CMU vs structural steel enclosures: cost and schedule

Compare enclosure budgets across walls, gates, foundations, trades and installation. Dated CMU benchmarks and Alpine Citadel planning ranges help teams define a comparable scope for one site or a multi-site program.

$18–24/SF	$20–30K	$15–20K	1 day
8 in grouted CMU wall, installed, national (2026)	complete single CMU enclosure, 2025 public bids	Alpine Citadel single, typical installed*	Alpine Citadel on site, most enclosures, on a prepared slab

01 THE ANSWER

In 2026, 8 in grouted, reinforced CMU costs about **$18–24 per square foot** of wall installed nationally [1]. For a single 8 ft trash enclosure with one 12 ft gate, the walls come to about **$7,100–9,400**. The walls are the smaller part of the bill. Gates, the continuous footing, finish and contractor overhead make up the rest, and 2025 public bids priced complete single enclosures at **$20,000–30,000** [2][3]. A typical installed Alpine Citadel single costs **$15,000–20,000**, excluding slab and site work: below those bids. A double is $21,000–30,000 against a modeled CMU $18,200–32,700. **Most enclosures install in one day with one crew and no continuous wall footing**, against an estimated 6–10 active site days and three or more trades for CMU.

Key findings

- **Masonry walls are about a third of a CMU enclosure.** In a 2025 Nevada bid, the CMU walls were $9,850 of a $27,000 enclosure line [3].
- **Single enclosures:** the Alpine Citadel range sits at or below 2025 complete-enclosure bids and inside the range of a CMU component build-up once footing, finish and overhead are added.
- **Double enclosures:** $21,000–30,000 against a modeled CMU $18,200–32,700, with one trade on site.
- **Schedule:** one install visit, one day for most enclosures, against footing, block, grout, cap, finish and gate visits for CMU, plus masonry cold-weather limits below 40 °F [6].
- **Programs:** the same CMU wall costs $5,500–12,500 depending on the region [1]. An Alpine Citadel program carries one price nationwide and one standard detail.
- This study makes **no blanket percentage-saving claim**. Every figure is a dated range; estimates are labelled.

02 METHOD

- **Same footprint.** CMU is priced on the Alpine Citadel standard footprints: single 17'-4" × 13'-2" outside, one 12 ft gate; double 26'-10" × 13'-2", two gates. Wall = perimeter less gate openings, 8 ft high: 392 SF single, 448 SF double.
- **Dated public sources only** (section 09); no vendor marketing claims. Rounded to the nearest $100.
- **Same scope.** Both sides exclude slab or hauler pad, site work, bollards and permits. CMU footing and finish are shown on their own lines.
- **Estimates are labelled.** Schedule is derived from published productivity, not measured; lifecycle is qualitative.

03 VERIFIED CMU COST BENCHMARKS

BENCHMARK	VALUE	SOURCE	DATE
CMU wall, 8 in grouted, reinforced, installed, national	**$18–24 /SF**	Terrapin Construction Group, citing RSMeans [1]	May 2026
CMU wall, installed, regional (Southeast to West Coast)	**$14–32 /SF**	Terrapin Construction Group [1]	May 2026
Complete single enclosure, public bid, 3 bidders	**$20,000 · 25,170 · 30,000**	Utica Community Schools, MI; material not stated [2]	Apr 2025
Complete enclosure incl. site concrete, asphalt, curb	**$27,000**	Town of Gardnerville, NV [3]	Jun 2025
– of which CMU walls only (split-face, capped)	**$9,850**	Same bid; excl. footing, curb, gates [3]	Jun 2025
12 ft steel gate pair, fabricated and installed	**$4,000–8,000**	American Welding [4]	2026
GC overhead, not included in unit wall rates	**13–22%**	Homewyse [5]	Sep 2026
Mason labor share of CMU wall cost	**50–65%**	Terrapin Construction Group [1]	May 2026
Mason productivity, grouted reinforced CMU	**50–70 blocks per mason-day**	Terrapin Construction Group [1]	May 2026
Cold-weather masonry, below 40 °F	**48 h protection; +10–18% cost**	CMHA TEK 03-01C [6]; Terrapin [1]	2023 · 2026

Figure 1 · 8 in CMU wall, installed cost by region

Drawn to scale, $ per square foot of wall [1]. Applied to the 392 SF of wall in a single enclosure, the same wall costs $5,500–12,500 depending on where it is built.



04 ALPINE CITADEL TYPICAL INSTALLED COST

EXAMPLE CONFIGURATION, 8 FT	INTERIOR CLEAR	GATES	TYPICAL INSTALLED*
Single · nominal 12 × 16 ft	16'-8" × 12'-2"	one 12 ft clear	**$15,000–20,000**
Double · nominal 24 × 12 ft	26'-2" × 12'-2"	two 12 ft clear	**$21,000–30,000**

*Typical installed cost for an 8 ft Alpine Citadel enclosure, excluding slab and site work, is $15,000–20,000 for a single and $21,000–30,000 for a double, including the engineering package for the example configurations. Program pricing for multi-site rollouts is available on request. Installed covers the kit, anchors, finish, delivery and installation; slab, bollards and permits are excluded. Ranges are typical, not quotations.

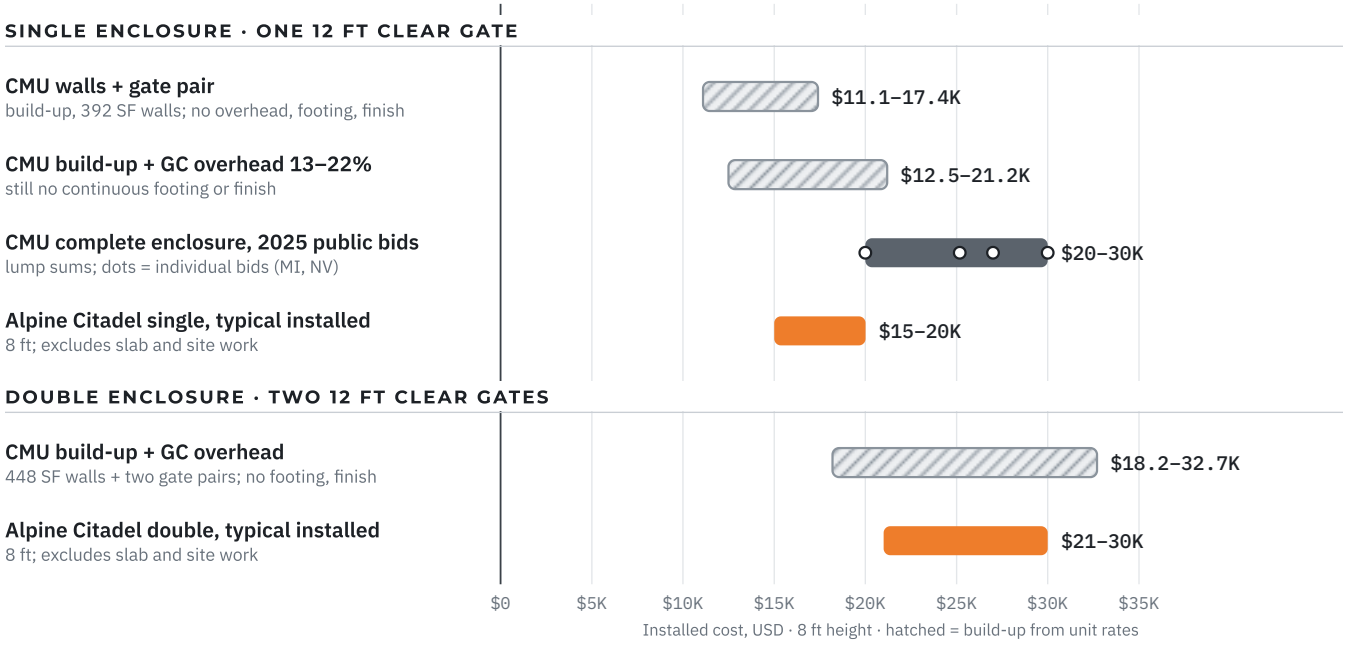
05 WORKED EXAMPLE: SINGLE ENCLOSURE, 12 FT GATE, 8 FT HIGH

LINE	BASIS	CMU ENCLOSURE	ALPINE CITADEL
Walls	392 SF × $18–24 [1]	$7,100–9,400	included
Gate pair, 12 ft clear	installed [4]	$4,000–8,000	included
Subtotal		**$11,100–17,400**	
GC overhead	13–22% [5]	+$1,400–3,800	—
Before footing and finish		**$12,500–21,200**	
Continuous wall footing	required NOT PRICED	+ by project	none
Finish to match building	stucco, split-face or paint	+ by project	powder coat, incl.
Installed	**excl. slab, site work**	**2025 bids: $20,000–30,000**	**$15,000–20,000**

- Walls plus a gate pair and overhead come to **$12,500–21,200** before any footing or finish. No reliable published unit rate exists for a small-wall footing, so it is left to the project, not guessed.
- The Nevada bid's split-face walls ($9,850) sit just above the plain-block range here, as split-face block costs more [1][3].
- Alpine Citadel includes walls, gates, hardware, base plates, anchors, finish, delivery, installation and the engineering package for the example configurations. It needs no continuous footing: posts are base-plated to the slab, thickened at posts.
- **Double enclosure** (448 SF, two gate pairs): the CMU build-up is $18,200–32,700 before footing and finish; Alpine Citadel is $21,000–30,000 installed.

Figure 2 · Installed cost ranges, CMU vs Alpine Citadel

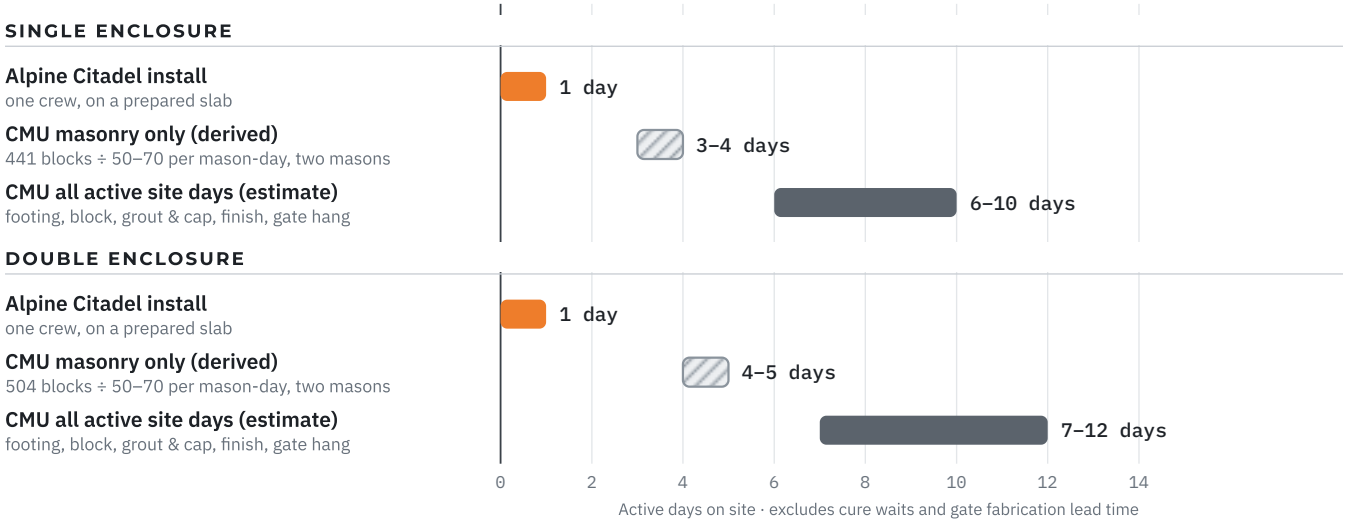
Drawn to scale on one axis. Hatched bars are the build-up in section 05; solid gray is public bid data; orange is the Alpine Citadel typical installed range*. The CMU build-ups exclude the continuous footing and finish.



06 SCHEDULE, TRADES AND FOOTING

Figure 3 · Active days on site

Drawn to scale. Hatched = derived from published mason productivity [1]; dark gray = estimate of all CMU site activities. Excludes cure waits between trades and the 1–2 week gate fabrication lead time [7], both of which add calendar time to CMU only.



	CMU ENCLOSURE	ALPINE CITADEL
Sequence	Footing (excavate, form, pour); block with rebar; grout and cap; finish; gates hung after cure	Anchor base-plated posts to the slab; slide in the captive slats; hang the gates, which ship in the kit
Trades	Concrete, mason, gate fabricator and installer, finisher where specified	Slab by the concrete contractor, as for the pad; one install crew
Foundation	Continuous footing under every wall	No wall footing; slab thickened to 12 in at posts, 30 × 30 × 12 in at gate posts
Weather	Below 40 °F: heated materials, 24–48 h protection [6]; +10–18% cost [1]	Not bound by masonry cold-weather rules; anchor cure per the anchor's product data
Gates	Separate fabricator; 1–2 weeks, mostly shop time [7]	In the kit, function-tested before shipping

Qualitative except where a source is cited. CMU days are estimated from the block count (441 single, 504 double, at 1.125 blocks/SF) and published productivity.

07 LIFECYCLE AND REPAIR QUALITATIVE

- **Gates are the wear point on both systems.** A re-hang runs $200–700 per event; a replacement 12 ft pair $4,000–8,000 [4]. Installers cite light hardware and posts heaving in the concrete as causes of sag [4]. Alpine Citadel gates hang on 8 in round steel posts, each on a ¾ in base plate with eight anchors.
- **Masonry is porous.** Cleaning, including efflorescence, runs $0.55–0.69/SF [5]; graffiti removal $3–7/SF (2020) [8]. Powder coat is cleaned or touched up; no published cost exists, so none is claimed.
- **Steel slats are replaced, not rebuilt.** They are captive in the post channels: middle slats are unfastened and only the top and bottom slat of each bay are bolted through the channels. Spares ship in every kit. Damaged CMU is rebuilt by a mason.
- **End of life.** Removing an existing CMU enclosure was bid at $875–2,400 in 2025 [2][3]. A base-plated steel enclosure is dismantled, not demolished, and the steel is recyclable.
- No public data gives repair frequencies, so **no 20-year lifecycle total** is stated.

08 PROGRAM SCALE: 50 AND 100 SITES

For a national program the question is less "which is cheaper at one site" than "which is the same at every site". The table multiplies the per-site figures above. It shows consistency and schedule; it is **not a savings claim**.

SINGLE ENCLOSURES	PER SITE	50 SITES	100 SITES
Active site days, CMU ESTIMATE	6–10	300–500	600–1,000
Active site days, Alpine Citadel	1	50	100
Trade mobilizations, CMU	2–3 beyond concrete: mason, gate fabricator, finisher	100–150	200–300
Trade mobilizations, Alpine Citadel	1 install crew	50	100
Wall price basis, CMU	$14–32/SF by region [1]; same wall $5,500–12,500		varies by market and season
Price basis, Alpine Citadel	program price per configuration		one price nationwide

What stays the same at every site

- One standard detail in the prototype drawings, engineered for each site to ASCE 7-22, with sealed calculations available in all 50 states and the engineering package typically in under one week after complete project inputs.
- One kit per enclosure, tagged by bay, with the same parts, finish and gates.
- No dependence on local mason labor, which is 50–65% of CMU wall cost [1].

When CMU is still the right call

Some jurisdictions require masonry or building-matched materials. Alpine provides an alternate-materials submittal with sealed calculations and a building-matched finish, but acceptance is the jurisdiction's decision. Where a wall must act as a sound barrier or a fire barrier, a slatted steel screen is not that wall.

09 SOURCES

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7. Palmer Fence, "Commercial dumpster enclosures," updated September 2026. palmerfence.com/trash-enclosures/commercial-dumpster-enclosures
8. Graffiti Removal Inc., graffiti removal pricing guide, 17 Sep 2020. graffitiremovalinc.com
9. Alpine Enclosure Systems, Alpine Citadel Product Data Sheet, AES-CIT-DS-01 Rev B, October 2026: specifications and typical installed cost ranges.

Get a site-specific comparison

Send a site plan or prototype detail. We return a layout, bay schedule, engineering package and installed price typically in under one week after complete project inputs, for one site or a program.

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