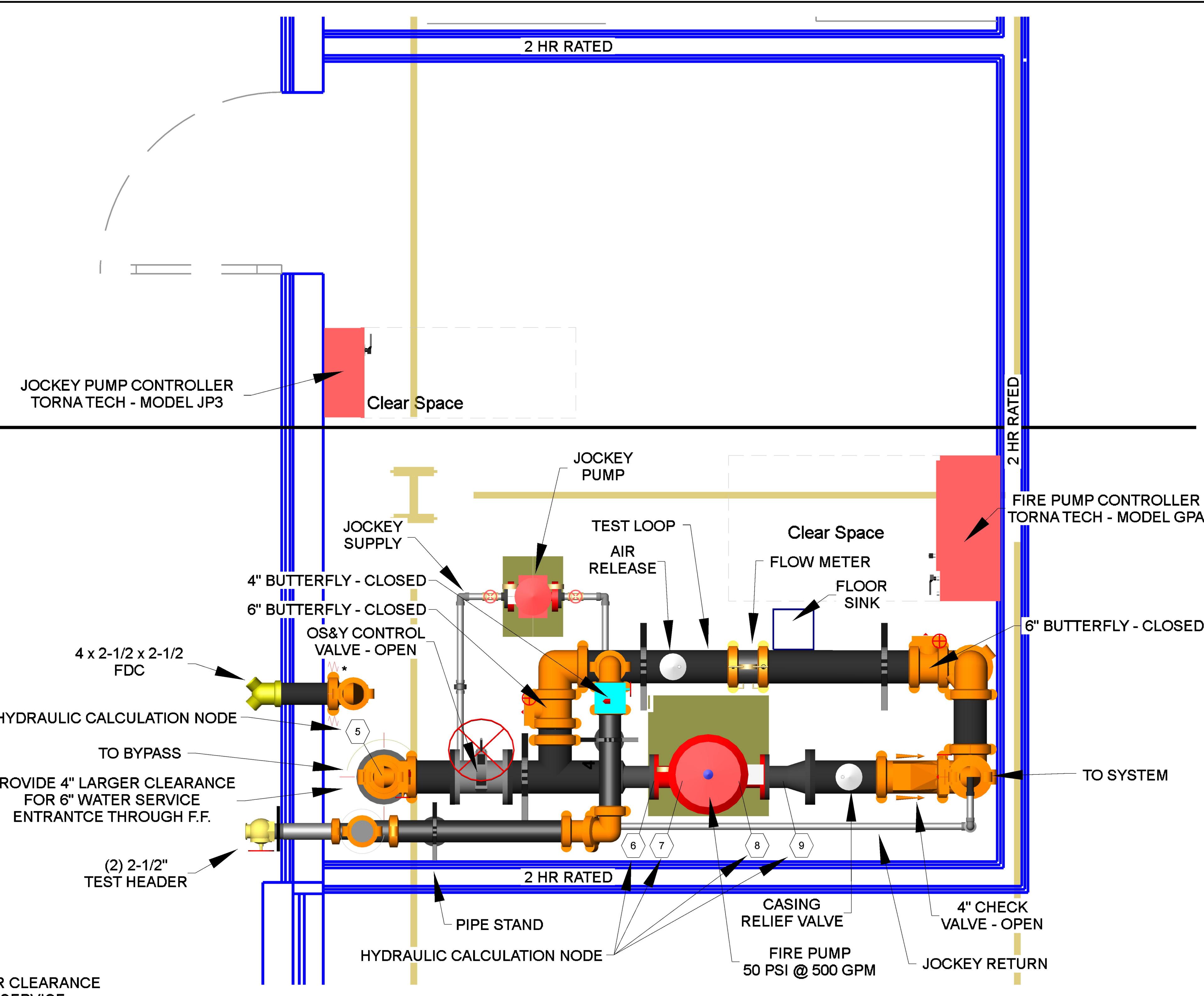


* JOCKEY PUMP CONTROL VALVES TO BE LOCKED IN THE OPEN POSITION
MOUNT JOCKEY PUMP ON (4) 3/8" x 6" KWIKBOLT KB-TZ



ELECTRIC FIRE PUMP LEGEND:		QTY
1.	6" Firelock Tee	2
2.	6" Butterfly Va. (Normally Open)	1
3.	6" Check Va	1
4.	UG SUPPLY (SUCTION)	1
5.	6" OS&Y CONTROL VALVE	1
6.	Jockey Pump Supply	1
7.	Jockey Pump Return	1
8.	Pipe Stand (TYP)	6
9.	BOOSTER PUMP (50 PSI @ 500 GPM)	1
10.	CASING RELIEF VALVE	1
11.	TO TEST LOOP AND FLOW METER	1
12.	FROM TEST LOOP AND FLOW METER	1
13.	6" Venturi Flow Meter (200-800GPM)	1
14.	6" Butterfly (Normally Closed)	2
15.	Air Release	1
16.	4" x 2 1/2 x 2 1/2 Test Header	1
17.	WFP Point of Connection	1
18.	Controller Sensing Lines Connection Point	1
20.	4" Check Va	2
21.	4" Butterfly Va (Normally Closed)	1
22.	4" Butterfly Va (Normally Open)	2
23.	6" x 4" Grv Concetric Reducer	2

GENERAL ARRANGEMENT		PUMP FLOW & PRESSURE	
<b>Pump Data</b>			
Series	Enpump		
Model	4-383-7C		
Size	4x4x7		
Flow	500.0 USgpm		
Rated Pressure	50.0 psi g		
RPM	3560		
Revolutions	Right handed		
Liquid Type	Water		
Discharge Size	4.00 in		
Suction Size	4.00 in		
Impeller Diameter	6.00 in		
Connection Type	125/125		
Base Type	Steel bent form base		
<b>Pump Materials of Construction</b>			
Pump	Bronze fitted with Cast Iron casing		
Shaft	Cast Iron		
Motor Data			
Power	25.00 hp		
Phase	3		
Frequency	60 Hz		
Volts	230/460 V		
RPM	3560		
Frame	256A		
Service Factor	1.15		
Enclosure	OOP		
Manufacturer	PENTAIR		
<b>Site Information</b>			
Elevation	798.97 ft		
Temperature	95.00 deg F		
Estimated Weights			
Pump	191.0 lb		
Driver	247.0 lb		
<b>NOTES:</b>			
1)	An approved source of heat shall be provided by others.		
-Per NFPA 20 Section 4.13.3.1: An approved or listed source of heat shall be provided for maintaining the temperature of a pump room or pump house, where required, above 40°F (4°C).			
2)	Normal and emergency lighting shall be provided.		
-Per NFPA 20 Section 4.13.4 Normal Lighting: Artificial light shall be provided in a pump room or pump house.			
-Per NFPA 20 Section 4.13.5.1: Pump rooms shall be provided with emergency lighting.			
3)	Ventilation shall be provided via the two vented utility room doors.		
-Per NFPA 20 Section 4.13.6 Ventilation: Provision shall be made for ventilation of a pump room or pump house.			
4)	Outside access to the pump room is provided through a fence gate near the pump room double doors at south side of building (See site plan).		
5)	Pipe for the pumps shall be hung and braced per NFPA 13 requirements (See seismic notes on sheet FP04).		
6)	Phase converters shall not be used to supply power to a fire pump per NFPA 20 Section 9.17.		
7)	No ground fault or arc fault interruptions means shall be installed in any fire pump control or power circuit per NFPA 20 Section 9.1.8.		
8)	An alternate source of power shall be provided where the normal source is not reliable per NFPA 20 Section 9.3.2.		
9)	Tops of risers exceeding 3'-0 in length shall be provided with a 4-way brace per NFPA 13 Section 9.3.5.8.1.		

PROJECT: PALOMAR MEDICAL CENTER MOB 3	DRAWING REVISIONS	CONTRACT DATA
MR. DATE BY: 1-12/2021 ADK	REVISION COMMENTS	CONTRACTOR: LEVEL 10 CONSTRUCTION
1. 21255 HIGH BLUFF DRIVE #200		ADDRESS: ESCONDIDO, CA 92130
CITY: ESCONDIDO		OWNER: NICK GRAZIANO 858-997-3963
PHONE: 858-997-3963		ADDRESS: CITY: ZIP: APN:
DRAWING NUMBER: C-3590		
SCALE: PER PLAN		
DRAWN BY: ADK		
DATE: 9-30-21		
SHEET: FP-2		
TITLE: FIRE PUMP SETTINGS: Pump settings per 2016 NFPA 20 sec. A14.2.6 (4).		
i. Pump: 500 gpm, 50 psi Pump with churn pressure of 61 psi.		
ii. Suction Supply: 68 psi from city - maximum static.		
iii. Jockey pump stop = 56 psi + 68 psi = 124 psi.		
iv. Jockey pump start = 119 - 10 psi = 109 psi.		
v. Fire pump start = 109 psi - 5 psi = 104 psi.		
vi. Fire pump maximum churn = 61 psi + 68 psi = 124 psi.		
SCHEMATIC PIPING CONNECTION FOR PRESSURE-SENSING LINE & JOCKEY PUMP PIPING PLAN		
SCALING: NONE		
* JOCKEY PUMP CONTROL VALVES TO BE LOCKED IN THE OPEN POSITION		
MOUNT JOCKEY PUMP ON (4) 3/8" x 6" KWIKBOLT KB-TZ		
1 1/2 x 1 1/2 x tee		
NOTES:		
- NORMALLY OPEN VALVE		
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.		
WARNING		
Pump Performance Curve		
Pump Data		
General Arrangement		
Pump Flow & Pressure		
Pump Materials of Construction		
Site Information		
NOTES:		
1) An approved source of heat shall be provided by others.		
-Per NFPA 20 Section 4.13.3.1: An approved or listed source of heat shall be provided for maintaining the temperature of a pump room or pump house, where required, above 40°F (4°C).		
2) Normal and emergency lighting shall be provided.		
-Per NFPA 20 Section 4.13.4 Normal Lighting: Artificial light shall be provided in a pump room or pump house.		
-Per NFPA 20 Section 4.13.5.1: Pump rooms shall be provided with emergency lighting.		
3) Ventilation shall be provided via the two vented utility room doors.		
-Per NFPA 20 Section 4.13.6 Ventilation: Provision shall be made for ventilation of a pump room or pump house.		
4) Outside access to the pump room is provided through a fence gate near the pump room double doors at south side of building (See site plan).		
5) Pipe for the pumps shall be hung and braced per NFPA 13 requirements (See seismic notes on sheet FP04).		
6) Phase converters shall not be used to supply power to a fire pump per NFPA 20 Section 9.17.		
7) No ground fault or arc fault interruptions means shall be installed in any fire pump control or power circuit per NFPA 20 Section 9.1.8.		
8) An alternate source of power shall be provided where the normal source is not reliable per NFPA 20 Section 9.3.2.		
9) Tops of risers exceeding 3'-0 in length shall be provided with a 4-way brace per NFPA 13 Section 9.3.5.8.1.		

PROJECT: PALOMAR MEDICAL CENTER MOB 3	DRAWING REVISIONS	CONTRACT DATA
MR. DATE BY: 1-12/2021 ADK	REVISION COMMENTS	CONTRACTOR: LEVEL 10 CONSTRUCTION
1. 21255 HIGH BLUFF DRIVE #200		ADDRESS: ESCONDIDO, CA 92130
CITY: ESCONDIDO		OWNER: NICK GRAZIANO 858-997-3963
PHONE: 858-997-3963		ADDRESS: CITY: ZIP: APN:
DRAWING NUMBER: C-3590		
SCALE: PER PLAN		
DRAWN BY: ADK		
DATE: 9-30-21		
SHEET: FP-2		
TITLE: FIRE PUMP SETTINGS: Pump settings per 2016 NFPA 20 sec. A14.2.6 (4).		
i. Pump: 500 gpm, 50 psi Pump with churn pressure of 61 psi.		
ii. Suction Supply: 68 psi from city - maximum static.		
iii. Jockey pump stop = 56 psi + 68 psi = 124 psi.		
iv. Jockey pump start = 119 - 10 psi = 109 psi.		
v. Fire pump start = 109 psi - 5 psi = 104 psi.		
vi. Fire pump maximum churn = 61 psi + 68 psi = 124 psi.		
SCHEMATIC PIPING CONNECTION FOR PRESSURE-SENSING LINE & JOCKEY PUMP PIPING PLAN		
SCALING: NONE		
* JOCKEY PUMP CONTROL VALVES TO BE LOCKED IN THE OPEN POSITION		
MOUNT JOCKEY PUMP ON (4) 3/8" x 6" KWIKBOLT KB-TZ		
1 1/2 x 1 1/2 x tee		
NOTES:		
- NORMALLY OPEN VALVE		
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.		
WARNING		
Pump Performance Curve		
Pump Data		
General Arrangement		
Pump Flow & Pressure		
Pump Materials of Construction		
Site Information		
NOTES:		
1) An approved source of heat shall be provided by others.		
-Per NFPA 20 Section 4.13.3.1: An approved or listed source of heat shall be provided for maintaining the temperature of a pump room or pump house, where required, above 40°F (4°C).		
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7) No ground fault or arc fault interruptions means shall be installed in any fire pump control or power circuit per NFPA 20 Section 9.1.8.		
8) An alternate source of power shall be provided where the normal source is not reliable per NFPA 20 Section 9.3.2.		
9) Tops of risers exceeding 3'-0 in length shall be provided with a 4-way brace per NFPA 13 Section 9.3.5.8.1.		

## Sprinkler Legend - FP3

Remote Area 1

Qty 221

Model V2704

K-Factor 2.16

Type Sprinkler

Finish Brass

Temp 200°F

Note WIREGUARD

Bass

Bright

Quick

Gluck

Pendant

Quick

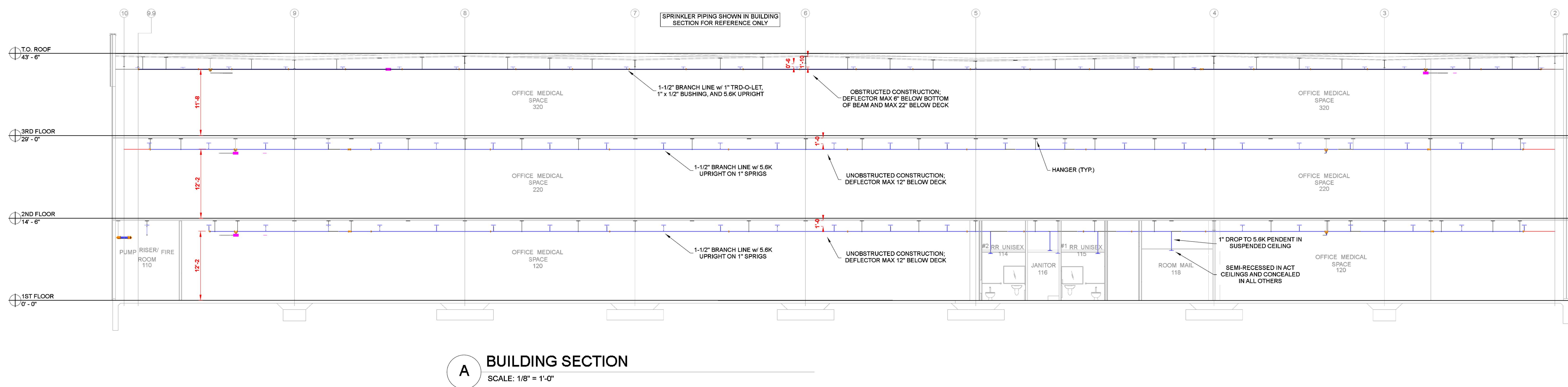
Total 244

Brass

RECESSED

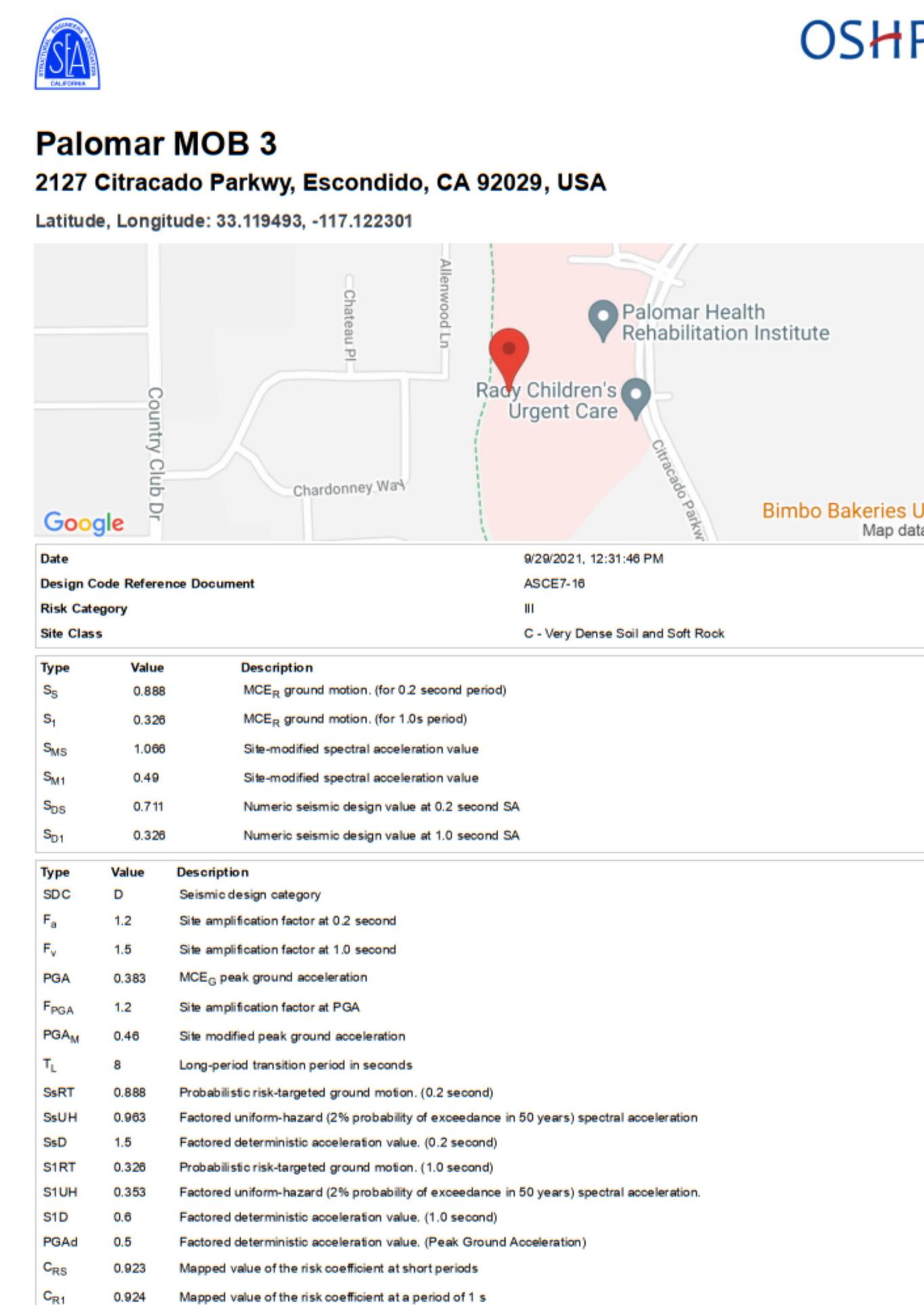
CONCEALED

Total 0



**A** BUILDING SECTION

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



**TOLBrace™ Seismic Bracing Calculations**

Project Address: PALOMAR MOB 3  
2127 CITRACADO PARKWAY  
ESCONDIDO, CA 92029  
Job # C-3590 Calculations based on 2016 NFPA Pamphlet #13

**Brace Information**

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch. 40
Angle of Brace	30° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	926 lbs (420 kg)

**TOLCO™ Brace Components**

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	2015 lbs (914 kg)	1007 lbs (457 kg)
Fig. 980 Universal Swivel	2015 lbs (914 kg)	1007 lbs (457 kg)
Fig. 828 Across Beam	2015 lbs (914 kg)	1007 lbs (457 kg)

\*Please Note: These calculations are for TOLCO ENTRIC Loading only. Use of any other components voids these calculations and the listing of the assembly.

**Seismic Brace Assembly Detail**

**Fastener Information**

Orientation to Connecting Surface	NFPA Type A
Fastener	Fig. 828 Across Beam
Type	
Diameter	N/A
Length	N/A
Maximum Load	1007 lbs (457 kg)

**Brace Identification on Plans** 3' LATERAL

Brace Type	Lateral [X]	Longitudinal [ ]	4-Way [ ]
Prying Factor	N/A		

**Sprinkler System Load Calculation ( $F_{pw} = C_p W_p$ )**

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	7.94 lb/ft (11.82 kg/m)	159 lbs (72 kg)
1.5" (40 mm)	Sch. 10	300 ft (91.4 m)	300 ft (91.4 m)	3.04 lb/ft (4.52 kg/m)	912 lbs (414 kg)

Subtotal Weight: 1071 lbs (486 kg)  
Wp (ind. 15%): 1232 lbs (559 kg)

Main Size: 3"  
Type/Sch.: Sch. 10  
Spacing (R): 20  
Total (Fpw): 585 lbs (265 kg)  
Maximum Fpw per 9.3.5.2 (if applicable): 966 lbs (438 kg)

(TOLBrace™ Version 8) Use of TOLBrace™ is subject to terms and conditions per the end user license agreement

**TOLBrace™ Seismic Bracing Calculations**

Project Address: PALOMAR MOB 3  
2127 CITRACADO PARKWAY  
ESCONDIDO, CA 92029  
Job # C-3590 Calculations based on 2016 NFPA Pamphlet #13

**Brace Information**

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch. 40
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

**TOLCO™ Brace Components**

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4L Clamp	2015 lbs (914 kg)	1425 lbs (646 kg)
Fig. 980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
Fig. 828 Along Beam	2015 lbs (914 kg)	1425 lbs (646 kg)

\*Please Note: These calculations are for TOLCO ENTRIC Loading only. Use of any other components voids these calculations and the listing of the assembly.

**Seismic Brace Assembly Detail**

**Fastener Information**

Orientation to Connecting Surface	NFPA Type B
Fastener	Fig. 828 Along Beam
Type	
Diameter	N/A
Length	N/A
Maximum Load	1425 lbs (646 kg)

**Brace Identification on Plans** 3' LONGITUDINAL

Brace Type	Lateral [ ]	Longitudinal [X]	4-Way [ ]
Prying Factor	N/A		

**Sprinkler System Load Calculation ( $F_{pw} = C_p W_p$ )**

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	80 ft (24.4 m)	80 ft (24.4 m)	7.94 lb/ft (11.82 kg/m)	635 lbs (286 kg)

Subtotal Weight: 635 lbs (286 kg)  
Wp (ind. 15%): 730 lbs (331 kg)

Main Size: 3"  
Type/Sch.: Sch. 10  
Spacing (R): 80  
Total (Fpw): 347 lbs (157 kg)  
Maximum Fpw per 9.3.5.2 (if applicable): N/A

(TOLBrace™ Version 8) Use of TOLBrace™ is subject to terms and conditions per the end user license agreement

PROJECT:	PALOMAR MEDICAL CENTER MOB 3			DRAWING REVISIONS	CONTRACT DATA
MR. DATE BY REVISIONS MADE				1/12/22 ADK	LEVEL: 10 CONSTRUCTION
LOCATION:				2/12/22 ADK	ADDRESS: 2127 CITRACADO PARKWAY
PHONE:				3/12/22 ADK	CITY: ESCONDIDO, CA 92029
OWNER:				4/12/22 ADK	OWNER: NICK GRAZIANO
ADDRESS:				5/12/22 ADK	ADDRESS: 858-987-3963
CITY:				6/12/22 ADK	CITY: ZIP: APN:
JOB NO:				7/12/22 ADK	
SCALE:				8/12/22 ADK	
DRAWN BY:				9/12/22 ADK	
DATE:				10/12/22 ADK	
SHEET:				11/12/22 ADK	
6 OF 6				12/12/22 ADK	
FP-6				1/12/23 ADK	