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gravesengineering.com

June 22, 2017

**PLANNING BOARD
GRAFTON, MA**

Joseph Laydon
Town Planner
Grafton Municipal Center
30 Providence Road
Grafton, MA 01519

**Subject: Gristmill Village
Engineer's Opinion Construction Cost Estimates**

Dear Joe:

Per the request of the Grafton Planning Board and the applicant, Graves Engineering, Inc. (GEI) generated engineer's opinion construction cost estimates for Gristmill Village residential subdivision. The estimates are based upon site visits performed by GEI through June 15, 2017.

Please find attached the point-by-point totals of the cost estimates based upon the following:

- The estimates are for the proposed work within the right-of-way and grading, etc. associated with on-site road and utility construction only. The estimates do not include any of the proposed work associated with lot development.
- The estimates are based upon a definitive plan entitled "Gristmill Village" dated March 13, 2015 and last revised March 28, 2016, prepared by J.M. Grenier Associates Inc.
- The estimates contain two sections: the total cost of the project and the cost of work remaining as of our last site visit.
- There has been a 20% administration and contingency added to the estimate total for inspections, contract administration and inflation.

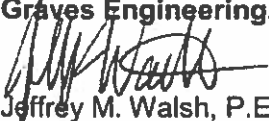
The purpose of our construction cost estimates is to provide the Grafton Planning Board with an "engineer's opinion" of the possible construction value for the project. Our estimates are based upon typical municipally-bid public works projects subject to state wage rates. We use state wage rates as the municipality will be required to pay prevailing state wage rates should they ultimately become responsible for completing the project. The rates indicated within this estimate reflect current market conditions.

In addition, the construction estimates should not be construed to be a final list of items that are not complete. At each drawdown requested by the developer, individual line items will be evaluated for completeness, unit prices may be revised to reflect the current cost of work and items may be added to or deleted from the estimates if needed. Streets and applicable amenities are not considered approved until they are accepted by Town vote as public streets or until the final release by the Planning Board for private streets.

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If you have any questions or comments concerning this estimate, please feel free to contact our office.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Vice President

Attachments (1)

cc: Steven Venincasa, Elite Home Builders



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**SITE DEVELOPMENT/SUBDIVISION
CONSTRUCTION BUDGET**

**PROJECT: GRISTMILL VILLAGE
MILLSTONE DRIVE, STATION 0+00 (EW) TO 4+21 (EW) AND 0+00 (NS) TO 4+28 (NS)**

**DATE: June 22, 2017
Budgets of work for entire phase and for work yet to be completed.**

The following construction budget is based upon the Definitive Plan last revised: **03/28/16**
This estimate is based upon site visits performed through: **06/15/17**

	UNITS	\$/UNIT	100% COST ESTIMATE		CONSTRUCTION	
			QUANTITY	VALUE	REMAIN'G - 06/15/17	VALUE
					QUANTITY	
RIGHT OF WAY						
Clear & Grub	Acres	\$15,000.00	1.2	\$18,000.00	0	\$0.00
Earth Excavation	Cu. Yds.	\$6.00	1,730	\$10,380.00	0	\$0.00
Finish Grading (Grass plots only)	Sq Yds.	\$3.00	1,780	\$5,340.00	1,780	\$5,340.00
Loam and Seeding	Sq Yds.	\$5.00	1,780	\$8,900.00	1,780	\$8,900.00
Trees	Each	\$400.00	33	\$13,200.00	33	\$13,200.00
Relocate Utility Pole	Allow	\$8,000.00	1	\$8,000.00	1	\$8,000.00
ROADWAY						
Prep Subgrade	Sq. Yds.	\$3.00	3,040	\$9,120.00	0	\$0.00
Gravel Base (12")	Cu. Yds.	\$32.00	1,010	\$32,320.00	0	\$0.00
Fine Grade & Roll	Sq. Yds.	\$4.00	3,040	\$12,160.00	0	\$0.00
Binder Course (2.75" Compacted Thk'ness)	Tons	\$100.00	415	\$41,500.00	0	\$0.00
Top Course (1.5" Compacted Thk'ness)	Tons	\$100.00	235	\$23,500.00	235	\$23,500.00
Granite Curb Inlets	Each	\$400.00	8	\$3,200.00	8	\$3,200.00
Vertical Granite Curb	Lin. Ft.	\$38.00	210	\$7,980.00	210	\$7,980.00
Sloped Granite Edging	Lin. Ft.	\$25.00	1,220	\$30,500.00	1,220	\$30,500.00
Granite Transition Pieces	Each	\$300.00	12	\$3,600.00	12	\$3,600.00
Street Lights	Each	\$3,000.00	4	\$12,000.00	4	\$12,000.00
Raise Structures (Sewers, Drains, etc.)	Each	\$375.00	17	\$6,375.00	17	\$6,375.00
SITE WORK						
Stormwater Basin - Excavation	Cu. Yds	\$6.00	4,700	\$28,200.00	0	\$0.00
Stormwater Basin - Loam and Seeding	Sq. Yds.	\$5.00	3,100	\$15,500.00	3,100	\$15,500.00
3' Split Rail Fence	Lin. Ft.	\$10.00	580	\$5,800.00	580	\$5,800.00
SIDEWALK						
Prep Subgrade	Sq. Yds.	\$3.00	460	\$1,380.00	460	\$1,380.00
Gravel Base (6")	Cu. Yds	\$32.00	80	\$2,560.00	80	\$2,560.00
Fine Grade & Roll	Sq. Yds	\$4.00	460	\$1,840.00	460	\$1,840.00
Concrete (4")	Cu. Yds	\$470.00	50	\$23,500.00	50	\$23,500.00
DRAINAGE						
12" Reinforced Concrete Pipe	Lin. Ft.	\$55.00	655	\$36,025.00	0	\$0.00
18" Reinforced Concrete Pipe	Lin. Ft.	\$82.00	360	\$29,520.00	0	\$0.00
Drain Manholes	Each	\$2,800.00	8	\$22,400.00	0	\$0.00
Drain Invert (Concrete or Brick)	Each	\$250.00	8	\$2,000.00	8	\$2,000.00
Catch Basins	Each	\$2,900.00	8	\$23,200.00	0	\$0.00
Catch Basins Frame & Grate	Each	\$775.00	8	\$6,200.00	0	\$0.00
Catch Basin Hoods	Each	\$400.00	8	\$3,200.00	8	\$3,200.00
Drain Manhole Rim & Cover	Each	\$750.00	8	\$6,000.00	6	\$4,500.00
Outlet Control Structure	Each	\$2,800.00	1	\$2,800.00	0	\$0.00

	UNITS	\$/UNIT	100% COST ESTIMATE		CONSTRUCTION	
			QUANTITY	VALUE	REMAIN'G - 06/15/17	QUANTITY
Outlet Control Structure Grate	Each	\$800.00	1	\$800.00	1	\$800.00
Riprap	Sq. Yds.	\$30.00	63	\$1,890.00	63	\$1,890.00
Water Quality Inlet, 1,500 Gallon	Each	\$3,500.00	1	\$3,500.00	1	\$3,500.00
Subsurface Recharge System	Allow	\$40,000.00	1	\$40,000.00	1	\$40,000.00
Erosion Control Barriers, Install	Lin. Ft.	\$7.00	1,400	\$9,800.00	0	\$0.00
Erosion Control Barriers, Maintain	Lin. Ft.	\$2.00	0	\$0.00	1,400	\$2,800.00
WATER						
8" DI Pipe	Lin. Ft.	\$70.00	880	\$61,600.00	0	\$0.00
Hydrants	Each	\$3,700.00	3	\$11,100.00	0	\$0.00
Water Service	Each	\$350.00	10	\$3,500.00	0	\$0.00
SEWER						
8" SDR 35 Sewer	Lin. Ft.	\$52.00	820	\$42,640.00	0	\$0.00
Manholes	Each	\$3,600.00	6	\$21,600.00	0	\$0.00
Laterals: 6" SDR 35 PVC	Each	\$900.00	10	\$9,000.00	0	\$0.00
Sewer Brick Invert	Each	\$350.00	6	\$2,100.00	0	\$0.00
Sewer Manhole Rim & Cover	Each	\$900.00	6	\$5,400.00	6	\$5,400.00
Lateral: #96 Pleasant Street	Allow	\$4,000.00	1	\$4,000.00	1	\$4,000.00
ELECTRIC COMMUNICATIONS						
Electrical/CATV/Tel Conduit	Lin Ft.	\$60.00	850	\$51,000.00	850	\$51,000.00
MISCELLANEOUS						
Bounds, Granite (Roadway)	Each	\$350.00	20	\$7,000.00	20	\$7,000.00
Bounds, Granite (Easement)	Each	\$350.00	28	\$9,800.00	28	\$9,800.00
Acceptance Plans	Sheet	\$1,200.00	1	\$1,200.00	1	\$1,200.00
As Built Plans	Sheet	\$1,900.00	5	\$9,500.00	5	\$9,500.00
				Subtotal:		\$751,630.00
				20% Contingency/Inflation:		\$63,953.00
PROJECT: GRISTMILL VILLAGE				TOTAL:		\$383,718.00
				TOTAL (Rounded):		\$384,000.00
				20% of "100% COST ESTIMATE" (Rounded):	*	\$150,000.00

* This estimate was prepared to assist the Planning Board in establishing the amount of surety for this project. In accordance with Grafton Subdivision Rules and Regulations, the surety value established by the Board may vary from this estimate.