

General Description:

- **Location:**
Portage, MI
- **Profile:**
68,140 sq. ft. (replaced)
- **Project:**
Roof Replacement
Single-Ply

Services Provided:

- Construction Documents
- Bidding
- Construction Review & Administration

Challenge:

- Steep Slope
- Highly Visible - needed to be aesthetically pleasing

Solution:

- Designed a totally-adhered, aesthetically pleasing, brilliant white, reflective CSPE hypalon membrane

Portage Public Schools

Central Middle School/West Middle School

As Consultant to the Architect, a review of the job site was conducted to ascertain existing conditions. Both buildings' roofs were in a state of disrepair

solar impact. A cursory review was then performed of the construction documents. After the contractor had been selected, Construction Review and Administration con-



Overview of Portage Central Middle School - Gymnasium

and required complete replacement. Portage Central Middle School posed a challenge for two reasons: it was very visible from the road and it had a very steep slope. Proper details for flashing and alternate systems were reviewed. The design addressed these challenges by providing a totally-adhered, aesthetically pleasing, brilliant white, reflective CSPE hypalon membrane. The system was lightweight and adaptable to the wood deck structure. The white reflective membrane had other added benefits: it was energy efficient and had an extended longevity due to reduced

sisted of attending the pre-construction conference and performing Field Quality Assurance site visits to review progress of the work. The existing substrates, which consisted of built-up roof systems over metal and gypsum



Overview of completed field of roof - Low Bay

decks were removed. Three-inch isocyanurate urethane insulation was installed to achieve an R-



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value of 20. Reinforced single-ply membrane systems were installed over the high R-value insulation. The reinforced, white CSPE hypalon membrane was installed on the sloped area visible from the ground. A reinforced, black EPDM membrane was installed on low slope areas. The single-ply membranes were installed as totally adhered systems. Special attention to detail was given to fascia systems, base flashings, counter-flashings,



Close-up of CSPE hypalon on Portage Central Middle School

parapets, copings and field of the roof flashing details. In addition, a final walkover was

conducted and a formal Punch List was developed as part of the project closeout administration. An added benefit of the roof was that the life cycle cost had a high rating for longevity, thereby maximizing the school district's return on investment upon completion of this project. The school district was provided with a high quality roof system which was aesthetically pleasing and adaptable to the existing environment. ■

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FEATURES

Designed lightweight

Designed brilliant white, reflective CSPE hypalon membrane

Designed totally-adhered membrane

Life cycle cost (high rating for longevity)

Provided Field Quality Assurance

BENEFITS

Adaptable to wood deck

Reduces energy consumption & extends longevity by reducing solar impact

Conforms to steep slope environment

Maximizes the return on investment

Ensures higher quality end product

Total Building Envelope Management SolutionSM

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