



# Northwood Townhouses

## Northwood Townhouses



Participant information  
Extreme Panel Technologies, Inc.  
Perry Penske  
PO Box 435  
Cottonwood, MN 56229

Phone: 800-977-2635  
Email Address: [perry@extremepanel.com](mailto:perry@extremepanel.com)  
Website: [www.extremepanel.com](http://www.extremepanel.com)

Category  
Multifamily

High Performance: No

Project information  
Northwood Townhomes  
70 Northwood Drive  
Cottonwood, MN 56229

Date Completed: November 2018

Total cost of project (exclusive of land): \$482,000

Dimensions of building (all floors of multi-story building):  
40'x80' plus 2 24'x24' garages

Asking price/purchase price (Affordable Housing only): n/a

Total sq. ft. of conditioned space: 4,000 sq. ft.

Built By (if different than applicant)  
Vivify Development  
Perry Penske  
70 Northwood Dr.  
Cottonwood, MN 56229

Panels Manufactured By  
Company Name (members only): Extreme Panel Technologies, Inc.



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Designed By (if different than applicant - SIPA will only recognize members)  
Extreme Panel Technologies, Inc.  
PO Box 435  
Cottonwood, MN 56229

Total sq. ft. of conditioned space: 4,000 sq. ft.

Describe the end use of the building: The building was designed to be a high end, energy efficient duplex that would provide comfort and healthy living for whoever bought it. With radiant in floor heat and Dettson mini duct furnaces, these duplex's are able to be kept at very comfortable temperatures all year long and cost very little to do it.

How did SIP construction help you get this job? Knowing that we wanted these Duplex's to stand out from the rest in the region SIPs were a no brainer. Since labor in the area is not easy to find we knew that using SIPs would help get this project shelled in and ready for the next sub to come in very quickly. We used 4' treated SIP frost footings and 6 1/2" and 4 1/2" walls from Extreme Panel Technologies. All of the panels were put up for this building in 3 days with only 3-4 guys working! Using the 4 1/2" wall for the demising wall combined with a tested assembly achieved a high STC rating so noise can not be heard from one side to the other.

SIP wall thickness and core material: 6 5/8" frost footings 6 1/2" Exterior house and garage and 4 1/2" for demising wall between units all using EPS foam  
SIP roof thickness and core material: n/a

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy? The two major benefits to using SIPs on this project were the energy efficiency they give and the labor/construction cost they save. We were able to have the frost footings in and pour the floor right away not having to wait for concrete frost footings to cure. The exterior walls for the duplex went up in just over a day which allowed our interior walls to get framed and our electricians to start running wires in just a matter of days.

Describe any innovative design elements or structural engineering involved: This was our first time using the Dettson mini duct furnace. This furnace has a main 6" trunk line coming off of it which allowed it to be kept in a conditioned space. Off of the main trunk there are 2" lines that feed to all of the rooms to distribute the conditioned air. The Dettson will supply supplemental heat in the fall before boilers are started and will also be the A/C for the houses. It runs off of one air source heat pump located at the exterior of the house. One innovative design of the Dettson is that if the temperature outside is below 30 degrees F it will switch from the air source heat pump to gas all by itself to run more efficiently. All of the lighting in the house is LED which combined with the natural light from the energy efficient Marvin Ultrex windows gives a warm cozy feeling inside of the homes.

Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, WELL, Passive House, Green Globes or local green building programs. Only list certifications that are completed: n/a

HERS Index (required only for High Performance Category and recommended for residential projects): n/a  
Blower door test results (ACH50) (required only for High Performance Category and recommended for residential projects): n/a  
Energy use intensity in kBtu/ft2 (required only for High Performance Category and recommended for commercial projects): n/a

Describe the HVAC system used on the project: n/a

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Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. (judged only for High Performance Category) n/a

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category): n/a

Were any solar panels installed on the project? If so, indicate the size of the system (judged only for High Performance Category): n/a









