



FOUNDED IN 1983, CALIFORNIA VEGETABLE SPECIALTIES IS A SPECIALTY FARMING COMPANY DEDICATED TO THE YEAR ROUND PRODUCTION OF HIGH QUALITY CALIFORNIA ENDIVE. TODAY, CALIFORNIA VEGETABLE SPECIALTIES IS THE LARGEST U.S. PRODUCER OF ENDIVE, PRODUCING OVER FOUR MILLION POUNDS EACH YEAR.

ARCHITECT
ENGINEER
GENERAL CONTRACTOR
EM WALL SUBCONTRACTOR
ENERGY CONSULTANT*

INTEGRATED STRUCTURES, BERKELEY CA
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MODERN BUILDING, CHICO CA
DELTA CONSTRUCTION, LAFAYETTE CA
AXIOM ENGINEERS, MONTEREY CA

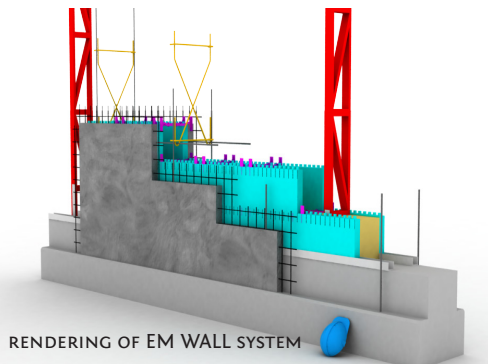


WITH PRODUCT PROTECTION AND ENERGY COSTS AS MAIN GOALS, THE OWNERS CHOSE THE EM WALL OVER OTHER SYSTEMS FOR THE FOLLOWING:

- ① INSULATED CORE OF R-100
- ② THERMAL DAMPING
- ③ SEISMIC PERFORMANCE
- ④ SPEED OF CONSTRUCTION
- ⑤ PRODUCT PROTECTION
- ⑥ RETURN ON INVESTMENT



- ① THE EM WALL'S R-100 VALUE IS DERIVED SOLELY FROM THE INSULATION. THIS SAVES AN ESTIMATED \$50,000* IN ENERGY BILLS ANNUALLY COMPARED TO A BASELINE ENERGY CODE COMPLIANT BUILDING.
- ② THE EXTERIOR CONCRETE ENVELOPE DAMPENS THERMAL FLOW INTO THE BUILDING AND THE INTERIOR CONCRETE ENVELOPE STORES THERMAL ENERGY SO THE REFRIGERATION CAN BE TURNED DOWN OR OFF DURING PEAK PRICING PERIODS. THESE ENVELOPES WORK TOGETHER TO POTENTIALLY SAVE AN ADDITIONAL \$90,000* IN ENERGY BILLS ANNUALLY COMPARED TO A BASELINE COMPLIANT BUILDING.
- ③ THE EXTERIOR AND INTERIOR CONCRETE ENVELOPES FORM A SINGLE COMPOSITE SHELL (MONOCOQUE) THAT IS 30 TIMES MORE RESISTANT TO EARTHQUAKE OR WIND FORCES THAN A SINGLE STRUCTURAL WALL OF THE SAME TOTAL THICKNESS. THUS QUALIFYING THE SYSTEM FOR SEISMIC CATEGORY IV WHICH IS RESERVED FOR HOSPITALS AND POLICE AND FIRE STATIONS.
- ④ THE BUILDING WAS CONSTRUCTED IN 5 MONTHS. EM WALL'S PRE-FABRICATED COMPONENTS, SPEED OF ERECTION, AND ABILITY FOR OTHER TRADES TO WORK ON SITE SIMULTANEOUSLY MADE THE TIGHT SCHEDULE FEASIBLE.
- ⑤ THE HIGHEST INSULATION IN THE INDUSTRY, THERMAL DAMPING, THERMAL STORAGE, AND MONOCOQUE STRUCTURAL SYSTEM PROVIDE PROTECTION FOR THE PRODUCT IN THE EVENT OF A POWER FAILURE, REFRIGERATION FAILURE, OR SEISMIC EVENT.
- ⑥ BASED ON THE DOE'S CONSERVATIVE 6% PER ANNUM RISING ENERGY COSTS \$200,000 TODAY WILL COST \$300,000 IN 8 YEARS AND WILL HAVE MORE THAN DOUBLED BY YEAR 13. THE EM WALL'S ANTICIPATED ENERGY SAVINGS COULD PAY FOR THE ENTIRE BUILDING IN 16 YEARS.



RENDERING OF EM WALL SYSTEM

BUILDING TYPE ENERGY COST COMPARISON

EM WALL vs Energy Compliant Baseline Building
19,000 SF Freezer Storage

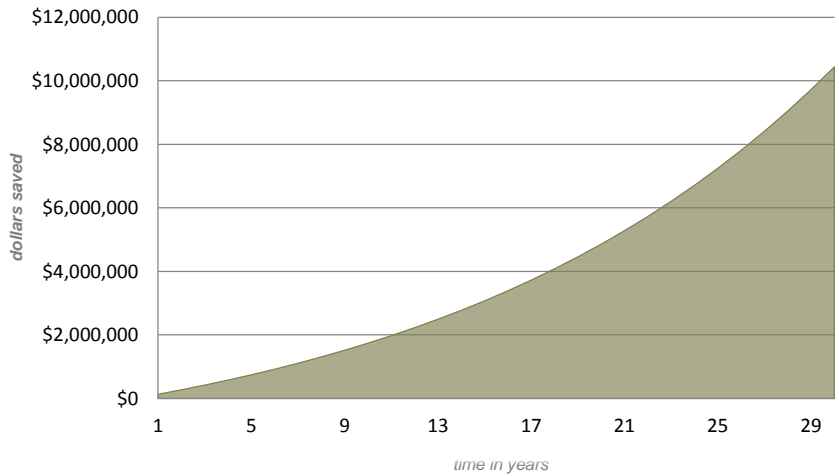
BUILDING TYPE	TOTAL	COST DIFFERENCE
BASELINE BUILDING, ENERGY COMPLIANT	\$3,097,832	
EM WALL with R-50 METAL ROOF	\$3,495,459	\$397,627

ANNUAL ENERGY COSTS				
YEAR	BASELINE BUILDING	EM WALL	YEARLY SAVINGS	CUMULATIVE SAVINGS
1	\$232,000	\$100,000	\$132,000	\$132,000
2	\$245,920	\$106,000	\$139,920	\$271,920
3	\$260,675	\$112,360	\$148,315	\$420,235
4	\$276,316	\$119,102	\$157,214	\$577,449
5	\$292,895	\$126,248	\$166,647	\$744,096
6	\$310,468	\$133,823	\$176,646	\$920,742
7	\$329,096	\$141,852	\$187,245	\$1,107,987
8	\$348,842	\$150,363	\$198,479	\$1,306,466
9	\$369,773	\$159,385	\$210,388	\$1,516,854
10	\$391,959	\$168,948	\$223,011	\$1,739,865
11	\$415,477	\$179,085	\$236,392	\$1,976,257
12	\$440,405	\$189,830	\$250,575	\$2,226,832
13	\$466,830	\$201,220	\$265,610	\$2,492,442
14	\$494,839	\$213,293	\$281,547	\$2,773,989
15	\$524,530	\$226,090	\$298,439	\$3,072,428
16	\$556,002	\$239,656	\$316,346	\$3,388,774
17	\$589,362	\$254,035	\$335,326	\$3,724,100
18	\$624,723	\$269,277	\$355,446	\$4,079,546
19	\$662,207	\$285,434	\$376,773	\$4,456,319
20	\$701,939	\$302,560	\$399,379	\$4,855,698
21	\$744,055	\$320,714	\$423,342	\$5,279,040
22	\$788,699	\$339,956	\$448,742	\$5,727,782
23	\$836,021	\$360,354	\$475,667	\$6,203,449
24	\$886,182	\$381,975	\$504,207	\$6,707,656
25	\$939,353	\$404,893	\$534,459	\$7,242,116
26	\$995,714	\$429,187	\$566,527	\$7,808,643
27	\$1,055,457	\$454,938	\$600,519	\$8,409,161
28	\$1,118,784	\$482,235	\$636,550	\$9,045,711
29	\$1,185,911	\$511,169	\$674,743	\$9,720,453
30	\$1,257,066	\$541,839	\$715,227	\$10,435,681

payback - EM WALL cost difference paid in full

total project paid in full

CUMULATIVE SAVINGS (dollars)



NOTES

- 1 - EMWALL projected energy savings, does not include utility company rebates
- 2 - Baseline building energy usage is an estimate based on CVS demand and PG&E Ag Rates
- 3 - Pro-rated at DOE's recommended 6% per year