

Staffing Analysis



Daily Staffing



Daily staffing

Station	Eng/Ladd/Squad	Ambulance	BC	MOF	Blocker	Sum
1*	5	2				7
2	3	2	1		1	7
3	3	2				5
4	3	2				5
5	3	2				5
6	3	2				5
7*	5	2		1		8
*Squad stations						42

Annual Obligated Hours



Daily Min Staffing		Hr./day		Days in a fiscal year		Annual Obligated Hours
42	X	24	X	365	=	367,920

Hours in firefighter shift schedule per year 48/96 w/o Kelly day – 2920hrs



Step-by-step:

1. A full shift cycle is
48 hours on + 96 hours off = 144 hours per cycle

2. One year has
365 days × 24 hours = 8,760 hours per year

3. Number of cycles per year:
8,760 ÷ 144 ≈ 60.83 cycles

4. Hours worked per year:
60.83 cycles × 48 hours ≈ 2,920 hours per year

Hours taken off



PTO FY 2024	Hrs.
Training	13,069
PPI	791
sick	17,824
Bereavement	420
Admin	317
Est. 3 Light Duty nonwork related	8,736
Holiday	1,284
Comp time used	555
injury	2,320
vac	30,640
Total	75,956

Reliability Factor



Total leave taken by applicable staff in hrs. 2021	2020 annual work hrs. per staff x number applicable staff(153)		Leave percentage	Reliability factor (100%-leave percentage)
76,746.97	/ 446,760	=	17.2%	82.8%

Calculate Relief Factor



Scheduled Hrs. /Yr		Reliability factor		Actual Hours Worked
2,920	X	82.8%	=	2,423

$$395 \text{ days} \times 24 \text{ hours} = 8,760 \text{ hours/yr}$$

$$\text{Total hours in one year} / \text{Actual Hours Worked} = \text{Relief Factor}$$

$$8,760 / 2,423 \rightarrow \text{RF} \approx 3.62$$

Minimum Staffing



Min Staffing		Relief factor		FTE needed
42	X	3.62	=	151.81

Overhire



Overhire means intentionally hiring more firefighters than the authorized staffing level to ensure that all fixed-post positions (engine, truck, medic unit seats) stay filled without relying on overtime.

Overhire is more cost effective than staffing gaps because:

1. Overtime costs 1.5× the hourly wage, while a fully budgeted firefighter costs less per hour.
2. Every absence in a fixed-post system must be filled — the seat can't go empty.
3. Without overhire, departments depend heavily on callback overtime, which spikes costs.
4. Extra personnel allow vacancies to be absorbed at straight-time instead of overtime.

Questions?

