

PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITTEE ON SITE FOR ALL INSPECTIONS

Structural Calculations For:

CITC Puyallup South Building

Tenant Improvement

405 Valley Ave NW

Puyallup, WA



Prepared for:

Rhodes Architecture and Light

Date:

June 20, 2023



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CITC So Bldg

SCOPE OF WORK:

1. ADD/RE INTERIOR PARTITION WALLS
2. FURRING WALLS
3. REPLACE (E) MACH UNIT W/ N UNIT AT SAME LOCATION.

1. INTERIOR PARTITION

HEIGHT = 25'-9"

SEISMIC OUT-OF-PLANE 5 PSF

$$M = 25.75^2 / 8 \cdot .005 = .414 \text{ k/ft/ft}$$

$$6006125 \cdot 43 \text{ @ } 16'' \text{ @ } 2 ; M_A = 10.16 \text{ k-in} \text{ OR}$$

$$0.85 \text{ k/ft} > .414 \cdot 1.33 = 0.55$$

$$\Delta = 1.26'' \text{ @ } 245$$

2. FURRING WALL

HEIGHT = 25'-9"

BRACE TO (E) CONC TILT AT MID HEIGHT & TOP

$$25.75' / 2 \cdot 5 \text{ PSF} = 65 \text{ PLF}$$

USE AC508 CLIPS W/ (4) #10 SCREWS

$$F_1 = 804\# \rightarrow \text{SPACE OUT } 4 \text{ FT @ } 2 \text{ HORIZ}$$

$$F = 4 \cdot 65 = 260\#$$

AT OPENING: HEIGHT OF WALL ABV. : 25.75 - 9 FT = 16.75 FT

$$\text{IF NO HDR: VERT LOAD} = 16.75 \text{ FT} \times 5 \text{ PSF} = 84\#$$

AC508 CLIP W/ (4) #10 SCREWS

$$F_3 = 804\# \rightarrow \text{SPACE AT } 4 \text{ FT @ } 2$$

$$F = 84 \times 4 = 336\#$$



PROJECT

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DESIGN

1

SHEET

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3. N MECH UNIT AT (E) LOCATION:

(E) UNIT WEIGHT = 622#

(N) UNIT WEIGHT = 874# (INCLUDES CURB)

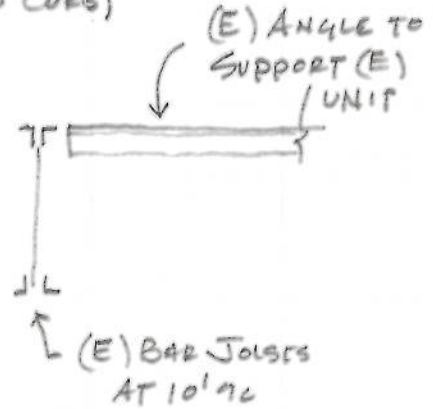
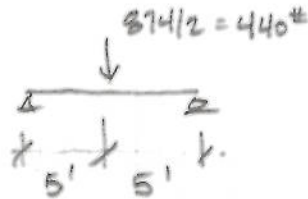
(E) L5x3x1/4

$M = 1.1 \text{ KIFT}$

$f_b = 8.74 \text{ ksi}$

$\Delta = 0.11'' \text{ L/1120}$

* CONTR TO VERIFY MIN ANGLE SIZE OF L5x3x1/4



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SHEET 2