



# Town of Belmont Fuel Tank Forum III

May 19, 2022

# Project Background

- ▶ Two Underground Fuel Tanks at the DPW Yard – 37 C Street
- ▶ 6000 Gallon Unleaded Fuel Tank
- ▶ 6000 Gallon Diesel Fuel Tank
- ▶ Installation Date November 1986
- ▶ Tanks are Single Wall Fiberglass Construction

# Project Evaluation

- ▶ Insurance
- ▶ Environmental - DEP
- ▶ Town Department Operations
- ▶ **Tank Financing, Sizing, and Design**
- ▶ Public Input Forums

# Tank Sizing, Design, and Financing

**Task – Determine required size of tanks, evaluate options for placement, and determine cost alternatives**

**Status – Complete**

## **Determine right size of tanks**

Consumption history

## **Evaluate options for location**

Above ground alternative locations

Underground locations considering future development

## **Review engineering design to date**

Extent and detail of design

Status of budget – expended and remaining

Determine remaining level of design effort

## **Evaluate cost alternatives for the project**

Determine if current budget is sufficient

Identify amount of additional required funds

# Project Terminology

## Design / Bid / Construction

**Request for Qualifications (RFQ)** – The process by which a designer is chosen to perform design services for a specific project.

- Architectural / Engineering services

**Request for Proposals (RFP)** – The process by which an entity provides a response specific to terms established by the Town. Allows the Town to evaluate different ideas to determine the best outcome for the Town.

- Sale of Land / Disposition of Public Buildings

**Cost Estimate** – Generated by the designer in advance of an Invitation to Bid. Used to develop the project budget.

- Building projects / Public Works projects

**Bid Price** – The cost to execute a project submitted by a contractor responding to an Invitation to Bid.

# Project Sequencing

## Start to Finish Process

**Need is Defined** – Remove and replace fuel tanks at the DPW Yard.

**Designer is Hired (RFQ)** – Ch 30B Procurement Laws do not require an RFQ to hire an engineering firm for design services. Best business practice is allowed. Weston and Sampson chosen to evaluate alternatives and design the project.

**Cost Estimate** – Once the project is scoped an estimate is developed.

**Funding** – A funding source is identified. Capital Budget Committee; Town Meeting.

**Final Design** - Weston and Sampson prepares a final design package of plans and specifications.

**Project Bidding** – Once plans and specifications are finalized, the project is advertised and bids are solicited. Project is awarded to the low bidder.

**Construction** – The contractor performs the work.

# Tank Sizing

## Consumption Recap

Consumption records were evaluated to determine if there was an alternative to two 6,000 gallon tanks at the DPW Yard

- FY 20 Consumption records were analyzed
- The WEX gas card system for private gas stations was utilized on a three-month trial basis focusing on Unleaded fuel
- Diesel Fuel was not part of the trial due to operational needs

# Tank Sizing

## WEX Trial Results

- December 2021 to February 2022

No **operational** issues using off-site private gas stations during the three-month trial period

The **additional cost** for fuel compared to the Town's consortium bid price was \$11,802

## Final Determination

The smallest size tanks needed to meet demand was determined to be:

- Unleaded – 4,000 gallons; 2,000 gallons (if utilizing WEX system)
- Diesel – 4,000 gallons



# Tank Location Above Ground

With regard to FHA Loan requirements, only one location at the DPW Yard would satisfy the minimum 300 foot buffer requirement:

9



# Tank Location

## Evaluation of FHA Compliant Location

This location proved to be logistically challenging:

- Single side access to the pump
- Cramped space requires multiple maneuvers for larger trucks
- Proximity to Belmont Light garage and the need to utilize BLD property creates potential conflicts
- Location of 66 inch storm drain limits placement options
- DPW operations would be impacted

10

**Final Determination: No recommendation for this location**

# Tank Location

## Evaluation of Current Location of Tanks at DPW Yard

This location has proven to be successful for operations

- I have considered future reconstruction of the DPW Facilities and believe the central location will not be utilized in a reconfigured DPW yard

11

### **Recommendation – Use existing location for replacement tanks**

Underground (UST) and Above Ground (AST) Storage Tanks

- Unleaded – 4,000 gallons; 2,000 gallons (if utilizing WEX system)
- Diesel – 4,000 gallons

# Tank Financing

## Background

The Tank replacement proposal brought to Town Meeting:

Two above ground, 6,000 gallon tanks

Funded at 2020 Town Meeting - \$539,468

Additional funding requested at 2021 Town Meeting - \$300,000

(An additional \$200,000 proposed from Belmont Light)

**Defeated by Majority vote**

# Tank Financing

## Available Project Funds

2020 Town Meeting Appropriation -	\$539,468
<u>less Engineering Funds -</u>	<u>\$134,600</u>
Total remaining	<b>\$404,868</b>

13

Note: Funding request did not include money for engineering design services or required regulatory reporting to MA Department of Environmental Protection.

# Tank Financing

## Engineering Design to Date

### Engineering Breakdown (services to date):

Removal of Existing Tanks -	\$ 49,300
DEP MA Contingency Plan -	\$ 50,000
New Fuel System Design -	\$ 35,300
<b>Total</b>	<b>\$134,600</b>

Balance Remaining:                      \$ 22,000

# Tank Financing

## Long Term Estimated Project Cost of Four Options

Options	Construction	Site Work	Design/ Permitting /Administration	Contingency / Volatility /Mark Up	Total Estimated Project Cost
1 - UST: 4,000 gal Unleaded / 4,000 gal Diesel	\$508,000	\$433,630	\$139,000	\$823,636	<b>\$1,904,266</b>
2 - UST: 2,000 gal Unleaded / 4,000 gal Diesel	\$493,000	\$426,630	\$139,000	\$804,860	<b>\$1,863,490</b>
3 - AST: 4,000 gal Unleaded / 4,000 gal Diesel	\$585,000	\$405,630	\$139,000	\$766,392	<b>\$1,896,022</b>
4 - AST: 2,000 gal Unleaded / 4,000 gal Diesel	\$551,000	\$398,630	\$139,000	\$735,501	<b>\$1,824,131</b>

15

Option 3 includes \$123,000 Canopy  
Option 4 includes \$109,000 Canopy

# Tank Financing

## Cost Comparison of Four Options

Fy 20 Unleaded Fuel Consumption:				Additional Costs:			Fuel Cost:		
Total		54,667		Insurance	\$3,000		Consortium BID	\$2.639	
Daytime - 6am to 10 pm		47,041		Inspections	\$7,150		WEX Private	\$2.837	
Overnight - 10pm to 6am		7,627		Repairs/Software	\$1,000		WEX Rebate	1.50%	
				Inflation Rate	4.00%		Consumption Reduction /YR	5.00%	
<b>Option 2 - Capital Cost:</b>		<b>\$1,863,490</b>							
<b>UST 2,000 gal Unleaded; 4,000 gal Diesel</b>									
Year	Capital Cost	Insurance	Inspections	Repairs	Consortium Consumption	Consortium Cost	WEX Card Consumption	WEX Card Cost	Total
1	\$74,540	\$3,000	\$7,150	\$1,000	7,627	\$20,126	47,041	\$131,453	\$237,269
2	\$74,540	\$3,120	\$7,436	\$1,040	7,245	\$19,120	44,689	\$124,881	\$230,136
...									
23	\$74,540	\$7,110	\$16,945	\$2,370	2,467	\$6,512	15,219	\$42,530	\$150,005
24	\$74,540	\$7,394	\$17,623	\$2,465	2,344	\$6,186	14,458	\$40,403	\$148,610
25	\$74,540	\$7,690	\$18,328	\$2,563	2,227	\$5,877	13,735	\$38,383	\$147,380
<b>Totals</b>	<b>\$1,863,490</b>	<b>\$124,938</b>	<b>\$297,768</b>	<b>\$41,646</b>		<b>\$290,871</b>		<b>\$1,899,792</b>	<b>\$4,518,505</b>

### Assumptions:

Insurance, Inspections and Reporting, and Maintenance include a 4% annual inflation factor

Fuel cost is averaged over the last 17 years FY 06 – FY 22

5% reduction in unleaded consumption based on 5 new Hybrid vehicles annually

25 year total does not include cost of Diesel fuel



# Tank Financing

## Evaluation Matrix Based on Cost

17

All Options						
	Unleaded Tank / Diesel Tank	Construction / Engineering		All In Cost - 25 Year Project Life		Optimal
UST	Opt 1 - 4,000 gal; 4,000 gal					
UST	Opt 2 - 2,000 gal; 4,000 gal					
AST	Opt 3 - 4,000 gal; 4,000 gal			X		★
AST	Opt 4 - 2,000 gal; 4,000 gal	X				
AST						
	Unleaded Tank / Diesel Tank	Construction / Engineering	Cost Difference	All In Cost - 25 Year Project Life	Cost Difference	Optimal
AST	Opt 3 - 4,000 gal; 4,000 gal			X	\$1,352 ave/yr	★
AST	Opt 4 - 2,000 gal; 4,000 gal	X	\$71,891			
UST						
	Unleaded Tank / Diesel Tank	Construction / Engineering	Cost Difference	All In Cost - 25 Year Project Life	Cost Difference	Optimal
UST	Opt 1 - 4,000 gal; 4,000 gal			X	\$2,596 ave/yr	★
UST	Opt 2 - 2,000 gal; 4,000 gal	X	\$40,776			
AST vs UST						
	Unleaded Tank / Diesel Tank	Construction / Engineering	Cost Difference	All In Cost - 25 Year Project Life	Cost Difference	Optimal
UST	Opt 1 - 4,000 gal; 4,000 gal					
AST	Opt 3 - 4,000 gal; 4,000 gal	X	\$8,244	X	\$12,240 ave/yr	★

# Above Ground (AST) Analysis

## Factors Influencing AST's

### **FHA Mortgage Insurance**

There is a reason why FHA will not insure a mortgage for a residential property within 300 feet of an above ground storage tank with a capacity greater than 1000 gallons

18

### **Community**

What is it worth

### **Site Security**

Fencing is required around above ground tanks or around the perimeter of the site

# (AST) Analysis - Fencing

## Code Requirements for Fencing

### NFPA 30A – Code for Motor Fuel Dispensing Facilities and Repair Garages

#### 4.3.7 Physical Protection for All Outside Aboveground Tanks.

**4.3.7.1** Tanks that are not enclosed in vaults shall be enclosed with a chain link fence at least 1.8 m (6 ft) high. The fence shall be separated from the tanks by at least 3 m (10 ft) and shall have a gate that is secured against unauthorized entry.

*Exception: Tanks are not required to be enclosed with a fence if the property on which the tanks are located has a perimeter security fence.*

19

### Code Commentary

#### 4.3.7 Physical Protection for All Outside Aboveground Tanks.

The intent of this subsection is twofold: to protect the tank from being struck by a vehicle and to protect the tank from vandalism.

**4.3.7.1** Tanks that are not enclosed in vaults shall be enclosed with a chain link fence at least 1.8 m (6 ft) high. The fence shall be separated from the tanks by at least 3 m (10 ft) and shall have a gate that is secured against unauthorized entry.

*Exception: Tanks are not required to be enclosed with a fence if the property on which the tanks are located has a perimeter security fence.*

# (AST) Analysis - Fencing

## Estimated Cost

645.172

### Line Item Information

Item No: **645.172**  
 Item Description: **72 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED (LINE POST OPTION)**  
 Measurement System: **English**  
 Unit: **FT**  
 Unit price statistics computed for Period: **5/2021 - 5/2022**

### Unit price quantity breakouts

#### Unit Price Statistics

Min Quantity	Max Quantity	District	No. of Projects	No. of Bids	Minimum	Maximum	Mean	Median
<b>550.00 (FT)</b>	<b>597.88 (FT)</b>	All Districts	<u>1</u>	7	\$32.25	\$96.75	\$57.64	\$46.50
		3	<u>1</u>	7	\$32.25	\$96.75	\$57.64	\$46.50
<b>789.38 (FT)</b>	<b>837.25 (FT)</b>	All Districts	<u>1</u>	3	\$42.50	\$127.50	\$83.00	\$85.00
		2	<u>1</u>	3	\$42.50	\$127.50	\$83.00	\$85.00
<b>885.13 (FT)</b>	<b>933.00 (FT)</b>	All Districts	<u>1</u>	4	\$45.00	\$135.00	\$93.75	\$90.00
		5	<u>1</u>	4	\$45.00	\$135.00	\$93.75	\$90.00

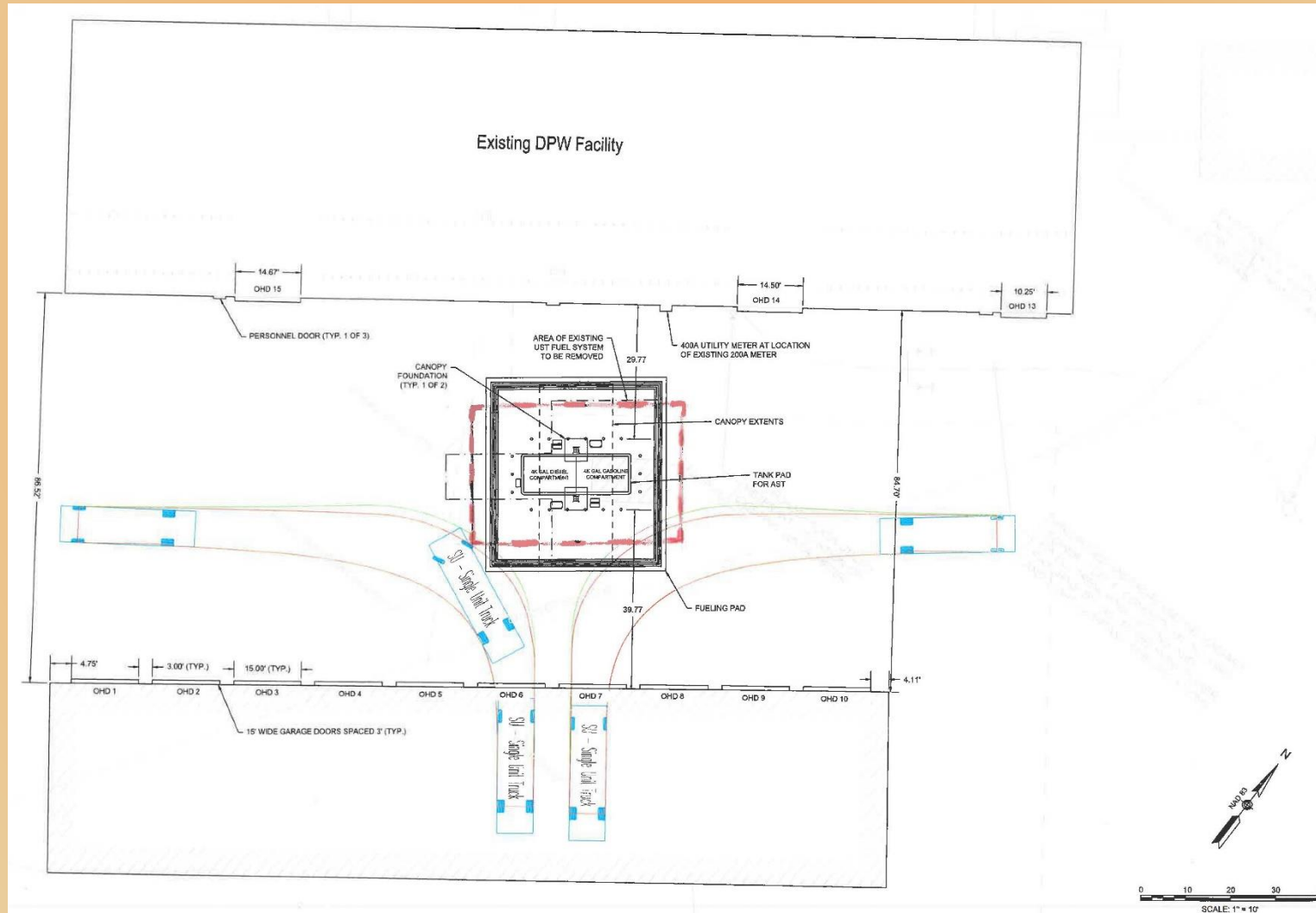
246 L.F x \$70.00 / L.F. = \$17,200

**SAY - \$18,000**

# (AST) Analysis - Fencing

## Impact on Operations

21



# (AST) Analysis - Fencing

## Perimeter Fencing

The existing perimeter fencing requires upgrading and additional sections to meet the code requirement

- Some section of fencing/barriers are less than 6 feet in height
- There is very little solid fencing along the railroad tracks

Estimated cost to satisfy security requirement:

- approx. 1,000 L.F x \$70.00 / L.F. = **\$70,000 minimum**

22



# Above Ground (AST) Analysis

## Community

### Project List

- Wellington Elementary School
- Cushing Village Development
- Underwood Pool
- Lexington Street / Sycamore Street Traffic Signals
- New Middle and High School Campus
- Hittinger Street / Trowbridge Street Curbing and Sidewalk Upgrades
- Beatrice Circle Housing Proposal
- Goden Street / Concord Avenue Traffic Signals

**This is not an exhaustive list!!**

# Above Ground (AST) Analysis

## **Canopy / Perimeter Fencing**

Average annual cost savings of \$9,440 for AST vs UST

- Savings ranges from \$4,680 in yr 1 to \$15,857 in yr 25

## **Canopy / No Perimeter Fencing (W&S Estimate)**

Average annual cost savings of \$12,240 for AST vs UST

- Savings ranges from \$7,480 in yr 1 to \$18,657 in yr 25

## **No Canopy / Perimeter Fencing**

Average annual cost savings of \$14,360 for AST vs UST

- Savings ranges from \$9,600 in yr 1 to \$20,777 in yr 25

## **No Canopy / No Perimeter Fencing**

Average annual cost savings of \$17,160 for AST vs UST

- Savings ranges from \$12,400 in yr 1 to \$23,577 in yr 25



# Recommendation

25

Replace the two existing 6,000 gallon fuel tanks with two 4,000 gallon fuel tanks, to be located in the same location as the existing fuels tanks.

# Next Steps

**May 23, 2022 – Select Board Deliberation and Vote**  
**June 2022 – Town Meeting**

26

**Staff Contact – Glenn R. Clancy - Office of Community Development**  
**617 – 993 – 2659**  
**[gclancy@Belmont-ma.gov](mailto:gclancy@Belmont-ma.gov)**

**Fuel Project Materials – [www.belmont-ma.gov](http://www.belmont-ma.gov)**

# Cost Estimates

# Cost Estimates

## Option 1 – UST 4,000 Unleaded and 4,000 Diesel

Fy 20 Unleaded Fuel Consumption:		Additional Costs:		Fuel Cost:	
Total	54,667	Insurance	\$3,000	Consortium BID	\$2.639
Daytime - 6am to 10 pm	47,041	Inspections	\$7,150	WEX Private	\$0.000
Overnight - 10pm to 6am	7,627	Repairs/Software	\$1,000	WEX Rebate	0.00%
		Inflation Rate	4.00%	Consumption Reduction /YR	5.00%
<b>Capital Cost:</b>	<b>\$1,904,266</b>				

4,000 gal Unleaded; 4,000 gal Diesel									
Year	Capital Cost	Insurance	Inspections	Repairs	Consortium Consumption	Consortium Cost	WEX Card Consumption	WEX Card Cost	Total
1	\$76,171	\$3,000	\$7,150	\$1,000	54,667	\$144,268	0	\$0	\$231,588
2	\$76,171	\$3,120	\$7,436	\$1,040	51,934	\$137,054	0	\$0	\$224,821
3	\$76,171	\$3,245	\$7,733	\$1,082	49,337	\$130,201	0	\$0	\$218,432
4	\$76,171	\$3,375	\$8,043	\$1,125	46,871	\$123,691	0	\$0	\$212,404
5	\$76,171	\$3,510	\$8,364	\$1,170	44,527	\$117,507	0	\$0	\$206,721
6	\$76,171	\$3,650	\$8,699	\$1,217	42,301	\$111,631	0	\$0	\$201,368
7	\$76,171	\$3,796	\$9,047	\$1,265	40,186	\$106,050	0	\$0	\$196,329
8	\$76,171	\$3,948	\$9,409	\$1,316	38,176	\$100,747	0	\$0	\$191,591
9	\$76,171	\$4,106	\$9,785	\$1,369	36,268	\$95,710	0	\$0	\$187,140
10	\$76,171	\$4,270	\$10,177	\$1,423	34,454	\$90,925	0	\$0	\$182,965
11	\$76,171	\$4,441	\$10,584	\$1,480	32,731	\$86,378	0	\$0	\$179,054
12	\$76,171	\$4,618	\$11,007	\$1,539	31,095	\$82,059	0	\$0	\$175,395
13	\$76,171	\$4,803	\$11,447	\$1,601	29,540	\$77,956	0	\$0	\$171,979
14	\$76,171	\$4,995	\$11,905	\$1,665	28,063	\$74,059	0	\$0	\$168,795
15	\$76,171	\$5,195	\$12,381	\$1,732	26,660	\$70,356	0	\$0	\$165,834
16	\$76,171	\$5,403	\$12,877	\$1,801	25,327	\$66,838	0	\$0	\$163,089
17	\$76,171	\$5,619	\$13,392	\$1,873	24,061	\$63,496	0	\$0	\$160,550
18	\$76,171	\$5,844	\$13,927	\$1,948	22,858	\$60,321	0	\$0	\$158,211
19	\$76,171	\$6,077	\$14,485	\$2,026	21,715	\$57,305	0	\$0	\$156,064
20	\$76,171	\$6,321	\$15,064	\$2,107	20,629	\$54,440	0	\$0	\$154,102
21	\$76,171	\$6,573	\$15,667	\$2,191	19,598	\$51,718	0	\$0	\$152,320
22	\$76,171	\$6,836	\$16,293	\$2,279	18,618	\$49,132	0	\$0	\$150,711
23	\$76,171	\$7,110	\$16,945	\$2,370	17,687	\$46,675	0	\$0	\$149,271
24	\$76,171	\$7,394	\$17,623	\$2,465	16,802	\$44,342	0	\$0	\$147,994
25	\$76,171	\$7,690	\$18,328	\$2,563	15,962	\$42,125	0	\$0	\$146,876
<b>Totals</b>	<b>\$1,904,266</b>	<b>\$124,938</b>	<b>\$297,768</b>	<b>\$41,646</b>		<b>\$2,084,984</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,453,602</b>

# Cost Estimates

## Option 2 – UST 2,000 Unleaded and 4,000 Diesel

<b>Fy 20 Unleaded Fuel Consumption:</b>		<b>Additional Costs:</b>		<b>Fuel Cost:</b>	
<b>Total</b>	54,667	<b>Insurance</b>	\$3,000	<b>Consortium BID</b>	\$2.639
<b>Daytime - 6am to 10 pm</b>	47,041	<b>Inspections</b>	\$7,150	<b>WEX Private</b>	\$2.837
<b>Overnight - 10pm to 6am</b>	7,627	<b>Repairs/Software</b>	\$1,000	<b>WEX Rebate</b>	1.50%
		<b>Inflation Rate</b>	4.00%	<b>Consumption Reduction /YR</b>	5.00%
<b>Capital Cost:</b>	<b>\$1,863,490</b>				

2,000 gal Unleaded; 4,000 gal Diesel									
Year	Capital Cost	Insurance	Inspections	Repairs	Consortium Consumption	Consortium Cost	WEX Card Consumption	WEX Card Cost	Total
1	\$74,540	\$3,000	\$7,150	\$1,000	7,627	\$20,126	47,041	\$131,453	\$237,269
2	\$74,540	\$3,120	\$7,436	\$1,040	7,245	\$19,120	44,689	\$124,881	\$230,136
3	\$74,540	\$3,245	\$7,733	\$1,082	6,883	\$18,164	42,454	\$118,637	\$223,400
4	\$74,540	\$3,375	\$8,043	\$1,125	6,539	\$17,256	40,332	\$112,705	\$217,043
5	\$74,540	\$3,510	\$8,364	\$1,170	6,212	\$16,393	38,315	\$107,070	\$211,046
6	\$74,540	\$3,650	\$8,699	\$1,217	5,901	\$15,573	36,399	\$101,716	\$205,395
7	\$74,540	\$3,796	\$9,047	\$1,265	5,606	\$14,795	34,579	\$96,630	\$200,073
8	\$74,540	\$3,948	\$9,409	\$1,316	5,326	\$14,055	32,850	\$91,799	\$195,066
9	\$74,540	\$4,106	\$9,785	\$1,369	5,060	\$13,352	31,208	\$87,209	\$190,360
10	\$74,540	\$4,270	\$10,177	\$1,423	4,807	\$12,685	29,648	\$82,848	\$185,943
11	\$74,540	\$4,441	\$10,584	\$1,480	4,566	\$12,050	28,165	\$78,706	\$181,801
12	\$74,540	\$4,618	\$11,007	\$1,539	4,338	\$11,448	26,757	\$74,771	\$177,923
13	\$74,540	\$4,803	\$11,447	\$1,601	4,121	\$10,876	25,419	\$71,032	\$174,299
14	\$74,540	\$4,995	\$11,905	\$1,665	3,915	\$10,332	24,148	\$67,481	\$170,917
15	\$74,540	\$5,195	\$12,381	\$1,732	3,719	\$9,815	22,941	\$64,107	\$167,769
16	\$74,540	\$5,403	\$12,877	\$1,801	3,533	\$9,324	21,794	\$60,901	\$164,846
17	\$74,540	\$5,619	\$13,392	\$1,873	3,357	\$8,858	20,704	\$57,856	\$162,138
18	\$74,540	\$5,844	\$13,927	\$1,948	3,189	\$8,415	19,669	\$54,963	\$159,637
19	\$74,540	\$6,077	\$14,485	\$2,026	3,029	\$7,994	18,685	\$52,215	\$157,337
20	\$74,540	\$6,321	\$15,064	\$2,107	2,878	\$7,595	17,751	\$49,604	\$155,230
21	\$74,540	\$6,573	\$15,667	\$2,191	2,734	\$7,215	16,864	\$47,124	\$153,310
22	\$74,540	\$6,836	\$16,293	\$2,279	2,597	\$6,854	16,020	\$44,768	\$151,570
23	\$74,540	\$7,110	\$16,945	\$2,370	2,467	\$6,512	15,219	\$42,530	\$150,005
24	\$74,540	\$7,394	\$17,623	\$2,465	2,344	\$6,186	14,458	\$40,403	\$148,610
25	\$74,540	\$7,690	\$18,328	\$2,563	2,227	\$5,877	13,735	\$38,383	\$147,380
<b>Totals</b>	<b>\$1,863,490</b>	<b>\$124,938</b>	<b>\$297,768</b>	<b>\$41,646</b>		<b>\$290,871</b>		<b>\$1,899,792</b>	<b>\$4,518,505</b>

# Cost Estimates

## Option 3 – AST 4,000 Unleaded and 4,000 Diesel

<b>Fy 20 Unleaded Fuel Consumption:</b>		<b>Additional Costs:</b>		<b>Fuel Cost:</b>	
<b>Total</b>	54,667	<b>Insurance</b>	\$3,000	<b>Consortium BID</b>	\$2.639
<b>Daytime - 6am to 10 pm</b>	47,041	<b>Inspections</b>	\$0	<b>WEX Private</b>	\$0.000
<b>Overnight - 10pm to 6am</b>	7,627	<b>Repairs/Software</b>	\$1,000	<b>WEX Rebate</b>	0.00%
		<b>Inflation Rate</b>	4.00%	<b>Consumption Reduction /YR</b>	5.00%
<b>Capital Cost:</b>	<b>\$1,896,022</b>				

4,000 gal Unleaded; 4,000 gal Diesel									
Year	Capital Cost	Insurance	Inspections	Repairs	Consortium Consumption	Consortium Cost	WEX Card Consumption	WEX Card Cost	Total
1	\$75,841	\$3,000	\$0	\$1,000	54,667	\$144,268	0	\$0	\$224,108
2	\$75,841	\$3,120	\$0	\$1,040	51,934	\$137,054	0	\$0	\$217,055
3	\$75,841	\$3,245	\$0	\$1,082	49,337	\$130,201	0	\$0	\$210,369
4	\$75,841	\$3,375	\$0	\$1,125	46,871	\$123,691	0	\$0	\$204,032
5	\$75,841	\$3,510	\$0	\$1,170	44,527	\$117,507	0	\$0	\$198,027
6	\$75,841	\$3,650	\$0	\$1,217	42,301	\$111,631	0	\$0	\$192,339
7	\$75,841	\$3,796	\$0	\$1,265	40,186	\$106,050	0	\$0	\$186,952
8	\$75,841	\$3,948	\$0	\$1,316	38,176	\$100,747	0	\$0	\$181,852
9	\$75,841	\$4,106	\$0	\$1,369	36,268	\$95,710	0	\$0	\$177,025
10	\$75,841	\$4,270	\$0	\$1,423	34,454	\$90,925	0	\$0	\$172,459
11	\$75,841	\$4,441	\$0	\$1,480	32,731	\$86,378	0	\$0	\$168,140
12	\$75,841	\$4,618	\$0	\$1,539	31,095	\$82,059	0	\$0	\$164,058
13	\$75,841	\$4,803	\$0	\$1,601	29,540	\$77,956	0	\$0	\$160,201
14	\$75,841	\$4,995	\$0	\$1,665	28,063	\$74,059	0	\$0	\$156,560
15	\$75,841	\$5,195	\$0	\$1,732	26,660	\$70,356	0	\$0	\$153,123
16	\$75,841	\$5,403	\$0	\$1,801	25,327	\$66,838	0	\$0	\$149,883
17	\$75,841	\$5,619	\$0	\$1,873	24,061	\$63,496	0	\$0	\$146,829
18	\$75,841	\$5,844	\$0	\$1,948	22,858	\$60,321	0	\$0	\$143,954
19	\$75,841	\$6,077	\$0	\$2,026	21,715	\$57,305	0	\$0	\$141,249
20	\$75,841	\$6,321	\$0	\$2,107	20,629	\$54,440	0	\$0	\$138,708
21	\$75,841	\$6,573	\$0	\$2,191	19,598	\$51,718	0	\$0	\$136,323
22	\$75,841	\$6,836	\$0	\$2,279	18,618	\$49,132	0	\$0	\$134,088
23	\$75,841	\$7,110	\$0	\$2,370	17,687	\$46,675	0	\$0	\$131,996
24	\$75,841	\$7,394	\$0	\$2,465	16,802	\$44,342	0	\$0	\$130,041
25	\$75,841	\$7,690	\$0	\$2,563	15,962	\$42,125	0	\$0	\$128,219
<b>Totals</b>	<b>\$1,896,022</b>	<b>\$124,938</b>	<b>\$0</b>	<b>\$41,646</b>		<b>\$2,084,984</b>		<b>\$0</b>	<b>\$4,147,590</b>

# Cost Estimates

## Option 4 – AST 2,000 Unleaded and 4,000 Diesel

Fy 20 Unleaded Fuel Consumption:		Additional Costs:		Fuel Cost:	
Total	54,667	Insurance	\$3,000	Consortium BID	\$2.639
Daytime - 6am to 10 pm	47,041	Inspections	\$0	WEX Private	\$2.837
Overnight - 10pm to 6am	7,627	Repairs/Software	\$1,000	WEX Rebate	1.50%
		Inflation Rate	4.00%	Consumption Reduction /YR	5.00%
<b>Capital Cost:</b>	<b>\$1,824,131</b>				

2,000 gal Unleaded; 4,000 gal Diesel									
Year	Capital Cost	Insurance	Inspections	Repairs	Consortium Consumption	Cost	WEX Card Consumption	Cost	Total
1	\$72,965	\$3,000	\$0	\$1,000	7,627	\$20,126	47,041	\$131,453	\$228,545
2	\$72,965	\$3,120	\$0	\$1,040	7,245	\$19,120	44,689	\$124,881	\$221,126
3	\$72,965	\$3,245	\$0	\$1,082	6,883	\$18,164	42,454	\$118,637	\$214,092
4	\$72,965	\$3,375	\$0	\$1,125	6,539	\$17,256	40,332	\$112,705	\$207,425
5	\$72,965	\$3,510	\$0	\$1,170	6,212	\$16,393	38,315	\$107,070	\$201,107
6	\$72,965	\$3,650	\$0	\$1,217	5,901	\$15,573	36,399	\$101,716	\$195,121
7	\$72,965	\$3,796	\$0	\$1,265	5,606	\$14,795	34,579	\$96,630	\$189,452
8	\$72,965	\$3,948	\$0	\$1,316	5,326	\$14,055	32,850	\$91,799	\$184,083
9	\$72,965	\$4,106	\$0	\$1,369	5,060	\$13,352	31,208	\$87,209	\$179,001
10	\$72,965	\$4,270	\$0	\$1,423	4,807	\$12,685	29,648	\$82,848	\$174,192
11	\$72,965	\$4,441	\$0	\$1,480	4,566	\$12,050	28,165	\$78,706	\$169,643
12	\$72,965	\$4,618	\$0	\$1,539	4,338	\$11,448	26,757	\$74,771	\$165,342
13	\$72,965	\$4,803	\$0	\$1,601	4,121	\$10,876	25,419	\$71,032	\$161,277
14	\$72,965	\$4,995	\$0	\$1,665	3,915	\$10,332	24,148	\$67,481	\$157,438
15	\$72,965	\$5,195	\$0	\$1,732	3,719	\$9,815	22,941	\$64,107	\$153,814
16	\$72,965	\$5,403	\$0	\$1,801	3,533	\$9,324	21,794	\$60,901	\$150,395
17	\$72,965	\$5,619	\$0	\$1,873	3,357	\$8,858	20,704	\$57,856	\$147,171
18	\$72,965	\$5,844	\$0	\$1,948	3,189	\$8,415	19,669	\$54,963	\$144,135
19	\$72,965	\$6,077	\$0	\$2,026	3,029	\$7,994	18,685	\$52,215	\$141,278
20	\$72,965	\$6,321	\$0	\$2,107	2,878	\$7,595	17,751	\$49,604	\$138,592
21	\$72,965	\$6,573	\$0	\$2,191	2,734	\$7,215	16,864	\$47,124	\$136,069
22	\$72,965	\$6,836	\$0	\$2,279	2,597	\$6,854	16,020	\$44,768	\$133,703
23	\$72,965	\$7,110	\$0	\$2,370	2,467	\$6,512	15,219	\$42,530	\$131,486
24	\$72,965	\$7,394	\$0	\$2,465	2,344	\$6,186	14,458	\$40,403	\$129,413
25	\$72,965	\$7,690	\$0	\$2,563	2,227	\$5,877	13,735	\$38,383	\$127,478
<b>Totals</b>	<b>\$1,824,131</b>	<b>\$124,938</b>	<b>\$0</b>	<b>\$41,646</b>		<b>\$290,871</b>		<b>\$1,899,792</b>	<b>\$4,181,378</b>