

BlazeFrame® RipTRAK™ Shaftwall to Shaftwall Stud Connection

1", 2", 3" & 4" MAX. TOTAL DEFLECTION
1HR and 2HR Profiles

RipTRAK™ Shaftwall to Shaftwall Assembly

Shaftwall RipTRAK Thickness (mils (ga))	Shaftwall Stud ga (mils)	ASD Allowable Lateral Load (lbs)
33mil (20ga)	22 mil (25ga)	15
	33 mil (20ga)	20
	43 mil (18ga)	20
43mil (18ga)	33 mil (20ga)	50
	43 mil (18ga)	55
54mil (16ga)	33 mil (20ga)	90
	43 mil (18ga)	120
68mil (14ga)	33 mil (20ga)	90
	43 mil (18ga)	155

Allowable loads are calculated with equal amounts of compression and extension.

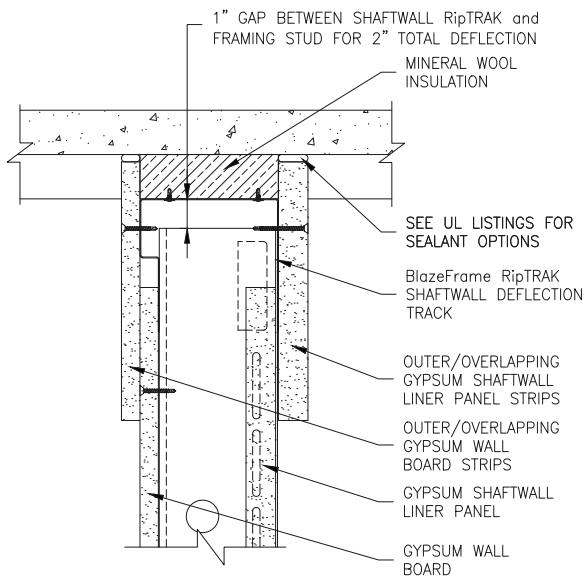
- 1" Max. Total Deflection**
1/2" Extension + 1/2" Compression = 1" Max. Joint Width
- 2" Max. Total Deflection**
1" Extension + 1" Compression = 2" Max. Joint Width
- 3" Max. Total Deflection**
1-1/2" Extension + 1-1/2" Compression = 3" Max. Joint Width
- 4" Max. Total Deflection**
2" Extension + 2" Compression = 4" Max. Joint Width

Notes:

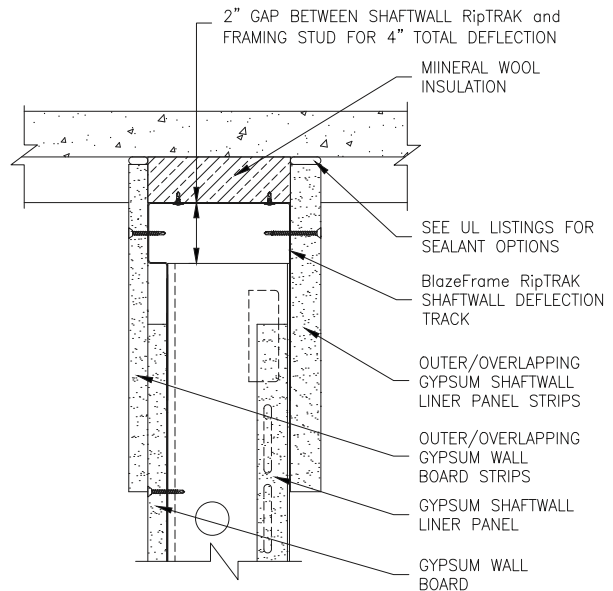
- 1 Allowable loads are based on using 6" Shaftwall C-T stud framing members spaced at 24" o.c.
- 2 Allowable loads are for RipTRAK systems using 2-1/2", 4", and 6" deep shaftwall C-T studs.
- 3 A minimum of 2 fasteners spaced in 12" o.c. are required to secure the RipTRAK to the structure.
- 4 1/8" Deflection Service Load limit is not included in allowable load.
- 5 Gap between web of RipTRAK and end of stud is half of total deflection. (As shown in details)
- 6 Increasing the RipTRAK thickness does not always achieve higher wall capacities. Stud limiting height (including web crippling) may control.
- 7 Stud members must be analyzed independently of the RipTRAK system. Ensure that the tools used to determine the correct stud size cover all potential stud failure modes.

Calculating Stud End Reaction:

Stud End Reaction = (lateral pressure PSF) x (stud spacing FT) x (stud span FT) / 2
Example: (5 PSF) x (2.0 FT) x (9.5 FT) / 2 = 47.5lbs



RipTRAK Shaftwall (1HR) for 2" Total Deflection



RipTRAK Shaftwall (1HR) for 4" Total Deflection