

MEMORANDUM

Date: November 22, 2014

To: Medfield State Hospital Master Planning Committee (MSHMPC)

Subject: Summary of Demolition and Abatement Cost Estimates

From: Gil Rodgers

For your reference and background this memorandum provides a summary of data collected over the last year for demolition and abatement costs based on experiences at other state hospitals. Data was obtained from senior project managers, developers, demolition companies, and state government officials. Costs include abatement, demolition, and debris removal for brick buildings similar to the age and structural condition of Medfield State Hospital (some buildings in worse conditions), including: Foxborough State Hospital, Northampton State Hospital, and multiple state hospitals demolished by DCAMM.

In addition, I received a proposal for demolition and debris removal of most buildings at Medfield State Hospital from Skinner Services, who also worked on Foxborough.

Details of these estimates and the sources of information are shown on the attached table and in the attachments.

Some caveats: these costs are from projects conducted over different years as noted in the summary table, and have not been adjusted for inflation. In some cases these projects were conducted for state or local government agencies in which prevailing wage rates are required, while in others they were done for private companies and lower, non-prevailing wages rates were applicable. This is noted in the table. Finally, in some cases the costs include demolition, abatement and removal of bricks, wood, steel, and other debris while in others they include just demolition and removal but not abatement. This is also noted in the table. Abatement costs are notoriously difficult to estimate and depend upon the volume of materials that need to be removed and handled separately, and that require an inventory for each building. These estimates are therefore rough and approximate and should be used only as a general reference point to obtain a sense of reality of what might be involved for Medfield State Hospital.

Never-the-less the multiple sources cluster in the range of \$11 - 14 per square foot (\$ / ft².) Most of these estimates are for demolition on a large scale – hundreds of thousands of square feet – which is likely to cost dramatically less per square foot than for a single building. This is the scenario that is most relevant for Medfield, because demolition, reconstruction, or any combination of these activities will be on a large scale, not building-by-building.

Summary of Demolition, Abatement and Removal Costs for Massachusetts State Hospitals

Reference	Site	Description	Prevailing Wages	Project Year	Sources	Cost (\$ / ft ²)
1	Foxborough SH	5 buildings (40,000 ft ²) and smokestack; includes abatement and demolition; no debris removal as bricks crushed	No	Summer, 2014	<ul style="list-style-type: none"> • Kevin Weinfeld, Chairman Foxborough Planning Board • Doug King, developer • Endriunas Brothers, demolition company (call notes attached) 	\$4
2	Multiple SH Sites	Multiple state hospitals; demolition, abatement and removal of materials	Yes	Multiple years	<ul style="list-style-type: none"> • Mary Beth Clancy, John O'Donnell, Dana Harrell, DCAMM estimate provided to SHAC on January 9, 2014 (call notes attached) 	\$11 - 14
3	Medfield SH	34+ buildings (550,000 ft ²); demolition and removal; no abatement	No	2013	<ul style="list-style-type: none"> • David Skinner, Skinner Demolition Company; pre-proposal August 14, 2013 (copy attached) 	\$11
4	Foxborough SH	Multiple buildings (280,000 ft ²); includes abatement and demolition	No	2005	<ul style="list-style-type: none"> • David Crocini, Partner Chestnut Green; • Confirmed by David Skinner, Skinner Demolition Company 	\$13
5	Northampton SH	Multiple buildings (500,000 ft ²); abatement, demolition and removal	Yes	2002	<ul style="list-style-type: none"> • Beth Murphy, project manager, MassDevelopment 	\$14

References and Sources for Cost Data

- (1) **Foxborough State Hospital** – Information obtained for recent demolition and abatement of 5 buildings (40,000 ft²) and brick chimney from Doug King (Developer) provided by Kevin Weinfeld (Chairman of Planning Board, Foxborough), and from Endriunas Brothers on 11/7/2014. Demolition took place during summer of 2014 (See Attachment I.)
- (2) **Multiple State Hospitals** – Cost information provided by DCAMM (John O'Donnell, Mary Beth Clancy, Dana Harrell and others) on January 9, 2014 based on DCAMM's experience with demolition of multiple state hospital buildings over a number of years. Based on Rutland, Wooster, Danvers and Metropolitan State Hospitals. Includes all costs – abatement, demolition, removal of all materials, and other fees and expenses. Abatement costs for these actual projects were relatively small costing about \$2 / ft² (See Attachment II.)
- (3) **Medfield State Hospital** – Proposal received from Skinner Services on 8/14/2013 for demolition and removal of debris for all buildings at Medfield State Hospital excluding four buildings that were being demolished by DCAMM (Clark Building, Laundry, Stable – garage) or was to be saved (Lee Chapel,) but did include all other buildings including the Odyssey House, small cottages and water tower. David Skinner visited the site and walked the entire core campus to develop a preliminary proposal. Estimated total area of buildings to be demolished 550,000 ft². Cost estimate from Skinner: \$5.9 million, or \$11 / ft². (See Attachment III.)
- (4) **Foxborough State Hospital** – Based on meetings, tours and phone calls held on September 4 – 5, 25, 2013 with developers of Foxborough SH. Vincent O'Neill (Head Developer of Chestnut Green) quoted renovation costs of \$220 – 230 / ft², with tax credits of 20% State and 20% Federal reducing this to \$140 / ft². This was collaborated by David Crocini (development partner and project manager) who said restoration costs were \$230 – 240 / ft². Matt Abrams (development partner with Vinco for the restoration of the hospital buildings) estimated tear-down costs of about \$5 – 7 / ft². David Crocini said they demolished 280,000 ft² at a total cost of \$1.7 million for demolition and \$2 million for abatement or \$13 / ft² in 2005 dollars, verifying the demolition and abatement cost estimates. (See notes from meetings and phone calls on MSHVision.net at: <http://mshvision.net/downloads/foxborough-comparison.pdf>).
- (5) **Northampton State Hospital** -- Based on meetings with Beth Murphy, Project Manager for MassDevelopment on 1/9/2014: "This 126-acre site originally included 880,000 ft² of existing space in 47 buildings on the main campus. Approximately 680,000 ft² of deteriorated buildings were demolished to make way for new housing and commercial development. One building – "Old Main" -- occupied 500,000 ft² and after years of debate was finally environmentally abated of hazardous materials such as asbestos and demolished at an expense of \$7,000,000 (\$14/ft².)" (See notes from meetings and phone calls regarding Northampton State Hospital on MSHVision.net: <http://mshvision.net/downloads/notes-on-nsh-010914.pdf>).

Attachment I – Foxborough - Doug King and Endriunas Brothers, Costs for Demolition and Abatement

 This message has been replied to or forwarded.
This message was sent with High importance.

From: gil rodgers <gilrodgers@aol.com>

Sent: Fri 11/7/2014 6:13

To: Steve Nolan

Cc: Gil Rodgers

Subject: Update on Recent Demolition Costs at Foxborough State Hospital

Hi Steve,

I spoke to Kevin Weinfeld, Chairman of Planning Board in Foxborough who in turn talked to Doug King, developer. Doug King recently had five brick structures demolished at the former Foxborough State Hospital and a 150 foot smoke stack from the old power plant torn down. The cost for about 40,000 sq. ft. of building space plus the smoke stack was \$100,000. The work was performed by Endriunas Brothers of North Easton, MA. I then called Endriunas Brothers to verify this information and late this afternoon their president called me back. He verified that the demolition cost was \$100,000 and added that this did not include abatement (mainly of asbestos and some lead pipe) that were (he thought) about \$60,000. Also the brick debris was not trucked away but is being crushed for fill.

Using these numbers a rough estimate for abatement and demolition (but excluding removal) is less than \$4.00 per square foot (\$160,000/40,000 sq. ft..) This cost is consistent with the demolition cost numbers that I got last year from David Skinner (Skinner Demolition) for work he did at FSH of \$3 - 4 per square foot as documented in my notes on Redevelopment of Foxborough State Hospital, September 2013 posted on our MSHVision website. See: <http://mshvision.net/downloads/foxborough-comparison.pdf>

When we get further along and have some clearer idea of which buildings might be demolished, Endriunas Brothers would be interested in coming out to prepare an estimate.

Best regards,

Gil

Gil Rodgers
gil.rodgers@energyzt.com
617-792-0583

Attachment II -- Multiple Hospitals –DCAMM Experience

Call Notes

Date: January 9, 2014

Subject:: DCAMM Guidance on Demolition Costs

Participants;

DCAMM: Mary Beth Clancy, John O'Donnell, Dana Harrell, Ken Lortie

Medfield: Kristine Trierweiler & Ken Richard

John O'Donnell carried most of the conversation given his role and experience with such matters within DCAMM.

The call was premised on Medfield's need to have some corroborating evidence as to the potential costs of demolition of structures at the MSH site. DCAMM was told that this information may be shared with citizens during the town's Visioning Session, scheduled for Saturday, January 11th.

O'Donnell stated that DCAMM's experience in terms of demolition and removal of materials at other former state hospital sites has ranged from **\$11 per sq. foot to \$14 per sq. foot**.

The State, of course, incurs costs at the "Prevailing Wage" which typically exceeds private sector pricing.

No representation were offered as to the price differential between Prevailing and Private, but the Town is mainly interested in the Prevailing guidance as the Prevailing regulations would apply to the Town if it, as owner, had to ever undertake any demolition & removal actions.

O'Donnell stressed that the \$11 - \$14 range is subject to a number of variable factors that could increase or lower the actual costs such as;

- The age of the structures; Age is a determinant because of the building practices that may have been employed at different times. (e.g. more likelihood of asbestos in building constructed after the 1950's)
- Economies of Scale; from an average cost per sq. foot perspective, conducting demolition of multiple buildings at the same time is naturally less than removing a one-off project due to the averaging of mobilization expenses of the contractor.
- Existence or not of Mechanical Systems; in a campus setting such as a State Hospital, certain buildings have central plant and mechanical equipment while others are fed with ductwork and do not have mechanical systems.
- Overall Condition of the buildings at time of demolition; For example, if a building to be demolished contains asbestos, but the building condition at the time of demo is deemed unsafe for entry, the discreet removal of the asbestos before the building itself is razed would not be possible. Removing asbestos from the general rubble vs. separately has cost implications.

Attachment III – Medfield State Hospital – Skinner Total Demolition Cost Estimate

Skinner Services Inc
 155 Bodwell Street
 Avon, MA 02322

 (508)559-0123
 skinnerdemo@skinnerdemo.com
 http://www.skinnerdemo.com

Proposal

Date	Proposal No.
08/14/2013	5329
	Exp. Date

Address
Gil Rogers State Hospital Advisory Committee Medfield, MA

Date	Service	Activity	Quantity	Rate	Amount
08/14/2013	Demolition	Removal and Legal Disposal of all buildings on Site of the former State Hospital in Medfield Ma.	1	5,950,000.00	5,950,000.00
08/14/2013		**Included in this price is all Machinery, Labor and Debris Removal.			
				Total	\$5,950,000.00

EXCLUSIONS: Permits, Adhesives, Shoring, Hazardous Waste, Dust Protection or Control, Multiple Mobilizations, Cutting or Capping Utilities, Official Details, Barricades, Testing of Suspect or Unknown Materials Unless Otherwise Specified Above, Harm to Hidden Utilities, Backfilling, Air Monitoring, Layout.

Accepted By _____ Accepted Date _____

Skinner Services Inc

We appreciate your business.

Proposal 5329, 08/14/2013

$$\$5,950,000 / 550,000 \text{ ft}^2 = \$10.80 / \text{ft}^2$$