



House Government and Veterans Affairs Committee

Testimony to oppose SB 2347

Chairman Schauer and Members of the Committee, my name is Mark Schneider, and I am here on behalf of the ND Chapter of American Institute of Architects in opposition to SB 2347. The American Institute of Architects represents a great cross-section variety of North Dakota's roughly 220 Member Architects. The National Organization represents roughly 94,000 members. Our Code of Ethics promotes the Health, Safety and Welfare of the general public and to design buildings and structures to improve our built environment, consider energy efficiencies, and earth friendly designs, all while keeping people safe.

HB 2347 intends to raise the bidding threshold for Public Projects from \$200,000 to \$500,000 and \$1,000,000. As an Architect and a Building Official, I urge you to give this bill a do not pass recommendation.

As far as a threshold for procuring a building, all pre-engineered metal buildings, even housing units, must be certified by a third party inspector within the state they are built, have an engineer's stamp on them before they are shipped to the state of North Dakota. This ensures the structure itself is safe and built to a minimum standard but does not ensure site specific needs for the structure are addressed properly within North Dakota.

What some might consider a simple project under \$500,000 or \$1,000,000, are actually more complex than what you might think. Architects and Engineers review the geotechnical reports which indicate the ground has suitable soils and is safe to build on for structures, site planning to allow public and fire department access to the building, verify public parking and ADA requirements on the site to allow entry into the building. Will there be concrete floors or dirt floors? What structural footings/foundations are required to adequately anchor the building to the ground? Does the Building meet the current International Energy Conservation Code (IECC) which is also part of the IBC and adopted by the North Dakota State Building Code? Certain insulation is required at the footings/foundation level, exterior walls, and the ceiling/roof assembly. Is there safe egress from within the building if there were to be a fire? Within minutes the entire building could fill with smoke and a person may not see the building exit. Emergency lighting may be required. Exit lights may be required. Panic hardware may be required. Travel distances are considered. The number of exit passageways and doorways are calculated based on square footage of the structure, occupancy type of the building, and the construction type of the building.

Occupancy Type designations are determined by the "Use of the Building". For example, A Occupancies are Assembly spaces, B for Business, E for Educational projects, F for Factory, H for High Hazard, I for Institutional, M for Mercantile, R for Residential, S for Storage, and U for Utility. Each classification has different levels of safety consideration which, along with square footage sizes for these buildings, are tied to fire separations, exiting, life safety devices, notifications, and even sprinkler systems. So if one were to purchase a simple Pre-Engineered metal building used for a storage structure, we need to consider if it is an S-1 Occupancy or an S-2 Occupancy. When the Use is determined, square footages

then determine the maximum size and what sprinkler requirements may kick-in. A million-dollar simple building may need to be sprinklered.

Construction types are determined by what materials are used to construct the building. There are 5 different Construction Types to consider. Each type has a myriad of differences where one may require a complicated formula to determine the materials for walls, ceilings and floors, another type may have exterior walls that are non-combustible and interior walls built of wood framing, and some where every material needs to be calculated based on square footage of materials that are combustible or non-combustible. As you can see, it is not a simple matter of ordering a pre-engineered metal building and erecting it for quick storage space.

I also spoke to a Professional Engineer about snow loads and wind loads on a building. Pre-Engineered buildings come with a standard snow load and wind load requirement, but according to this Licensed Engineer in 28 different states, every jurisdiction in North Dakota has typically adopted their own snow load factors. For example, Fargo and the eastern side of the state require a 42-pound snow load factor, because of wind speeds, snow drifting, and whether you heat your building or leave it non-heated, which could require additional snow loading factors. Does the building have a turning gable roof, are there different height levels, or is it a simple gable roofline? All these factors come into play with wind and snow loads in North Dakota.

While researching building requirements for each state, I came across the Public Building Requirements for all 50 states. It is a 38 page narrative describing each states requirement for public projects. Almost every state in the union have tightened requirements for their buildings. It is disheartening that while most states are creating tighter requirements for public buildings, North Dakota would want to lessen the quality and safety of it's own buildings by allowing the threshold to jump from \$200,000 to \$1,000,000 without requiring any Professional services to assist Owners in their designs and safety requirements. So by increasing the bidding threshold to help Public Improvement projects hurry up and order materials they need for their facility, is not a great idea, and should be considered with grave detail and consideration before we as a State, make the mistake of allowing even the smallest of projects to be built without the consideration of a licensed professional.

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