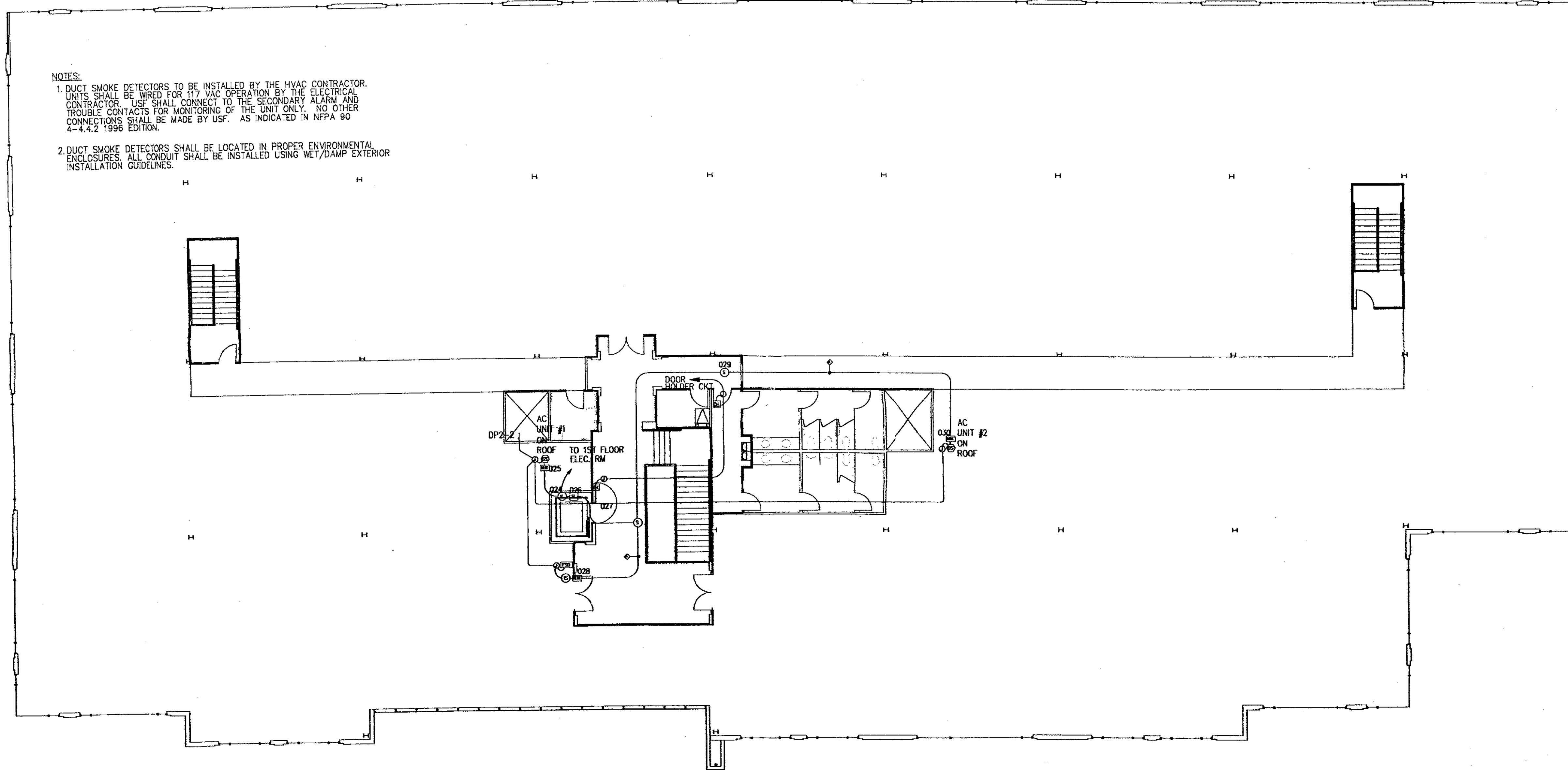


NOTES:  
 1. DUCT SMOKE DETECTORS TO BE INSTALLED BY THE HVAC CONTRACTOR. UNITS SHALL BE WIRED FOR 115 VAC OPERATION BY THE ELECTRICAL CONTRACTOR. USE SHALL CONNECT TO THE SECONDARY ALARM AND TROUBLE CONTACTS FOR MONITORING OF THE UNIT ONLY. NO OTHER CONNECTIONS SHALL BE MADE BY USF. AS INDICATED IN NFPA 90 4-4.4.2 1996 EDITION.  
 2. DUCT SMOKE DETECTORS SHALL BE LOCATED IN PROPER ENVIRONMENTAL ENCLOSURES. ALL CONDUIT SHALL BE INSTALLED USING WET/DAMP EXTERIOR INSTALLATION GUIDELINES.



**LEGEND**

- MS MANUAL PULL STATION
- HT HEAT DETECTOR
- SD SMOKE DETECTOR
- ISD INTEGRAL SMOKE DETECTOR IN FIRE/SMOKE DAMPER
- DS DUCT SMOKE DETECTOR
- WS WATERFLOW SWITCH
- OB OUTSIDE BELL (BY OTHERS)
- HS HORN/STROBE
- OS&Y OS&Y SUPERVISORY SWITCH
- PS PIV SUPERVISORY SWITCH
- BS BUTTERFLY SUPERVISORY SWITCH
- RM RELAY MODULE
- DH DOOR HOLDER
- FACP FIRE ALARM CONTROL PANEL
- FSD FIRE/SMOKE DAMPER (BY OTHERS)
- AKP ANNUNCIATOR/KEYPAD

**WIRE SCHEDULE**

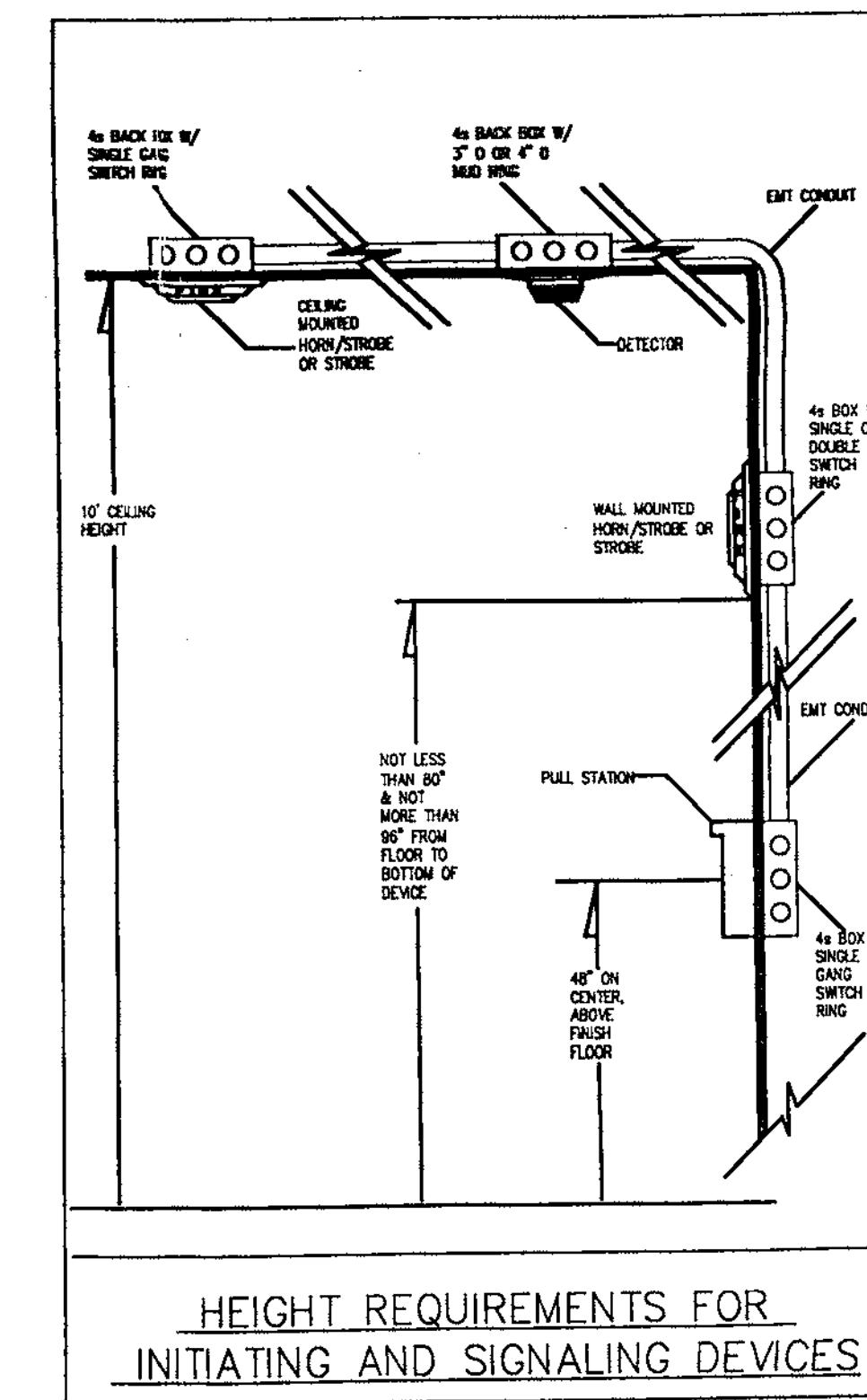
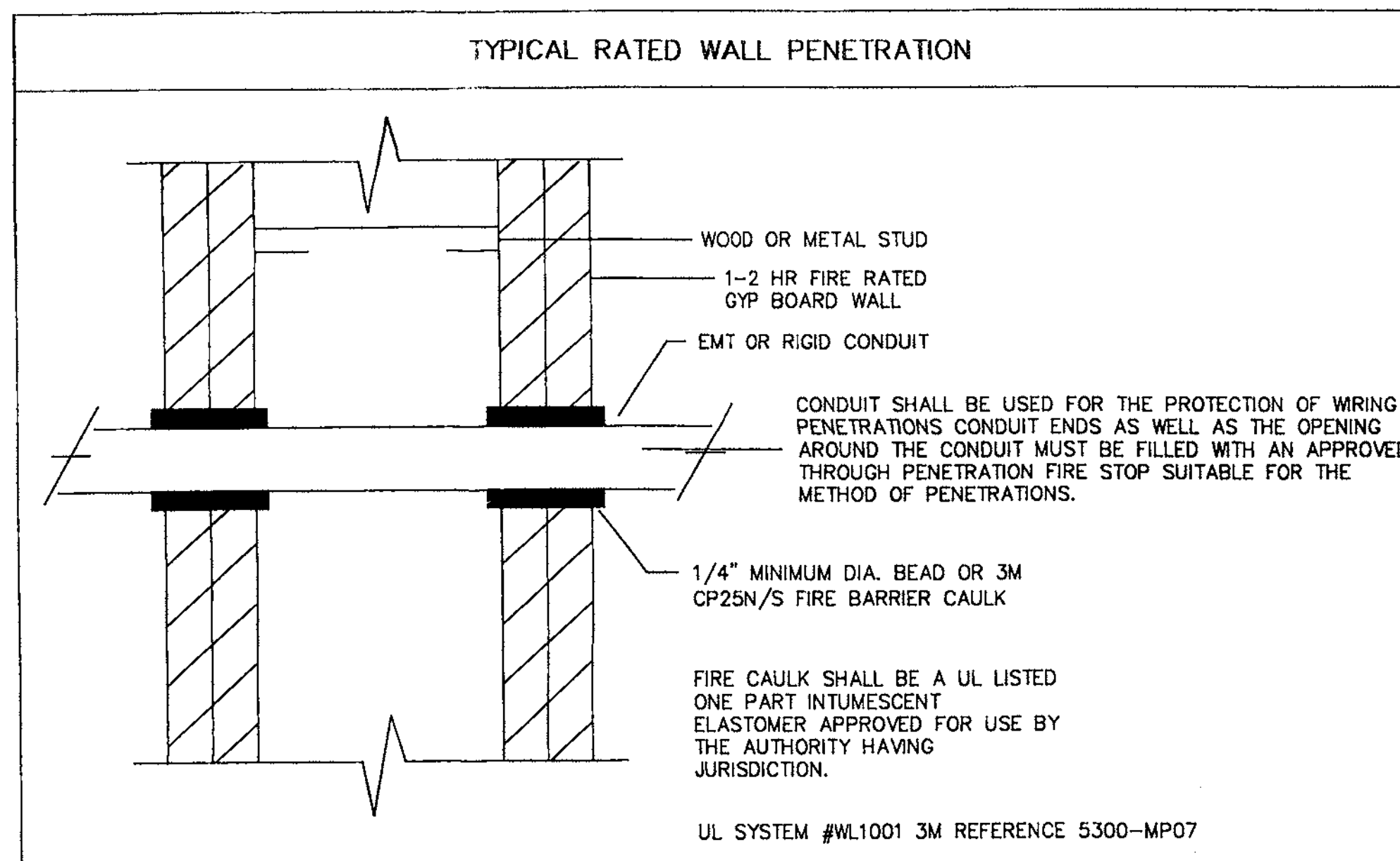
	FILL	MANUFACT.	MODEL
A	2#16 AWG. FPLR CABLE, 300V, 105°C.	ATLAS	202-16-1-2J
B	2#14 AWG. FPLR CABLE, 300V, 105°C.	ATLAS	202-14-1-2J
C	4#18 AWG. FPLR CABLE, 300V, 105°C.	ATLAS	202-18-1-4J

NOTE: UNLESS OTHERWISE NOTED ALL CONDUIT STUBS SHALL BE 3/4" EMT.

**CIRCUIT STYLES DETAIL**

SILENT KNIGHT 5820 CONTROL PANEL
SIGNALING LINE CIRCUIT (SLC) = CLASS B / STYLE 4.0
NOTIFICATION APPLIANCE CIRCUIT (NAC) = CLASS B / STYLE Y
INITIATING DEVICE CIRCUIT (IDC) = CLASS B / STYLE B

SECOND FLOOR FIRE ALARM LAYOUT



**USF**  
 UNIVERSAL SECURITY & FIRE INC.  
 30 Main Avenue, Ste. #3  
 Sacramento, CA 95838  
 Tel. #916/563-1700  
 Fax #916/563-1755  
 License #767473



The client, drawings designer and specifier warrant, respectively, that the drawings are the work of Universal Security & Fire Inc. and its employees, and that the drawings are not to be used for any other project without the express written consent of Universal Security & Fire Inc.  
 No part of these drawings may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Universal Security & Fire Inc.  
 These drawings and specifications are the property of Universal Security & Fire Inc. and shall remain the property of Universal Security & Fire Inc. until the project is completed. The drawings and specifications are not to be used for any other project without the prior written permission of Universal Security & Fire Inc.

REVISION	DATE

GOLD POINTE CORPORATE CENTER  
 BUILDING "D"  
 11931 FOUNDATION PLACE  
 RANCHO CORDOVA, CA

**SHEET TITLE**  
 SECOND FLOOR  
 FIRE ALARM LAYOUT  
 DETAILS  
**DRAWN BY:**  
**CHECKED BY:**  
**JOB NO.:**  
**FILE NO.:**  
**SCALE:**  
 3/32" = 1'  
**DATE:**  
 12/12/01  
**DRAWING NO.:**  
 4



UNIVERSAL SECURITY & FIRE INC. 30 Main Avenue, Ste. #3 Sacramento, CA 95838 Tel: #916/563-1700 Fax: #916/563-1755 License #67473



REVISION DATE FIRE MARSHAL COMMENTS 11/20/01

SACRAMENTO METRO FIRE FIRE PREVENTION APPROVAL FOR PERMIT

GOLD POINTE CORPORATE CENTER BUILDING "D" 11931 FOUNDATION PLACE RANCHO CORDOVA, CA

SHEET TITLE NOTES SEQUENCE OF OPS LIST OF MATERIALS BATTERY & VOLTAGE DROP CALCULATIONS DRAWN BY: CHECKED BY: JOB NO.: FILE NO.: SCALE: 3/32" = 1' DATE: 12/12/01 DRAWING NO. 1

GENERAL NOTES

THIS SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH NFPA 70, NFPA 72 1996, CALIFORNIA ELECTRICAL CODE 1996, CALIFORNIA BUILDING CODE 1996, U.F.C. 1994, SECTION 1007, STANDARD USED FOR AUDIBLE DEVICES IS U.L. 464 A FIRE CONTROL PANEL/TRANSPONDER IS INHERENTLY POWER LIMITED AND SIGNALING AND INITIATING CIRCUITS DO NOT REQUIRE OVER CURRENT PROTECTION...

INSTALLATION

THE ELECTRICAL CONTRACTOR WILL PROVIDE A 120VAC 15 AMP DEDICATED CIRCUIT TO THE LOCATION OF THE FIRE CONTROL PANEL/TRANSPONDER. THE CIRCUIT AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED CIRCUITS WITH DISCONNECTING MEANS THAT HAVE RED MARKINGS AND ARE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL...

SPECIAL NOTES

WATER FLOW ALARM SERVICE

WATER FLOW AND CONTROL VALVE TAMPERING

ELEVATOR RECALL

"SYSTEM-TYPE SMOKE DETECTORS LOCATED IN ELEVATOR LOBBIES, ELEVATOR HOISTWAYS, AND ELEVATOR MACHINE ROOMS USED TO INITIATE FIRE FIGHTERS' SERVICE RECALL SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM."

ELEVATOR SHUTDOWN

WHERE HEAT DETECTORS ARE USED TO SHUT DOWN ELEVATOR POWER PRIOR TO SPRINKLER OPERATION, THE DETECTOR SHALL HAVE BOTH A LOWER RESPONSE TIME RATING AND A HIGHER SENSITIVITY [OF TEN CHARACTERIZED BY A LOWER RESPONSE TIME RATING (RT)] AS COMPARED TO THE SPRINKLER...

STROBE AND HORN/STROBE MOUNTING

ALL INDICATING DEVICES (STROBES AND STROBE/HORNS) SHALL BE MOUNTED 80 INCHES FROM THE FINISH FLOOR OR 6 INCHES BELOW THE CEILING, WHICHEVER IS LOWER.

MANUAL PULL STATION

ALL MANUAL PULL STATIONS SHALL BE MOUNTED 48" FROM FINISHED FLOOR TO CENTER OF BOX. THEY SHALL BE LOCATED IN THE NORMAL PATH OF EXIT FROM THE AREA WITH A MANUAL PULL STATION AT EACH EXIT ON THE FLOOR...

SMOKE DETECTOR PROTECTION OF CONTROL EQUIPMENT

AUTOMATIC SMOKE DETECTION ABOVE ALL CONTROL EQUIPMENT, WHERE THE INTENT IS TO PROTECT AGAINST A SPECIFIC HAZARD, THE DETECTOR SHALL BE PERMITTED TO BE INSTALLED CLOSER TO THE HAZARD IN A POSITION WHERE THE DETECTOR WILL READILY INTERCEPT THE SMOKE...

SMOKE/HEAT DETECTION FOR ELEVATOR SHAFT AND ELEVATOR EQUIPMENT ROOM

SMOKE AND HEAT DETECTION FOR THE ELEVATOR SHAFT AND EQUIPMENT ROOM ARE BEING INSTALLED PER THE REQUIREMENTS OF ASME A17.1 1996 EDITION.

DUCT SMOKE DETECTOR

AIR-MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2,000 CUBIC FEET PER MINUTE (940 L/s) TO ENCLOSED SPACES WITHIN BUILDINGS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF...

SIGNAGE

MINIMUM 8" X 10" SIGN ON DOORS THAT CONTAIN THE FACP TO INDICATE LOCATION OF THE PANEL. ALL FIRE ALARM "J" BOXES AND COVERS ARE TO BE PAINTED RED AND LABELED "F.A."

PLAN NOTES

WITH THE PRINTS THAT WERE PROVIDED THIS PLAN ATTEMPTS TO BE AS ACCURATE AS POSSIBLE. HOWEVER THERE MAY BE DISCREPANCIES THAT WERE NOT FOUND AT THE TIME OF DESIGN OR PLAN CHECK...

LEGEND & LIST OF MATERIALS

Table with columns: SYMB, QTY, DESCRIPTION, MANUFACT, MODEL, CSF#

FIRE ALARM SYSTEM BATTERY CALCULATIONS

Table with columns: ITEM, QTY, STAND-BY DRAW(Ma), ALARM DRAW(Ma), STAND-BY TOTAL(Ma), ALARM TOTAL (Ma)

STAND-BY CONDITIONS 24 Hr's @ .174 A 4.18 AH

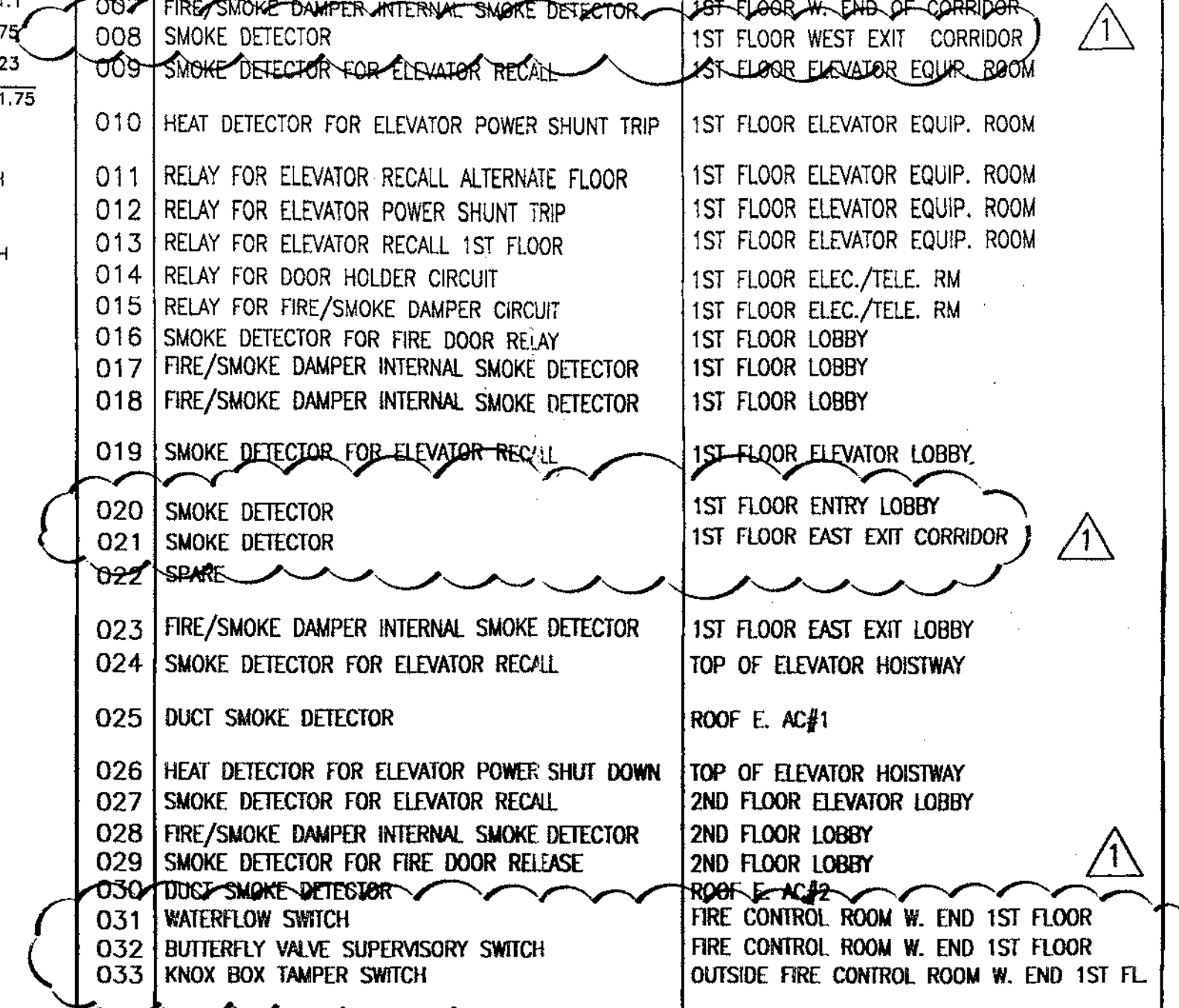
ALARM CONDITIONS 5 Min. (Ring) = 0.083 Hr's @ 0.422 A = 0.04 AH

VOLTAGE DROP CALCULATIONS

All Indicating Circuits use the following Formula I X D X RL / CM / V X 100 = % DROP

ANNUNCIATED POINTS AND TRANSMITTING ZONES

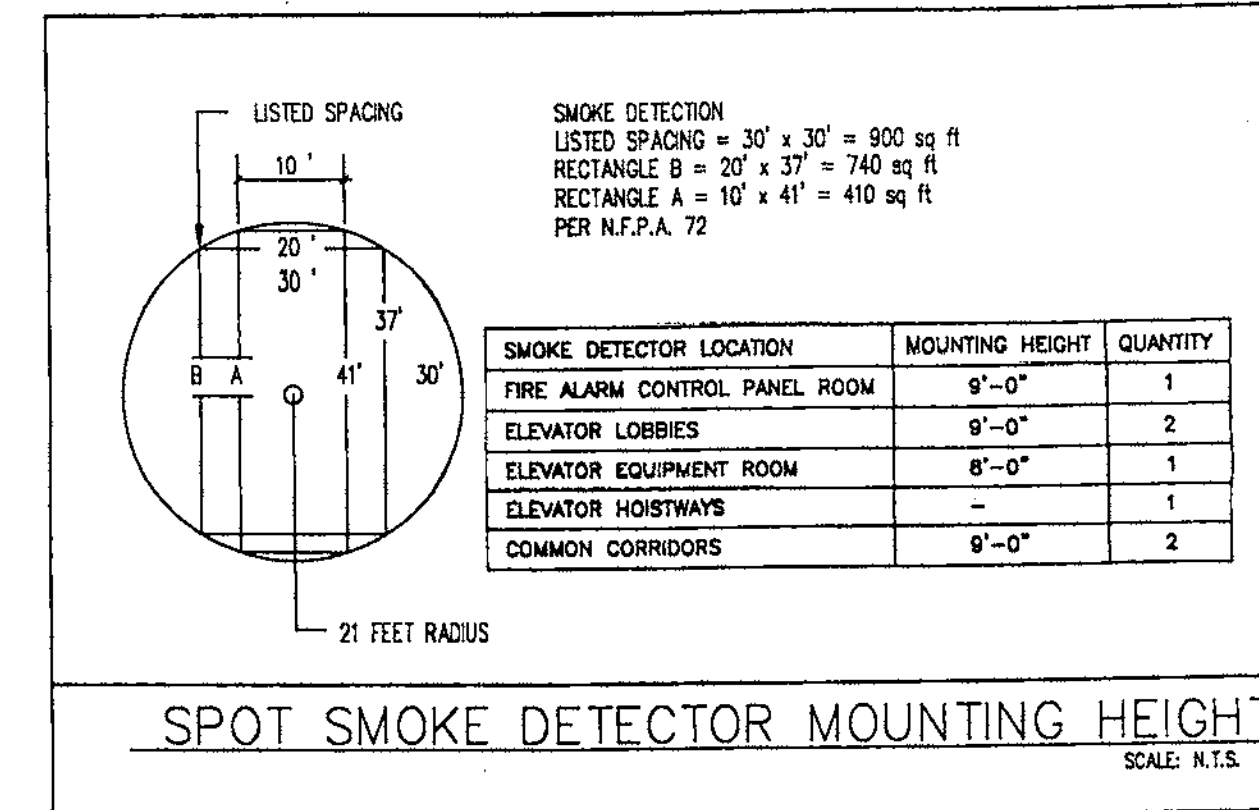
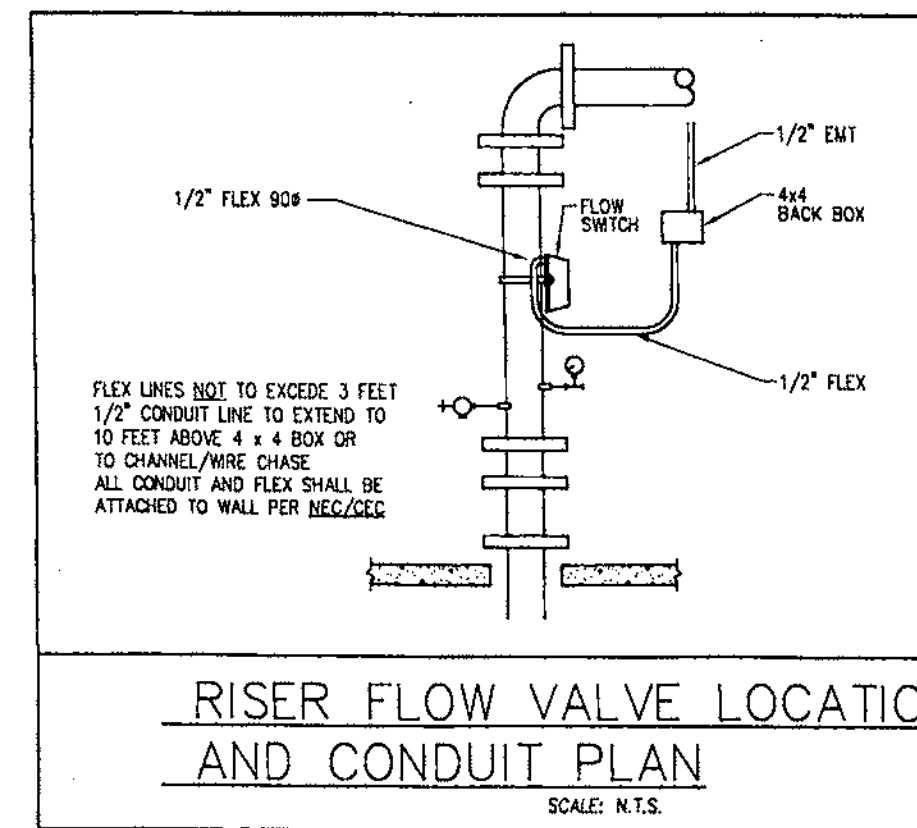
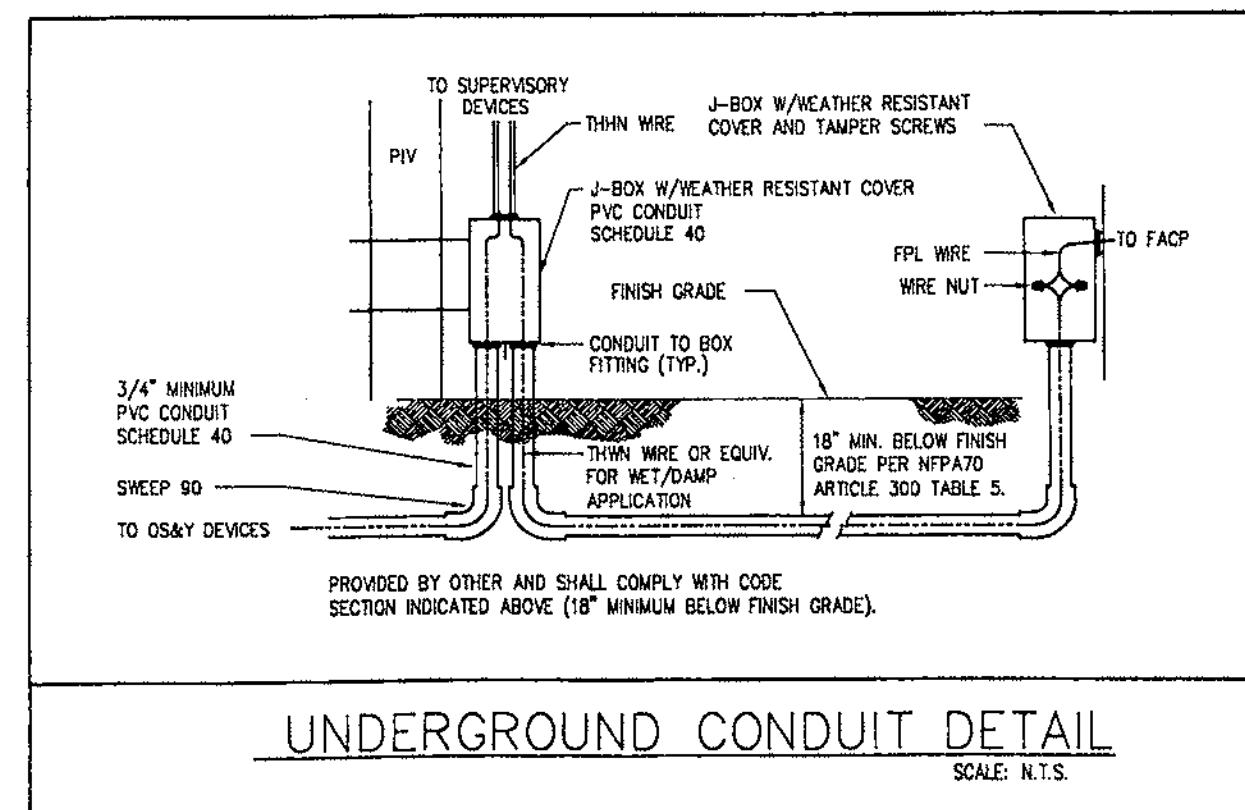
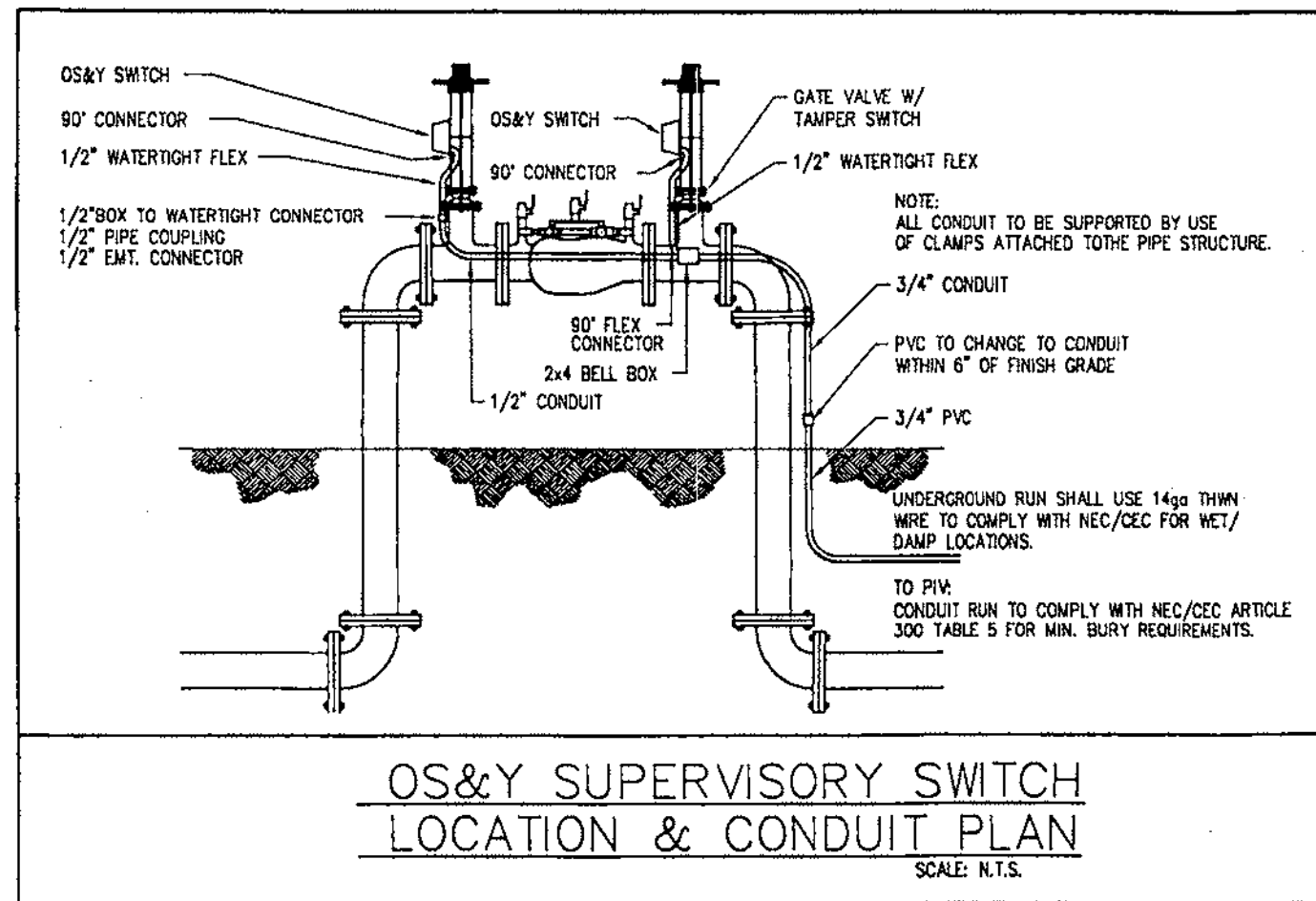
Table with columns: ZN, DEVICE, LOCATION



SEQUENCE OF OPERATION

DUCT SMOKE DETECTORS MONITORED PER NFPA 90A 1996 4-4.2 ELEVATOR RECALL AND POWER SHUT DOWN PER ASME A17.1 1996 ED.

Table with columns: ACTIVATES INDICATING CIRC. OR ALARM, DISPLAYS ALARM AT ALARM ANNUNCIATOR, etc.

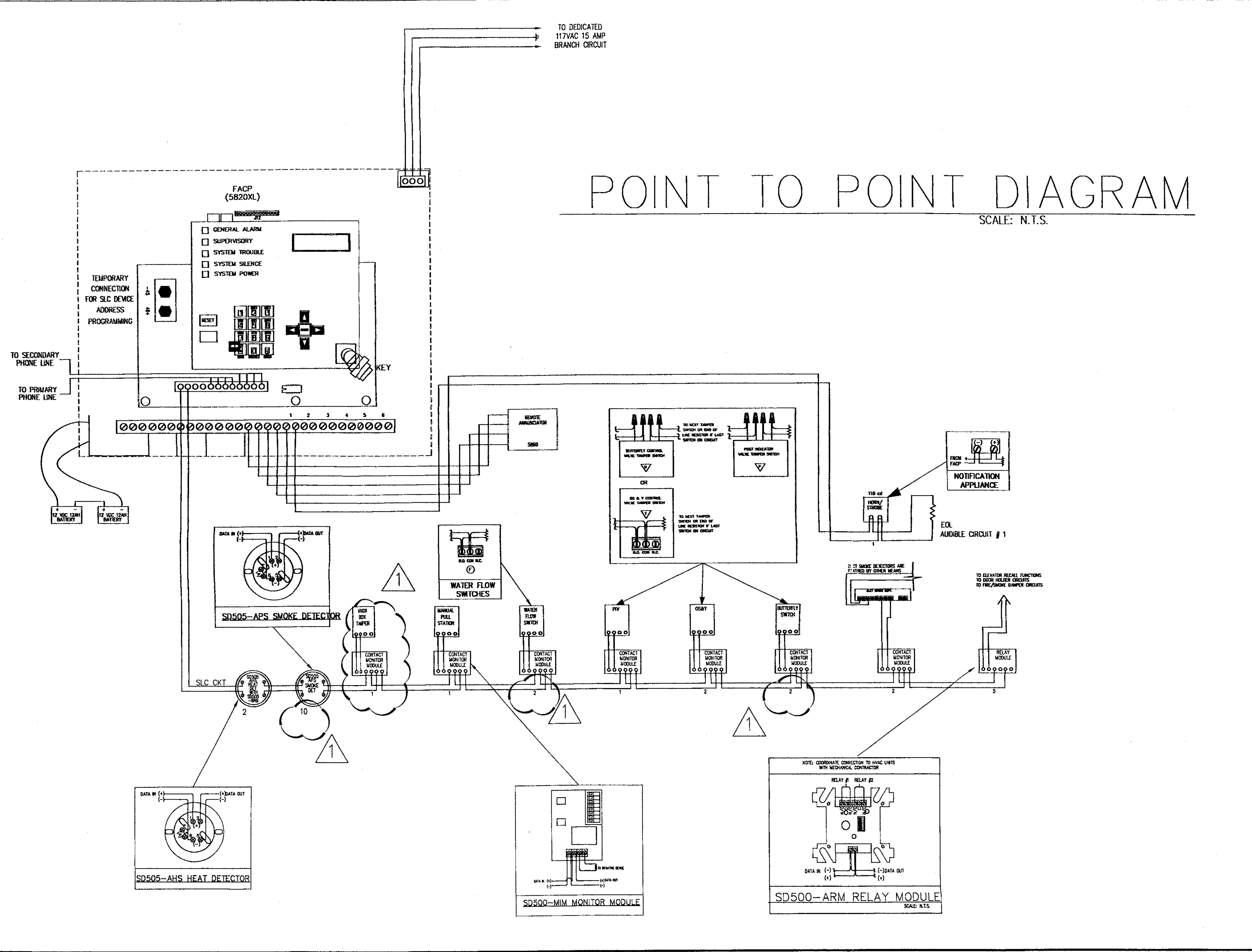
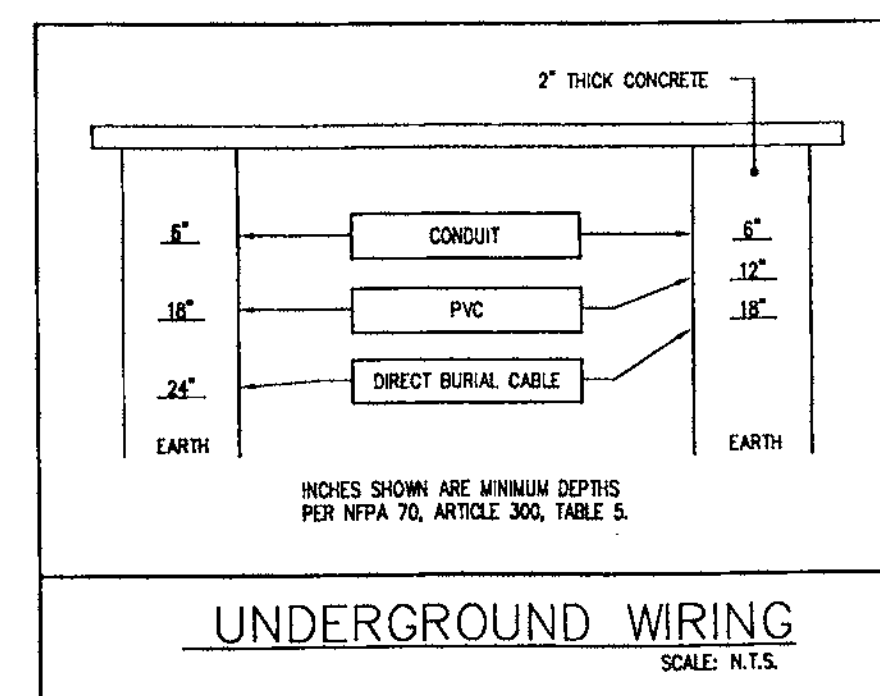
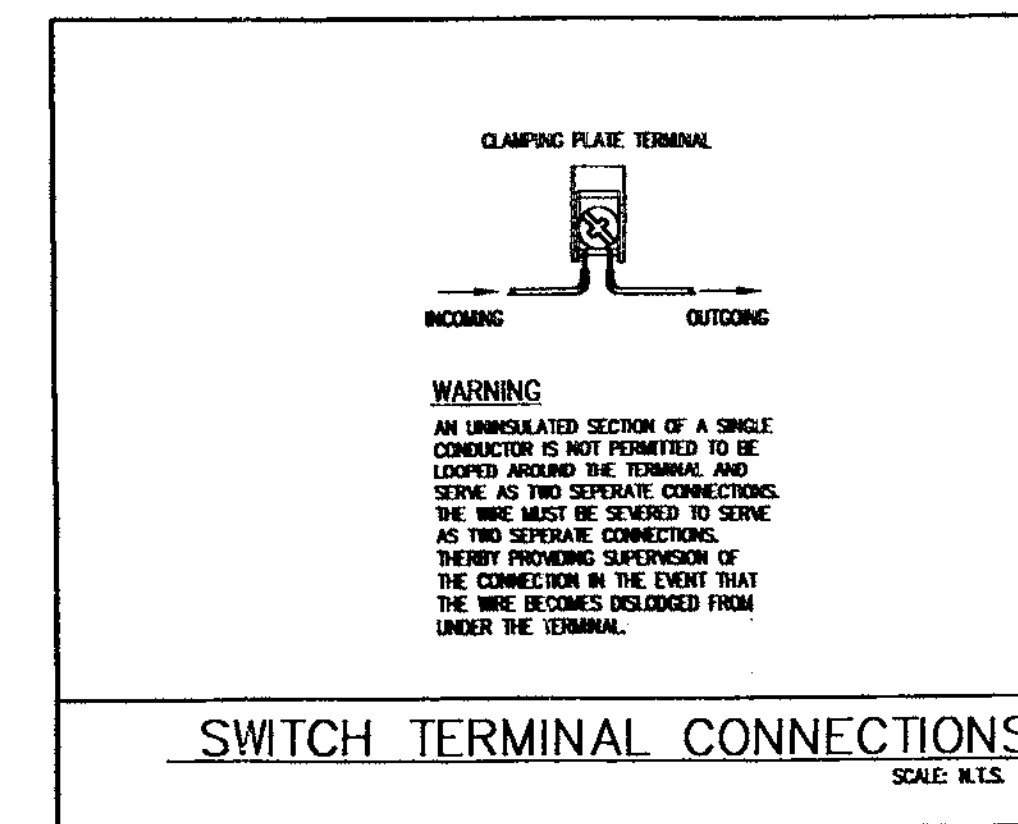
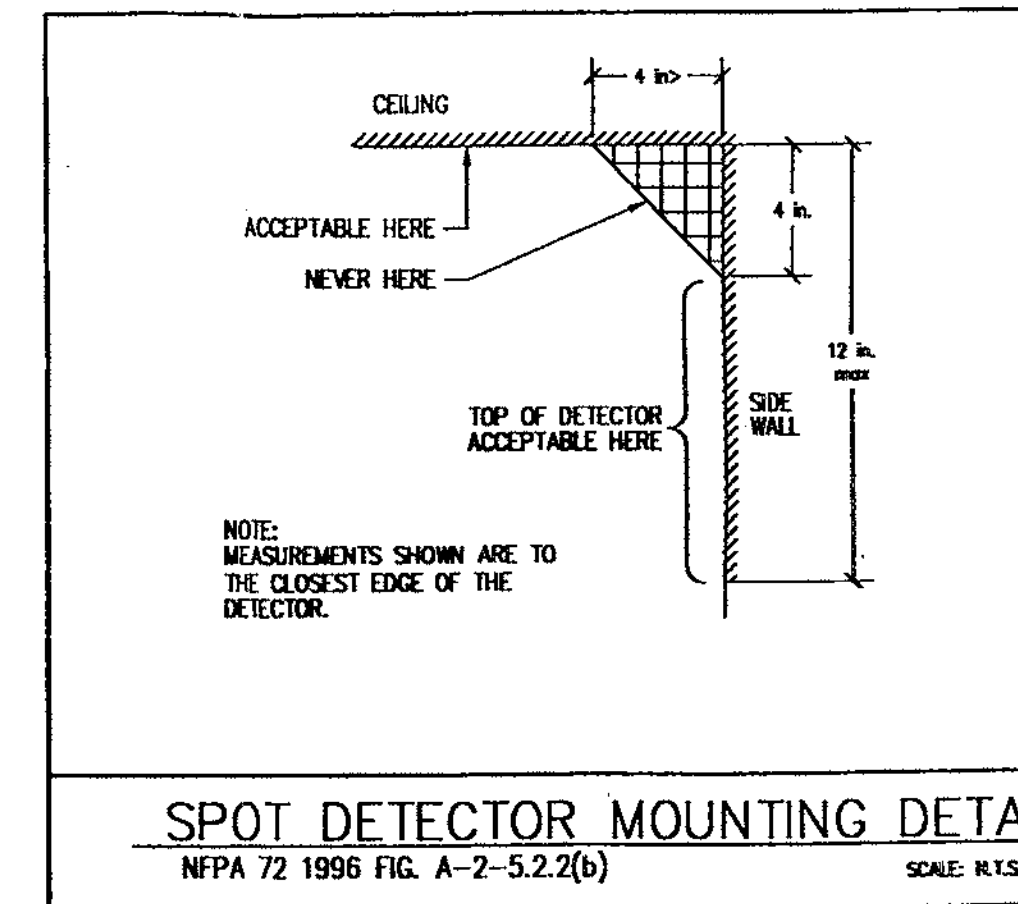


**UNIVERSAL SECURITY & FIRE INC.**  
 30 Main Avenue, Ste. #3  
 Sacramento, CA 95838  
 Tel: #916/563-1700  
 Fax: #916/563-1755  
 License #767473



This license, drawings, designs and specifications of Universal Security & Fire Inc. are the property of Universal Security & Fire Inc. and shall not be used in whole or in part for any project without the written authorization of Universal Security & Fire Inc.  
 In case of modification by any building or construction authority, the contractor shall be responsible for obtaining the necessary permits and approvals from the appropriate authority. Universal Security & Fire Inc. does not warrant or guarantee the accuracy of the information provided in this drawing. Universal Security & Fire Inc. is not responsible for any errors or omissions in this drawing.

REVISION	DATE
1	11/20/01
FIRE MARSHAL COMMENTS	



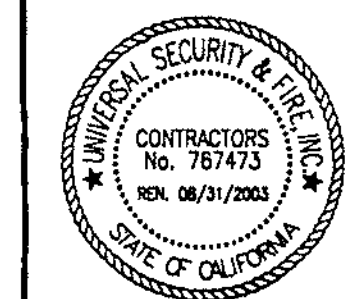
GOLD POINTE CORPORATE CENTER  
 BUILDING "D"  
 11931 FOUNDATION PLACE  
 RANCHO CORDOVA, CA

SHEET TITLE	
POINT TO POINT DIAGRAM INSTALLATION DETAILS	
DRAWN BY:	
CHECKED BY:	
JOB NO.:	
FILE NO.:	
SCALE: 3/32" = 1'	
DATE: 12/12/01	
DRAWING NO. 2	



**UNIVERSAL SECURITY & FIRE INC.**

30 Main Avenue, Ste. #3  
Sacramento, CA 95833  
Tel. #916/563-1700  
Fax #916/563-1755  
License #767473

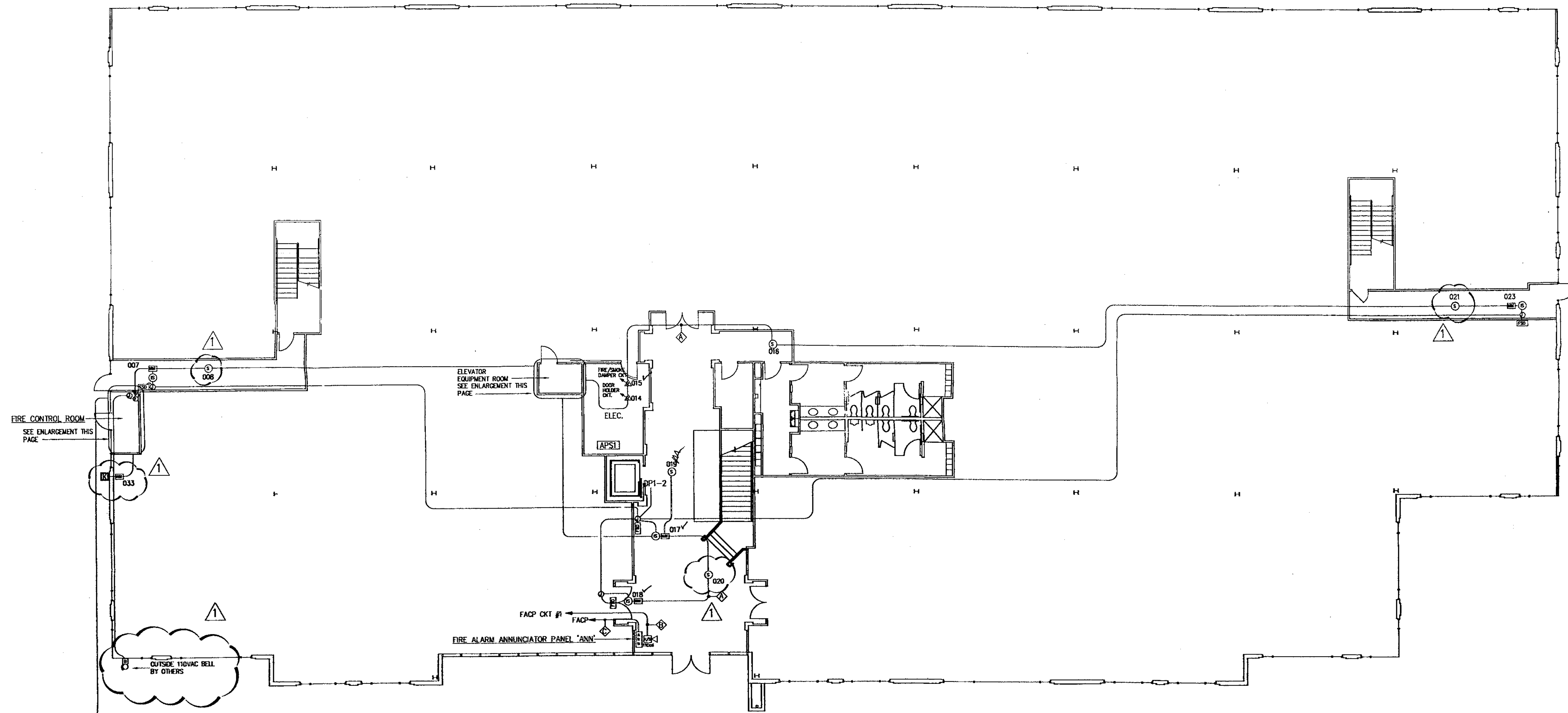


The client, drawings designer and consultant are responsible for the accuracy of the information provided. Universal Security & Fire Inc. is not responsible for the accuracy of the information provided by the client, drawings designer or consultant. The client, drawings designer and consultant are responsible for the accuracy of the information provided. Universal Security & Fire Inc. is not responsible for the accuracy of the information provided by the client, drawings designer or consultant.

REVISION DATE  
1 FIRE MARSHAL COMMENTS 11/20/01

GOLD POINTE CORPORATE CENTER  
BUILDING "D"  
11931 FOUNDATION PLACE  
RANCHO CORDOVA, CA

SHEET TITLE  
FIRST FLOOR  
FIRE ALARM LAYOUT  
& ZONE CHART  
  
DRAWN BY:  
  
CHECKED BY:  
  
JOB NO.:  
  
FILE NO.:  
  
SCALE:  
3/32" = 1'  
  
DATE:  
12/12/01  
  
DRAWING NO.  
3

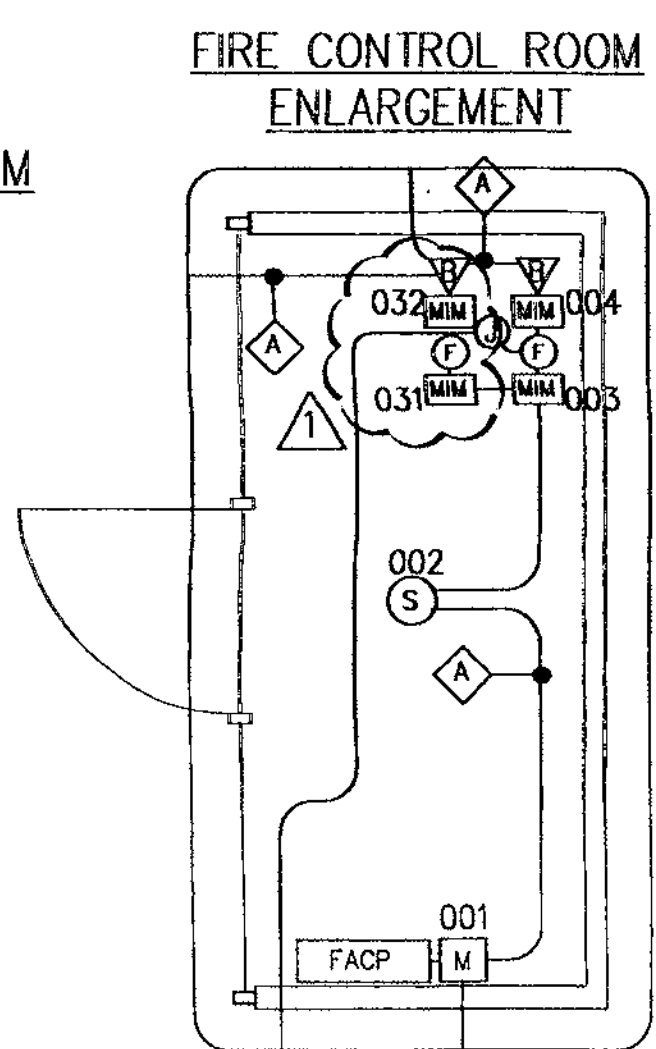
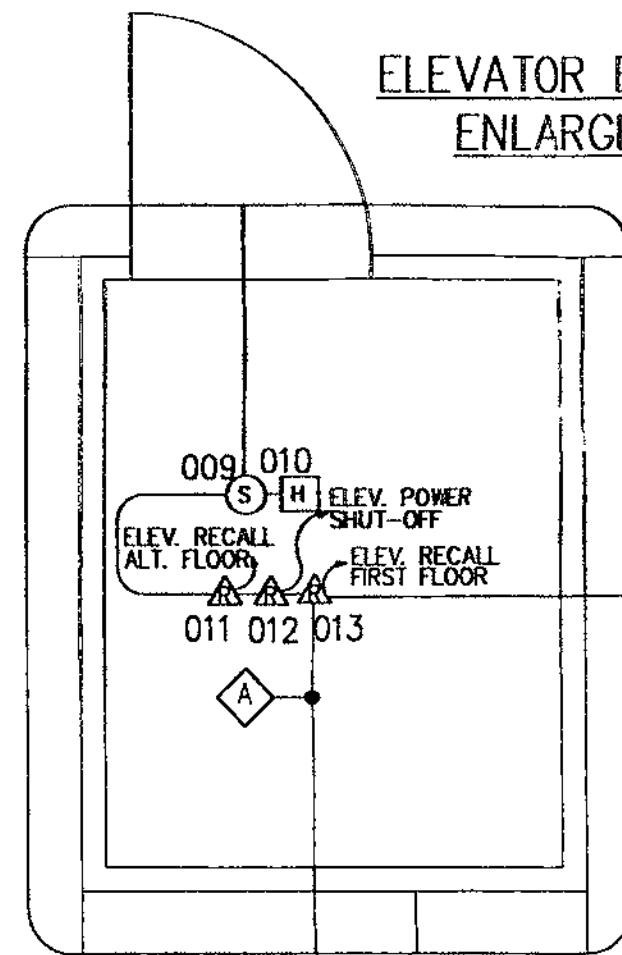


2#14 THIN IN 3/4" PVC (BY OTHERS) ALL SECTIONS TO COMPLY WITH I.E.C./C.E.C. ARTICLE 300 TABLE 3 AND USE WIRE LISTED FOR NET/DAMP APPLICATIONS  
005  
006  
LOCATION OF PVC AND OS&YS TO BE FIELD VERIFIED

LEGEND			
	MANUAL PULL STATION		CEILING STROBE
	HEAT DETECTOR		CEILING HORN/STROBE
	SMOKE DETECTOR		BUTTERFLY SUPERVISORY SWITCH
	INTEGRAL SMOKE DETECTOR IN FIRE/SMOKE DAMPER		RELAY MODULE
	DUCT SMOKE DETECTOR		DOOR HOLDER
	WATERFLOW SWITCH		KNOX BOX TAMPER
	OUTSIDE BELL (BY OTHERS)		FIRE ALARM CONTROL PANEL
	HORN/STROBE		FIRE/SMOKE DAMPER (BY OTHERS)
	OS&Y SUPERVISORY SWITCH		ANNUNCIATOR/KEYPAD
	PIV SUPERVISORY SWITCH		ADDRESSABLE INPUT MODULE

WIRE SCHEDULE			
	FILL	MANUFACT.	MODEL
A	2#16 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-16-1-2J
B	2#14 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-14-1-2J
C	4#16 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-16-1-4J

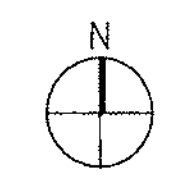
NOTE: UNLESS OTHERWISE NOTED ALL CONDUIT STUBS SHALL BE 3/4" EMT.



ANNUNCIATED POINTS AND TRANSMITTING ZONES		
ZONE	DEVICE	LOCATION
001	MANUAL PULL STATION	FIRE CONTROL ROOM W. END 1ST FLOOR
002	SMOKE DETECTOR ABOVE FACP	FIRE CONTROL ROOM W. END 1ST FLOOR
003	WATERFLOW SWITCH	FIRE CONTROL ROOM W. END 1ST FLOOR
004	BUTTERFLY VALVE SUPERVISORY SWITCH	FIRE CONTROL ROOM W. END 1ST FLOOR
005	PIV SUPERVISORY SWITCH	OUTSIDE, W. END OF BUILDING
006	OS & Y SUPERVISORY SWITCHES	OUTSIDE, W. END OF BUILDING
007	FIRE/SMOKE DAMPER INTERNAL SMOKE DETECTOR	1ST FLOOR W. END OF CORRIDOR
008	SMOKE DETECTOR	1ST FLOOR WEST EXIT CORRIDOR
009	SMOKE DETECTOR FOR ELEVATOR RECALL	1ST FLOOR ELEVATOR EQUIP. ROOM
010	HEAT DETECTOR FOR ELEVATOR POWER SHUNT TRIP	1ST FLOOR ELEVATOR EQUIP. ROOM
011	RELAY FOR ELEVATOR RECALL ALTERNATE FLOOR	1ST FLOOR ELEVATOR EQUIP. ROOM
012	RELAY FOR ELEVATOR POWER SHUNT TRIP	1ST FLOOR ELEVATOR EQUIP. ROOM
013	RELAY FOR ELEVATOR RECALL 1ST FLOOR	1ST FLOOR ELEVATOR EQUIP. ROOM
014	RELAY FOR DOOR HOLDER CIRCUIT	1ST FLOOR ELEC./TELE. RM
015	RELAY FOR FIRE/SMOKE DAMPER CIRCUIT	1ST FLOOR ELEC./TELE. RM
016	SMOKE DETECTOR FOR FIRE DOOR RELAY	1ST FLOOR LOBBY
017	FIRE/SMOKE DAMPER INTERNAL SMOKE DETECTOR	1ST FLOOR LOBBY
018	FIRE/SMOKE DAMPER INTERNAL SMOKE DETECTOR	1ST FLOOR LOBBY
019	SMOKE DETECTOR FOR ELEVATOR RECALL	1ST FLOOR ELEVATOR LOBBY
020	SMOKE DETECTOR	1ST FLOOR ENTRY LOBBY
021	SMOKE DETECTOR	1ST FLOOR EAST EXIT CORRIDOR
022	SMOKE DETECTOR	1ST FLOOR EAST EXIT LOBBY
023	FIRE/SMOKE DAMPER INTERNAL SMOKE DETECTOR	1ST FLOOR EAST EXIT LOBBY
024	SMOKE DETECTOR FOR ELEVATOR RECALL	TOP OF ELEVATOR HOISTWAY
025	DUCT SMOKE DETECTOR	ROOF E. AC#1
026	HEAT DETECTOR FOR ELEVATOR POWER SHUT DOWN	TOP OF ELEVATOR HOISTWAY
027	SMOKE DETECTOR FOR ELEVATOR RECALL	2ND FLOOR ELEVATOR LOBBY
028	FIRE/SMOKE DAMPER INTERNAL SMOKE DETECTOR	2ND FLOOR LOBBY
029	SMOKE DETECTOR FOR FIRE DOOR RELEASE	2ND FLOOR LOBBY
030	DUCT SMOKE DETECTOR	ROOF E. AC#2
031	WATERFLOW SWITCH	FIRE CONTROL ROOM W. END 1ST FLOOR
032	BUTTERFLY VALVE SUPERVISORY SWITCH	FIRE CONTROL ROOM W. END 1ST FLOOR
033	TAMPER SWITCH	OUTSIDE FIRE CONTROL ROOM W. END 1ST FLOOR

NOTES:  
1. ALL WIRING LOCATED WITHIN THE ELEVATOR EQUIPMENT ROOM SHALL BE WITHIN CONDUIT TO ASSURE THE INTEGRITY OF THE ROOM. THIS CONDUIT SHALL BE SEALED USING APPROVED LISTED MATERIAL AND METHOD WHERE IT PENETRATES THE FIRE WALL ASSEMBLY.

FIRST FLOOR FIRE ALARM LAYOUT



GENERAL NOTES

THIS SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH NFPA 10, NFPA 12 1996, CALIFORNIA ELECTRICAL CODE 1989, CALIFORNIA BUILDING CODE 1989, UFGI 1994, SECTION 1005 STANDARD USED FOR AUXILIARY DEVICES IS ULL 464...

THE INSTALLATION COMPANY IS: UNIVERSAL SECURITY FIRE INC., 30 MAIN AVE, SACRAMENTO, CA 95838...

THE ULL LISTED CENTRAL STATION IS: RTC ALARM MONITORING SERVICES, ROSEVILLE, CA ULL 53379

INSTALLATION

THE ELECTRICAL CONTRACTOR WILL PROVIDE A 120VAC 15 AMP DEDICATED CIRCUIT TO THE LOCATION OF THE FIRE CONTROL PANEL TRANSDUCER...

SPECIAL NOTES

WATER FLOW ALARM SERVICE

THE WATER FLOW DEVICE SHOULD BE FIELD ADJUSTED SO THAT AN ALARM WILL BE INITIATED IN NO MORE THAN 30 SECONDS AFTER A SUSTAINED FLOW OF AT LEAST 1.0 GPM (4.2 L/MIN)...

WATER FLOW AND CONTROL VALVE TAMPERING

A SIGNAL INITIATING DEVICE AND ITS CIRCUITS SHALL BE DESIGNED AND INSTALLED SO THEY CANNOT BE READILY TAMPERED WITH OR REMOVED WITHOUT CAUSING A SIGNAL TO BE PRODUCED...

CONTROL VALVE POSITION SUPERVISION

THE OFF NORMAL SIGNAL SHALL BE OBTAINED DURING THE FIRST TWO REVOLUTIONS OF ITS NORMAL POSITION...

ELEVATOR RECALL

SYSTEM-TYPE SMOKE DETECTORS LOCATED IN ELEVATOR LOBBIES, ELEVATOR HOISTWAYS, AND ELEVATOR MACHINE ROOMS USED TO INITIATE FIRE FIGHTERS' SERVICE RECALL SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM...

ELEVATOR SHUTDOWN

WHERE HEAT DETECTORS ARE USED TO SHUT DOWN ELEVATOR POWER PRIOR TO SPRINKLER OPERATION, THE DETECTOR SHALL HAVE BOTH A LOWER TEMPERATURE RATING AND A HIGHER SENSITIVITY...

STROBE AND HORN/SSTROBE MOUNTING

ALL INDICATING DEVICES (STROBES AND STROBE/HORNS) SHALL BE MOUNTED 80 INCHES FROM THE FINISH FLOOR OR 6 INCHES BELOW THE CEILING...

MANUAL FULL STATION

ALL MANUAL FULL STATIONS SHALL BE MOUNTED 48" FROM FINISHED FLOOR TO CENTER OF BOX. THEY SHALL BE LOCATED IN THE NORMAL PATH OF EXIT FROM THE AREA WITH A MANUAL FULL STATION AT EACH EXIT ON THE FLOOR...

SMOKE DETECTOR PROTECTION OF CONTROL EQUIPMENT

AUTOMATIC SMOKE DETECTION ABOVE ALL CONTROL EQUIPMENT WHERE THE INTENT IS TO PROTECT AGAINST A SPECIFIC HAZARD, THE DETECTOR SHALL BE PERMITTED TO BE INSTALLED CLOSER TO A POSITION WHERE THE DETECTOR WILL READILY INTERCEPT THE SMOKE...

SMOKE/HEAT DETECTION FOR ELEVATOR SHAFT AND ELEVATOR EQUIPMENT ROOM

SMOKE AND HEAT DETECTION FOR THE ELEVATOR SHAFT AND EQUIPMENT ROOM ARE BEING INSTALLED PER THE REQUIREMENTS OF ASHRAE 117J 1996 EDITION.

DUCT SMOKE DETECTOR

AIR-MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2,000 CUBIC FEET PER MINUTE (940 L/S) TO ENCLOSED SPACES WITHIN BUILDINGS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF...

SIGNAGE

MINIMUM 8" X 10" SIGN ON DOORS THAT CONTAIN THE FACP TO INDICATE LOCATION OF THE PANEL. ALL FIRE ALARM "I" BOXES AND COVERS ARE TO BE PAINTED RED AND LABELED "F.A."

PLAN NOTES

WITH THE PRINTS THAT WERE PROVIDED THIS PLAN ATTEMPTS TO BE AS ACCURATE AS POSSIBLE. HOWEVER THERE MAY BE DISCREPANCIES THAT WERE NOT FOUND AT THE TIME OF DESIGN OR PLAN CHECK...

LEGEND & LIST OF MATERIALS

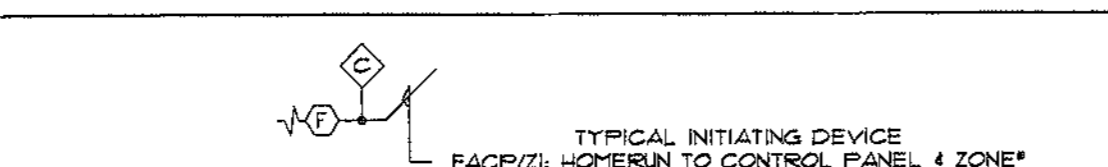


Table with columns: SYM, QTY, DESCRIPTION, MANUFACT, MODEL, C89M, and C89M\*. Lists items like Fire Alarm Control Panel, Power Supply, Sync Modules, Remote Annunciator, etc.

FACP

FIRE ALARM SYSTEM BATTERY CALCULATIONS

Table with columns: ITEM, QTY, STAND-BY ALARM, ALARM, STAND-BY ALARM, TOTAL (MA), TOTAL (MS). Lists items like FACP, Annunciator, Input Module, etc.

STAND-BY CONDITIONS: 24 Hrs @ .174 A = 4.18 AH. ALARM CONDITIONS: 5 Min (Ring) @ .0283 Hrs @ 0.422 A = 0.04 AH.

VOLTAGE DROP CALCULATIONS

All Indicating Circuits use the following Formula: 1 X D X R L / CM / V X 100 = % DROP. Includes formulas for I, D, R, CM, and V.

Table with columns: CIR MILLS, SYSTEM VOLTAGE, 410, 14ga, 6530, 12ga, 24.

AP5 1 (1ST FLOOR) FIRE ALARM SYSTEM CALCULATIONS

Table with columns: ITEM, QTY, STAND-BY ALARM, ALARM, STAND-BY ALARM, TOTAL (MA), TOTAL (MS). Lists items like Power Supply, Ceiling Mt. Strobe, Ceiling Mt. Strobe, etc.

STAND-BY CONDITIONS: 24 Hrs @ .040 A = 0.96 AH. ALARM CONDITIONS: 5 Min (Ring) @ .0283 Hrs @ 3.10 A = 0.32 AH.

VOLTAGE DROP CALCULATIONS

All Indicating Circuits use the following Formula: 1 X D X R L / CM / V X 100 = % DROP. Includes formulas for I, D, R, CM, and V.

Table with columns: CIR MILLS, SYSTEM VOLTAGE, 410, 14ga, 6530, 12ga, 24.

AP5 2 (2ND FLOOR) FIRE ALARM SYSTEM CALCULATIONS

Table with columns: ITEM, QTY, STAND-BY ALARM, ALARM, STAND-BY ALARM, TOTAL (MA), TOTAL (MS). Lists items like Power Supply, Ceiling Mt. Strobe, Ceiling Mt. Strobe, etc.

STAND-BY CONDITIONS: 24 Hrs @ .040 A = 0.96 AH. ALARM CONDITIONS: 5 Min (Ring) @ .0283 Hrs @ 2.45 A = 0.20 AH.

VOLTAGE DROP CALCULATIONS

All Indicating Circuits use the following Formula: 1 X D X R L / CM / V X 100 = % DROP. Includes formulas for I, D, R, CM, and V.

Table with columns: CIR MILLS, SYSTEM VOLTAGE, 410, 14ga, 6530, 12ga, 24.

SEQUENCE OF OPERATION

DUCT SMOKE DETECTORS MONITORED PER NFPA 90A 1996 4-4.4.2. ELEVATOR RECALL AND POWER SHUT DOWN PER ASHRAE 117J 1996 ED. ALL RECALL FUNCTIONS BY OTHERS...

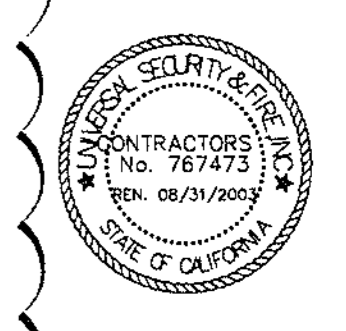
Large table with columns: AREA SMOKE DETECTOR, MANUAL FULL STATION, WATERFLOW SWITCH, SUPERVISORY SWITCH, FACP POWER SUPERVISION, DUCT SMOKE DETECTION, ELEVATOR HOISTWAY SMOKE DETECTOR, ELEVATOR HOISTWAY HEAT DETECTOR, ELEVATOR LOBBY SMOKE DETECTOR, FIRE/SMOKE DAMPER SMOKE DETECTOR, FIRE DOOR SMOKE DETECTOR. Rows indicate YES/NO for various actions.

JOB information section including contractor name (WASTE MANAGEMENT INC., T.I.), address (GOLD POINTE CORP CENTER BLDG, "D", 11931 FOUNDATION PLACE, RANCHO CORDOVA, CA), and a signature.

SACRAMENTO METRO FIRE PREVENTION APPROVAL FOR PERMIT stamp. Includes text: 'The Bureau does not assume any responsibility for designs. Permittee is responsible for errors in the plans found during Field Inspection...' and a signature/DATE.



World Headquarters: 30 Main Avenue, Ste. 30 Sacramento, CA 95838. Tel: 916/563-1120. Fax: 916/563-1159.



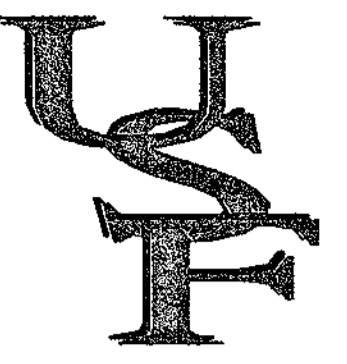
The undersigned, design, draft and specify... UNIVERSAL SECURITY & FIRE INC. 30 MAIN AVENUE, STE. 30 SACRAMENTO, CA 95838.

WASTE MANAGEMENT INC., T.I., GOLD POINTE CORP CENTER BLDG, "D", 11931 FOUNDATION PLACE, RANCHO CORDOVA, CA.

REVISIONS table with columns for revision number, description, and date. Shows revisions for permit improvements.

DATE: 26 AUG. '02

Additional revision notes and permit details.



UNIVERSAL SECURITY & FIRE INC.

World Headquarters  
20 Main Avenue, Ste. 19  
Sacramento, CA 95838  
Tel: 916/563-1100  
Fax: 916/563-1755



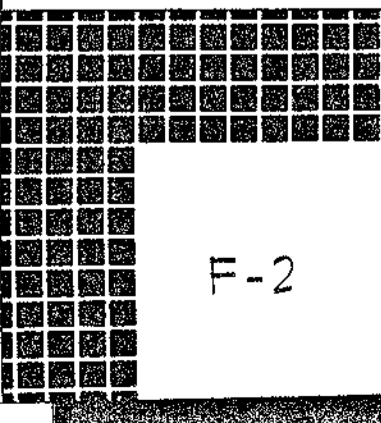
The ideas, drawings, designs and specifications...  
These plans and specifications are property of Universal Security & Fire Inc. and are not to be used or reproduced for any other project without the written consent of Universal Security & Fire Inc.

WASTE MANAGEMENT INC., T.I.  
GOLD POINTE CORP CENTER BLDG. "D"  
1931 FOUNDATION PLACE  
RANCHO CORDOYA, CA

REVISIONS

△	_____
△	_____
△	_____
△	_____

DATE: 26 AUG. '02



### LEGEND

- ⊞ MANUAL PULL STATION
- ⊞ HEAT DETECTOR
- ⊞ SMOKE DETECTOR
- ⊞ RB SMOKE DETECTOR W/ RELAY BASE
- ⊞ (E) SMOKE DETECTOR EXISTING
- ⊞ DUCT SMOKE DETECTOR
- ⊞ WATERFLOW SWITCH
- ⊞ OUTSIDE BELL (BY OTHERS)
- ⊞ 110 cd HORN/STROBE
- ⊞ 110 cd STROBE
- ⊞ 110 cd CEILING MT. HORN/STROBE
- ⊞ 110 cd CEILING MT. STROBE
- ▽ OS4Y SUPERVISORY SWITCH
- ▽ PIV SUPERVISORY SWITCH
- ▽ BUTTERFLY SUPERVISORY SWITCH
- ⊞ RELAY MODULE
- ⊞ DOOR HOLDER
- ⊞ FACP FIRE ALARM CONTROL PANEL
- ⊞ FSD FIRE/SMOKE DAMPER (BY OTHERS)
- ⊞ FSD1 FIRE/SMOKE DAMPER WITH INTEGRAL SMOKE DETECTOR
- ⊞ FSD2 FIRE/SMOKE DAMPER WITH CONNECTION SYSTEM SMOKE DETECTOR RELAY BASE

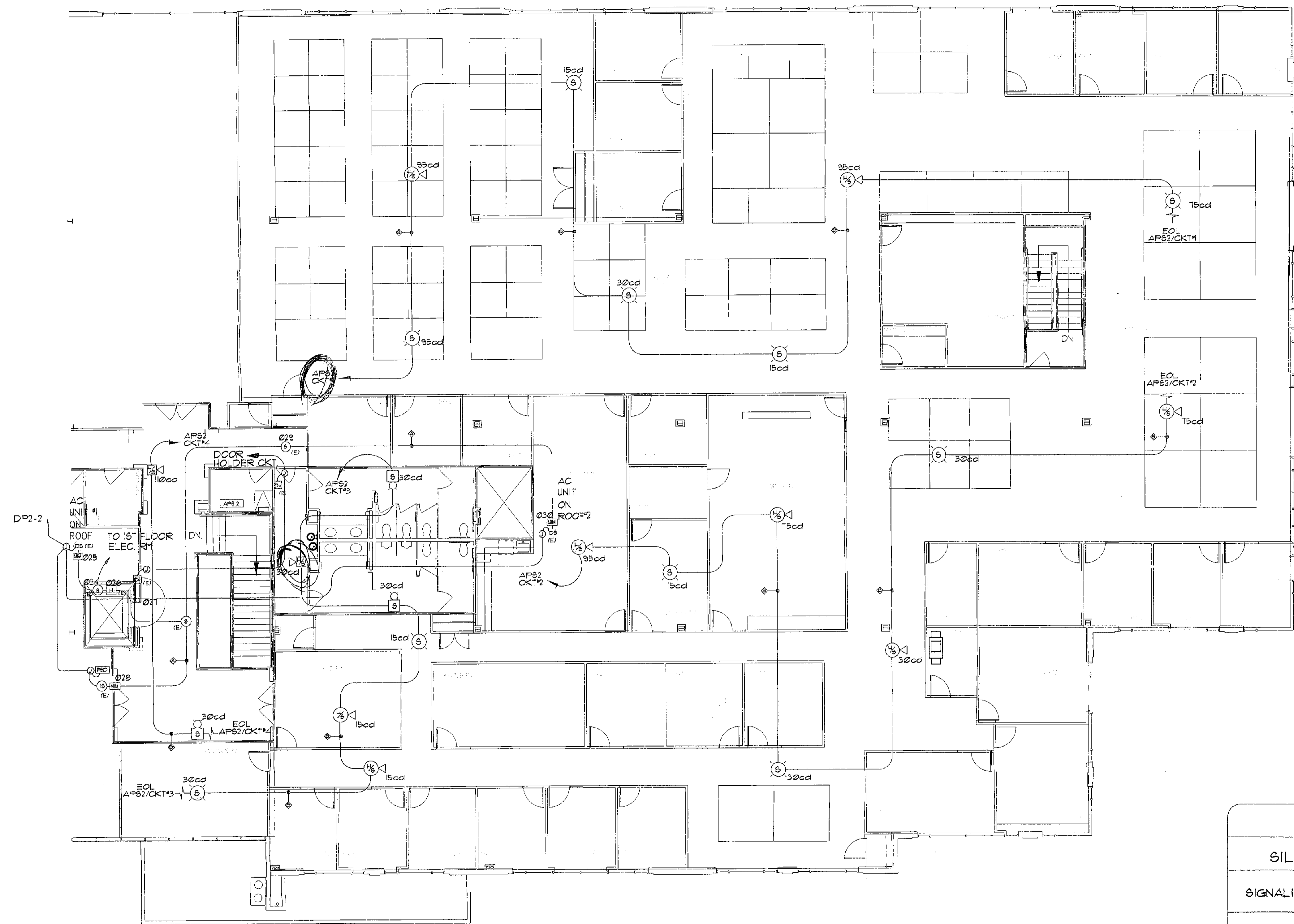
### WIRE SCHEDULE

	FILL	MANUFACT.	MODEL
A	2#16 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-16-1-2J
B	2#14 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-14-1-2J
C	4#16 AWG, FPLR CABLE, 300V, 105°C.	ATLAS	202-16-1-4J

NOTE: UNLESS OTHERWISE NOTED ALL CONDUIT STUBS SHALL BE 3/4" EMT.

### CIRCUIT STYLES DETAIL

- SILENT KNIGHT 5820 CONTROL PANEL
- SIGNALING LINE CIRCUIT (SLC) = CLASS B / STYLE 4.0
- NOTIFICATION APPLIANCE CIRCUIT (NAC) = CLASS B / STYLE Y
- INITIATING DEVICE CIRCUIT (IDC) = CLASS B / STYLE B

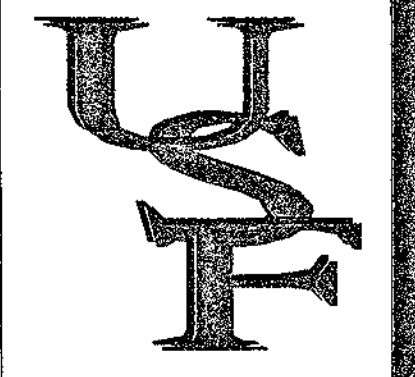
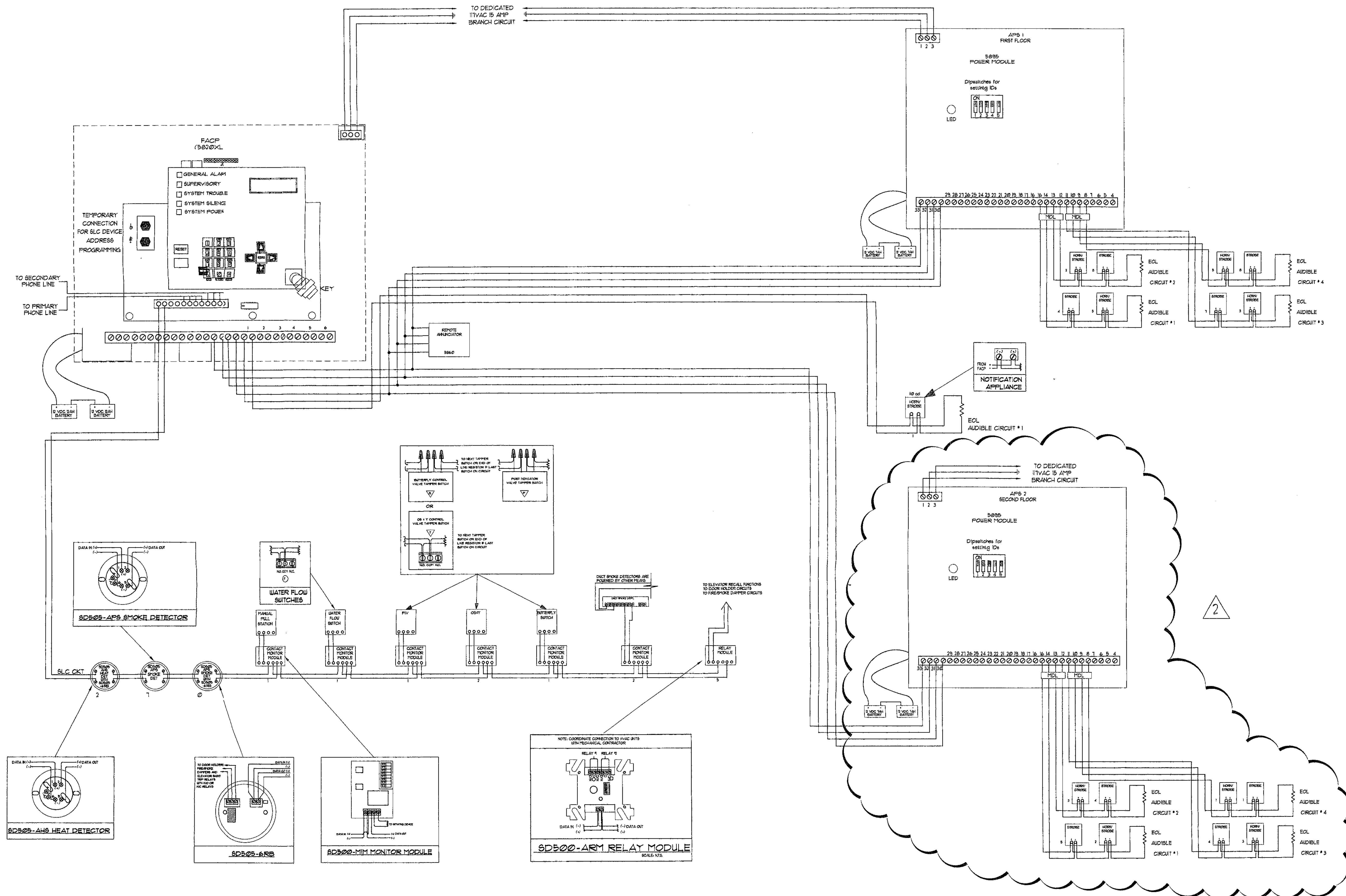


# SECOND FLOOR FIRE ALARM NOTIFICATION CIRCUIT LAYOUT

SCALE: 1/8" = 1'-0"

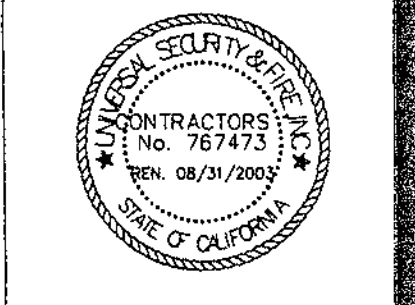
# POINT TO POINT DIAGRAM

SCALE: N.T.S.



**UNIVERSAL SECURITY & FIRE INC.**

World Headquarters  
30 Main Avenue, Ste. 13  
Sacramento, CA 95838  
Tel: 916/563-1100  
Fax: 916/563-1155



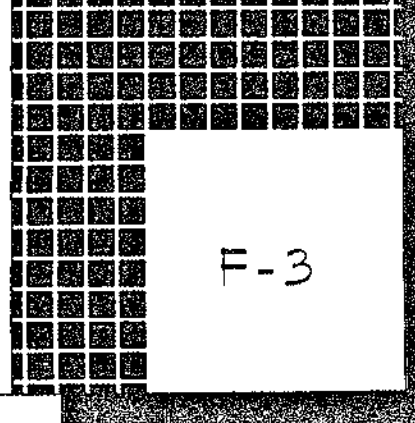
The ideas, drawings, designs and specifications incorporated herein shall be the property of Universal Security & Fire Inc. and shall be used only for the project and location specified herein. No part of this document may be reproduced or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or by any information storage and retrieval system without the prior written authorization of Universal Security & Fire Inc. These plans and specifications are the property of Universal Security & Fire Inc. and shall be used only for the project and location specified herein. No part of this document may be reproduced or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or by any information storage and retrieval system without the prior written authorization of Universal Security & Fire Inc.

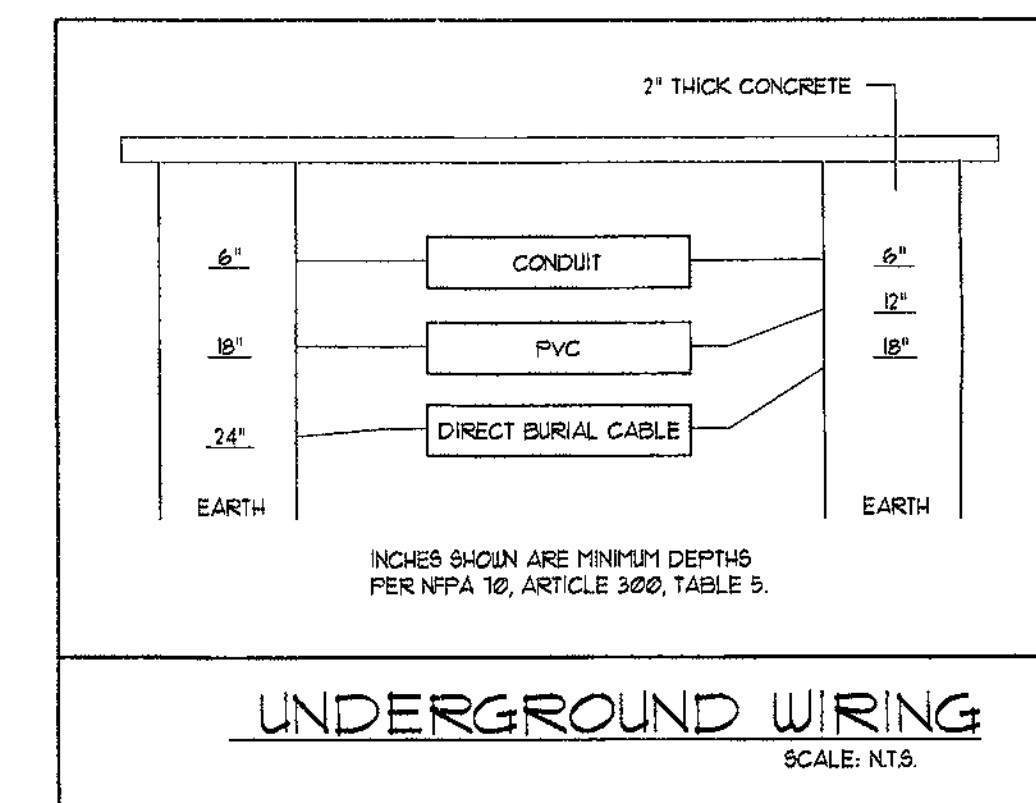
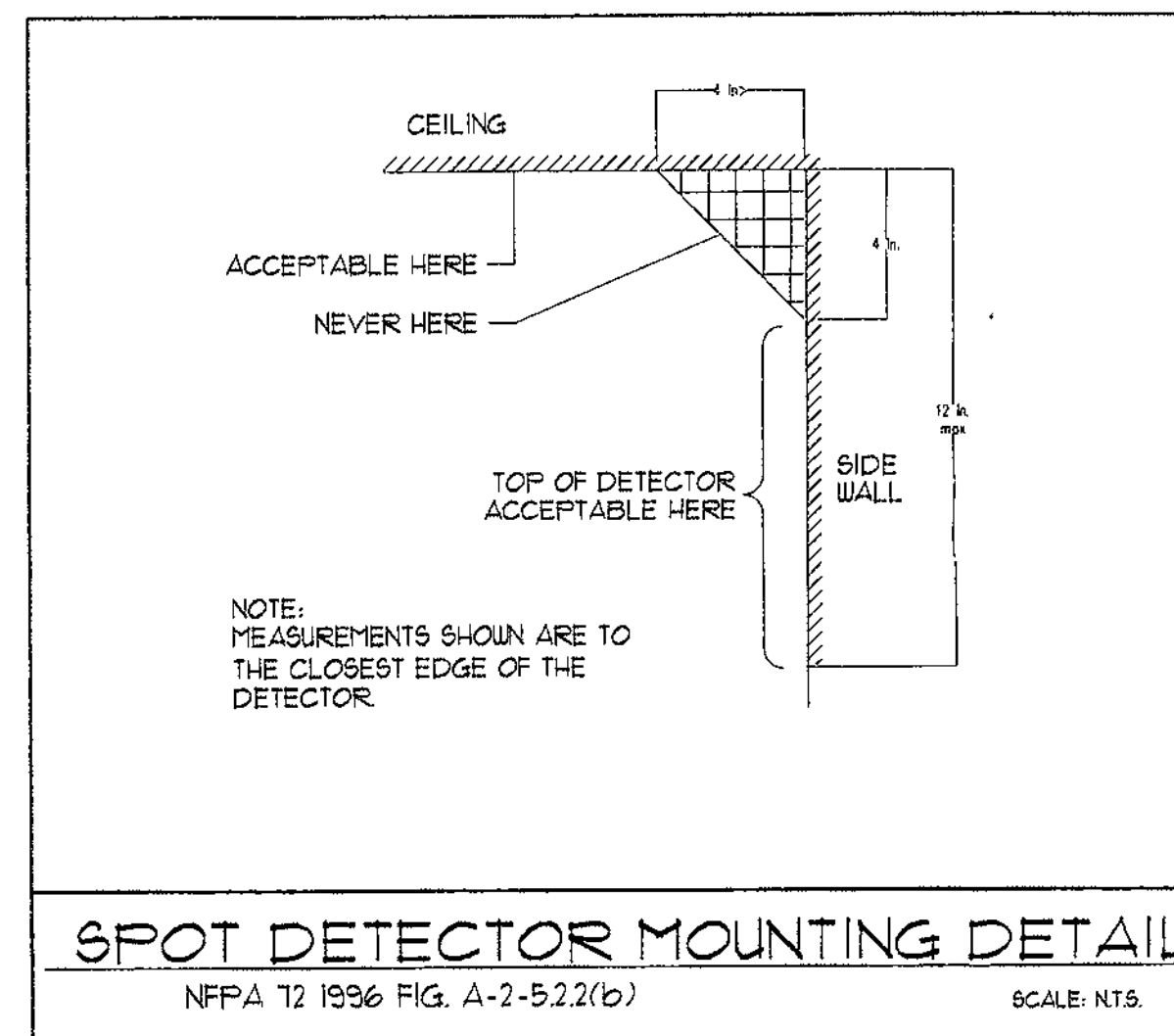
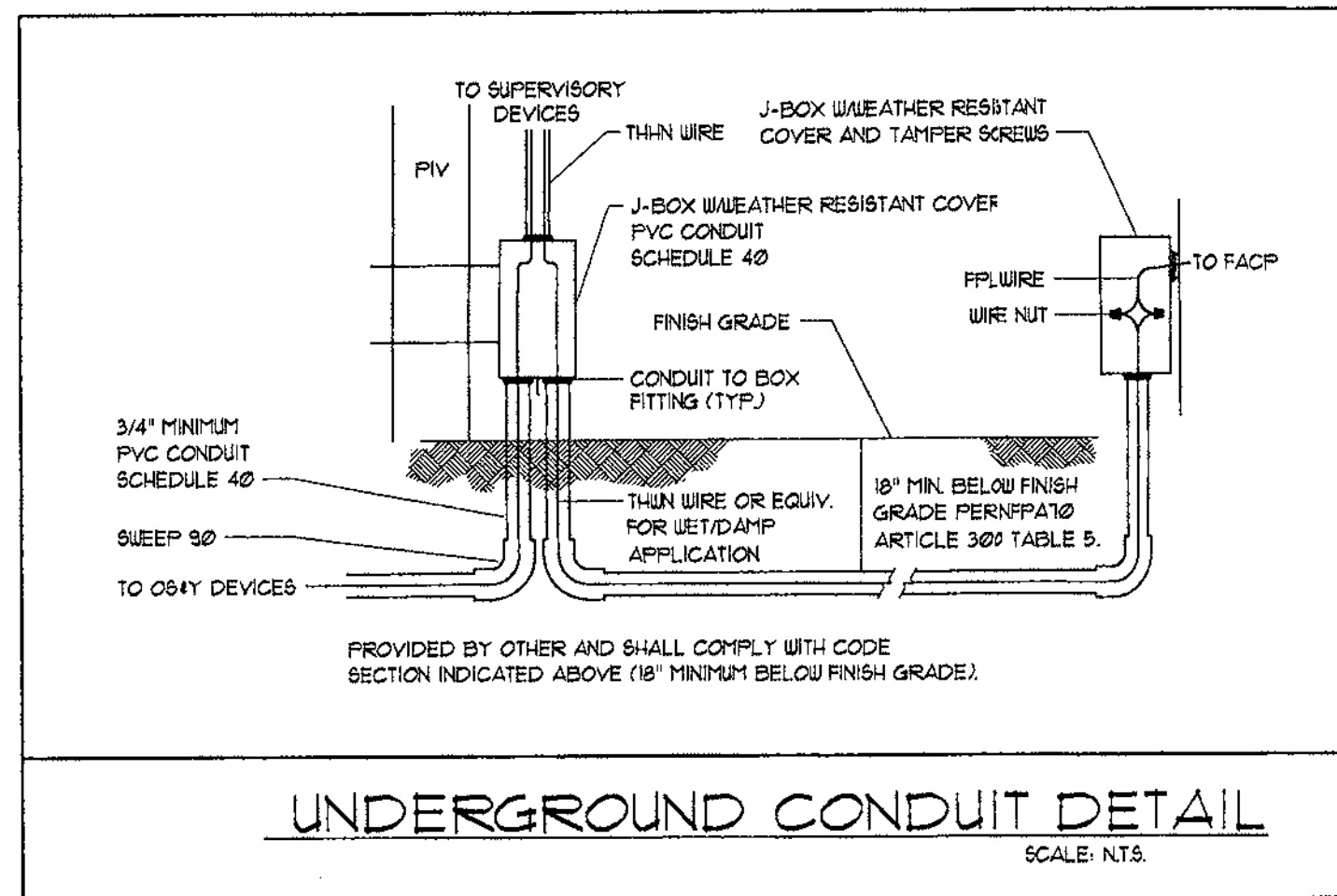
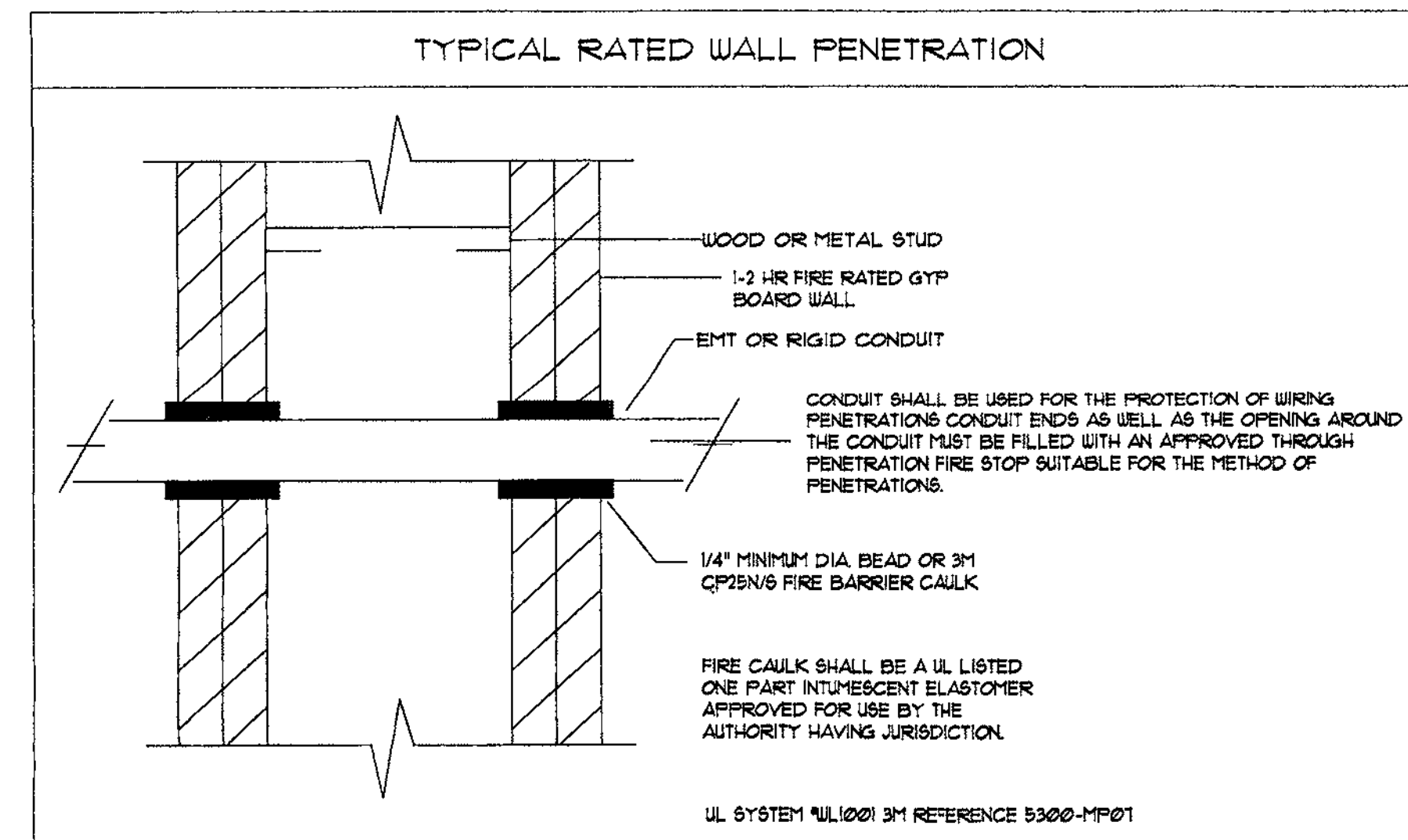
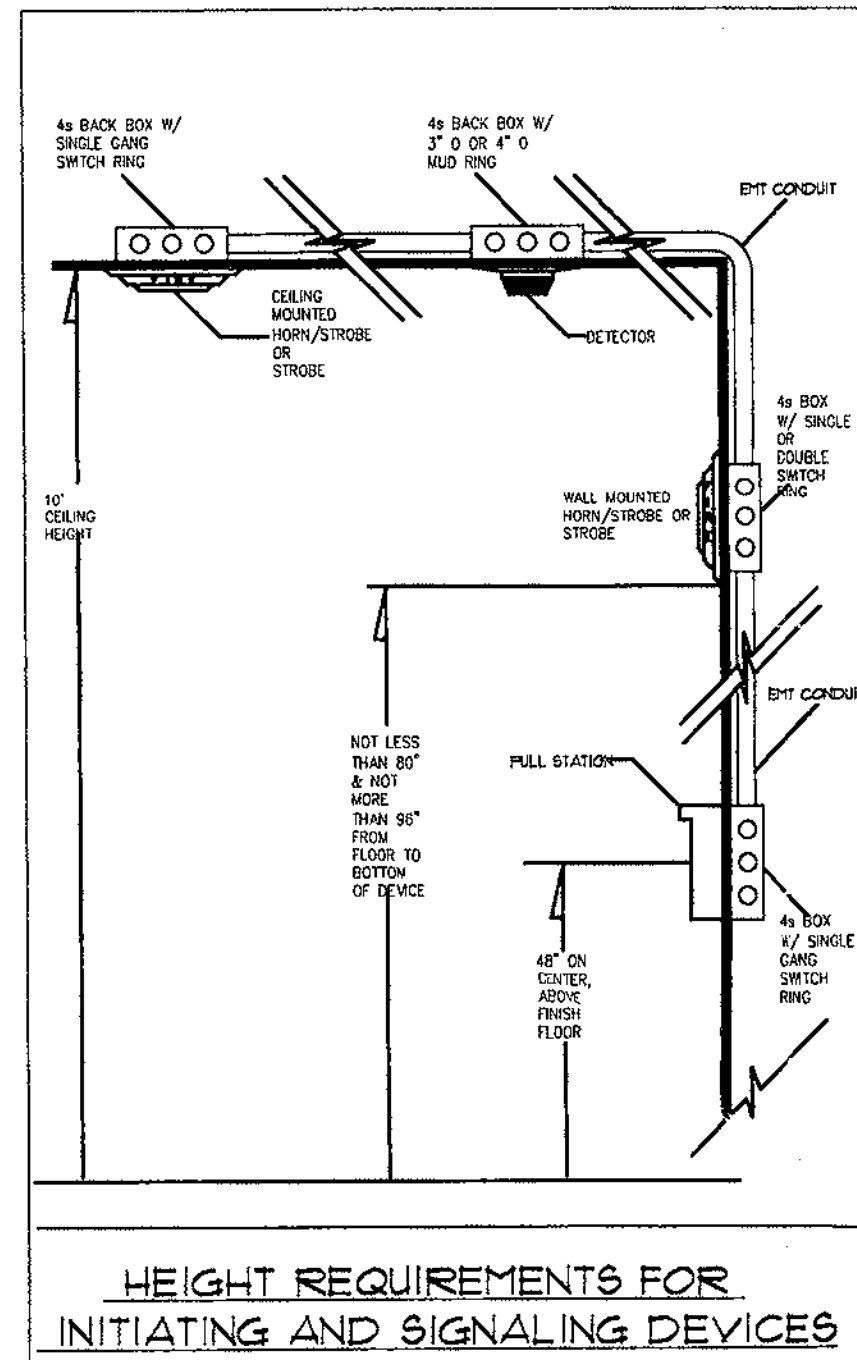
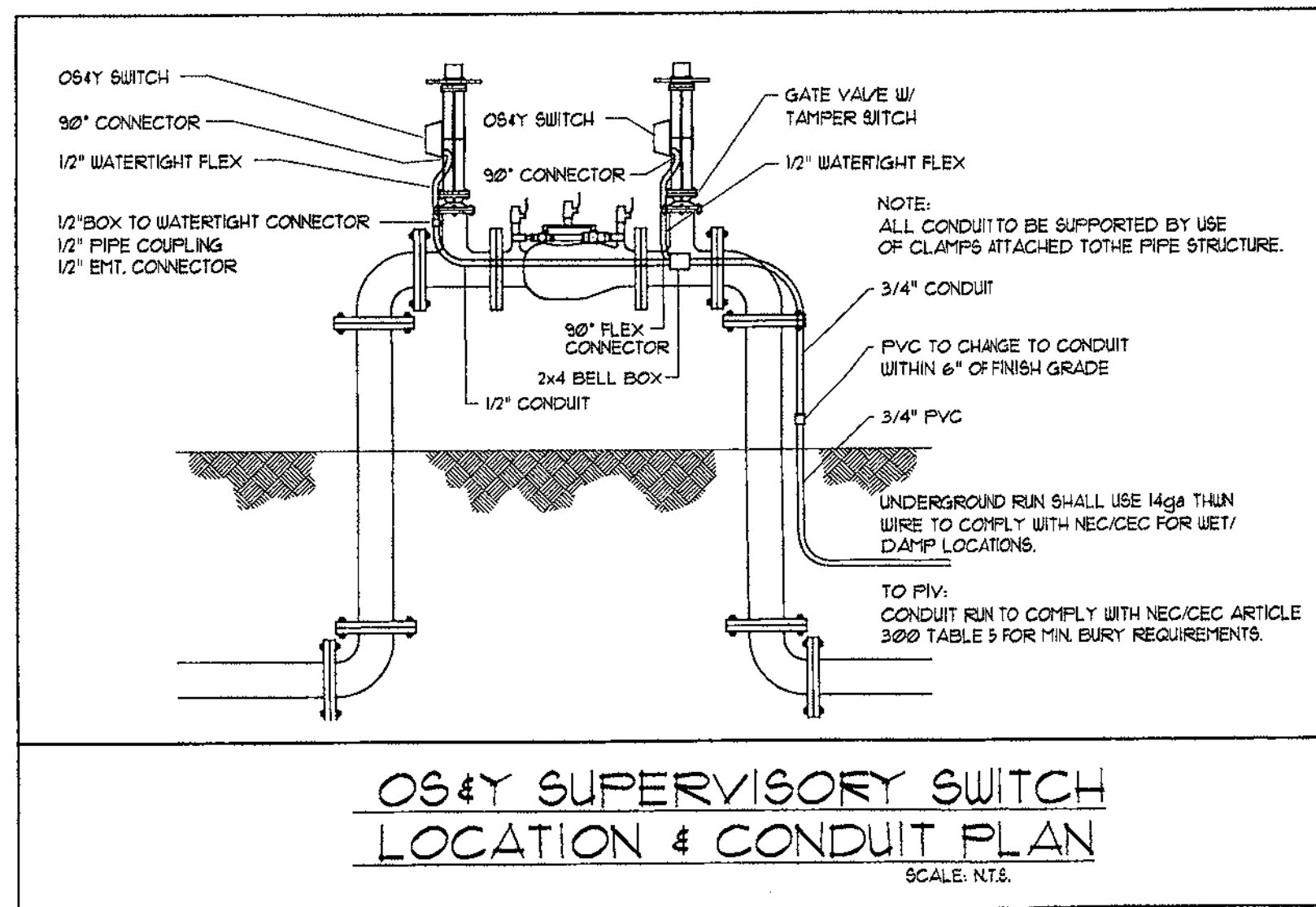
**WASTE MANAGEMENT INC., T.I.**  
**GOLD POINTE CORP CENTER BLDG. "D"**  
**11931 FOUNDATION PLACE**  
**RANCHO CORDOVA, CA**

**REVISIONS**

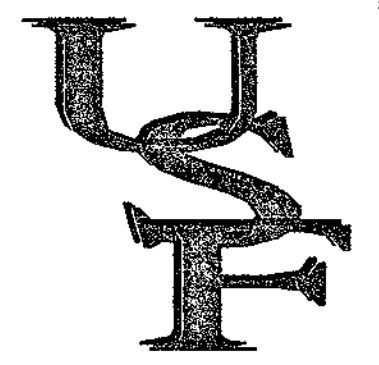
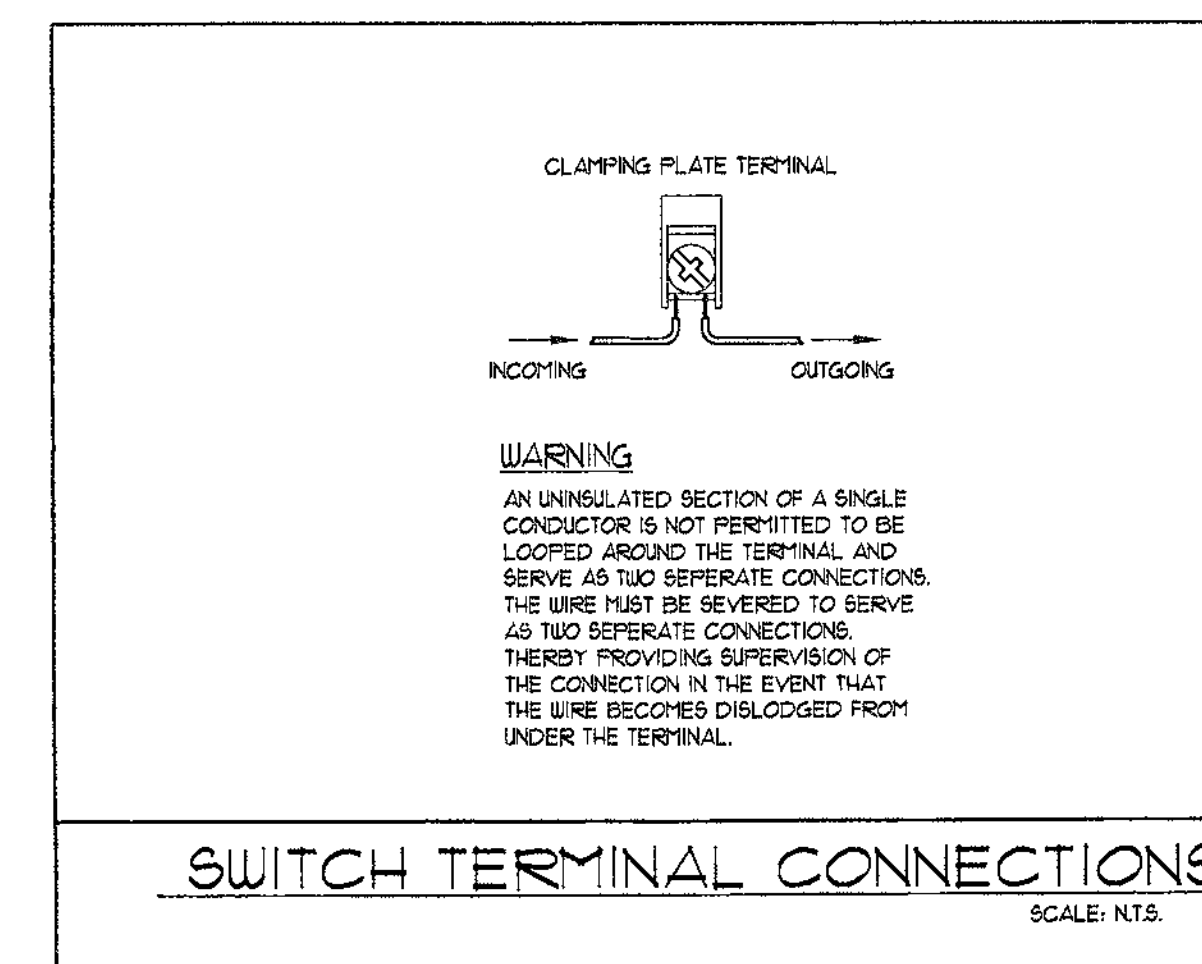
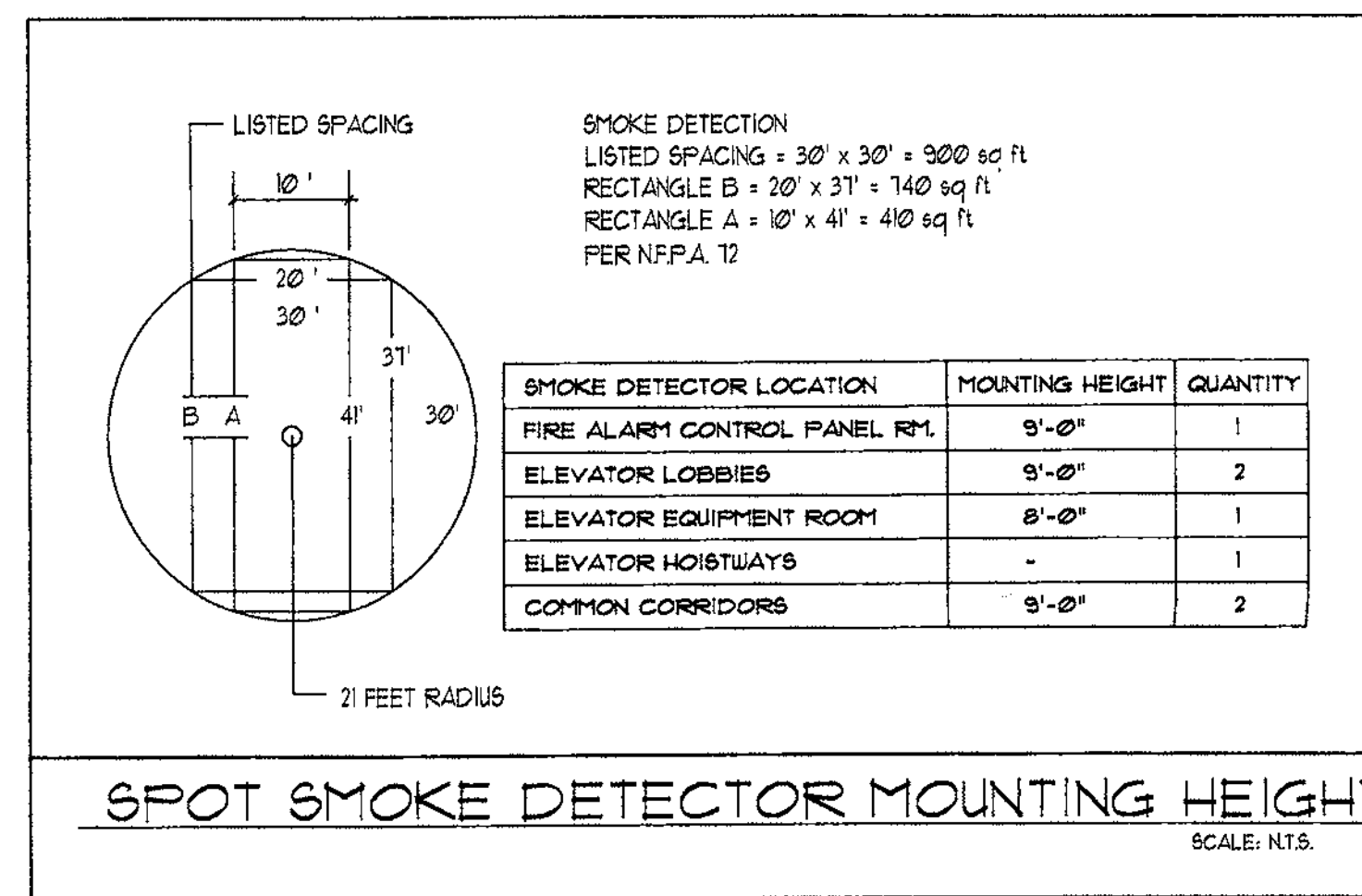
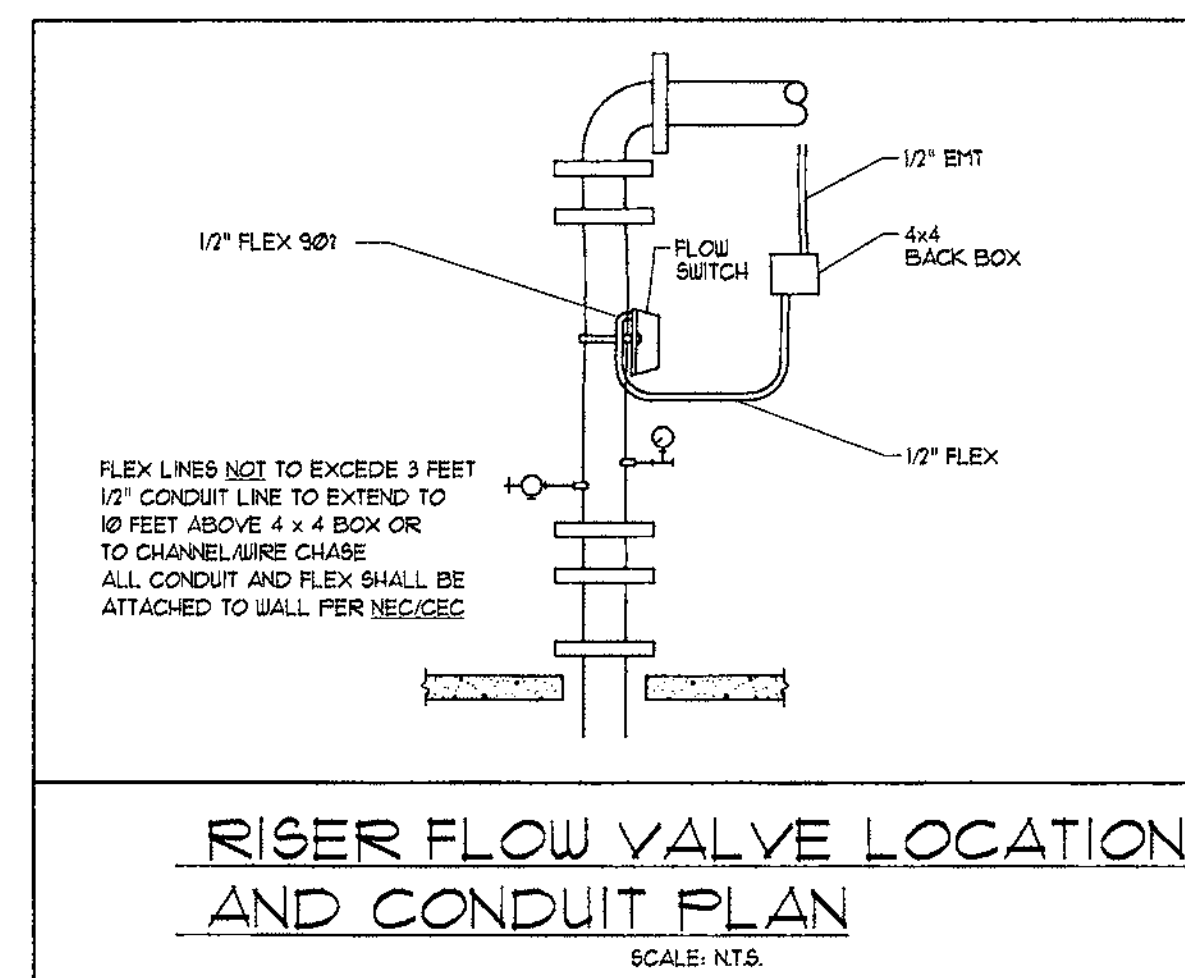
- 1. TENANT IMPROVEMENT 10/9/01
- 2. TENANT IMPROVEMENT 8/26/02
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

DATE: 26 AUG. '02





CIRCUIT STYLES DETAIL	
SILENT KNIGHT 5820 CONTROL PANEL	
SIGNALING LINE CIRCUIT (SLC) = CLASS B / STYLE 4.0	
NOTIFICATION APPLIANCE CIRCUIT (NAC) = CLASS B / STYLE Y	
INITIATING DEVICE CIRCUIT (IDC) = CLASS B / STYLE B	



UNIVERSAL SECURITY & FIRE INC.

World Headquarters  
 30 Main Avenue, Ste. #5  
 Sacramento, CA 95838  
 Telephone: 916-563-1100  
 Fax: 916-563-1155



The ideas, drawings, design and specifications incorporated herein, were as a requirement of services and to the property of Universal Security & Fire Inc. and are not to be used in other projects for any project without the written authorization of Universal Security & Fire Inc.  
 No reuse, publication or reproduction by any means is allowed without the written permission of Universal Security & Fire Inc. Universal Security & Fire Inc. is not responsible for any errors or omissions in this document. The user assumes all liability for any errors or omissions in this document. The user assumes all liability for any errors or omissions in this document. The user assumes all liability for any errors or omissions in this document.

WASTE MANAGEMENT INC., T.I.  
 GOLD POINTE CORP CENTER BLDG. "D"  
 11931 FOUNDATION PLACE  
 RANCHO CORDOVA, CA

REVISIONS

NO.	REVISION	DATE
1	TENANT IMPROVEMENT 10/9/01	
2	TENANT IMPROVEMENT 8/26/02	

DATE: 26 AUG. '02

