

Building Plans and Asbestos Sample Locations

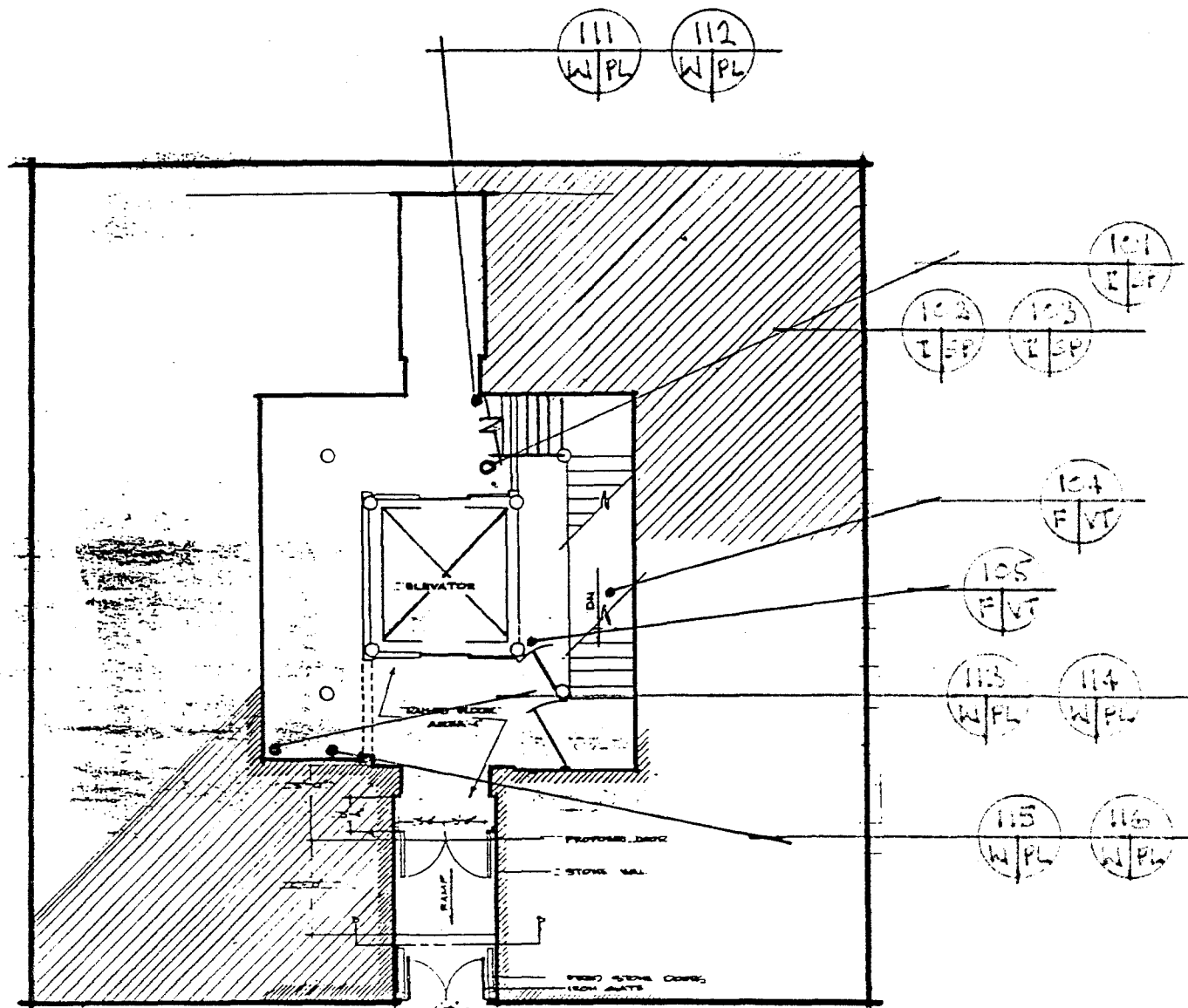


Calculation Sheet

Designer _____ Date _____ Checker _____ Date _____

Title _____ Job No. _____

Subject _____ Sheet No. _____ of _____



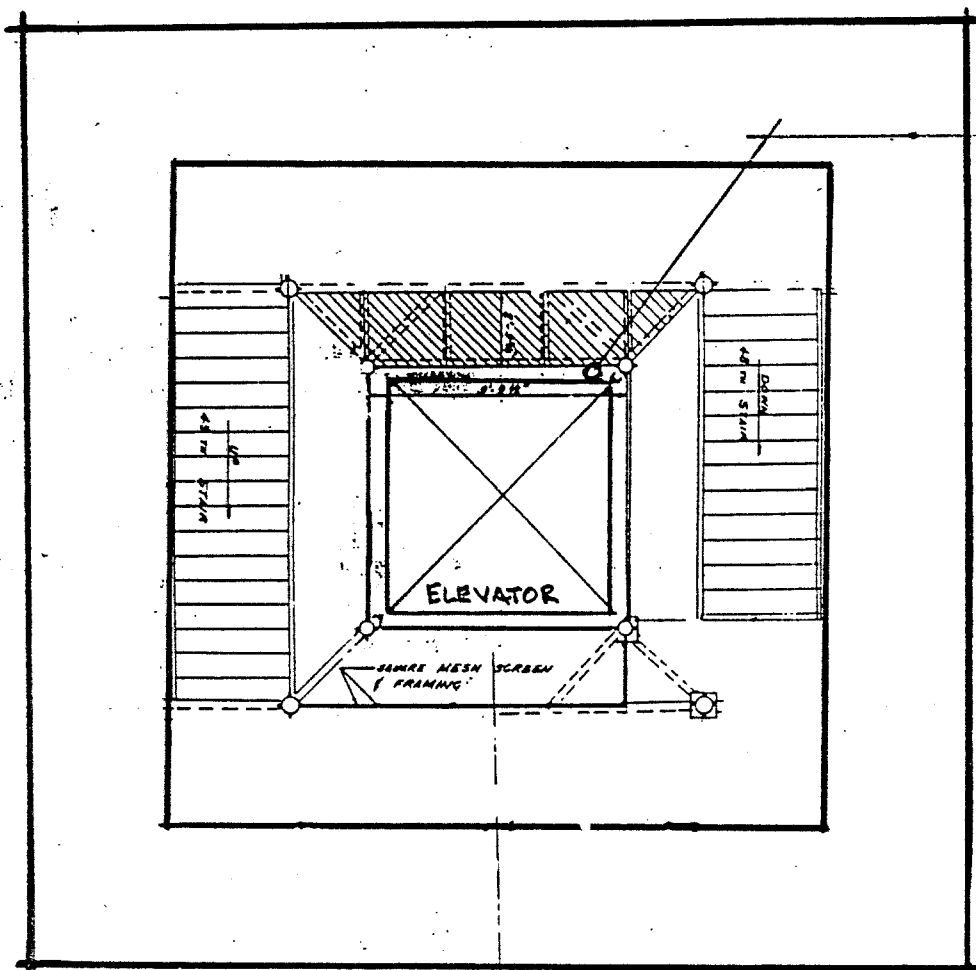
GROUND LEVEL
N.T.S.





Calculation Sheet

Designer _____ Date _____ Checker _____ Date _____
 Title _____ Job No. _____
 Subject _____ Sheet No. _____ of _____



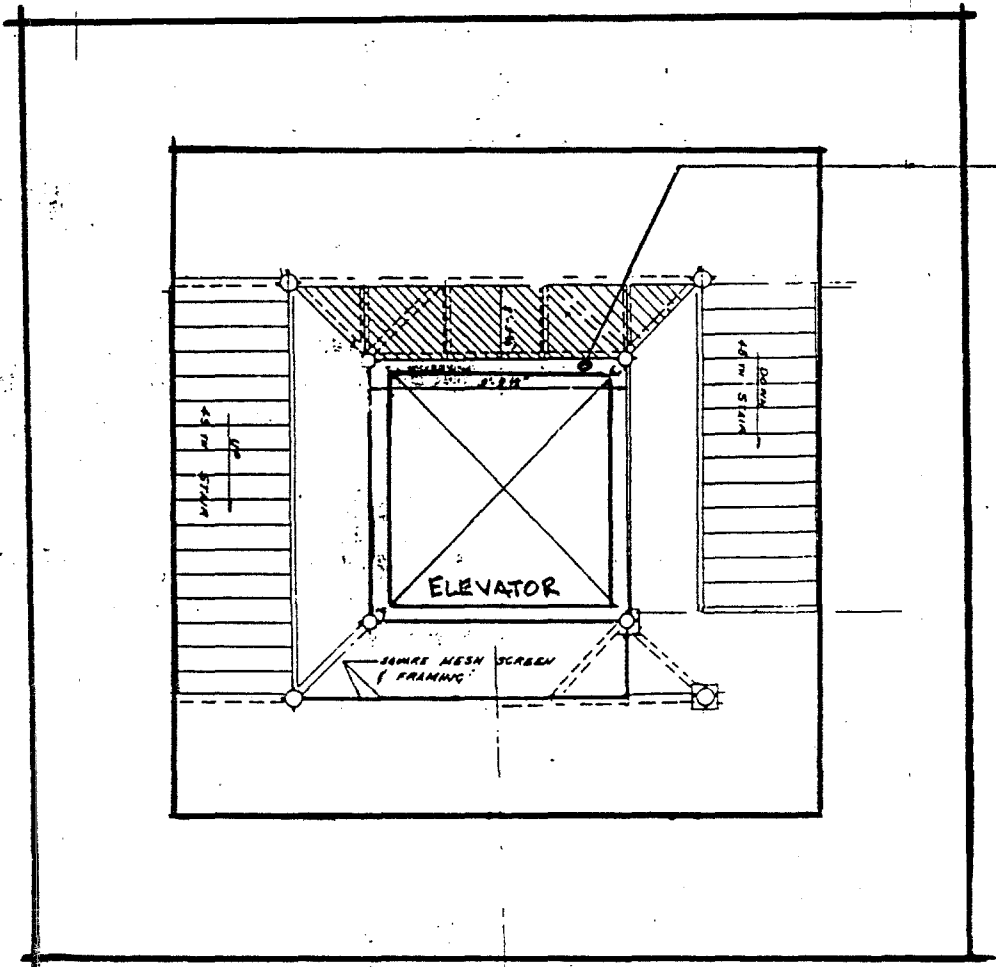
10' LEVEL
 NTS





Calculation Sheet

Designer _____ Date _____ Checker _____ Date _____
Title _____ Job No. _____
Subject _____ Sheet No. _____ of _____



109
I/FJ

110
I/FJ

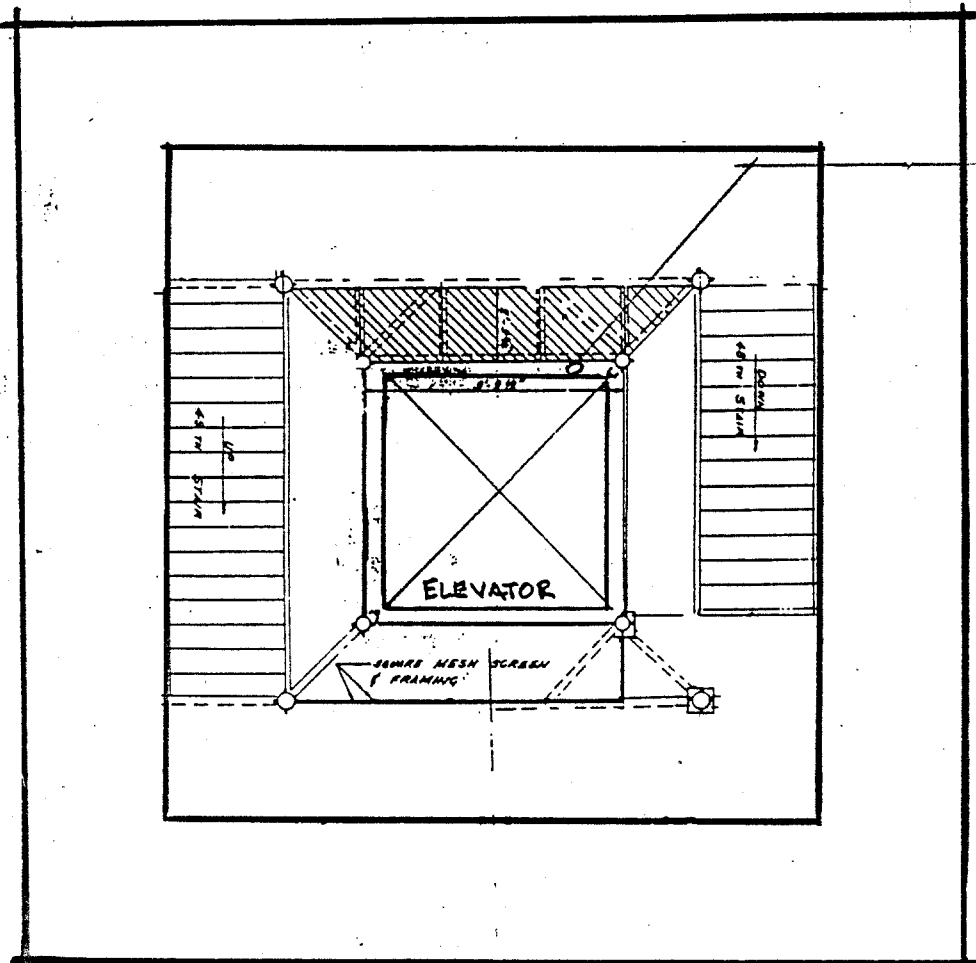
60' LEVEL
RTS





Calculation Sheet

Designer _____ Date _____ Checker _____ Date _____
 Title _____ Job No. _____
 Subject _____ Sheet No. _____ of _____



80' LEVEL
 NTS



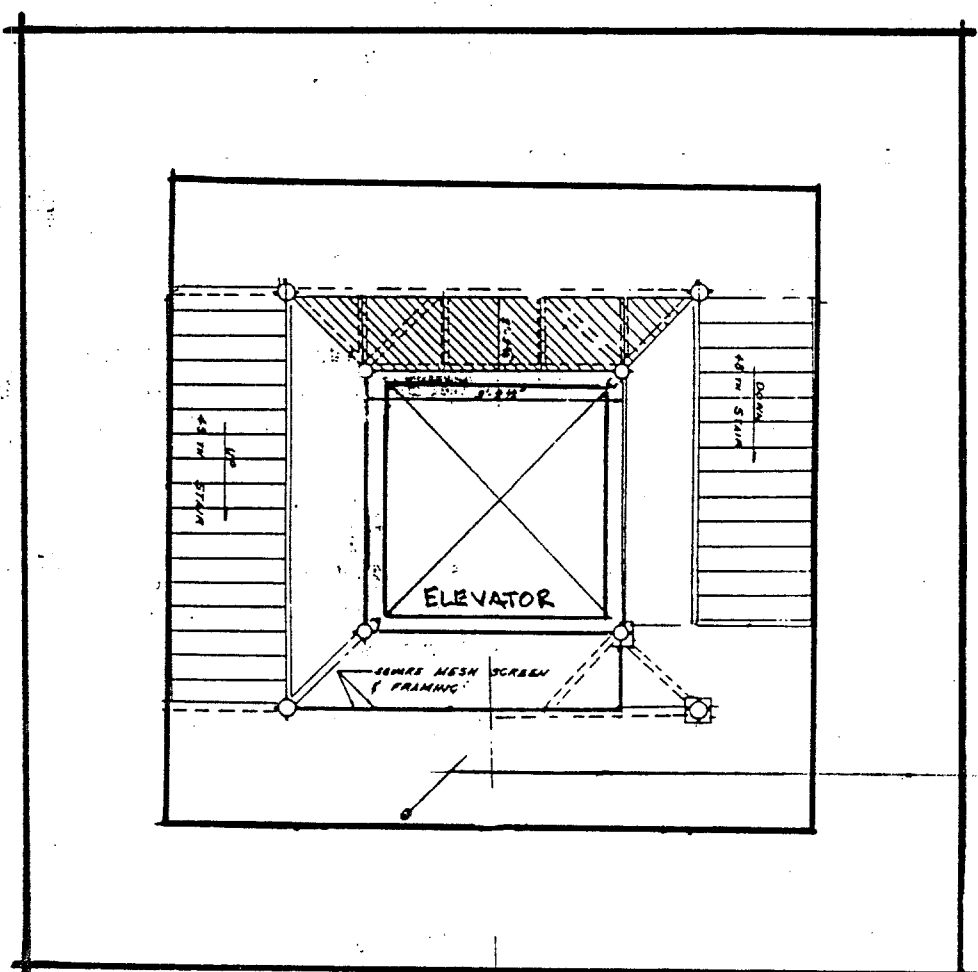


Calculation Sheet

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Title _____ Job No. _____

Subject _____ Sheet No. _____ of _____



107
M 38

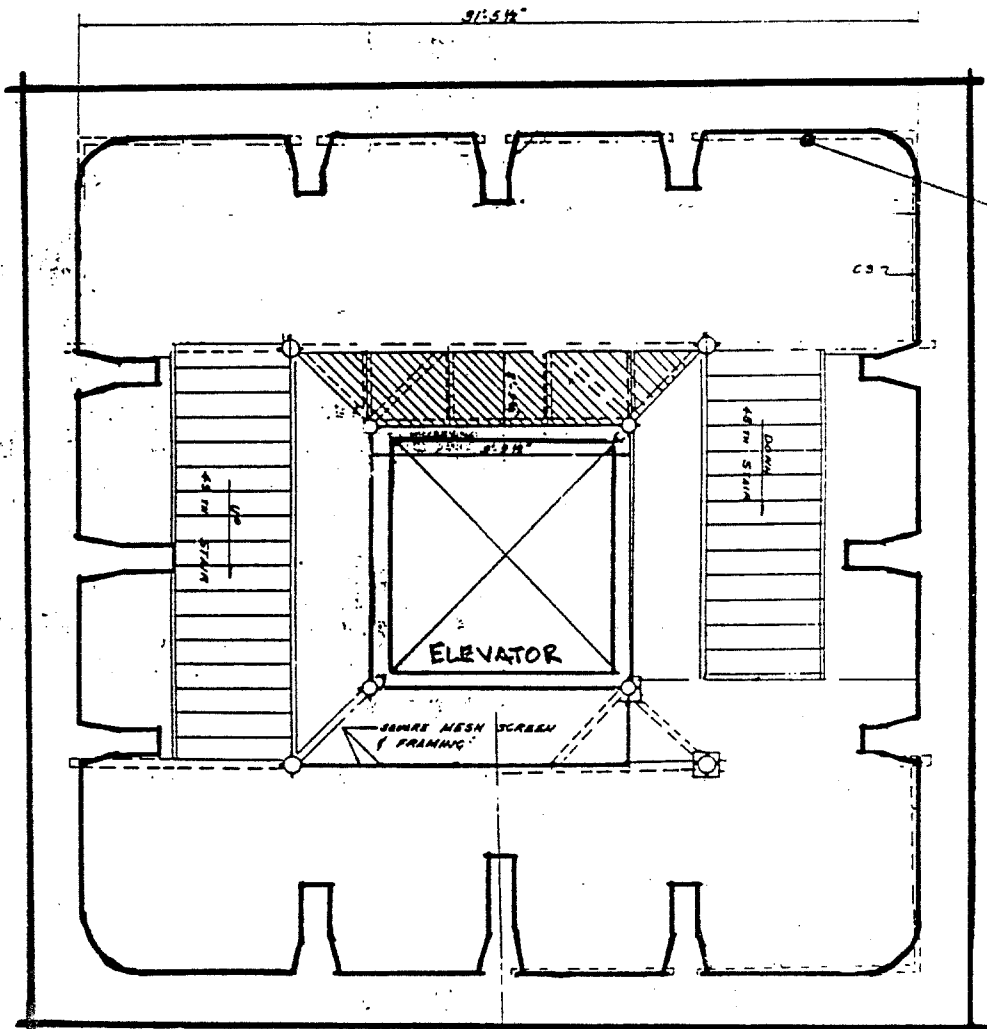
NOT LEVEL
NTE





Calculation Sheet

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 Title _____ Job No. _____
 Subject _____ Sheet No. _____ of _____



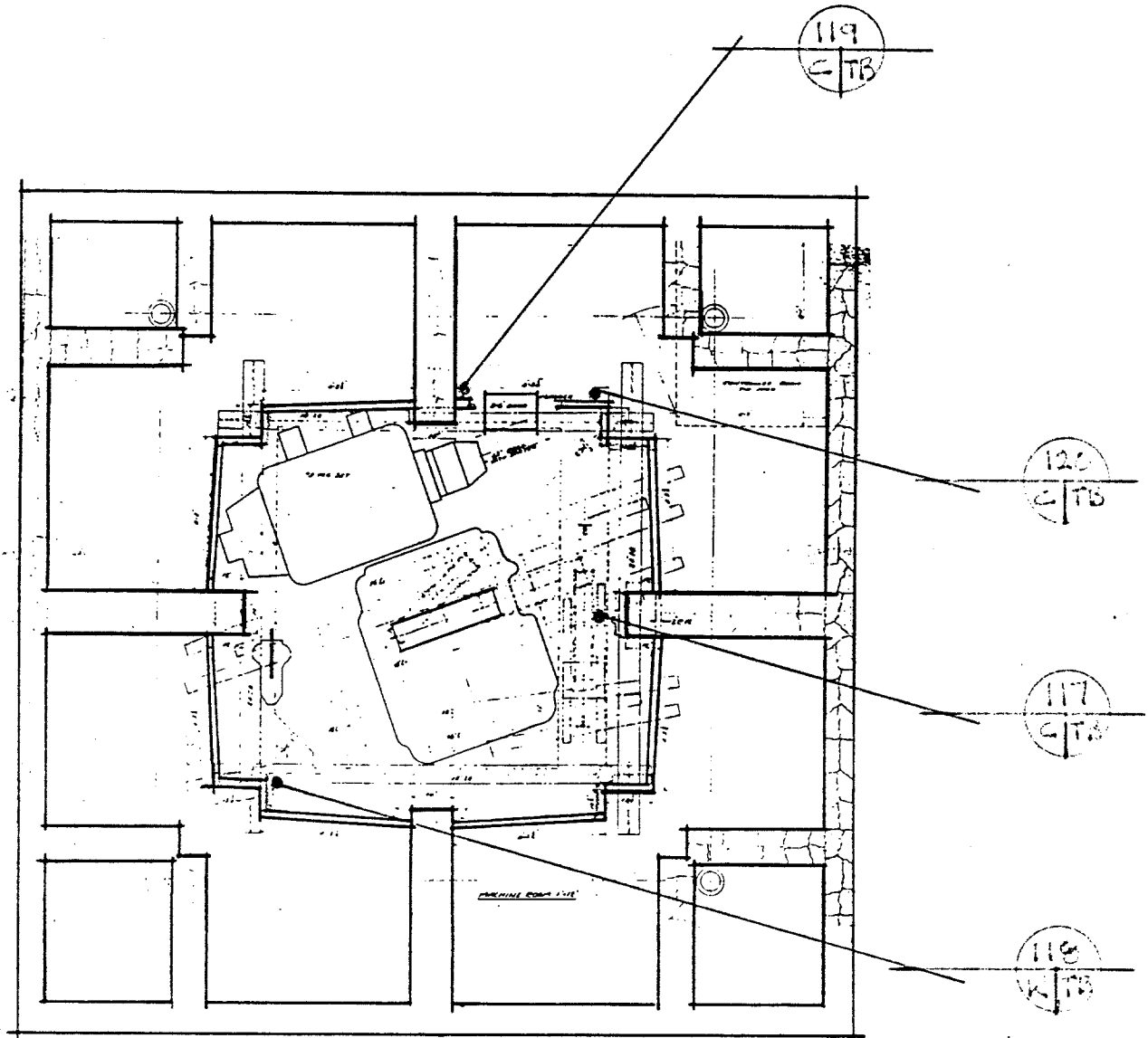
420th LEVEL
 NYC





Calculation Sheet

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 Title _____ Job No. _____
 Subject _____ Sheet No. _____ of _____

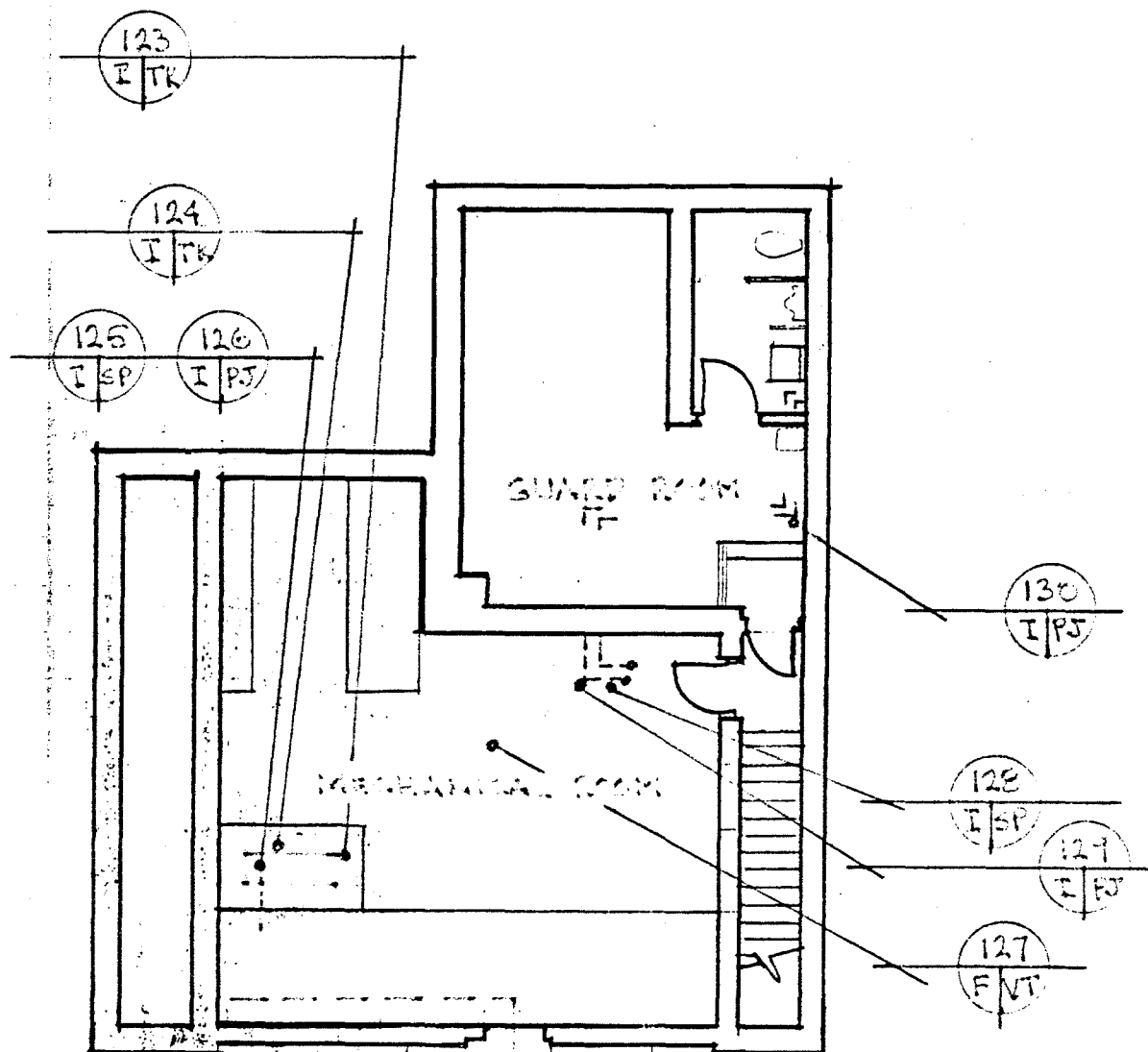


ELEVATOR MOTOR ROOM
 117C





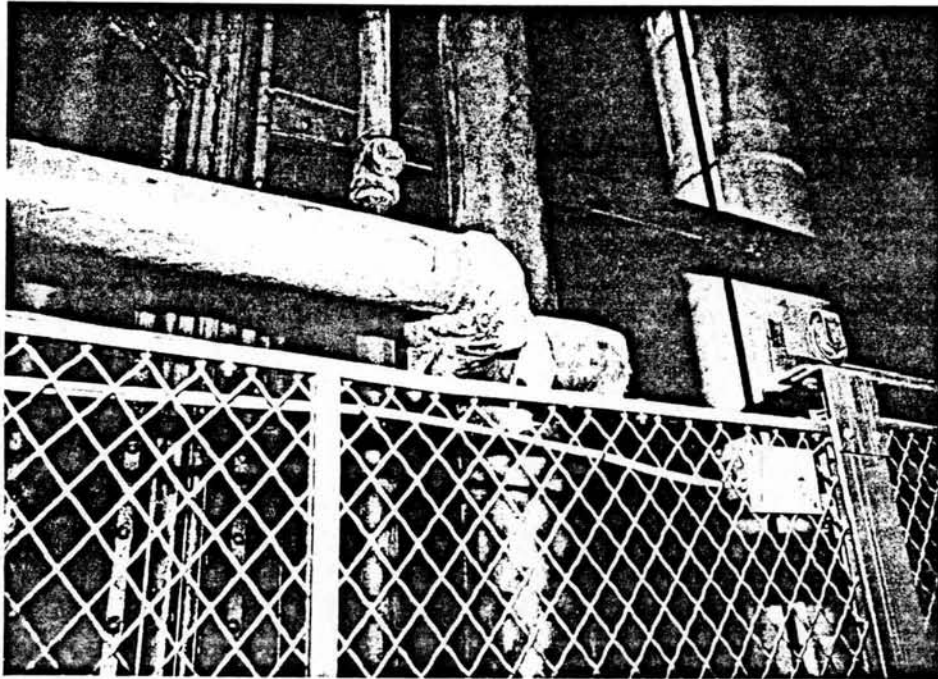
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 Subject _____ Sheet No. _____ of _____



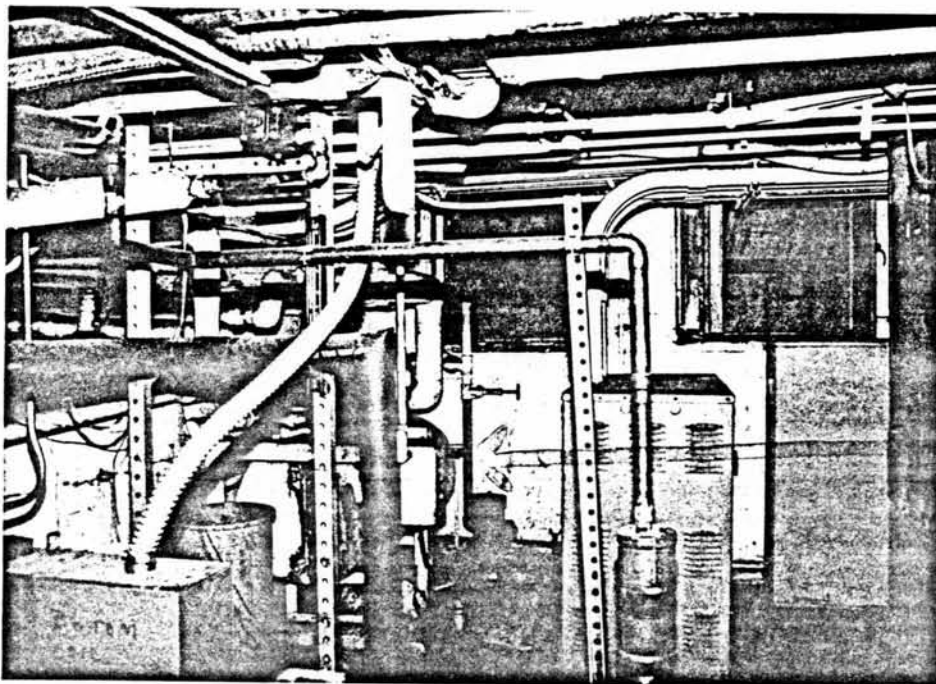
UNDERGROUND SPACE
 T.V.C.



Asbestos Containing Materials Photographs



MONUMENT 80' LEVEL
Damaged pipe joint insulation



UNDERGROUND MECHANICAL SPACE
Tank and pipe insulation

Asbestos Laboratory Report

Abbreviation Key

BUILDING AREAS

A	Attic	I	Insulation
B	Basement	M	Miscellaneous
C	Ceiling	R	Roof
D	Door	S	Crawl Space
E	Exterior	W	Wall
F	Floor	Z	Mezzanine

BUILDING MATERIALS

AF	Access Flooring	MA	Mastic
AP	Acoustic Panel	PB	Particle/Composition Board
AS	Asphalt Shingle	PC	Pipe Covering
AT	Acoustic Tile	PD	Pad
BI	Blown-In Insulation	PG	Peg Board
BJ	Boiler Jacket	PJ	Pipe Joint
BU	Built-Up Roof	PL	Plaster
BR	Brick	PM	Patching Material
CB	Concrete Block	PR	Paper
CD	Classroom Divider	PS	Spray-On Plaster
CG	Coating	PT	Paint
CN	Fire Curtain	PW	Pipe Wrap
CO	Concrete	QT	Quarry Tile
CP	Corrugated Paper	RO	Rope Insulation
CT	Carpet	RR	Rolled Roofing
DE	Debris	RS	Resilient Sheet
DT	Duct	SI	Spray-On Insulation
EA	Each	SK	Stack Breeching
EI	Electrical Insulator	SL	Slate
ER	Earth	SP	Straight Pipe
FB	Fiber Board	ST	Stair Tread
FC	Flex Connector	TB	Transite Board
FD	Fire Door	TD	Transite Duct
FH	Fire Hose	TK	Tank
FL	Flashing	TP	Transite Pipe
FP	Fixture Paper	TR	Tar Paper
FR	Fire Brick	TW	Tar Wrap
FS	Firestop	VB	Vinyl Base
GA	Gasket	VE	Vinyl Exterior
GB	Gypsum Board	VS	Vinyl Sheet
GM	Glue/Mastic	VT	Vinyl Tile
II	Incinerator Insulation	VW	Vinyl Wall Covering
IN	Insulation	WD	Wood
IP	Insulation Panels	WP	Wood Paneling
IW	Insulation Wrap	WR	Wrap
JF	Joint Filler		

Homogeneous Areas/Sample Summary

SAMPLE DESIGNATION FOR SUSPECT ACBMs

BUILDING # WASHINGTON MONUMENT

HOMOG ID	MTL	TYPE	QUANTITY	UNIT	SIZE	DESCRIPTION/COMMENTS	SAMPLE #
T 01	I	SP		LF	12"	BROWN PAPER INSUL	101
T 02	I	SP		LF	12"	WHITE/BROWN FABRIC	102
T 03	I	SP		LF	12"	LOWER FIBROUS LAYER	103
M 01	F	YT	200	SF	9x9	YELLOW/TAN VINYL TILE	104
M 02	F	VT	75	SF	9x9	BLACK	105
M 03	M	JF				MORTAR 420' WEST WALL	106
M 04	M	JF				MORTAR 110' EAST WALL	107
T 04	I	PJ	4	EA	12"	80' LEVEL POOR COND.	108
T 05	I	PJ	4	EA	6"	60' LVL OUTER LAYER	109
T 06	I	PJ	↓	EA	6"	60' LVL INNER LAYER	110
S 01	W	PL		SF		WHITE FIN COAT LOBBY	111
S 02	W	PL		SF		BROWN BASE COAT LOBBY	112
S 01	W	PL		SF		WHITE FIN COAT LOBBY	113
S 02	W	PL		SF		BROWN BASE COAT LOBBY	114
S 01	W	PL		SF		WHITE FIN COAT LOBBY	115
S 02	W	PL		SF		BROWN BASE COAT LOBBY	116
M 05	C	TB	500	SF		GREY TOP, ELEV. MOTOR RM	117
M 05	W	TB	↓	SF		GREY TOP, ELEV. MOTOR RM	118
M 06	C	TB	125	SF	1/4" TH	CORRUGATED TOP ELEV. MOTOR RM	119
M 06	C	TB	↓	SF	1/4" TH	CORRUGATED TOP ELEV. MOTOR RM	120
T 07	I	SP		LF	16"	BROWN PAPER 40'	121
T 08	I	SP		LF	16"	FIBROUS INSUL 40'	122

Chain of Custody

Batched by: Don Kuypers

Date: 12/17/91

Sent in good condition by: Don Kuypers

Date: 12/30/91

Received in good condition by: IIH/MLA

Date: 12/30/91

Organization: Environmental Sciences Inc.

Please return original with results to: 8401 Arlington Blvd., Fairfax, VA 22031-4666

Homogeneous Areas/Sample Summary

SAMPLE DESIGNATION FOR SUSPECT ACBMs

BUILDING# WASHINGTON MONUMENT - BOILER ROOM

[illegible]

Chain of Custody

Batched by: Don Knapp Date: 12/27/91
Sent in good condition by: Don Knapp Date: 12/30/91
Received in good condition by: MTI/HL Date: 12/30/91
Organization: Exxon Chemicals Inc.

Please return original with results to: 8401 Arlington Blvd., Fairfax, VA 22031-4666



CERTIFICATE OF ANALYSIS

page 1 of 8

Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
101	9112140-01	NAD	Cellulose 98+ NANF 1-2

Sample Information:

102	02	NAD	Cellulose 55-60 Fibrous Glass trace NANF 35-40
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Sample Information:

103	03	NAD	Cellulose trace Fibrous Glass 90-95 NANF 2-5
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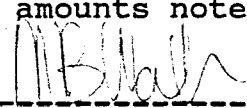
Sample Information:

104	04	Chrysotile 5-10	NANF 85-90
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Sample Information: 5-10% Chrysotile in tile; NAD in mastic.

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Gray

CERTIFIED BY: 

These results apply only to the samples analyzed. Collection procedures, protocols and sample locations are based on information provided by the individual and/or company submitting the samples; and as such Biospherics disclaims any knowledge and liability for the accuracy and completeness of this information.

☒ Corporate Headquarters

12051 Indian Creek Court
Beltsville, Maryland 20705
(301) 369-3900
Telefax (301) 725-4908/09

☐ Cumberland Regional Office

Crossroads Venture Center
Three Commerce Drive
Cumberland, Maryland 21502
(301) 722-9100
Telefax (301) 722-9103

Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
105	9112140-05	Chrysotile 5-10	NANF 85-90

Sample Information:

106	06	NAD	Cellulose trace
			NANF 99+

Sample Information:

107	07	NAD	Cellulose trace
			NANF 99+

Sample Information:

108	08	Chrysotile 5-10	Fibrous Glass 65-70
			NANF 15-20

Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: *[Signature]*

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Technologies for Environment and Health

CERTIFICATE OF ANALYSIS

page 3 of 8

Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
109	9112140-09	Chrysotile 40-45	Cellulose 2-5 Fibrous Glass 2-5 NANF 40-45

Sample Information:

110	10	Chrysotile 10-15	Fibrous Glass 55-60 NANF 20-25
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Sample Information:

111	11	NAD	Cellulose trace NANF 99+
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Sample Information:

112	12	NAD	Cellulose trace NANF 99+
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Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: *[Signature]*

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page 4 of 8

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8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %	
113	9112140-13	NAD	Cellulose	trace
			NANF	99+

Sample Information:

114	14	Chrysotile <1	Cellulose	trace
			Hair	trace
			NANF	99+

Sample Information:

115	15	NAD	Cellulose	trace
			NANF	99+

Sample Information:

116	16	Chrysotile <1	Cellulose	trace
			Hair	trace
			NANF	99+

Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: 

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page 5 of 8

Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
117	9112140-17	Chrysotile 60-65	NANF 30-35

Sample Information:

118	18	N/A
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Sample Information: Did not analyze as instructed.

119	19	Chrysotile 35-40	NANF 55-60
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Sample Information:

120	20	N/A
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Sample Information: Did not analyze as instructed.

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: MB'Watson

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Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
121	9112140-21	NAD	Cellulose 85-90 Fibrous Glass 1-2 NANF 5-10

Sample Information:

122	22	NAD	Cellulose trace Fibrous Glass 85-90 NANF 5-10
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Sample Information:

123	23	Chrysotile 10-15	Cellulose trace Fibrous Glass 55-60 NANF 20-25
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Sample Information:

124	24	Chrysotile 45-50	Cellulose trace Fibrous Glass 5-10 NANF 35-40
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Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: *MBulah*

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CERTIFICATE OF ANALYSIS

page 7 of 8

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8401 Arlington Boulevard
Fairfax, VA 22031-4666
Atten: Mr. Thomas Kuepper

Date Received: 12-30-91
Date Analyzed: 12-31-91
Date Reported: 12-31-91
Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
125	9112140-25	Chrysotile 15-20 Amosite 15-20	Cellulose 2-5 NANF 50-55

Sample Information:

126	26	Chrysotile 15-20 Amosite 15-20	Cellulose trace Fibrous Glass 35-40 NANF 15-20
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Sample Information:

127	27	Chrysotile 1-2	NANF 98+
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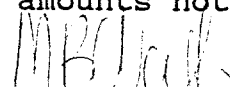
Sample Information: 1-2% Chrysotile in tile;
Trace <1% Chrysotile in mastic.

128	28	Chrysotile 5-10	Cellulose 75-80 NANF 5-10
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Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: 

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CERTIFICATE OF ANALYSIS

page 8 of 8

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Work ID: Washington Monument

SUMMARY OF BULK ASBESTOS DATA

Method of Analysis: Polarized light microscopy in conjunction with dispersion staining (EPA-600/4-82-020). Percentages are area estimates.

CLIENT ID	BIO#	ASBESTOS %	NON-ASBESTOS %
129	9112140-29	Chrysotile 15-20	Fibrous Glass 55-60 NANF 15-20

Sample Information:

130	30	Chrysotile 10-15	Fibrous Glass 50-55 NANF 25-30
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Sample Information:

Note: NAD= No Asbestos Detected NANF= Non-Asbestos, Non-Fibrous
 *= Presence noted Trace= Trace amounts noted, <1%

ANALYST: Watson

CERTIFIED BY: *MBW*

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Asbestos Abatement Preliminary Cost Estimate

Preliminary Cost Estimate

The estimates below are based on the removal of all ACM materials identified in the survey. As noted in the recommendations some materials may be left in place if they will not be disturbed by planned maintenance, repair or renovation activities. An abatement project design should include a more refined estimate, and should be tailored to the requirements of the proposed work.

WASHINGTON MONUMENT ASBESTOS REMOVAL \$ 9,500

- Pipe joint insulation
- Vinyl floor tiles
- Transite Board

UNDERGROUND MECHANICAL ROOM \$17,000

- Tank insulation
- Pipe elbows in mechanical room
- Vinyl floor tile
- Other contaminated materials

Asbestos Inspector Certifications



BIOSPHERICS[®] INCORPORATED
12051 Indian Creek Court
Beltsville, Maryland 20705

This is to certify that

Thomas E. Kuepper

*has successfully completed
an EPA approved course for*

Project Designer (Refresher)

entitled

Asbestos Hazards, Abatement and Protection

given

May 28, 1992

92-05-28-04

Certification Number

May 28, 1993

Certification Expires

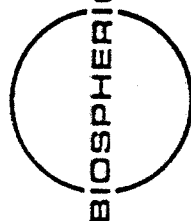
Steven E. Bliggard

Instructor

Rachel Kiley

Course Director

THIS COURSE MEETS THE MARYLAND STATE TRAINING REQUIREMENTS (BIOSPHERICS APPROVAL #21-17-10).
THIS TRAINEE HAS SUCCESSFULLY PASSED OUR EXAMINATION.



BIOSPHERICS® INCORPORATED
12051 Indian Creek Court
Beltsville, Maryland 20705

This is to certify that

Thomas E. Kuepper

*has successfully completed
an EPA approved course for*

Building Inspectors (Refresher)

entitled

*Asbestos Hazards, Abatement and Protection
given*

July 29, 1991

91-07-29-10

Certification Number

July 29, 1992

Certification Expires

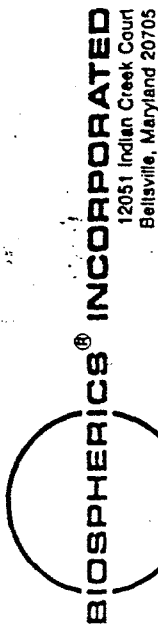
Rachel Riley

Instructor

James L. Egan

Course Director

THIS TRAINEE HAS SUCCESSFULLY PASSED OUR EXAMINATION.



This is to certify that

Thomas E. Kuepper

*has successfully completed
an EPA approved course for*

Management Planners (Refresher)

*entitled
Asbestos Hazards, Abatement and Protection
given*

July 29, 1991

91-07-29-11

Certification Number

July 29, 1992

Certification Expires

Rachel Riley

Instructor

Joyce Egan

Counselor

THIS TRAINEE HAS SUCCESSFULLY PASSED OUR EXAMINATION.

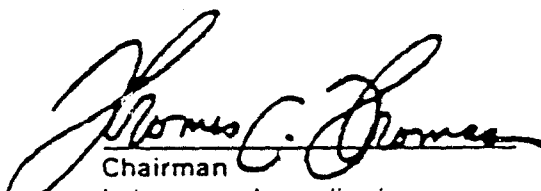
Asbestos Laboratory Certifications

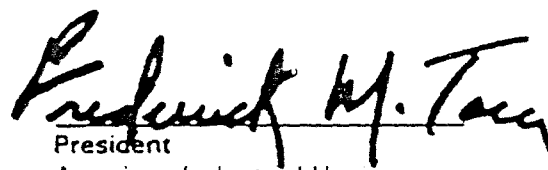
AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

Biospherics, Inc
Laboratory Division
Beltsville, MD

has fulfilled AIHA criteria for
Industrial Hygiene Laboratory Accreditation
since May 1, 1980

This accreditation shall be effective until
the 1st day of May 1, 1992
subject to continued compliance with
AIHA accreditation criteria.


Chairman
Laboratory Accreditation
Committee


President
American Industrial Hygiene
Association

145
Accreditation Number

May 4, 1990
Date

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

Certificate of Accreditation

BIOSPHERICS INCORPORATED
BELTSVILLE, MD

*is recognized under the National Voluntary Laboratory Accreditation Program
for satisfactory compliance with criteria established in Title 15, Part 7 Code of Federal Regulations.
Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:*

BULK ASBESTOS FIBER ANALYSIS

July 1, 1993

Effective until



A handwritten signature in cursive script, reading "Albert D. Phalen".

For the National Institute of Standards and Technology

National Institute
of Standards and Technology



National Voluntary
Laboratory Accreditation Program

SCOPE OF ACCREDITATION

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 1277

Biospherics Incorporated
12051 Indian Creek Court
Beltsville, MD 20705
Mark B. Watson Phone: 301-369-3900

Accreditation Renewal Date: July 1, 1993

NVLAP Code **Designation**

18/A01 40 Code of Federal Regulations Chapter I (1-1-87 edition) Part 763, Subpart F, Appendix A or the current U. S. Environmental Protection Agency method for the analysis of asbestos in building materials by polarized light microscopy.



Robert D. Holen

For the National Institute of Standards and Technology

Lead-Based Paint Survey Report

LEAD-BASED PAINT SURVEY REPORT

Introduction

On December 23 and 27, 1991, Dewberry & Davis (D&D) conducted asbestos and lead-based paint surveys of the Washington Monument, Washington, DC. The surveys were conducted in accordance with the guidelines of the US Environmental Protection Agency (EPA). This report, provided for the National Park Service, is intended to serve as an assessment of the extent of the use of asbestos-containing materials (ACMs), and other hazardous materials such as lead-based paint (LBP) in the areas described above.

The survey of the Washington Monument included the full height of the monument including mechanical spaces and the elevator equipment space above the observation level. An adjacent underground space consisting of a mechanical space and guard room was also inspected.

The lead-based paint survey revealed the presence of lead-based paint on the metal stair system within the monument and on the ceiling of the underground mechanical space.

Background and Survey Method

Thirteen paint samples for lead-based paint determination were collected from seven different representative building components. Analysis for lead in paint was performed via modified NIOSH Method 7082 with subsequent analysis by flame atomic absorption spectrometry (AAS). The lead-based paint guidelines entitled, "Lead-Based Paint; Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing"; revised May, 1991, recommended an abatement threshold of 0.5% lead by weight. Lead-based paint samples were analyzed by Schneider Laboratories, Inc. of Richmond, Virginia (see Laboratory Certification).

The location of samples collected and analysis results are described in the following table, and are noted in the drawings. Hard copies of laboratory analytical results are also provided.

<u>Sample # and Location</u>	<u>Analysis Results</u> <u>% Lead by Weight</u>
* 01 Handrail - Ground Floor Stairwell	0.706
* 02 Stair Stringer - 10' Level	24.253
* 03 Stair Support Column - 10' Level	3.168
04 Wall - Entrance Ground Floor	0.033
* 05 Pipe - 40' Level Stairwell	3.698
06 Wall - Elevator Lobby - Ground Floor	0.036
* 07 Stair Stringer - 470' Level	1.230
08 Wall - Observation Deck	0.169
09 Floor - Equipment Room 500' Level	0.075
10 Stair Stringer-Observation Deck 490' Level	0.025
* 11 Stair Support Column - 100' Level	19.060
* 12 Ceiling - Boiler Room	7.106
13 Ceiling - Locker Room	0.133

* Sample contains lead in paint concentrations that meet or exceed HUD recommended abatement threshold limits.

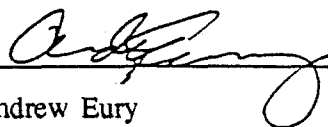
Recommendations

The analytical results indicate the presence of excessive concentrations of lead in paint on the stair system in the Monument and on the boiler room ceiling. Given the fact that only a limited number of lead based paint samples could be collected, the field investigation was conducted at a level of detail based on professional judgement and conditions observed at the site. A more detailed inspection and sampling strategy is recommended to further identify or rule-out other painted materials that may contain excessive concentrations of lead in paint.

Abatement is recommended for LBP surfaces which are affected by the proposed construction. While regulations have not been developed which apply to lead-based paint in commercial or public buildings, OSHA and EPA have established standards for worker protection, removal and disposal methods for lead. Additional sampling is recommended in order to develop a detailed abatement plan should be developed for the treatment of lead-based paint in the subject property.

Dewberry & Davis is pleased to have provided this service. If have any questions regarding this report, please feel free to contact me at (703) 849-0292.

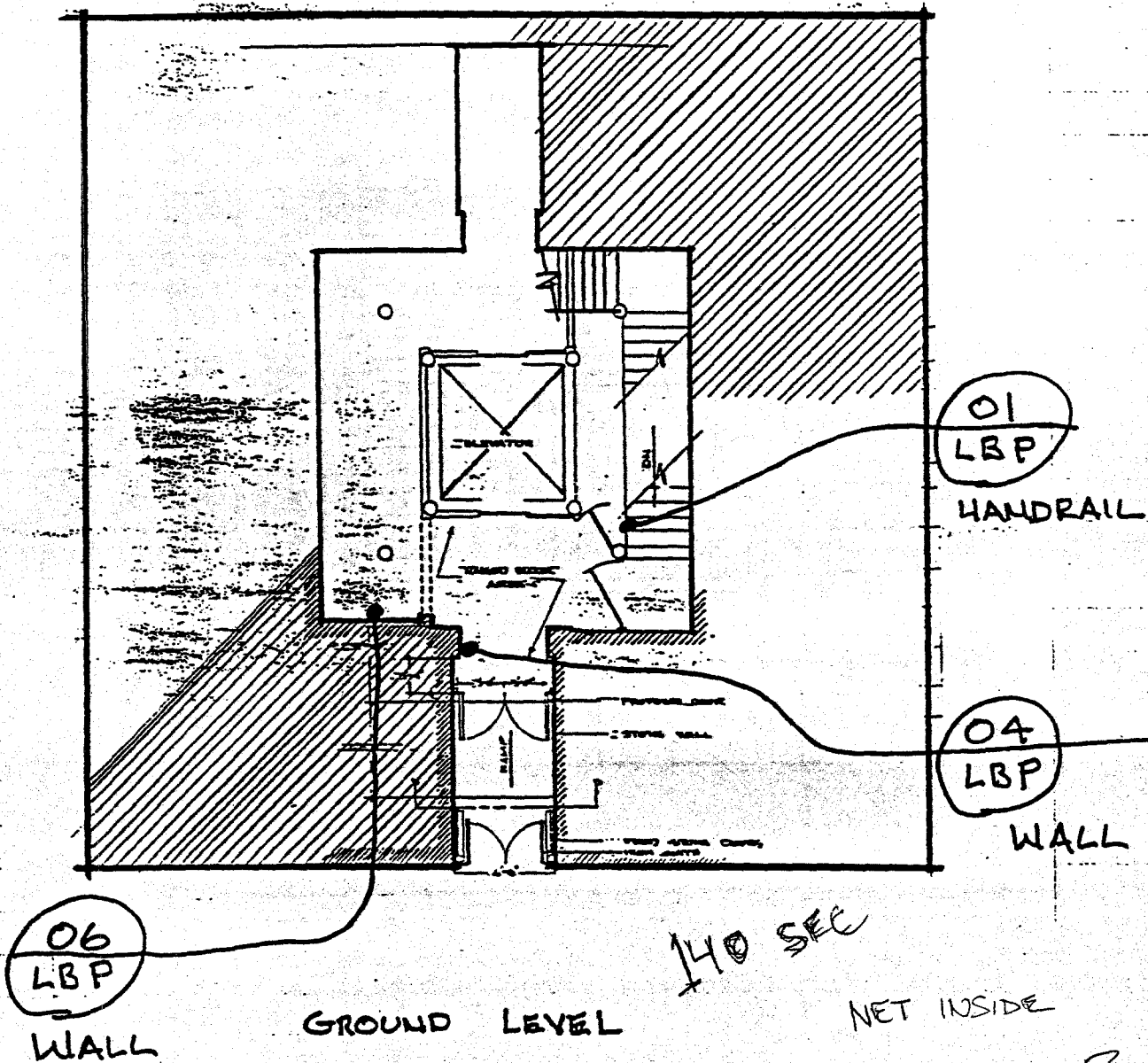
Inspector:



Andrew Eury

Building Plans and Lead-Based Paint Sample Locations

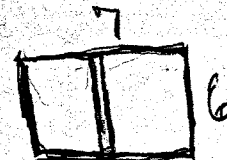
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 Title _____ Job No. _____
 Subject _____ Sheet No. _____ of _____



DOUBLE
DECKED ?
21 中

CAPACITY

425
FLOOR AREA



Round Trip
TRAVEL TIME

RELOCATE MACHINE

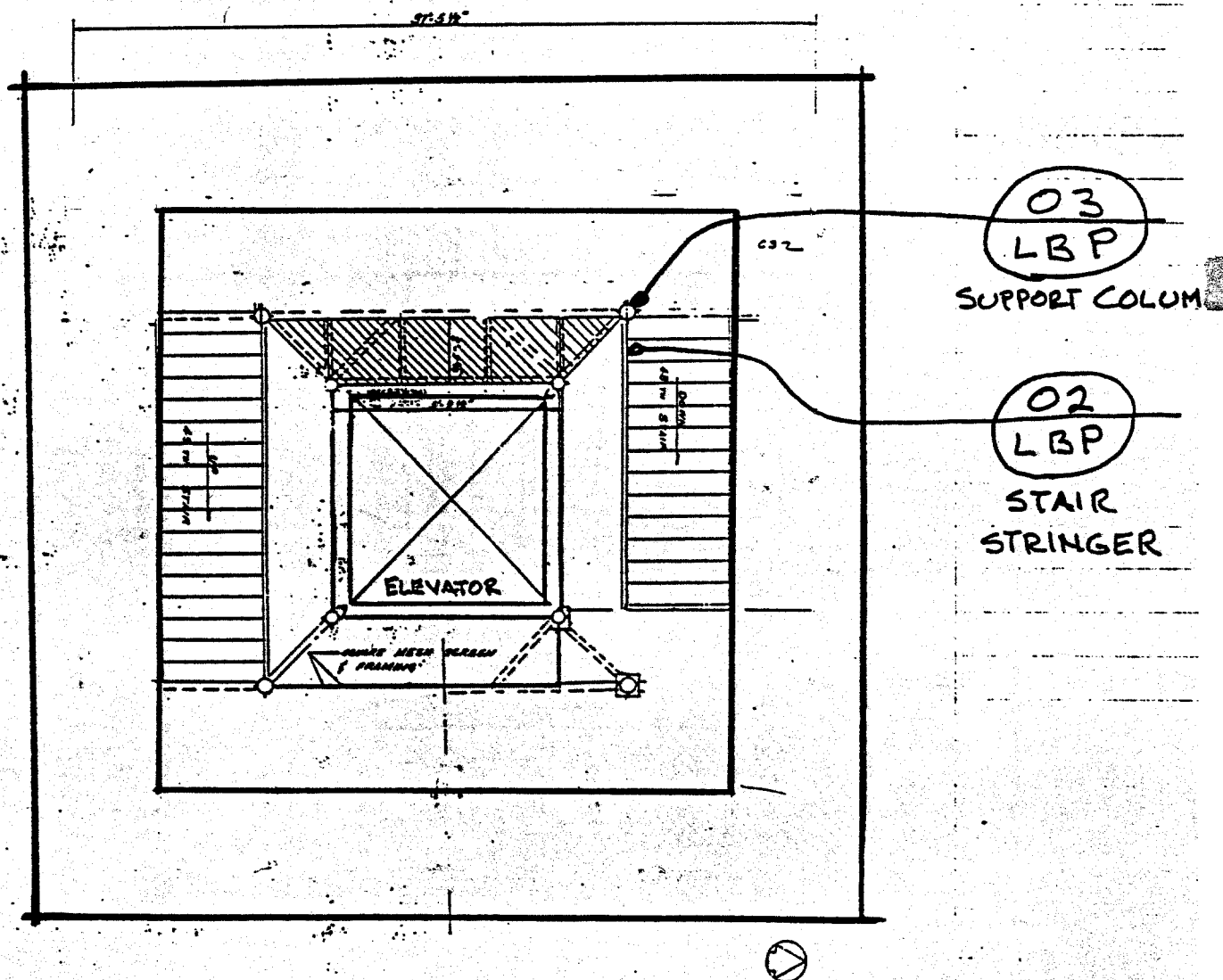


Calculation Sheet

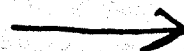
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10' LEVEL
NTS





Calculation Sheet

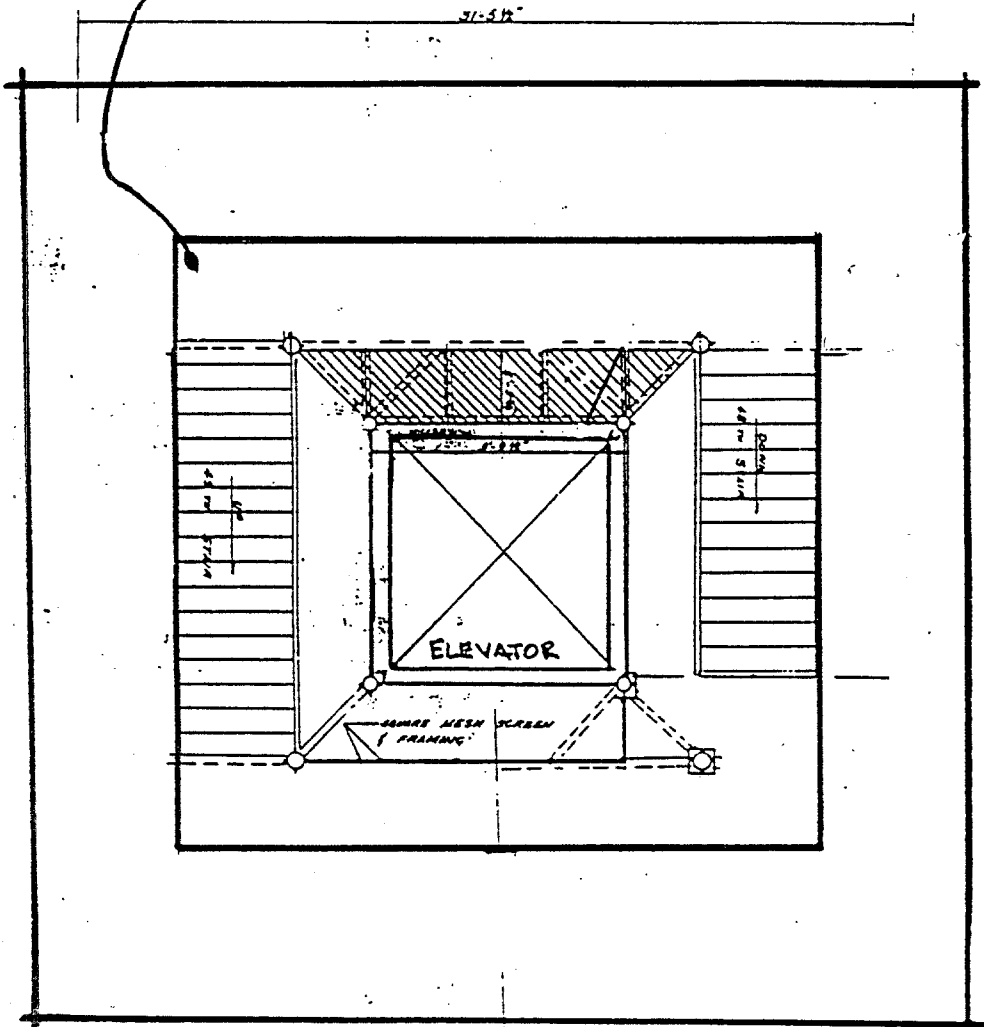
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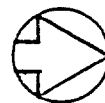
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05
LBP

PIPE



40' LEVEL
NTS



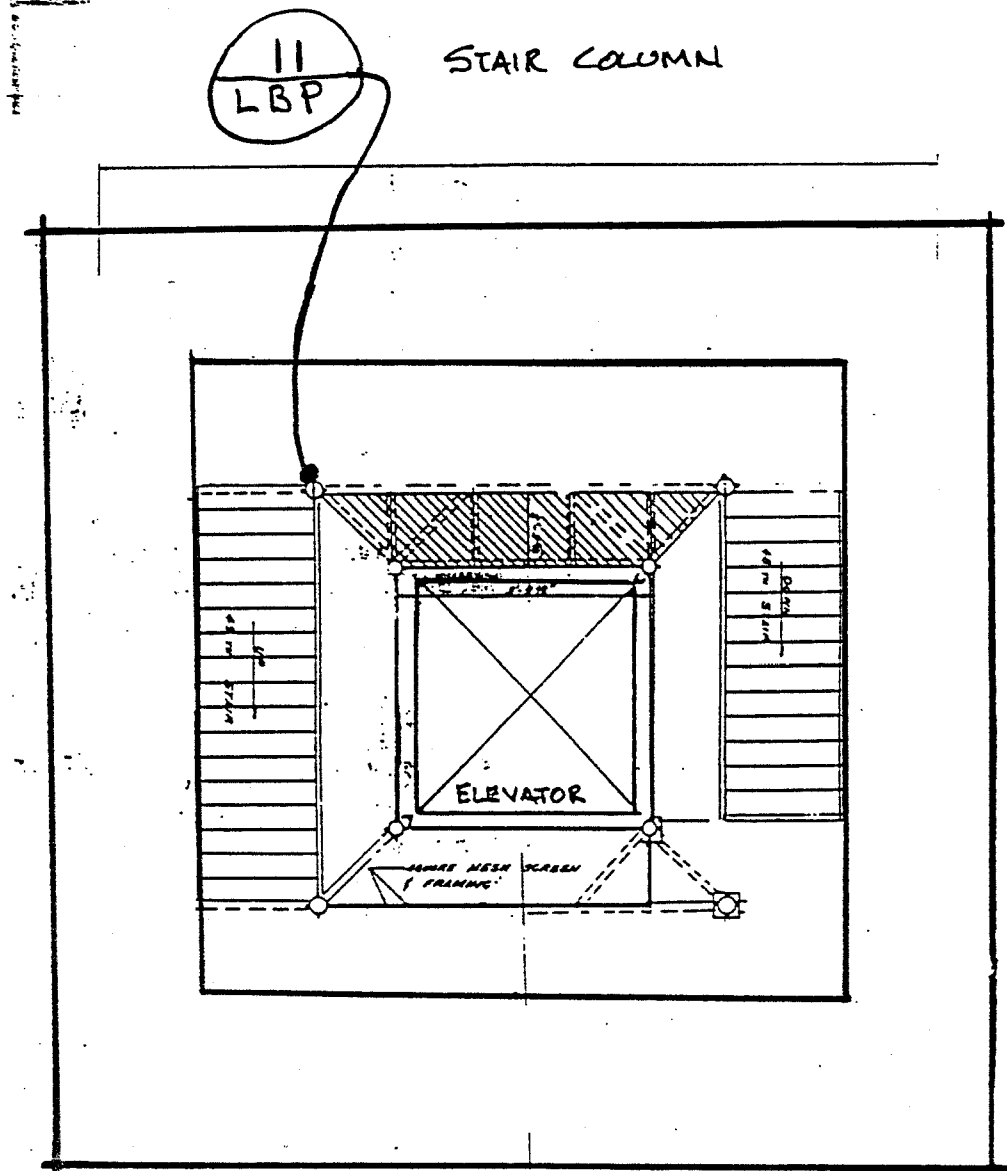


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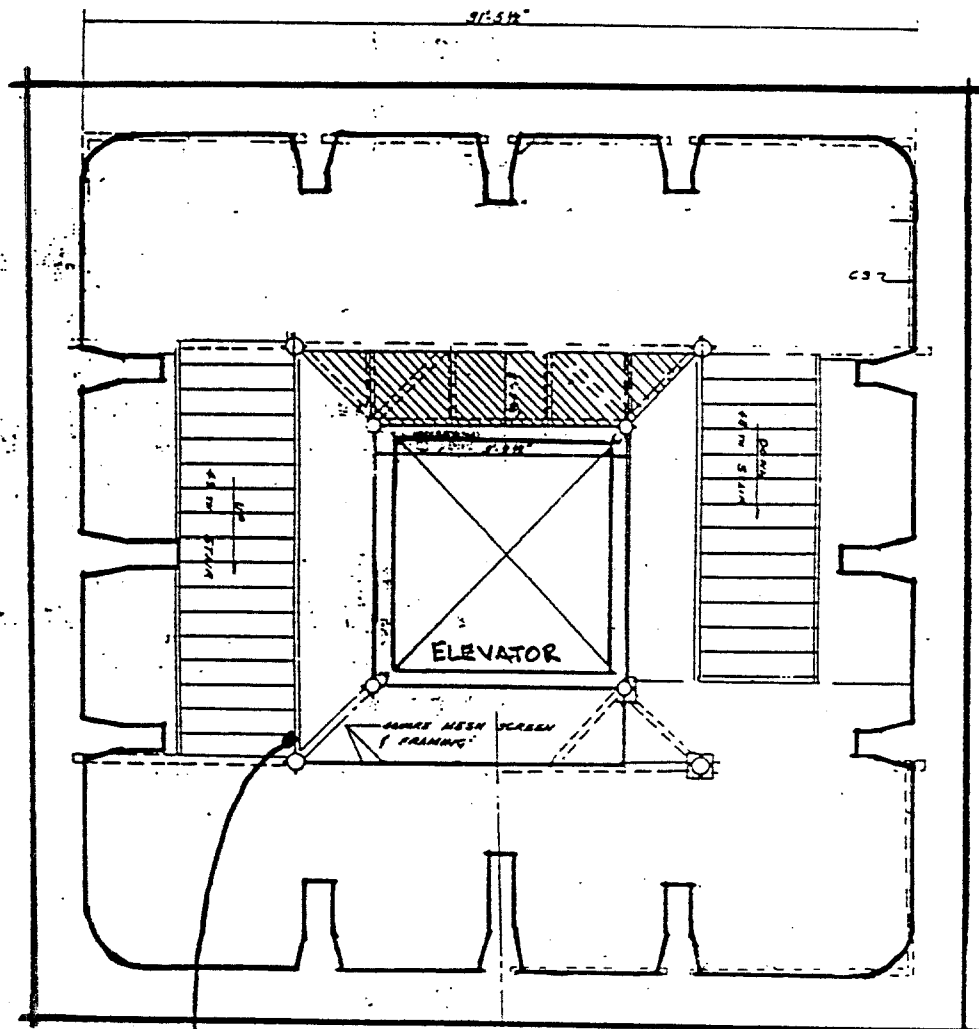
100' LEVEL
NTS





Calculation Sheet

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07
LBP

470' LEVEL
NTS

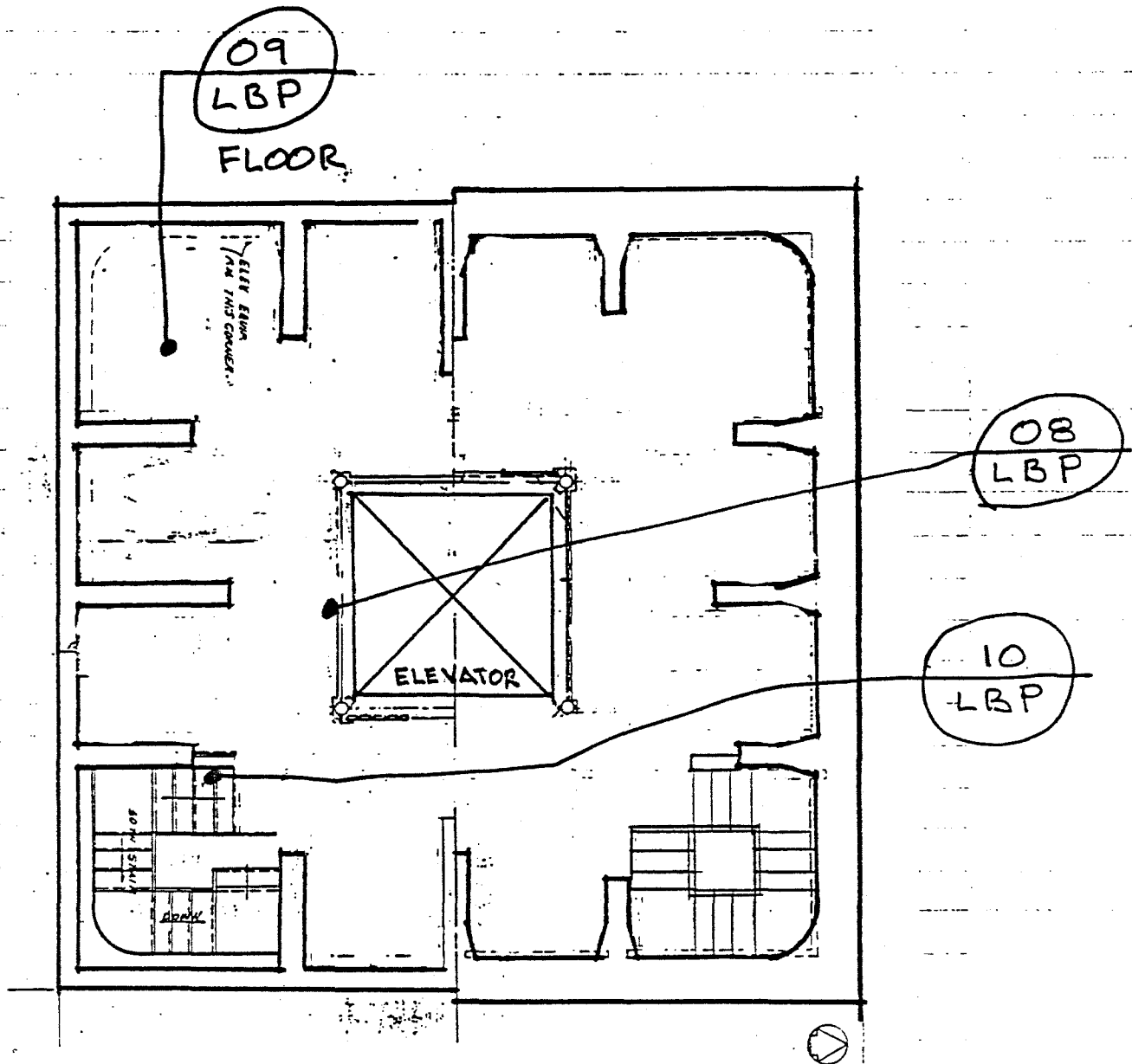


STAIR
STRINGER



Calculation Sheet

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 Subject _____ Sheet No. _____ of _____

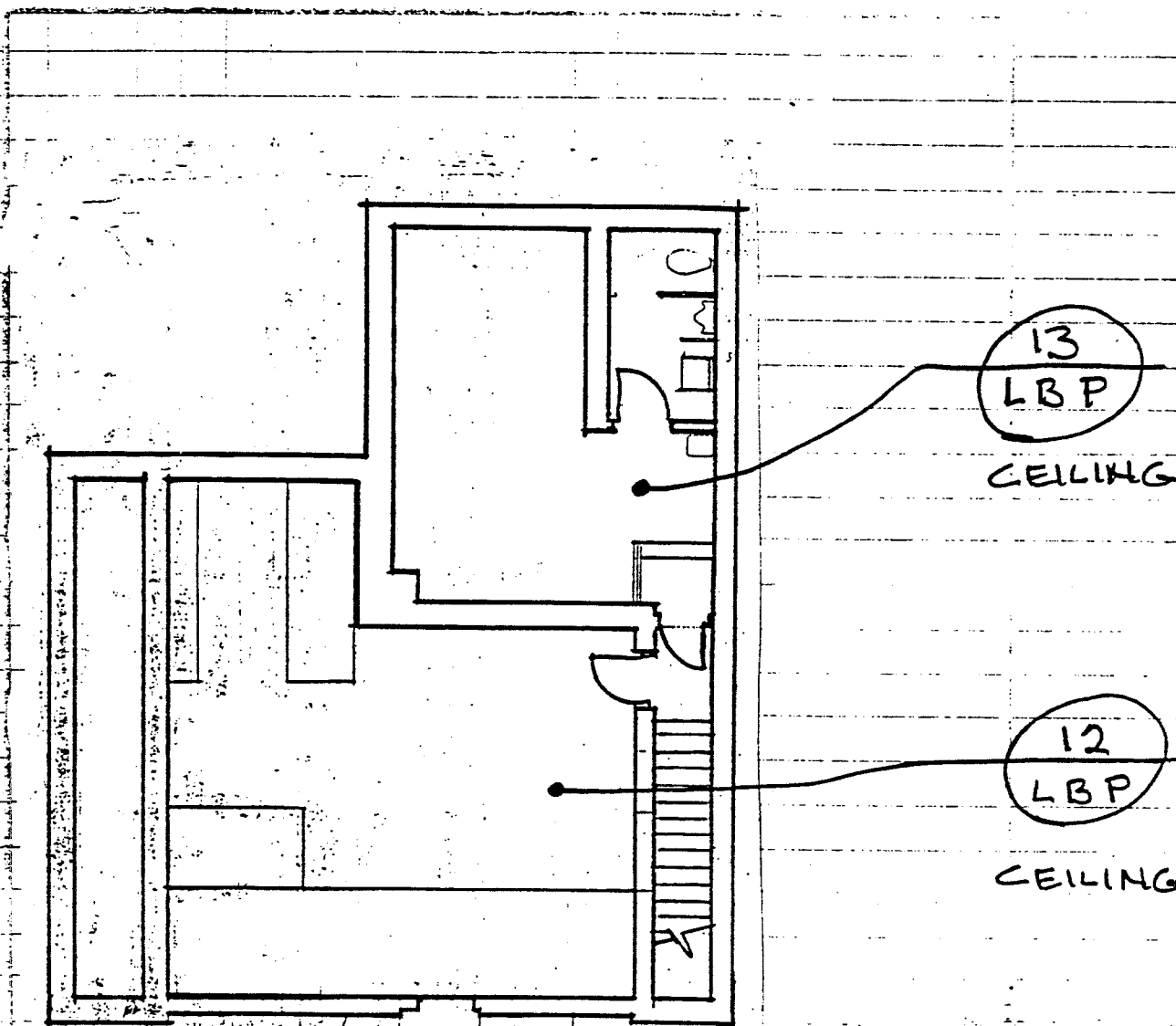


500' LEVEL
 OBSERVATION →



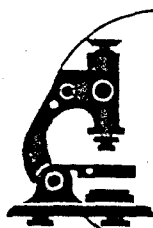
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UNDERGROUND SPACE

Lead-Based Paint Laboratory Report



SCHNEIDER LABORATORIES INCORPORATED

104 Berrington Court • Richmond, Virginia • 23221-2702
804-353-6778 800-282-2842 (FAX) 804-353-6928

NVLA

AIHA Accredited Lab
NIST Certified Lab
CIH/Industrial Hygiene
Analytical Service
Asbestos Testing

Richard F. Schneider
President, CEO

R. Leonard Vance, Ph.D., C.I.H.
Vice President

Raja F. Abouzaki
Laboratory Director

Laboratory Analysis Report Lead Analysis by NIOSH 7082 Method

Account: 120-91-35

Date Collected: 12/23/91

Date Received: 12/24/91

Client: Dewberry & Davis

Date Reported: 12/27/91

Address: 8401 Arlington Blvd
Fairfax, VA 22031

Cus. Purch. Ord.#

SLI #	Customer Sample #	Sample Type	Dilution Factor	Sample Wt. (mg)	Sample Area (sq.cm)	Total Lead (µg)	Lead Conc. (%)	Lead Conc. (mg/sq.cm)
NBS 1579 Std.		QC	20	100.0		12101.2	12.101	
50 µg Spike		QC	1	0.05		74.9	149.765	
2.0 ppm Std.		QC	1	0.2		228.0	114.022	
63381-91 01		Paintchip	10	390.0	12.9	2751.7	0.706	0.213
63382-91 02		Paintchip	200	839.0	12.9	203483.9	24.253	15.774
63383-91 03		Paintchip	100	1166.0	12.9	36942.5	3.168	2.864
63384-91 04		Paintchip	1	963.0	12.9	322.3	0.033	0.025
63385-91 05		Paintchip	10	119.0	12.9	4401.2	3.698	0.341
63386-91 06		Paintchip	1	109.0	12.9	39.5	0.036	0.003
63387-91 07		Paintchip	1	31.0	12.9	381.2	1.230	0.030
63388-91 08		Paintchip	10	2116.0	12.9	3576.4	0.169	0.277
63389-91 09		Paintchip	1	240.0	12.9	180.9	0.075	0.014
63390-91 10		Paintchip	1	207.0	12.9	51.3	0.025	0.004
63391-91 11		Paintchip	100	336.0	12.9	64040.5	19.060	4.964
63392-91 12		Paintchip	200	2532.0	12.9	179920.5	7.106	13.947
63393-91 13		Paintchip	1	358.0	12.9	475.5	0.133	0.037
63382-91 Dup		QC	200	842.0	12.9	172851.5	20.529	13.399

HUD action level is 0.5% lead by weight or 1 mg/sq. cm.

Note: All standard and spike values are reported
for Quality Control purposes.

Analyst: Deborah M. Grady

Date Analyzed: 12/27/91

Reviewed by: Sanita M. Walker

A.A.S. LBP DETERMINATION SAMPLES

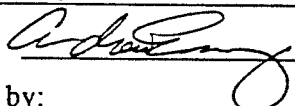
SAMPLE SUMMARY

LOCATION (CITY, STATE) WASHINGTON D.C.

UNIT # AND ADDRESS WASHINGTON MONUMENT

SAMPLE #	SUBSTRATE	ROOM/AREA	LEVEL	SAMPLE SIZE	COMMENTS
01	HANDRAIL	GROUND FLOOR	STAIRWELL	$\approx 2 \text{ IN}^2$	
02	STRINGER	STAIRWELL	10'	$\approx 2 \text{ IN}^2$	
03	COLUMN	STAIRWELL	10'	$\approx 2 \text{ IN}^2$	
04	WALL 4	ENTRANCE	GROUND	$\approx 2 \text{ IN}^2$	
05	PIPE	STAIRWELL	40'	$\approx 2 \text{ IN}^2$	
06	WALL 1	LOBBY	GROUND	$\approx 2 \text{ IN}^2$	
07	STRINGER	OBSERVATION DECK	470'	$\approx 2 \text{ IN}^2$	
08	WALL	OBSERVATION DECK	500'	$\approx 2 \text{ IN}^2$	
09	FLOOR	ELEV. ROOM	500'	$\approx 2 \text{ IN}^2$	
10	STRINGER	OBSERVATION DECK	490'	$\approx 2 \text{ IN}^2$	

CHAIN OF CUSTODY

- Batched by: ANDREW EURY Date: 12/23/91
- Sent in good condition by:  Date: 12/23/91
- Received in good condition by: _____ Date: _____
- Organization: _____

Please Return Original with Results to
 Richard A. Baker
 Dewberry & Davis
 Mets
 8401 Arlington Boulevard
 Fairfax, Virginia 22031-4666

A.A.S. LBP DETERMINATION SAMPLES

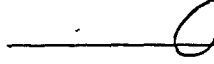
SAMPLE SUMMARY

LOCATION (CITY, STATE) WASHINGTON D.C.

UNIT # AND ADDRESS WASHINGTON MONUMENT

SAMPLE #	SUBSTRATE	ROOM/AREA	LEVEL	SAMPLE SIZE	COMMENTS
11	COLUMN	STAIRWELL	100'	~ 2 IN ²	
12	CEILING	BOILER ROOM	Lower	~ 2 IN ²	
13	CEILING	BATHROOM	Lower	~ 2 IN ²	

CHAIN OF CUSTODY

- Batched by: ANDREW EURY Date: 12/23/91
- Sent in good condition by:  Date: 12/23/91
- Received in good condition by:  Date:
- Organization:

Please Return Original with Results to
 Richard A. Baker
 Dewberry & Davis
 Mets
 8401 Arlington Boulevard
 Fairfax, Virginia 22031-4666

Lead-Based Paint Laboratory Certification

The American Industrial Hygiene Association
is proud to acknowledge that

Schneider Laboratories, Inc.
Richmond, Virginia
23220-001

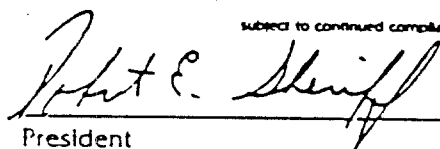
has fulfilled the requirements for
AIHA Industrial Hygiene Laboratory Accreditation since
December 1, 1987

and has earned distinguished recognition as an

AIHA Accredited Laboratory

through December 1, 1993

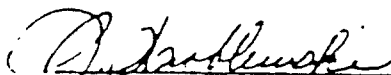
subject to continued compliance with AIHA accreditation criteria.



President
American Industrial Hygiene Association

February 23, 1992

Date



Chairman
Laboratory Accreditation Committee

349

Accreditation Number

American
INDUSTRIAL
HYGIENE
ASSOCIATION