

PREPARED BY: AJS

DATE: 4/11/23

PROJECT TITLE: PID:105909 Location 3

Item 513 e10201 Structural Steel Members,
Level UF, As Per Plan

$$\text{Total} = [L \ 4" \times 4" \times \frac{3}{8}" + \text{Bottom Plate (6)} + \text{Top Plate (13)} \\ + L \ 8" \times 8" \times \frac{1}{2}"] \cdot (2)$$

$$L \ 4" \times 4" \times \frac{3}{8}" \Rightarrow \text{Total Length} \cdot \text{Unit Weight} \\ 120 \text{ ft} \cdot 9.8 \text{ lb/ft} = \underline{1176.0 \text{ lbs}}$$

$$\text{Bottom Plate} \Rightarrow \text{Thickness} \cdot \text{Width} \cdot \text{Height} \cdot \text{Unit Weight} \cdot (6) \\ 0.042 \text{ ft} \cdot 1.25 \text{ ft} \cdot 1 \text{ ft} \cdot 490 \text{ lbs/cf} \cdot (6) \\ = \underline{153.12 \text{ lbs}}$$

$$\text{Top Plate} \Rightarrow " \cdot (13) \\ 0.042 \text{ ft} \cdot 2.25 \text{ ft} \cdot 1 \text{ ft} \cdot 490 \text{ lb/cf} \cdot (13) \\ = \underline{597.19 \text{ lbs}}$$

$$L \ 8" \times 8" \times \frac{1}{2}" \Rightarrow \text{Total Length} \cdot \text{Unit Weight} \\ 2.47 \text{ ft} \cdot 26.4 \text{ lb/ft} = \underline{912.45 \text{ lbs}}$$

$$\text{Total} = [1176.0 \text{ lbs} + 153.12 \text{ lbs} + 597.19 \text{ lbs} \\ + 912.45 \text{ lbs}] \cdot (2) = \boxed{5677.52 \text{ lbs}}$$