TECHNICAL BASIS

OF THE

LASALLE COUNTY STATION

FIRE DAMPER SURVEILLANCE PROGRAM

COMMONWEALTH EDISON COMPANY

PROJECT NUMBER 6854-31

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TECHNICAL BASIS OF THE LASALLE COUNTY STATION FIRE DAMPER SURVEILLANCE PROGRAM

1. BACKGROUND

Prior to the LaSalle Unit 2 licensing process (November 1983), there was no requirement for Commonwealth Edison Company (CECo) to perform operability testing of fire dampers either through a commitment to a National Fire Protection Association (NFPA) standard or an NRC requirement. Technical Specification 4.7.6.1 required a visual inspection. CECo's technical judgment is that visual inspection ensures lifetime operability, however, the NRC stated that surveillance programs without periodic operability tests have not assured operability (SSER 7, Sec. 9.5.2.2). The NRC has provided no technical basis for this statement.

At an appeal meeting on March 28, 1984, CECo agreed to work with the NRC to develop a damper surveillance program. The program presented in this report is in response to that agreement and considers lifetime operability requirements, cost of the duct/access door modifications to implement the program, and ALARA and personnel safety concerns. The chronological milestones leading to the March 28, 1984, appeal meeting were as follows:

- SSER 7, December 1983, stated the following in Sec. 9.5.2.2:

  > "The plant Technical Specifications require a visual inspection of each fire damper and asscciated hardware once every 18 months. Fire damper operability acceptance tests were performed at the time of installation; however, operability tests will not be performed during the life of the plant with current surveillance procedures. In the past, our experience has shown that surveillance programs without periodic operability tests have not assured operability.
  >
  > By letter dated November 23, 1983, CECo committed to develop a surveillance program to ensure operability of the dampers prior to exceeding 5 percent power. This program will include a periodic operability test of a sample population of accessible dampers.
  >
  > Based on this commitment, we conclude that the surveillance program will assure the operability of the fire dampers and is, therefore, acceptable. We will condition the operating license of Unit 2 for this surveillance program."

- CECo appealed the operability test requirement in a letter dated January 27, 1984, and submitted in response to SSER 7 a surveillance program dated March 13, 1984, which included the following statements:

"1. The fire dampers at LaSalle County Station were purchased in 1976 and the applicable NFPA Standard is the 1976 edition of NFPA 90A. Appendix B in NFPA 90A is not mandatory and is included in the standard for guidance only. According to Appendix B, Article B-7 of the 1976 standard, "Each fire door and fire damper should be examined once a year, giving attention to hinges and other moving parts, to see that it is in good operable condition." This requirement is satisfied by a periodic visual inspection of all fire dampers. If the visual inspection reveals damage or corrosion, corrective action can be taken to resolve the problems. LaSalle County Station procedure LTS-1000-36 meets these requirements.

2. CECo's position identified in 1. above has been concurred with by Schirmer Engineering in a March 1, 1984, letter to Sargent & Lundy Engineers:

"We have reviewed NFPA Standard 90A, Appendix B, regarding procedures to be utilized at LaSalle County Station (LSCS) and the scheme of operation of the air handling systems serving selected areas.

We concur that a visual inspection program for fire dampers at LSCS meets the intent of NFPA 90A regarding periodic maintenance, provided that further investigation, including operation of the damper, should be conducted if the visual inspection reveals signs of damage, wear, corrosion, etc., which may affect the operation of the damper. It is my understanding that procedures in effect at LSCS incorporate the above. Such procedures would constitute good fire protection engineering practice and would be consistent with actual practices in the industry."

3. A review of LER history of failed fire dampers, as maintained by INPO, does not indicate problems that a good visual surveillance would not discover and correct.

Conclusion

We are convinced that fire dampers which are initially tested for operability to verify correct installation can be maintained operable throughout their lifetime by a good visual inspection of all fire dampers. LTS-1000-36 satisfies this requirement."

- A March 14, 1984, letter from A. Schwencer identified the NRC position prior to the appeal meeting:

  "Apparently the applicant wishes to modify its recent commitment regarding the operational testing of a fraction of the fire dampers. To resolve this issue, the applicant should provide a description of the fire damper surveillance program he deems appropriate to assure reliable damper operation over the life of the plant. The licensee has indicated that some of the dampers are not accessible for test or inspection. The analysis should evaluate the safety significance of inaccessible fire dampers."

- The March 13, surveillance program was not accepted by the NRC and an operability surveillance procedure that dropped dampers was submitted to the NRC on March 15, 1984.

- SSER 8, March 1984, contained the following statement in Sec. 9.5.2.2:

  "In Supplement No. 7 to our Safety Evaluation Report, we indicated that the licensee is committed to develop a surveillance program to ensure operability of the dampers prior to exceeding 5 percent power. By letter dated March 15, 1984, the licensee proposed a surveillance program of the fire dampers. This submittal satisfies the License Condition 2.c.(15)(h). Prior to the first periodic surveillance, required by Technical Specification 4.7.6.1, to be conducted 18 months after the issuance of the license (June 1985), the NRC staff intends to reassess the adequency of this Technical Specification on a generic basis."

- CECo agreed to work with the NRC to develop a fire damper surveillance program at the March 28, 1984, appeal meeting.

2. METHODOLOGY

The Control Room and Auxiliary Electric Equipment Room (AEER) boundary dampers and dampers in walls separating redundant safe shutdown equipment are to be operability tested to provide greater assurance that these barriers maintain their fire rating over the plant lifetime. The remaining dampers are to be visually inspected. To establish which dampers are to be operability tested and visually inspected, all fire dampers (excluding the Service Building) were prioritized according to their safe shutdown significance.

A field walkdown of all dampers identified dampers requiring modifications in order to be easily tested and inspected, or reset for the purposes of smoke removal and equipment cooling. The station smoke removal plans and habitability of the Control Room and AEER were considered when evaluating necessary modifications. Sketches and costs for each modification were prepared to assess the benefits of testing fire dampers.

Pre-operational test (pre-ops) documentation was reviewed to verify which dampers had been tested during the pre-op program to assure correct installation. The importance of initial testing is to eliminate fire damper malfunctions during surveillance testing that might be caused by faulty installation.

The ventilation systems at the LaSalle County Station are not only designed to cool equipment and people, but also to protect personnel from potential radiation hazards. Therefore, ALARA and personnel safety concerns are addressed in this report and credit is taken for shutting off the ventilation fans in the fire fighting plans for zones in which the fans do not automatically shutdown when a detector alarms.

Section 3 contains a brief description and discussion of reports and data supporting the development of LaSalle's revised operational testing and visual inspection surveillance programs presented in this study.

3. SUPPORTING DATA/REPORTS

3.1 Prioritizing of Fire Dampers

Attachment A is the report documenting the process used to classify the fire dampers at LaSalle in order of importance to safe shutdown. The fire dampers in this report are listed in ascending order by the drawing number on which the damper is located. The distribution of fire dampers by priority are:

Priority	Number of Fire Dampers
1	18
2	25
3	141
4	84
5	40
TOTAL	308

Priority 1 and 2 fire dampers in the fire barriers of the Control Room and AEER and in walls separating redundant safe shutdown equipment are most significant regarding safe shutdown of the plant in the event of a fire. These dampers will be operability tested. The remaining Priority 3, 4 and 5 fire dampers in fire barriers not separating redundant safe shutdown components will be visually inspected.

3.2 Smoke Removal and System Operation

Attachment B is the report documenting the review of fire dampers for smoke removal and equipment cooling. The study concludes that modifications, beyond those identified as necessary to implement the fire damper surveillance procedures, are not required for one of the following reasons:

- Time available is sufficient to reset fire dampers or provide alternate cooling.
- Alternate means, as identified in LaSalle's Smoke Removal Plans, are available for removal of smoke.

3.3 Walkdown Report

Attachment C is the report documenting the plant walkdown of fire dampers at LaSalle. The report includes the drawing number on which the dampers are found, safe shutdown priority, pre-op tests documenting initial testing, and modifications recommended to assure access for surveillance testing. Dampers are grouped by common areas 'O', Unit 1 and Unit 2; and are listed alphabetically within these three groups. Statistics of the walkdown are tabulated below:

No. of Dampers	Damper Mfg. (Note 2)	Damper Position (Note 3)	Seismic
308 (Note 1)	72 (R) 236 (AA)	82 H 226 V	162

NOTES:

1. VS (Service Building) & VJ (Machine Shop) systems not included.

2. "R" indicates manufactured by Ruskin Mfg. Co.; "AA" indicates Advanced Air Products.

3. "H" indicates Horizontal (floor) fire damper; "V" means Vertical (wall) fire damper.

3.4 Fire Damper Modification Drawings

Attachment D contains drawings proposing fire damper access modifications to allow operability testing. These sketches are preliminary and were prepared to estimate the costs of implementing the proposed modifications. The sketches are in numerical sequence from FDAM-1 through FDAM-87.

3.5 Modification Cost Report

Attachment E lists the dampers, for which modifications are identified in the walkdown report (Attachment C), in order of the damper's significance for safe shutdown (Priority No.). The column "Mod. Sketch No." identifies the drawing in Attachment D used to prepare the cost estimate for modifying each damper in order to make the damper accessible for operability testing. Note that some damper modifications are straightforward, usually requiring a larger access door. These dampers in the "Mod. Sketch No." column are identified by "No drawing req'd".

The costs for all modifications identified in Attachment E are tabulated below:

Priority	Modification Cost ($)		Number of Dampers Included	
	Type of Test			
	Operability	Visual	Operability	Visual
1	10,540		13	
2	9,140		9	
SUBTOTAL	$19,680		22	
3	65,150	4,540	63	8
4	13,920	4,480	17	5
5	2,980	750	8	2
SUBTOTAL	$82,050	$9,770	88	
TOTAL	$101,730*	$9,770	110*	15

*Includes visual columns.

The costs include design, materials and installation. They are estimates and could change, in selected instances, when the design is completed. If the cost increase is significant, a safety evaluation will be performed to determine if the modification must be implemented.

Assuming the cost to modify a fire damper does not change significantly, the 22 modifications identified in Attachment E for Priority 1 and 2 fire dampers will be implemented at an approximate cost of $20,000. Thus, all Priority 1 and 2 fire dampers will be accessible for operational testing.

Again, assuming the cost to modify a fire damper does not change significantly, all Priority 3, 4 and 5 fire damper modifications required for visual inspection, except 1VX35Y (see 3.6 for safety evaluation), will be implemented. The cost to modify these dampers, which are listed below, is approximately $7,000.

Priority 3:	OVE40Y	
	OVL57Y	
	OVL58Y	
	OVL62Y	
	OVL78Y	
	1VR76Y	
	2VT53Y	
	2VV08Y	
Priority 4:	OVA26Y	
	OVA29Y	
	OVA37Y	
	1VD42Y	
	1VX35Y....Note:	This modification will not be implemented. See 3.6 for the safety evaluation.
Priority 5:	OVW42Y	
	1VT69Y	

3.6 Safety Evaluations

Priority 1 and 2 fire dampers will be accessible for conducting an operability test. With the exception of 1VX35Y (Priority 4), the Priority 3, 4 and 5 fire dampers will be accessible for visual inspection.

The modification to 1VX35Y would be expensive ($2500) and would require a significant change to an existing seismic installation (Battery Room exhaust system ductwork and the Battery Room wall). For justification not to inspect 1VX35Y, see Attachment F, Fire Damper Safety Evaluations.

3.7 Fire Dampers Without Pre-Op Documentation

LaSalle's operating department produced the pre-op documentation for all but 36 fire dampers. Attachment G lists 36 fire dampers for which pre-op test documentation could not be found. Prior to pre-op testing by LaSalle's Technical Staff, all fire dampers were tested for proper installation during construction by either the construction staff or the sheet metal contractor, or both. However, records for these 36 dampers could not be located to verify testing during construction.

The distribution of fire dampers not pre-op tested, by priority, is tabulated below (Table 3.7-1). All Priority 1 and 2 fire dampers have been pre-op tested. Of the 36 dampers not pre-op tested, 21 are currently accessible for testing and two are scheduled to be modified for the surveillance program (1VD42Y and 2VV08Y). The remaining 13 are accessible for visual

Table 3.7-1

PRIORITY NUMBER	FIRE DAMPERS NOT PRE-OP TESTED
1	0
2	0
3	31
4	3
5	2
TOTAL	36

inspection, but would require an expenditure of approximately $12,000 if they were to be accessible for testing. The 23 fire dampers listed in Table 3.7-2 will be tested to document correct installation. Table 3.7-3 tabulates the dampers that will not be tested because the modifications are extensive and require an expenditure of $12,000.

Table 3.7-2

Dampers To Be Tested

OVE47H	OVL81Y	1VV08Y
OVE60Y	OVS160Y	1VV10Y
OVH11Y	OVS161Y	2VV07Y
OVH15Y	OVS163Y	2VV08Y*
OVL71YA	OVV31Y	2VV09Y
OVL71YB	OVV32Y	2VV10Y
OVL74Y	OVV40Y	2VY13Y
OVL80Y	1VD42Y*	

*Modification Required.

Table 3.7-3

Dampers Not To Be Tested

OVE48Y	OVL76Y	OVL82Y
OVL63Y	OVL77Y	OVL83Y
OVL69Y	OVL78Y	OVL84Y
OVL70Y	OVL79Y	2VV12Y
OVL75Y		

3.8 NFPA 90A Discussion of Airflow Testing

Fire dampers are tested and labeled (UL) in accordance with UL555, Fire Dampers and Ceiling Dampers. Smoke dampers are tested per UL555S, Leakage Rated Dampers for Use in Smoke Control Systems. Combination fire/smoke dampers must meet the requirements of both UL555 and UL555S. LaSalle has fire dampers, not smoke or fire/smoke dampers. LaSalle also has a smoke removal plan for each fire zone that could affect safe shutdown.

NFPA Standard 90A, Standard for the Installation of Air Conditioning and Ventilating Systems, invokes UL555, and since UL555S is new (September 1983), it will appear in new editions of NFPA 90A. The only reference to NFPA Standard 90A is in LaSalle's purchase specification for fire dampers. The fire dampers at LaSalle County Station were purchased in 1976 and the applicable NFPA standard is the 1976 edition of NFPA 90A. Appendix B, Maintenance, in NFPA 90A is not a part of the NFPA standard and is included in the standard for information purposes only. Article B-7 (Appendix B) added the following sentence to the 1981 edition: "It is desirable to operate doors or dampers with normal system airflow to assure that they are not held open by the airstream." This sentence was not in the 1976 edition of NFPA 90A.

A request was made by Sargent & Lundy (S&L), Consulting Engineers, on March 7, 1984, for an interpretation of this sentence by the NFPA 90A technical committee (see Attachment H). The response to this request was sent by letter dated June 13, 1984, and disagreed with an "unofficial" verbal interpretation S&L had previously received implying that fire dampers in systems that shutdown upon detection of smoke need not be tested under airflow conditions (see Attachment H). The NFPA 90A technical committee is not aware that LaSalle has on-site at all times a trained fire brigade, fire fighting plans for each fire zone, generally low combustible loadings, and IEEE qualified cable.

Since LaSalle's fire brigade is instructed to shutdown fans in the event of a fire, CECo's technical judgment is that operability testing of fire dampers with system airflow is not necessary. LaSalle also has no commitment to Appendix B of any edition of NFPA 90A.

3.9 ALARA and Personnel Safety

Attachment I documents fire dampers for which specific cautions (airborne radioactive particles, high pressure, noise) must be exercised regarding ALARA and personnel safety matters when conducting surveillances. The surveillance procedures include these ALARA and personnel safety concerns.

The ALARA fire dampers identified in Attachment I are based on current plant conditions. This list will be expanded if plant conditions change.

4. SURVEILLANCE PROGRAM

The surveillance procedures LTS-1000-35, Fire Damper Operability Test (Attachment J), and LTS-1000-36, Fire Damper Visual Inspection (Attachment K), were developed using the data in Section 3. The 10 year surveillance interval is taken from ASME Section XI, Rules for In-Service Inspection of Nuclear Power Plant Components, Subarticle IWB-2400 (Inspection of Schedule). Based on the 10 year interval, Table IWB-2412-1 (Inspecting Program B) of ASME Section XI suggests samples sizes at 3, 7 and 10 year intervals as tabulated in Table 4.0-1. The reference to ASME Section XI is solely for guidance in defining an interval and sample size per inspection period. It in no way infers that fire dampers are classified as "important to safety" or "safety-related".

Table 4.0-1

INTERVAL	INSPECTION PERIOD (YRS)	SAMPLE SIZE (%) MIN.	MAX.
1st	3	16	34
	7	50	67
	10	100	100
2nd	13	ETC.	
	17		
	20		
3rd	ETC.	ETC.	
4th	ETC.	ETC.	

The inspection can vary by one year and Subarticle IWB-2430 provides guidance for expanding the sample if failure is encountered. A good mix of the dampers at LaSalle should be selected for the first surveillance. Should a failure occur, then additional dampers of the type that failed should be inspected at that time. The sequence of fire damper inspection established during the first interval should be repeated during each successive interval.

The first 3 year inspection period is due November 15, 1986, since Unit 2 fire dampers were inspected (LTS 83-199) during the period from November 15, 1983, through March 2, 1984. The surveillance of the common ('O') and Unit 1 fire dampers commenced March 9, 1984 (LTS 84-79).

5. CONCLUSIONS AND COMMITMENTS

5.1 Conclusions

The surveillance programs presented in this report satisfy compliance with all NFPA standards and replace previous commitments regarding testing and inspection of fire dampers at LaSalle County Station. A revised Technical Specification will be proposed to replace the current Technical Specification.

5.2 Commitments

a. The surveillance program in Section 4 will be implemented prior to November 15, 1986.

b. The modifications identified in Section 3.5 (36 total) will be completed prior to the first scheduled surveillance.

c. The fire dampers identified in Section 3.7, Table 3.7-2, for which initial test documentation could not be found will be tested to document correct installation before start-up following the first refueling outages.

d. The fire plans for the applicable systems identified in Attachment H will be modified prior to start-up following the first refueling outage to permit LaSalle's fire brigade to shutdown system fans upon detection of a fire in areas served by that system.

e. Personnel responsible for surveillance testing of fire dampers will be trained before conducting surveillance tests. As a minimum, this will include a discussion of surveillance procedures.

ATTACHMENT A

PRIORITIZING

OF

FIRE DAMPERS

PRIORITIZING OF

FIRE DAMPERS

ISSUE SUMMARY

Commonwealth Edison Company
LaSalle County Station - Units 1 and 2
Project No. 6854-31

Revision Number	Date Issued	Reason For Revision	Revised Pages	Prepared By / Reviewed By	Approved By
0	05/25/84	Orig. Issue	None	J.W. Dingler / H. F. Bekle	David C. Hoan

PRIORITIZING OF FIRE DAMPERS

Commonwealth Edison Company

LaSalle County Station - Units 1 and 2

Table of Contents

1.0 PURPOSE

The purpose of this study was to prioritize fire dampers according to their importance in fire barriers that separate safe shutdown and safety-related equipment.

2.0 DEFINITIONS

2.1 Division - The designation applied to a system or set of components that enable the establishment and maintenance of physical, electrical, and functional independence from other redundant sets of components (IEEE 384-1977, Section 3). Note: LaSalle County Station has three divisions per unit.

2.2 Safe Shutdown Train - A combination of systems that provides shutdown capability. The shutdown capability for specific fire areas may be unique for each area, or it may be one unique combination of systems for all such areas. Safe shutdown trains are defined for each LaSalle fire area/zone in the FSAR, Section H.4.

2.3 Train - When referring to safety-related equipment not related to safe shutdown train, the terms division and train are used interchangeably.

2.4 Non-Safety-Related Area - Any area containing no safety-related equipment or cable. Areas containing only divisional associated equipment or individual safety-related components may be considered non-safety-related based on the importance of the component to safe shutdown. Areas that have individual safety-related components but were treated as non-safety-related areas are identified in Appendix 2 by notes.

3.0 CRITERIA

The damper priority assignment criteria below was developed in conjunction with Messrs. H. L. Massin (CECo) and E. P. Ricohermoso (S&L-HVACD).

3.1 Priority 1: All dampers in barriers surrounding the Control Room, and surrounding and within the Auxiliary Electrical Equipment Rooms.

Priority 1 was chosen for these areas due to the presence of safety systems of all divisions and their criticality to plant operation and safety.

3.2 Priority 2: All dampers in barriers separating (1) redundant safe shutdown trains from each other, and (2) Unit 1 - Division 2 and Unit 2 - Division 2 safe shutdown trains.

Priority 2 was chosen for these dampers because of the critical need to prevent the spread of fire from one redundant safe shutdown train to another. Priority 2 includes fire dampers in barriers covered by 10CFR50, Appendix R, Article III.G.2.

Division 2 - Unit 1, and Division 2 - Unit 2 have dedicated diesels. These divisions are considered redundant safe shutdown trains, since in the event of a loss-of-offsite power, one unit's Division 2 must be operable and the swing diesel (DG-0) would be operable to the other unit.

3.3 Priority 3: All fire dampers in barriers separating (1) safety-related divisions, (2) Unit 1 - Division 1 and Unit 2 - Division 1, (3) a safety-related area containing safety-related divisions, including safe shutdown trains from non-safety-related areas, and (4) shafts that communicate between floors containing safety-related divisions including safe shutdown trains.

Priority 3 was chosen for these dampers because of the critical need to prevent the spread of fire from a safety-related division to another safety-related division, and to protect a safety-related division from fires in a non-safety-related area. In addition, Priority 3 was assigned Unit 1 - Division 1 and Unit 2 - Division 1 barriers since a fire in either unit could adversely affect operability of the swing diesel (DG-0). Both units' dedicated diesel generators (Division 2) would still be available for safe shutdown of their respective unit.

Shafts provide a path for fire spread between safe shutdown trains located on different elevations. Fire dampers in shafts are assigned Priority 3 since two dampers in series must fail for a fire to propagate from one floor to another.

3.4 Priority 4: All fire dampers in barriers that separate areas containing safety-related cable or equipment in the same division or train.

Priority 4 was chosen for dampers in these barriers because only a single safety-related division or safe shutdown train would be affected even if the fire were to propagate across the barrier. Due to the integrated nature of nuclear plant safety systems, it is assumed that further damage in another fire area of the same train would not further reduce operability of the train. These dampers have no safety significance from the perspective of the fire protection safe shutdown analysis.

3.5 Priority 5: Dampers in barriers that separate non-safety-related areas. Priority 5 is chosen for these dampers since these areas have no safety-related significance.

4.0 PROCEDURES

4.1 The procedure to prioritize a fire damper is as follows:

Step 1: Use Figure H.2-1 of the FSAR and the HVAC physical drawing to determine which fire zones are separated by the barrier in which the fire damper is located. Appendix 1 summarizes the fire zones associated with each fire damper.

Step 2: Use Appendix 2 to determine which divisions of safe shutdown and safety-related equipment are located in each fire zone.

Safe shutdown divisions were identified from information in the FSAR, Section H.4. Safety-related divisions were identified using the FSAR, Section H.3 and FSAR Figure 9.5-1a (18 sheets).

Step 3: Knowing the fire zones on each side of a fire damper (see Appendix 1) and the safety-related divisions and safe shutdown trains (see Appendix 2), classify the priority of each fire damper according to the criteria in Article 3.0.

4.2 Examples:

a. Example 1: What is the priority of fire damper 2VX41Y?

Priority 2, since damper 2VX41Y separates fire zones 4D2 and 4D4 containing redundant safe shutdown trains.

b. Example 2: What is the priority of fire damper OVL77Y?

Priority 2, since the damper separates fire zones 5B13 and 5C11 containing Unit 1 - Division 2 and Unit 2 - Division 2 safe shutdown trains.

c. Example 3: What is the priority of fire damper OVA43Y?

Priority 3, since damper does not separate fire zones containing redundant safe shutdown trains [Fire Zone 4B (Division 2) and Fire Zone 4C3 (Division 3)], but does separate safety-related equipment of different divisions [Fire Zone 4B (Division 2) and Fire Zone 4C3 (Divisions 1 and 3)].

d. Example 4: What is the priority of fire damper 1VX05Y?

Priority 3, since damper is located in a fire shaft.

e. Example 5: What is the priority of fire damper 2VT53Y?

Priority 3, since damper separates a safety-related division [Fire Zone 5A4 (Division 2)] and a non-safety-related area (Fire Zone 5B3).

f. Example 6: What is the priority of fire damper 2VX32Y?

Priority 3, since fire damper separates Division 1 cable between Units 1 and 2 (Fire Zone 4F2).

g. Example 7: What is the priority of fire damper OVD06Y?

Priority 4, since fire damper separates areas containing safety-related equipment in the same division [Fire Zone 7B6 (Division 1) and 7C3 (Division 1)].

5.0 PRIORITIZING OF DAMPERS

Based on the procedures discussed in Article 4.0, the dampers were prioritized as shown by the listing in Appendix 1. For the distribution of fire dampers by priority, see Table 1.

TABLE 1

DAMPER/PRIORITY DISTRIBUTION

PRIORITY	NUMBER OF FIRE DAMPERS
1	18
2	25
3	141
4	84
5	40
TOTAL	308

6.0 ACKNOWLEDGEMENT

In the review of damper prioritizing, Mr. H. F. Behls was assisted by Mr. G. G. Benes (CECo-LaSalle Tech. Staff).

7.0 REFERENCES

7.1 LaSalle County Station, Final Safety Analysis Report (FSAR), Amendment 64, March 1984:

a. Figure H.2-1, Fire Area/Zone Locations.

b. Figure 9.5-1a, Fire Protection System.

c. Section H.3, Fire Hazards Analysis.

d. Section H.4, Safe Shutdown Analysis.

7.2 IEEE Standard 384-1977, IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits, Section 3.

7.3 Title 10 Code of Federal Regulations Part 50, Appendix R, Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979.

APPENDIX 1

DESIGNATION OF FIRE DAMPER IMPORTANCE TO SAFE SHUTDOWN (NOTE 4)

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VR76Y	M-1351-2	3	Note 3
1VR77Y	M-1351-2	3	Note 3
2VR76Y	M-1352-2	3	Note 3
2VR77Y	M-1352-2	3	Note 3
1VX28YA	M-1375-1 (M-1381-1)	3	Note 3
1VX28YB	M-1375-1 (M-1381-1)	3	Note 3
1VX29YA	M-1375-1	3	Note 3
1VX29YB	M-1375-1	3	Note 3
2VX28YA	M-1376-1 (M-1381-2)	3	Note 3
2VX28YB	M-1376-1 (M-1381-2)	3	Note 3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VX29YA	M-1376-1	3	Note 3
2VX29YB	M-1376-1	3	Note 3
OVE43Y	M-1377-1	3	Note 3
OVE44Y	M-1377-1	3	Note 3
OVC62Y	M-1377-2	1	4B-4C1
OVC63Y	M-1377-2	1	4B-4C1
OVC64Y	M-1377-2	1	4B-4C1
OVC65Y	M-1377-2	1	4B-4C1
OVL63Y	M-1377-2 (M-1380-1)	3	Note 3
OVA42Y	M-1377-3	3	4B-4C3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVA43Y	M-1377-3	3	4C3-4B
OVA46Y	M-1377-3	3	4C3-4B
OVE45Y	M-1377-3	3	Note 3
OVE46Y	M-1377-3	3	Note 3
1VV06Y	M-1379-1	3	Note 3
1VV10Y	M-1379-1	3	Note 3
OVA44Y	M-1380-1 (M-1377-1)	3	4C2-4B
OVA45Y	M-1380-1 (M-1377-1)	3	4C2-4B
OVA47Y	M-1380-1 (M-1377-1)	3	4C2-4B
OVC60Y	M-1380-1	3	4C3-4B

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVC61Y	M-1380-1	3	4C3-4B
OVE31Y	M-1380-1	3	Note 3
OVE32Y	M-1380-1	3	Note 3
OVC66Y	M-1380-2	1	4C1-4B
OVC68Y	M-1380-2	1	4C1-4B
1VX15Y	M-1381-1	3	Note 3
1VX16Y	M-1381-1	3	Note 3
2VX15Y	M-1381-2	3	Note 3
2VX16Y	M-1381-2 (M-1388-2)	3	Note 3
1VT53Y	M-1387-1	3	5A4-5B13

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VT60YA	M-1387-1	4	5A4-5B13
1VT60YB	M-1387-1	4	5A4-5B13
1VV07Y	M-1387-1	3	5A4-5B3
1VX01Y	M-1387-1	3	Note 3
1VX05Y	M-1387-1 (M-1381-1)	3	Note 3
1VX36Y	M-1387-1	4	4D3
1VX37Y	M-1387-1	4	4D3
1VX38Y	M-1387-1	4	4D3
1VX39Y	M-1387-1	4	4D3
1VX41Y	M-1387-1	4	4D1-2/4D3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VX42Y	M-1387-1	2	4D1-2/4D2
1VX43Y	M-1387-1	4	4D1-2/4D3
1VX44Y	M-1387-1	2	4D1-2/4D2
1VX45Y	M-1387-1	2	4D1-1/4D1-2
1VX46Y	M-1387-1	2	4D1-1/4D1-2
1VX56Y	M-1387-1	4	4D3-5A4
2VX42Y	M-1387-1	2	4D1-2/4D2
2VT53Y	M-1387-2	3	5A4-5B3
2VT60YA	M-1387-2	4	5A4-5B13
2VT60YB	M-1387-2	4	5A4-5B13

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VV09Y	M-1387-2	3	5A4-5B3
2VX01Y	M-1387-2	3	Note 3
2VX05Y	M-1387-2 (M-1381-2)	3	Note 3
2VX36Y	M-1387-2	4	4D4
2VX37Y	M-1387-2	4	4D4
2VX38Y	M-1387-2	4	4D4
2VX39Y	M-1387-2	4	4D4
2VX41Y	M-1387-2	2	4D2-4D4
2VX43Y	M-1387-2	2	4D2-4D4
2VX56Y	M-1387-2	3	4D4-5A4

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVL28Y	M-1388-1	3	Note 3
OVL29Y	M-1388-1	3	Note 3
OVL30Y	M-1388-1	3 (Note 2)	Note 3
OVL31Y	M-1388-1	3 (Note 2)	Note 3
OVL36Y	M-1388-1	4	4F3
OVL38Y	M-1388-1	4	4F3
OVL41Y	M-1388-1	4	4F3
OVL42Y	M-1388-1	4	4F3
OVL43Y	M-1388-1	4	4F3
OVL44Y	M-1388-1	4	4F3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVL47Y	M-1388-1	4	4F3
OVL48Y	M-1388-1	3	Note 3
OVL49Y	M-1388-1	3 (Note 2)	Note 3
OVL50Y	M-1388-1	3 (Note 2)	Note 3
OVL51Y	M-1388-1	3	Note 3
1VX13Y	M-1388-1	3	Note 3
1VX30Y	M-1388-1	3	4F1
1VX31Y	M-1388-1	4	4F1
1VX32Y	M-1388-1	4	4F1
1VX33Y	M-1388-1	4	4F1

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VX50Y	M-1388-1	2	4F1-5C11
1VX52Y	M-1388-1	3 (Note 2)	4F1-5C11
1VX59Y	M-1388-1	2	4F1-5C11
OVL52Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL53Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL54Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL57Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL58Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL59Y	M-1388-2	3 (Note 2)	4F3-5C11
OVL62Y	M-1388-2	3 (Note 2)	4F3-5C11

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VV07Y	M-1388-2	3 (Note 2)	4F3-5C11
2VX13Y	M-1388-2	3	Note 3
2VX30Y	M-1388-2	4	4F2
2VX31Y	M-1388-2	4	4F2
2VX32Y	M-1388-2	3	4F2
2VX33Y	M-1388-2	3	5C11
2VX40Y	M-1388-2	3 (Note 2)	4F2-5C11
2VX52Y	M-1388-2	3 (Note 2)	4F2-5C11
OVL69Y	M-1388-6	3 (Note 2)	4F3-5C11
OVL70Y	M-1388-6	3	Note 3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVL71YA	M-1388-6	3	Note 3
OVL71YB	M-1388-6	3	Note 3
OVL74Y	M-1388-6	3	Note 3
OVL75Y	M-1388-6	3	Note 3
OVL76Y	M-1388-6	3	Note 3
OVL77Y	M-1388-6	3	Note 3
OVL78Y	M-1388-6	3	Note 3
OVL79Y	M-1388-6	3	Note 3
OVL80Y	M-1388-6	3	Note 3
OVL81Y	M-1388-6	3	Note 3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVL82Y	M-1388-6	3	Note 3
OVL83Y	M-1388-6	3	Note 3
OVL84Y	M-1388-6	3	Note 3
OVE33Y	M-1389-1	3	Note 3
OVE34Y	M-1389-1	3	Note 3
OVE35Y	M-1389-1	1	4E1/4E3-2
OVE36Y	M-1389-1	1	4E1/4E3-2
OVE37Y	M-1389-1	1	4E1
OVE38Y	M-1389-1	1	4E1
OVS160Y	M-1389-1	4	5B13

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVS161Y	M-1389-1	3	5B3-5B13
OVS163Y	M-1389-1	4	5B13
1VT55Y	M-1389-1	3	5B3-5B13
1VT59YA	M-1389-1	2	5B13-5C11
1VT59YB	M-1389-1	2	5B13-5C11
1VT59YC	M-1389-1	2	5B13-5C11
1VT59YD	M-1389-1	2	5B13-5C11
1VX06Y	M-1389-1	3	Note 3
1VX10Y	M-1389-1 (M-1388-1)	3	Note 3
1VX12Y	M-1389-1 (M-1388-1)	3	Note 3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VX34Y	M-1389-1	4	4E3-2
1VX35Y	M-1389-1	4	4E3-2
1VX54Y	M-1389-1	4	4E3-2/5B13
1VX57Y	M-1389-1	2	4E3-1/4E3-2
1VX58Y	M-1389-1	2	4E3-1/4E3-2
OVE39Y	M-1389-2	3	Note 3
OVE40Y	M-1389-2	3	Note 3
OVE41Y	M-1389-2	1	4E2/4E4-1
OVE42Y	M-1389-2	1	4E2/4E4-1
OVE49Y	M-1389-2	1	4E2

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVE50Y	M-1389-2	1	4E2
OVE51Y	M-1389-2	2	4E4/1-4E4/2
OVE52Y	M-1389-2	2	4E4/1-4E4/2
OVE53Y	M-1389-2	2	4E4/1-4E4/2
2VT55Y	M-1389-2	3	5B3-5B13
2VT59YA	M-1389-2	2	5B13-5C11
2VT59YB	M-1389-2	2	5B13-5C11
2VT59YC	M-1389-2	2	5B13-5C11
2VT59YD	M-1389-2	2	5B13-5C11
2VV08Y	M-1389-2	3	5B3-5B13

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VX06YA	M-1389-2	3	Note 3
2VX06YB	M-1389-2	3	Note 3
2VX10Y	M-1389-2 (M-1381-2)	3	Note 3
2VX12Y	M-1389-2 (M-1381-2)	3	Note 3
2VX34Y	M-1389-2	4	4E4-2
2VX35Y	M-1389-2	4	4E4-2
2VX54Y	M-1389-2	4	5B13/4E4-2
OVA21Y	M-1390-1	4	4C2
OVA22Y	M-1390-1	4	4C2
OVA23Y	M-1390-1	4	4C2

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVA24Y	M-1390-1	4	4C2
OVA25Y	M-1390-1	4	4C2
OVA26Y	M-1390-1	4	4C2
OVA27Y	M-1390-1	3	4C2-5A3
OVA28Y	M-1390-1	4	4C2
OVA29Y	M-1390-1	4	4C2
OVA30Y	M-1390-1	3	4C2-5A3
OVA36Y	M-1390-1	4	4C2
OVA37Y	M-1390-1	4	4C2
OVC67Y	M-1390-1	1	4B-4C1

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVE22Y	M-1390-1	3	4C3-4C4
OVE25Y	M-1390-1	3	4C3-4C4
OVE47Y	M-1390-1	3	Note 3
OVE48Y	M-1390-1	3	Note 3
OVE60Y	M-1390-1	3	4C3-4C4
OVV31Y	M-1390-1	3	4C4-5A3
OVV32Y	M-1390-1	3	4C4-5A3
OVV40Y	M-1390-1	3	4C3-4C4
1VV08Y	M-1390-1	3	4C2-5A3
OVA34Y	M-1391-1	3	4C3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVA35Y	M-1391-1	3	4C3-5A3
OVA38Y	M-1391-1	3	4C3-4C5
OVA39Y	M-1391-1	3	4C3
OVA40Y	M-1391-1	3	4C3
OVA41Y	M-1391-1	3	4C3
OVC37Y	M-1391-1	3	4C3-4C5
OVC38Y	M-1391-1	4	4C5
OVC39Y	M-1391-1	3	4C3-5A3
OVC46Y	M-1391-1	3	4C3-4C5
OVC47Y	M-1391-1	3	4C3-4C5

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVC48Y	M-1391-1	3	4C3-4C5
OVC49Y	M-1391-1	3	4C3-4C5
OVC50Y	M-1391-1	1	4C1-4C5
OVC51Y	M-1391-1	1	4C1-4C5
OVC69Y	M-1391-1	1	4B-4C1
2VV10Y	M-1391-1	3	4C3-5A3
OVD06Y	M-1395	4	7B6-7C3
OVD40Y	M-1395	4	7A3-7B3
1VD14Y	M-1395	4	7B5-7C2
1VD40Y	M-1395	4	7A1-7B1

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VD42Y	M-1395 (M-1397)	4	7A1-7B1
1VD43Y	M-1395	4	7A2-7B2
2VD40Y	M-1396	4	8A1-8B1
2VD41Y	M-1396	4	8A1-8B1
2VD42Y	M-1396	3	8A1-8B1
2VD43Y	M-1396	4	8A2-8B2
2VD44Y	M-1396	4	8A2-8B2
2VD45Y	M-1396	4	8A2-8B2
2VY12Y	M-1396	3	8A1-8B1
2VY13Y	M-1396	3	8A1-8B1

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVD04Y	M-1397	4	7A3-7B3
OVD05Y	M-1397	4	7B3-7C3
OVD07Y	M-1397	4	7B6
OVD41Y	M-1397	4	7B2-7B5
1VD04Y	M-1397	4	7B1-7B4
1VD05Y	M-1397	4	7B1-7C1
1VD06Y	M-1397	4	7B1-7C1
1VD07Y	M-1397	4	7B1-7B4
1VD12Y	M-1397	4	7B2-7B5
1VD13Y	M-1397	4	7B2-7C2

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VD15Y	M-1397	4	7B5
1VD41Y	M-1397 (M-1395)	4	7A1-7B1
1VD44Y	M-1397	4	7B2-7B5
2VD04Y	M-1398	3	8B1-8B3
2VD05Y	M-1398	3	8B1-8C1
2VD06Y	M-1398	3	8B1-8C1
2VD07Y	M-1398	3	8B1-8B3
2VD12Y	M-1398	4	8B2-8B4
2VD13Y	M-1398	4	8B2-8C2
2VD14Y	M-1398	4	8B2-8C2

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VD15Y	M-1398	4	8B2-8B4
2VX60Y	M-1398	2	4F2-5C11
2VY08Y	M-1398	3	8B1-8C1
2VY09Y	M-1398	3	8B1-8C1
1VD23Y	M-1399	4	5D1-7C4
1VD24Y	M-1399	4	5D1-7C4
1VD25Y	M-1399	4	5D1-7C4
2VD23Y	M-1400	4	5D2-8C3
2VD24Y	M-1400	4	5D2-8C3
2VD25Y	M-1400	4	5D2-8C3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
2VY10Y	M-1400	2	8C1-8C5
2VY11Y	M-1400	2	8C1-8C5
1VT61Y	M-1411-1	3	4A-5A3
1VT62Y	M-1411-1	3	4A-5A3
2VT61Y	M-1412	3	4A-5A3
2VT62Y	M-1412	3	4A-5A3
OVW06Y	M-1413	5	5B4
OVW32Y	M-1413	5	5B4
1VT22Y	M-1414	5	5B1-5B4
1VT29Y	M-1414	5	5B1-5B4

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VT35Y	M-1414	5	5B1-5B4
1VT36Y	M-1414	5	5B1-5B3
1VT76Y	M-1414	5	5B1-5B5
2VT22Y	M-1415-1	5	5B2-5B4
2VT29Y	M-1415-1	5	5B2-5B4
2VT35Y	M-1415-1	5	5B2-5B3
2VT36Y	M-1415-1	5	5B2-5B3
2VT76Y	M-1415-1	5	5B2-5B6
1VT44Y	M-1416	5 (Note 1)	5B1-5C11
1VT72Y	M-1416	5 (Note 1)	5B1-5C11

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VT73Y	M-1416	5 (Note 1)	5B1-5C11
2VT44Y	M-1417	5 (Note 1)	5B2-5C11
2VT72Y	M-1417	5 (Note 1)	5B2-5C11
2VT73Y	M-1417	5 (Note 1)	5B2-5C11
1VT46Y	M-1418-1	5	5D3-6D
1VT69Y	M-1418-1	5	5D5-6D
2VT46Y	M-1418-2	5	5D4-6D
2VT69Y	M-1418-2	5	6D
1VT50Y	M-1420	3	4A-5A3
1VT51Y	M-1420	3	4B-5A3

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VT52Y	M-1420	3	4B-5A3
1VT80Y	M-1421	3	Note 3
1VT81Y	M-1421	3	Note 3
2VT50Y	M-1422	3	4A-5A3
2VT51Y	M-1422	3	4B-5A3
2VT52Y	M-1422	3	4B-5A3
OVW89Y	M-1429	5	6A
OVW90YA	M-1429	5	6A
OVW90YB	M-1429	5	6A
OVW90YC	M-1430	5	6A

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
OVW90YD	M-1430	5	6A
OVW90YE	M-1430	5	6A
OVW90YF	M-1430	5	6A
OVW42Y	M-1432-2	5	6B3-6D
OVW78Y	M-1432-2	5	6D
OVW11Y	M-1435	5	6B1-6B2
OVW30Y	M-1435	5	6B1-6B2
OVW47Y	M-1435	5	6B1-6B2
OVW50Y	M-1435	5	6B1
1VD20Y	M-1437	4	5D1

DAMPER NUMBER	DRAWING	PRIORITY	FIRE ZONES
1VD21Y	M-1437	4	5D1
1VT41Y	M-1438	5	5D5-5D6
1VT42YA	M-1438	5	5D5-5D6
1VT42YB	M-1438	5	5D5-5D6
2VD20Y	M-1438	4	5D2
2VD21Y	M-1438	4	5D2
OVH11Y	M-1441	5	(Diesel Fire Pump Room) LSH
OVH15Y	M-1441	5	(Diesel Fire Pump Room) LSH

NOTES:

1. Priority 3 according to the rules, however, priority changed from 3 to 5 since distance between penetration (fire damper) and Division 1 cable in Fire Zone 5C11 exceeds 50 feet.
2. Priority 2 according to the rules, however, priority changed from 2 to 3 since distance between penetration (fire damper) and Division 1 cable in Fire Zone 5C11 exceeds 50 feet.
3. Stairways, elevator machine rooms, and air shafts with penetrations (fire dampers) that communicate between floors with different divisions are Priority 3.
4. Service Building fire dampers not included since (1) the Service Building is not part of the plant, and (2) no penetrations with fire dampers are in the barrier between the Service Building and the plant.

APPENDIX 2

SAFE SHUTDOWN/SAFETY-RELATED FIRE ZONES

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
1	-	1,2,3
2A	-	-
2B1	2	1,2
2B2	-	1,2
2C	-	1,2
2D	2	1,2
2E-1	2,3	2,3
2E-2	1	1
2F-1	2	2
2F-2	1	1
2G-1	2	2
2G-2	1	1
2H1-1	2,3	2,3
2H1-2	1	1
2H2	3	3

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
2H3	2	2
2H4	1	1
2H5	1	1
2I1-1	2,3	2,3
2I1-2	1	1
2I2	3	3
2I3	2	2
2I4	1	1
2I5	1	1
2I6	-	-
2J	1,2	1,2
2K	-	1,2,3
3A	-	-
3B1	2	1,2
3B2	-	1,2
3C	-	1,2
3D	2	1,2

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
3E-1	2,3	2,3
3E-2	1	1
3F-1	2	2
3F-2	1,3 (Note 5)	1,3 (Note 5)
3G-1	2	2
3G-2	1,3 (Note 5)	1,3 (Note 5)
3H1-1	2,3	2,3
3H1-2	1	1
3H2	-	-
3H3	2	2
3H4	1	1
3H5	1,3 (Note 5)	1,3 (Note 5)
3I1-1	2,3 (Note 5)	2,3 (Note 5)
3I1-2	1,3 (Note 5)	1,3 (Note 5)
3I2	3	3
3I3	2	2
3I4	1	1

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
3I5	1,3 (Note 5)	1,3 (Note 5)
3I6	-	-
3J	1,2	1,2
3K	-	1,2,3
4A	-	1,2
4B	2	2
4C1	1,2,3	1,2,3
4C2	3	3
4C3	3	1,3
4C4	-	1 (Note 1)
4C5	-	1 (Note 1)
4D1-1	1	1
4D1-2	2	2
4D2	2	2
4D3	2	2
4D4	1	1

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
4E1	1,2	1,2
4E2	1,2	1,2
4E3-1	1	1
4E3-2	2	2
4E4-1	1	1
4E4-2	2	2
4F1	1	1
4F2	1	1
4F3	1	1
5A1	-	-
5A2	-	-
5A3	-	-
5A4	-	2
5B1	-	-
5B2	-	-
5B3	-	-
5B4	-	- (Note 2)

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
5B5	-	-
5B6	-	-
5B7	-	-
5B8	-	-
5B9	-	-
5B10	-	-
5B11	-	-
5B12	-	-
5B13	2	2
5C1	-	-
5C2	-	-
5C3	-	-
5C4	-	-
5C5	-	-
5C6	-	-
5C7	-	-
5C8	-	-
5C9	-	-

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
5C10	-	-
5C11	1,2	1,2
5D1	3	3
5D2	3	3
5D3	-	-
5D4	-	-
5D5	-	-
5D6	-	-
5E1	-	-
5E2	-	-
6A	-	-
6B1	-	-
6B2	-	-
6B3	-	-
6C	-	-
6D	-	-
6E	-	1,2 (Note 3)

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
7A1	3	3
7A2	2	2
7A3	1	1
7B1	3	3
7B2	2	2
7B3	1	1
7B4	3	3
7B5	2	2
7B6	1	1
7C1	3	3
7C2	2	2
7C3	1	1
7C4	3	3
7C5	2	2
7C6	1	1
8A1	3,1	3,1
8A2	2	2

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
8B1	3,1	3,1
8B2	2	2
8B3	3	3
8B4	2	2
8C1	3	3
8C2	2	2
8C3	3	3
8C4	2	2
8C5	1	1
9A	-	-
9B	-	-
9C1	-	-
9C2	-	-
9C3	-	-
9C4	-	-
9D1	-	-
9D2	-	-

FIRE ZONES	SAFE SHUTDOWN DIVISIONS	SAFETY-RELATED DIVISIONS
9E	-	-
10A1	-	1,2 (Note 4)
10A2	-	-
10B1	-	1,2 (Note 4)
10B2	-	-
10B3	-	-
10B4	-	-
10C1	-	-
10C2	-	-
10C3	-	1,2 (Note 4)

NOTES:

1. Division 2 cables for room temperature control in conduit in this fire zone. These cables are not related to safe shutdown, therefore, are neglected for this analysis.

2. The turbine first stage and MSL (main steam line) low pressure switches are in this fire zone. These components in Fire Zone 5B4 do not have any significance to safe shutdown.

3. The MSIV (main steal line isolation valve) leakage control system panels are located in Fire Zone 6E, however, these components do not have any significance to safe shutdown.

4. The Off-Gas Building (Fire Area 10) has divisional associated cable in Fire Zones 10A1, 10B1, and 10C3. This facility is separated from the Unit 1 Reactor Building along Column Row A. These fire zones are treated as non-safety-related areas.

5. Division 3 cables are in conduit embedded in walls, thus providing 3-hour protection to these cables.

6. Source: LSCS-FSAR, Amendment 64, March 1984, Tables H.3-1 (Safety-Related and Radioactive Equipment), H.4-8 (Fire Areas/ Zones Not Affecting Safe Shutdown), and H.4-9 through H.4-106.

ATTACHMENT B

FIRE DAMPERS REQUIRED

FOR

SMOKE REMOVAL

AND

SYSTEM OPERATION

FIRE DAMPERS REQUIRED

FOR

SMOKE REMOVAL AND SYSTEM OPERATION

ISSUE SUMMARY

COMMONWEALTH EDISON COMPANY

LASALLE COUNTY STATION - UNITS 1 AND 2

PROJECT NO. 6854-31

Revision Number	Date Issued	Reason For Revision	Revised Pages	Prepared By / Reviewed By	Approved By
0	07/23/84	Orig. Issue	None	E. P. Henderson for A. J. Calandra Orange 7/20/84	David C. Hora 7-23-84

1.0 SCOPE

To evaluate the location of the fire dampers and determine their necessity for smoke removal and system operation for habitability and equipment cooling.

2.0 REFERENCES

2.1 DC-FP-01-1-LS, Revision 0 (5/25/84), "Prioritizing of Fire Dampers".

2.2 LaSalle FSAR Appendix H, "Fire Hazard Analysis".

2.3 S&L Physical Layout Drawing Series M-1300 and M-1400 (latest revisions).

2.4 Smoke Removal Plan for LaSalle County Station - Units 1 & 2.

3.0 PROCEDURE

With the use of the above references, each fire zone with safety-related and non-safety-related equipment and with fire dampers in its boundaries were reviewed as follows:

a. How a fire inside or outside each fire zone affected the equipment and their fire dampers.

b. Requirements for reopening the fire dampers; either for smoke removal or system operation for equipment cooling.

c. Preference location of fire damper access door for immediate access.

d. Impact of fire damper closing and necessity to reopen the damper after the fire for equipment cooling and smoke removal.

4.0 SUMMARY

Fire dampers are installed in the ventilation openings of fire rated boundaries to maintain the fire resistive integrity of the floors and walls affected by duct system installation. Fire dampers are designed to close and restrict the spread of heat and fire through the duct system from one fire area to another. Closing of fire dampers will interrupt the airflow to the fire area and other areas of the plant served by that part of the air duct system. Interruption of airflow to the fire area is beneficial to the fire area as it minimizes the rate of combustion, however, it is not desirable to the other areas outside the fire zone because it will affect the habitability and equipment operation.

Fire dampers of the duct system serving the fire area and within the boundary of the fire area need not require immediate reopening after the fire unless the fire dampers are needed for smoke removal. However, the fire dampers of the duct system serving other areas (adjacent to or remote from the fire area) that are closed by the fire because the duct passes through the fire area will be reopened immediately after the fire. The objective for immediate reopening is to restore the airflow for equipment cooling and avoid damage due to overheating.

In most cases, the air handling unit is located outside the serviced areas with its air duct system passing through other fire zones before it reaches the serviced areas. This situation prompted the evaluation of a fire and damper closing inside and outside the fire areas (with safe shutdown and safety-related equipment) and how it affects the safe shutdown capability, habitability and equipment operation. The evaluation is discussed in Table 1, "Fire Dampers Required for Smoke and/or System Operation."

5.0 HABITABILITY AND EQUIPMENT OPERATION

The Control Room is the primary control center for all safety-related systems required for reactor shutdown. In the event a design basis fire damaged the Control Room equipment, the alternate location for reactor shutdown is the Auxiliary Electric Equipment Room. The HVAC Systems for the Control Room and Auxiliary Electric Equipment Room are designed to provide habitability under normal and abnormal station conditions. The redundant HVAC equipment is located outside the Control Room and Auxiliary Electric Equipment Room and their air duct system passes through other fire zones. The fire dampers affected by a fire in an area surrounding or adjacent to these rooms are identified in Table 1.

The other plant areas with safe shutdown and safety-related equipment which are served by an air duct system passing through other fire zones are as follows:

	HVAC System
Diesel Generator Rooms	VD
HPCS Pump and Switchgear Rooms	VD
Division 1 Switchgear Rooms	VX
Cable Spreading Rooms	VX
RHR Service Water Pump Rooms	VY
Auxiliary Building Offices	VA
Auxiliary Building Laboratory	VL

The fire dampers affected by a fire in an area surrounding or adjacent to these rooms are also identified in Table 1.

6.0 SMOKE REMOVAL CAPABILITY

Generally, the HVAC Systems for LaSalle are designed to operate from a normal recirculating mode to a 100% outside air mode for smoke and odor removal. The systems with this capability are those serving the following areas:

	HVAC System
Control Room	VC
Auxiliary Electric Equipment Room	VE
Auxiliary Building Offices	VA
Auxiliary Building Laboratory	VL

The fire dampers that are required to be reopened after the fire for smoke removal using the HVAC Systems are all identified in Table 1. Portable exhaust equipment with flexible duct would also be used as an alternate method of smoke removal for the above areas.

The ventilation system listed below also has the capability to operate at 100% outside air mode, however, their use for smoke removal is not desirable because it would pressurize the fire area and could spread the smoke to adjacent areas of the plant. Thus, it is preferable to use the portable exhaust equipment for smoke removal in the following areas served by the identified ventilation systems.

	HVAC System
Units 1 and 2 Diesel Generator Rooms	VD
Unit 1 RHR Service Water Pump (A&B) Room	VY
Unit 2 RHR Service Water Pump (C&D) Room	VY
Units 1 and 2 Division 1 and 2 Switchgear Rooms	VX
Units 1 and 2 Electrical Equipment Room	VX
Units 1 and 2 Auxiliary Building HVAC Equipment Room	VV

The ventilation systems for the Reactor Building, Radwaste Building and Turbine Building are all once through design operating at 100% outside air all the time. The exhaust air from these buildings is discharged to the plant vent stack. Smoke in any fire zone within each building will be diluted with the large quantity of air for ventilation and shall not hamper operations post fire. The ventilation system for each building has limited fire dampers. The fire dampers for these systems (VR, VT and VW) are not included in Table 1 because they are not in the fire boundary of a safe shutdown or safety-related equipment room. The fire dampers for each system which are essential for system operation and smoke removal are listed below:

a. Turbine Building Ventilation (VT) System

1VT61Y	2VT61Y
1VT62Y	2VT62Y
1VT46Y	2VT46Y

b. Radwaste Building Ventilation (VW) System

OVW90YA	OVW90YF
OVW90YB	OVW06Y
OVW90YC	OVW11Y
OVW90YD	OVW32Y
OVW90YE	OVW47Y

c. Reactor Building Ventilation (VR) System

1VR76Y	2VR76Y
1VR77Y	2VR77Y

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
AUXILIARY BUILDING UPPER VENTILATION EQUIPMENT FLOOR - 4A This zone contains HVAC safety-related equipment and duct, the standby gas system monitoring panel and the Reactor Building isolation damper control panel.	VV	Fire Inside 4A - Auxiliary Building Upper Ventilation Equipment	None	See Remarks	None	This zone is served by two separate ventilation systems for Units 1 & 2 sides of the floor respectively. The ventilation equipment serving this zone is located within this zone. Ionization detectors are provided in the return ductwork which trip the ventilation fans on smoke detection. The controls can be manually reset and the system can be manually restarted to purge the area with 100% outdoor air. The ductwork of the system did not penetrate any fire boundaries, thus no fire dampers are provided.
			Fire Dampers of Other Systems:			A fire in Zone 4A could damage the safety-related equipment installed therein. Fire hazard analysis indicates that this equipment is not required for reactor shutdown. A fire in Zone 4A could affect the fire dampers for the following systems: a. VX System - The fire dampers affected are for heat recovery system. Closing of these fire dampers has no significant affect on the VX System cooling capacity. The heat recovery system fan is not safety-related. b. VT System - A fire in Zones 4A and 5A3 could affect the listed fire dampers. Closing of these fire dampers could interrupt the whole Turbine Building Ventilation System. A fire in Zone 4A near the VT vent fans and fire dampers would be small due to limited combustible loading. However, if the fire disables the fans and closes the fire dampers, accessibility to reset the fire dampers is not necessary until the fans are operable. A fire in Zone 5A3 could close the listed fire dampers to avoid the spread of fire from the Turbine Building to the Auxiliary Building. Fire dampers accessibility from Zone 4A is necessary only after the fire in the Turbine Building.
			1VX15Y	For VX System Operation	One Side - 4A	
			1VX28YA	For VX System Operation	One Side - 4A	
			1VX28YB	For VX System Operation	One Side - 4A	
			1VX29YA	For VX System Operation	One Side - 4A	
			1VX29YB	For VX System Operation	One Side - 4A	
			2VX15Y	For VX System Operation	One Side - 4A	
			2VX28YA	For VX System Operation	One Side - 4A	
			2VX28YB	For VX System Operation	One Side - 4A	
			2VX29YA	For VX System Operation	One Side - 4A	
			2VX29YB	For VX System Operation	One Side - 4A	
			1VT61Y	For VT System Operation	One Side - 4A	
			1VT62Y	For VT System Operation	One Side - 4A	
			2VT61Y	For VT System Operation	One Side - 4A	
			2VT62Y	For VT System Operation	One Side - 4A	

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
AUXILIARY BUILDING LOWER VENTILATION EQUIPMENT FLOOR - 4B This zone contains the safety-related equipment including power, control and instrumentation cabling for the Control Room, Auxiliary Electric Equipment Room Ventilation System and the Reactor Building Isolation dampers.	VV	4B - Ventilation Equipment Room	See Remarks	See Remarks	-	This fire zone is served by the same system serving Zone 4A. The ductwork of the system did not penetrate the fire boundaries, thus no fire dampers provided. A fire in this zone could damage the safety-related equipment including the ventilation system for the Control Room and Auxiliary Electric Equipment. The affect of a fire in this zone on the Control Room and Auxiliary Electric Equipment Room are discussed separately in Fire Outside Zones 4C1 and 4E. A fire in this zone would close the fire damper OVL63Y and interrupt the operation of the VL System Hot Fume Hood Exhaust. Should this happen, the fume hood makeup air supply system could be shutdown to maintain the Laboratory Area at a negative pressure with respect to the adjacent areas. Reopening of the damper is necessary for the Fume Hood Exhaust System operation after the fire in Zone 4B. A fire in this zone would close the fire dampers OVA42Y, OVA43Y and OVA46Y and interrupt the operation of the VA System. Reopening of these fire dampers is necessary for the VA System operation after the fire in Zone 4B.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
CONTROL ROOM - 4C1 This room is the primary control center for all safety-related systems required for reactor shutdown. This zone contains main control boards, control cable trays and cables.	VC	4C1 - Control Room	0VC67Y 0VC66Y 0VC68Y 0VC69Y 0VC62Y 0VC63Y 0VC50Y 0VC51Y 0VC64Y 0VC65Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4C5 One Side - 4C5 One Side - 4B One Side - 4B	The Control Room is provided with area smoke detectors together with the ionization detectors in the outside and return air duct of the VC System. The area detectors provide an alarm in the Control Room. On smoke detection in the return duct, the VC System automatically recirculates the return air through the charcaol absorber. Similarly, smoke detection in the outside air would cause automatic routing of the outside air to the charcoal absorber. The VC System has the capacity to purge the Control Room with 100% outside air. A design basis fire in the Control Room could damage the cables and control panels and would close the fire dampers and interrupt the airflows for this room. During the fire, abandonment of the Control Room may be necessary to proceed with the reactor shutdown through the remote control panels inside the Auxiliary Electric Equipment Room (AEER). Reopening of the affected fire dampers is necessary after the fire for smoke removal system operation using the VC System in the 100% outside air mode. Smoke inside the Control Room can also be removed by employing portable exhaust equipment as outlined in the LaSalle Smoke Removal Plan. This method of smoke removal does not require reopening of fire dampers.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
CONTROL ROOM - 4C1 (Cont'd)	VC	Fire Outside 4C1				
		4C5 - Main Security Control Center	OVC51Y	1 & 2	One Side - 4C5	A fire in Zone 4C5 would close the fire dampers and interrupt the airflow only for this zone. The VC System will still continue operation to provide cooling and pressurization for the Control Room - 4C1. The only possibility that the smoke could mix with air to the Control Room is through those fire dampers which are not airtight. If smoke infiltration becomes intolerable, the VC System can be operated in a purge mode.
			OVC50Y	1 & 2	One Side - 4C5	
			OVC47Y	1 & 2	One Side - 4C5	
			OVC46Y	1 & 2	One Side - 4C5	
						Reopening of the affected fire dampers is necessary only after the fire for smoke removal and system operation using the VC System at a 100% outside air mode.
		4C3 - Auxiliary Building El. 768'-8" Laboratory Corridors	OVC48Y	2	One Side - 4C3	A fire in Zone 4C3 would close fire dampers OVC48Y and OVC49Y and could interrupt the airflow to the Main Security Control Center 4C5 only. Airflow to Control Room 4C1 will still be maintained during the fire in Zone 4C3.
			OVC49Y	2	One Side - 4C3	
						Reopening of the affected fire dampers is necessary only after the fire to restore cooling air for Zone 4C5.
		4C4 - Computer Room	No VC System Fire Dampers Affected	-	-	
		4C2 - Auxiliary Building Main Floor (Offices)	No VC System Fire Dampers Affected	-	-	

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
CONTROL ROOM - 4C1 (Cont'd)	VC	4B - Auxiliary Bldg. Lower Vent. Equipment Room El. 786'-0"	OVC66Y OVC67Y OVC68Y OVC69Y OVC62Y OVC63Y OVC60Y OVC61Y OVC64Y OVC65Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 2 2 2 2	One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B	A fire in Zone 4B could damage the cables and components of the ventilation system for both the Control Room and Auxiliary Electric Equipment Room. A fire would also close the fire dampers to prevent the spread of fire to the Control Room. Loss of ventilation for the Control Room would cause the room temperature to reach the design limits within 8 hours. Thus, restoration of the affected ventilation components, including the reopening of fire dampers, will be necessary within 8 hours. Access doors for resetting the fire dampers could be through Fire Zone 4B and not necessarily from the Control Room based on the above postulation. The affect of fire in Zone 4B to other areas is discussed separately for each zone.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
SECURITY CONTROL CENTER - 4C5 This zone contains ESF Division 1 control and instrumentation cables which are associated with the Security Control Center's temperature control center.	VC	4C5 - Security Control Center	OVC47Y OVC46Y OVC50Y OVC51Y	1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4C5 One Side - 4C5 One Side - 4C5 One Side - 4C5	A fire in this zone could damage the safety-related cables, however, it will not affect plant shutdown capability. Cables are not required for shutdown. A fire in this zone would close the listed fire dampers and interrupt the airflow to 4C5. Reopening of the affected fire dampers is necessary only after the fire for smoke removal and cooling using the VC System. Smoke removal using portable exhaust equipment as an alternate method will not require reopening of fire dampers.
		Fire Outside 4C5 4C1 - Control Room	OVC50Y OVC51Y OVC64Y	1 & 2 1 & 2 1 & 2	One Side - 4C5 One Side - 4C5 One Side - 4C5	A fire in the Control Room would close the fire dampers in the ventilation duct for Zone 4C5. It may be necessary to deenergize the equipment in 4C5 to avoid overheating and damage. The equipment in Zone 4C5 is not required for shutdown.
		4C3 - Auxiliary Building El. 768'-0"	OVC47Y OVC48Y OVC49Y OVC46Y OVC38Y OVC39Y OVC37Y	1 & 2 1 & 2 1 & 2 1 & 2 Toilet Exhaust Toilet Exhaust Toilet Exhaust	One Side - 4C5 One Side - 4C5 One Side - 4C5 One Side - 4C5 One Side - 4C5 One Side - 4C5 One Side - 4C5	A fire in 4C3 would close the fire dampers in the ventilation duct for the Security Control Center. These dampers should be reopened after the fire in 4C3 to restore the airflow to the Security Control Center. It may be necessary to deenergize the Security Control Center equipment to avoid overheating and damage during the fire in Zone 4C3.
		4B - Ventilation Equipment Room El. 726'-8"	OVC60Y OVC61Y OVC65Y	1 & 2 1 & 2 1 & 2	One Side - 4B One Side - 4B One Side - 4B	A fire in 4B would close the fire dampers in the ventilation duct for the Security Control Center. These dampers should be reopened after the fire in 4B to restore the airflow to Zone 4C5.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones with Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
AUXILIARY BUILDING MAIN FLOOR, ELEVATION 768' (OFFICE AREA) - FIRE ZONE 4C2 This zone contains various safety-related cables.	VA	Inside 4C2	OVA21Y	1 & 2	One Side - 4C2	A fire in this zone could affect only components and cables of the basic shutdown method. The alternate method which is independent of this fire zone can be used to bring the reactor to a hot shutdown condition. The safety-related components and cables are above the ceiling plenum of this fire zone. Smoke detectors are provided above the ceiling plenum which will alarm locally and in the Control Room. Smoke in the ceiling can be removed by portable exhaust equipment which requires opening of the normally closed fire damper 1VV08Y.
			OVA22Y	1 & 2	One Side - 4C2	
			OVA23Y	1 & 2	One Side - 4C2	
			OVA24Y	1 & 2	One Side - 4C2	
			OVA25Y	1 & 2	One Side - 4C2	
			OVA26Y	1 & 2	One Side - 4C2	
			OVA27Y	1 & 2	One Side - 4C2	
			OVA28Y	1 & 2	One Side - 4C2	
			OVA29Y	1 & 2	One Side - 4C2	
			CVA30Y	1 & 2	One Side - 4C2	
			OVA36Y	1 & 2	One Side - 4C2	
			OVA37Y	1 & 2	One Side - 4C2	A fire in the office areas would close the listed fire dampers and shut down the HVAC Systems operation. Reopening of the fire dampers after the fire is necessary for smoke removal and cooling using the VA System.
		Fire Outside 4C2 5A3 - Turbine Main Floor	OVA27Y	2	One Side - 4C2	A fire in Zone 5A3 could close fire damper OVA27Y to avoid fire from spreading to Zone 4C2. This damper is for toilet exhaust. Closing of this damper will not affect the cooling capability of the VA System.
		4B - Ventilation Equipment Room	OVA42Y	2	One Side - 4B	A fire in Zone 4B would close the fire dampers as listed and could interrupt the ventilation airflow to Zone 4C2. Reopening of the fire dampers is necessary after the fire in 4B to restore the ventilation airflow in Zone 4C2. It may be necessary to deenergize the equipment in Zone 4C2 during the fire in Zone 4B to avoid overheating and damage.
			OVA43Y	2	One Side - 4B	
			OVA44Y	2	One Side - 4B	
			OVA45Y	2	One Side - 4B	
			OVA46Y	2	One Side - 4B	
			OVA47Y	2	One Side - 4B	

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
AUXILIARY BUILDING ELEVATION 768'-0" (OFFICES) FIRE ZONE 4C3 This zone contains ESF Division 1 and ESF Division 3 control and instrumentation cables for Unit 2.	VA	Inside 4C3	OVA34Y OVA35Y OVA38Y OVA39Y OVA40Y OVA41Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4C3 One Side - 4C3 One Side - 4C3 One Side - 4C3 One Side - 4C3 One Side - 4C3	A fire in this zone could affect only components and cables of the basic shutdown method. Therefore, the alternate method which is independent of this fire zone can be used to bring the reactor to a hot shutdown condition. The safety-related components and cables are above the ceiling plenum of this fire zone. Smoke detectors are provided above the ceiling plenum which will alarm locally and in the Control Room. Smoke in the ceiling plenum will be removed by the portable exhaust equipment which requires opening of the normally closed fire damper 2VV10Y only. A fire in this zone would close the listed fire dampers and interrupt the VA system operation. Reopening of the affected fire dampers is required only after fire for smoke removal and cooling in Zone 4C3. Smoke can be removed by the operation of the VA System in the purge mode.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones with Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 AUXILIARY ELECTRIC EQUIPMENT ROOM - FIRE ZONE 4E1 This zone is divided into two subzones; 4E1-1 located on the left-hand side and has the RCIC System, RHR Loop B and ADS Division 2, and 4E1-2 located on the right-hand side and has the remote shutdown panel.	VE	Fire Inside 4E1-1	OVE35Y OVE36Y OVE37Y OVE38Y	1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4E3 One Side - 4E3 One Side - 4E1-1 One Side - 4E1-1	A fire in Zone 4E1-1 could damage the safety-related equipment inside that zone. Fire would also close the fire dampers and interrupt the airflow for Zone 4E1-2. During the fire in Zone 4E1-1, it would be necessary to deenergize temporarily some equipment and lighting in Zone 4E1-2 to avoid overheating and damage. Smoke Removal Plan for this zone is to use either the VE System in the purge mode or portable exhaust equipment. Use of portable exhaust will not require reopening of fire dampers. Reopening of fire dampers immediately after the fire is necessary to restore airflow to Zone 4E1-2 for equipment cooling.
		Fire Inside 4E1-2	OVE37Y OVE38Y	2 2	One Side - 4E1-1 One Side - 4E1-1	A fire in Zone 4E1-2 would close the listed fire dampers in the ventilation duct to this zone. Reopening of the fire dampers after the fire in this zone is necessary only for smoke removal using the VE System. If portable exhaust equipment is used for smoke removal, reopening of the listed fire dampers is not necessary.
		Fire Outside 4E1 4E3 - Unit 1, Division 2, Switchgear Room	OVE35Y OVE36Y OVE33Y OVE34Y	1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4E3 One Side - 4E3 One Side - 4E3 One Side - 4E3	A fire in Zone 4E3 would close the listed fire dampers in the ventilation duct for Zones 4E1-1 and 4E1-2 and interrupt the airflow for those zones. During the fire, it would be necessary to deenergize temporarily some equipment and lighting in Zones 4E1-1 and 4E1-2 to avoid overheating and damage. Immediately after the fire, reopening of the affected fire dampers is necessary to restore the airflow for Zones 4E1-1 and 4E1-2. Restoration of airflow within 8 hours is necessary to avoid room temperature to exceed design limits.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside A or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 AUXILIARY ELECTRIC EQUIPMENT ROOM - FIRE ZONE 4E2 This fire zone is divided into two subzones by a 3-hour fire barrier so that a fire in one subzone does not affect the others. The subzones are 4E2-1 and 4E2-2.	VE	Fire Inside 4E2-1	OVE41Y OVE42Y OVE49Y OVE50Y	1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4E4 One Side - 4E4 One Side - 4E2-2 One Side - 4E2-2	A fire in Zone 4E2-1 could damage the safety-related equipment inside that zone. Fire would also close the fire dampers and interrupt the airflow for Zone 4E2-2. During the fire, it would be necessary to deenergize temporarily some equipment and lighting in Zone 4E2-2 to avoid overheating and damage. Smoke Removal Plan for Zone 4E2-1 is to use either the VE System in the purge mode or portable exhaust equipment. Use of portable exhaust will not require reopening of fire dampers. Reopening of fire dampers immediately after the fire is necessary to restore airflow in Zone 4E1-2 for equipment cooling.
		Fire Inside 4E2-2	OVE49Y OVE50Y	2 2	One Side - 4E2-2 One Side - 4E2-2	A fire in Zone 4E2-2 would close the listed fire dampers and interrupt the airflow to the same zone. Reopening of fire dampers is necessary only for smoke removal using the VE System. If portable exhaust equipment is used for smoke removal, reopening of the listed fire dampers is not necessary.
		Fire Outside 4E2 4E4 - Unit 2, Division 2, Switchgear Room	OVE39Y OVE40Y OVE51Y OVE52Y OVE53Y OVE41Y OVE42Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4 Both Sides - 4E4 & 4E2-1 Both Sides - 4E4 & 4E2-1	A fire in Zone 4E4 would close the listed fire dampers and interrupt the airflow to Zones 4E2-1 and 4E2-2. During the fire, it would be necessary to deenergize temporarily some equipment and lighting in Zones 4E2-1 and 4E2-2 to avoid overheating and damage. Immediately after the fire, reopening of the affected fire dampers is necessary to restore the airflow to Zones 4E2-1 and 4E2-2. Restoration of airflow within 8 hours is necessary to avoid room temperatures to exceed its design limit.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

A	B	C	D	E	F	G
Fire Zones With Safe Shutdown or Safety Related Equipment	Ventilation System Serving The Fire Zone A	Assume A Fire Inside A or Outside (Surrounding) Fire Area	Fire Dampers of The Vent. Sys. Serving Fire Zone A Affected By Fire	Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	Access Door Preferred Location And Zone No.	Remarks
UNIT 1 AND UNIT 2 AUXILIARY ELECTRIC EQUIPMENT ROOM - FIRE ZONES 4E1 AND 4E2	VE	Fire Outside 4E1 and 4E2 4B - Ventilation Equipment Room	OVE31Y OVE32Y OVE43Y OVE44Y OVE45Y OVE46Y	1 & 2 Normally Closed 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B One Side - 4B	A fire in Zone 4B could damage the cables and components of both the Auxiliary Electric Equipment Room and Control Room HVAC System. This fire could also close the fire dampers listed herein. Loss of ventilation for the Auxiliary Electric Equipment Room would cause the room temperature to reach the design limits within the 8 hours. During loss of ventilation, it would be necessary to deenergize temporarily some equipment and lighting to avoid overheating and damage. Restoration of the affected ventilation components including the reopening of fire dampers (except OVE32Y) will be necessary within 8 hours.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 1 DIESEL VENTILATION EQUIPMENT ROOM FIRE ZONE 7A3 This zone contains safety-related ventilation equipment for fire zones 7B3, 7B6, 7C3, 7C6 and various ESF Division 1 cable.	VD	Fire Inside 7A3	OVD40Y	2	One Side - 7A3	A fire in this area could affect only the RCIC, RHR Loop A and ADS Div. 1. Therefore, HPCS and ADS Division 2 are available for shutdown. A fire in this zone would close fire damper OVD40Y and could disable the ventilation fans serving Zones 7B3, 7B6, 7C3 and 7C6. Some equipment and lighting inside Zones 7B3, 7B6, 7C3 and 7C6 may need to be deenergized temporarily during the fire in Zone 7A3 so that the temperatures in these zones will not exceed the design limits. Reopening of the fire damper is necessary only after the smoke is removed from this zone and that the fan can be restarted. Smoke removal plan for this zone is to use a portable exhaust equipment which does require reopening of fire damper OVD40Y.
		Fire Outside 7A3 7B3 - Diesel Generator Room	OVD40Y	2	One Side - 7A3	A fire in Zone 7B3 would close OVD40Y to avoid the spread of the fire from the Diesel Generator Room to the Ventilation Equipment Room. Reopening of the fire damper is necessary only after the fire and smoke removal in Zone 7B3.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 1 STANDBY DIESEL - GENERATOR ROOM FIRE ZONE 7B3 This zone contains the Div. 1 standby diesel generator and the control and instrumentation and power cabling necessary for its operation. This diesel provides standby power for Unit 1 ESF-1 and Unit 2 ESF-1.	VD	Fire Inside 7B3	OVD04Y OVD05Y OVD40Y OVD41Y	2 2 2 2	One Side - 7B3 One Side - 7B3 One Side - 7A3 One Side - 7B3	A fire in this zone could affect only the RCIC, RHR Loop A and ADS Div. 1. Therefore, HPCS, ADS Div. 2 and RHR Loop B are still available for shutdown. A fire in this zone would close the listed fire damper and interrupt the airflows to zones 7A3, 7B6, 7C3 and 7C6. Some equipment and lighting in these zones may need to be deenergized during the fire in Zone 7B2 so that the temperature in these zones will not exceed the design limits. Reopening of the listed fire dampers is necessary only after the smoke is removed from Zone 7B3. Smoke removal for this zone is to use a portable exhaust equipment which does not require re-opening of fire damper.
		Fire Outside 7B3				
		7A3 - Diesel Ventilation Equipment Room	OVD40Y	2	One Side - 7A3	A fire in Zone 7A3 could interrupt the ventilation airflow for Zone 7B3. Refer to Zone 7A3 for the effect of fire to Zone 7B3 and adjacent areas.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 1 DIESEL DAY TANK ROOM FIRE ZONE 7B6 This zone contains the day tank for the Div.1 diesel generator. The tank supplies fuel to the Div. 1 diesel generator which supplies standby power to Unit 1 ESF-1 and Unit 2 ESF-1.	VD	Fire Inside 7B6	OVD04Y OVD07Y	1 & 2 1 & 2	One Side - 7B3 One Side - 7B3	A fire in this zone could affect only the RCIC, RHR Loop A and ADS Div. 1. HPCS, ADS Div. 2 are available for shutdown. A fire in this zone would close fire dampers OVD04Y and OVD07Y which are in the ventilation duct for this zone. Reopening of fire dampers is required only after the fire for smoke removal and airflows to this zone using the ventilation system.
		Fire Outside 7B6 7B3 - Diesel Generator Room	OVD04Y	2	One Side - 7B3	A fire in Zone 7B3 would close fire damper OVD04Y and interrupt the ventilation for the Day Tank Room. Reopening of the fire damper is necessary only after the fire in Zone 7B3.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 1 DIESEL FUEL TANK ROOM FIRE ZONE 7C3 This zone contains the diesel fuel storage tank for the Division 1 standby diesel generator which is used as a standby source of power for ESF-1.	VD	Fire Inside 7C3	OVD05Y OVD06Y	1 & 2 1 & 2	One Side - 7B3 One Side - 7B3	A fire in this zone could affect only the RCIC system, RHR Loop A and ADS Div. 1. The HPCS, RHR Loop B and ADS Div. 2 are available for shutdown. A fire in Zone 7C3 would close fire dampers OVD05Y and OVD06Y which are in the ventilation duct for this zone. Reopening the fire dampers is required only after the fire for smoke removal and cooling using the ventilation system.
		Fire Outside 7C3				
		7B3 - Diesel Generator Room	OVD05Y	2	One Side - 7B3	A fire in Zone 7B3 could close fire damper OVD05Y and interrupt the airflow to the Fuel Tank Room. Reopening of the fire damper is necessary only after the fire in Zone 7B3.
		7B6 - Day Tank Room	OVD06Y	2	One Side - 7B3	A fire in the Day Tank Room would close the fire dampers and interrupt the airflow from Zone 7C3. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 7B6.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1, DIVISION 1, ESSENTIAL SWITCHGEAR ROOM - FIRE ZONE 4F1 This zone contains the ESF Division 1 switchgear, motor control centers, batteries and d-c power supplies.	VX	Fire Inside 4F1	1VX13Y 1VX50Y 1VX59Y 1VX30Y 1VX31Y 1VX32Y 1VX33Y 1VX16Y 1VX52Y	2 2 2 2 2 2 2 2 2	One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 4F1 One Side - 5C11	A fire in this zone could affect only the RCIC, RHR Loop A and ADS Division 1. Therefore, HPCS and ADS Division 2 are still available. A fire in this zone would close the listed fire dampers and could disable the ventilation fans located within this zone. Reopening of the fire dampers is required only for system operation after the fire if the fans are not disabled. Smoke removal for this zone is to use portable exhaust equipment which does not require reopening of the listed fire dampers.
		Fire Outside 4F1 5C11 - Corridor of Diesel Turbine Building Elevation 710'-0"	1VX50Y 1VX59Y 1VX52Y	2 2 2	One Side - 4F1 One Side - 4F1 One Side - 5C11	A fire outside Zone 4F1 would close the listed fire dampers and interrupt the ventilation airflow to Zone 4F1. During the fire in Zone 5C11, some equipment and lighting in Zone 4F1 should be deenergized temporarily to minimize overheating and damage. Reopening of the fire dampers 1VX50Y and 1VX59Y after the fire in Zone 5C11 is necessary to restore the airflow to Zone 4F1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
AUXILIARY BUILDING GROUND FLOOR (LAB AREA) FIRE ZONE 4F3 This zone contains various ESF Division 1 cables for Units 1 & 2, which are located above the suspended ceiling.	VL	Fire Inside 4F3	OVL43Y	1 & 2	One Side - 4F3	A fire inside Zone 4F3 could affect only the RCIC, RHR Loop A and ADS Division 1. The loss of d-c control power feed from MCC 121Y and d-c distribution panel 111Y to the remote shutdown panel has no affect on the operation of RHR B, therefore, it is still available for shutdown. A fire in this zone would close the listed fire dampers and interrupt the VL System operation. Fire dampers reopening after the fire are necessary only for smoke removal and cooling in the Laboratory Area using the VL HVAC System. Smoke removal for the ceiling plenum is the use of portable exhaust equipment which does not require reopening of the listed fire dampers except for the normally closed fire damper 2VV07Y.
			OVL44Y	1 & 2	One Side - 4F3	
			OVL47Y	1 & 2	One Side - 4F3	
			OVL42Y	1 & 2	One Side - 4F3	
			OVL41Y	1 & 2	One Side - 4F3	
			OVL38Y	1 & 2	One Side - 4F3	
			OVL36Y	1 & 2	One Side - 4F3	
			OVL48Y	1 & 2	One Side - 4F3	
			OVL28Y	1 & 2	One Side - 4F3	
			OVL29Y	1 & 2	One Side - 4F3	
			OVL51Y	1 & 2	One Side - 4F3	
			OVL57Y	1 & 2	One Side - 4F3	
			OVL58Y	1 & 2	One Side - 4F3	
			OVL62Y	1 & 2	One Side - 4F3	
		Fire Outside 4F3				
		5C11 - Turbine Building Ground Floor Elevation 710'	OVL30Y	1 & 2	One Side - 4F3	A fire outside 4F3 especially in Zone 5C11 would close the listed fire dampers and interrupt the VL System operation. Reopening of the listed fire dampers is necessary only after the fire and smoke is cleared in Zone 5C11.
			OVL31Y	1 & 2	One Side - 4F3	
			OVL50Y	1 & 2	One Side - 4F3	
			OVL52Y	1 & 2	One Side - 4F3	
			OVL53Y	1 & 2	One Side - 4F3	
			OVL54Y	1 & 2	One Side - 4F3	

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone Ⓐ	(C) Assume A Fire Inside Ⓐ or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone Ⓐ Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 2 DIESEL VENTILATION EQUIPMENT ROOM FIRE ZONE 7A2 This zone contains safety-related ventilation equipment for fire zones 7B2, 7B5, 7C2 and 7C5 and various ESF Division 2 cables.	VD	Fire Inside 7A2	1VD43Y	2	One Side - 7A2	A fire in this area could affect only RHR Loop B and ADS Div. 2. Therefore, HPCS, RCIC and ADS Division are available for shutdown. A fire in this zone could close fire damper 1VD43Y and could disable the ventilation fans serving Zones 7B2, 7B5, 7C2 and 7C5. Some equipment and lighting inside Zones 7B2, 7B5, 7C2 and 7C5 should be deenergized during the fire in Zone 7A2 so that the temperature in these zones will not exceed the design limit. Smoke removal for Zone 7A2 is to use a portable exhaust equipment which does not require reopening of fire damper 1VD43Y. Reopening of fire damper is necessary only after the smoke is removed from Zone 7A2.
		Fire Outside 7A2 7B2 - Diesel Generator Room	1VD43Y	2	One Side - 7A2	A fire in Zone 7B2 would close fire damper 1VD43Y to avoid the spread of fire from Zone 7B2 to Zone 7A2. Reopening of the fire damper is necessary only after the fire and smoke removal from Zone 7B2.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 2 STANDBY DIESEL-GENERATOR ROOM FIRE ZONE 7B2 This zone contains the Division 2 Standby Diesel Generator and the control and instrumentation and power cabling necessary for its operation. This diesel provides standby power for Unit 1 ESF-2.	VD	Fire Inside 7B2	1VD12Y 1VD13Y 1VD43Y 1VD44Y	2 2 2 2	One Side - 7B2 One Side - 7B2 One Side - 7A2 One Side - 7B2	A fire in this zone could affect only the RHR Loop B and ADS Div. 2. Therefore, ADS Div. 1 HPCS, RCIC and RHR A are still available for shutdown. A fire in this zone would close the listed fire dampers and interrupt the airflows to Zones 7A2, 7B5, 7C2 and 7C5. Some equipment and lighting inside these zones should be deenergized during the fire in Zone 7B2 so that the temperatures in these zones will not exceed the design limits. Smoke removal for this zone is to use a portable exhaust equipment which does not require reopening of fire damper. Reopening of the listed fire dampers is necessary only after the smoke is removed from this zone.
		Fire Outside 7B2				
		7A2 - Diesel Ventilation Equipment Room	1VD43Y	2	One Side - 7A2	A fire in Zone 7A2 could interrupt the ventilation airflows for Zone 7B2. Refer to fire inside Zone 7A2 for the effect on Zone 7B2 and adjacent areas.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1, DIVISION 2, DIESEL DAY TANK ROOM - FIRE ZONE 7B5 This zone contains the day tank for the Division 2 diesel generator. The tank supplies fuel to the Division 2 diesel generator which supplies standby power to Unit 1 ESF - 2.	VD	Fire Inside 7B5	1VD12Y 1VD15Y	1 & 2 1 & 2	One Side - 7B2 One Side - 7B2	A fire in this zone could affect only the RHR Loop B and ADS Division 2. Both HPCS, RCIC, ADS Division 1 and RHR Loop A are available for shutdown. A fire within zone would close fire dampers 1VD12Y and 1VD15Y in the ventilation duct for this zone. Reopening of these fire dampers is required only after the fire for smoke removal and cooling using the VD ventilation system.
		Fire Outside 7B5 7B2 - Diesel Generator Room	1VD12Y	2	One Side - 7B2	A fire in Zone 7B2 would close fire damper 1VD12Y and interrupt the ventilation for the Day Tank Room. Reopening of the fire damper is necessary only after the fire in Zone 7B2.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 2 DIESEL FUEL TANK ROOM FIRE ZONE 7C2 This zone contains the diesel fuel storage tank for the Division 2 standby diesel generator which is a source of standby power to ESF-2.	7C2	Fire Inside 7C2	1VD13Y 1VD14Y	1 & 2 1 & 2	One Side - 7B2 One Side - 7B2	A fire in this zone could affect only the RHR Loop B and ADS Div. 2. Therefore, HPCS, RCIC, ADS Div. 1 and RHR Loop A are available for shutdown. A fire in Zone 7C2 would close fire dampers 1VD13Y and 1VD14Y which are in the ventilation duct for this zone. Reopening of the fire dampers is required only after the fire for smoke removal and cooling using the VD ventilation system.
		Fire Outside 7C2 7B2 - Diesel Generator Room	1VD13Y	2	One Side - 7B2	A fire in Zone 7B2 would close fire damper 1VD13Y and interrupt the airflow to the Fuel Tank Room. Reopening of the fire damper is necessary only after the fire and smoke removal in Zone 7B2.
		7B5 - Day Tank Room	1VD14Y	2	One Side - 7B2	A fire in Zone 7B5 Day Tank Room would close fire damper 1VD14Y and interrupt the airflow to the Fuel Tank Room 7C2. Reopening of the fire damper is necessary only after the fire and smoke removal in Zone 7B5.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones with Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 DIVISION 2 RHR SERVICE WATER PUMP ROOM FIRE ZONE 7C5 This zone contains the Division 2 standby diesel generator cooling water pump and strainer. This zone also contains Div. 2 RHR service water pumps and strainer.	VY	Fire Inside 7C5	None	-	-	A fire in this area could affect only the RAR Loop B and ADS Div. 2. Therefore, both the HPCS, RCIC, ADS Div. 1 and RHR Loop A are available.
UNIT 1 DIVISION 1 RHR SERVICE WATER PUMP ROOM FIRE ZONE 7C6 This zone contains the Div. 1 standby diesel generator cooling water pump and strainer. This zone also contains Div. 1 RHR service water pumps and strainer.	VY	Fire Inside 7C6	None	-	-	Same as above except for divisional designation.
		Fire Outside 7C5 & 7C6 Fire in Ventilation Equipment Room 7A2 & 7A3	None			A fire in the Ventilation Equipment Room Fire Zones 7A2 & 7A3 could disable the ventilation fans serving Fire Zones 7C5 & 7C6. During the fire in Zone 7A2 or 7A3, it may be necessary to deenergize temporarily some equipment and lighting in Zone 7C5 or 7C6.

Commonwealth Edison Company
LaSalle - Units 1 and 2
Project No. 6854-31

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

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Date: 06-11-85

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1, DIVISION 2, ESSENTIAL SWITCHGEAR ROOM FIRE ZONE 4E3 This fire zone was divided into two subzones. Fire subzone 4E3-1 is the cable riser aisle which contains the RCIC System, RHR Loop A and ADS Division 1. Fire subzone 4E3-2 is the RCIC System, RHR Loop B and ADS Division 2.	VX	Fire Inside 4E3-1	1VX57Y 1VX58Y	2 2	One Side - 4E3-2 One Side - 4E3-2	A fire in Zone 4E3-1 would close the listed fire dampers in the ventilation duct to this zone. Fire damper accessibility is necessary only for system operation after the fire and/or smoke is removed from this zone. Smoke removal for this zone is to use portable exhaust equipment which does not require opening of the listed fire dampers.
		Fire Inside 4E3-2	1VX57Y 1VX58Y 1VX06Y 1VX10Y 1VX12Y 1VX34Y 1VX35Y 1VX54Y	2 2 2 2 2 2 2 2	One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2 One Side - 4E3-2	A fire in this zone would close the listed fire dampers and could also disable the ventilation fans which are located within this zone. Reopening of the fire dampers is required only for system operation after the fire if the fans are not disabled. Smoke removal for this zone is to use portable exhaust equipment which does not require reopening of the listed fire dampers.
		Fire Outside 4E3 5B13 - Balance of Plant Cable Area	1VX54Y	2	One Side - 5B13	A fire in this zone would close the listed fire damper 1VX54Y. Closing of this damper will not interrupt the airflow to Zones 4E3-1 & 4E3-2. However, it would alter the pressure differential between Zones 4E3 and 4E1-1. Reopening of fire dampers is necessary only if the pressure in Zone 4E3 becomes higher than 4E1-1 and jeopardizes the habitability of the Auxiliary Electric Equipment Room.

TABLE 1

FIRE DAMPERS RIQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 ELECTRICAL EQUIPMENT ROOM (KPMG SET ROOM) FIRE ZONE 4D3 This zone contains instrumentation calbe for RHR B and ADS Division 2 in addition to the safety-related HVAC equipment which serve this zone as well as Zones 4D1 and 4D2.	VX	Fire Inside 4D3	1VX05Y 1VX01Y 1VX36Y 1VX37Y 1VX38Y 1VX39Y 1VX56Y 1VX41Y 1VX43Y	2 2 2 2 2 2 2 2 2	One side - 4D3 One side - 4D3 One side - 4D3 One side - 4D3 One side - 4D3 One side - 4D3 One side - 5A4 One side - 4D3 One side - 4D3	A fire in this zone could affect only RHR B and ADS Division 2 cables, therefore, both RCIC and ADS Division 1 are available for shutdown. A fire in this zone could disable the ventilation fans serving this zone and Zone 4D1 and 4D2. Therefore, reopening of fire dampers for system operation (after smoke removal using portable exhaust equipment) is necessary only if the ventilation fans are operable after the fire.
		Fire Outside 4D3				
		5A4 - Cable Area El. 749'-0"	1VX56Y	2	One side - 5A4	A fire in Zone 5A4 would close fire dampers 1VX56Y to avoid spread of any fire to Zone 4D3. The fire in Zone 5A4 and closing of 1VX56Y will not stop the ventilation system for Zones 4D3, 4D1 and 4D2.
		4D1-1 U.1 Cable Spreading Area	1VX41Y 1VX43Y	2 2	Oneside - 4D3	A fire in zone 4D1-1 would close the listed fire dampers in the ventilation duct for Zone 4D1 and 4D2. Closing of these fire dampers would increase the airflow to Zone 4D3. Which will help that zone pressurize to avoid smoke infiltration.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 CABLE SPREADING ROOM - FIRE ZONE 4D1 This zone was subdivided into two subzones. Fire Subzone 4D1-1 is the cable riser aisle and Fire Subzone 4D1-2 is the cable spreading area. This zone contains the Division 2 control and instrumentation cabling for Unit 1 leading into the Control Room.	VX	Inside 4D1-1	1VX45Y 1VX46Y	2 2	One Side - 4D1-2 One Side - 4D1-2	A fire in this subzone could affect only the RCIC system, RHR Loop A and ADS Division 1. Therefore, the HPCS and ADS Division 2 are available for decay heat removal. A fire in this subzone could close the listed fire dampers and interrupt the airflow to Subzone 4D1-2. Interruption of airflow for Zone 4D1-2 will not jeopardize the qualification of the cables because minimum airflow from Unit 2 VX System is available. Reopening of the affected dampers is necessary only after the fire. Smoke removal for this zone is to use portable exhaust equipment which does not require reopening of the listed fire dampers.
		Inside 4D1-2	1VX45Y 1VX46Y 1VX41Y 1VX43Y 1VX42Y 1VX44Y 2VX42Y	2 2 2 2 2 2 2	One Side - 4D1-2 One Side - 4D1-2 One Side - 4D3 One Side - 4D3 One Side - 4D1-2 One Side - 4D1-2 One Side - 4D1	A fire in this subzone could only affect the RCIC system, RHR Loop B and ADS Division 2. Therefore, HPCS and ADS Division 1 are available for decay heat removal. RHR Loop B is available to bring the reactor to a hot shutdown condition. Closing of fire dampers would interrupt the airflow to Zone 4D1-2 only and would not stop the ventilation system to adjacent Unit1 Electrical Equipment Room Zone 4D3. Smoke removal for 4D1-2 is the same as for 4D1-1.
		Outside 4D1 4D3 - Unit 1 Electrical Equipment Room	1VX41Y 1VX43Y	2 2	One Side - 4D3 One Side - 4D3	A fire in Zone 4D3 could close the listed fire dampers and interrupt the airflow to Zone 4D1-2. Interruption of airflow for Zone 4D1-2 would not jeopardize the qualification of the cables because a minimum airflow for Zone 4D1-2 is available from Unit 2VX System.
		4D2 - Unit 2 Cable Spreading Room	1VX44Y 1VX42Y 2VX42Y	2 2 2	One Side - 4D1 One Side - 4D1 One Side - 4D1	A fire in Zone 4D2 would close the listed fire dampers to avoid spread of fire to Zone 4D1. Closing of fire dampers have a negligible affect on the ventilation airflow to Zone 4D1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS DIESEL VENTILATION EQUIPMENT ROOM - FIRE ZONE 7A1 This zone contains safety-related ventilation equipment for Zones 7B1, 7B4, 7C1, 7C4 and various ESF Division 3 cables.	VD	Fire Inside 7A1	1VD40Y 1VD41Y 1VD42Y	2 2 2	One Side - 7A1 One Side - 7A1 One Side - 7A1	A fire in this zone could have an effect on components and cables associated with the basic shutdown method. The alternate shutdown method which is independent of this fire zone can be used to bring the reactor to a shutdown. A fire in this zone would close the listed fire dampers and interrupt the airflows to Zones 7B1, 7B4, 7C1 and 7C4. A fire could also disable the ventilation fans located within this zone. Some equipment and lighting inside Zones 7B1, 7B4, 7C1 and 7C4 could be deenergized temporarily during the fire in Zone 7A1 so that the temperatures in these zones will not exceed the design limits. Smoke removal for this zone is to use a portable exhaust equipment which does not require reopening of the fire dampers. Reopening of the listed fire dampers is necessary only after the smoke is removed from Zone 7A1.
		Fire Outside 7A1 7B1 - Diesel Generator Room	1VD40Y	2	One Side - 7A1	A fire in Zone 7A1 would close fire damper 1VD40Y to avoid the spread of fire from the Diesel Generator Room to the Ventilation Equipment Room. Reopening of the fire damper is needed only after the fire and smoke removal in Zone 7B1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones with Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS DIESEL - GENERATOR ROOM FIRE ZONE 7B1 This zone contains the HPCS diesel generator and the control and instrumentation and power cabling necessary for its operation.	VD	Fire Inside 7B1	1VD04Y 1VD05Y 1VD07Y 1VD40Y 1VD41Y	2 2 2 2 2	One Side - 7B1 One Side - 7B1 One Side - 7B1 One Side - 7A1 One Side - 7B1	A fire in this zone could affect only components and cables associated with the basic shutdown method. Therefore, the alternate shutdown method, which is independent of this fire zone, can be used to being the reactor to a shutdown condition. A fire in this zone would close the listed fire dampers and interrupt the airflows to Zones 7A1, 7B4, 7C1 and 7C4. Some components inside these zones could be deenergized during the fire in Zone 7B1 so that the temperatures will not exceed the design limits. Smoke removal for Zone 7B1 is to use a portable exhaust equipment which requires no opening of fire damper 1VD41Y. Reopening to the other fire dampers is necessary only after the smoke is removed from this zone.
		Fire Outside 7B1				
		7A1 - Diesel Ventilation Equipment Room	1VD40Y	2	One Side - 7A1	A fire outside Zone 7B1 especially in Zone 7A1 would close fire damper 1VD40Y and could disable the ventilation fan serving 7B1. Refer to Zone 7A1 for the effect of fire to zone 7B1 and adjacent areas.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS DIESEL DAY TANK ROOM FIRE ZONE 7B4 This zone contains the day tank for the HPCS diesel generator. The tank supplies fuel to the HPCS diesel generator which supplies standby power to the HPCS pump in case of loss of off-site power.	VD	Fire Inside 7B4	1VD04Y 1VD07Y	1 & 2 1 & 2	One side - 7B1 One side - 7B1	A fire in this zone could affect only the HPCS. Therefore, alternate shutdown method which independent of this zone, can be used to bring the reactor to a shutdown condition. A fire in Zone 7B4 would close the listed fire dampers and interrupt the airflow to this zone. Reopening of these fire dampers is necessary only after the fire for smoke removal and cooling using the ventilation system.
		Fire Outside 7B4 7B1 - Diesel Generator Room	1VD04Y 1VD07Y	2 2	One Side - 7B1 One Side - 7B1	A fire in Zone 7B1 would close fire dampers 1VD04Y and 1VD07Y and interrupt the airflow to the Day Tank Room. Reopening of the fire dampers is necessary only after the fire and smoke removal in Zone 7B1.

TABLE 1

FIRE DAMPERS RIQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS DIESEL FUEL TANK ROOM - FIRE ZONE 7C1 This zone contains the diesel fuel storage tank for the HPCS diesel generator which is used for the standby power to the HPCS pump in case of a loss-of-offsite power.	VD	Fire Inside 7C1	1VD05Y 1VD06Y	1 & 2 1 & 2	One Side - 7B1 One Side - 7B1	A fire in this zone could affect only components and cables associated with the basic shutdown. Therefore, the alternate shutdown method, which is independent of this fire zone, can be used for shutdown. A fire in Zone 7C1 would close the fire dampers 1VD05Y and 1VD06Y which are in the ventilation ducts for this zone. Reopening of those fire dampers is required only after the fire for smoke removal and cooling using the ventilation system.
		Fire Outside 7C1 7B1 - Diesel Generator Room	1VD05Y 1VD06Y	2 2	One Side - 7B1 One Side - 7B1	A fire in Zone 7B1 would close fire dampers 1VD05Y and 1VD06Y and interrupt the airflow to the Fuel Tank Room. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 7B1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS DIESEL PUMP ROOM FIRE ZONE 7C4 This zone contains the HPCS diesel cooling water pump and strainer without which the HPCS diesel cannot operate.	VD	Fire Inside 7C4	1VD24Y 1VD23Y 1VD25Y	1 & 2 1 & 2 1 & 2	One Side - 5D1 One Side - 5D1 One Side - 5D1	A fire in this zone could affect only componets and cables associated with the basic shutdown method. The alternate shutdown which is independent of this fire zone can be used to bring the reactor to a shutdown condition. A fire in Zone 7C4 would close the listed fire dampers which are in the ventilation duct for this zone and Zone 5D1 "HPCS Switchgear Area". Some HPCS switchgears should be deenergized during the fire in Zone 7C4 so that the temperature in Zone 5D1 will not exceed the design limits. Reopening of the fire dampers is necessary only after the fire for smoke removal and cooling using the ventilation system.
		Fire Outside 7C4 5D1 - HPCS Switchgear Area	See Remarks	See Remarks		A fire in Zone 5D1 would close fire dampers 1VD23Y and 1VD24Y and interrupt the airflow to the HPCS Switchgear Area. As a result of the fire damper closing, the airflow to the Pump Room would increase helping to pressurize the room to avoid smoke infiltration. Reopening of the fire dampers is necessary only after the fire and smoke removal in Zone 5D1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (X) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (X) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 1 HPCS SWITCHGEAR AREA - FIRE ZONE 5D1 This zone contains the switchgear, motor control center, 125V battery and d-c power supply for Unit 1, ESF Division 3 (HPCS) and some ESF Division 3 cables.	VD	Fire Inside 5D1	1VD20Y 1VD21Y 1VD23Y 1VD24Y 1VD25Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 5D1 One Side - 5D1 One Side - 5D1 One Side - 5D1 One Side - 5D1	A fire in this zone could affect only components and cables associated with the basic shutdown method. The alterante shutdown method, which is independent of this fire zone, can be used to bring the reactor to shutdown. A fire inside Zone 5D1 would close the listed fire dampers and interrupt the airflow to the zone. Accessibility of fire dampers 1VD23Y, 1VD24Y and 1VD25Y is necessary for smoke removal and cooling in this zone. Reopenirg of fire dampers 1VD20Y and 1VD21Y for Battery Room ventilation is necessary only after the smoke removal in Zone 5D1.
		Fire Outside 5D1 7C4 - HPCS Diesel Pump Room	1VD23Y 1VD24Y 1VD25Y	1 & 2 1 & 2 1 & 2	One Side - 5D1 One Side - 5D1 One Side - 5D1	A fire outside 5D1 especially in Zone 7C4 would close the listed fire dampers and interrupt the airflow to Zone 5D1. Reopening of these dampers is required (after the fire in Zone 7C4) to restore airflow to Zone 5D1.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIVISION 2 DIESEL VENTILATION EQUIPMENT ROOM FIRE ZONE 8A2 This zone contains safety-related ventilation equipment for fire zones 8B2, 8B4, 8C2 and 8C4 and various ESF Division 2 cables.	VD	Fire Inside 8A2	2VD43Y	2	One Side - 8A2	A fire in Zone 8A2 would close fire damper 2VD43Y and could disable the ventilation fans serving Zones 8B2, 8B4, 8C2 and 8C4. Some components inside these zones could be deenergized during the fire in Zone 8A2 so that the temperature in these zones will not exceed the design limit. Smoke removal for Zone 8A2 is to use the portable exhaust equipment which does not require reopening of fire damper 2VD43Y. Reopening of the fire damper is necessary only after the smoke is removed from Zone 8A2.
		Fire Outside 8A2 8B2 - Diesel Generator Room	2VD43Y	2	One Side - 8A2	A fire in Zone 8B2 would close fire damper 2VD43Y to avoid the spread of the fire from the Diesel Generator Room to the Ventilation Equipment Room. Reopening of the fire damper is needed only after the fire and smoke removal in Zone 8B2.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIVISION 2 STANDBY DIESEL-GENERATOR ROOM FIRE ZONE 8B2 This zone contains the Division 2 Standby Diesel Generator and the control and instrumentation and power cabling necessary for its operation.	VD	Fire Inside 8B2	2VD12Y 2VD13Y 2VD43Y 2VD44Y	2 2 2 2	One Side - 8B2 One Side - 8B2 One Side - 8A2 One Side - 8B2	A fire in Zone 8B2 would close the listed fire dampers and interrupt the airflows to Zones 8A2, 8B4, 8C2 and 8C4. Some components inside these zones could be deenergized during the fire in Zone 8B2 so that the zone temperatures will not exceed the design limits. Smoke removal for Zone 8B2 is to use a portable exhaust equipment which does not require reopening of the fire dampers. Reopening of the fire dampers is necessary only after the smoke is removed form Zone 8B2.
		Fire Outside 8B2				
		8A2 - Diesel Ventilation Equipment Room	2VD43Y	2	One Side - 8A2	A fire in Zone 8A2 could interrupt the ventilation airflow for Zone 8B2. Refer to fire inside 8A2 for the effect on Zone 8B2 and adjacent areas.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	G Remarks
UNIT 2, DIVISION 2, DIESEL DAY TANK ROOM - FIRE ZONE 8B4 This zone contains the day tank for the Division 2 diesel generator.	VD	Fire Inside 8B4	2VD12Y 2VD15Y	1 & 2 1 & 2	One Side - 8B4 One Side - 8B4	A fire in this zone would close fire dampers 2VD12Y and 2VD15Y and interrupt the airflows to this zone. Reopening of these fire dampers is necessary only after the fire for smoke removal using the ventilation system.
		Fire Outside 8B4 8B2 - Diesel Generator Room	2VD12Y 2VD15Y	2 2	One Side - 8B4 One Side - 8B4	A fire in the Diesel Generator Room would close fire dampers 2VD12Y and 2VD15Y and interrupt the airflow to the Day Tank Room. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 8B2.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIVISION 2 DIESEL FUEL TANK ROOM FIRE ZONE 8C2 This zone contains the diesel fuel storage tank for Div. 2 standby diesel generator.	VD	Fire Inside 8C2	2VD13Y 2VD14Y	1 & 2 1 & 2	One Side - 8B2 One Side - 8B2	A fire in Zone 8C2 would close fire dampers 2VD13Y and 2VD14Y and interrupt the airflow to this zone. Reopening of these fire dampers are required only after the fire for smoke removal using the ventilation system.
		Fire Outside 8C2 8B2 - Diesel Generator Room	2VD13Y 2VD14Y	2 2	One Side - 8B2 One Side - 8B2	A fire in the Diesel Generator Room would close fire dampers 2VD13Y and 2VD14Y and interrupt the airflow to the Fuel Tank Room. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 8B2.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2, DIVISION 2, ESSENTIAL SWITCHGEAR ROOM - FIRE ZONE 4E4 Same as 4E3	VX	Fire Inside 4E4-1	None			A fire in Zone 4E4-1 will not affect the fire dampers of the VX System serving 4E4. Smoke removal for this zone is to use the portable exhaust equipment.
		Fire Inside 4E4-2	2VX06YA 2VX06YB 2VX10Y 2VX12Y 2VX34Y 2VX35Y 2VX54Y	2 2 2 2 2 2 2	One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4 One Side - 4E4	A fire in Zone 4E4-2 would close the listed fire dampers and could disable the ventilation fans which are located within this zone. Fire damper accessibility is required only for system operation after the fire if the fans are not disabled. Smoke removal for this zone is to use portable exhaust equipment which does not require reopening of the listed fire dampers.
		Fire Outside 4E4 SB13 - Balance of Plant Cable Areas	2VX54Y	2	One Side - 4E4	A fire in this zone would close the listed fire damper 1VX54Y. Closing of this damper will not interrupt the airflow to Zone 4E4. However, it would alter the pressure differential between Zones 4E4 and 4E2. Reopening of the fire dampers is required only if the pressure in Zone 4E4 becomes higher than 4E4 and jeopardizes the habitability of the Auxiliary Electrical Equipment Room.

TABLE A

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 CABLE SPREADING ROOM - FIRE ZONE 4D2 This zone contains the Division 2 control and instrumentation cabling for Unit 2 leading into the Control Room.	VX	Fire Inside 4D2	2VX41Y 2VX43Y 2VX42Y 1VX44Y 1VX42Y	2 2 2 2 2	One Side - 4D2 One Side - 4D2 One Side - 4D1-2 One Side - 4D1-2 One Side - 4D1-2	A fire in this zone could only affect the Division 2 cabling. Therefore, Division 1 is available to bring the reactor to hot shutdown. A fire could also close the listed fire dampers and interrupt the airflow for Zones 4D2 and 4D1-2. Interruption of airflow for Zone 4D1-2 would not overheat the cables in that zone because airflow from the Unit 1 VX System is still available. Reopening of the affected fire dampers is necessary to restore the airflow after the fire in Zone 4D2. Smoke removal for this zone is to use a portable exhaust equipment which does not require reopening of these dampers.
		Fire Outside 4D2 4D1-2 - Unit 1 Cable Spreading Room	1VX42Y 1VX44Y 2VX42Y	2 2 2	One Side - 4D1-2 One Side - 4D1-2 One Side - 4D1-2	A fire in Zone 4D1-2 could close the listed fire dampers and interrupt the airflow for Zone 4D2. Interruption of airflow for Zone 4D2 will not overheat the cables in that zone because airflow from the Unit 2 VX System is still available. Reopening of these fire dampers is necessary only after the fire in Zone 4D2.
		4D4 - Unit 2 Electrical Equipment Room	2VX41Y 2VX43Y	2 2	One Side - 4D2 One Side - 4D1-2	A fire in Zone 4D4 could close the listed fire dampers and interrupt the airflow for Zone 4D2. Interruption of airflow for this zone will not jeopardize the cable qualification because airflow from the Unit 1 VX System is still available. Reopening of the affected dampers is necessary only after the fire in Zone 4D4.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIESEL VENTILATION EQUIPMENT ROOM FIRE ZONE 8A1 This zone contains safety-related ventilation equipment for Zones 8B1, 8B3, 8C1, 8C3 and 8C5 and various ESF Div. 3 cables.	VD	Fire Inside 8A1	2VD40Y 2VD41Y 2VD42Y	2 2 2	One Side - 8A1 One Side - 8A1 One Side - 8A1	A fire in Zone 8A1 would close the listed fire dampers and could interrupt the airflows to Zones 8B1, 8B3, 8C1, 8C3 and 8C5. A fire could also disable the ventilation fans located within Zone 8A1. Some components inside Zones 8B1, 8B2, 8C1 and 8C3 should be deenergized during the fire in Zone 8A1 so that the temperatures in these zones will not exceed the design limits. Smoke removal for this zone is to use a portable exhaust equipment which does not require reopening of the fire dampers. Reopening of the listed fire dampers in necessary only after the smoke is removed from Zone 8A1.
		Fire Outside 8A1 8B1 - Diesel Generator Room	2VD40Y	2		A fire in Zone 8B1 would close fire damper 2VD40Y to avoid the spread of fire from the Diesel Generator Room to the Ventilation Equipment Room. Reopening of the fire damper is necessary only after the fire and smoke removal in Zone 8B1.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 HPCS DIESEL-GENERATOR ROOM FIRE ZONE 8B1 This zone contains the HPCS diesel generator and the control and instrumentation and power cabling necessary for its operation.	VD	Fire Inside 8B1	2VD04Y 2VD05Y 2VD07Y 2VD40Y 2VD41Y	2 2 2 2 2	One Side - 8B1 One Side - 8B1 One Side - 8B1 One Side - 8A1 One Side - 8B1	A fire in Zone 8B1 would close the listed fire dampers and interrupt the airflows to zones 8A1, 8B3, 8C1, 8C3 and 8C5. Some components inside these zones should be deenergized during the fire in Zone 8B1 so that the zone temperatures will not exceed the design limits. Smoke removal for Zone 8B1 is to use a portable exhaust equipment which requires reopening of fire damper 2VD41Y. Reopening to the other fire dampers is necessary only after the smoke is removed from Zone 8B1.
		Fire Outside 8B1				
		8A1 - Diesel Ventilation Equipment Room	2VD40Y	2	One Side - 8A1	A fire outside 8B1 especially in Zone 8A1 would close fire damper 2VD40Y and could disable the ventilation fan serving 8B1. Refer to Zone 8A1 for the effect of fire to Zone 8B1 and adjacent areas.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	G Remarks
UNIT 2 HPCS DIESEL DAY TANK ROOM - FIRE ZONE 883 This zone contains the day tank for the HPCS diesel generator.	VD	Fire Inside 883	2VD04Y 2VD07Y	1 & 2 1 & 2	One Side - 883 One Side - 883	A fire in this zone would close the listed fire dampers which are in the ventilation duct for this zone. Reopening of these fire dampers is necessary only after the fire for smoke removal using the ventilation system.
		Fire Outside 883 881 - Diesel Generator Room	2VD04Y 2VD07Y	2 2	One Side - 883 One Side - 883	A fire in Zone 881 would close fire dampers 2VD04Y and 2VD07Y and interrupt the airflow to the Day Tank Room. Reopening of fire dampers is needed only after the fire and smoke removal in Zone 881.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside A or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 HPCS DIESEL FUEL TANK ROOM - FIRE ZONE 8C1 This zone contains the diesel fuel storage tank for the HPCS diesel generator.	VD	Fire Inside 8C1	2VD05Y 2VD06Y	1 & 2 1 & 2	One Side - 8B1 One Side - 8B1	A fire in Zone 8C1 would close the fire dampers 2VD05Y and 2VD06Y and interrupt the airflow to this zone. Reopening these fire dampers is necessary only after the fire for smoke removal using the ventilation system.
		Fire Outside 8C1 8B1 - Diesel Generator Room	2VD05Y 2VD06Y	2 2	One Side - 8B1 One Side - 8B1	A fire in Zone 8B1 would close fire dampers 2VD05Y and 2VD06Y and interrupt the airflow to the Fuel Tank Room. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 8B1.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone Ⓐ	(C) Assume A Fire Inside Ⓐ or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone Ⓐ Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 HPCS DIESEL PUMP ROOM FIRE ZONE 8C3 This zone contains the HPCS diesel cooling water pump and strainer.	VD	Fire Inside 8C3	2VD24Y 2VD23Y 2VD25Y	1 & 2 1 & 2 1 & 2	Both Sides - 5D1 & 7C4 Both Sides - 5D1 & 7C4 Both Sides - 5D1 & 7C4	A fire in Zone 8C3 would close the listed fire dampers and interrupt the airflows to this zone and Zone 5D2 "HPCS Switchgear Area". The HPCS switchgear could be deenergized during the fire in Zone 8C3 so that the temperature in Zone 5D2 will not exceed the design limits. Reopening to the fire damper is necessary only after the fire for smoke removal using the ventilation system.
		Fire Outside 8C3 5D2 - HPCS Switchgear Area	See Remarks	See Remarks		A fire in Zone 5D2 would close fire dampers 2VD24Y and 2VD23Y and interrupt the airflow to the HPCS Switchgear Area. Closing of fire dampers would increase the airflow to the Pump Room and becomes more positive with respect to surrounding areas to avoid smoke infiltration.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone Ⓐ	(C) Assume A Fire Inside Ⓐ or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone Ⓐ Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 HPCS SWITCHGEAR AREA - FIRE ZONE 5D2 This zone contains the switchgear, motor control center, 125V battery and d-c power supply for Unit 2, ESF Division 3 (HPCS) and some ESF Division 3 cables	VD	Fire Inside 5D2	2VD20Y 2VD21Y 2VD23Y OVD24Y OVD25Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 5D2 One Side - 5D2 One Side - 5D2 One Side - 5D2 One Side - 5D2	A fire inside 5D2 could affect only components and cables associated with the basic shutdown method. The alternate shutdown method, which is independent of this fire zone, can be used to bring the reactor to shutdown. A fire in this zone would close the listed fire dampers and interrupt the airflow. Reopening of fire dampers 2VD23Y, 2VD24Y and 2VD25Y is necessary for smoke removal in this zone. Reopening of 2VD20Y and 2VD21Y for the Battery Room ventilation is necessary only after the smoke removal in Zone 5D2. Deenergizing some equipment and lighting would be necessary during the fire and loss of ventilation to avoid overheating and damage.
		Fire Outside 5D2 8C3 - HPCS Diesel Pump Room	2VD23Y 2VD24Y 2VD25Y	1 & 2 1 & 2 1 & 2	One Side - 5D2 One Side - 5D2 One Side - 5D2	A fire outside 5D2 especially in Zone 8C3 would close the listed fire dampers and interrupt the airflow to Zone 5D2. Reopening of these fire dampers is required (after the fire in Zone 8C3) to restore airflow to Zone 5D2. Deenergizing some equipment and lighting would be necessary during the fire and loss of ventilation to avoid overheating and damage.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIVISION 1 SWITCHGEAR ROOM FIRE ZONE 4F2 This zone contains the ESF Division 1 switchgears, motor control centers, batteries and dc power supplies.	VX	Fire Inside 4F2	2VX60Y 2VX13Y 2VX30Y 2VX31Y 2VX32Y 2VX40Y 2VX16Y	2 2 2 2 2 2 2	One side - 4F2 One side - 4F2 One side - 4F2 One side - 4F2 One side - 4F2 One side - 4F2 One side - 4F2	A fire in Zone 4F2 would close the listed fire dampers and could disable the ventilation fans located within this zone. Reopening of the fire dampers is required only for system operation after the fire if the fans are not disabled. Smoke removal for this zone is to use a portable exhaust equipment which does require reopening of the listed fire dampers.
		Fire Outside 4F2				
		5C11 - Corridor Diesel/ Turbine Bldg. El. 710	2VX52Y 2VX60Y 2VX33Y	2 2 2	One side - 4F2 One side - 4F2 One side - 5C11	A fire outside Zone 4F2 would close the listed fire dampers. Closing of fire damper 2VX60Y would interrupt the ventilation airflow to Zone 4F2. Interruption of airflow for Zone 4F2 will not jeopardize the environmental qualification of the switchgears because minimum airflows are still available. During the fire, some equipment and lighting should be deenergized to avoid temperature exceeding the qualification of the switchgear. Reopening of this fire damper is necessary to restore the maximum airflow to Zone 4F2. A fire in Zone 5C11 would close fire damper 2VX33Y and could disable the ventilation fan for 125V Battery Room. Reopening of the fire damper (2VX33Y) is necessary only for system operation after the fire if the fan is not disabled.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 DIVISION 1 RHR SERVICE WATER PUMP ROOM FIRE ZONE 8C4	VY	Fire Inside 8C4	None	-	-	A fire in this area could affect only the RHR Loop B and ADS Div. 2. Therefore, both the HPCS, RCIC, ADS Div. 1 and RHR Loop A are available for shutdown.
This zone contains the Division 2 standby diesel generator cooling water pump and strainer. This zone also contains Division 2 RHR service water pump and strainer.		Fire Outside 8C4 8A2 - Ventilation Equipment Room	See Remarks	See Remarks	-	A fire in Zone 8A2 could disable the ventilation fan for Zone 8C4. It may be necessary to deenergize temporarily the equipment and lighting in the Pump Rooms to avoid overheating.
UNIT 2 DIVISION 2 RHR SERVICE WATER PUMP ROOM FIRE ZONE 8C5	VY	Fire Inside 8C5	2VY10Y 2VY11Y	1 & 2 1 & 2	One Side - 8C1 One Side - 8C1	A fire in Zone 8C5 would close fire dampers 2VY10Y and 2VY11Y and would interrupt the ventilation airflow to this zone. Reopening of the fire dampers is necessary only after the fire or smoke removal using the ventilation system.
		Fire Outside 8C5 8C1 - Tank Room	2VY10Y 2VY11Y	2 2	One Side - 8C1 One Side - 8C1	A fire in Zone 8C1 would close fire dampers 2VY10Y and 2VY11Y and interrupt the airflow to the Pump Room. It may be necessary to deenergize temporarily the equipment and lighting in the Pump Room to avoid overheating. Reopening of fire dampers is necessary only after the fire and smoke removal in Zone 8C1.

TABLE 1
FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
UNIT 2 ELECTRICAL EQUIPMENT ROOM (RPMG SET ROOM) FIRE ZONE 4D4 This zone contains instrumentation cables for RCIC, RHR Loop A and ADS Division 1. Also located in this zone are the safety-related HVAC equipment which serve this zone as well as Zones 4D1-2 and 4D2.	VX	Fire Inside 4D4	2VX01Y 2VX05Y 2VX41Y 2VX43Y 2VX36Y 2VX37Y 2VX38Y 2VX39Y 2VX56Y	2 2 2 2 2 2 2 2 2	One Side - 4D4 One Side - 4D4 One Side - 4D2 One Side - 4D2 One Side - 4D4 One Side - 4D4 One Side - 4D4 One Side - 4D4 One Side - 5A4	A fire in this zone could affect only the RCIC, RHR Loop A and ADS Division 1. Therefore, HPCS and ADS Division 2 and RHR B are available for shutdown. A fire in this zone could disable the ventilation fans serving this zone and zones 4D1-2 and 4D2. Therefore, reopening of fire dampers for system operation (after smoke removal using portable exhaust equipment) is necessary only if the ventilation fans are operable after the fire.
		Fire Outside 4D4 5A4 - Cable Area El. 749'-0"	2VX56Y	2	One Side - 5A4	A fire in Zone 5A4 would close fire damper 2VX56Y to avoid the spread of any fire to Zone 4D4. A fire in Zone 5A4 and closing of 2VX56Y will not stop the ventilation system for Zones 4D3, 4D1-2 and 4D2 and have no significant affect in Zone 4D4.
		4D2 - Unit 2 Cable Spreading Room	2VX41Y 2VX43Y	2 2	One Side - 4D2 One Side - 4D2	A fire in Zone 4D2 would close the listed fire dampers in the ventilation duct for Zone 4D1-2 and 4D2. Closing of fire dampers in Zone 4D2 would increase the airflow to Zone 4D4 which will help that zone pressurize to avoid smoke infiltration.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
TURBINE BUILDING GROUND FLOOR GENERAL AREA FIRE ZONE 5C11 This zone contains a 125 V Battery Room and its cables for Unit 2, ESF Division 1 power and instrumentation cables for the ESF Divisions 1 and 2 diesel generators located in the two large corridors adjacent to the Diesel Generator Building.	VT	Fire Inside 5C11	1VT44Y 1VT72Y 1VT73Y 2VT44Y 2VT72Y 2VT73Y 1VX52Y 1VX50Y 1VX59Y 2VX40Y 2VX33Y OVL31Y OVL49Y OVL30Y OVL50Y OVL53Y OVL54Y OVL52Y	For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VT System 2 For VL System 2 For VL System 2 For VL System 2 For VL System 2 For VL System 2 For VL System 2 For VL System 2	One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 5C11 One Side - 4F3 One Side - 4F3 One Side - 4F3 One Side - 4F3 One Side - 4F3 One Side - 4F3 One Side - 4F3	A fire in this zone, especially in the corridor separating the Diesel Generator Rooms could damage only one division of safety-related equipment leaving the other division available for hot shutdown. A fire in this zone would close the listed fire dampers for the following systems: a. VT System - Reopening of the fire dampers is required only after the fire and smoke removal to restore the airflow to this area. Smoke removal for this area can be accomplished by opening access doors leading to the Turbine Cavity. b. VX System - Reopening the affected fire dampers is required only after the fire in Zone 5C11 to restore system operation. c. VL System - Reopening of the VL System fire dampers affected by the fire in Zone 5C11 is required only after the fire to restore the airflow in the Laboratory Areas.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

(A) Fire Zones With Safe Shutdown or Safety Related Equipment	(B) Ventilation System Serving The Fire Zone (A)	(C) Assume A Fire Inside (A) or Outside (Surrounding) Fire Area	(D) Fire Dampers of The Vent. Sys. Serving Fire Zone (A) Affected By Fire	(E) Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	(F) Access Door Preferred Location And Zone No.	(G) Remarks
CABLE AREA ELEVATION 749'-0" FIRE ZONE - 5A4	VT	Fire Inside 5A4	1VT60YA 1VT60YB 1VT53Y 2VT60YA 2VT60YB 2VT53Y	1 & 2 1 & 2 1 & 2 1 & 2 1 & 2 1 & 2	One Side - 5A4 One Side - 5A4 One Side - 5B1 One Side - 5A4 One Side - 5A4 One Side - 5B2	A design basis fire could result in damage to some ESF-2 control and instrumentation cables; however, the redundant ESF-1 could be used during the shutdown. A fire could close the listed fire dampers and interrupt the airflow to Zone 5A4. Reopening of these fire dampers is necessary only for smoke removal using the VT System after the fire in this zone. Smoke removal using portable exhaust equipment will require reopening of fire damper 1VT53Y only. A fire in the adjacent areas will not affect the fire dampers of the VT System serving Zone 5A4.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

A	B	C	D	E	F	G
Fire Zones With Safe Shutdown or Safety Related Equipment	Ventilation System Serving The Fire Zone A	Assume A Fire Inside A or Outside (Surrounding) Fire Area	Fire Dampers of The Vent. Sys. Serving Fire Zone A Affected By Fire	Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	Access Door Preferred Location And Zone No.	Remarks
COMPUTER ROOM FIRE ZONE 4C4 This zone primarily contains balance of plant cables, some of which are routed in the ESF Division 1 cable pans, and several ESF Division 2 instrumentation cables (in individual conduits) for Units 1 & 2, which are associated with the Computer Room's temperature control system.	VV	Fan Inside 4C4	OVE60Y OVE22Y OVE25Y OVV31Y OVV32Y OVV40Y	2 2 Normally Closed 2 2 2	One Side - 4C4 One Side - 4C4 One Side - 4C4 One Side - 4C4 One Side - 4C4 One Side - 4C4	A fire inside the Computer Room could damage the safety-related instrumentation cables and computers. The instrumentation and cables are not required to bring the reactor to safe shutdown. A fire inside could also close the listed fire dampers to avoid the spread of fire to adjacent areas. Reopening of the fire dampers is necessary only after the fire and smoke to restore cooling for that zone. Smoke removal for this zone is to use portable exhaust equipment which does not require reopening of fire dampers.
		Fire Outside 4C4				
		4C3 - Auxiliary Building Offices/ Corridors	OVE60Y OVE22Y OVV40Y	2 2 2	One Side - 4C4 One Side - 4C4 One Side - 4C4	A fire outside the Computer Room could damage the packaged air conditioner serving Zone 4C4 and could also close the fire dampers. Reopening of those fire dampers is necessary only after the fire in Zone 4C3 and if the air conditioning unit is still operable.
		5A3 - Turbine Building Main Floor	OVV31Y OVV32Y	2 2	One Side - 4C4 One Side - 4C4	A fire in Zone 5A3 could damage the packaged air conditioner serving the Computer Room and could also close the fire dampers. Reopening of these fire dampers is necessary only after the fire and if the air conditioning unit is still operable.

TABLE 1

FIRE DAMPERS REQUIRED FOR SMOKE REMOVAL AND/OR SYSTEM OPERATION

A	B	C	D	E	F	G
Fire Zones With Safe Shutdown or Safety Related Equipment	Ventilation System Serving The Fire Zone A	Assume A Fire Inside A or Outside (Surrounding) Fire Area	Fire Dampers of The Vent. Sys. Serving Fire Zone A Affected By Fire	Requirements For Reopening of Fire Dampers: 1. For Smoke Removal 2. For System Operation	Access Door Preferred Location And Zone No	Remarks
OFF-GAS BUILDING VENTILATION ROOM FIRE ZONES 10A1 AND 10B1 This zone contains safety-related cable trays but only divisional associated cables are contained within the trays.	VO	Fire Inside 10A1	None	-	-	A fire in this zone would damage the safety-related cable trays, however, this would not affect the safe shutdown of the plant.

ATTACHMENT C

FIRE DAMPER

WALKDOWN REPORT

Rev. 0: 01/02/84
Rev. 1: 05/01/84
Rev. 2: 05/18/84
Rev. 3: 08/01/84

FIRE DAMPER WALKDOWN REPORT (NOTE 1)

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
1	OVA21Y	1390-1	4	VA101	X				X				Larger access door (6/6) needed (corridor). Install new 10/18 (side) door on opposite side (Locker Room).
2	OVA22Y	1390-1	4	VA101	X			X					12/12 (corridor) - Not accessible. 16/16 (side), Locker Room - accessible.
3	OVA23Y	1390-1	4	VA101	X				X				Can't reach (small duct). Larger access door (4/4) needed (corridor). Larger 6/6 door not possible (balancing damper in Locker Room).
4	OVA24Y	1390-1	4	VA101	X			X					Accessible from Men's Room.
5	OVA25Y	1390-1	4	VA101	X			X					Accessible from closet. Side of elbow with vane.
6	OVA26Y	1390-1	4	VA101		X			X				New 10/10 (side) door from Men's Room.
7	OVA27Y	1390-1	3	VA101	X			X					
8	OVA28Y	1390-1	4	VA101	X			X					
9	OVA29Y	1390-1	4	VA101		X			X				New 16/14 (side) door from Men's Room.
10	OVA30Y	1390-1	3	VA101	X			X					

NOTES:
1. VS & VJ Systems not included.
2. "R" indicates manufactured by Ruskin Manufacturing Company; "BLANK" indicates Advanced Air Products.
3. "H" indicates Horizontal fire damper, while a "BLANK" means Vertical fire damper.
4. "S" means seismic; "BLANK" means non-seismic.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
11	OVA34Y	1391-1	3	VA101	X			X					
12	OVA35Y	1391-1	3	VA101	X			X					
13	OVA36Y	1390-1	4	VA101	X			X					Accessible from corridor.
14	OVA37Y	1390-1	4	VA101		X			X				New 16/16 (side) door from Men's Room.
15	OVA38Y	1391-1	3	VA101	X				X				New 14/8 (bottom) door.
16	OVA39Y	1391-1	3	VA101	X				X				6/6 existing door (bottom). New 10/10 (bottom) door.
17	OVA40Y	1391-1	3	VA101	X				X				6 x 6 access door (bottom). Cannot reach. New 10/8 (bottom) door.
18	OVA41Y	1391-1	3	VA101	X			X					
19	OVA42Y	1377-3	3	VA101	X				X	R			Too tight. Must crawl under 6' duct and access door in difficult position. New cascading 17/17 (side) door through OVA43Y.
20	OVA43Y	1377-3	3	VA101	X			X		R			Cascading doors for OVA42Y - 18/18 and 17-1/2 x 17-1/2 (inner door)

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
21	OVA44Y	1380-1	3	VA101	X			X		R	H		
22	OVA45Y	1380-1	3	VA101	X			X		R	H		
23	OVA46Y	1377-3	3	VA101	X				X	R			Larger (16/18) door.
24	OVA47Y	1380-1	3	VA101	X				X	R	H		Larger (22/15) door.
25	OVC37Y	1391-1	3	VC101	X				X			S	New 8/14 (bottom) door.
26	OVC38Y	1391-1	4	VC101	X				X			S	New 8/12 (side) door.
27	OVC39Y	1391-1	3	VC101	X			X				S	
28	OVC46Y	1391-1	3	VC101	X			X				S	
29	OVC47Y	1391-1	3	VC101	X			X				S	
30	OVC48Y	1391-1	3	VC101	X				X			S	Accessible from stairwell corridor.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
31	OVC49Y	1391-1	3	VC101	X				X			S	Cannot reach because of hanger.
32	OVC50Y	1391-1	1	VC101	X				X			S	New 16/16 (bottom) door.
33	OVC51Y	1391-1	1	VC101		X			X			S	Bad location of access door. Make elbow on Control Room side removable.
34	OVC60Y	1380-1	3	VC101	X				X	R	H	S	Larger (18/18) door. Locate closer.
35	OVC61Y	1380-1	3	VC101	X				X	R	H	S	Larger (18/18) door. Locate closer.
36	OVC62Y	1377-2	1	VC101	X				X	R	H	S	Larger (18/18) door (side). 17-1/2/17-1/2 (inner door).
37	OVC63Y	1377-2	1	VC101		X			X	R	H	S	Not accessible from top. No access door from below (Control Room). Cascade door through OVC62Y. New 17/17 door (side).
38	OVC64Y	1377-2	1	VC101	X				X	R	H	S	Larger door (18/18) on side to accommodate OVC64Y. 17-1/2 x 17-1/2 inner door.
39	OVC65Y	1377-2	1	VC101		X			X	R	H	S	Not accessible from top. No access door from below (Control Room). New 17/17 (side) door. Cascade through OVC64Y.
40	OVC66Y	1380-2	1	VC101	X				X	R	H	S	Cannot reach. Presently, two doors with screws. Lower and larger door.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
41	OVC67Y	1390-1	1	VC101	X				X	R	H	S	Must be accessible from top to reset horizontal damper.
42	OVC68Y	1380-2	1	VC101		X			X	R	H	S	No access door. Locate door on Elevation 786. New 27/10 (side) door.
43	OVC69Y	1391-1	1	VC101	X				X	R	H	S	Must be accessible from top to reset horizontal damper.
44	OVD04Y	1397	4	VD101	X			X				S	
45	OVD05Y	1397	4	VD101	X			X			H	S	
46	OVD06Y	1395	4	VD101	X			X			H	S	
47	OVD07Y	1397	4	VD101	X			X				S	
48	OVD40Y	1395	4	FP101	X			X		R	H	S	Accessible from top through panels (4).
49	OVD41Y	1397	4	FP101	X			X		R		S	
50	OVE22Y	1390-1	3	VE101	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
51													
52													
53	OVE25Y	1390-1	3	VE101	X			X				S	No access door from Computer Room. New 18 x 18 (bottom) in Computer Room. Access door installed.
54	OVE31Y	1380-1	3	VE101	X			X		R		S	Ladder or can climb.
55	OVE32Y	1380-1	3	VE101	X				X	R		S	Can climb. Larger (20/20) door. Must get into duct.
56	OVE33Y	1389-1	3	VE101	X			X		R		S	Must get into duct.
57	OVE34Y	1389-1	3	VE101	X				X	R		S	Larger (15/20) door (bottom).
58	OVE35Y	1389-1	1	VE101	X				X			S	Larger (12/24) door (bottom).
59	OVE36Y	1389-1	1	VE101	X			X				S	
60	OVE37Y	1389-1	1	VE101	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Prior-ity	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
61	OVE38Y	1389-1	1	VE101	X			X				S	
62	OVE39Y	1389-2	3	VE101	X				X			S	Link seen from elbow access door (15/15). Bottom seen from 6/6 access door. Replace 16/16 door (side) with 18/18 door. Must get into duct and go through outer annulus of vaned elbow.
63	OVE40Y	1389-2	3	VE101		X			X			S	No access door. Put access door (18/18) in outer rolled section of elbow (side).
64	OVE41Y	1389-2	1	VE101	X				X	R		S	Cannot reach. New 20/24 (side) door.
65	OVE42Y	1389-2	1	VE101	X			X				S	
66	OVE43Y	1377-1	3	VE101	X			X				S	Need scaffolding or ladder.
67	OVE44Y	1377-1	3	VE101	X			X				S	Need scaffolding or ladder.
68	OVE45Y	1377-3	3	VE101	X				X			S	Need scaffolding. Larger (18/18) door (side) and locate closer.
69	OVE46Y	1377-3	3	VE101	X				X			S	Need ladder or climb. New 20/20 (top) door and locate closer.
70	OVE47Y	1390-1	3	-	X			X		R		S	Need to remove ceiling tiles in elevator lobby.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
71	OVE48Y	1390-1	3	-	X				X	R		S	Existing door on inside radius of vaned elbow. New 18/18 door on outer radius (side).
72	OVE49Y	1389-2	1	VE101	X			X		R		S	
73	OVE50Y	1389-2	1	VE101		X			X			S	No access door. Locate 18/18 door on side. Must crawl in.
74	OVE51Y	1389-2	2	VE101	X				X	R		S	No two hands on Ruskin damper. Provide new section of duct with access door.
75	OVE52Y	1389-2	2	VE101	X				X	R		S	Cannot reach and cannot locate access door closer. Make access door larger.
76	OVE53Y	1389-2	2	VE101	X			X		R		S	Ignore existing (14/14) door. Access through screen at OVE42Y.
	OVE60Y	1390-1	3	-	X			X					
77	OVH11Y	1441	5	-	X			X					
78	OVH15Y	1441	5	-	X			X					
79	OVL28Y	1388-1	3	VL101	X				X				New 12/14 (top) door from elevator corridor.
80	OVL29Y	1388-1	3	VL101	X			X					Accessible from top of duct - elevator corridor.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
81	OVL30Y	1388-1	3	VL101	X			X					
82	OVL31Y	1388-1	3	VL101	X				X				Larger access door needed. New 18/12 (top) door. Above elevator corridor.
83	OVL36Y	1388-1	4	VL101	X			X					
84	OVL38Y	1388-1	4	VL101	X			X					
85	OVL41Y	1388-1	4	VL101	X			X					
86	OVL42Y	1388-1	4	VL101	X			X					
87	OVL43Y	1388-1	4	VL101	X				X				New mitered elbow with 10/6 (top) door.
88	OVL44Y	1388-1	4	VL101	X				X				Larger access door (6/6) needed (side). New 12/6 (top) door.
89	OVL47Y	1388-1	4	VL101	X			X					
90	OVL48Y	1388-1	3	VL101	X				X				New 8/14 (bottom) door. Laboratory corridor.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
91	OVL49Y	1388-1	3	VL101	X				X				New 8/14 (bottom) door. Laboratory corridor.
92	OVL50Y	1388-1	3	VL101	X			X					
93	OVL51Y	1388-1	3	VL101	X				X				New 18/18 (top) door. Elevator corridor.
94	OVL52Y	1388-2	3	VL101	X			X					
95	OVL53Y	1388-2	3	VL101	X			X					
96	OVL54Y	1388-2	3	VL101	X			X					
97	OVL57Y	1388-2	3	VL101		X			X				Larger access door (6/6) needed. New 12/12 (top) door.
98	OVL58Y	1388-2	3	VL101		X			X				Larger access door (6/6) needed. Duct (5/6) too small.
99	OVL59Y	1388-2	3	VL101	X				X				Access door hits duct intermediate reinforcement angle. Make hinged door removable.
100	OVL62Y	1388-2	3	VL101		X			X				New 14/12 (bottom) door.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
101	OVL63Y	1377-2	3	-	X				X				Cannot reach. New 20/18 (top) door. Put closer.
102	OVL69Y	1388-6	3	-	X		X			R			Accessible, but Ruskin "C" type damper with linkage recessed 3" to 4". Replace damper with Style A.
103	OVL70Y	1388-6	3	-	X				X	R			New 16/16 (bottom) door on vaned elbow in Counting Room.
104	OVL71YA	1388-6	3	-	X			X		R			
105	OVL71YB	1388-6	3	-	X			X		R			
106	OVL74Y	1388-6	3	-	X			X		R	H		
107	OVL75Y	1388-6	3	-	X		X			R	H		Linkage too deep in hat section.
108	OVL76Y	1388-6	3	-	X		X			R	H		Linkage too deep in hat section.
109	OVL77Y	1388-6	3	-	X		X			R	H		Linkage too deep in hat section.
110	OVL78Y	1388-6	3	-		X	X			R	H		Cannot reach and cannot see (curtain recessed). If visual make access door 12/18.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
111	OVL79Y	1388-6	3	-	X		X			R	H		Linkage too deep in hat section.
112	OVL80Y	1388-6	3	-	X			X		R	H		
113	OVL81Y	1388-6	3	-	X			X		R	H		
114	OVL82Y	1388-6	3	-	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
115	OVL83Y	1388-6	3	-	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
116	OVL84Y	1388-6	3	-	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
117													
118													
119	OVS160Y	1389-1	4	-	X			X				S	
120	OVS161Y	1389-1	3	-	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
121	OVS163Y	1389-1	4	-	X			X				S	
122	OVV31Y	1390-1	3	-	X			X					
123	OVV32Y	1390-1	3	-	X			X					
	OVV40Y	1390-1	3	-	X			X					
124	OVW06Y	1413	5	VW101	X			X					Crawl into duct.
125	OVW11Y	1435	5	VW101	X				X				New 18/18 (bottom) door.
126	OVW30Y	1435	5	VW101	X				X				New 6/6 door with cable tray below. New 20/20 (bottom) door.
127	OVW32Y	1413	5	VW101	X			X					
128	OVW42Y	1432-2	5	VW101		X			X				No door. New 18/24 (side) door.
129	OVW47Y	1435	5	VW101	X			X					
130	OVW50Y	1435	5	VW101	X			X					

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
131	OVW78Y	1432-2	5	VW101	X				X				New 12/18 (bottom) door. Existing vane stops short.
132	OVW89Y	1429	5	VW101	X				X				Shorten outer vane. Need 12/16 (bottom) door.
133	OVW90YA	1429	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
134	OVW90YB	1429	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
135	OVW90YC	1430	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
136	OVW90YD	1430	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
137	OVW90YE	1430	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
138	OVW90YF	1430	5	VW101	X			X					Disconnect damper linkage from operator to test operation.
139	1VD04Y	1397	4	VD101	X			X				S	
140	1VD05Y	1397	4	VD101	X			X			H	S	

Sequential Number	Damper Number	Drawing Number (m-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
141	1VD06Y	1397	4	VD101	X			X			H	S	
142	1VD07Y	1397	4	VD101	X			X				S	
143	1VD12Y	1397	4	VD101	X			X				S	
144	1VD13Y	1397	4	VD101	X			X			H	S	
145	1VD14Y	1395	4	VD101	X			X			H	S	
146	1VD15Y	1397	4	VD101	X			X				S	
147	1VD20Y	1437	4	VD101	X			X				S	
148	1VD21Y	1437	4	VD101	X			X				S	
149	1VD23Y	1399	4	VD101	X				X			S	New 18/18 (bottom) door.
150	1VD24Y	1399	4	VD101	X				X			S	New 16/16 (side) door.

Sequential Number	Damper Number	Drawing Number (M-)	Prior-ity	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual			Operation					
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
151	1VD25Y	1399	4	VD101	X		X					S	Cannot reach (36" wall) 12/6 duct.
152	1VD40Y	1395	4	FP101	X			X		R	H	S	Accessible from top through panels (4).
153	1VD41Y	1397	4	FP101	X			X		R	H	S	
154	1VD42Y	1395	4	-		X			X	R	H	S	No access door. Make elbow removable and install an access door.
155	1VD43Y	1395	4	FP101	X			X		R	H	S	Accessible from top through panels (4).
156	1VD44Y	1397	4	FP101	X			X		R		S	Scaffolding required.
157	1VR76Y	1351-2	3	VR101		X			X				6/6 door on fuel load bay side. Redesign ductwork with door in Machine Room.
158	1VR77Y	1351-2	3	VR101	X			X					
159	1VT22Y	1414	5	VT101	X			X			H		
160	1VT29Y	1414	5	VT101	X			X					

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
161	1VT35Y	1414	5	VT101	X			X			H		
162	1VT36Y	1414	5	VT101	X			X			H		
163	1VT41Y	1438	5	VT101	X			X					
164	1VT42YA	1438	5	VT101	X			X					Oil Storage Area. Need to remove grille and backdraft damper assembly (bolts and gasket).
165	1VT42YB	1438	5	VT101	X			X					Oil Storage Area. Need to remove grille and backdraft damper assembly (bolts and gasket).
166	1VT44Y	1416	5	VT101	X			X					
167	1VT46Y	1418-1	5	VT101	X			X					Must get into duct.
168	1VT50Y	1420	3	VT101	X			X			H		Accessible from top (18/18) door.
169	1VT51Y	1420	3	VT101	X				X		H		New 18/18 door.
170	1VT52Y	1420	3	VT101	X				X				Accessible from crane basket. Doors both sides but vaned elbow on both sides.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual			Operation					
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
171	1VT53Y	1387-1	3	VT101	X				X				Redesign ductwork. New 20/16 (bottom) door.
172	1VT55Y	1389-1	3	VT101	X				X				Larger access door (8/8) required (bottom). Door in elbow with vanes. Locate 16/16 (side) door on outer radius.
173	1VT59YA	1389-1	2	VT101	X			X			H		Grate welded for security. Use ladder from below.
174	1VT59YB	1389-1	2	VT101	X			X			H		Grate welded for security. Use ladder from below.
175	1VT59YC	1389-1	2	VT101	X			X			H		Grate welded for security. Use ladder from below.
176	1VT59YD	1389-1	2	VT101	X			X			H		Grate welded for security. Use ladder from below.
177	1VT60YA	1387-1	4	VT101	X			X			H		
178	1VT60YB	1387-1	4	VT101	X			X			H		
179	1VT61Y	1411-1	3	VT101	X			X					
180	1VT62Y	1411-1	3	VT101	X			X					

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
181	1VT69Y	1418-1	5	VT101		X			X				Bottom of duct access door not accessible due to screen enclosure. New 18/18 (side) door on opposite side.
182	1VT72Y	1416	5	VT101	X			X					
183	1VT73Y	1416	5	VT101	X			X					
184	1VT76Y	1414	5	VT101	X			X			H		
185	1VT80Y	1421	3	VT101	X			X					
186	1VT81Y	1421	3	VT101	X			X					
187	1VV06Y	1379-1	3	HV101	X			X					
188	1VV07Y	1387-1	3	HV101	X			X		R			
189	1VV08Y	1390-1	3	-	X			X		R			
	1VV10Y	1379-1	3	-	X			X					
190	1VX01Y	1387-1	3	VX101	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
191	1VX05Y	1387-1	3	VX101	X		X					S	Accessible if screen and backdraft damper assembly removed. Can be accessible if spool piece added with door.
192	1VX06Y	1389-1	3	VX101	X			X				S	
193	1VX10Y	1389-1	3	VX101	X		X					S	Must remove 6' x 8' backdraft damper to be accessible. Spool piece not adequate (8"). No space for spool piece.
194	1VX12Y	1389-1	3	VX101	X		X					S	Must remove 6' x 8' backdraft damper to be accessible. Spool piece not adequate (8"). Sufficient space for spool piece with door.
195	1VX13Y	1388-1	3	VX101	X		X					S	Plenum and control damper. Shaft other side. Cannot reach fire damper through control damper.
196	1VX15Y	1381-1	3	VX101	X			X				S	
197	1VX16Y	1381-1	3	VX101	X		X				H	S	Bottom of shaft. Not accessible through backdraft damper.
198	1VX28YA	1375-1	3	VX101	X			X				S	Accessible through control damper. Grating in shaft.
199	1VX28YB	1375-1	3	VX101	X			X				S	Accessible through control damper. Grating in shaft.
200	1VX29YA	1375-1	3	VX101	X			X				S	Accessible through control damper. Grating in shaft.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
201	1VX29YB	1375-1	3	VX101	X			X				S	Accessible through control damper. Grating in shaft.
202	1VX30Y	1388-1	3	VX101	X			X				S	
203	1VX31Y	1388-1	4	VX101	X			X			H	S	
204	1VX32Y	1388-1	4	VX101	X			X				S	
205	1VX33Y	1388-1	4	VX101	X			X			H	S	
206	1VX34Y	1389-1	4	VX101	X			X				S	
207	1VX35Y	1389-1	4	VX101		X			X			S	No access door. Increase size of fire damper and install access door on end plate of fire damper sleeve.
208	1VX36Y	1387-1	4	VX101	X			X			H	S	
209	1VX37Y	1387-1	4	VX101	X			X				S	
210	1VX38Y	1387-1	4	VX101	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
211	1VX39Y	1387-1	4	VX101	X			X			H	S	
212	1VX41Y	1387-1	4	VX101	X				X			S	Larger 16/16 (bottom) door.
213	1VX42Y	1387-1	2	VX101	X				X			S	Unweld screen and install bolts.
214	1VX43Y	1387-1	4	VX101	X			X				S	
215	1VX44Y	1387-1	2	VX101	X			X				S	
216	1VX45Y	1387-1	2	VX101	X				X			S	Cannot reach. Larger 20/16 (bottom) door. Must get in duct.
217	1VX46Y	1387-1	2	VX101	X				X			S	Access door (6/6) small. Insrall new 12/14 access door on bottom of elbow.
218	1VX50Y	1388-1	2	VX101		X			X	R		S	No access door. New 18/18 (side) door.
219	1VX52Y	1388-1	3	VX101	X			X		R		S	
220	1VX54Y	1389-1	4	VX101	X			X		R		S	

Sequential Number	Damper Number	Drawing Number (M-)	Prior-ity	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
221	1VX56Y	1387-1	4	VX101	X			X				S	
222	1VX57Y	1389-1	2	VX101	X				X	R		S	Small (10/6) duct. Accessible if larger fire damper (block wall) or section of duct is removable.
223	1VX58Y	1389-1	2	VX101	X			X		R		S	
224	1VX59Y	1388-1	2	VX101	X				X			S	New 18/18 (side) door.
225													
226													
227	2VD04Y	1398	3	FP201	X			X				S	
228	2VD05Y	1398	3	FP201	X			X			H	S	
229	2VD06Y	1398	3	VD201	X				X		H	S	New 16/20 door.
230	2VD07Y	1398	3	VD201	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod	W/ Mod.	No	W/O Mod.	W/ Mod.				
231	2VD12Y	1398	4	VD201	X			X				S	
232	2VD13Y	1398	4	VD201	X			X			H	S	
233	2VD14Y	1398	4	VD201	X				X	R	H	S	New 20/16 door.
234	2VD15Y	1398	4	VD201	X			X				S	
235	2VD20Y	1438	4	VD201	X			X				S	
236	2VD21Y	1438	4	VD201	X			X				S	
237	2VD23Y	1400	4	VD201	X				X			S	New 16/16 (bottom) door.
238	2VD24Y	1400	4	VD201	X			X				S	
239	2VD25Y	1400	4	VD201	X		X					S	Cannot reach. Small duct (12/6). 36" wall. Existing 8/8 door.
240	2VD40Y	1396	4	FP201	X			X		R	H	S	Accessible from top through panels (4).

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
241	2VD41Y	1396	4	FP201	X			X		R	H	S	Install door in block wall (like 1VD41Y) or scaffolding from below.
242	2VD42Y	1396	3	VD201	X			X		R	H	S	16/16 door on bottom (Diesel Generator Room).
243	2VD43Y	1396	4	FP201	X			X		R	H	S	Accessible from top through panels (4).
244	2VD44Y	1396	4	FP201	X			X		R	H	S	Install door in block wall (like 1VD41Y) of scaffolding from below.
245	2VD45Y	1396	4	VD201	X				X	R	H	S	Elbows with vanes. Shorten outer vane and new 16/16 (side) door.
246	2VR76Y	1352-2	3	VR201	X				X				Larger (10/8) door.
247	2VR77Y	1352-2	3	VR201	X			X					
248	2VT22Y	1415-1	5	VT201	X			X			H		
249	2VT29Y	1415-1	5	VT201	X			X					
250	2VT35Y	1415-1	5	VT201	X			X			H		

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
251	2VT36Y	1415-1	5	VT201	X			X			H		
252	2VT44Y	1417	5	VT201	X			X					
253	2VT46Y	1418-2	5	VT201	X			X					Must get in duct.
254	2VT50Y	1422	3	VT201	X				X		H		Must be accessible from top to reset horizontal damper.
255	2VT51Y	1422	3	VT201	X			X			H		
256	2VT52Y	1422	3	VT201	X				X				Accessible from crane basket for visual inspection. No door on Auxiliary Building side.
257	2VT53Y	1387-2	3	VT201		X			X				Locate access door (18/14) in elbow on outer radius.
258	2VT55Y	1389-2	3	VT201	X			X					
259	2VT59YA	1389-2	2	VT201	X			X			H		Grate welded for security. Use ladder from below.
260	2VT59YB	1389-2	2	VT201	X			X			H		Grate welded for security. Use ladder from below.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
261	2VT59YC	1389-2	2	VT201	X			X			H		Grate welded for security. Use ladder from below.
262	2VT59YD	1389-2	2	VT201	X			X			H		Grate welded for security. Use ladder from below.
263	2VT60YA	1387-2	4	VT201	X			X			H		
264	2VT60YB	1387-2	4	VT201	X			X			H		
265	2VT61Y	1412	3	VT201	X			X					
266	2VT62Y	1412	3	VT201	X			X					
267	2VT69Y	1418-2	5	VT201	X				X				New 17/18 (bottom) door.
268	2VT72Y	1417	5	VT201	X				X				New 18/18 (bottom) door.
269	2VT73Y	1417	5	VT201	X			X					
270	2VT76Y	1415-1	5	VT201	X			X			H		

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
271	2VV07Y	1388-2	3	-	X			X		R			
272	2VV08Y	1389-2	3	-		X			X	R			14/14 opening exists without access door. Install access door.
273	2VV09Y	1387-2	3	-	X			X		R			
274	2VV10Y	1391-1	3	-	X			X		R			Access from Turbine Building by taking off smoke relief cap.
275	2VX01Y	1387-2	3	VX201	X			X				S	
276	2VX05Y	1387-2	3	VX201	X		X					S	Accessible if screen and backdraft damper assembly removed, or adding spool piece (none) with door.
277	2VX06YA	1389-2	3	VX201	X			X				S	
278	2VX06YB	1389-2	3	VX201	X			X				S	
279	2VX10Y	1389-2	3	VX201	X		X					S	Not accessible for operational testing unless grating provided in shaft. Access through 2VX12Y.
280	2VX12Y	1389-2	3	VX201	X				X			S	Increase access door width from 12 to 22.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
281	2VX13Y	1388-2	3	VX201	X		X					S	Not accessible through control damper.
282	2VX15Y	1381-2	3	VX201	X			X				S	
283	2VX16Y	1381-2& 1388-2	3	VX201	X		X				H	S	Bottom of shaft. Not accessible through backdraft damper.
284	2VX28YA	1376-1	3	VX201	X			X				S	Accessible through control damper.
285	2VX28YB	1376-1	3	VX201	X			X				S	Accessible through control damper.
286	2VX29YA	1376-1	3	VX201	X			X				S	Accessible through control damper.
287	2VX29YB	1376-1	3	VX201	X			X				S	Accessible through control damper.
288	2VX30Y	1388-2	4	VX201	X			X				S	
289	2VX31Y	1388-2	4	VX201	X			X			H	S	
290	2VX32Y	1388-2	3	VX201	X			X				S	

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
291	2VX33Y	1388-2	3	VX201	X			X			H	S	
292	2VX34Y	1389-2	4	VX201	X			X				S	
293	2VX35Y	1389-2	4	VX201	X			X			H	S	
294	2VX36Y	1387-2	4	VX201	X			X				S	
295	2VX37Y	1387-2	4	VX201	X			X				S	
296	2VX38Y	1387-2	4	VX201	X			X				S	
297	2VX39Y	1387-2	4	VX201	X			X				S	
298	2VX40Y	1388-2	3	VX201	X			X				S	
299	2VX41Y	1387-2	2	VX201		X			X			S	Larger (16/16) door (bottom).
300	2VX42Y	1387-1	2	VX201	X				X			S	Remove welds on screen and replace with bolts and nuts.

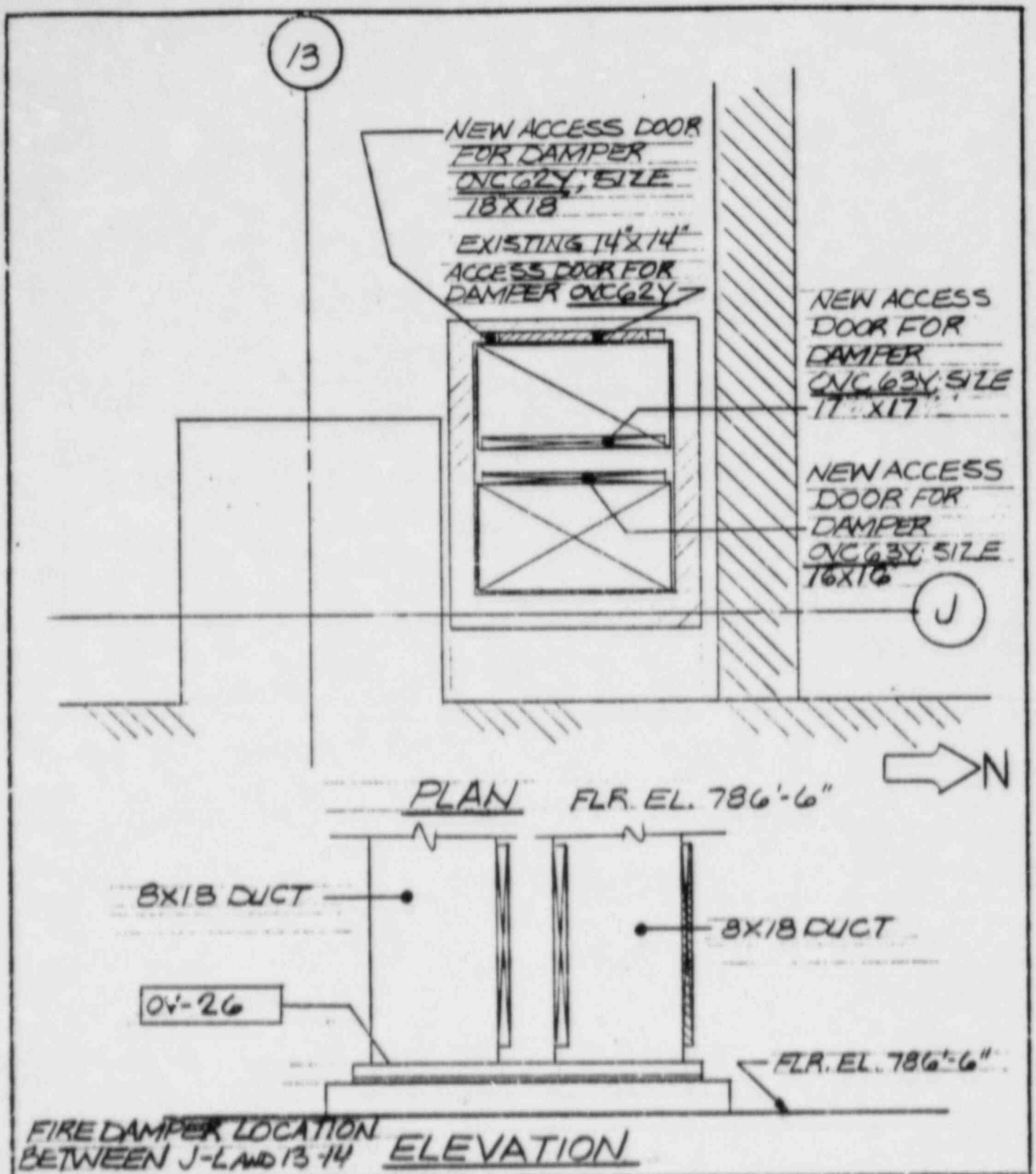
Sequential Number	Damper Number	Drawing Number (M-)	Prior-ity	Pre-Op Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
301	2VX43Y	1387-2	2	VX201	X			X				S	
302	2VX52Y	1388-2	3	VX201	X			X		R		S	
303	2VX54Y	1389-2	4	VX201	X			X		R		S	
304	2VX56Y	1387-2	3	VX201	X			X				S	
305	2VX60Y	1398	2	VX201	X			X		R		S	
306	2VY08Y	1398	3	VY202	X				X		H	S	New 16W/19H door.
307	2VY09Y	1398	3	VY202	X				X		H	S	New 16W/20H door.
308	2VY10Y	1400	2	VY202	X				X			S	Scaffolding required. New 24/30 door.
309	2VY11Y	1400	2	VY202	X				X			S	Scaffolding required. Make screen removable.
310	2VY12Y	1396	3	-	X				X	R	H	S	Elbow above floor to be removable.

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Pre-Op Tests	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
311	2VY13Y	1396	3	-	X			X		R	H	S	
TOTALS----------					286	22	29	196	92	72 (R)	82	162	

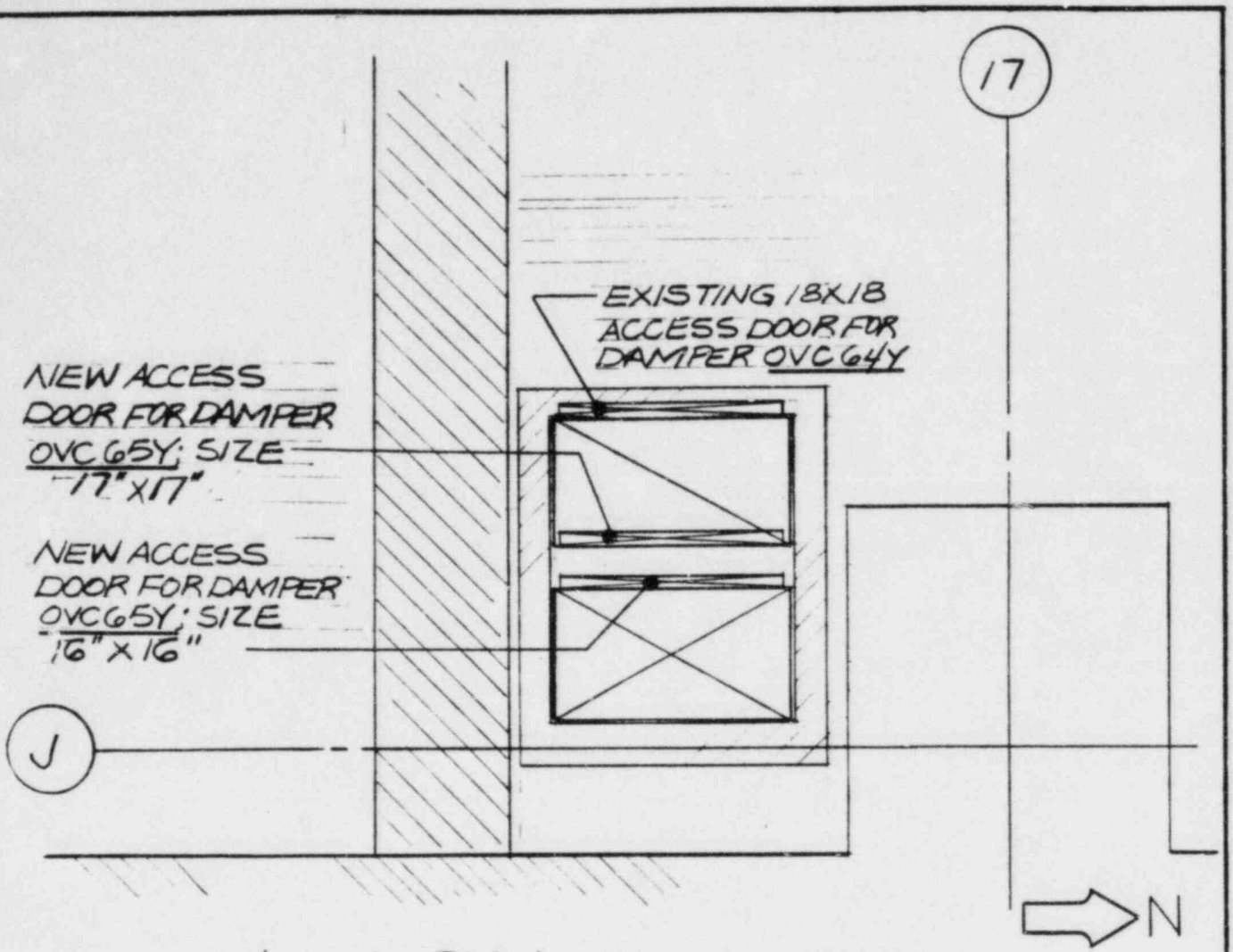
ATTACHMENT D

FIRE DAMPER

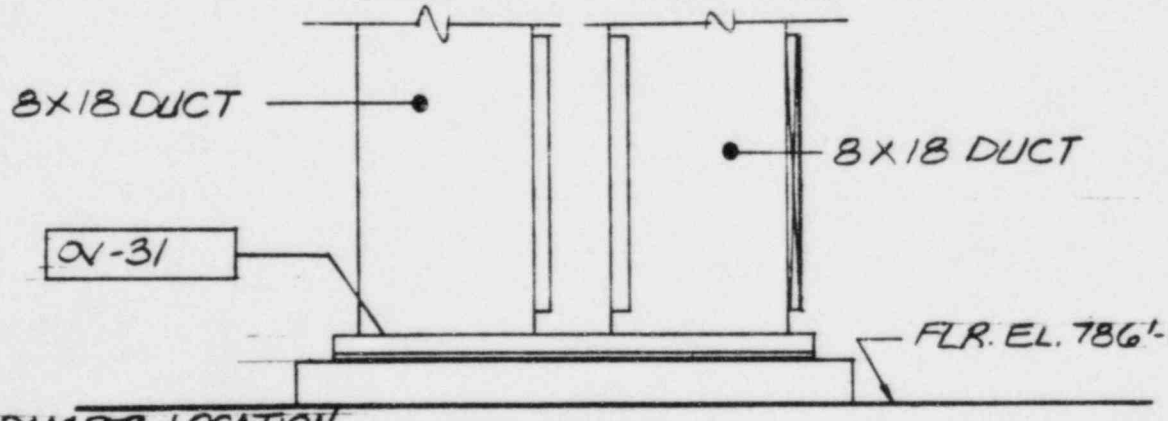
MODIFICATION DRAWINGS



CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE SKETCH REF. DWG. NO. 1377-2	
PREPARED BY C. A. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH NO. FDAM-1	Page 1 of ___



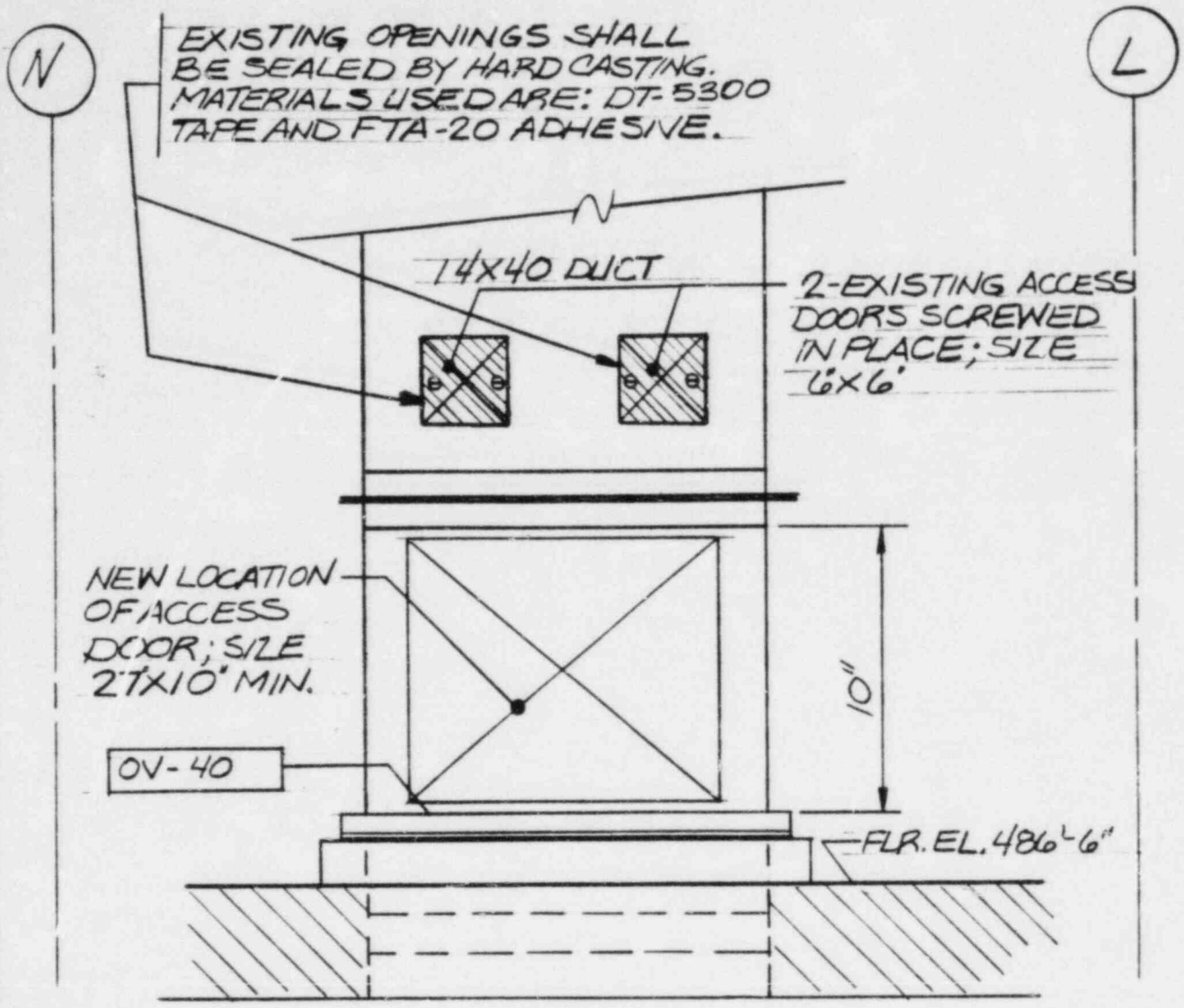
PLAN FLR. EL. 786'-6"



FIRE DAMPER LOCATION BETWEEN J-L AND 16-17

ELEVATION

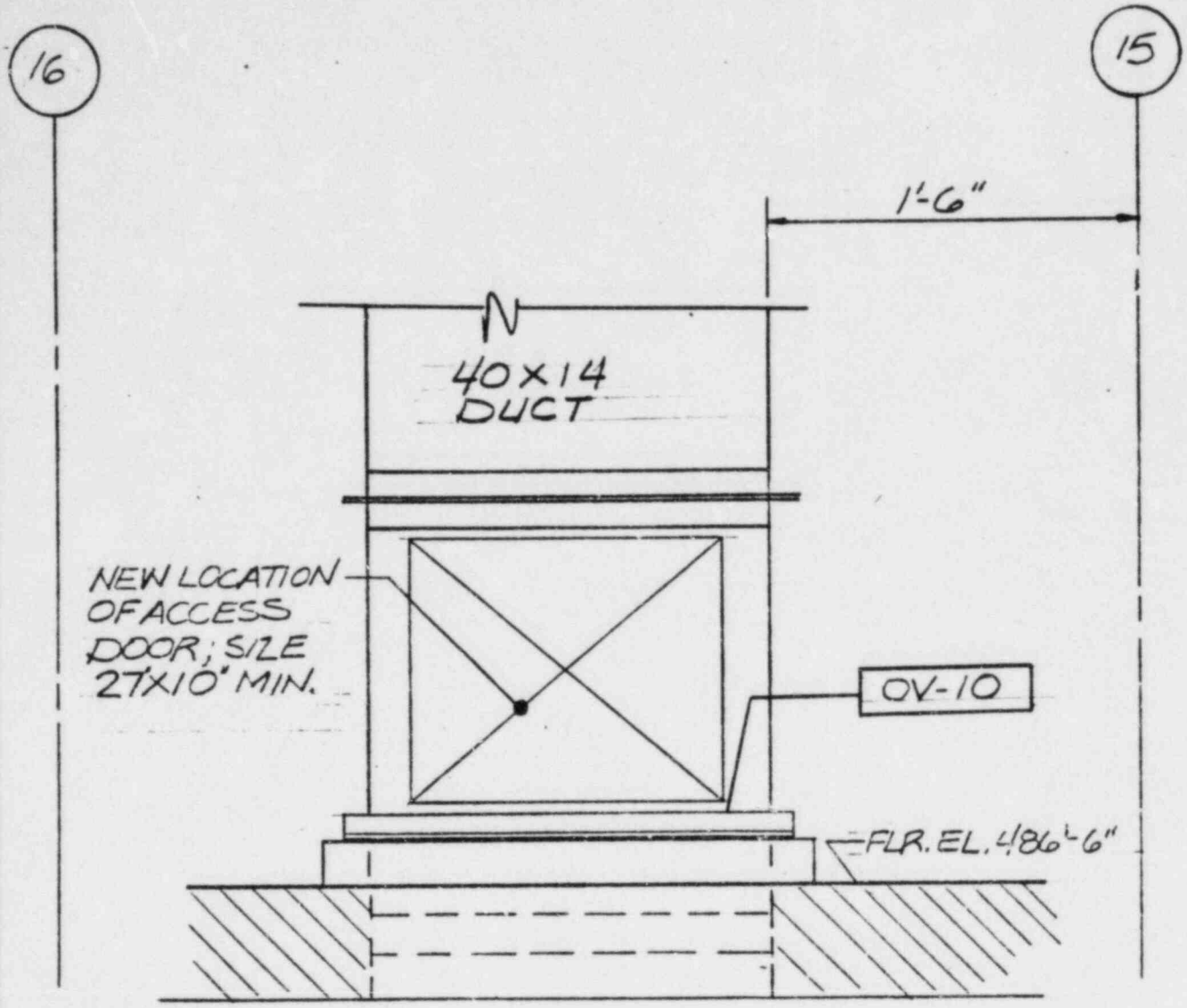
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE SKETCH REF. DWG. NO. 1377-2	
PREPARED BY C. K. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-2	Page 2 of —



ELEVATION

FIRE DAMPER LOCATION BETWEEN L-N AND 14-15

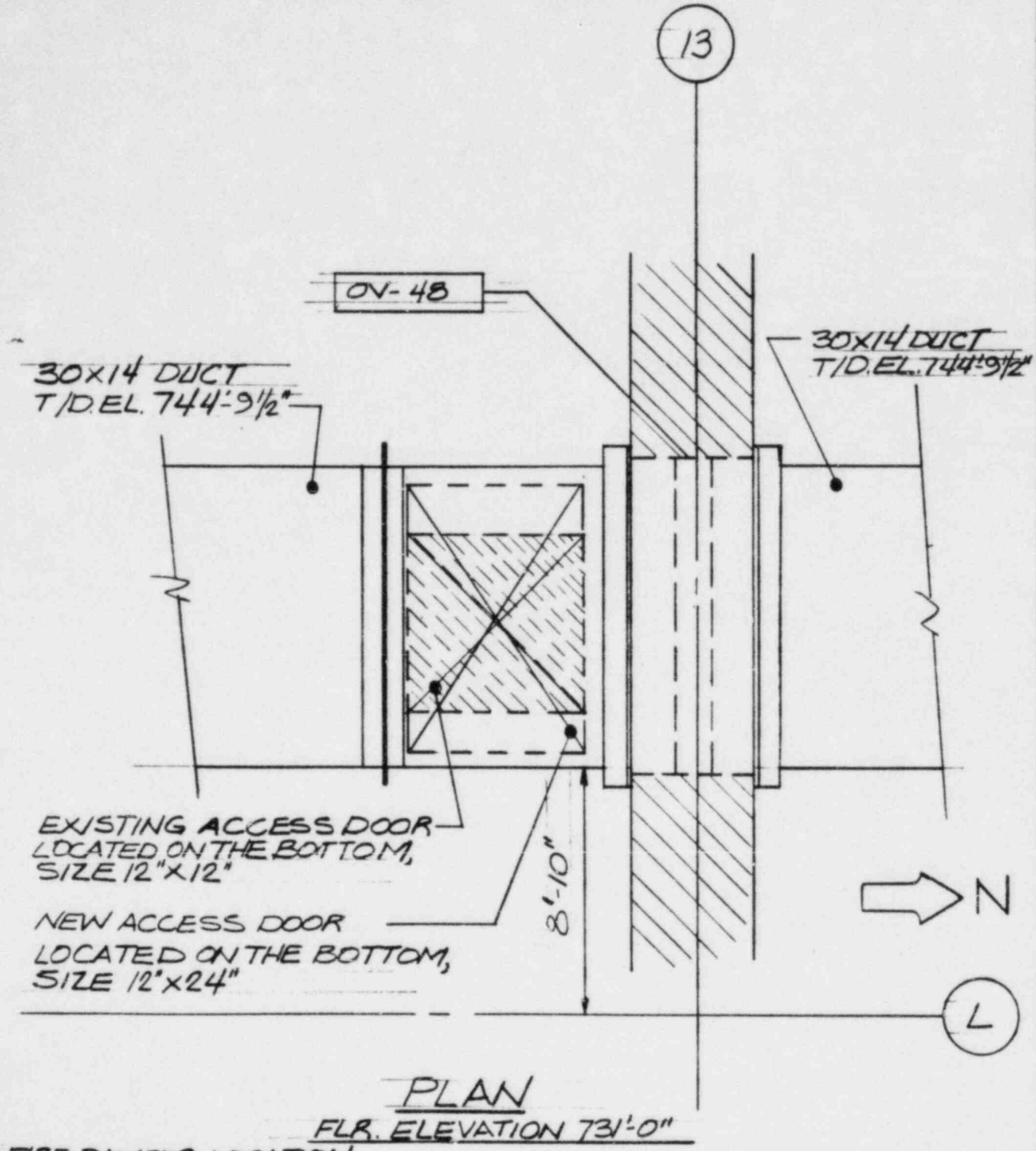
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVC66Y REF. DWG. NO. 1380-2	
PREPARED BY: C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-3	Page 3 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN L-N AND 15-16

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVC68Y REF. DWG. NO. 1330-2	
PREPARED BY C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-4	Page 4 of —

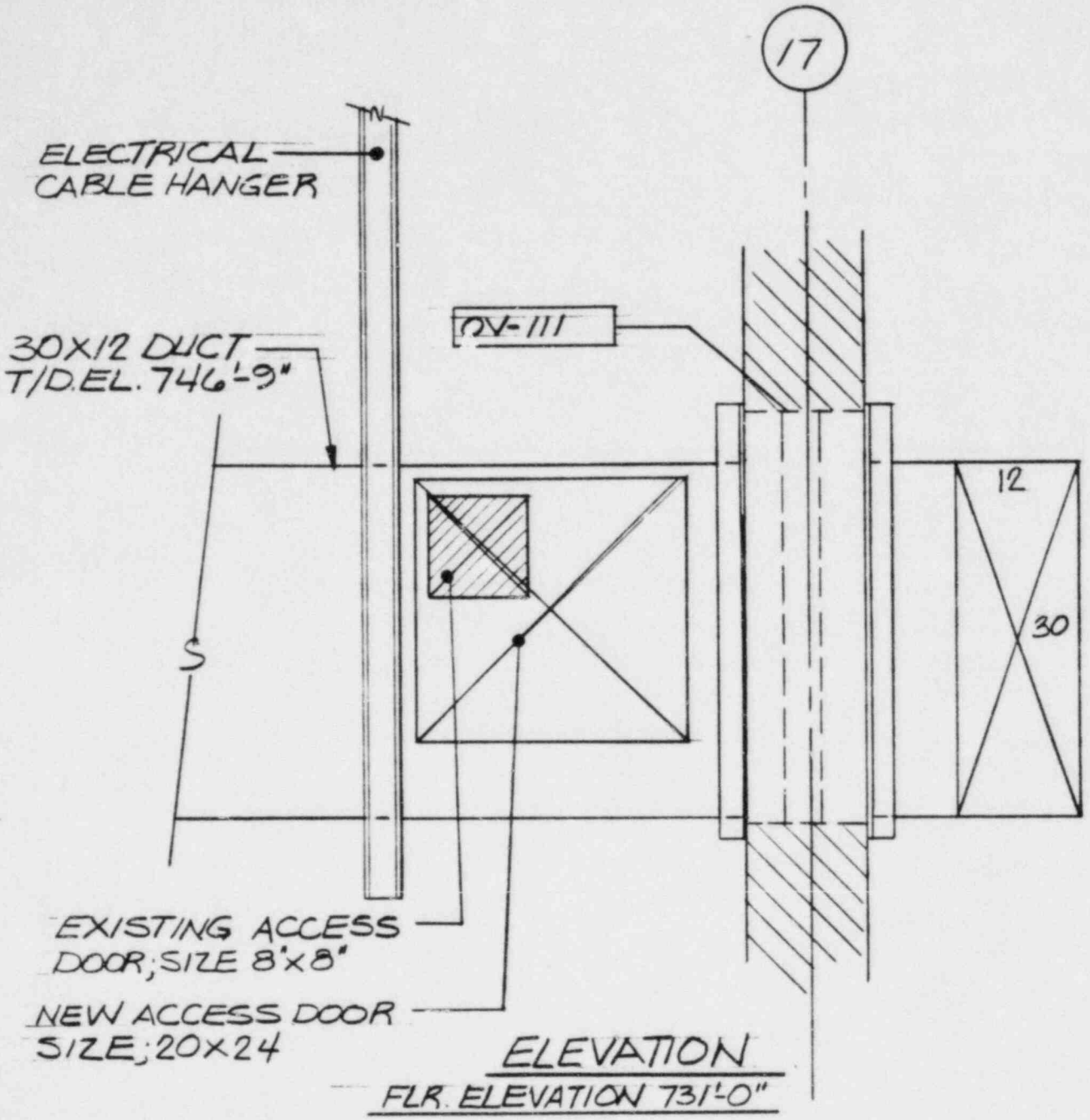


PLAN

FLR. ELEVATION 731'-0"

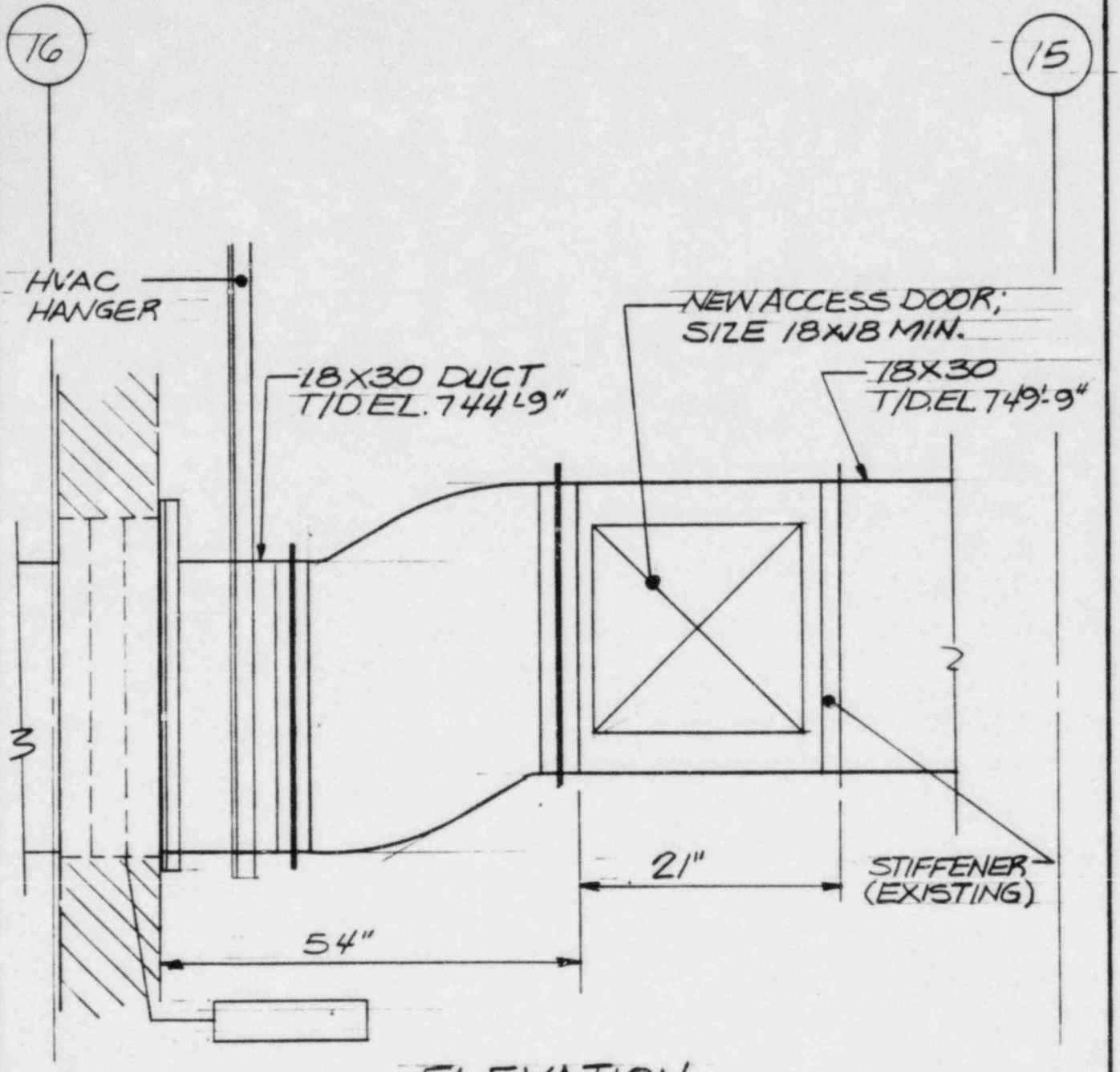
FIRE DAMPER LOCATION
BETWEEN L-N AND 13-14

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE35Y REF. DWG. NO. 1389-1	
PREPARED BY: [signature] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-5	Page 5 of —



FIRE DAMPER LOCATION BETWEEN L-N AND 17-18

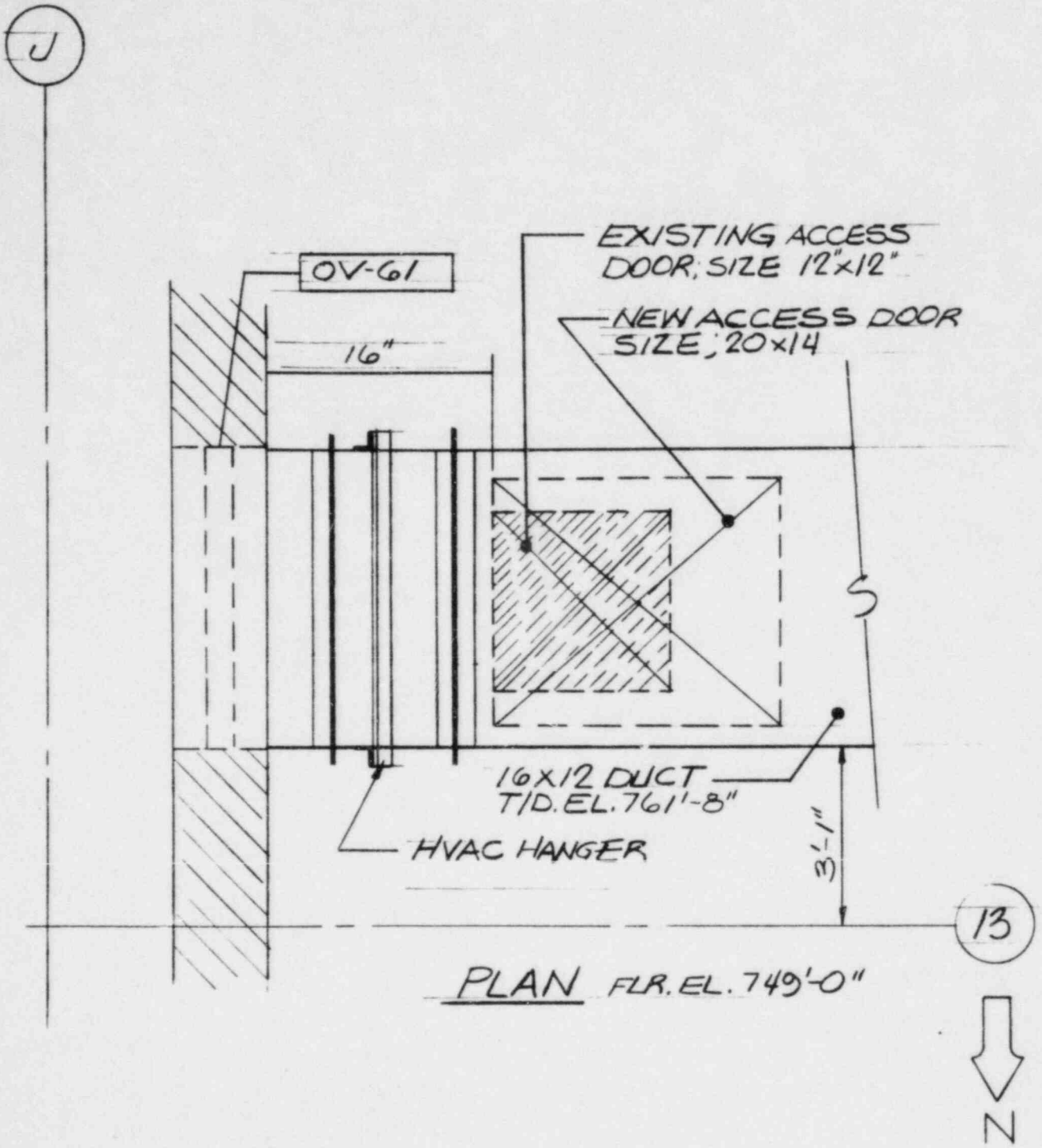
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE41Y REF. DWG. NO. 1389-2	
PREPARED BY C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-6	Page 6 of —



ELEVATION
FLR. ELEVATION 731'-0"

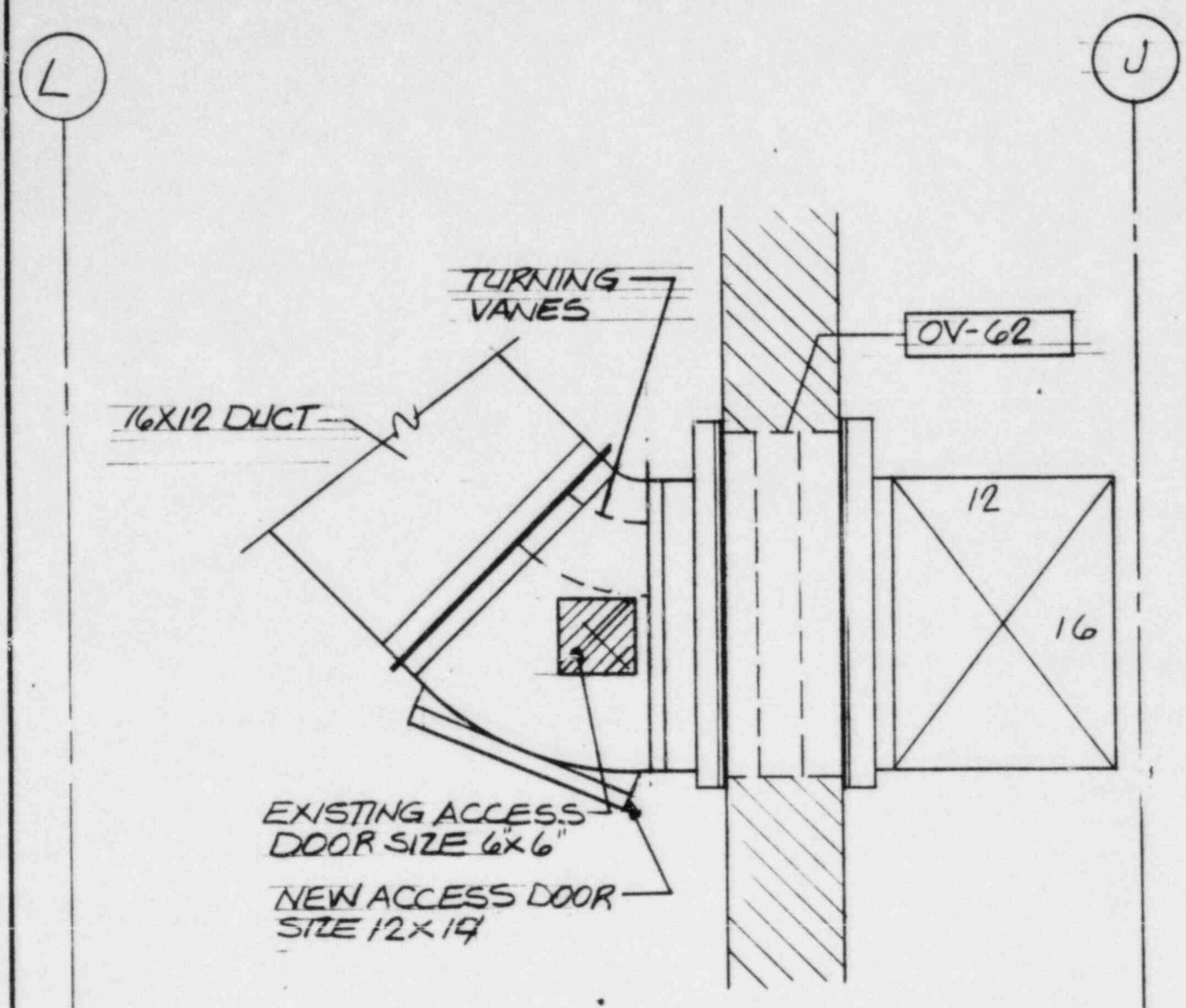
FIRE DAMPER LOCATION
BETWEEN L-N AND 16-17

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE50Y REF. DWG. NO. 1389-2	
PREPARED BY C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH NO. FDAM-7	Page 7 of —



FIRE DAMPER LOCATION BETWEEN J-L AND 13-14

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVX45Y REF. DWG. NO. 1387-1	
PREPARED BY: C. Stearns DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-8	Page 8 of —

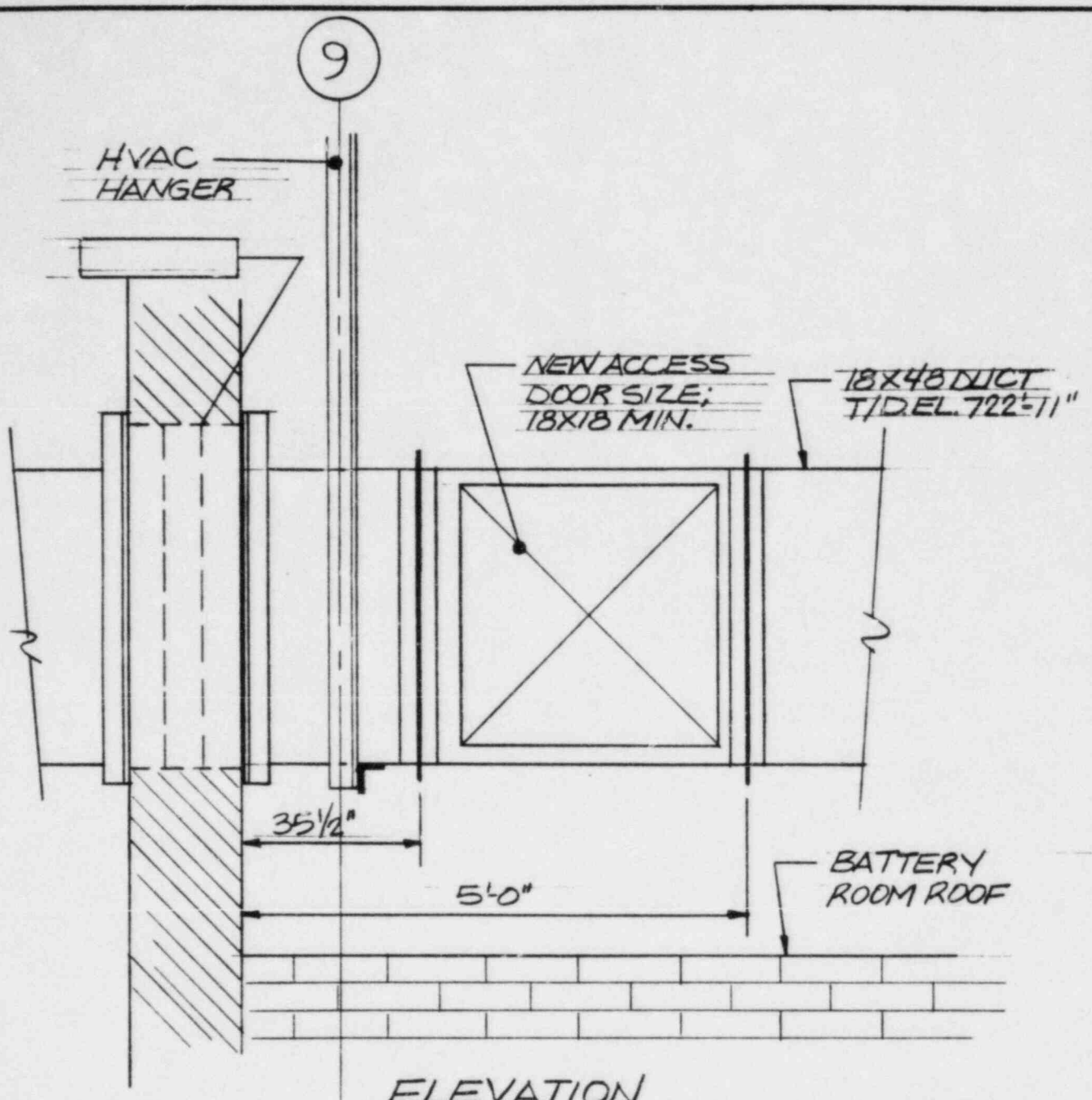


ELEVATION

FLR. ELEVATION 749'-0"

FIRE DAMPER LOCATION BETWEEN J-L AND 14-15

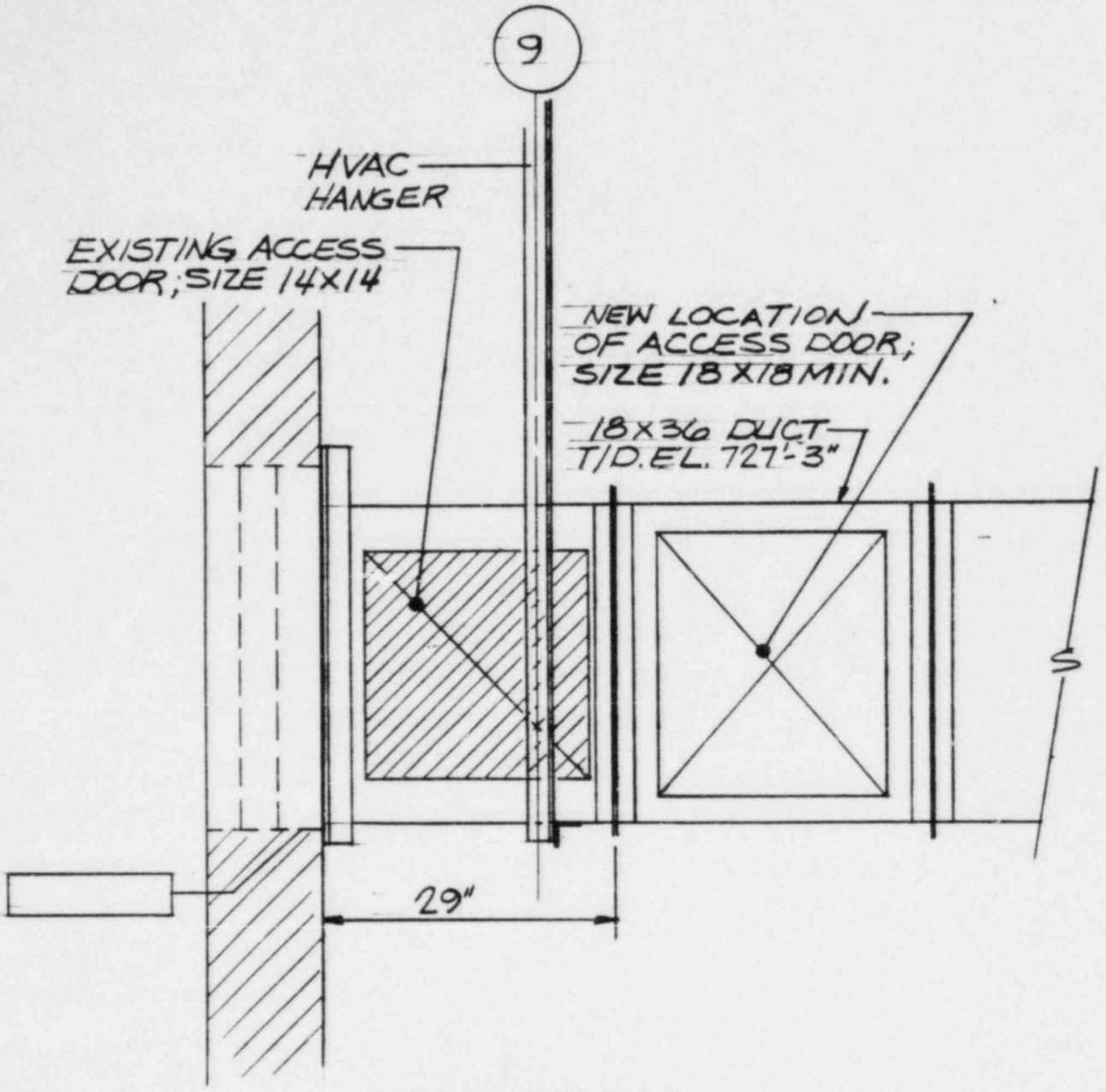
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVX46Y REF. DWG. NO. 1387-L	
PREPARED BY: C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-9	Page 9 of —



ELEVATION
FLR. ELEVATION 710'-6"

FIRE DAMPER LOCATION BETWEEN J-L AND 9-10

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVX50Y REF. DWG. NO. 1388-1	
PREPARED BY C. Spiess DATE: 7/20/89	
SKETCH No. FDAM-10	SARGENT & LUNDY ENGINEERS

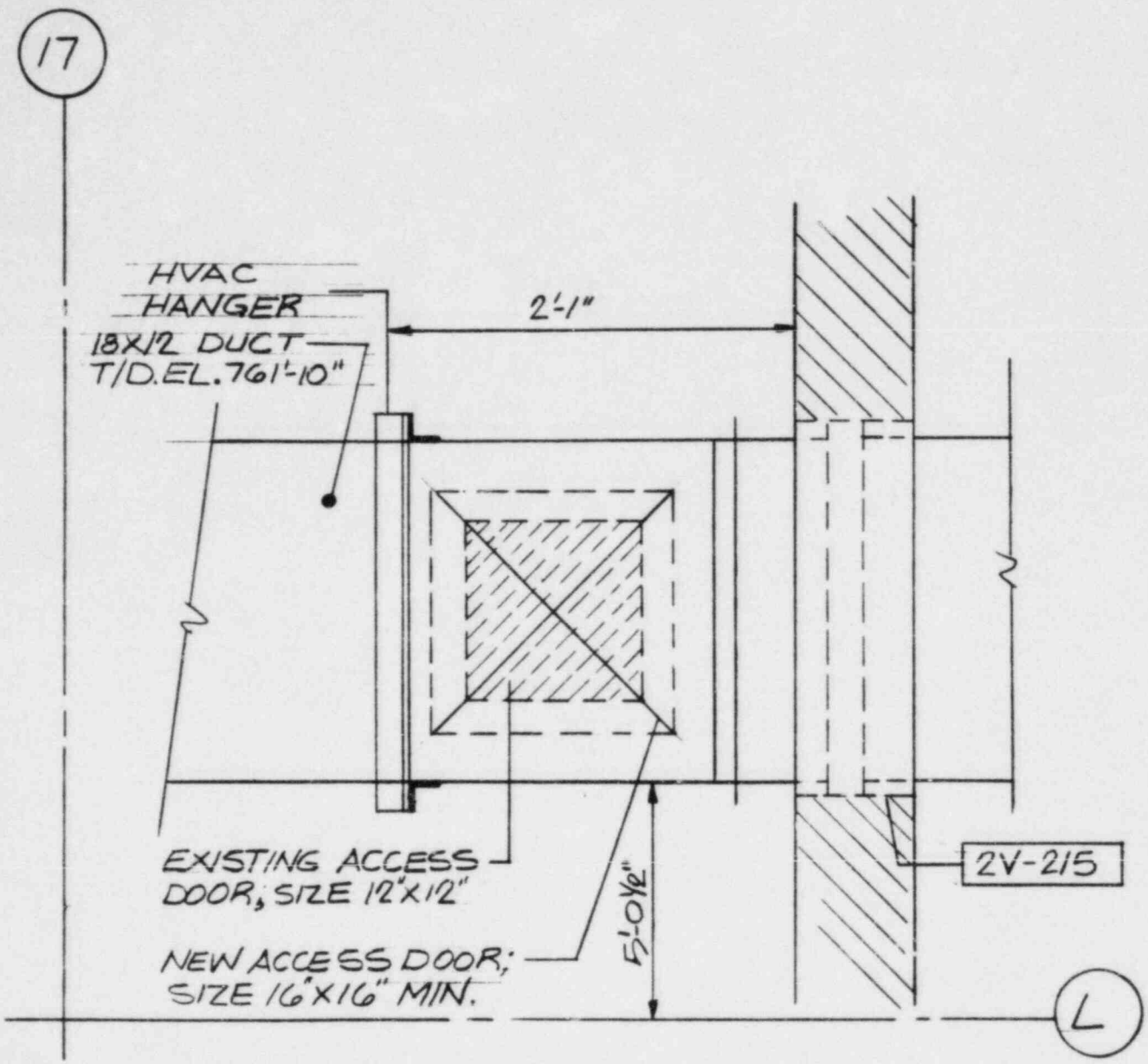


ELEVATION

FLR. ELEVATION 710'-6"

FIRE DAMPER LOCATION BETWEEN J-L AND 9-10

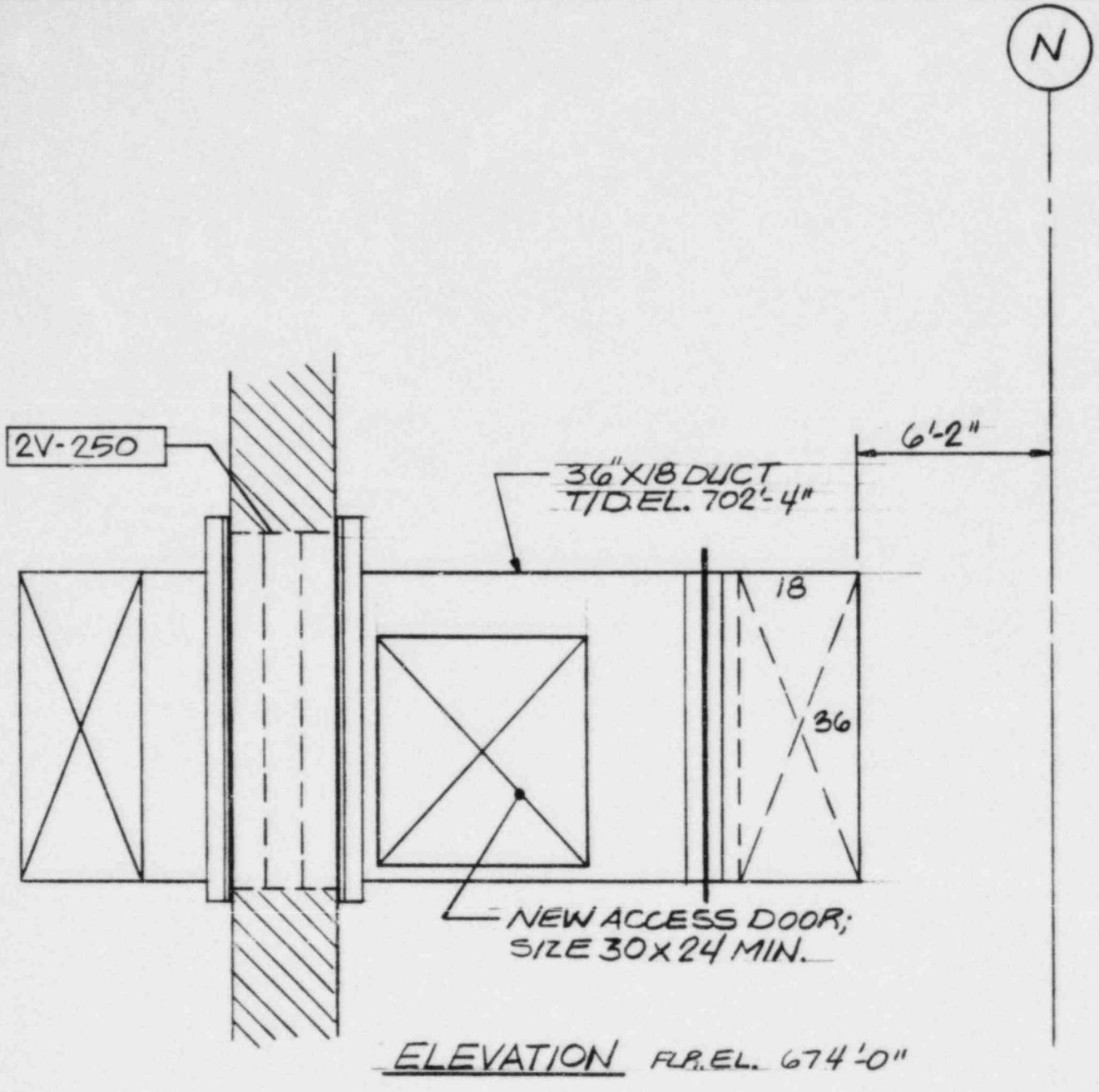
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVX59 REF. DWG. NO. 1388-1	
PREPARED BY: C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-11	Page 11 of —



PLAN FLR. EL. 749'-0"

FIRE DAMPER LOCATION BETWEEN L-N AND 17-18

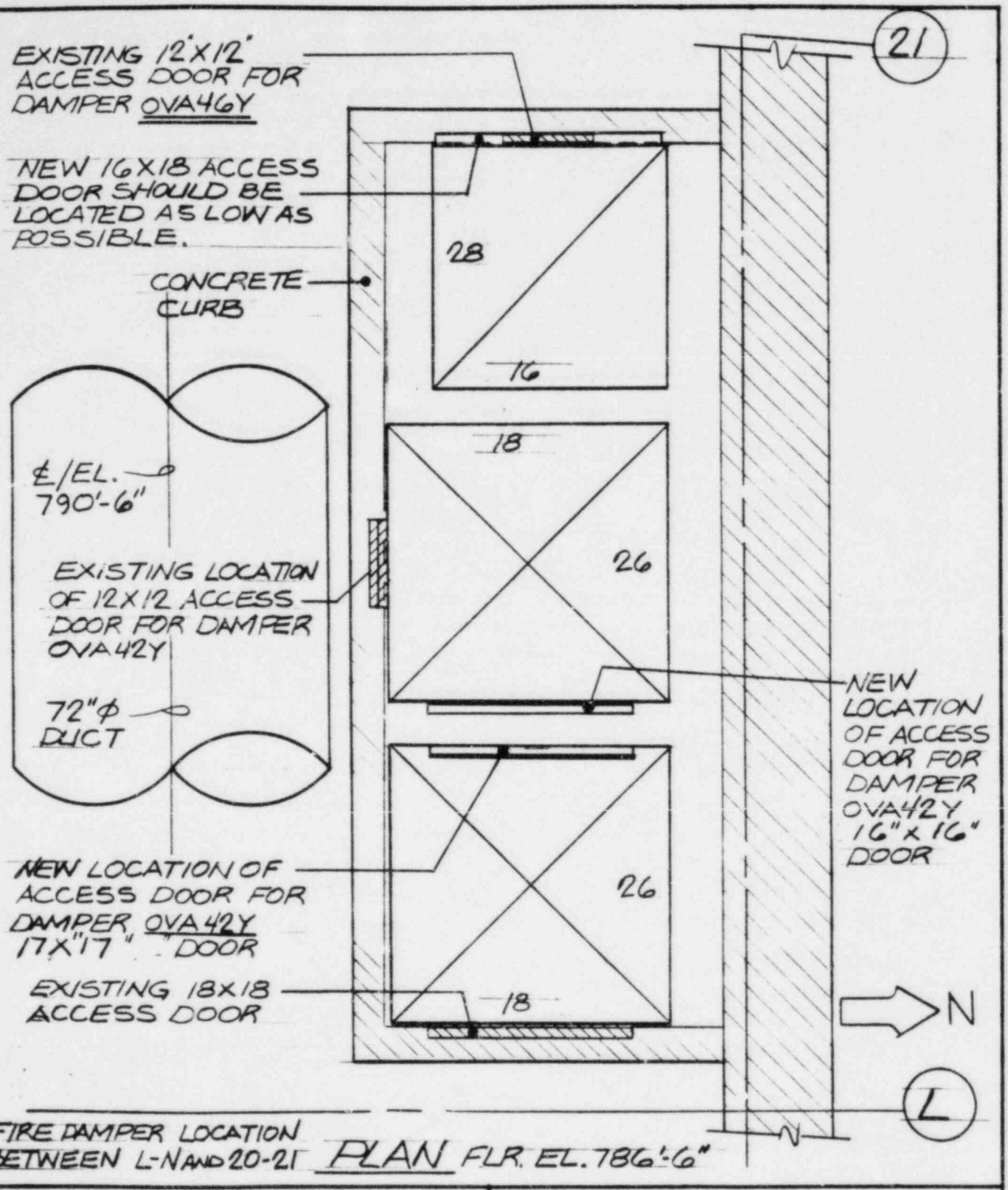
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VX41Y REF. DWG. NO. 1387-2	
PREPARED BY: C. Abrego DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-12	Page 12 of —



ELEVATION FLR. EL. 674'-0"

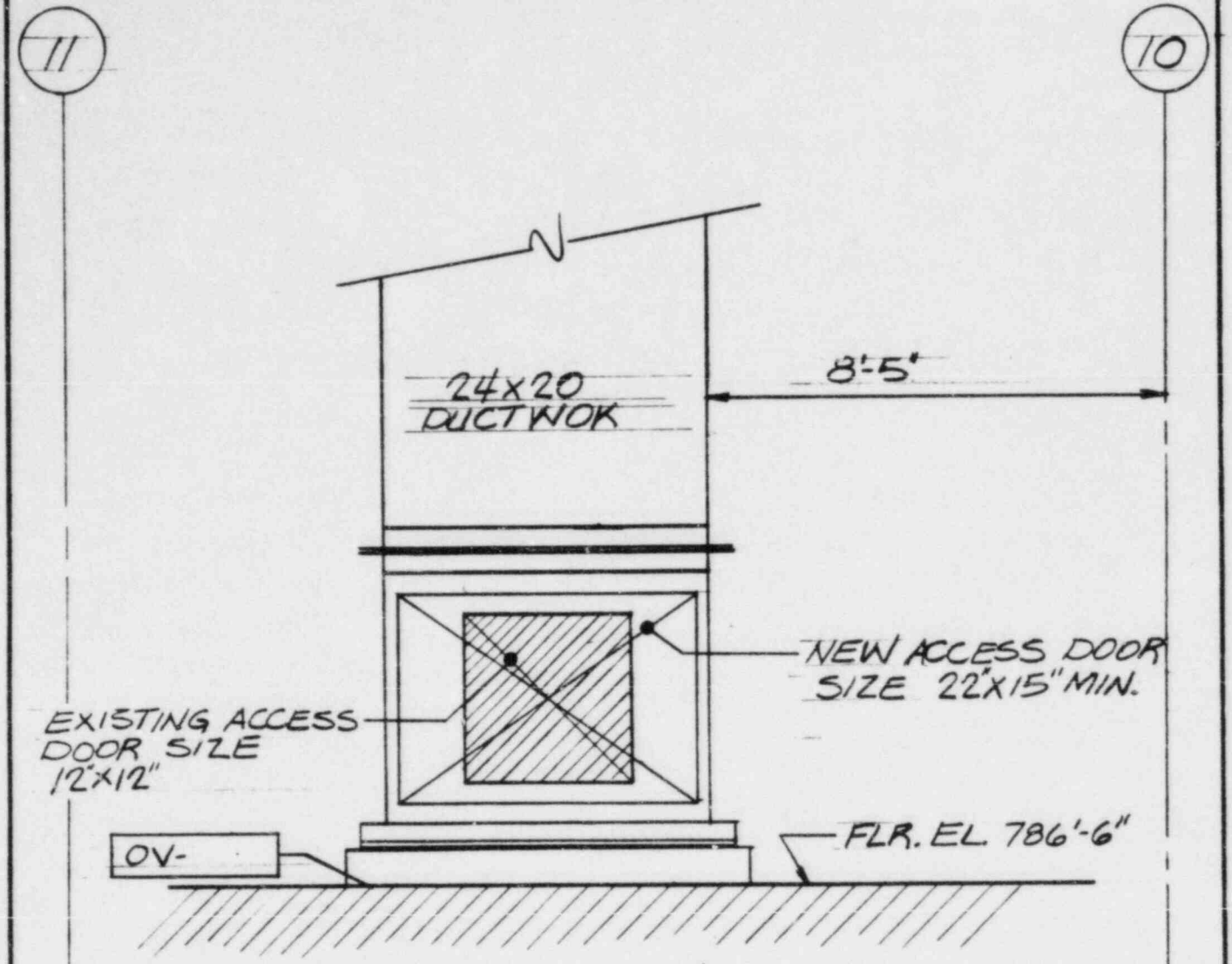
FIRE DAMPER LOCATION
BETWEEN COLUMNS N-R AND 22-23.

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VY10Y REF. DWG. NO. 1400	
PREPARED BY: C. Thomas DATE: 7/20/82	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-13	Page 13 of —



FIRE DAMPER LOCATION BETWEEN L-N AND 20-21 PLAN FLR. EL. 786'-6"

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE SKETCH REF. DWG. NO. 1377-3	
PREPARED BY: C. A. Brooks DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-14	Page 14 of —

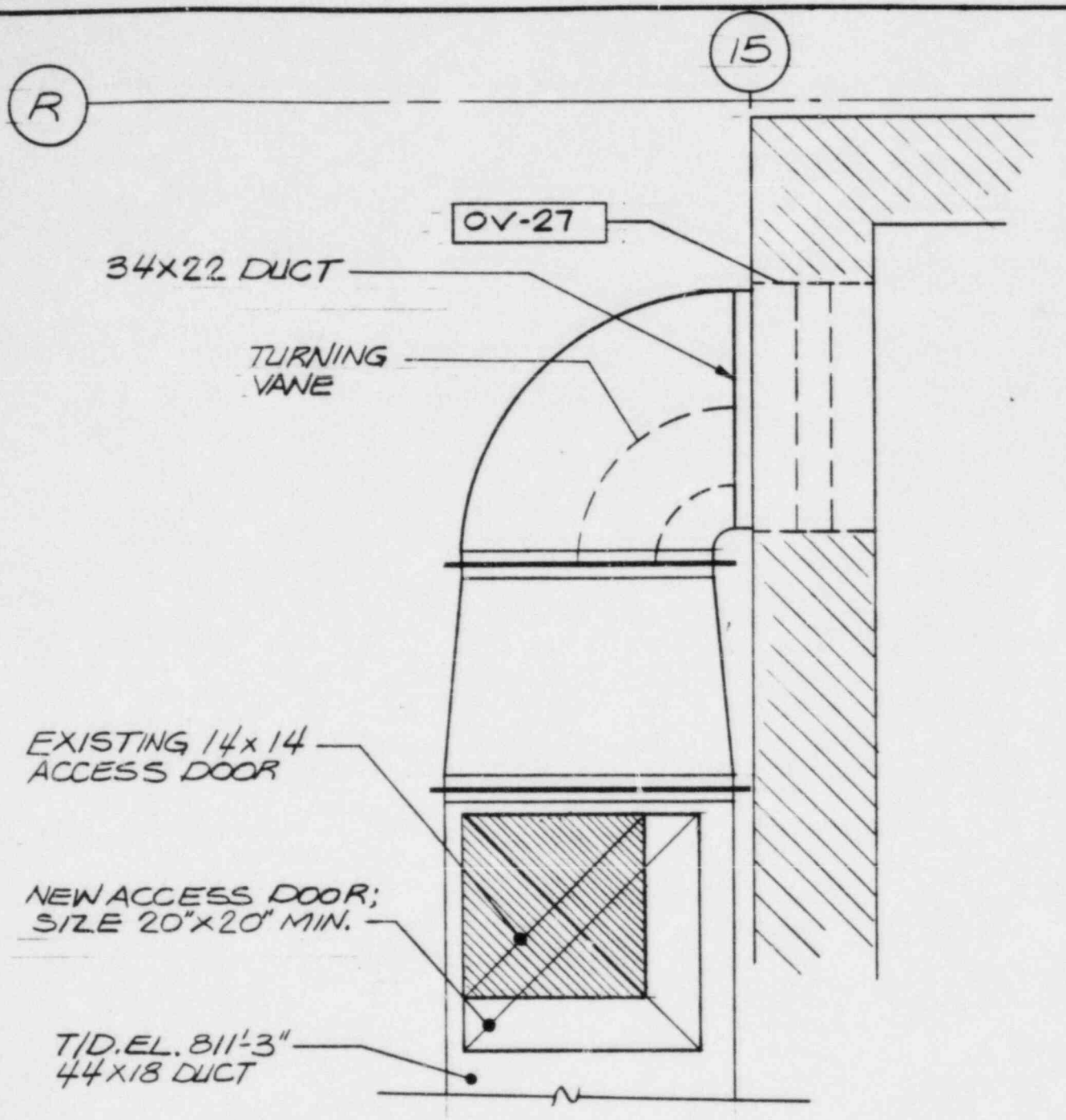


ELEVATION

FLR. ELEVATION 786'-6"

FIRE DAMPER LOCATION
BETWEEN J-L AND 10-11

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA47Y REF. DWG. NO. 1380-1	
PREPARED BY C. Hoover DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-15	Page 15 of —

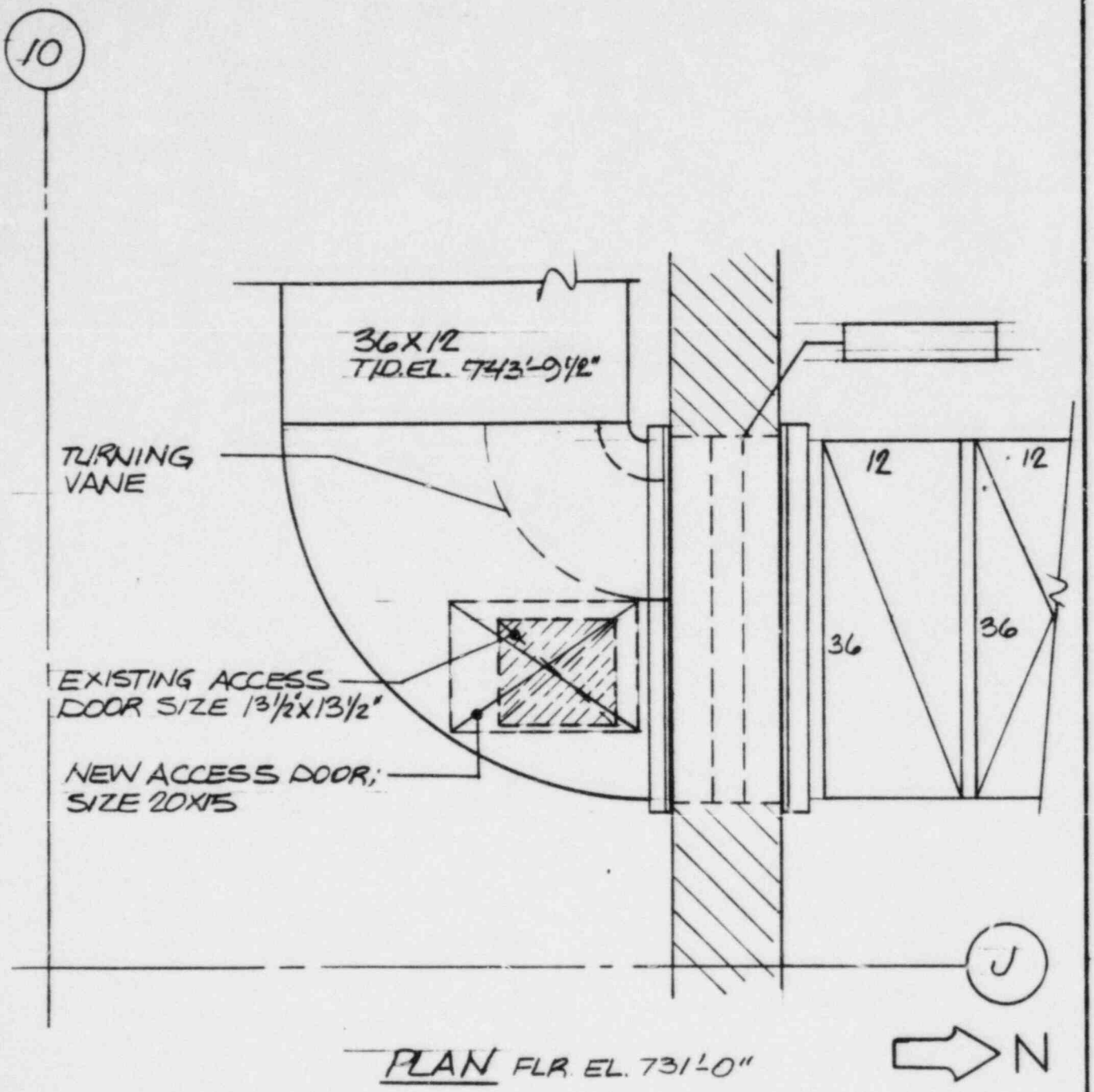


PLAN
FLR. ELEVATION 786'-6"

N

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

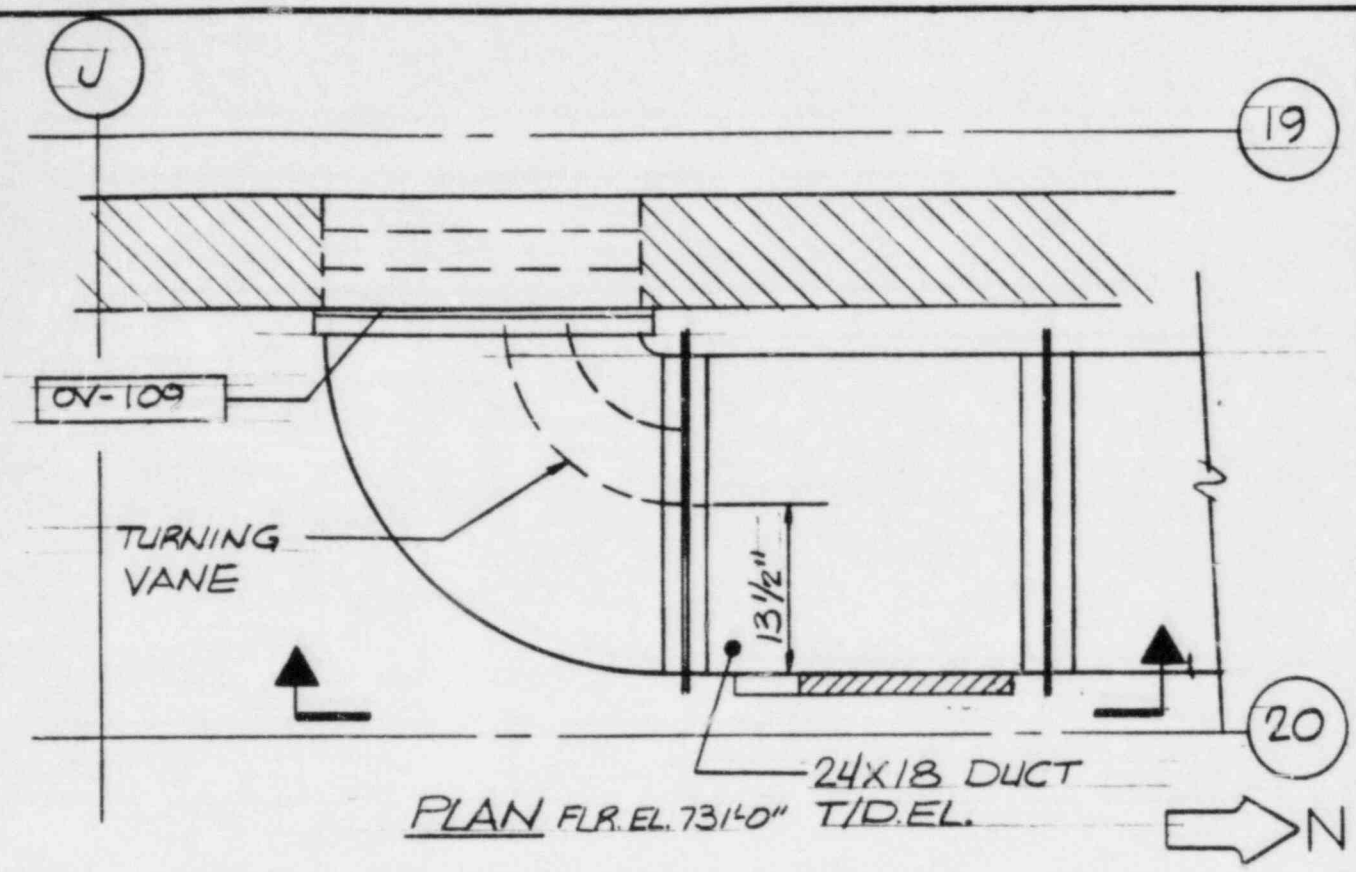
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE32Y REF. DWG. NO. 1377-2	
PREPARED BY: C. A. [illegible] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-16	Page 16 of —

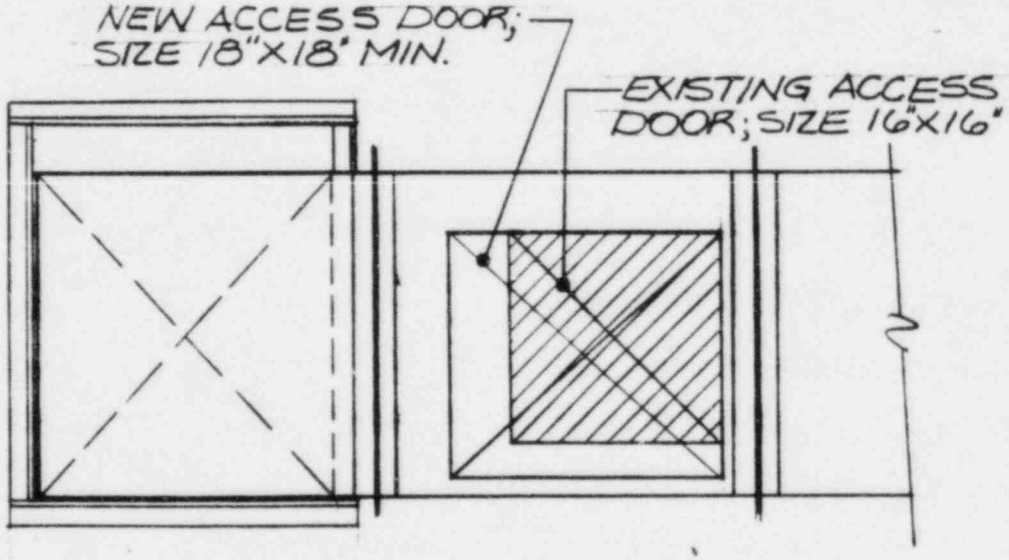


PLAN FLR EL. 731'-0"

FIRE DAMPER LOCATION BETWEEN J-L AND 10-11

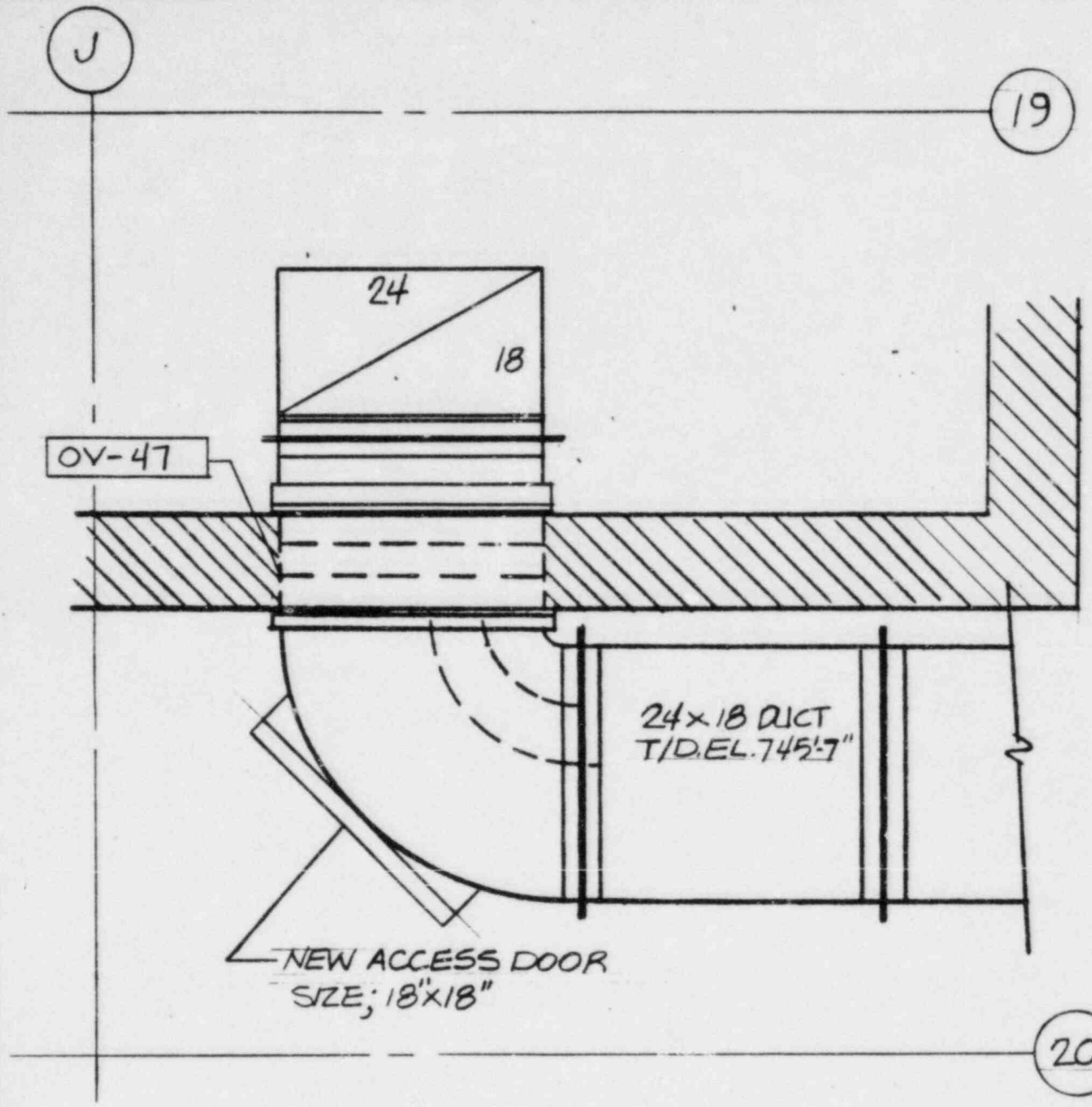
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. ONE34Y REF. DWG. NO. 389-1	
PREPARED BY: C. [illegible] DATE: 7/20/84	
SKETCH No. FDAM-17	SARGENT & LUNDY ENGINEERS





SECTION

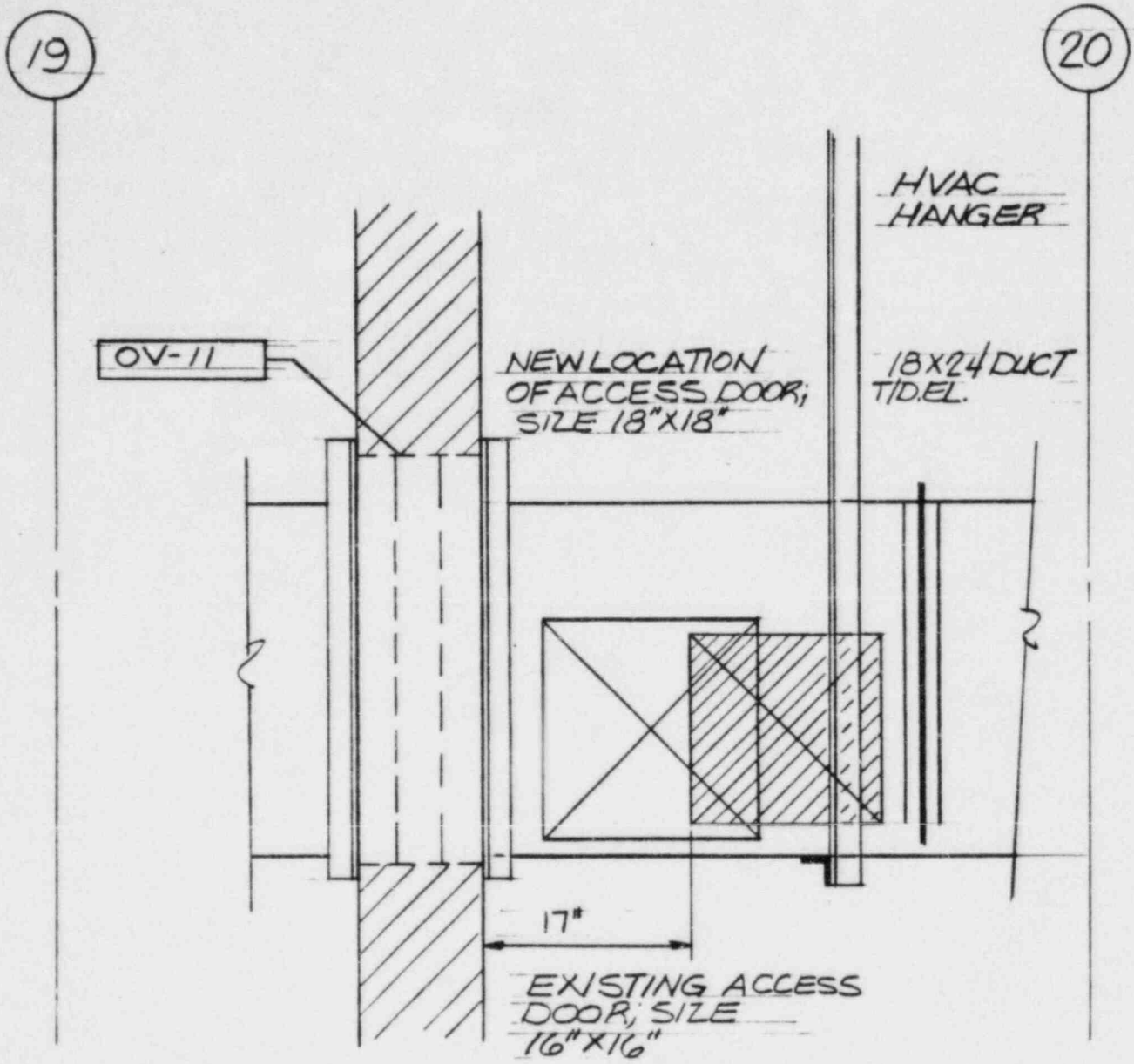
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE39Y REF. DWG. NO. 1389-2	
PREPARED BY: C. Stoop DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-18	Page 18 of —



PLAN FLR EL. 731'-0"

FIRE DAMPER LOCATION
BETWEEN J-L AND 19-20

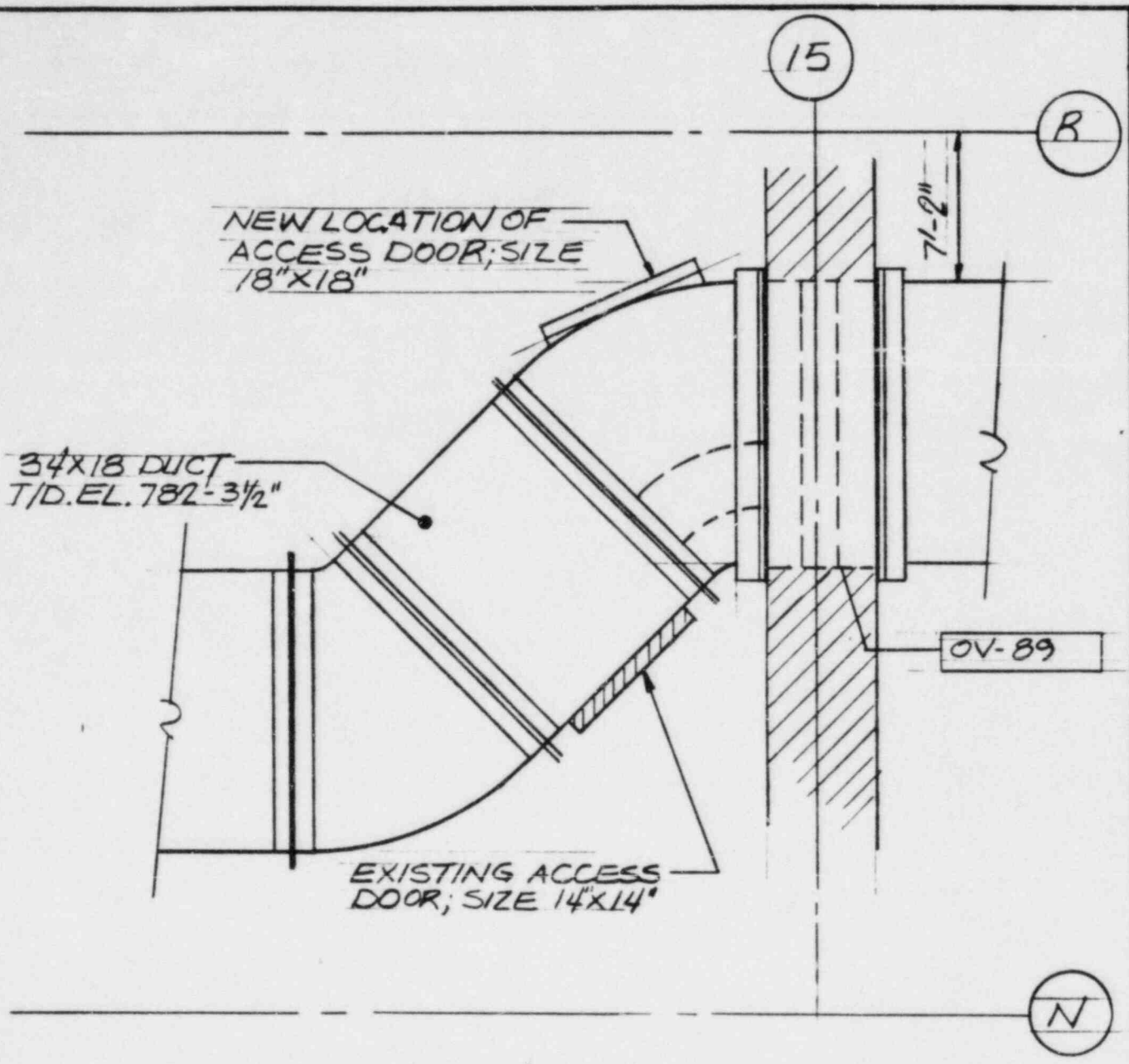
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE40Y REF. DWG. NO. 1389-2	
PREPARED BY: C. X. Hoe DATE: 7/20/84	
SKETCH No. FDAM-19	SARGENT & LUNDY ENGINEERS



ELEVATION
FLR. ELEVATION 731'-0"

FIRE DAMPER LOCATION
BETWEEN J-L AND 19-20

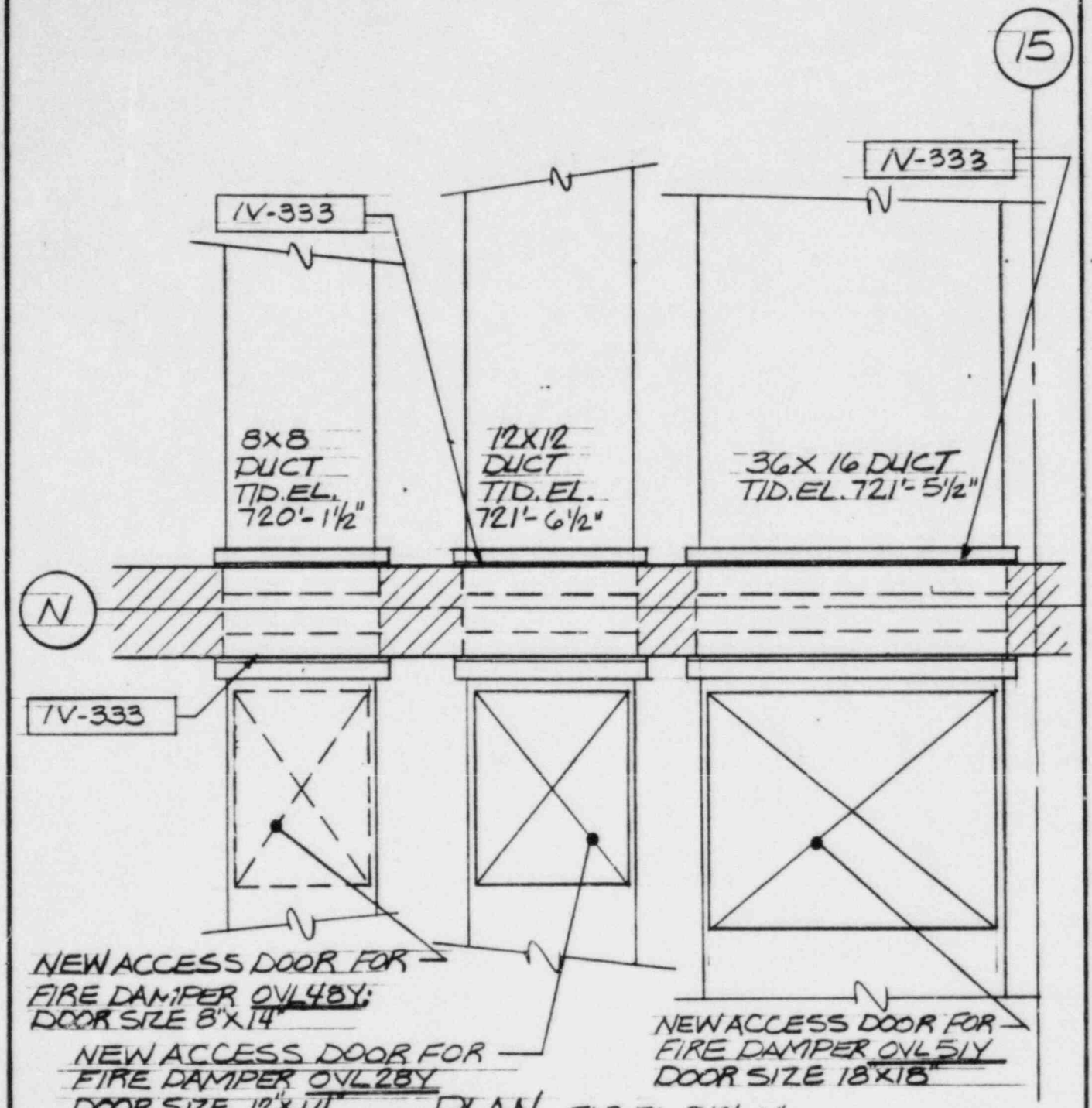
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE45Y REF. DWG. NO. 1377-3	
PREPARED BY: [signature] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-20	Page 20 of —



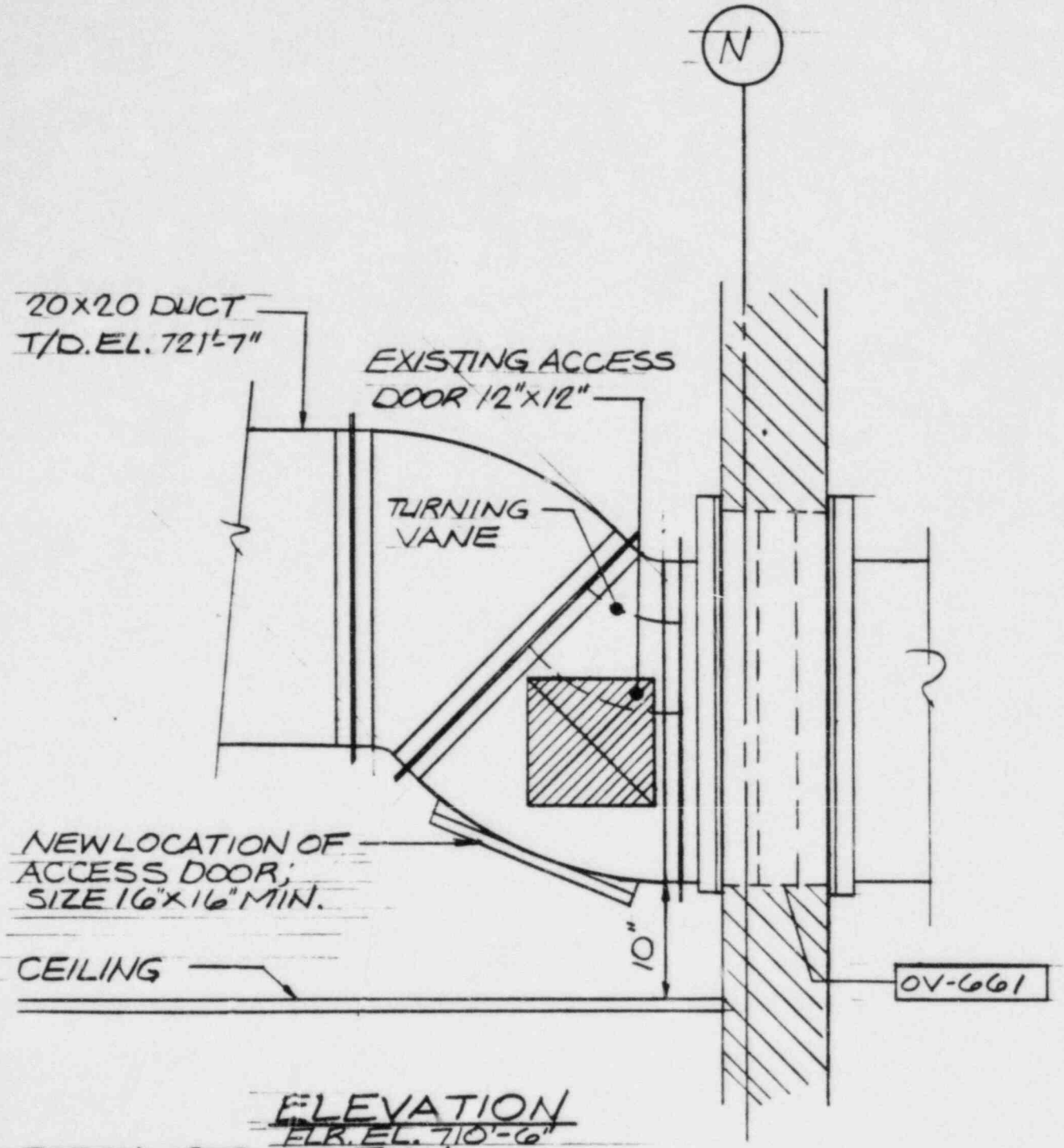
PLAN FLR EL. 768'-0"

FIRE DAMPER LOCATION BETWEEN N-R AND 14-15

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE48Y REF. DWG. NO. 1390-1	
PREPARED BY [signature] DATE: 7/26/89	
SKETCH No. FDAM-21	SARGENT & LUNDY ENGINEERS



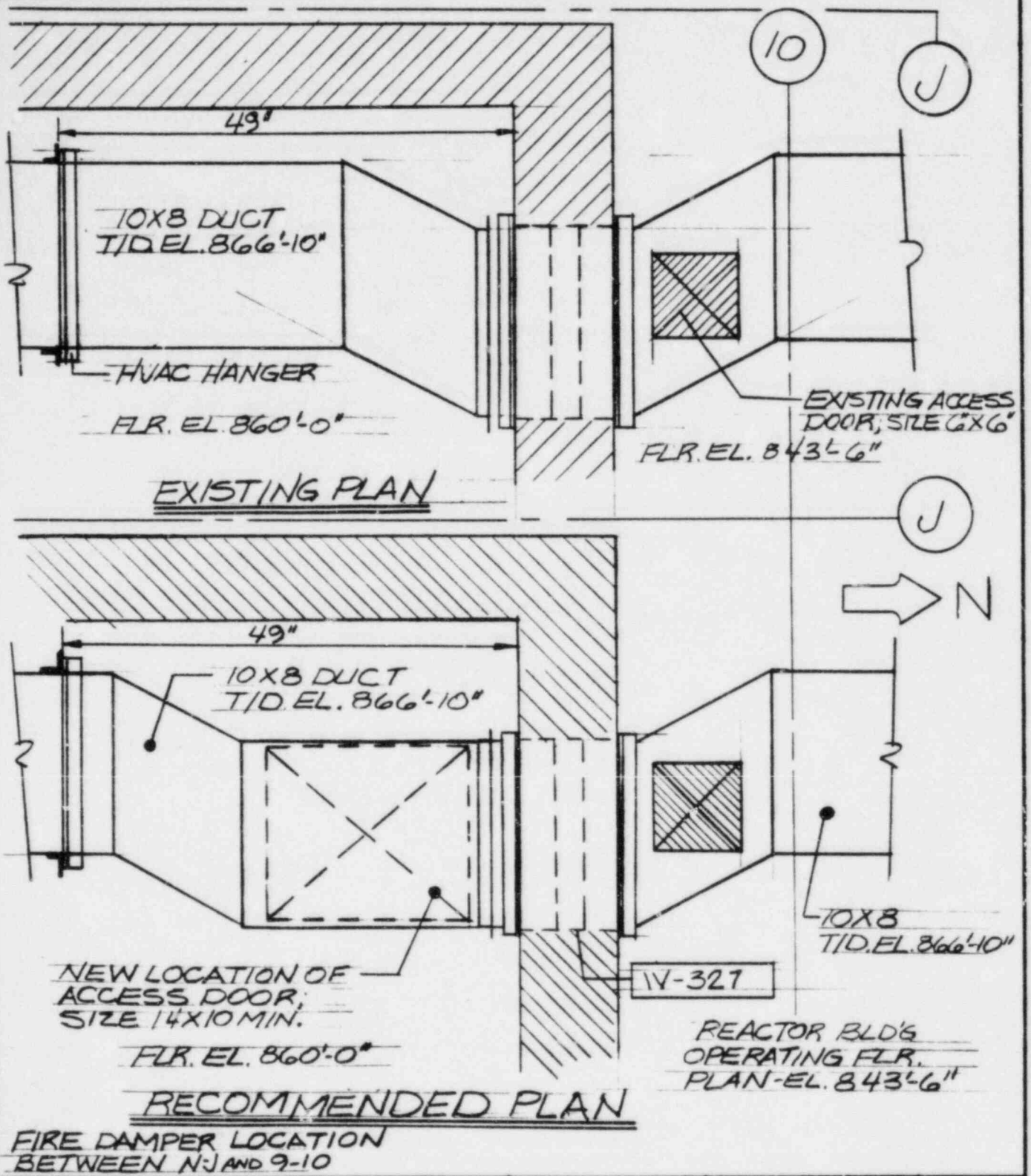
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE SKETCH REF. DWG. NO. 1388-1	
PREPARED BY C.R. Turner DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-22	Page 22 of —



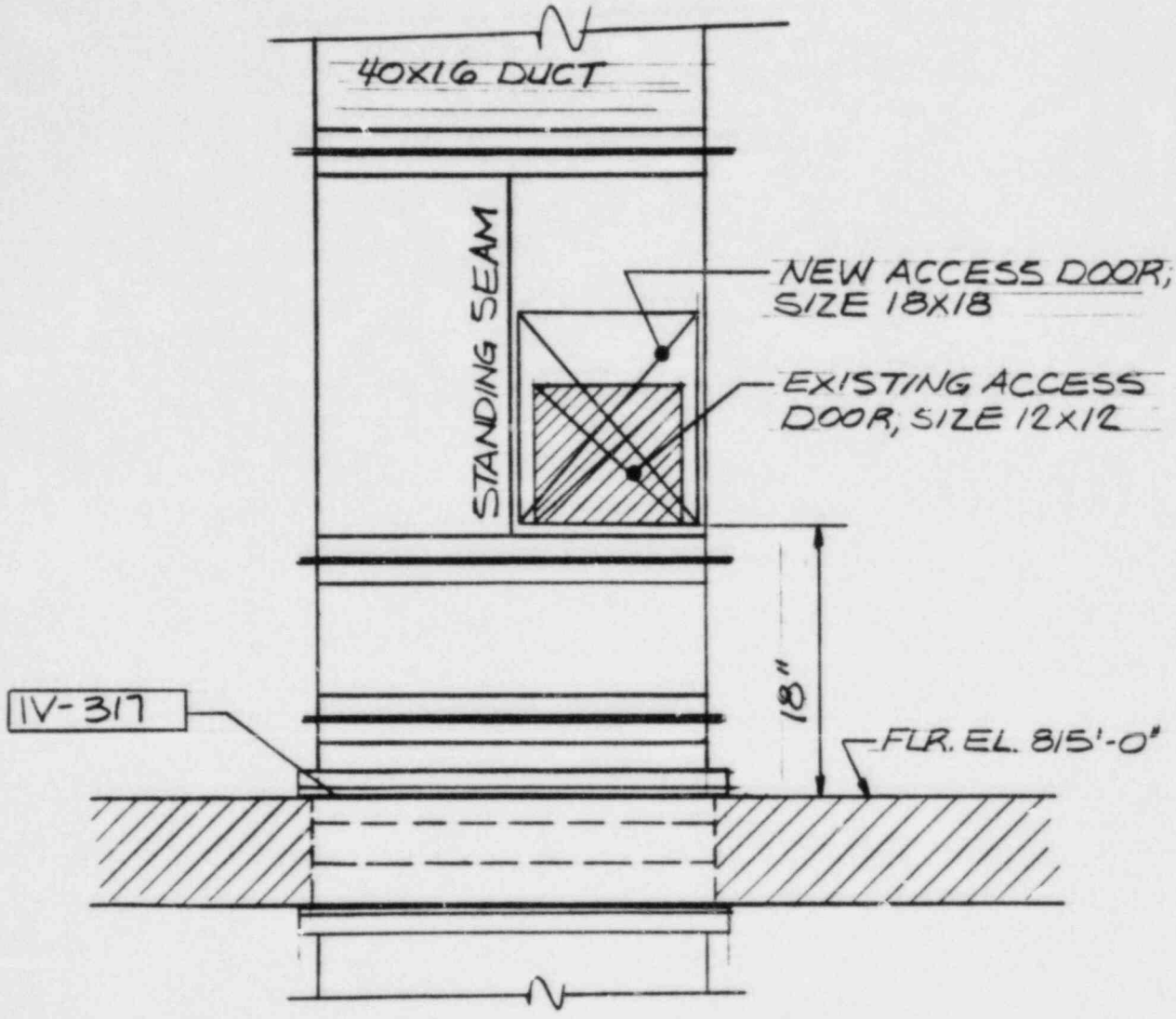
ELEVATION
ELR. EL. 710'-6"

FIRE DAMPER LOCATION
BETWEEN L-N AND 15-16

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL70Y REF. DWG. NO. 1388-6	
PREPARED BY: C. Thomson DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-23	Page 23 of —



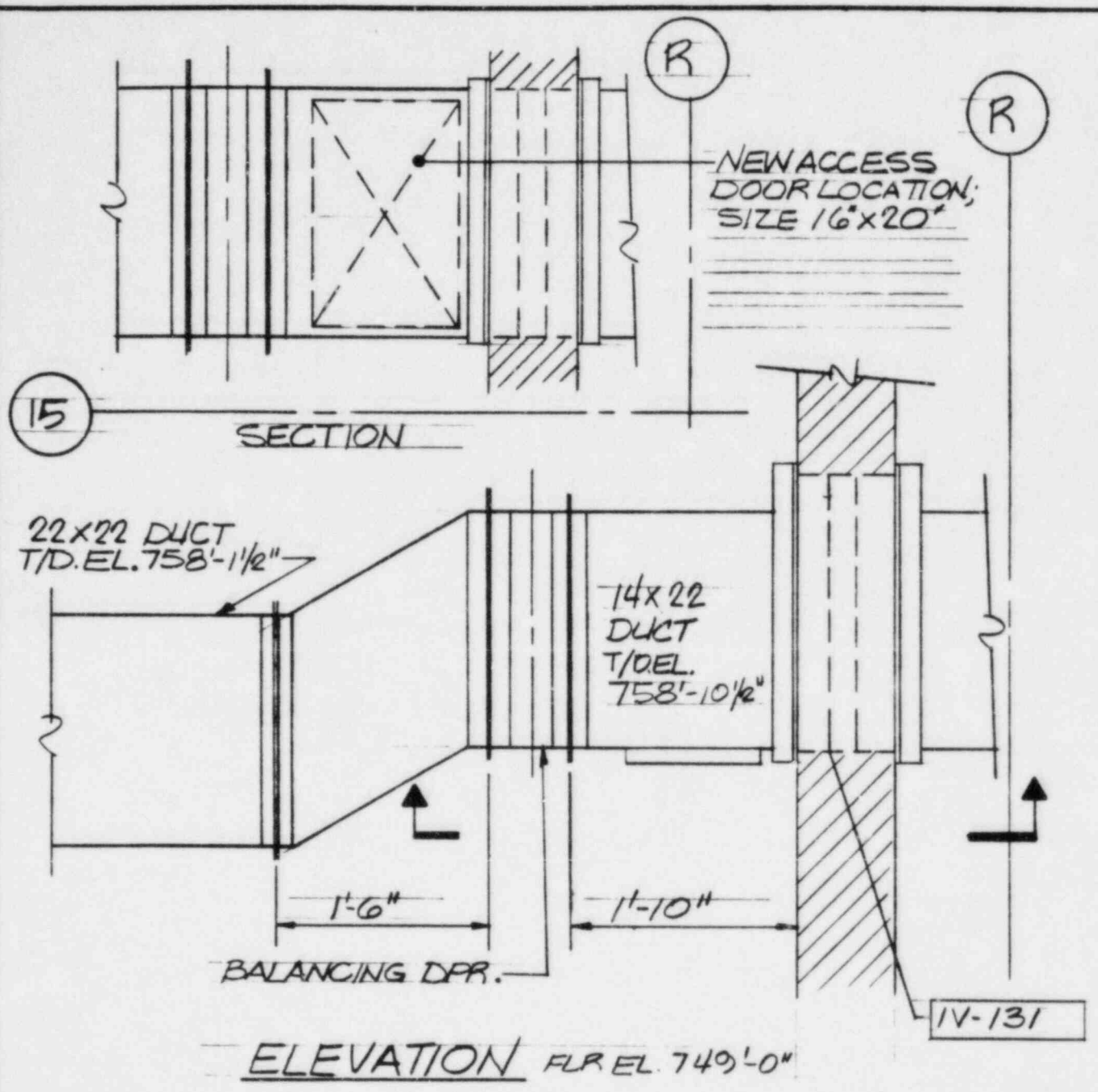
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 1VR76Y REF. DWG. NO. 1351-2	
PREPARED BY: C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-24	Page 24 of —



ELEVATION
FLR. ELEVATION 815'-0"

FIRE DAMPER LOCATION
BETWEEN R-3 AND 4-5

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVT51Y REF. DWG. NO. 1420	
PREPARED BY C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-25	Page 25 of —

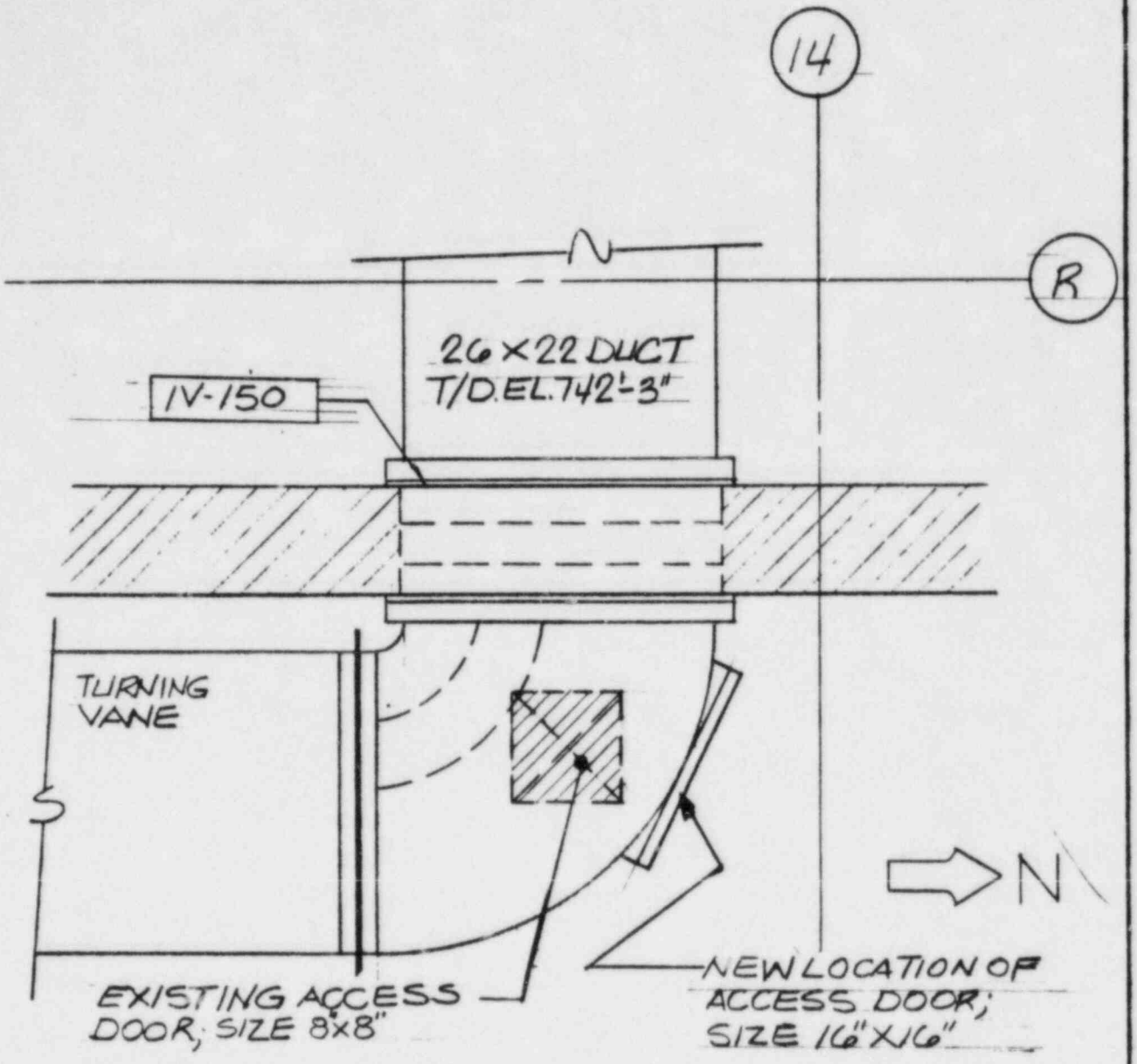


ELEVATION FLR EL 749'-0"

NOTE:
THE BALANCING DAMPER MUST BE RELOCATED AS SHOWN ON THIS SKETCH, IN ORDER TO INSTALL NEW ACCESS DOOR.

FIRE DAMPER LOCATION, BETWEEN N-R AND 14-15

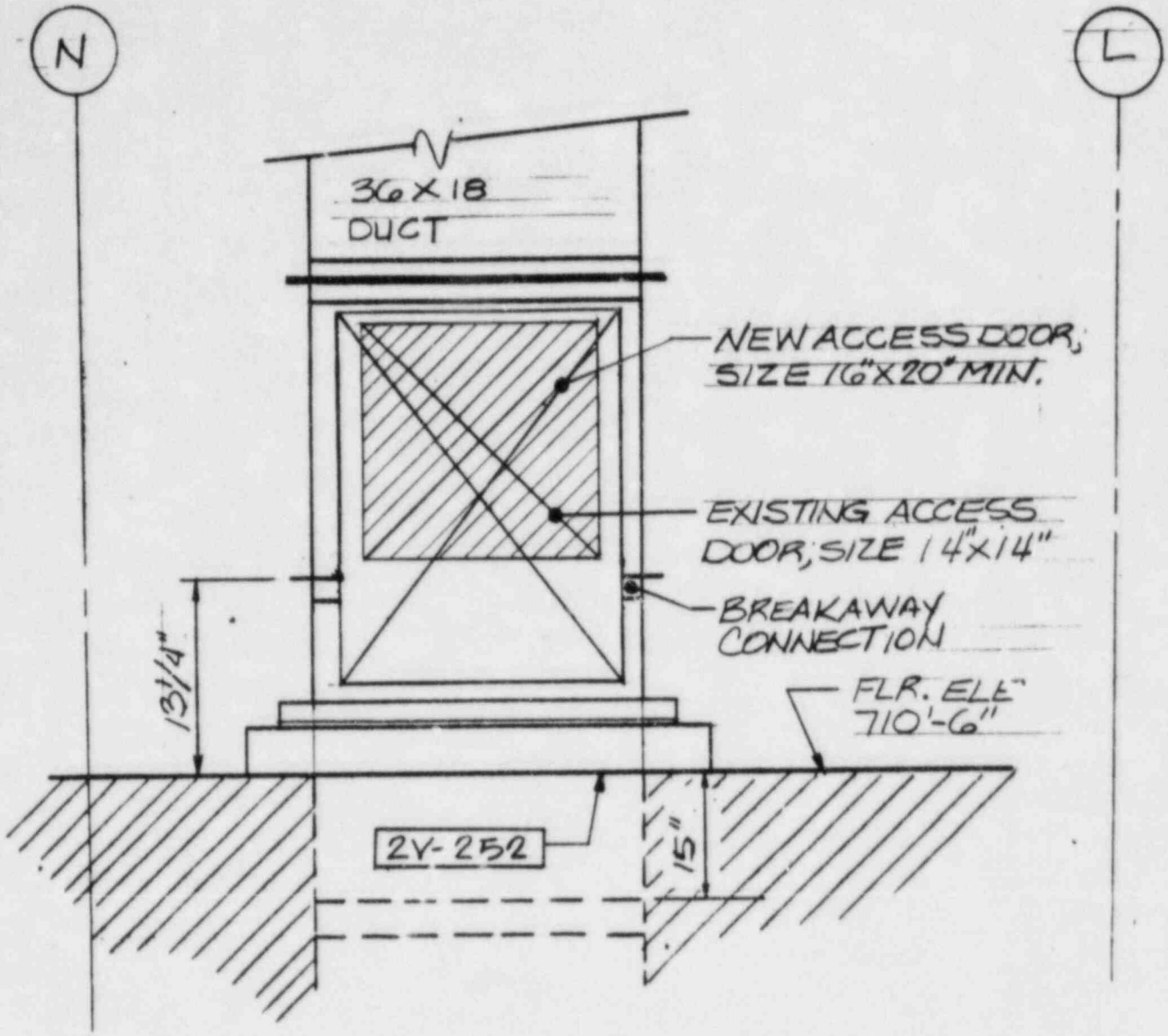
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVT53Y REF. DWG. NO. 1387-1	
PREPARED BY C. A. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-26	Page 26 of —



PLAN FLR EL. 731'-0"

FIRE DAMPER LOCATION
BETWEEN N-R AND 14-15

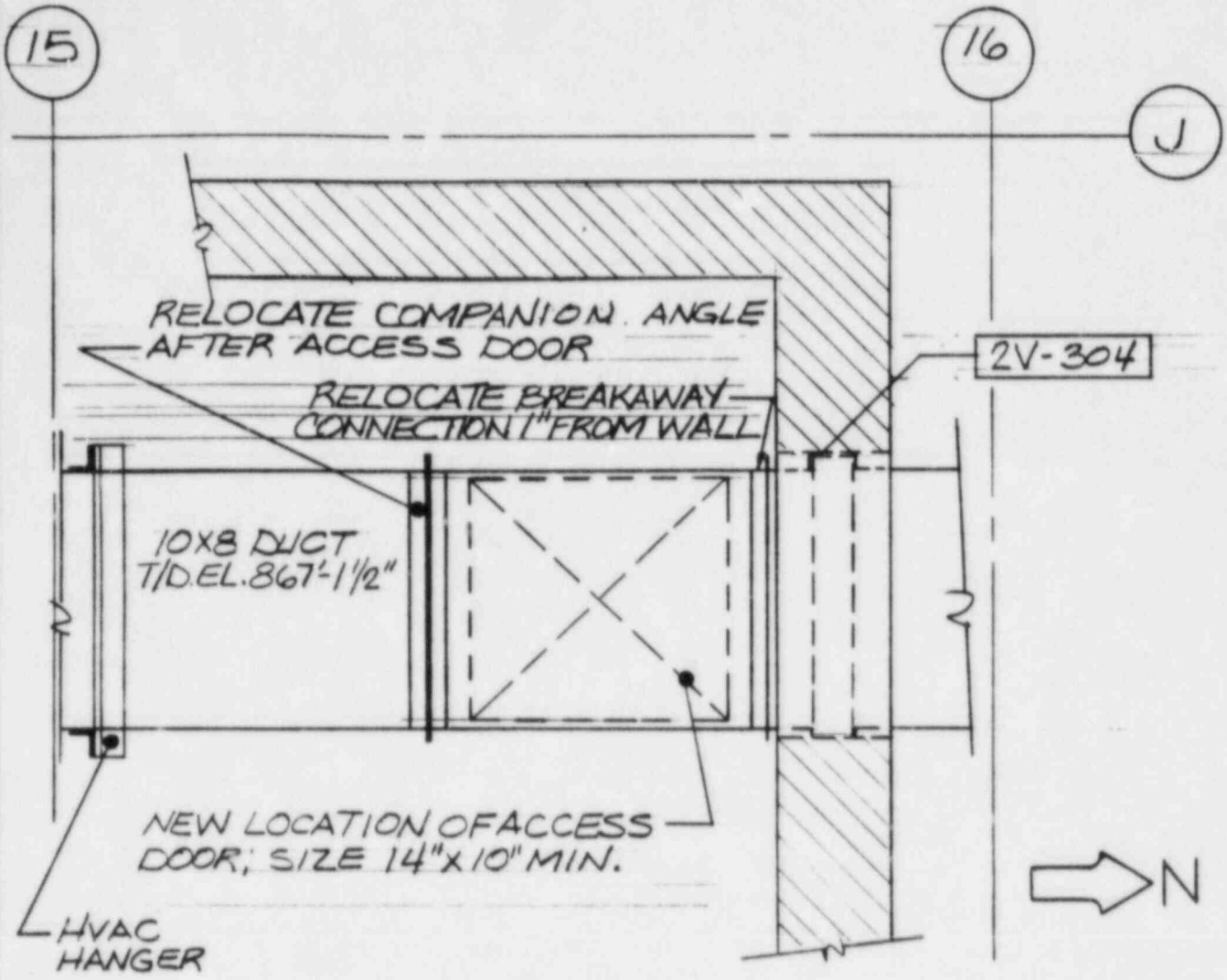
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVT55Y REF. DWG. NO. 1389-1	
PREPARED BY: C. Strom DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-27	Page 27 of —



ELEVATION

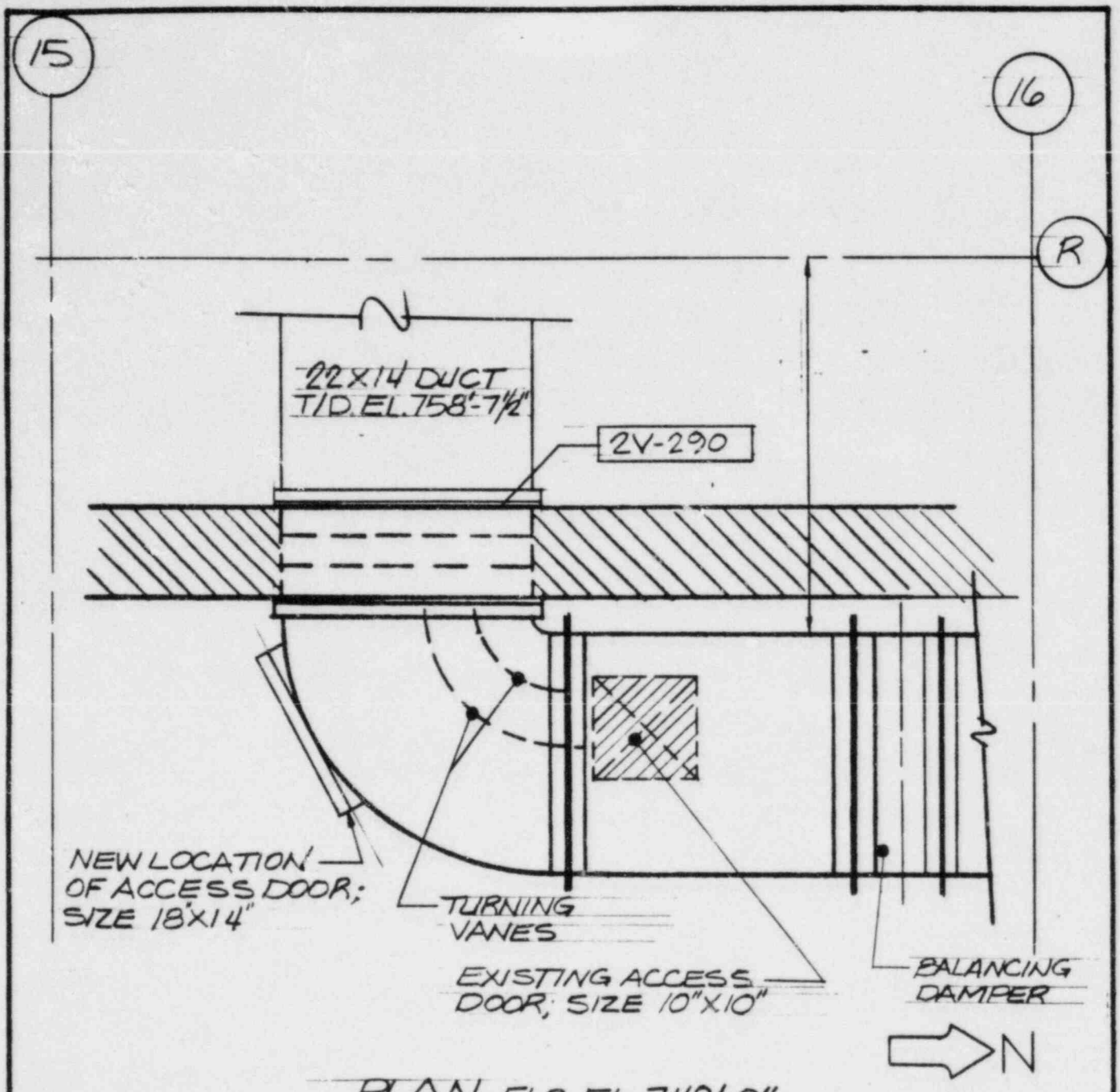
FIRE DAMPER LOCATION, BETWEEN L-N AND 22-24

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VD06Y REF. DWG. NO. 1398	
PREPARED BY C. A. Foreman DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-28	Page 28 of —



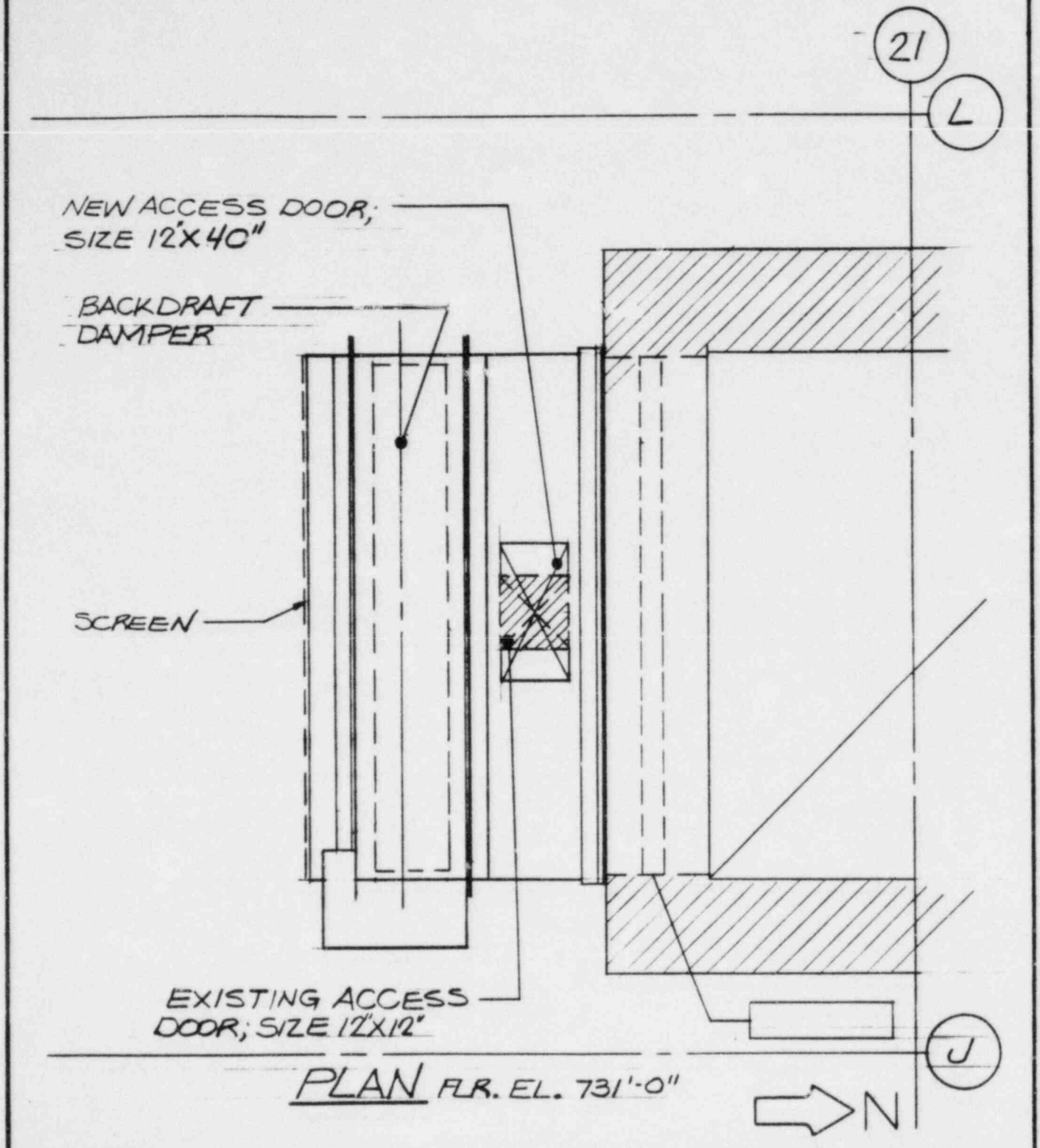
PLAN
FLR. ELEVATION 860'-0"

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VR76Y REF. DWG. NO. 1352-2	
PREPARED BY C. A. Brenner DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-29	Page 29 of —

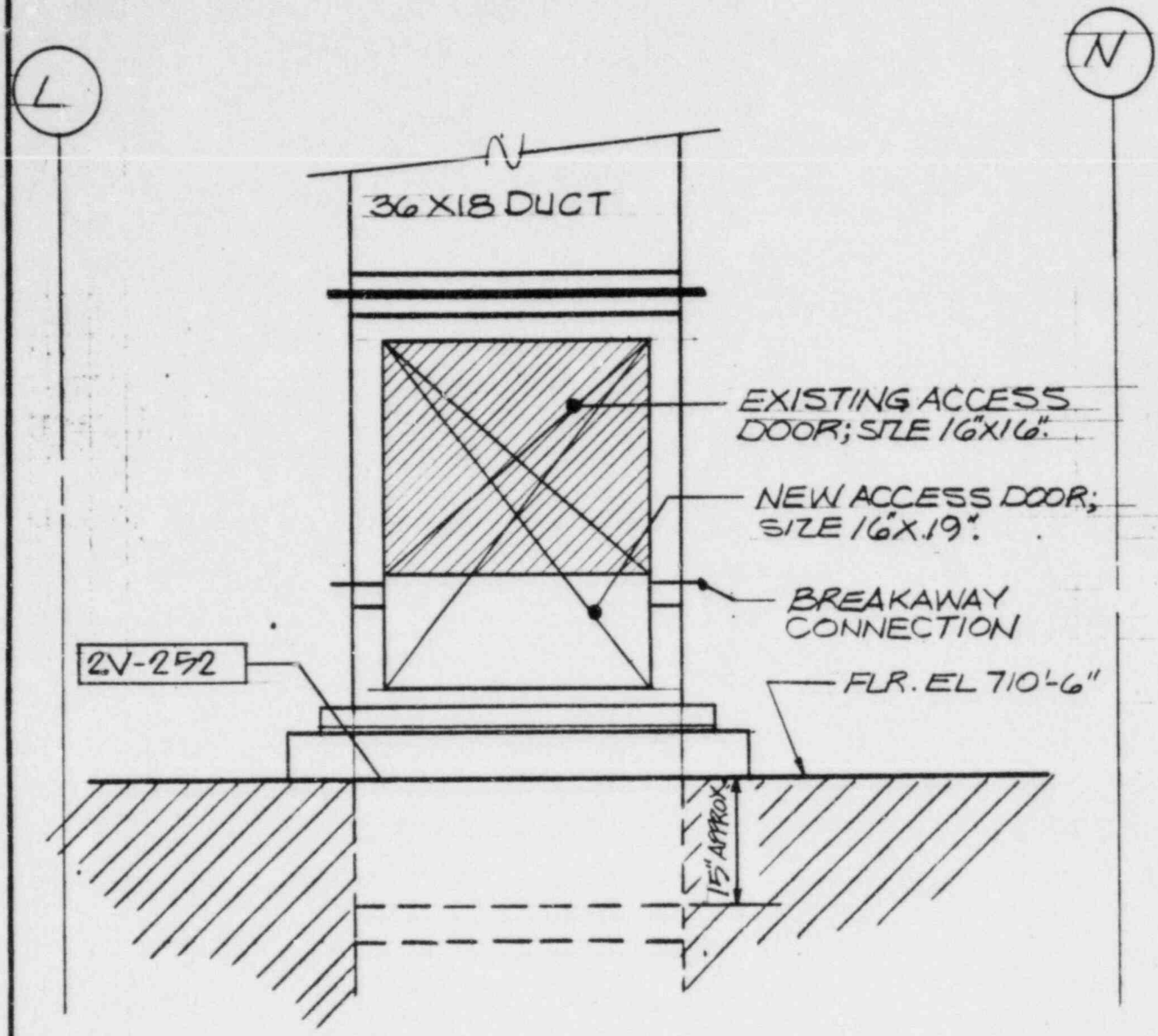


PLAN FLR. EL. 749'-0"

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VT53Y REF. DWG. NO. 1387-2	
PREPARED BY: C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-30	Page 30 of —



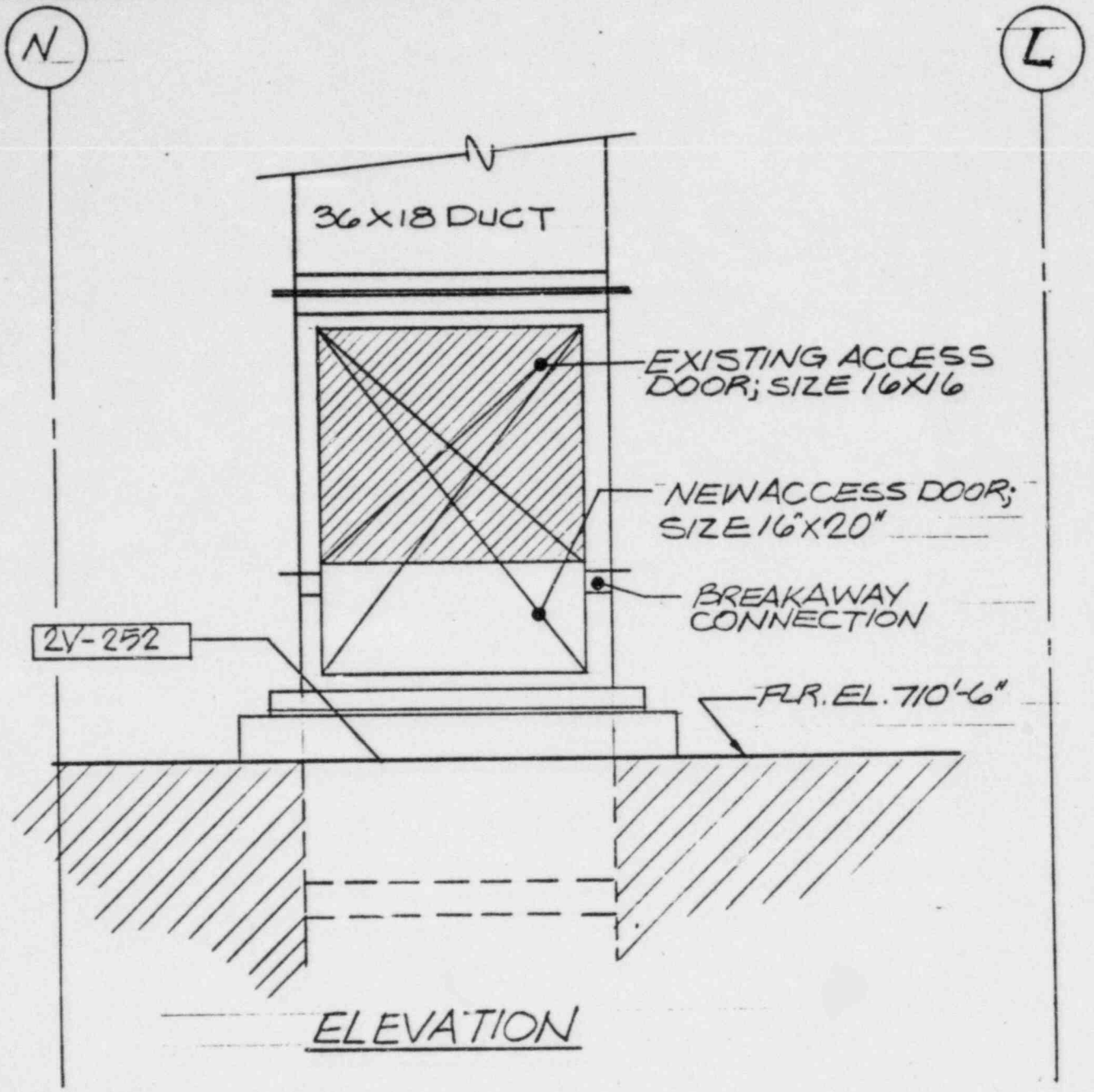
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VX12Y REF. DWG. NO. 1389-2	
PREPARED BY: C. Stevenson DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-31	Page 31 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN L-N AND 22-24

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VY08Y REF. DWG. NO. 1398	
PREPARED BY: C. Hoover DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-32	Page 32 of —



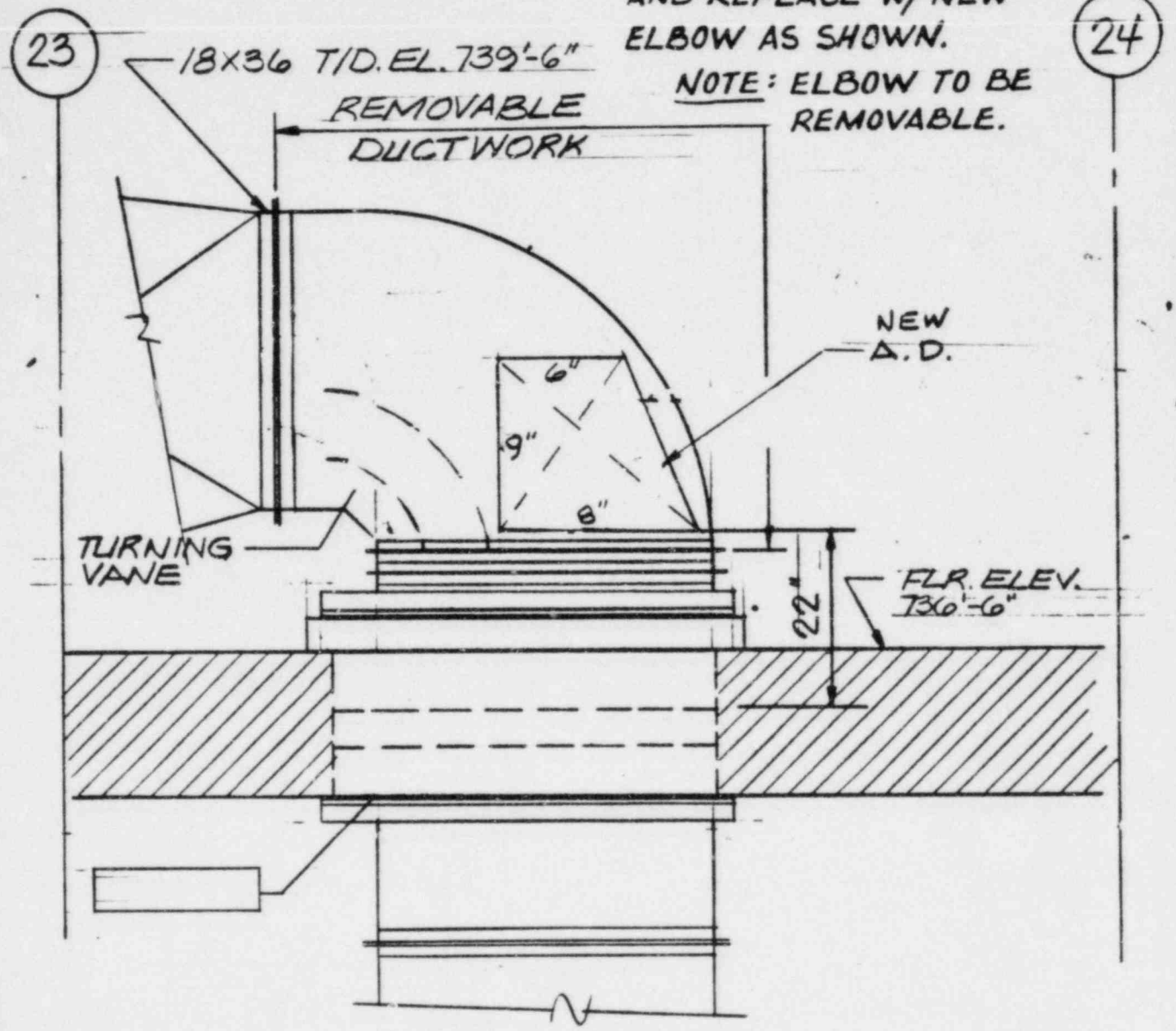
ELEVATION

FIRE DAMPER LOCATION BETWEEN L-N AND 22-24

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VY09Y REF. DWG. NO. 1393	
PREPARED BY C. Herman DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-33	Page 33 of —

REMOVE EXISTING 18x36 ELBOW W 14x14 A.D. AND REPLACE W/ NEW ELBOW AS SHOWN.

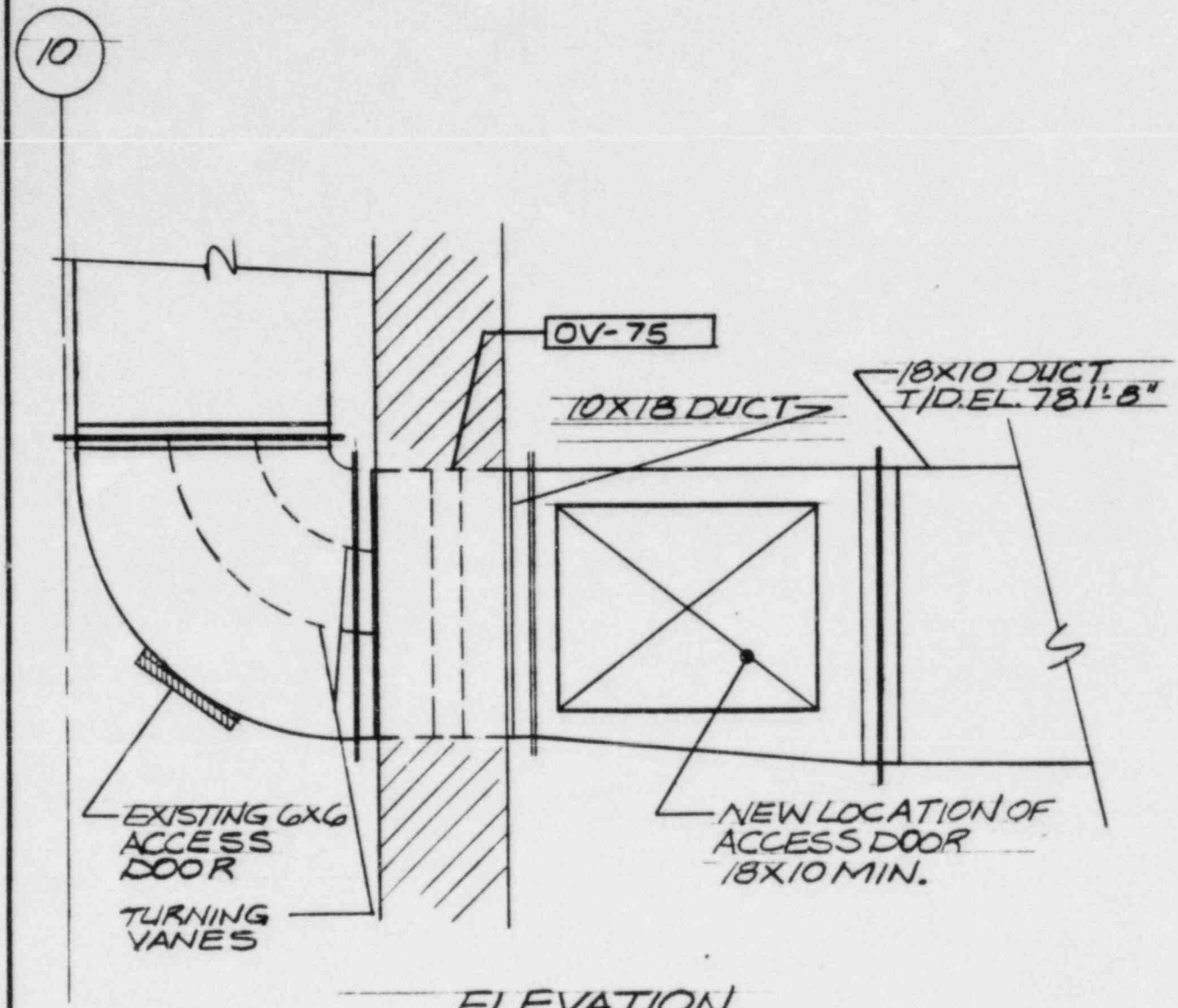
NOTE: ELBOW TO BE REMOVABLE.



ELEVATION

FIRE DAMPER LOCATION BETWEEN L-N AND 23-24

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VY12Y REF. DWG. NO. 1396	
PREPARED BY C. Stearns DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-34	Page 34 of —

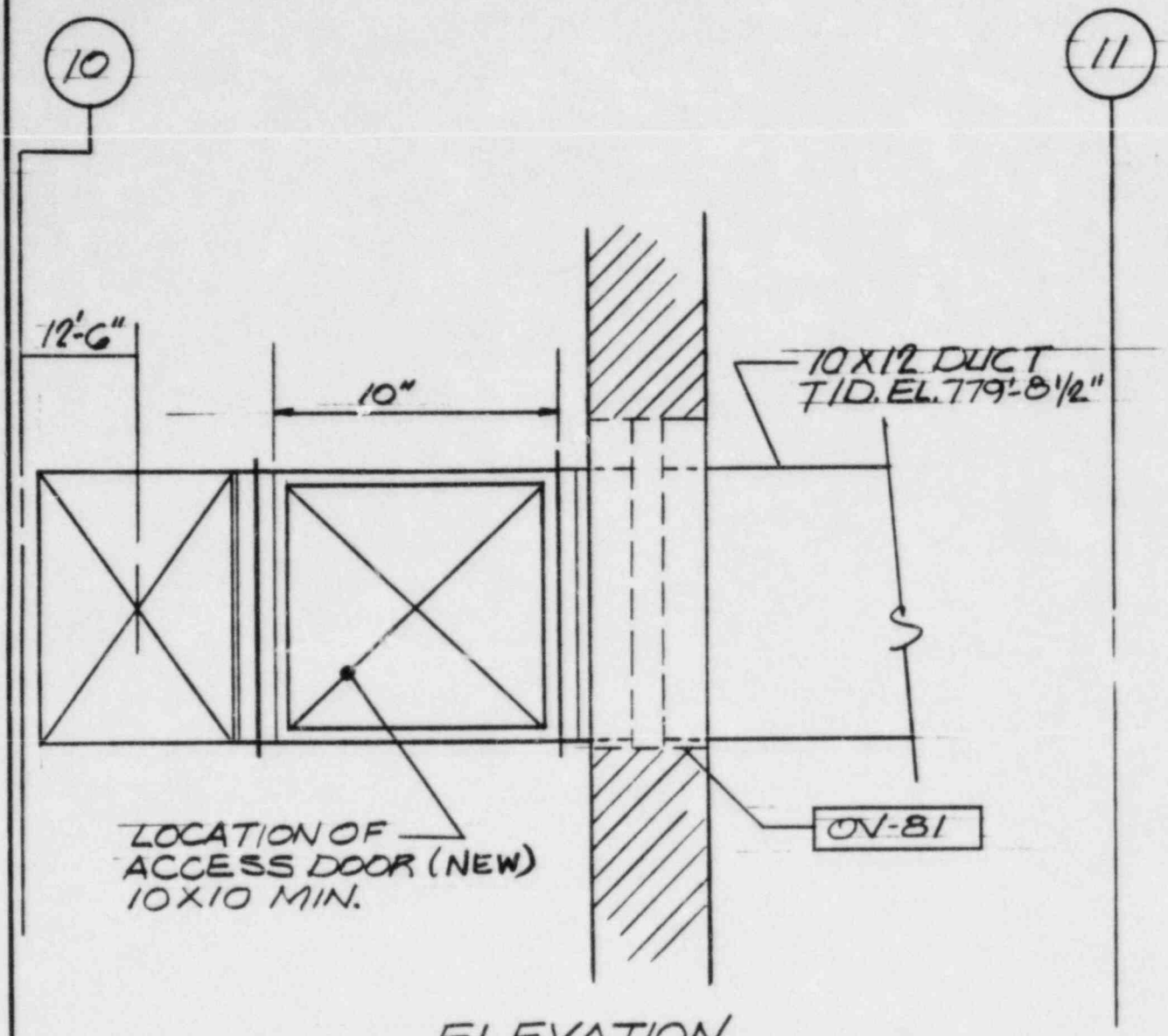


ELEVATION

FLR. ELEVATION 768'-0"

FIRE DAMPER LOCATION
BETWEEN J-LAND 9-10

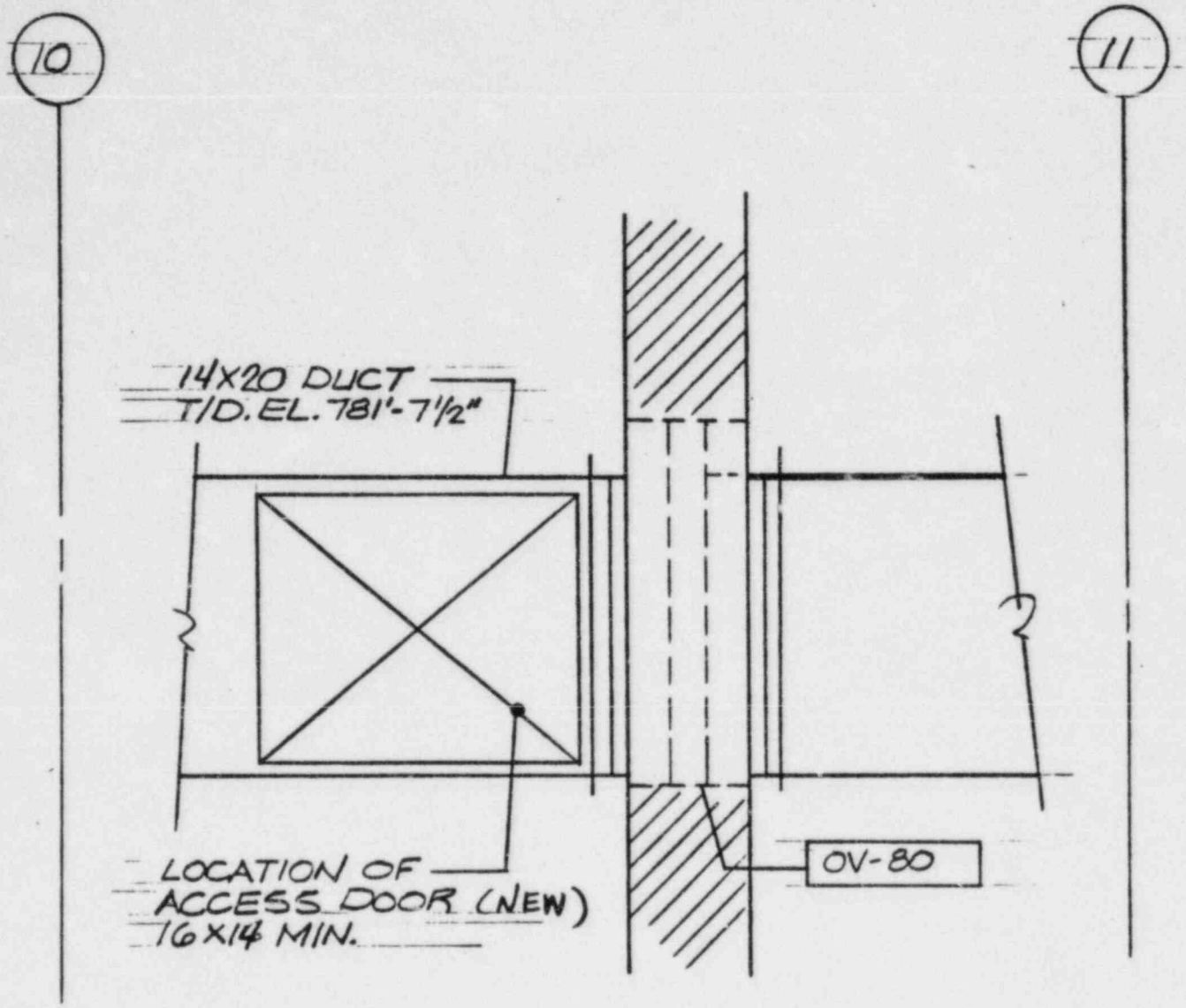
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA21Y REF. DWG. NO. 1390-1	
PREPARED BY C.A. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-35	Page 35 of —



ELEVATION
FLR. ELEVATION 768'-0"

FIRE DAMPER LOCATION
BETWEEN L-N AND 10-11

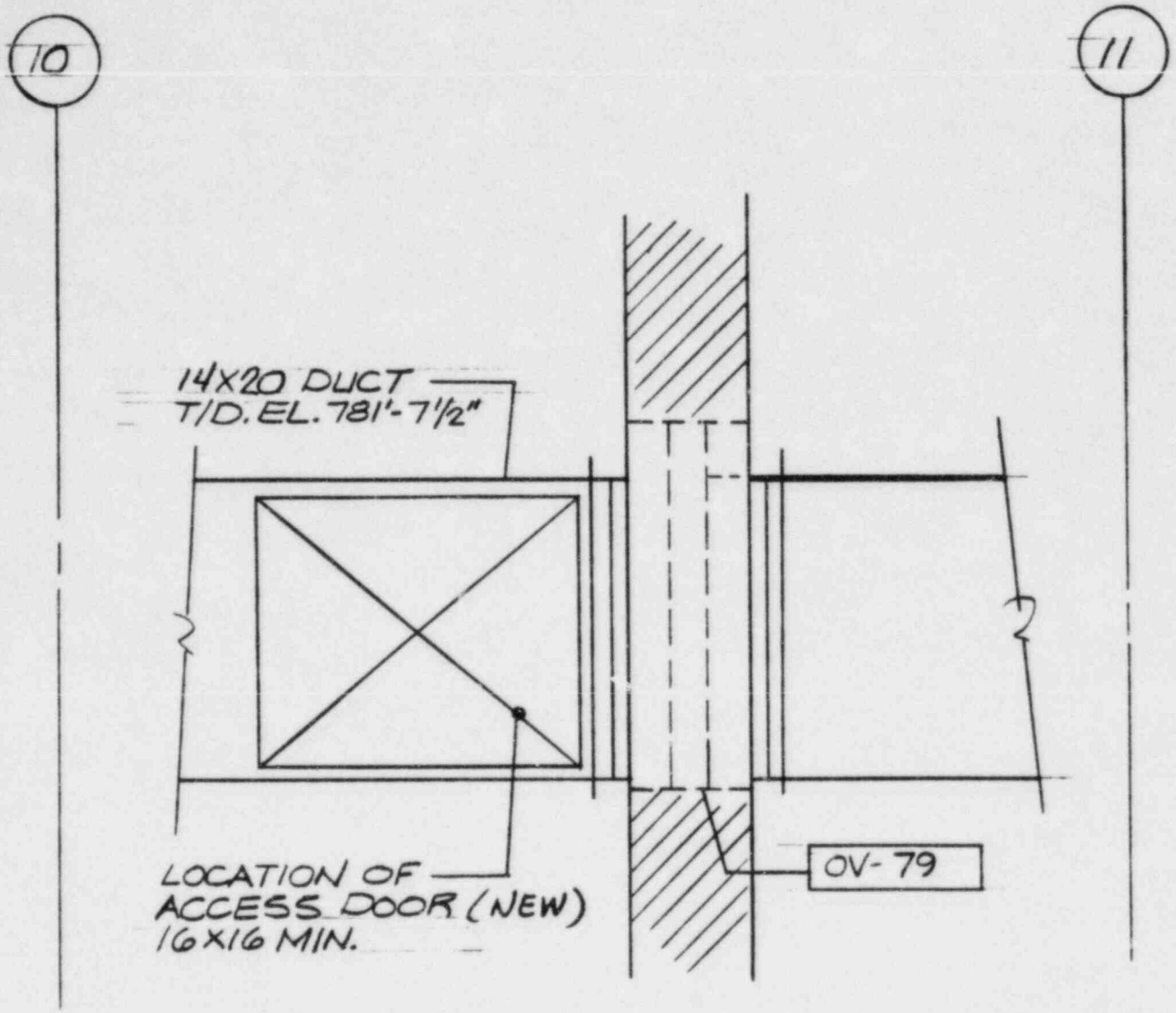
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA26Y REF. DWG. NO. 1390-1	
PREPARED BY: C. Stevens DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-36	Page 36 of —



ELEVATION
FLR. ELEVATION 768'-0"

FIRE DAMPER LOCATION
BETWEEN L-N AND 10-11

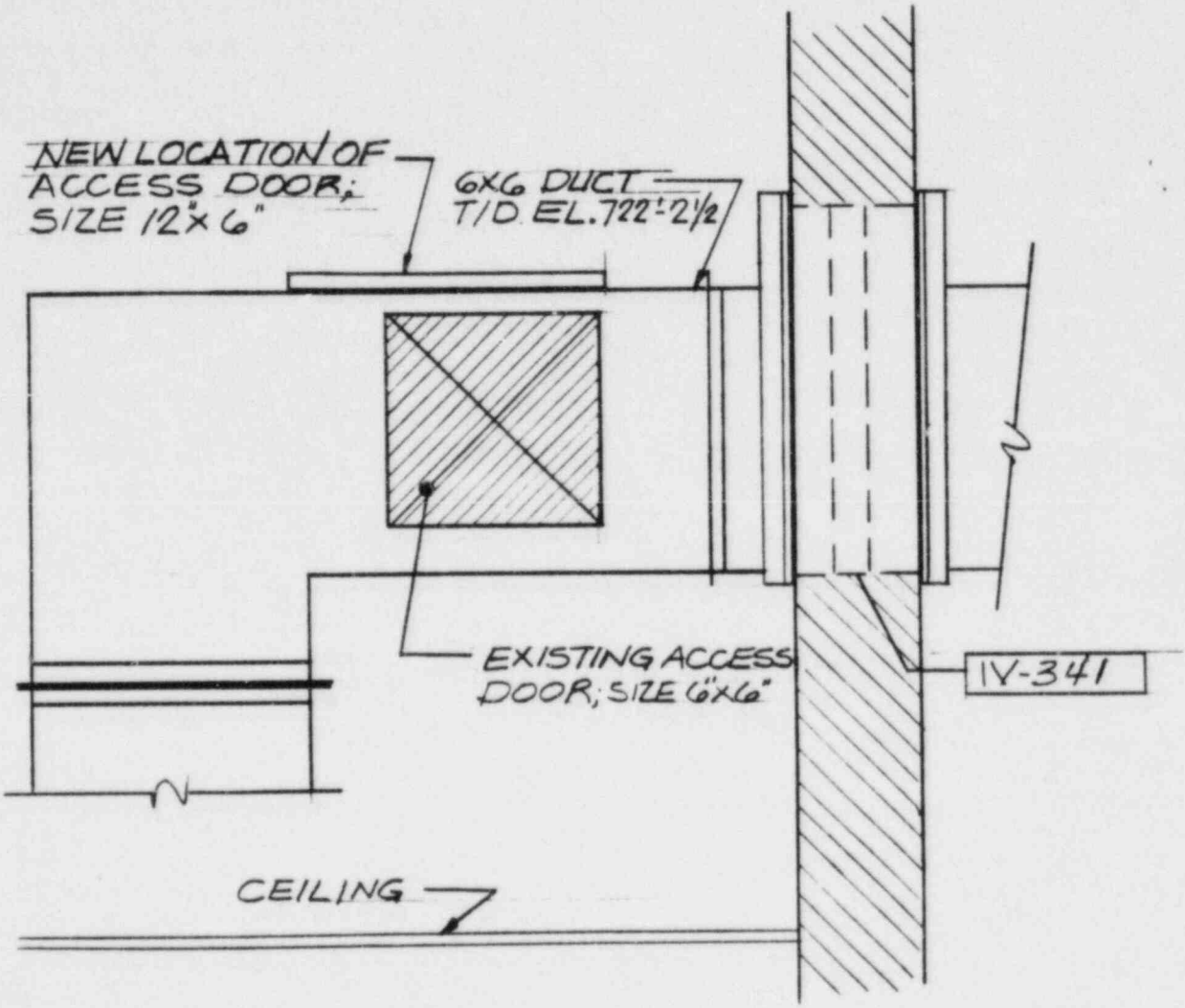
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA29Y REF. DWG. NO. 1390-1	
PREPARED BY C. A. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-37	Page 37 of —



ELEVATION
FLR. ELEVATION 768'-0"

FIRE DAMPER LOCATION
BETWEEN L-N AND 10-11

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA37Y REF. DWG. NO. 1390-1	
PREPARED BY C.D. [illegible] DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-38	Page 38 of —

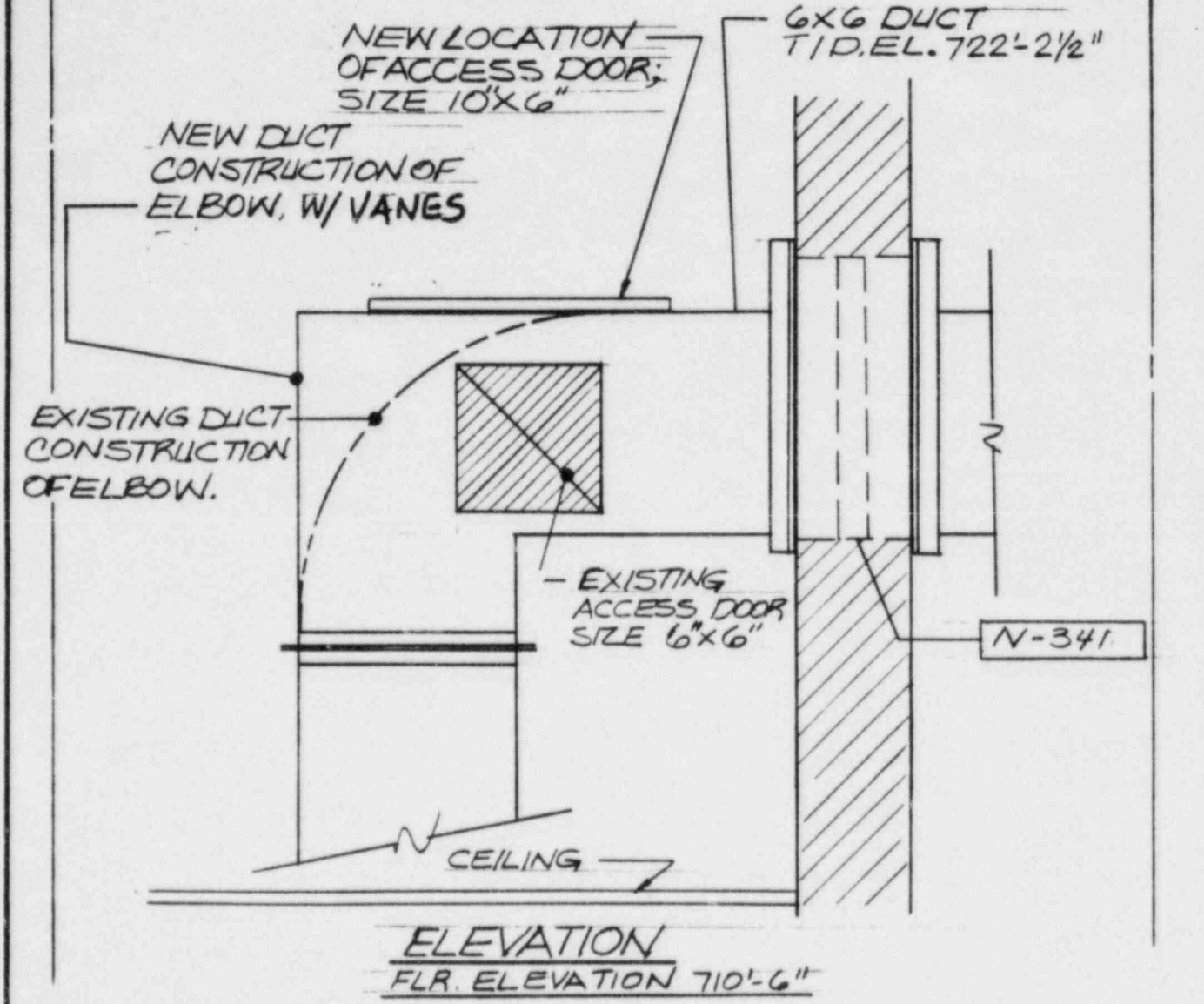


ELEVATION

FLR. ELEVATION 710'-6"

FIRE DAMPER LOCATION BETWEEN L-N AND 14-15

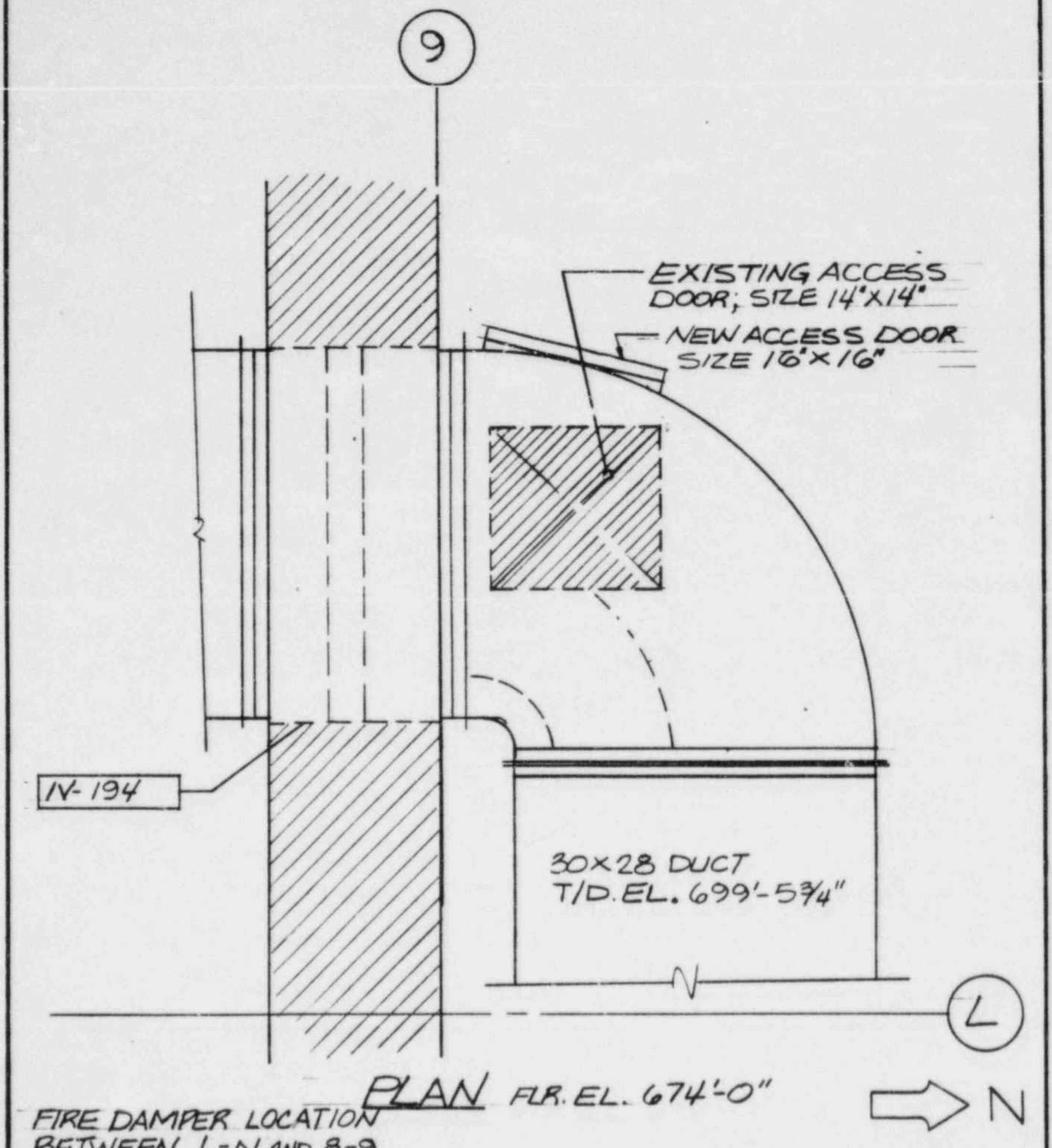
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL44Y REF. DWG. NO. 1388-1	
PREPARED BY C. Hoover DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-39	Page 39 of —



ELEVATION
FLR. ELEVATION 710'-6"

FIRE DAMPER LOCATION BETWEEN L-N AND 14-15

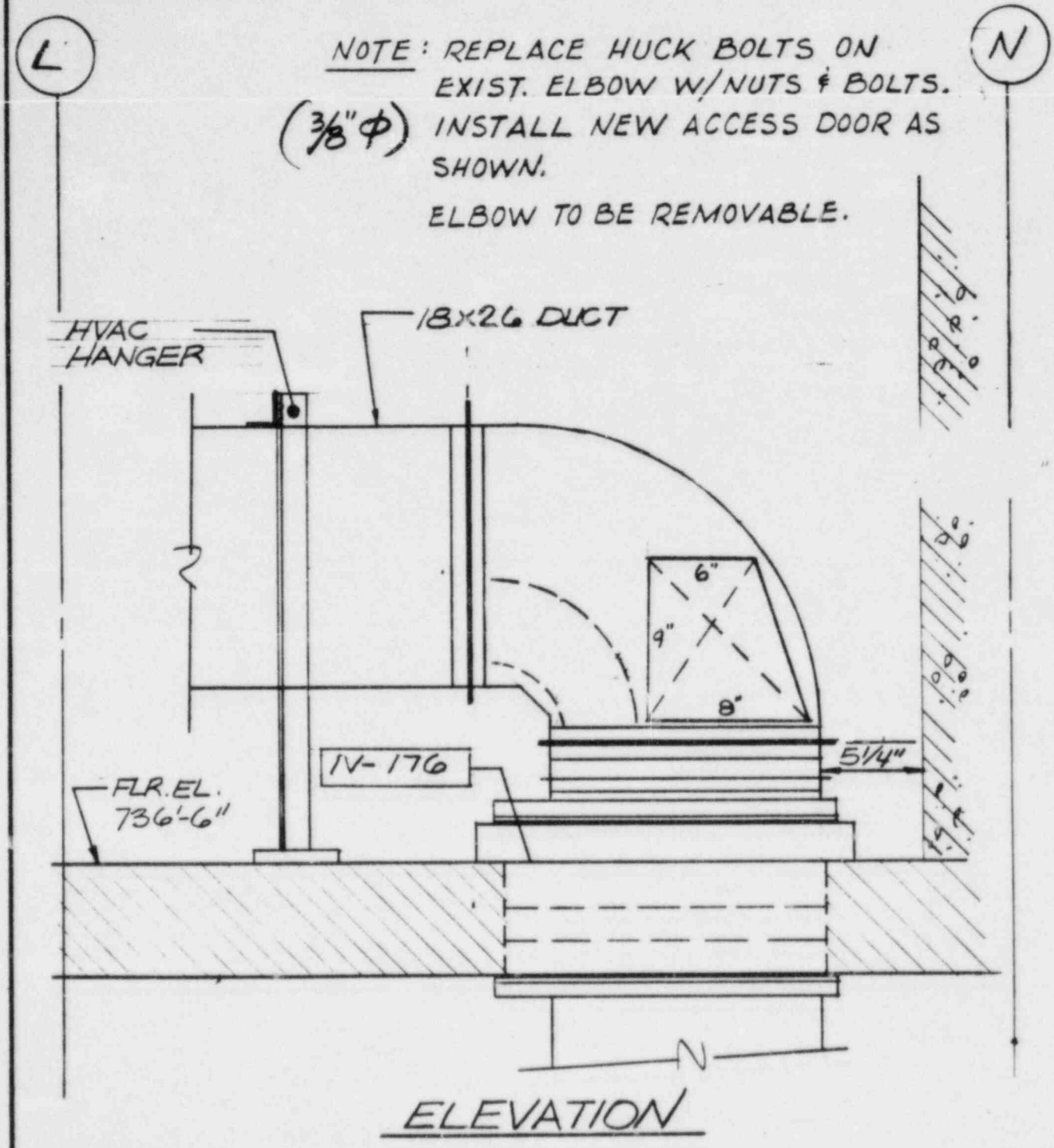
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL43Y REF. DWG. NO. 1388-1	
PREPARED BY: [signature] DATE: 7/20/84	
SKETCH No. FDAM-40	SARGENT & LUNDY ENGINEERS



PLAN FLR. EL. 674'-0"

FIRE DAMPER LOCATION BETWEEN L-N AND 8-9

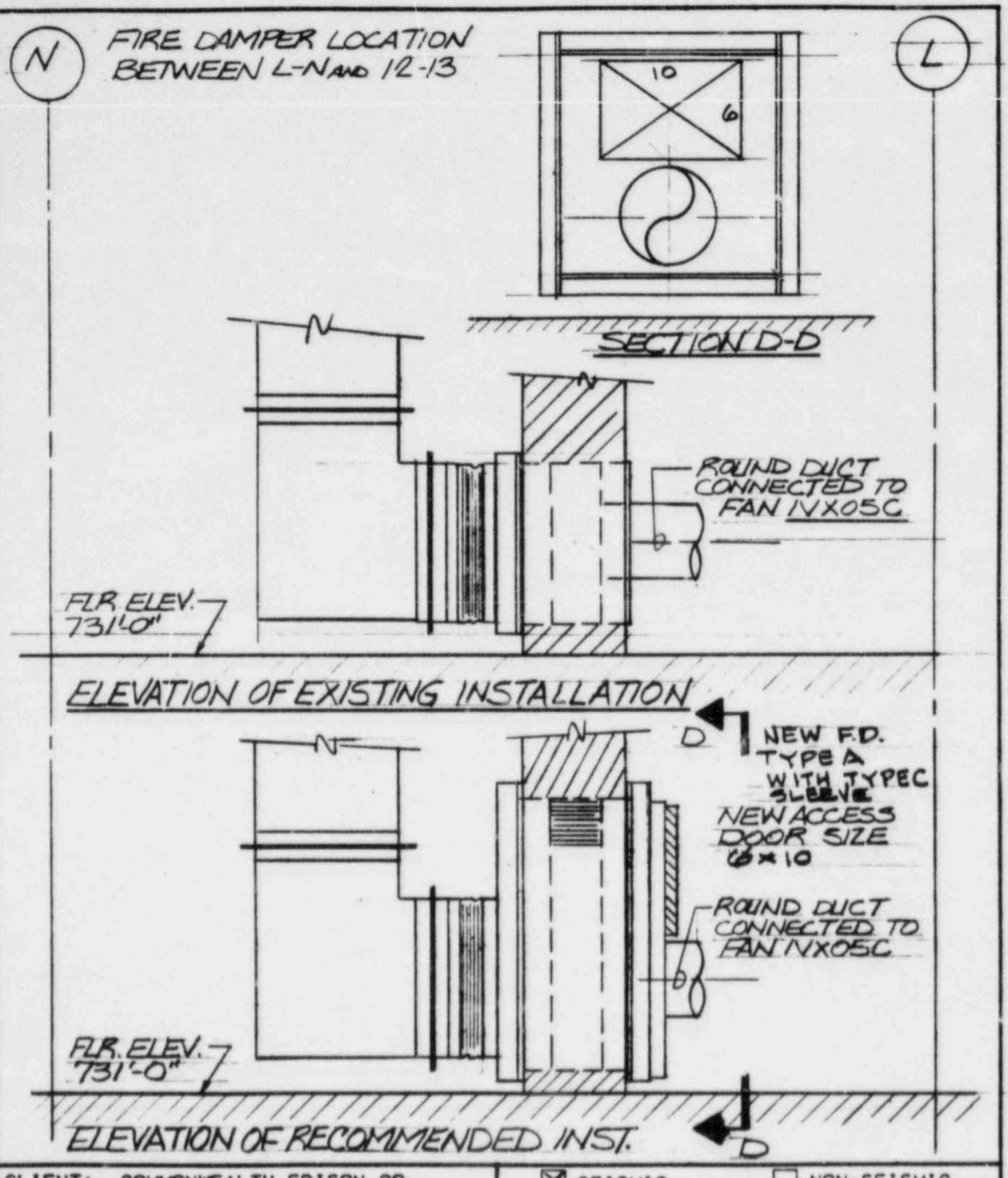
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVD24Y REF. DWG. NO. 1399	
PREPARED BY C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-41	Page 41 of —



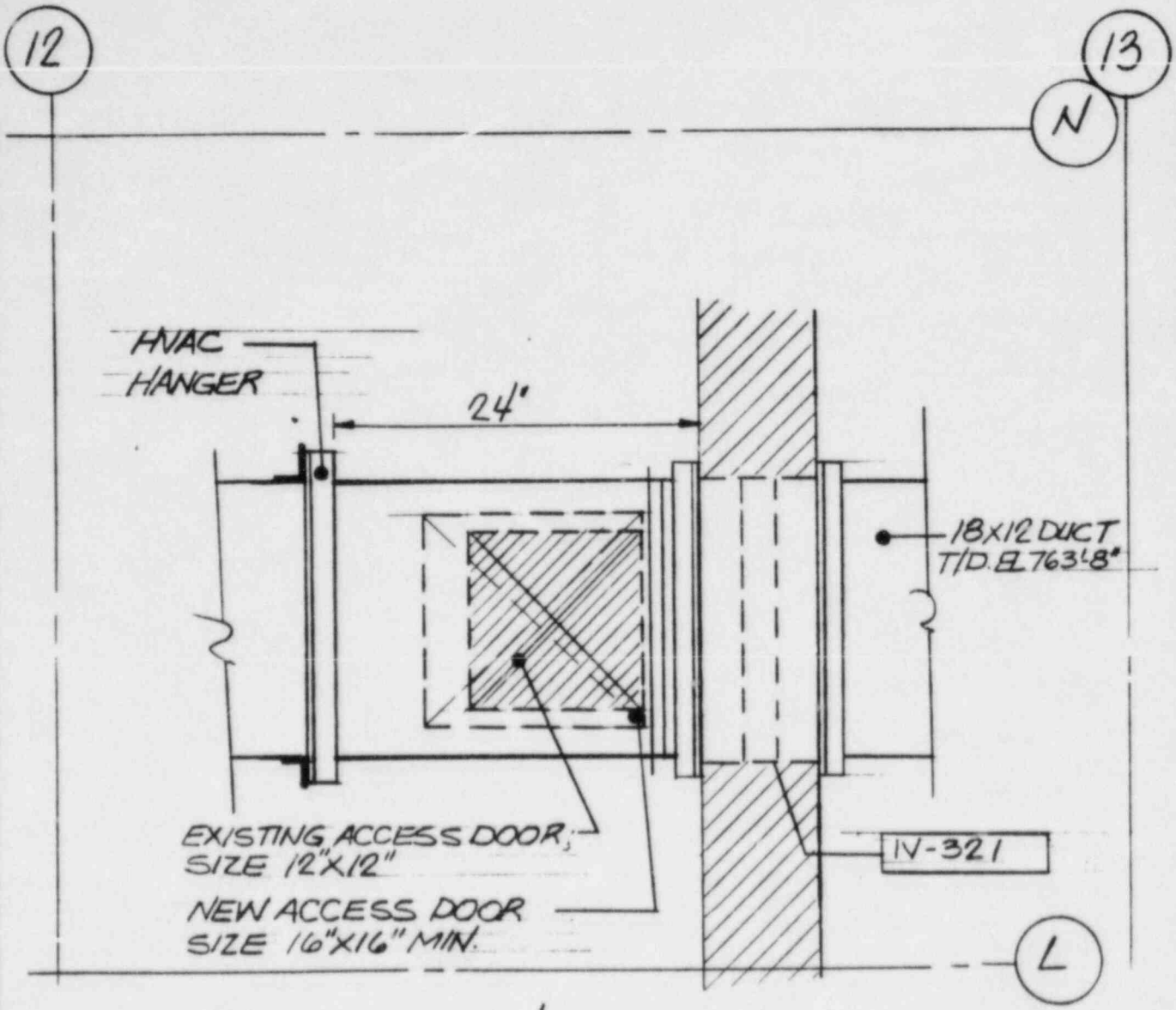
ELEVATION

FIRE DAMPER LOCATION BETWEEN L-N AND 6-8

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 1VD42Y REF. DWG. NO. 1395	
PREPARED BY: C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-42	Page 42 of —

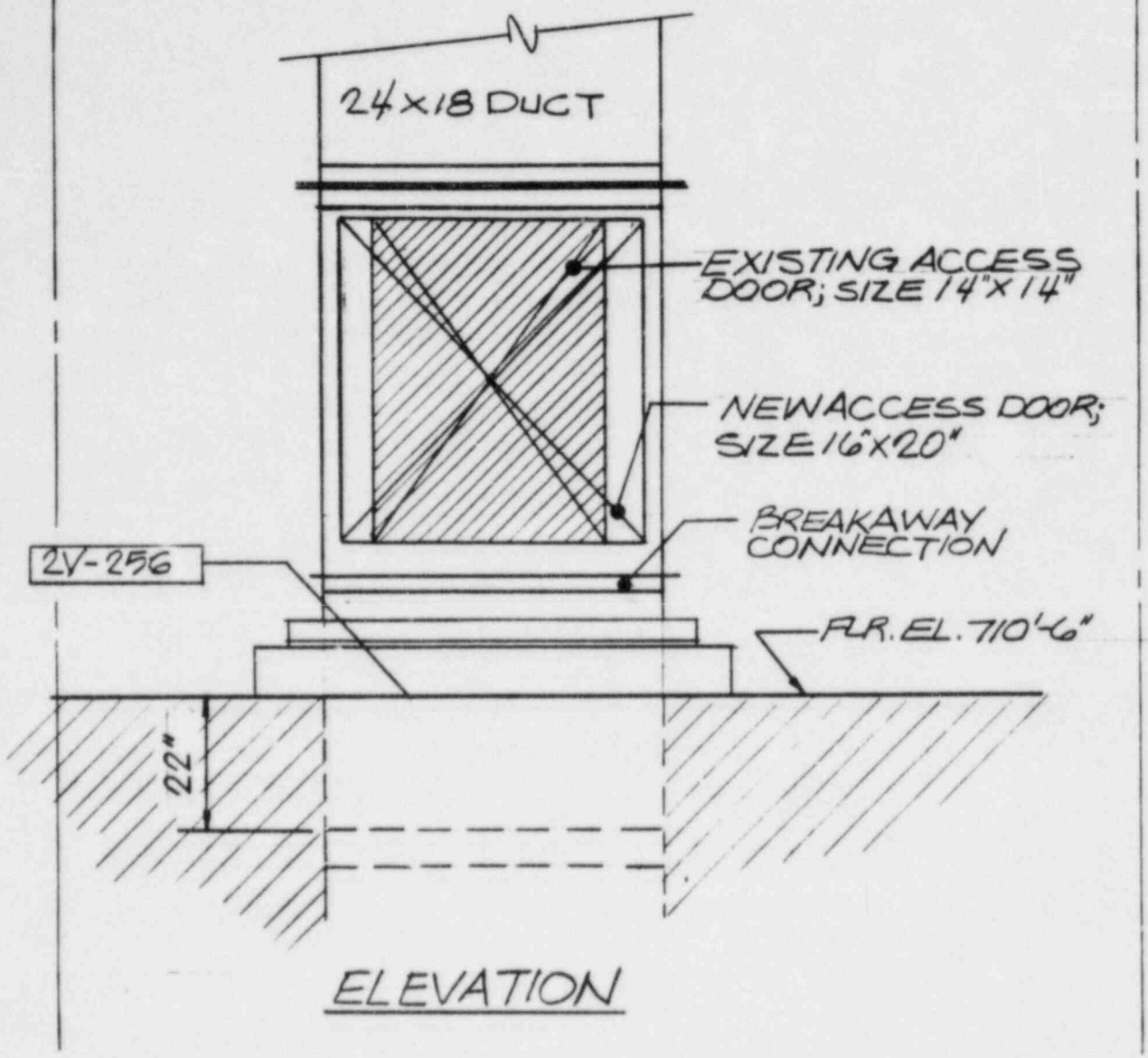


CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 1VX35Y REF. DWG. NO. 1389-1	
PREPARED BY C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-43	Page 43 of —



PLAN
FLR. ELEVATION 749'-0"

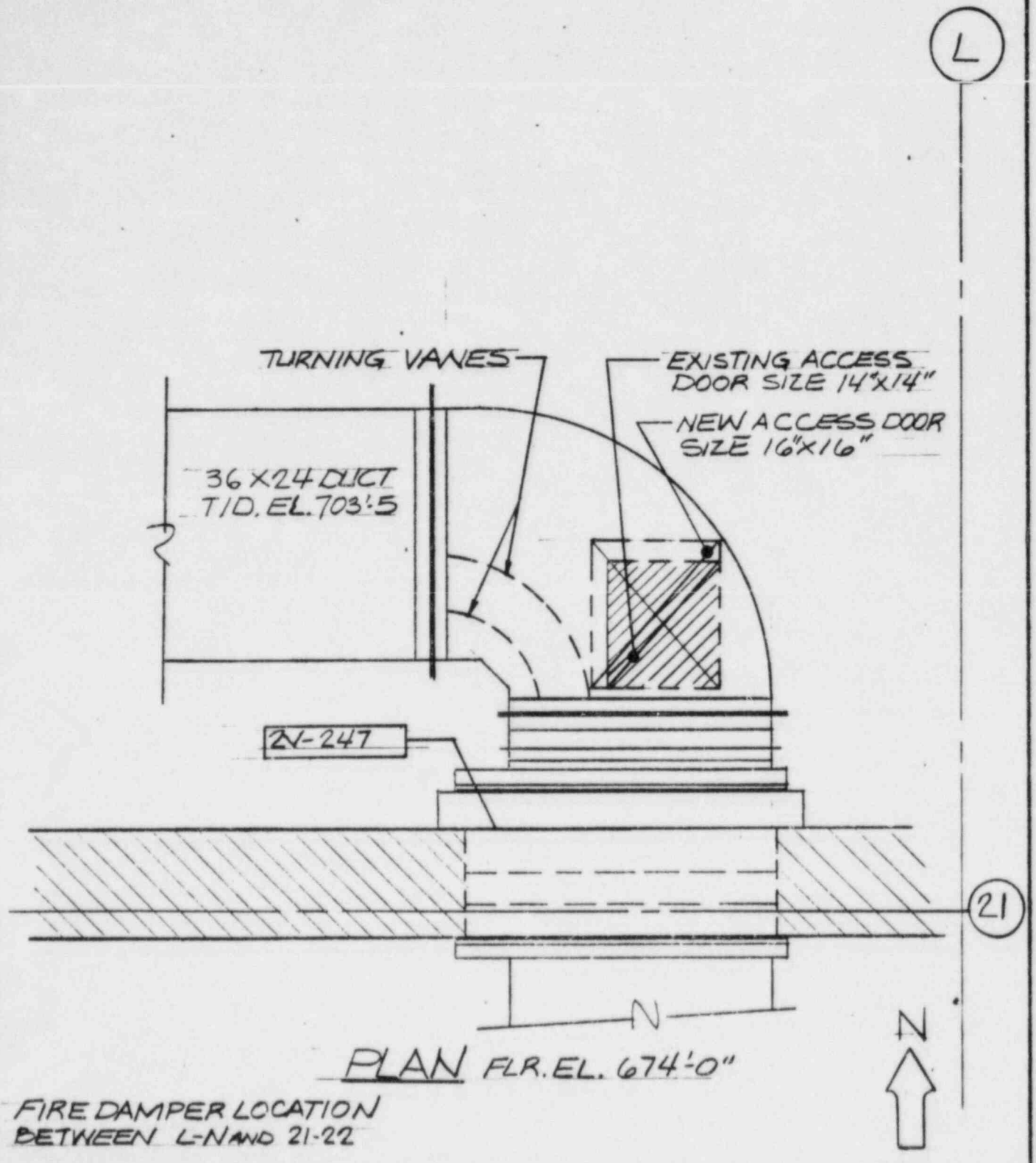
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 1VX41Y REF. DWG. NO. 1387-1	
PREPARED BY C. Stevens DATE: 7/20/89	
SKETCH No. FDAM-44	SARGENT & LUNDY ENGINEERS



ELEVATION

FIRE DAMPER LOCATION BETWEEN H-J AND 22-24

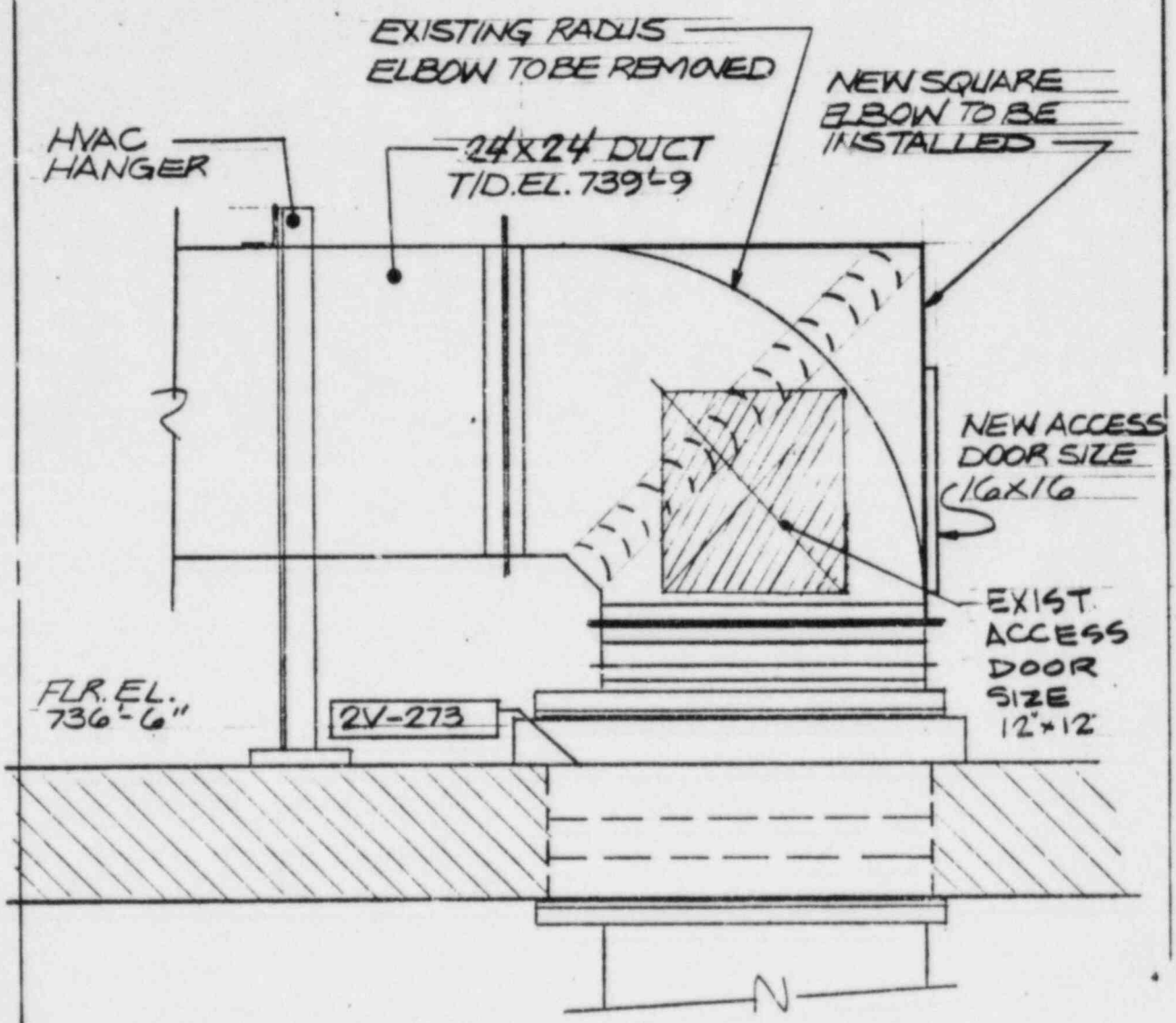
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VD14Y REF. DWG. NO. 1398	
PREPARED BY: C. A. Boland DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-45	Page 45 of —



PLAN FLR. EL. 674'-0"

FIRE DAMPER LOCATION BETWEEN L-N AND 21-22

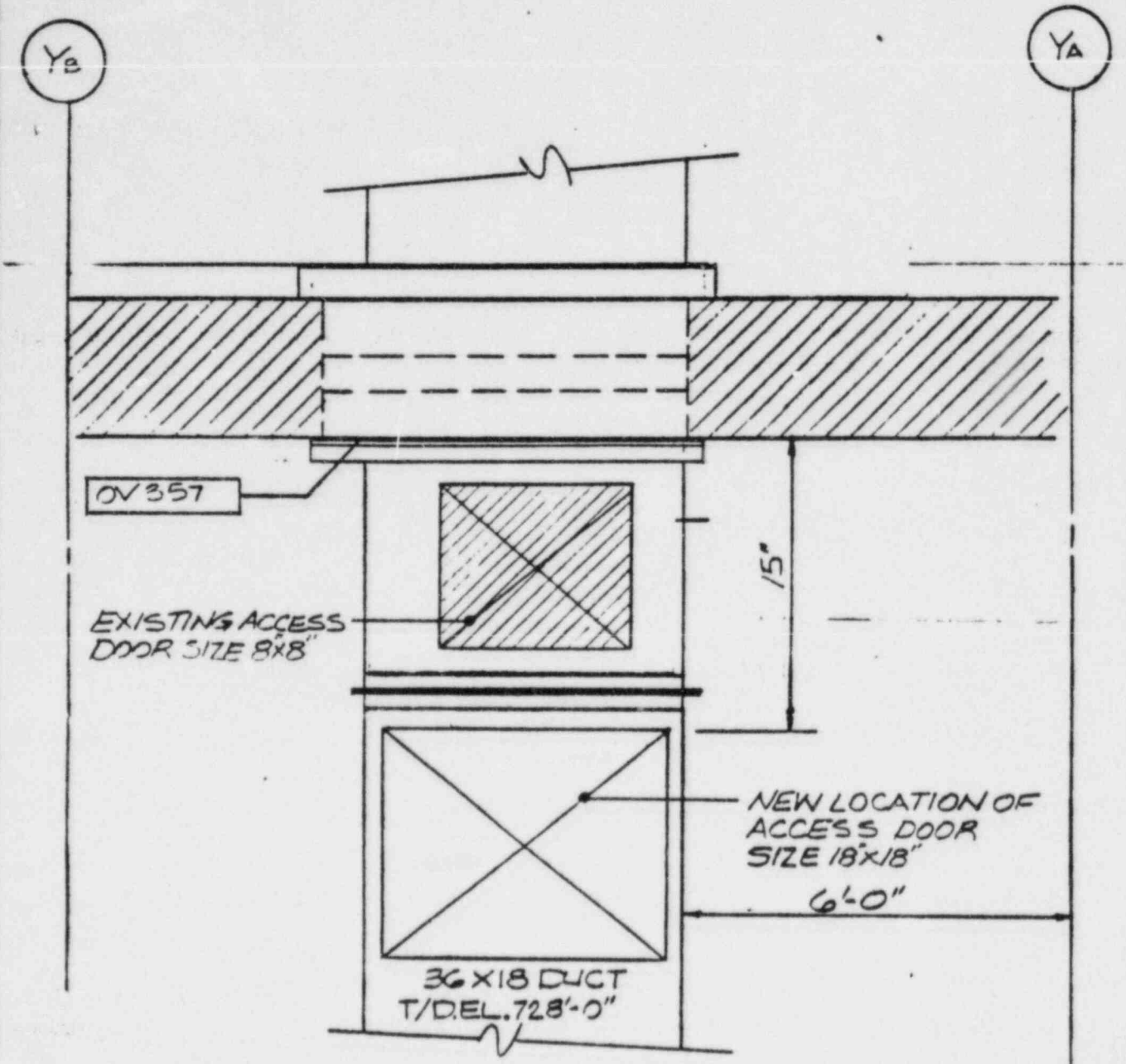
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VD23Y REF. DWG. NO. 1400	
PREPARED BY C. Stevens DATE: 7/20/84	
SKETCH No. FDAM-46	CAMDEN & LUNDY ENGINEERS



ELEVATION FLR. EL. 736'-6"

FIRE DAMPER LOCATION BETWEEN H-J AND 23-24

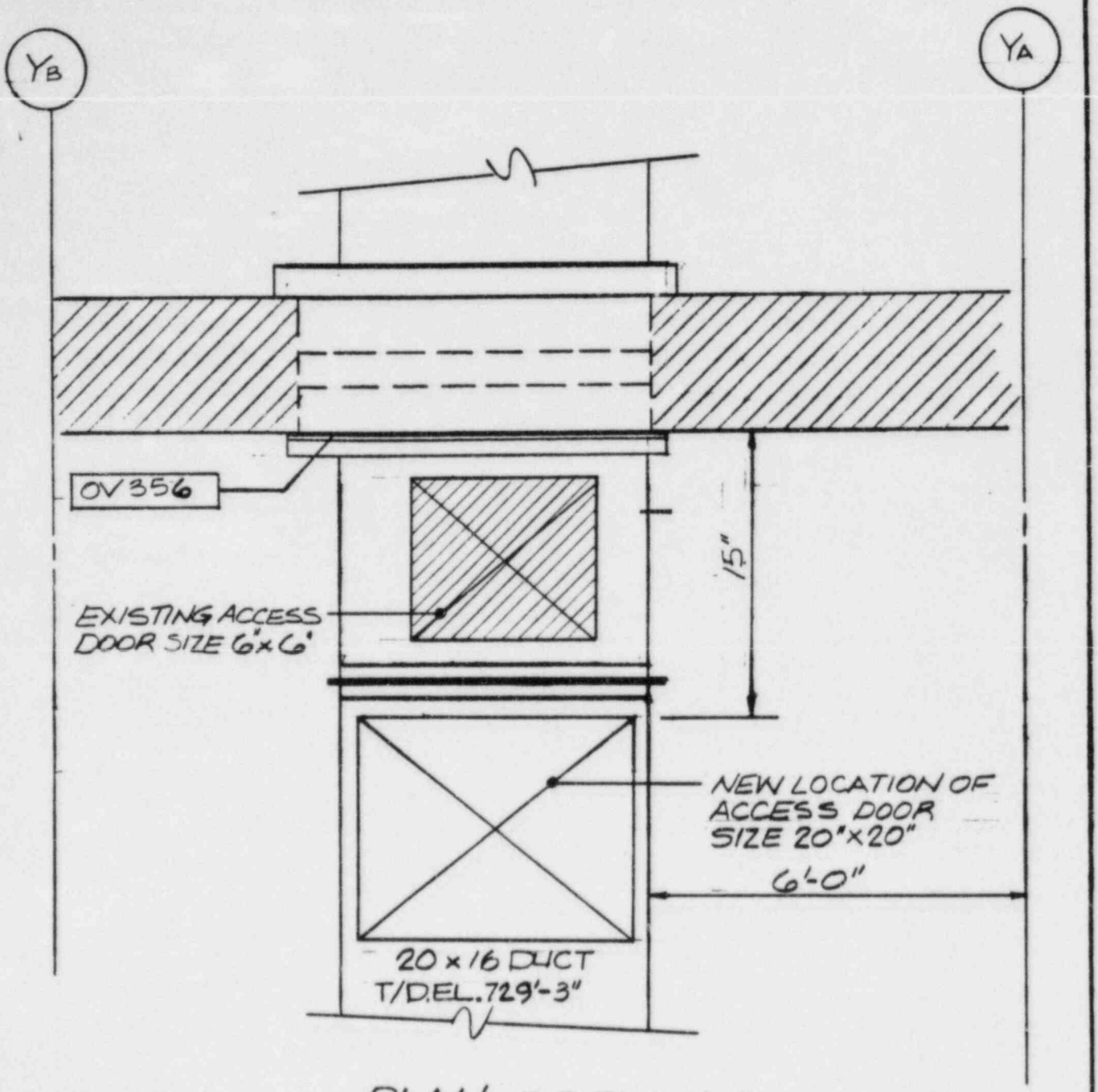
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VD45Y REF. DWG. NO. 1396	
PREPARED BY: C. Thorsen DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH NO. FDAM-47	Page 47 of —



PLAN FLR. EL. 710'-6"

FIRE DAMPER LOCATION BETWEEN YA - YB AND 14 AND 15

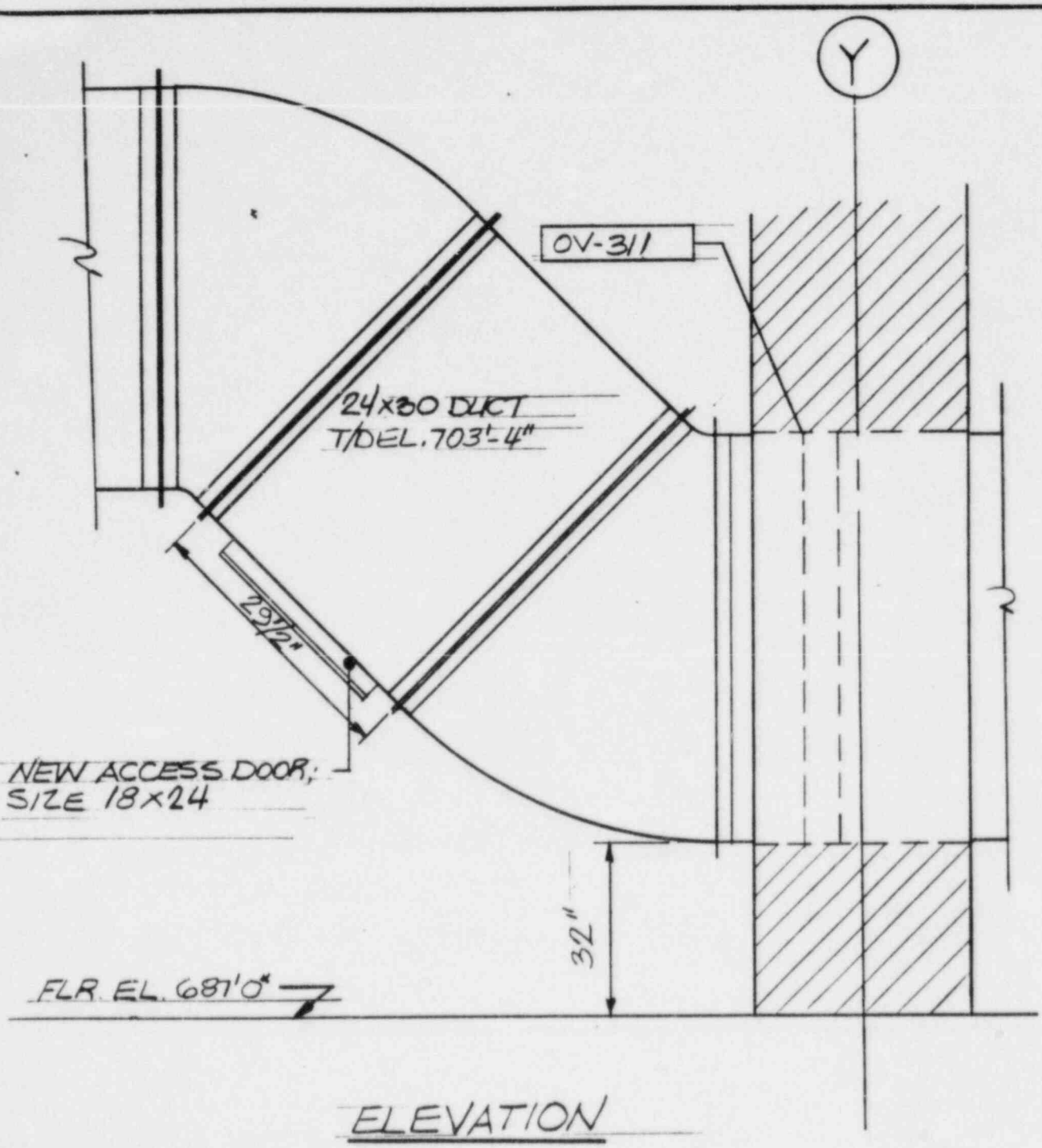
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVWIIY REF. DWG. NO. 1435	
PREPARED BY: C. Stevens DATE: 7/26/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-48	Page 48 of —



PLAN FLR. EL. 710'-6"

FIRE DAMPER LOCATION BETWEEN YA-YB AND 14 AND 15

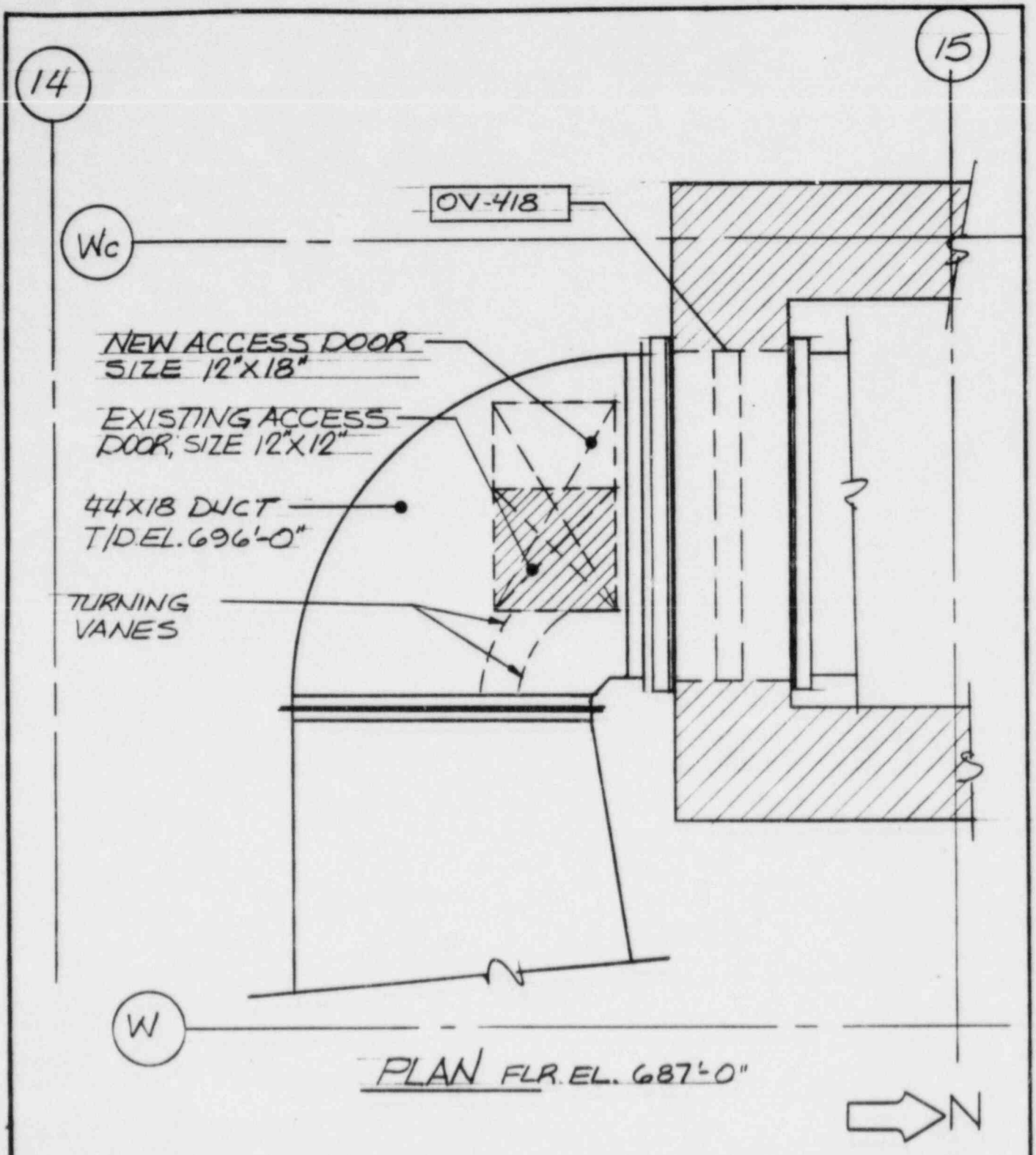
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVW30Y REF. DWG. NO. 1435	
PREPARED BY: C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-49	Page 49 of —



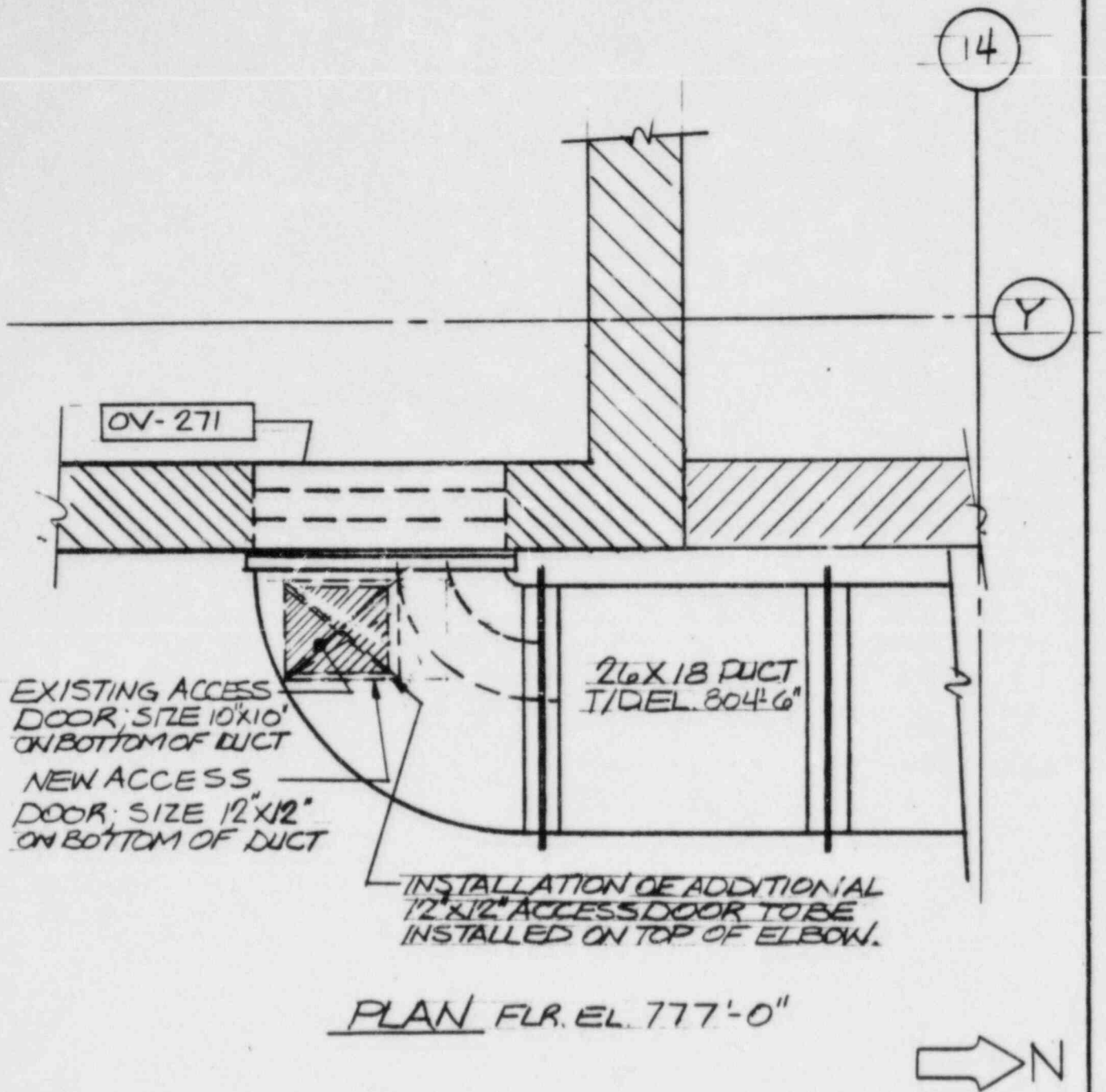
ELEVATION

FIRE DAMPER LOCATION
BETWEEN X-Y AND 13 #4

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OYW42Y REF. DWG. NO. 1432	
PREPARED BY C. J. Evans DATE: 7/20/84	
SKETCH No. FDAM-50	SARGENT & LUNDY ENGINEERS

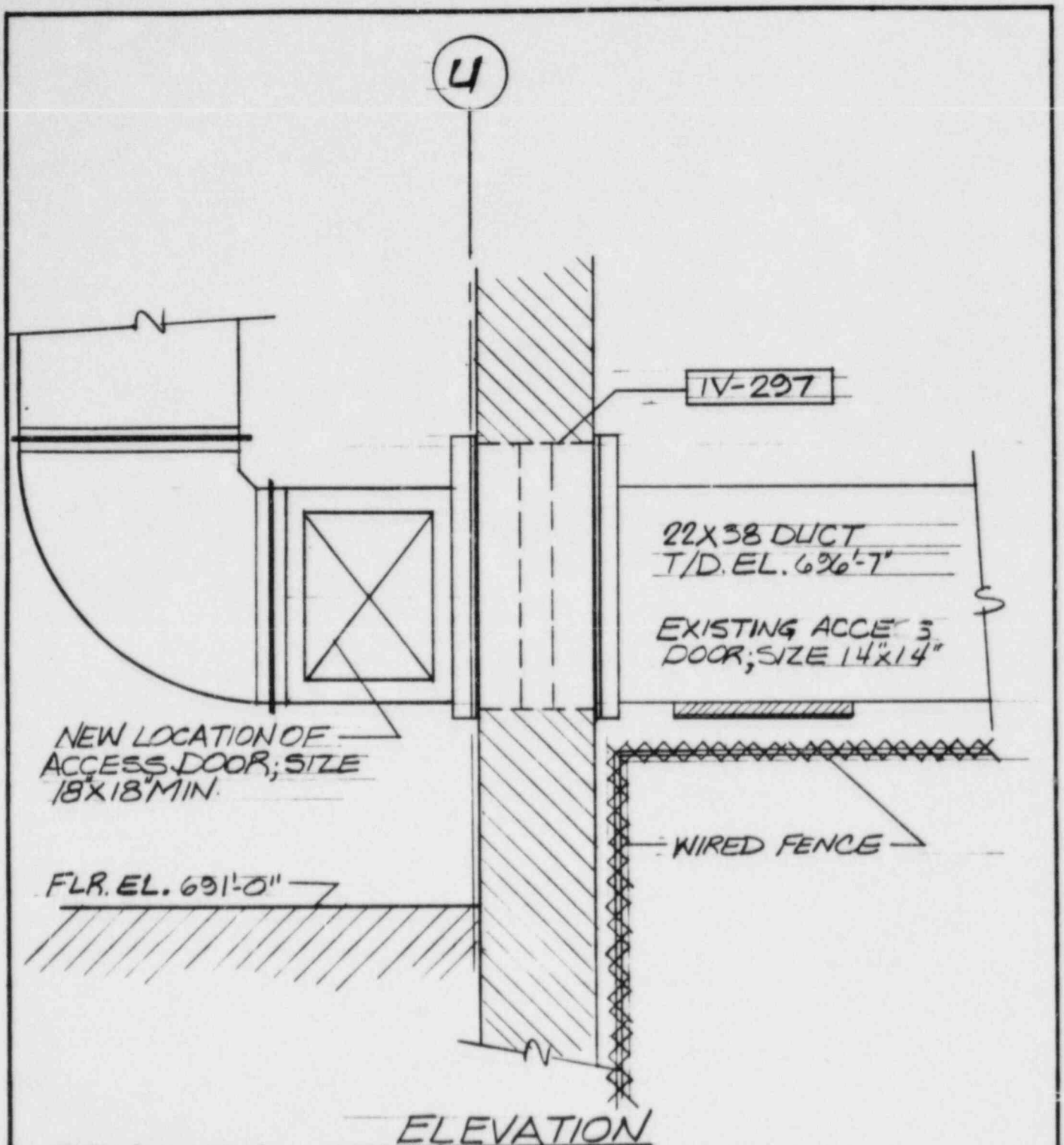


CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVW78Y REF. DWG. NO. 1432-2	
PREPARED BY C.K. Stevenson DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-51	Page 51 of —



FIRE DAMPER LOCATION BETWEEN X-Y AND 13-14

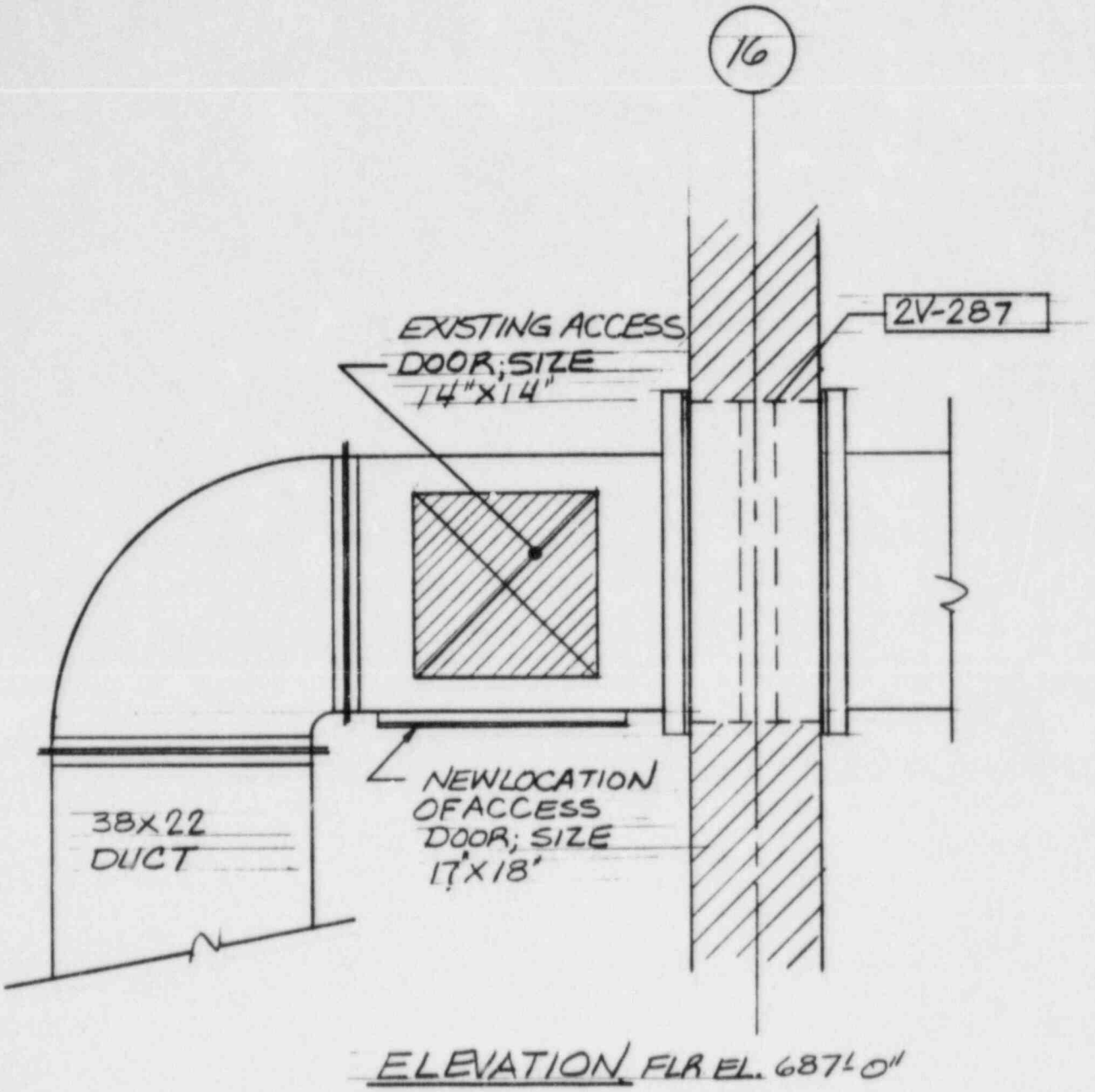
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVW89Y REF. DWG. NO. 1429	
PREPARED BY C. Thomson DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-52	Page 52 of —



ELEVATION

FIRE DAMPER LOCATION BETWEEN U-V AND 13-14

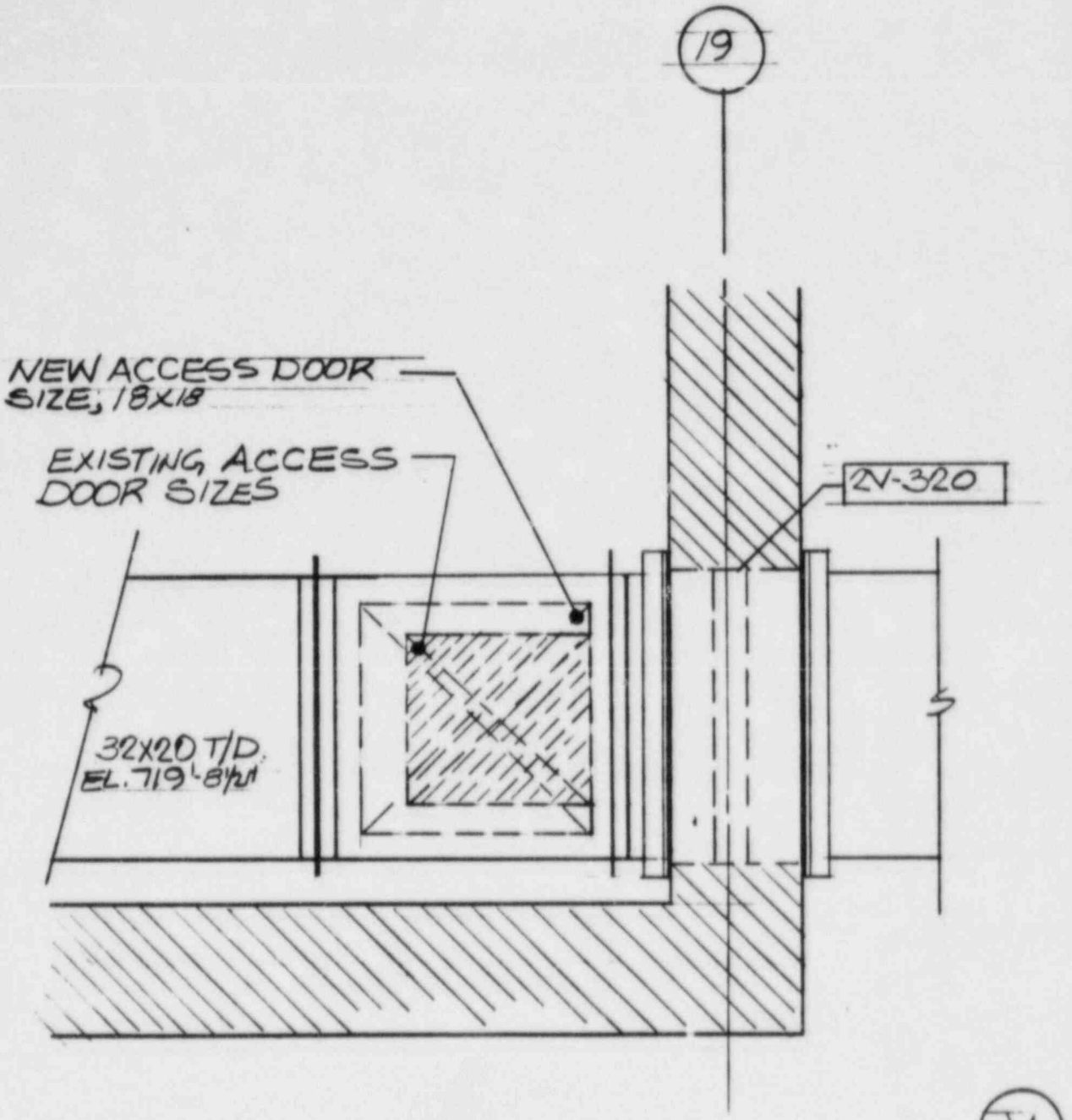
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVT69Y REF. DWG. NO. 1418	
PREPARED BY [signature] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-53	Page 53 of —



ELEVATION FLR EL. 687'-0"

FIRE DAMPER LOCATION BETWEEN U-V AND 16-17

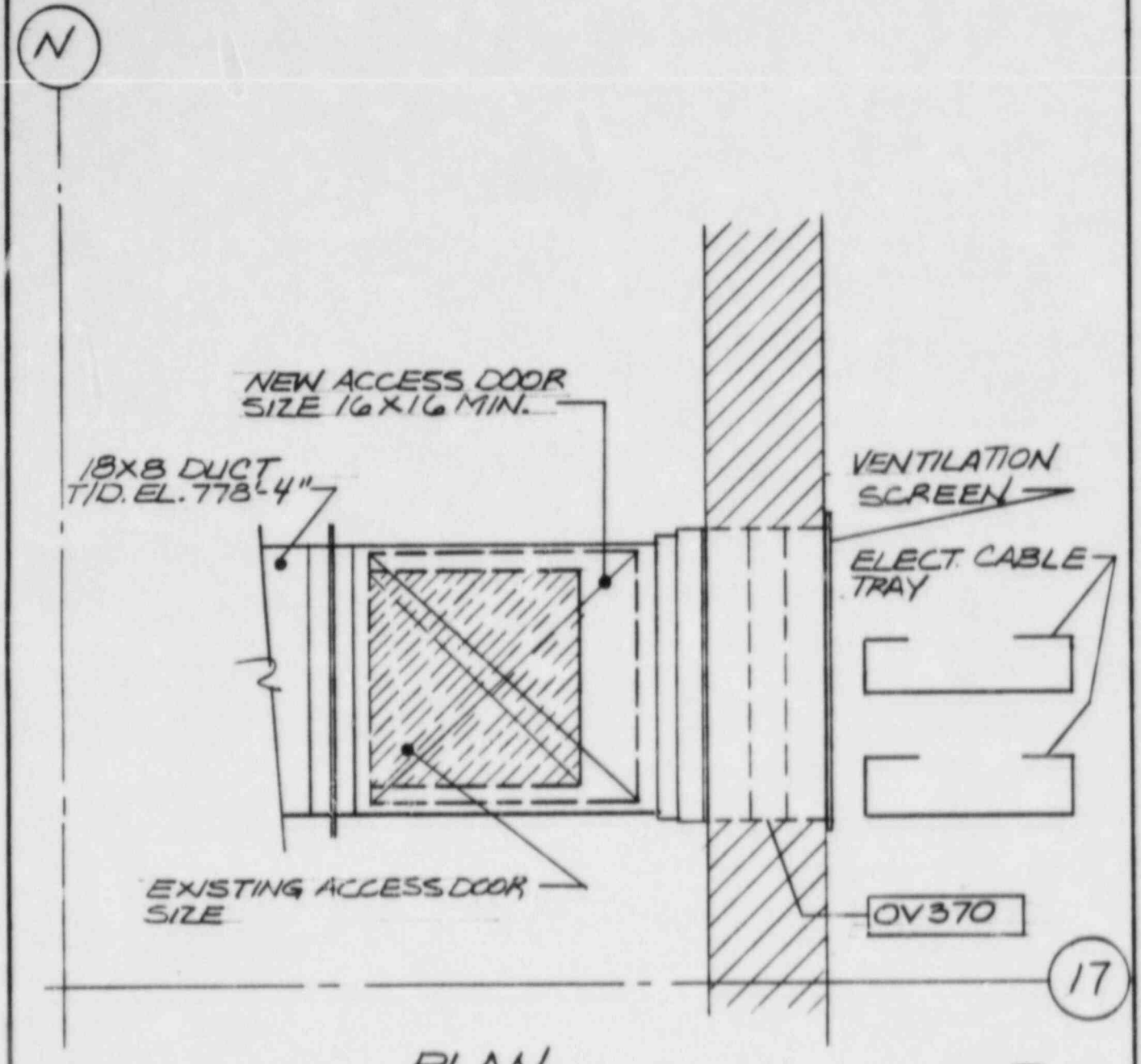
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VT69Y REF. DWG. NO. 1418-2	
PREPARED BY: C. Thoma DATE: 7/2/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-54	Page 54 of —



PLAN FLR EL 710'-6"

FIRE DAMPER LOCATION BETWEEN V-W AND 18-19

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VT72Y REF. DWG. NO. 1417	
PREPARED BY C. Stevens DATE: 7/20/84	
SKETCH No. FDAM-55	SARGENT & LUNDY ENGINEERS



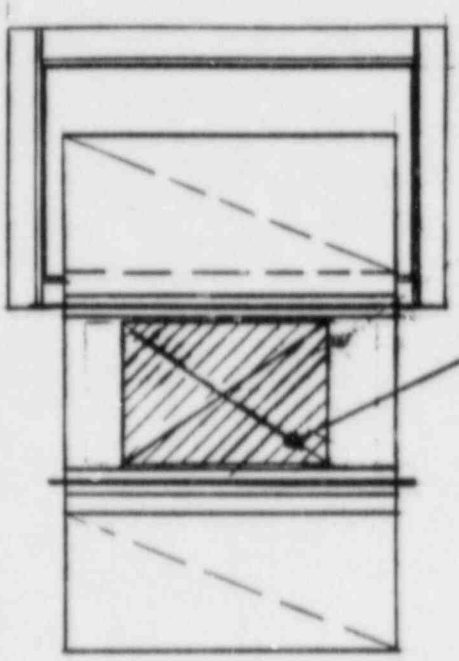
FIRE DAMPER LOCATION BETWEEN N-R AND 16-17

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVC50Y REF. DWG. NO. 1391-1	
PREPARED BY C. O'Connor DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-56	Page 56 of —

16

17

FIRE DAMPER LOCATION
BETWEEN N-R AND 16-17



EXISTING ACCESS DOOR
SIZE 12X12

SECTION A-A

A

N

OV-371

THIS ELBOW TO
BE REMOVABLE
REPLACE HUCKBOLTS
WITH NUTS & BOLTS (3/8"Ø)

18X8 DUCT
T/DEL. 777'-5"

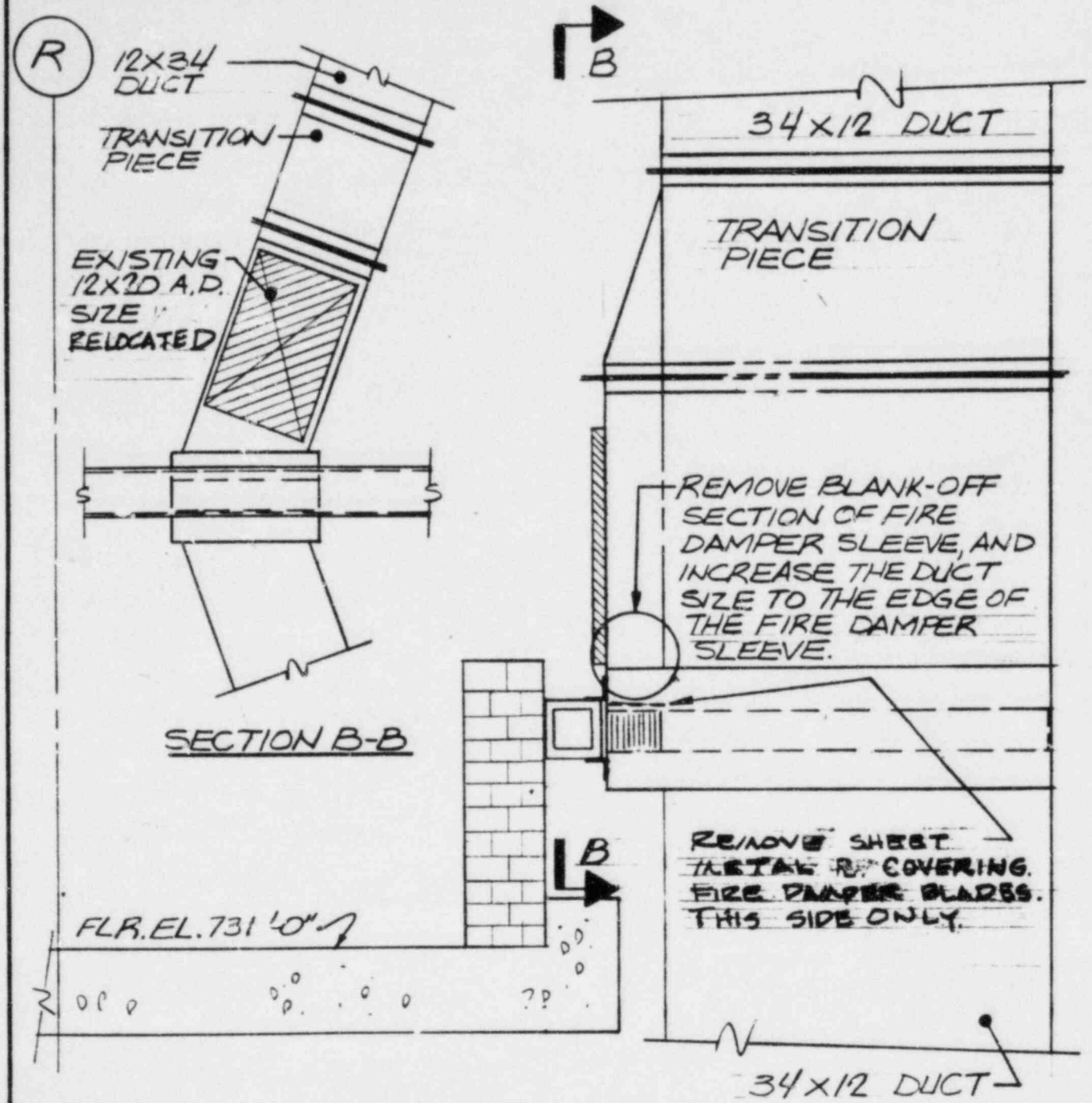
2

2

A

ELEVATION

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVCS1Y REF. DWG. NO. 1391-L	
PREPARED BY C. J. Cook DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-57	Page 57 of —

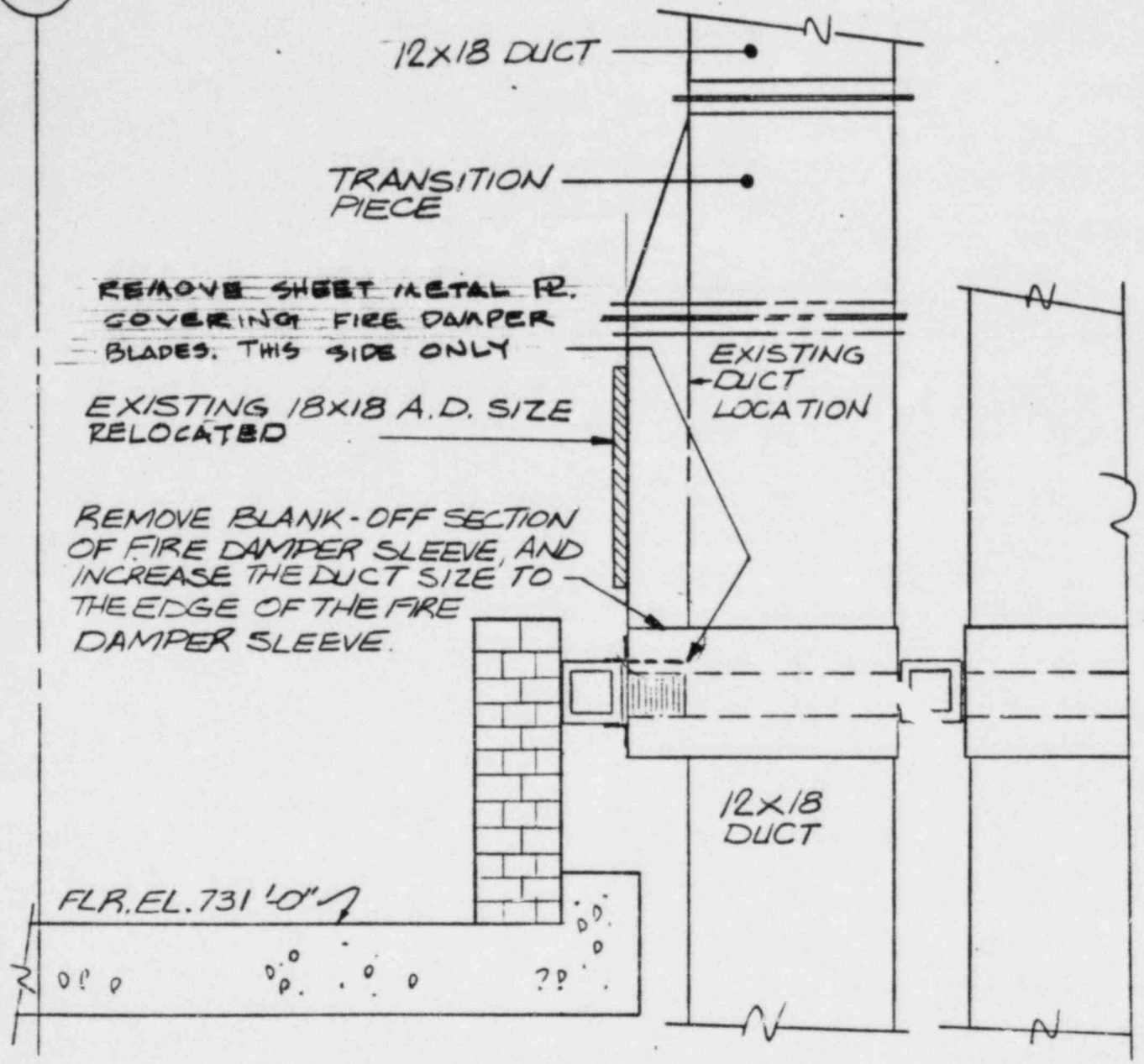


ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16, SEE SKETCH FDAM-60-1

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. ONL75Y REF. DWG. NO. 1388-6	
PREPARED BY: C. Stone DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-58	Page 58 of —

R

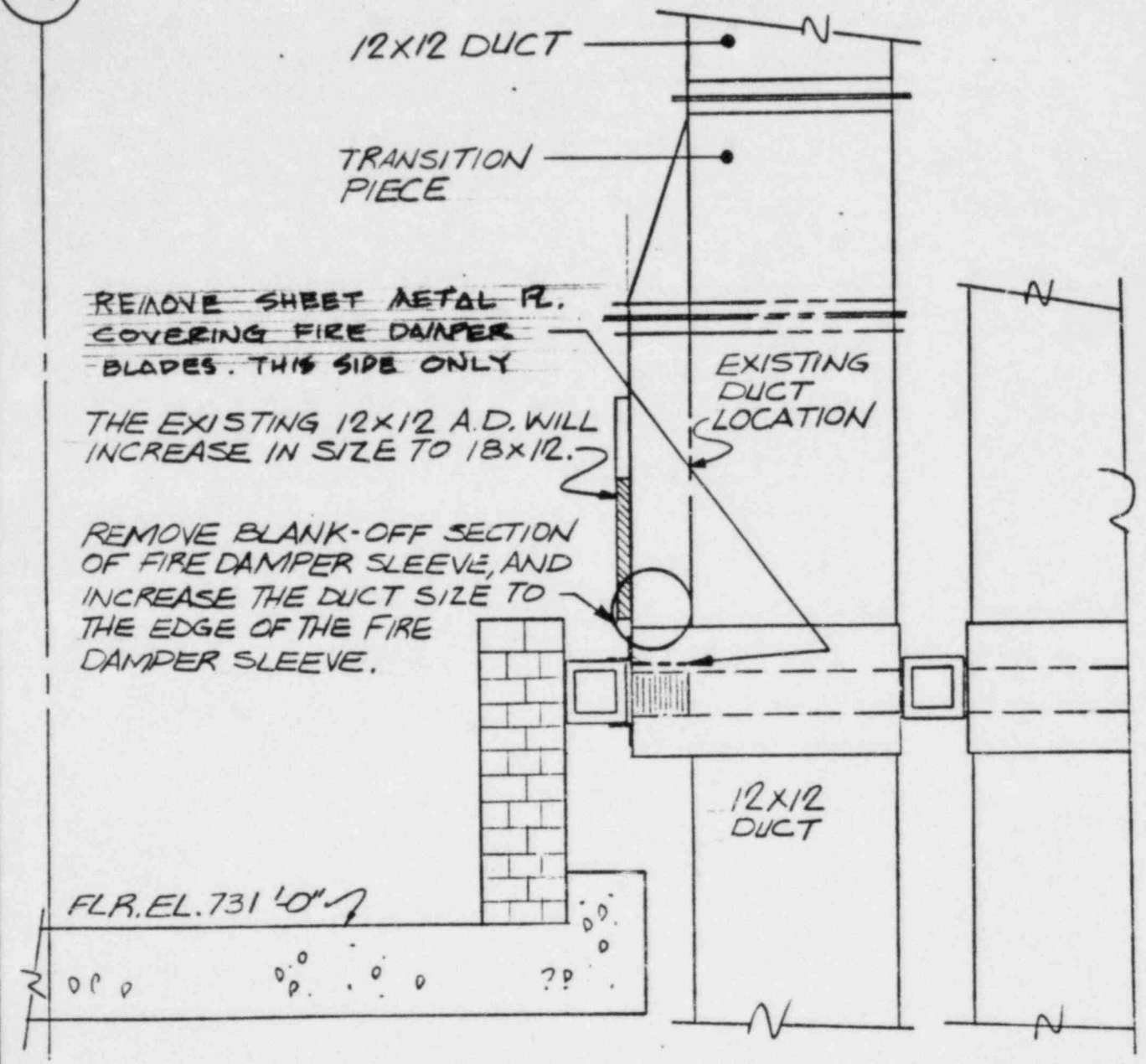


ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R AND 15-16, SEE SKETCH FDAM-60-1

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL77Y REF. DWG. NO. 1388-1	
PREPARED BY: C. [illegible] DATE: 7/20/84	
SKETCH No. FDAM-59	SARGENT & LUNDY ENGINEERS

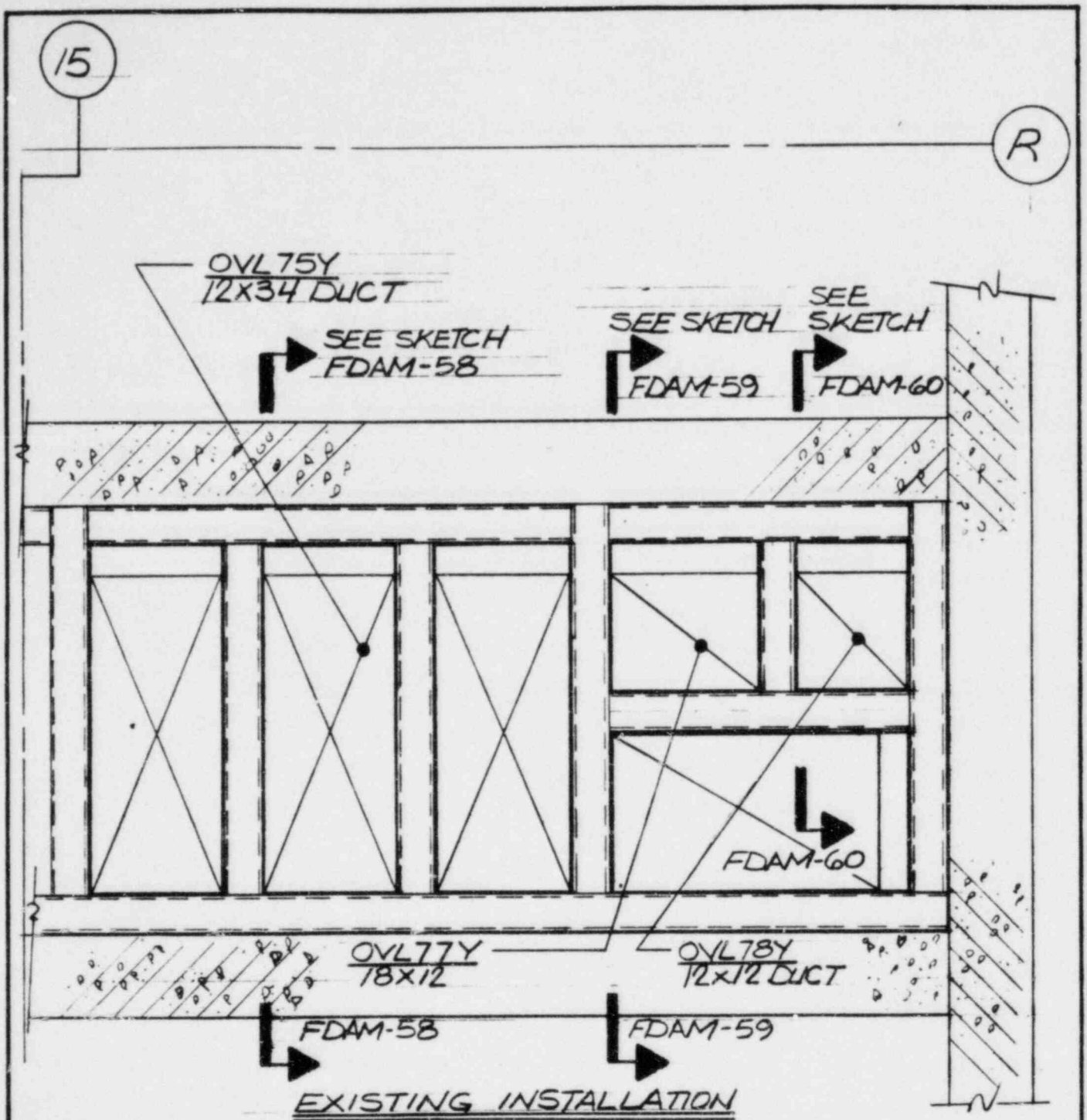
R



ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R AND 15-16, SEE SKETCH FDAM-60-1

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL78Y REF. DWG. NO. 1388-6	
PREPARED BY C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-60	Page 60 of —

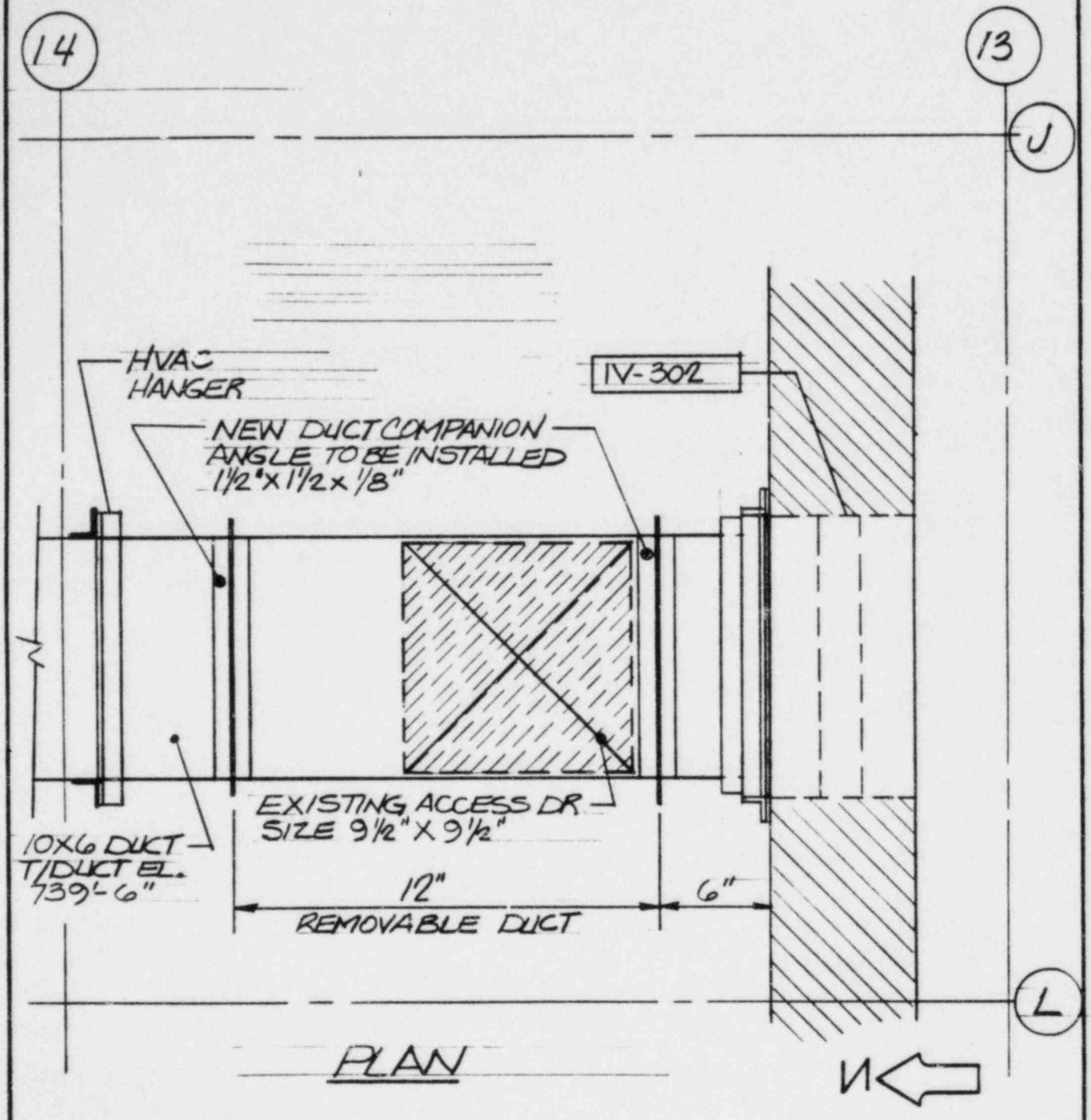


EXISTING INSTALLATION

PARTIAL PLAN AT EL. 735'-0"

FIRE DAMPERS ARE LOCATED BETWEEN N-RAND 15-16

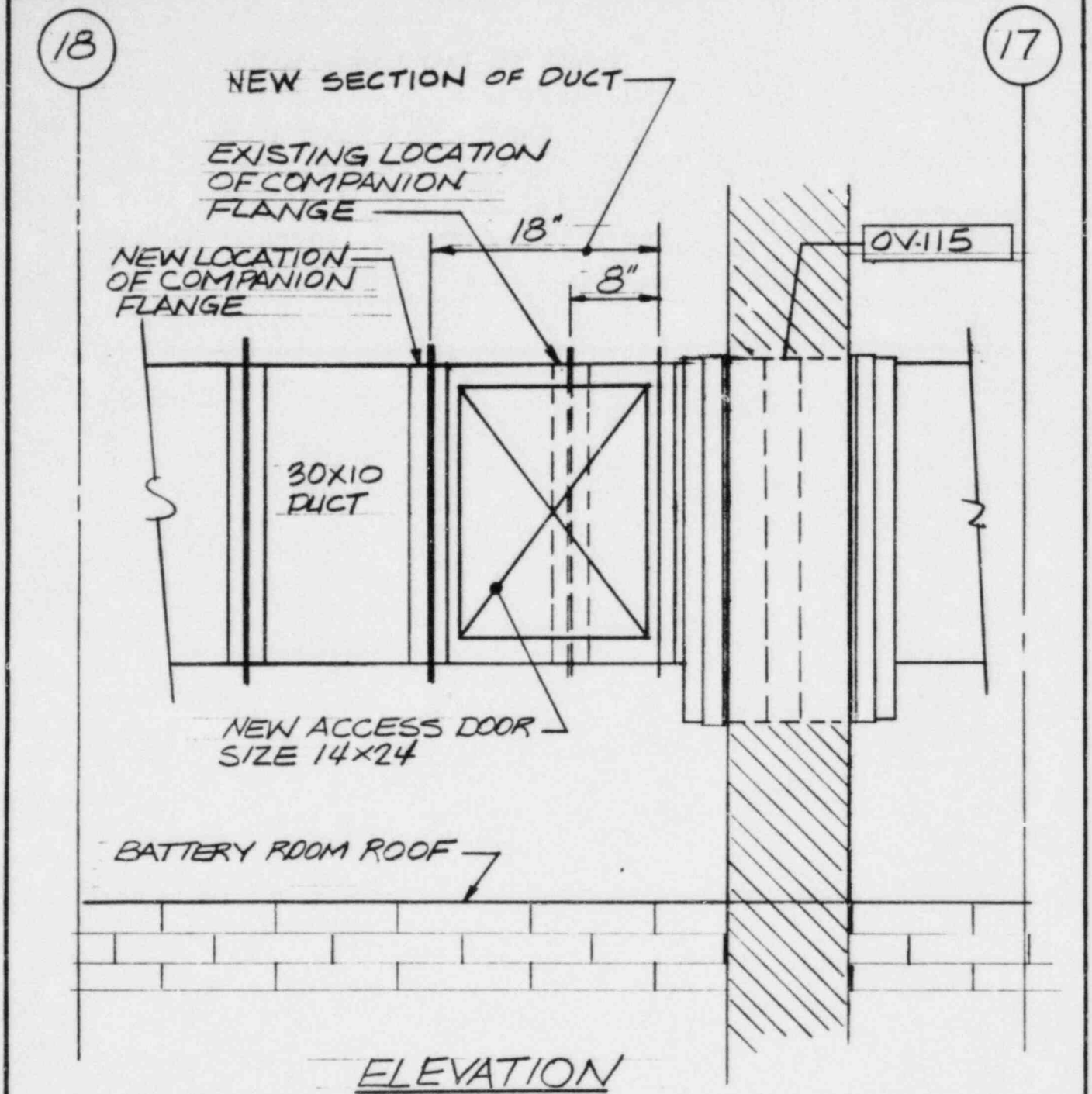
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE SKETCH REF. DWG. NO. 1388-6	
PREPARED BY: [illegible] DATE: 7/20/84	
SKETCH No. FDAM-60-1	SARGENT & LUNDY ENGINEERS



PLAN

FIRE DAMPER LOCATION BETWEEN J-L AND 13-14

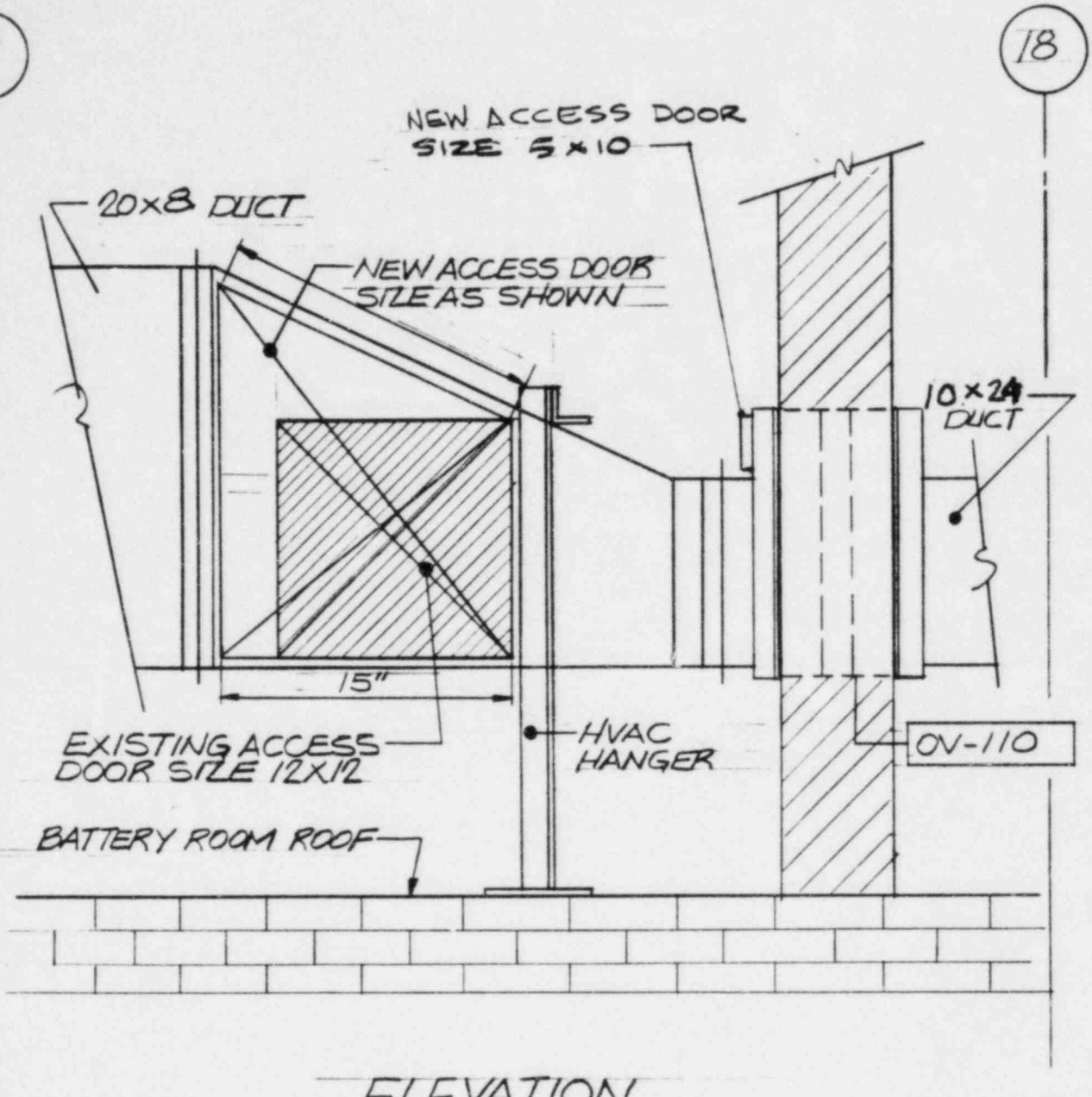
CLIENT: COMMONWEALTH EDISON CO.	[X] SEISMIC [ ] NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. NX57Y REF. DWG. NO. 1389-1	
PREPARED BY: C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-61	Page 62 of —



ELEVATION

FIRE DAMPER LOCATION BETWEEN L-N AND 17-18

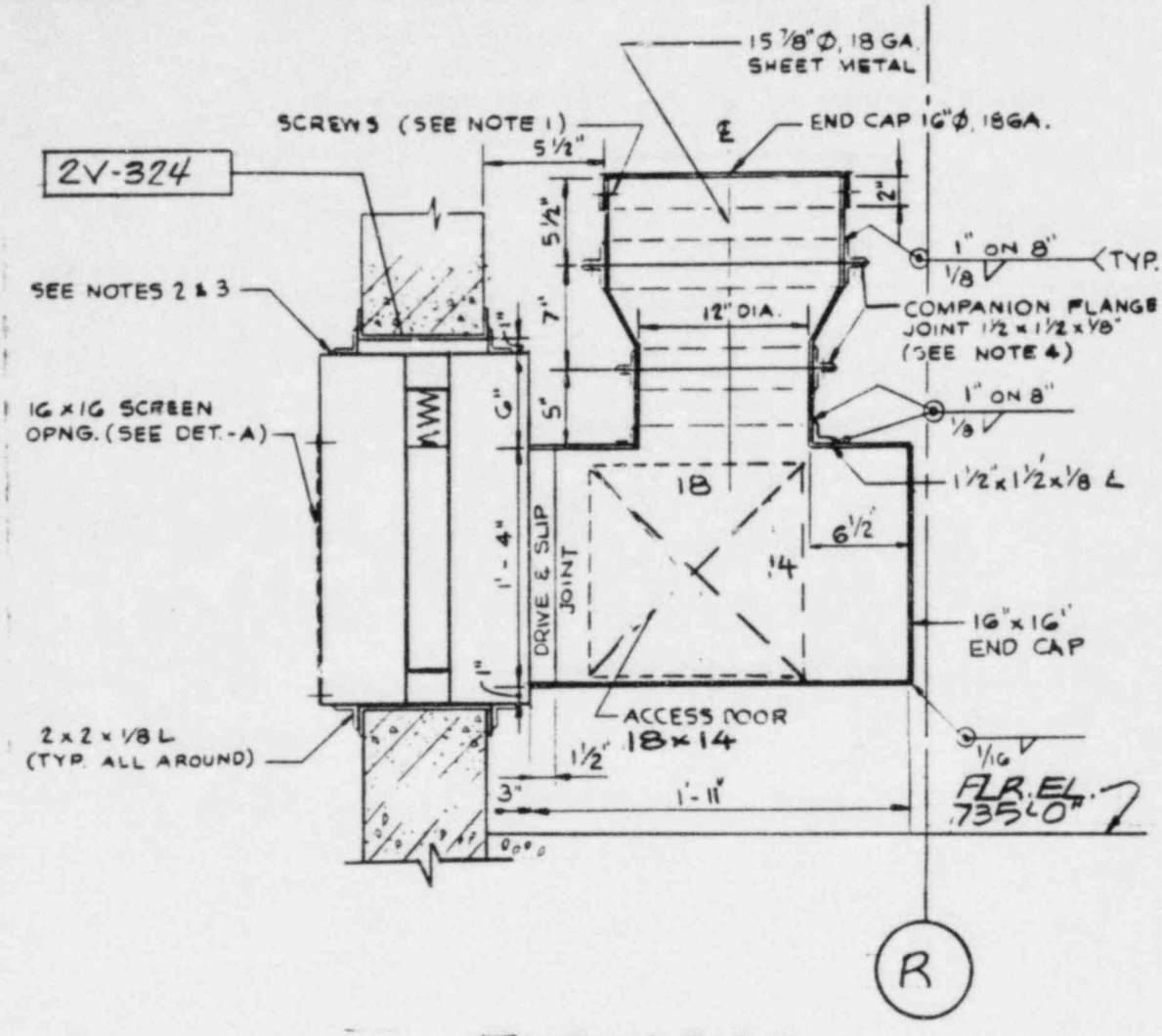
CLIENT: COMMONWEALTH EDISON CO.	[X] SEISMIC [ ] NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVE 51Y REF. DWG. NO. 1389-2	
PREPARED BY C. Stevens DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-62	Page 63 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN L-N AND 17-18

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. ONES2Y REF. DWG. NO. 389-2	
PREPARED BY C. Thomas DATE: 7/20/88	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-63	Page 64 of ___

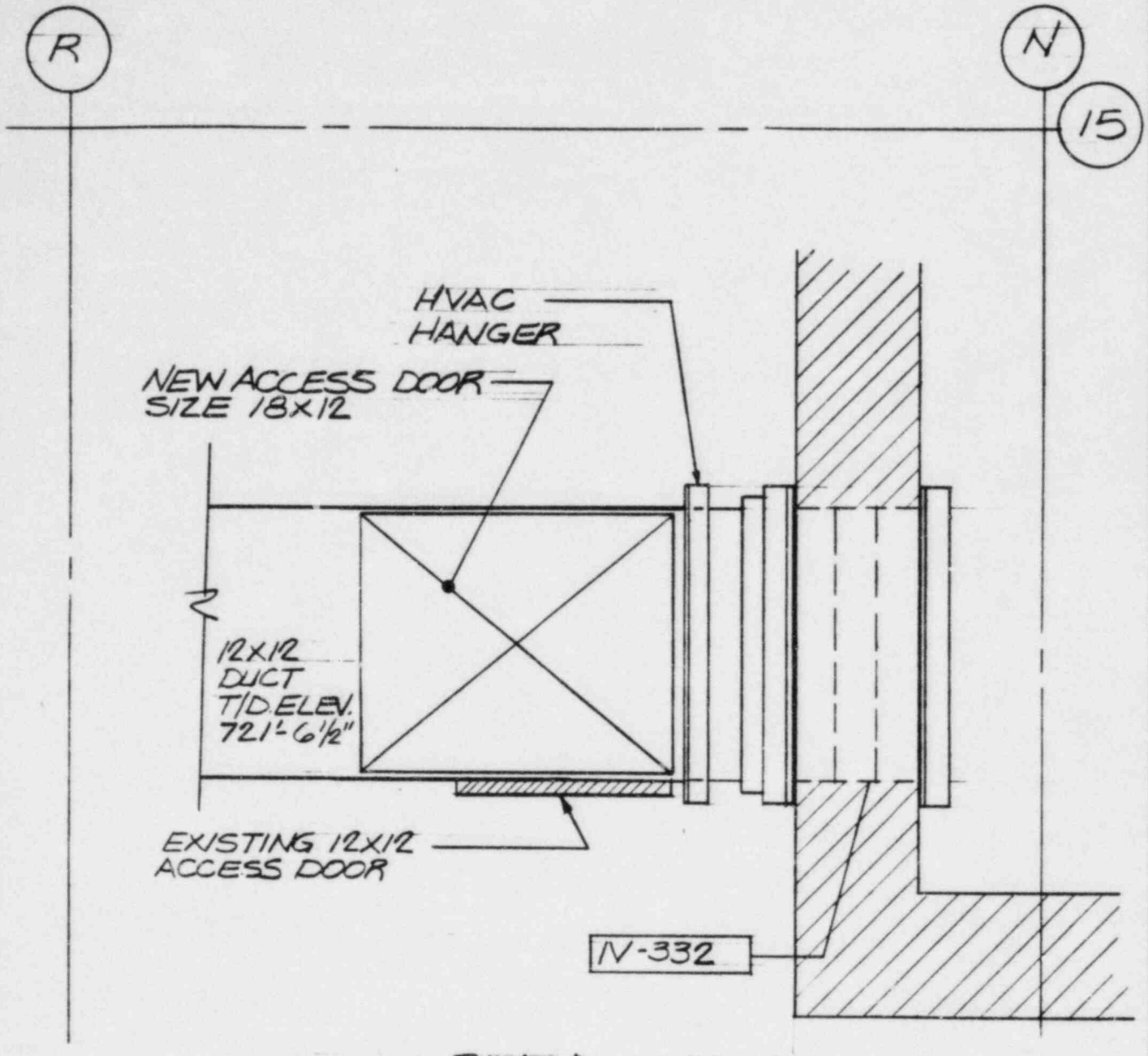


ELEVATION

INCREASE EXIST 14x14 OPNG ON DUCT TO 18x14 AND INSTALL ACCESS DOOR

FIRE DAMPER LOCATION BETWEEN N-R AND 16-17

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VV08Y REF. DWG. NO. 1389-2	
PREPARED BY: C. Hansen DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH NO. FDAM-64	Page 65 of ____

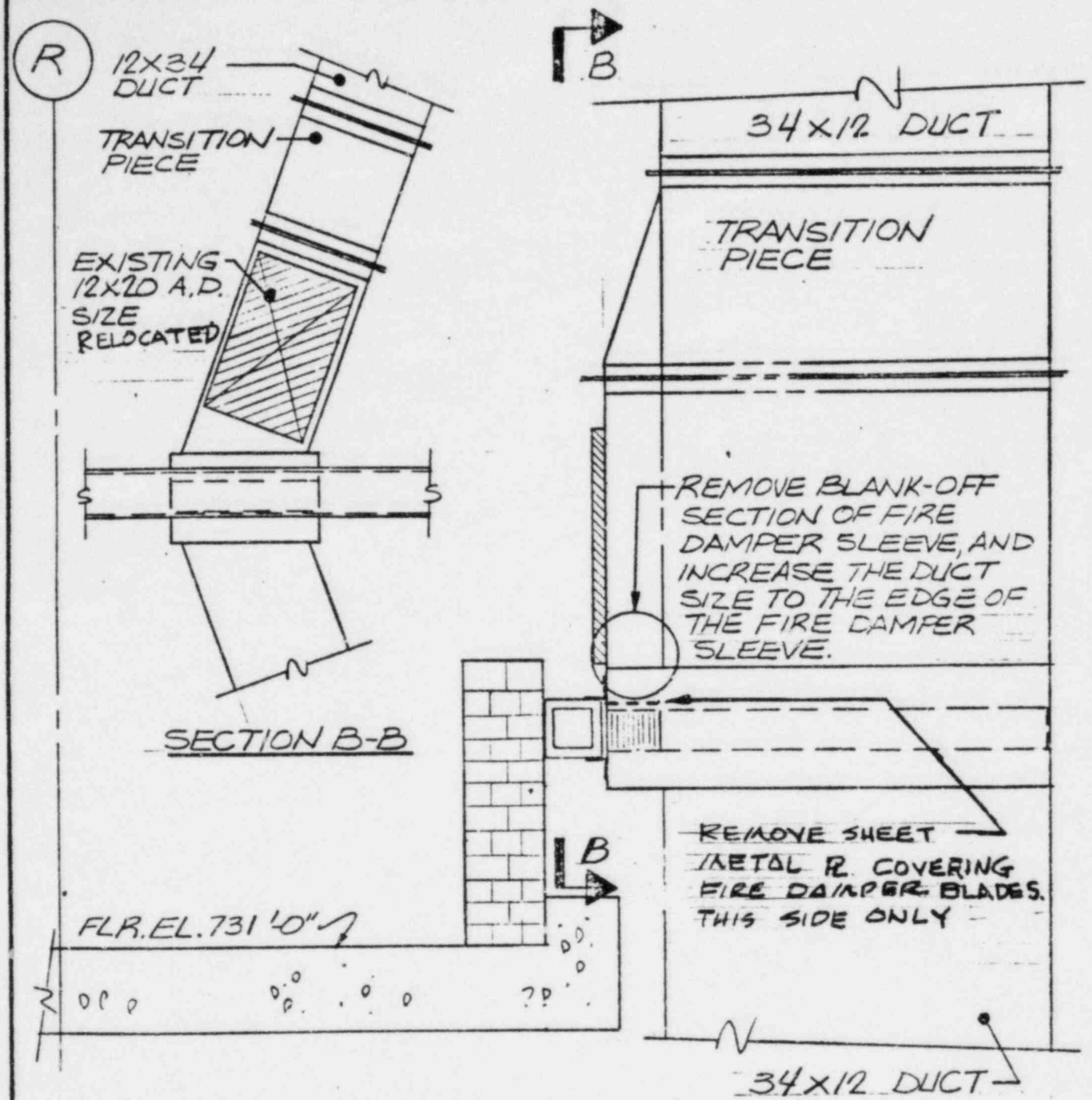


PLAN

N

FIRE DAMPER LOCATION BETWEEN N-R AND 14-15

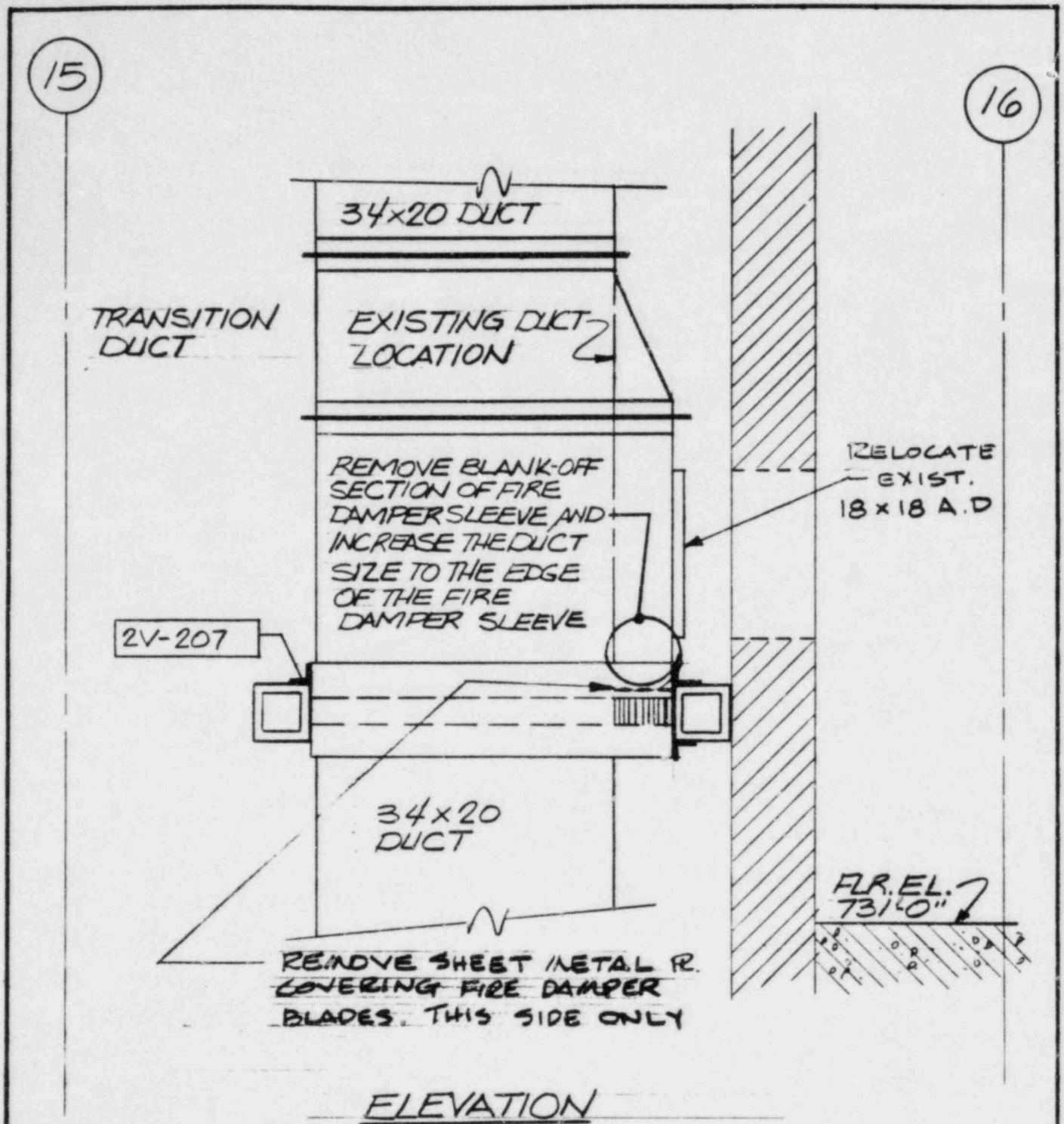
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL31Y REF. DWG. NO. 1388-1	
PREPARED BY: C. Thomas DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-65	Page 66 of ___



ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL76Y REF. DWG. NO. 1388-6	
PREPARED BY C. Newman DATE: 7/20/87	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-66	Page 67 of ____

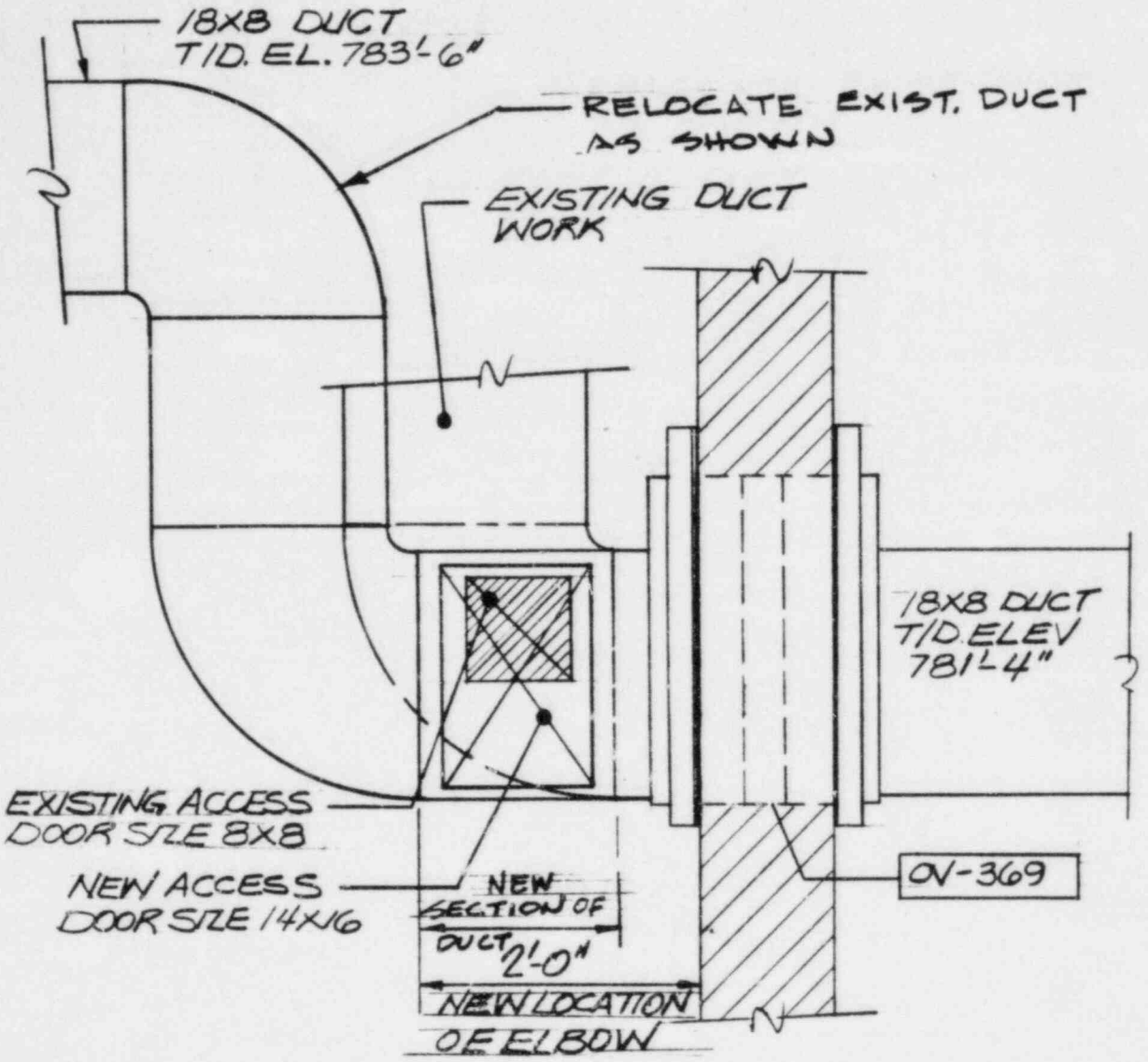


ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R AND 15-16, SEE SKETCH FDAM-60-1

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL79Y REF. DWG. NO. 1388-6	
PREPARED BY C. Hess DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-67	Page 68 of —

16



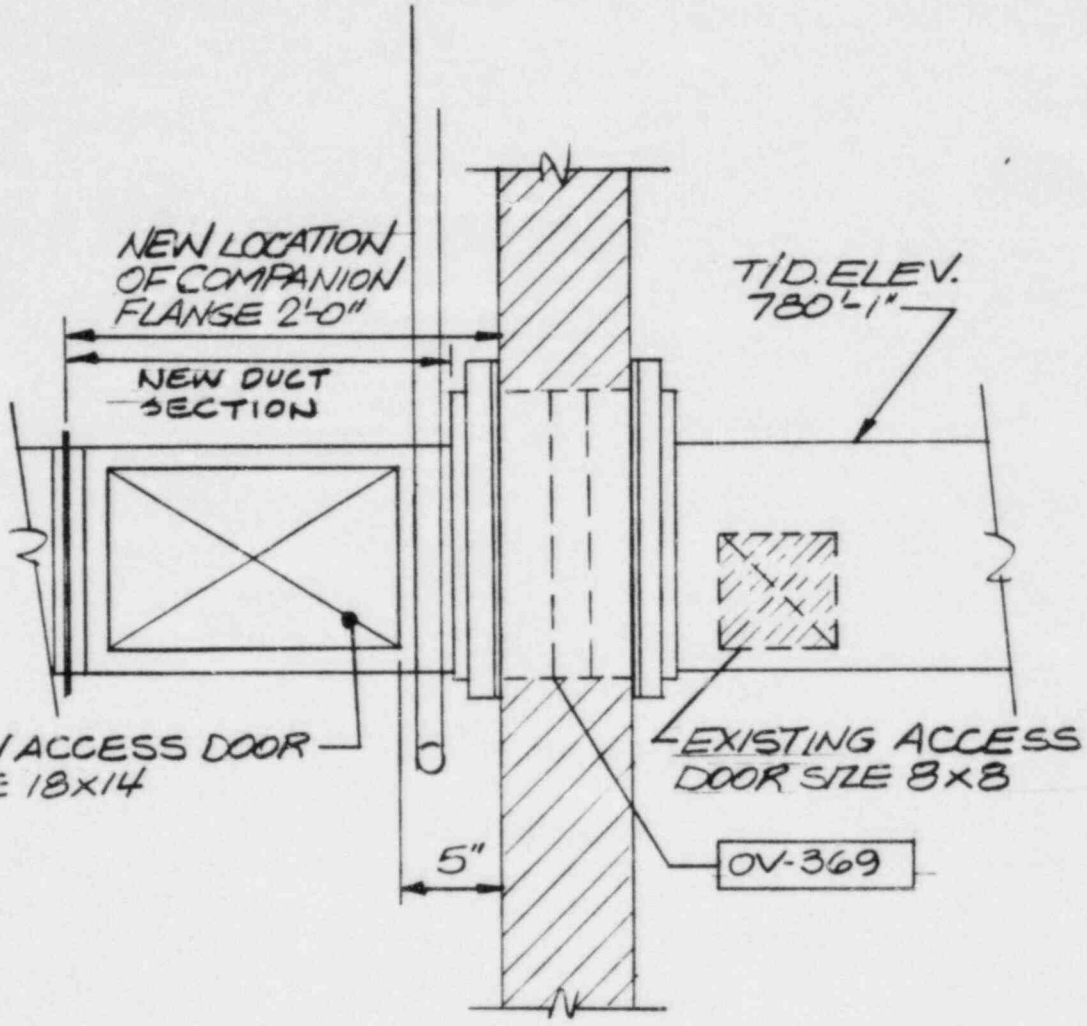
ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVC48Y REF. DWG. NO. 1391-1	
PREPARED BY: C.K. Thomas DATE: 7/20/84	
SKETCH No. FDAM-68	SARGENT & LUNDY ENGINEERS

15

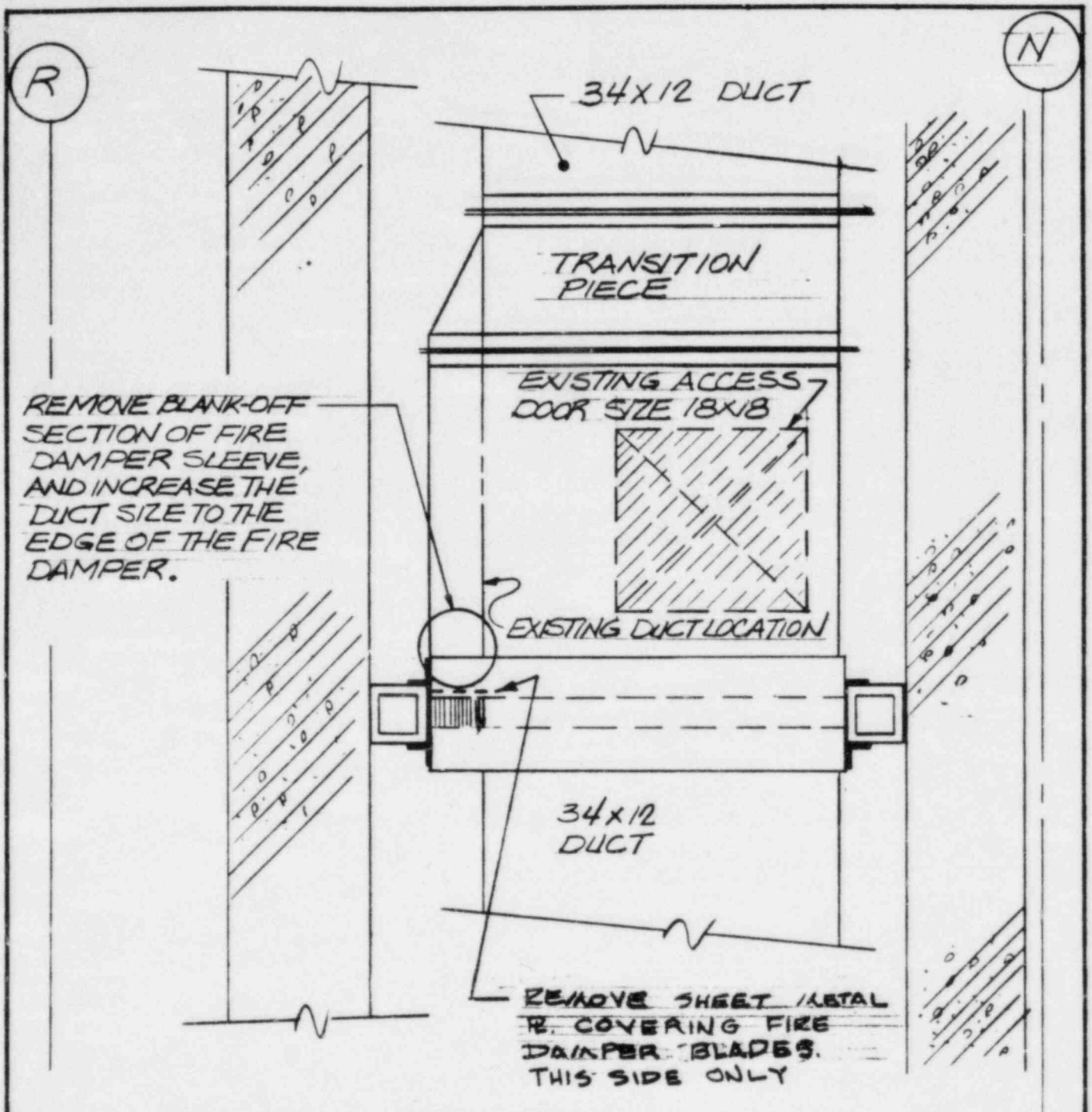
16



ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

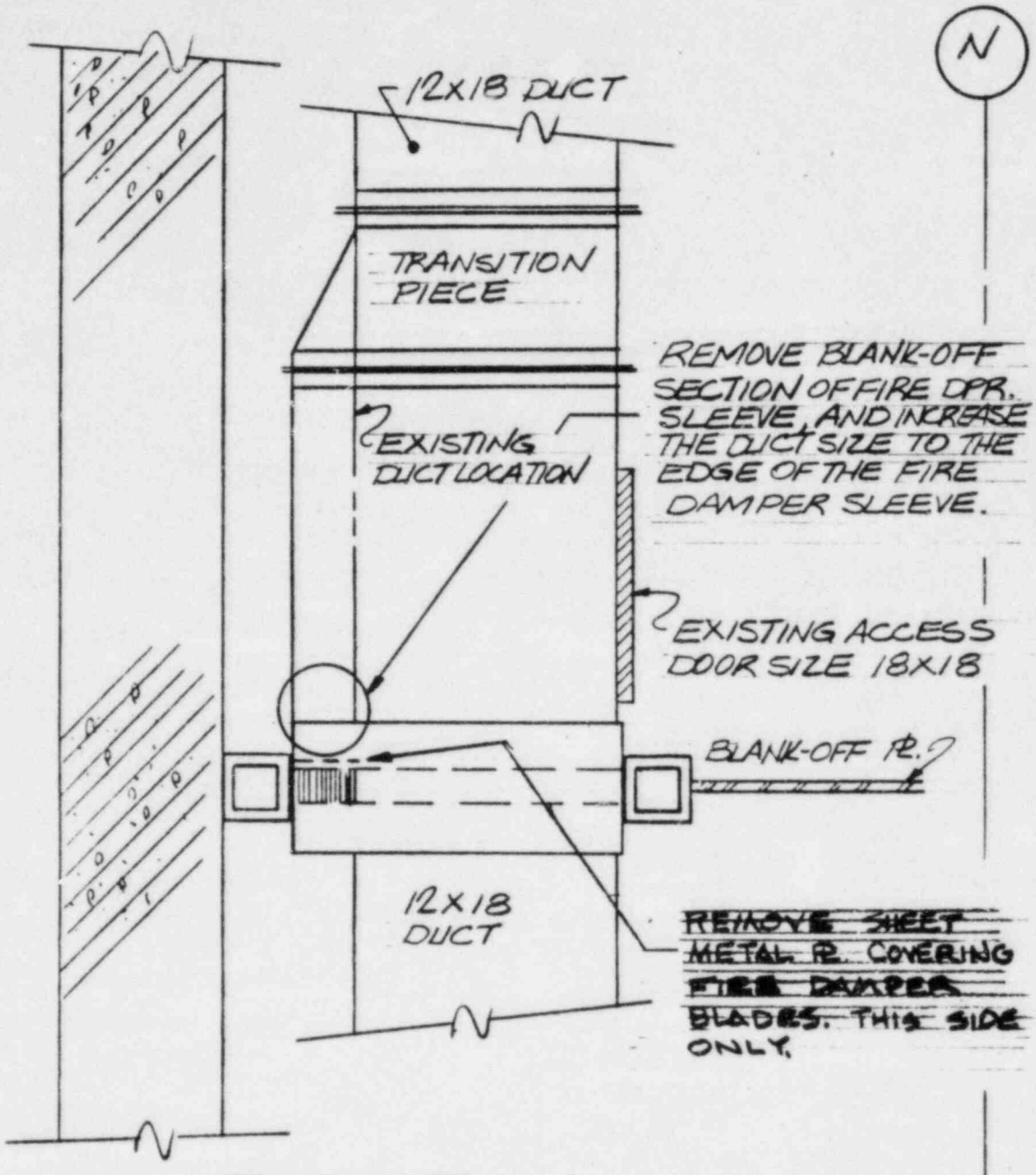
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVC49Y REF. DWG. NO. 1391-1	
PREPARED BY: C.X. DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM- 69	Page 70 of —



ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

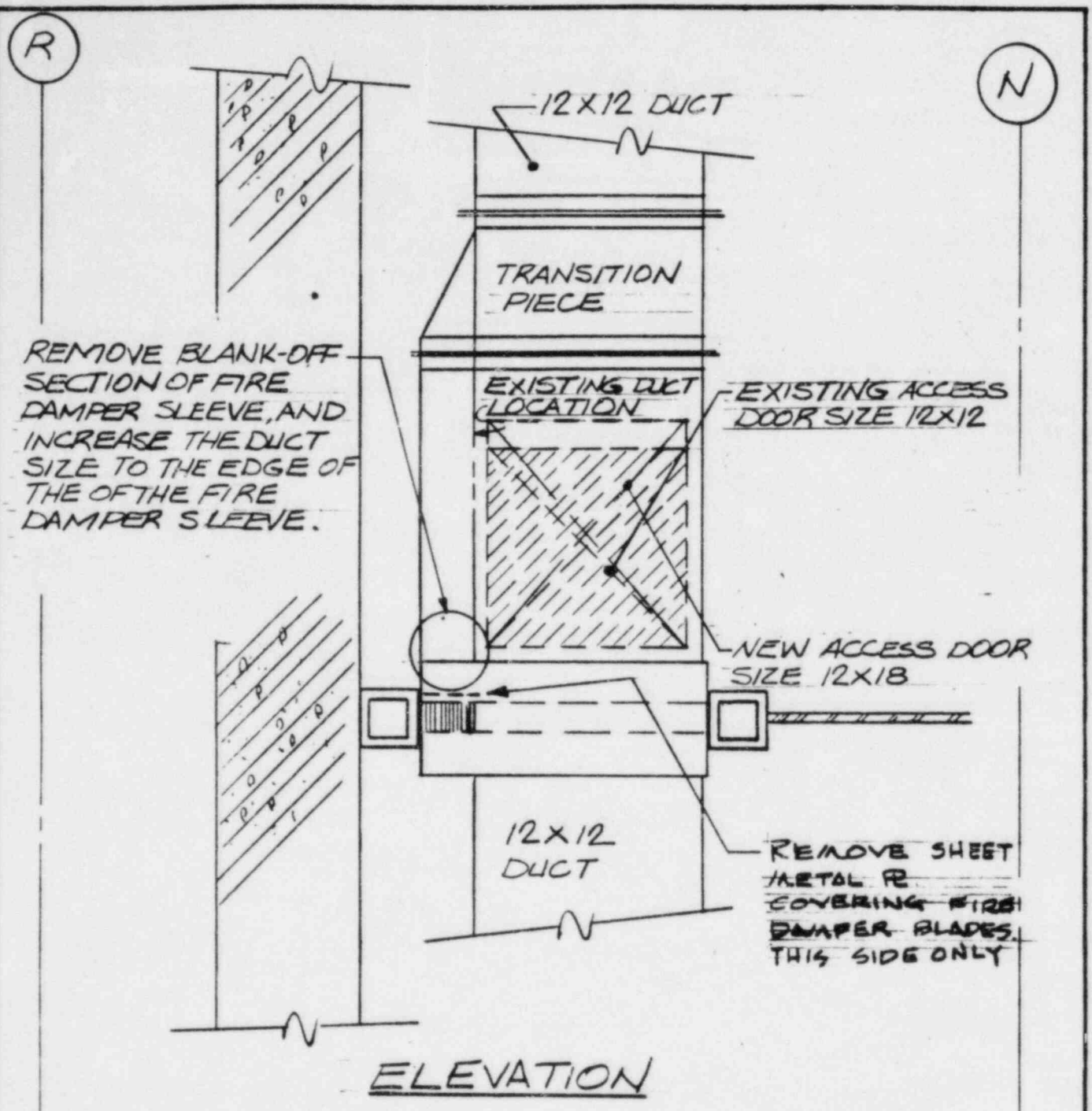
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL82Y REF. DWG. NO. 1388-6	
PREPARED BY: C. Spence DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-70	Page 71 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R AND 15-16

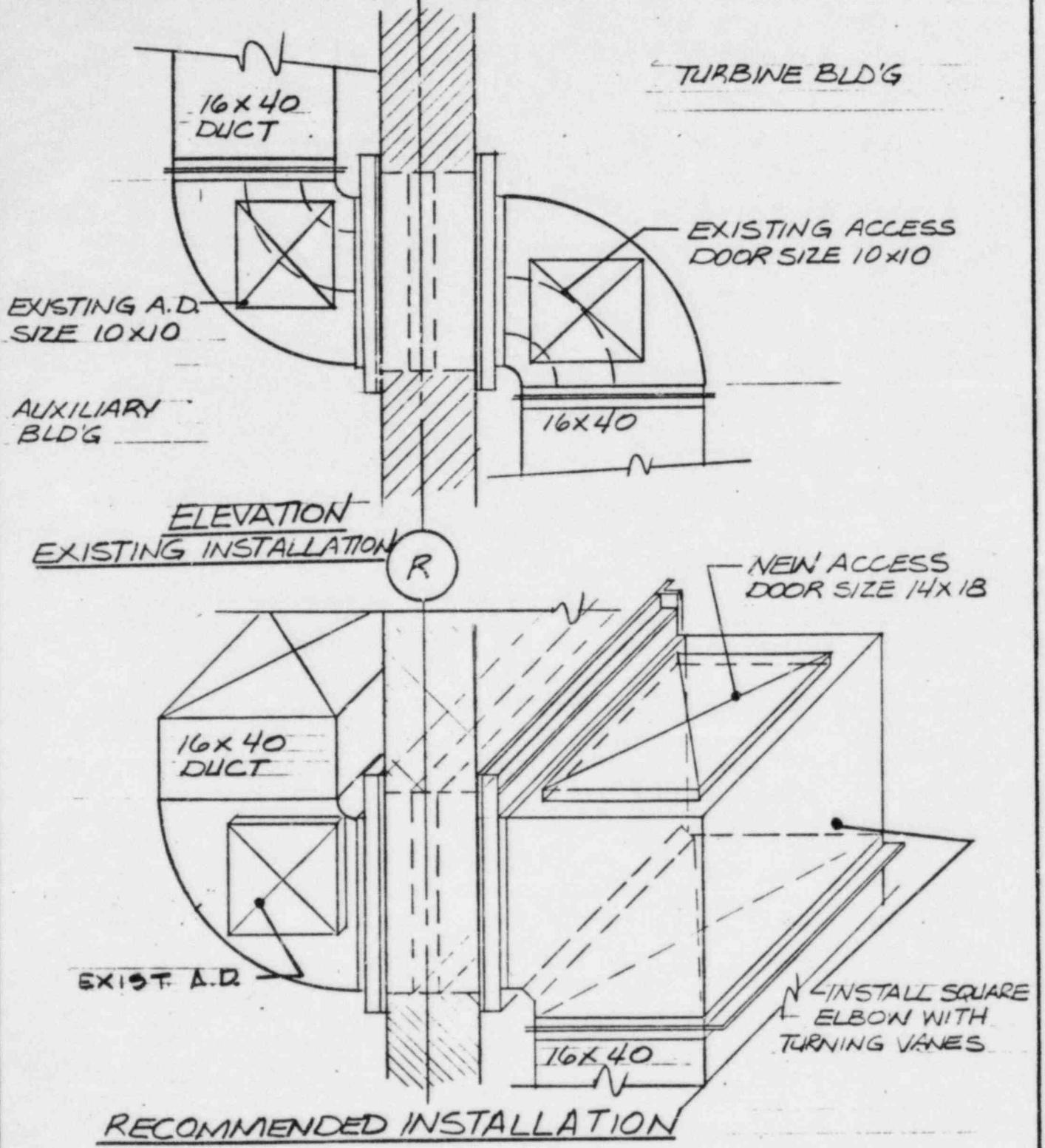
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL83Y REF. DWG. NO. 1388-6	
PREPARED BY C. Dave DATE: 7/20/84	
SKETCH No. FDAM- 71	SARGENT & LUNDY ENGINEERS



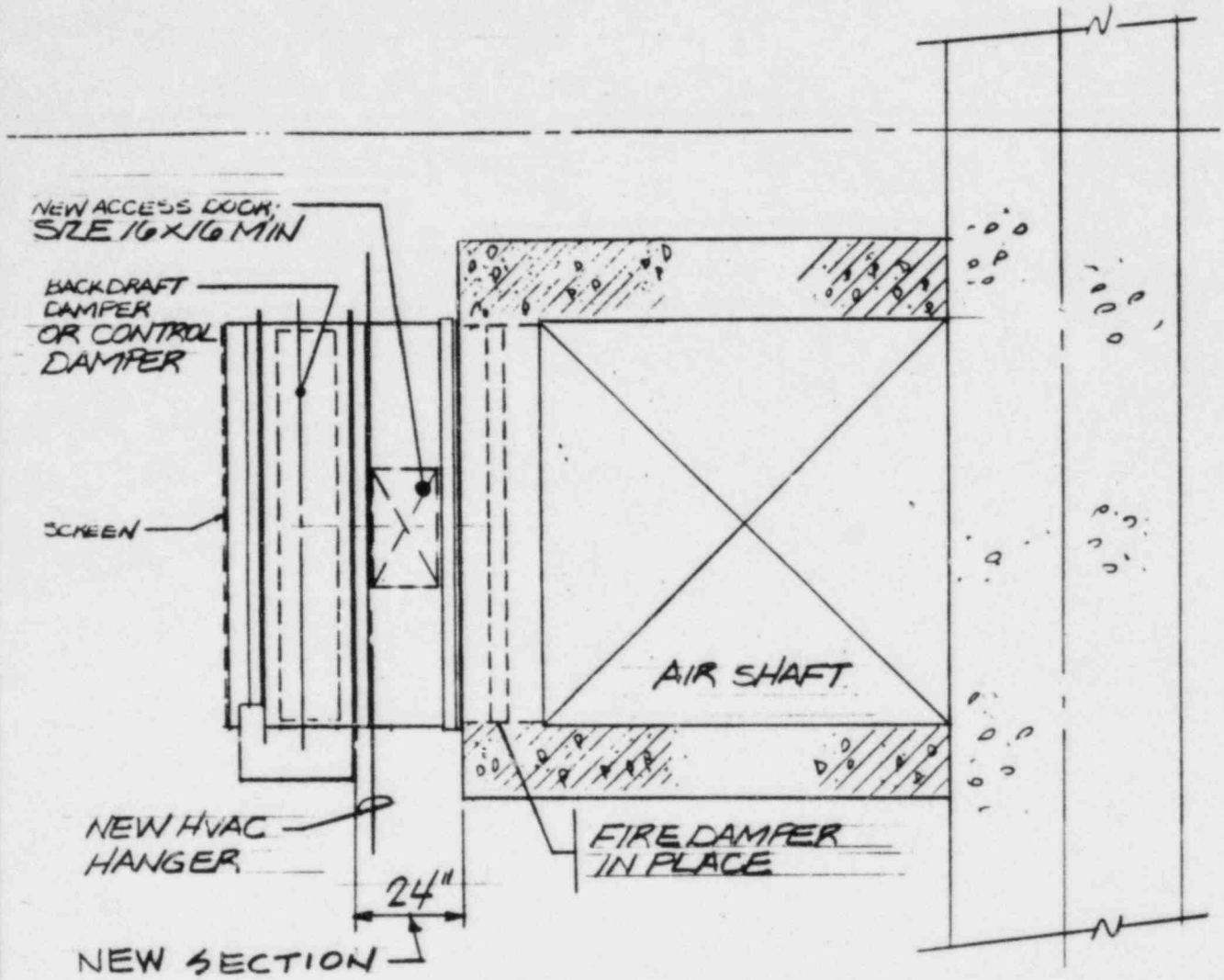
ELEVATION

FIRE DAMPER LOCATION BETWEEN N-R AND 15-16

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL84Y REF. DWG. NO. 1388-6	
PREPARED BY C. Stowe DATE: 7/20/84	
SKETCH No. FDAM- 72	SARGENT & LUNDY ENGINEERS



CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IVTE2Y REF. DWG. NO. 1420	
PREPARED BY C. J. Tinsa DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-73	Page 74 of —



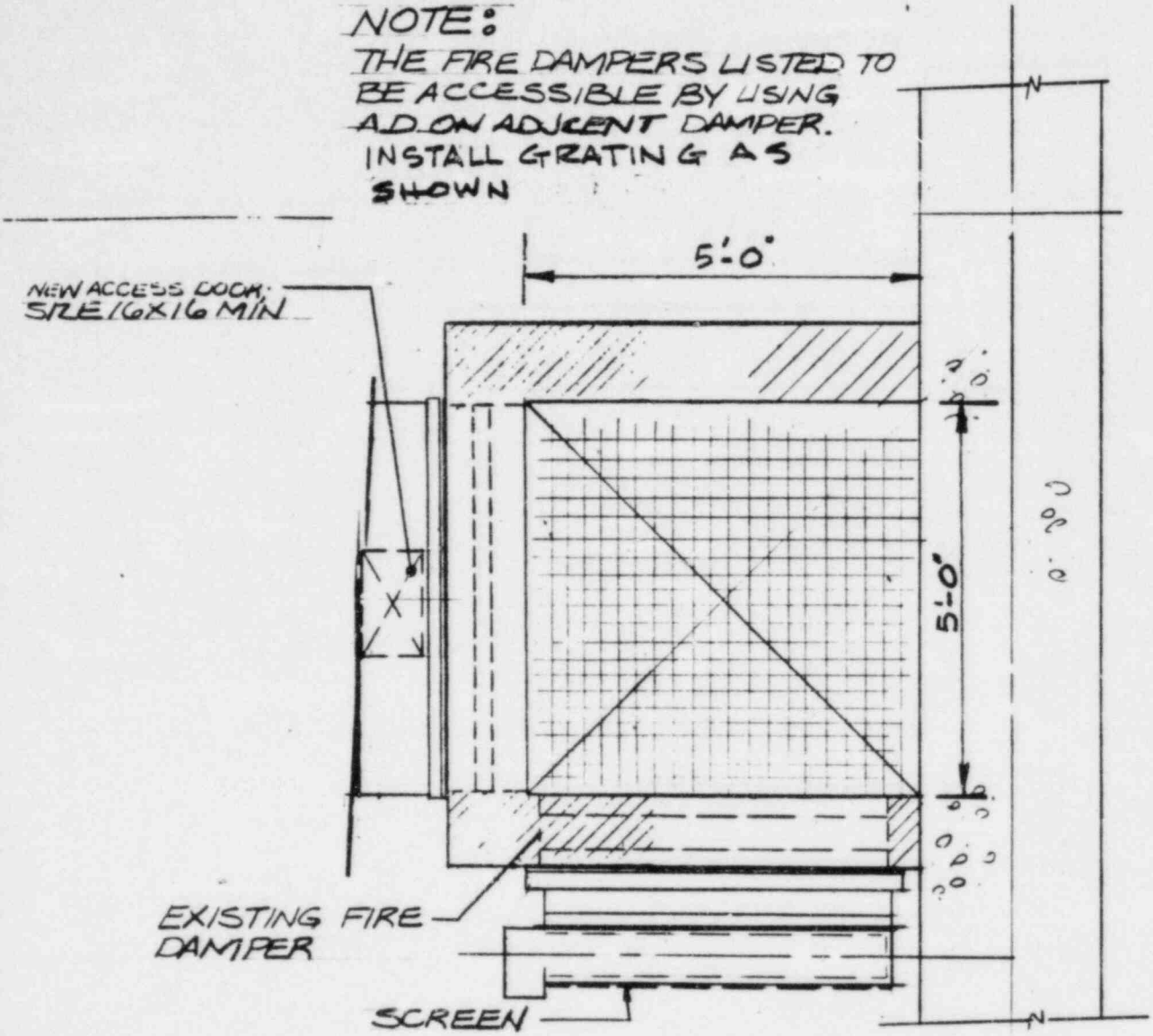
PLAN

TYPICAL FOR THE FOLLOWING DAMPERS:

1VX05Y-M-1387-1
1VX12Y-M-1389-1
2VX05Y-M-1387-2

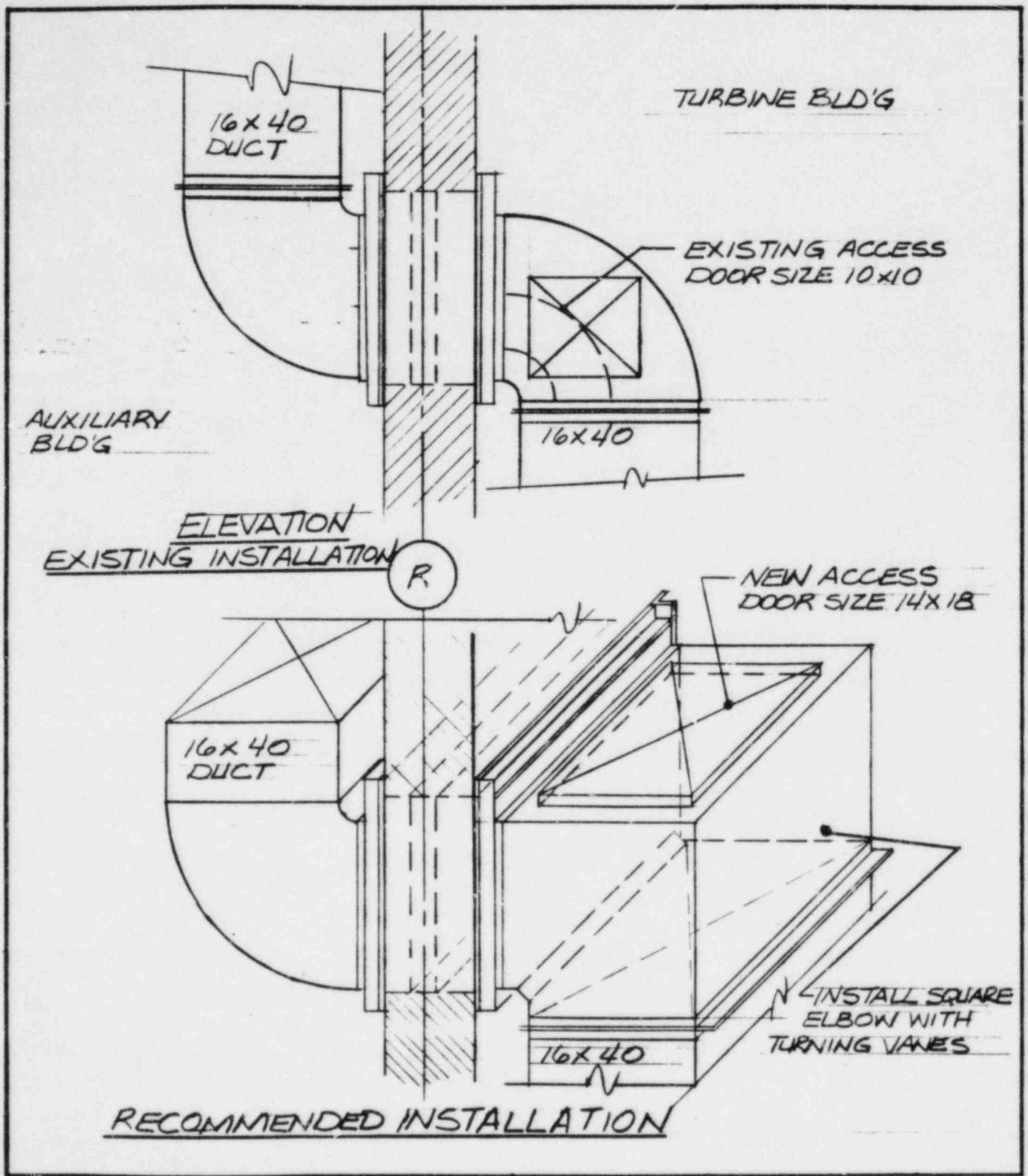
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6859-51	
DAMPER NO. SEE LIST REF. DWG. NO.	
PREPARED BY C. A. Bowa DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-74	Page 75 of —

NOTE:
THE FIRE DAMPERS LISTED TO BE ACCESSIBLE BY USING A.D. ON ADJCENT DAMPER. INSTALL GRATING AS SHOWN

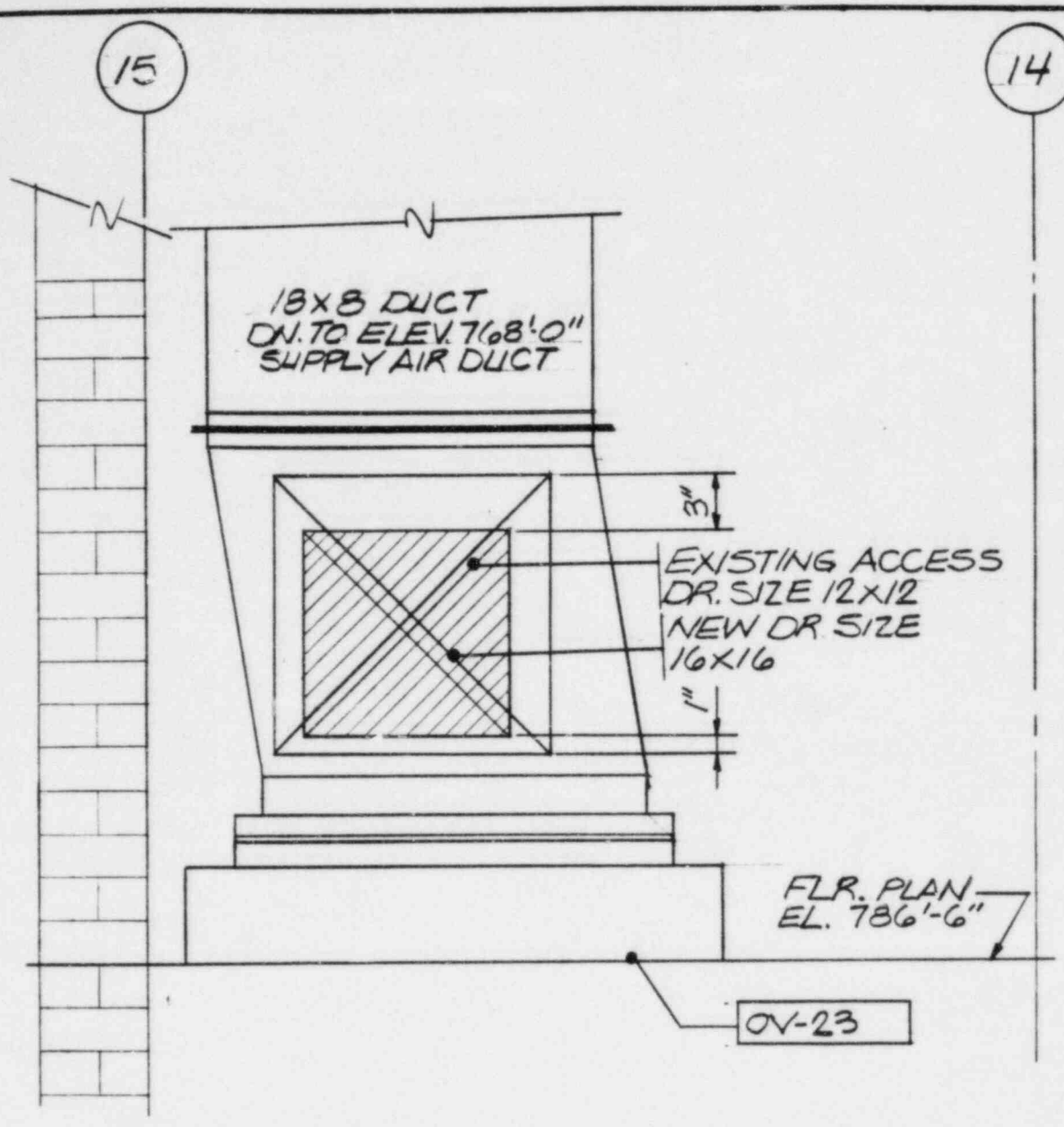


TYPICAL FOR THE FOLLOWING DAMPERS:
1VX10Y-M-1389-1
2VX10Y-M-1389-2

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE LIST REF. DWG. NO.	
PREPARED BY [illegible] DATE: 7/20/84	SARGENT & LUNDY
SKETCH No. FDAM-75	Page 76 of —



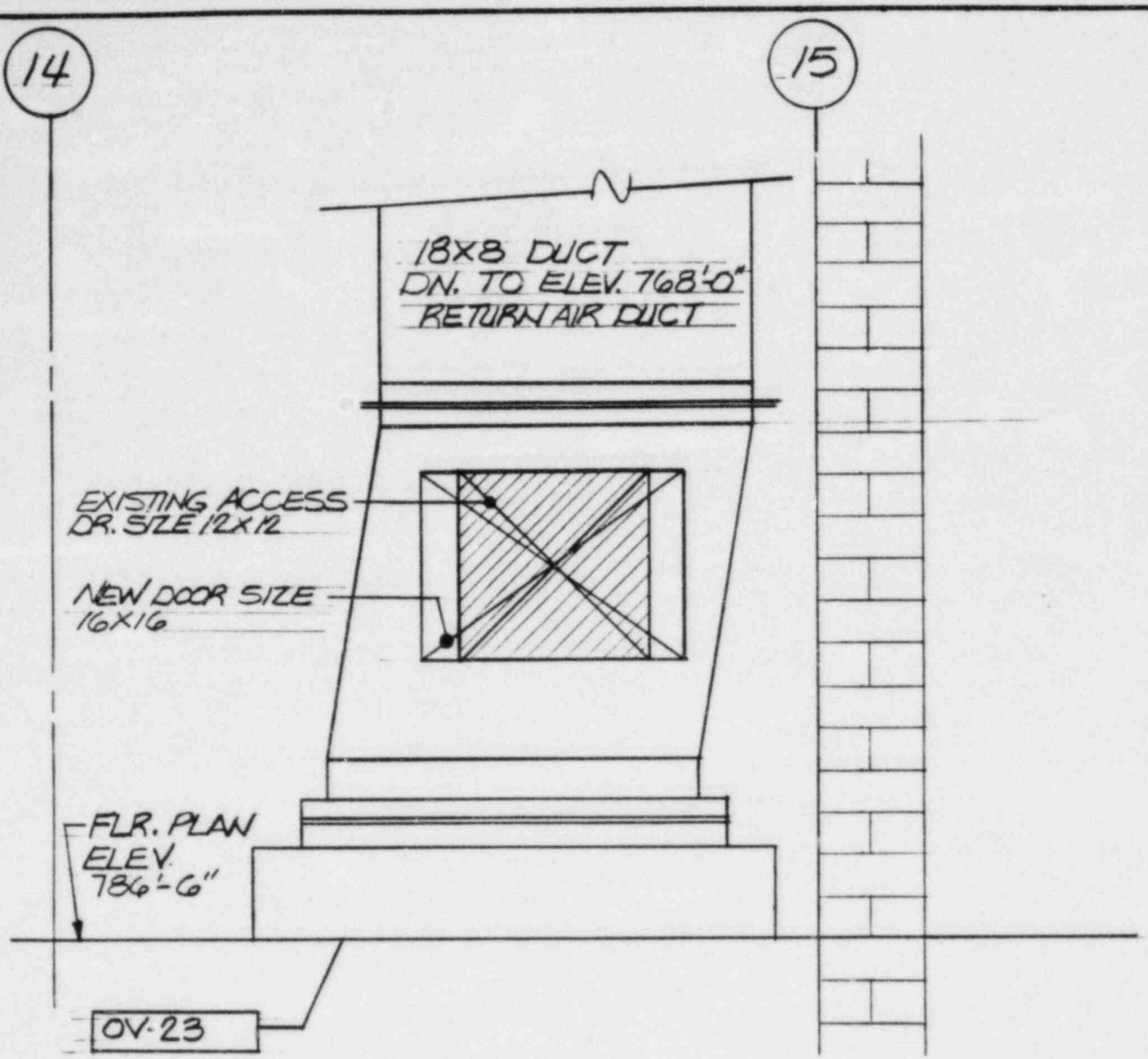
CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VT52Y REF. DWG. NO. 1422	
PREPARED BY C. Stevens DATE: 7/20/89	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-76	Page 77 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R AND 14-15

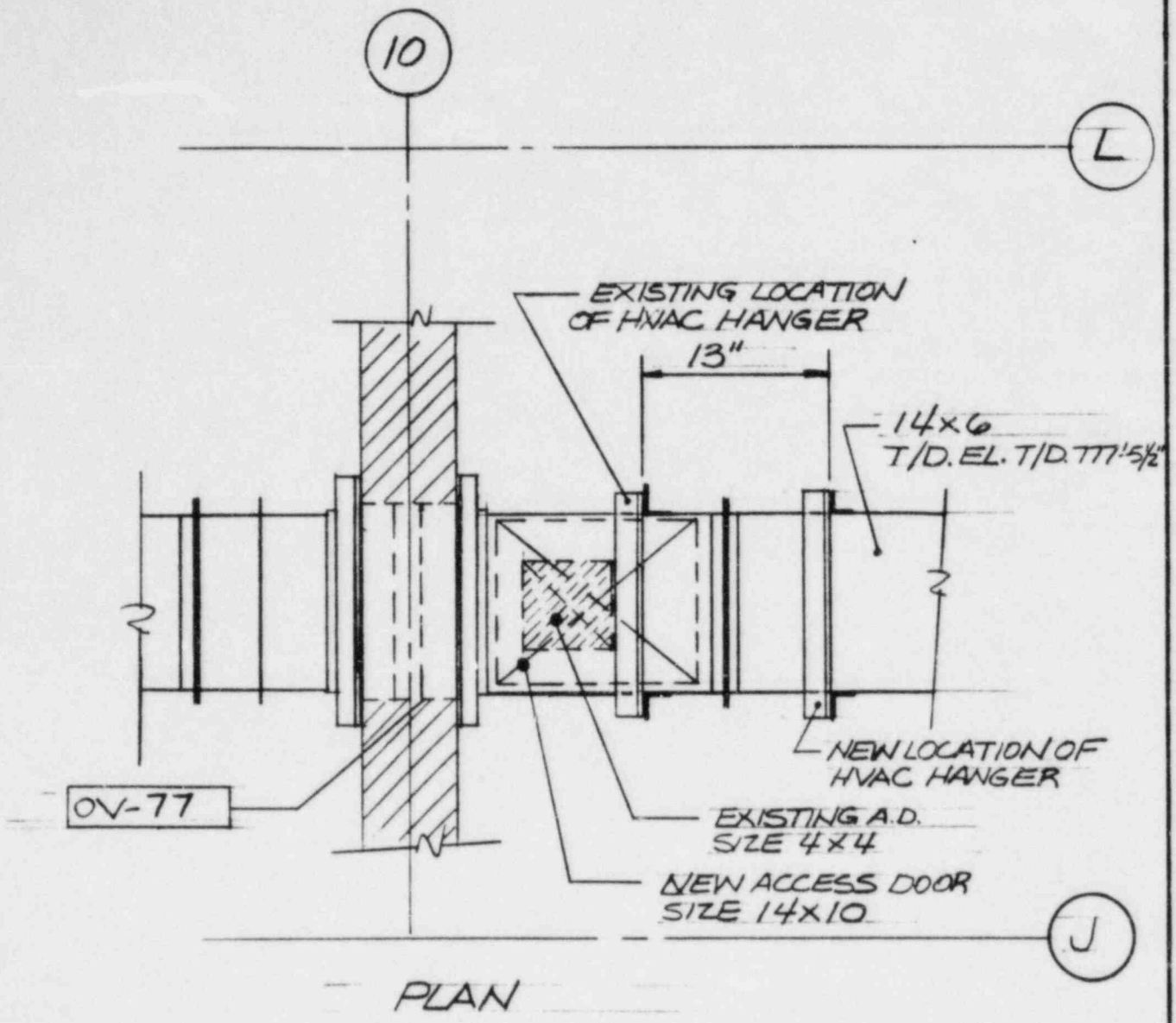
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVCGOY REF. DWG. NO. 1380-1	
PREPARED BY: C. [illegible] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-77	Page 78 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN N-R-14-15

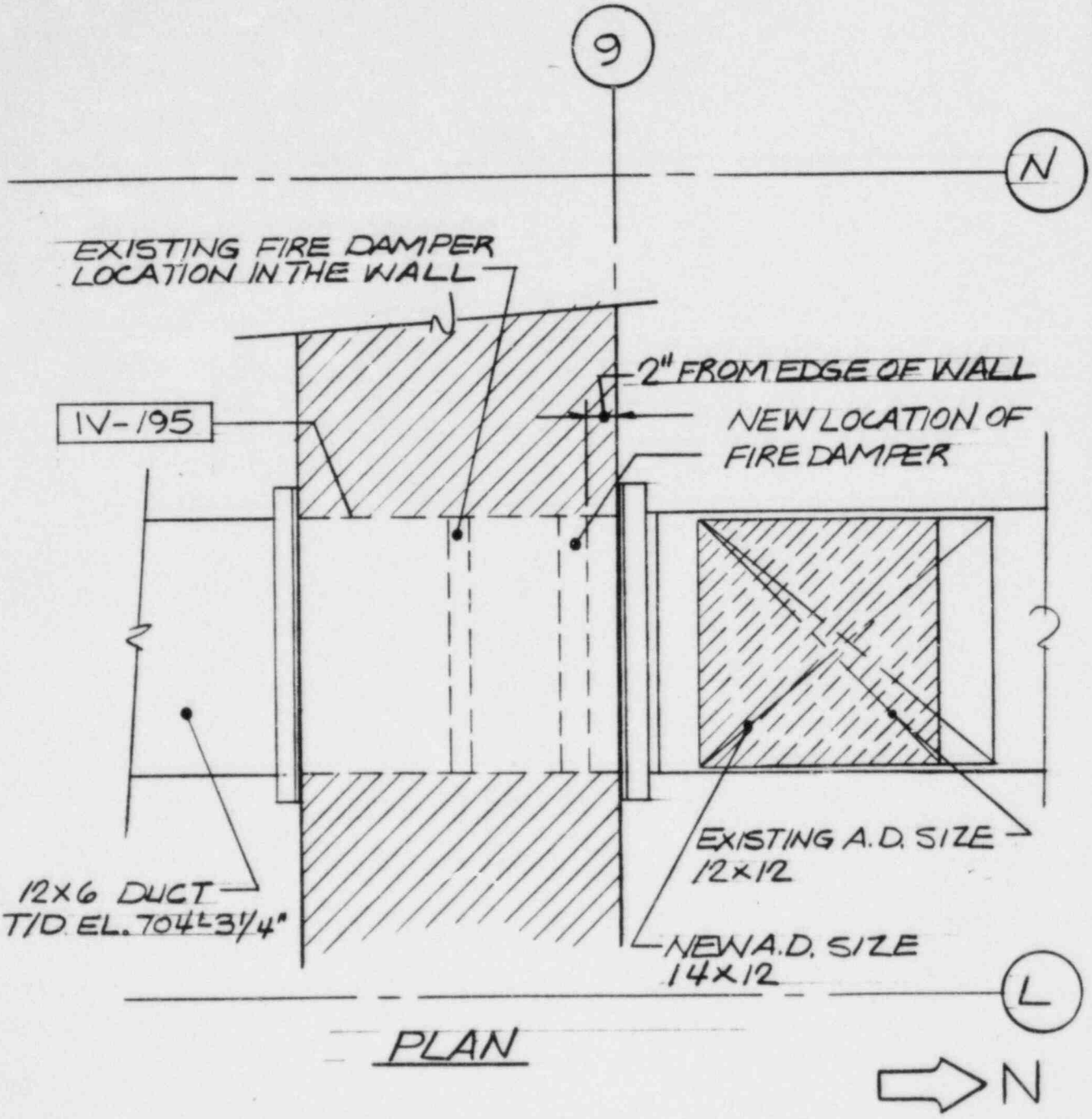
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC	
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION	
PROJ. NO.: 6854-31		
DAMPER NO. OVC61Y REF. DWG. NO. 1380-1		
PREPARED BY C. [illegible] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS	Page 79 of —
SKETCH No. FDAM-78		



PLAN

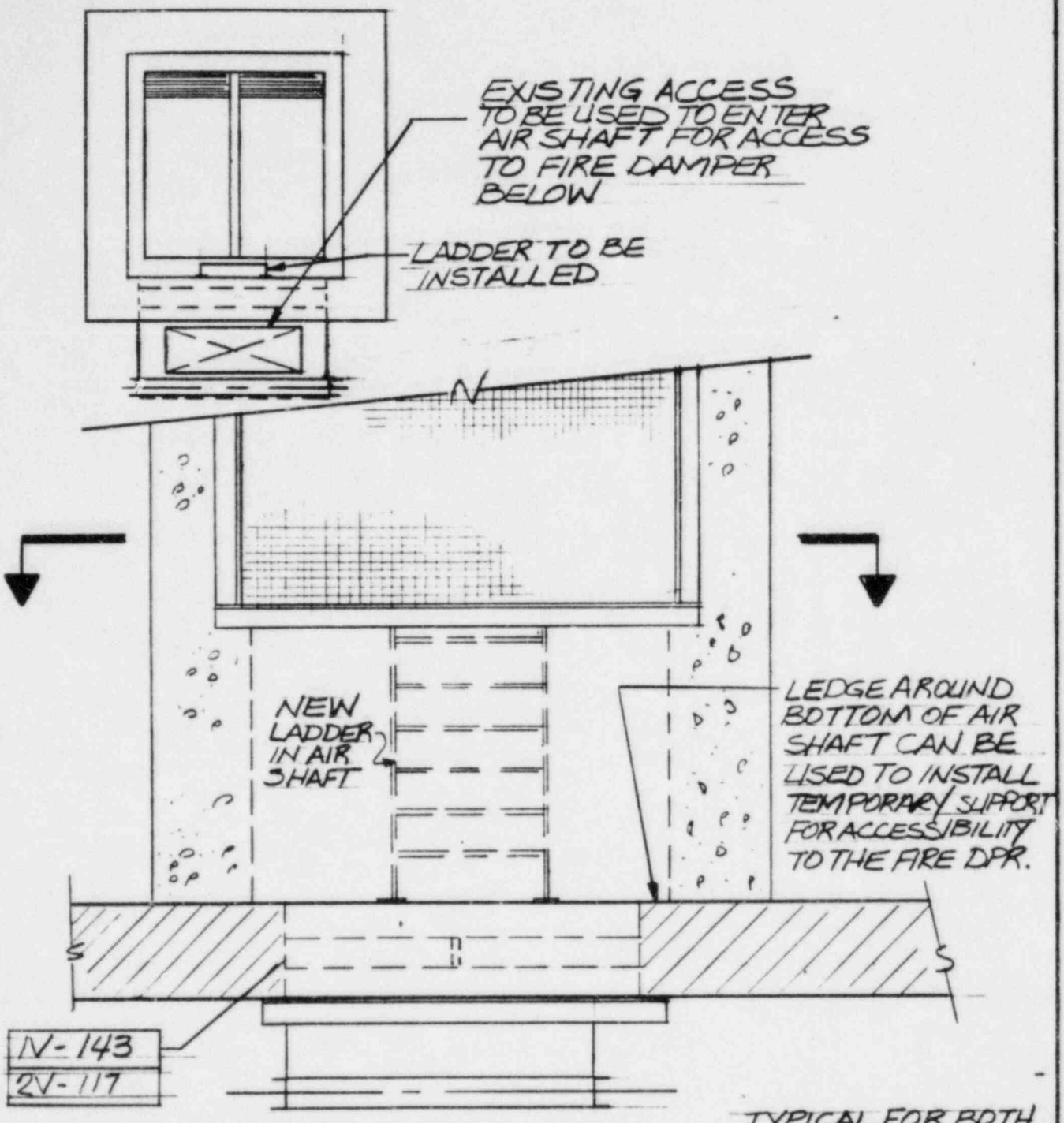
FIRE DAMPER LOCATION
BETWEEN J-RAND 9-10

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVA23Y REF. DWG. NO. 1390-1	
PREPARED BY: C. Stevens DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-79	Page 80 of —



FIRE DAMPER LOCATION BETWEEN L-N AND 9-10

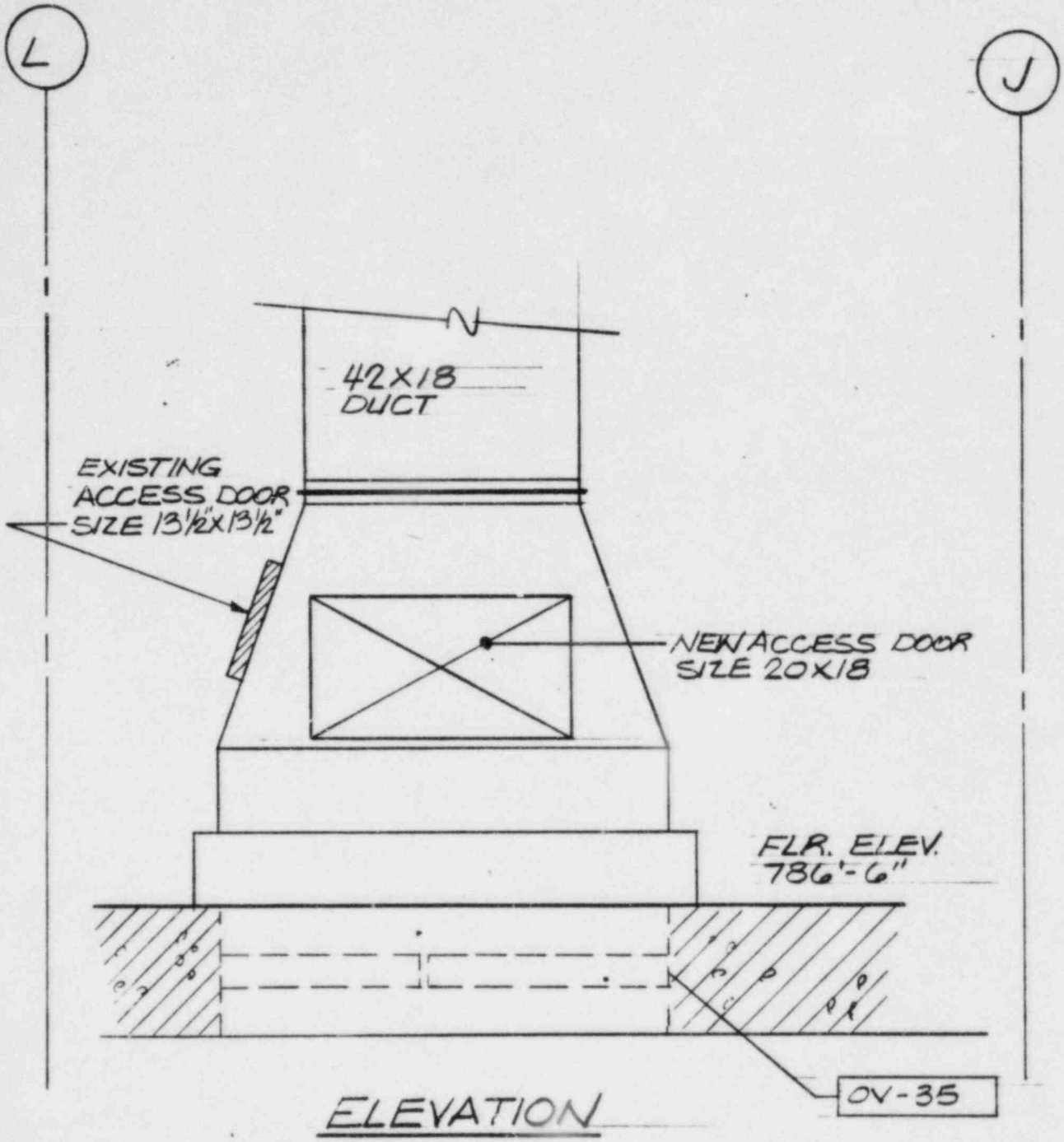
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. IV025Y REF. DWG. NO. 1399	
PREPARED BY: C. Stanton DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-80	Page 81 of —



ELEVATION

TYPICAL FOR BOTH IVX16Y AND 2VX16Y
M-1381-1 1381-2

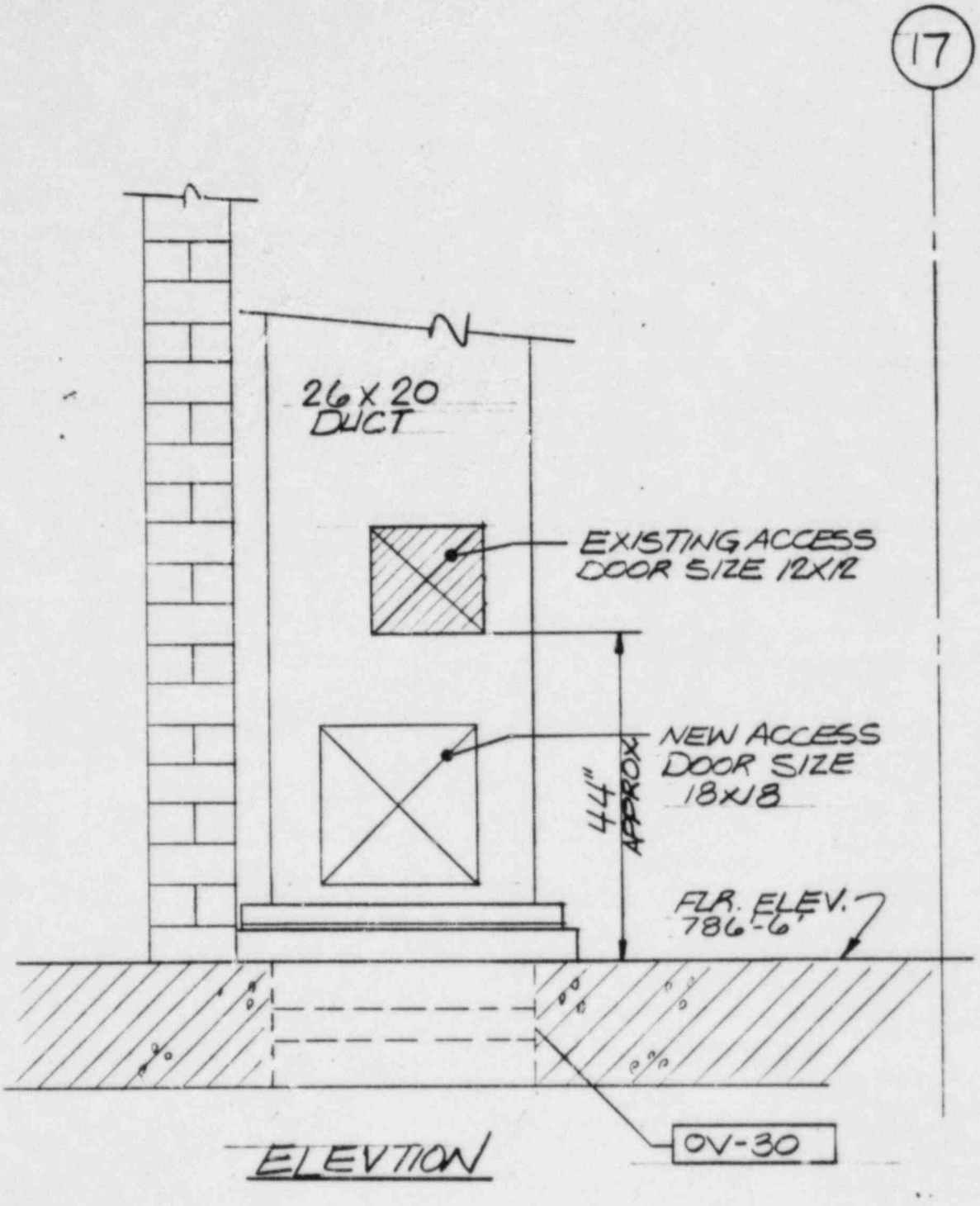
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO: ~~SEE SKETCH~~ REF. DWG. NO. ———	
PREPARED BY: C. [illegible] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-81	Page 82 of —



ELEVATION

FIRE DAMPER LOCATION
BETWEEN J-L AND 13-14

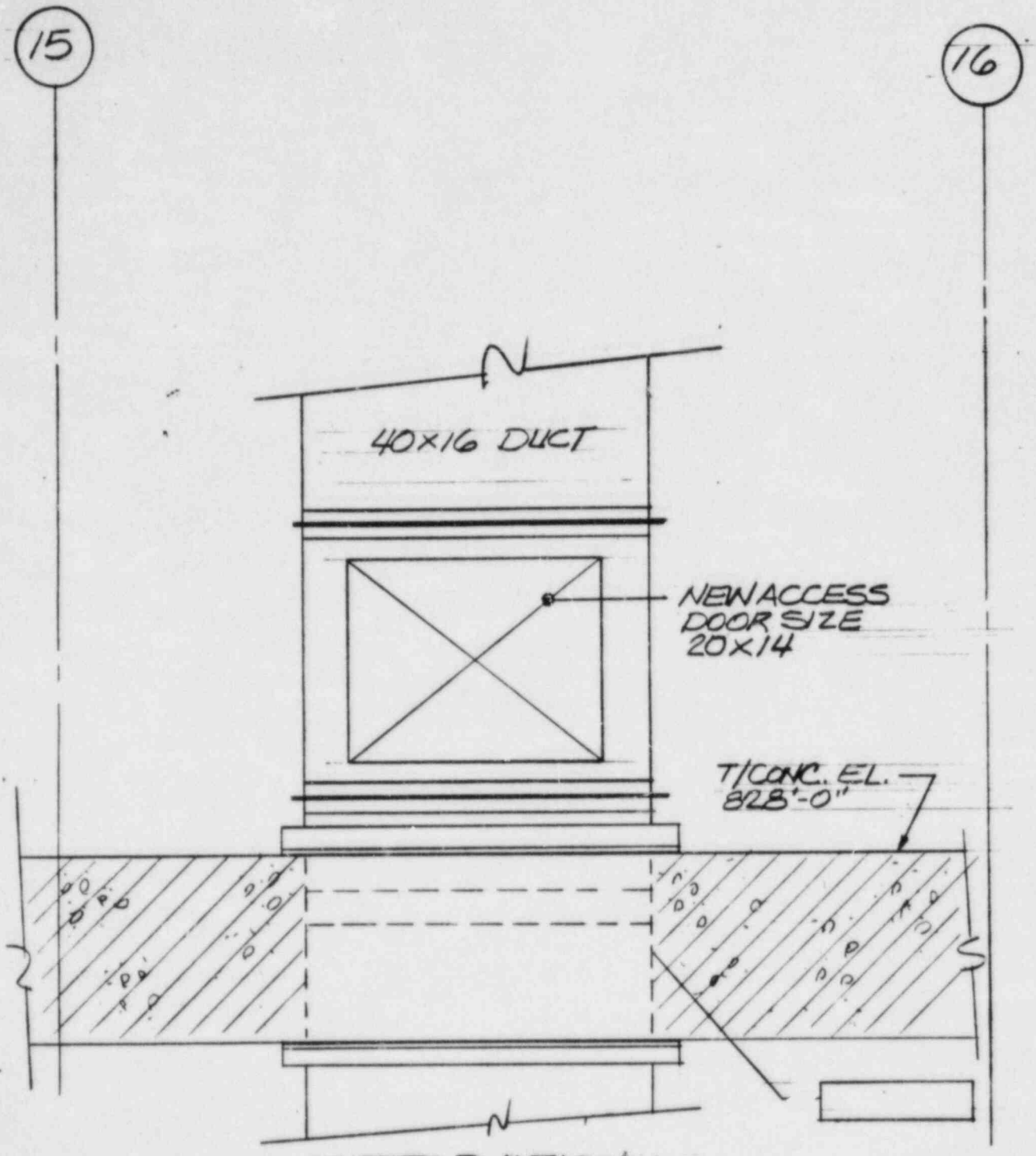
CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31 (M-1377-2)	
DAMPER NO. OVC67Y REF. DWG. NO. M-1390-1	
PREPARED BY: C. Hansen DATE: 7/20/84	
SKETCH No. FDAM-82	Page 83 of —



ELEVTION

FIRE DAMPER LOCATION

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31 (M-1371-2)	
DAMPER NO. OVC69Y REF. DWG. NO. M-1391-L	
PREPARED BY: [signature] DATE: 7/20/84	
SKETCH No. FDAM-83	SARGENT & LUNDY ENGINEERS

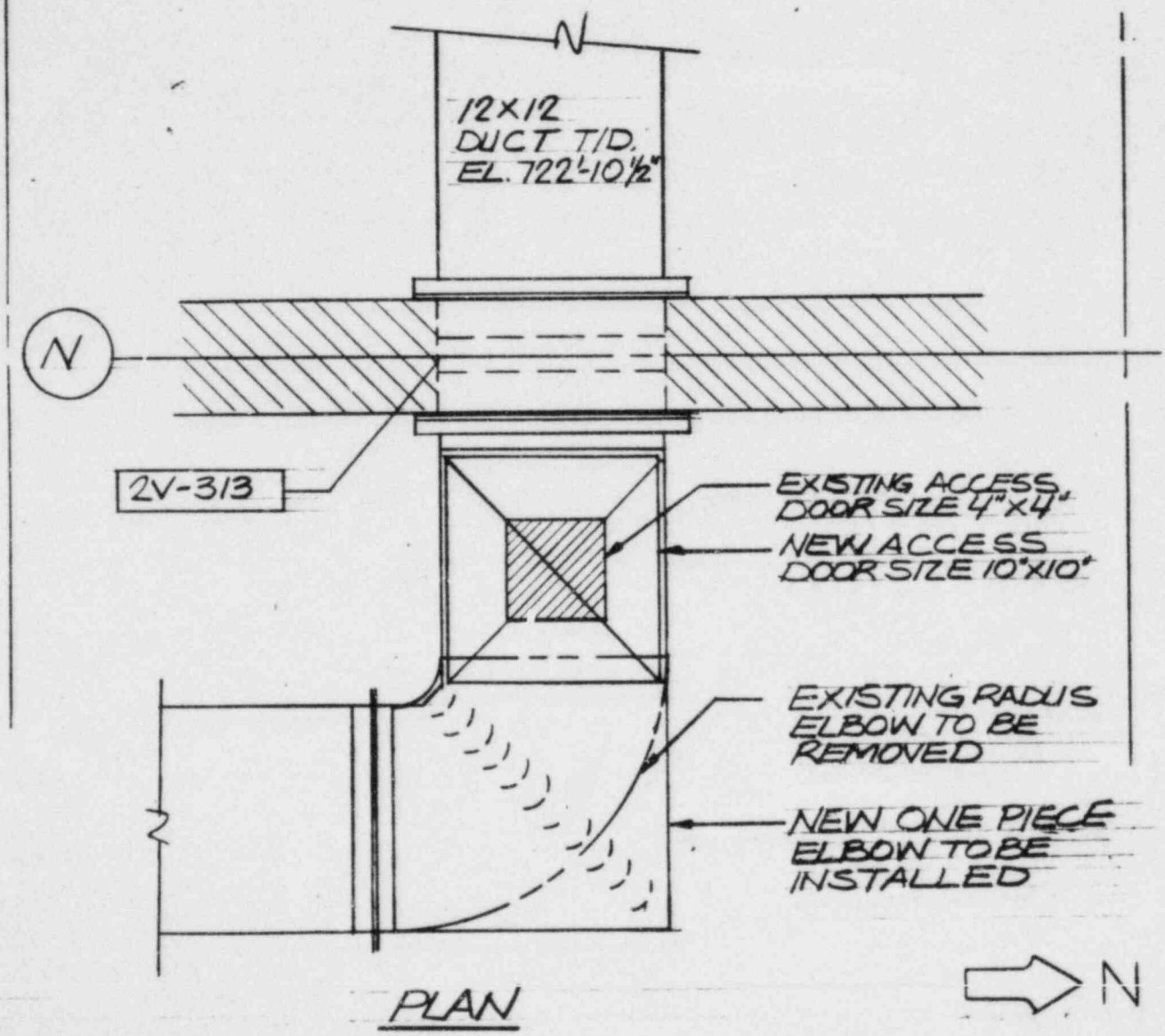


FIRE DAMPER LOCATION BETWEEN R AND 15-16 **ELEVATION**

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VT50Y REF. DWG. NO. 1422	
PREPARED BY: [illegible] DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-84	Page 85 of —

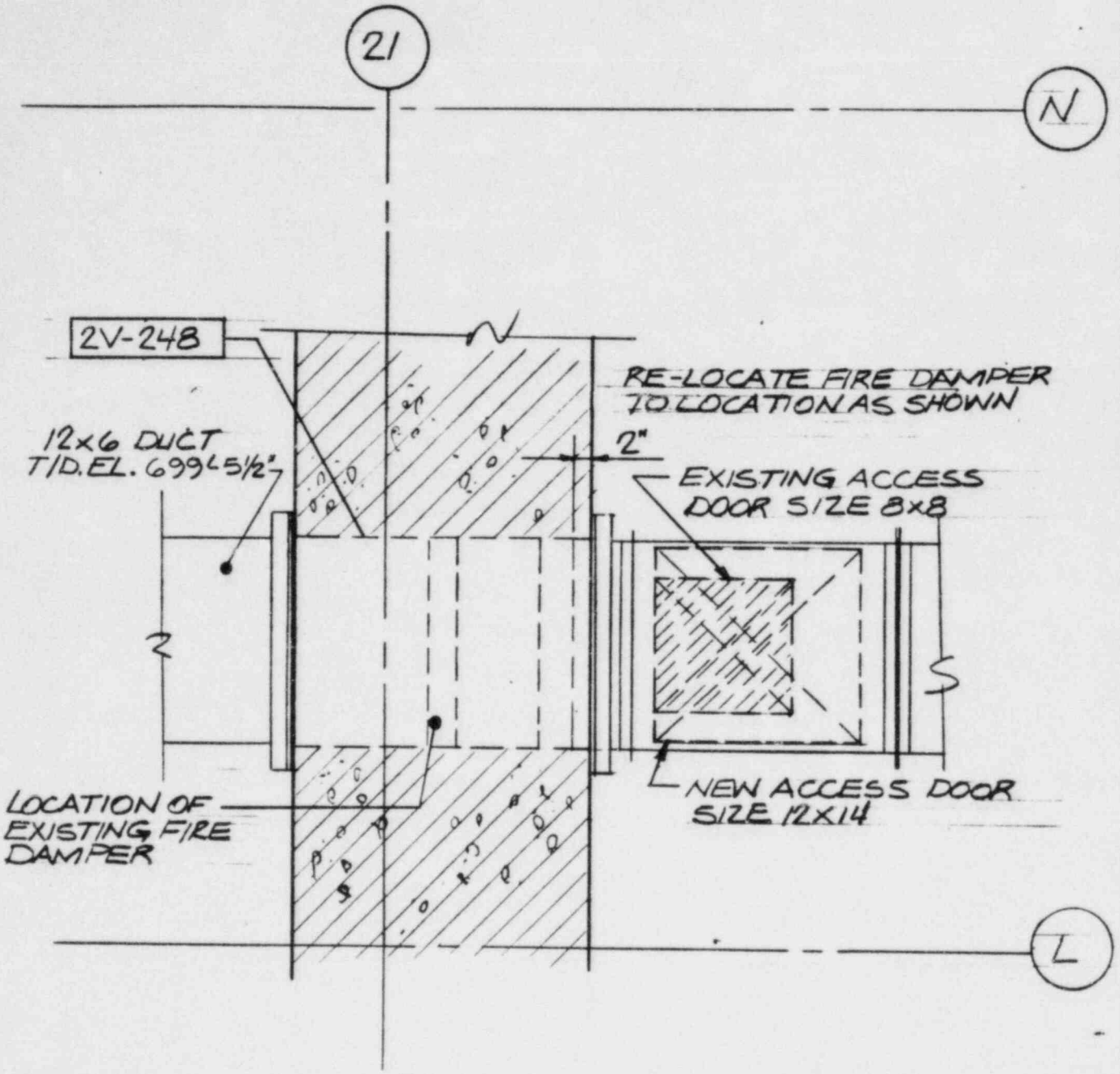
15

16



PLAN

CLIENT: COMMONWEALTH EDISON CO.	☐ SEISMIC ☒ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. OVL58Y REF. DWG. NO. 1388-2	
PREPARED BY C. Hare DATE: 7/20/84	SARGENT & LUNDY ENGINEERS
SKETCH No. FDAM-85	Page 86 of —

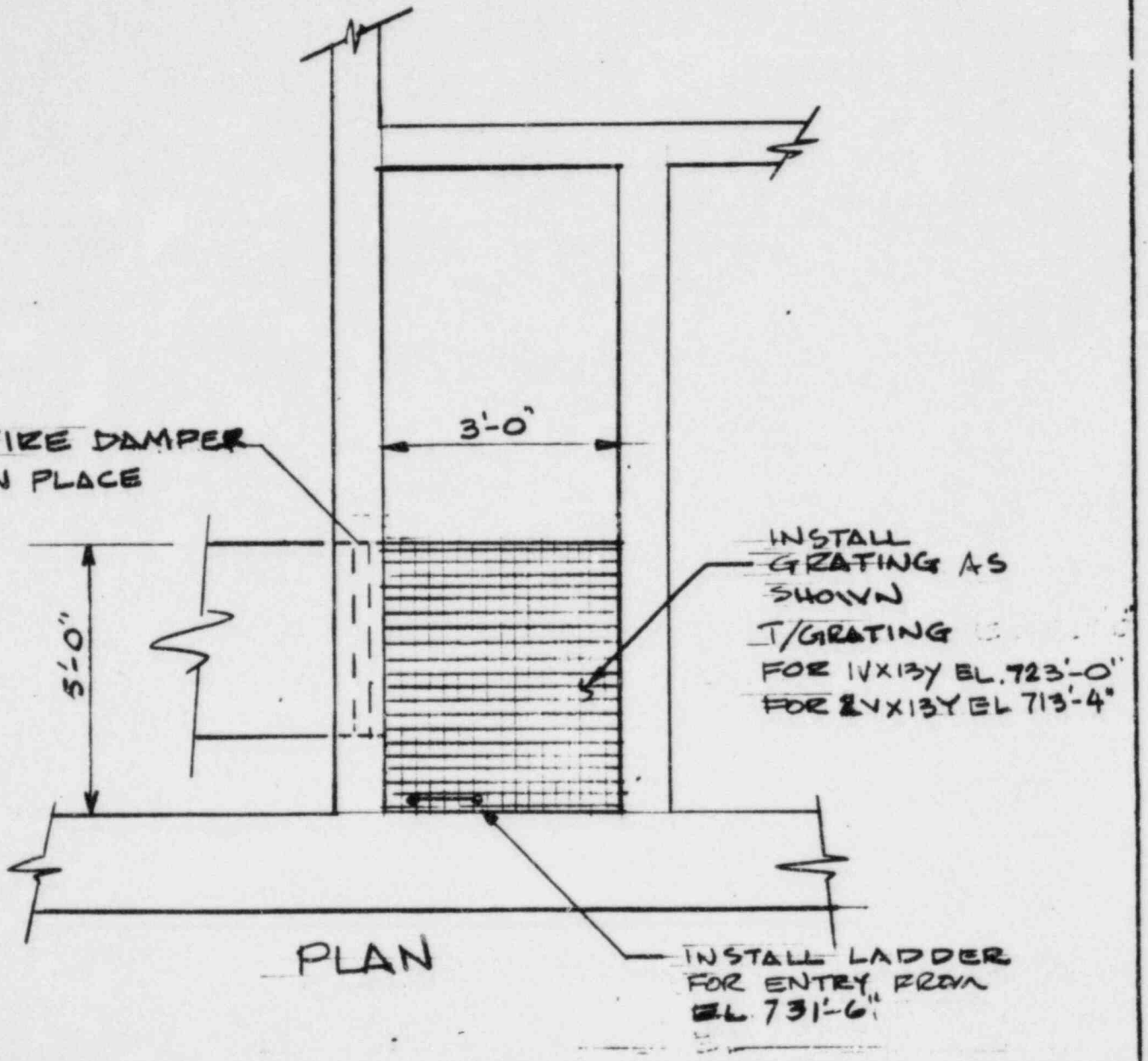


PLAN

N

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. 2VD25Y REF. DWG. NO. 1400	
PREPARED BY: [signature] DATE: 7/20/84	GARDNER & LUNDY ENGINEERS
SKETCH No. FDAM-86	Page 87 of —

TYP FOR DAMPERS
1VX13Y-M-1388-1
2VX13Y-M-1388-2



PLAN

CLIENT: COMMONWEALTH EDISON CO.	☒ SEISMIC ☐ NON-SEISMIC
PROJECT: LA SALLE COUNTY STATION	FIRE DAMPER ACCESS MODIFICATION
PROJ. NO.: 6854-31	
DAMPER NO. SEE LIST REF. DWG. NO. SEE LIST	
PREPARED BY F.A. Cameron DATE: 7/27/84	SARGENT & LUNDY
SKETCH NO. FDAM-87	Page 88 of —

LAST PAGE

ATTACHMENT E

FIRE DAMPER

MODIFICATION COST REPORT

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
1	OVC50Y	1391-1	56 / $ 800	X				X			S	New 16/16 (bottom) door.
1	OVC51Y	1391-1	57 / $ 450		X			X			S	Bad location of access door. Make elbow on Control Room side removable.
1	OVC62Y	1377-2	1 / $ 800	X				X	R	H	S	Larger (18/18) door (side). 17-1/2/17-1/2 (inner door).
1	OVC63Y	1377-2	1 / $ 800		X			X	R	H	S	Not accessible from top. No access door from below (Control Room). Cascade door through OVC62Y. New 17/17 door (side).
1	OVC64Y	1377-2	2 / $ 800	X				X	R	H	S	Larger door (18/18) on side to accommodate OVC64Y. 17-1/2 x 17-1/2 inner door.
1	OVC65Y	1377-2	2 / $ 800		X			X	R	H	S	Not accessible from top. No access door from below (Control Room). New 17/17 (side) door. Cascade through OVC64Y.
1	OVC66Y	1380-2	3 / $ 900	X				X	R	H	S	Cannot reach. Presently, two doors with screws. Lower and larger door.
1	OVC68Y	1380-2	4 / $ 480		X			X	R	H	S	No access door. Locate door on Elevation 786. New 27/10 (side) door.
1	OVE35Y	1389-1	5 / $ 950	X				X			S	Larger (12/24) door (bottom).
1	OVE41Y	1389-2	6 / $ 950	X				X	R		S	Cannot reach. New 20/24 (side) door.
1	OVE50Y	1389-2	7 / $ 860		X			X			S	No access door. Locate 18/18 door on side. Must crawl in.
1	OVC67Y	1390-1	82 / $ 950	X				X	R	H	S	Must be accessible from top to reset horizontal damper.
1	OVC69Y	1391-1	83 / $ 800	X				X	R	H	S	Must be accessible from top to reset horizontal damper.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
2	1VX42Y	1387-1	No drawing req'd. Work completed.	X				X			S	Unweld screen and install bolts. Work order issued. Work completed.
2	1VX45Y	1387-1	8 $ 940	X				X			S	Cannot reach. Larger 20/16 (bottom) door. Must get in duct.
2	1VX46Y	1387-1	9 $ 940	X				X			S	Access door (6/6) small. Install new 12/14 access door on bottom of elbow.
2	1VX50Y	1388-1	10 $ 860		X			X	R		S	No access door. New 18/18 (side) door.
2	1VX57Y	1389-1	61 $ 1400	X				X	R		S	Small (10/6) duct. Accessible if larger fire damper (block wall) or section of duct is removable.
2	1VX59Y	1388-1	11 $ 860	X				X			S	New 18/18 (side) door.
2	2VX41Y	1387-2	12 $ 860		X			X			S	Larger (16/16) door (bottom).
2	2VX42Y	1387-1	No drawing req'd. Work completed.	X				X			S	Remove welds on screen and replace with bolts and nuts. Work order issued. Work completed.
2	2VY10Y	1400	13 $ 940	X				X			S	Scaffolding required. New 24/30 door.
2	2VY11Y	1400	No drawing req'd.	X				X			S	Scaffolding required. Make screen removable. Work order issued.
2	OVE51Y	1389-2	62 $ 1400	X				X	R		S	No two hands on Ruskin damper. Provide new section of duct with access door.
2	OVE52Y	1389-2	63 $ 940	X				X	R		S	Cannot reach and cannot locate access door closer. Make access door larger.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	OVA38Y	1391-1	No drawing req'd. $ 250	X				X				New 14/8 (bottom) door.
3	OVA39Y	1391-1	No drawing req'd. $ 250	X				X				6/6 existing door (bottom). New 10/10 (bottom) door.
3	OVA40Y	1391-1	No drawing req'd. $ 250	X				X				6 x 6 access door (bottom). Cannot reach. New 10/8 (bottom) door.
3	OVA42Y	1377-3	14 $ 500	X				X	R			Too tight. Must crawl under 6' duct and access door in difficult position. New cascading 17/17 (side) door through OVA43Y.
3	OVA46Y	1377-3	14 $ 500	X				X	R			Larger (16/18) door.
3	OVA47Y	1380-1	15 $ 400	X				X	R	H		Larger (22/15) door.
3	OVC37Y	1391-1	No drawing req'd. $ 800	X				X			S	New 8/14 (bottom) door.
3	OVC48Y	1391-1	68 $ 1300	X				X			S	Accessible from stairwell corridor.
3	OVC49Y	1391-1	69 $ 1400	X				X			S	Cannot reach because of hanger.
3	OVC60Y	1380-1	77 $ 500	X				X	R	H	S	Larger (18/18) door. Locate closer.
3	OVC61Y	1380-1	78 $ 500	X				X	R	H	S	Larger (18/18) door. Locate closer.
3	OVE25Y	1390-1	No drawing req'd. Work completed.	X			X				S	No access door from Computer Room. New 18 x 18 (bottom) in Computer Room. Access door installed.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	OVE32Y	1380-1	16 / $ 940	X				X	R		S	Can climb. Larger (20/20) door. Must get into duct.
3	OVE34Y	1389-1	17 / $ 940	X				X	R		S	Larger (15/20) door (bottom).
3	OVE39Y	1389-2	18 / $ 860	X				X			S	Link seen from elbow access door (15/15). Bottom seen from 6/6 access door. Replace 16/16 door (side) with 18/18 door. Must get into duct and go through outer annulus of vaned elbow.
3	OVE40Y	1389-2	19 / $ 860		X			X			S	No access door. Put access door (18/18) in outer rolled section of elbow (side).
3	OVE45Y	1377-3	20 / $ 860	X				X			S	Need scaffolding. Larger (18/18) door (side) and locate closer.
3	OVE46Y	1377-3	No drawing req'd. / $ 940	X				X			S	Need ladder or climb. New 20/20 (top) door and locate closer.
3	OVE48Y	1390-1	21 / $ 860	X				X	R		S	Existing door on inside radius of vaned elbow. New 18/18 door on outer radius (side).
3	OVL28Y	1388-1	22 / $ 300	X				X				New 12/14 (top) door from elevator corridor.
3	OVL31Y	1388-1	65 / $ 340	X				X				Larger access door needed. New 18/12 (top) door. Above elevator corridor.
3	OVL48Y	1388-1	22 / $ 300	X				X				New 8/14 (bottom) door. Laboratory corridor.
3	OVL49Y	1388-1	No drawing req'd. / $ 300	X				X				New 8/14 (bottom) door. Laboratory corridor.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (TDAM-) Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	OVL51Y	1388-1	72 / $ 340	X				X				New 18/18 (top) door. Elevator corridor.
3	OVL57Y	1388-2	No drawing req'd. / $ 300		X			X				Larger access door (6/6) needed. New 12/12 (top) door.
3	OVL58Y	1388-2	85 / $ 500		X			X				Larger access door (6/6) needed. Duct (6/6) too small.
3	OVL59Y	1388-2	No drawing req'd. / $ 200	X				X				Access door hits duct intermediate reinforcement angle. Make hinged door removable.
3	OVL62Y	1388-2	No drawing req'd. / $ 340		X			X				New 14/12 (bottom) door.
3	OVL63Y	1377-2	No drawing req'd. / $ 340	X				X				Cannot reach. New 20/18 (top) door. Put closer.
3	OVL69Y	1388-6	No drawing req'd. / $ 1000	X		X			R			Accessible, but Ruskin "C" type damper with linkage recessed 3" to 4". Replace damper with Style A.
3	OVL70Y	1388-6	23 / $ 340	X				X	R			New 16/16 (bottom) door on vaned elbow in Counting Room.
3	OVL82Y	1388-6	70 / $ 1000	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
3	OVL83Y	1388-6	71 / $ 1000	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
3	OVL84Y	1388-6	72 / $ 1000	X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
3	IVT51Y	1420	25 / $ 340	X				X		H		New 18/18 door.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	1VT52Y	1420	73 / $ 1020	X				X				Accessible from crane basket. Doors both sides but vaned elbow on both sides.
3	1VT53Y	1387-1	26 / $ 900	X				X				Redesign ductwork. New 20/16 (bottom) door.
3	1VT55Y	1389-1	27 / $ 340	X				X				Larger access door (8/8) required (bottom). Door in elbow with vanes. Locate 16/16 (side) door on outer radius.
3	1VR76Y	1351-2	24 / $ 900		X			X				6/6 door on fuel load bay side. Redesign ductwork with door in Machine Room.
3	1VX05Y	1387-1	74 / $ 5000	X		X					S	Accessible if screen and backdraft damper assembly removed.
3	1VX10Y	1389-1	75 / $ 2000			X					S	Must remove 6' x 8' backdraft damper to be accessible. Spool piece not adequate (8"). No space for spool piece.
3	1VX12Y	1389-1	74 / $ 5000	X		X					S	Must remove 6' x 8' backdraft damper to be accessible. Spool piece not adequate (8"). Sufficient space for spool piece with door.
3	1VX13Y	1388-1	75 / $ 2500	X		X					S	Plenum and control damper. Shaft other side. Cannot reach fire damper through control damper.
3	1VX16Y	1381-1	81 / $ 1600	X		X				H	S	Bottom of shaft. Not accessible through backdraft damper.
3	2VD06Y	1398	28 / $ 940	X				X		H	S	New 16/20 door.
3	2VR76Y	1352-2	29 / $ 450	X				X				Larger (10/8) door.
3	2VT50Y	1422	84 / $ 340	X				X		H		Must be accessible from top to reset horizontal damper.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	2VT52Y	1422	76 / $ 1020	X				X				Accessible from crane basket for visual inspection. No door on Auxiliary Building side.
3	2VT53Y	1387-2	30 / $ 340		X			X				Locate access door (18/14) in elbow on outer radius.
3	2VV08Y	1389-2	64 / $ 300		X			X	R			14/14 opening exists without access door. Install access door.
3	2VX05Y	1387-2	74 / $ 5000	X		X					S	Accessible if screen and backdraft damper assembly removed, or adding spool piece (none) with door.
3	2VX10Y	1389-2	75 / $ 2000	X		X					S	Not accessible for operational testing unless grating provided in shaft. Access through 2VX12Y.
3	2VX12Y	1389-2	31 / $ 900	X				X			S	Increase access door width from 12 to 22.
3	2VX13Y	1388-2	87 / $ 3000	X		X					S	Not accessible through control damper.
3	2VX16Y	1381-26 1388-2	81 / $ 1600	X		X				H	S	Bottom of shaft. Not accessible through backdraft damper.
3	2VY08Y	1398	37 / $ 900	X				X		H	S	New 16W/19H door.
3	2VY09Y	1398	33 / $ 900	X				X		H	S	New 16W/20H door.
3	2VY12Y	1396	34 / $ 1250	X				X	R	H	S	Elbow above floor to be removable.
3	OVA38Y	1391-1	No drawing req'd. / $ 300	X				X			S	New 8/12 (side) door.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
3	OVL75Y	1388-6	58 / $ 1000	X		X			R	H		Linkage too deep in hat section.
3	OVL76Y	1388-6	66 / $ 1000	X		X			R	H		Linkage too deep in hat section.
3	OVL77Y	1388-6	59 / $ 1000	X		X			R	H		Linkage too deep in hat section.
3	OVL78Y	1388-6	60 / $ 1000		X	X			R	H		Cannot reach and cannot see (curtain recessed). If visual, make access door 12/18.
3	OVL79Y	1388-6	67 / $ 1000	X		X			R	H		Linkage too deep in hat section.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
4	OVA21Y	1390-1	35 / $ 300	X				X				Larger access door (6/6) needed (corridor). Install new 10/18 (side) door on opposite side (Locker Room).
4	OVA23Y	1390-1	79 / $ 500	X				X				Can't reach (small duct). Larger access door (4/4) needed (corridor). Larger 6/6 door not possible (balancing damper in Locker Room).
4	OVA26Y	1390-1	36 / $ 300		X			X				New 10/10 (side) door from Men's Room.
4	OVA29Y	1390-1	37 / $ 340		X			X				New 16/14 (side) door from Men's Room.
4	OVA37Y	1390-1	38 / $ 340		X			X				New 16/16 (side) door from Men's Room.
4	OVL43Y	1388-1	40 / $ 500	X				X				New mitered elbow with 10/6 (top) door.
4	OVL44Y	1388-1	39 / $ 300	X				X				Larger access door (6/6) needed (side). New 12/6 (top) door.
4	IVD23Y	1399	No drawing req'd. / $ 860	X				X			S	New 18/18 (bottom) door.
4	IVD24Y	1399	41 / $ 860	X				X			S	New 16/16 (side) door.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation: No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
4	1VD25Y	1399	80 / $ 1000	X		X					S	Cannot reach (36" wall) 12/6 duct.
4	1VD42Y	1395	42 / $ 1000		X			X	R	H	S	No access door. Make elbow removable and install an access door.
4	1VX35Y	1389-1	43 / $ 2500		X			X			S	No access door. Increase size of fire damper and install access door on end plate of fire damper sleeve.
4	1VX41Y	1387-1	44 / $ 860	X				X			S	Larger 16/16 (bottom) door.
4	2VD14Y	1398	45 / $ 900	X				X	R	H	S	New 20/16 door.
4	2VD23Y	1400	46 / $ 860	X				X			S	New 16/16 (bottom) door.
4	2VD25Y	1400	86 / $ 1500	X		X					S	Cannot reach. Small duct (12/6). 36" wall. Existing 8/8 door.
4	2VD45Y	1396	47 / $ 1000	X				X	R	H	S	Elbows with vanes.

Priority	Damper Number	Drawing Number (M-)	Mod. Sketch No. (FDAM-) / Cost ($)	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety-Related (Note 4)	Comments
5	OVW11Y	1435	48 / $ 340	X				X				New 18/18 (bottom) door.
5	OVW30Y	1435	49 / $ 410	X				X				New 6/6 door with cable tray below. New 20/20 (bottom) door.
5	OVW42Y	1432-2	50 / $ 410		X			X				No door. New 18/24 (side) door.
5	OVW78Y	1432-2	51 / $ 300	X				X				New 12/18 (bottom) door. Existing vane stops short.
5	OVW89Y	1429	52 / $ 500	X				X				Need 12/12 (bottom) door.
5	1VT69Y	1418-1	53 / $ 340		X			X				Bottom of duct access door not accessible due to screen enclosure. New 18/18 (side) door on opposite side.
5	2VT69Y	1418-2	54 / $ 340	X				X				New 17/18 (bottom) door.
5	2VT72Y	1417	55 / $ 340	X				X				New 18/18 (bottom) door.

Notes: 1. Not Used.

2. "R" indicates manufactured by Ruskin Manufacturing Company; "BLANK" indicates Advanced Air Products.

3. "H" indicates Horizontal fire damper, while a "BLANK" means Vertical fire damper.

4. "S" means seismic; "BLANK" means non-seismic.

ATTACHMENT F

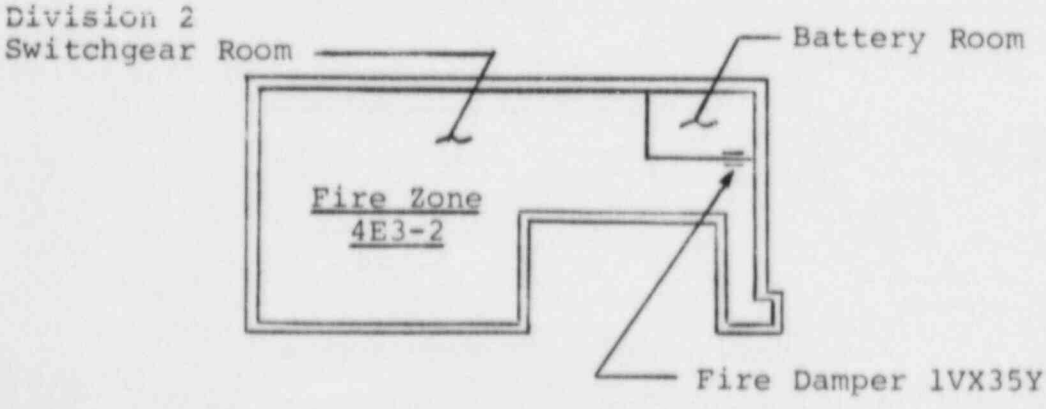
FIRE DAMPER

SAFETY EVALUATIONS

- Equipment No.: 1VX35Y, which is in a Battery Room wall (see Drawing M-1389, Sheet 1).
- Location: Unit 1, Division 2, Essential Switchgear Room.
- Fire Zone: 4E3-2
- Essential Switchgear Room Size: 3500 ft^2 with 17' ceiling.
- Fire Loading: Less than 1 hour (75,000 Btu/ft^2 including transients in the Switchgear Room).
- Construction (Fire Barriers)
  a. Essential Switchgear Room: Entirely enclosed by rated fire barriers.
  b. Battery Room: Floor, walls, and roof have 3 hour fire rating, all within 4E3-2.
- Combustibles: Primarily IEEE qualified cable insulation.
- Smoke Detection: Area ionization detectors are located in 4E3-2. A photoelectric detector is in the Battery Room.
- Manual Fire Fighting Equipment: Two hose stations, four portable extinguishers, one carbon dioxide hose reel.

ANALYSIS

A fire in Fire Zone 4E3-2 would remove power for the Unit 1, Division 2, Essential Switchgear Room, and would be contained within Fire Zone 4E3-2 by the fire barriers. The Battery Room is contained within 4E3-2 as shown in the sketch below.



Fire damper 1VX35Y, which is inaccessible for surveillance, is not surveilled in the surveillance program. This action,

(1) does not increase the probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR,

(2) does not create the possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR, and

(3) does not reduce the margin to safety as defined in the basis for any technical specification because:

(i) A fire in Fire Zone 4E3-2 could affect only the RCIC system, RHR Loop B and ADS Division 2. The d-c control power to the remote shutdown panel from the 125-Vdc electrical equipment in this fire zone has no affect on ADS Division 1. Therefore, HPCS and ADS Division 1 are available for decay heat removal and reactor water makeup. RHR Loop A is available for suppression pool cooling to assist in bringing the reactor to a hot shutdown condition.

(ii) The safe shutdown analysis for fire assumed a complete loss of 4E3-2, including the Battery Room.

(iii) A fire in the Battery Room disables the same safe shutdown train as a fire in the Switchgear Room. A redundant train, separated by fire barriers from 4E3-2, is available for safe shutdown.

ATTACHMENT G

FIRE DAMPERS

WITHOUT

PRE-OP DOCUMENTATION

FIRE DAMPERS WITHOUT PRE-OP DOCUMENTATION

Rev. 0: 08/01/84

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Initial Test	Method of Inspection: Visual W/O Mod.	Visual W/ Mod.	Operation No	Operation W/O Mod.	Operation W/ Mod.	Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
70	OVE47Y	1390-1	3		X			X		R		S	Need to remove ceiling tiles in elevator lobby.
71	OVE48Y	1390-1	3		X				X	R		S	Existing door on inside radius of vaned elbow. New 18/18 door on outer radius (side).
	OVE60Y	1390-1	3		X			X					
77	OVH11Y	1441	5		X			X					
78	OVH15Y	1441	5		X			X					
101	OVL63Y	1377-2	3		X				X				Cannot reach. New 20/18 (top) door. Put closer.
102	OVL69Y	1388-6	3		X		X			R			Accessible, but Ruskin "C" type damper with linkage recessed 3" to 4". Replace damper with Style A.

NOTES: 1. Not Used.

2. "R" indicates manufactured by Ruskin Manufacturing Company; "BLANK" indicates Advanced Air Products.

3. "H" indicates Horizontal fire damper, while a "BLANK" means Vertical fire damper.

4. "S" means seismic; "BLANK" means non-seismic.

FIRE DAMPERS WITHOUT PRE-OP DOCUMENTATION (Cont'd)

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Initial Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
103	OVL70Y	1388-6	3		X				X	R			New 16/16 (bottom) door on vaned elbow in Counting Room.
104	OVL71YA	1388-6	3		X			X		R			
105	OVL71YB	1388-6	3		X			X		R			
106	OVL74Y	1388-6	3		X			X		R	H		
107	OVL75Y	1388-6	3		X		X			R	H		Linkage too deep in hat section.
108	OVL76Y	1388-6	3		X		X			R	H		Linkage too deep in hat section.
109	OVL77Y	1388-6	3		X		X			R	H		Linkage too deep in hat section.
110	OVL78Y	1388-6	3			X	X			R	H		Cannot reach and cannot see (curtain recessed). If visual, make access door 12/18.
111	OVL79Y	1388-6	3		X		X			R	H		Linkage too deep in hat section.
112	OVL80Y	1388-6	3		X			X		R	H		
113	OVL81Y	1388-6	3		X			X		R	H		

FIRE DAMPERS WITHOUT PRE-OP DOCUMENTATION (Cont'd)

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Initial Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual			Operation					
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
114	OVL82Y	1388-6	3		X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
115	OVL83Y	1388-6	3		X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
116	OVL84Y	1388-6	3		X		X			R	H		Curtain set back in hat section. Cannot get at "S" hook.
119	OVS160Y	1389-1	4		X			X				S	
120	OVS161Y	1389-1	3		X			X				S	
121	OVS163Y	1389-1	4		X			X				S	
122	OVV31Y	1390-1	3		X			X					
123	OVV32Y	1390-1	3		X			X					
	OVV40Y	1390-1	3		X			X					
154	IVD42Y	1395	4			X			X	R	H	S	No access door. Make elbow removable and install an access door.

FIRE DAMPERS WITHOUT PRE-OP DOCUMENTATION (Cont'd)

Sequential Number	Damper Number	Drawing Number (M-)	Priority	Initial Test	Method of Inspection					Damper Mfg. (Note 2)	Damper Position (Note 3)	Safety Related (Note 4)	Comments
					Visual		Operation						
					W/O Mod.	W/ Mod.	No	W/O Mod.	W/ Mod.				
189	1VV08Y	1390-1	3		X			X		R			
	1VV10Y	1379-1	3		X			X					
271	2VV07Y	1388-2	3		X			X		R			
272	2VV08Y	1389-2	3			X			X	R			14/14 opening exists without acess door. Install access door.
273	2VV09Y	1387-2	3		X			X		R			
274	2VV10Y	1391-1	3		X			X		R			Access from Turbine Building by taking off smoke relief cap.
310	2VY12Y	1396	3		X				X	R	H	S	Elbow above floor to be removable.
311	2VY13Y	1396	3		X			X		R	H	S	

ATTACHMENT H

NFPA 90A DISCUSSION

OF

AIRFLOW TESTING

There are 308 fire dampers in the plant at the LaSalle County Station. Systems that shutdown on detection of smoke are:

System	No. of Dampers
VA (Auxiliary Building)	24
VD (DG Building)	43
VL (Laboratories)	38
VV (Miscellaneous)	11
TOTAL	116

Systems that do not shutdown automatically are:

System	No. of Dampers
VC (Control Room)	19
VE (Auxiliary Electric Equipment Rooms)	26
VH (Lake Screen House)	2
VR (Reactor Building)	4
VS (Service Building)	3
VT (Turbine Building)	51
VW (Radwaste Building)	15
VX (Switchgear Rooms)	66
VY (Equipment Core Cooling Systems)	6
TOTAL	192

Systems VC and VE should not be shutdown upon detection of smoke. These systems are designed to continuously operate to protect IEEE-323 qualified electrical equipment in the Control Room and Auxiliary Electric Equipment Rooms. In the event of serious fire these ventilation systems can be shutdown by trained personnel and, therefore, the fire fighting procedures will be modified accordingly.

The two Lake Screen House (VH) fire dampers are in walls between the pumphouse and diesel-driven fire pump rooms. These dampers need not be shutdown on detection of smoke, they will close on temperature (165°F). With a fire damper closed, cooling air for the diesel engine and pump is obtained from outside the building through a louver with a control damper.

To control contaminants, the Reactor Building System (VR) will continue to operate in order to maintain a negative pressure in the Containment Building. The four fire dampers in the VR system are in the supply ducts to the two Elevator Machine Rooms, and in exhaust (relief) openings between the Elevator Machine Rooms and the fuel loading bay.

The VT, VW, VX, and VY systems should remain operational on area smoke detection and be shutdown at the discretion of personnel responding to a smoke alarm. To accomplish manual shutdown of these systems, LaSalle's fire fighting procedures will be modified to incorporate this requirement.

Based on the above discussion, and the fact that LaSalle has fire dampers and not smoke dampers, Sargent & Lundy (S&L) requested from the NFPA Standards Council an interpretation of Article B-7 of the NFPA 90A-1981 (see Page H3).

SARGENT & LUNDY
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(312) 269-2000
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March 7, 1984

Secretary, Standards Council
NFPA
Batterymarch Park
Quincy, Massachusetts 02269

Subject: Request for Formal Interpretation in Accordance with Section 16 of Regulations Governing Committee Projects

Reference: NFPA Standard 90A-1981, Appendix B-7, (page 36)

Problem Statement: The NRC (Nuclear Regulatory Commission) has requested our client (Commonwealth Edison Company) to conduct periodic airflow tests on all fire dampers at their LaSalle Nuclear Station. The basis for the NRC's request is NFPA 90A-1981, Appendix B-7.

Sargent & Lundy designs systems in nuclear power plants to both shut down and continue operation on detection of smoke. These systems are not engineered smoke systems, but simply systems containing fire dampers (not smoke dampers). All fire dampers are UL-labeled and installed in accordance with UL-555.

Question No. 1: For ventilation, air conditioning, and exhaust systems that shut down automatically on detection of smoke, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the air-stream?

Question No. 2: For ventilating, air conditioning, and exhaust systems that are manually shut down at the discretion of personnel responding to a smoke alarm, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the airstream?

Question No. 3: For ventilating, air conditioning, and exhaust systems that do not shut down on detection of smoke, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the airstream?

Question No. 4: Is the intent of the first sentence in Appendix B-7 to test each fire damper periodically against system airflow, or is a one-time preoperational test adequate to demonstrate the ability of a fire damper to close?

The subject plant is licensed but cannot go above 5% power until all outstanding concerns are solved. Sargent & Lundy requests your timely response since each day the plant does not operate costs our client a minimum of $500,000. If any question needs to be clarified, please contact me since the committee's responses will be applied by the NRC to all new and existing plants in the United States.

Yours very truly,

H. F. Behls

H. F. Behls
Supervisor, HVAC Division
(312) 269-3881

HFB:rc

bcc: John Bouchard
William Schmidt

NFPA
"Moving Mankind Toward Safety From Fire"

NATIONAL
FIRE PROTECTION
ASSOCIATION
INTERNATIONAL

Life Safety Field Service
Engineering Services Division

June 13, 1984

H.F. Behls
Supervisor, HVAC Division
Sargent & Lundy Engineers
55 East Monroe Street
Chicago, Illinois 60603

Dear Mr. Behls:

Your request for formal interpretation of Appendix B-7 of the 1981 edition of the NFPA 90A, Air Conditioning and Ventilating Systems Standard, has been processed by the Committee. The formal interpretation results are attached.

This formal interpretation will be published in the NFPA FIRE NEWS, as well as other trade publications.

Sincerely,

Ron Coté
Life Safety Specialist

RC/kjf

Attachments: SIS Form

From: Ron Cote

Date: June 12, 1984

Formal Interpretation

Number: F.I.

Document: Air Conditioning & Ventilating Systems NFPA 90A

Edition: 1981 Reference: Appendix B-7 (Number)

QUESTION NO. 1: For ventilation, air conditioning, and exhaust systems that shut down automatically on detection of smoke, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the airstream?

QUESTION NO. 2: For ventilating, air conditioning, and exhaust systems that are manually shut down at the discretion of personnel responding to a smoke alarm, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the airstream?

QUESTION NO. 3: For ventilating, air conditioning, and exhaust systems that do not shut down on detection of smoke, is the intent of Appendix B-7 to test fire dampers with the system in operation to assure that they are not held open by the airstream?

(Q1 - Q3)

ANSWER: Yes, it is the intent of Appendix B-7 that fire dampers be tested with the system in its normal operating mode.

QUESTION NO. 4: Is the intent of the first sentence in Appendix B-7 to test each fire damper periodically against system airflow, or is a one-time preoperational test adequate to demonstrate the ability of a fire damper to close?

ANSWER: Yes, it is the intent of Appendix B-7 that fire dampers be tested periodically.

Issue Edition: 1981 Reference: Appendix B-7 Date: 6/12/84

500-SIS FP 1 78

SARGENT & LUNDY
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55 EAST MONROE STREET
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(312) 269-2000
TWX 910-221-2807

July 6, 1984

Secretary, Standards Council
National Fire Protection Association
Batterymarch Park
Quincy, Massachusetts 02269

Subject: Formal Interpretation of NFPA Standard 90A-1981, Appendix B-7.

Gentlemen:

We received NFPA's response to our request for an interpretation of Appendix B-7, Standard 90A (copy attached). Commonwealth Edison Company and Sargent & Lundy, Consulting Engineers, wish to appeal NFPA's interpretations, and be allowed to present our arguments to the 90A committee.

Yours very truly,

H. F. Behls

H. F. Behls
Supervisor, HVAC Division

HFB:cas
Attachment
Copies:
R. Cot'e

NFPA
"Moving Mankind Toward Safety From Fire"

NATIONAL
FIRE PROTECTION
ASSOCIATION
INTERNATIONAL

ARTHUR E. COTE, Assistant Vice President

July 19, 1984

H. F. Behls
Supervisor, HVAC Division
Sargent & Lundy
55 East Monroe Street
Chicago, IL 60603

Dear Mr. Behls:

I am in receipt of your letter of July 6, 1984, regarding a Formal Interpretation on Appendix B-7 of NFPA 90A-1981.

The purpose of a Formal Interpretation is to provide a formal explanation of the meaning or intent of any specific provision or provisions of an NFPA Document.

A request for a Formal Interpretation is submitted to letter ballot of an Interpretation's Subcommittee made up of five or more members of the Technical Committee or Subcommittee having primary jurisdiction of the document or portion thereof covering the subject under consideration.

If you disagree with the Formal Interpretation rendered by the Committee on Air Conditioning and Ventilating Systems on Appendix B-7 of NFPA 90A-1981, please forward to my attention any additional information which you feel should be reviewed by the Interpretation's Subcommittee and I will forward this information on to the Subcommittee for their consideration.

Very truly yours,

Arthur E. Cote, P.E.
Secretary, Standards Council

AEC/ams

cc: R. Cote'
L. Taraskiewicz

ATTACHMENT I

ALARA AND PERSONNEL SAFETY

FOR

SURVEILLANCE TESTING

OF

FIRE DAMPERS

It is necessary to shutdown ventilation systems during fire damper surveillance tests for the following plant (ALARA) and system (high pressure/noise levels) conditions.

1. ALARA

Fire dampers in airstreams exhausting potentially radioactive air or in radioactive zones are as follows:

a. Radwaste Building Exhaust System

OVW42Y	OVW90YC
OVW89Y	OVW90YD
OVW90YA	OVW90YE
OVW90YB	OVW90YF

b. Laboratory Exhaust Systems

OVL58Y	OVL78Y
OVL59Y	OVL83Y
OVL63Y	OVL84Y
OVL77Y	

2. System High Pressure and Noise Levels

Fire dampers in system plenums or ducts that have dangerous pressures or noise levels are as follows:

a. Turbine Building Ventilation System

1VT46Y	2VT46Y
1VT50Y	2VT50Y
1VT51Y	2VT51Y
1VT52Y	2VT52Y
1VT55Y	2VT55Y
1VT61Y	2VT61Y
1VT62Y	2VT62Y

b. Radwaste Building Ventilation System

OVW06Y	OVW32Y
OVW11Y	OVW78Y

c. Auxiliary Building HVAC System

OVA42Y	OVA44Y

d. Diesel Generator Ventilation System

OVD40Y	2VD40Y
1VD40Y	2VD43Y
1VD43Y	

e. Switchgear Room Ventilation System

1VX15Y	2VX15Y
1VX28YA	2VX28YA
1VX28YB	2VX28YB
1VX29YA	2VX29YA
1VX29YB	2VX29YB

f. Auxiliary Electric Equipment Room Ventilation and Exhaust Systems

OVE39Y	OVE40Y

ATTACHMENT J

SURVEILLANCE PROCEDURE

LTS-1000-35,

"FIRE DAMPER OPERABILITY TEST"

FIRE DAMPER OPERABILITY TEST

A. PURPOSE

At least once every 10 years, test the operability of all Priority 1 and 2 fire dampers (see Ref. B.4).

B. REFERENCES

1. LAP-900-23, Fire Barriers, Fire Dampers, Fire Penetrations and Fire Floor Plugs.
2. LTS-1000-36, Fire Damper Visual Inspection.
3. M-1300 and M-1400 Drawing Series.
4. Prioritizing of Fire Dampers, Sargent & Lundy Document DC-FP-01-1-LS, dated May 25, 1984.
5. Article 3.7.6, Limiting Condition for Operation.

C. PREREQUISITES

None.

D. PRECAUTIONS

1. Contact the Radiation Protection Department for radiation levels in areas to be inspected.
2. Contact the Shift Engineer and Fire Marshall before inspection of areas.
3. A ladder or scaffolding may be needed to inspect fire dampers.
4. When inspecting and testing fire dampers, it may be necessary to shutdown the ventilation or exhaust system to safely remove access doors to gain access to dampers. See surveillance log (Attachment A) for these dampers. Any fan can be shutdown at the discretion of the Inspector.
5. When a control damper is in front of a fire damper, disconnect the control damper operator before reaching through the control damper to test the fire damper.

E. LIMITATIONS AND ACTIONS

1. All Priority 1 and 2 fire dampers in the plant are to be tested. The inspection of Priority 3, 4 and 5 fire dampers is covered by LTS-1000-36.

2. Fire damper nonconformances must be brought to the attention of the Shift Engineer and Station Fire Marshall as soon as possible. Refer to the Technical Specification, Article 3.7.6, and adhere to the action statement. In addition, perform LAP-900-23.

F. PROCEDURE

1. General: Visually inspect and test all fire dampers listed on the surveillance log (see Attachment A). The fire dampers associated with a fire damper number may be more than one. Floor or wall dampers may be an individual damper or an assembly of individual dampers, while floor dampers (individual or an assembly) may be two in series. Each damper in an assembly must be inspected and operability tested.

2. Visual Inspection: Enter all items not in conformance with the following criteria on the surveillance log. If there are no nonconformances, enter "none". Corrections, if possible, should be made on the spot. Items to be visually inspected follow.

   a. Closure Springs: Closure springs, if provided, must be intact and in place. All floor dampers and "Ruskin" wall dampers have closure springs.

   b. Debris: No debris or obstructions shall be in the fire damper sleeve or in the ductwork upstream from the fire damper. If possible, remove all debris on the spot.

3. Operability Test

   a. Disassembly: Two styles of linkage assemblies will be encountered during the inspection. One linkage has "S" hooks (see Figure A), and the other straps (see Figures B and C). Use a spreader-type pliers to uncrimp "S" hooks. In some cases, the blade assembly is packed tight thus causing tension on the linkage assembly. In these cases, pry-up the blade assembly and then release the linkage.

   b. Acceptance Criteria: Unhook fusible or electro-thermal link and release damper. Enter all items not in conformance with the following criteria on the surveillance log. If there are no nonconformances, enter "none".

b1. Closure: Fire damper must close.

b2. Latching: Fire damper blades with closure springs must engage both latches (one each side).

c. Raise the damper blades and hook the fusible link to the linkage strap. "S" hooks must be completely closed (see Figure A). For dampers without "S" hooks, the metal straps must be adequately bent around fusible link (see Figures B and C). Electro-thermal link wiring shall be located so that wiring will not interfere with the future operation of the fire damper (see Figure C).

4. Sign and date the surveillance log (Attachment A) as each damper is inspected.

5. Prepare a Work Request for each fire damper needing repair. When corrective action is acceptable, sign and date the surveillance log (Attachment A).

G. CHECKLIST

Attachment A, Fire Damper Surveillance Log.

H. TECHNICAL SPECIFICATION REFERENCES

Article 3/4.7.6.1, Surveillance Requirement for Fire Rated Assemblies.

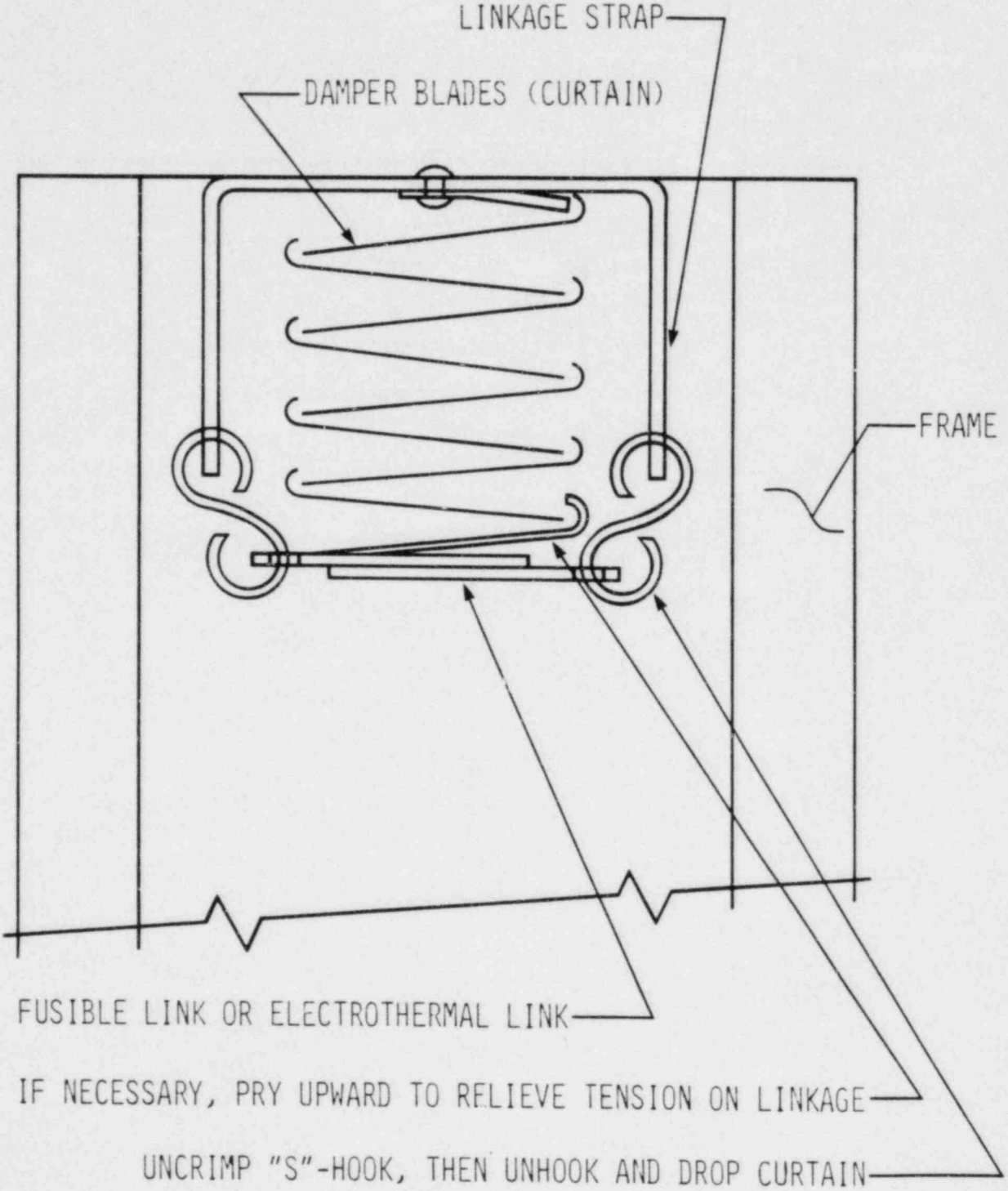

FIGURE A FIRE DAMPER LINKAGE WITH "S"-HOOKS

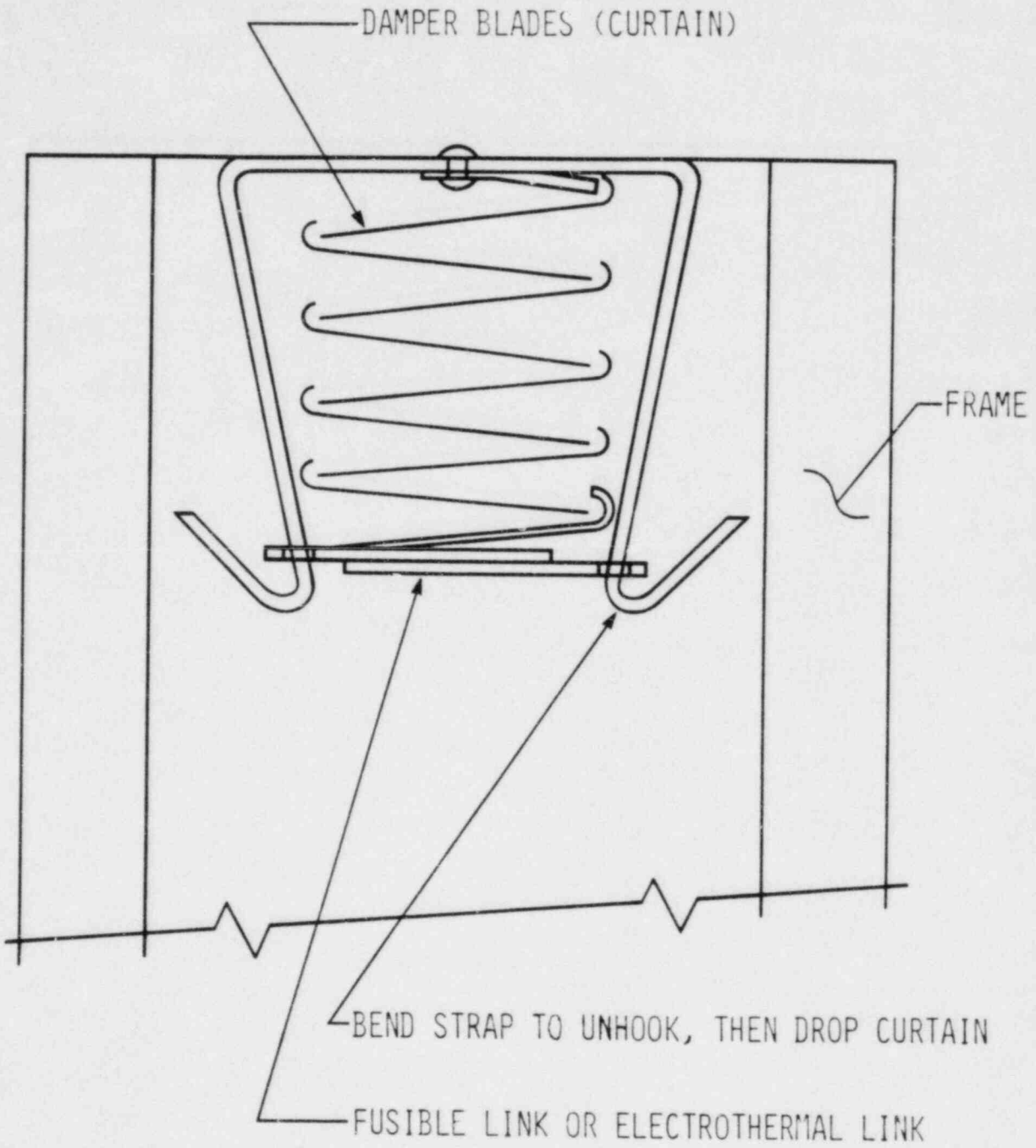

FIGURE B FIRE DAMPER LINKAGE WITH STRAP ONLY (NO "S"-HOOKS)

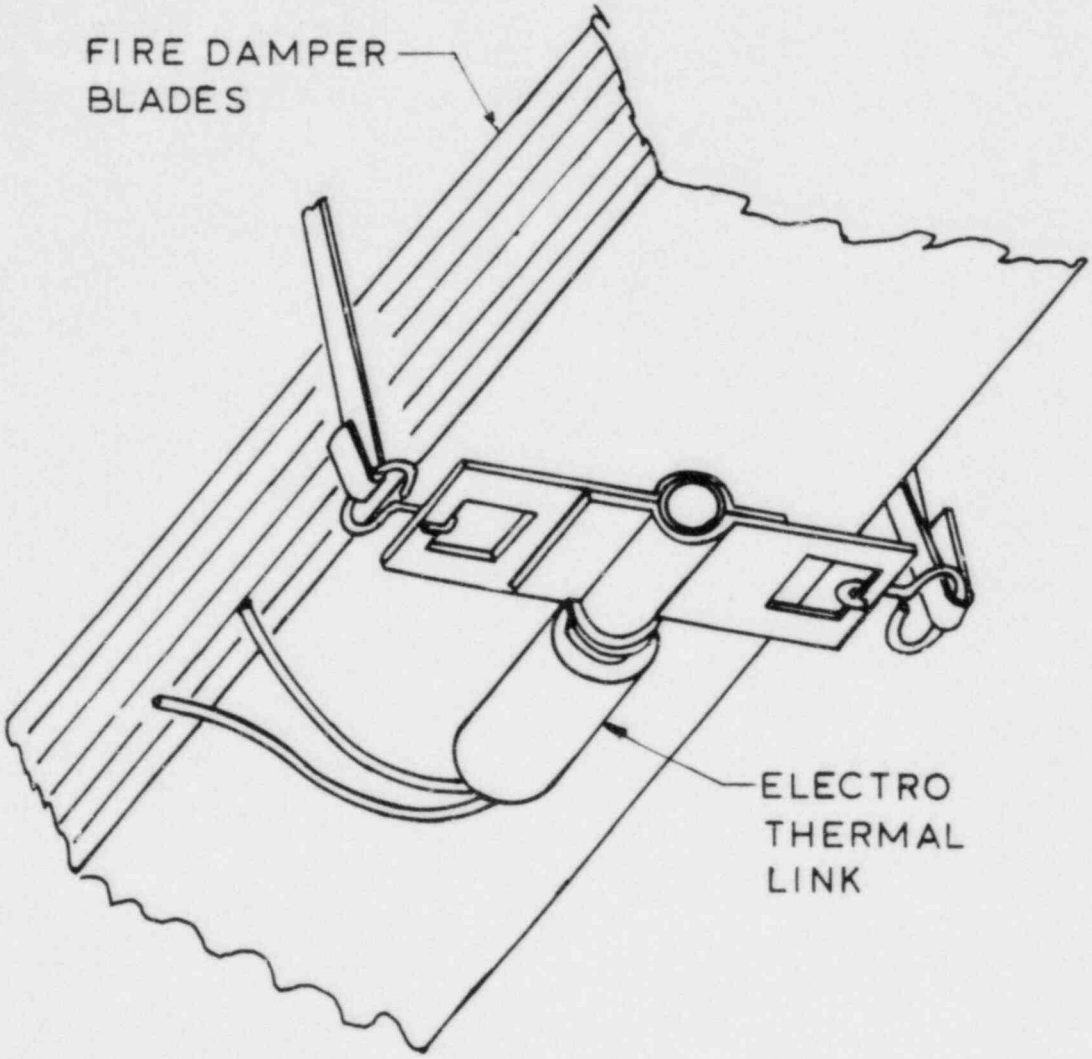

FIGURE C ELECTRO-THERMAL LINK/FIRE DAMPER

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVC62Y	M-1377-2 J.1-13.1 786 AB				
OVC63Y	M-1377-2 J.1-13.1 786 AB				
OVC64Y	M-1377-2 J.1-16.9 786 AB				
OVC65Y	M-1377-2 J.1-16.9 786 AB				
OVC66Y	M-1380-2 N-15 786 AB				
OVC68Y	M-1380-2 N-15 786 AB				
1VX42Y	M-1387-1 L.1-15 749 AB				
1VX44Y	M-1387-1 L.3-15 749 AB				
1VX45Y	M-1387-1 J.2-12.8 749 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VX46Y	M-1387-1 J.3-14.9 749 AB				
2VX42Y	M-1387-1 J.9-15 749 AB				
2VX41Y	M-1387-2 L.2-17.2 749 AB				
2VX43Y	M-1387-2 L.1-17.2 749 AB				
1VX50Y	M-1388-1 N.3-9 710 AB				
1VX59Y	M-1388-1 N.5-9 710 AB				
OVE35Y	M-1389-1 L.3-13 731 AB				
OVE36Y	M-1389-1 L.6-13 731 AB				
OVE37Y	M-1389-1 13.8-J.7 731 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVE38Y	M-1389-1 L.6-13.8 731 AB				
1VT59YA	M-1389-1 R-9 731 AB				
1VT59YB	M-1389-1 R-10.2 731 AB				
1VT59YC	M-1389-1 R-11.2 731 AB				
1VT59YD	M-1389-1 R-12.8 731 AB				
1VX57Y	M-1389-1 13.2-J.2 731 AB				
1VX58Y	M-1389-1 13.2-J.1 731 AB				
OVE41Y	M-1389-2 L.7-17 731 AB				
OVE42Y	M-1389-2 L.7-17 731 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVE49Y	M-1389-2 L.3-16.9 731 AB				
OVE50Y	M-1389-2 L.9-16 731 AB				
OVE51Y	M-1389-2 L.8-17.3 731 AB				
OVE52Y	M-1389-2 L.6-17.3 731 AB				
OVE53Y	M-1389-2 L.6-17.3 731 AB				
2VT59YA	M-1389-2 N.9-20.8 731 AB				
2VT59YB	M-1389-2 N.9-19.8 731 AB				
2VT59YC	M-1389-2 N.9-18.8 731 AB				
2VT59YD	M-1389-2 N.9-17.1 731 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVC67Y	M-1390-1 J.8-13.2 768 AB				
OVC50Y	M-1391-1 N.2-16.7 768 AB				
OVC51Y	M-1391-1 N.2-16.9 768 AB				
OVC69Y	M-1391-1 J.8-16.8 768 AB				
2VX60Y	M-1398 J.7-21 710 DG				
2VY10Y	M-1400 N.3-22.9 674 DG				
2VY11Y	M-1400 N.3-22.9 674 DG				

ATTACHMENT K

SURVEILLANCE PROCEDURE

LTS-1000-36,

"FIRE DAMPER VISUAL INSPECTION"

FIRE DAMPER VISUAL INSPECTION

A. PURPOSE

At least once every 10 years, perform a visual inspection on all Priority 3, 4 and 5 fire dampers (see Ref. B.4).

B. REFERENCES

1. LAP-900-23, Fire Barriers, Fire Dampers, Fire Penetrations and Fire Floor Plugs.
2. LTS-1000-35, Fire Damper Operability Test.
3. M-1300 and M-1400 Drawing Series.
4. Prioritizing of Fire Dampers, Sargent & Lundy Document DC-FP-01-1-LS, dated May 25, 1984.
5. Article 3.7.6, Limiting Condition for Operation.

C. PREREQUISITES

None.

D. PRECAUTIONS

1. Contact the Radiation Protection Department for radiation levels in areas to be inspected.
2. Contact the Shift Engineer and Fire Marshall before inspection of areas.
3. A ladder or scaffolding may be needed to inspect fire dampers.
4. When inspecting fire dampers, it may be necessary to shutdown the ventilation or exhaust system to safely remove access doors to gain access to dampers. See surveillance log (Attachment A) for these dampers. Any fan can be shutdown at the discretion of the Inspector.

E. LIMITATIONS AND ACTIONS

1. All Priority 3, 4 and 5 fire dampers in the plant and Lake Screen House are to be visually inspected. The inspection of Priority 1 and 2 fire dampers is covered by LTS-1000-35.

2. Fire damper nonconformances must be brought to the attention of the Shift Engineer and Station Fire Marshall as soon as possible. Refer to the Technical Specification, Article 3.7.6, and adhere to the action statement. In addition, perform LAP-900-23.

F. PROCEDURE

1. Visually inspect all fire dampers listed on the surveillance log (see Attachment A). The fire dampers associated with a fire damper number may be more than one. Floor or wall dampers may be an individual damper or an assembly of individual dampers, while floor dampers (individual or an assembly) may be two in series. Each damper in an assembly must be inspected.

2. Inspection Criteria: Enter all items not in conformance with the following criteria on the surveillance log. If there are no nonconformances, enter "none". Corrections, if possible, should be made on the spot.

   a. Blades: Blades (curtain) of fire dampers must be completely folded and held in place by a fusible link or an ETL (Electro-Thermal Link).

   b. "S" Hooks or Metal Straps: "S" hooks must be sufficiently closed to prevent disengagement from the strap (see Figure A). For dampers without "S" hooks, the metal straps shall be adequately bent around fusible link (see Figures B and C).

   c. Electro-Thermal Links: ETL wiring shall be routed so that wiring does not interfere with closure of damper (see Figure C).

   d. Closure Springs: Closure springs, if provided, must be intact and in place. All floor dampers and "Ruskin" wall dampers have closure springs.

   e. Debris: No debris or obstructions shall be in the fire damper sleeve or in the ductwork upstream from the fire damper. If possible, remove all debris on the spot.

   f. Corrosion: Corrosion should be evaluated to determine operability of damper. If corrosion appears to affect damper closure, the damper shall be operability tested in accordance with LTS-1000-35.

3. Sign and date the surveillance log (Attachment A) as each damper is inspected.

4. Prepare a Work Request for each fire damper needing repair. When corrective action is acceptable, sign and date the surveillance log (Attachment A).

G. CHECKLISTS

Attachment A, Fire Damper Surveillance Log.

H. TECHNICAL SPECIFICATION REFERENCES

Article 3/4.7.6.1, Surveillance Requirement for Fire Rated Assemblies.

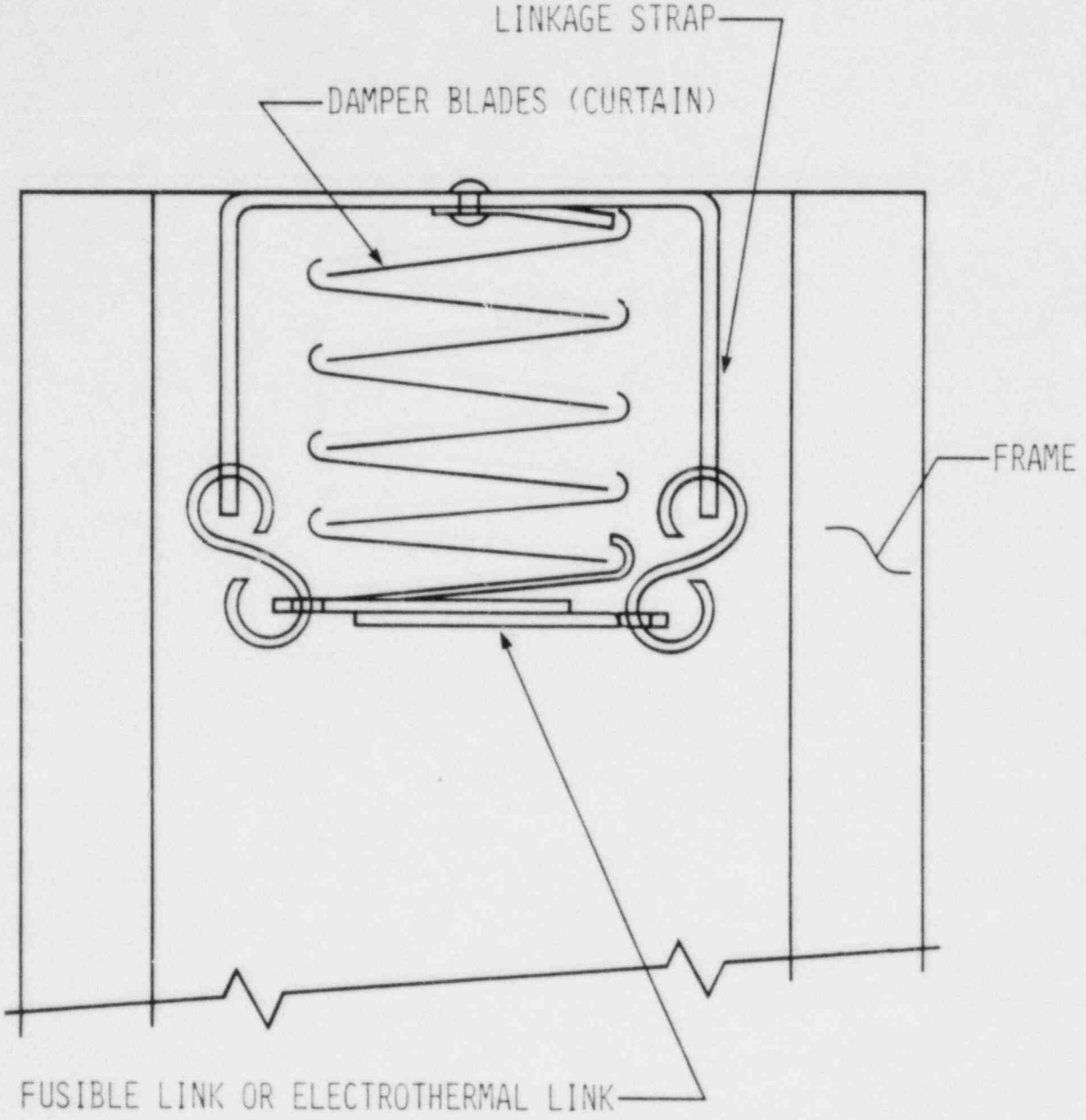

FIGURE A FIRE DAMPER LINKAGE WITH "S"-HOOKS

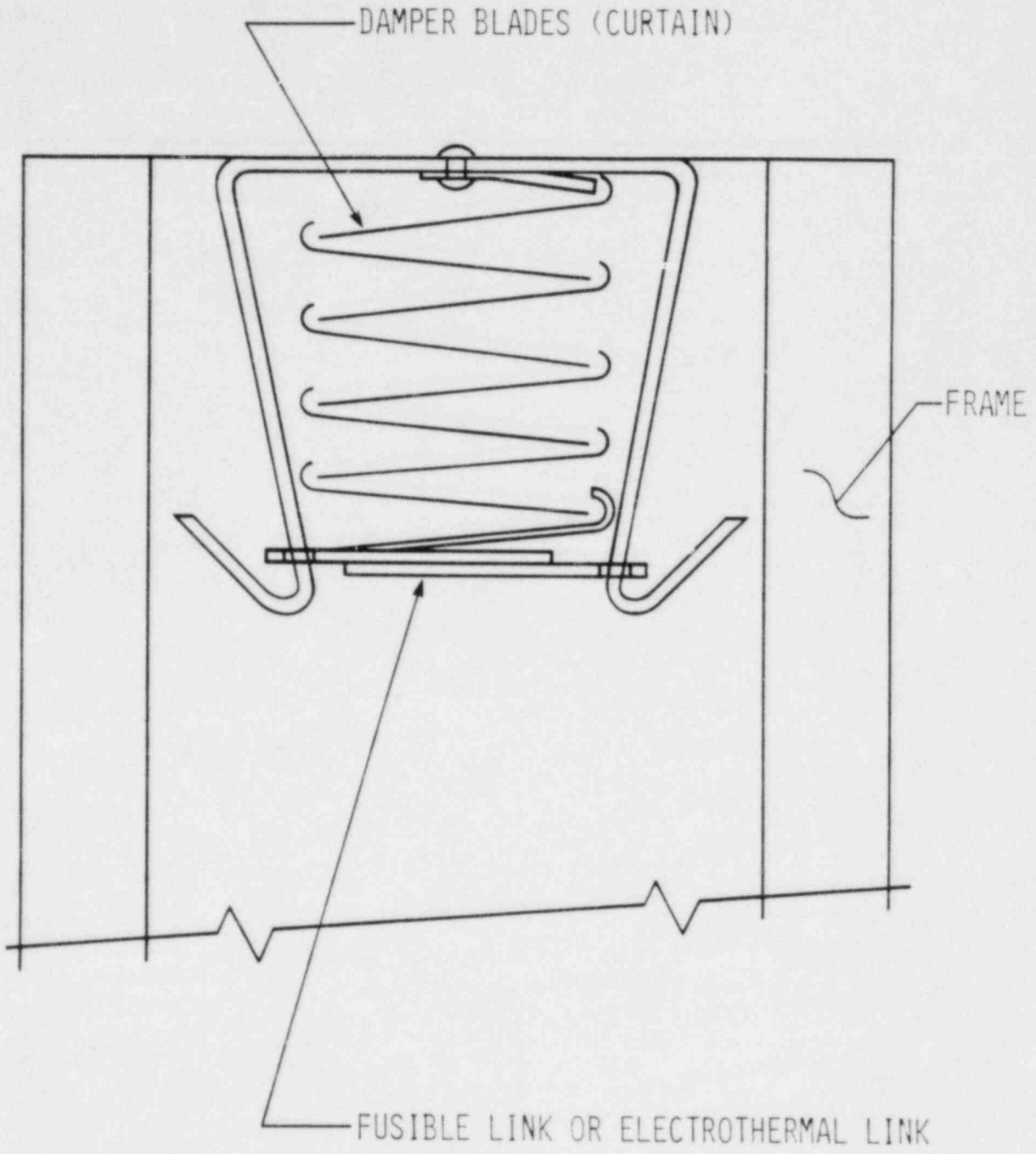

FIGURE B FIRE DAMPER LINKAGE WITH STRAP ONLY (NO "S"-HOOKS)

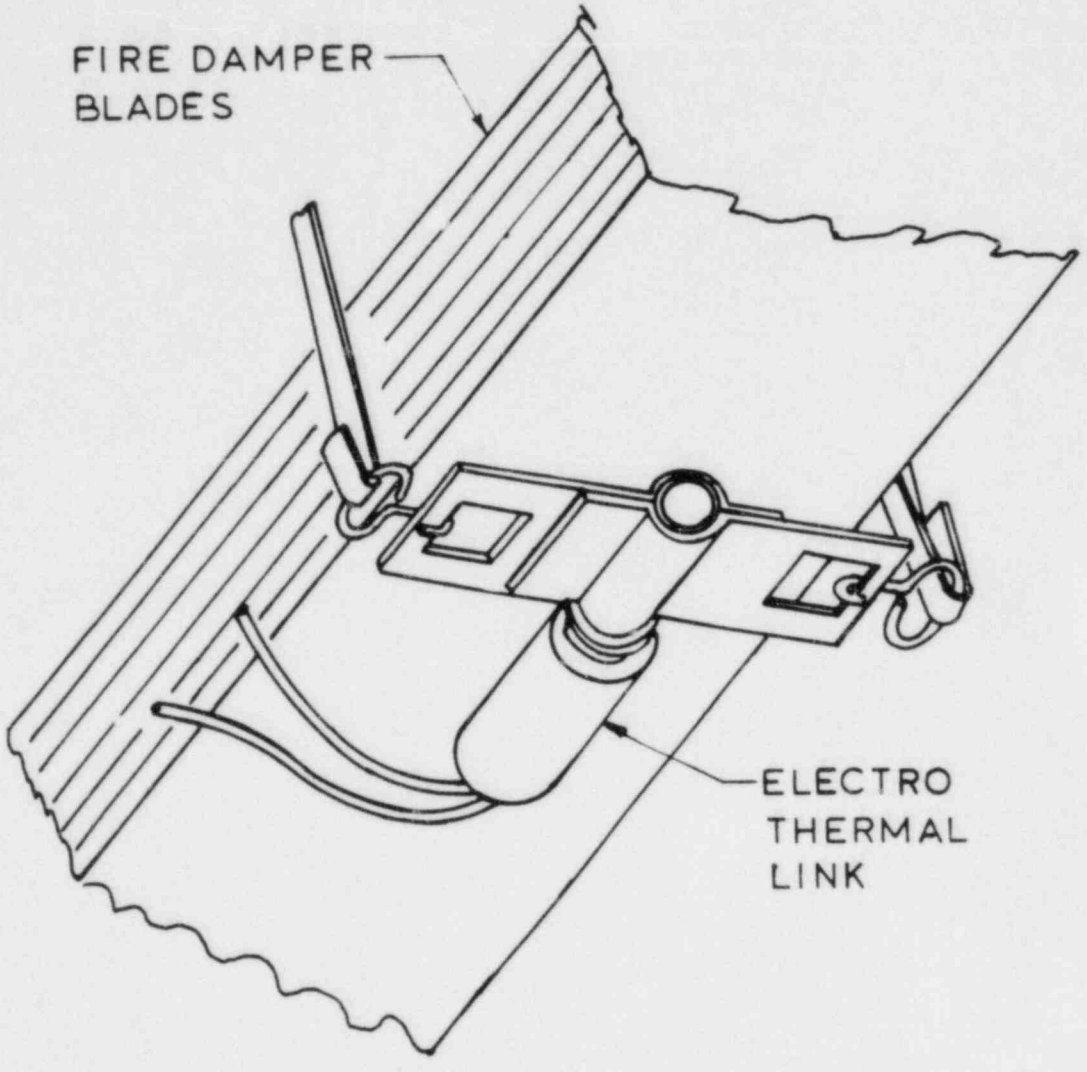

FIGURE C ELECTRO-THERMAL LINK/FIRE DAMPER

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VR76Y	M-1351-2 G.9-9.9 843 RB				
1VR77Y	M-1351-2 G.6-9.9 843 RB				
2VR76Y	M-1352-2 G.9-15.9 843 RB				
2VR77Y	M-1352-2 G.6-15.9 843 RB				
1VX28YA	M-1375-1 (M-1381-1) J.3-9.2 815 AB	YES			
1VX28YB	M-1375-1 (M-1381-1) J.2-9.1 815 AB	YES			
1VX29YA	M-1375-1 J.1-10.5 815 AB	YES			
1VX29YB	M-1375-1 J.2-10.5 815 AB	YES			
2VX28YA	M-1376-1 (M-1381-2) J.6-20.7 815 AB	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VX28YB	M-1376-1 (M-1381-2) J.6-20.7 815 AB	YES			
2VX29YA	M-1376-1 J.2-19.4 815 AB	YES			
2VX29YB	M-1376-1 J.2-19.4 815 AB	YES			
OVE43Y	M-1377-1 J.2-10.6 786 AB				
OVE44Y	M-1377-1 J.2-10.6 786 AB				
OVL63Y	M-1377-2 (M-1380-1) N.8-15.6 786 AB	YES			
OVA42Y	M-1377-3 L.1-21 786 AB	YES			
OVA43Y	M-1377-3 L.1-21 786 AB				
OVA46Y	M-1377-3 L.1-21 786 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVE45Y	M-1377-3 J.2-19.4 786 AB				
OVE46Y	M-1377-3 J.1-19.4 786 AB				
1VV06Y	M-1379-1 N.9-15 831 AB				
1VV10Y	M-1379-1 N-15.7 831 AB				
OVA44Y	M-1380-1 (M-1377-1) J-10.3 786 AB	YES			
OVA45Y	M-1380-1 (M-1377-1) J-10.3 786 AB				
OVA47Y	M-1380-1 (M-1377-1) J-10.3 786 AB				
OVC60Y	M-1380-1 J-15 786 AB				
OVC61Y	M-1380-1 J-15 786 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVE31Y	M-1380-1 J-15 786 AB				
OVE32Y	M-1380-1 J-15 786 AB				
1VX15Y	M-1381-1 J-9 842 AB	YES			
1VX16Y	M-1381-1 J-9 731 AB				
2VX15Y	M-1381-2 J.5-20.4 842 AB	YES			
2VX16Y	M-1381-2 (M-1388-2) J.5-20.8 710 AB				
1VT53Y	M-1387-1 R-14.6 749 AB				
1VT60YA	M-1387-1 N.9-11.1 749 AB				
1VT60YB	M-1387-1 N.9-12.2 749 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VV07Y	M-1387-1 R-13.6 749 AB				
1VX01Y	M-1387-1 J.1-10.6 749 AB				
1VX05Y	M-1387-1 (M-1381-1) J.5-9.2 749 AB				
1VX36Y	M-138[illegible] L.9-[illegible] 749 AB				
1VX37Y	M-138[illegible] L.9-[illegible] 749 AB				
1VX38Y	M-[illegible]87-1 L.7-12.5 749 AB				
1VX39Y	M-1387-1 L.7-12.3 749 AB				
1VX41Y	M-1387-1 L.6-12.6 749 AB				
1VX43Y	M-1387-1 L.5-12.7 749 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VX56Y	M-1387-1 N-11.5 749 AB				
2VT53Y	M-1387-2 R-15.6 749 AB				
2VT60YA	M-1387-2 N.9-17.8 749 AB				
2VT60YB	M-1387-2 N.9-18.9 749 AB				
2VV09Y	M-1387-2 R-16.4 749 AB				
2VX01Y	M-1387-2 J.1-19.4 749 AB				
2VX05Y	M-1387-2 (M-1381-2) J.6-20.7 749 AB				
2VX36Y	M-1387-2 L.7-17.4 749 AB				
2VX37Y	M-1387-2 L.9-17.9 749 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VX38Y	M-1387-2 L.7-19.2 749 AB				
2VX39Y	M-1387-2 L.9-19.5 749 AB				
2VX56Y	M-1387-2 N-18.5 749 AB				
OVL28Y	M-1388-1 N-14.8 710 AB				
OVL29Y	M-1388-1 N-14.8 710 AB				
OVL30Y	M-1388-1 N.8-14.8 710 AB				
OVL31Y	M-1388-1 N.8-14.8 710 AB				
OVL36Y	M-1388-1 L.8-14.1 710 AB				
OVL38Y	M-1388-1 L.8-14.1 710 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVL41Y	M-1388-1 L.8-14.6 710 AB				
OVL42Y	M-1388-1 L.8-14.6 710 AB				
OVL43Y	M-1388-1 L.5-14.5 710 AB				
OVL44Y	M-1388-1 L.5-14.5 710 AB				
OVL47Y	M-1388-1 L.8-14.5 710 AB				
OVL48Y	M-1388-1 N-14.8 710 AB				
OVL49Y	M-1388-1 N.8-14.8 710 AB				
OVL50Y	M-1388-1 N.5-14.8 710 AB				
OVL51Y	M-1388-1 N-14.9 710 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VX13Y	M-1388-1 J.1-10.3 710 AB				
1VX30Y	M-1388-1 J.3-10.2 710 AB				
1VX31Y	M-1388-1 J.5-9 710 AB				
1VX32Y	M-1388-1 L.3-12.8 710 AB				
1VX33Y	M-1388-1 N-12.8 710 AB				
1VX52Y	M-1388-1 N-11.3 710 AB				
OVL52Y	M-1388-2 N.5-16.0 710 AB				
OVL53Y	M-1388-2 N.5-16.0 710 AB				
OVL54Y	M-1388-2 N.5-16.1 710 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVL57Y	M-1388-2 N.1-15.7 710 AB				
OVL58Y	M-1388-2 N.1-15.7 710 AB	YES			
OVL59Y	M-1388-2 N.1-15.7 710 AB	YES			
OVL62Y	M-1388-2 N.2-15.9 710 AB				
2VV07Y	M-1388-2 N.5-16.2 710 AB				
2VX13Y	M-1388-2 J-19.3 710 AB				
2VX30Y	M-1388-2 J.3-20 710 AB				
2VX31Y	M-1388-2 J.6-20.8 710 AB				
2VX32Y	M-1388-2 N-17.6 710 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VX33Y	M-1388-2 N.4-17.3 710 AB				
2VX40Y	M-1388-2 N-17.5 710 AB				
2VX52Y	M-1388-2 N-18.3 710 AB				
OVL69Y	M-1388-6 N.1-15.7 710 AB				
OVL70Y	M-1388-6 N-15.1 710 AB				
OVL71YA	M-1388-6 N-15.2 710 AB				
OVL71YB	M-1388-6 N-15.3 710 AB				
OVL74Y	M-1388-6 N.7-15.2 735 AB				
OVL75Y	M-1388-6 N.7-15.2 735 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVL76Y	M-1388-6 N.7-15.3 735 AB				
OVL77Y	M-1388-6 N.7-15.3 735 AB	YES			
OVL78Y	M-1388-6 N.7-15.3 735 AB	YES			
OVL79Y	M-1388-6 N.7-15.3 735 AB				
OVL80Y	M-1388-6 N.7-15.3 818 AB				
OVL81Y	M-1388-6 N.7-15.3 818 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVL82Y	M-1388-6 N.7-15.3 818 AB				
OVL83Y	M-1388-6 N.7-15.3 818 AB	YES			
OVL84Y	M-1388-6 N.7-15.3 818 AB	YES			
OVE33Y	M-1389-1 J.2-10.6 731 AB				
OVE34Y	M-1389-1 J.2-10.6 731 AB				
OVS160Y	M-1389-1 N.4-13.7 731 AB				
OVS161Y	M-1389-1 N.9-14.3 731 AB				
OVS163Y	M-1389-1 N.7-14.3 731 AB				
1VT55Y	M-1389-1 13.9-N.9 731 AB	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VX06Y	M-1389-1 J.1-10.6 731 AB				
1VX10Y	M-1389-1 (M-1388-1) J.7-9.1 731 AB				
1VX12Y	M-1389-1 (M-1388-1) J.6-9.2 731 AB				
1VX34Y	M-1389-1 L.9-12.6 731 AB				
1VX35Y	M-1389-1 L.5-13 731 AB		INACCESSIBLE		
1VX54Y	M-1389-1 N-10.3 731 AB				
OVE39Y	M-1389-2 J.1-19.3 731 AB	YES			
OVE40Y	M-1389-2 J.3-19.3 731 AB	YES			
2VT55Y	M-1389-2 R-16.1 731 AB	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VV08Y	M-1389-2 R-16.2 731 AB				
2VX06YA	M-1389-2 J.1-19.6 731 AB				
2VX06YB	M-1389-2 J.2-19.6 731 AB				
2VX10Y	M-1389-2 (M-1381-2) J.7-20.9 731 AB				
2VX12Y	M-1389-2 (M-1381-2) J.6-20.9 731 AB				
2VX34Y	M-1389-2 L.4-17.6 731 AB				
2VX35Y	M-1389-2 L.9-17.4 731 AB				
2VX54Y	M-1389-2 N-19.8 731 AB				
OVA21Y	M-1390-1 J.8-10 768 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVA22Y	M-1390-1 L-9 768 AB				
OVA23Y	M-1390-1 J.5-10 768 AB				
OVA24Y	M-1390-1 J.9-10.4 768 AB				
OVA25Y	M-1390-1 J.5-10 768 AB				
OVA26Y	M-1390-1 L.8-10.5 768 AB				
OVA27Y	M-1390-1 N.2-11.5 768 AB				
OVA28Y	M-1390-1 I.9-10.2 768 AB				
OVA29Y	M-1390-1 L.5-10.5 768 AB				
OVA30Y	M-1390-1 N.2-11.5 768 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVA36Y	M-1390-1 J.9-10.3 768 AB				
OVA37Y	M-1390-1 L.2-10.5 768 AB				
OVE22Y	M-1390-1 N.7-14.6 768 AB				
OVE25Y	M-1390-1 N.5-14.6 768 AB				
OVE47Y	M-1390-1 N.5-15 768 AB				
OVE48Y	M-1390-1 N.5-15 768 AB				
OVE60Y	M-1390-1 N.5-14.5 768 AB				
OVV31Y	M-1390-1 N.5-12 768 AB				
OVV32Y	M-1390-1 N.7-12 768 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVV40Y	M-1390-1 N.8-14.5 768 AB				
1VV08Y	M-1390-1 N.2-11.8 768 AB				
OVA34Y	M-1391-1 N.6-17.5 768 AB				
OVA35Y	M-1391-1 R-17.9 768 AB				
OVA38Y	M-1391-1 N.8-16.1 768 AB				
OVA39Y	M-1391-1 N.9-17.4 768 AB				
OVA40Y	M-1391-1 N.6-17.9 768 AB				
OVA41Y	M-1391-1 N.6-17.9 768 AB				
OVC37Y	M-1391-1 N.8-16 768 AB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVC38Y	M-1391-1 N.6-16.0 768 AB				
OVC39Y	M-1391-1 R-16.1 768 AB				
OVC46Y	M-1391-1 N.7-16.2 768 AB				
OVC47Y	M-139I-1 N.7-16.4 768 AB				
OVC48Y	M-1391-1 N.7-15.8 768 AB				
OVC49Y	M-1391-1 N.7-15.8 768 AB				
2VV10Y	M-1391-1 N.4-18 768 AB				
OVD06Y	M-1395 G.2-6.2 736 DG				
OVD40Y	M-1395 F.6-7.6 736 DG	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VD14Y	M-1395 G.8-6.2 736 DG				
1VD40Y	M-1395 L.3-7.2 736 DG	YES			
1VD42Y	M-1395 (M-1397) L.6-6.1 736 DG				
1VD43Y	M-1395 J.3-7.4 736 DG	YES			
2VD40Y	M-1396 L.7-22.5 736 DG	YES			
2VD41Y	M-1396 L.3-23.7 736 DG				
2VD42Y	M-1396 L.6-23.5 736 DG				
2VD43Y	M-1396 H.8-22.2 736 DG	YES			
2VD44Y	M-1396 J.7-23.7 736 DG				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VD45Y	M-1396 H.8-23.8 736 DG				
2VY12Y	M-1396 L.4-23.7 736 DG				
2VY13Y	M-1396 L.5-23.7 736 DG				
OVD04Y	M-1397 G.2-7.3 710 DG				
OVD05Y	M-1397 F.8-7.5 710 DG				
OVD07Y	M-1397 G.2-6.6 710 DG				
OVD41Y	M-1397 G.1-6.2 710 DG				
1VD04Y	M-1397 N.2-7.1 710 DG				
1VD05Y	M-1397 L.1-7.7 710 DG				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VD06Y	M-1397 L.9-6.2 710 DG				
1VD07Y	M-1397 N.1-6.2 710 DG				
1VD12Y	M-1397 G.7-7.3 710 DG				
1VD13Y	M-1397 J.3-7.5 710 DG				
1VD15Y	M-1397 G.7-6.6 710 DG				
1VD41Y	M-1397 (M-1395) L.4-6.2 710 DG				
1VD44Y	M-1397 G.9-6.2 710 DG				
2VD04Y	M-1398 N.6-23.2 710 DG				
2VD05Y	M-1398 L.1-22.4 710 DG				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VD06Y	M-1398 N.23.9 710 DG				
2VD07Y	M-1398 N.1-23.9 710 DG				
2VD12Y	M-1398 H.3-23.2 710 DG				
2VD13Y	M-1398 J.9-22.4 710 DG				
2VD14Y	M-1398 H.9-23.8 710 DG				
2VD15Y	M-1398 H.5-23.9 710 DG				
2VY08Y	M-1398 N-23.9 710 DG				
2VD09Y	M-1398 N-23.9 710 DG				
1VD23Y	M-1399 L.3-8.9 674 DG				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VD24Y	M-1399 L.2-8.9 674 DG				
1VD25Y	M-1399 L.2-8.9 674 DG				
2VD23Y	M-1400 L.4-21 674 DG				
2VD24Y	M-1400 L.1-21 674 DG				
2VD25Y	M-1400 L.3-21 674 DG				
1VT61Y	M-1411-1 R-14.8 768 TB	YES			
1VT62Y	M-1411-1 R-14.2 768 TB	YES			
2VT61Y	M-1412 R-15.2 768 TB	YES			
2VT62Y	M-1412 R-16.2 768 TB	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVW06Y	M-1413 Wc.5-14.4 754 TB	YES			
OVW32Y	M-1413 Y-12.9 754 TB	YES			
1VT22Y	M-1414 X.3-11.2 731 TB				
1VT29Y	M-1414 X.5-11 731 TB				
1VT35Y	M-1414 V.8-13.5 731 TB				
1VT36Y	M-1414 R.2-13.5 731 TB				
1VT76Y	M-1414 V.4-4.8 731 TB				
2VT22Y	M-1415-1 X.7-18.8 731 TB				
2VT29Y	M-1415-1 X.8-19 731 TB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VT35Y	M-1415-1 V.7-16.5 731 TB				
2VT36Y	M-1415-1 R.1-16.5 731 TB				
2VT76Y	M-1415-1 V.3-25.1 731 TB				
1VT44Y	M-1416 V.5-11 710 TB				
1VT72Y	M-1416 V.4-11 710 TB				
1VT73Y	M-1416 V.4-11 710 TB				
2VT44Y	M-1417 V.6-19 710 TB				
2VT72Y	M-1417 V.5-19 710 TB				
2VT73Y	M-1417 V.2-19 710 TB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPEPATIVE	INITIALS/ DATE	INITIALS/DATE
1VT46Y	M-1418-1 V.1-11 687 TB	YES			
1VT69Y	M-1418-1 U-13.2 687 TB				
2VT46Y	M-1418-2 V.1-19 687 TB	YES			
2VT69Y	M-1418-2 U.2-16.7 687 TB				
1VT50Y	M-1420 R-14 768 TB	YES			
1VT51Y	M-1420 R-14 768 TB	YES			
1VT52Y	M-1420 R-14 768 TB	YES			
1VT80Y	M-1421 W.5-15.2 786 TB				
1VT81Y	M-1421 W-14.6 786 TB				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
2VT50Y	M-1422 R-16 768 TB	YES			
2VT51Y	M-1422 R-16 768 TB	YES			
2VT52Y	M-1422 R-16 768 TB	YES			
OVW89Y	M-1429 Y-13.7 777 RW	YES			
OVW90YA	M-1429 Y-13.5 777 RW	YES			
OVW90YB	M-1429 Y-13.3 777 RW	YES			
OVW90YC	M-1430 Y-13.5 777 RW	YES			
OVW90YD	M-1430 Y-13.3 777 RW	YES			
OVW90YE	M-1430 Y-13.5 777 RW	YES			

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
OVW90YF	M-1430 Y-13.3 777 RW	YES			
OVW42Y	M-1432-2 Y-13.1 687 TB	YES			
OVW78Y	M-1432-2 WC-14.8 687 TB	YES			
OVW11Y	M-1435 YA-14.6 710 RW	YES			
OVW30Y	M-1435 YA.5-14.6 710 RW				
OVW47Y	M-1435 YA.2-14.6 710 RW				
OVW50Y	M-1435 YA-12.2 710 RW				
1VD20Y	M-1437 L.3-9 687				
1VD21Y	M-1437 J.2-9.8 687				

ATTACHMENT A - FIRE DAMPER SURVEILLANCE LOG (Cont'd)

DAMPER NUMBER	DAMPER LOCATION	MUST FAN BE OFF?	DAMPER INSPECTION		CORRECTIVE ACTION TAKEN
			SATISFACTORY/ INOPERATIVE	INITIALS/ DATE	INITIALS/DATE
1VT41Y	M-1438 N-16.5 687				
1VT42YA	M-1438 L.8-15 687				
1VT42YB	M-1438 L.6-15 687				
2VD20Y	M-1438 J.6-20.4 687				
2VD21Y	M-1438 J.5-20.7 687				
OVH11Y	M-1441 2.8-C.5 714 LSH				
OVH15Y	M-1441 6.7-C.5 714 LSH				