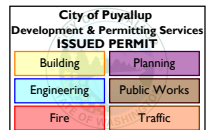


SHBTC Water Heater Support
1019 39th Ave SE, Suite 250
Puyallup, WA 98374

Structural Details and Calculations

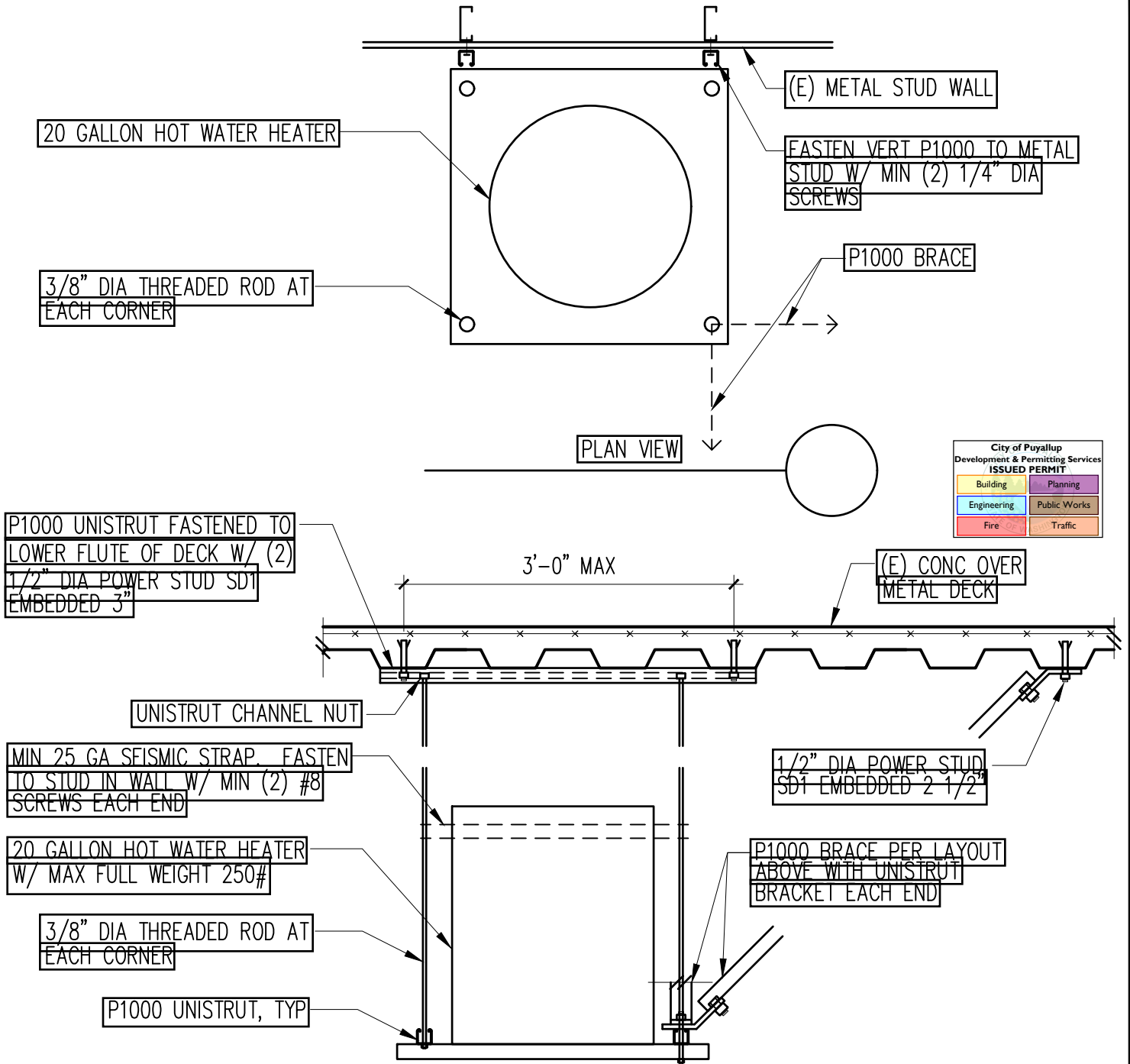
THE APPROVED CONSTRUCTION PLANS,
DOCUMENTS AND ALL ENGINEERING MUST
BE POSTED ON THE JOB AT ALL
INSPECTIONS IN A VISIBLE AND READILY
ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE
REQUIRED TO BE PROVIDED BY THE
PERMITEE ON SITE FOR INSPECTION



Prepared For:
MacDonald-Miller Facility Solutions
7717 Detroit Avenue SW
Seattle, WA 98106

February 15, 2022



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

Water Heater Support

3/4"=1'-0"

STABBERT
ENGINEERING

3040 78TH AVE. SE #501 • MERCER ISLAND • WA 98040
O • 425-968-5432 W • www.stabbertengineering.com

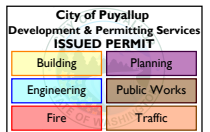
SHBTC Water Heater

1019 39th Ave SE, Suite 250
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DESIGN BY: **MPS**
PROJECT NO.: **1044-2021-14**
DATE: **11/16/2021**
SHEET: **SSK1**



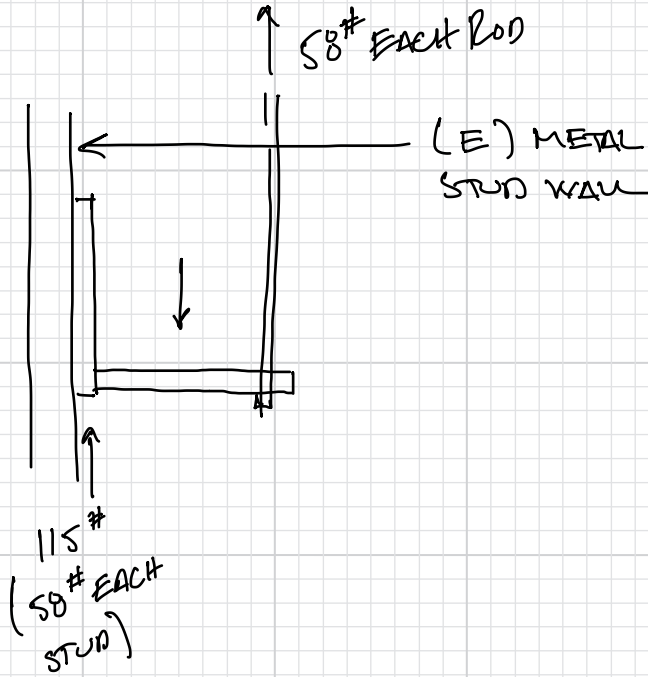
Structural Calculations



WEIGHT OF WATER

HEATER:

$$W = 68 \# + 8.2(19) = 230 \#$$



CONSIDER BEAM

$$F_p = \frac{0.4 q_p S D_s W_p}{R_p / I_p} \left(1 + 2 z / h \right)$$

$$F_p = \frac{0.4(1.0)(1.0)}{2.5} (3) W_p = 0.48 W_p = 0.34 W_p$$

$$F_p = (0.34)(230 \#) = 78 \#$$

CONSIDER ATTACHMENT TO WALL:

FOR 1/4" SCREW INTO 18 MIL STUDS $F_v = 60 \#$

=> MIN 1/4" SCREW EACH SIDE INTO STUD.

