

Commercial Buildings under 10,000 sq. ft.

SIP Farm Office Cold Storage Northfield MN

SIP wall thickness: 6" EPS Foam
BC Plywood interiors.

SIP roof thickness: 10" Neopor
Foam BC Plywood interiors

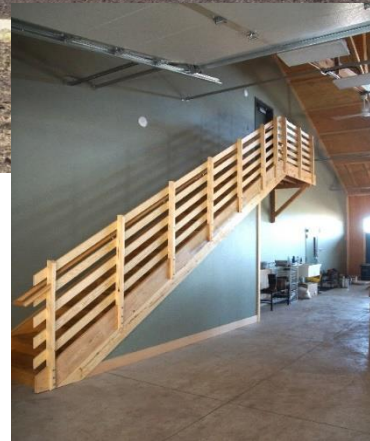


**Structural Insulated
Panel Association**

2019 Winner



Northfield Construction
Chris Smisek and Energy Panel Structures
NCC SEEDS FARM
Northfield, MN



Commercial Buildings under 10,000 sq. ft.

NCC Seeds Farm

Northfield Construction
Chris Smisek
205 South Water St.
Northfield, ME 55057

Phone: 712-859-3219
Email Address:
smisek@northfieldconstruction.com

Website: northfieldconstruction.com



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NCC SEEDS FARM (ORGANIC)
6903 115th St East
Northfield, MN 55057

Date Completed: July 2018

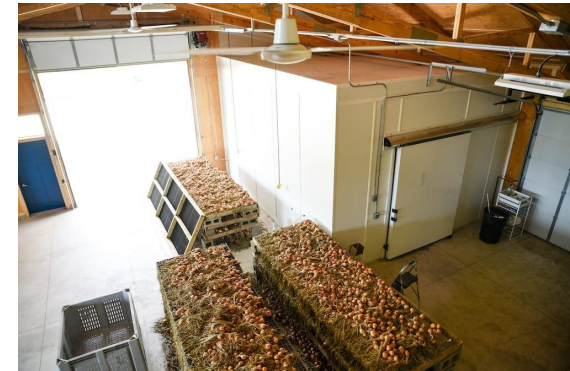
Dimensions of building (all floors of multi-story building): Main floor- staff 39' x 52', Packing area 39' x 52', Equip. storage 76' x 40' (this portion is not SIP's. construction) 2nd floor office & Mech. 14' x 52'. 3rd floor office 14' x 30'.

Total sq. ft. of conditioned space: 4,926 sq. ft.

Built By:
Northfield Construction
205 South Water St.
Northfield, MN 55057

Panels Manufactured By: Energy Panel Structures, Inc.

Designed By:
SMSQ
Gary Johnson
205 South Water St.
Northfield, MN 55057



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SIP wall thickness and core material: 6" EPS Foam R-26 BC Plywood interiors

SIP roof thickness and core material: 10" Neopor Foam R-50 BC Plywood interiors



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This building is on a vegetable farm. The staff areas are a combination of offices, meeting/conference room, knight watchman/living quarters. The Packing area is an area to prepare Vegetables and also has a refrigeration/cooler room. The cold storage is also used to prepare

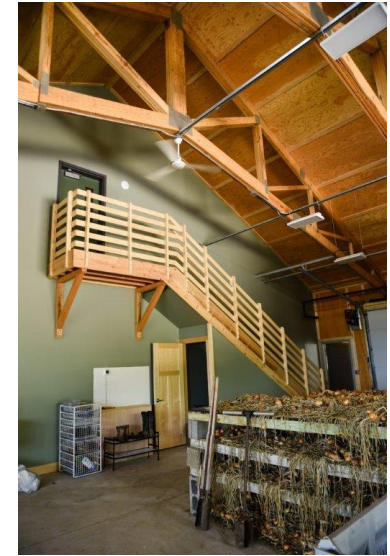
The owner started early on, talking about SIP's construction. He spoke with Lee Bergum our area Rep. and liked the energy efficiency. They were willing to customize our structure

Benefits of using SIPs on this project: This building was built to stringent structural codes, many, many hold downs, etc. The roof was complex with the overhangs. This was a winter build, once we closed the building in, we poured the heat to it, the frost wasn't hard to get out of the ground. We poured the interior concrete slabs in know time. The buildings energy efficiency was a real plus. EPS used 3/4 " BC plywood for all interior skins, Saved us finishing the interior

The main staff area has a timber framed vaulted ceiling, even the packing area has vaulted trusses. There are many, many windows to complement the structure. The exterior roof has two dormers in the staff area and one large dormer in the packing area with again many windows. The east side has a portico roof canopy, timber framed. The west side has a Pergola/entertainment area. Side note- There was a Tornado Sept. 20th that went through the farm, it destroyed the green houses next to this building, but no damage other than a window sash, that we suspect was partially left open.

Blower door test results: 2.72 ACH50 - Tight 5000 sq ft

The main source of heat is zoned radiant in floor heat, along with a 95% efficient gas boiler. Also, included is a 4 ton air source heat pump and 4 ton air handler and a HRV air exchanger.



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Marvin Windows were used in this project,
Clad Ultimate casements low-e with argon U Factor 29

All LED lighting and ENERGY STAR appliances

Low VOC Finishes
All main floors are stained concrete with in floor heat

Owner comments:

We are impressed with the quality of material and the engineering of the building. It is a structure that will withstand the test of time. EPS was very attentive to our needs and in designing the building we wanted. The structural quality and engineering, along with the energy efficiency are what make me feel good about our investment,

By using SIPs we were able to zone this building easier, we have a produce area attached to living and office areas, easily controlled to their own temperature by using insulated panels, we also incorporated metal clad panels for a large walk-in cooler within the structure



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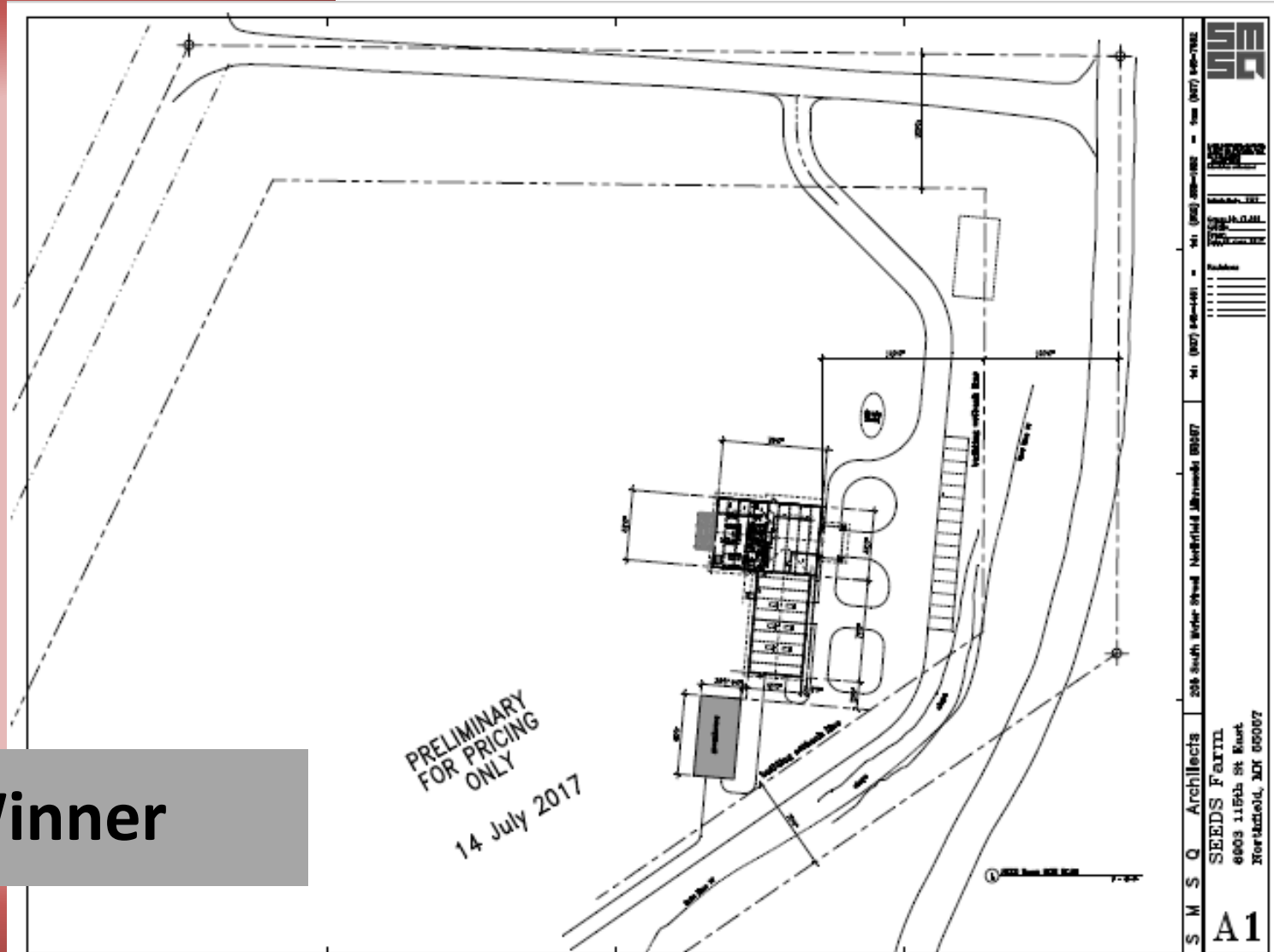
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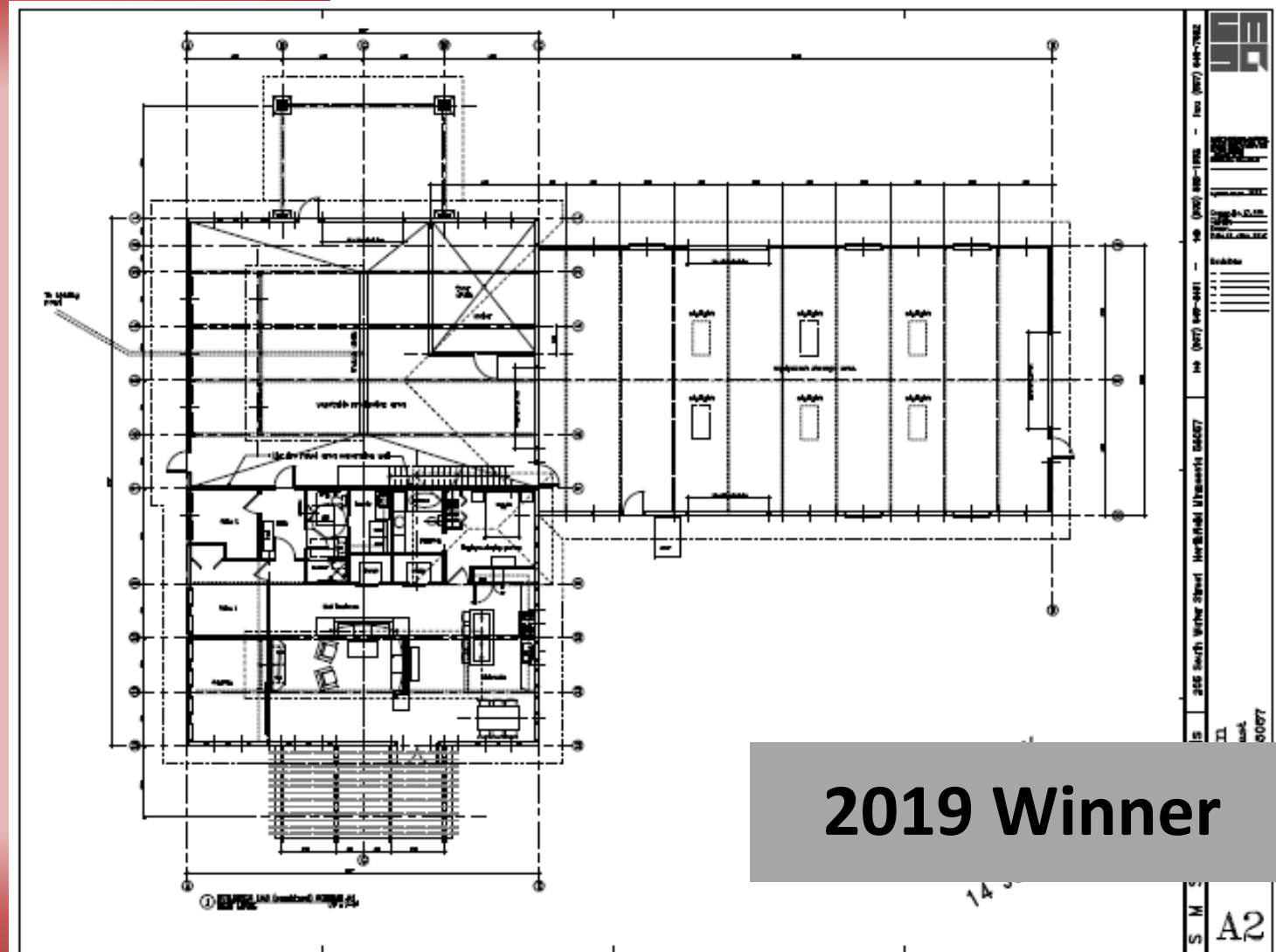
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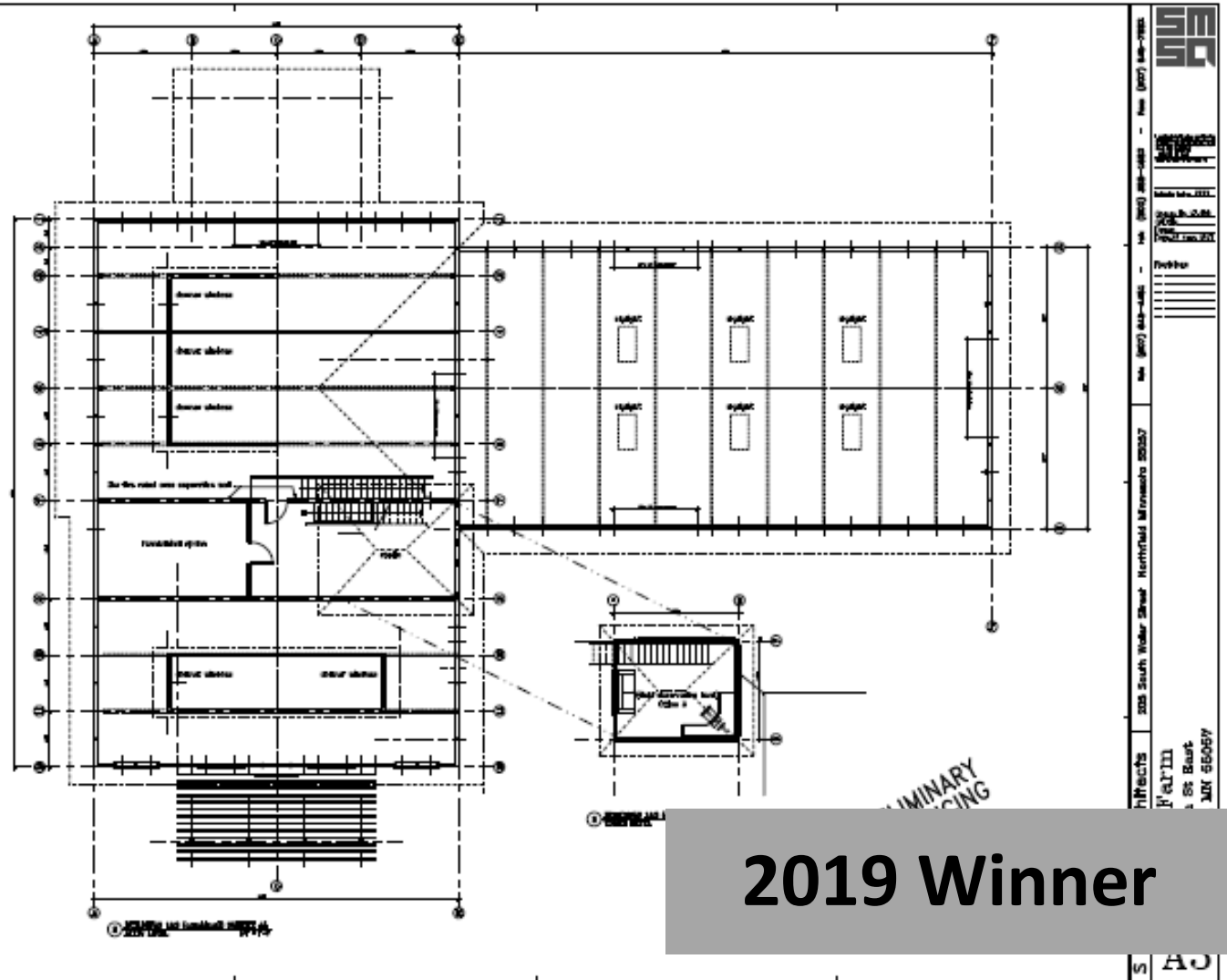
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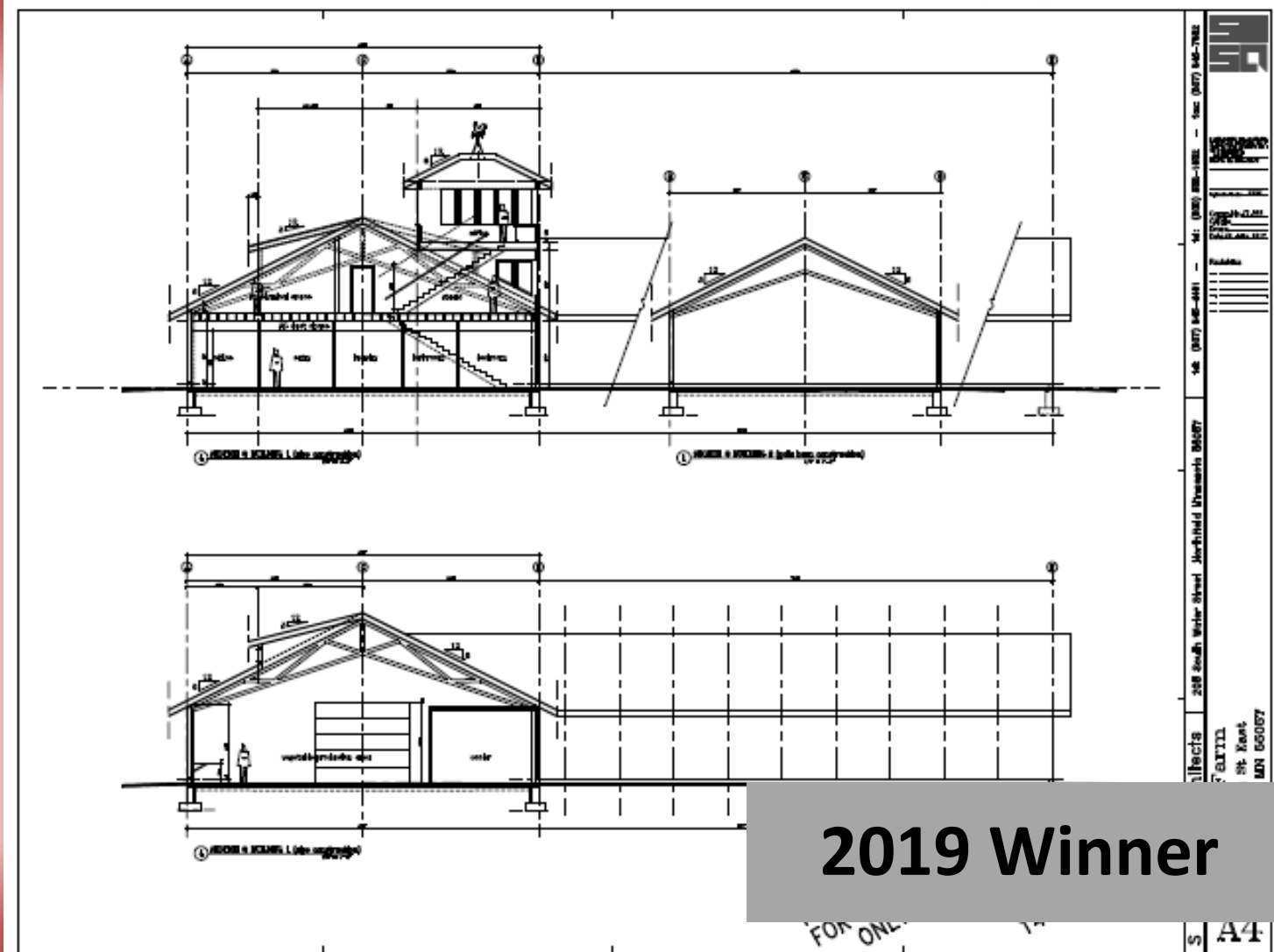
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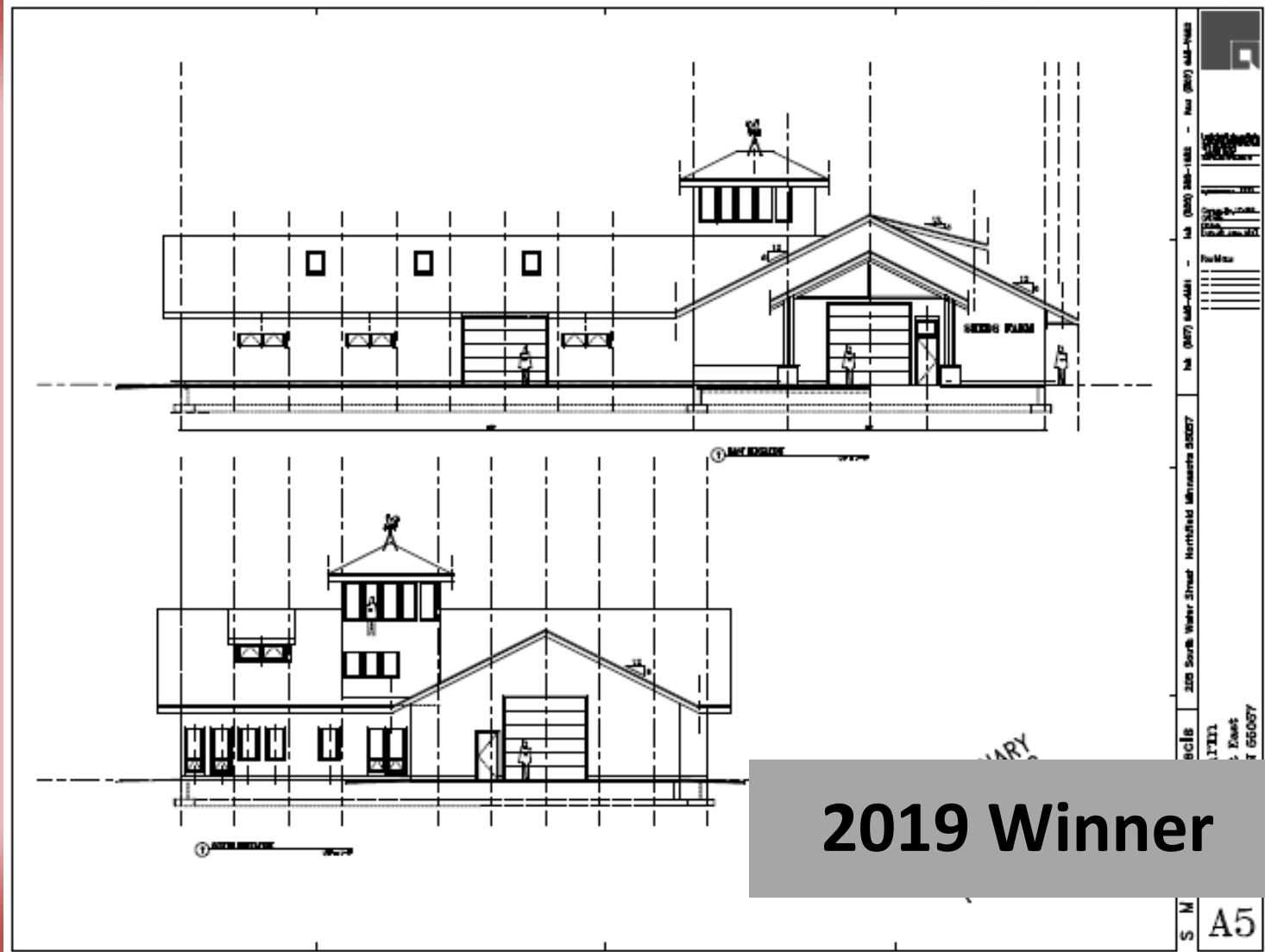
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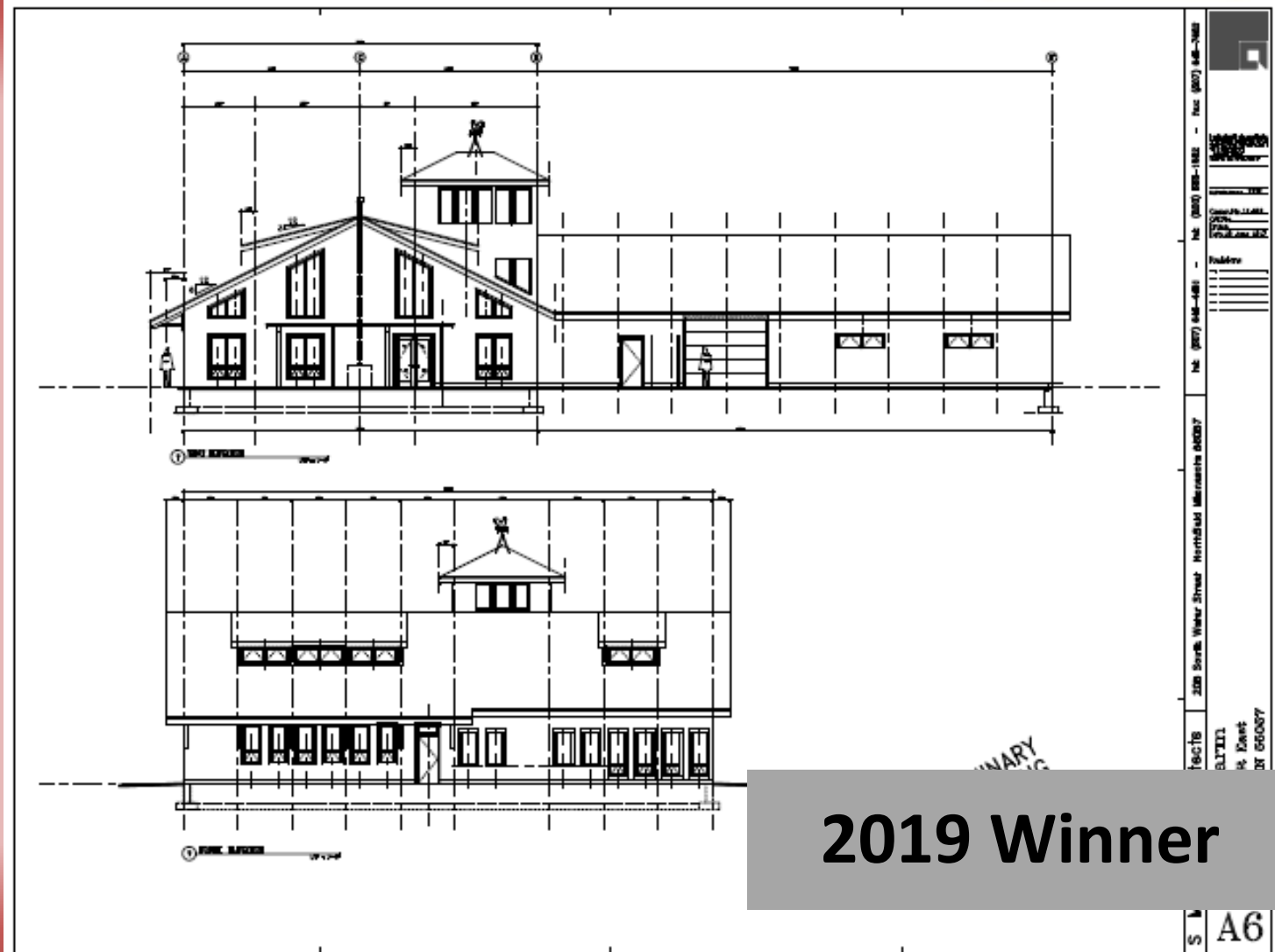
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