



# LEVIN PORTER ARCHITECTS

3011 NEWMARK DRIVE  
MIAMISBURG, OHIO 45342  
www.levin-porter.com  
Levin Porter Associates Inc. dba Levin Porter Architects

## ADDENDUM

### ADDENDUM NO. 1

January 16, 2026

#### **MIAMI COUNTY COMMISSIONERS HEARING ROOM RENOVATION LPA No. 248698.00**

#### TO ALL BIDDERS:

This addendum, including all items listed hereinafter, shall become a part of the Documents, shall be taken into account in preparing the Proposal, and shall become a part of the Contract. The work under each branch shall be in accordance with the original specifications unless otherwise noted in this Addendum.

This Addendum consists of 3 pages plus 5 attachments:

#### **ITEM NO.1 GENERAL ITEMS**

- 1.1 The sign-in sheets from the Project Pre-bid meeting are attached.
- 1.2 The Contractor is responsible for the cost of the building permit. The permit has been approved by Miami County Building Regulations. The outstanding fee is \$1,813.77 The Project has been assigned permit number 20253803.
- 1.3 An aerial graphic is included with this Addendum to illustrate parking/trailer/dumpster locations for use during the Project.
- 1.4 If a product substitution is requested, complete the attached form and provide the necessary information to document the requested product meets the project requirements.
- 1.5 The height to the bottom of the floor deck above is approximately 12'-0" per record documents.
- 1.6 If bidders are interested in visiting the project area prior to the bid date, please contact Ben Howlett at 937-440-5999 or via email at [bhowlett@miamicountyohio.gov](mailto:bhowlett@miamicountyohio.gov)
- 1.7 Questions regarding the bid should be directed to Will Kaly at Levin Porter via email at [wkaly@levin-porter.com](mailto:wkaly@levin-porter.com) Questions must be submitted in writing.
- 1.8 Refer to the attached record drawings for the existing Fire Alarm system in the building and a cutsheet on the Fire Alarm panel.



## **ITEM NO.2 BIDDER QUESTIONS**

2.1 Question: Who is the County HVAC control provider?

- A. Waibel Energy Systems
  - 815 Falls Creek Drive, Vandalia OH, 45377.
  - 937-264-4343
- B. Contact: Shay Moran
  - [Shay.moran@gowaibel.com](mailto:Shay.moran@gowaibel.com)
  - 937-307-8081

2.2 Question: Is the Project Tax Exempt?

- A. Yes. The County will provide the winning Contractor with the blank Ohio Chamber of Commerce tax exempt document for their use and sub-contractors with the signed contract.

2.3 Question: Will the Contractor access badges provide access to the basement electrical rooms?

- A. Yes, the badges will allow access to all areas that the Contractor will need to perform the Work. Entrance to any IT room will need to be coordinated with the County as Contractors will need to be escorted by County staff in these areas.

2.4 Question: Do portable toilets need to be provided by the Contractor.

- A. No. Contractors may use the existing, public restrooms in the Safety Building. The facilities must be kept clean. Contractors may not use the public restrooms for construction activities such as washing out drywall mud, paint brushes/rollers, etc. A janitor sink in the basement will be available for those needs.

2.5 Question: Will temporary construction barriers need to be in place to separate the work area from the main lobby?

- A. Yes, Contractor shall provide a temporary wood framed partition with locking door to separate the construction activity from the rest of the building areas. Refer to the detail provided in this Addendum. The existing finishes in the lobby must be protected. Contractor shall provide sticky pads at each entrance to the construction site to limit the transfer of dust and debris into the rest of the building. Contractor shall monitor the condition of the pads and replace them regularly. Refer to Sheet AD101 for extents of temporary barrier, Keynote 2.03. Access to the main building exits must be maintained at all times.

## **ITEM NO.3 SPECIFICATION REVISIONS**

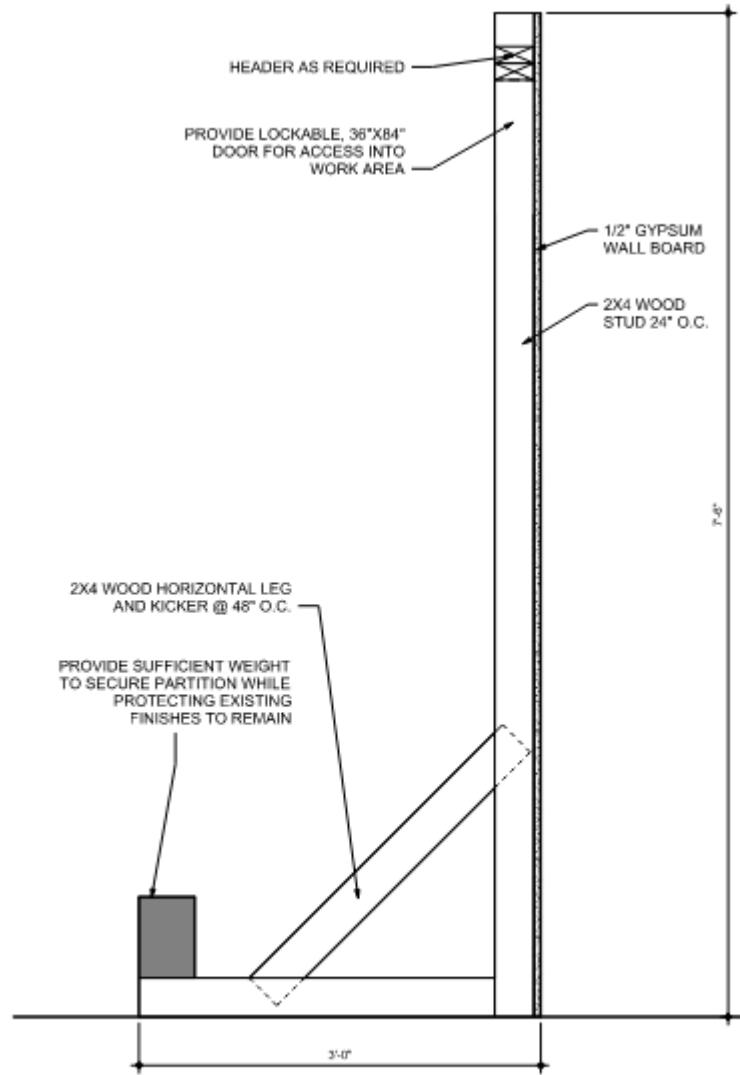
3.1 Reference: Section 011000 Summary.

- A. Part 1, Section 1.07, Paragraphs B and D. MODIFY to clarify that the Contract will be awarded as soon as possible after the bid. Given the Bid Date of January 29, the February 2, 2026 Contract award is unlikely. Mid-February is a more likely timeline. The County may issue a Letter of Intent to the selected Contractor if requested prior to the Contract Award.

## ITEM NO.4 DRAWING REVISIONS

4.1 Reference: Sheet AD101

A. Provide Temporary Construction Barrier as shown below.



### 28 TEMPORARY CONSTRUCTION BARRIER

SCALE | 1 1/2" = 1'-0"

4.2 Reference: Sheet A601 – Door Schedule

A. ADD notation for Doors 114A to require "Repair and Refinish salvaged wood entrance doors. New stain finish to match new wood wall and ceiling finishes in the Hearing Room 114 and Entrance Vestibule 115.

END OF ADDENDUM NO. 1



LEVIN PORTER  
ARCHITECTS

### MEETING ATTENDANCE ROSTER

PROJECT:	Miami County Commissioner's Hearing Room Renovation	Project No:	LPA #248698
PURPOSE:	Pre-bid Meeting		
Date: January 14, 2026	Time: 9:00AM		
NAME	ORGANIZATION	CELL PHONE	BUSINESS PHONE
		E-MAIL	
WILL KALY	LEVIN PORTER ARCHITECTS	937-221-1934 <a href="mailto:WKALY@LEVIN-PORTER.COM">WKALY@LEVIN-PORTER.COM</a>	
Todd Kunk	JLKunk G.L.	937-836-0091 ext 2 <a href="mailto:Todd@JLKunk.com">Todd@JLKunk.com</a>	
Galen Jeffs	Calvary Contracting	937 506 2309 <a href="mailto:sburnham@calvarycontracting.com">sburnham@calvarycontracting.com</a>	
Brandon Wombold	Calvin Electric	937-670-2558 <a href="mailto:bwombold@calvinelectricllc.com">bwombold@calvinelectricllc.com</a>	
Greg Miller	Calvin Electric	g.miller@calvinelectricllc.com 937 670 2558	
DAVE PRICE	Bridge Street Glass	dave@bridgestreetglass.com 937.916.9271	
Pat Campbell	Bridge STREET Glass	Pat@BridgeSTREETGlass.com 937-606-6857	
CHRIS ROBINSON	BRIMBACH COAST	937-423-3981 <a href="mailto:chris@brimbachconstruction.com">chris@brimbachconstruction.com</a>	937-692-5107
Brandon Penchot	K&T construction	513 310 6448 <a href="mailto:Brandon@ktconstructioninc.com">Brandon@ktconstructioninc.com</a>	937 790 1020
Ryan Richey	Wat-Kem Mechanical	937.344-7804 <a href="mailto:RRichey@watkem.com">RRichey@watkem.com</a>	937-573-3072
Patrick Kehlriester	VanCon General Contractors	937-572-0716 <a href="mailto:Patrick@Vancongc.com">Patrick@Vancongc.com</a>	937-890-8400

Ron BLAIR  
Keith Carroll

Double JTy Construction  
Westerheide Const

937-832-3123 ron@doublejayinc.com  
937 492 7432 keith@westerheidecc.com



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WILL KALY	LEVIN PORTER ARCHITECTS		937-221-1934 <a href="mailto:WKALY@LEVIN-PORTER.COM">WKALY@LEVIN-PORTER.COM</a>
Bob Asbury	Regal	937- 538- 0070 <a href="mailto:basbury@regalmech.com">basbury@regalmech.com</a>	
Micah Shoup	REGAL Paint & Hdg.	937- 710- 3971 <a href="mailto:mshoup@regalmech.com">mshoup@regalmech.com</a>	
Chris Rohrer	BRIAN BROS. Painting + Restoration	937- 214- 4377 <a href="mailto:crohrer@brianbrospainting.com">crohrer@brianbrospainting.com</a>	937- 773- 3458
Ted Michel	Sidney Electric	937- 545- 6654 <a href="mailto:tmichel@sidneyelectric.com">tmichel@sidneyelectric.com</a>	937- 498- 2357
Tom Mason	Sidney Electric	937- 875- 0193 <a href="mailto:TMASON@SidneyElectric.com">TMASON@SidneyElectric.com</a>	
Jack Spoltman	Brun's General Contracting	937- 332- 8530 <a href="mailto:JSpolzman@brunsgc.com">JSpolzman@brunsgc.com</a>	
Jordan Lightner	Brun's GC	937- 524- 6728 <a href="mailto:JLightner@BrunsGC.com">JLightner@BrunsGC.com</a>	
B.J. Ernsthausen	Brun's GC	937- 477- 5917 <a href="mailto:biernshausen@brunsgc.com">biernshausen@brunsgc.com</a>	
Cambell Gestonky	AKA Construction		937- 222- 4501 <a href="mailto:Cambell@aka-construction.com">Cambell@aka-construction.com</a>
John Waites	True United Contractors		<a href="mailto:jwaites@trueunitedcontractors.com">jwaites@trueunitedcontractors.com</a> 937 938-0262
Shane Rhadehamel	True United Contractors		<a href="mailto:srhadehamel@trueunitedcontractors.com">srhadehamel@trueunitedcontractors.com</a> 937 459-9873

Connor Moran Ferguson Construction 937-638-7797 cmoran@ferguson-construction.com



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PURPOSE:	Pre-bid Meeting		
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WILL KALY	LEVIN PORTER ARCHITECTS	937-221-1934 <a href="mailto:WKALY@LEVIN-PORTER.COM">WKALY@LEVIN-PORTER.COM</a>	
Matt Hrync	Hrync Construction	419-628-3600 <a href="mailto:matt@hryncconstruction.com">matt@hryncconstruction.com</a>	
Eric Eley	Garber Electric	937-771-5202 <a href="mailto:eeley@garberelectric.com">eeley@garberelectric.com</a>	
Kyle Knouff	Level MB	KKnouff@levelmb.com 937.216.3662	937-671-4436
ALLISON RODRIGUEZ	LEVEL MB	ARODRIGUEZ@LEVELMB.COM	
Dakota Dewey	Level MB	ddewey@levelmb.com 937 926 9097	
Dan Little	Frye mechanical	dlt@frye mechanical.com 937-602-1848	
Jesse Hei	Grand Lake Building Co	Cory@grandlakebuildingco.com 419-953-6153	

MIAMI COUNTY COMMISSIONERS  
HEARING ROOM RENOVATION  
SITE UTILIZATION INFORMATION  
ADDENDUM #1





## SUBSTITUTION REQUEST

Project: \_\_\_\_\_

Substitution Request Number: \_\_\_\_\_

To: \_\_\_\_\_

From: \_\_\_\_\_

Re: \_\_\_\_\_

Date: \_\_\_\_\_

Specification Title: \_\_\_\_\_

Description: \_\_\_\_\_

Section: \_\_\_\_\_ Page: \_\_\_\_\_

Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_

Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

History:  New product  1-4 years old  5-10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_

Address: \_\_\_\_\_ Owner: \_\_\_\_\_

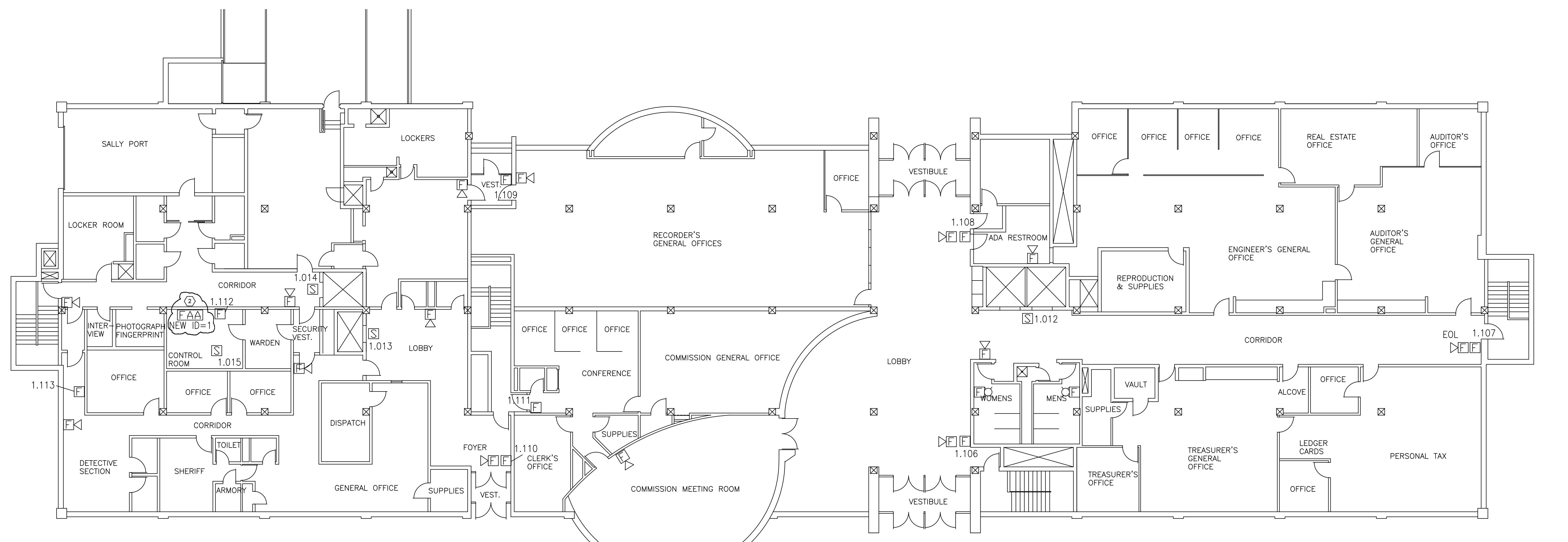
\_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work:  No  Yes; explain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).  
\_\_\_\_\_

Proposed substitution changes Contract Time:  No  Yes [Add] [Deduct] \_\_\_\_\_ days.  
\_\_\_\_\_

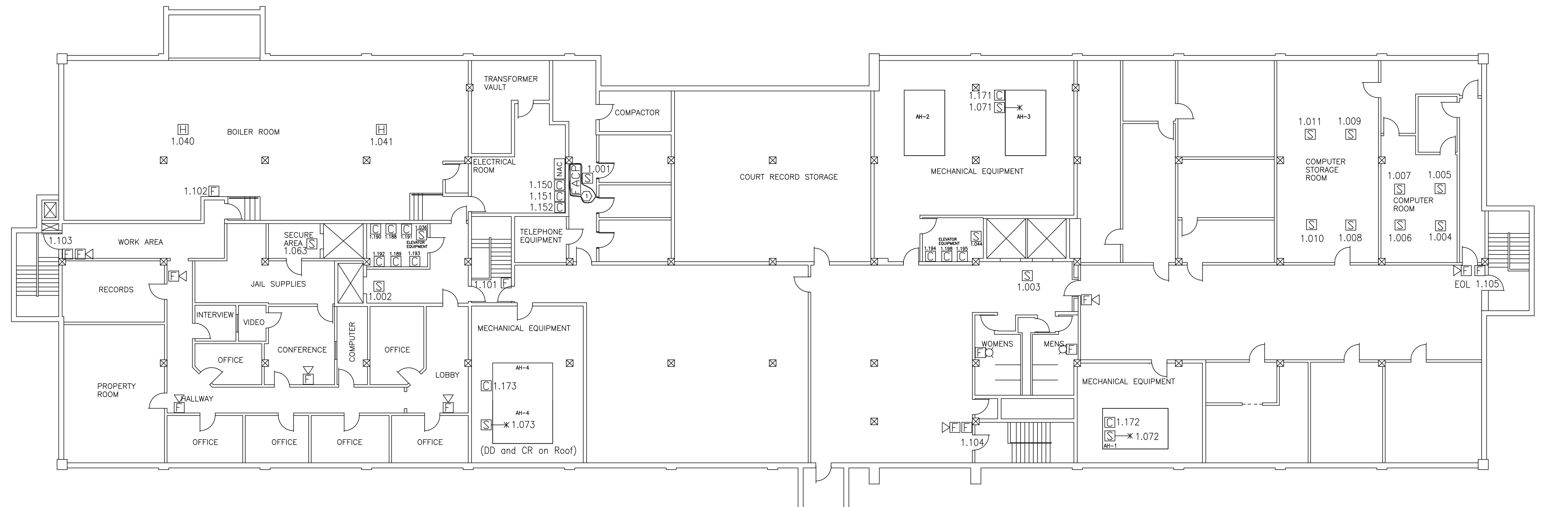
Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_  
\_\_\_\_\_



# FIRST FLOOR PLAN

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SCALE: 3/32" = 1'-0"



# BASEMENT FLOOR PLAN

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SCALE: 3/32" = 1'-0"

The components shown on this drawing are replicated from original drawings/specifications of the engineer/architect. SecurCom Inc. assumes no liability for design criteria.

This drawing is intended to convey details concerning wiring, programming and the ~~information of the system shown~~.

In C. ◊

com  
-Communications  
-Fiber Optics

Curc  
Systems

SEC  
S E C

sheet 65

curCom Inc.  
7 West First Street  
ster, Ohio 45893  
(9) 628-1049

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Building  
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ain Street  
45373

Alarm System  
City Courthouse  
201 West Main  
Troy, Ohio

Fire  
Miami County

111

IV

Bergman  
F.A.S. Level  
Specification #98  
54.54.1022

William F.  
CET 97326 F  
B.B.S. Certi-  
tate License

A circular logo with a stylized 'W' or 'V' shape at the top. Inside the circle, there is a smaller circle containing the text 'NICET' and 'CERTIFIED' stacked vertically.

10

1100-1111

iami Co.Courthou  
and Safety Buildin  
Fire Alarm System  
Job Number#2128

Sheet # FA01

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FX-3500 with two optional RAX-1048TZDS modules

## Description

Mircom's FX-3500 is a series of powerful Intelligent Addressable Fire Alarm Control Units which include Release Control Units (RCUs). These panels are UL 864Rev 9 and ULC S527-2011 listed for fire control and releasing service.

The FX-3500 is recommended for both new and retrofit special-hazard/critical-infrastructure suppression/special agent applications. Small in enclosure size yet powerful enough to deliver complex programming requirements, the FX-3500 is fully expandable.

The FX-3500 provides up to three addressable Signal Line Circuits (UL's-SLC or ULC's-Data Communication Links- DCLs) and connects up to 954 addressable devices/points. Capable of releasing up to six discrete physical hazard zones, the FX-3500 offers exceptional value for complex installations.

Elegant configuration options by onsite laptop, or when required by the Engineer of Record, by remote PC via modem, the FX-3500 can be operational with minimal set up time.

Programming versatility makes the FX-3500 Series the ideal choice for dependable fire detection, signaling and protection in industrial, commercial and institutional buildings. Typically these environments require agent-based suppression solutions easily managed by the FX-3500 Intelligent Addressable Release Control Unit.

## Hardware Features

- One onboard SLC/DCL communication circuit that supports up 318 addressable devices/points;
- Expandable to three SLC/DCL communication circuits that supports up to 954 addressable devices/points;
- Reliable and industry proven dedicated releasing power supply;
- Six dedicated hazard zone LED indicators;
- Convenient USB Programming port;
- Built-in UDACT/DACT for remote monitoring;
- Enhanced tactile response for operator interface;
- 4 x 20 character Liquid Crystal Display (LCD);
- Easy to read numerical keypad;
- 10 Ampere (Amp.) Power Supply to satisfy typical releasing load requirements;
- Four Class A/B Notification Appliance Circuits (NAC) rated at 1.5Amp. each;
- SLC is capable of NFPA 72 Style 4, Style 6, or Style 7 wiring & ULC's DCL-A & DCL-B;
- Resettable auxiliary power supply;
- Four easy to read status queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Building Safety (Formerly Monitor) Input visual indications;
- Supports up to seven remote annunciators;
- Accessible multifunction RS-232 port for:
  - Serial Communication interface
- RS-485 Interface for remote LCD/LED Annunciators and other devices;
- Optional City Tie/Polarity Reversal module for central station monitoring.



S7010



S7010



7165-1477:0165



APPROVED  
NYC  
Fire Dept.

COA #6165

**CATALOG NUMBER**

**5690**

NOT TO BE USED FOR INSTALLATION PURPOSES.

Mircom reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

## Mechanical Features

- The FX-3500 supports both flush and surface mount applications;
- Dimensions 26" x 14.5" x 4.2"  
66 cm x 36 cm x 11 cm
- Modular display placement options;
- Fits up to 2, 18 Ampere Hour batteries.
- Durable CAT-30 lock and key.
- Removable enclosure door.
- Easy access to all modules for serviceability.

## Software and Operational Features

Audible alarm response within three seconds of activation in Advanced Protocol mode (when using AP devices only);

- AP is a completely digital protocol;
- AP is an Interrupt base protocol;
- Individual LED Control;
- Releasing capability for up to 6 Zones
- Supports Pre-Action/Agent Release and Deluge Applications;
- Supports up to 3 SLC loops and 954 points
- Supports CLIP and AP System Sensor protocols;
- Built-in strobe synchronization support for Mircom, Potter/Amseco, System Sensor, Gentex and Wheelock protocols;
- Grouped inputs and outputs;
- NACs can be configured as Silenceable or Non-Silenceable for both signals and strobes;
- Group bypass with built-in false alarm prevention technology;
- Zone Counting;
- Built-in Drift Compensation for AP protocol;
- Positive Alarm Sequence;
- Configurable Signal Silence Inhibit, Auto Signal Silence, Two Stage Operation and One-Man Walk Test;
- Relay contacts for Common Alarm, Auxiliary/Alarm (Disconnectable), Common Supervisory and Common Trouble;
- Two event history logs comprised of a 400 event alarm log for alarm related events and a 400 event general log for all other events;



### Sensors can be configured as:

- Alarm Input
- Priority Alarm
- Verified Alarm
- Latched Supervisory
- Non-Latching Supervisory
- Monitor
- Trouble Input

### FX-3500 Features and Benefits

- Cross-zoned or Counting Zone Smoke Detection programming to enable release by either counting active zone detection circuits or active cross-zoned detection circuits (includes options for single, double, triple and 2 different inputs counting zones)
- The FX-3500 Series RCUs are fully expandable to meet the demanding requirements for mission critical facilities, both inside the high value asset areas and also in the office environments.

## Additional Features

- Compatible with INX-10A Addressable Intelligent NAC Expander Panel.
- Supports Acclimate smoke detection sensors.

## Optional Adder Modules



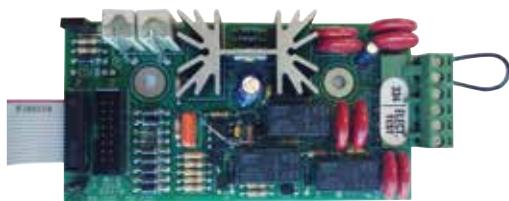
### RAX-1048TZDS Programmable LED Annunciator Module

The RAX-1048TZDS Programmable LED Annunciator provides the FX-3500 with 48 Programmable Alarm/Supervisory Bi-colored LEDs & 48 Trouble LEDs which can be configured as: Alarm (Red), Supervisory (Amber), Trouble (Amber) or Monitor (Amber). The RAX-1048TZDS mounts in the FX-3500 enclosure.



### ALC-636 Dual Loop Controller Module

The ALC-636 Dual Analog Loop Controller Module provides two additional Signaling Line Circuits (SLC) to the FX-3500 consisting of 159 intelligent sensors and 159 intelligent modules per loop. The ALC-636 mounts in the FX-3500 enclosure.



### PR-300 Polarity Reversal/City Tie Module

The PR-300 provides outputs for city box and polarity reversal applications. As a city tie module the PR-300 provides an interface between the control panel indicating circuits and a master box. As a polarity reversal module the PR-300 provides an interface between the control panel and a reverse polarity receiver.

## Remote Annunciators



### RAM-3500-LCD Remote LCD Annunciator

The RAM-3500-LCD provides remote annunciation through a 4 line by 20 character LCD display. It is a direct mimic of the main panel display so that the LCD, LEDs and switches are an exact duplicate of the main display. The RAM-3500-LCD provides control switches for System Reset, Signal Silence, Fire Drill and Acknowledge, four Status Queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Monitor, along with a numeric keypad to access the menu functions. The RAM-3500-LCD mounts in separately orderable single unit enclosures or in larger enclosures that support up to two optional RAX-1048TZDS remote LED annunciators. All remote enclosures are equipped with a CAT-30 Lock and key.



### RAX-LCD-Lite Remote LCD Annunciator

The FX-3500 also supports the RAX-LCD-LITE Remote LCD Annunciator. The RAX-LCD-LITE display mimics the main Fire Alarm Panel display at a remote location. It is equipped with a large 4 line x 20 character back-lit alphanumeric LCD display that uses a simple menu system complete with a directional keypad and switches for Enter, Menu, Cancel and Info. There are five types of enclosure available: the BB-1001, BB-1002, BB-1003, BB-1008, and BB-1012 which can take 1,2,3,8,12 chassis respectively.

## Specifications

FX-3500 Series Fire Alarm Control Panel		
<b>General</b>	Digital signal processor based design, fully configurable from front panel with password protection	
<b>Electrical ratings</b>	<b>AC line voltage</b>	120VAC 60Hz/240VAC 50Hz, 10A slow blow fuse on secondary of transformer
	<b>Power supply rating</b>	29VAC 10A maximum (secondary of transformer) 120VAC 60Hz 3.1Amp (maximum primary of transformer) 240VAC 50Hz 1.57Amp (maximum primary of transformer) Total load not to exceed 10A at 24VDC
<b>Battery</b>	Type	24VDC Gel Cell/Sealed lead acid – 10AH to 42AH
	Charging capability	10AH to 42AH
	Charging current	3A maximum
	Protection	20A slow blow micro fuse built into WX-058 battery cable, field replaceable
	Standby current rating at full load	1.25A
<b>Addressable loops</b>	Advanced Protocol mode with one or three loops with 159 addressable sensors and 159 addressable modules per loop. CLIP mode with one or three loops with 99 addressable sensors and 99 addressable modules per loop. Maximum loop resistance depends on number of devices and device type. For a complete list of compatible devices see 9.0 Appendix B - FX-3500 Series Compatible Devices.  Power Limited / 22VDC / 350mA alarm maximum / 0.5 $\mu$ F  Power Limited / 22VDC / 280mA normal standby maximum / 0.5 $\mu$ F	
<b>NAC Circuits</b>	4 supervised style Y (Class B) NAC circuits, configured as strobes or audibles. Terminals are labelled as "NAC 1", "NAC 2", "NAC 3" and "NAC 4".  <b>Rating</b> Power limited / Regulated 24V FWR / 1.5A @ 49C per circuit  <b>Max power allowed</b> Total 6.0A 1.5A per circuit	
<b>Aux supply 1</b>	Power limited / 24VDC regulated / 500mA max	
<b>Aux supply 2</b>	Power limited / 24VDC regulated / 300mA max	
<b>Unfiltered supply</b>	Power limited / 24V FWR special application / 1.7A max at 49C List of Compatible Devices: RAM-1016TZDS, RAM-1032TZDS, RAM-3500-LCD, RAX-LCD-LITE	
<b>Auxiliary relays</b>	<b>Common Alarm/MSupv./Trouble/Auxiliary Alarm</b>	Must be connected to a listed power limited source of supply Form C/28VDC/1A max
<b>RS-485 port</b>	For remote annunciators. Terminals are labelled "RS-485".	
<b>Ground Fault Impedance</b>	10 K Ohms	
<b>Open Circuit Fault</b>	100 K Ohms	
<b>Open Circuit Fault</b>	0 Ohms	
<b>Applicable Standards</b>	NFPA 70, 72, 12, 12A, 12B, 13, 15, 16, 2001, CAN/ULC-S559-13, UL-864 Rev. 9, ULC S524, CAN/ULC-S527-11 and ULC-S536-04	
FX-3500 System Modules and Annunciators		
<b>RAM- 3500LCD</b>	Remote Annunciator	Standby 70mA / alarm 100mA
<b>RAX-LCDLITE</b>	Remote Annunciator	Standby 65mA / alarm 80mA
<b>RTI-1</b>	Remote Trouble Indicator	Normal standby 0mA / alarm 30mA maximum
<b>PR-300</b>	Polarity Reversal and City Tie Module  <b>City Tie</b> power limited / 24VDC unfiltered / 270mA max / 13.7 and 14.4 Ohms <b>Polarity Reversal</b> power limited / 24VDC open / 12VDC at 3.5mA / 8mA max (shorted) <b>Polarity Reversal Supv.Terminal</b> 24VDC (normal) / -24VDC (supervisory) / 0V (trouble) <b>Polarity Reversal AlarmTerminal</b> 24VDC (normal) / -24VDC (alarm) / 0V (trouble) <b>Current Consumption</b> standby 50mA / alarm 300mA (city tie in use) / alarm 70mA (city tie not in use)	

## Battery Calculations

### IMPORTANT NOTICE

The main AC branch circuit connection for Fire Alarm Control Unit must provide a dedicated continuous power without provision of any disconnect devices. Use #12 AWG wire with 600-volt insulation and proper over-current circuit protection that complies with the local codes. For specifications see Appendix C Specifications And Features on page 98 of the Manual

Power Requirements (All currents are in amperes)							
Model Number	Description	Qty		Standby	Total Standby	Alarm	Total Alarm
FX-3500	FX-3500 FACP with Dialer		X	0.390	=	0.630	=
ALC-636	636 Point Dual Loop Adder		X	0.120	=	0.200	=
RAM-3500-LCD	Remote Annunciator with 4- line LCD Display		X	0.070	=	0.100	=
RAX-LCD-LITE	Remote Annunciator with 4- line LCD Display		X	0.065	=	0.080	=
PR-300	Polarity Reversal and City Tie Module		X	0.050	=	0.300	=
SRM-312(W/R)	Smart Relay Module		X	0.030	=		=
RAM-1016TZDS	16 Point Annunciator Chassis		X	0.050	=	0.150	=
RAM-1032TZDS	32 Point Remote Annunciator		X	0.050	=	0.300	=
RAX-1048TZDS	48 Point adder annunciator display		X	0.022	=	1 zone active: 0.026 2 zone active: 0.030 3 zone active: 0.035 4 zone active: 0.039 48 zone active: 0.262	=
RTI-1	Remote Trouble Indicator, Buzzer and LED		X	0.035	=	0.035	=
MIX-1251AP(A)	Advanced Protocol Ion Smoke Detector (ULC)		X	0.000	=	0.005	=
MIX-2251AP(A)	Advanced Protocol Photo Smoke Detector (ULC)		X	0.000	=	0.005	=
MIX-2251TAP(A)	Advanced Protocol Photo Heat Detector (ULC)		X	0.000	=	0.005	=
MIX-2251TMAP(A)	Advanced Protocol Acclimate Detector (ULC)		X	0.000	=	0.005	=
MIX-5251AP(A)	Advanced Protocol Heat Detector (ULC)		X	0.000	=	0.005	=
MIX-5251HAP(A)	Advanced Protocol High Temperature Heat Detector (ULC)		X		=		=
MIX-5251RAP(A)	Advanced Protocol Rate of Rise Heat Detector (ULC)		X		=		=
MIX-M500MAP(A)	Advanced Protocol Monitor Module (ULC)		X	0.000	=	0.005	=
MIX-M500RAP(A)	Advanced Protocol Relay Control Module (ULC)		X	0.000	=	0.005	=
MIX-M500SAP(A)	Advanced Protocol Supervised Control Module (ULC)		X	0.000	=	0.005	=
MIX- M501DMAP(A)	Advanced Protocol Dual Input Mini Monitor Module (ULC)		X		=		=
MIX-M501MAP(A)	Advanced Protocol Mini Monitor Module (ULC)		X	0.000	=	0.002	=
MIX-M502MAP(A)	Advanced Protocol Conventional Zone Module (ULC)		X	0.000	=	0.005	=
B501BH(A)	Intelligent Sounder Base (ULC)		X	0.001	=	0.015	=
B501BHT(A)	Intelligent Temporal Tone Sounder Base (ULC)		X	0.001	=	0.015	=
INX-10A	Main Chassis (10 Amp)		X	0.005	=	0.005	=
Device & Remote LEDs (Maximum 20 per loop)			X				=
Signal Load (bells, horns, strobes, and etc.)			X				=
Auxiliary Power Supply (Aux 1, Aux 2, Un-filtered)					=	Alarm	=
Total currents (Add above currents)			STANDBY		(A)		(B)

#### Battery Capacity Requirement

Battery (AH) = (Standby Current Total x Discharge Time) + (Alarm Current Total x Alarm Time)

([STANDBY (A) \_\_\_\_] X [(24 Hours) \_\_\_\_]) + ([ALARM (B) \_\_\_\_] X [Alarm in Hr.] \_\_\_\_) = (C) \_\_\_\_AH

Total Alarm Current must be 10 amperes or less. NAC Circuits must not exceed 6 amperes.

#### Battery Selection

Battery Size = Multiply (C) by 1.20 to derate battery.

See the following table for the recommended Mircom batteries for use with this panel

Battery Model	Battery Size	UL/ULC Rating
BA-110	12AH	10AH
BA-117	18AH	17AH
BA-124	26AH	24AH
BA-140	42AH	40AH

BA-110 (12 AH) and BA-117 (18 AH) will fit into the BBX-1024DS.

To house BA-124 (26 AH) and BA-140 (42AH) batteries a BC-160 Battery Cabinet is required.

Use of alternative batteries may result in failure of the panel to meet agency and regulatory requirements, and may result in shortened battery life. Batteries should be tested regularly, and replaced at least every 3 years. If the Battery Trouble indicator activates, obtain required service.

## Ordering Information

Model	Description
FX-3500	Single Loop, 318 Point Intelligent Fire Alarm Control Unit with built-in UDACT/Digital Communicator, expandable to 954 points with ALC-636 Dual Loop controller module. Includes UB-1024DS back box and DOX-1024DS red door.
FX-3500RCU	All features of the FX-3500 plus releasing capability included.
FX-3500W	Single Loop, 318 Point Intelligent Fire Alarm Control Unit with built-in UDACT/Digital Communicator, expandable to 954 points with ALC-636 Dual Loop controller module. Includes UB-1024DS back box and DOX-1024DS white door.
FX-3500RCUW	All features of the FX-3500W plus releasing capability included.
<b>Optional Adder Modules</b>	
ALC-636	Dual Loop Controller Module
PR-300	Polarity Reversal/City Tie Module
PCS-100	Power Supply Interface Board
<b>Remote Annunciators</b>	
RAM-3500-LCD	Remote LCD Annunciator with 4-line display. Mounts in a BB-1000 Series enclosure.
RAX-LCD-Lite	Remote Annunciator with Large LCD display. Mounts in a BB-1000 Series enclosure.
RAX-1048TZDS	Programmable Remote LED Display Adder with 48 programmable bi-colored LEDs and 48 Trouble LEDs. Mounts in a BB-1000 Series enclosure.
RAM-1016TZDS	16 Zone Remote LED Annunciator with trouble LEDs. Mounts in a BB-1000 Series enclosure.
RAM-1032TZDS	32 Zone Remote LED Annunciator with trouble LEDs. Mounts in a BB-1000 Series enclosure.
AGD-048	Graphic Annunciator Adder Driver Module
MGD-32	Graphic Annunciator Driver Module
RTI-1	Remote Trouble Indicator, Buzzer and LED
<b>Enclosures for Remote Annunciators</b>	
BB-1001D	Remote enclosure, white door. Houses 1 module.
BB-1001DR	Remote enclosure, red door. Houses 1 module.
BB-1002D	Remote enclosure, white door. Houses 2 modules.
BB-1002DR	Remote enclosure, red door. Houses 2 modules.
BB-1003D	Remote enclosure, white door. Houses 3 modules.
BB-1003DR	Remote enclosure, red door. Houses 3 modules.
BB-1008D	Remote enclosure, white door. Houses 8 modules.
BB-1008DR	Remote enclosure, red door. Houses 8 modules.
BB-1012D	Remote enclosure, white door. Houses 12 modules.
BB-10012DR	Remote enclosure, red door. Houses 12 modules.
<b>Other Items</b>	
INX-10A	Intelligent NAC Expander Panel
BC-160	External Battery Cabinet
SRM-312W	Smart Relay Module with White Enclosure. Can support up to 12 relays.
SRM-312R	Smart Relay Module with Red Enclosure. Can support up to 12 relays.
MP-3500R	Solenoid EOL Module (Red) - 47K.
MP-3500W	Solenoid EOL Module (White) - 47K.
MP-300	End of Line Plate, White.
MP-300R	End of Line Plate, Red.

**Note:** For releasing application please see the Releasing Guide LT-1091

NOT TO BE USED FOR INSTALLATION PURPOSES.

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