

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 9910852
Insp Area: 1

Site Address: 1011 10TH ST SAC
Parcel No 006-0103-020

Sub-Type: ACOM
Housing (Y/N): N

CONTRACTOR
MEL ALLEN GENERAL CONTRACTOR
2011 A THROP WY
SACRAMENTO CA 95828

OWNER
MARVIN I. OATES TRUST/FRANK
8615 ELDER CREEK RD #2
SACRAMENTO CA 95828

ARCHITECT

Nature of Work: NEW HVAC&ALSO SOME REVISIONS TO PERMIT#9907046no change of use basement vault(not to be used as meeting room or office)

CONSTRUCTION LENDING AGENCY : I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class B License Number 705576 Date 1/5/00 Contractor Signature [Signature]

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code, any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00).

I, _____, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, _____, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec _____ B & PC for this reason: _____
Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 1/5/00 Applicant/Agent Signature [Signature]

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: _____ USE OTHER ENTRY _____ Policy Number _____ Exp Date _____

This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 1/5/00 Applicant Signature [Signature]

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

CITY OF SACRAMENTO

APPLICATION FOR COMMERCIAL BUILDING PERMIT

DEVELOPMENT SERVICES DIVISION
 PERMIT SERVICES SECTION

1231 I Street, Rm. 200
 Sacramento, CA 95814 (916) 264-7619, FAX 264-7046

ACTIVITY # 9907046 Insp. Area IC

Applicant **MUST** complete ALL Unshaded areas

ADDRESS 1011 10th St. Suite _____
 PARCEL # 0060103020

<p style="text-align: center;">CONTACT</p> <p>Name <u>Dennis Greenbaum</u> Address <u>700 Alhambra Blvd.</u> Phone <u>4429275</u> FAX <u>4440190</u> E-mail _____</p>	<p style="text-align: center;">LICENSED CONTRACTOR Lic No. # _____</p> <p>Name <u>M.F. Allen</u> Address _____ Phone _____ FAX _____ E-mail _____</p>
<p style="text-align: center;">ARCHITECT/ENGINEER</p> <p>Name <u>Greenbaum & Assoc.</u> Address <u>700 Alhambra</u> Phone <u>4429275</u> FAX <u>4440190</u> E-mail _____</p>	<p style="text-align: center;">OWNER</p> <p>Name <u>CA. Restaurant Association</u> Address <u>1011 10th St.</u> Phone _____ FAX _____ E-mail _____</p>

→ Will permittee have any employees on the jobsite? No Yes → INSURANCE CO: _____
 → WORKER'S COMPENSATION POLICY # _____ EXPIRATION DATE: _____

NATURE OF WORK IN DETAIL: interior remodel, for ADA compliance.

OCCUPANT/TENANT: CA. Rest. Association VALUATION: \$ 79000-

FLOOD STATUS:				S.C.A.T.						
JOB DESCRIPTION		BLDG	SHELL	APT	TI()	REM <input checked="" type="checkbox"/>	SW	FIRE	ADD	OTH
INSPECTION DISCIPLINES		<u>BLDG</u>	<u>MECH</u>	<u>PLUMB</u>	<u>ELEC</u>	SITE		<u>FIRE</u>		
# Stories	1st flr Area.	Total Area	Use Zone	Occp Group	Const type	Fire Req. Y (N)		Fed Code	Vio. File	
		<u>15120</u>		<u>B</u>	<u>IFR</u>	SPR	ALARM	<u>15</u>	[H]	[Quad]
<u>B</u>	<u>L</u>	<u>P</u>	<u>M</u>	<u>E</u>	<u>F</u>	<u>S</u>		<u>D</u>	PW	UTIL
<u>ISK</u>										

COMMENTS: 7 Sets

REGIONAL SANITATION FEES? Yes No HEALTH DEPARTMENT? Yes No
 WATER FLOW TEST FOR NEW BUILDINGS OR ADDITIONS? Provided Faxed

CITY OF SACRAMENTO

APPLICATION FOR COMMERCIAL BUILDING PERMIT

9910852C

DEVELOPMENT SERVICES DIVISION
PERMIT SERVICES SECTION

1231 I Street, Rm. 200
Sacramento, CA 95814 (916) 264-7619 FAX 264-7046

ACTIVITY # 9907046 Insp. Area C

Applicant **MUST** complete **ALL Unshaded areas**

ADDRESS 1011 10th St. Suite _____
PARCEL # 0060103020

<p style="text-align: center;">CONTACT</p> <p>Name <u>Dennis Greenbaum</u> Address <u>700 Alhambra Blvd.</u> Phone <u>4429275</u> FAX <u>4440190</u> E-mail _____</p>	<p style="text-align: center;">LICENSED CONTRACTOR Lic No. # _____</p> <p>Name <u>M.F. Allen GEN Contractor</u> Address _____ Phone <u>921-2420</u> FAX _____ E-mail _____</p>
<p style="text-align: center;">ARCHITECT/ENGINEER</p> <p>Name <u>Greenbaum & Assoc.</u> Address <u>700 Alhambra</u> Phone <u>4429275</u> FAX <u>4440190</u> E-mail _____</p>	<p><u>Marvin OATS OWNER Trust / Frank</u></p> <p>Name <u>CA Restaurant Association</u> Address <u>1011 10th St.</u> Phone _____ FAX _____ E-mail _____</p>

→ Will permittee have any employees on the jobsite? No Yes → INSURANCE CO: _____
→ WORKER'S COMPENSATION POLICY # _____ EXPIRATION DATE: _____

NATURE OF WORK IN DETAIL: Revisions to 9907046 - NEW HVAC
Calif. Restaurant Association \$10,000

OCCUPANT/TENANT: CA Restaurant Association VALUATION: \$ 12000

FLOOD STATUS:				S.C.A.T.						
JOB DESCRIPTION		BLDG	SHELL	APT	TI()	REM	SW	FIRE	ADD	OTH
INSPECTION DISCIPLINES		BLDG	MECH	PLUMB	ELEC	SITE				
# Stories	1st firArea.	Total Area	Use Zone	Occp Group	Const type	Fire Req. Y (N)		Fed Code	Vio. File	
		<u>15120</u>		<u>B</u>	<u>IFR</u>	SPR	ALARM	<u>15</u>	[H]	[Quad]
<u>B</u>	<u>L</u>	<u>P</u>	<u>M</u>	<u>E</u>		<u>S</u>		<u>D</u>	PW	UTIL

COMMENTS: 4 Sets
Type Copy

REGIONAL SANITATION FEES? Yes No HEALTH DEPARTMENT? Yes No

WATER FLOW TEST FOR NEW BUILDINGS OR ADDITIONS? Provided Faxed

BLP

9907046

PLAN CHECK 9907046
For
CALIFORNIA RESTAURANT ASSOCIATION
1011 TENTH STREET, SACRAMENTO, CA 95818
TENANT IMPROVEMENT

ISSUED

JUL 28 1999

Date: 27 July 1999

Mr. Yang Lim
City of Sacramento
Developmental Services

CITY OF SACRAMENTO
BUILDING INSPECTION DIVISION

RE: Review number 1 ADDENDUM 2

Greetings Mr. Lim:

Thank you for meeting with us today regarding tenant improvement plan corrections to the building located at **1011 Tenth Street**, Sacramento, CA 95818. The following *room study* shall constitute our response to your verbal plan check comments regarding 9907046, issued during our meeting, 27 July 1999

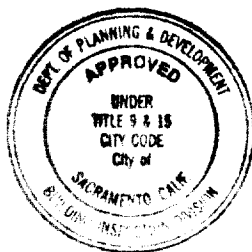
Life Safety/Structure Review Section

- 1 Conference Rooms. Conference rooms within the main space have been delineated and dimensioned. Conference rooms shall not contain more than six persons at any time.
- 2 Smoke Containment at Elevator Shaft. *Smoke Guard* or a (60) sixty-minute door with magnetic, smoke-actuated hold-open latch shall be installed in basement. Enclosed is a smoke-seal configuration applying *Smoke Guard* to the elevator opening.

This concludes our response to Verbal Plan Check 9907046.

Sincerely,

Dennis F. Greenbaum, Architect
Encl.



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations to the same without written permission from the Building Inspection Division. The approval of this plan shall not be valid unless accompanied by the original plans and specifications.

RECEIVED

JUL 28 1999

Building Inspection Division

INSTALLATION

The Smoke Guard System is installed by factory approved personnel.

The General Contractor has minimal preparation work, which primarily includes providing a clear, plumb, unobstructed wall surface at the hoistway door, 120v power, three wired junction boxes and a UL 268 conforming smoke detector.

ONGOING MAINTENANCE

The semi-annual cycle test performed by the owner/manager involves triggering the smoke detector in the elevator lobby and observing the deployment of the curtain. The system is easily reset by the rewind switch.

WARRANTY

The Smoke Guard Corporation warrants that its products will be free from defects for a period of one year and will perform as stated in this literature.

U.S. Patent 5,195,594
U.S. Patent 5,383,510

CODES AND STANDARDS

Smoke Guard representatives have the knowledge and ability to answer your code questions. Additional technical information is available upon request.

The Smoke Guard System allows rated elevator hoistway doors to conform to the requirements of a tight-fitting, smoke- and draft-control assembly, thereby virtually eliminating vertical smoke migration between floors.

EXCEEDS THE REQUIREMENTS OF:

- NFPA 105 Installation of Smoke Control Door Assemblies
- 1993 Edition and ICBO Evaluation Service Acceptance Criteria for Smoke-Containment Systems Used with Fire-resistive Elevator Hoistway Doors and Frames Subject No. AC77.
- 1997 Uniform Building Code

AVAILABILITY AND COST

Contact your local distributor for a price quote.

SPECIFICATION SECTION 08.300

Smoke Guard Physical Properties

System Property

- Air Leakage

Test Method

UL 1784

Test Result Values

- 0.25 cfm / sf at 0.3 in wg Positive pressure at 72°F
- 0.20 cfm / sf at 0.3 in wg Positive pressure at 400°F
- 0.47 cfm / sf at 0.3 in wg Negative pressure at 72°F
- 0.34 cfm / sf at 0.3 in wg Negative pressure at 400°F
- No fatigue after 100 full cycles.
- 4/8" max. expansion at 400°F at 0.3 in wg pressure
- 5 lbs. applied at the film boundary.

- Cycling Test
- Expansion Characteristics
- Opening Force

ICBO ES AC 77
Omegt. Point Lab
Omega Point Lab

Reinforced Film Property

- Surface Burning Characteristics
- Resistance of Plastics to Chemical Reagents

Test Method
ASTM E 84
ASTM D 543

Test Result Values
Flame Spread Index = 0
Smoke Developed Index = 0
Not adversely affected by:

- Hydrochloric Acid pH 1
- Sodium Hydrochloric pH 10
- Mineral Spirits - Paint Thinner
- Petroleum Distillate - Kerosene

- Peel Resistance of Adhesives
- Resistance of Adhesives to Cyclic Laboratory Aging Conditions
- Polymeric Materials - Long Term Property Evaluations

ASTM D 1876
ASTM D 1183
UL 746 B

Peel Strength greater than 2 lb/inch
Peel Strength greater than 2 lb/inch after cyclic aging
Maintains physical properties after accelerated aging

See current ICBO ES Evaluation Report No. 4968 for allowable values and/or conditions of use concerning material presented in this document. It is subject to reexamination, revision, and possible cancellation.



California State Fire Marshal



SMOKE CONTAINMENT SYSTEMS

Smoke Guard Corporation
Product ID #11420-1

Listed Tested For UL 1784 Air Leakage Tests of Door Assembly
Maximum Leakage: Less than 1 cfm per square foot of Opening at 0.3 inches of water column pressure difference, at ambient and 400°F.

See Omega Point Laboratories Inc. (NER-QA337)
Listed Products Directory for Specific Units

Smoke Guard Corporation

P.O. Box 2275 • Boise, Idaho 83701-2275

Phone: 208-383-3789

smokgrd@primenet.com



JUL 28 1999



Deployed Smoke Guard System

The Smoke Guard System is designed as a gasketing system used in conjunction with fire rated elevator hoistway doors.

A Listed and Labeled product, the Smoke Guard System provides a virtually air-tight seal at the hoistway door, thereby inhibiting smoke from a building fire from migrating vertically via the elevator shaft and exhausting into the upper portions of the building.

The Smoke Guard System is connected to the smoke detector located on the lobby ceiling. When smoke is detected in the elevator lobby, the Smoke Guard system automatically deploys in less than 10 seconds and is magnetically attracted to the face of the elevator door frame.

The Smoke Guard System mounts in a self-contained metal housing above the elevator door on the lobby side and is easily installed in both retrofit and new construction.

The unique design enables the system to be concealed in a soffit or valance or into a suspended ceiling and beautifully incorporated into any elevator lobby decor. A convenient rewind switch easily resets the system.

COMPOSITION AND MATERIALS

The Smoke Guard System consists of a reinforced transparent polyimide film that does not burn or melt. The film is attached to a continuous high temperature flexible magnet which is attracted automatically to the ferrous metal door frame as the system deploys.

The Smoke Guard System is equipped with a self-contained rechargeable 12v DC power source to provide reliable operation during a building emergency.

Building Inspection Division SIZE

The Smoke Guard System is Listed to fit hoistway doors up to 48" in opening width and can be adapted to fit any door frame. Oversized units are available upon request.

USE A SMOKE GUARD SYSTEM TO:

- Provide a virtually airtight seal at the hoistway door
- Eliminate the need for smoke stop lobbies
- Resist vertical smoke migration
- Meet ADA requirements
- Surpass NFPA 105 Standards "Installation of Smoke Control Door Assemblies"
- Create additional usable area in all buildings

THE SMOKE GUARD SYSTEM IS:

- Activated on a floor-by-floor basis
- Manufactured under strict quality control procedures
- Disengaged with a force of less than 5 pounds
- A gasketing system proven not to interfere with elevator hoistway door operation
- Designed for stack effect pressures
- Transparent, lightweight
- Tested at ambient temperatures and at 400°F under both positive and negative pressure
- Easily adapted into any lobby design with no loss of floor or wall space



Protected Elevator Lobby

TEST RESULTS

The Smoke Guard System exceeds the requirements of:

The 1989 edition of NFPA 105 "Recommended Practice for the Installation of Smoke-Control Door Assemblies" when tested by Omega Point Laboratories in accordance with the 1991 edition of Underwriters Laboratory Subject 1784 "Air Leakage Tests of Door Assemblies."

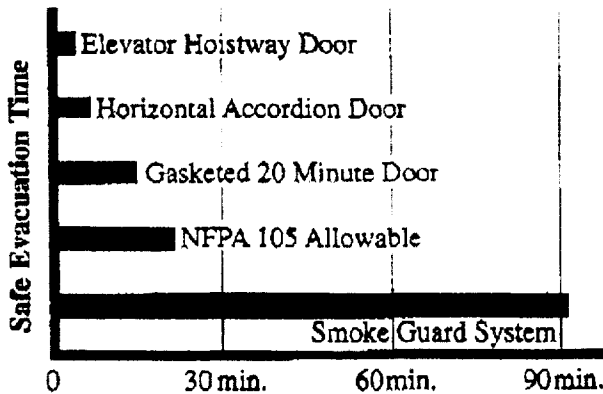
AIR LEAKAGE RATE

The lower the air leakage rating of the assembly, the slower smoke will move through the door opening into the corridor.

Comparison with NFPA 105 at 75°F (ambient air) Temperatures Estimated CFM Leakage Rate*


SMOKE GUARD SYSTEM	11
NFPA 105 ALLOWABLE	84
GASKETED 20 MINUTE DOOR	200
HORIZONTAL ACCORDION DOOR	520
ELEVATOR HOISTWAY DOOR	750

*Based on a 4'-0" x 7'-0" hoistway door



Estimated minutes to fill an open 8' x 15' elevator lobby with smoke based on calculated air leakage rates of available systems.

LISTED AND LABELED



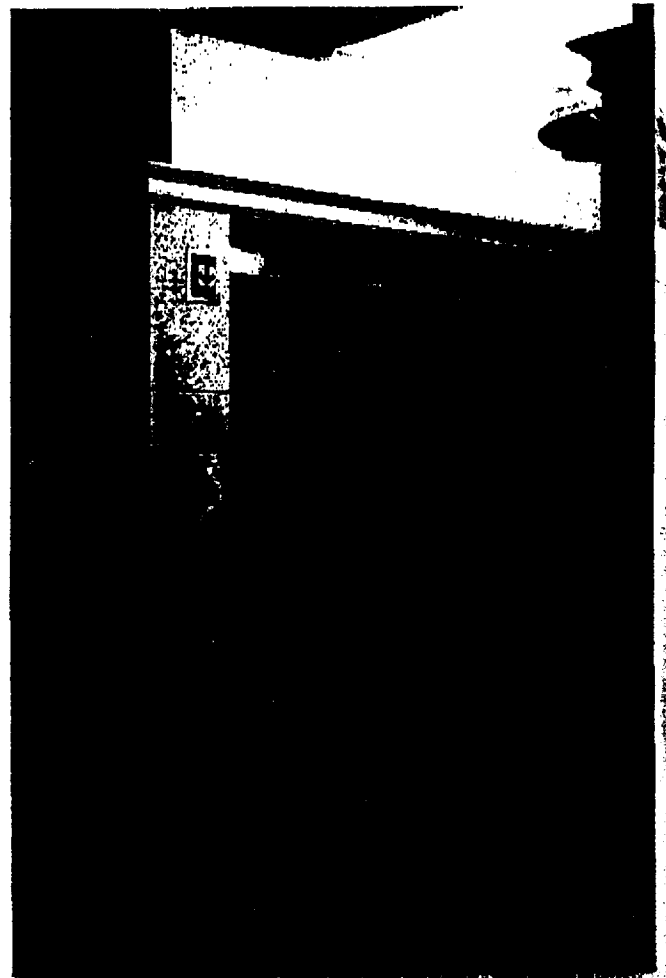
SMOKE CONTAINMENT SYSTEMS

Smoke Guard Corporation
Product ID #11420-1
Tested Per UL 1784
Air Leakage Tests of Door Assemblies

Maximum Leakage: Less than 1 cfm per square foot of opening at 0.3 inches of water column pressure difference, at ambient and 400°F.

See Omega Point Laboratories Inc. (NEAR-QA337)
Listed Products Directory for Specific Units

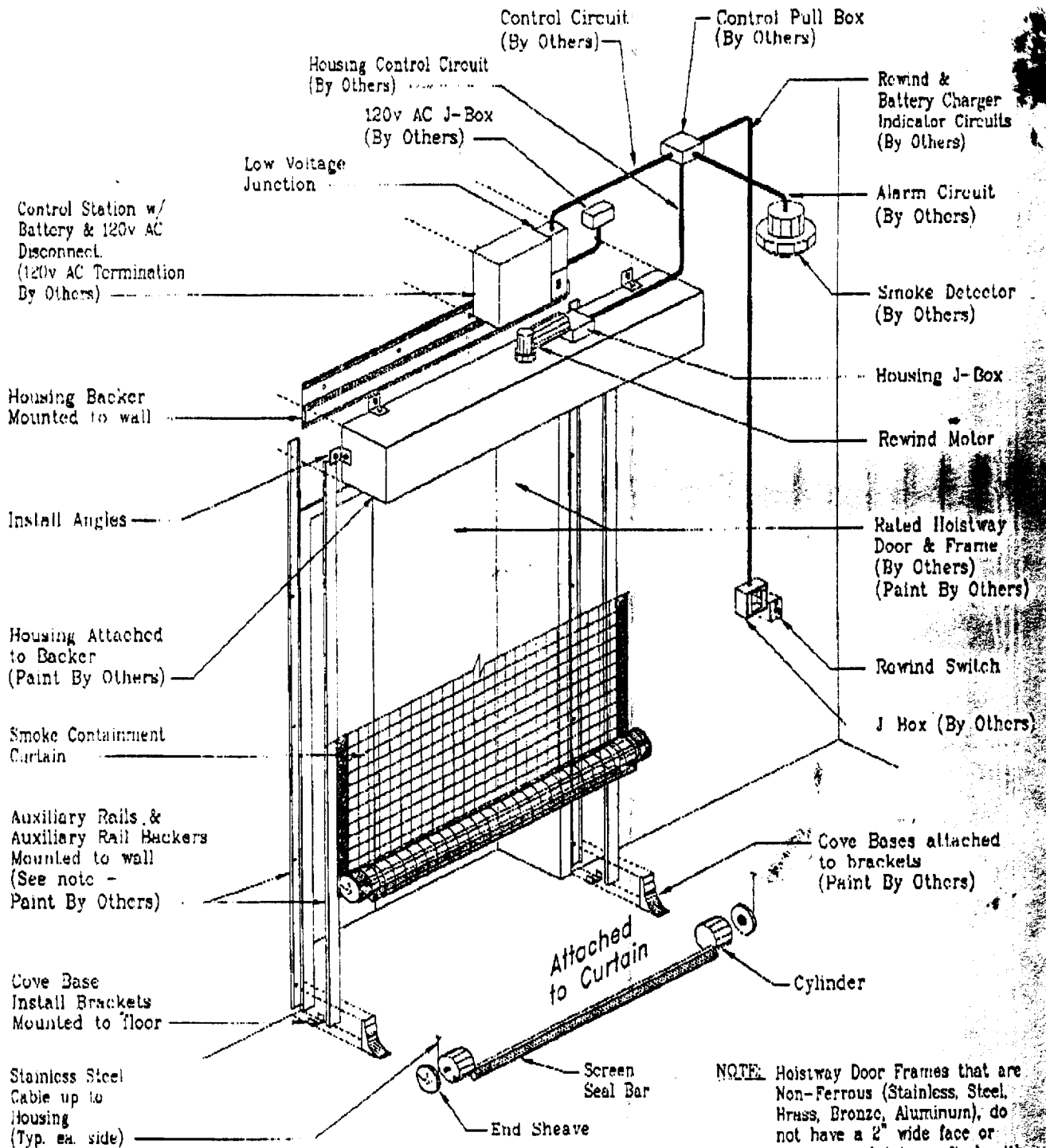
Listed



The Smoke Guard System provides a virtually airtight seal without interference with the elevator hoistway door and provides a "tight-fitting smoke- and draft-control assembly" in accordance with the Uniform Building Code. A rewind switch (shown at the right of the door) automatically resets the system in seconds.

THE SMOKE GUARD SYSTEM

- Tight-fitting smoke- and draft-control assembly
- Eliminates the need for a lobby in mid-rise buildings
- Allows lobby to be part of the exitway in high rises
- Assists a smoke-free evacuation
- Helps restrict smoke from migrating between floors
- Adds valuable time to evacuate building occupants
- Simplifies retrofit design
- Automatically resealable
- Decreases construction cost
- Easily recesses into ceiling
- Resistive to stack effect pressures
- Transparent reinforced film
- Only 5# force necessary to disengage film
- No additional structural support needed
- Eliminates additional corridor space



U.S. Patent 5,195,594
U.S. Patent 5,383,510

SINGLE UNIT SYSTEM

NOT TO SCALE

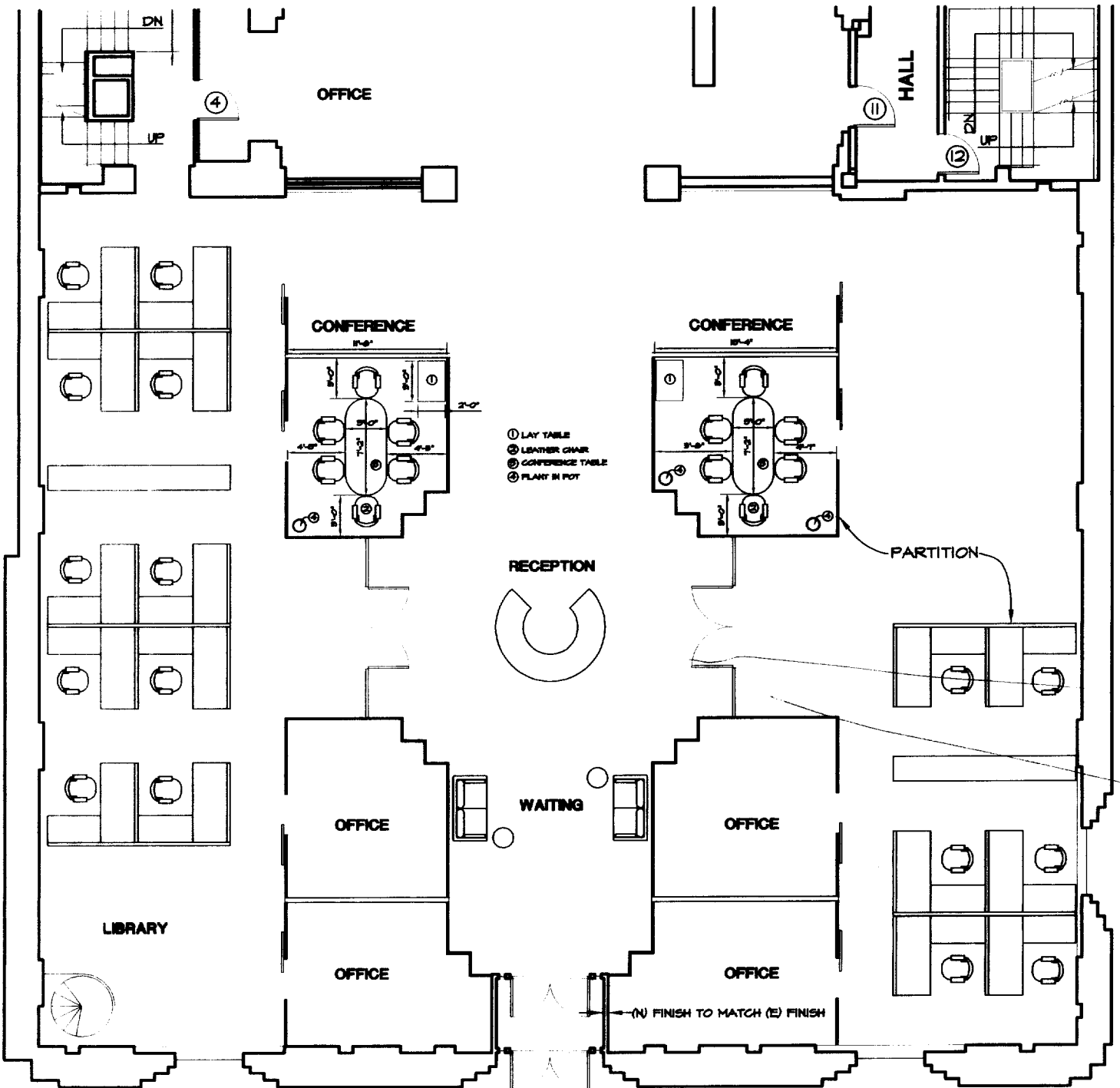
NOTE: Hoistway Door Frames that are Non-Ferrous (Stainless Steel, Brass, Bronze, Aluminum), do not have a 2" wide face or are recessed into or flush with the Hoistway Wall require Auxiliary Rails.



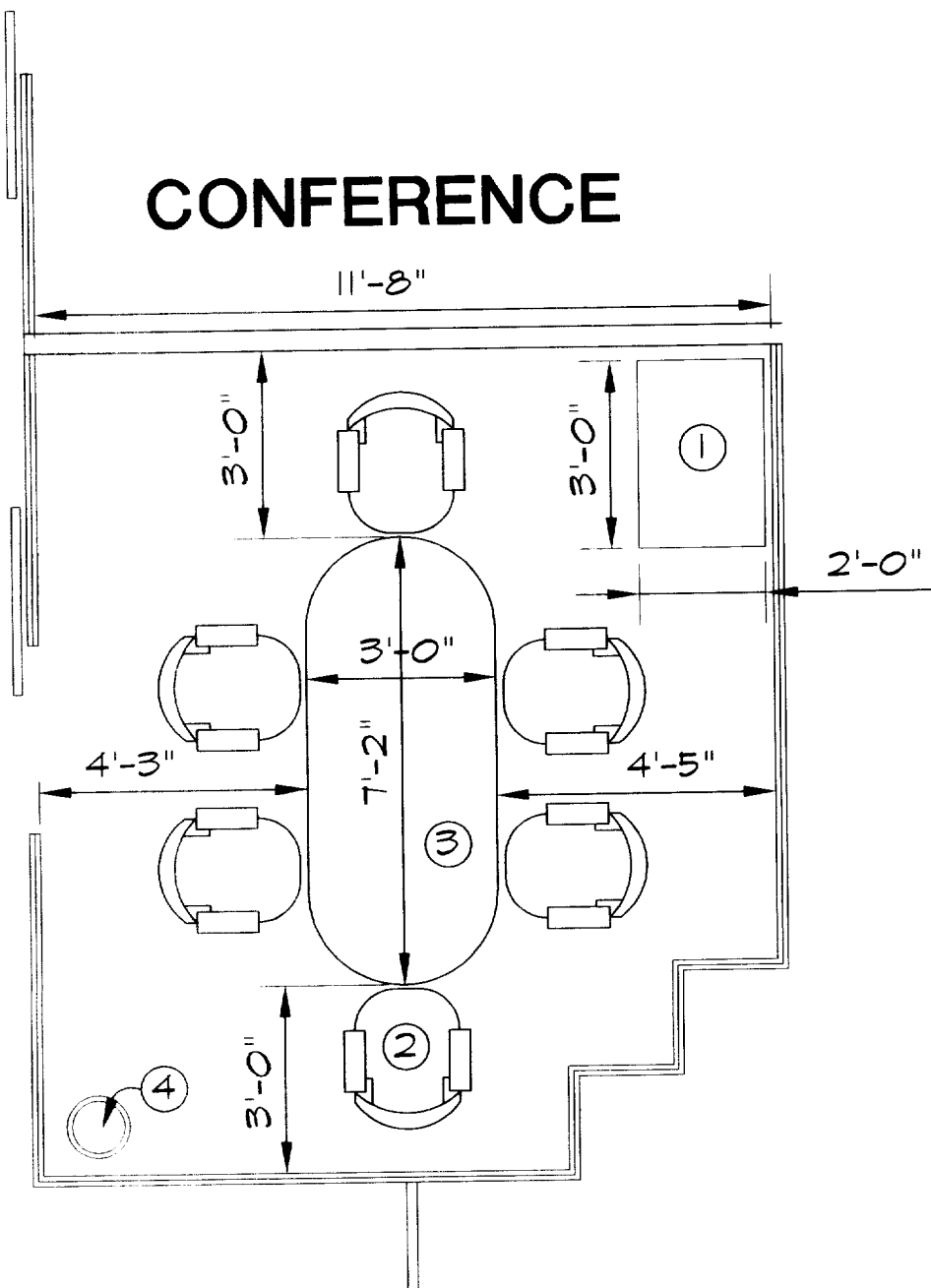
RECEIVED

JUL 28 1999

Building Inspection Division



CONFERENCE



- ① LAY TABLE
- ② LEATHER CHAIR
- ③ CONFERENCE TABLE
- ④ PLANT IN POT

1 of 2

USG:

SHAFTWALL TYPE CONFIGURATION AT EXIT PASSAGE WAY - FIRST FLOOR

LIMITING HEIGHTS STUDS 24" O.C. FOR 1 AND 2 TO 3 HR. SYSTEMS

Stud & Design	Depth (in.)	Track Gauge	Deflection Limit	Uniform Load (PSF)								
				For 1 hr.*				For 2 to 3 hr.**				
				5	7.5	10	15	5	7.5	10	15	
2.5	25	U/120	L/120	14'-2"	12'-5"	11'-3"	9'-4"	15'-8"	13'-3"	11'-6"	9'-5"	
				L/180	12'-5"	10'-10"	9'-10"	8'-7"	13'-7"	11'-10"	10'-9"	9'-5"
				L/240	11'-3"	9'-10"	8'-11"	7'-10"	12'-4"	10'-9"	9'-9"	8'-6"
				L/360	9'-10"	8'-7"	7'-10"	6'-10"	10'-9"	9'-5"	8'-6"	7'-6"
2.5	20	U/120	L/120	15'-10"	13'-10"	12'-6"	10'-11"	17'-4"	15'-1"	13'-9"	12'-0"	
				L/180	13'-10"	12'-1"	10'-11"	9'-7"	15'-1"	13'-2"	12'-0"	10'-6"
				L/240	12'-6"	10'-11"	9'-11"	8'-8"	13'-9"	12'-0"	10'-11"	9'-6"
				L/360	10'-11"	9'-7"	8'-8"	7'-7"	12'-0"	10'-6"	9'-6"	8'-4"
4	25	U/120	L/120	19'-1"	15'-11"	13'-10"	11'-3"	19'-7"	15'-11"	13'-10"	11'-3"	
				L/180	16'-8"	14'-6"	13'-2"	11'-3"	18'-3"	15'-11"	13'-10"	11'-3"
				L/240	15'-1"	13'-2"	12'-0"	10'-6"	16'-7"	14'-6"	13'-2"	11'-3"
				L/360	13'-2"	11'-6"	10'-6"	9'-2"	14'-5"	12'-8"	11'-6"	11'-3"
4	20	U/120	L/120	21'-8"	18'-11"	17'-2"	15'-0"	23'-8"	20'-8"	18'-9"	15'-6"	
				L/180	18'-11"	16'-6"	15'-0"	13'-1"	20'-8"	18'-1"	16'-5"	14'-4"
				L/240	17'-2"	15'-0"	13'-8"	11'-1"	18'-9"	16'-5"	14'-11"	13'-0"
				L/360	15'-0"	13'-1"	11'-11"	10'-5"	16'-5"	14'-4"	13'-0"	11'-5"
6	25	U/120	L/120	22'-7"	18'-9"	16'-3"	12'-0"	22'-11"	18'-9"	16'-3"	12'-0"	
				L/180	19'-9"	17'-3"	15'-8"	12'-0"	21'-8"	18'-9"	16'-3"	12'-0"
				L/240	17'-11"	15'-8"	14'-3"	12'-0"	19'-8"	17'-2"	15'-7"	12'-0"
				L/360	15'-8"	13'-8"	12'-5"	10'-10"	17'-2"	15'-0"	13'-8"	11'-1"
6	20	U/120	L/120	27'-4"	23'-11"	21'-8"	19'-0"	30'-0"	26'-2"	23'-7"	19'-3"	
				L/180	23'-11"	21'-11"	19'-0"	16'-7"	26'-2"	22'-11"	20'-9"	18'-2"
				L/240	21'-8"	19'-0"	17'-3"	15'-1"	23'-9"	20'-9"	18'-11"	16'-6"
				L/360	19'-0"	16'-7"	15'-1"	13'-2"	20'-9"	18'-2"	16'-6"	14'-5"

* 1 Hr. Rated Series 622 ** 2 Hr. Rated Series 620 or 621 & 3 Hr. Rated Series 630 or 631

Test Per VHM-465-TRI-0206/0225, issued August 4, 1995. C-T studs and J track are same gauge. Based on deflection limits with adjustment to conform to a minimum safety factor of 1.5 for ultimate bending strength and end reaction.

MAXIMUM HORIZONTAL SPANS

C-T Stud	Nominal Gauge	Series 622 One Hour*				Series 620 Two Hour		Series 623/624/627 Two Hour	
		L/240	L/360	L/240	L/360	L/240	L/360		
2 1/2"	25	9'-4"	8'-2"	8'-8"	7'-7"	8'-1"	7'-1"		
	20	11'-1"	9'-8"	10'-4"	9'-0"	9'-8"	8'-5"		
4"	25	13'-2"	11'-6"	12'-4"	10'-9"	11'-6"	10'-0"		
	20	15'-6"	13'-7"	14'-7"	12'-9"	13'-7"	11'-10"		
6"	25	17'-11"	15'-8"	16'-9"	14'-7"	15'-7"	13'-7"		
	20	21'-1"	18'-6"	19'-9"	17'-3"	18'-6"	16'-2"		

* Based on Model Building Code interpretation for uses as corridor ceiling and stair soffits. Span calculations based on stud properties. Steel stress in spans above does not exceed 4Fy. Use 20 Gauge J track.

MINIMUM SECTION PROPERTIES

Stud Size	T	W	A	Ix	Sx(C)	Sx(T)
2 1/2" x 24 ga	0.0179	0.470	0.118	0.132	0.095	0.118
2 1/2" x 20 ga	0.0329	0.820	0.219	0.242	0.175	0.217
4" x 25 ga	0.0179	0.580	0.145	0.374	0.171	0.207
4" x 20 ga	0.0329	1.020	0.267	0.687	0.341	0.380
6" x 25 ga	0.0179	0.715	0.181	0.957	0.299	0.347
6" x 20 ga	0.0329	1.260	0.333	1.759	0.543	0.637

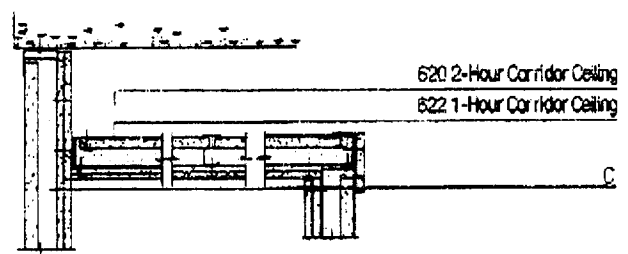
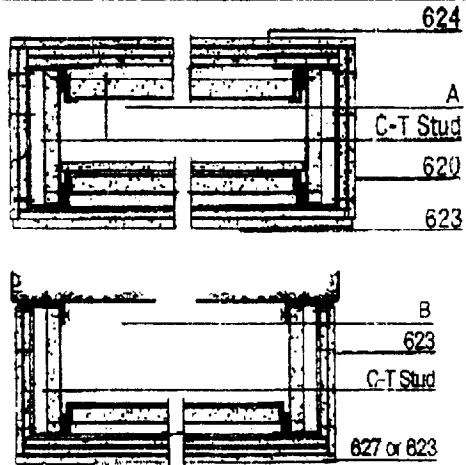
T = Minimum unbraced base stud thickness (inches)
 W = Weight (pounds per linear foot)
 A = Sectional Area (inches)²
 Ix = Moment of Inertia (inches)⁴
 Sx(C) = Section Modulus "C" Flange (inches)³
 Sx(T) = Section Modulus "T" Flange (inches)³

Installation Instructions

- Lay out per construction drawings. Secure J track as perimeter framing on floor and plumb to ceiling and sides. Attach with suitable fasteners, spaced not more than 24" o.c.
- Plan the stud layout 24" o.c. and adjust the spacing at either end so that the terminal stud will not fall closer than 8" from the end.
- Erect the first 1" Fireguard Shaft Liner panel, cut 3/4" less than the total height of the framed section. Plumb the panel flush against the web of the J track and secure with 1 5/8" Type S screws 24" o.c. or bend out tabs in J track to secure panels in place.
- Insert a C-T stud, cut 3/4" less than the overall height, into the top and bottom J tracks and fit tightly over the previously installed 1" panel.
- Install the next 1" Fireguard Shaft Liner panel inside the J tracks and within the tabs of the C-T stud. Note that the edges of the panel are beveled to help guide the panel into the slotted and tabbed section of the stud.
- Progressively install succeeding studs and panels as described above until the wall section is enclosed. The final panel section may be secured with 1 5/8" Type S screws or tabs from the J track at 24" o.c.
- Where wall heights exceed the standard or available length of Shaft Liner panels, the panels may be cut and stacked with joints occurring within the top or bottom third points of the wall. Joints of adjacent panels should be alternately staggered to prevent a continuous horizontal joint.
- For doors, ducts or other large penetrations or openings, install J track as perimeter framing as detailed. Use 20-gauge track with a 3" back leg for elevator doors and block cavity with 1/2" wide gypsum board filler strips for doors exceeding 7'-0" height.

SERIES	DESIGN	CONSTRUCTION	DESCRIPTION
623 2 hr.	Horizontal		2-hour fire-resistant horizontal membranes for use as 2-hour ceiling or horizontal duct shaft. The Series 623 and 627 are built from the bottom and the 624 is built from the top using 1" GyProc Fireguard Shaft Liner supported by 2 1/2", 4" or 6" C-T studs and 3 layers of 5/8" GyProc Fireguard C gypsum board.
624 2 hr.	Horizontal		Ceiling Soffit Fire Protection Some model codes accept the use of fire-rated walls as the rated ceiling or soffit in fire-rated corridors or stairwells. Accordingly, the Series 622 and 620 are used for 1-hour and 2-hour corridor ceilings and stair soffits, respectively.
627 2 hr.	Horizontal		Membrane Fire Protection Where a 2-hour fire-rated membrane is required to separate a room from structure or space above, a 2-hour fire-rated ceiling is required. Series 623, 624 and 627 are fire-tested for two hours as ceiling membranes. (See illustrations.)

2-HR. USES FOR 620, 623, 624 & 627 FOR HORIZONTAL MEMBRANES



These details are typical uses of the 620 wall system and the 623, 624 and 627 systems for horizontal membranes for 2-hour ceiling and duct protection.

Note: The 622 1-hour corridor ceiling uses a single layer of 5/8" Fireguard (Type X) Gypsum Board on the ceiling side. Suspension and/or overhead support in A and B must be carefully engineered. The weight of the 620 system is 9 psf. The 623, 624 and 627 systems weigh 11 psf. For example, a duct 2' x 4' shown in B will weigh approximately 130 lbs./lin.ft. fastening and support must be engineered to carry the loads involved with appropriate safety factors.

GyProc Components 1/2" GyProc Fireguard C, 5/8" Fireguard and 5/8" Fireguard C Gypsum Board are manufactured to conform to ASTM C 36/CSA A 82.27-M with Type X core.

These products may be used for other related corridor and party walls, often eliminating the need to stock more than one type at the job site. Depending on the fire rating, one or more layers are installed on the C-T studs with drywall screws. Screws are not required to secure either layer to the top or bottom J tracks. Refer to the sections covering specific fire ratings for the number of layers required and the detailed attachment procedures.

1" GyProc Fireguard (Type X) Shaft Liner is manufactured to conform to ASTM C 442/CSA A 82.27-M with Type X core.

A special green paper on both surfaces provides resistance to moisture and is made with 100% recycled fibers. Panels are made in a normal width of 23 7/8" with double beveled edges. Shaft Liner panels install easily within the flanges of the C-T studs. Screws may be installed at the top J track to hold the panel in place.

Drive 1 5/8" Type S screws 24" o.c. maximum through the Shaft Liner to the J track at corner and abutments or use the turnout tabs to secure the panel in place.

Helpful Hints

- Use a fastening plate to secure the J track whenever fasteners are closer than 4" to the edge. Setting the plate at the time of concrete construction will avoid spalling by mechanical fasteners.
- Cut C-T studs 3/4" less than the height of the opening.
- Cut 1" Fireguard Shaft Liner 3/4" less than the height of the opening.
- In structural steel-frame construction, install J track sections before applying spray-on fireproofing.
- Items to be anchored to the wall (cabinets, sinks, handrails, etc.) should be fastened to the C-T studs or to plates secured behind or between layers of 1/2" Fireguard C. (See illustration on page 10.)
- Joint compounds should be applied at ambient temperatures above 50°F (10°C) with adequate ventilation.
- Use Type S screws for 25-gauge steel framing. Use Type S-12 screws for 20-gauge (or heavier) steel framing.
- It is important that the job structural engineer approve the type, size and maximum spacing of track fasteners to meet the design load requirements.