



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP – 0584 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Potter Signal

Manufacturer's Technical Representative: Michael McIsaac

Mailing Address: 11790 Troy Lane North, Maple Grove, MN 55369

Telephone: (763) 428-0034 x2218

Email: michaelm@pottersignal.com

Product Information

Product Name: AFC, ARC, IPA, PSB, PFC, and PSN

Product Type: Fire Alarm Control Panels

Product Model Number: See Certified Product Listing Tables

(List all unique product identification numbers and/or part numbers)

General Description: Wall mounted fire alarm control panels. Seismic enhancements made to the test units to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Wall Mounted Rigid

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Contact Person: Galen Reid

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: (844) 878-0200

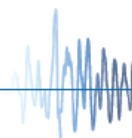
Email: greid@structint.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 9/5/2018

Title: Senior Engineer Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Name: Andrew M. Coughlin SE California License Number: S6082

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: (844) 878-0200 Email: acoughlin@structint.com

Supports and Attachments Preapproval

☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

☒ Supports and attachments are not preapproved

Certification Method

☒ Testing in accordance with: ☒ ICC-ES AC156

☐ Other (Please Specify): OSP-0584-10

BY: Ali Sumer

DATE: 05/13/2019

Testing Laboratory

Company Name: Element Materials Technology

Contact Name: Dan Larson

Mailing Address: 9725 Girard Ave. S., Minneapolis, MN 55431

Telephone: (952) 888-7795 Email: Dan.larson@element.com



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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.5 ($S_{DS} = 2.0g$); 1.13 ($S_{DS} = 2.5g$)

S_{DS} (Design spectral response acceleration at short period, g) = 2.0 ($z/h = 1.0$); 2.5 ($z/h = 0.0$)

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 ($S_{DS} = 2.0g$); 0.0 ($S_{DS} = 2.5g$)

Equipment or Component Natural Frequencies (Hz) = See Attachment

Overall dimensions and weight (or range thereof) = See Attachment

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = OSP-0584-10

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = BY: Ali Sumer

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = DATE: 05/13/2019

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☒ Manufacturer's Catalog

☒ Other(s) (Please Specify): Product Matrices

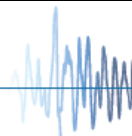
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: [Signature] Date: May 10, 2019

Print Name: Ali Sumer Title: DSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable): _____



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

1800992-CR-001 R1



Manufacturer:	Potter Signal	TABLE 1
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	

Certified Product Construction Summary:
16 gauge cold rolled carbon steel with removable locked door with or without Lexan viewing window. Fire Control Panels PSB and PSN have similar panel construction. Fire Control Panels IPA, ARC, AFC and PFC are similar to the PSN and PSB but with the addition of a Lexan viewing window.

Certified Options Summary:
Ultra Tech or Elk 12V Battery

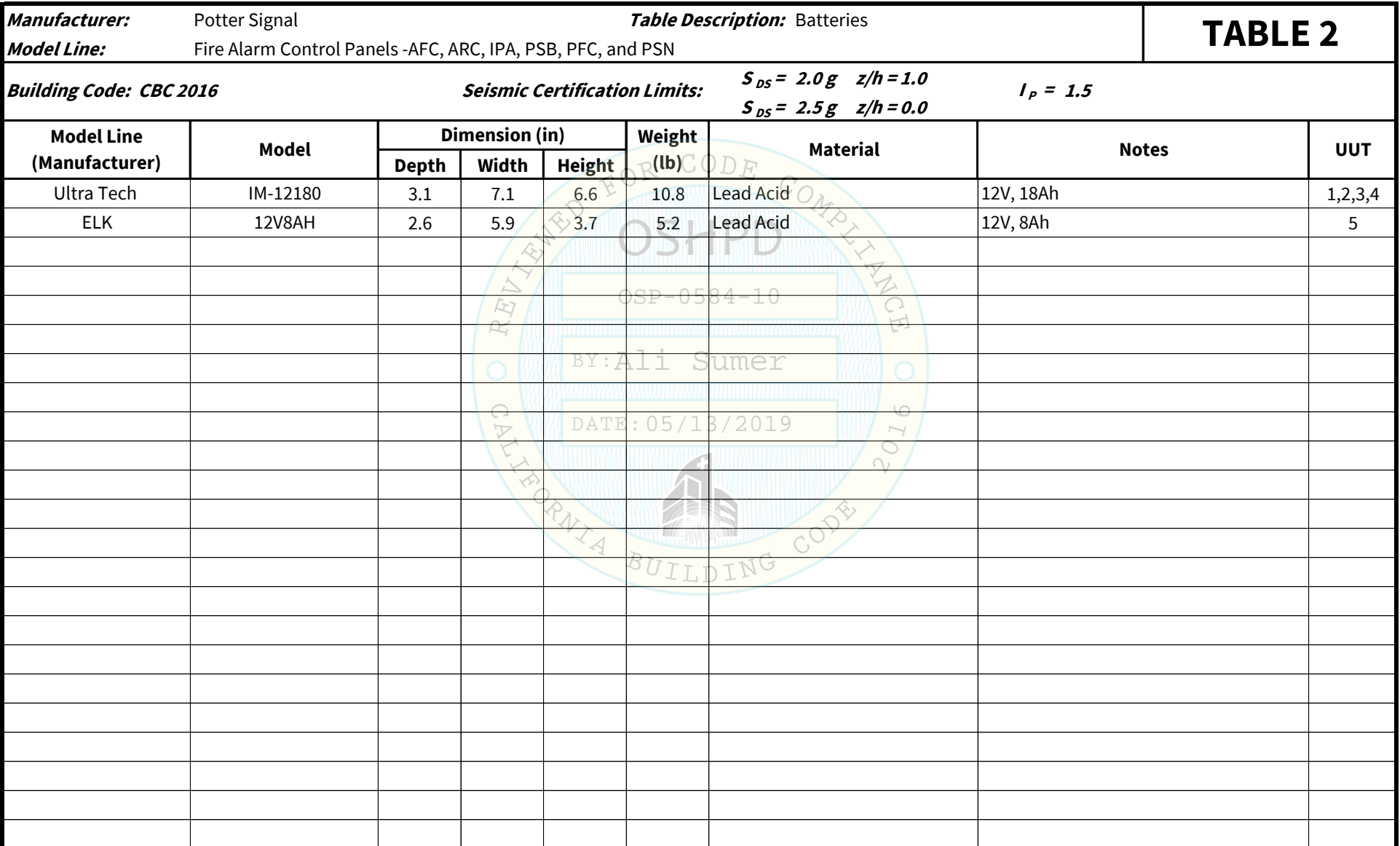
Mounting Configuration:
Wall mounted - rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: **CBC 2016** **Seismic Certification Limits:** $S_{DS} = 2.0g$ $z/h=1.0$ $I_p = 1.5$
 $S_{DS} = 2.5g$ $z/h=0.0$

Model Line	Model ¹	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Fire Alarm Control Panels	PFC-6066	4.8	14.3	18.5	30	Same as PFC-4064	Interp.
	PFC-4064	4.8	14.3	18.5	30		5
	AFC-50	3.9	16.0	17.0	41	Same as IPA-100	Interp.
	AFC-100	3.9	16.0	17.0	41	Same as IPA-100	Interp.
	ARC-100	3.9	16.0	17.0	41	Same as IPA-100	Interp.
	IPA-60	3.9	16.0	17.0	41	Same as IPA-100	Interp.
	IPA-100	3.9	16.0	17.0	41		1
	AFC-1000	4.4	18.9	27.3	63	Same as IPA-4000	Interp.
	IPA-4000	4.4	18.9	27.3	63		2
	PSB-10	3.5	16.1	16.8	41	Same as PSN-106	Interp.
	PSN-64	3.5	16.1	16.8	41	Same as PSN-106	Interp.
	PE-6SN	3.5	16.1	16.8	41	Same as PSN-106 (Branding)	Interp.
	PE-10SN	3.5	16.1	16.8	41	Same as PSN-106 (Branding)	Interp.
	PSN-106 Black	3.5	16.1	16.8	41	Same as PSN-106 (Color)	Interp.
	PSN-106	3.5	16.1	16.8	41		3
	JFS-PS1000	4.4	18.9	27.3	54	Same as PSN-1000	Interp.
	AE-14	4.4	18.9	27.3	54	Same as PSN-1000 (Branding)	Interp.
	PSN-1000	4.4	18.9	27.3	54		4

Notes: UUT 1 required a seismic upgrade to prevent the door from opening. This seismic upgrade is also required to be installed on interpolated models based on this test (AFC-50, AFC-100, ARC-100, & IPA-60). Details can be found in the UUT 1 summary sheet on page 7.

1800992-CR-001 R1



1800992-CR-001 R1



Model Line: Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN

[illegible]

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800992-CR-001 R1



Manufacturer:	Potter Signal	UUT 1
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	
Model Number:	IPA-100	
Serial Number:		70B3D51BE440

Product Construction Summary:
16 gauge cold rolled steel with removable locked door with Lexan viewing window

Options/Subcomponent Summary:
Ultra Tech 12 V Lead Acid Battery (2), dead front

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
41	3.90	16	17	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	1.67	0.67
			2.5	0.0	1.5				

Test Mounting Details:



#6 self-tapping screw

Unit mounted to wall fixture with five (5) 1/4"x 3/4" wood screws. Washers were used in addition to the wood screw at each corner. Door secured shut with the addition of a #6 self-tapping screw.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800992-CR-001 R1



Manufacturer:	Potter Signal	UUT 2
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	
Model Number:	IPA-4000	
Serial Number:		70B3D57A42D1

Product Construction Summary:
16 gauge cold rolled steel with removable locked door and Lexan viewing window

Options/Subcomponent Summary:
Ultra Tech 12 V Lead Acid Battery (2), dead front

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
63	4.4	18.9	27.3	N/A	N/A	N/A				
UUT Highest Passed Seismic Run Information										
Building Code		Test Criteria		S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156 (2015)		2.0	1.0	1.5	3.20	2.40	1.67	0.67
				2.5	0.0	1.5				

Test Mounting Details:



Unit mounted to wall fixture with five (5) 1/4"x 3/4" wood screws. Washers were used in addition to the wood screw at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800992-CR-001 R1



Manufacturer:	Potter Signal	UUT 3
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	
Model Number:	PSN-106	
Serial Number:		N/A

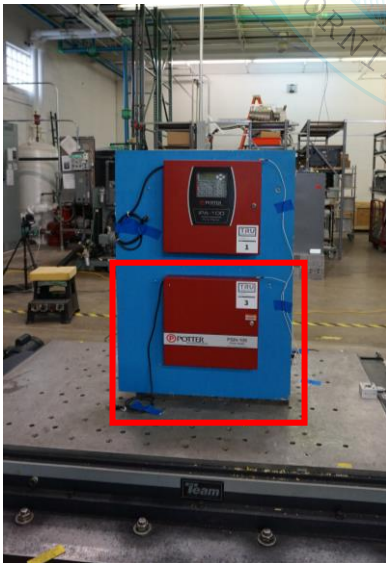
Product Construction Summary:
16 gauge cold rolled steel with removable locked door and Lexan viewing window.

Options/Subcomponent Summary:
Ultra Tech 12 V Lead Acid Battery (2), dead front

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
41	3.5	16.1	16.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



Unit mounted to wall fixture with five (5) 1/4"x 3/4" wood screws. Washers were used in addition to the wood screw at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800992-CR-001 R1



Manufacturer:	Potter Signal	UUT 4
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	
Model Number:	PSN-1000	
Serial Number:		N/A

Product Construction Summary:
16 gauge cold rolled steel with removable locked door

Options/Subcomponent Summary:
Ultra Tech 12 V Lead Acid Battery (2)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
54	4.4	18.9	27.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



Unit mounted to wall fixture with five (5) 1/4"x 3/4" wood screws. Washers were used in addition to the wood screw at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800992-CR-001 R1



Manufacturer:	Potter Signal	UUT 5
Model Line:	Fire Alarm Control Panels -AFC, ARC, IPA, PSB, PFC, and PSN	
Model Number:	PFC-4064	
Serial Number:		N/A

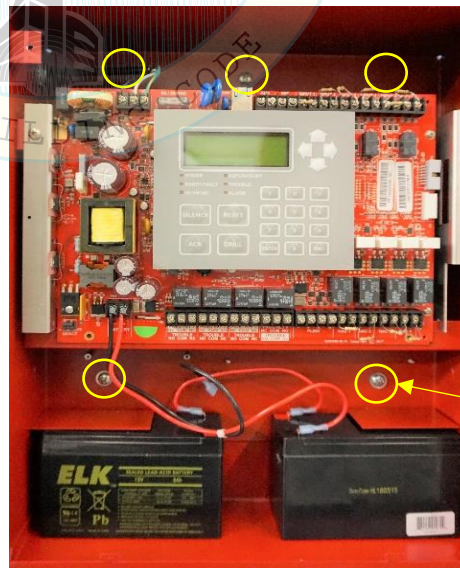
Product Construction Summary:
16 gauge cold rolled steel with removable locked door and Lexan viewing window

Options/Subcomponent Summary:
Elk 12 V Lead Acid Battery (2), dead front

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
30	4.8	18.5	14.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2016	ICC-ES AC156 (2015)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



1/4" x 3/4" wood screw with washer

Unit mounted to wall fixture with five (5) 1/4"x 3/4" wood screws. Washers were used in addition to the wood screw at each corner.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

TRU Compliance, by Structural Integrity Associates, Inc.

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