



Building Envelope Management

Pana CUSD #8

Revision Date: 9/11/2023

Facility	Roof Area S.F.	Acreage of Roofing	Yearly Maintenance Budget	Roof Asset Value in 2022	2023	2024	2025	2026
Pana High School	92,287	2.12	\$4,614.35	\$2,399,462.00	\$2,519,435.10	\$2,645,406.86	\$2,777,677.20	\$2,916,561.06
Pana Jr. High School	70,000	1.61	\$3,500.00	\$1,610,000.00	\$1,690,500.00	\$1,775,025.00	\$1,863,776.25	\$1,956,965.06
Lincoln Elementary	17,250	0.40	\$862.50	\$396,750.00	\$416,587.50	\$437,416.88	\$459,287.72	\$482,252.10
Washington Elementary	17,250	0.40	\$862.50	\$396,750.00	\$416,587.50	\$437,416.88	\$459,287.72	\$482,252.10
	196,787	4.52	\$9,839.35	\$4,802,962.00	\$5,043,110.10	\$5,295,265.61	\$5,560,028.89	\$5,838,030.33

The above are BUDGETS, the sqft is not exact and the pricing would be determined through competitive bidding process



Pana CUSD #8

Legend	
Replace	Prevt. Maint.
Restore	Inspection
Fluid Applied	Re-Cover

Option 1: Fluid Applied Restoration Coating

Revision Date: 9/15/2023

	Roof Section	S.F.	Existing System Type	Action Recommended	Warranty	Expected Life	Action Year	Projected Budget				
								2022	2023	2024	2025	2026
Pana High School	Section 1	450	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 2	6000	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 3	80000	Metal	Fluid Applied	10	15-20	2024	\$680,000.00	\$734,400.00	\$793,152.00	\$856,604.16	\$925,132.49
Pana High School	Section 4	187	Metal	Fluid Applied	10	15-20	2024	\$1,589.50	\$1,716.66	\$1,853.99	\$2,002.31	\$2,162.50
Pana High School	Section 5	4750	Metal	Fluid Applied	10	15-20	2024	\$40,375.00	\$43,605.00	\$47,093.40	\$50,860.87	\$54,929.74
Pana High School	Section 6	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
Pana High School	Section 7	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
								\$753,464.50	\$813,741.66	\$878,840.99	\$949,148.27	\$1,025,080.13

Option 2: Insulation and KEE Membrane

	Roof Section	S.F.	Existing System Type	Action Recommended	Warranty	Expected Life	Action Year	Projected Budget				
								2022	2023	2024	2025	2026
Pana High School	Section 1	450	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 2	6000	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 3	80000	Metal	Re-Cover	30	40+	2024	\$1,200,000.00	\$1,296,000.00	\$1,399,680.00	\$1,511,654.40	\$1,632,586.75
Pana High School	Section 4	187	Metal	Re-Cover	30	40+	2024	\$2,805.00	\$3,029.40	\$3,271.75	\$3,533.49	\$3,816.17
Pana High School	Section 5	4750	Metal	Re-Cover	30	40+	2024	\$71,250.00	\$76,950.00	\$83,106.00	\$89,754.48	\$96,934.84
Pana High School	Section 6	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
Pana High School	Section 7	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
								\$1,305,555.00	\$1,409,999.40	\$1,522,799.35	\$1,644,623.30	\$1,776,193.16

Option 2: Insulation and New Metal Panels Installed.

	Roof Section	S.F.	Existing System Type	Action Recommended	Warranty	Expected Life	Action Year	Projected Budget				
								2022	2023	2024	2025	2026
Pana High School	Section 1	450	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 2	6000	EPDM	Inspection	0	10+	2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pana High School	Section 3	80000	Metal	Re-Cover	30	40+	2024	\$2,400,000.00	\$2,592,000.00	\$2,799,360.00	\$3,023,308.80	\$3,265,173.50
Pana High School	Section 4	187	Metal	Re-Cover	30	40+	2024	\$5,610.00	\$6,058.80	\$6,543.50	\$7,066.98	\$7,632.34
Pana High School	Section 5	4750	Metal	Re-Cover	30	40+	2024	\$142,500.00	\$153,900.00	\$166,212.00	\$179,508.96	\$193,869.68
Pana High School	Section 6	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
Pana High School	Section 7	450	EPDM	Replace	30 Yr	35-40 Yr	2024	\$15,750.00	\$17,010.00	\$18,370.80	\$19,840.46	\$21,427.70
								\$2,579,610.00	\$2,785,978.80	\$3,008,857.10	\$3,249,565.67	\$3,509,530.93

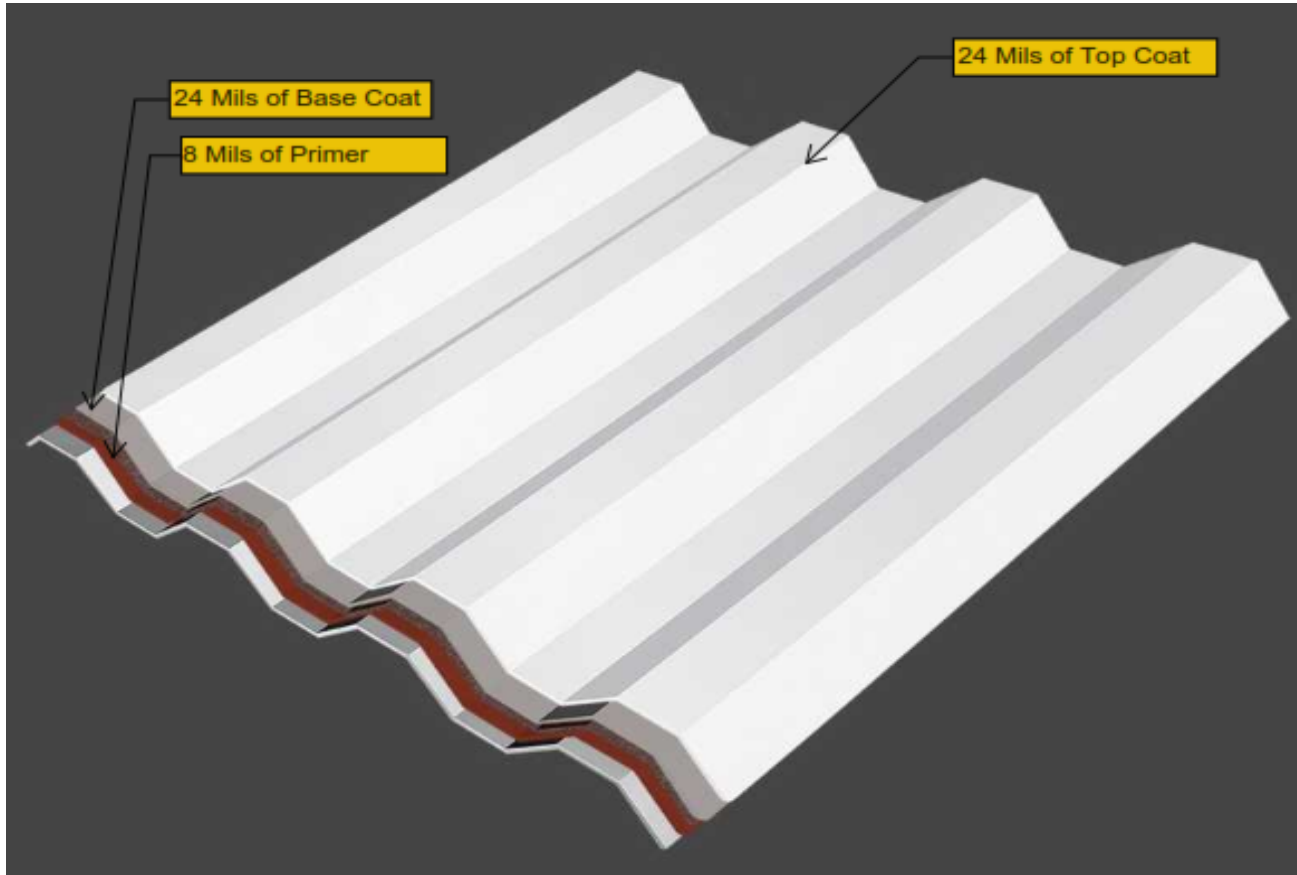
Option 1: Coating can be tinted but warranty does not cover fading.

Option 2: Install new flute fill insulation, recovery board, and 60 Mil KEE membrane

Option 3: Install roof hugger system, new batten insulation, 30 Year Standing Seam Roof Panels

Fluid Applied Roof System: Option 1

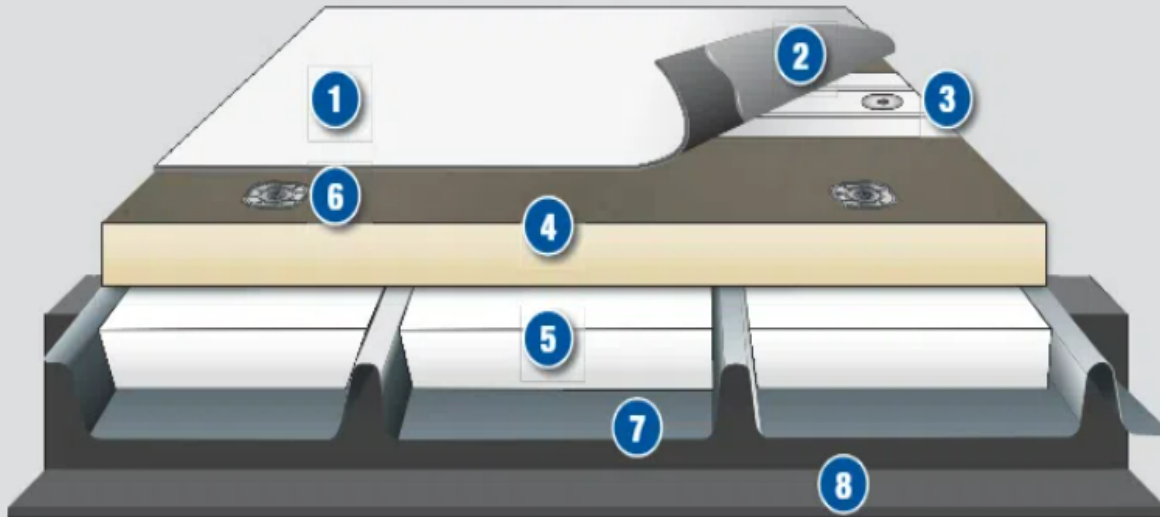
- 10 Year Labor and Material Warranty
- Fluid applied systems are more environmentally friendly, stronger, and less investment to the district.
- Fluid Applied Systems can be reapplied at the end of the warranty to extend the roof life an additional 10-20 years.
- District can utilize Omnia Partners purchasing cooperative to save time, money, effort, and duplication.





Single Ply Retrofit: Option 2

- 20 Year Labor and Material Warranty
- District can utilize Omnia Partners purchasing cooperative to save time, money, effort, and duplication.



- 1 KEE Membrane
- 2 10"-wide RUSS (Reinforced Universal Securement Strip)
- 3 Induction Welding Plates or 10"-wide RUSS with Piranha Plates and HP Purlin Fasteners
- 4 Acceptable Insulation
- 5 Flute Fill Insulation
- 6 Insulation Screws and Plates
- 7 Existing Metal Roof
- 8 Structural Purlin



Metal Retrofit: Option 3

- 30 Year Labor and Material Warranty
- This option provides the most weather resistant system.
- Fluid Applied Systems can be applied at the end of the warranty to extend the roof life an additional 10-20 years.
- District can utilize Omnia Partners purchasing cooperative to save time, money, effort, and duplication.





