

# CAPITAL EXPENDITURE DESCRIPTION – DETAIL

## DEPARTMENT/BOARD – LINCOLN PUBLIC LIBRARY

Project/Expenditure: Elevator smoke vent Fiscal Year: 2008 Cost: \$20,000  
 Department Head: Barbara Myles, Director Priority: # 2 of 2

(1) Description (*Please include any brochures on product*): Upgrade the existing smoke vent in the elevator from one that is simply an open louver to a vent with a damper that meets current elevator and fire code standards.

(2) Useful Life: 20 years

(3) Purpose:

Scheduled Replacement \*  
 New/Expanded Service  
 Other (*Please Explain*)

Increased Personnel Efficiency  
 Replace Obsolete/Unsafe Equipment\*  
 \*Please explain how old equipment will be disposed of.

Install equipment in the elevator shaft that will exhaust any smoke from a fire

(4) Justification:

The condition site survey conducted in January 2004 by Simpson, Gumpertz and Heger alerted us that the Plexiglas covering the elevator's smoke vent was unsafe and had to be removed. Once the Plexiglas was removed, the elevator began malfunctioning in cold weather. (The hydraulic oil for the elevator thickens and the result is that the floor of the elevator does not level correctly with the floors of the library.) The open louver is allowing heat from the building to escape through the elevator shaft. The temperature in the elevator cab during the winter declines to the 40 degree range.

(5) How did you determine this project's priority? Safety concerns and energy conservation.

(6) Estimated Cost: \$20,000 (Please remember to attach the written estimate.)

(7) Additional Cost Data (*Equipment Only*)

Purchase Price:	\$ _____
Less Trade-In:	\$ _____
Net Cost:	\$ _____

(8) Are non-Town revenues available to reduce cost:

This project is eligible for CPA funding.

(9) What will be the effect on your department if this project is delayed?

Library patrons could trip and fall while entering or exiting the elevator. The library will spend more on heating bills until the open louver is replaced with one that has a damper.

(10) Please describe the effect if this project on your Operating Budget.

Personnel Budget:

increase  
 decrease  
 no change  
 \_\_\_\_\_ amount of change

Expense Budget:

increase  
 decrease  
 no change  
 \_\_\_\_\_ amount of change

Detail: A new smoke vent, that is closed except in the case of fire, will result in the consumption of fewer gallons of heating oil.

Attachments (*if any*):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2008-01



To: Building Committee  
From: Barbara Myles  
Date: 9/5/2006  
Subject: Capital Plan FY 2008 Budget - Smoke vent upgrade

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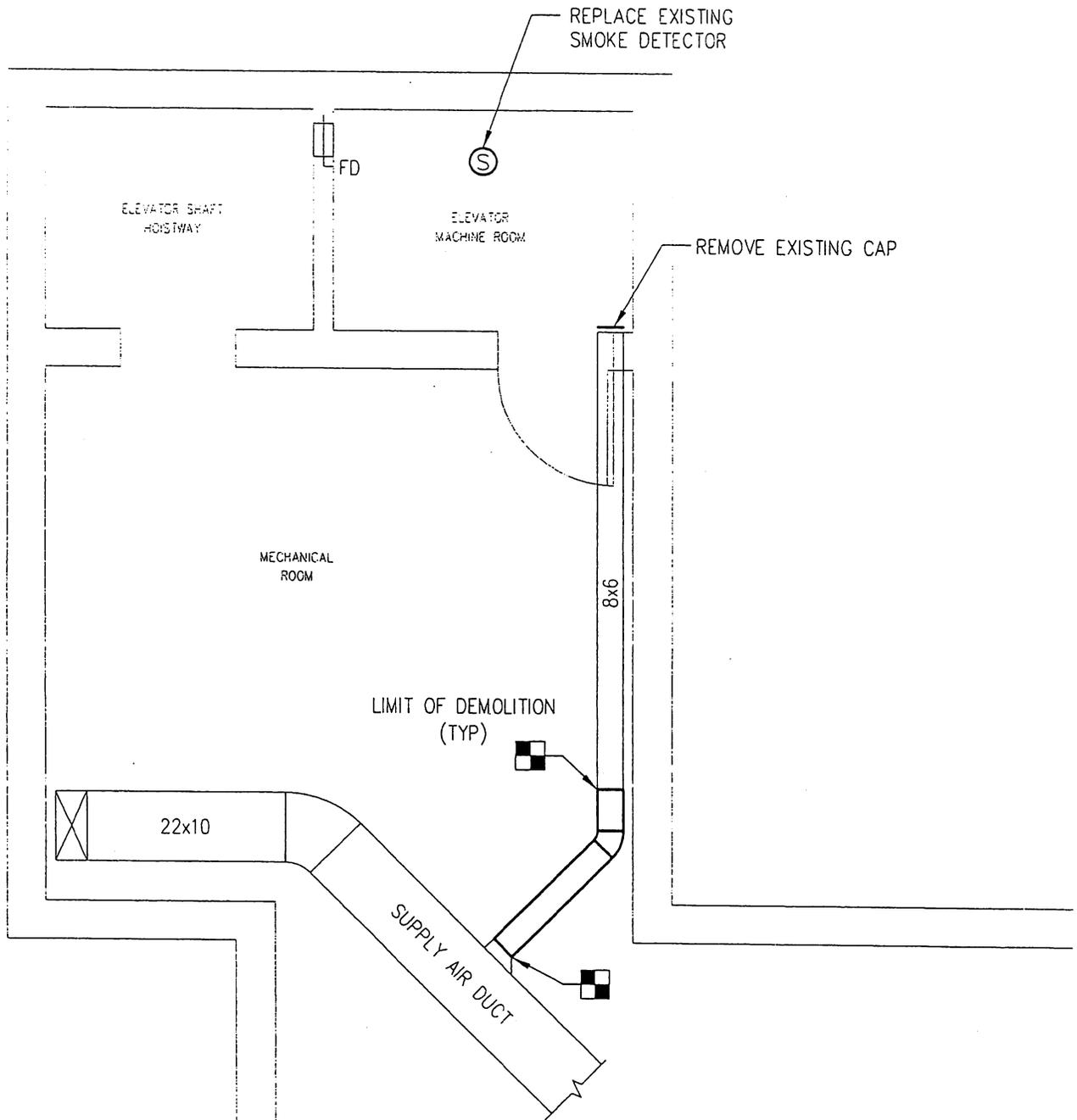
Attached are plans and a price quote for upgrading the library's existing smoke vent. The existing smoke vent is a louver that is fixed in the open position. In January 2004 the condition site survey performed by Simpson, Gumpertz and Heger reported that the piece of Plexiglas covering this open louver must be removed because it is a fire hazard.

When the custodian removed the Plexiglas, however, cold air entered the elevator shaft. The engineer from SGH did not consider the consequences of removing this piece of Plexiglas. We learned that the cold air thickens the hydraulic oil and the thick hydraulic oil prevented the floor of the elevator from leveling with the floors of the library. Uneven floors are a trip hazard. Staff and patrons have tripped but no one has fallen yet.

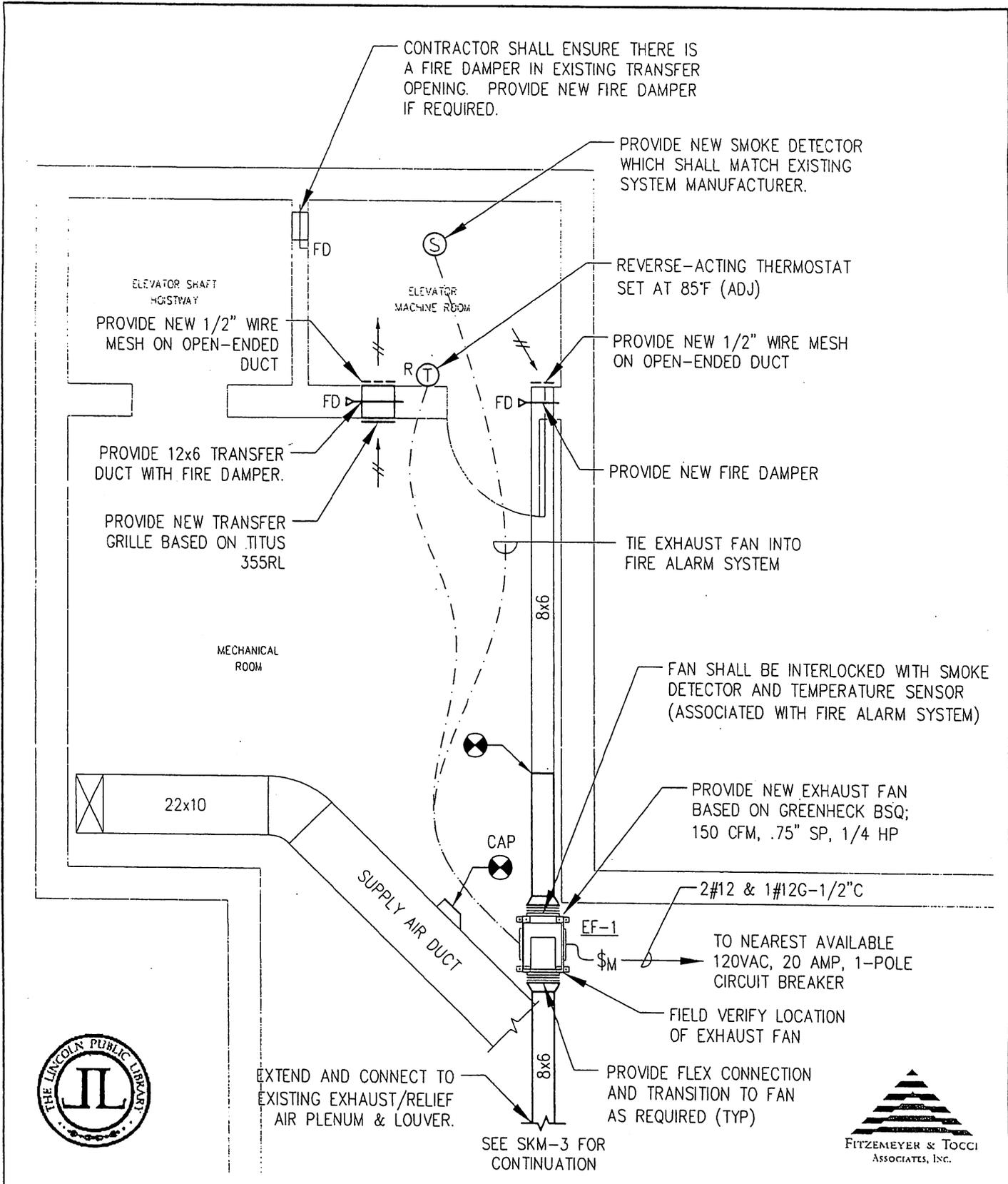
Attached are mechanical and electrical plans drawn by Fitzemeyer & Tocci, an email from Fire Chief Cotoni stating that he approves F&T's engineering drawings, a price quote (\$18,995) from Fraser Engineering for performing this work, and cut sheets of the new equipment they would install to upgrade the library's smoke vent.

This project is much more involved and costly than I imagined! I would like to add this project to the list of building projects we request in the library's FY 2008 capital plan budget.

Thanks for your consideration.



SUB-BASEMENT FLOOR PLAN MECHANICAL / ELECTRICAL DEMOLITION		DATE: 12/05/05
		SCALE: 1/4"=1'-0"
LINCOLN PUBLIC LIBRARY	ELEVATOR SHAFT SMOKE VENTING	PROJECT NO.: 05086.00
92 MONTVALE AVE SUITE 4100 STONEHAM, MA 02180	FITZMEYER & TOCCI ASSOCIATES, INC. MECHANICAL/ELECTRICAL ENGINEERS	TEL: 781-481-0210 FAX: 781-481-0203 www.f-t.com
		DRN BY: MJS CHK BY: SJO
		SKME-1



**SUB-BASEMENT FLOOR PLAN  
MECHANICAL / ELECTRICAL NEW CONSTRUCTION**

DATE: 12/05/05  
SCALE: 1/4"=1'-0"

<b>LINCOLN PUBLIC LIBRARY</b>		<b>ELEVATOR SHAFT SMOKE VENTING</b>		PROJECT NO.: 05086.00	SKETCH NO.:
92 MONTVALE AVE SUITE 4100 STONEHAM, MA 02180		<b>FITZMEYER &amp; TOCCI ASSOCIATES, INC.</b> MECHANICAL/ELECTRICAL ENGINEERS		TEL: 781-481-0210 FAX: 781-481-0203 www.f-t.com	DRN BY: MJS CHK BY: SJO
					<b>SKME-2</b>

92 MONTVALE AVE  
SUITE 4100  
STONEHAM, MA 02180

FITZMEYER & TOCCI ASSOCIATES, INC.  
MECHANICAL/ELECTRICAL ENGINEERS  
TEL: 781-481-0210  
FAX: 781-481-0203  
WWW.F-T.COM

CHK BY: SJO  
DRN BY: MJS

SKME-3

# LINCOLN PUBLIC LIBRARY

## ELEVATOR SHAFT SMOKE VENTING

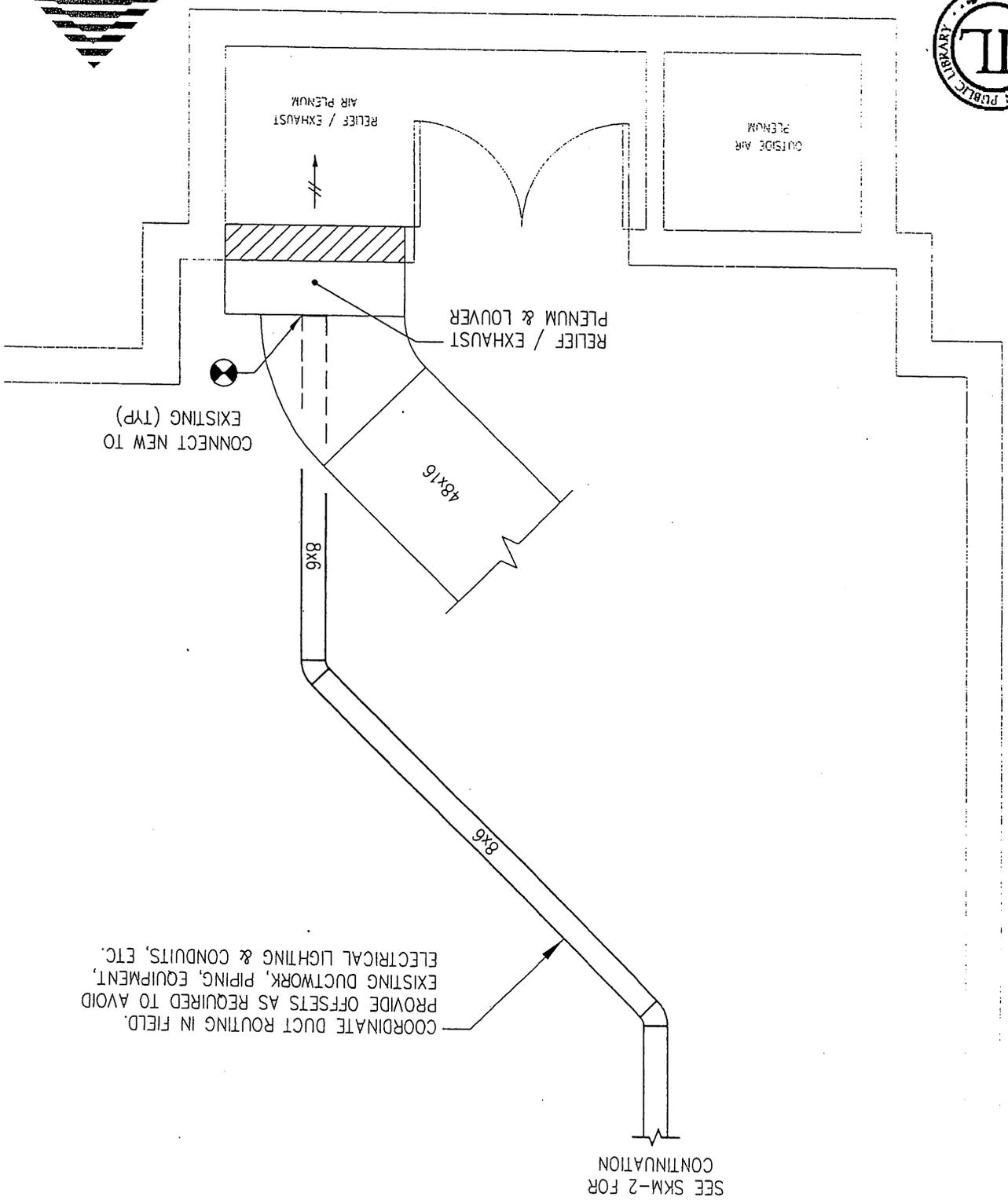
PROJECT NO.:  
05086.00

SKETCH NO.:

### SUB-BASEMENT FLOOR PLAN - PART B MECHANICAL / ELECTRICAL NEW CONSTRUCTION

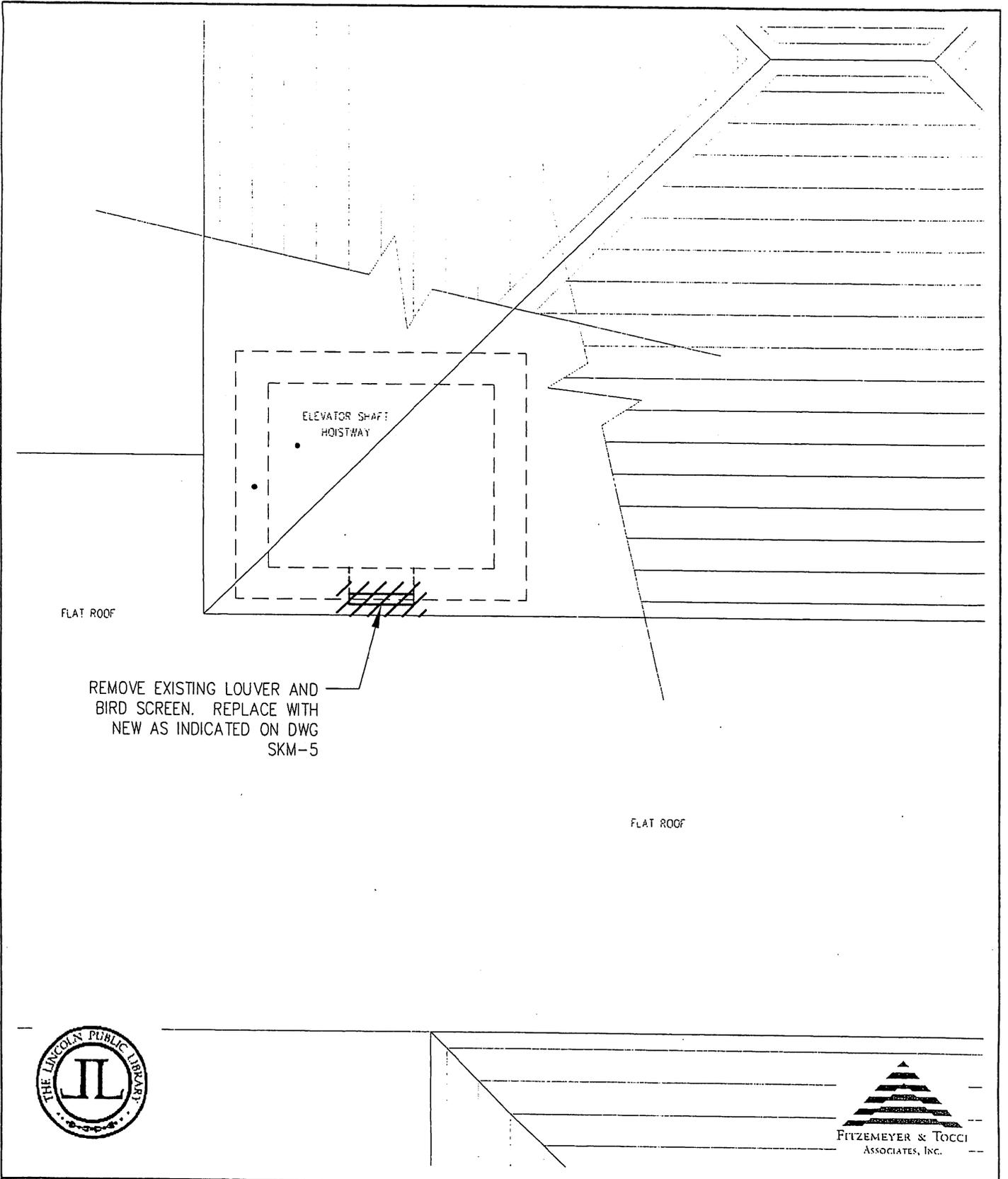
SCALE: 1/4"=1'-0"

DATE: 12/05/05



COORDINATE DUCT ROUTING IN FIELD.  
PROVIDE OFFSETS AS REQUIRED TO AVOID  
EXISTING DUCTWORK, PIPING, EQUIPMENT,  
ELECTRICAL LIGHTING & CONDUITS, ETC.

SEE SKM-2 FOR  
CONTINUATION



FLAT ROOF

ELEVATOR SHAFT  
HOISTWAY

REMOVE EXISTING LOUVER AND  
BIRD SCREEN. REPLACE WITH  
NEW AS INDICATED ON DWG  
SKM-5

FLAT ROOF



TOP OF ELEVATOR SHAFT HOISTWAY / ROOF PLAN  
MECHANICAL / ELECTRICAL DEMOLITION

DATE: 12/05/05

SCALE: 1/4"=1'-0"

LINCOLN PUBLIC LIBRARY

ELEVATOR SHAFT SMOKE VENTING

PROJECT NO.:  
05086.00

SKETCH NO.:

92 MONTVALE AVE  
SUITE 4100  
STONEHAM, MA 02180

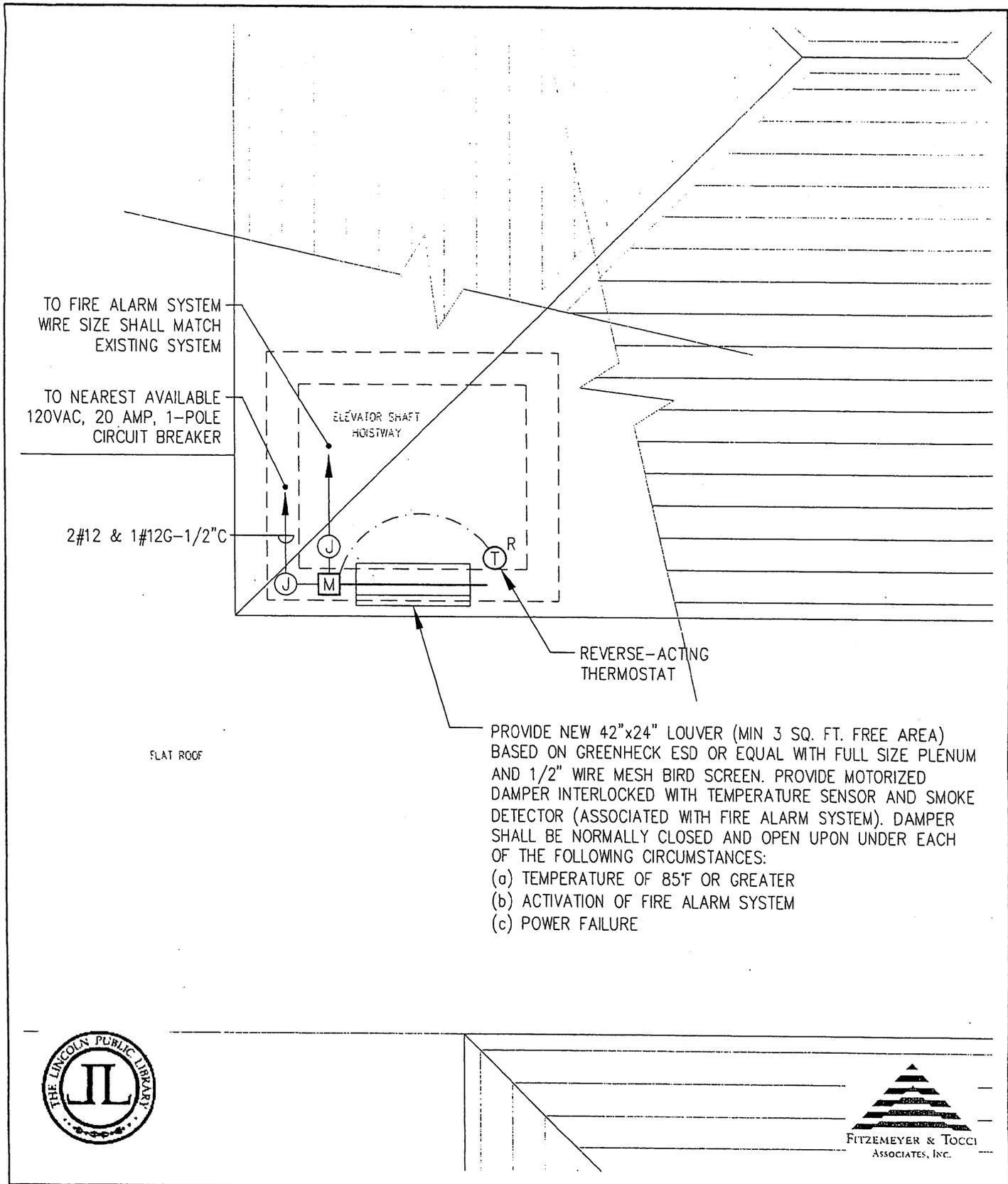
FITZMEYER & TOCCI ASSOCIATES, INC.

MECHANICAL/ELECTRICAL ENGINEERS

TEL: 781-481-0210  
FAX: 781-481-0203  
www.f-t.com

DRN BY: MJS  
CHK BY: SJO

SKME-4



TOP OF ELEVATOR SHAFT HOISTWAY / ROOF PLAN  
MECHANICAL / ELECTRICAL NEW CONSTRUCTION

DATE: 12/05/05

SCALE: 1/4"=1'-0"

LINCOLN PUBLIC LIBRARY

ELEVATOR SHAFT SMOKE VENTING

PROJECT NO.:  
05086.00

SKETCH NO.:

92 MONTVALE AVE  
SUITE 4100  
STONEHAM, MA 02180

FITZMEYER & TOCCI ASSOCIATES, INC.

MECHANICAL/ELECTRICAL ENGINEERS

TEL: 781-481-0210  
FAX: 781-481-0203  
www.f-t.com

DRN BY: MJS  
CHK BY: SJO

SKME-5



From: "Scott LeClair" <sleclair@f-t.com>  
To: "Barbara Myles" <BMyles@minlib.net>  
Date: 01/12/2006 08:24 AM  
Subject: RE: Elevator vent questions

Barbara,

With regard to your questions....

1. The original design was OK for the time of installation, but the codes for elevator machine room ventilation (actually exhaust) have indeed changed. The current sketches show the room being provided with the current code mandated exhaust (and make-up air via transfer).
2. I'll need to spend a little time to come up with a cost estimate...I'll try to get at this early next week and get it to you as soon as possible.
3. I'd need to dig further to determine if the existing vent was adequate for the time of installation, it definitely doesn't meet current codes, however. I believe it is up to the individual elevator inspector's as to whether they continue to allow currently non-compliant vents (i.e. grandfather them).

Hope this helps...please call with any questions.

Thanks,

Scott

\*\*\*\*\*  
Scott E. LeClair, PE  
Principal  
Fitzmeyer & Tocci Associates, Inc.  
92 Montvale Avenue  
Suite 4100  
Stoneham, MA 02180  
Phone: (781) 481-0210 x136  
FAX: (781) 481-0203  
Mobile: (603) 321-6603

-----Original Message-----

From: Barbara Myles [mailto:[BMyles@minlib.net](mailto:BMyles@minlib.net)]  
Sent: Wednesday, January 11, 2006 1:50 PM  
To: Scott LeClair  
Subject: Elevator vent questions

Scott,

I have some questions for you about the elevator vent study you and Steven O'Connell performed at the library.

1) Sketch number 1 shows demolition to the existing HVAC duct work. It

looks like the duct that connects the elevator room to the supply air duct is blocked off. Sketches 2 and 3 show the plan to move one end of the duct from the supply air duct and to the exhaust air duct.

Can you explain why this change is necessary? Was the original design incorrect?

2) I am preparing next year's budget and need an estimate for this work.

Can you please give me a budget estimate for this work?

3) Sketches 4 and 5 show the size of the existing vent increasing substantially. I understand that we need to meet current building code requirements but can you tell me if the existing vent, which was installed in 1989, met the building code for 1989? If the vent did not meet 1989 building code, I have the chance to fast track this project.

Thanks for your reply,  
Barbara  
Director  
Lincoln Public Library  
3 Bedford Road  
Lincoln, MA 01773  
(781) 259-8465  
fax (781) 259-1056





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# FRASER

*Engineering Company, Inc.*

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*Process Piping/Petro-Chem, HVAC, "Controls"*  
*Plumbing, Fire Protection, Refrigeration*  
&  
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Post Office Box 9142  
Newton, Massachusetts 02460-9142

Tel: 617/332-3700  
1-800-244-3324

September 1, 2006

Barbara Myles  
Lincoln Public Library  
3 Bedford Road  
Lincoln, MA 01773

RE: Smoke vent in elevator shaft upgrade

Dear Ms. Myles:

We are pleased to offer our revised proposal for the smoke vent in the elevator shaft upgrade at Lincoln Public Library, Lincoln MA. The work is in accordance with Fitzmeyer & Tocci Associates design drawings SKME-1 through 5 dated 12/5/05.

Our lump sum cost for the work is **Eighteen Thousand Nine Hundred Ninety Five (\$18,995.00) Dollars** with the following qualifications:

- All work shall be performed during normal working hours.
- Sales tax is not included.
- *Prevailing wages are included.*
- Cost includes required saw cutting of new wall openings.
- Cost includes roof flashing repairs required by the installation of the elevator shaft louver.
- Quote based on providing Greenheck Model BSQ Fan and Buckley Model EAL Louver.
- Duct liner or insulation is not included.
- An additional cost of \$100 to be added if fire damper is required in the existing transfer duct. (SKME-2 note)

Thank you for the opportunity to provide this proposal. If you have any questions or need additional information please contact Fraser Engineering.

Sincerely,



Lynne Decker, P.E.  
Fraser Engineering Co., Inc.