



BIANEW BUZZ

Winter Volume
JANUARY 2020

INSIDE THIS ISSUE:

What's New BIANEW	2
DSPS News	2
Spot Ventilation	3
Inspector of the Year	3
Winterizing you Home	3
Foundation Failures	4
Ask the Code Official	4

What's New For BIANEW in 2020

As the year draws to a close, we the members of BIANEW have seen a few changes in the past year. With the new year, we potentially saw new hope shed light on a dark horizon with incoming Governor-elect, Tony Evers and DSPS Secretary, Dawn Crimm. The verdict is still out to see if the new Division of Industry Services will find a fair wind for the sails to put the division back on course. We were introduced to the new DSPS Secretary in February for a half-hour introduction at the Winter Code Updates, and again in May at our BIANEW meeting for a brief Q & A session. At least we had an opportunity to air our grievances, which hopefully did not fall on deaf-ears. We know in this business with new appointees, it can be a slow maturation process and patience is measured in slow steps forward. Albeit, slow it needs to be ensconced in optimism.

In a reflective look back through the year, we saw some new faces join BIANEW and a few retired members. Retiring at the end of the year and the beginning of the new year: Roger Strege, Village of Bellevue; Steve Terrien, City of Green Bay; Loreli Fuehrer, Village of Plover and Phil Borchartdt, City of Wausau.. We also were saddened to hear that Jonathon Schulz passed away on November 16. Jon had joined our association in May.

The Association had several speakers and training sessions to enhance our education. June was our 17 annual on-site dwelling inspection with DSPS staff, and an on-site sprinkler and fire alarm system tour and program at JF Ahearn Company. October was the ICC training for accessibility to commercial buildings, November round table Q & A. Another year drew to a close with the annual meeting and elections at

the Marq. There were 37 members in attendance to listen to motivational speaker, Roy Pirung talk about his journey through life and share his story and passion for marathons and endurance. We hope the new year will be fruitful and keep us safe and healthy.



Special Events & Recognitions:

- January-February Birthdays:
- Chris Jensen, January 2
- Rich Grefe, January 26
- Pete Scheuerman, Feb. 7
- Curt Klaske, Feb. 7
- Chelsea Meyers, Feb 22
- January 1, 2017 NEC is applicable to all residential and commercial buildings.
- BIANEW Membership Dues, January 15
- Winter Code Updates: February 19 & 20

DSPS NEWS

Municipal Electrical Inspection Agent: The deadline is January 1 2020 . Municipalities may exercise jurisdiction over the inspection of electrical wiring installations at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks provided the municipi-

ality complies with all of the following listed in SPS 316.011 (1). Any municipality that wishes to exercise jurisdiction over the inspection of electrical wiring installations as described in SPS 316.011(1)(a) must register with the Department as an electrical inspection agency even if they are currently exercising jurisdiction as allowed under Subchapter V of SPS

316. In municipalities not exercising jurisdiction under SPS 316.011(1), the department shall provide permit and inspection services for the installation of electrical wiring on farms and in public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks.

Simple Spot Exhaust Ventilation

In the last twenty five years building science has made its way in the homebuilder's performance standards and psyche for new dwellings. Air quality, air sealing (building tightness), optimal insulation, and a good ventilation system equates to a high performance home.

With the adoption of the 2015 International Energy Conservation Code and the current Wisconsin Uniform Dwelling Code, our homes are built tighter than they have ever been in the past. Thus, the need for a good ventilation system to improve interior air quality.

The best solution for indoor air quality would be to eliminate all products that emit or off-gas pollutants. Whole-house ventilation systems work great, but may be costly and impractical. When the house is loaded with people, pets, plants, building materials, consisting of chemical admixtures, cleaning products, the air quality diminishes substantially in a well-built, air-tight home. Moreover, cooking, bathing, and laundry can also add a substantial amount of water vapor in the dwelling, which can cause many other problems without adequate ventilation.

One cost effective way to improve air quality in a tightly built home is spot ventilation with high-end exhaust fans placed strategically throughout the dwelling. This would be in the kitchen/dining area,

bathrooms, laundry rooms, garage, basement finished rooms, and a common area. Most fans can be controlled with a humidistat for moisture control and set for timed operation, thus allowing adequate exhaust when the rooms are occupied. Bathroom fans should be run for a few hours after showering and the same for cooking and laundry activities.

However, the fans alone do not provide a complete ventilation system for the dwelling. A proper ventilation system consists of exhausting stale air out of the dwelling, bringing fresh air in, and controlling the fans. Just one quality fan with a smooth walled 3-4 inch duct with less than 20 feet and no more than two elbows can deliver about 60 cfm. Just one fan is enough ventilation for a single-story 1,700 sq. ft. dwelling if the fan runs at least part of each hour that the dwelling is occupied.

Sizing Ventilation Fans: Exhaust ventilation fans are sized to provide specific airflow rates in cubic feet per minute (cfm). The size of the fan required for ventilation is dependent on the size of the dwelling and the number of occupants. ASHRAE standards recommends a minimum of 0.35 air changes per hour (ACH), but not less than 15 cfm per occupant during occupied hours. You should calculate minimum whole-house fans based on both dwelling size and number of occupants. A simple way to calculate 0.35 air changes per hour: 1. Multiply the

exterior sq. ft of the dwelling by the average ceiling height to calculate the volume. Then multiply by 0.85 to account for wall and partition thickness. 2. Multiply the volume by 0.35 3. Divide by 60 (minutes per hour) to get the required cfm. Three bedroom dwelling at 1,800 sq. ft. with 8-foot ceilings would require a fan rate of 71 cfm to ensure 0.35 ACH. UDC requires one ACH.

Using the occupant method of ASHRAE with two occupants in the master bedroom and one in each bedroom at 15 cfm per occupant would require 60 cfm of ventilation. A 75 cfm fan would be sufficient. Add a few more strategically placed and the ventilation with proper make-up air would be sufficient.



Inspector of the Year: William Hebert, City of Wausau.

Congratulations to William Hebert voted as BIANEW's Inspector of the year. After obtaining a bachelor's degree at UWSP, Bill was employed as a deputy building inspector/zoning administrator for the City of Rib Mountain in 2006. He worked towards his masters degree on weekends, which he ultimately obtained in public administration. It was a good program, which allowed Bill to use his work experience with his classes. Bill was hired by the City of Wausau to run the Division of Inspection, Zoning & Electrical Systems. Bill supervises a team of six inspectors and two administrative staff. Bill was

BIANEW's President from 2016-2018 and currently is the treasurer for the WBIA and recently appointed to the Commercial Code Council.

Bill spent his youth in Gresham, Wisconsin, graduating from Gresham High School in 2001. Bill is married to Andrea (married in 2010) and has two daughters, Hillary 6 and Hannah 3 and a cocker spaniel named Macy. When Bill isn't busy with his career, he enjoys being together with his family, hunting, fishing camping and his new found enjoyment, curling. Bill recently joined the Wausau Curling Club. Congratulations

Bill for BIANEW's Inspector of the Year!



Tips on Winterizing your Home

The interior of the dwelling is equally important when the cold winter winds are buffeting the house and window panes. A dwelling that is not insulated or air sealed properly can be expensive to heat and cool and uncomfortable. The simple concept is to insulate to the maximum extent possible, air seal walls and ceilings tight, and ventilate right. Some key items to address are:

1. All electrical boxes, ceiling can lights, and bath fan housings that penetrate the exterior walls and ceilings that abut the cold unconditioned attics are a source of air leaks that can allow conditioned air to infiltrate the wall cavities and attics, which can pose a host of problems. This can be remedied by removing the

box covers and caulk around the gaps.

Make sure there is adequate insulation in the attic, especially near the perimeter at the top of the wall and roof line, where ice damming may occur. An R-40 insulation value should be provided in an unconditioned attic. That means at least 12 inch batt insulation or 16 inches of blown in cellulose insulation.

Check for insulation in the basement above the foundation where the joists adjoin the box sill at the perimeter foundation sill plate. This should be insulated with rigid insulation or urethane spray foam. Air permeable insulation is not usually recommended due to potential condensation behind the

insulation and wood box sill.

If you have older inefficient windows, this can be a major heat loss potential. If you can't afford new windows, a window seal kit can be purchased at any hardware or box store and applied over the interior side of the window unit.

Check out ducts in the attic and other spaces. Make sure they are fitted properly and are well insulated. You can lose up to 60 percent of heat before the heat actually reaches the vents if the ducts are not connected and properly insulated. Innovative spray foam does a better job of sealing off all leaky openings.

Foundation Failures & Fixes

The past two years this region has witnessed a record amount of precipitation, especially this past year. According to the National Weather Service in Green Bay, 2019 set the wettest year on record and marks the first time Green Bay established back to back yearly precipitation records since 1887 and 1888. With over 43 inches of precipitation of rain and snow this leads to a myriad of potential problems and challenges. Good for the aquifers and bodies of water, but not so good for property owners and structures. Most of this region is comprised of clay and silt-clay soils that when saturated does not drain well, causing standing water and a host of other problems.

The Building Inspection Division has also experienced a record number of calls relating to the substantial precipitation including: sump pump discharge complaints, roof drain downspouts nuisance complaints, wet and leaky basements, foundation failures, and standing water complaints. The permits for basement foundation repairs have increased considerably in the last several years.

When soils become saturated, especially clay soils, it can impose an exorbitant amount of hydrostatic pressure on foundation walls, thus causing the walls to bow, crack and displace. Older foundations constructed from CMU's (Concrete masonry units) are more susceptible for failure than a poured reinforced concrete foundation. If you notice water seepage, wet areas on the foundation

wall, water on the basement/crawlspace floor slab, or your sump pump is running more frequently, all can be a sign that there may be a potential problem. If you notice cracks developing from the corners of the foundation wall, running diagonally, or cracks forming at the mid-point, running horizontally in the wall, larger than 1/8-inch, or the walls bowing in, you may want to consult with a professional basement repair contractor.

There are some preventative measures, you as a home owner can do to mitigate some of the problems. The first factor to consider is making sure there is sufficient grade away from the foundation. The importance of the exterior grade sloping away from foundation basement walls cannot be emphasized enough. There shall be at a minimum 1/2 to 1-inch per foot of gradient out 10 feet from the dwelling foundation walls. Secondly, make sure roof gutter downspouts and sump pump discharge pipes are at least 4 to 6 feet away from the foundation. In the winter months, check to see that the sump pump discharge pipe is not frozen. Moreover, make sure your sump pump discharge pipe and downspouts are connected to the storm sewer riser and if there is no connection thereto, make sure the discharge hose does not cause storm water discharge to freeze on driveways, walkways and city sidewalks. Another issue that can cause foundation problems is adding plants and shrubs around the foundation. This becomes a

problem when you are watering the plants, thus causing added soil saturation around the foundation. The next several items should be observed and followed for new home construction or regrading to an existing building (Courtesy Of Wayne Allen owner of Wisconsin Basement Inspection Services):

Add soil (screened topsoil) to develop a slope of 3-4 inches downward from the house, the first 4 feet away from the basement walls. Install window wells if necessary to raise the grade and then cover all window wells with a window well cover designed for window wells.

Thoroughly tamp the soil either with a hand tamper or a rented gas-powered tamper, which is faster and more efficient. You'll notice the soil will compress with tamping immediately. Add more soil and repeat until the downward slope is accomplished.

Cover the tamped soil with 10 mil + plastic sheeting up to the basement walls and up on the walls 1-2 inches. Secure the plastic sheeting with plastic spikes (staples) from a hardware store every two feet along the wall or walls in question to keep the plastic sheeting from slipping.

Then cover the plastic sheeting with decorative stone to your liking. Remember the stone only has to cover the plastic so it looks good, it doesn't need to be several inches thick.

Driveways: Proper Winter Care

Warning!

You wouldn't use a strong caustic soap to clean your wall-to-wall carpet. Nor would you use acid to clean your kitchen or bathroom fixtures. In fact, most people are very careful about how they clean and take care of the inside of their home. Yet, what about the outside concrete walks, patios, driveways, porches and steps. While concrete is the most durable product available for your home, proper care is a requirement for long-lasting beauty and wear. One of the most damaging things to a new concrete surface is the use of deicers - especially the first winter. Here are a few tips to properly care for your exterior concrete.

1. Avoid Using Deicers the First Year.

• Concrete takes a while to reach its maximum strength. While some deicers, such as salt, do not chemically react with the concrete, they do increase the number of freeze/thaw cycles the concrete must go through. This has the potential of damaging the concrete until it has reached its maximum strength.

2. Use Sand Anytime.

• The only safe material to use to make the concrete surface skid resistant is plain sand. This can be purchased at several locations, frequently at the ready mixed concrete supplier in your area.

3. Don't Use Deicers With Ammonium

Nitrate or Ammonium Sulfate.

• Never use deicers containing ammonium sulfate or ammonium nitrate. These chemicals are often packaged and sold as deicers, but they will rapidly disintegrate concrete. Common garden fertilizers containing these two chemicals, or urea, may cause disintegration as well.

4. Use a Sealer.

• Under usual conditions, deicers which contain sodium chloride (common salt) or calcium chloride may be used after the first winter. Even so, caution is needed. It is important that a surface sealer be applied after finishing. Check with your ready mix supplier or contractor for sealers

Ask The Code Official:

Question: I have an entrance to a new building where the grade is such that I need to make a concrete landing that is 4 1/2 inches above the grade. This is one of my two required exits. Does this entrance need to be accessible?

Answer: Yes. IBC 1105.1, would require the entrance to be accessible unless the entrance met one of the exceptions to IBC 1105.1.

IBC 1105.1 in addition to accessible entrances required by Sections 1105.1.1 through 1105.1.6, at least 60 percent of all public entrances shall be accessible.

Exceptions:

1. *An accessible entrance is not required to areas not required to be accessible.*
2. *Loading and service entrances that are not the only entrance to a tenant space.*





djensen@deperewi.gov

BUILDING INSPECTORS ASSOCIATION

Compliance Not Conflict.

www.bianew.org

The Building Inspectors Association of Northeastern Wisconsin (BIANEW) is an organization of over 100 municipal Building Officials encompassing 21 counties. Members meet monthly to discuss code issues, learn about new building products and techniques, and promote building safety and uniformity of enforcement of state codes. A guest speaker is usually invited to speak to the group on a variety of topics related to the building industry. If interested you are invited to attend future meetings and you may also contact any of the officers listed on the home page for more information. BIANEW was formed in 1971 by a group of 16 municipal inspectors who saw the educational benefits of regular monthly meetings with their fellow inspectors. The first meeting was held June 15th, 1971 at the Shawano City Hall due to its centralized location and most monthly meetings are still held in Shawano. The Organization is headed up by a group of 4 elected officers who are dedicated to maintaining the high professional standards set by the original charter members.

Inspector Spotlight: Brian Walter City of Neenah

Brian Walter, City of Neenah Chief Building Inspector and Electrical Inspector. Brian lived and spent his youth in Oshkosh, Wisconsin. From the age of 13, he worked with his father in his concrete company, where he was taught hard work never killed any one and bolstered his work ethic. After graduating from Oshkosh North High School in 1978, Brian moved to attend North Central Technical College (NCTC) after a family friend who was a building inspector suggested to him about an architectural design course the school had to offer. During the summers between 1978 and 1980, he was employed part-time as a plant electrical maintenance person. He also found work with an electrical contractor, where he honed his skills in the electrical field. While at NCTC not only did he like the course, it proved beneficial working towards obtaining his inspector's credentials - obtaining all four credentials in the UDC. Brian now holds seven credentials.

After graduating from NCTC in 1980, turning twenty-one years of age, Brian had an opportunity to be an electrical inspector and assistant building inspector for the City

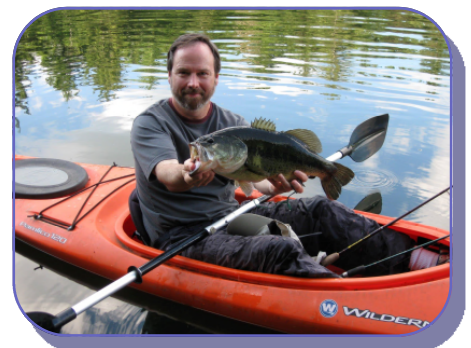
of Menasha. The city had two inspectors at the time, Roy Schumacher and Brian became the second inspector. He served the city for nearly five years, until there was a vacancy in the inspection department for the City of Neenah.

Brian applied for the position and was hired as their chief building inspector and electrical inspector. Brian has been with the city nearly 35 years and in many respects has seen a lot of changes in the trades, industry and code changes. He sat on the Uniform Dwelling Code Council for 15 years (1989-2004), and joined the Building Inspectors Association of Northeast Wisconsin in 1980. Brian served as president of BIANEW in 1988 and President for the Wisconsin Building Inspectors Association (WBIA) in 1995. Brian was awarded the Inspector of the year in 2007. As well as being a part of BIANEW, he is a member of the East Central Wisconsin Association of Electrical Inspectors (ECWAEI) and was the Wisconsin Chapter IAEI president in 2007.

Ten years ago, Brian created the BIANEW website and in the last five years created a

Facebook page for the association. His involvement and years of experience are a valuable asset to his municipality, peers and to our association.

Brian has been married for 39 years to Linda and has three boys. He enjoys his time at his property in Minocqua, Wisconsin. It is there where he finds peace and solace from life and finds an occasional fish or two on Lake Tomahawk. This is the place he said he will go to retire and slip deeper into the silence of the northern



wilderness.