	-	75.13	248.40	30.2%
NORTH YARMOUTH	3,565	645.71	-	383.00	383.00	1,028.71	37.2%
PARSONSFIELD	1,898	748.05	-	75.21	75.21	823.26	9.1%
PORTLAND	66,194	9,472.02	1,227.51	4,235.40	5,462.91	14,934.93	36.6%
POWNAI	1,474	203.89	-	146.84	146.84	350.73	41.9%
SACO	18,482	5,102.93	88.78	1,576.34	1,665.12	6,768.05	24.6%
SCARBOROUGH	18,919	5,365.22	599.88	2,117.91	2,717.79	8,083.01	33.6%
SOUTH PORTLAND	25,002	5,733.57	187.38	2,145.93	2,333.31	8,066.88	28.9%
STANDISH	9,874	2,882.06	568.36	-	568.36	3,450.42	16.5%
TRI-TOWN	4,643	1,496.27	174.07	-	174.07	1,670.34	10.4%
WATERBORO	7,693	1,855.40	428.40	-	428.40	2,283.80	18.8%
WINDHAM	17,001	2,220.24	163.22	1,395.97	1,559.19	3,779.43	41.3%
YARMOUTH	8,349	1,992.60	967.01	156.50	1,123.51	3,116.11	36.1%
Grand Total:	269,001	58,032.13	8,455.56	15,714.10	24,169.66	82,201.78	29.4%

## Recycling Percent by Origin



## **ISSUES AND RECOMMENDATIONS**

### **Current Facility (Buildings and Site) Inadequate for Long Term**

#### **Introduction**

The Committee looked at the inadequacies of the existing buildings and site as it considered future planning. Primary goals of enhancing safety by preventing the comingling of vehicular and pedestrian traffic throughout the site, avoiding the need for residents to back into a hopper area, and finding ways to improve ease of use were key to the design process.

#### **Traffic and Safety**

The current traffic flow patterns into and around the Transfer/Recycling Center have been essentially the same since it opened in 1978. Some minor changes were made when the stump and demolition area was closed in 1995, when the Swap Shop and Bottle buildings were added, and when the retaining wall was built to improve access to the roll off containers. When the “Single-Sort Recycling” program was implemented, traffic was again modified to help make the “silver bullets” more accessible.

In 2003, the Refuse Materials Planning Committee report stated:

*“The circular traffic flow and hopper access has been maintained close to its original concept since 1978. The recent survey, along with feedback from at the site, has identified that some users do not always feel comfortable backing into the Transfer Station. Vehicles frequently park across from the compactor building. Or even drive into it, to avoid backing into the compactor drop-off. This creates more traffic problems, as vehicles jockey for position around the hopper area.”*

There have been minimal changes over the years, although with the increase in average age of Cape Elizabeth residents and more senior drivers, the desire to figure out how to move away from backing in the hopper has increased. During the study and survey in 2003, there was some concern exhibited.

Interestingly, the responses to a specific question on the 2003 citizen survey regarding traffic did not indicate a strong endorsement for change.

***Which of the following improvements would be helpful?***

***Better traffic flow***

***30% Yes 70% No***

***Provide an alternative to backing in at the trash hopper***

***37% Yes 63% No***

However, with increased traffic, more recycling, and other changes, it has now become apparent that a “straight line traffic pattern” would be a preferred change, rather than backing into an existing building.

More recent safety issues have been *impatience, not paying attention, and excessive speed.*

Some people have suggested more signage or perhaps “clearer directions.” In addition to new equipment and a revised traffic pattern, to ensure optimum efficiency and ease-of-use for users and staff, attention must be paid to the directional signage and way-finding that help to navigate people through the facility. As it stands today, the Recycling Center suffers from two problems related to signage: 1) there are too many (over 90) signs, which create visual confusion, overload, and noise; and 2) the existing signs, while identifying individual locations around the site, do little to help move people through the facility in a streamlined and orderly manner.

Additionally, options should be considered that address the growing concern about the speed at which users are driving at the Recycling Center. Some solutions might include: more prominent speed limit signs, the installation of grooved pavement/rumble strips at various locations along the access road and within the facility, and occasional spot checks by the Police Department to ensure compliance with the posted speed limit.

After the recent tragic accident on November 24, 2014 at the Recycling Center, the Town Council moved up their planned schedule for reviewing the site and facility, and hired Woodard & Curran to do a traffic and safety study. They made several recommendations and proposed three options for a new temporary traffic pattern. Their report is attached in Appendix E.

In the report, Woodard & Curran provided an assessment worth noting:

*“It should be noted that nearly all municipal transfer stations/recycling facilities, by their nature, consist of a large number of pedestrians and vehicles sharing the*

*same relatively small amount of space. Overall, the public's safety record at the Cape Elizabeth transfer station has been satisfactory and is a testament to the patience, consistent mode of operations, slow speeds, and overall attentiveness of the employees and facility users. Initial indications are that the recent tragic accident appears to be more the result of vehicle operator error and traffic accident rather than a transfer station design or facility operation error. Thirty-seven years of operation without another serious accident speaks to a reasonable facility layout and design combined with good cooperation from the public as a whole."*

Their report recommended "Alternate 2 (Diagonal Parking Access) as the best of three alternatives with respect to both safety and functionality of the facility. This alternative removes vehicle and pedestrian congestion within the compactor building and provides dedicated traffic patterns requiring all vehicles to travel only in a forward direction." Their full report is attached in Appendix E.

On January 21, 2015, the Town implemented Alternate 2 at the Recycling Center, which included barriers for fall protection at the bulky waste containers. Additional small adjustments to improve the changes have been made since that date with the understanding that the current plan is not the final solution.

It became apparent in the early stages of the SWRLRP Committee's work that improved traffic management was critical and that the safest traffic design would a) eliminate backing up into the hopper area and b) provide that all traffic move forward in a controlled lane. In addition, for the safety of pedestrians, walking across traffic needed to be minimized. Lastly, the Committee recognized that traffic and parking must be improved at the Swap Shop.

A total site review of traffic was deemed necessary, but the first issue had to be how the solid waste and recycling were going to be handled, especially since viable options utilizing the existing building were limited.

In every option/plan considered by the Committee, pedestrian and vehicular traffic movements, as well as the safety of users and employees, were primary concerns.

The recommended design for the Recycling Center includes:

- Forward moving traffic in multiple straight lanes through the disposal area with only two stops (Recycling [including cardboard] and Solid Waste)
- Revised traffic pattern for the Swap Shop and Bottle Shed
- Improved parking at the Swap Shop area
- Separate exit for people leaving the Recycling Center but not needing to go to the Swap Shop area

- Better access and parking to the office for users needing to ask questions or pay fees
- Improved and consolidated signage and directions
- New guard rails along bulky waste containers to prevent falls and be more user-friendly than the current “Jersey barriers”

### **Constraints of Current Site**

Early in the course of its review process, the Committee tasked Woodard & Curran with reviewing the existing Recycling Center detailed site plans and identifying the following:

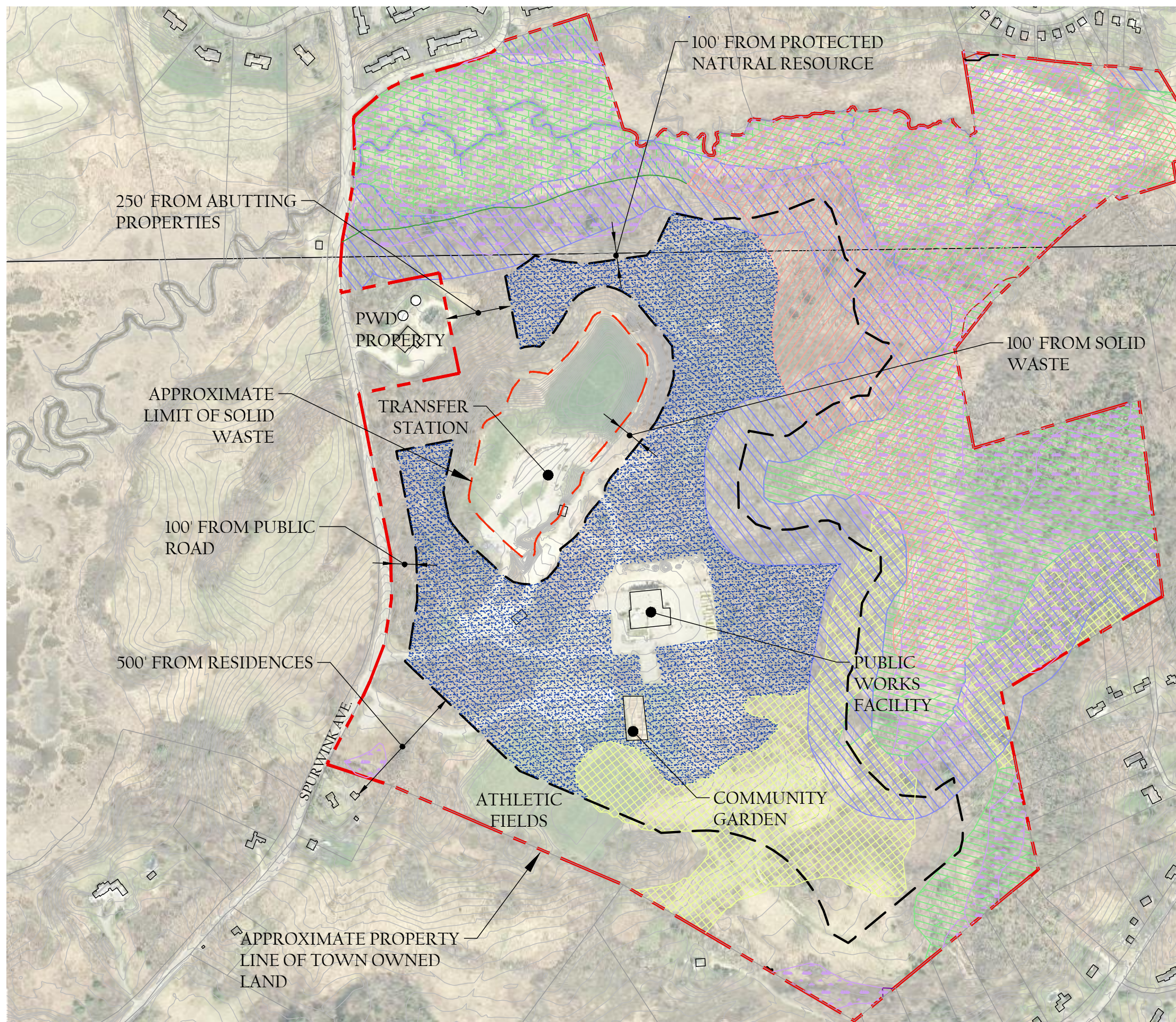
- Any limitations and/or restrictions at the current location for facility renovation, expansion or reconstruction; and
- Possible locations on adjacent Town property for siting any possible new facility construction.

Through this due diligence, the Committee learned that the options before it were quite limited based on a number of contributing factors:


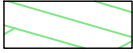

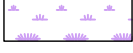






- The existing facility is built on the site of the previous capped landfill, thus restricting greatly any opportunity for redevelopment, per Maine Department of Environmental Protection (DEP) statutes and guidelines.
- There are numerous wetlands abutting the site, which would require extensive additional permitting and remediation efforts—if allowable at all—for any redevelopment.
- Any potentially permitted redevelopment, roughly on the existing footprint, could require significantly expensive construction costs, notably for retaining walls and fill.
- Adjacent sites have existing uses (e.g., athletics at Gull Crest Field area; Public Works building; community garden) that would be adversely disrupted by any change in use to accommodate a newly constructed facility.

Given these parameters, the Committee determined the best way to plan for the future of the Recycling Center was to focus any concepts and planning discussions on ways to redevelop the facility on the existing site, in a manner that would see the least amount of impact from any of the above factors.

# CONSTRAINTS OF CURRENT SITE



## LEGEND:

-  SHORELAND ZONE
-  RPIMAN ZONE
-  RP2 ZONE
-  WETLANDS
-  500 YEAR FLOOD ZONE
-  100 YEAR FLOOD ZONE
-  OPEN & UNRESTRICTED LAND
-  PARCEL BOUNDARY
-  MAINE DEP SETBACK FOR TRANSFER STATIONS
-  APPROXIMATE LIMIT OF SOLID WASTE

## SOURCE DATA:

AERIAL IMAGE - USGS NATIONAL MAP 2.0 VIEWER (VIEWER.NATIONALMAP.GOV/VIEWER/) DATED APRIL 2012  
0.075m RESOLUTION

PARCEL BOUNDARIES, FLOOD ZONES, ZONING & WETLANDS - CAPE ELIZABETH ON-LINE GIS DATA (WWW.MAPGEO.COM/CAPEELIZABETHME/) DATED APRIL 2013

LIMIT OF SOLID WASTE - 'FINAL GRADING PLAN - CAPE ELIZABETH MAINE CDD TRANSFER STATION AND LANDFILL CLOSURE' DATED AUGUST 1995 PREPARED BY WRIGHT-PIERCE

TRANSFER STATION SETBACKS - MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 'MAINE SOLID WASTE MANAGEMENT RULES, CHAPTER 402 - TRANSFER STATIONS AND STORAGE SITES FOR SOLID WASTES'

NOTE: ALL INFORMATION SHOWN IS APPROXIMATE AND SHOWN FOR CONCEPTUAL PURPOSES ONLY.



BAR SCALE

1" = 400'

CHECK GRAPHIC SCALE BEFORE USING

AUGUST 14, 2015





## **Structural Issues/Assessment of Current Compactor Building**

Early during the review process, the Committee realized that the 37 year old compactor and building were in need of repairs or replacement. The Town's engineering firm Woodard & Curran (W&C) conducted a structural condition assessment of the compactor building at the Recycling Center in order to identify any structural deficiencies and to provide a cost estimate for implementing improvements that would extend the life of the building for at least 20 years. In general, the facility was found to be in "fair condition" for its age and the structural integrity of the building and its foundation to be intact. However, 37 deficiencies were identified, some of which require prompt and timely remedial attention. W&C determined that just to continue to use the current building and equipment, with no improvements in service or safety, would cost the Town \$471,000 (not a good use of tax dollars, the Committee felt.) Given this determination, the Committee decided to explore how to use such an investment as a down payment toward creating an improved and safer operational plan.

W&C's full condition assessment report, dated May 8, 2015, is available in Appendix G. Also included in Appendix H are two revised itemized cost estimates, dated July 10, 2015, which address the minimum and the recommended repairs and upgrades to the current building which would be necessary were the Town Council to pursue a status quo option.

### **Level of Service**

The Committee agreed that the current level of service could be significantly improved by finding easier, more convenient, and, at the same time, safer ways for residents to recycle and to dispose of their MSW and bulky waste. Because of Cape Elizabeth's aging population, particular attention was paid to design elements that would be user friendly for the elderly.

The current recycling "silver bullets" have small 16" by 24" openings for single-sort recycling that some people find too hard to reach (openings are 59½" off the ground), so the Committee searched for ways to recycle without having to lift items so far. With MSW, residents currently must park and either carry or cart their trash into the compactor building, then lift the trash over a fence to drop it down to the compactor. The time and effort required to carry or cart trash into the compactor building decreases convenience for all, increases wait times for others, and is ergonomically challenging for many. Carrying and lifting trash can be problematic for anyone, especially for the older population. The Committee searched for design options that would prevent or minimize the need to carry and lift MSW.

The accident in November 2014 highlighted the hazards of vehicles backing up into the compactor building. As people age, neck and back range of motion tends to decrease, thus making it difficult for many people to turn and look backwards. The Committee placed a high priority on traffic designs which would eliminate or minimize the need to back up anywhere on the site.

The bulky waste containers are currently behind and below 'jersey barriers' to prevent residents from falling into them. This causes residents to reach across the barriers when trying to throw away bulky materials. Here again, the Committee sought ways to improve ergonomics by preventing the need to reach forward while handling heavy items.

**Recommendation:**

***Design***

The Committee recommends the following redesign concept for the Town’s Recycling Center. This redesign is intended to meet the needs of Cape Elizabeth citizens for the next 25 to 30 years; it is a long-term solution for how the Town can handle municipal solid waste and recycling in an efficient and cost-effective manner. The Recommended Design addresses the Committee’s key concerns of safety, level of service, and the needs of an aging population using the facility.

This redesigned Recycling Center is sited at the same location as the current facility; it does not require a site expansion which would mean building expensive retaining walls. The redesign of traffic flow is a major component of all aspects of the new design. Outdoor stationary compactors for both recycling and MSW replace the need for a new hopper/compactor and save considerable tax dollars in compactor building repairs.

When entering the facility, residents will drive forward into one of five lanes. Those wanting to visit only the Swap Shop, Bottle Shed, or other ancillary service areas can use a bypass lane separate from the four lanes that will handle MSW and recycling disposal. For each of the four disposal lanes, drivers will first pull up along outdoor stationary compactor units which accept single-sort recycling as well as corrugated cardboard. Not only will this process eliminate for users a separate, later stop to discard cardboard (as is now required), but it will also allow them to deposit trash into openings significantly lower and more accessible than the 59½ inch high (from the ground) ones in the current silver bullets.



***EXAMPLE OF STATIONARY COMPACTOR***

Further down the lanes will be the MSW outdoor stationary compactors. Both MSW and recycling compactors will have user-friendly access; specifically, larger 35” by 60” window openings that will be approximately 42 inches above the ground which will minimize lifting. This “drive-along” design will enhance user safety by eliminating any need for backing up cars that are dropping off trash or recycling. The Committee anticipates that with an increased number of lanes, citizens will require less time to dispose of their trash and recycling. Thus, the new recommended design will enhance the current levels of both safety and service provided.

The existing compactor (“hopper”) building will be refurbished for continued use as an operations office, as housing for the electrical panels and the Town’s radio communications system, as well as for the storage of E-waste (televisions and monitors)

and select universal waste (batteries, etc.) Parking at the building (and backing up to exit) will be separated from the drive-forward lanes.

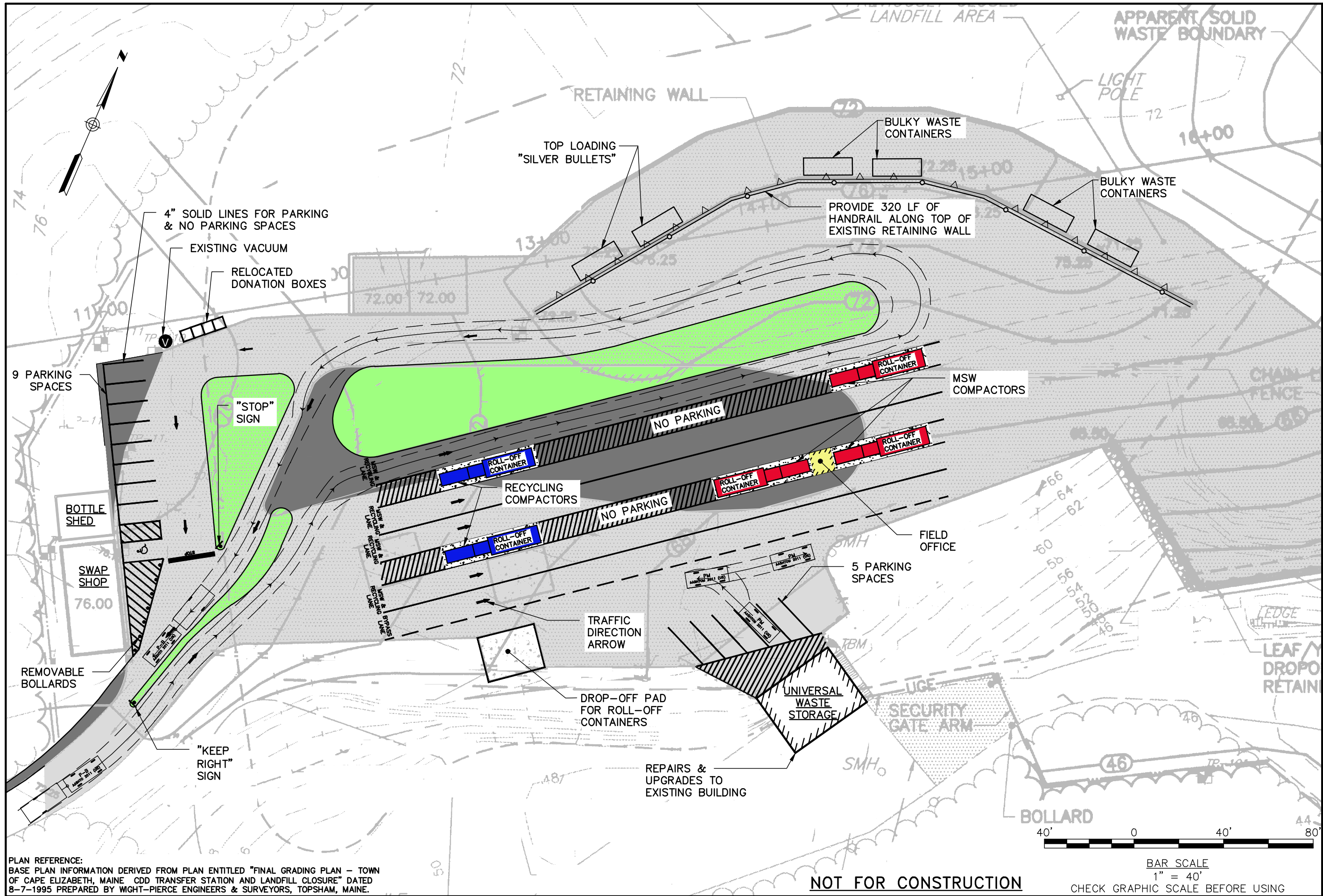
OSHA-compliant permanent 42" high railings to prevent fall hazards will replace the jersey barriers that are now placed in front of the bulky waste containers. Though residents must still do some lifting, they will not have to do so while reaching forward, thus improving both safety and of service levels for citizens.

The donation bins will be relocated to relieve congestion near the Swap Shop and Bottle Shed. The vacuum cleaner will remain in its current location.

Parking spaces for the Swap Shop will be moved north and will include ADA access. The northern shift of parking spots will relieve the bottleneck congestion that now occurs so often near the south part of the Swap Shop, where residents enter and exit the Recycling Center.

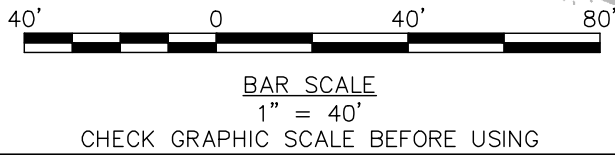
A new traffic pattern will separate Swap Shop patrons' vehicles from those exiting the Recycling Center. Two new traffic-separating islands will guide patrons either to the Swap Shop and Bottle Shed, or to the exit.

See following page for the proposed "Recommended Design" facility site plan.



PLAN REFERENCE:  
 BASE PLAN INFORMATION DERIVED FROM PLAN ENTITLED "FINAL GRADING PLAN - TOWN OF CAPE ELIZABETH, MAINE CDD TRANSFER STATION AND LANDFILL CLOSURE" DATED 8-7-1995 PREPARED BY WIGHT-PIERCE ENGINEERS & SURVEYORS, TOPSHAM, MAINE.

**NOT FOR CONSTRUCTION**



41 Hutchins Drive  
 Portland, Maine 04102  
 800.426.4262 | www.woodardcurran.com

**WOODARD & CURRAN**

**RECOMMENDED DESIGN**

DESIGNED BY: MDLM  
 CHECKED BY: RET  
 DRAWN BY: MDLM  
 228673 RECOMMENDED DESI\*.dwg

TOWN OF CAPE ELIZABETH  
 CAPE ELIZABETH, MAINE

SOLID WASTE AND RECYCLING  
 LONG RANGE PLANNING COMMITTEE

JOB NO: 228673  
 DATE: AUGUST 2015  
 SCALE: 1" = 40'

FIG 1

COMMITMENT & INTEGRITY DRIVE RESULTS

### ***Rationale for the Recommendation***

After extensive research, analysis, and discussion, the Committee considered three final options: the status quo, a new design, and curbside pickup. These were the benchmark scenarios used to compare safety, levels of service, ease of use, and overall costs.

Keeping the *status quo* (i.e., all current operations with the same site layout and using the current traffic flow and procedures), does require \$471,000 in new capital costs because the existing compactor building needs repairs as well as a new hopper and compactor. Including these expenses and yearly operating, total annual costs to the Town for the keeping the status quo option would be \$554,519. Unfortunately, the status quo option does not provide safety and service levels that the Committee feels are adequate, especially for the long term.

The total annual costs of the new *recommended design* are only \$13,799 more than the status quo plan at \$568,318. For this slight annual increase, citizens will get significantly improved safety, increased levels of service, and greater ease of use for our aging population. The Town will get an operation that should work well for the next 25 to 30 years. By using satellite compactors that accept corrugated cardboard as well as recyclables (thus eliminating an extra stop for citizens), recycling will become easier and the Committee hopes that the Town's recycling rate will increase with MSW disposal cost savings results. **By using the new compactors, the Town will save \$53,590 annually in the hauling/trucking costs to dispose of MSW, recycling, and cardboard; these savings are almost double the amortized annual capital cost (\$31,000) of all the new equipment.** Multiple drive forward only lanes for recycling and MSW will eliminate backing up and prevent waiting, improving levels of both safety and service.

The Committee quickly ruled out *curbside pickup* as a viable option. Though the estimated initial capital cost of \$113,535 (for residential trash bins) is low, annual curbside pickup costs are the highest of the three options at \$774,752 (estimated vendor contract prices average \$400,000 per year and the other operational costs, including tipping fees, equal \$368,752 annually.) The transfer station would remain open part time for yard waste, bulky waste, demolition debris, and other ancillary services that citizens want bringing the total to \$774,752. In addition, the Committee found very little public support for curbside pickup.

In summary, the recommended design plan, if adopted, will improve citizen and employee safety, will provide better service (especially for an aging population), will work within the constraints of the current Recycling Center site, and will do so in an efficient and cost-effective way.

**Recommendation: For all these reasons, the SWRLRP Committee members unanimously endorse the *Recommended Design* plan as the Town’s plan for handling MSW, recycling, and other wastes for the next 25 to 30 years.**

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Details of the recommended site plan, other options considered for comparison, and cost information (both initial capital expenses and annual operating costs) follow on the next pages.

## SUMMARY OF COSTS

### Status Quo with Required Repairs:

Residents dispose of recycling and MSW per current operations; residents dispose of single-sort recycling in exterior 'silver bullets'; residents park and walk into existing compactor building to dispose of MSW in hopper. Capital costs include required repairs to existing compactor building and replacement of existing hopper and compactor. Current operations utilize 1.85 FTE\*.

### **Recommended Design:**

Upgrade both recycling and MSW disposal; residents dispose of both single-sort recycling and MSW in new outdoor stationary compactors, which load into roll-off containers. Capital costs include two new recycling outdoor stationary compactors, three new MSW outdoor stationary compactors, nine new roll-off containers, and recommended repairs to existing compactor building for use as a universal waste storage building. Site improvements include paving, medians, pavement markings, signage, concrete pads, leachate collection and a handrail along the existing retaining wall. This operation assumes 2.0 FTE\*.

### Curbside Pickup:

Recycling and MSW is collected curbside and hauled by a waste management contractor to ecomaine; transfer station remains open half-time as a bulky waste and construction demolition & debris transfer station only. Capital costs include minimum recommended repairs to existing compactor building for use as a universal waste storage building. Capital costs also include new flooring over existing hopper opening. This operation assumes 1.0 FTE\*.

		Status Quo with Required Repairs	Recommended Design	Curbside Pickup
<b>Total Conceptual Capital Cost</b>		<b>\$471,000</b>	<b>\$1,297,500</b>	<b>\$113,535</b>
<b>CONCEPTUAL ANNUAL COSTS</b>	Capital Cost Per Year	\$29,000	\$81,000	\$6,000
	Hauling Cost Per Year	\$99,914	\$46,324	N/A
	Curbside Contract Cost Per Year	N/A	N/A	\$400,000
	Operational Costs Per Year**	\$446,621	\$462,010	\$368,752
	<b>Total Cost Per Year</b>	<b>\$575,535</b>	<b>\$589,334</b>	<b>\$774,752</b>

\*FTE = Full-Time Equivalent employee, which equals the number of employees on full-time schedules plus the number of employees on part-time schedules converted to a full-time basis.

\*\*Based on the Town's Refuse Disposal FY15 budget, yearly operational costs include: employee labor & benefits, ecomaine MSW tipping fees, demolition and hazardous material disposal fees, and power and miscellaneous costs.



# EXPLANATION OF CONCEPTUAL CAPITAL COST

The conceptual capital cost for a construction project includes all of the expenses related to the initial establishment of the facility, including :

- Engineering design;
- Permitting application and fees;
- Construction, including materials and labor;
- Temporary facilities;
- Equipment and furnishings;
- Field supervision of construction activities; and
- Contingency fees.

An explanation of the items included in the conceptual capital cost for the Recommended Design is provided below:

<b>RECOMMENDED DESIGN</b>			
<b>CONSTRUCTION COST</b>	<b>Site Improvements &amp; Structural Cost</b>	The site improvements and structural cost includes costs associated with construction of the Recommended Design. These costs include all materials, equipment and labor necessary for the Contractor to implement the site improvements outlined on the Conceptual Site Plan. This includes, but is not limited to, paving, medians, pavement markings, signage, concrete pads, leachate collection and a new handrail. These costs also include construction of the recommended structural and architectural repairs and upgrades to the existing Compactor Building to convert it into a Universal Waste Storage Building.	<b>\$534,000</b>
	<b>Equipment Cost</b>	The equipment cost includes the costs associated with the new outdoor stationary compactors and roll-off containers of the Recommended Design. These costs include both the purchase and installation of the new equipment by the Contractor.	<b>\$331,000</b>
	<b>Temporary Facilities Cost</b>	The temporary facility cost includes the costs associated with managing operations of the existing facility during construction. Typically, this cost may include temporary utilities and offices provided by the Contractor for use by the Owner during construction. No temporary facility costs are anticipated for the Recommended Design as it is expected the residents will be able to utilize the existing Compactor Building and 'silver bullets' while the Contractor installs the new compactors and constructs the site improvements; safety measures will be implemented by the Contractor on the active construction site. Once the new compactors are operational, the residents will utilize the new compactors while the Contractor completes the recommended repairs and upgrades to convert the existing Compactor Building into a Universal Waste Storage Building.	<b>N/A</b>
<b>PROJECT COST</b>	<b>Engineering Cost</b>	Engineering costs include design services, permitting services and construction supervision and administration services. During conceptual-level capital cost estimating, the fees for these services are commonly based on a percentage of the total estimated construction cost; Woodard & Curran has assumed 5% for permitting fees, 10% for design fees, and 10% for part-time construction field supervision and administration fees, which totals to 25% of the total estimated construction cost. These fees are rough approximations only and actual fees will vary depending on the complexity of the permitting process and other factors.	<b>\$216,250</b>
	<b>Contingency Cost</b>	Contingency fees are standard in the practice of construction cost estimating to account for work that is not completely defined or known at the time an estimate is prepared. During design, the contingency factor tends to reflect the degree of completeness of the design; a higher contingency factor is utilized during conceptual-level cost estimating because it is not cost-effective to perform necessary field investigations or complete a detailed design while concepts are being modified. A contingency cost of 25% of the total estimated construction cost is reasonable approximation during conceptual-level design. As the project progresses towards final design, the contingency factor is typically reduced. A construction contingency fee of 10 to 15% is still typically included in the final cost estimate to cover cost increases that could occur as a result of weather or other uncontrollable delays during construction, or simply a change in the bidding climate.	<b>\$216,250</b>
<b>Total Conceptual Capital Cost</b>			<b>\$1,297,500</b>

# STATUS QUO WITH REQUIRED REPAIRS - CONCEPTUAL COSTS



<b>Description</b>	Residents dispose of recycling and MSW per current operations; residents dispose of single-sort recycling in 'silver bullets'; residents park and walk into existing compactor building to dispose of MSW in hopper. Capital costs include required repairs to existing compactor building and replacement of existing hopper and compactor.
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CONCEPTUAL CAPITAL COSTS									
SUMMARY OF CAPITAL COSTS						AMORTIZED CAPITAL COSTS			
Site Improvements & Structural <sup>(1)</sup>	Equipment <sup>(2)</sup>	Temporary Facilities	Engineering <sup>(3)</sup>	Contingency <sup>(4)</sup>	Total Capital Cost	Site, Struct., Eng., Temp. Facil. & Contingency (30 yrs. at 3%)	Equipment		Capital Cost per Year
							Hoppers & Compactors (15 yrs. at 3%)	Trailers & Containers (10 yrs. at 3%)	
\$200,000	\$112,000	\$3,000	\$78,000	\$78,000	<b>\$471,000</b>	\$19,000	\$10,000	N/A	<b>\$29,000</b>

- Notes: (1) Site Improvements & Structural estimate includes: Recommended Repairs to Existing Compactor Building  
 (2) Equipment estimate includes: New Compactor and Hopper  
 (3) Engineering estimate includes: Design, Permitting, and Part-time Construction Administration. Estimate assumes 25% of Site Improvements/Structural and Equipment costs.  
 (4) Contingency estimate assumes 25% of Site Improvement/Structural and Equipment costs.

CONCEPTUAL HAULING COSTS											
	MUNICIPAL SOLID WASTE HAULING COSTS					RECYCLING HAULING COSTS					Total Cost for Hauling MSW & Recycling per Year
	Anticipated Tonnage of MSW per Year <sup>(1)</sup>	Tons of MSW per Trailer <sup>(2)</sup>	Anticipated Number of MSW Hauls per Year	Cost Per MSW Haul (Town)	Total Cost for MSW Hauls Per Year	Anticipated Tonnage of Recycling per Year <sup>(1)</sup>	Tons of Recycling per Container	Anticipated Number of Recycling Hauls per Year	Cost Per Recycling Haul (Contractor)	Total Cost for Recycling Hauls Per Year	
Hauling from Transfer Station	2,520	17	148	\$60	\$8,894.12	922	0.97	946	\$74	\$70,004	<b>\$99,914</b>
Hauling from behind Town Hall	N/A	N/A	N/A	N/A	N/A	275	0.97	284	\$74	\$21,016	

- Notes: (1) Anticipated MSW and recycling tonnage based on FY 2014 volume.  
 (2) Vendor indicated a 75 CY trailer can hold 17-19 Tons of compacted MSW.

TOTAL CONCEPTUAL COSTS PER YEAR								
Amortized Capital Cost (From Above)	Total Cost for Hauling per Year (From Above)	Cost for Curbside Pickup per Year (per Vendor)	Employee Labor & Benefits Cost Per Year <sup>(3)</sup>	ecomaine MSW Tipping Fee per Year	Demolition & Hazardous Material Disposal Fees per Year	Power Cost per Year <sup>(1)</sup>	Miscellaneous Cost per Year <sup>(2)</sup>	Total Cost Per Year
\$29,000	\$99,914	N/A	\$165,126	\$190,000	\$64,650	\$2,500	\$24,345	<b>\$575,535</b>

- Notes: (1) Power costs based on the Town's Refuse Disposal FY15 budget.  
 (2) Miscellaneous costs include the following: equipment rental, vehicle maintenance, alarm services, diesel fuel, gasoline, miscellaneous supplies (based on the Town's Refuse Disposal FY15 budget).  
 (3) Utilizes 1.85 FTE.

# RECOMMENDED DESIGN - CONCEPTUAL COSTS



<b>Description</b>	Upgrade both recycling and MSW disposal; residents dispose of both single-sort recycling and MSW in new outdoor stationary compactors, which load into roll-off containers. Capital costs include two new recycling outdoor stationary compactors, three new MSW outdoor stationary compactors, nine new roll-off containers, and recommended repairs to existing compactor building for use as a universal waste storage building. Site improvements include paving, medians, pavement markings, signage, concrete pads, leachate collection and handrail along the existing retaining wall.
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## CONCEPTUAL CAPITAL COSTS

SUMMARY OF CAPITAL COSTS						AMORTIZED CAPITAL COSTS			
Site Improvements & Structural <sup>(1)</sup>	Equipment <sup>(2)</sup>	Temporary Facilities	Engineering <sup>(3)</sup>	Contingency <sup>(4)</sup>	Total Capital Cost	Equipment		Total Cost per Year	
						Site, Struct., Eng., Temp. Facil. & Contingency (30 yrs. at 3%)	Hoppers & Compactors (15 yrs. at 3%)		Trailers & Containers (10 yrs. at 3%)
\$534,000	\$331,000	N/A	\$216,250	\$216,250	<b>\$1,297,500</b>	\$50,000	\$21,000	\$10,000	<b>\$81,000</b>

Notes: (1) Site Improvements & Structural estimate includes: Paving, Pavement Markings, Concrete Pads, Leachate Collection, Stormwater Management Allowance and Recommended Repairs to Existing Building.

(2) Equipment estimate includes: New Outdoor Stationary Compactors and Roll-off Containers (Pricing per discussions with Vendor: Compactors = \$50,000/each; Roll-off Containers = \$9,000/each)

(3) Engineering estimate includes: Design, Permitting, and Part-time Construction Administration. Estimate assumes 25% of Site Improvements/Structural and Equipment costs.

(4) Contingency estimate assumes 25% of Site Improvement/Structural and Equipment costs.

## CONCEPTUAL HAULING COSTS

	MUNICIPAL SOLID WASTE HAULING COSTS					RECYCLING HAULING COSTS					Total Cost for Hauling MSW and Recycling per Year
	Anticipated Tonnage of MSW per Year <sup>(1)</sup>	Tons of MSW per Container <sup>(2)</sup>	Anticipated Number of MSW Hauls per Year	Cost Per MSW Haul (Contractor)	Total Cost for MSW Hauls Per Year	Anticipated Tonnage of Recycling per Year <sup>(1)</sup>	Tons of Recycling per Container <sup>(2)</sup>	Anticipated Number of Recycling Hauls per Year	Cost Per Recycling Haul (Contractor)	Total Cost for Recycling Hauls Per Year	
Hauling from Transfer Station	2,520	12	210	\$74	\$15,540	922	7	132	\$74	\$9,768	<b>\$46,324</b>
Hauling from behind Town Hall	N/A	N/A	N/A	N/A	N/A	275	0.97	284	\$74	\$21,016	

Notes: (1) Anticipated MSW and recycling tonnage based on FY 2014 volume.

(2) Vendor indicated a 45 CY roll-off container can hold 12-14 Tons of MSW and 7-8 Tons of compacted single-sort recycling.

## TOTAL CONCEPTUAL COSTS PER YEAR

Amortized Capital Cost (From Above)	Total Cost for Hauling per Year (From Above)	Cost for Curbside Pickup per Year (per Vendor)	Employee Labor & Benefits Cost Per Year <sup>(3)</sup>	ecomaine MSW Tipping Fee per Year	Demolition & Hazardous Material Disposal Fees per Year	Power Cost per Year <sup>(1)</sup>	Miscellaneous Cost per Year <sup>(2)</sup>	Total Cost Per Year
\$81,000	\$46,324	N/A	\$178,515	\$190,000	\$64,650	\$4,500	\$24,345	<b>\$589,334</b>

Notes: (1) Power costs based on the Town's Refuse Disposal FY15 budget. Power costs assumed to increase with additional compactors.

(2) Miscellaneous costs include the following: equipment rental, vehicle maintenance, alarm services, diesel fuel, gasoline, miscellaneous supplies (based on the Town's Refuse Disposal FY15 budget).

(3) Assumes 2.0 FTE.

# CURBSIDE PICKUP - CONCEPTUAL COSTS



<b>Description</b>	Recycling and MSW is collected curbside by a waste management contractor; transfer station remains open half-time as a bulky waste and construction demolition & debris transfer station only. Capital costs include minimum recommended repairs to existing compactor building for use as a universal waste storage building. Capital costs also include new flooring over existing hopper opening.
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<b>CONCEPTUAL CAPITAL COSTS</b>									
<b>SUMMARY OF CAPITAL COSTS</b>						<b>AMORTIZED CAPITAL COSTS</b>			
Site Improvements & Structural <sup>(1)</sup>	Equipment <sup>(2)</sup>	Temporary Facilities	Engineering <sup>(3)</sup>	Contingency <sup>(4)</sup>	Total Capital Cost	Site, Struct., Eng., Temp. Facil. & Contingency (30 yrs. at 3%)	Equipment		Total Cost per Year
							Hoppers & Compactors (15 yrs. at 3%)	Trailers & Containers (10 yrs. at 3%)	
\$75,690	N/A	N/A	\$18,923	\$18,923	<b>\$113,535</b>	\$6,000	N/A	N/A	<b>\$6,000</b>

Notes: (1) Site Improvements & Structural estimate includes: Minimum repairs to existing compactor building (to be converted to e-waste building)

(2) No equipment necessary.

(3) Engineering estimate includes: Design, Permitting, and Part-time Construction Administration. Estimate assumes 25% of Site Improvements/Structural cost.

(4) Contingency estimate assumes 25% of Site Improvement/Structural cost.

<b>CONCEPTUAL HAULING COSTS</b>											
	<b>MUNICIPAL SOLID WASTE HAULING COSTS</b>					<b>RECYCLING HAULING COSTS</b>					Total Cost for Hauling MSW and Recycling per Year
	Anticipated Tonnage of MSW per Year	Tons of MSW per Container	Anticipated Number of MSW Hauls per Year	Cost Per MSW Haul	Total Cost for MSW Hauls Per Year	Anticipated Tonnage of Recycling per Year	Tons of Recycling per Container	Anticipated Number of Recycling Hauls per Year	Cost Per Recycling Haul	Total Cost for Recycling Hauls Per Year	
Hauling from Transfer Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<b>N/A</b>
Hauling from behind Town Hall	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Notes: (1) No MSW and recycling hauling cost required; transportation of MSW and recycling included in curbside pickup contract cost.

<b>TOTAL CONCEPTUAL COSTS PER YEAR</b>								
Amortized Capital Cost (From Above)	Total Cost for Hauling per Year (From Above)	Cost for Curbside Pickup per Year (per Vendor)	Employee Labor & Benefits Cost Per Year <sup>(3)</sup>	ecomaine MSW Tipping Fee per Year	Demolition & Hazardous Material Disposal Fees per Year	Power Cost per Year <sup>(1)</sup>	Miscellaneous Cost per Year <sup>(2)</sup>	Total Cost Per Year
\$6,000	N/A	\$400,000	\$89,257	\$190,000	\$64,650	\$500	\$24,345	<b>\$774,752</b>

Notes: (1) Power costs based on the Town's Refuse Disposal FY15 budget. Power costs assumed to decrease with removal of compactor.

(2) Miscellaneous costs include the following: equipment rental, vehicle maintenance, alarm services, diesel fuel, gasoline, miscellaneous supplies (based on the Town's Refuse Disposal FY15 budget).

(3) Assumes 1.0 FTE.

## Current Services

**Bottle Redemption:** The “Bottle Shed” is a place where residents can bring returnable bottles and cans, which are now placed in barrels, unsorted, the proceeds of which benefit a variety of non-profit groups and youth activities in the community.

**Recommendation:** The Committee recommends the continuation of the current bottle redemption program.

**Brush and Limbs:** Brush and limbs may be dropped off at the Recycling Center from both residents and commercial haulers for a fee.

**Recommendation:** The Committee recommends the continuation of the current program of accepting brush and limbs.

**Bulky Waste:** The Town accepts bulky waste products (including furniture, mattresses, appliances, televisions, and tires) brought in by a resident, not a commercial hauler.

**Recommendation:** The Committee recommends the continuation of the current program of accepting bulky waste.

**Construction and Demolition Material:** Construction and demolition material from both residents and commercial haulers is accepted at the Recycling Center for a fee which covers the cost of disposal.

**Recommendation:** The Committee recommends the continuation of the current program of accepting that material.

**Donation Boxes:** The Salvation Army and Goodwill Industries receptacles at the Recycling Center are patronized regularly and provide a benefit to the greater community.

**Recommendation:** The Committee recommends the continuation of the current program.

**Household Hazardous Waste and Universal Waste:** Each May, the Town sponsors a household hazardous waste and universal waste drop-off program. Items accepted include pesticides, pool chemicals, paint thinners, fluorescent light bulbs, oil-based paints, thermostat, and gasoline. There is no fee to bring items to the drop-off which is held at the Public Works Building on Cooper Drive. As many as 375 residents take advantage of this opportunity to dispose of such waste each year.

**Recommendation:** The Committee recommends the continuation of the current drop-off program for hazardous and universal waste once a year.

**Leaf and Yard Waste:** Leaf and yard waste is accepted at the Recycling Center. There is no charge for residents, but commercial haulers must purchase a commercial hauler permit and pay an annual surcharge to bring in that material.

**Recommendation:** The Committee recommends the continuation of the current program.

**Paper Shredding:** Each June, residents can bring to the Recycling Center reasonable quantities of paper material which is shredded on site and hauled away for no fee.

**Recommendation:** The Committee recommends the continuation of the paper shredding program.

**Swap Shop:** The Swap Shop provides for the exchange of books, magazines, and household items that might ordinarily be destined for the MSW compactor. It reduces the overall tonnage (estimated at 400 to 600 tons per year) that is sent to ecomaine and is therefore a financial benefit to the community, as well as a source of enjoyment and assistance to residents.

**Recommendation:** The Committee recommends that the Swap Shop be maintained, but that parking and traffic revisions should be considered by the Town Council as part of the overall traffic pattern changes proposed by the Committee.

**Vacuum Cleaner:** The coin operated vacuum cleaner is a useful service for the residents and provides approximately \$80 per month in revenue to the Town.

**Recommendation:** The Committee recommends keeping the vacuum cleaner as a feature of the Recycling Center.

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**Fee Waiver Program:** In lieu of a heavy item pick-up program, the Town waives fees for a 12-day period each October for items and material brought to the Recycling Center by residents, not by commercial haulers.

**Recommendation:** The Committee recommends the continuation of the fee waiver program.

## **Recycling Receptacles (Silver Bullets) Behind Town Hall**

In addition to the facilities at the Recycling Center, the Town provides receptacles (“silver bullets”) behind Town Hall for residents’ use to dispose of single-sort recyclables and corrugated cardboard. Based on usage volume, these are a popular option for citizens due to their central location, as well as being available for use 24/7 (and specifically during times when the Recycling Center is closed.)

Input from residents—at the public input session held in April 2015, in responses to the citizen survey, and from individual feedback in one-on-one conversations with Committee members—indicated a strong preference to continue to provide these receptacles going forward. In fact, residents have even commented on their desire to see additional locations established, similar to the one behind Town Hall, in other sections of town. While the Committee agrees that additional locations would further support the Town’s recycling efforts, the lack of available Town property (specifically in the north section of town) limits the opportunity at this time to add additional units.

It should be noted that while the current receptacles at the Town Hall location provide a valuable service to residents and are widely utilized, there are concerns from both citizens and the Director of Public Works about the condition of the site, along with the contamination in the collection units of non-recyclables. While there is a regular hauling schedule designed to limit the amount of overflow from units that have reached capacity, the Public Works staff frequently has to monitor and remediate the site for stray and non-compliant materials.

**Recommendation:** The Committee recommends the following:

- Continue operation, as is, of the recycling receptacles located behind Town Hall.
- Consider the installation of fixed on-site signage to help better communicate to users about the types of materials that are/aren’t accepted.
- To the degree possible, consider establishing a spot-check monitoring system to ensure appropriate usage of the facility.

## **Food Waste and Organics Composting**

As part of its charge, the Solid Waste and Recycling Long Range Planning Committee looked at what services the Town's Recycling Center should provide over the next 25 to 30 years. Any forward-looking review must include an assessment of the options and viability of municipal food waste diversion through composting. With current recycling rates plateauing, albeit at comparable levels relative to our peer communities, food waste composting represents a true next frontier opportunity for municipal solid waste (MSW) reduction, with there being a widely accepted view that organics are the single biggest untapped resource in our MSW stream today.

### ***Current Efforts in Cape Elizabeth***

Currently, the Recycling Center offers residents the opportunity to dispose of leaf and yard waste, which is then managed in a composting operation on site by the W.H. Jordan Farm. This operation does not include, nor is the Recycling Center currently permitted for, the disposal of food waste for composting.

Regionally, in November 2013, ecomaine released the findings of their consultant's study which investigated opportunities and methods for developing practical organics diversion, collection, and processing programs in the ecomaine service area. A key take-away from the study was that recycling organic wastes—including food scraps, compostable paper, and other biodegradable materials—represents both the greatest current opportunity, but also one of the greatest challenges, to resource recovery efforts in the solid waste stream. The study concluded that while recycling rates for organic wastes are very low nationwide, there has been a dramatic rise in the development of organic waste recycling programs over the past decade.

While there is no regional enterprise solution currently available, there are several options for residential food waste composting. The startups of two local companies—Maine Waste Solutions, LLC (d/b/a We Compost It!) and Garbage to Garden—demonstrate that there is both interest and need for providing composting services to residences and businesses. For varying monthly and annual service agreements, the companies provide weekly curbside pickup of customers' food scraps buckets, transport the material to a central commercial processing facility, and offer customers deliveries of mature, finished compost. Garbage to Garden announced in July 2015 that it has begun service in Cape Elizabeth. And We Compost It! is also the currently contracted partner for the food waste diversion program at Cape Elizabeth's high school and middle school.

Furthermore, for several years the Recycling Committee has promoted the sale of backyard composting bins (Earth Machines) to residents at a reduced cost. In 2014 alone, residents ordered approximately 90 units, some indicating anecdotally that they were purchasing their second one.



Whether using one of these backyard units, simply creating a compost pile on their properties, or signing up for services like Garbage to Garden, it is evident that some Cape Elizabeth residents are diverting food waste and other organics on a growing, albeit small-scale, basis today.

***Community Input and Insights***

Drawing from research recently compiled by the Cape Elizabeth Recycling Committee, along with survey data collected through SWLRPC’s outreach and citizen input initiatives, the Committee concluded that while there is growing awareness of food waste composting as a means for reducing MSW, there still has been relatively limited adoption of composting options currently available to Cape Elizabeth households.

Specifically, the survey fielded by the SWLRP Committee asked residents about their desire for a place to take and drop off their food waste compost at the Recycling Center. Less than a quarter of the approximately 800 survey respondents indicated that they would like this service to be offered.

**Recommendation:** The Committee recommends the following:

- Continue operation, as is, of the leaf and yard waste composting operation at the Recycling Center.
- Continue to promote residential household composting through the continued sale of composting bins and other education and awareness efforts by the Recycling Committee.
- Monitor the success of the private sector services, and try to measure any impacts to MSW reduction.
- Advise the Town Council to continue to track and monitor new developments — both at the state legislative level, along with regionally through ecomaine — and take appropriate action if at such time as a municipal option becomes available to offer to residents.

More background information on the composting of food waste and other organics can be found in Appendix I.

## Curbside Pickup

Back in 2003, the Refuse Materials Planning Committee did a cursory review of curbside pickup as part of a comprehensive review of the Recycling Center and concluded that:

- instituting curbside pickup would add a minimum annual cost of \$235,000 to the annual operating budget
- that cost could be reduced by implementation of a pay-per-bag program, reduced tonnage in trash, and reduced usage of the Recycling Center
- although no MSW would need to be accepted, a transfer center would still have to be operated to handle leaf and yard wastes, bulky waste and demolition materials
- there was little public support for curbside pickup. The 2003 survey results showed that 9% (70 people) said YES and 91% (701 people) said NO to implementing curbside pickup.

Considering the projected added costs and the “sense” of the town, the 2003 Committee recommended to the Town Council that this choice was not a viable option based upon cost and a lack of citizen support or interest.

The 2015 Solid Waste and Recycling Long Range Planning Committee has revisited the subject of curbside pickup. A subcommittee conducted extensive meetings with representatives of a large regional waste handling company that has a strong presence in the Greater Portland area and does over 40,000 curbside pickups per week. These pickups are done using an automated process in which the driver picks up the totes (MSW and recycling barrels) with a hydraulic arm and then dumps each into the body of the truck.

Only two companies currently offer automated truck pickup service in the area. In the course of our discussions, the Committee discovered some interesting facts:

- Many municipalities in the State are moving to automated pickup programs as they are more efficient and productive.
- There are about 3600 dwelling units in Cape Elizabeth of which 3200 are on public roads and 400 on private ways. An issue is that large haulers typically do not pick up on private ways, but only on public roads (similar to the Town not plowing private roads).
- Automated trucks utilize one operator (who is also the driver). They can pick up both waste and recycling totes in one stop.

- As a general rule, one driver can handle 700 houses per day. Given that Cape Elizabeth has about 70 miles of public way it would require one truck with one driver for five truck days. Realistically, if the Town were picking up MSW and recycling using Town employees, the Town would need a backup truck and a second driver, both significant additional costs.
- A typical refuse truck equipped with automated equipment costs \$380,000 with a 7 year useful life.
- Totes cost approximately \$100 per household (for two totes) and are typically warranted for 10-15 years, which would equate to \$360,000. This would have to be factored into the start-up costs of any program.
- Collection might need to be suspended (or rescheduled) during a plowable snowstorm and the totes could be a problem for plow drivers when the snow has to be pushed back, especially on narrow roads. Snow also makes it difficult for residents to get the totes in and out, an issue with the Town's aging population.
- The Recycling Center will still have to be open to receive bulky waste, leaf and yard waste, demolition materials, brush and limbs, and so on.

It would appear that, if curbside pickup were chosen, the best way to provide this type of service would be via a long term contract (10 years) in order to get any price advantages. Based on a local vendor's estimate, a private hauling contract for Cape Elizabeth for 10 years would cost approximately \$400,000 per year, including the cost of all totes.

Curbside Pickup - Positives:

- Increased recycling efficiencies
- Reduced carbon footprint (because many fewer cars would be coming to the Recycling Center)
- Reduced traffic on roads leading to the Recycling Center
- Size and hours of the Transfer/Recycling Center could be reduced, lowering costs
- Possible significant reduction of the need for future major capital expenditures for solid waste and recycling facilities

### Curbside Pickup – Negatives:

- Additional cost of \$400,000/year, with some offsetting savings in operating costs
- Significant issues with private ways. Most municipalities that use curbside pickup do not go on private roads. If their trucks can operate on a private way, they require the property owner to pay an extra charge. If their trucks cannot operate on the private way, the citizens would be required to wheel their totes to the nearest public way. The Committee believes that there are a number of private ways in the community that would be deemed “not accessible” for curbside pickup.
- Citizen concerns including: loss of flexibility in choosing when to get rid of trash, loss of the tradition of “going to the dump”, and so called “bin aesthetics” with totes placed along the sides of the roads perceived as trashy/spreading litter.
- Little support for converting to a curbside pickup program based on the 2015 survey, which asked in one question whether citizens supported curbside pickup. While not quite as overwhelming as the 2003 results (in which 91% were against curbside), the 2015 results were definitive: 24% (189 people) were in favor of curbside and 75% (579 people) were against curbside. It is clear that the majority of respondents do not want curbside pickup.

**Recommendation:** The Committee recommends against curbside pickup. There may be some benefits to instituting a curbside pickup program, but they are outweighed by the facts that 1) net costs to the Town and citizens would be higher with curbside pickup and 2) there is a significant lack of citizen support or interest in such a program.

## Pay Per Bag

Pay-per-bag (also known as “pay-as-you-throw”) programs are user-based methods of waste disposal meant to increase recycling, reduce overall trash, and distribute the cost of municipal solid waste (MSW) removal more equitably based on who created the trash. Residents are charged for collection of ordinary household trash based on the amount they throw away. By the Town requiring that only special bags (which must be paid for by users) be used for trash disposal, pay-per-bag (PPB) systems create an incentive to recycle more and to generate less waste. And by reducing the amount of municipal solid waste the Town would realize a financial savings since each ton diverted from MSW would reduce the total tipping fees paid to ecomaine.

However, the Committee has heard resistance to a pay-per-pay system. In fact, 68% of respondents (526 out of 773 responses) to the May 2015 Refuse and Recycling Survey preferred not to adopt pay-per-bag disposal at the Recycling Center and 75% of respondents (579 out of 768 responses) expressed opposition to pay-per-bag curbside pick-up. These results were much like those of the May 2003 survey. Respondents were concerned about the cost of such a program and that it would be unfair to families that already recycle.

The Committee considered the cost of the disposal bags in three neighboring communities (a 10-count package of 33 gallon PPB bags in Falmouth costs \$20.80; a 5-count of 30 gallon bags costs \$10.00 in Portland and \$13.50 in Windham) and concluded that the costs could be burdensome to some residents, especially since there is no tax credit for those costs, nor are they deductible (as property taxes are.) The Committee also recognized that any pay-per-bag system would necessitate strong enforcement measures that would require additional town personnel and administration. Finally, the Committee noted that the Town’s recycling rate has increased from 18% to 33% during the past 14 years as a result of existing voluntary efforts and the advent of single-sort recycling. The Town’s Recycling Committee will continue to promote and advocate for increased recycling opportunities in the future.

**Recommendation:** The Committee recommends that the Town Council not pursue a pay per bag system at this time, but that such a disposal system should be reviewed periodically by the Recycling Committee and by the Town Council.

## **Commercial Haulers' Use of the Transfer Station**

Commercial haulers have not been allowed to bring household refuse or municipal solid waste (MSW) to the Recycling Center since January 21, 2015. This decision was made after a consulting firm hired by the Town recommended changes in access to the hopper area because of the fatal accident that occurred on November 24, 2015. Until January, commercial haulers using non-mechanized trucks (i.e., trucks without compactors on them) were allowed to bring unlimited amounts of MSW to the Recycling Center for an annual fee. Now they may still bring recyclables for free, and may obtain permits for demolition materials, bulky waste, and yard waste for which they pay applicable fees or surcharges. Commercial haulers also have access to several area commercial facilities which accept MSW, such as the ecomaine waste to energy facility and the Riverside Recycling facility.

The Cape Elizabeth Recycling Center is primarily for residential use, and MSW handling is the greatest materials cost to Recycling Center operations. Commercial haulers previously were allowed to bring unlimited amounts of MSW for a nominal annual fee, thus increasing the amount of MSW transfer costs to the Town and its taxpayers.

One consequence of commercial haulers using the facility was that they would occasionally occupy a parking spot for 10 to 15 minutes while throwing multiple bags of refuse into the hopper, causing residents to remain in queues while waiting to approach the hopper. There was concern that residents, frustrated by waiting for commercial haulers to unload, might walk over to empty their trash and thus risk their own safety or that of someone else. Another observation regarding commercial haulers was that by standing on flatbeds or on pickup truck beds, they were creating a fall hazard; that is, they were standing well above the safety fence in front of the hopper, which was a Bureau of Labor-required barrier in front of the hopper.

There were 699 responses to Question #7 on the citizen survey: "Should commercial haulers using non-mechanized trucks be allowed to bring unlimited amounts of household refuse and recycling for an annual fee?" 66% of respondents were against allowing commercial haulers; 34% were in favor.

The Committee reviewed the various responses, the time that haulers had routinely occupied parking spots, and the safety concern of the potential fall hazards. It also discussed the operational challenges of monitoring the amount of MSW put into the hopper and charging appropriate fees:

- Would an employee be needed to count the number of bags thrown into the hopper by each truck?
- Would trucks need to be weighed in order to determine the amount of MSW they would be putting into the hopper?

- How much does a weigh station cost, and would an employee be needed to record the weight and charge the appropriate fees?

**Recommendation:** Since January 22, 2015, commercial haulers have been transporting MSW to other area commercial facilities which are designed to accept large amounts of MSW. Due to operational complexities, safety issues and financial concerns, the Committee recommends that commercial haulers not be allowed to bring MSW to the Recycling Center.

### **Non-Residents' Usage**

By ordinance, the Recycling Center is operated as a service for year-round and seasonal residents of Cape Elizabeth. Users are required to show proof of residency (vehicle registration plus utility bill, tax bill or rental agreement) to the attendant to obtain a permit. Permits must be displayed on vehicle windows and are subject to inspection by the attendant.

Additional notice is displayed on-site about the use of the Swap Shop being limited to Cape Elizabeth residents. This restriction has been emphasized to mitigate the issue of non-residents taking materials from the Swap Shop, either for personal use or for re-sale purposes.

Occasional permit inspections may be conducted by the attendant. As needed, the permit stickers are updated and redistributed to residents in order to ensure that only Cape Elizabeth residents use the Recycling Center and to limit the unintended transfer of permits to non-residents through vehicle sales.

One area for consideration in the long term is whether individual permits can and/or should in any way be correlated with facility use.

**Recommendation:** The Committee recommends that the Town continue Recycling Center operations as is, with the current process of distributing and monitoring use permits given to residents. The Committee also recommends increased monitoring of proof of residency.

## Hours of Operation

The current hours of operation at the Recycling Center are:

Sunday	Closed
Monday	10:00 am to 7:00 pm
Tuesday	Closed
Wednesday	8:00 am to 5:00 pm
Thursday	Closed
Friday	8:00 am to 5:00 pm
Saturday	8:00 am to 5:00 pm

The Recycling Center is closed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. If any of these holidays falls on a Monday, the area is open the following day from 8:00 a.m. to 5:00 p.m.

Only eight of the nearly 800 respondents to the Committee's citizen survey mentioned hours of operation in answer to Question #8, "How else could Cape Elizabeth improve the Recycling Center operation, increase recycling, and address the rising costs of trash disposal?" Six wanted an increase in hours and two wanted a decrease. One citizen emailed the Committee and requested an increase. At the April 9, 2015 public input session, no one commented regarding hours of operation. No consistent trend was expressed by those wanting an increase in the hours of operation.

Saturday continues to be the busiest day as many residents work during the week. The Committee discussed offering additional evening hours during another weekday.

**Recommendation:** Due to 1) the very few responses in favor of modifying hours and 2) the increase in operations costs that would result, the Committee recommends no change in the hours of operation at the Recycling Center.



## Privatization

The Committee explored privatizing the Recycling Center or contracting specific services to private entities.

Services at the Recycling Center today are delivered by Public Works staff and equipment along with the supplemental efforts of private contractors for certain operations. The following services are currently outsourced to contracted providers:

- Leaf and yard waste composting (W.H. Jordan Farm)
- Food waste removal from school campus (Maine Waste Solutions, LLC)
- Container and hauling services (Troiano Waste Services, Inc.)
- Wood waste and demolition wood grinding services (Douglas W. Jones, Inc.)
- Bottle redemption building (i.e., Bottle Shed) (Boots Bounty, Inc.)
- Freon removal from appliances (Interstate Refrigerant Recovery, Inc.)
- Battery removal (Mainely Batteries, Inc. and Call 2 Recycle, Inc.)
- Tire disposal (B.D.S. Waste Disposal, Inc.)
- Used oil removal (Clean Harbors, Inc.)
- Annual hazardous waste and e-waste collection programs (Clean Harbors, Inc. and North Coast Services, Inc.)
- Television removal (North Coast Services, Inc.)
- Annual paper shredding program (Without a Trace, Inc.)

As part of our review, the Committee researched all of the towns in the ecomaine consortium, along with several others highlighted by Woodard & Curran as representative comparable communities. The findings indicated a varying mix of towns that maintain full-service municipal transfer stations, others that provide a bulky waste (fee-supported) facility, and those that operate curbside collection programs. To the best of the Committee's understanding, none of the towns reviewed fully outsources the operation of their municipal transfer station to a private contractor. As an example, Portland runs a municipally staffed curbside collection program, and also offers bulky waste collection services at the Riverside Recycling Center which is owned by the city, but operated by CPRC Management. Similarly, Scarborough collects household waste via a curbside program, and residents may utilize the CPRC operated facility in that town for bulky waste disposal.

**Recommendation:** The Committee recommends that Cape Elizabeth continue to use private contractors for services where it is either more efficient from a logistics and personnel perspective or is more cost effective than carrying out those services using Town resources. The Town should periodically review the use of outside contractors to see if there are opportunities for cost savings and/or service improvements.

## **APPENDICES**

**APPENDIX A**

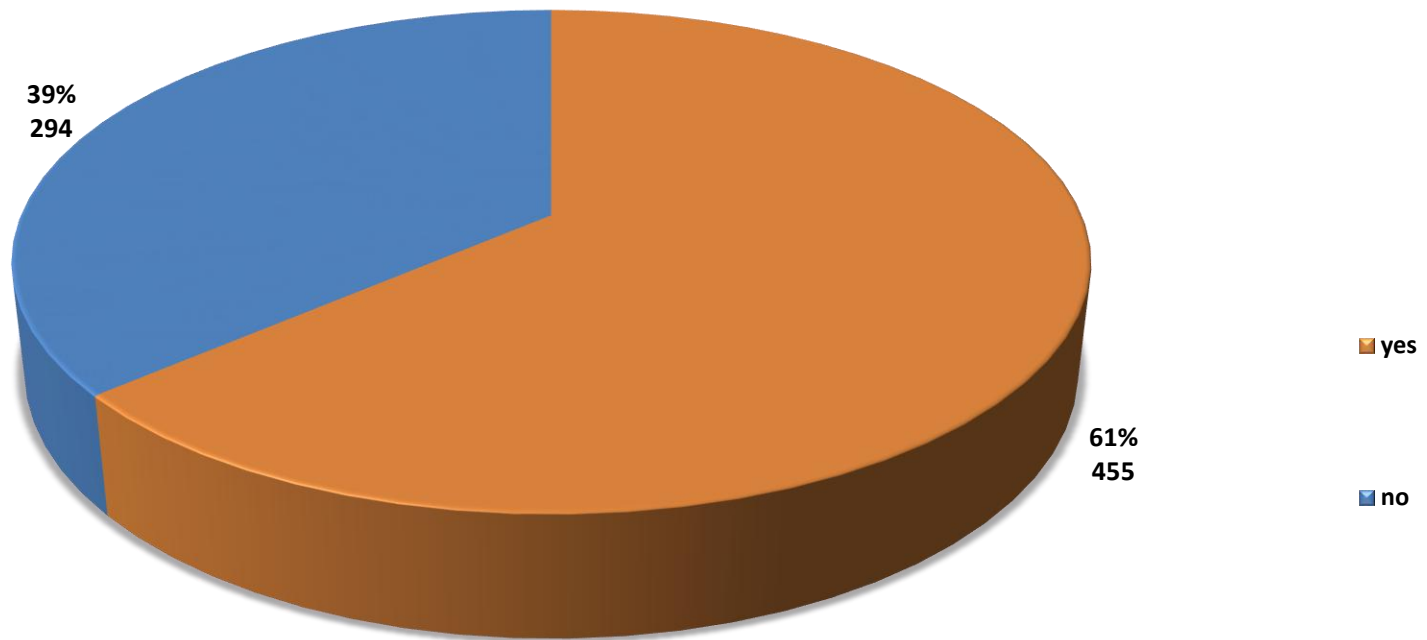
**RESULTS OF APRIL 2015 CITIZEN SURVEY**

CAPE ELIZABETH  
REFUSE AND RECYCLING SURVEY  
2015



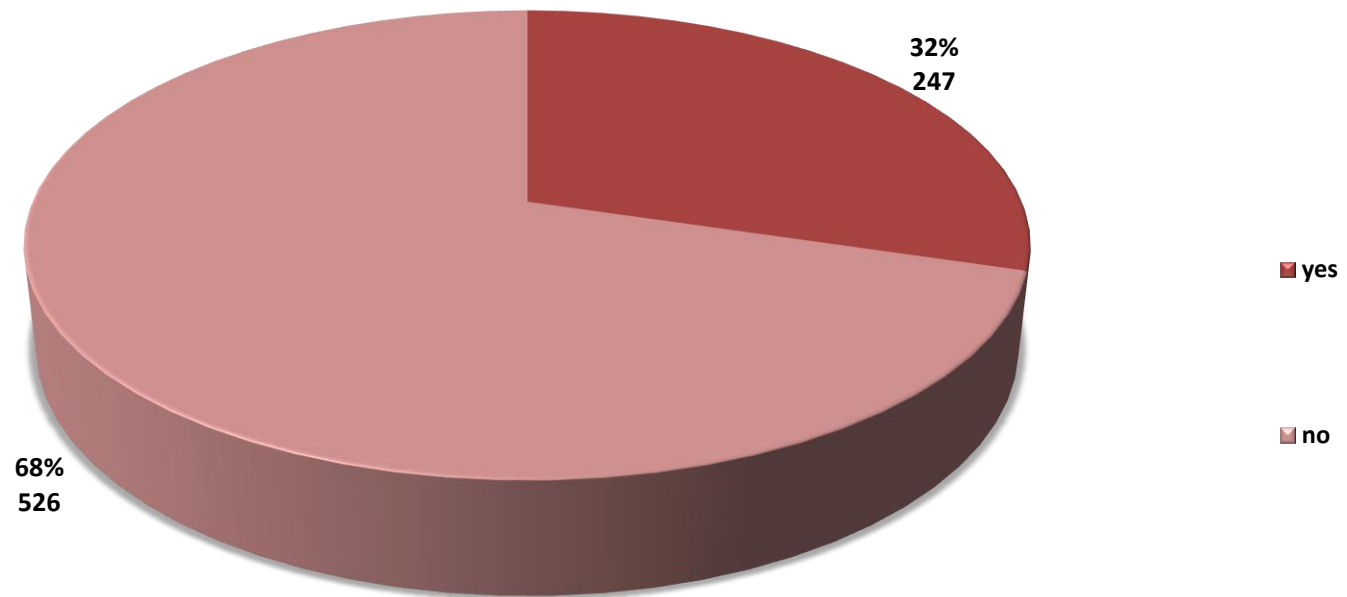
## Question 1

Our household would prefer to stay with the current trash disposal system even if this means increased costs via higher fees or taxes.



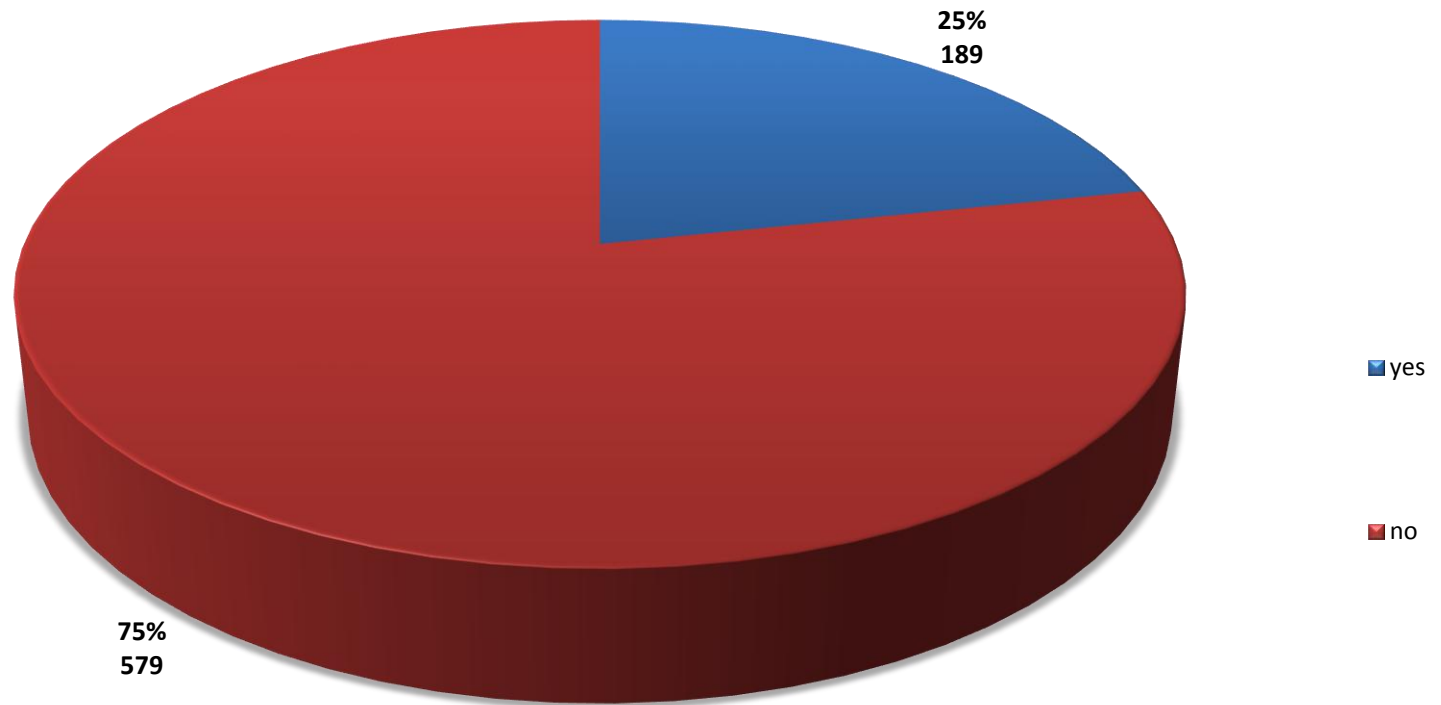
## Question 2

Our Household would prefer a "pay per bag " or " pay as you throw " system at the Recycling Center as a method of reducing overall trash and increasing recycling, while distributing cost on a more equitable basis to those who create more trash.



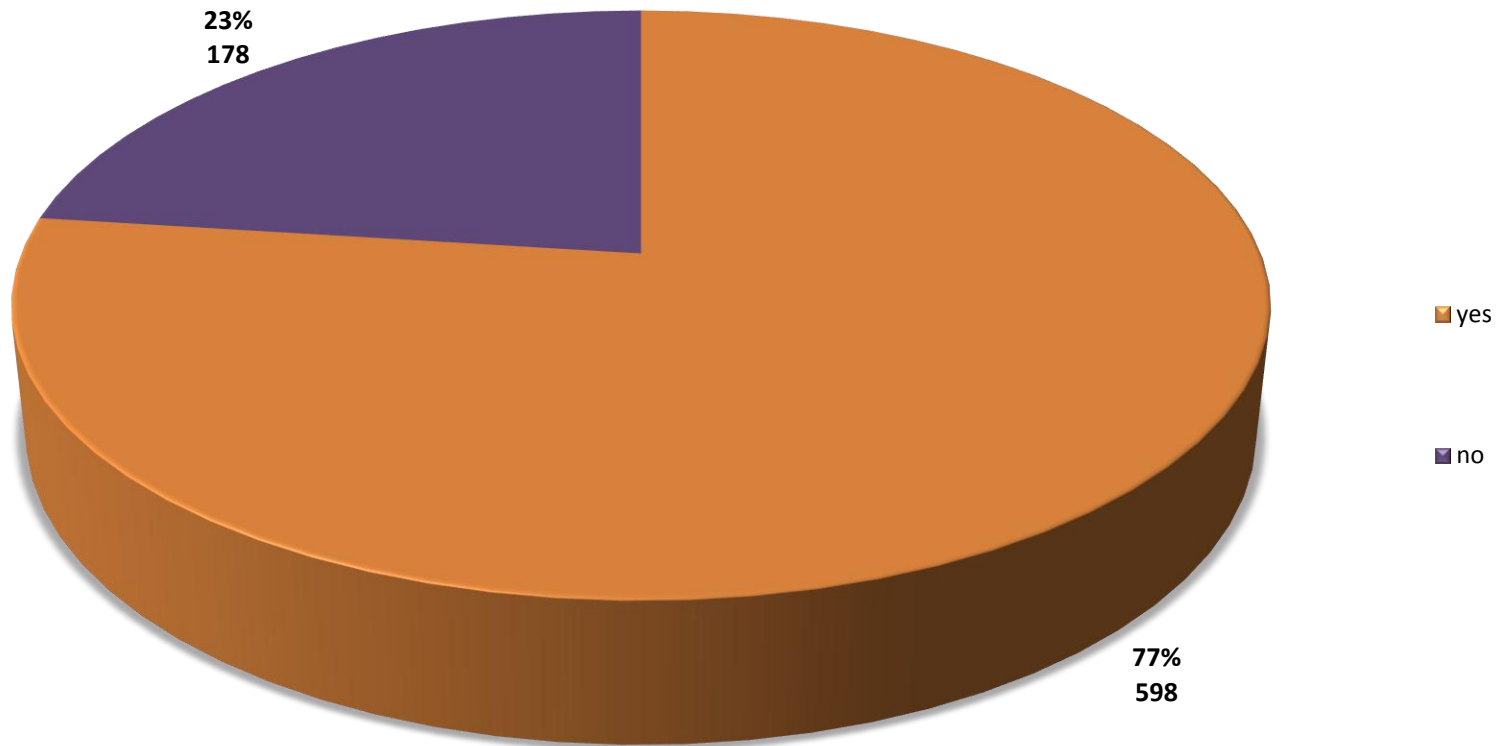
### Question 3

Our household would prefer that Cape Elizabeth provide curbside pickup of trash and recycled materials, understanding that the cost may have to be covered by a tax increase or a "pay per bag" fee.



### Question 4

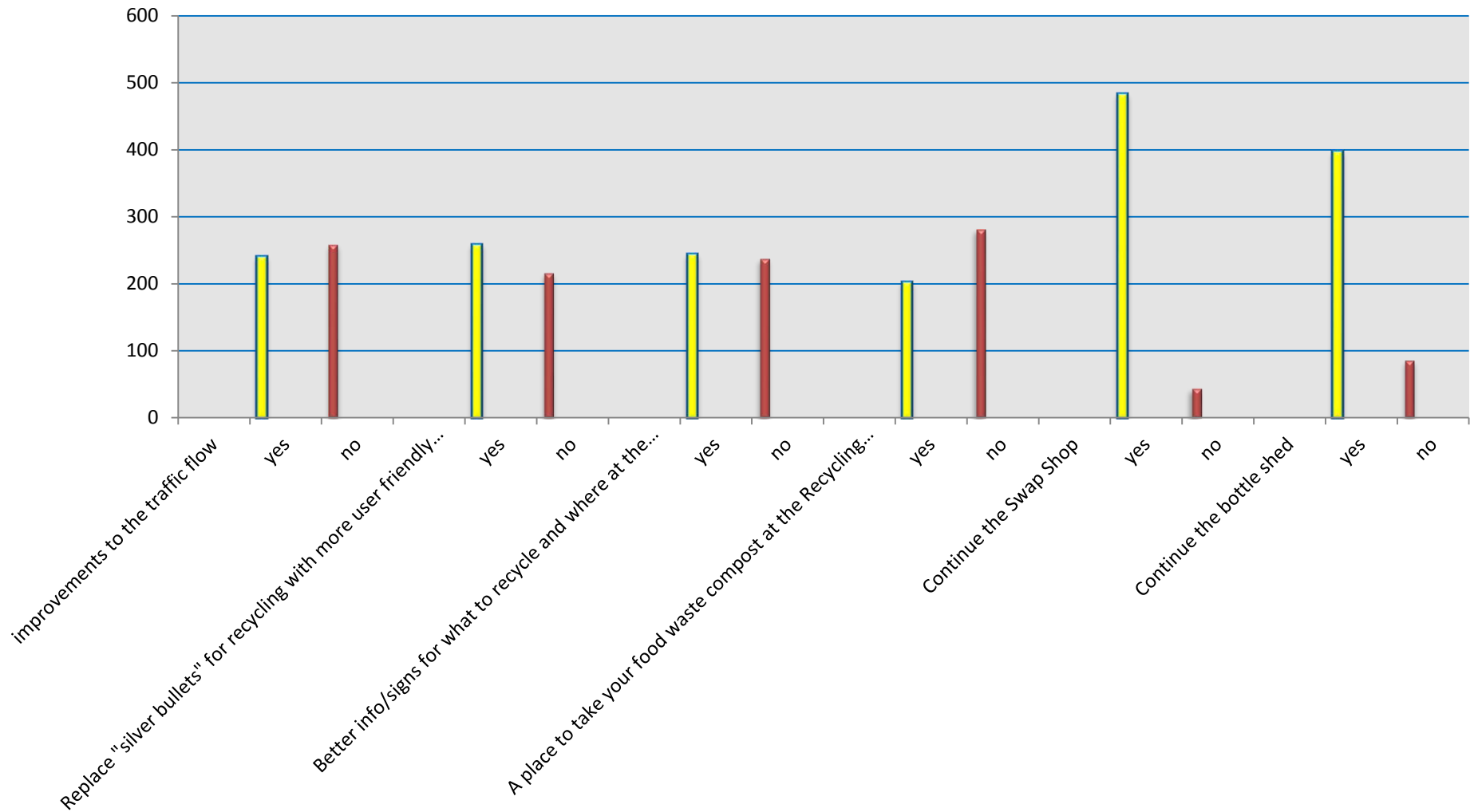
Do you support fees to cover the costs for disposing of large items, brush, weed-waste, demolition materials, etc.?





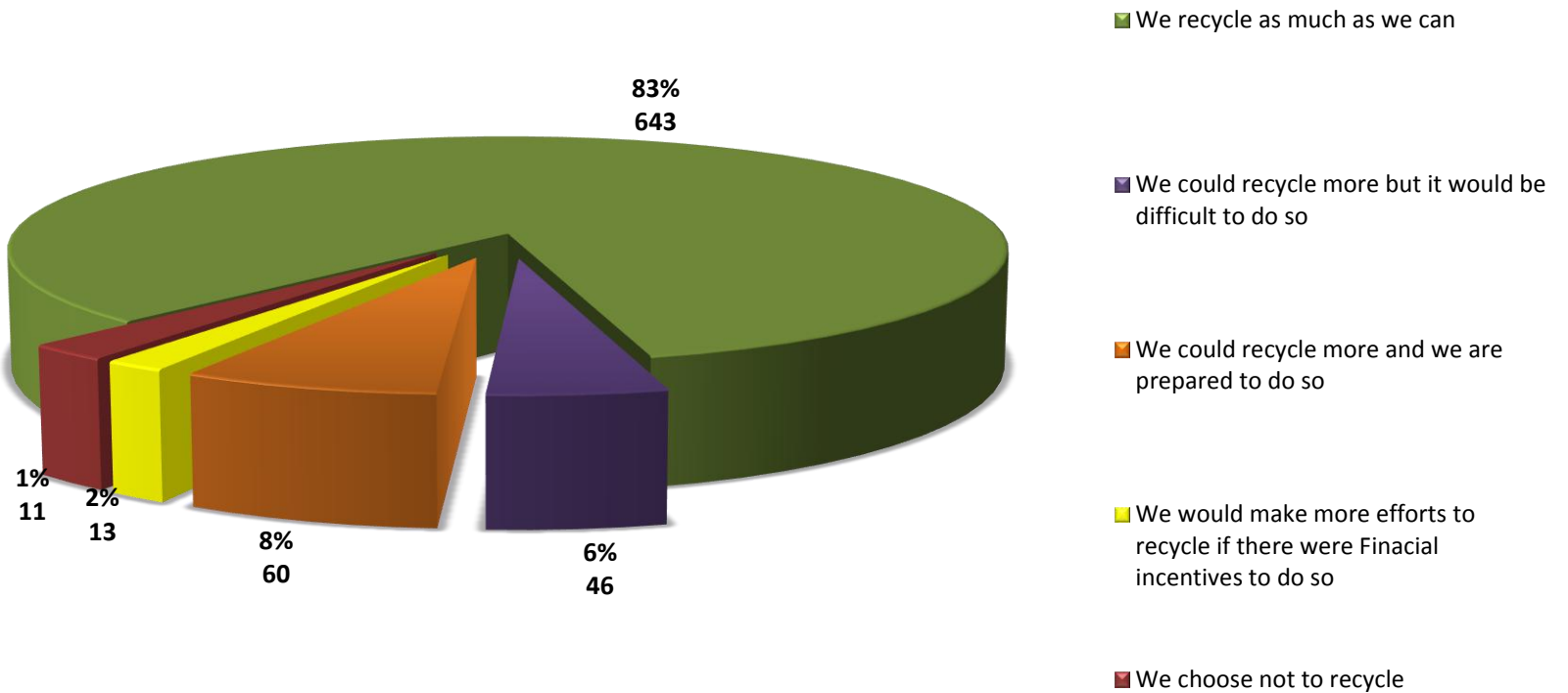
## Question 5

Which of the following would be helpful to you?



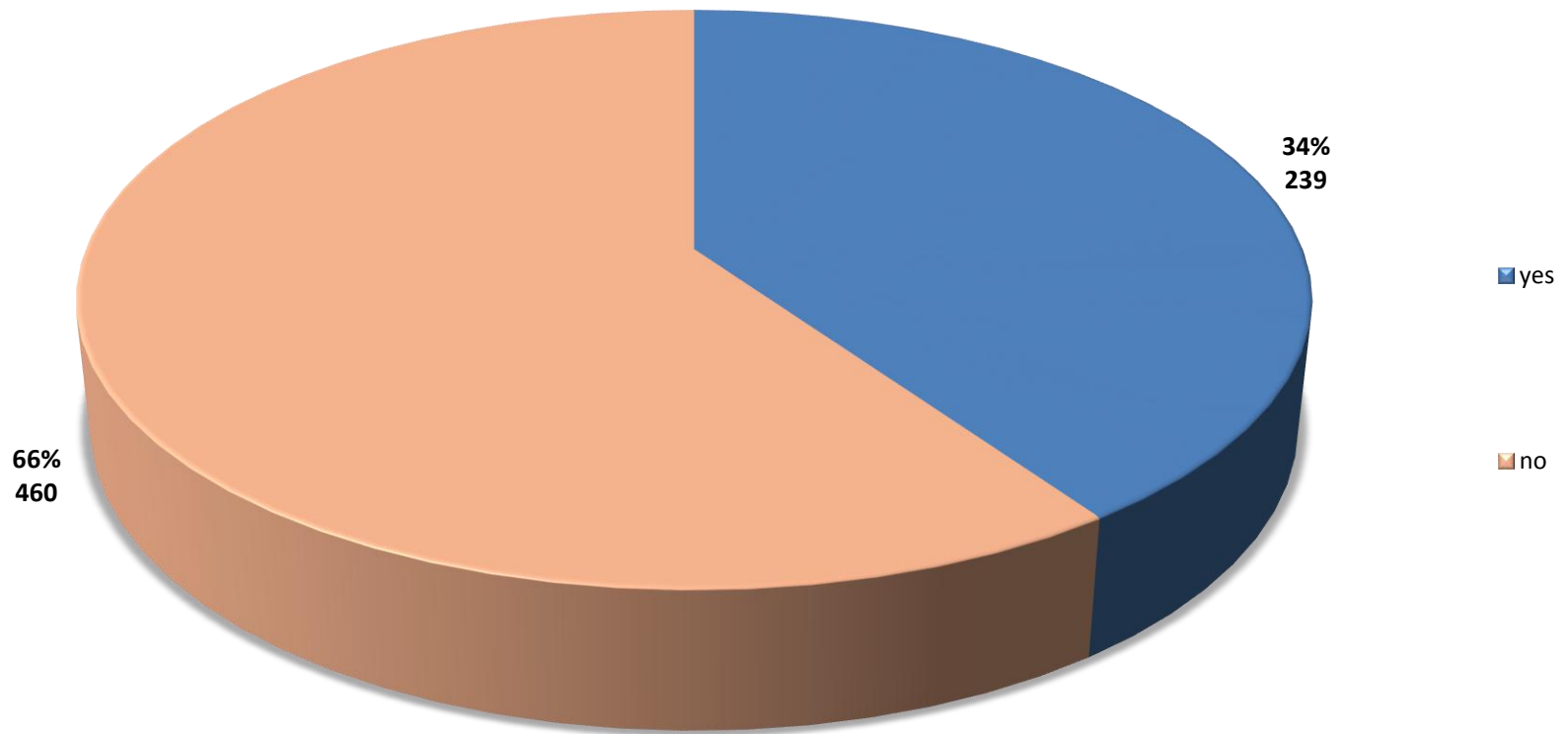
## Question 6

Check the ONE statement that best describes your household



### Question 7

Should commercial Haulers using non-mechanized trucks be allowed to bring unlimited amounts of household refuse and recycling for an annual fee?



**APPENDIX B**

**EMAIL AND LETTERS TO COMMITTEE**



Robert Malley <robert.malley@capeelizabeth.org>

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## More on Recycling Center Safety

1 message

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**William Schmitz**

Tue, Dec 9, 2014 at 7:46 PM

To: Robert Malley <robert.malley@capeelizabeth.org>

Another idea for your file:

As an interim measure, use precast concrete barriers to cordon off a lane on one side of the compactor entrance and dedicate it to seniors and others who would prefer to walk their garbage in rather than deal with the driving hazards. Also, swap shop volunteers have to frequently walk-in garbage that has been improperly left at the swap.

Bill Schmitz

24 Dec 14

MICHAEL C BOWDLER ARCHITECT  
5 Russet Lane  
Cape Elizabeth  
Maine 04107

Phone 207 799 2360  
Cell 207 712 5057  
Fax 207 799 6699

Mike McGovern City Manager  
City Hall  
Cape Elizabeth  
Me 04107

PROPOSED DESIGN FOR RENOVATION TO TRANSFER STATION

*SCHEMATIC (A)*

Dear Mike

We are all in mourning for our dear friend Herbert Dennison and the city hall staff must feel the event very acutely. It is also a heavy responsibility the city to determine a solution to improve the safety at the transfer station. I respectfully submit my brief sketch to show my proposal.

I am inspired by the idea of not having the vehicles ever to reverse and the necessity to employ a design which would be inexpensive. Simplicity is efficiency. My design is to simply install a roller ramp sloping toward the refuse pit with an opening cut in the existing pit fence. The roller ramp might accommodate three vehicles.

I show two alternate routes for the vehicles; one through the existing building and one missing the building in case through the building was found to be too tight.

Depositors would simply place their refuse bags on the rollers and these might simply roll down into the pit.

The only expense for the city would be the buying of the roller ramp and the installation of it and the incidental work may even be done by our own city public works department. The ramp would not need power or manpower to operate; a savings. To steepen the ramp vehicles might be guided to drive to a higher level.

Should the slope of the ramp be found to be not steep enough then the rollers or intermittent rollers could be powered by pressure.

Should this idea merit exploring the engineering company Woodard & Curran might refine the details for the ramp design.

Yours sincerely



Michael C Bowdler

MCB/ms

cc' Maureen Omeara City Planner

26 Dec 14

MICHAEL C BOWDLER ARCHITECT  
5 Russet Lane  
Cape Elizabeth  
Maine 04107

Phone 207 799 2360  
Cell 207 712 5057  
Fax 207 799 6699

Mike McGovern City Manager  
City Hall  
Cape Elizabeth  
Me 04107

**PROPOSED SAFETY ADDITION TO TRANSFER STATION - SCHEME B**

Dear Mike

Two days ago I sketched out an idea for the proposed renovation to the town transfer station.

As I was finishing the sketch I thought of an idea for a system that would be more efficient, more reliable and certainly more economical. So I have sketched out this second idea and it is enclosed

Lets call my first submission scheme A and my second idea enclosed scheme B. Scheme B I would think would be very inexpensive, more versatile for change and the town would not burn its boats using the idea. And no alteration to the existing building would be necessary.

One important factor is the vehicles not having to reverse to go backwards would take one third the time used presently. Logically this would mean that a single roller ramp would be sufficient. However if the system proved successful then it would be easy to install one or two additional ramps.

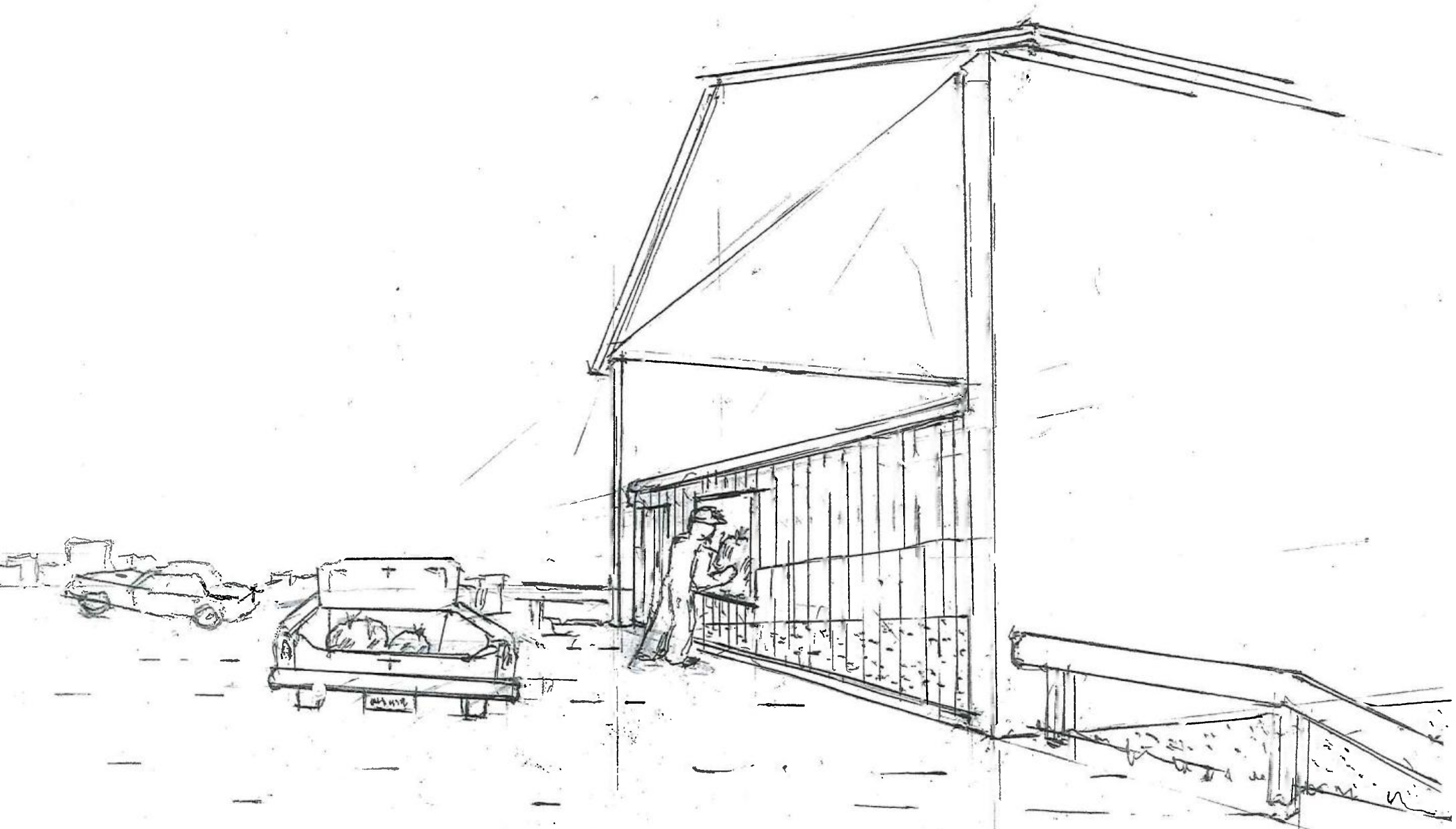
Yours sincerely



Michael C Bowdler

MCB/ms

Cc; Maureen Omeara Town Planner



MICHAEL BOWDLER

PH: 799 2360 26 DEC 14

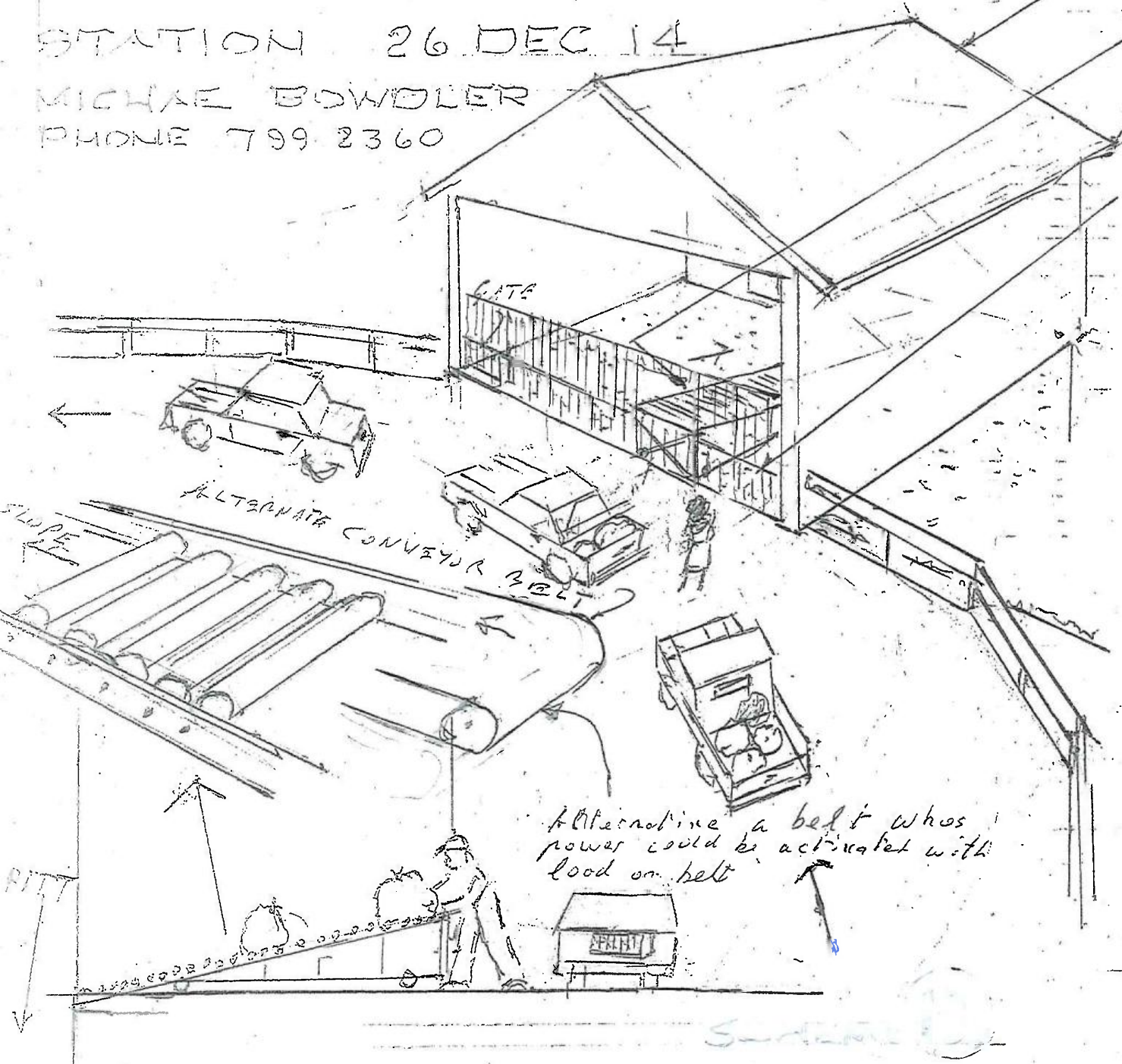
PROPOSED TRANSFER STATION RENOVATION WITH CAPE FELIZ

SCHEME 'B'



PROPOSE SAFETY ADDITION  
FOR CAPE ELIZ. TRANSFER  
STATION 26 DEC 14

MICHAEL BOWDLER  
PHONE 799 2360



EXISTING BUILDING

SLOPING RAMP  
WITH ROLLERS  
FROM VEHICLES  
TO REFUSE PIT

BARrier FENCE  
WITH GATE: STAFF  
ONLY

RAMP TO HAVE  
WHEELS TO BE  
MOBILE

VEHICLES NOT  
HAVING TO REVERSE  
WOULD ONLY TAKE  
A THIRD OF THE  
PRESENT TIME, SO  
TO SERVICE ONE  
VEHICLE AT A TIME  
WOULD BE  
SUFFICIENT - IF  
SYSTEM PROVED  
ITSELF, THEN ONE  
OR TWO RAMP  
COULD BE ADDED

COST: A ROLLER  
RAMP ONLY. NO  
POWER OR STAFF  
REQUIRED TO OP.

Alternative a belt whos  
power could be activated with  
load on belt

Summary

EXISTING TRANSFER STATION STRUCTURE

SCHEME A

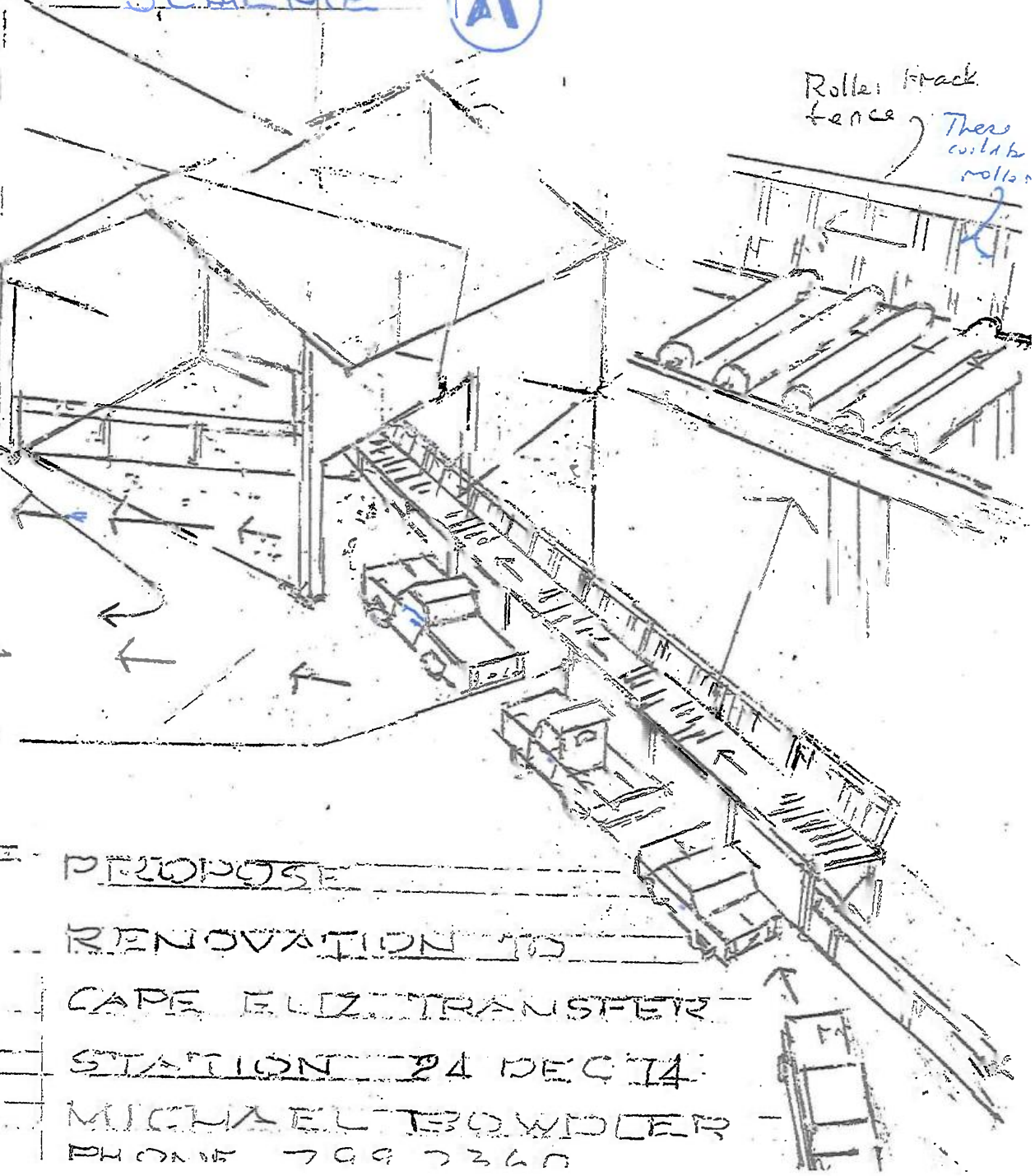
CUT ACCESS OPENING IN SIDE OF BUILDING FOR VEHICLE PASSAGE

ALTERNATE ROUTE IF PASSAGE THROUGH BUILDING TOO TIGHT

EXTEND GRADE BEYOND EXISTING

BUILD ROLLER RAMP TO SLOPE TOWARD GARBAGE PIT. CUT OPENING IN PIT FENCE FOR REFUSE TO DROP

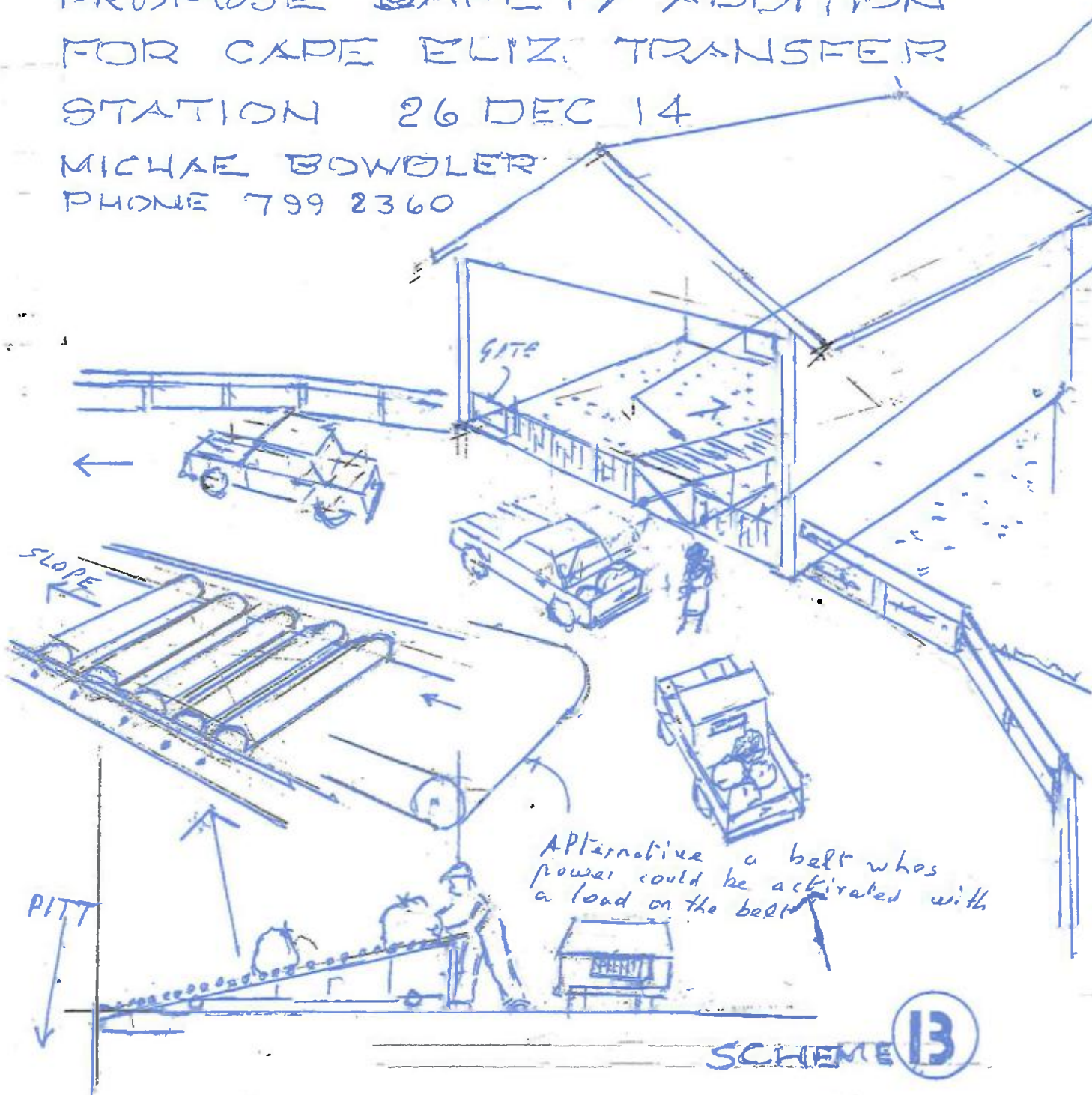
DEPOSITOR SIMPLY PLACE REFUSE BAG ON ROLLERS. REFUSE BAGS MAY MOVE BY GRAVITY



PROPOSE  
 RENOVATION TO  
 CAPE ELIZ TRANSFER  
 STATION PA DEC 14  
 MICHAEL BOWDLER  
 PHONE 799 7360

PROPOSE SAFETY ADDITION  
FOR CAPE ELIZ. TRANSFER  
STATION 26 DEC 14

MICHAEL BOWLER  
PHONE 799 2360



EXISTING BUILDING

SLOPING RAMP  
WITH ROLLERS  
FROM VEHICLES  
TO REFUSE PIT

BARrier FENCE  
WITH GATE: STAFF  
ONLY

RAMP TO HAVE  
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OR TWO RAMP  
COULD BE ADDED

COSTS: A ROLLER  
RAMP ONLY. NO  
POWER OR STAFF  
REQUIRED TO OP,

SCHEME **B**



Robert Malley <robert.malley@capeelizabeth.org>

**Fwd: trash**

1 message

**Michael McGovern** <michael.mcgovern@capeelizabeth.org> Fri, Dec 26, 2014 at 9:32 AM  
To: "cetowncouncil@capeelizabeth.org" <cetowncouncil@capeelizabeth.org>, Bob Malley <Robert.malley@capeelizabeth.org>

FYI

David Barber asked that his message be forwarded to the council and to the new committee.

Mike

----- Forwarded message -----

From: **Patricia Grennon**  
Date: Wed, Dec 24, 2014 at 2:57 PM  
Subject: Re: trash  
To: David Barber  
Cc: [file@capeelizabeth.org](mailto:file@capeelizabeth.org)

Hi Davey,

Thanks for reaching out to me as your new Town Council go to person. I appreciate your comments and will certainly keep them in mind as we consider this issue. A committee of community residents, town councilors and public works personnel has been established and will be making recommendations for the Council and community to consider in the next few months. There will be plenty of time for community input/feedback on permanent changes to the recycling center. Hopefully a reasonable plan that everyone can live with is reached.

Best,

Patty

On Dec 24, 2014, at 2:04 PM, David Barber wrote:

Hi Patti,

Quick comment on the recycling center. Since you're now my "go to" person on this, I wanted to share some thoughts:

1. No curbside pick up. The interaction that the recycling center now offers is something that makes Cape Elizabeth special. It might be a pain sometimes but overall, it's positive experience and once that we should continue. Curbside can be unsightly as trash containers line the streets waiting to be picked up.
2. There is some work that can be done to make it easier to drop and travel and I am in agreement that should be done.
3. While the accident was tragic and certainly avoidable, we must not overreact to one unfortunate incident. Instead we should consider the number of successful drops that have occurred over the past 30 plus years.

Glad you are doing this. I can't wait to hear your perspectives on issues as they come to the forefront in the future.

Davey

14 Jan 15

MICHAEL C BOWDLER ARCHITECT  
5 Russet Lane  
Cape Elizabeth  
Maine 04107

Phone 207 799 2360  
Cell 207 712 5057  
Fax 207 799 6699

Bob Malley Public Works Director  
Town of Cape Elizabeth  
Cape Elizabeth  
Maine 04107

#### PROPOSED TRANSFER STATION SYSTEM CHANGE

Dear Bob

For the town's transfer station I have designed a proposed system change which I believe would be far simpler, safer and more economical than the plan which the town is about to enact; and I am looking for support in the effort to have the town seriously consider my proposed scheme. My idea is shown on the two enclosed sketches and works as follows

Fence off the entrance to the existing station to make the pit area prohibited to the public especially children. The fence could be three to six feet high.

Install immediately behind this fence a three foot wide ramp with its high end sill at the fence four feet from grade and to slope to zero at the pit. The ramp to have rollers so that any garbage bags placed on the ramp would simply roll by gravity into the pit. If rollers were considered not practical, then the ramp could be a conveyor belt. The belt might work by gravity but it could be powered with an on switch activated by any load on the belt. This belt switch could be activated for a couple of minutes so that the belt would not be working in periods of lull,

Drivers would simply stop alongside the front of the station and simply place their packages on the ramp. Then drive away. No one would have to reverse, double park or enter the vulnerable pit area.

If the town wanted to find a temporary quick solution this plan could be experimented with by simply not installing any ramp yet. The system could be tried for absolutely no cost.

What seems to be missed is that with drivers not having to reverse, their delivery time would be about one third the existing way. Logically this means that only one third of the delivery points need to be considered. But if this plan was found to be successful then it would be easy to install a second or even a third ramp.

With the plan being adopted by the town drivers will be required to actually drive past the building, park amongst four spaces, leave their vehicle, walk to the station to pick up a cart, walk back to their auto, load the cart, journey to the pit, handle their load again, return the cart and walk back to their auto, in all weathers; and most people like to do this task very quickly.

And with this method the town is missing the opportunity to take advantage of the savings in time for the drivers through not having to negotiate in reverse. I see problems with cars having to negotiate with traffic.

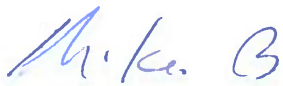
What about pick up trucks where the driver depends on the height of the truck to help unload a sizable load. And handicapped.....!

I have approached Mike McGovern without success. He is adamant to use the plan the town has at hand.

I believe that my scheme would save the residents having to deal with quite a chore with the present town's plan

Anything you might be able to do to initiate consideration of my plan would be appreciated. Thank you for the time taken to view my idea

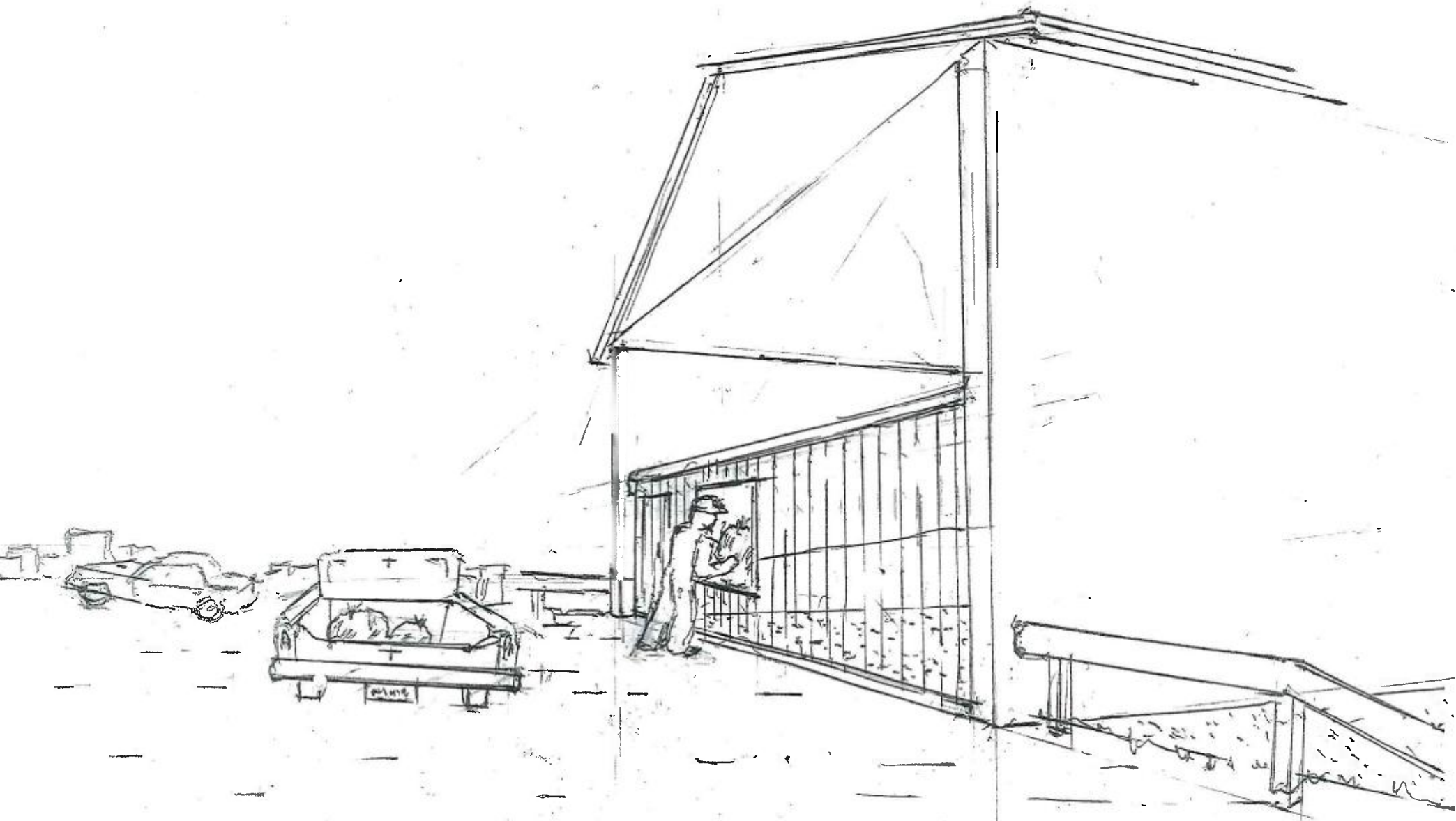
Yours sincerely

A handwritten signature in blue ink that reads "Mike B".

Michael C Bowdler

MCB/ms

Encl. 2



MICHAEL BOWDIER

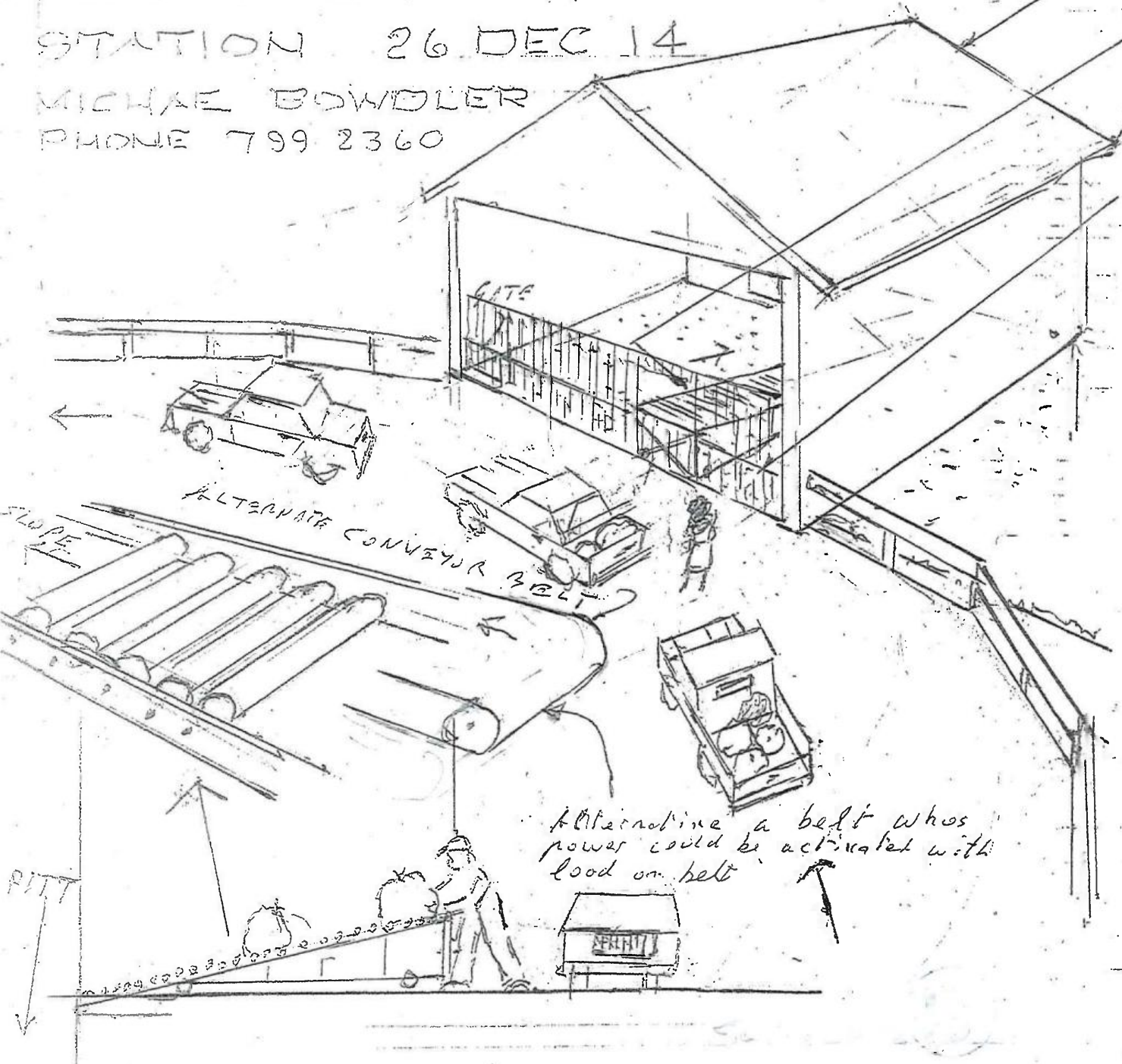
PH: 799 2360 26 DEC 14

PROPOSED TRANSFER STATION RENOVATION WITH GATE TILT  
SCHEME 'B'



# PROPOSE SAFETY ADDITION FOR CAPE ELIZ. TRANSFER STATION 26 DEC 14

MICHAEL BOWDLER  
PHONE 799 2360



EXISTING BUILDING

SLOPING RAMP  
WITH ROLLERS  
FROM VEHICLES  
TO REFUSE PIT

BARBER FENCE  
WITH GATE: STAFF  
ONLY

RAMP TO HAVE  
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COULD BE ADDED

COST: A ROLLER  
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POWER OR STAFF  
REQUIRED TO OP.



Robert Malley <robert.malley@capeelizabeth.org>

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## Comments on the dump

1 message

Fri Jan 23, 2015 at 1:31 PM

Reply

To: Robert malley@capeelizabeth.org

Mr. Malley,

I just experienced the new dump drop off, and almost ran over someone coming out of the dumpster area. Indeed, I stopped by the line, and the attendant then told me to proceed to the open lane. Oddly, that provided a false sense of security to me as a driver, because a woman then darted out of the dumpster area and began crossing in front of my truck just as I received the "green light" from the attendant. That was not his fault. It's the design.

Moreover, there are now four lanes of people walking across in front of cars pulling into an opening. Anyone with a lead-foot or a jumpy accelerator, and slow to hit the brakes, is going to clip someone.

I realize the driver should be better able see people in front, but it seems to me the prior problem was stray walk-in people with only a small bag or two who would drive by the recycling bins and park on the periphery, "cheating" those waiting in line to back in their vehicles. I'm not sure if the accident victim walked-in or backed-in, but impatient walk-ins might have increased the risk factor. Drivers couldn't anticipate the exact moment a walk-in would shuffle unexpectedly by their backing vehicles. Years ago, people never did that, they waited in line. This walk-in custom grew, and was never controlled.

My point is that with or without an attendant, everyone is now a walk-in, and ultimately exposed across four lanes of on-coming traffic, not the former two or three lanes protectively walled-in within in the dumpster garage.

I know it's important to counter-act a serious safety related accident with new measures, and maybe people will get used to the new method, but it appears to increase risks. If the original problem was walk-ins, then you've now got a far higher number.

I hope this works safely, but I'm concerned – especially when a dozen restless drivers are backed-up as they were today.

Regards,

Richard Preti  
19 Manter St.  
Cape Elizabeth



Robert Malley <[robert.malley@capeelizabeth.org](mailto:robert.malley@capeelizabeth.org)>

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**Fwd: Traffic and Use Changes at CE Recycling Center**

1 message

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**Michael McGovern** <[michael.mcgovern@capeelizabeth.org](mailto:michael.mcgovern@capeelizabeth.org)>  
To: Bob Malley <[Robert.malley@capeelizabeth.org](mailto:Robert.malley@capeelizabeth.org)>

Fri, Jan 30, 2015 at 3:53 PM

Michael K. McGovern  
Town Manager  
Town of Cape Elizabeth, Maine  
PO Box 6260, 320 Ocean House Road  
Cape Elizabeth, ME 04107  
[michael.mcgovern@capeelizabeth.org](mailto:michael.mcgovern@capeelizabeth.org)  
[www.capeelizabeth.com](http://www.capeelizabeth.com)  
Phone: 207-619-6716

----- Forwarded message -----

From:  
Date: Fri, Jan 30, 2015 at 12:25 PM  
Subject: Re: Traffic and Use Changes at CE Recycling Center  
To: Michael McGovern <[michael.mcgovern@capeelizabeth.org](mailto:michael.mcgovern@capeelizabeth.org)>

Dear Mr. McGovern,

Many thanks for your considered response about my mother's issues at the recycling center. I will continue helping her. And I will pass along your kind remarks.

Respectfully,

Linda Guthrie

Sent from XFINITY Connect Mobile App

----- Original Message -----

**From:** Michael McGovern  
**To:** Linda Guthrie  
**Cc:** Bob Malley, [cetowncouncil@capeelizabeth.org](mailto:cetowncouncil@capeelizabeth.org)  
**Sent:** January 30, 2015 at 12:17 PM  
**Subject:** Re: Traffic and Use Changes at CE Recycling Center

Dear Ms. Guthrie,

Thank you for your email. I have known and admired your mother for many years.

We realize the changes at the recycling center are not ideal for everyone. Yet, we also tremble to think of older citizens who were navigating cars moving forward, backing up and having folks walk across the many mixed movements.

The carts are not kept outside due to the fact that they would be in the way of cars and pickups and SUVs moving into the slots. It is similar to the problems you have when you drive into a grocery store lot and see a cart where you expected to park. Plus, we have weather concerns.

We do hope that our attendants will help folks who are less able. Sometimes folks will need to wait a couple of minutes. Our goal is to always have one staff person in the immediate area. Your mother may be one of a kind in that she is older, less mobile than in the past and yet still needs to hurry off to work at the age of 81. Her dedication to keeping independent and self-reliant is admirable so perhaps she could set aside a couple of extra minutes in visiting the site just to be sure that an attendant can assist her.

All the recommendations and advice we receive is helpful and we are always looking for improvements. For example, we are adding a flat bottom cart for those who bring trash barrels as that has been identified as a need. So please know that we will keep your concerns in mind as we move forward.

Thank you again for writing.

Best regards,

Mike

Michael K. McGovern  
Town Manager  
Town of Cape Elizabeth, Maine  
PO Box 6260, 320 Ocean House Road  
Cape Elizabeth, ME 04107  
[michael.mcgovern@capeelizabeth.org](mailto:michael.mcgovern@capeelizabeth.org)  
[www.capeelizabeth.com](http://www.capeelizabeth.com)  
Phone. 207-619-6716

On Fri, Jan 30, 2015 at 10:23 AM, Linda Guthrie wrote:  
Dear Mr. McGovern, Mr. Malley, and Town Councillors,

I have been asked by my mother, a senior who lives in Cape Elizabeth, to take over her recycling and trash because she cannot manage the new system at the Cape Elizabeth Recycling Center. The new process is impossible for her to navigate because of these difficulties:

1) The carts are not kept where the cars park.

- She doesn't have the wind to walk over to get a cart, walk back to the car, cart her garbage back to the hopper, and finally, walk back to the car.
- The new system is more than double the work it was previously, given the distance one has to travel with garbage in hand to get to the hopper coupled with the extra trip to fetch a cart if the bags are too heavy.

2) The attendants are not always in sight if you need help.

- I understand she can ask for assistance, but in what scenario is an attendant always on hand? My mother has to get to work and cannot linger about waiting for the attendant to appear and be available to help her. This morning the attendant was driving the loader and working in another part of the facility. The office door was locked.
- Likely it would not have been considered 'safe' to wander about looking for help. At any rate, wander about is exactly what my mother cannot do at her age.

My mother takes great pride in the things she CAN do. At 81, she runs a business and lives independently. She doesn't have enough garbage to warrant a cart, but cannot carry a bag that is heavy, relative to her strength, the distance you require her to walk, were she to try to eliminate the added round trip to fetch a cart. I understand your goal, but the process has succeeded in diminishing my mother's sense of being capable of handling her own recycling and trash.

Respectfully,

Linda Guthrie  
[978-764-5200](tel:978-764-5200)

Jean Montesano  
1257 Sawyer RD  
Cape Elizabeth, ME 04107

799-8613  
May 7, 2015

## Cape Elizabeth Refuse & Recycling Survey

### Vehicle Location

At present, the temporary configuration at the Recycling Center puts all residents in danger. Previously, the method of backing in to the building kept all pedestrians along side or behind vehicles. The problem with the design was the inability of all drivers to back in to the building in a safe manner. With the four parking spaces set up at this time, all residents are walking in front of every vehicle approaching the area. This requires all drivers to pay attention to the pedestrians while keeping an eye on the availability of a space in which to park. Every person headed into the recycling building is placed in an unsafe location.

I have observed elderly patrons shuffling between their vehicle and the hopper. Drivers become impatient waiting for an available opening. These slower more fragile residents are in harm's way.

The carts available at the recycling shed are inadequate for the number of trash cans or bags brought by many residents.

### Options:

Keep these four spaces but hire a part time employee to transport trash away from the vehicles and place it in the hopper. This can be done with dumpster style bins on wheels that hold trash from a number of vehicles and are easily pushed and dumped into the hopper. This keeps people out of the driving area. Creating a part-time attendant position would offer safer usage during the heaviest times the Recycling Center.

### Advantages:

Residents remain with their vehicles and are not pedestrians in front of moving vehicles  
Emptying vehicles is completed in an efficient and speedier manner  
This cost has the least impact on taxes.

### Costs:

Salary and Benefits as required for the employee  
Purchase of larger rolling bins

### Height of dumping

The change in the height of the hopper fencing makes it difficult for residents to dump trash. Originally, shifting trash from one's vehicle gave the visitor an advantage when lifting. The height of vehicles starts at a foot or more off the ground and gives one the ability to lift in an ergonomic style. We are now lifting over a significantly higher fence. Bags, bins and barrels are now lifted from the ground or out of the small transport carts. This is double the lifting: first, out of the vehicle and onto carts, then lifting up and over the hopper fencing.

Options:

Lower the fence to previous design

Design a slide for dumping into the hopper so no lifting is required

Hire an attendant to do the emptying of vehicles and therefore eliminates lifting

Cost:

New fencing

Design and manufacture slide

Attendant salary and benefits

I do not support adding curbside pick up in Cape Elizabeth. The additional cost and increase in taxes to support this service is prohibitive. Residents have the option to use private, commercial haulers to pick up household refuse from their homes.

"Pay per bag" or "Pay per throw" adds increased fees that are not needed. As a community, we have a high rate of recycling, leaf and yard waste composting and reuse of items with the swap shop. The percentage of trash vs recycling in Cape Elizabeth is at or near the rate that "per bag" or "per throw" methods would not encourage additional recycling. Also, we would increase the number of plastic bags residents are throwing away. Many residents are not currently using plastic bags. Instead, Cape Elizabeth residents use barrels and bins not requiring the use of plastic bags.

I am a Cape Elizabeth resident who supports the town budget which requires a majority of the funds to be used for our schools. I do not have children in Cape Elizabeth Schools so I wish to see the use a portion of our taxes to benefit those of us who need the regular services provided by the town. Taxes support the police and fire departments, maintenance and improvements to our infrastructure, continued upkeep and care of our parks, fields and trails and the Recycling Center.

I am confident that the committee can create a solution to the current safety problems at the Recycling Center without requiring additional high costs and fees that require increased taxes or out of pocket expenses.

Sincerely,



Jean E. Montesano



Debra Lane &lt;debra.lane@capeelizabeth.org&gt;

**(no subject)**

1 message

**Caitlin Jordan** <caitlin.jordan@capeelizabeth.org>

Thu, Jan 22, 2015 at 2:08 PM

To: Jamie Wagner <jamiewagnerlaw@gmail.com>, Jessica Sullivan <jessica.sullivan@capeelizabeth.org>, Molly MacAuslan <molly.macauslan@capeelizabeth.org>, Kathy Ray <kathyray@maine.rr.com>, Jim Walsh <jim.walsh@capeelizabeth.org>, Patricia Grennon <patricia.grennon@capeelizabeth.org>

Cc: Debra Lane <debra.lane@capeelizabeth.org>, Michael McGovern <michael.mcGovern@capeelizabeth.org>

I received this email in my personal email, because as you can see the original email was sent on the 10th and I did not receive it, as I imagine others did not either, Carl asked me to forward it on, as he has made a few attempts at emailing through the town link.

Thank You

Caitlin

On Jan 21, 2015, at 12:17 AM, Carl Pearson &lt;notonthenetyet@aol.com&gt; wrote:

Hi Caitlin!

I asked Tucker for your address since I had sent the enclosed email to the Town Council and the Solid Waste Recycling Planning Committee.

I'm not sure if it arrived; as I haven't heard anything from any Councilor!

I'm just wondering if you did receive a copy? I sent it via the Town's site with the listing and prompt to address entire TC.

As it stands now, Tammaro; Anything Goes; Schwartz ; among others in Cape have been banned from using the hopper at the Recycling Center. It forces these residents to bring waste to Eco-Maine.

I've highlighted some of the issues herein...yet; I'm frustrated beyond belief that Bob Malley and/or the Manager can enforce such an exclusionary ban, especially when these 'commercial haulers' are NOT part of the problem...more likely a part of the eventual solution!

Meanwhile, these good Cape businesses and residents are essentially being penalized AND FINED as it will add anywhere from a few hundred dollars in expenses (and obviously potential loss of business and/or profits) to several thousand...

I really don't understand the why? I also can't fathom how it affects the potential solutions. Yet; it's easy to calculate how much it is costing and it is extremely EXCLUSIONARY and thus I would think prejudicial and in some ways illegal?

I appreciate your reviewing of same (and please copy the Council and/or Manager and PW Director) and I look forward to your opinion on same!

Many thanks!



Sincerely,  
former Town Councilor; Taxpayer; Concerned Citizen

Carl Pearson

Mobile: 207-756-5460  
notonthenetyet@aol.com

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On Jan 10, 2015, at 11:13 AM, Carl Pearson <notonthenetyet@aol.com> wrote:

Dear Fellow Residents of Cape Elizabeth:

I am writing to comment on the recent report received by Woodward and Curran related to the tragedy that took the life of Herb Dennison. First and foremost, please know that my heartfelt condolences are shared with Mr. Dennison's family and friends as well as with you all as Cape Elizabeth is indeed a unique community in which a single person's death; be it tragic or by natural causes, affects a large portion of such a small town.

I had the pleasure of knowing Herb and his family and can recount many a story told to me by him during my term on the Town Council when the hottest items on the agenda were the first stop light in Cape Elizabeth! I'm not sure if Herb's comments relative to how to manage traffic across the Spurwink Avenue intersection were more enlightening or the late Ken Maxwell's suggestion that he could control it all by slowly driving his tractor with the manure spreader attached and full across that dangerous intersection....

"...it will sure slow 'em down or the you know what will really hit the fan; windshield and rest of the vehicle...leaving them to consider their driving speeds and habits in the future..."

Well, as it is evident now; the obvious has definitely hit the fan and community now faces another year with a some major decisions to make. The unfortunate part is that I fear the immediate reaction will be a knee jerk and the long-term will have a greater impact than Woodward Curran's overly simplified closing statement suggests:

"...any facility changes will take time for users to become acclimated. The Town will need to be prepared, and properly staffed, to communicate and then facilitate and enforce the recommended changes during the transition period. While the transition period may initially be perceived as inconvenient, it should be emphasized that the ultimate outcome is to improve safety while continuing to provide a functional facility for all users and employees."

Therein lies the problem as it suggests that it will "...continue to provide a functional facility for all users and employees..."

However; I have learned that already commercial haulers will be banned from using the facility. If you're not aware; I had run a company for nearly 26 years in Cape Elizabeth and as part of our book of business, we were classified as 'commercial haulers'. Basically, we offer; as do three or four other small Cape Elizabeth small business owners (Swartz Enterprises; Tamarro Landscaping; Etc) transportation service of household refuse AND recycling to the Recycling Center, charging basically a fee for the convenience of NOT having to try and manage the sometimes hectic traffic pattern at the facility.

We (I no longer own the business as my two sons have taken over and it is their enterprise) essentially reduced traffic in Town; cut down on the number of vehicles entering and exiting facility; and made the operation more efficient by doing so...especially considering that the operators of our vehicles were able to easily back into the proper lanes (usually waiting for the one furthest to the right, facing the hopper building; thus allowing unloading that did not impact the other two lanes from being utilized) and could typically unload a full pick up in less time than it took for many residents to simply back into (or across) another lane...

As indicated, without the report from the newly formed committee to study the options and future of the Recycling Center; an activity which affects a very small percentage of the users (as overall percentage of total use of facility) yet; essentially 'taxes' their customers and consequently these businesses and once again impacts their potential sales and/or profits.

As an aside; several years ago, I was told by the Director of Public Works (yes, still the same Robery Malley) that I could no longer use the then Cape Elizabeth Transfer Station as the ordinance prohibited the use of same by commercial haulers. I adhered to his request at the time and for nearly a year drove all the way to Portland's RWS facility (now Eco-Maine) and not only had to suffer financial loses in time; fuel and wear and tear; but, had to pay what was essentially a redundant fee for disposing of refuse which was already figured in the statistical tonnage that determined Cape Elizabeth's percentage as one of the numerous municipalities participating in the joint RWS structure.

Finally, after having spent several thousand dollars, the language was changed to reflect the ordinances original intent which was to ban the use of commercial haulers; specifically those with compacting trucks which would indeed overwhelm the hopper and potentially fill the compacting trailer with a single load. Without benefit of time to highlight that particular language change; I believe it was simply stated that commercial haulers using non-compacting trucks (and limiting visits to facility; with refuse picked up from Cape Elizabeth) could continue operating under these new guidelines.

Now, even though the few commercial haulers have never been a part of the situation which precipitated the action currently pending; and have IN FACT, helped to reduce traffic and potential for such, they are being unfairly singled out when INSTEAD; their increased presence and promotion could be a benefit to the Town and the operation of the facility...and ACTUALLY be INCLUDED in Woodward Curran's statement: "...for all users...."

We, the commercial haulers in Cape Elizabeth; and I personally as a taxpayer am absolutely astounded that once again there's still EXCLUSIONARY language written in these reports and supported by the Manager and the Director of Public Works. The same happened when hours were reduced on Wednesdays and the Thursday closings which impacted not only residents; but, "commercial haulers" (who many also are indeed taxpaying residents!) and essentially added a 'tax' upon these users and consequently their Cape Elizabeth customers.

However; I digress and feel it's best to get back to the report and the three 'potential' solutions suggested by Woodward Curran. First, I find it strange that the report suggests that there was only one visit, and it was on a Saturday (obviously for not too long a period of time citing the fact that there were only 57 users of facility and NONE were COMMERCIAL HAULERS\*\*

\*\*Definition of Commercial Haulers SHOULD include ANY person or entity who transports and deposits refuse generated at any place OTHER THAN one's individual home. It would include: Cleaning companies (individual cleaning persons) and/or any resident who owns and/or operates a business in Cape Elizabeth (or elsewhere) and brings said refuse to the Recycling Center...AND; by definition it would even include a neighbor who transports another neighbor's refuse for one's convenience whether or not said actions include a charged fee and/or other 'compensation'....if we were really being clear and attempting to keep the language unambiguous.

Meanwhile, not knowing how much was spent on this particular report; I'm curious as to why there's no mention of the potential for more serious risk to body; property and/or lives by having vehicles remain outside the coverage of the Transfer Station building? Granted, there will still be the chance of dive bombing pigeons; yet, to keep the area clear of ice; snow; wind-swept rain and feel that one of these new 'systems' will become beneficial and ultimately result in an outcome that improves safety and functionality for ALL users and employees is ludicrous!

While I would like to add some more input (and would hope that the Council and the Solid Waste Committee would encourage and welcome same. considering I had actually approached Town about purchasing and/or operating facility previously as a quasi private-municipal venture...) I do have to attend to some other business.

I would ask that UNTIL there's a report from the committee and/or with the full Council's support; that there be no dramatic changes to current situation (IE: DO NOT BAN commercial Haulers) UNTIL there's an actual plan in place. Yet; I would suggest that the following simple solution be implemented at this time:

1. Designate four lanes for those waiting to enter hopper; (and/or the walk in areas)
2. ONLY allow BACK IN (as used to be clearly written above hopper!)
3. Place barriers between the three lanes (or decrease to two if there's not enough room for three with barriers;
4. If only two...allow one lane for 'walk in' haulers; with parking at the current location that microwaves and televisions are dropped off and dismantled (I'll send a diagram later, once I have tomorrow off to do so!

5. Definitely place NO PARKING along grassy island to allow for through traffic;
6. Change Silver Bullet location to NOT reduce traffic flow PRIOR to dumping refuse (Diagram will make option clearer)
7. Install railings at all bulk disposal dumpsters;
8. Install swinging gate for 'commercial haulers' lane that provides appropriate height protection (BTW, not exclusive to commercial haulers; but, any person tossing refuse from pick up trucks! THUS, having one lane for pick-up use...would suggest far right lane!)

That's it for now! Selflessly I present same; but, with some feelings towards the commercial haulers (of which I was for 26 plus years...as well as Town Councilor; Board Member; Taxpayer; Recycling Center user; Potential Purchaser and operator of facility; Etc) and my love of Cape Elizabeth in general!

It has been far too long that the actions taken are reactionary and that's too bad! It would be nice if there was more action taken based upon common sense; history; and resourcefulness....

Thank you all for reading! I look forward to hearing from you one and/or all! I'll get those diagrams off as soon as I can get some time!

In closing, I ask that you STOP any actions by the Manager and/or Director of Public works UNTIL the Council has time to review the potential hardships such actions would have upon our fellow resident business owners and who have been more a part of the ultimate solution than the problem! Again, speaking personally; we (when it was my business and me personally) NEVER had any incidents at the Recycling Center! Part of it might be the fact that most of us are and/or were on the Fire/Rescue and perhaps are more aware of the potential and acted accordingly! It's quite the insult to add to the injury by penalizing those who ARE NOT part of the problem and in fact may very well be an important part of the solution!

Sincerely,

Carl Pearson

Mobile: 207-756-5460  
notonthetetyet@aol.com

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Debra Lane &lt;debra.lane@capeelizabeth.org&gt;

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**Re: Transfer station parking**

1 message

Jessica Sullivan &lt;jessica.sullivan@capeelizabeth.org&gt;

Tue, Jan 27, 2015 at 9:19 PM

To: Katharine Ray &lt;retbank@maine.rr.com&gt;

Cc: Winthrop MacLaughlin &lt;winthropm43@hotmail.com&gt;, cetowncouncil@capeelizabeth.org

Dear Win,

Thanks for your email and suggestion. I will forward this on to the Solid Waste & Recycling Long Range Planning Committee. We are not involved in decision making re: the current temporary traffic patterns, but we still want to know what citizens are thinking, as this is important for our future recommendations.

Jessica

On Jan 27, 2015, at 1:36 PM, Katharine Ray &lt;retbank@maine.rr.com&gt; wrote:

Dear Mr. MacLaughlin,

Thank you for writing to the Town Council. As you may be aware, the new configuration at the Transfer Station has been set up on a temporary basis. We have convened a committee, named the Solid Waste and Recycling Long Range Planning Committee, and they will be recommending a more permanent solution. They have had their first meeting and all meetings and minutes can be found on the Town's website. Public comment is also welcomed at all meetings. Councilor Sullivan is chair of this Committee and has received your email. Please continue to stay involved.

Sincerely,

Katharine Ray  
Town Council Chair

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**From:** Winthrop MacLaughlin [mailto:winthropm43@hotmail.com]**Sent:** Tuesday, January 27, 2015 10:16 AM**To:** cetowncouncil@capeelizabeth.org**Subject:** Transfer station parking

It seems to me that there is wasted and unused space after the recycling bin that could be used to make the drop-off parking lanes WIDER. Thank you. WSM

To unsubscribe from this group and stop receiving emails from it, send an email to [cetowncouncil+unsubscribe@capeelizabeth.org](mailto:cetowncouncil+unsubscribe@capeelizabeth.org).



Debra Lane &lt;debra.lane@capeelizabeth.org&gt;

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**Traffic and Use Changes at CE Recycling Center**

1 message

Linda Guthrie &lt;lgguthrie@comcast.net&gt;

Fri, Jan 30, 2015 at 10:23 AM

To: michael.mcgovern@capeelizabeth.org, Robert.malley@capeelizabeth.org, cetowncouncil@capeelizabeth.org

Dear Mr. McGovern, Mr. Malley, and Town Councillors,

I have been asked by my mother, a senior who lives in Cape Elizabeth, to take over her recycling and trash because she cannot manage the new system at the Cape Elizabeth Recycling Center. The new process is impossible for her to navigate because of these difficulties:

1) The carts are not kept where the cars park.

- She doesn't have the wind to walk over to get a cart, walk back to the car, cart her garbage back to the hopper, and finally, walk back to the car.
- The new system is more than double the work it was previously, given the distance one has to travel with garbage in hand to get to the hopper coupled with the extra trip to fetch a cart if the bags are too heavy.

2) The attendants are not always in sight if you need help.

- I understand she can ask for assistance, but in what scenario is an attendant always on hand? My mother has to get to work and cannot linger about waiting for the attendant to appear and be available to help her. This morning the attendant was driving the loader and working in another part of the facility. The office door was locked.
- Likely it would not have been considered 'safe' to wander about looking for help. At any rate, wander about is exactly what my mother cannot do at her age.

My mother takes great pride in the things she CAN do. At 81, she runs a business and lives independently. She doesn't have enough garbage to warrant a cart, but cannot carry a bag that is heavy, relative to her strength, the distance you require her to walk, were she to try to eliminate the added round trip to fetch a cart. I understand your goal, but the process has succeeded in diminishing my mother's sense of being capable of handling her own recycling and trash.

Respectfully,

Linda Guthrie  
978-764-5200  
lgguthrie@comcast.net



Debra Lane &lt;debra.lane@capeelizabeth.org&gt;

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**Re: Recycle Center Safety Risks**

1 message

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**Jessica Sullivan** <jessica.sullivan@capeelizabeth.org>

Mon, Feb 2, 2015 at 12:48 PM

To: Bill DeSena &lt;wdesena@maine.rr.com&gt;

Cc: cetowncouncil@capeelizabeth.org, Robert Malley &lt;robert.malley@capeelizabeth.org&gt;, Michael McGovern &lt;michael.mcgovern@capeelizabeth.org&gt;, "Anne E. Swift Kayatta" &lt;aeskay@maine.rr.com&gt;, Bill Brownell &lt;brownell@maine.rr.com&gt;, Chuck Wilson &lt;wilsoncape@aol.com&gt;, Jamie Garvin &lt;jamie\_garvin@yahoo.com&gt;

Hi Bill,

Thanks for writing an re-forwarding. My new public email is the one to use, as I've been having trouble with Road Runner.

The current temporary set up was recommended by Woodard & Curran engineers and approved by the Town Council, Bob Malley & Mike McGovern. The primary consideration was improving safety by no longer allowing vehicles to back in to the hopper.

The new traffic pattern keeps drivers *looking forward while only driving forward*. I personally think that this new system is not only safer but more efficient. We now have 4 lanes to park, as opposed to 3 for backing in. Though I do agree that it might take some a little more time, I find it quicker, and far safer, than trying to slowly back in while people and vehicles are moving all around me. This pattern will likely remain in place for at least a year, though we do know that it is not perfect and may need tweaking.

The newly formed Solid Waste and Recycling Long Range Planning Committee has started meeting, and is taking a comprehensive look at all aspects of our transfer station. Our recommendations are due to the Town Council on June 30, 2015. This temporary traffic pattern change is in no way intended to encourage a pick up service or hire a traffic coordinator. Having said that, curbside pick up will be studied in the course of our due diligence. Bob has had staff helping folks with the new pattern, but they will phase out as people adjust.

I'm forwarding this on to the committee and to the council as all comments are welcome and helpful as we go forward with long range planning. Thanks again for sharing your thoughts.

Jessica

On Feb 2, 2015, at 9:59 AM, Bill DeSena &lt;wdesena@maine.rr.com&gt; wrote:

I sent the following you and Molly. Yours bounced back. So I am re-sending it to your public email.

Jan 30,2015

Hi Jessica:

Molly said you were leading the recycle center risk project. I certainly endorse the Council's and Town Manager's safety improvement efforts. While using the new process a couple of days ago, a couple thoughts came to mind as I was waiting and I'd like to pass them on for your consideration. I saw the temporary set-up as:

1. A higher risk of someone getting hit as three or four pedestrians cross in front of oncoming vehicles heading to an empty lane,

2. An increased delay as people carry loads a greater distance, as older people struggle with heavy loads and/or from those making two extra trips fetching and returning a courtesy cart, and lastly
3. the potential long-term cost increases from a "traffic coordinator" need for salary, pension & health plans

It made me wonder why we couldn't reduce risk, delays, cost and complaints to Councilors and Town Manager if we were to

1. Return to the old format. **But** -- install 4 stronger & higher U shaped barrier 5' before the old ones. Space them across the entire hopper entrance to protect the attendant booth too. Space the barriers wide enough for people to carry their cans through to the hopper, but narrow enough to stop a run-away car. People would have lots of room to empty their cans safely behind the barrier.
2. And IF future access to the hopper were needed, one barrier could be a removable one either by an overhead electric winch system or manually by a bucket loader or forklift.

If the current set-up was intended to encourage an eventual pick-up service then I am opposed to it on several levels – the primary being it will further increase the size and cost of our municipal government without adding a service we don't already have. If the service were to be farmed out, then it takes away one of the current benefits our tax dollars pay for.

Additionally it breaks several long standing Cape traditions including helping the needy with our swap shop – and for peat sake, how else could we have F2F meetings with incumbent and wann-be politicians and get straight answer – or rubbish. ☺

At the risk of sounding like a extreme lefty, I'll admit to proudly showing the recycle center to our out-of-town guests. I deem it as a great testimony on how progressive every Caper is in managing our environment. Our current system is what makes each of us ever mindful of our daily environmental responsibilities. And it holds us accountable for carrying them out. Study after study confirm that we individuals are more effective in protecting our environment than government or private services.

Thanks for your time and service Jessica. Keep up the good work.





Debra Lane <debra.lane@capeelizabeth.org>

---

**FW: Pubic Input Session \* Solid Waste and Recycling Long Range Planning Committee**

1 message

---

**Peter Frye** <peter\_frye@hotmail.com>

Tue, Mar 31, 2015 at 10:34 PM

To: robert malley <robert.malley@capeelizabeth.org>, jamie garvin <jamie\_garvin@yahoo.com>, "karalavenderlaw@gmail.com" <karalavenderlaw@gmail.com>, "montross47@msn.com" <montross47@msn.com>, Peter Frye <peter\_frye@hotmail.com>, "cemacd@maine.rr.com" <cemacd@maine.rr.com>, "michael.mcgovern@capeelizabeth.org" <michael.mcgovern@capeelizabeth.org>, "jessicasimpson04107@gmail.com" <jessicasimpson04107@gmail.com>, "jessica.sullivan@capeelizabeth.org" <jessica.sullivan@capeelizabeth.org>, "debra.lane@capeelizabeth.org" <debra.lane@capeelizabeth.org>, "tracyfloyd.maine@gmail.com" <tracyfloyd.maine@gmail.com>, "wderzawiec@capeelizabethschools.org" <wderzawiec@capeelizabethschools.org>

Committee Members,

Please see Jessica's letter below and consider if you can be available to attend and help on the 9th with this important meeting.

Thank you,

Pete

>

> Hi Peter,

>

> On behalf of the SW&RLRP Committee, I am writing to ask that members of the Recycling Committee help us during our Public Input Session on April 9, 2015, in Town Hall Chambers from 7-9 PM.

>

> We are planning to have 6 conference tables set up where the public will be seated. Members of the SW&RLRP Committee will facilitate the evening's organized discussions, and we would like Recycling Committee members to help us by taking notes/vote tallies at each table.

>

> So - at each of the 6 tables, there will be ( hopefully ! ) one SW&RLRP Committee member facilitating discussion, and one Recycling Committee member taking notes. At around 8:15 to 8:30 ish, the "conclusions" reached at each individual table will be presented to the entire group and further discussion will take place facilitated by SW&RLRP Committee members.

>

> As many of your committee that can attend & help will be deeply appreciated !

>

> Thanks,

>

> Jessica

> 331-7199



Debra Lane <debra.lane@capeelizabeth.org>

---

## RE: The Recycling Center Online Survey is Live on the Town Website

1 message

---

Tracy Floyd <tracyfloyd.maine@gmail.com>

Wed, Apr 15, 2015 at 12:47 PM

To: Jessica Sullivan <jessica.sullivan@capeelizabeth.org>, "Anne E. Swift-Kayatta" <aeskay@maine.rr.com>, Bill <brownell@maine.rr.com>, Charles Wilson <wilsoncape@aol.com>, Jamie Garvin <jamie\_garvin@yahoo.com>

Cc: Robert Malley <robert.malley@capeelizabeth.org>, Michael McGovern <michael.mcGovern@capeelizabeth.org>, Kathy Ray <retbank@maine.rr.com>, cetowncouncil@capeelizabeth.org

Hi Jessica,

One way to encourage Capers to respond would be to ask them to participate via an email request. The more people that complete the survey online the easier it will be to tabulate the data.

Does the town have access to Cape email addresses in order that we might generate an email invitation? If so then we should send every Cape resident, who has given the Town the authorization to email them, the associated link to complete the survey:

<https://www.surveymonkey.com/s/CapeElizabethSurvey2015>

And of course any Cape resident should feel free to forward the link to their friends and family members who are also Cape residents.

Warmest Regards,

Tracy Floyd  
(M) 603-661-4884  
[www.linkedin.com/in/tracyafloyd](http://www.linkedin.com/in/tracyafloyd)

-----Original Message-----

From: Jessica Sullivan [mailto:jessica.sullivan@capeelizabeth.org]  
Sent: Wednesday, April 15, 2015 10:14 AM  
To: Anne E. Swift-Kayatta; Bill; Charles Wilson; Jamie Garvin; Tracy Floyd; Jessica Sullivan  
Cc: Robert Malley; Michael McGovern; Kathy Ray; cetowncouncil@capeelizabeth.org  
Subject: The Recycling Center Online Survey is Live on the Town Website

Hi All,

Our online version is live and up on the Town website along with a brief article. A paper version/ insert will be out in the April 22 Cape Courier a week from today, and we will be getting copies to Town Hall and the PWD asap. Also, the April 22 Courier will have a more detailed article about our committee work and will cite the survey too.

MANY THANKS to Recycling Committee member Tracy Floyd for setting this up on Survey Monkey yesterday, to Wendy Derzawiec for getting everything set

on the Town Website today, to Bob for his constant guidance and to you all for input and suggestions !

Onward !

Jessica  
331-7199

## **APPENDIX C**

### **ARTICLES IN CAPE COURIER AND OTHER PRINT MEDIA**

## Yes, the Thomas Memorial Library is open!



Photo by Mike Packard

## Fort Williams Advisory Commission to discuss bleacher replacement project on March 31

The Fort Williams Advisory Commission will hold a planning meeting for the replacement of the bleachers at the Fort Williams Park parade grounds. The meeting is set for March 31 from 5 to 7 p.m. in the Community

Center conference room. All meetings are open to the public. Ideas and suggestions may also be sent to the FWAC by email to Public Works Director Bob Malley at [robert.malley@capeelizabeth.org](mailto:robert.malley@capeelizabeth.org).

## Bring your recycling views to meeting April 9

The Solid Waste and Recycling Long Range Planning Committee will hold a public input session from 7 to 9 p.m. on Thursday, April 9, in the Town Hall Chambers. The purpose of the meeting is to get feedback from residents. The committee is tasked with reviewing solid waste and recycling options for the community.

Questions to be considered by the public:

What do you like about our Transfer Station? What would you change? Are the recycling containers convenient? Should we keep the Swap Shop? Do you want curbside pick up? How about composting opportunities?

The committee hopes to hear input on these issues and more on April 9. Please go to the town website for a direct link to all meeting materials.

## Cape gets high ratings for its project bonds

Cape Elizabeth's high ratings for its library and school project bonds have been affirmed by the investment services of Moody's and Standard & Poor's. According to a story on the town website, Moody's gave the town its second-highest rating of Aa1, a step below

Aaa, while Standard & Poor's gave its highest bond rating of AAA.

outstanding debt of \$17.5 million," the announcement read. "The borrowing is in conjunction with the \$4 million library renovation approved by voters in November of last year; and the \$1.75 million for five separate school capital projects approved by the Town Council in December."

"We anticipate a good bond sale with these ratings," said Town Manager Michael McGovern.

*Please recycle this newspaper!*

# Proposal would end backing up by drivers at Cape transfer station

[pressherald.com/2014/12/22/cape-elizabeth-considers-draft-changes-to-transfer-station/](http://www.pressherald.com/2014/12/22/cape-elizabeth-considers-draft-changes-to-transfer-station/)

By Kelley Bouchard Staff Writer kbouchard@pressherald.com | @KelleyBouchard | 207-791-6328

CAPE ELIZABETH — A new report calls for changing traffic circulation at the town's solid-waste transfer station as a short-term response to safety concerns after a former public works director was fatally injured there one month ago.

Residents would no longer be allowed to back their vehicles into the compactor building, if the town accepts the recommendations of a report issued Monday by engineers at Woodard & Curran in Portland. Instead, residents would be directed to drive into four parking spaces in front of the building and walk their trash to the compactor. The parking spaces would be aligned so motorists would pull forward to exit after dropping off their trash.

## Transfer station safety report

The change would create a one-way traffic loop that would eliminate all backing up at the transfer station, said Town Manager Mike McGovern. While most people back into the compactor building, some drive forward into the building and then back out.

"We believe this change will improve safety and make everyone much more comfortable using the facility," McGovern said Monday. "We'll closely monitor to see how the new traffic pattern works while working with a citizen advisory committee to analyze a longer-term solution."

Woodard & Curran's report offered two other options — one that still required some backing up, and a two-lane, drive-by option that would have resulted in a lower level of service and possibly longer lines. McGovern, the engineers and Public Works Director Robert Malley agreed that the one-lane, four-parking-spots option was the best, McGovern said.

The Town Council is expected to review the report at a Jan. 5 workshop. If the council approves the recommended change, residents would be notified by mail and it would go into effect as early as Jan. 21.

Herbert Dennison, 79, was throwing his trash into the compactor on Nov. 24 when he was struck by a Ford Explorer driven by Christine Sharp-Lopez, 72, of Hunts Point Road. Police said she was backing up at a high speed when the sport utility vehicle struck Dennison and pushed him, causing him to fall into the below-ground-level compactor, which was not operating at the time.

No charges have been filed against Sharp-Lopez, said Police Chief Neil Williams. A thorough examination of the Ford Explorer revealed no mechanical defects, Williams said. When he gets the officer's report on the vehicle, Williams said he will ask the Cumberland County District Attorney's Office to determine whether to file charges.



Printed on: 1/7/2015 9:42 AM. URL: http://www.pressherald.com/2014/12/22/cape-elizabeth-considers-draft-changes-to-transfer-station/

Blood alcohol tests on both Dennison and Sharp-Lopez showed neither had been drinking before the accident, Williams said.

McGovern had notified the Town Council in September about safety concerns at the transfer station and recommended hiring a firm to conduct a full study of the facility, he said. Town officials noted that the 38-year-old compactor should be replaced and that high vehicular and pedestrian traffic was creating safety concerns.

The council had made it a goal to conduct the study in 2015, largely because of the cost of replacing the compactor, said Chairman Jessica Sullivan. Sullivan will head the Solid Waste and Recycling Long-Range Planning Committee that was named Friday. Citizen members are Jamie Garvin, William Brownell, Anne Swift Kayatta and Charles Wilson.

When the accident occurred, the force of the SUV was strong enough to push Dennison through a latched, waist-high chain-link fence intended to keep people from falling into the compactor, Malley said. There's also a low steel bar to prevent vehicles from backing into the compactor, he said. The transfer station reopened after the fence was repaired.

Woodard & Curran has been asked to submit a proposal for an in-depth study of the town's solid waste disposal and recycling options, McGovern said. The study would encompass options ranging from making modifications to the existing drop-off facility to adopting curbside trash pickup.

In a 2003 survey, only 9 percent of Cape Elizabeth residents supported a move to curbside pickup, McGovern said. The town spends about \$550,000 a year on solid waste disposal and recycling as a member of the ecomaine regional trash burning and recycling facility in Portland.

Seven of ecomaine's 27 owner and associate member communities don't have regular curbside trash pickup.

Woodard & Curran's initial assessment of transfer station operations found that 67 percent of users backed their vehicles into the compactor building, 26 percent parked outside the building and carried their trash to the compactor and 7 percent drove forward into the building.

Under the proposed short-term change, recycling containers for cardboard, paper, metal and glass will stay where they are, McGovern said.

Share

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Were you interviewed for this story? If so, please fill out our [accuracy form](#).

[Send questions/comments to the editors.](#)



**APPENDIX D**

**CITIZEN COMMENTS FROM APRIL 9, 2015  
PUBLIC INFORMATION/INPUT SESSION**



**lid Waste & Recycling Long Range Planning Committee \* Public Input Session\* April 9, 2015**

1

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

Likes *new system more than prev. one* Dislikes Changes *possible public option to drive thru - always going fwd.* Comments

**B. Recycling Bullets**

convenient yes / no - why, easy to use, locations, value to community, other

Likes *always use top loader* Dislikes Changes Comments

**C. Swap Shop**

keep yes / no - why, location, value to community, other

Likes Dislikes Changes Comments

**D. Bottle Shed**

keep yes / no - why, location, value to community, other

Likes Dislikes Changes *Traffic should not be pull in/park - should be along side (like the Silver Bullets)* Comments

**E. Large Item disposal ( white goods, construction debris) ? wave drop off fees one week in fall ?**

keep yes / no - why, value to community, other

Likes Dislikes Changes Comments

**F. Hazardous Waste Disposal ( solvents, fluorescent bulbs, etc.)**

keep yes / no - value to community, other

Likes Dislikes Changes Comments

**G. Curbside Pickup**

Are you interested ? yes / no / comments

**H. Pay Per Bag**

Are you interested ? yes / no / comments

**J. Composting**

Do you favor composting opportunities for kitchen food waste ? yes / no / comments

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ? yes / no / comments

**L. Other**

*Should have municipal compost drop off at recycling center - like a legislative mandate to increase composting food waste. No big trucks*

lid Waste & Recycling Long Range Planning Committee \* Public Input Session\* April 9, 2015

2

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

Likes

Dislikes

Changes

Comments

Is more organized than before.

**B. Recycling Bullets**

convenient  / no - why, easy to use, locations, value to community, other

Likes

Dislikes

Changes

Comments

**C. Swap Shop**

keep  / no - why, location, value to community, other

Likes

Dislikes

Changes

Comments

Helps people in need. Encourages people to recycle. Friendships made

**D. Bottle Shed**

keep  / no - why, location, value to community, other

Likes

Dislikes

Changes

Comments

Charitable recipients

**E. Large Item disposal ( white goods, construction debris) ? wave drop off fees one week in fall ?**

keep  / no - why, value to community, other

Likes

Dislikes

Changes

Comments

Good idea, Keep Revenue

**F. Hazardous Waste Disposal ( solvents, fluorescent bulbs, etc.)**

keep  / no - value to community, other

Likes

Dislikes

Changes

Comments

Otherwise people dump.

**G. Curbside Pickup**

Are you interested ?

yes  / comments

Increased cost to residents

**H. Pay Per Bag**

Are you interested ?

yes  / comments

Absolutely not! Would be very inconvenient way to dispose of garbage.

**J. Composting**

Do you favor composting opportunities for kitchen food waste ? yes / no / comments

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ?  / no / comments

- work out safe path for foot traffic. & Commercial haulers path.

**L. Other**

No one wants their taxes to go up. Commercial Haulers come in at specific time of day. \$\$ Revenue

3

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

Likes

Dislikes

Changes

Comments

Some drivers still go the wrong way & go too fast

**B. Recycling Bullets**

convenient yes /no - why, easy to use, locations, value to community, other

Likes

Dislikes

Changes

Comments

"Bullets" fill to overflowing on weekend - We may need an extra?

**C. Swap Shop**

keep yes/ no - why, location, value to community, other

Likes

Reuse / Re purpose used items

Dislikes

Broken, smelly, unusable items left

Changes

table needs repair (broken leg - dangerous?)

Comments

Too many prohibited items left (signs are very visible)

**D. Bottle Shed**

keep yes/ no - why, location, value to community, other

Likes

raises \$ for community groups

Dislikes

Changes

Comments

People do not always "follow directions" & pile up bags of bottles in the door

**E. Large Item disposal ( white goods, construction debris) ? wave drop off fees one week in fall ?**

keep yes/ no - why, value to community, other

Likes

Dislikes

Changes

Comments

E-Waste Computers, TV's

**F. Hazardous Waste Disposal ( solvents, fluorescent bulbs, etc.)**

keep yes/no - value to community, other

Likes

Dislikes

Changes

Comments

Too much ends up in the Swap Shop

**G. Curbside Pickup**

Are you interested ? yes /no/ comments

**H. Pay Per Bag**

Are you interested ? yes /no/ comments Already pay taxes

**J. Composting**

Do you favor composting opportunities for kitchen food waste ? yes / no / comments

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ? yes / no / comments → They should pay a fee to support the facility

**L. Other**

① Hopper Carts - handles are too low for some people (back issues, elders...)  
② If no one in office - how do people pay fees for disposal of items

lid Waste & Recycling Long Range Planning Committee \* Public Input Session\* April 9, 2015

44

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

Likes	Dislikes	Changes	Comments
	Traffic Pattern & Speed	Add Speed humps!	

**B. Recycling Bullets**

convenient yes /no - why, easy to use, locations, value to community, other

Likes	Dislikes	Changes	Comments
	Town Hall - convenient - open 24/7	Find location of North out of town	

**C. Swap Shop**

keep yes/ no - why, location, value to community, other

Likes	Dislikes	Changes	Comments

**D. Bottle Shed**

keep yes / no - why, location, value to community, other

Likes	Dislikes	Changes	Comments

**E. Large Item disposal ( white goods, construction debris) ? wave drop off fees one week in fall ?**

keep yes / no - why, value to community, other

Likes	Dislikes	Changes	Comments

**F. Hazardous Waste Disposal ( solvents, fluorescent bulbs, etc.)**

keep yes/no - value to community, other

Likes	Dislikes	Changes	Comments
	More than once		

**G. Curbside Pickup**

Are you interested ?      yes / no / comments      trash cans unattractive - dip over s

**H. Pay Per Bag**

Are you interested ?      yes / no / comments

**J. Composting**

Do you favor composting opportunities for kitchen food waste ?    yes / no / comments

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ?    yes / no / comments

**L. Other**

5

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

Likes	Dislikes	Changes	Comments
Plenty of spots for single stream	not easy to see all four stop spots for refuse		we need to slow folks down still

**B. Recycling Bullets**

convenient yes / no - why, easy to use, locations, value to community, other

Likes	Dislikes	Changes	Comments
2 locations ✓	Tough to fit through openings - not easy to reach for all folks	another top loader?	

**C. Swap Shop**

keep yes / no - why, location, value to community, other

Likes	Dislikes	Changes	Comments
	stories of abuse		-- many folks get benefit from it -- reduces solid waste

**D. Bottle Shed**

keep yes / no - why, location, value to community, other

Likes	Dislikes	Changes	Comments
found positive investment in community			

**E. Large Item disposal** ( white goods, construction debris) ? wave drop off fees one week in fall ?

keep yes / no - why, value to community, other

Likes	Dislikes	Changes	Comments
Convenience			

**F. Hazardous Waste Disposal** ( solvents, fluorescent bulbs, etc.)

keep yes / no - value to community, other

Likes	Dislikes	Changes	Comments
Convenience			restricting disposal should cause consumers to purchase responsibly and avoid unnecessary handling of hazardous goods

**G. Curbside Pickup**

Are you interested ? yes / no / comments increased cost

**H. Pay Per Bag**

Are you interested ? yes / no / comments could reduce solid waste and encourage recycling

**J. Composting**

Do you favor composting opportunities for kitchen food waste ? yes / no / comments compost in my yard

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ? yes / no / comments so many reasons - no ash makes better reduces sue

**L. Other**

only from Cape residents

6

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

THE NEW PATTERN IS CUMBERSOME WE NEED A RENOVATED FACILITY

**B. Recycling Bullets**

convenient yes /no - why, easy to use, locations, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

NEED TO PROMOTE MORE COMPACTOR TO INCREASE VOLUME  
NEED WIDER & LOWER OPENINGS

**C. Swap Shop**

keep yes/ no - why, location, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

LOVE IT FOR BOTH REDUCING WASTE AND COMMUNITY EXCHANGE

**D. Bottle Shed**

keep yes / no - why, location, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

TOWN SHOULD BETTER PROMOTE WHERE PROCEEDS GO INTALL SIGN (LED) TO IDENTIFY BENEFICIARIES

**E. Large Item disposal** ( white goods, construction debris) ? wave drop off fees one week in fall ?

keep yes / no - why, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

**F. Hazardous Waste Disposal** ( solvents, fluorescent bulbs, etc.)

keep yes / no - value to community, other

**Likes** **Dislikes** **Changes** **Comments**

**G. Curbside Pickup**

Are you interested ? yes / no / comments / AM OPPOSED TO CURBSIDE

**H. Pay Per Bag**

Are you interested ? yes / no / comments WILL PROMOTE WASTE REDUCTION

**J. Composting**

Do you favor composting opportunities for kitchen food waste? yes / no / comments

SHOULD ENCOURAGE PEOPLE TO DELIVER THEIR COMPOST JUST AS THEIR RETURNABLE BOTTLES

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station ? yes / no / comments

**L. Other**

TOWN SHOULD SET GOALS FOR WASTE REDUCTION and PROMOTE THESE GOALS

**lid Waste & Recycling Long Range Planning Committee \* Public Input Session\* April 9, 2015**

7

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

Traffic pattern

still doesn't seem entirely safe

**B. Recycling Bullets**

convenient  yes / no - why, easy to use, locations, value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

like that they're available

Get overloaded frequently

would love to see more @ lower level

like the ones @ Town Hall

**C. Swap Shop**

keep yes / no - why, location, value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

- reuse/recycle items  
- great community resource

- People dumping unacceptable items parking an issue

**D. Bottle Shed**

keep yes / no - why, location, value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

- glad it's available

people dumping at door

How to make people accountable for leaving ~~the~~ doorway?

**E. Large Item disposal (white goods, construction debris)? wave drop off fees one week in fall?**

keep yes / no - why, value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

convenient

**F. Hazardous Waste Disposal (solvents, fluorescent bulbs, etc.)**

keep yes / no - value to community, other

**Likes**

**Dislikes**

**Changes**

**Comments**

convenient

only once a year

1/yr - can we increase frequency to 2x/yr?

**G. Curbside Pickup**

Are you interested?

yes /  no / comments

**H. Pay Per Bag**

Are you interested?

yes / no / comments

because it can potentially reduce the amount of waste going to the landfill, but I also have reservations because of attitudes/laziness w/ recycling questions - throwing it all in the silver bucket / single stream it's the right thing to do!

**J. Composting**

Do you favor composting opportunities for kitchen food waste?  yes / no / comments

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station? yes /  no / comments

**L. Other**

lid Waste & Recycling Long Range Planning Committee \* Public Input Session\* April 9, 2015

8

**A. Transfer Station**

drive up pattern, how take trash to hopper, hours of operation, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

- attendant hut should be more central  
- yard waste drop off a bit out of the loop

Generally works well - could have some improvements but generally good

**B. Recycling Bullets**

convenient yes/no - why, easy to use, locations, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

Town Hall location

Need clear, paved path around them (Town Hall)

**C. Swap Shop**

keep yes/no - why, location, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

Great service

No climate control

Heat + AC  
Bathroom for volunteers

Totally dependent on dedicated volunteers - need to consider sustainability

**D. Bottle Shed**

keep yes/no - why, location, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

Good service + good income for school groups, etc.

Drive thru/~~but~~ would be better than having to park

**E. Large Item disposal** (white goods, construction debris)? wave drop off fees one week in fall?

keep yes/no - why, value to community, other

**Likes** **Dislikes** **Changes** **Comments**

Don't need it often, but when you do you do

**F. Hazardous Waste Disposal** (solvents, fluorescent bulbs, etc.)

keep yes/no - value to community, other

**Likes** **Dislikes** **Changes** **Comments**

Would like 2x/year

**G. Curbside Pickup**

Are you interested?

yes/no/comments Maybe, but I am perfectly happy w/ transfer station

**H. Pay Per Bag**

Are you interested?

yes/no/comments To encourage waste reduction, recycling + composting -> PERSONAL RESPONSIBILITY. <sup>But</sup> Concerns:

**J. Composting**

Do you favor composting opportunities for kitchen food waste? yes/no/comments

- if it can be done economically  
- if people want it + actually use it

- open dumping  
- non-recyclables going into single stream + contaminating

**K. Commercial Haulers**

Should commercial haulers be allowed to bring trash to the Transfer Station? yes/no/comments

**L. Other**

Unless they have to pay + can only drop off at set, non-peak hours



**APPENDIX E**

**WOODARD & CURRAN SAFETY ASSESSMENT REPORT  
(DECEMBER 22, 2014)**



December 22, 2014

Michael McGovern, Town Manager  
Town of Cape Elizabeth  
320 Ocean House Road  
Cape Elizabeth, ME 04107

Re: Town of Cape Elizabeth Transfer Station Safety Assessment

Dear Mr. McGovern:

On behalf of the Town of Cape Elizabeth, Woodard & Curran has prepared the following safety assessment for the Town's transfer station, located at 21 Dennison Drive. Although the Town had proposed to the Town Council that a comprehensive Solid Waste Disposal Option analysis be conducted in the spring of 2015, the tragic accident that occurred on November 24, 2014 prompted the Town to take immediate action with a facility safety review.

Woodard & Curran engineers Randy Tome and Megan McDevitt conducted the transfer station safety assessment. Randy Tome is a licensed professional engineer with over 26 years of civil engineering experience on a variety of solid waste and civil/site development projects. Randy has been involved in the design of multiple transfer stations and recycling centers throughout the state, including transfer stations in Harpswell, Winthrop, Wiscasset, Ogunquit, Gray, Casco, Yarmouth and Harrison. Megan McDevitt is a licensed professional engineer with over seven years of both civil and structural engineering experience on public and private projects. Megan's experience includes the review and design of facilities for compliance with building and safety regulations such as Occupational Health and Safety Administration (OSHA) and International Building Code (IBC).

This letter summarizes Woodard & Curran's safety review of the transfer station, including general observations made of the daily operations at the facility, and provides possible alternatives to the current operations with the intent of increasing the overall safety at the transfer station.

### **Facility Background**

The Cape Elizabeth transfer station opened in 1978 adjacent to an existing construction and demolition debris (CDD) landfill. In 1995, the CDD landfill was closed and improvements were made to the transfer station, including realignment of the loop road and construction of a retaining wall for overhead roll-off containers, concrete pads for the existing silver bullets, areas for leaf and yard waste disposal, and the Swap Shop Building. As outlined in the transfer station operations manual, the facility operates the solid waste drop-off program by having users back their vehicles into one of three parking spaces in the compactor building. Next, they unload and throw their solid waste into the compactor, exit the building, drive counter-clockwise around the loop road to drop-off cardboard and/or bulky waste at the appropriate locations, and then visit the Swap Shop or exit the facility.

In 2003, the Town created the *Refuse Materials Planning Committee* to review the facility. In general, the committee found that residents and Town officials agreed that the facility operated efficiently. No substantial improvements were deemed necessary or desirable at that time.



### Code Review with SafetyWorks!

- Woodard & Curran contacted SafetyWorks! on December 11, 2014 to verify the most current regulations and safety inspection protocol. SafetyWorks! is a division of the Maine Department of Labor providing free consultation, upon request, for Maine's public-sector workplaces.

From our discussions with SafetyWorks! Woodard & Curran has confirmed the following:

- The Maine Department of Labor is responsible for enforcing occupational health and safety regulations in the public sector. Their responsibilities include responding to situations of imminent danger, employee fatalities and hospitalizations, employee-written complaints, and performing worksite inspections.
- SafetyWorks! evaluates a workplace for compliance with Maine Department of Labor health and safety standards with respect to the employer and employee relationship. They do not evaluate a workplace for user safety; that is Woodard & Curran's role for this safety assessment.

Woodard & Curran understands from the Town that SafetyWorks! last performed a courtesy inspection of the facility in 2010. On December 5, 2014, the Town requested SafetyWorks! perform another courtesy inspection. SafetyWorks! performed the courtesy inspection on December 19<sup>th</sup>, 2014; the Town anticipates receiving the final inspection report soon.

### Site Visit

Woodard & Curran engineers met with Public Works Director, Bob Malley, on December 3, 2014 and discussed the history of the transfer station, current operations, and the circumstances regarding the tragic accident. Woodard & Curran then visited the transfer station with Mr. Malley and observed vehicular and pedestrian movement within the facility. Woodard & Curran revisited the transfer station with a member of its Health & Safety Department on December 13, 2014 to observed vehicle and pedestrian movements during a time period historically known for high user volume.

### General Transfer Station Observations

Woodard & Curran made the following observations of the facility operations and users (residents and commercial haulers) during multiple site visits to the Cape Elizabeth transfer station:

1. Vehicle and Pedestrian Traffic at Compactor: Generally, the facility operates with the majority of users backing their vehicle into the compactor building to unload solid waste into the compactor. Some users drive forward into the compactor building, most likely due to being uncomfortable with backing into the building. However, during times of high volume, some users park outside the compactor building and walk their solid waste into the compactor building; to accomplish this, users park either next to the compactor building or on the grassed island in the interior of the loop road.

During the December 13<sup>th</sup> Saturday morning site visit, Woodard & Curran observed 57 users drop-off solid waste into the compactor. The users dropped off their solid waste in the following manner:

- 38 users (67%) backed their vehicle into the compactor building;
- 4 users (7%) drove their vehicle forward into the compactor building; and
- 15 users (26%) parked outside the compactor building and walked their solid waste to the compactor.



It was observed during the site visits that the mixing of vehicle and pedestrian traffic within the compactor building and on the loop road causes significant congestion, increasing the risk of an incident. Also, the unrestricted flow of traffic allowing for multiple vehicles to travel in either forward and reverse directions within the same space adds to the congestion and increases the risk of a possible incident.

2. Fall and Vehicle Protection at Compactor: There is a steel pipe bumper in front of the compactor to prevent vehicles from backing into the compactor. It is Woodard & Curran's understanding that this barricade worked appropriately in preventing the vehicle from driving into the compactor during the November 24<sup>th</sup> accident. There is also a chain link gate installed to protect residents from falling into the compactor; residents must lift their solid waste over the chain link gate when disposing of solid waste into the compactor. The required fall protection height per both OSHA and IBC is 42-inches high and the compactor barricade meets that height requirement. However, Woodard & Curran observed several users standing in the bed of their pickup trucks to throw solid waste into the compactor; standing on the bed of the pickup truck elevates the user above the satisfactory fall protection height.
3. Cardboard Container Location: During the December 3<sup>rd</sup> site visit, the cardboard containers were located close to the interior of the loop road. Users stopping at the cardboard container for drop-off were parking and walking close to the facility's main flow of traffic around the loop road. During the December 13<sup>th</sup> site visit, the cardboard containers were observed to be located farther away from the interior of the loop road, closer to the leaf and yard waste drop-off area. This container location provided more distance and safety between the users and vehicles utilizing the cardboard containers and the main flow of vehicle traffic around the loop road.
4. Fall Protection at the Overhead Container Retaining: There is approximately a 44-inch vertical change from the top of the retaining wall to the ground below. Currently, the walls of some of the overhead roll-off containers extend above the top of the retaining wall to provide some protection for users from falling into the containers; however, no fall protection is provided at the open space between the containers along the retaining wall. Additionally, fall protection of the container walls is eliminated if there is a gap between the containers and the retaining wall or if the containers are removed from the retaining wall.

### **Assessment**

It should be noted that nearly all municipal transfer stations/recycling facilities, by their nature, consist of a large number of pedestrians and vehicles sharing the same relatively small amount of space. Overall, the public's safety record at the Cape Elizabeth transfer station has been satisfactory and is a testament to the patience, consistent mode of operations, slow speeds, and overall attentiveness of the employees and facility users. Initial indications are that the recent tragic accident appears to be more the result of vehicle operator error and traffic accident rather than a transfer station design or facility operation error. Thirty-seven years of operation without another serious accident speaks to a reasonable facility layout and design combined with good cooperation from the public as a whole.

With the above information as a background, there are usually areas for improvement at any individual facility. Woodard & Curran has evaluated several alternative traffic patterns for access to the compactor building with the intent of reducing pedestrian and vehicle congestion and improving overall safety. The following conceptual layouts were developed utilizing the existing loop road and compactor building



location; no major changes to the facility layout are recommended at this time. Since the implementation of additional safety measures could have a direct impact on the efficiency of the facility, each alternative has been evaluated for both the safety and level of service advantages and disadvantages to the facility.

Alternative 1 – Back-in Access for Compactor: This alternative allows users to continue to back into the compactor building to drop-off solid waste; however, this alternative recommends the installation of a stop light and stop line to restrict drop-offs to only one user at a time. A physical barrier is recommended to provide for two travel lanes: a compactor lane and a compactor by-pass lane. The physical barrier, individual lanes, and additional “No Parking” signs along the loop road interior grassed island will discourage users from parking outside the compactor building and walking their solid waste into the compactor building. Below is a conceptual layout of this alternative.



The following table outlines both the safety and level of service advantages and disadvantages of this proposed facility alternative.

### Alternative 1: Evaluation of Back-in Access for Compactor

<b>Safety</b>	<u>Advantages</u>
	<ul style="list-style-type: none"> <li>• Eliminates the congestion of vehicles and pedestrians both within the compactor building and on the loop road.</li> <li>• Provides dedicated traffic flow patterns, reducing vehicle congestion within the loop road.</li> <li>• Eliminates pedestrian crossing within vehicle travel lanes.</li> </ul>
	<u>Disadvantages</u>
	<ul style="list-style-type: none"> <li>• Does not eliminate the fall risk associated with users standing in pickup truck beds adjacent to the compactor.</li> </ul>



*Level of Service*

Advantages

- Continues to allow users to back-up close to the compactor to drop-off solid waste, meaning users only have to transport solid waste a small distance and is practical for users with heavy loads.

Disadvantages

- Reduces the number of vehicles accessing the compactor at one time from three to one, most likely creating a long vehicle queue possibly extending down Dennison Drive during times of high user volume.
- Likely increases user frustration due to decreased efficiency at the compactor building.

Since it is anticipated that this alternative will decrease the level of service of the facility, it is recommended that commercial haulers either be prohibited from use of the transfer station or restricted to use only outside the high user volume periods. Commercial haulers drop-off large solid waste loads, requiring more time at the compactor than the average facility user. Eliminating or restricting commercial hauler use will improve the overall efficiency of this alternative.

Alternative 2 – Diagonal Parking Access for Compactor: This alternative does not allow users to back into the compactor building, but instead allows them to park in front of the compactor building. As with the previous alternative, a physical barrier is recommended to allow for two travel lanes. The compactor lane will have dedicated parking spaces, marked with pavement striping similar to an angled parking lot, for users to park their vehicle and walk their solid waste into the compactor building. The users will then pull their vehicle out of the parking space and merge into the compactor by-pass lane. The physical barrier, individual lanes, and additional “No Parking” signs along the loop road interior grassed island will discourage users from parking outside of the marked parking spaces and walking their solid waste into the compactor building from other locations. Physical barriers are also recommended in front of the compactor building to prevent vehicles from backing in. Below is a conceptual layout of this alternative.



The following table outlines both the safety and level of service advantages and disadvantages of this proposed facility alternative.

**Alternative 2: Diagonal Parking for Compactor Access**

<b>Safety</b>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>• Eliminates the congestion of vehicles and pedestrians both within the compactor building and on the loop road.</li> <li>• Provides dedicated traffic flow patterns with vehicles traveling only in a forward direction, reducing overall vehicle congestion within the loop road.</li> <li>• Eliminates the fall risk associated with users standing in pickup truck beds adjacent to the compactor.</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>• Requires pedestrian crossing of a single vehicle traffic lane, similar to a parking lot scenario.</li> </ul>
<b>Level of Service</b>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>• Increases the number of vehicles accessing the compactor at one time from three parking spaces currently within compactor building to four parking spaces in front of the compactor building.</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>• Eliminates the convenience of backing up to the compactor; users will be required to carry solid waste from their vehicle to the compactor over a longer distance and is not as practical for users with heavy loads.</li> </ul>

Since backing in would not be permitted in the alternative, it is recommended that commercial haulers be discouraged from use of the transfer station. It is anticipated that commercial haulers would travel back and forth between their vehicle and the compactor multiple times to dispose of their large loads of solid waste, resulting in many more trips than the average



facility user would undertake. Eliminating commercial haulers will improve the overall safety and efficiency of this alternative.

Alternative 3 – Drive-Along Access for Compactor: This alternative also does not allow users to back into the compactor building, but instead drive and park in the front of the compactor building. In this alternative, three lanes will be striped: two compactor drop-off lanes and a compactor by-pass lane. Residents will be able to park in either of the compactor drop-off lanes and walk their solid waste into the compactor building. With this alternative, “No Parking” signs are recommended along the loop road interior grassed island, and physical barriers are recommended in front of the compactor building to prevent vehicles from backing in. Below is a conceptual layout of this alternative.



The following table outlines both the safety and level of service advantages and disadvantages of this proposed facility alternative.

### Alternative 3: Drive-Along for Compactor Access

<b>Safety</b>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>• Eliminates the congestion of vehicles and pedestrians within the compactor building.</li> <li>• Provides dedicated traffic flow patterns with vehicles traveling only in a forward direction, reducing overall vehicle congestion within the loop road.</li> <li>• Eliminates the fall risk associated with residents standing in pickup truck beds adjacent to the compactor.</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>• Requires pedestrian crossing of vehicle traffic lanes.</li> </ul>
	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>• Allows multiple vehicles from the two compactor drop-off lanes to access</li> </ul>
<b>Level of Service</b>	





the compactor at one time as compared to three parking spaces currently provided within compactor building.

Disadvantages

- Eliminates the convenience of backing up to the compactor; users will be required to carry solid waste from their vehicle to the compactor over a longer distance and is not as practical for users with heavy loads.
- Potentially increases user frustration while waiting for other users to exit their particular compactor drop-off lane after they have dropped off their solid waste.

Similar to Alternative 2, it is recommended that commercial haulers be prohibited from use of the transfer station in this alternative because backing in would not be permitted. Eliminating commercial haulers will improve the overall safety and efficiency of this alternative.

In order to improve safety, each of the three alternatives described above recommends eliminating the opportunity for users to walk one or two small bags of solid waste into the compactor building. Some users may view this as a decrease in the facility's efficiency. To increase the level of service in each of these alternatives, separate solid waste container(s) could be provided at the transfer station. These containers, which would be located away from and outside the traffic patterns utilized to access the compactor building, would provide a quick and efficient disposal area for the users with only one or two bags of solid waste. The anticipated challenges associated with the addition of separate municipal solid waste containers are:

- Limited location and space available for the additional containers at the facility;
- Management of the containers' covers to reduce weather impacts (i.e., snow and rain getting in the containers); and
- Limitation on containers to provide adequate capacity during days of high user volume.

### Recommendations

Each of the three alternatives described in the assessment above increases user safety over the current operations of the transfer station. Alternative 1 (Back-in Access) is arguably the safest option because it limits access to the compactor to only one user at the time. However, the anticipated decrease in facility efficiency for this alternative is significant and could make the facility nonfunctional. Alternative 3 (Drive-Along Access) provides adequate efficiency, but does not substantially reduce the pedestrian and vehicle congestion within the loop road. Therefore, Woodard & Curran recommends Alternative 2 (Diagonal Parking Access) as the best of the three alternatives with respect to both safety and functionality of the facility. This alternative removes vehicle and pedestrian congestion within the compactor building and provides dedicated traffic patterns requiring all vehicles to travel only in a forward direction. There is still some small risk associated with pedestrians accessing the compactor building by crossing in front of vehicles pulling into the diagonal parking spaces; however, this scenario is very similar to many parking lot situations around the community and can be very safe with proper awareness and attentiveness.

In addition to the recommended alternative to the operations at the compactor building, Woodard & Curran also recommends the installation of proper fall protection along the top of the overhead roll-off container retaining wall. OSHA regulations require fall protection be provided when a fall hazard exceeds four-feet; the existing retaining wall height does not exceed four-feet. OSHA, however, is specifically written for the safety of employers and employees. IBC regulations, which govern buildings and structures, consider all users and occupants of a facility. IBC regulations are more conservative with regard to fall protection and require fall protection whenever a fall hazard exceeds 30-inches. The



existing retaining wall height does exceed 30-inches, and therefore adequate fall protection should be provided.

In closing, any facility changes will take time for users to become acclimated. The Town will need to be prepared, and properly staffed, to communicate and then facilitate and enforce the recommended changes during the transition period. While the transition period may initially be perceived as inconvenient, it should be emphasized that the ultimate outcome is to improve safety while continuing to provide a functional facility for all users and employees.

Sincerely,

WOODARD & CURRAN

A handwritten signature in blue ink that reads "Randy Tome".

Randy Tome, PE  
Senior Vice President

A handwritten signature in blue ink that reads "Megan McDevitt".

Megan McDevitt, PE  
Project Engineer 2

RET/MDLM

cc: Robert Malley, Director of Public Works

PN: 228673

**APPENDIX F**

**“SAFETY WORKS!” MAINE DEPARTMENT OF LABOR’S SAFETY  
AND HEALTH SURVEY  
(JANUARY 7, 2015)**

January 7, 2015

Mr. Robert Malley, Director  
Cape Elizabeth Public Works Department  
10 Cooper Drive  
Cape Elizabeth, ME 04107

Request No. 307102

Dear Bob Malley,

Thank you for choosing SafetyWorks! In response to your request, on 12/19/2014, Christina Perry, Occupational Safety & Health Specialist, and Michael LaPlante, Program Manager, conducted a Safety and/or Health survey at your facility. The enclosed report presents hazards identified and some recommendations for the correcting of serious and other than serious identified hazards. We encourage you to inform your employees of the action you take. This knowledge will help them do their part in maintaining a safe and healthful workplace and it will let them know of your concern for their welfare.

On December 5, 2014, SafetyWorks! received a request from you for a wall-to-wall consultation of the Transfer Station located at 21 Dennison Drive (facility) in order to identify workplace health and safety concerns and determine compliance status. This inspection included a review of all related written programs and training records, as well as a walkthrough inspection of the transfer station. Overall compliance was good, and deficiencies which were identified are described in the enclosed report.

Due to a recent citizen (non-worker) fatality in the compactor area of the facility, SafetyWorks! was also asked to provide feedback on the safety of citizen activity (vehicle and foot traffic) in the vicinity of the compactor. It should be noted that the Maine Department of Labor does not have jurisdiction over activities or accidents involving private citizens; however, we have provided the following observations and recommendations in an effort to assist with the Town's efforts to improve safety at the facility as it serves to simultaneously improve conditions for employees as well as the public:

- Vehicular traffic was observed to violate posted speed limits when entering the facility (specifically, vehicles were observed to be speeding as they entered and passed the swap shop). Other than limited signage, there are no controls in place to limit traffic speed (e.g. speed bumps, designated traffic lanes, etc.).
  - Consider the use of speed control methods/devices.

- The flow of vehicle and foot traffic is unorganized - vehicles park wherever there is space and citizens walk from their vehicles to the compactor while other citizens drive their vehicles up to it. In addition, citizens must drive around or between rolloff recycling containers (“silver bullets”) in the vicinity of the compactor. The rolloff containers impede driver visibility. There are no designated walking paths or driving routes.
  - Consider making designated vehicle and foot traffic routes using paint, cones, railings or similar means. It is recommended that foot traffic areas be separated from vehicle traffic by rigid barriers if both foot and vehicle traffic is to continue in the compactor area.
  - Consider relocating the rolloff containers so that citizens using these are not exposed to traffic hazards in the vicinity of the compactor.
  - Consider having a designated employee direct traffic.
  - Consider having a separate entrance for citizens walking up to the compactor and an area physically guarded from vehicle traffic for them to stand while disposing of trash.
  - Consider prohibiting vehicles from entering the compactor building, thus requiring all users to walk their trash up to the compactor. Note that some citizens may require assistance in this scenario.
  
- Much of the traffic at the transfer station is for citizens visiting the swap shop. Although the swap shop is located just inside the entrance to the facility, citizens must drive through the entire site in order to get to the swap shop parking area.
  - Consider relocating the swap shop or providing alternate access to it to reduce traffic in the vicinity of the compactor or eliminate it altogether.
  - Maintain one-way traffic flow.
  
- Citizens are asked, but not required, to keep pets and children in vehicles in the vicinity of the compactor. Not only can pets and children be difficult to see, but they can be distracting to drivers.
  - Consider requiring citizens to follow safety measures.
  - Consider putting up mirrors in strategic locations to reduce “blind spots”.

We look forward to hearing from you concerning the steps you are taking, or plan to take, in response to this report. This information will help us to assist you in providing a safe and healthful workplace for your employees. It can also provide us with information about the effectiveness of your program.

It is our intent that all hazards identified in this report be corrected. From the date of the consultation, you will be exempt from routine inspection for six (6) months by the Bureau of Labor Standards (*exemption only applies to Public Sector Workplaces*). To insure that we provide our services in a timely manner, we are now requiring that an Abatement Certification letter be sent to us. Once received, additional consultation requests can be made. This requirement may be waived if there is a new process or if warranted by our office. If you have any questions, please contact us at 1-877-SAFE 345 or visit our website at [www.safetyworksmaine.com](http://www.safetyworksmaine.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael A. LaPlante', with a long horizontal flourish extending to the right.

Michael A. LaPlante, Program Manager  
Workplace Safety & Health Division

**Location Inspected:**           **Transfer Station**  
**Consultation Number:**       **168837**  
**Consultation By:**           **Christina Perry**

On 12/19/14, the consultant noted above conducted a safety and/or health consultation. Below are the hazards indentified at the Cape Elizabeth Transfer Station to be corrected within **six (6) months** from the date of the consultation conducted.

1.     29CFR1910.1200(e)(1):

Employers shall develop, implement, and maintain at each workplace, a written hazard communication program, which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following within this subsection...

\* The employer must have a specific written Hazard Communication program for the chemicals employees are expected to use and must provide initial training to employees on this program. The program must include information on container labeling, how the employer will inform employees of the hazards of non-routine tasks, etc. In addition, an index list of the hazardous chemicals (index) known to be present in the workplace shall be part of the written hazard communications program.

- The current program covers the Public Works Department as a whole and does not address the transfer station specifically. Although very few chemicals are used at the transfer station (e.g. grease for compactor rollers), a Hazard Communication program is required when any employees are exposed to chemical hazards. The written program and training must address workplace-specific information on chemical hazards and hazard communication.

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2.     29CFR1910.1200(f)(6)

Workplace labeling. Except as provided in paragraphs (f)(7) and (f)(8) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either:

\*An unlabeled container of grease? (for compactor rollers) was found in the room beneath the compactor chute. Secondary containers must be labeled with the identity of the hazardous chemical and appropriate hazard warnings, at a minimum.

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3. 29CFR1910.1200(g)(8)

The employer shall maintain in the workplace copies of the required safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s) (Electronic access and other alternatives to maintaining paper copies of the safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options).

\* The Material Safety Data Sheets (MSDSs)/Safety Data Sheets (SDS) were not available for all chemicals used in the workplace (e.g. grease for compactor rollers).

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4. 29CFR1910.1030(c)(1)(i):

Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

\* The current written plan met most of the requirements; however, it did not include the required exposure determination (the list of job tasks and employees who could be exposed to blood or other potentially infectious materials), but rather referenced the separate Hazard Assessments for personal protective equipment (PPE). A PPE Hazard Assessment was not available for all tasks covered under the standard (e.g. cleaning restrooms). The exposure determination must be part of the exposure control plan. In addition, the plan may cover the entire Public Works Department, but must include workplace-specific information.

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5. 29CFR1910.1030(h)(1)(ii)(B)

A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability of receive vaccination as required by paragraph (f)(2).

\* Documentation of the Hepatitis shot series or signed waivers of declination were not complete for all employees identified as having occupational exposure.

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6. 29CFR1910.305(b)(1):

Conductors entering boxes, cabinets, or fittings shall also be protected from abrasion, and openings through which conductors enter shall be effectively closed. Unused openings in cabinets, boxes, and fittings shall be effectively closed.

\* All electrical panels and junction boxes need to have all unused openings plugged to prevent accidental contact. A knockout was missing on an electrical outlet in the transfer station office.

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7. 29CFR1910.26(c)(1)

General." To get maximum serviceability, safety, and to eliminate unnecessary damage of equipment, good safe practices in the use and care of ladder equipment must be employed by the users.

\* Ladder(s) was not maintained or used in a safe manner. The manufacturers' duty rating label was missing from the step ladder in the transfer station office.

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8. 29CFR1910.303(g)(1)(i):

Working clearances. Except as required or permitted elsewhere in this subpart, the dimension of the working space in the direction of access to live parts operating at 600 volts or less and likely to require examination, adjustment, servicing or maintenance while alive may not be less than indicated in Table S-1. In addition to the dimensions shown in Table S-1, workspace may not be less than 30 inches wide in front of the electric equipment. Distances shall be measured from the live parts if they are exposed or from the enclosure front or opening if the live parts are enclosed. Concrete, brick, or tile walls are considered to be grounded. Working space isn't required in back of assemblies such as dead-front switchboards or motor control centers where there are no renewable or adjustable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back.

\* All electrical panels and disconnects need a clear work space of 36 inches. The electrical panel in the transfer station office did not have the required clearance.

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9. 29CFR1910.157(c)(1):

Portable fire extinguishers were not mounted, located and identified so that they were readily accessible without subjecting the employees to injuries:

\* The fire extinguisher in the swap shop was appropriately mounted and located, but was not identified.

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10. 29CFR1910.157(e)(2):

Portable extinguishers or hose used in lieu thereof under (d)(3) of this section shall be visually inspected monthly.

\* The fire extinguisher in the dozer was missing a monthly inspection.

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11. 29CFR1910.303(b)(1):

Electrical equipment was not free from recognized hazards that were likely to cause death or serious physical harm to employees:

\* The sheathing was damaged on a power cord for the compactor where the cord enters the machine.

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12. 29CFR1910.305(a)(2)(i)(b)

Temporary wiring may be used for a period not to exceed 90 days for Christmas decorative lighting, carnivals, and similar purposes.

\* Extension cords are for temporary use only (90 days or less). An extension cord observed in the room beneath the compactor appeared to be in long-term use.

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13. 29CFR1910.23(c)(1):

Every open-sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing (or the equivalent as specified in paragraph (e)(3) of this section) on all open sides except where there is entrance to a ramp, stairway, or fixed ladder. The railing shall be provided with a toeboard wherever, beneath the open sides...

\* A railing shall be in place where openings in a floor or platform expose employees or objects to a fall of 4 feet or greater. Such a fall hazard was identified at the top of the stairs near the guardrail at the north side of the compactor building. In addition, a potential fall hazard was identified at the retaining wall beside the wood pile which had plastic drums to keep vehicles away, but is not positive protection from a fall by the retaining wall.

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14. T.26 Ch.6 561

General Duty of Employers - It is declared the public policy of the State of Maine that workers employed in any occupation shall be protected from hazards to their health or safety and that working conditions shall be maintained that will be reasonably free of hazards to their health and safety.

\* An employee indicated that there have been accidents in the past where vehicles have backed up into the walls/door of the office in the compactor building. Currently, traffic cones are in place to provide citizens with a visible barrier to reference when driving into the compactor building. The cones do not offer any physical protection to employees entering/exiting or working in the office. Physical barriers are needed to reduce the potential for worker injury.

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**APPENDIX G**

**WOODARD & CURRAN STRUCTURAL CONDITION ASSESSMENT  
(MAY 8, 2015)**

## MEMORANDUM



TO: Mr. Robert Malley – Director of Public Works, Cape Elizabeth, ME  
FROM: Jim Sturgis, P.E. – W&C Sr. Structural Engineer  
DATE: May 8, 2015  
RE: Cape Elizabeth Transfer Station  
Structural Condition Assessment

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### Introduction

As requested by Town of Cape Elizabeth, Maine (Town), Woodard & Curran has conducted a structural condition assessment of the Town's transfer station facility. The purpose of this evaluation was to identify building components that have structural deficiencies, assess the structural integrity of the building and its components, assess the suitability of this structure for continued long-term use, and provide a cost estimate for implementing improvements that are recommended to extend the design life of the structure at least 20 years. This assessment is limited to the condition of structural items only. Other disciplines such as electrical, mechanical, and HVAC, were not inspected as part of this scope but could be provided by Woodard & Curran if desired. No structural calculations or structural code reviews were performed to determine if the existing facility meets current building code requirements for wind, seismic, snow, and other load criteria.

A previous structural condition assessment was performed by Structural Design Consulting, Inc. of Falmouth in November of 2002, which was reviewed and incorporated into this current assessment. This Memorandum includes the following sections: Existing Construction; Observations & Recommendations (including a Summary Table); Conclusions; and Photo Appendix.

### Existing Construction

The existing building is 30' x 40' and was constructed in 1978; the facility was designed by Edward C. Jordan Company, Inc. The structure has two levels and was built into a sloping grade such that grade is even with the Upper Level on the west side and even with the Lower Level on the east side (see Photos 1 & 2). The Lower Level of the facility, which takes up the eastern rectangular portion of the overall building footprint, consists of open area including the hopper (above), compactor and hydraulic ram, and various mechanical and electrical equipment. The Lower Level has reinforced concrete foundation/retaining walls on the north, west, and part of the south walls, a suspended concrete slab with steel beam support framing around the hopper, and an overhead door for the compactor box trailer on south side, while the east side has metal framing/wall panels full height down to the ground level.

The Upper Level has a slab-on-grade concrete approach slab for the front/western half, on which the public walks over to access the hopper; the hopper and wood-framed Office/Control Room share the back/eastern half of the Upper Level. The west face is mostly open, with various security fence gates that are closed when the facility is not in use. The hopper is protected with a heavy-duty pipe guard rail and swinging chain-link fence gates. The entire footprint is covered with a superstructure consisting of a pre-engineered metal building. The building has vertical-corrugated metal wall panels for exterior siding, no interior liner panels, horizontal Z-shaped wall girts, Z-shaped roof purlins, tapered steel rigid frames, and what appears to be a standing seam metal roof. The concrete foundation walls extend several feet



above the Upper Level Floor to act as knee walls. The sloped grade on the north side of the building has a steel stair, which provides convenient access between the Upper and Lower Levels of the facility.

### **Observations & Recommendations**

In general, this facility was found to be in fair condition for its age and the structural integrity of the building and its foundation are intact. However, there are several areas that require prompt and timely attention to correct the deficiencies identified before they develop into more serious structural concerns. In short, the major issues identified include:

- The Upper Level concrete slab-on-grade in front of the hopper has extensive surface spalling and many hidden “hollow”, delaminated areas that need repair (see Photo 3); also, the Upper Level concrete knee walls have some concrete spalling that need repair;
- The exterior metal wall panels have numerous areas that have holes and corrosion, and should be either selectively or completely replaced to tighten up the building envelope to resist weather penetration and avoid continued deterioration of structural framing members (see Photo 4);
- East wall metal siding alongside the compactor terminates at grade and is in poor condition and deteriorated along its base (see Photo 5) – metal wall panels should be replaced and a 6” high concrete curb should be installed so that replaced siding terminates several inches above grade;
- Several framing members (horizontal girts, roof purlins) have an accumulation of dirt and debris on them, which contributes to accelerated corrosion especially the along the lower east wall (see Photo 6);
- Steel rigid frames, X-bracing, wall girts, roof purlins, and other framing have various degrees of corrosion and peeling paint, and all need to be prepared and repainted to extend their design life (see Photo 7);
- Hopper plate steel and the steel floor framing at its perimeter have advanced levels of corrosion and deterioration, and need to be properly inspected, prepared, and repainted to reduce future corrosion (see Photo 8);
- The Compactor, which we understand is scheduled for replacement, will require significant demolition of the concrete base curbs into which the steel compactor framing is embedded and encased (see Photo 9);
- For the exterior steel stair, the top landing support bracket is rusted through the metal and needs replacement (see Photo 10).



The following is a more detailed summary of the observations made with associated recommendations. The last column assigns a Priority Level (PL) to each repair issue, to assist the Town in prioritizing repairs: PL 1 = highest priority/address in the next year; PL 2 – medium priority/address in the next 1 – 3 years; PL 3 = lowest priority/address in the next 3 – 5 years. The facility does not appear to have any immediate safety or structural concerns that put the public or structure at risk; however, the time intervals presented with each Priority Level are being recommended so that prompt and timely repairs are made for the purpose of extending the life of the structure.

Summary of Observations & Recommendations

Item #	Level; Loc'n	Description	Observation	Recommendation	PL
1	Lower; N, S, & W walls	Exterior (Ext) concrete foundation	Good condition, no cracking	No work required.	—
2	Upper & Lower; N wall	Ext metal wall panels	Minor corrosion of base flashing angle; two small areas (6"x6" and 2" dia) with rusted holes in siding	Replace only damaged metal panels or re-skin entire building.	1
3	Lower; N wall	Ext metal wall panel base flashing angle	Base flashing angle has a build-up of debris and moss at base of siding panels, which traps moisture and accelerates corrosion.	Pressure wash or otherwise clean top of base angle to ensure areas are free to dry out (TYP all faces of building).	1
4	Lower; N wall	4" dia stove pipe	Upper portion of pipe near roof level is corroded.	Inspect, and prep/paint or replace pipe.	2
5	Lower; N wall	Ext steel stair, painted channel stringers, galv grating treads	Fair condition; railings and channel stringers have peeling paint and minor corrosion; galvanized steel grating treads in good condition; angle support bracket under top landing is compromised/rusted through.	Prep and paint both channel stringers and railings; do not paint grating stair treads; provide new galvanized steel support below top stair landing to replace compromised support.	1



Item #	Level; Loc'n	Description	Observation	Recommendation	PL
6	Upper & Lower; E wall	Ext metal wall panels	Localized corrosion in several areas; holes through metal in 3 lower panels and 3 upper panel sections; siding is rotten along base at grade; much of corrosion is in line with girt lines.	Replace only damaged metal panels or re-skin entire building. Inspect girts when wall panels are removed and girts are cleaned – some girts may require replacement.	1
7	Lower; E wall	Ext metal wall panels	Metal siding is rotten along base as it is right at pavement level and in contact with debris/vegetation; one wall panel is bent outward; north bump-out has a concrete base curb, southern half does not.	Replace all metal panels and build 6"x6" concrete curb along base of siding, to terminate siding several inches above grade.	1
8	Lower; E wall	Metal door into bump-out space	3'-4" x 7' painted metal door operates okay, but hardware is worn, hinges are corroded, and door panel has major gouge in ext metal door skin; door has no closer; frame is okay.	Replace metal door in kind, with new SS hinges, SS hardware, and provide closer to keep door from blowing open with wind. Prep and paint new door and existing frame.	2
9	Lower; E wall	Metal door near compactor opening	3' x 7' painted metal door operates okay, but hardware is worn and hinges are corroded; door has no closer; frame is okay. Metal wall is not properly braced and surrounding wall moves when door is opened and closed.	Replace hinges and hardware with new SS hardware, and provide closer to keep door from blowing open with wind. Prep and paint new door and existing frame. Stiffen wall by reinforcing door frame's connection to building wall girts.	2
10	Lower; S wall	Ext concrete retaining wall	Good condition, no cracking	No work required.	—





Item #	Level; Loc'n	Description	Observation	Recommendation	PL
11	Upper & Lower; S wall	Ext metal wall panels	Localized corrosion in one 5' x 2' area with multiple holes through metal; much of corrosion appears to be concentrated along a concrete beam at Upper Level floor in back/SE corner of hopper (above Lower Level compactor opening). Also, corrosion observed at base of siding along compactor opening; metal corner and opening trim is dented.	Replace only damaged metal panels or re-skin entire building. Replace trim pieces at building corner and around opening. Inspect hopper sheet steel in this area and repair hopper steel to ensure there are no discontinuities that may allow moisture to be trapped against siding.	1
12	Lower; S wall	Roof downspout in SE corner	Lower 6' of downspout is missing. As is, a high concentration of water is directed along the metal siding which accelerates corrosion in this area.	Extend downspout 6' and provide elbow at base.	2
13	Lower; S wall	Yard light above compactor opening	Yard light wall pack has broken globe/glass	Replace light with new unit.	2
14	Upper; S wall	Sliding window	Window is in fair condition, but glass is covered with paint splatter and track is full of dirt and grime.	Clean sliding window track; clean glass or replace window.	3
15	Upper; W wall	Ext metal wall panels and trim	Most of the west elevation is open, but lower portions of siding and especially metal trim around wall opening and at building corners is in poor condition with many dents and damage.	Replace only damaged metal panels or re-skin entire building. Replace trim pieces at building corner and around opening.	1
16	Upper; W wall	Exterior metal wall panels and trim	White gable trim has discolorations on it, but appears to be in sound condition.	Clean, prep, and paint existing building trim OR replace if building is re-skinned (TYP all faces of building).	3



Item #	Level; Loc'n	Description	Observation	Recommendation	PL
17	Upper; W wall	Chain-link fence security gate at entrance to hopper area.	Swinging fence gate on rollers in fair condition with minor corrosion.	Prep/paint any corroded areas with 2 coats of zinc/galvanized repair paint.	3
18	Upper; Hopper slab over west half	Concrete slab-on-grade where public access hopper.	Slab is in poor condition; it has approximately 15 visible spalls but hammer-sounding revealed many hidden areas with hollow, delaminated concrete; assume approximately 150 SF of floor area is spalled and/or delaminated and needs repair.	Typical Spall Repair: sound and delineate entire slab area to identify spalled and/or delaminated concrete; saw-cut perimeter of all areas, chip out to a minimum depth of 1/2" or as required to achieve sound concrete, apply epoxy bonding compound and/or mechanical attachment depending on repair depth, and install premium repair mortar. After spall repair, coat repaired floor with a durable, waterproof coating system both to provide protection and uniform color.	1
19	Upper; N wall	Foundation knee wall above floor	Top layer of knee wall is cracked; hammer sounding revealed approx. 15 sf of spalled, delaminated concrete along top of wall.	Provide Typical Spall Repair as outlined in the Hopper Slab repair (Item 18) above. No coating required after spall repair.	1
20	Upper; S wall	Foundation knee wall above floor	Interior (Int) face of wall down near floor has approximately 3 sf of spalled, delaminated concrete.	Provide Typical Spall Repair as outlined in the Hopper Slab repair (Item 18) above. No coating required after spall repair.	1
21	Upper; NE corner	Office Shed	Wood-framed shed build on top of concrete elevated slab; GWB int finish, T1-11 ext siding; wood & plywood floor. Fair condition, but ext siding is rotten in places near hopper; paint splatter on siding along hopper.	Repair lower 12" of siding with new siding or maybe a solid trim board (more durable); prep and paint	2
22	Upper; NE corner	Office Bathroom	Bathroom has a wooden storage shelf up high that is heavily loaded and has excessive deflection. This is a safety hazard.	Remove items on shelf; replace shelf with new shelf with better support; use shelf only for light storage.	1



Item #	Level; Loc'n	Description	Observation	Recommendation	PL
23	Upper; NE corner	Office/Control Room	Existing sliding window has dirt and grime in track; window is not protected on hopper side.	Clean sliding window track; consider installing a protective metal grill on hopper side.	3
24	Upper; SE corner	Hopper gates and guard rail	8" dia pipe guard rail and chain-link fence gates in fair condition.	No work required.	—
25	Upper; SE corner	Hopper	Hopper plate steel has surface corrosion but appears sound in general; welded seams appear to be intact; upper SE corner has visible corrosion/holes; sealant along siding is failing.	Conduct closer inspection of hopper and repair any plate steel or welds that are unsound, such as upper SE corner. Replace sealant along top edge at metal siding.	1
26	Upper; all walls	Metal building framing (in general)	Painted steel rigid frames, horizontal Z-girts, and rod X-bracing are in fair condition with surface rust and some areas of peeling paint. Int face of metal siding is in fair condition. Wall girts have debris, dirt, nest material piled on them, which contributes to corrosion.	Clean all framing members of any dirt or debris, prep, and paint with an industrial-grade coating system. After cleaning and prior to painting, inspect all framing for signs of serious corrosion. Prep and repaint all steel framing and bracing members. Paint int face of metal siding (or re-skin building).	1
27	Upper; roof	Metal building framing (in general)	Painted steel rigid frames, rod X-bracing, and roof Z-purlins are in fair condition with surface rust and some areas of peeling paint. Int face of metal roof panels are in fair condition with no obvious staining from past leakage. Roof purlins have debris, dirt, nest material piled on them, which contributes to corrosion.	Clean all framing members of any dirt or debris, prep, and paint with an industrial-grade coating system. After cleaning and prior to painting, inspect all framing for signs of serious corrosion. Prep and repaint all steel framing and bracing members.	1
28	Upper; E wall	Metal Z-girt above hopper	This girt is bent downward, indicating possible heavy loads were hung from it at some point.	No work required, but monitor this over time and avoid hanging any loads from wall girts.	3



Item #	Level; Loc'n	Description	Observation	Recommendation	PL
29	Lower; floor slab	Concrete floor slab	Slab was covered with dirt and trash, so close inspection no possible; floor appears to be in sound condition. Isolation joints at N & W wall perimeter are not sealed.	Clean floor and re-inspect. Clean out N & W wall perimeter isolation joints and provide new backer rod and sealant.	2
30	Lower; floor slab	Compactor foundation curbs	(2) continuous concrete curbs each 20"W x 14" H x 30' L serve as foundations for compactor steel frame and are in fair condition; frame is embedded and encased into these curbs.	If compactor is replaced, it appears that this curb would need to be demolished down to floor slab and a new foundation rebuilt to accommodate the configuration of the new compactor support frame.	2
31	Lower; N & W walls	Interior (Int) concrete foundation	Good condition, no cracking	No work required.	—
32	Lower; S half	Hopper steel	S side: moderate corrosion of hopper and beams; E side: minor corrosion; N side: moderate corrosion, worst in NW corner; W side: moderate corrosion where hopper meets steel beam. Many of these areas are partially concealed and require further inspection.	Clean and inspect hopper steel, welds, and steel floor beams as part of compactor replacement project; some areas of steel beams are concealed by hopper and require closer inspection. If sound, prep and repaint all hopper steel and steel floor beams.	1
33	Lower; N half	Concrete elevated slab below Office	Underside of slab is in good condition, with one minor spalled area (2 sf).	Provide Typical Spall Repair as outlined in the Hopper Slab repair (Item 18) above. No coating required after spall repair.	1



Item #	Level; Loc'n	Description	Observation	Recommendation	PL
34	Lower; E wall	Int metal wall framing	Steel wall girts are in poor condition, especially girts at 8' and 15' above Lower Level floor; there is over 2" depth of solid dirt and debris caked onto top of horizontal Z-girts, which act as a bucket to hold material. This contributes to accelerated corrosion of these members. S end of girts have severe corrosion, while interior sections have moderate corrosion but appear sound.	Fully clean all wall Z-girts down to bare metal and re-inspect condition. These girts may require some level of replacement or reinforcement. If they are found to be sound after cleaning, then all steel shall be prepped and painted on all sides while metal siding is replaced.	1
35	Lower; E wall	Int metal siding	Metal siding is badly corroded in some areas along the horizontal Z-girts and all along the bottom where siding meets grade.	Replace damaged wall panels or fully re-skin building with new siding; also add a 6" x 6" conc curb between bump-out area (which has a curb) and SE corner to get new siding up above grade.	1
36	Lower; N wall	Int metal siding	There are no girts below Upper Level floor; siding extends from top of concrete building wall upward. Siding in fair condition.	Replace only damaged metal panels or re-skin entire building. Prep and repaint any steel framing.	1
37	Lower; NW corner	Interior insulated water main	Water main has a steady leak depositing water on the Lower Level floor. Pipe and valves are concealed by insulation jacketing.	Plumber should inspect pipe and valve(s), and repair leak as required.	1



## Conclusions

The existing transfer station is currently 37 years old. This condition assessment identified a number of structural and architectural issues that warrant prompt attention, with a Priority Level (PL) assigned to each item to assist the Town with prioritizing repairs. In general, the facility was found to be in fair condition, but it does require several repairs and improvements to extend its life and prevent current problems from developing into more serious structural concerns in the future. Based on our observations, we recommend the following actions to the Town:

1. Refer to "Summary of Observations & Recommendations" Table above for recommendations for each individual component identified during Woodard & Curran's assessment.
2. The most significant issues identified are as follows: the hopper slab has extensive surface spalling as does the north concrete knee wall by the Office; the metal siding has several holes and thin areas; the steel wall and roof framing is in need of repainting; the steel framing around the hopper and the hopper itself have areas of localized corrosion that need to be more closely inspected, prepped and painted; the hopper sheet steel has some areas that require repair; the horizontal wall Z-girts in the Lower Level east wall are in poor condition and may need replacement; the east wall siding is rotten where it meets grade and requires replacement with the addition of a concrete curb; the compactor foundation curbs will likely require replacement if the compactor is to be replaced.
3. Since this is a pre-engineered, specialty building system, it is recommended that the Town contact a metal building manufacturer (MBM) to assess the condition of the metal building superstructure and the feasibility of repairing some or all of the metal wall panels. Woodard & Curran would be happy to work with the Town to identify a reputable MBM that could assess the building. The MBM should inspect the condition of framing, especially the horizontal Z-girts in the Lower Level east wall, to determine if replacement is necessary. A MBM would be the most-qualified to comment on the best options for repair and replacement of the metal building components as well as the associated costs, including consideration of partial or full replacement of the metal building superstructure.
4. A mechanical contractor or vendor that specializes in trash compactor systems should conduct a thorough inspection of the entire system. The compactor system was not inspected as part of this structural condition assessment.
5. Mechanical, electrical, and HVAC items were not inspected as part of this structural condition assessment, and these items should also be evaluated.

A cost opinion is not included in this Structural Condition Assessment Memorandum; detailed costs and options will be provided to the Town under separate cover.

Woodard & Curran appreciates this opportunity to provide continuing consulting engineering services to the Town. We would be happy to further assist the Town as needed to develop and design the necessary improvements for extending the life of this transfer station.

**PHOTO APPENDIX**

**Cape Elizabeth Transfer Station - Structural Condition Assessment  
May 2015**



**Photo #1 – Exterior view of west (front) and south (side) elevations.**



**Photo #2 – Exterior view of east (back) and north (side) elevations.**

**PHOTO APPENDIX**

**Cape Elizabeth Transfer Station - Structural Condition Assessment  
May 2015**



**Photo #3 – Upper Level Hopper Slab: typical area with concrete spalling.**



**Photo #4 – Southeast corner of building: typical holes rusted through metal wall panels.**



**PHOTO APPENDIX**  
**Cape Elizabeth Transfer Station - Structural Condition Assessment**  
**May 2015**



**Photo #5 – East Elevation of Building: wall panels extend to grade on left side of photo.**



**Photo #6 – Lower Level East Wall of Building: horizontal Z-girt with over 2" of continuous soil/debris.**

**PHOTO APPENDIX**

**Cape Elizabeth Transfer Station - Structural Condition Assessment  
May 2015**



**Photo #7 – Upper Level North Wall: horizontal girt and X-bracing with corrosion, peeling paint, and debris.**



**Photo #8 – Lower Level Hopper & Floor Beams (Above): corrosion of painted hopper and steel floor beams.**

**PHOTO APPENDIX**

**Cape Elizabeth Transfer Station - Structural Condition Assessment  
May 2015**



**Photo #9 – Lower Level Floor below Compactor: compactor support steel encased in concrete curbs.**



**Photo #10 – Exterior Stair on North Side: heavy corrosion of angle bracket below top landing.**

**APPENDIX H**

**WOODARD & CURRAN ITEMIZED COST ESTIMATES FOR THE REPAIR  
RECOMMENDATIONS OF THE EXISTING COMPACTOR BUILDING  
(JULY 10, 2015)**

## MEMORANDUM



TO: Mr. Robert Malley – Director of Public Works, Cape Elizabeth, ME  
FROM: Megan McDevitt, PE  
DATE: July 10, 2015  
RE: Itemized Cost Estimate for the Repair Recommendations of the Existing Compactor Building at the Cape Elizabeth Transfer Station

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Previously, Woodard & Curran developed a cost estimate for the repairs identified in the *Structural Condition Assessment Memorandum*, dated May 8, 2015, for the existing compactor building at the Cape Elizabeth Transfer Station. In addition to the structural and architectural repairs, Woodard & Curran also included pricing for upgrading the electrical system and office within the existing building, assuming the building would continue to be used for MSW disposal and compaction. The total estimated cost to implement all of the repairs and upgrades for continued solid waste compaction was \$200,000.

Given the current Transfer Station conceptual site plan preferred by the Solid Waste & Recycling Long Range Planning Committee, Woodard & Curran has reevaluated the identified building repairs, upgrades and associated costs. Woodard & Curran has developed two additional repair and upgrade options of the existing building for use as a future e-waste handling and storage building:

- **Minimum Repairs & Upgrades: \$77,990**
  - This option includes the minimum structural repairs recommended to extend the life of the existing building foundation, including repairing all spalled and cracked concrete.
  - This option also includes upgrading the electrical systems and expanding the office to improve the function of the building.
- **Recommended Repairs & Upgrades: \$142,290**
  - This option includes the minimum structural repairs recommended to extend the life of the existing building foundation, including repairing all spalled and cracked concrete.
  - This option also includes the architectural repairs recommended to extend the life of the building superstructure, including patching and painting metal siding, and cleaning and painting all metal framing.
  - This option also includes upgrading the electrical systems, expanding the office, and providing a structural floor over the former hopper opening to increase floor and storage area.

The table on the following pages provides a breakdown of the estimated costs for each of the repair and upgrade options.

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**Table: Itemized Cost Estimate for Repair & Upgrade Options**

Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from <i>Memorandum</i> , including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
1	Lower; N, S, & W walls	Exterior (Ext) concrete foundation	No work required.	N/A	N/A	N/A
2	Upper & Lower; N wall	Ext metal wall panels	Re-skin entire building.	\$51,150.00	N/A	\$25,000.00 (patch & paint panels)
3	Lower; N wall	Ext metal wall panel base flashing angle	Pressure wash or otherwise clean top of base angle.	See Item 26 Below	N/A	See Item 26 Below
4	Lower; N wall	4" dia stove pipe	Inspect, and prep/paint or replace pipe.	\$1,270.00	N/A	N/A
5	Lower; N wall	Ext steel stair, painted channel stringers, galv grating treads	Prep and paint both channel stringers and railings; provide new galvanized steel support below top stair.	\$4,650.00	N/A	\$4,650.00
6	Upper & Lower; E wall	Ext metal wall panels	Inspect girts when wall panels are removed and girts are cleaned – some girts may require replacement.	\$11,140.00	N/A	N/A
7	Lower; E wall	Ext metal wall panels	Build 6"x6" concrete curb along base of siding	\$4,720.00	N/A	\$4,720.00
8	Lower; E wall	Metal door into bump-out space	Replace metal door in kind, with new SS hardware; prep & paint door and existing frame.	\$3,170.00	N/A	N/A



Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from Memorandum, including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
9	Lower; E wall	Metal door near compactor opening	Replace metal door in kind, with new SS hardware; prep and paint new door and existing frame.	\$3,170.00	N/A	N/A
10	Lower; S wall	Ext concrete retaining wall	No work required.	N/A	N/A	N/A
11	Upper & Lower; S wall	Ext metal wall panels	Re-skin entire building.	See Item 2 Above	N/A	See Item 2 Above
12	Lower; S wall	Roof downspout in SE corner	Extend downspout 6' and provide elbow at base.	\$250.00	N/A	\$250.00
13	Lower; S wall	Yard light above compactor opening	Replace light with new unit.	\$6,940.00	N/A	N/A
14	Upper; S wall	Sliding window	Clean sliding window track; replace window.	\$1,350.00	N/A	N/A
15	Upper; W wall	Ext metal wall panels and trim	Re-skin entire building. Replace trim pieces at building corner and around opening.	See Item 2 Above	N/A	See Item 2 Above
16	Upper; W wall	Exterior metal wall panels and trim	Replace if building is re-skinned.	See Item 2 Above	N/A	See Item 2 Above
17	Upper; W wall	Chain-link fence security gate at entrance to hopper area.	Prep/paint any corroded areas with 2 coats of zinc/galvanized repair paint.	\$910.00	N/A	N/A



Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from Memorandum, including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
18	Upper; Hopper slab over west half	Concrete slab-on-grade where public access hopper.	Provide typical spall repair; coat repaired floor with a durable, waterproof coating system	\$19,760.00	\$19,760.00	\$19,760.00
19	Upper; N wall	Foundation knee wall above floor	Provide typical spall repair.	\$2,020.00	\$2,020.00	\$2,020.00
20	Upper; S wall	Foundation knee wall above floor	Provide typical spall repair.	\$470.00	\$470.00	\$470.00
21	Upper; NE corner	Office Shed	Repair lower 12" of siding with new siding; prep and paint	N/A	N/A	N/A
22	Upper; NE corner	Office Bathroom	Remove items on shelf; replace shelf with new shelf with better support.	N/A	N/A	N/A
23	Upper; NE corner	Office/Control Room	Clean sliding window track.	N/A	N/A	N/A
24	Upper; SE corner	Hopper gates and guard rail	No work required.	N/A	N/A	N/A
25	Upper; SE corner	Hopper	Conduct closer inspection of hopper and repair any plate steel or welds that are unsound, such as upper SE corner. Replace sealant along top edge at metal siding.	\$9,300.00	N/A	N/A





Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from Memorandum, including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
26	Upper; all walls	Metal building framing (in general)	Clean all framing members; prep, and paint with an industrial-grade coating system.	\$10,680.00	N/A	\$10,680.00
27	Upper; roof	Metal building framing (in general)	Clean all framing members; prep, and paint with an industrial-grade coating system.	See Item 26 Above	N/A	See Item 26 Above
28	Upper; E wall	Metal Z-girt above hopper	No work required, but monitor this over time and avoid hanging any loads from wall girts.	N/A	N/A	N/A
29	Lower; floor slab	Concrete floor slab	Clean out N & W wall perimeter isolation joints and provide new backer rod and sealant.	\$1,320.00	N/A	N/A
30	Lower; floor slab	Compactor foundation curbs	Demolish compactor curb down to floor slab and rebuild foundation to accommodate the configuration of the new compactor support frame.	\$11,990.00	N/A	N/A
31	Lower; N & W walls	Interior (Int) concrete foundation	No work required.	N/A	N/A	N/A



Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from Memorandum, including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
32	Lower; S half	Hopper steel	Clean and inspect hopper steel as part of compactor replacement project. If sound, prep and repaint all hopper steel and steel floor beams.	See Item 25 Above	N/A	N/A
33	Lower; N half	Concrete elevated slab below Office	Provide typical spall repair.	\$240.00	\$240.00	\$240.00
34	Lower; E wall	Int metal wall framing	Fully clean all wall girts - may require some replacement.	See Item 6 Above	N/A	N/A
35	Lower; E wall	Int metal siding	Fully re-skin building with new siding; add a 6" x 6" concrete curb between	See Items 2 & 7 Above	N/A	See Items 2 & 7 Above
36	Lower; N wall	Int metal siding	Re-skin entire building. Prep and repaint any steel framing.	See Items 2 & 26 Above	N/A	See Items 2 & 26 Above
37	Lower; NW corner	Interior insulated water main	Plumber should inspect pipe and valve(s), and repair leak as required.	N/A	N/A	N/A
38	Upper; NE corner	Upgrade Office	Demo existing office; Provide larger, upgraded office.	\$24,200.00	\$24,200.00	\$24,200.00
39	Upper; NE corner	Electrical	Upgrade all electrical systems.	\$31,300.00	\$31,300.00	\$31,300.00



Item #	Level; Location	Item Description	Summary of Recommendation	Estimated Cost of Items from <i>Memorandum</i> , including Office and Electrical Upgrades (Assumes building is used for MSW disposal)	Estimated Cost of Minimum Repairs & Upgrades (Assumes building is used for E-waste)	Estimated Cost of Recommended Repairs & Upgrades (Assumes building is used for E-waste)
40	Upper; SE corner	Hopper	Remove hopper; provide plate and frame to create additional floor space.	N/A	N/A	\$19,000.00
<b>Total Estimated Cost:</b>				<b>\$200,000.00</b>	<b>\$77,990.00</b>	<b>\$142,290.00</b>

**APPENDIX I**

**BACKGROUND INFORMATION ON COMPOSTING  
AND ORGANICS RECYCLING  
(FROM THE 2015 CAPE ELIZABETH RECYCLING REPORT)**

**BACKGROUND INFORMATION ON COMPOSTING AND ORGANICS RECYCLING**  
**(from Cape Elizabeth Recycling Report of 2015)**

***Background***

Organics recycling—commonly known as composting—is a controlled, aerobic (requiring oxygen) biological process which results in the decomposition of organic materials into a stable, humus-like product. This decomposition process occurs naturally in nature, and is performed by microorganisms (bacteria, fungi, and other living organisms) which digest the organic residues for food and energy and contribute to the decomposition process. The primary end-products are carbon dioxide, water, and compost.

Composting is a growing solution to solid waste management. According to the U.S. Environmental Protection Agency (EPA), the amount of waste that has been diverted from landfill disposal through composting has quadrupled since 1990, from 2% of total MSW to 8.4% today. In fact, 62% of all yard trimmings are composted in more than 3,500 municipal yard trimming composting programs in the U.S. and 23 states ban at least some organics disposal, mostly leaves, grass and other yard debris, in landfills.

In spite of those efforts, about 68 million tons of solid waste being sent to landfills is organic material that is not being recycled or recovered. This includes yard debris and food scraps (23%), and wet/soiled paper (5%). Further EPA information states that food leftovers are the single-largest component of the waste stream by weight in the United States. Americans throw away more than 25% of the food they prepare, equaling about 96 billion pounds of food waste each year. The nation spends about \$1 billion a year to dispose of food waste.

According to the National Solid Waste Management Association, this disposing of these 68 million tons of compostable materials costs cities and municipalities more than \$2 billion each year in unnecessary and easily avoided costs.

A study conducted by the University of Maine in 2011 concluded that more than 40% (by weight) of waste generated in the state is organic in nature, with lesser amounts accounted for by paper and plastic. The Maine Department of Environmental Protection estimates that food residuals constitute 28% of MSW in the state. Sarah Lakeman, Sustainable Maine Policy Advocate for the Natural Resources Council of Maine, says that tackling the organic component will help the state meet its waste recycling goals. "There's really no good reason for it to be in there, because it could go to much better use being composted or being used for energy," according to Lakeman.

***Cape Elizabeth Recycling Committee Survey Details***

In October and November 2014, the Recycling Committee fielded an online survey to gather input from the community. The survey was intended to gauge opinions on a variety of questions related to food waste composting, ranging from current practices and behaviors to providing direction on possible longer range programs and services to be offered.

In analyzing the results, the Recycling Committee recognized that the survey respondents appeared to be self-selecting and that their input likely reflected the views of those who are likely

supporters of expansion of composting opportunities, with the preponderance of the responses indicating either an interest in and/or current participation in composting activities. Further, the overall response rate (N=238) was lower than hoped for, and due to its not being a completely randomized sample, was thus not statistically significant.

That being said, some of the top line results indicated:

- Slightly more than 2/3 of respondents indicated that they currently compost, with just over 54% indicating that they compost both food scraps and yard waste.
- There was a fairly even split among people who use an Earth Machine unit, another commercially available unit, or a pile/self-constructed unit.
- Just fewer than 2/3 of respondents indicated that they would or might utilize a drop-off location at the Recycling Center, if it was available. Half of those who said they wouldn't use the Recycling Center said that they simply preferred to compost at home.
- Almost ¾ of people surveyed said that they would not be interested in paying \$15/month for curbside pickup of organic waste. [Note: The Recycling Committee inferred that, based on the composition of the respondents, this data point was high based on the number of those people already composting on their own, and thus were unlikely want to pay for a commercial service.]