

## Estimate of Fill Volume Required

- The estimated total fill requirements are 579 cubic yards. This includes a 25% excess over the fill volume calculated from the area times the elevation. This extra is to account for compaction, stump holes, and so forth.
- The estimated fill area is 5838 square feet. This is made up of 2 connected rectangles, one of 3947 square feet and the other of 1891 square feet.
- The average grade as measured against the reference curb location -6 1/3 inches. That is the area is below the curb by approximately 0.53 feet.
- The existing soil in the area to fill will be cut to a depth of 6 inches (0.5 feet) to remove the organic containing material. This makes the fill area start at 1.03 feet below the curb.
- The final elevation is to be approximately 1 foot above the curb. This will require 2.03 feet of compacted fill to achieve.
- The outer perimeter of the filled area will be extended by an additional 4 feet of feathering to the existing grade. That is a slope section will be added to the outside of the filled area. This additional volume is included in the total fill required as called out above.
- Before the cut and fill can begin the area will be cleared of trees. This is approximately 8351 square feet. The clearing area is larger than the fill area. The clearing area is 10 feet beyond the buildings and flat work. The fill area is 3 feet beyond the building and flat work not including the feathering.

Total Fill Requirements

Fill Requirements				
				12 yd
Fill Area	5838 ft <sup>2</sup>	ft <sup>3</sup>	yd <sup>3</sup>	loads
makeup to curb	0.53 ft	3,069	114	9
Cut Depth	0.5 ft	2,919	108	9
1' above curb	1.0 ft	5,838	216	18
Feathered edges		680	25	2
25% for compaction, stump holes, etc.		3127	116	10
<b>Total</b>		12,506	<b>579</b>	<b>48</b>

Original grade elevation to reference curb

Distance from front boundary on Quaker	Average Depth Below Curb	Average Depth For Sections	Average Depth for entire Section
Feet	Inches	Inches	Inches
226	-8 1/7		
		-6 3/4	
156	-5 1/3		-6 1/3
		-5 1/3	
120	-5 2/7		

Clearing and Fill Areas Calculations

Clearing Dimensions			Fill Dimensions		
<b>Area 1</b>					
Depth	85.67	feet	Depth	78.67	feet
Width	64.17	feet	Width	50.17	feet
Area	5497	ft2	Area	3947	ft2
<b>Area 2</b>					
Depth	40.67	feet	Depth	33.67	feet
Width	70.17	feet	Width	56.17	feet
Area	2854	ft2	Area	1891	ft2
Total Area	<b>8351</b>	ft2	Total Area	<b>5838</b>	ft2

Feathering area to filled Calculations

Feathering for an 18 " above grade				
Area 1	ft	ft	ft	
Depth	82.67	78.67	4	
Width	54.17	50.17	4	
Area	4478	3947	531	
Area 2				
Depth	37.67	33.67	4	
Width	60.17	56.17	4	
Area	2267	1891	375	
Total Feather area			907	ft2
Average depth above grade			0.75	ft
Fill required ft3			680	ft3