



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD PREAPPROVAL
OF MANUFACTURER'S CERTIFICATION (OPM)

OFFICE USE ONLY
APPLICATION #: OPM-0475-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [X] New [ ] Renewal [ ] Update to Pre-CBC 2013 OPA Number:

Manufacturer Information

Manufacturer: MIDMARK CORPORATION

Manufacturer's Technical Representative: Renee Browder

Mailing Address: 60 Vista Drive, Versailles, OH 45380

Telephone: (937) 526 - 8705 Email: RBrowder@midmark.com

Product Information

Product Name: Midmark Corporation Dental Phoenix Side Delivery

Product Type: Dental Cabinet

Product Model Number: 027-2093-00, 027-2093-01

General Description: Floor-supported cabinet

Applicant Information

Applicant Company Name: ZFA Structural Engineers

Contact Person: Ryan Bogart

Mailing Address: 601 Montgomery Street, Suite 1450, San Francisco, CA, 94111

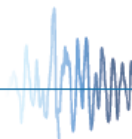
Telephone: 415-243-4091 x202 Email: ryanb@zfa.com

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: [Handwritten Signature] Date: 3/12/2018

Title: Senior Associate Company Name: ZFA Structural Engineers

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





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION**

**Registered Design Professional Preparing Engineering Recommendations**

Company Name: ZFA Structural Engineers  
Name: Mark Moore California License Number: S4443  
Mailing Address: 601 Montgomery Street, Suite 1450, San Francisco, CA, 94111  
Telephone: 415-243-4091 x201 Email: markm@zfa.com

**OSHPD Special Seismic Certification Preapproval (OSP)**

- Special Seismic Certification is preapproved under OSP-  
(Separate application for OSP is required)
- Special Seismic Certification is not preapproved

**Certification Method(s)**

- Testing in accordance with:  ICC-ES AC156  FM 1950-16
- Other\* (Please Specify): \_\_\_\_\_

\*Use of criteria other than those adopted by the California Building Standards Code, 2016 (CBSC 2016) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2016 may be used when approved by OSHPD prior to testing.

- Analysis
- Experience Data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify): \_\_\_\_\_

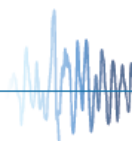
**List of Attachments Supporting the Manufacturer's Certification**

- Test Report  Drawings  Calculations  Manufacturer's Catalog
- Other(s) (Please Specify): \_\_\_\_\_

**OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2016 & ALL PRE-2016 CODE BASED PROJECTS**

Signature: Sonia Eliseo Date: 3/20/2019  
Print Name: Sonia Eliseo  
Title: SE  
Condition of Approval (if applicable): \_\_\_\_\_

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



EQUIPMENT MANUFACTURER:  
MIDMARK CORPORATION

OPM-0475-13

**ZFA STRUCTURAL ENGINEERS**  
601 montgomery street | suite 1450 | san francisco ca 94111 | 415.243.4091 | zfa.com

DATE: 03/07/2018  
JOB NO.: 18005

SHEET  
**1**  
OF 3

EQUIPMENT TYPE:  
UNIT# 027-2093-00 THROUGH 027-2093-01 (PHOENIX SIDE DELIVERY)

TABLE OF CONTENTS

GENERAL NOTES .....	1
ATTACHMENT DETAILS - (FRONT/SIDE ELEVATIONS) .....	2
CABINET WEIGHTS .....	3

GENERAL NOTES

- THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2016. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2016.
- SEISMIC DESIGN FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, 13.3-3, WHERE:  
 $S_{DS} = 2.20$ ,  $a_p = 1.0$ ,  $I_p = 1.5$  &  $R_p = 2.5$ ,  $z/h \leq 1.0$ .  
 A FACTOR OF 0.7 IS APPLIED TO CALCULATE ASD LOADS.  
 HORIZONTAL FORCE ( $E_h$ ) = 1.584  $W_p$  (UNFACTORED)  
 VERTICAL FORCE ( $E_v$ ) = 0.440  $W_p$  (UNFACTORED)
- THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY LOCATION WHERE THE  $S_{DS}$  DOES NOT EXCEED 2.20.
- ALL SEISMIC AND ANCHOR FORCES SHOWN ON THE DRAWINGS ARE UNFACTORED LOADS THAT SHALL BE USED FOR ALLOWABLE STRESS DESIGN (ASD).
- SHEET METAL SCREWS (SMS) SHALL CONFORM TO ICC-ES ESR-1976 OR ICC-ES ESR-2196. MINIMUM EDGE DISTANCE, SPACING, AND EMBEDMENT THROUGH STUDS PER ICC REPORT.
- THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO STRUCTURE. SEE SHEET 2 FOR LIGHT GAGE STEEL MINIMUM SPECIFICATIONS.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD (SEOR)

- DESIGN BACKING PLATES, STUDS, ETC. TO WHICH THE UNITS ARE ATTACHED, AS NOTED ON THE DRAWINGS.
- THE SEOR SHALL ALSO VERIFY THE ADEQUACY OF THE STRUCTURES WHICH SUPPORT THE UNIT (SUCH AS WALLS AND FLOORS) FOR LOADS IMPOSED BY THE UNIT, AS WELL AS ALL OTHER LOADS.
- PROVIDE ANY SUPPORTING STRUCTURE REQUIRED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
- VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2016 CBC AND WITH THE DETAILS SHOWN IN THIS DOCUMENT. VERIFY THAT THE ACTUAL EQUIPMENT WEIGHT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS, AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN IN THE PRE-APPROVAL DOCUMENTS.
- VERIFY THAT THE COMBINATION OF  $S_{DS}$  &  $z/h$  RESULT IN SEISMIC FORCES ( $E_h$ ,  $E_v$ ) THAT ARE NOT GREATER THAN THE VALUES IN THESE GENERAL NOTES.
- VERIFY THAT THE ATTACHMENTS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY END OR EDGE OF METAL STUD.



EQUIPMENT MANUFACTURER:  
MIDMARK CORPORATION

**OPM-0475-13**

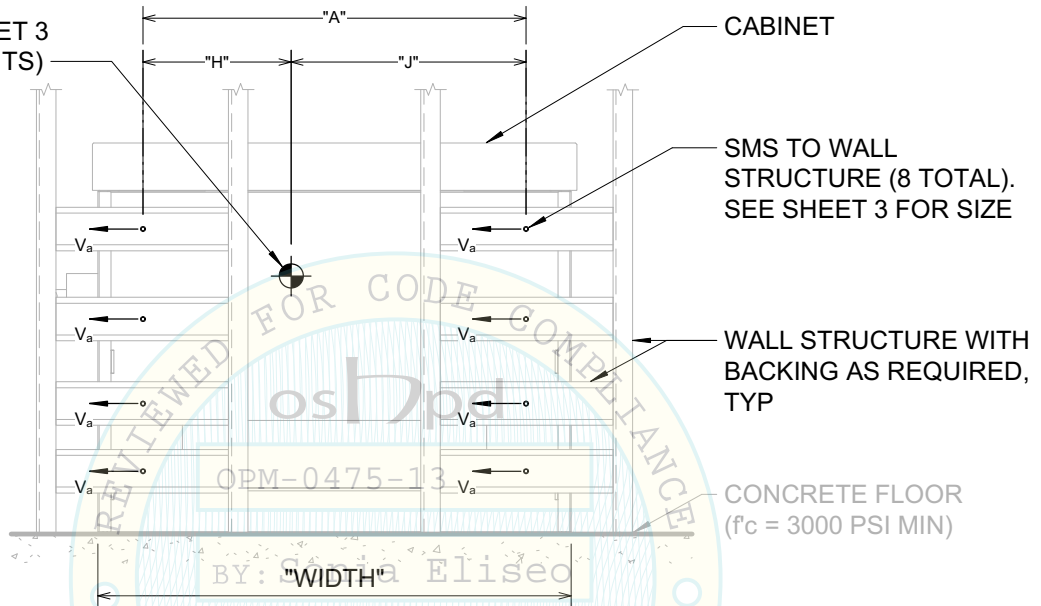
**ZFA STRUCTURAL ENGINEERS**  
601 montgomery street | suite 1450 | san francisco ca 94111 | 415.243.4091 | zfa.com

DATE: 03/07/2018  
JOB NO.: 18005

SHEET  
**2**  
OF 3

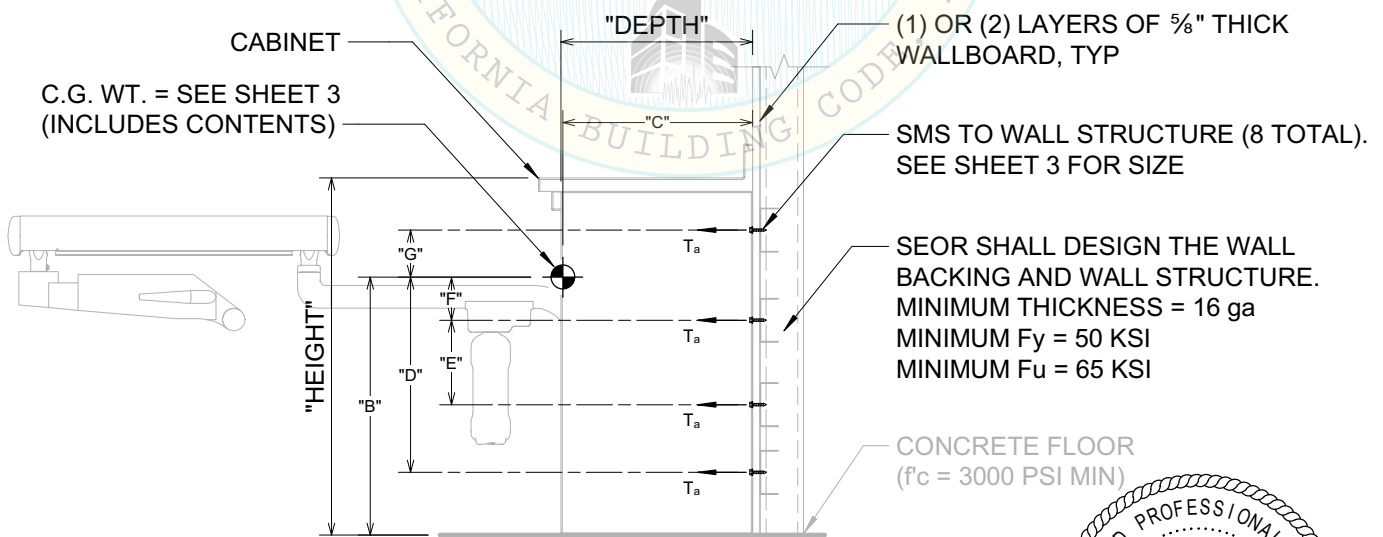
EQUIPMENT TYPE:  
UNIT# 027-2093-00 THROUGH 027-2093-01 (PHOENIX SIDE DELIVERY)

C.G. WT. = SEE SHEET 3  
(INCLUDES CONTENTS)



**FRONT ELEVATION**

C.G. WT. = SEE SHEET 3  
(INCLUDES CONTENTS)



**SIDE ELEVATION**

**NOTES**

1. SEE SHEET 1 FOR GENERAL NOTES.
2. FOR UNIT GEOMETRY, WEIGHT, AND ANCHOR/ATTACHMENT FORCES, SEE SHEET 3. CENTER OF GRAVITY (CG) WEIGHT IS A MAXIMUM.
3. A SIGN MUST BE POSTED ON ALL CABINETS TO INDICATE THE TOTAL WT LIMIT NOT TO BE EXCEED.
4. MINIMUM SCREW SPACING =  $\frac{3}{4}$ "; MINIMUM EDGE DISTANCE FOR SCREWS =  $\frac{3}{8}$ "



EQUIPMENT MANUFACTURER:  
MIDMARK CORPORATION

**OPM-0475-13**

**ZFA STRUCTURAL ENGINEERS**  
601 montgomery street | suite 1450 | san francisco ca 94111 | 415.243.4091 | zfa.com

DATE: 03/07/2018  
JOB NO.: 18005

SHEET  
**3**  
OF 3

EQUIPMENT TYPE:  
UNIT# 027-2093-00 THROUGH 027-2093-01 (PHOENIX SIDE DELIVERY)

**UNIT # 027-2093-XX**

UNIT # suffix	D (in)	E (in)	F (in)	G (in)	H (in)	J (in)	UNIT "HEIGHT" (in) = 31.69					UNIT WT (lb)	MEDIA WT (lb)	TOTAL WT (lb)	MAX SCREW LOADING		SMS
							B (in)	UNIT "WIDTH" (in)	A (in)	UNIT "DEPTH" (in)	C (in)				T <sub>a</sub>	V <sub>a</sub>	
							-00	17.3	7.5	3.8	4.2				13.1	20.9	
-01	17.3	7.5	3.8	4.2	20.9	13.1	22.9	42.0	34.0	17.0	15.7	244.1	0.0	244.1	78	34	#14

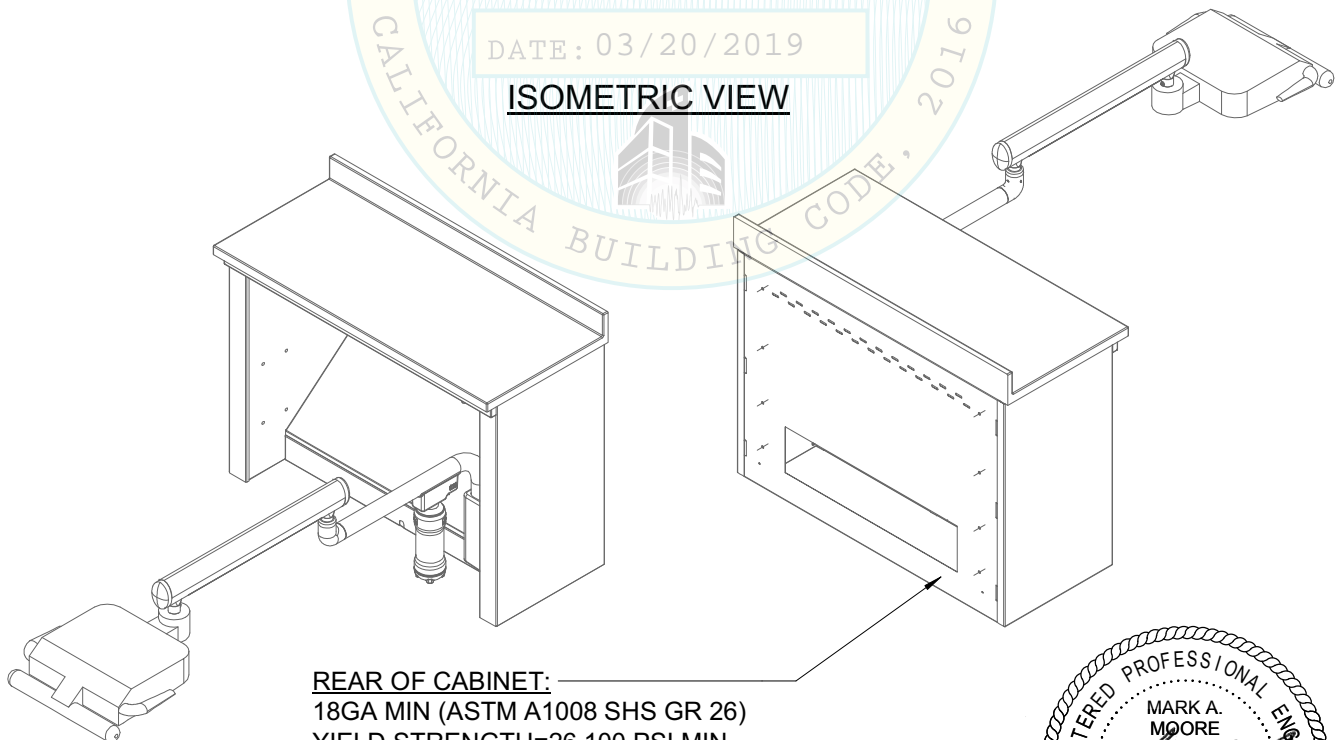
**NOTE**

1. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN IN TABLE.
2. MEDIA WEIGHT IS CALCULATED ACCORDING TO BIFMA FUNCTIONAL LOADING GUIDELINES. (ANSI/BIFMA X5.9-2012: TABLE 1- TEST LOADS AS USED FOR SECTION 4 UNIT STRENGTH TESTS)
3. UNITS THAT HAVE AN EXTENDABLE ARM ARE CALCULATED WITH THE ARMS IN THEIR FULLY EXTENDED POSITIONS.
4. A SIGN MUST BE POSTED ON ALL CABINETS TO INDICATE THE TOTAL WT LIMIT NOT TO BE EXCEED.
5. SCREW LOADS ARE ASD LEVEL VALUES.

BY: Sonia Eliseo

DATE: 03/20/2019

**ISOMETRIC VIEW**



**REAR OF CABINET:**  
18GA MIN (ASTM A1008 SHS GR 26)  
YIELD STRENGTH=26,100 PSI MIN

