

LEAF COLLECTION AND MULCHING PROGRAM ALTERNATIVES

March 21, 2022

Current Leaf Collection Operations

- Leaf collection occurs October December
- □ Three to five passes with leaf loaders (vacuums)

Year	Volume Collected (Cubic Yards)
2019 / 2020	8,925
2020 / 2021	7,427
2021 / 2022	6,916



Leaves are vacuumed into a tandem dump truck

Current Mulch Operations

- Town grinds a portion of leaves into mulch at Beulah Road site under 2005 conditional use permit
- Mulch delivered to residents January March at no charge

Year	Leaf Mulch Orders*	Mulch Loads Delivered
2019 / 2020	280	756
2020 / 2021	246	497
2021 / 2022	323	771

^{*} Multiple loads requested with each order



Deliveries occur using 1-ton dump truck

Current Mulch Operations

- Remainder of leaves hauled to Loudoun Composting for disposal
- Current disposal cost approximately \$30 / ton

Year	Unground Leaf Disposal (tons)
2019 / 2020	926
2020 / 2021	865
2021 / 2022	700*

^{*} Hauling to Loudoun Compost ongoing



Disposal occurs using tandem dump truck

Acoustic Monitoring Noise Study

Comparison of 2018 and 2022 sound levels during leaf grinding

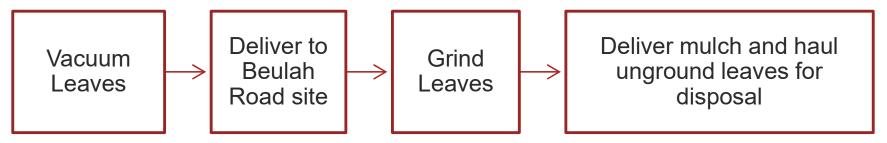
Sound Level Type and Location	Range of Predicted Sound Levels (dBA)*		Noise Level Change	Range of Predicted Sound
and Location	2018	2022	(dBA)**	Levels (dBA)
Grinder (50 feet away)	77-80	85-89	8-9	Readily Perceptible Increase to Twice as Loud
Barrier wall reduction	16	13	-3	Barely Perceptible Decrease
Broadleaf Drive NE	53-59	59-64	5-6	Readily Perceptible Increase
Holloway Court NE	53-54	57-59	4-5	Readily Perceptible Increase
Glyndon St NE	48-49	48-52	0-3	No Change to Barely Perceptible Increase
Sherwood Drive NE	51-55	48-59	3	Barely Perceptible Increase
Ainstree Court NE	51-53	49-58	3-5	Barely to Readily Perceptible Increase

^{*} Approximately 55 decibels is comparable to a quiet urban daytime.

^{**} Noise level change results from different leaf grinding machines and factors including age, maintenance, and equipment modifications.

Option 1 – Current Operations

Current Operations



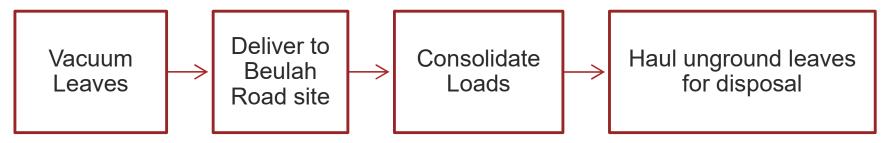
■ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Beulah Road site	\$285,000
Leaf grinding	\$13,000
Mulch delivery	\$97,000
Unground leaf delivery	\$42,000
Unground leaf disposal fee	\$26,000
TOTAL	\$463,000

^{*} Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Option 2 – Short Haul

Short Haul (Eliminates mulch program)



■ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Beulah Road site	\$285,000
Leaf grinding	N/A
Mulch delivery	N/A
Unground leaf delivery	\$64,000
Unground leaf disposal fee	\$39,000
TOTAL	\$388,000

^{*} Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Option 3 – Long Haul

Long Haul (Eliminates mulch program and use of Beulah Road site)



■ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Loudoun Composting	\$289,000
Tandem truck rental	\$61,000
Leaf grinding	N/A
Mulch delivery	N/A
Unground leaf disposal fee	\$39,000
TOTAL	\$389,000

^{*} Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Summary

Options	Total Program Cost*	Payment to vendors	Comments
Option 1 Current Operations	\$463,000	\$36,000 (leaf grinding and disposal)	 Continues leaf collection Continues mulch program using Beulah Road site Leaf operations end in March
Option 2 Short Haul	\$388,000	\$39,000 (disposal)	 Continues leaf collection Eliminates mulch program Continues use of Beulah Road site for consolidating leaves Leaf operations end in March
Option 3 Long Haul	\$389,000	\$100,000 (truck rental and disposal)	 Continues leaf collection Eliminates mulch program Eliminates use of Beulah Road site for leaf operations opening site for other public use Requires additional truck rental Leaf operations end in January; ~1,500 hours of DPW Labor becomes available for other tasks

^{*} TOTAL PROGRAM COST includes vehicles/equipment operation, maintenance, staffing, payment to vendors and fees. Reductions do not necessarily result in true budgetary savings because vehicle, equipment, and employee resources will be reallocated to support other operations.