Jack Fenny

From: Tim Lyons
Sent: Wednesday, December 28, 2016 3:17 PM
To: Jack Fenny
Cc: Van Stragand
Subject: Re: UVA Racks
Attachments: RA-01_3D_03 - Weight and hanger detail.pdf

Jack,

That will work for us. Please use PO# C6211

Van,

1. The duct is 10 lb / per ft.

2. Attached is the a piping size drawing with weight chart.

3. I am still working on the HWS/R attachment in regards to the thermal loading.

Please let me know if you have any questions / concerns.

Thank you,

Tim Lyons

Mechanical Control Systems | 26-B Keewaydin Drive | Salem, NH 03079

978.674.7252

Our Website

On Wed, Dec 21, 2016 at 4:24 PM, Jack Fenny <jack@fenny.com> wrote:

> Tim
>
> This is the scope as we see it based on your conversation with Van today.

Design frame components to worst case maximum loads (to be provided). This includes dead weight and seismic loadings.

Size support rods for suspending frame from ceiling based on maximum loading.

Provide recommended seismic support design as required (cabling is customer preferred method)

Provide final design evaluation report

This probably could be completed by Jan 6th provide will get whatever information is still lacking by sometime next week.

Price: $2650.00

Jack Fenny, PE

Fenny Engineering Co

(T) 941-488-7188

(E) Jack@Fenny.com

From: Tim Lyons [mailto:tlyonsp@gmail.com]
Sent: Tuesday, December 20, 2016 1:46 PM
To: Jack Fenny <jack@fenny.com>; Van Stragand <Van@fenny.com>
Subject: UVA Racks

Jack,

Can you send me pricing and lead time for the design of the attached frame?

We'll need to include the follow:

1. Frame design for DL and Seismic Load

2. Minimum Threaded Rod sizing (Rod at 6' in length)

3. Customer does not want angles. The angles in the drawing were added conceptually. They would like to minimize the angle if possible.

4. Seismic Design Criteria Below:

a.

F. SEISMIC DESIGN CRITERIA

1. THE STRUCTURE AND COMPONENTS OF THE BUILDING HAVE BEEN DESIGNED IN ACCORDANCE WITH AFOREMENTIONED BUILDING CODE WITH THE FOLLOWING CRITERIA:

a. 0.2 SEC. SPECTRAL ACCELERATION (SS) (%G): 0.209
b. 1 SEC. SPECTRAL ACCELERATION (S1) (%G): 0.069
c. SITE CLASS: C
d. SITE COEFFICIENT, SHORT PERIOD (FA): 1.2
e. SITE COEFFICIENT, 1 SEC. PERIOD (FV): 1.7
f. 0.2 SEC SPECTRAL RESPONSE COEFF. (SDS) (%G): 0.167
g. 1 SEC SPECTRAL RESPONSE COEFF. (SD1) (%G): 0.078
h. DESIGN SEISMIC BASE SHEAR (KIPS): 1317 K A
i. PLAN STRUCTURAL IRREGULARITY TYPE: EXTREME TORSIONAL
j. VERTICAL STRUCTURAL IRREGULARITY TYPE: NONE
k. ANALYTICAL PROCEDURE: EQUIVALENT LATERAL FORCE
l. LATERAL SYSTEM: ORDINARY REINFORCED CONCRETE SHEARWALLS
AMBULANCE CANOPY/ROOF: ORDINARY MOMENT FRAMES A
m. RESPONSE MODIFICATION FACTOR, R=4 & R=3.5 (CANOPY/ROOF)
n. SYSTEM OVERSTRENGTH FACTOR, OMEGA = 2.5 & R=3 (CANOPY/ROOF)
o. DEFLECTION AMPLIFICATION FACTOR, Cd = 4.0 & R=3 (CANOPY/ROOF)
p. RISK CATEGORY = IV
q. OCCUPANCY IMPORTANCE FACTOR, I = 1.5
r. SEISMIC DESIGN CATEGORY = C

Please let me know if you have any questions or concerns.

Thank you,

Tim Lyons

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