



December 5, 2016

Erik Street, Director of Public Works
Town of Yarmouth, Maine
200 Main Street
Yarmouth, ME 04096

Re: Town of Yarmouth Transfer & Recycling Center Operations Assessment

Dear Mr. Street:

On behalf of the Town of Yarmouth, Woodard & Curran has prepared the following assessment for the Town's Transfer & Recycling Center, located at 659 East Main Street. Woodard & Curran engineers Randy Tome and Megan McDevitt conducted the assessment of the Transfer & Recycling Center facility. Randy Tome is a licensed professional engineer with over 30 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 Mid-Coast Solid Waste Corp. (Rockport), Cape Elizabeth, Harpswell, Winthrop, Wiscasset, Ogunquit, Gray, Casco, Yarmouth and Harrison. Megan McDevitt is a licensed professional engineer with over nine years of both civil and structural engineering experience on public and private projects. Megan's recent experience includes performing assessments and developing recommended upgrades for the Transfer Station & Recycling Center in Cape Elizabeth, Maine and the Transfer Station in Dedham, Massachusetts.

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

Site Visit

Woodard & Curran engineers met with Public Works Director, Erik Street, and Town Engineer, Steven Johnson, on August 22, 2016 and discussed the history of the transfer station, current operations, and the potential improvements proposed by the Town's Solid Waste Committee. Woodard & Curran then visited the transfer station with Mr. Street and Mr. Johnson and observed vehicular and pedestrian movement within the facility. Woodard & Curran revisited the transfer station on October 21, 2016 and October 23, 2016, discussed current operations with the facility operators, and observed vehicular and pedestrian movements during a time period typically known for higher user volume.

General Facility Observations

Woodard & Curran made the following observations of the facility operations and users (residents and commercial haulers) during the multiple site visits to the Transfer & Recycling Center facility:

1. Vehicular and Pedestrian Traffic at Compactor and Recycling Containers: The facility typically operates with users initially parking their vehicles into one of nine parking spaces located in front of the solid waste compactor and recycling containers. Once in a parking space, users typically leave their vehicle and walk to as many as three different disposal locations, namely the solid waste compactor, the recycling containers and the existing



garage for cardboard and universal waste disposal. The following safety concerns were observed at this area during the site visits:

- Some users pull forward into the parking spaces, while others back into the parking spaces, causing vehicle congestion. Additionally, vehicles with trailers would extend beyond the end of the parking spaces, partially obstructing the main vehicle travel way (See Photo 1).
- Accessing the existing garage requires pedestrians to cross the main vehicle travel way for the site. Additionally, the egress from the existing garage leads pedestrians into the main vehicle travel way.

Overall, it was observed during the site visits that the mixing of vehicle and pedestrian traffic at the compactor, recycling containers and existing garage causes congestion, reducing efficient traffic flow and increasing the risk of accidents.

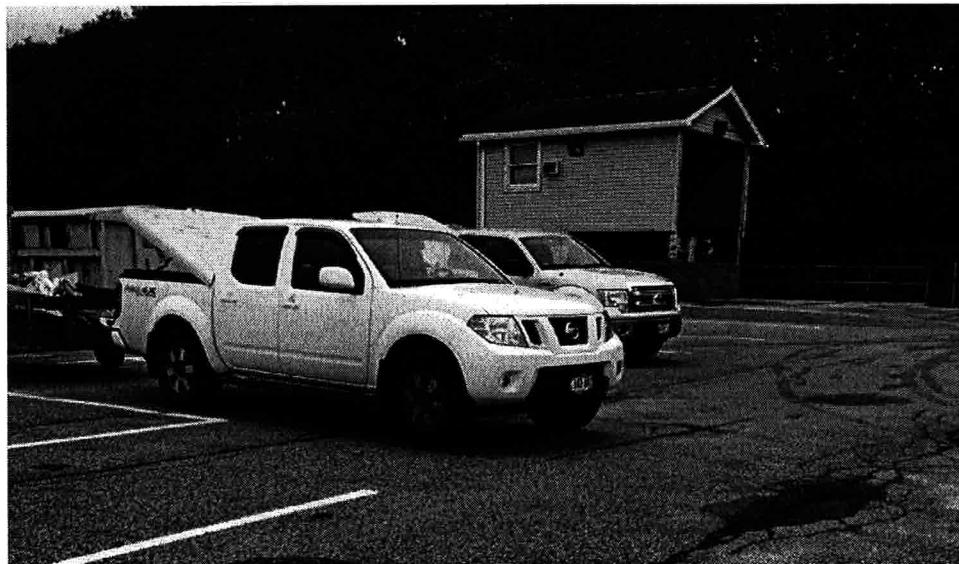


Photo 1 - Example of Vehicle with Trailer Extending into Travel Way

2. Single-Sort Recycling Containers and Cardboard: It was observed that having three different disposal locations decreases the level of service for the facility users. From 8:45 am to 9:15 am during the October 23rd site visit, Woodard & Curran observed 24 users park in the spaces in front of the compactor and recycling containers. The users then visited the following disposal locations:

- 5 users only visited solid waste compactor (21%);
- 9 users visited the solid waste compactor and recycling containers (37%); and
- 10 users visited the solid waste compactor, recycling containers and existing garage (42%).

Based on the above observations, almost 80% of the facility users visited more than one disposal location, requiring users to make multiple trips from their vehicles. During the October 23rd site visit, the recycling container closest to the solid waste compactor was full, requiring users to carry recycled materials farther to access an open container. It was also observed that disposing of recycled materials at the recycling containers took users



approximately three to four times longer than disposing of solid waste at the compactor due to the small and high openings on the containers.

3. **Facility Entrance and Access to Bulky Waste Area:** The facility entrance road consists of two lanes; a straight lane for accessing the compactors, containers, garage and Swap Shop and a right-turn lane for accessing the Bulky Waste area. The following traffic and safety concerns were observed at the facility entrance road:

- The intent is for users to access the site amenities by traveling around the site in a counterclockwise direction, however, the double yellow line striping at the facility entrance indicates vehicles could travel clockwise around the site (see Photo 2). This could result in additional vehicle congestion.



Photo 2 - Pavement Markings at Facility Entrance

- The access road to the Bulky Waste area is only wide enough for a single vehicle, however, the road provides two-way access.
- The right-hand turn into the Bulky Waste area is too restrictive for the trucks that haul the roll-off containers. It was observed that roll-off trucks had to swing into the adjacent lane in order to make the right-hand turn.
- Several vehicles at the facility entrance were observed making a left turn across the double yellow line to access the Swap Shop, instead of traveling counterclockwise around the site.
- It is unclear how vehicles coming from the site amenities (compactor, containers, garage and Swap Shop) should access the Bulky Waste area; there is no signage or turning lane provided. Several vehicles were observed crossing in front of traffic entering the facility, causing vehicle congestion.

Finally, it was observed that no signage is provided along the facility entrance road to direct users as to where the different items should be disposed of (i.e. appliances and construction debris items to be disposed of at Bulky Waste area). This required users to drive around the facility to locate an operator and ask for clarification.



4. **Loading Dock and Tractor Trailer Access:** Parking spaces for facility operators and visitors of the Swap Shop are located in front of the loading dock. During the October 21st site visit, a truck from Ewaste Recycling Solutions visited the site to haul the recycled electronic material. In order for the truck to access the loading dock, the facility operators had to stop working and relocate their personal vehicles (see Photo 3). Per discussions with the facility operators, Woodard & Curran understands that when larger trailers visit the site, facility operators have to ask owners of vehicles parked in front of the Swap Shop to relocate their vehicles.



Photo 3 – Ewaste Truck Blocks Parking Spaces

Recommended Conceptual Design

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. Based on our recent observations, there are opportunities to improve the overall safety and level of service of the current facility. Woodard & Curran has reviewed the potential improvements proposed by the Town's Solid Waste Committee, the observations made during the multiple site visits and the discussions with the facility operators and identified several improvements that can be implemented to reduce pedestrian and vehicle congestion. These improvements have been divided into two phases for cost considerations. The recommended improvements are shown on the attached conceptual design plans and summarized below:



Table 1: Summary of Recommended Improvements

Proposed Improvement	Advantage
Phase 1 – Safety, Level of Service and Traffic Improvements	
1. Remove existing single-sort recycling containers and add a second compactor for recycling. Remove parking spaces and create two drive-thru lanes.	<ul style="list-style-type: none">The existing single-sort recycling containers are difficult to use and inefficient to haul (a single-sort container typically only holds 1-ton of recycled materials). A recycling compactor with a large hopper will allow for easier and faster disposal of recycled materials. The large hopper will also allow for cardboard to be disposed of at the same location, eliminating the need for pedestrians to cross the vehicle travel way to access the garage.Compacting recycled materials will also reduce hauling costs (a compacted roll-off container typically holds 7 to 8 tons of recycled materials)The current parking spaces require vehicles to move forward and backward in the same area, increasing vehicle congestion. Creating two drive-thru lanes will direct all vehicles in a single direction. The drive-thru lanes will also provide more space for vehicles with trailers.
2. Construct concrete pads behind the compactors	<ul style="list-style-type: none">A fully compacted solid waste or recycling roll-off container is very heavy and tends to damage bituminous pavement when being moved. Constructing concrete pads behind the compactors will allow the Town to manage and move the containers without damaging the existing pavement.
3. Construct slip-lane for access to Bulky Waste Area	<ul style="list-style-type: none">The current access to the Bulky Waste area is insufficient for roll-off trucks. Widening the right-hand turn lane will allow for the trucks to access the area without swinging into the adjacent lane, reducing vehicle congestion and improving safety.
4. Construct separate exit lane from Bulky Waste area	<ul style="list-style-type: none">The current access to the Bulky Waste area is insufficient for two-way traffic. Constructing a separate lane from the Bulky Waste area will allow vehicles to safely exit the Bulky Waste area and reduce congestion at the facility entrance.
5. Relocate garage entrance and construct concrete island with parking spaces	<ul style="list-style-type: none">With the installation of a recycling compactor, users will no longer need to access the existing garage to dispose of cardboard. Relocating the entrance to the north side of the garage and creating new parking spaces will reduce congestion at the compactors. It will also provide safer parking and access for those users needing to dispose of universal waste (i.e. electronic, light bulbs, etc.) at the garage.
6. Miscellaneous site improvements	<ul style="list-style-type: none">Implement facility-wide signage and pavement marking improvements to delineate the proposed traffic patterns. It is anticipated that upgrades to the facility site lighting and stormwater management will also be required as a result of the proposed Phase 1 improvements.



Proposed Improvement		Advantage
Phase 2 – Improvement of Site Amenities		
1. Demolish existing garage		<ul style="list-style-type: none">The existing garage is located in the center of the overall facility, impeding sight lines for vehicles as they travel around the site. Demolishing the garage will improve vehicle sight lines and overall facility safety.
2. Construct new Swap Shop and Universal Waste building		<ul style="list-style-type: none">Currently, facility users have to make multiple stops to dispose of universal waste and visit the swap shop. Constructing a new pre-engineered metal building of sufficient size to house both Universal Waste and the Swap Shop will improve the level of service for facility users and consolidate operations for facility operators. As previously described, the new building will be located on the north side of the site, improving the sight lines throughout the site.
3. Construct new facility entrance and exit		<ul style="list-style-type: none">Improvements to the facility entrance are recommended to provide an improved route for vehicles coming from the site amenities attempting to access the Bulky Waste area. Additionally, a separate exit lane is recommended at the north side of the site for the large trailers hauling materials from the new Universal Waste and Swap Shop building. These improvements will help improve facility safety by reducing vehicle congestion
4. Relocate and expand facility parking		<ul style="list-style-type: none">To improve facility safety, it is recommended the Town provide parking as close as practical to the locations that users intend to utilize. Demolishing the existing loading dock and constructing a new facility parking area adjacent to the new Universal Waste and Swap Shop building will improve both safety and level of service for facility users.
5. Construct concrete island		<ul style="list-style-type: none">Once the existing garage is demolished, it is recommended an island be constructed to help delineate the proposed traffic pattern. A concrete island is recommended for durability, however, a grassed island could also be constructed at a reduced cost.
6. Miscellaneous site improvements		<ul style="list-style-type: none">Implement additional facility-wide signage and pavement marking improvements to delineate the proposed traffic patterns. It is anticipated that additional upgrades to the facility site lighting and stormwater management may be required as a result of the proposed Phase 2 improvements.

Permitting Requirements

Based on recent discussions with the Maine Department of Environmental Protection (MaineDEP) Solid Materials Management Unit regarding permitting requirements for transfer station upgrades, Woodard & Curran understands that if the project proposes any fundamental changes to the existing facility or operations, (i.e. waste type, setbacks, stormwater management, traffic counts, etc.), an amendment to the existing transfer station license would be required. Based on the



recommended conceptual design, the proposed upgrades will result in a net increase in impervious surface area, requiring changes to the site's management of stormwater. Therefore, it is anticipated an Amendment application through the MaineDEP will be required.

It is also anticipated that the proposed upgrades will require Site Plan review and approval through the Town's Planning Department.

Opinion of Probable Project Costs

Woodard & Curran's Senior Cost Estimator has prepared an opinion of probable project costs for the recommended improvements. The anticipated project costs for each phase are summarized in the table below and an itemized breakdown of the construction cost estimate is attached.

Table 2: Opinion of Probable Project Costs

Recommended Conceptual Design Costs – Phase 1	
<u>Phase 1 - Construction Costs</u>	
0. General Conditions (Contractor Administration & Overhead)	\$ 45,000
1. Install Recycling Compactor	\$ 97,000
2. Construct Compactor Concrete Pads	\$ 71,000
3. Construct Slip-Lane for Access to Bulky Waste Area	\$ 71,000
4. Construct Exit Lane from Bulky Waste Area	\$ 36,000
5. Relocate Garage Entrance and Construct Concrete Island	\$ 30,000
6. Misc. Improvements (Pavement Markings, Signage, Stormwater & Site Lighting)	\$ 38,000
<i>Phase 1 - Construction Costs Subtotal</i>	
	\$ 388,000
<u>Phase 1 – Additional Project Costs</u>	
Engineering, Permitting & Part-time Construction Admin (25% of Construction Costs)	\$ 97,000
Project Contingency (25% of Construction Costs)	\$ 97,000
<i>Phase 1 - Additional Project Costs Subtotal</i>	
	\$ 194,000
<i>Phase 1 - Total Project Cost</i>	
	\$ 582,000
Recommended Conceptual Design Costs – Phase 2	
<u>Phase 2 - Construction Costs</u>	
0. General Conditions (Contractor Administration & Overhead)	\$ 44,000
1. Demolish Existing Garage	\$ 6,000
2. Construct New Swap Shop and Universal Waste Building	\$ 144,000
3. Construct New Facility Entrance and Exit	\$ 104,000
4. Relocate and Expand Facility Parking	\$ 34,000
5. Construct Concrete Island	\$ 76,000
6. Misc. Improvements (Pavement Markings, Signage, Stormwater & Site Lighting)	\$ 32,000
<i>Phase 2 - Construction Costs Subtotal</i>	
	\$ 440,000
<u>Phase 2 – Additional Project Costs</u>	
Engineering, Permitting & Part-time Construction Admin (25% of Construction Costs)	\$ 110,000
Project Contingency (25% of Construction Costs)	\$ 110,000
<i>Phase 2 - Additional Project Costs Subtotal</i>	
	\$ 220,000
<i>Phase 2 - Total Project Cost</i>	
	\$ 660,000
Recommended Conceptual Design Total Project Cost (Phases 1 & 2)	
	\$ 1,242,000



Thank you very much for the opportunity to work with the Town on the assessment of this important Town facility. We believe the improvements recommended will increase safety and the level of service for facility users while also improving efficiency over the current operations of the transfer station. If there are any questions on the above assessment or recommended improvements, please contact our offices at 207.774.2112.

Sincerely,

WOODARD & CURRAN

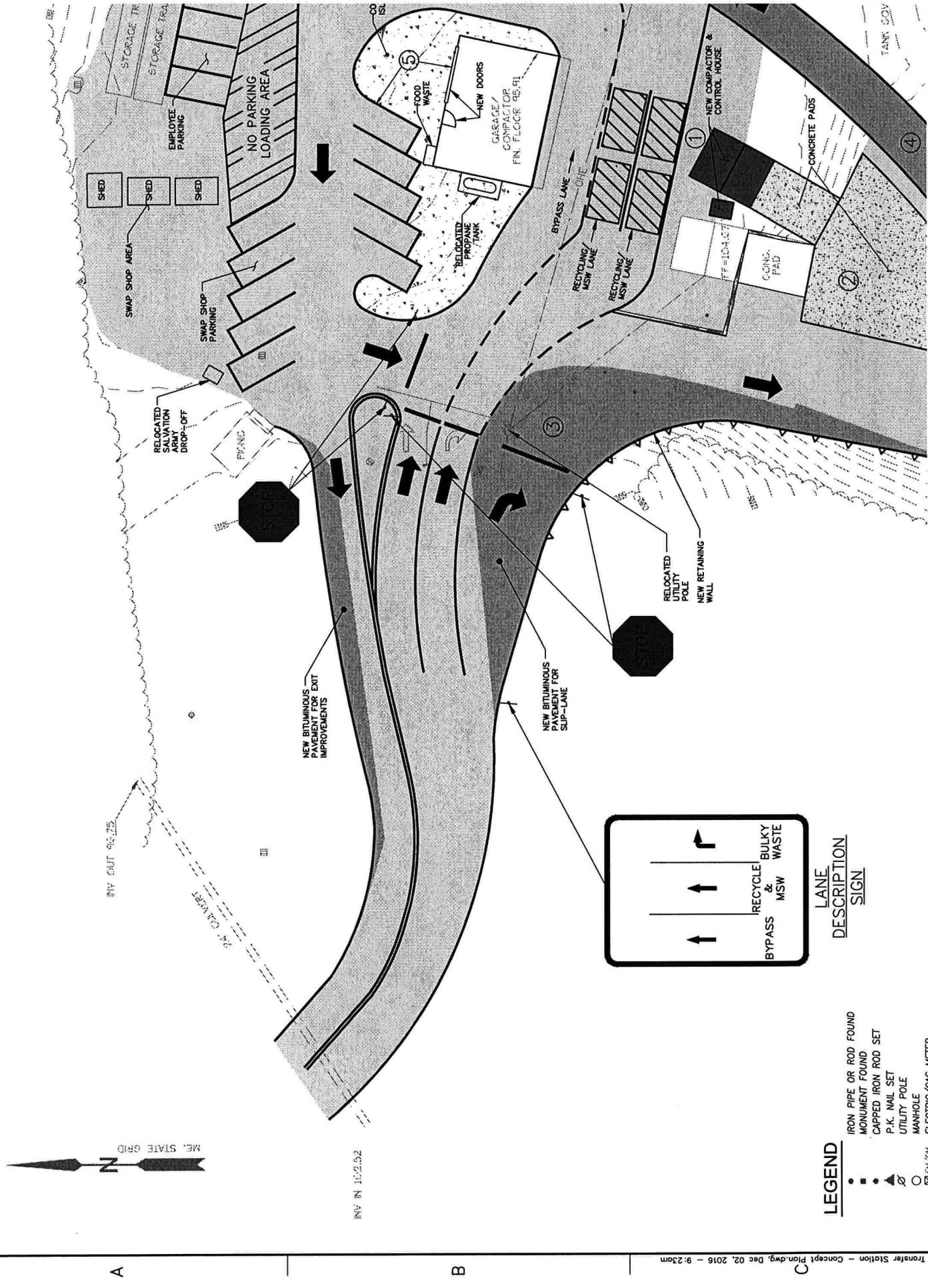
Megan McDevitt, PE
Project Manager

Randy Tome, PE
Senior Vice President

cc: Steven Johnson, Town Engineer

Enclosure(s): Recommended Conceptual Design – Phase 1
Recommended Conceptual Design – Phase 2
Itemized Breakdown of Construction Cost Estimate

PN: 0230535.00

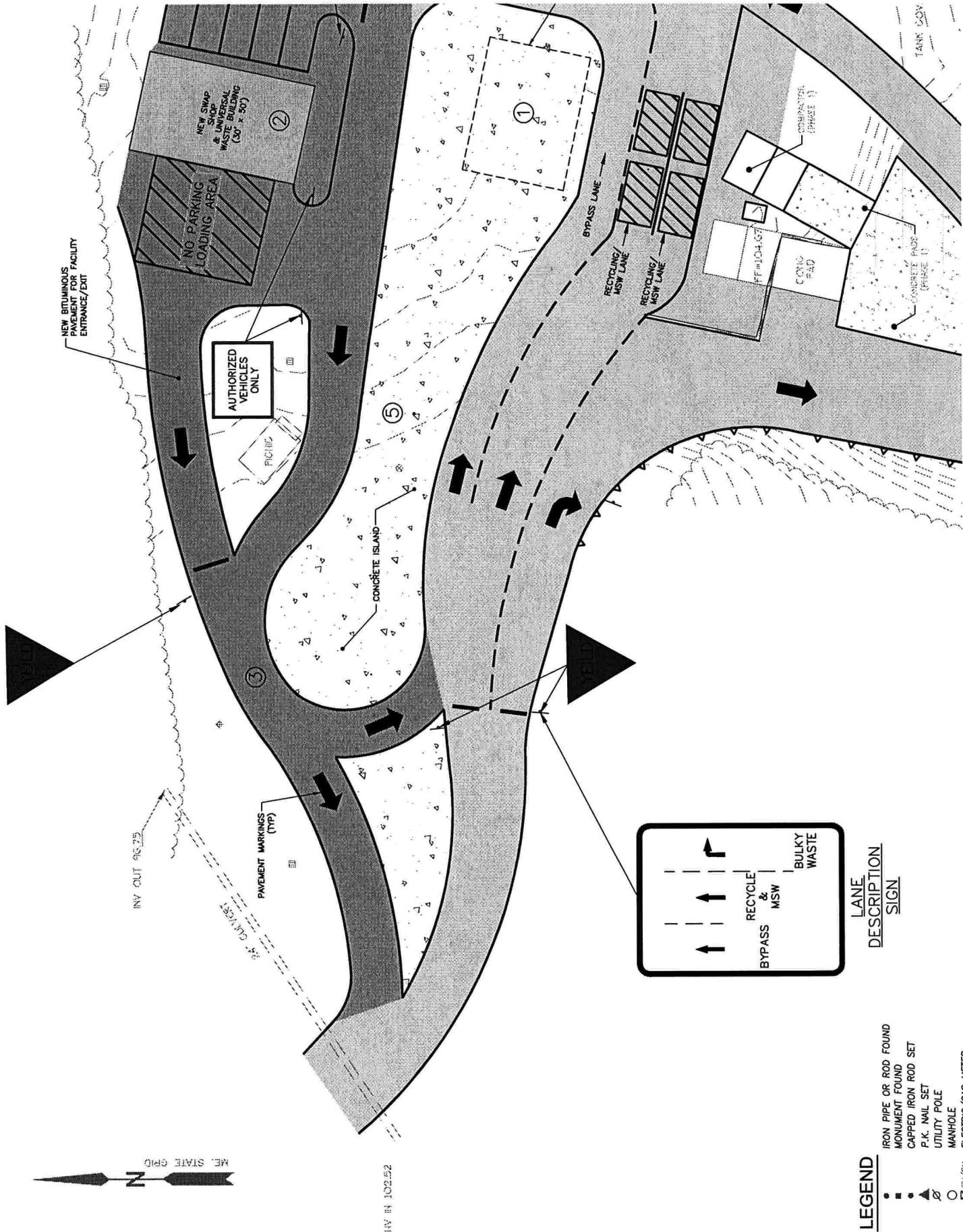


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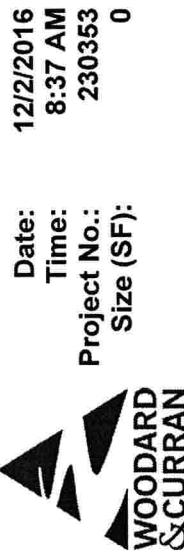


A

B

C

Budget Estimate Summary
Yarmouth Transfer Station Conceptual Estimate
Woodard & Curran
41 Hutchins Drive
Portland, Maine 04102



Date: 12/2/2016
 Time: 8:37 AM
 Project No.: 230353
 Size (SF): 0

Direct Construction Cost	%	Labor	Material	Const. Eq.	Subcontract	Temp Matl	Process Eq.	Other	Totals
Base labor	\$156,052	\$225,923	\$66,182	\$90,340	\$0	\$46,000	\$0	\$0	\$584,497
Labor burden	35.00%	\$54,618							\$54,618
Labor fringes		\$28,589							\$28,589
Labor manhours		3,185							
Material sales tax	0.00%		\$0						\$0
Equipment shipping	3.50%		\$2,316						\$2,316
Temporary material markup	0.00%								\$0
Equipment rental markup	0.00%								\$0
Other markup	0.00%								\$0
Gross Construction Cost		\$239,259	\$225,923	\$68,498	\$90,340	\$0	\$46,000	\$0	\$670,021
General liability insurance	0.85%		\$7,030						\$7,030
Builder's risk insurance	0.15%		\$1,241						\$1,241
Overall									
Contractor Overhead	0.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	
	\$0	\$23,926	\$23,419	\$6,850	\$9,034	\$0	\$4,600	\$0	
Contractor Profit	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
	\$0	\$16,748	\$16,394	\$4,795	\$6,324	\$0	\$3,220	\$0	
P&P Bond	\$13,444		\$13,444						\$13,444
Warranty	2.00%		\$13,400						\$13,400
Site Safety	1.00%		\$6,556						\$6,556
Total Construction Cost		\$299,890	\$287,450	\$80,143	\$105,698	\$0	\$53,820	\$0	\$827,000
Project Contingency	25%								\$206,750
Project Total									\$1,033,750

Estimate Detail - Yarmouth Transfer Station Conceptual Estimate

Recap - With Taxes and Insurance, Indirect Costs are Spread

Estimator : K. Rosner
Project Size : 0 SQFT

Group 1: Phase
Group 2: Item Number

Description	Quantity	UM	Lab.Total	Mat.Total	Sub.Total	Const. Eqp.	Process Eqp.	Tmp.Mat.	To Other	Total	UnitCost	TotalCost
Construction/Phase 1												
General Conditions	1	LS	30,467.86	6,791.70	2,468.58	5,260.71					44,988.84	44,989
Add Recycling Compactor	1	LS	21,876.79	11,607.42	6,171.45	866.53	56,777.38				97,289.59	97,300
Concrete Pad @ Compactor	1	LS	30,003.16	39,504.70		1,573.46					71,081.32	71,081
Expand Entrance	1	LS	21,031.39	25,784.07	13,083.48	10,696.04					70,594.98	70,595
Alternate Exit From Bulky Waste Area	1	LS	6,716.64	18,021.39	740.57	10,262.82					35,741.43	35,741
Building/Garage Area Improvements	1	LS	13,878.19	7,368.44	8,146.32	816.35					30,209.30	30,209
Miscellaneous Improvements	1	LS	4,650.48	685.48	32,758.08						38,094.04	38,094
* Total Construction/Phase 1			128,624.51	109,763.19	63,368.50	29,475.91	56,777.38				388,009	
Construction/Phase 2												
General Conditions	1	LS	34,039.78	4,320.02	864.00	5,260.71					43,620.51	43,621
Demolish Building/Garage	1	LS	4,093.87	552.94	14,317.77	1,326.55					5,510.81	5,511
Construct New Building	1	LS	63,886.19	64,789.65	1,481.15	30,653.55					144,320.17	144,320
New Facility Entrance/Exit	1	LS	23,892.51	47,851.88		9,653.31					103,879.08	103,879
Expand Facility Parking	1	LS	6,698.12	17,450.99		8,176.98					33,802.41	33,802
Concrete Island	1	LS	33,629.25	34,061.66							75,867.89	75,868
Miscellaneous Improvements	1	LS	450.88	64.60	31,474.42						31,990	31,990
* Total Construction/Phase 2			166,690.60	169,091.74	48,137.35	55,071.09					438,991	
Total Estimate			295,315.11	278,854.93	111,505.84	84,547.00	56,777.38				827,000	

Estimate Detail - Yarmouth Transfer Station Conceptual Estimate

Detail - With Taxes and Insurance, Indirect Costs are Spread

Estimator : K. Rosner
Project Size : 0 SQFT

Group 1: Phase
Group 2: Item Number

Description	Quantity	UM	Lab.Total	Mat.Total	Sub.Total	Const. Eqp.	Process Eqp.	Tmp.Mat.	To Other	Total	UnitCost	TotalCost	
Floor edge forms	335	LNFT	2,652.12	85.67							8.17	2,738	
Saw cut joint	200	LNFT	283.39								1.61	322	
Construction joints	80	LNFT	380.00	76.64							5.71	457	
SGO rebar	9	Tons	8,116.61	10,342.24							2,048.76	18,459	
Concrete in slab on grade													
4000 psi direct	113	CUYD	3,121.25	14,456.89							156.08	17,578	
Add for concrete air entrainment admixture	107	CUYD		2,134.35							19.90	2,134	
Machine trowel finish	2,896	SQFT	1,805.88								0.62	1,806	
Protect and cure vertical surfaces	335	SQFT	73.04	9.97							0.25	83	
Protect and cure horizontal surfaces	2,896	SQFT	601.68	64.70							0.23	666	
Skid plates 360'x12'x3/4" (L)	4	EA	3,934.71	78.99							1,014.92	4,060	
Skid plates 360'x12'x3/4" (M)	4,050	LB		7,498.32							1.85	7,498	
Fine grade floor by hand	2,896	SQFT	2,746.15								0.95	2,746	
Crushed stone slab fill	134	CUYD	3,813.59	4,137.16							59.30	7,951	
** Total Concrete Pad @ Compactor	1	LS	30,003.16	38,504.70								71,081.32	71,081
Expand Entrance													
Saw cut asphalt	373	LNFT	1,109.85								3.61	1,348	
Mortar	4	CUYD	294.31	328.37							170.12	635	
12" horizontal truss reinforcing		LNFT	265.83								0.30	266	
12x8x16 concrete block	1,424	PCS	9,558.24	5,447.89							10.54	15,006	
Fill voids w/3000 psi conc	19	CUYD	1,343.01	2,291.83							193.80	3,635	
Allowance For Relocation of Utility Pole	1	LS				12,342.91					12,342.91	12,343	
Fine grade footings	600	SQFT	775.79								1.29	776	
Compacted local gravel	414	TONS	1,622.79	7,659.70							33.58	13,895	
Asphalt paving area *	75	TONS	2,616.51	6,488.03							166.21	12,481	
Traffic Control Signs	343	SQYD				740.57						246.86	
Retaining walls	3	EACH										741	
Machine excavate footings	22	CUYD	473.23	46.86							40.27	895	
Machine backfill	111	CUYD	2,629.04	260.34							44.74	4,971	
Retaining wall footing concrete													
4000 psi pour direct	23	CUYD	608.63	2,995.21							154.45	3,604	
* Retaining wall length *													
** Total Expand Entrance	1	LS	21,031.39	25,784.07								70,594.98	70,595
Alternate Exit From Bulky Waste Area													
Saw cut asphalt	322	LNFT	958.10								3.61	1,164	
Grading For Road	1	LS	421.64	210.64							632.28	632	
Compacted local gravel	521	TONS	2,042.94	9,642.89							33.58	17,492	
Asphalt Paving	95	TONS	3,293.96	8,167.86							166.21	15,713	
* Asphalt pavement area *	432	SQYD											
Traffic Control Signs	3	EACH											
** Total Alternate Exit From Bulky Waste Area	1	LS	6,716.64	18,021.39								246.86	
Building/Garage Area Improvements													
Relocate Propane/Etc.	1	LS	551.97	78.98							3.61	631	
Remove asphalt paving	253	SQYD	931.06	233.18							6.82	1,724	
Saw cut asphalt	365	LNFT	1,086.05								3.61	1,319	
Floor edge forms	365	LNFT	2,889.63	93.35							8.17	2,983	
Saw cut joint	120	LNFT	170.03								1.61	193	

Estimate Detail - Yarmouth Transfer Station Conceptual Estimate

Detail - With Taxes and Insurance ,Indirect Costs are Spread

Estimator : K. Rosner
Project Size : 0 SQFT

Group 1: Phase
Group 2: Item Number

Description	Quantity	UM	Lab.Total	Mat.Total	Sub.Total	Const. Eqp.	Process Eqp.	Tmp.Mat.	To Other	Total	UnitCost	TotalCost
Construction joints	40	LNFT	190.00	38.32							5.71	228
6x6 W2.1W2.1 mesh	28	SQFS	1,590.22	729.86							84.36	2,320
Concrete in slab on grade												
4000 psi direct	37	CUYD	1,020.75	4,727.86							156.08	5,749
Add for concrete air entrainment admixture	35	CUYD		698.00							19.90	698
Hand trowel finish	2,273	SQFT	1,417.39								0.62	1,417
Protect and cure vertical surfaces	152	SQFT	33.16	4.52							0.25	38
Protect and cure horizontal surfaces	2,273	SQFT	472.24	50.78							0.23	523
Cut/Prep Openings	2	EACH	3,329.64	9.83							1,669.73	3,339
* No. of metal doors *	1	EACH										
* No. of specialty doors *	1	Each	110.68	95.28							205.96	206
HM frame	1	EACH	85.38	238.19							323.57	324
HM door	1	EACH									8,146.32	8,146
10x12 elect opr rolling door	1	Ong		370.29							370.29	370
Finish hardware allowance												
** Total Building/Garage Area Improvements	1	LS	13,878.19	7,368.44	8,146.32	816.35						30,209.30
Miscellaneous Improvements												
Remove/Relocate As Required for Construction	1	LS	2,207.88	315.93							2,523.81	2,524
Parking line striping	2,100	LNFT	612.74	165.89							0.37	779
Pavement Markings	660	SQFT	1,829.86	203.66							3.08	2,034
Allowance for Site Lighting Improvements	1	LS									18,514.36	18,514
Traffic Control Signs	1	EACH									246.86	247
Parking Bumpers - Precast	14	Each									74.06	1,037
Seeding Disturbed Areas	1	LS									617.15	617
Allowance for Storm Drainage Improvements	1	LS	4,650.48	685.48							12,342.91	12,343
** Total Miscellaneous Improvements	1	LS	128,624.51	109,763.19	29,475.91	56,777.38					38,094.04	38,094
* Total Construction/Phase 1												388,009

Estimate Detail - Yarmouth Transfer Station Conceptual Estimate

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Group 2: Item Number

Description	Quantity	UM	Lab.Total	Mat.Total	Sub.Total	Const. Eqp.	Process Eqp.	Tmp.Mat.	ToOther	Total	UnitCost	TotalCost
Allowance for Storm Drainage Improvements	1	LS	450.88	64.60	12,342.91					12,342.91		12,343
** Total Miscellaneous Improvements	1	LS	166,690.60	169,091.74	31,474.42					31,989.90		31,990
* Total Construction/Phase 2	295,315.11		278,854.93	111,505.84	48,137.35	55,071.09	84,547.00	56,777.38		438,991		
Total Estimate										827,000		