



Agenda  
Village of Arlington Heights  
Building Code Review Board  
Commissions Room  
33 S Arlington Heights Rd., AH, IL 60005  
October 25, 2019  
7:00 PM

**I. CALL TO ORDER**

**II. ROLL CALL**

**III. APPROVAL OF MINUTES**

- A. Approval of June 19, 2019 Minutes

**IV. REPORTS**

**V. OLD BUSINESS**

**VI. NEW BUSINESS**

- A. Proposed changes to the Village Code related to the International Building Code.
- B. Proposed Changes to the Village Code related to the International Existing Building Code
- C. Proposed changes to the Village Code related to the International Fire Code
- D. Proposed changes to the Village Code related to the International Fuel Gas Code
- E. Proposed changed to the Village Code related to the International Mechanical Code
- F. Proposed changes to the Village Code related to the International Property Maintenance Code
- G. Proposed changes to the Village Code related to the International Residential Code.
- H. Proposed changes to the Village Code related to the International Swimming Pool and Spa Code.
- I. Proposed changes to the Village Code related to the National Electrical Code.

**VII. OTHER BUSINESS**

**VIII. ADJOURNMENT**

Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact David Robb, Disability Services Coordinator, at 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005, (847)368-5793 (Voice), (847)368-5980 (Fax) or drobb@vah.com.



**Building Code Review Board  
10/25/2019**

**Item:** BCRB - Approval of June 19, 2019 Minutes

**Department:** Building & Life Safety

**ATTACHMENTS:**

| <b>Description</b>             | <b>Type</b> |
|--------------------------------|-------------|
| Draft Minutes of June 19, 2019 | Minutes     |

**DRAFT**

**BUILDING CODE REVIEW BOARD**

**MINUTES OF A MEETING BEFORE THE  
VILLAGE OF ARLINGTON HEIGHTS  
BUILDING CODE REVIEW BOARD**

**June 19, 2019**

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**MEMBERS PRESENT:**

Rich Bondarowicz, Chairman  
John Carrato  
Scott Smith

**ADMINISTRATION PRESENT:**

Steven Touloumis, Director of Building & Life Safety  
Mark Fink, Assistant Building Official  
Don Lay, Fire Safety Supervisor  
Pete Ahlman, Deputy Fire Chief  
Mark Aleckson, Fire Department  
Patty LeVee, Recording Secretary

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**SUBJECT:**

2018 International Residential Code Update Recommendation

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There being a quorum present, the meeting was called to order at 7:00pm.

**APPROVAL OF MINUTES**

**MR. CARRATO MOTIONED TO APPROVE THE NOVEMBER 29, 2018 MINUTES, SECONDED BY MR. SMITH, THE MOTION PASSED UNANIMOUSLY.**

**NEW BUSINESS**

2018 International Residential Code Update Recommendation

**Chairman Bondarowicz** asked **Mr. Touloumis** to begin with a general overview on the objectives over the last few months on reviewing the items, hitting on several important bullet points within the changes.

**Mr. Touloumis** mentioned everyone having the opportunity to see the proposed changes that were submitted with the packet. He described the four items in the packet. First, recommendations to modify existing amendments that are in our current existing ordinance as related to the adoption of the International Residential Code (IRC). Second was the new recommendations based on recommended version, which will be the 2018 International Residential Code. The third document was a compilation of what was changed from both of those two documents as a recommendation. It was laid out in what the new Municipal Code

would look like. For clarity, that document is not in final format, it would go to legal for possible language changes that are necessary to have proper format for legal adoption. The fourth document included was a copy of the existing Municipal Code for accessibility to cross reference changes recommended from the first document mentioned.

**Mr. Touloumis** began discussion of the first document which is the existing amendment recommendation changes. He noted some changes are more administrative in nature. For example, plumbing does not get referenced back to the International Code Council's Plumbing Code, because we have a State Code adopted. If we have to reference that State Code, use the definitions that exist in the State Plumbing Code, there are sometimes variations between the definitions from the ICC Code versus the State Code. For the sake of "cleaning" the code, clean up of some of that language was needed.

Beginning with key points, **Mr. Touloumis**, addressed Section R301.1, which states: Buildings and structures and all parts thereof shall be designed by a State of Illinois licensed architect or structural engineer; and shall be constructed by a licensed contractor or owner who shall be responsible for compliance with the Village Code for construction, to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, wind loads and seismic loads as prescribed by this code. The recommendation is to eliminate that amendment to the code as explained in the substantiation which is written as: The Illinois Architectural Licensing Act defines when buildings are required to be designed by a Licensed Architect. Following these rules provides for consistency and an acceptable level of quality. Our existing amendment requires, as an example, a bathroom remodel to be designed by a licensed architect, which adds unnecessary cost to a minor project. **Mr. Touloumis** stated while he believes the intent of the language was maybe it was not thought about in terms of a something like a bathroom remodel when originally written; that is what the language states. The recommendation to change and go with - we need an architect when the State says it and we need an architect when the Code tells us to do it. In a more general sense, if he could use the Code book to determine that something is Code compliant, such as lumber spans, rebar inside concrete footings and foundations, etc.; he does not feel there is a need for an architect to do the design. That is the whole point of an IRC being written the way it is written to begin with, to allow it to be designed according to the standards within the Code. In a way, it defeats the purpose of having a Residential Code by turning around and saying you always have to have an architect design. In his opinion, it adds unnecessary costs to people.

**Chairman Bondarowicz** asked for examples of how they are currently handling that situation and what do you see that threshold being; noting it is clearly one of the top ten issues to discuss.

**Mr. Carrato** stated that what Mr. Touloumis is proposing is what they were hoping to do last time the codes were updated. He does not think there should be anything in the Municipal Code that is either covered by State licensing acts or these International Codes. Our licensing act state very clearly when an Architectural Engineer, Licensed Architect or Licensed Structural Engineer can and cannot do. He does not think we need to set thresholds, it is in the licensing Act. It tells you what needs to be required.

**Mr. Bondarowicz** asked how that is being interpreted. Essentially we are keeping it roughly the same. **Mr. Touloumis** replied, no, the recommendation is to drop this existing language and completely eliminate it and use the rules that already exist and are replaced.

**Mr. Carrato** stated as a Licensed Structural Engineer, it is very clear what he can and cannot do. The Municipal Code is filled with things that are not necessary. **Mr. Touloumis** stated having a much cleaner, clearer set of rules helps staff and residents. Nothing is perfect, but making more rules on top of it, especially for something like a bathroom remodel, most would agree, it is not necessary to have a licensed architect design a bathroom remodel. We want to require an Architect when an Architect is really needed, or a structural engineer. Both the State licensing laws and the codes themselves give us more than adequate coverage for requiring that when needed.

**Mr. Touloumis** noted this is not just in this one section, there are a couple areas within the Code, as in the Section R301.1.1, that talks about the same thing. The recommendation is to drop all of that. Some of the language in front were changes that seemed to be redundant and unnecessary is already covered in the language.

**Mr. Touloumis** stated the next important item to discuss is room sizes, Section R304.2. The Building Code itself requires the minimum size of a room to be 70 sq. feet. It was amended to be 100 square feet locally. The recommendation is to drop that amendment and go back to what the standard code says. There Board has no questions or comments on this.

**Mr. Touloumis** next discussed Section 305.1.1 -basements. Points were made regarding previous Building Code Review Board presentation for a waiver due to a lower ceiling height. They had wanted all the special requirements, existing ceilings and basements. The language changes were made to hopefully address that administratively without having to come to the Board.

**Mr. Touloumis** recommended to delete the main Subsection 305.1.1, which states: Portions of basements that do not contain habitable space or hallways shall have a ceiling height of not less than 6 feet 8 inches. Our amendment had changed that language from 6 feet 8 inches to 7 feet. This amendment was rewritten as: Portions of basements that do not contain habitable space or hallways shall have a ceiling height of 7 feet 2 inches as measured from the top of the concrete floor to the underside of the ceiling joist or floor joist above. Additional floor and/or ceiling finishes, including laying tile drop ceilings, shall not reduce this value less than 7 feet according to 305.1.1 even if not defined as habitable space or hallway.

**Mr. Touloumis** stated this new language is really written for new construction, building a new basement. It does not really deal with existing basements. We are trying to make sure someone who builds a new house with a basement, adequate headroom is there for someone in the future to go ahead a build that space out, as many do.

**Chairman Bondarowicz** asked if he was addressing existing basements, which is probably the most critical to discuss. Some of the older homes have basements 6 feet from the bottom of the

beams. This led to discussion over habitable and non-habitable space. **Mr. Touloumis** stated that the new recommendations and Appendix J601.4 deal with existing construction and there is language in how to deal with existing construction.

**Mr. Touloumis** stated he is deleting that text and rewriting to say: For buildings that contain basements without habitable space and/or hallways with ceiling heights, not in compliance with this Code for new construction, but an application is submitted to convert the basement to habitable space, the Building Official may grant approval upon review of the project and determination there are other approved safety features of the space to offset the reduction in ceiling height, but in no case shall the ceiling below 6 feet 7 inches be allowed for use as a habitable space. Where lay-in tile drop ceilings are installed, the determined ceiling height shall be measured from the finished floor to the bottom side of the ceiling grid.

For buildings that contain basements with habitable space where the existing ceiling height does not conform with this code for new construction, when an existing application is submitted to remodel the basement habitable area, the application may be approved if: (a) remodel will increase the ceiling height to be compliant, (b) the Building Official grants approval upon review and determination that there are other approved safety features of the space to offset a reduction of the non-compliant ceiling height on conformance with the first paragraph, and (c) historical records show that the basement ceiling height, as exists, was previously approved by the Building Official and the remodel plans do not further reduce the ceiling height. **Mr. Touloumis** stated he was trying to pick up all the different arrangements that occur.

**Mr. Smith** stated while he appreciates what he is trying to do, they are the authority to grant him that discretion. Technically, it comes to the BCRB, they make a recommendation and the Village Board makes the decision. He asked if they can grant him the discretion to reach the decision on his own.

**Mr. Carrato** stated that is what the Municipal Code is for. If they agree with this approach, the Board still has to approve the changes. They are not granting anything, the Village Board is. **Mr. Carrato** thought this makes a lot of sense. Indicating there are also a lot of crazy things that come to this Board, if the Village Board agrees with this, then it will not come to BCRB and it would not go to them either. **Mr. Touloumis** added he will also seek legal interpretation, as well on this. He stated the Building Code itself already grants the Building Official, and many cases the Fire Official the authority to make determination on a great many things. There is still the limitation, it still cannot go below 6 foot 7 inches. If someone wants to go below 6 feet 7 inches, then they have to go to the BCRB. It extends a bit of the range, to allow for staff to make judgement calls on more common issues.

**Mr. Touloumis** next discussed Fire Sprinklers R313.2, stating standard code requires all new one and two family dwellings to be fire sprinklered. Based on the fact that the last time this went through the process it ended up ultimately getting dropped by the Village Board and they choose not to go with fire sprinklers, along with conversations he has had with the Fire Department, he deleted that language but also wrote in that if someone does install it, you must still follow this

code. If installed, the previous language left it open ended to some degree. The language he is recommending still says, if you are going to install the system, it still has to conform to a certain standard. **Mr. Touloumis** stated they chose to stay with this previous amendment.

**Mr. Carrato** said he was the Chair at the time this was previously presented to the Trustees and there was no way they were going to enforce people to do that.

**Mr. Smith** asked for clarification that we are saying we are going to eliminate R3.13. **Mr. Touloumis** replied, we are going to rewrite the amendment as: An automatic residential fire sprinkler system is not required in one- and two-family dwellings, but if installed, shall be done in accordance with R313.2.1. **Mr. Smith** asked if we were keeping those in townhouses. **Mr. Lay** stated, in a duplex it is not required.

**Mr. Touloumis** stated the way the code is written, it is broken into two key sections. In Section 3.13 which is titled Automatic Fire Sprinkler Systems, R3.13.1 is titled Townhouse Automatic Fire Sprinkler System, and it states an automatic residential fire sprinkler system shall be installed in townhouses. Townhouses are a defined term within the Code. The next Section 3.13.2 states, one and two family dwellings, automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in one and two family dwellings; and dwellings itself is also a defined term within the Code. The answer to the question is yes, townhouses are not being amended from not requiring fire sprinklers. They would require fire sprinklers for townhouses whether they were built under the IRC or the IBC. There were no further comments on this.

**Mr. Touloumis** next discussed wall sections. He noted they kept some things but they were written so much differently or had to be structured differently based on the way the Code was restructured that it was easier to write it as a new recommendation. That is why it appears some of this looks totally eliminated but there are some new recommendations for certain things. One example is – the Code only requires a ridge board to be 1 inch nominal lumber. Experience is that when toe nailing rafters into those, that they are breaking apart. You do not get enough meat on a 1 inch nominal lumber which more like 3/4 or 5/8th. We changed this from a 1 inch to a 2 inch. This is standard construction anyway, no one would disagree with that anyway. It was kept pretty much the same as it was, but some of the way the language was written was changed.

**Chairman Bondarowicz** asked to discuss about the minimum garage interior width that fell under the Building Code. **Mr. Touloumis** stated he addressed that in Section R309.1. There are a lot of Subsections to that- a, b and c. He stated Subsection c is where requirements for minimum garage sizes are mentioned. He sees no reason other than the same purpose of potentially having a bedroom be a larger size than what the minimum code requires. That said, a bedroom is a little different because people are sleeping in it. You want a minimal amount of volume in a room in case there is smoke collection and so on. With a garage, it was heard they want people with their SUV's to be able to open their door wide enough. That has nothing to do with life safety of a building.

**Chairman Bondarowicz** asked, then your recommendation is to delete. **Mr. Touloumis** stated, completely eliminate all of that language. **Chairman Bondarowicz** asked if there is even a code on minimum garage width. **Mr. Touloumis** replied, no, it does not exist. He added, how does the BCRB make a decision to allow somebody to have a smaller garage when you are not basing any of those decisions off of anything that has to do with safety? You start becoming an Economic Board or Design Commission Board and that is not this Boards role. That is another key reason why this does not belong here. You are making decisions that are not based off the expertise you are bringing to the BCRB in the first place.

**Mr. Touloumis** stated other than what was discussed, he does not see anything jumping out in the existing; there is a lot of clean up items. For clarity, energy efficiency is all being dropped because we have a State Energy Code and we are duly obligated to follow the State Energy Code. Exception is if the State allows us to either increase or decrease the amounts. He believes the State allows commercial to be increased but not decreased and it does not allow an increase or decrease for new residential occupancies.

**Mr. Touloumis** next mentioned an amendment that discusses a fire sprinkler head over furnaces. The recommendation was to eliminate that, because they do not see anywhere near the amount of furnace fires as maybe we had in the past. They are building them more on the safe side, with better enclosures. **Mr. Fink** stated this is under Chapter 14. **Chairman Bondarowicz** asked the fire members if they have seen anything on furnace fires. **Lt. Aleckson** said he had not on newer products. If there was a furnace fire he would say it is due to lack of maintenance and proper storage around the furnace, which is a very common issue. Discussion continued on the safety features of the newer furnaces and water heaters.

**Mr. Touloumis** next discussed an issue of his concern, that being he is not aware of language anywhere that provide any clear statement that the sprinkler head needed to be flow thru, which now means you have in essence dead end plumbing line. The State has been very hard on dealing with legionnaire's disease even with the municipal systems having dead ends and things of that nature because something that happened somewhere down state. The State has been really particular as of lately with dealing with no dead end piping. The State does not allow separate branch lines for the fire systems coming into buildings anymore. It has to come in as one straight line that splits off after you are inside the building.

**Mr. Touloumis** said this concludes anything on existing changes and began running through the new recommendations. **Mr. Touloumis** again stated most of the recommendations upfront is all administrative in nature; it references proper code, the State Plumbing Code, the State Energy Code. He tightened up on some of what requires a permit and what does not. Our current Code actually did not require a permit for a fence; that only came from the Zoning Code. It seemed silly to write the Building Code that you do not need a permit for a fence, yet you still want one because the Zoning Code requires it. It is misleading people. If you want a permit for a fence, we're going to say a fence permit is required within our Building Code language as well. It makes it consistent.

**Mr. Touloumis** stated sidewalks and driveways are another area that our existing code did not require a permit for; yet, historically everyone comes in for a permit for sidewalks and driveways. We have been doing it, but it is not really what the language says. Getting a lot of these on the same plane with the other sections of the Municipal Code is a lot of what this area of recommendation was about. It is mainly cleaning up how the language reads.

**Mr. Touloumis** next mentioned one very important item, that being Section 112 of the Code, which is a Section that says there is a Board of Appeals. That had never been taken out of the Code. Based on conversations, no one has come and appealed to the Building Code Review Board as a Board of Appeals. The difference between a Board of Appeals and recommendations for code waiver are as follows: The Board of Appeals is if someone does not agree with the Building Officials interpretation of the code language, they could present to the Board saying we think the Code means this, not what the Building Official said. It is being recommended that this is not a part of what the Building Code Review Board is for. There is a clear distinction of those two different roles and he wants to make sure there is clarity, it had never been taken out of the code before.

**Mr. Carrato** mentioned, the Building Code Review Board does not have the authority to approve anything anyway; it still has to go to the Trustees. **Mr. Touloumis** replied that part of the reason why dropping it makes sense because the Building Code Review Board is advisory only. There are many other municipalities that have dropped this section and, again, it is not known that anyone has ever come and made a board of appeal anyway. **Mr. Carrato** attested to the same.

**Mr. Touloumis** stated that part of all of these code updates and trying to eliminate a lot of the amendments is to allow us to have the ability to not only rely on our opinions, but to seek the opinions of the International Code Council themselves. When we start amending the Code we can lose that resource and that network because they not going to make an assessment of what the intent was of a local amendment. But they can do that with the base code that is obviously theirs.

**Mr. Bondarowicz** referred to Chapter 16 regarding HVAC's asking if what Mr. Touloumis was saying is that he wants to have high/low returns. **Mr. Touloumis** answered yes, that language already existed but it was not written in a way he that he felt it covered things properly. Originally he wanted to get rid of it, but after research as to why it might have been in there, and part of that involved the HVAC manuals, the ACCA manuals. The manuals are not easy to read through and even though they give direction on how to build things, they are still not really clear as to how to build things and figure out if you are going to have proper air flow inside the building or not.

**Chairman Bondarowicz** stated they went through that experience where the homeowner actually spent almost \$20,000 on an engineer to do this on a very substantial home and the conclusion was the high level was not necessary or not needed. There was further discussion of high and low returns.

**Mr. Touloumis** stated that some of the existing items, he is trying to pick up clarifications on when we expect permits and what we expect to get done when, for example, doing a kitchen remodel or a bathroom remodel. We do not just want new cabinets when there is 1950 wiring behind the walls that one circuit is still feeding half the house. There should be new circuits if doing a kitchen remodel. Once the base cabinets are being removed, we would want it up to Code. If just doing upper cabinets, you do not need a permit, we wouldn't touch that. Obviously codes are affected once base cabinets are removed, outlet spacing is one example. Naturally, where there are exceptions, the Building Official can decide and make allowances for day to day issues and not have to come to the Building Code Review Board.

Next, **Mr. Bondarowicz** inquired about the floor joist. **Mr. Touloumis** referred to R302.13 stating this might have been started in the last cycle or the one before, but obviously was not in the 2009. Basically the Section says, if you have floor assemblies they are not required to be rated, (which no floor assemblies in a single family detached dwelling are ever required to be rated) that you now start covering them with some layer of dry wall. The most typical arrangement is the basement, which typically is left with open floor joist to see the bottom of the subfloor up above, based on the standard code would be required to be covered with dry wall. There are some small exceptions for some small areas but it is fairly insignificant. Of course, there is exception that says you do not have to do this if you sprinkle the residence. **Mr. Touloumis** said his general assessment was that this was thrown in to say if you are going to take out sprinklers then you are still going to have to do this other dry wall to update the separation. He recommends this is taken out because he never heard of a fireman falling through a floor in a single family home.

**Mr. Lay** stated he has. **Lt. Aleckson** added, especially engineered lumber is a huge problem for them. **Mr. Lay** said, engineered lumber does not last for anything in a fire. **Mr. Touloumis** suggested it is burning up with the glue. **Lt. Aleckson** said depending on how it is designed, if they are put in with gusset plates or some only glue. The issue is they fail but don't drop until they put additional weight on them. Many times carpeting is holding the entire floor system up and firemen come in and go through it.

**Mr. Bondarowicz** stated that this is talking about the open web system. **Mr. Lay** said he has seen it fall through, a man fell through a 2 x 10's floor. **Lt. Aleckson** said the issue comes in that people want these large open spans in basements and the engineer joists are allowing them to do that. They are becoming more and more popular.

**Mr. Fink** asked if the gusset plates themselves failed. **Lt. Aleckson** said they are only put in ¼ inch and as soon as the metal heats up it expands and drops off. **Mr. Touloumis** said it would not be uncommon, and he has seen amendments in other municipalities that actually keep this but change it depending on certain types of construction, obviously the standard code does not do that. After discussion, **Mr. Touloumis** concluded this will be tabled for further discussion. **Chairman Bondarowicz**, agreed this is a topic they need to go back to.

**Mr. Touloumis** stated a lot of these items are just clarifying what he thinks is lacking and that the Code does not cover certain scenarios well; we have run across them and it needs tightening up in some areas. Concluding the key items being presented, Mr. Touloumis opened to comments or questions about any of the sections.

**Mr. Bondarowicz** asked for comments from Fire Department. **Lt. Aleckson** stated that he wanted to make sure we are approaching the floor joist issues at a later time. **Mr. Touloumis** stated we would be discussing and he would not be making a recommendation or present it yet. **Lt. Aleckson** stated that, as far as residential sprinklers go, he would like to be on the record that they do support the residential sprinklers. They do understand the Board's issues with them and if that is where they choose to go then than that is where they choose to go. **Mr. Touloumis** summarized, for clarity, what you are saying is you would like to support sprinklers going in, being required. **Lt. Aleckson** responded, yes. They support the Code as written. **Mr. Carrato** mentioned that we should not assume the current Board would feel the same way. **Lt. Aleckson** noted, yes, the Board has changed. **Mr. Carrato** stated they made it a point that the requirement at that time was all about money. **Mr. Touloumis** stated that is a valid point and they will look at this as well.

**Mr. Carrato** asked if **Mr. Touloumis** had a series of comments from the Board members from their review. **Mr. Touloumis** replied, no. **Mr. Carrato** stated for the record, he feels the approach to this process is fantastic. **Mr. Touloumis** stated part of this process is to get through it faster, and he would like to stay on a three year cycle with the codes. He stated from this point, at the next meeting he will readdress some of the issues left open and he foresees this being covered pretty quickly, and then make somewhat of a final vote on the recommendations.

**Mr. Carrato** recalled in the past process, they had a consensus but also had legal come when getting close and participate in the meetings. When we had everything we wanted to proposed, there was a meeting to allow the public to come with questions or comments. **Mr. Touloumis** predicted by the next meeting they will have come to a consensus on the last two items. Once done with everything, he will present Chapter 23 to the Board. It would not be done one at a time, as Chapter 23 is also being restructured as part of all of this. He is getting rid of a lot of the other chapters as he would like it all contained within one chapter versus numerous chapters, more centralization is the goal. This is where legal would be advising on correct language necessary to adopt these properly.

**Mr. Carrato** stated he would be in favor of trying to get sprinklers again. The Board at the time all thought we should require them. **Mr. Touloumis** does not have issue with presenting it and will be prepared for whichever way they ultimately go and have the language prepared.

**Mr. Bondarowicz** asked for time perspective on next meeting. There was discussion of future meetings and goals. The goal on time of completion is by 2020, to begin the year with the updates in place.

**Mr. Bondarowicz** stated that for the next meeting he could like the Fire representatives to present some statistics or anything to give good factual information. **Mr. Lay** stated there is plenty of supportive data for fire sprinklers in single family homes. There are saves all the time, it does work. He could bring stats to show. A simple demonstration to show how a protected home versus unprotected, and how quickly that would create a flashover is unbelievable. The problem with today is that they are building these homes so large and they are using furniture that is basically fuel. The fuel load is much more prevalent than it was years ago when things didn't burn as readily. There is such a heat factor compounded by the things in the room, that it increases the opportunity for flashover. **Mr. Lay** offered to send the Board a video from the National Fire Academy that actually describes and shows this. You can actually see the difference between unprotected and protected. He will email a video showing the difference.

**Mr. Carrato** stated that was probably the only thing they didn't have. We had people in support of it, they had as much documentation as you can imagine supporting the need for sprinklers and it came down to the Board saying they did not want to force people to spend that money. **Mr. Lay** mentioned in Carol Stream they had a side by side demonstration and they had the Mayor there. After seeing it, there was no question, it is very convincing. He does not think the money argument is prevalent today as it was before. He believes this started in 2009 being the first code where they introduced it. There will always be an argument but he feels the argument has been put to rest because there is plenty of support that would contradict that argument.

**Mr. Carrato** is suggesting that we pull out all the stops and demonstrate the need for it. **Lt. Aleckson** added, the majority of their fires are in single family homes. **Mr. Lay** agreed and said they are high risk and they do not have the authority to inspect single family homes. Even though when they created the risk assessment, they identified the single family/multi-family are the highest risk factors in town and they have a very senior population demographically; they do not have authority to inspect single family, they only go into multi-family. When they go into multi-family they only do common areas. The big difference is that most multi-family are protected with either sprinkler and/or, fire alarm system. There is no doubt single family is the highest risk for fires and fatalities for that matter.

**With no further business, Mr. Carrato moved to adjourn. Seconded by Scott Smith, all were in favor.**

The meeting adjourned at 8:30pm



**Building Code Review Board  
10/25/2019**

**Item:** Proposed Changes to the Village Code related to the International Building Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Building Code.

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| IBC 2018 Adoption Language   | Presentation |
| IBC 2018 IBC Adoption Language - No Highlighting                       | Presentation |
| IBC Chapter 23 Article 4 IBC Marked Up                                 | Presentation |
| IBC New Recommendations to the Municipal Code Chapter 23 Article 3 IBC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article III- Regulations and Standards for Other Than One- and Two-Family Dwellings,  
Section 23-301- Adoption of the 2018 International Building Code and Appendices for Other Than  
One- and Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Building Code (IBC), published by the International Code Council, Inc. and specifically includes Appendix C, except as modified by Section 23-301 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**[A] 101.2 Scope.**

Delete the Exception and replace with:

Exception: Buildings regulated by Section 23-201 of the Municipal Code, shall conform with such Section.

**[A] 101.4 Referenced codes.**

Add the following to the end:

All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified unless specifically stated otherwise.

**[A] 101.4.6 Energy.**

Delete International Energy Conservation Code and replace with Municipal Code Chapter 23, Article XII.

**[A] 105.2 Work exempt from permit.**

Delete the following list items:

Building:

List items 1, 2, 3, 4, 5, 6, 9, and 12.

Plumbing:

List items 1 and 2.

Modify the following list items:

Building:

List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops replaced in kind, upper kitchen or breakroom cabinets, tuck pointing, exterior siding and gutters replaced in kind, and/or reroofing that does not require the modification to plumbing, mechanical, fuel gas, electrical, and/or building systems.

**[A] 105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

**[A] 110.3 Required inspections.** Delete the language of the section and replace with:

**[A] 110.3 Required inspections.** All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection [A] 110.6.

**[A] 110.3.1 through [A] 110.3.11.1** shall be deleted in their entirety.

**[A] 111.2 Certificate issued.**

Delete list items number 3, 5, 9, 10, and 11.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**201.5 Terms defined in the IBC or other ICC codes and the Municipal Code.** Where terms are defined in both the IBC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**[F] 502.1 Address Identification**

Delete the language of this section in its entirety and replace with the following:

**502.1 Address Identification.** New and existing buildings shall be provided with approved addresses in accordance with sections 502.1.1 through 502.1.6.

**502.1.1.** It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.

**502.1.2.** The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.

**502.1.3.** Each commercial building and multi-family dwelling with a rear or side entrance on an alley, driveway, parking lot, fire lane or improved right-of-way shall have the assigned number or numbers affixed on or over such entrance in Arabic numerals at least six inches high.

**502.1.4.** In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other such additional numbering signs or

placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.

**502.1.5.** Where the buildings are part of a multi-unit complex or development, either residential or commercial, every door to every office or apartment in every building shall be numbered as well as their principal entrance to the building having a sign on the entrance indicating which individual numbered units are contained therein.

**502.1.6.** The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the Village.

**[F] 901.6.1 Automatic sprinkler systems.** Modify this section by replacing the words ‘an approved supervising station’ with ‘Northwest Central Dispatch’.

**[F] 901.6.1 Automatic sprinkler systems.** Modify this section by replacing the words ‘an approved supervising station’ with ‘Northwest Central Dispatch’.

**[F] 903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 4.

**[F] 903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words ‘in excess of 1,000 square feet (93 m<sup>2</sup>)’.

**[F] 903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words ‘where either of the following exists:’ and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**[F] 903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words ‘with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies’.

**[F] 903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words ‘and the combined *occupant load* of these *[sic]* fire areas is 300 or more’.

**[F] 903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words ‘where either of the following conditions exist at any time:’, and placing a period after the word ‘*facility*’.

2. Deleting list items 1 and 2.

**[F] 903.2.3 Group E.** Modify this section by:

1. Deleting the words ‘as follows:’ and placing a period after the word ‘occupancies’.

2. Deleting list items 1 through 3.

**[F] 903.2.4 Group F-1.** Replace this section with:

**[F] 903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**[F] 903.2.4.1 Woodworking operations.**

Delete this section in its entirety.

**[F] 903.2.5.3 Pyroxylin plastics.** Modify this section by:

1. Deleting the words ‘in quantities exceeding 100 pounds (45kg)’.

**[F] 903.2.6 Group I.** Modify this section by deleting all Exceptions.

**[F] 903.2.7 Group M.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.

2. Deleting list items 1 through 4.

**[F] 903.2.9 Group S-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.

2. Deleting list items 1 through 5.

**[F] 903.2.9.1 Repair garages.** Delete this section in its entirety.

**[F] 903.2.9.2 Bulk storage of tires.** Delete this section in its entirety.

**[F] 903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

[F] **903.2.10 Group S-2.** An automatic sprinkler system shall be provided throughout all buildings with a Group S-2 fire area.

[F] **903.2.10.1 Commercial parking garages.** Delete this section in its entirety.

[F] **903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

[F] **903.2.11.3 Buildings 55 feet or more in height.** Delete this section in its entirety.

Add the following section:

[F] **903.2.13 Group B.** An automatic sprinkler system shall be provided throughout buildings with a Group B fire area.

[F] **903.3.5 Water supplies.** Modify this section by deleting the words 'and the International Plumbing Code', and replacing them with ', the Village of Arlington Heights, and the State of Illinois Plumbing Code.'

[F] **903.4.1 Monitoring.** Replace the language of this section with:

Alarm, supervisory, and trouble signals shall be distinctly different and shall be automatically transmitted to Northwest Central Dispatch.

[F] **903.4.3 Floor control valves.** Modify this section by deleting the words ' in high-rise buildings'.

[F] **904.3.5 Monitoring.** Delete and replace with:

**904.3.5 Monitoring.** Automatic fire-extinguishing systems shall be monitored by a building fire alarm system installed in accordance with NFPA 72.

[F] **905.4 Location of Class I Standpipe hose connections**

Add the following after the word connections in the first sentence with 'a 2 ½ inch x 1 ½ inch reducer and cap and chain.'

[F] **905.5 Location of Class II standpipe hose connections**

Add the following after the word connections in the first sentence with 'a 1 ½ inch cap and chain.'

[F] **907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

[F] **907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

**[F] 907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

**[F] 907.2.5 Group H.** Modify this section by deleting 'H-5' and replacing with 'H'.

**[F] 907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

**[F] 907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

**[F] 907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

**[F] 907.2.13.2 Fire department communication system**

Add the following after the last sentence:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

**[F] 907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words 'where required by Section 3206.5 of the *International Fire Code*'.

**[F] 907.2.15 Aerosol storage uses.** Modify this section by deleting the words 'where required by the *International Fire Code*'.

**[F] 907.5.2.3.1 Public use areas and common use areas.** Add the following to the end of the sentence: and at a location approved by the Fire Official on the exterior of the building. The exterior appliance shall flash red.

**[F] 907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

**[F] 912.2.1 Visible location**

Add the following sentence at the end:

Such connections shall be located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.

**[F] 912.6 Backflow protection.** Modify this section by deleting the words 'International Plumbing Code' and replacing them with 'Village of Arlington Heights and the State of Illinois Plumbing Code'.

**[F]913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.

2. Deleting method 4.

**Chapter 11- Accessibility.** Delete Chapter 11 in its entirety.

Add the following section:

**1207.5 Minimum under-floor height.** Under-floor areas, including crawl spaces and similar, shall have a minimum height of 30 inches (762mm) measured from the finished floor to the bottom of the joists.

**1208.1 Crawl spaces.** Modify this section by changing 18 to 30, 24 to 30, 457 to 762, and 610 to 762.

**[E] 1301.1.1 Criteria.** Modify this section by deleting 'International Energy Conservation Code' and replacing with 'State of Illinois Energy Conservation Code'.

**1612.3 Establishment of flood hazard areas.** Insert 'The Village of Arlington Heights' as [INSERT NAME OF JURISDICTION] and insert August 19, 2008 as [INSERT DATE OF ISSUANCE].

**1807.1.4 Permanent wood foundation systems.** Delete the language of this section and replace with:

Wood foundation systems are not allowed.

**1809.9 Masonry-unit footings.** Delete the language of this section and all subsections in their entirety. Replace the language of this section with: Masonry-unit footings are not permitted.

**1809.10 Pier and curtain wall foundations.** Delete the language of this section and replace with:

Pier and curtain wall foundations are not allowed.

**1809. 12 Timber footings.** Delete the language of this section and replace with:

Timber footings are not allowed.

**1810.3.2.4 Timber.** Delete the language of this section and replace with:

Timber deep foundations are not allowed.

**2308.3 Foundations and footings.** Modify this section by adding the following:

Exception: Sheds and similar types of buildings 100 square feet or less shall not be required to have a foundation.

**2308.7.3 Ceiling joist and rafter framing.** Change the following:

1(-inch) to 2, and 25 to 51.

**1907.1 General.** Modify this section by replacing '3 ½ inches' (89mm) with '4 inches (102 mm)'.  
**2303.1.5 Wood structural panels.** Add the following to the end of the section:

The minimum size wood structural panel used in primary buildings and accessory buildings that shelter automobiles shall be 1/2 inch for floors and 5/8 inch for roofs.

**2308.6.2 Braced wall panels.** Modify this section by adding to the end:

Braced wall panel methods for primary buildings and accessory buildings that shelter automobiles shall be limited to methods WSP and PFH listed in Table 2308.6.3(1).

**Chapter 29 Plumbing Systems.** Except for [P]2901.1, delete all the sections and subsections from Chapter 29. Delete the language from section [P]2901.1 and replace with: The provisions of Municipal Code Chapter 23, Article X shall define and regulate plumbing systems within the Village of Arlington Heights.

**3001.2 Emergency elevator communication systems for the deaf, hard of hearing and speech impaired.** Delete this section in its entirety.

**3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are installed, at least one elevator and one elevator per bank shall be provided for Fire Department and ambulance service access to all floors. Such elevator car shall be a minimum interior dimension size of 60 inch by 85 inch and arranged to allow for a stretcher in its horizontal position to enter the elevator. Every elevator meeting these criteria shall be identified by the international symbol for emergency medical services (star of life). The symbols shall be a minimum 3 inch (76mm) by 3 inch (76mm) and placed inside on both sides of the hoistway door frame.

**3005.1 Access.** Modify this section by adding the following language to the end:

These areas shall not be allowed as the sole passageway to access other areas of the building.

**3005.4 Machine rooms, control rooms, machinery spaces, and control spaces.** Modify this section by deleting Exception 2.

Add the following section:

**3009.1 Certificate of operation.** The operation of all equipment governed by the provisions of this chapter and hereafter installed, relocated, and/or altered shall be unlawful by persons other than the licensed installer until such equipment has been inspected and a certificate of operation has been issued by the Village of Arlington Heights.

Add the following section:

**3009.2 Posting of certificate of operation.** The owner or lessee shall post the current certificate of operation or a copy of it in a conspicuous place inside the conveyance.

**Section 3201.4 Drainage.** Modify this section by adding the following language after the word 'surface':

'in such a way that it creates a hazard to users of the public right-of-way'

**3202.2 Encroachments above grade and below 8 feet in height.** Modify this section by replacing 3202.2.3 with 3202.2.5 and deleting the last sentence.

Add the following section:

**3202.2.4 Windows and doors.** Windows and doors shall not open or project into the public right-of-way in such a way that it creates a hazard to users of the public right-of-way.

Add the following section:

**3202.2.5 Fire, electrical, mechanical, and plumbing systems.** Equipment and related piping for fire, electrical, mechanical, and/or plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

**3202.3 Encroachments 8 feet or more above grade.** Replace the language of this section with:

**3202.3 Encroachments 8 feet or more above grade.** Encroachments 8 feet (2438 mm) or more above grade shall comply with Sections 3202.3.1 through 3202.3.2.

**3202.3.1 Awnings, canopies, marquees and signs.** Replace the language of this section with:

**3202.3.1 Encroachments 8 feet to less than 15 feet above grade.** Encroachments 8 feet (2438 mm) to less than 15 feet (4572 mm) above grade shall comply with Sections 3202.3.1.1 through 3202.3.1.3.

Add the following section:

**3202.3.1.1 Awnings, canopies, marquees, and signs.** Awnings, canopies, marquees, and signs shall not project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

Add the following section:

**3202.3.1.2 Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems.** Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard for the users of the public right-of-way.

Add the following section:

**3202.3.1.3 Pedestrian walkways.** The vertical clearance of pedestrian walkways over the public right-of-way shall be not less than 15 feet (4572 mm).

**3202.3.2 Windows, balconies, architectural features and mechanical equipment.** Replace the language of the section with:

**3202.3.2 Encroachments 15 feet or more above grade.** Encroachments 15 feet (4572 mm) or more above grade shall not be limited.

**3202.3.3 Encroachments 15 feet or more above grade.** Delete the section in its entirety.

**3202.3.4 Pedestrian walkways.** Delete the section in its entirety.

**3301.2 Storage and placement.** Modify this section by adding the following to the end:

Construction equipment and/or materials shall not be disposed of or stored at a construction unless they are specifically for work at that construction site.

Add this section:

**3302.4 Dust, smoke, and odor control.** Dust, smoke, odors, and/or similar shall be contained within the construction site to the greatest extent possible utilizing methods to assure containment. The Village may require the stoppage of work that is not in compliance with this section until acceptable methods are operational on the construction site.

Add this section:

**3302.5 Fencing.** Where the Village authorizes fencing in lieu of a walkway in accordance with section 3306.2, fencing shall be 6 foot high chain-link type with adequate support to maintain the fence in place at all times including during high wind conditions. Where the site is unoccupied, gates must be locked securely with a padlock when there is no construction work in progress.

Exception: Alternate fencing or barriers may be used where *approved* by the Building Official.

Add this section:

**3302.6 Security.** Construction sites shall provide adequate security to prevent unauthorized access.

Add this section:

**3303.8 Operations.** Demolition of a building or structure shall conform to sections 3308.1.1 through 3308.1.4.

Add this section:

**3303.8.1.1 Dust control.** Dust shall be controlled in accordance with section 3302.4.

Add this section:

**3303.8.1.2 Methods.** Buildings and structures shall be demolished in such a way as to prevent excessive ground or air vibrations. Structural steel, chimneys, walls, and/or similar sections of a building shall be lowered to the ground in a controlled manner and not allowed to fall. Where the height exceeds 20 feet above grade, smaller material shall be removed by use of a chute or similar.

Add this section:

**3303.8.1.3 Future construction.** Where construction of a new building is not planned, or otherwise will not occur immediately after the demolition, the site shall be filled and leveled to maintain ground water flow that is consistent with the surrounding properties, construction debris, materials, and equipment shall be removed, and the site shall be returned to a safe condition.

Add this section:

**3303.8.1.4 Miscellaneous.** Any other safeguards or requirements deemed necessary by the Village for the safety or well-being of the community shall be utilized.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article III- Regulations and Standards for Other Than One- and Two-Family Dwellings,  
Section 23-301- Adoption of the 2018 International Building Code and Appendices for Other Than  
One- and Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Building Code (IBC), published by the International Code Council, Inc. and specifically includes Appendix C, except as modified by Section 23-301 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**[A] 101.2 Scope.**

Delete the Exception and replace with:

Exception: Buildings regulated by Section 23-201 of the Municipal Code, shall conform with such Section.

**[A] 101.4 Referenced codes.**

Add the following to the end:

All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified unless specifically stated otherwise.

**[A] 101.4.6 Energy.**

Delete International Energy Conservation Code and replace with Municipal Code Chapter 23, Article XII.

**[A] 105.2 Work exempt from permit.**

Delete the following list items:

Building:

List items 1, 2, 3, 4, 5, 6, 9, and 12.

Plumbing:

List items 1 and 2.

Modify the following list items:

Building:

List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops replaced in kind, upper kitchen or breakroom cabinets, tuck pointing, exterior siding and gutters replaced in kind, and/or reroofing that does not require the modification to plumbing, mechanical, fuel gas, electrical, and/or building systems.

**[A] 105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

**[A] 110.3 Required inspections.** Delete the language of the section and replace with:

**[A] 110.3 Required inspections.** All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection [A] 110.6.

[A] 110.3.1 through [A] 110.3.11.1 shall be deleted in their entirety.

**[A] 111.2 Certificate issued.**

Delete list items number 3, 5, 9, 10, and 11.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**201.5 Terms defined in the IBC or other ICC codes and the Municipal Code.** Where terms are defined in both the IBC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**[F] 502.1 Address Identification**

Delete the language of this section in its entirety and replace with the following:

**502.1 Address Identification.** New and existing buildings shall be provided with approved addresses in accordance with sections 502.1.1 through 502.1.6.

**502.1.1.** It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.

**502.1.2.** The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.

**502.1.3.** Each commercial building and multi-family dwelling with a rear or side entrance on an alley, driveway, parking lot, fire lane or improved right-of-way shall have the assigned number or numbers affixed on or over such entrance in Arabic numerals at least six inches high.

**502.1.4.** In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other such additional numbering signs or

placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.

**502.1.5.** Where the buildings are part of a multi-unit complex or development, either residential or commercial, every door to every office or apartment in every building shall be numbered as well as their principal entrance to the building having a sign on the entrance indicating which individual numbered units are contained therein.

**502.1.6.** The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the Village.

**[F] 901.6.1 Automatic sprinkler systems.** Modify this section by replacing the words ‘an approved supervising station’ with ‘Northwest Central Dispatch’.

**[F] 901.6.1 Automatic sprinkler systems.** Modify this section by replacing the words ‘an approved supervising station’ with ‘Northwest Central Dispatch’.

**[F] 903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 4.

**[F] 903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**[F] 903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words ‘in excess of 1,000 square feet (93 m<sup>2</sup>)’.

**[F] 903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words ‘where either of the following exists:’ and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**[F] 903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words ‘with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies’.

**[F] 903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words ‘and the combined *occupant load* of these [sic] fire areas is 300 or more’.

**[F] 903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words ‘where either of the following conditions exist at any time:’, and placing a period after the word ‘*facility*’.
2. Deleting list items 1 and 2.

**[F] 903.2.3 Group E.** Modify this section by:

1. Deleting the words ‘as follows:’ and placing a period after the word ‘occupancies’.
2. Deleting list items 1 through 3.

**[F] 903.2.4 Group F-1.** Replace this section with:

**[F] 903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**[F] 903.2.4.1 Woodworking operations.**

Delete this section in its entirety.

**[F] 903.2.5.3 Pyroxylin plastics.** Modify this section by:

1. Deleting the words ‘in quantities exceeding 100 pounds (45kg)’.

**[F] 903.2.6 Group I.** Modify this section by deleting all Exceptions.

**[F] 903.2.7 Group M.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.
2. Deleting list items 1 through 4.

**[F] 903.2.9 Group S-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.
2. Deleting list items 1 through 5.

**[F] 903.2.9.1 Repair garages.** Delete this section in its entirety.

**[F] 903.2.9.2 Bulk storage of tires.** Delete this section in its entirety.

**[F] 903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

[F] **903.2.10 Group S-2.** An *automatic sprinkler system* shall be provided throughout all buildings with a Group S-2 fire area.

[F] **903.2.10.1 Commercial parking garages.** Delete this section in its entirety.

[F] **903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

[F] **903.2.11.3 Buildings 55 feet or more in height.** Delete this section in its entirety.

Add the following section:

[F] **903.2.13 Group B.** An *automatic sprinkler system* shall be provided throughout buildings with a Group B fire area.

[F] **903.3.5 Water supplies.** Modify this section by deleting the words ‘and the International Plumbing Code’, and replacing them with ‘, the Village of Arlington Heights, and the State of Illinois Plumbing Code.’

[F] **903.4.1 Monitoring.** Replace the language of this section with:

Alarm, supervisory, and trouble signals shall be distinctly different and shall be automatically transmitted to Northwest Central Dispatch.

[F] **903.4.3 Floor control valves.** Modify this section by deleting the words ‘ in high-rise buildings’.

[F] **904.3.5 Monitoring.** Delete and replace with:

**904.3.5 Monitoring.** Automatic fire-extinguishing systems shall be monitored by a building fire alarm system installed in accordance with NFPA 72.

[F] **905.4 Location of Class I Standpipe hose connections**

Add the following after the word connections in the first sentence with ‘a 2 ½ inch x 1 ½ inch reducer and cap and chain.’

[F] **905.5 Location of Class II standpipe hose connections**

Add the following after the word connections in the first sentence with ‘a 1 ½ inch cap and chain.’

[F] **907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

[F] **907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

[F] **907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

[F] **907.2.5 Group H.** Modify this section by deleting ‘H-5’ and replacing with ‘H’.

[F] **907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

[F] **907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

[F] **907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

[F] **907.2.13.2 Fire department communication system**

Add the following after the last sentence:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

[F] **907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words ‘ where required by Section 3206.5 of the *International Fire Code*’.

[F] **907.2.15 Aerosol storage uses.** Modify this section by deleting the words ‘ where required by the *International Fire Code*’.

[F] **907.5.2.3.1 Public use areas and common use areas.** Add the following to the end of the sentence: and at a location approved by the Fire Official on the exterior of the building. The exterior appliance shall flash red.

[F] **907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

[F] **912.2.1 Visible location**

Add the following sentence at the end:

Such connections shall be located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.

[F] **912.6 Backflow protection.** Modify this section by deleting the words ‘International Plumbing Code’ and replacing them with ‘Village of Arlington Heights and the State of Illinois Plumbing Code’.

[F] **913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.

2. Deleting method 4.

**Chapter 11- Accessibility.** Delete Chapter 11 in its entirety.

Add the following section:

**1207.5 Minimum under-floor height.** Under-floor areas, including crawl spaces and similar, shall have a minimum height of 30 inches (762mm) measured from the finished floor to the bottom of the joists.

**1208.1 Crawl spaces.** Modify this section by changing 18 to 30, 24 to 30, 457 to 762, and 610 to 762.

**[E] 1301.1.1 Criteria.** Modify this section by deleting ‘International Energy Conservation Code’ and replacing with ‘State of Illinois Energy Conservation Code’.

**1612.3 Establishment of flood hazard areas.** Insert ‘The Village of Arlington Heights’ as [INSERT NAME OF JURISDICTION] and insert August 19, 2008 as [INSERT DATE OF ISSUANCE].

**1807.1.4 Permanent wood foundation systems.** Delete the language of this section and replace with:

Wood foundation systems are not allowed.

**1809.9 Masonry-unit footings.** Delete the language of this section and all subsections in their entirety. Replace the language of this section with: Masonry-unit footings are not permitted.

**1809.10 Pier and curtain wall foundations.** Delete the language of this section and replace with:

Pier and curtain wall foundations are not allowed.

**1809. 12 Timber footings.** Delete the language of this section and replace with:

Timber footings are not allowed.

**1810.3.2.4 Timber.** Delete the language of this section and replace with:

Timber deep foundations are not allowed.

**2308.3 Foundations and footings.** Modify this section by adding the following:

Exception: Sheds and similar types of buildings 100 square feet or less shall not be required to have a foundation.

**2308.7.3 Ceiling joist and rafter framing.** Change the following:

1(-inch) to 2, and 25 to 51.

**1907.1 General.** Modify this section by replacing ‘3 ½ inches’ (89mm) with ‘4 inches (102 mm)’.

**2303.1.5 Wood structural panels.** Add the following to the end of the section:

The minimum size wood structural panel used in primary buildings and accessory buildings that shelter automobiles shall be 1/2 inch for floors and 5/8 inch for roofs.

**2308.6.2 Braced wall panels.** Modify this section by adding to the end:

Braced wall panel methods for primary buildings and accessory buildings that shelter automobiles shall be limited to methods WSP and PFH listed in Table 2308.6.3(1).

**Chapter 29 Plumbing Systems.** Except for [P]2901.1, delete all the sections and subsections from Chapter 29. Delete the language from section [P]2901.1 and replace with: The provisions of Municipal Code Chapter 23, Article X shall define and regulate plumbing systems within the Village of Arlington Heights.

**3001.2 Emergency elevator communication systems for the deaf, hard of hearing and speech impaired.** Delete this section in its entirety.

**3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are installed, at least one elevator and one elevator per bank shall be provided for Fire Department and ambulance service access to all floors. Such elevator car shall be a minimum interior dimension size of 60 inch by 85 inch and arranged to allow for a stretcher in its horizontal position to enter the elevator. Every elevator meeting these criteria shall be identified by the international symbol for emergency medical services (star of life). The symbols shall be a minimum 3 inch (76mm) by 3 inch (76mm) and placed inside on both sides of the hoistway door frame.

**3005.1 Access.** Modify this section by adding the following language to the end:

These areas shall not be allowed as the sole passageway to access other areas of the building.

**3005.4 Machine rooms, control rooms, machinery spaces, and control spaces.** Modify this section by deleting Exception 2.

Add the following section:

**3009.1 Certificate of operation.** The operation of all equipment governed by the provisions of this chapter and hereafter installed, relocated, and/or altered shall be unlawful by persons other than the licensed installer until such equipment has been inspected and a certificate of operation has been issued by the Village of Arlington Heights.

Add the following section:

**3009.2 Posting of certificate of operation.** The owner or lessee shall post the current certificate of operation or a copy of it in a conspicuous place inside the conveyance.

**Section 3201.4 Drainage.** Modify this section by adding the following language after the word 'surface':

'in such a way that it creates a hazard to users of the public right-of-way'

**3202.2 Encroachments above grade and below 8 feet in height.** Modify this section by replacing 3202.2.3 with 3202.2.5 and deleting the last sentence.

Add the following section:

**3202.2.4 Windows and doors.** Windows and doors shall not open or project into the public right-of-way in such a way that it creates a hazard to users of the public right-of-way.

Add the following section:

**3202.2.5 Fire, electrical, mechanical, and plumbing systems.** Equipment and related piping for fire, electrical, mechanical, and/or plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

**3202.3 Encroachments 8 feet or more above grade.** Replace the language of this section with:

**3202.3 Encroachments 8 feet or more above grade.** Encroachments 8 feet (2438 mm) or more above grade shall comply with Sections 3202.3.1 through 3202.3.2.

**3202.3.1 Awnings, canopies, marquees and signs.** Replace the language of this section with:

**3202.3.1 Encroachments 8 feet to less than 15 feet above grade.** Encroachments 8 feet (2438 mm) to less than 15 feet (4572 mm) above grade shall comply with Sections 3202.3.1.1 through 3202.3.1.3.

Add the following section:

**3202.3.1.1 Awnings, canopies, marquees, and signs.** Awnings, canopies, marquees, and signs shall not project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

Add the following section:

**3202.3.1.2 Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems.** Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard for the users of the public right-of-way.

Add the following section:

**3202.3.1.3 Pedestrian walkways.** The vertical clearance of pedestrian walkways over the public right-of-way shall be not less than 15 feet (4572 mm).

**3202.3.2 Windows, balconies, architectural features and mechanical equipment.** Replace the language of the section with:

**3202.3.2 Encroachments 15 feet or more above grade.** Encroachments 15 feet (4572 mm) or more above grade shall not be limited.

**3202.3.3 Encroachments 15 feet or more above grade.** Delete the section in its entirety.

**3202.3.4 Pedestrian walkways.** Delete the section in its entirety.

**3301.2 Storage and placement.** Modify this section by adding the following to the end:

Construction equipment and/or materials shall not be disposed of or stored at a construction unless they are specifically for work at that construction site.

Add this section:

**3302.4 Dust, smoke, and odor control.** Dust, smoke, odors, and/or similar shall be contained within the construction site to the greatest extent possible utilizing methods to assure containment. The Village may require the stoppage of work that is not in compliance with this section until acceptable methods are operational on the construction site.

Add this section:

**3302.5 Fencing.** Where the Village authorizes fencing in lieu of a walkway in accordance with section 3306.2, fencing shall be 6 foot high chain-link type with adequate support to maintain the fence in place at all times including during high wind conditions. Where the site is unoccupied, gates must be locked securely with a padlock when there is no construction work in progress.

Exception: Alternate fencing or barriers may be used where *approved* by the Building Official.

Add this section:

**3302.6 Security.** Construction sites shall provide adequate security to prevent unauthorized access.

Add this section:

**3303.8 Operations.** Demolition of a building or structure shall conform to sections 3308.1.1 through 3308.1.4.

Add this section:

**3303.8.1.1 Dust control.** Dust shall be controlled in accordance with section 3302.4.

Add this section:

**3303.8.1.2 Methods.** Buildings and structures shall be demolished in such a way as to prevent excessive ground or air vibrations. Structural steel, chimneys, walls, and/or similar sections of a building shall be lowered to the ground in a controlled manner and not allowed to fall. Where the height exceeds 20 feet above grade, smaller material shall be removed by use of a chute or similar.

Add this section:

**3303.8.1.3 Future construction.** Where construction of a new building is not planned, or otherwise will not occur immediately after the demolition, the site shall be filled and leveled to maintain ground water flow that is consistent with the surrounding properties, construction debris, materials, and equipment shall be removed, and the site shall be returned to a safe condition.

Add this section:

**3303.8.1.4 Miscellaneous.** Any other safeguards or requirements deemed necessary by the Village for the safety or well-being of the community shall be utilized.

# BUILDING REGULATIONS

## Article IV Regulations and Standards for Building Structures Other Than One- and Two-Family Dwellings; Adoption of the International Building Code

### Section 23-401 Adoption of the International Building Code

- a. There is hereby adopted by reference the 2009 Edition of the International Building Code (IBC) for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures other than for One- and Two-Family Dwellings, except as modified by Section 23-402 of this Article.
- b. The International Building Code shall regulate the construction of all buildings and structures except for One- and Two-Family Dwellings specifically regulated by Article III, where the provisions of this Chapter 23 specifically cover the subject matter in question.

(Ord. #13-01 9)

**Section 23-402 Modification by Amendment and Deletion of Various Sections of the International Building Code.** The 2009 Edition of the International Building Code adopted by this Chapter is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the International Building Code. Appendices C, **E, F, G, H, and I** are specifically adopted. To the extent any provision of the IBC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

Recommendation: Appendix C (agricultural buildings) will be retained, E (supplemental accessibility), F(rodent proofing), G(flood resistant construction), H(signs), and I(patio covers) will not be adopted.

Substantiation: C- while very limited, provides unique code requirements for such buildings. E- The State has recently update the accessibility code and we want to avoid any potential discrepancies. F- the Health Code adequately covers this and we want to avoid any potential conflicts. G- Chapter 15 of the municipal code covers this and we want to avoid any potential conflicts. H- Chapter 30 of the municipal code covers this and we want to avoid any potential conflicts. I- This section has potential to conflict with Zoning Code, we don't see many, and there isn't much in the way of special allowances for these structures anyways.

## Chapter 2 - Definitions

### 201.3 Terms defined in other codes

Add the following text at the end:

**Where terms are defined in both the IBC or other ICC codes and the Municipal Code, the definitions in the Municipal Code shall apply.**

Recommendation: This section shall be reworded to not have the Municipal Code definitions override IRC definitions. Renumbered as 201.5.

Substantiation: Context is a critical element to a definition and the new language will take that into consideration. (See New Recommendations).

## 202 Definitions

In the definition of HIGH-RISE BUILDING, change 75 feet to 60 feet.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment. Also, changing this has a rippling impact through the rest of the code affecting many other aspects of fire ratings and systems. High-rise designation also adds significant cost and loss of 'rentable' space within a building. By amending this, we also lose access to the code community network because ICC, etc. will not provide interpretations based on local amendments. NOTE: High-rise buildings are allowed reductions in fire rating because of other required features, systems, etc.

## Chapter 5 - General Building Heights and Areas

### 501.2 Address Identification

Delete this section in its entirety and replace with the following:

1. It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.
2. The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.
3. Each commercial building and multi-family dwelling with a rear or side entrance on an alley, driveway, parking lot, fire lane or improved right-of-way shall have the assigned number or numbers affixed on or over such entrance in Arabic numerals at least six inches high.
4. In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other such additional numbering signs or placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.
5. Where the buildings are part of a multi-unit complex or development, either residential or commercial, every door to every office or apartment in every building shall be numbered as well as their principal entrance to the building having a sign on the entrance indicating which individual numbered units are contained therein.

6. The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the Village.

Recommendation: Keep this amendment written with some minor format changes (see IBC Adoption Language).

Substantiation: The standard code language lacks details for addressing that this amendment provides.

## Chapter 7 - Fire and Smoke Protection Features

### 705.1 General

Add the following after the last sentence:

Gypsum board shall be taped and finished to at least a 'level one' in unoccupied spaces and level three' in occupied spaces, as specified by the US Gypsum Association document GA-214-07; for the interior finish of an exterior building envelope assembly: the gypsum board shall be a minimum 5/8 inch thick.

Recommendation: Delete this amendment and do not replace.

Substantiation: Exterior walls that require a fire rating will require taped joints anyways. Unoccupied spaces will typically be for whitebox buildouts and the future tenant may want to make changes, so it is wasteful to require additional finishing before a buildout design is completed. Also, defining the thickness of gypsum board on the inside of an exterior wall assembly could be misinterpreted and actually cause a reduction in the rating to occur, for instance if two layers of 5/8" is required. What if the assembly doesn't have gypsum board- is this intending to mean it is required?? Etc.

## Chapter 9 - Fire Protection Systems

### 901.6 Supervisory Service

Replace the words "where required" with "all".

Recommendation: Delete this amendment and do not replace.

Substantiation: Improper language structure. This section is not intended to define specifically where fire protection systems are required, hence changing 'where required' to 'all', does not in actuality require 'all' system to be monitored because other sections of the IBC and IFC are specific as to where the systems are required. Specific takes place over general language per [A]102.1. If a system that would not normally be required to be installed is in fact installed, we will define this under the specific fire protection system sections that specifically define the monitoring for that system. Example- 907.6.6 will be amended to clarify that 'all' fire alarm system are required to be monitored, not just the ones that are required by the IBC or IFC.

**[F] 903.2 Where Required**

Delete this section in its entirety and replace with the following:

Approved automatic sprinkler systems shall be required in all new buildings and structures, except for open parking structures, open-air portions of Group A-5, Group F-2, and U occupancies.

Recommendation: Delete this amendment and do not replace.

Substantiation: This overarching language is going to be restructured and replaced with specific classification group amendments, so as to not have an unintended situation such as Group U being required to be sprinklered, though that was not what was intended (this amendment was re-amended on January 7, 2019 to not require Group U to be sprinklered). See New Recommendations for the specific classification group amendments.

**[F] 903.4.3 Floor Control Valves**

Change "high-rise buildings" to "all buildings".

Recommendation: Delete this amendment.

Substantiation: Will be added as new amendment.

**[F] 904.3.5 Monitoring**

Change text to read:

Alternate automatic fire extinguishing systems shall be monitored in compliance with the provisions of this code and NFPA 72.

Recommendation: Replace this amendment with:

**[F] 904.3.5 Monitoring.** Delete and replace with:

**904.3.5 Monitoring.** Automatic fire-extinguishing systems shall be monitored by a building fire alarm system installed in accordance with NFPA 72.

Substantiation: This language is cleaner and maintains the same intent as the current amendment. The existing amendment, by saying '...in compliance with the provisions of this code...' could be interpreted to mean that where this code doesn't require a fire alarm system, that one doesn't have to be installed. We always want a fire alarm system installed where there is an automatic fire-extinguishing system.

**[F] 905.4 Location of Class I Standpipe hose connections**

Add the following after the word connections in the first sentence: with a 2 ½ inch x 1 ½ inch reducer and cap and chain.

Recommendation: Keep this amendment written as is.

Substantiation: Protection of hose threads, adaptability to different hose sizes, and preventing the caps from being a tripping hazard are all very important during fire response operations.

**[F] 905.5 Location of Class II standpipe hose connections**

Add the following after the word connections in the first sentence: with a 1 ½ inch cap and chain.

Recommendation: Keep this amendment written as is.

Substantiation: Protection of hose threads and preventing the caps from being a tripping hazard are all very important during fire response operations.

**[F] 905.6 Location of Class II standpipe hose connections**

Add the following after the word connections in the first sentence: with a 2Yz inch x 1 Yz inch reducer and cap and chain.

Recommendation: Delete this amendment and do not replace.

Substantiation: It is unnecessary as Class I and Class II hose connections are covered in 905.5 and 905.6. Plus the word 'connections' exists twice in the first sentence, so the language structure is not proper and could cause confusion.

**[F] 907.2.13 High-rise buildings**

Replace 75 feet with 60 feet.

Recommendation: Delete this amendment and do not replace.

Substantiation: This section no longer contains 75 feet verbiage, and only references 'high-rise' which is being amended to 60 feet in the definitions.

**[F] 907.2.13.2 Fire department communication system**

Add the following after the last sentence:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

Recommendation: Keep this amendment as is (except it needs to be renumbered in line with the 2018 IBC- 907.2.12.2).

Substantiation: This systems provides clearer communication during fire response operations in high-rise buildings.

**[F] 907.5.2.3.1 Public and common areas**

Add the following after the last sentence:

A visible exterior weatherproof alarm notification device shall be located within close proximity to the front main entrance of the building or tenant space, as approved.

Recommendation: Rewrite this amendments as:

**[F] 907.5.2.3.1 Public use areas and common use areas.** Add the following to the end of the sentence: and at a location approved by the Fire Official on the exterior of the building. The exterior appliance shall flash red.

Substantiation: The requirement for a notification device on the exterior helps fire response teams locate calls more quickly. Foggy days, remodeling, banners, trucks parked on the street, etc. can delay locating building addresses. A flashing light can be seen from a greater distance away as well.

**[F] 907.6.3.1 Zoning indicator Panel**

Delete the first sentence and replace it with the following:

A zoning indicator panel and the associated controls or a fire alarm panel shall be provided at the main front entrance or at an alternative approved location.

Recommendation: Delete this amendment and do not replace.

Substantiation: The standard code already requires annunciation to be installed in a location required by the Fire Code Official. A zoning indicator panel is a type of annunciation.

**[F] 912.2.1 Visible location**

Add the following sentence at the end:

Such connections shall be located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant.

Recommendation: Keep this amendment.

Substantiation: Travel distance to the fire hydrant is an important factor that needs to be clarified.

**[F] 913.4 Valve supervision**

Delete methods 3 and 4.

Recommendation: Rewrite amendment as:

**[F] 913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.

2. Deleting method 4.

Substantiation: There have been instances where locking the valves open is deemed safe and a practical solution. Not absolutely excluding it allows for the Fire Code Official to make the determination.

**Chapter 11 - Accessibility**

Delete the entire chapter.

Recommendation: Keep this amendment as is.

Substantiation: The State of Illinois has an Accessibility Code which was updated in October of 2018. Sticking to one code prevents confusion and misunderstandings.

## Chapter 12 - Interior Environment

### 1207.2 Air-borne sound

Change sound transmission class (STC) from 50 to 55.

Recommendation: Delete this amendment and do not replace.

Substantiation: The difference in construction complexity and cost goes up significantly from a lab rated wall assembly of STC 50 to STC 55. Additionally, STC ratings of assemblies do not necessarily prevent noise transmission without careful consideration of flanking paths; these flanking paths are not considered in the assembly design and practically impossible to enforce. Field testing of sound ratings is practically impossible as well. Also, there are mixed opinions about what is a 'reasonable' STC rating. Also, the methods of construction become much more complex, often involving installations that require insulation setback from being in contact with the drywall. STC 50 rated assemblies also correlate with 1-hour fire-rated walls, whereas STC 55 aren't achievable until 2-hour fire-rated assemblies are designed. Also, STC does not cover noises below and above certain frequencies, which are quite often the frequencies that people tend to complain about.

### 1207.3 Structure-borne sound

Change impact insulation class (IIC) from 50 to 55.

Recommendation: Delete this amendment and do not replace.

Substantiation: Some floor systems are tested with a carpet and pad on them. These would be compliant, until someone removes the carpet and pad which we can't regulate. All the same general opinions for not increasing the STC rating above, also apply to IIC.

### 1209.1 Crawl spaces

In the first sentence, change 18 inches by 24 inches to 30 inches by 30 inches Add the following at the end:

At a minimum, the clear height of under-floor spaces shall be not less than 30 inches.

Recommendation: Rewrite this amendment as:

**1208.1 Crawl spaces.** Modify this section by changing 18 to 30, 24 to 30, 457 to 762, and 610 to 762.

Substantiation: This maintains a larger access opening that allows for easier access including for fire response personnel. The minimum height will be maintained, but added as a new amendment under section 1207- Interior Space Dimensions.

## Chapter 15 - Roof Assemblies and Rooftop Structures

### 1510.3 Recovering versus Replacement

Insert the following before the first sentence:

The roofs shall be drained and ventilated in accordance with the requirements for new roofs.

Recommendation: Delete this amendment and do not replace.

Substantiation: Applying new construction codes to existing construction may often be impractical to do. For instance, if secondary drainage doesn't exist, requiring the installation of it could require excessive cost, including temporarily shutting down a business to do the work.

## Chapter 16 - Structural Design

### Table 1607.1

In item 27, change the number 30 to 40.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

### 1608.2 Modify to read as Snow Loads

Delete the existing text and replace with the following:

Ground snow loads shall be a minimum of 30 pounds per square foot.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

## Chapter 18 - Soils and Foundations

### 1805.1.2 Under-floor space

Add the following after the last sentence:

All crawl spaces shall have a floor consisting of not less than 3 inches of concrete over 4 inches thickness or more of stone over a vapor barrier that equals or exceeds 6-mil thickness.

Recommendation: Rewrite this amendment as:

**1805.1.2 Under-floor space.** Add the following after the last sentence: Under-floor spaces such as crawl spaces shall have a slab in compliance with Section 1907.

Substantiation: This language maintains the same requirements, excepting for an extra half inch of concrete. Referencing another section of the code, instead of rewriting it is cleaner. Maintaining a consistent dimension for all slabs reduces potential confusion and errors. Crawl spaces are not as common today and the cost of an extra half inch of concrete is not going to make or break a project.

### 1807.1 Foundation Walls, Retaining Walls and Embedded Posts and Poles

Add the following after the last sentence:

Timber and wood foundation systems are not permitted in the Village.

Recommendation: Delete this amendment and do not replace.

Substantiation: The sections of the code that specifically reference the use of timber and wood foundation systems will be deleted under New Recommendations.

### 1809.9 Masonry-unit footings

Delete this section in its entirety and replace with the following: Masonry-unit footings are not permitted in the Village.

Recommendation: Rewrite this amendment as:

**1809.9 Masonry-unit footings.** Delete the language of this section and all subsections in their entirety. Replace the language of this section with: Masonry-unit footings are not permitted.

Substantiation: This is very uncommon construction method that is inferior and should not be used. The rewrite provides cleaner, logical language and better clarity as to intent.

## Chapter 26 - Plastic

### 2603.4.1.6 Attics and crawl spaces

Delete and replace with the following :

Within an attic or crawl space, foam plastic insulation shall be protected against ignition by 3/8 inch gypsum wall board, corrosion-resistant steel having a base metal thickness of 0.016 inch or other approved material installed in such manner that the foam plastic insulation is not exposed. The protective covering shall be consistent with the requirements for the type of construction.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

## Chapter 27 - Electrical

Delete this chapter in its entirety replace with the following:

The applicable provisions of the Electrical Regulations in the Municipal Code shall establish the general scope of the electrical system and equipment requirements for other than One- and Two-Family Dwelling structures.

Recommendation: Delete this amendment and do not replace.

Substantiation: This section establishes where emergency and standby power systems are required, which is critical to mandate, hence needs to remain.

## Chapter 29 - Plumbing Systems

Delete this chapter in its entirety replace with the following:

The applicable provisions of the Plumbing Regulations in the Municipal Code shall establish the general scope of the plumbing system and equipment requirements for other than One- and Two-Family Dwelling structures.

Recommendation: Rewrite this amendment as:

**Chapter 29 Plumbing Systems.** Except for [P]2901.1, delete all the sections and subsections from Chapter 29. Delete the language from section [P]2901.1 and replace with: The provisions of Municipal Code Chapter 23, Article X shall define and regulate plumbing systems within the Village of Arlington Heights.

Substantiation: Municipal Code Chapter 23, Article X will reference the State of Illinois Plumbing Code. (The Village Plumbing Code is currently mandated in Chapter 24 of the Municipal Code. Article II of Chapter 24 will be renumbered to be in Chapter 23, but will maintain the same language including the local amendments which were approved by IDPH.)

## Chapter 30 - Elevator and Conveying Systems

### 3002.3 Emergency Signs

Add the following text:

The sign shall be 7 inches by 5 inches and read as follows: IN FIRE EMERGENCY,  
DO NOT USE ELEVATOR. USE EXIT STAIRS.

Recommendation: Delete this amendment and do not replace.

Substantiation: Other configurations of signage may be acceptable. The standard code language requires the signs to be approved. The language has also changed slightly.

### 3002.4 Elevator car to accommodate ambulance stretcher

Delete and replace with the following.

At least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher in its horizontal, open position, provided the cab size shall be not less than 60 inches by 85 inches, to accommodate an ambulance stretcher in its horizontal, open position; and shall be identified by the International Symbol for emergency medical services (Star of Life). The Symbol shall be not less than 3 inches high and shall be placed inside on both sides of the hoist-way door frame.

Recommendation: Delete the existing amendment and replace with the following.

**3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are installed, at least one elevator and one elevator per bank shall be provided for Fire Department and ambulance service access to all floors. Such elevator car shall be a minimum interior dimension size of 60 inch by 85 inch and arranged to allow for a stretcher in its horizontal position to enter the elevator. Every elevator meeting these criteria shall be identified by the international symbol for emergency medical services (star of life). The symbols shall be a minimum 3 inch (76mm) by 3 inch (76mm) and placed inside on both sides of the hoistway door frame.

Substantiation: This language maintains the spirit of the existing amendment, but adds language to require that one elevator of each remote bank of elevators has at least one that can accommodate access to all the floors and fit a stretcher. This is clarification is important to assure that emergency responders can quickly get to any and all floors; even a few seconds could be the difference between life and death.

## Chapter 34 - Existing Buildings and Structures 3408

### Change of Occupancy

Amend to read as follows:

**3408.1 Conformance.** No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancies or in a different group of occupancies, unless such building is made to comply with the requirements of this Code for such division or group of occupancies. Subject to the approval of the Building Official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups in existing structures where the space at issue is 3,000 square feet or less of gross floor area, the structure at issue does not include residential occupancies, and the space at issue meets the fire separation requirements of Table 508.4 of the International Building Code.

Recommendation: Delete this amendment and do not replace.

Substantiation: First, this section no longer exists in the IBC. The 2018 IBC, Chapter 34, now references the International Existing Building Code (IEBC). Second, while full evaluation is not completed, a cursory review of the 2018 IEBC sections 506 and Chapter 10 appear to provide better and more comprehensive language for dealing with the details of a change of occupancy which will eliminate the need for this existing amendment language, specifically and in spirit.

## Chapter 35 - Referenced Standards

### GGA Gypsum Association

Add the following row:

GA 214-07 Recommended Levels of Gypsum Board Finish .... .Table 705.1

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no reference in the IBC or it's amendments to this standard. This standard is referenced in municipal code section 23-704 Specific Sound Control Measures for One- and Two-Family Dwellings, hence is not applicable in the IBC. Though it will not be recommended to be added as part of the adoption of the 2018 IRC either because section 23-704 will be recommended to be deleted as well.

## Recommendations to the Municipal Code Chapter 23, Article III- Amendments to the 2018 IBC and Appendices.

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article III- Other Than One- and Two-Family Dwellings.  
Section 23-301- Adoption of the 2018 International Building Code and Appendices for Buildings Other  
Than One- and Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Building Code (IBC), published by the International Code Council, Inc. and specifically includes Appendix C, except as modified by Section 23-301 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**[A] 101.2 Scope.**

Delete the Exception and replace with:

Exception: Buildings regulated by Section 23-201 of the Municipal Code, shall conform with such Section.

Substantiation: We do not want IRC regulated structures to also be allowed to follow the IBC to avoid potential conflicts and 'loopholes'.

**[A] 101.4 Referenced codes.**

Add the following to the end:

All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified.

Substantiation: Clarifies that the referenced codes are intended to also include local amendments.

**[A] 101.4.6 Energy.**

Delete International Energy Conservation Code and replace with Municipal Code Chapter 23, Article XII.

Substantiation: Chapter 23, Article XII will reference the State of Illinois Energy Code which we are mandated to follow by the State.

**[A] 105.2 Work exempt from permit.**

Delete the following list items:

Building:

List items 1, 2, 3, 4, 5, 6, 9, and 12.

Plumbing:

List items 1 and 2.

Modify the following list items:

Building:

List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops replaced in kind, upper kitchen or breakroom cabinets, tuck pointing, exterior siding and gutters replaced in kind, and/or reroofing that does not require the modification to plumbing, mechanical, fuel gas, electrical, and/or building systems.

Substantiation: The Village has historically required permits for sheds, fences, retaining walls, sidewalks, driveways, and small swimming pools, so this amendment just clarifies what has been required. If oil is discovered in the Village, we'd want someone to get a permit to install an oil derrick.

Building item 6 is modified to clarify some additional items that have not historically been required to obtain a permit, to detail requirements concerning cabinetry, e.g. we want permits for base cabinet because the Accessibility code has specific requirements for them, and to eliminate the need for reroofing permits because it is impractical for the Village to inspect critical aspects of a roof covering installation.

**[A] 105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

Substantiation: The Village may consider requiring plans to be submitted for review before permits are applied for. This language clarifies that this is allowed.

**[A] 110.3 Required inspections.** Delete the language of the section and replace with:

**[A] 110.3 Required inspections.** All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection [A] 110.6.

Substantiation: The existing code language structure of listing some of the types of inspections, then adding a catchall that says 'anything else required by the Building Official' is often misinterpreted and leads to misunderstandings. This amendment helps clear up that confusion by just telling people that they have to check with the Village.

**[A] 110.3.1 through [A] 110.3.11.1 shall be deleted in their entirety.**

Substantiation: The existing code language structure of listing some of the types of inspections, then adding a catchall that says 'anything else required by the Building Official' is often misinterpreted and leads to misunderstandings. This amendment helps clear up that confusion by just telling people that they have to check with the Village.

**[A] 111.2 Certificate issued.**

Delete list items number 3, 5, 9, 10, and 11.

Substantiation: 3. Ownership can be complex with multiple owner addresses, etc. 5. This language can be misleading for change of use. 9. Type of construction in existing buildings can become complex and sometimes impossible to categorize. 10. Design occupant load can become complex when dealing with existing construction. This information will be on the approved plans. 11. If a sprinkler system is not required but installed, then subsequently decommissioned, the CO could be misinterpreted.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Substantiation: The Village does not have a Board of Appeals, hence this section is deleted.

## Chapter 2

Add the following Section:

**201.5 Terms defined in the IBC or other ICC codes and the Municipal Code.** Where terms are defined in both the IBC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

Substantiation: This is an updated version of an existing amendment. The existing amendment stated that the Municipal Code definition always trumps the adopted code definition which could be problematic depending on circumstances. This update allows for the practical, intended application of a definition and gives the Building Official the authority to make that determination.

## Chapter 9

**[F] 901.6.1 Automatic sprinkler systems.** Modify this section by replacing the words 'an approved supervising station' with 'Northwest Central Dispatch'.

Substantiation: We want all fire alarms to go to NWCD.

Substantiation: The following sections of Section 903 do not change the intent or spirit of our existing amendment, which in essence requires fire sprinklers in all buildings. But the structure of the amendment language has been modified to be specific for each section of the standard code, whereas with our current amendment, it in essence deletes all of these sections and says 'everything shall be sprinkled'. The existing language structure lead to the confusion of whether or not it was intended to sprinkle storage sheds, hence the new structure modifies each particular code section to avoid this type of interpretation problem.

**[F] 903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 4.

**[F] 903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**[F] 903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**[F] 903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**[F] 903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words 'in excess of 1,000 square feet (93 m<sup>2</sup>)'.

**[F] 903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words 'where either of the following exists:' and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**[F] 903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words 'with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies'.

**[F] 903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words 'and the combined *occupant load* of these [sic] fire areas is 300 or more'.

**[F] 903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words 'where either of the following conditions exist at any time:', and placing a period after the word '*facility*'.
2. Deleting list items 1 and 2.

**[F] 903.2.3 Group E.** Modify this section by:

1. Deleting the words 'as follows:' and placing a period after the word 'occupancies'.
2. Deleting list items 1 through 3.

**[F] 903.2.4 Group F-1.** Replace this section with:

**[F] 903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**[F] 903.2.4.1 Woodworking operations.**

Delete this section in its entirety.

**[F] 903.2.5.3 Pyroxylin plastics.** Modify this section by:

1. Deleting the words 'in quantities exceeding 100 pounds (45kg)'.

**[F] 903.2.6 Group I.** Modify this section by deleting all Exceptions.

**[F] 903.2.7 Group M.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy'.
2. Deleting list items 1 through 4.

**[F] 903.2.9 Group S-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy'.
2. Deleting list items 1 through 5.

**[F] 903.2.9.1 Repair garages.** Delete this section in its entirety.

**[F] 903.2.9.2 Bulk storage of tires.** Delete this section in its entirety.

**[F] 903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

**[F] 903.2.10 Group S-2.** *An automatic sprinkler system shall be provided throughout all buildings with a Group S-2 fire area.*

**[F] 903.2.10.1 Commercial parking garages.** Delete this section in its entirety.

**[F] 903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

**[F] 903.2.11.3 Buildings 55 feet or more in height.** Delete this section in its entirety.

Add the following section:

**[F] 903.2.13 Group B.** *An automatic sprinkler system shall be provided throughout buildings with a Group B fire area.*

**[F] 903.3.5 Water supplies.** Modify this section by deleting the words 'and the International Plumbing Code', and replacing them with ', the Village of Arlington Heights, and the State of Illinois Plumbing Code.'

**[F] 903.4.1 Monitoring.** Replace the language of this section with:

Alarm, supervisory, and trouble signals shall be distinctly different and shall be automatically transmitted to Northwest Central Dispatch.

Substantiation: We want fire alarms systems to have wireless capability and be connected to NWCD. Also, additional verbiage was added to require the systems to remain active, even if a tenant moves out of a tenant space.

**[F] 903.4.3 Floor control valves.** Modify this section by deleting the words ' in high-rise buildings'.

Substantiation: We want all stand-pipe systems to have control valves at each floor.

Substantiation: The following sections of Section 907 in essence require that all buildings have fire alarm systems. While this is not technically required by existing amendments, practically since all buildings require fire sprinklers, and all fire sprinklers have to be monitored by an alarm system, a fire alarm system is already required in all buildings. These amendments just make that point clear.

**[F] 907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

**[F] 907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

**[F] 907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

**[F] 907.2.5 Group H.** Modify this section by deleting 'H-5' and replacing with 'H'.

**[F] 907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

**[F] 907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

**[F] 907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

**[F] 907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words 'where required by Section 3206.5 of the *International Fire Code*'.

**[F] 907.2.15 Aerosol storage uses.** Modify this section by deleting the words 'where required by the *International Fire Code*'.

**[F] 907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

**[F] 912.6 Backflow protection.** Modify this section by deleting the words 'International Plumbing Code' and replacing them with 'Village of Arlington Heights and the State of Illinois Plumbing Code'.

Substantiation: We are required to follow the State of Illinois Plumbing Code.

Add the following section:

**1207.5 Minimum under-floor height.** Under-floor areas, including crawl spaces and similar, shall have a minimum height of 30 inches (762mm) measured from the finished floor to the bottom of the joists.

Substantiation: Maintains the same requirement as current amendments, but moved to an entirely new section of the IBC, so added as a new recommendation. Minimum heights allow for practical, usable storage space, as well as an improved ability to fight fires in these areas.

**[E] 1301.1.1 Criteria.** Modify this section by deleting 'International Energy Conservation Code' and replacing with 'State of Illinois Energy Conservation Code'.

Substantiation: We are required to follow the State Energy Code.

**1612.3 Establishment of flood hazard areas.** Insert 'The Village of Arlington Heights' as [INSERT NAME OF JURISDICTION] and insert August 19, 2008 as [INSERT DATE OF ISSUANCE].

Substantiation: This data is required to be inserted.

**1807.1.4 Permanent wood foundation systems.** Delete the language of this section and replace with:

Wood foundation systems are not allowed.

Substantiation: Wood foundation systems are subject to early degradation and generally not as reliable a system as concrete, hence recommended to not be allowed.

**1809.10 Pier and curtain wall foundations.** Delete the language of this section and replace with:

Pier and curtain wall foundations are not allowed.

Substantiation: These are very uncommon systems that are not as reliable as solid, continuous foundation systems, hence recommended to not be allowed.

**1809.12 Timber footings.** Delete the language of this section and replace with:

Timber footings are not allowed.

Substantiation: These are very uncommon systems that are not as reliable as solid, continuous foundation systems, hence recommended to not be allowed.

**1810.3.2.4 Timber.** Delete the language of this section and replace with:

Timber deep foundations are not allowed.

Substantiation: These are very uncommon systems that are not as reliable as solid, continuous foundation systems, hence recommended to not be allowed.

**2308.3 Foundations and footings.** Modify this section by adding the following:

Exception: Sheds and similar types of buildings 100 square feet or less shall not be required to have a foundation.

Substantiation: Clarifies that small sheds don't need a foundation system.

**2308.7.3 Ceiling joist and rafter framing.** Change the following:

1(-inch) to 2, and 25 to 51.

Substantiation: Field experience has shown that one-inch nominal ridge boards have a tendency to split when attaching rafters to them.

**1907.1 General.** Modify this section by replacing '3 ½ inches' (89mm) with '4 inches (102 mm)'.

Substantiation: This maintains consistency with same requirements that are in the IRC. This consistency helps prevent confusion and misunderstanding by contractors.

**2303.1.5 Wood structural panels.** Add the following to the end of the section:

The minimum size wood structural panel used in primary buildings and accessory buildings that shelter automobiles shall be 1/2 inch for floors and 5/8 inch for roofs.

Substantiation: This maintains existing amendment sizes, but is added as a new recommendation because of language restructuring. These minimum sizes are not uncommon in typical construction methods, hence will not be a 'shock' to contractors.

**2308.6.2 Braced wall panels.** Modify this section by adding to the end:

Braced wall panel methods for primary buildings and accessory buildings that shelter automobiles shall be limited to methods WSP and PFH listed in Table 2308.6.3(1).

Substantiation: This maintains consistency with the IRC requirements. This consistency helps prevent confusion and misunderstanding by contractors.

**3001.2 Emergency elevator communication systems for the deaf, hard of hearing and speech impaired.** Delete this section in its entirety.

Substantiation: NWCD does not have the capabilities required by this section.

**3005.1 Access.** Modify this section by adding the following language to the end:

These areas shall not be allowed as the sole passageway to access other areas of the building.

Substantiation: Assures elevator machine rooms are not designed as sole passageways to other parts of a building.

**3005.4 Machine rooms, control rooms, machinery spaces, and control spaces.** Modify this section by deleting Exception 2.

Substantiation: We want all elevator machine rooms to be in fire-rated construction.

Add the following section:

**3009.1 Certificate of operation.** The operation of all equipment governed by the provisions of this chapter and hereafter installed, relocated, and/or altered shall be unlawful by persons other than the licensed installer until such equipment has been inspected and a certificate of operation has been issued by the Village of Arlington Heights.

Substantiation: Clarifies that elevators cannot be used without a certificate of operation. While this should be obvious, existing language lacks this clarity.

Add the following section:

**3009.2 Posting of certificate of operation.** The owner or lessee shall post the current certificate of operation or a copy of it in a conspicuous place inside the conveyance.

Substantiation: Clarifies the posting of the certificate of operation inside the elevator.

**Section 3201.4 Drainage.** Modify this section by adding the following language after the word 'surface':

'in such a way that it creates a hazard to users of the public right-of-way'

Substantiation: Allows for Village staff to make practical determinations of drainage locations and allow for it to occur on a public way where it won't create a hazard.

Substantiation: All of section 3203 below is modified to:

1. Allow Village staff to make practical determinations of encroachments into a public way.
2. Add clarity on elements that are missing from the code.
3. Restructure the language to provide clarity on intent. E.g. 3202.3.2 and 3202.3.3 are contradictory in the standard language.

**3202.2 Encroachments above grade and below 8 feet in height.** Modify this section by replacing 3202.2.3 with 3202.2.5 and deleting the last sentence.

Add the following section:

**3202.2.4 Windows and doors.** Windows and doors shall not open or project into the public right-of-way in such a way that it creates a hazard to users of the public right-of-way.

Add the following section:

**3202.2.5 Fire, electrical, mechanical, and plumbing systems.** Equipment and related piping for fire, electrical, mechanical, and/or plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

**3202.3 Encroachments 8 feet or more above grade.** Replace the language of this section with:

**3202.3 Encroachments 8 feet or more above grade.** Encroachments 8 feet (2438 mm) or more above grade shall comply with Sections 3202.3.1 through 3202.3.2.

**3202.3.1 Awnings, canopies, marquees and signs.** Replace the language of this section with:

**3202.3.1 Encroachments 8 feet to less than 15 feet above grade.** Encroachments 8 feet (2438 mm) to less than 15 feet (4572 mm) above grade shall comply with Sections 3202.3.1.1 through 3202.3.1.3.

Add the following section:

**3202.3.1.1 Awnings, canopies, marquees, and signs.** Awnings, canopies, marquees, and signs shall not project into the public right-of-way in such a way that they create a hazard to the users of the public right-of-way.

Add the following section:

**3202.3.1.2 Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems.** Windows, balconies, architectural features, and fire, electrical, mechanical, and plumbing systems shall not open or project into the public right-of-way in such a way that they create a hazard for the users of the public right-of-way.

Add the following section:

**3202.3.1.3 Pedestrian walkways.** The vertical clearance of pedestrian walkways over the public right-of-way shall be not less than 15 feet (4572 mm).

**3202.3.2 Windows, balconies, architectural features and mechanical equipment.** Replace the language of the section with:

**3202.3.2 Encroachments 15 feet or more above grade.** Encroachments 15 feet (4572 mm) or more above grade shall not be limited.

**3202.3.3 Encroachments 15 feet or more above grade.** Delete the section in its entirety.

**3202.3.4 Pedestrian walkways.** Delete the section in its entirety.

Substantiation: The following sections from Chapter 33- Safeguards During Construction provide clarity on specific elements that are lacking in the standard code.

**3301.2 Storage and placement.** Modify this section by adding the following to the end:

Construction equipment and/or materials shall not be disposed of or stored at a construction unless they are specifically for work at that construction site.

Add this section:

**3302.4 Dust, smoke, and odor control.** Dust, smoke, odors, and/or similar shall be contained within the construction site to the greatest extent possible utilizing methods to assure containment. The Village may require the stoppage of work that is not in compliance with this section until acceptable methods are operational on the construction site.

Add this section:

**3302.5 Fencing.** Where the Village authorizes fencing in lieu of a walkway in accordance with section 3306.2, fencing shall be 6 foot high chain-link type with adequate support to maintain the fence in place at all times including during high wind conditions. Where the site is unoccupied, gates must be locked securely with a padlock when there is no construction work in progress.

Exception: Alternate fencing or barriers may be used where *approved* by the Building Official.

Add this section:

**3302.6 Security.** Construction sites shall provide adequate security to prevent unauthorized access.

Add this section:

**3303.8 Operations.** Demolition of a building or structure shall conform to sections 3308.1.1 through 3308.1.4.

Add this section:

**3303.8.1.1 Dust control.** Dust shall be controlled in accordance with section 3302.4.

Add this section:

**3303.8.1.2 Methods.** Buildings and structures shall be demolished in such a way as to prevent excessive ground or air vibrations. Structural steel, chimneys, walls, and/or similar sections of a building shall be lowered to the ground in a controlled manner and not allowed to fall. Where the height exceeds 20 feet above grade, smaller material shall be removed by use of a chute or similar.

Add this section:

**3303.8.1.3 Future construction.** Where construction of a new building is not planned, or otherwise will not occur immediately after the demolition, the site shall be filled and leveled to maintain ground water flow that is consistent with the surrounding properties, construction debris, materials, and equipment shall be removed, and the site shall be returned to a safe condition.

Add this section:

**3303.8.1.4 Miscellaneous.** Any other safeguards or requirements deemed necessary by the Village for the safety or well-being of the community shall be utilized.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Existing Building Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Existing Building Code.

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| IEBC 2018 IEBC Adoption Language   | Presentation |
| IEBC 2018 IEBC Adoption Language-No Highlighting                         | Presentation |
| IEBC New Recommendations to the Municipal Code Chapter 23 Article 8 IEBC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VIII- Regulations and Standards for Existing Buildings,  
Section 23-801- Adoption of the 2018 International Existing Building Code

a. There is hereby adopted by reference the 2018 International Existing Building Code (IEBC), published by the International Code Council, Inc., except as modified by Section 23-801 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IEBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IEBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**[A] 101.3 Intent.** Add to the end:

Unless specifically stated, any reference in this Code to other codes specifically adopted by Chapter 23 of the Arlington Heights Municipal Code shall be presumed to mean the code as amended by Chapter 23 of the Arlington Heights Municipal Code.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

**301.3 Alteration, addition or change of occupancy.** Delete the language of this section and replace with:

The alteration, addition, or change of occupancy of all existing buildings shall comply with Section 301.3.2.

**301.3 Alteration, addition or change of occupancy.** Exception: Delete ' or 1301.3.3' from the third sentence.

**301.3.1 Prescriptive compliance method.** Delete this section in its entirety and do not replace.

**301.3.3 Performance compliance method.** Delete this section in its entirety and do not replace.

**301.5 Compliance with accessibility.** Replace '2009 edition of the ICC A117.1' with 'the State of Illinois Accessibility Code'.

**302.3 Additional codes.** Modify this section by:

1. Replacing 'International Energy Conservation Code' with 'State of Illinois Energy Conservation Code'.

2. Replacing '*International Plumbing Code*' with 'State of Illinois Plumbing Code'.

3. Deleting '*International Private Sewage Disposal Code*'.

**Section 305 Accessibility for Existing Buildings.** Delete this section in its entirety and do not replace.

**Section 408 Plumbing.** Delete this section in its entirety and do not replace.

**707.1 Minimum requirements.** Delete the language of this section and replace with:

Level 1 *alterations* to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**Section 809 Plumbing.** Delete this section in its entirety and do not replace.

**810.1 Minimum requirements.** Delete the language of this section and replace with:

Level 2 *alterations* to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**902.1 High-rise buildings.** Replace '75' with '60' and '22 860' with '18 288'.

**904.1 Automatic sprinkler systems.** Replace '802.2' with '803'.

**907.1 Minimum requirements.** Delete the language of this section and replace with:

Level 3 *alterations* to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**1001.2 Certificate of occupancy.** Add to the end:

This section shall be considered to reference Chapter 9 of the International Building Code without the amendments prescribed in Chapter 23, Article III of the Municipal Code.

**1002.1 Compliance with the building code.** Replace the non-italicized word 'building' with 'part of the building that is changed'.

**Section 1009 Plumbing.** Delete this section in its entirety and do not replace.

**1102.2 Area limitations.** Replace '6' with '5'.

**1107.1 Minimum requirements.** Delete the language of this section and replace with:

*Additions to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.*

**Chapter 13 Performance Compliance Methods.** Delete this Chapter in its entirety and do not replace.

**Chapter 15 Construction Safeguards.** Delete this Chapter in its entirety and do not replace.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VIII- Regulations and Standards for Existing Buildings,  
Section 23-801- Adoption of the 2018 International Existing Building Code

a. There is hereby adopted by reference the 2018 International Existing Building Code (IEBC), published by the International Code Council, Inc., except as modified by Section 23-801 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IEBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IEBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**[A] 101.3 Intent.** Add to the end:

Unless specifically stated, any reference in this Code to other codes specifically adopted by Chapter 23 of the Arlington Heights Municipal Code shall be presumed to mean the code as amended by Chapter 23 of the Arlington Heights Municipal Code.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

**301.3 Alteration, addition or change of occupancy.** Delete the language of this section and replace with:

The *alteration, addition, or change of occupancy* of all existing buildings shall comply with Section 301.3.2.

**301.3 Alteration, addition or change of occupancy.** Exception: Delete ' or 1301.3.3' from the third sentence.

**301.3.1 Prescriptive compliance method.** Delete this section in its entirety and do not replace.

**301.3.3 Performance compliance method.** Delete this section in its entirety and do not replace.

**301.5 Compliance with accessibility.** Replace '2009 edition of the ICC A117.1' with 'the State of Illinois Accessibility Code'.

**302.3 Additional codes.** Modify this section by:

1. Replacing '*International Energy Conservation Code*' with '*State of Illinois Energy Conservation Code*'.

2. Replacing '*International Plumbing Code*' with 'State of Illinois Plumbing Code'.

3. Deleting '*International Private Sewage Disposal Code*'.

**Section 305 Accessibility for Existing Buildings.** Delete this section in its entirety and do not replace.

**Section 408 Plumbing.** Delete this section in its entirety and do not replace.

**707.1 Minimum requirements.** Delete the language of this section and replace with:

Level 1 *alterations to existing buildings* or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**Section 809 Plumbing.** Delete this section in its entirety and do not replace.

**810.1 Minimum requirements.** Delete the language of this section and replace with:

Level 2 *alterations to existing buildings* or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**902.1 High-rise buildings.** Replace '75' with '60' and '22 860' with '18 288'.

**904.1 Automatic sprinkler systems.** Replace '802.2' with '803'.

**907.1 Minimum requirements.** Delete the language of this section and replace with:

Level 3 *alterations to existing buildings* or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

**1001.2 Certificate of occupancy.** Add to the end:

This section shall be considered to reference Chapter 9 of the International Building Code without the amendments prescribed in Chapter 23, Article III of the Municipal Code.

**1002.1 Compliance with the building code.** Replace the non-italicized word 'building' with 'part of the building that is changed'.

**Section 1009 Plumbing.** Delete this section in its entirety and do not replace.

**1102.2 Area limitations.** Replace '6' with '5'.

**1107.1 Minimum requirements.** Delete the language of this section and replace with:

*Additions to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.*

**Chapter 13 Performance Compliance Methods.** Delete this Chapter in its entirety and do not replace.

**Chapter 15 Construction Safeguards.** Delete this Chapter in its entirety and do not replace.

## Recommendations to the Municipal Code Chapter 23, Article VIII- Amendments to the 2018 IEBC.

The following recommendations are new recommendations that do not relate to any existing ordinance language. The IEBC is now a required reference from the IBC as the IBC does not contain existing building language anymore; it only references the IEBC.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VIII- Existing Buildings  
Section 23-801- Adoption of the 2018 International Existing Building Code

a. There is hereby adopted by reference the 2018 International Existing Building Code (IEBC), published by the International Code Council, Inc., except as modified by Section 23-801 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IEBC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IEBC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**[A] 101.3 Intent.** Add to the end:

Unless specifically stated, any reference in this Code to other codes specifically adopted by Chapter 23 of the Arlington Heights Municipal Code shall be presumed to mean the code as amended by Chapter 23 of the Arlington Heights Municipal Code.

Substantiation: Clarifies that cross reference to other codes shall mean and include any local amendments we have written to those codes.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

Substantiation: We will use the IBC and/or IRC administration sections, as applicable. Deletion from the IEBC will help prevent potential conflicts and eliminate amendment language cross-reference housekeeping.

**301.3 Alteration, addition or change of occupancy.** Delete the language of this section and replace with:

The *alteration, addition, or change of occupancy* of all existing buildings shall comply with Section 301.3.2.

Substantiation: Limiting existing buildings to the work area compliance method simplifies things and makes it easier to enforce what is intended.

**301.3 Alteration, addition or change of occupancy.** Exception: Delete 'or 1301.3.3' from the third sentence.

Substantiation: Limiting existing buildings in flood hazard areas to the work area compliance method or prescriptive method simplifies things and makes it easier to enforce what is intended.

**301.3.1 Prescriptive compliance method.** Delete this section in its entirety and do not replace.

Substantiation: Limiting existing buildings to the work area compliance method simplifies things and makes it easier to enforce what is intended.

**301.3.3 Performance compliance method.** Delete this section in its entirety and do not replace.

Substantiation: Limiting existing buildings to the work area compliance method simplifies things and makes it easier to enforce what is intended.

**301.5 Compliance with accessibility.** Replace '2009 edition of the ICC A117.1' with 'the State of Illinois Accessibility Code'.

Substantiation: We are mandated to follow the Illinois Accessibility Code.

**302.3 Additional codes.** Modify this section by:

1. Replacing '*International Energy Conservation Code*' with 'State of Illinois Energy Conservation Code'.
2. Replacing '*International Plumbing Code*' with 'State of Illinois Plumbing Code'.
3. Deleting '*International Private Sewage Disposal Code*'.

Substantiation: We are mandated to follow the State Codes, and we don't follow the ICC Private Sewage Disposal Code.

**Section 305 Accessibility for Existing Buildings.** Delete this section in its entirety and do not replace.

Substantiation: We are mandated to follow the State Accessibility Code, and while we can require accessibility requirements more strict than the State Code, using only one code simplifies things.

**Section 408 Plumbing.** Delete this section in its entirety and do not replace.

Substantiation: We are mandated to follow the State Plumbing Code.

**707.1 Minimum requirements.** Delete the language of this section and replace with:

Level 1 *alterations* to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

Substantiation: We are mandated to follow the State Energy Code.

**Section 809 Plumbing.** Delete this section in its entirety and do not replace.

Substantiation: We are mandated to follow the State Plumbing Code.

**810.1 Minimum requirements.** Delete the language of this section and replace with:

Level 2 *alterations* to existing buildings or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

Substantiation: We are mandated to follow the State Energy Code.

**902.1 High-rise buildings.** Replace '75' with '60' and '22 860' with '18 288'.

Substantiation: We are lowering our high-rise height to 60 feet in all codes; this maintains consistency.

**904.1 Automatic sprinkler systems.** Replace '802.2' with '803'.

Substantiation: 802.2 is believed to be an editorial error as it has nothing to do with fire sprinklers.

**907.1 Minimum requirements.** Delete the language of this section and replace with:

Level 3 *alterations to existing buildings* or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

Substantiation: We are mandated to follow the State Energy Code.

**1001.2 Certificate of occupancy.** Add to the end:

This section shall be considered to reference Chapter 9 of the International Building Code without the amendments prescribed in Chapter 23, Article III of the Municipal Code.

Substantiation: This language clarifies that existing buildings will only be required to have fire protection systems required by the standard code and not the amended code. This prevents existing buildings undergoing a change of occupancy from having to install fire alarm and fire sprinkler systems until the change would be required by the standard code. All new buildings (except U Group) would be required to install fire alarms and fire sprinklers per local amendments.

**1002.1 Compliance with the building code.** Replace the non-italicized word 'building' with 'part of the building that is changed'.

Substantiation: Bringing an entire building up to current code when only a small part may be changing is impractical. E.g., an existing hotel adds a laundry room—bringing the whole hotel up to code would be practically impossible, and surely cost prohibitive.

**Section 1009 Plumbing.** Delete this section in its entirety and do not replace.

Substantiation: We are mandated to follow the State Plumbing Code.

**1102.2 Area limitations.** Replace '6' with '5'

Substantiation: It is believed this is an editorial error because Chapter 6 of the IBC deals with construction types; Chapter 5 deals with area limitations.

**1107.1 Minimum requirements.** Delete the language of this section and replace with:

*Additions to existing buildings* or structures shall comply with the requirements of the State of Illinois Energy Conservation Code.

Substantiation: We are mandated to follow the State Energy Code.

**Chapter 13 Performance Compliance Methods.** Delete this Chapter in its entirety and do not replace.

Substantiation: We are not going to allow use of the Performance Compliance Method.

**Chapter 15 Construction Safeguards.** Delete this Chapter in its entirety and do not replace.

Substantiation: We will utilize IBC Chapter 33 Safeguards During Construction with local amendments to regulate these issues.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Fire Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Fire Code

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| IFC 2018 Adoption Language   | Presentation |
| IFC 2018 Adoption Language -No Highlighting                            | Presentation |
| IFC Chapter 27 Fire Regulations Marked Up                              | Presentation |
| IFC New Recommendations to the Municipal Code Chapter 23 Article 7 IFC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VII- Fire Safety Standards  
Section 23-701- Adoption of the 2018 International Fire Code and Appendices

a. There is hereby adopted by reference the 2018 International Fire Code (IFC), published by the International Code Council, Inc. and specifically includes Appendix D, except as modified by Section 23-701 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department or the Fire Chief, as applicable.

ii. Where an installation or construction system is not specifically covered or referenced by the IFC, the most current published version of the following codes and standards of the National Fire Protection Association (NFPA) shall apply:

18, 36, 50, 50A, 50B, 51, 57, 59, 67, 68, 75, 76, 79, 82, 86C, 86D, 87, 88A, 88B, 91, 92A, 92B, 101A, 102, 115, 122, 140, 150, 214, 231, 231C, 231D, 231E, 231F, 232, 232A, 297, 328, 329, 430, 432, 434, 480, 481, 482, 485, 490, 499, 650, 651, 770, 780, and 855.

b. The IFC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

Add the following section:

**[A] 101.6 Referenced codes.** All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified.

**[A] 110.4 Violation penalties.** Insert 'fire code violation' for [SPECIFY OFFENSE], \$750.00 for [AMOUNT], and seven (7) for [NUMBER OF DAYS].

**[A] Section 112.4 Failure to comply.** Insert \$250.00 for the not less than amount and \$750.00 for the not more than amount.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**201.5 Terms defined in the IFC or other ICC codes and the Municipal Code.** Where terms are defined in both the IFC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**Section 202 General Definition.** Change the definition of 'BONFIRE' to:

An outdoor fire with a fuel area greater than 3 feet in diameter and 2 feet in height utilized for ceremonial, pleasure, cooking, warmth, or similar purposes.

**307.1 General.** Add the following at the end:

Fuel for open burning shall consist only of seasoned firewood and shall be ignited with a small quantity of paper. The fire shall not be utilized for waste disposal purposes.

#### **307.4.1 Bonfires**

Delete the following from the first sentence:  
'unless the fire is contained in a barbecue pit'

**307.4.3 Portable Outdoor Fireplaces.** Delete the exception and replace it with the following:  
Portable outdoor fireplaces used at detached single family dwellings.

**308.1.4 Open Flame Cooking Devices.** Delete Exception 3.

**308.2 Permits required.** Modify this section by deleting list item number 1.

**315.2 Permit required.** Delete this section and do not replace.

**319.2 Permit required.** Delete this section and do not replace.

**503.2.5 Dead Ends.** Delete and replace with the following:  
See Appendix D, as amended.

**505.1 Address Notification.** Change 4 (inches) to 6 (inches).

**901.4.6.1 Access.** Modify this section by adding ' in a location approved by the Fire Code Official' after the word 'access' in the first sentence.

**901.6.3 Records.** Modify this section by adding to the end, 'The method of submitting records shall be done using systems approved by the Fire Code Official.'

**903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 4.

**903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words 'in excess of 1,000 square feet (93 m<sup>2</sup>)'.

**903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words 'where either of the following exists:' and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words 'with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies'.

**903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words 'and the combined *occupant load* of these fire areas is 300 or more'.

**903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words 'where either of the following conditions exist at any time:', and placing a period after the word '*facility*'.
2. Deleting list items 1 and 2.

**903.2.3 Group E.** Modify this section by:

1. Deleting the words 'as follows:' and placing a period after the word '*occupancies*'.
2. Deleting list items 1 through 3.

**903.2.4 Group F-1.** Replace this section with:

**903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**903.2.4.1 Woodworking operations.**

Delete this section in its entirety.

**903.2.5.3 Pyroxylin plastics.** Modify this section by:

1. Deleting the words 'in quantities exceeding 100 pounds (45kg)'.

**903.2.6 Group I.** Modify this section by deleting all Exceptions.

**903.2.7 Group M.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word '*occupancy*'.
2. Deleting list items 1 through 4.

**903.2.9 Group S-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word '*occupancy*'.
2. Deleting list items 1 through 5.

**903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

**903.2.10 Group S-2.** *An automatic sprinkler system shall be provided throughout all buildings with a Group S-2 fire area.*

**903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

Add the following section:

**903.2.13 Group B.** *An automatic sprinkler system shall be provided throughout buildings with a Group B fire area.*

**903.3.5 Water supplies.** Modify this section by deleting the words 'and the International Plumbing Code', and replacing them with ', the Village of Arlington Heights, and the State of Illinois Plumbing Code.'

**903.4.3 Floor control valves.** Delete 'in high-rise buildings'.

**905.4 Location of Class I standpipe hose connections.** Add the following text after the word 'connections':  
'with a 2-1/2inch x 1-1/2 inch reducer and cap and chain'

**905.5 Location of Class II standpipes hose connections.** Add the following text after the word 'connections':  
'with a 2-1/2inch x 1-1/2 inch reducer and cap and chain'

**905.12 Existing Buildings.** Add the following at the end:

Elimination of fire hoses from an existing Class III standpipe system is permitted only if all of the following conditions are met:

1. The building is equipped throughout with an automatic sprinkler system in accordance with 903.1.1 or 903.1.2 of the IFC.
2. Provide a 1-1/2" brass cap with chain.
3. Provide a 2-1/2" x 1-1/2" reducer with a 1-1/2" brass cap with a chain on the 2-1/2" fire hose valve.

4. A letter from the building insurance carrier is provided to the Fire Official which states that they are aware of the removal of the hoses.

A permit, including review and approval by the Fire Chief, must be obtained for each building where the fire hoses are to be removed. A final inspection by the Village will be conducted upon completion of the removal.

**907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

**907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

**907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

**907.2.5 Group H.** Modify this section by deleting 'H-5' and replacing with 'H'.

**907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

**907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

**907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

**907.2.12.2 Fire Department communications.** Add the following at the end:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

**907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words ' where required by Section 3206.5'.

**907.2.15 Aerosol storage uses.** Modify this section by deleting the words ' where required by this code'.

**907.5.2.3.1 Public use areas and common use areas.** Add the following language to the end:

A visible exterior weatherproof alarm notification device, emitting a red in color flashing light when activated, shall be located within closest proximity to the front main entrance of the building or tenant space as approved by the Fire Code Official.

**907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

**912.2.1 Visible Location.** Delete and replace with the following:

Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant or as directed by the Fire Chief or designee.

**912.6 Backflow protection.** Modify this section by deleting the words 'International Plumbing Code' and replacing them with 'Village of Arlington Heights and the State of Illinois Plumbing Code'.

**913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.

2. Deleting method 4.

**1103.5.3 Group I-2, Condition 2.** Insert 'A date specified in writing from the Village.' for [DATE BY WHICH SPRINKLER SYSTEM MUST BE INSTALLED]

**2306.2.3 Above-ground tanks located outside, above grade.** Change 12,000 to 1,000 and 48,000 to 3,000.

**2306.2.4.1 Tank capacity limits.** Change 15,000 to 1,000 and 48,000 to 3,000.

**2306.2.4.2 Fleet vehicle motor fuel-dispensing facilities.** Change 20,000 to 1,000 and 80,000 to 3,000.

**2306.2.6 Special enclosures.** Item #6 - Change 6,000 to 1,000 and 18,000 to 3,000.

**2306.5 Secondary Containment.** Add the following at the end:  
Secondary containment shall be sized to provide 150% of the capacity of the tank.

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**5706.2.4.4 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**5806.2 Limitations.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**6101.1 Scope.** Add the following at the end:  
It shall be unlawful for any person to operate a plant for the production of liquefied petroleum gases in the Village. No liquefied petroleum tank shall be filled within the Village.

**6104.2 Maximum capacity within established limits.** Change 2000 to 1000.

**6104.2 Maximum capacity within established limits.** Insert zoning districts M-1 and M-2 for [JURISDICTION TO SPECIFY].

**D103.4 Dead ends.** Delete the language of this section entirely and replace with:

Dead ends must be approved by the Fire Chief.

**Table D103.4 Requirements For Dead-end Fire Apparatus Access Roads.** Delete this table and do not replace.

**D103.5 Fire apparatus access road gates.** Begin the first sentence with:  
As approved by the Fire Code Official,

### **Section 23-702 Hazardous Materials Regulations**

**Section 23-702a Spills Prohibited.** It shall be unlawful, whether intentional or unintentional, for any person, firm or corporation to release, emit, spill or leak any material, which constitutes a hazardous material incident.

**Section 23-702b Definitions.** For the purpose of this Article, the following words and terms shall have the following meanings:

**Hazardous Material(s) Incident.** The leakage, release, seepage or emission of any substance or material which, due to its quantity, form, concentration, location or other characteristics, is determined by the Fire Chief or an authorized representative, based upon a reasonable degree of scientific certainty, to pose an unreasonable and inordinate risk to the life, health or safety of persons or property or to the ecological balance or the environment, including but not limited to, explosives, compressed gases, flammable and combustible liquids, flammable and water reactive solids, oxidizers and peroxides, poisons, radioactive materials, corrosives or otherwise regulated materials, or any substance determined to be hazardous or toxic under any federal or state law, statute or regulation.

**Expenses to the Village.** All costs and expenses of the Village incurred in the clean-up or abatement of hazardous materials or the extinguishing of a fire involving hazardous materials, including but not limited to the following: actual labor costs of Village personnel involved in the clean-up or abatement of the discharge(s) including Worker's Compensation benefits, fringe benefits and administrative overhead or any other medical expenses, immediate or long term, or personnel exposed to the hazardous material, cost of equipment operation, damage or loss as published and updated by the Village; cost of materials ordered directly by the Village; the cost of any labor and material(s) expended through the retention of other parties to assist in clean-up or abatement and the repair of the property in the area of the incident.

**Village.** Any Department of the Village of Arlington Heights.

**Section 23-702c Hazardous Material Responses - Cost Reimbursement.** Expense reimbursement to the Village: The person or companies in immediate control or possession of the hazardous material(s) at a hazardous materials incident, to which the Village has responded, shall be responsible for reimbursement to the Village of all expenses incurred by the Village related to the response, the handling or the clean-up of the material(s). There shall be joint and several liability for reimbursement including but not limited to the person(s) or companies in immediate control of the hazardous material(s), the shipper, the manufacturer, the distributor, the transporter of the material(s) involved, or third parties having caused or contributed to the cause

of the release of the hazardous material(s).

**Section 23-702d Fault Not to be Considered.** The person or company in immediate control or possession of the hazardous material at a hazardous materials incident shall be liable for any other costs, fees or expenses of whatever kind or nature which are incurred by the Village or its agent in the abatement, clean-up or repair. The fault of the entity in immediate control or possession of this Article, repair shall mean, without exception, the return of the property to the condition that existed immediately prior to the incident.

**Section 23-702e Distribution of Reimbursed Costs - Replacement of Material(s) and/or Other Expenses.** The reimbursement funds may be used to replenish the supplies used by the Village at the scene of the hazardous material(s) incident. Supplies may include, but shall not be limited to, protective clothing, absorbents, neutralizing chemicals, detection monitoring equipment, firefighting forms and chemicals, overtime personnel expenses, laboratory analysis, medical treatment, immediate and long term, for exposed or injured personnel, or equipment or supplies damaged or destroyed by exposure to the hazardous material(s) at the incident.

**Section 23-702f Regulations or Remedies.** Nothing in this Article IV shall be deemed to relieve any party from any other obligation or responsibilities that it might otherwise have under law to any other agency or party.

**Section 23-702g Penalty.** Any person, firm or corporation who violates any provision of this Article shall, upon conviction, be fined not less than \$5 nor more than \$750.

### **Section 23-703 Fireworks**

**Section 23-703a Definitions.** Unless the context clearly indicates otherwise, fireworks shall mean and include any combustible or explosive composition, or any substance or combination of substances, or article prepared for the purpose of producing a visible or an audible effect by combustion, explosion, deflagration or detonation, and shall include blank cartridges, toy pistols, toy cannons, toy canes, or toy guns in which explosives are used, the type of balloons which require fire underneath to propel the same, firecrackers, torpedoes, skyrockets, roman candles, bombs, or any other devices of like construction and any devices containing any explosive or flammable compound, or any tablets or other device containing any explosive substance, except that the term "fireworks" shall not include sparklers, auto flares, paper caps containing not in excess of an average of 25/100 of a grain of explosive content per cap, and toy pistols, toy canes, toy guns or other devices which use caps, the sale and use of which shall be permitted.

**Section 23-703b Sale of Fireworks.** It shall be unlawful for any person within the Village to own, possess, discharge, manufacture, sell, expose for sale, loan or give away any substance or article of fireworks; except that the Village Manager may issue a permit for public fireworks displays.

**Section 23-703c Permit for Fireworks Display; Application.** An application for a permit to conduct a public fireworks display shall be made in writing to the Village Manager and shall

state the name of the person desiring to conduct such display, the place of residence and age, the proposed place for the public display of fireworks and what experience the applicant has had, if any, in the discharge of fireworks. This application shall be sworn to before a notary public or other officer authorized by law to administer oaths.

**Section 23-703d Inspection by Village.** The Village Manager shall, upon receipt of an application for a permit to conduct a public fireworks display, refer it to the appropriate Village departments for an inspection of the location designated in the application for the proposed public display of fireworks. If, after inspection, it is determined that it would not be hazardous to surrounding property or dangerous to any person or persons to permit the public display of fireworks at that location, the application shall be approved and returned to the Village Manager. After the applicant pays a \$115 fee, the Village Manager shall issue a permit, giving the applicant permission, upon satisfactory proof of bond, to conduct a public display of fireworks. The permits shall designate the kinds and quantities of fireworks to be used at such public display, and no other kinds and no greater quantities of fireworks than therein specified shall be used at the public display.

**Section 23-703e Transferability of Permits.** No permit issued under the provisions of this Article shall be transferable.

**Section 23-703f Bond.** All permits issued by the Village Manager are conditional upon the permittee furnishing a bond in an amount deemed adequate by the Director of Building for the payment of all damages which may be caused either to a person or persons or to property by reason of the permitted display, and arising from any acts of the permittee, permittee's agents, employees or subcontractors. Failure to present the Village Manager with proper evidence that the bond has been secured three days prior to the display will automatically result in revocation of the permit and forfeiture of the permit fee.

**Section 23-703g Fireworks Used in Public Display.** Fireworks to be used in a permitted public display may not be brought into the Village until satisfactory evidence of the bond, required by Section 27-606, has been presented to the Village Manager, and in no event more than five days before the proposed date of the display. The fireworks shall be stored in a safe place and any fireworks unused during the display shall be immediately disposed of in a manner safe for the particular type of fireworks remaining.

**Section 23-703h Seizure of Fireworks.** The Director of Building, Fire Chief or the Police Chief shall seize, take, remove, or cause to be removed at the owner's expense all stocks of fireworks possessed in violation of this Article.

**Section 23-703i Penalties.** Any person violating any provision of this Article shall be fined not less than \$5 nor more than \$750 for each offense; and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VII- Fire Safety Standards  
Section 23-701- Adoption of the 2018 International Fire Code and Appendices

a. There is hereby adopted by reference the 2018 International Fire Code (IFC), published by the International Code Council, Inc. and specifically includes Appendix D, except as modified by Section 23-701 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department or the Fire Chief, as applicable.

ii. Where an installation or construction system is not specifically covered or referenced by the IFC, the most current published version of the following codes and standards of the National Fire Protection Association (NFPA) shall apply:

18, 36, 50, 50A, 50B, 51, 57, 59, 67, 68, 75, 76, 79, 82, 86C, 86D, 87, 88A, 88B, 91, 92A, 92B, 101A, 102, 115, 122, 140, 150, 214, 231, 231C, 231D, 231E, 231F, 232, 232A, 297, 328, 329, 430, 432, 434, 480, 481, 482, 485, 490, 499, 650, 651, 770, 780, and 855.

b. The IFC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

Add the following section:

**[A] 101.6 Referenced codes.** All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified.

**[A] 110.4 Violation penalties.** Insert 'fire code violation' for [SPECIFY OFFENSE], \$750.00 for [AMOUNT], and seven (7) for [NUMBER OF DAYS].

**[A] Section 112.4 Failure to comply.** Insert \$250.00 for the not less than amount and \$750.00 for the not more than amount.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**201.5 Terms defined in the IFC or other ICC codes and the Municipal Code.** Where terms are defined in both the IFC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**Section 202 General Definition.** Change the definition of 'BONFIRE' to:

An outdoor fire with a fuel area greater than 3 feet in diameter and 2 feet in height utilized for ceremonial, pleasure, cooking, warmth, or similar purposes.

**307.1 General.** Add the following at the end:

Fuel for open burning shall consist only of seasoned firewood and shall be ignited with a small quantity of paper. The fire shall not be utilized for waste disposal purposes.

**307.4.1 Bonfires**

Delete the following from the first sentence:  
'unless the fire is contained in a barbecue pit'

**307.4.3 Portable Outdoor Fireplaces.** Delete the exception and replace it with the following:  
Portable outdoor fireplaces used at detached single family dwellings.

**308.1.4 Open Flame Cooking Devices.** Delete Exception 3.

**308.2 Permits required.** Modify this section by deleting list item number 1.

**315.2 Permit required.** Delete this section and do not replace.

**319.2 Permit required.** Delete this section and do not replace.

**503.2.5 Dead Ends.** Delete and replace with the following:  
See Appendix D, as amended.

**505.1 Address Notification.** Change 4 (inches) to 6 (inches).

**901.4.6.1 Access.** Modify this section by adding ‘ in a location approved by the Fire Code Official’ after the word ‘access’ in the first sentence.

**901.6.3 Records.** Modify this section by adding to the end, ‘The method of submitting records shall be done using systems approved by the Fire Code Official.’

**903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 4.

**903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’ that precedes the word ‘where’.
2. Deleting list items 1 through 3.

**903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words ‘in excess of 1,000 square feet (93 m<sup>2</sup>)’.

**903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words ‘where either of the following exists:’ and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words ‘with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies’.

**903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words ‘and the combined *occupant load* of these fire areas is 300 or more’.

**903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words ‘where either of the following conditions exist at any time:’, and placing a period after the word ‘*facility*’.
2. Deleting list items 1 and 2.

**903.2.3 Group E.** Modify this section by:

1. Deleting the words ‘as follows:’ and placing a period after the word ‘occupancies’.
2. Deleting list items 1 through 3.

**903.2.4 Group F-1.** Replace this section with:

**903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**903.2.4.1 Woodworking operations.** Delete this section in its entirety.

**903.2.5.3 Pyroxylin plastics.** Modify this section by deleting the words ‘in quantities exceeding 100 pounds (45kg)’.

**903.2.6 Group I.** Modify this section by deleting all Exceptions.

**903.2.7 Group M.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.
2. Deleting list items 1 through 4.

**903.2.9 Group S-1.** Modify this section by:

1. Deleting the words ‘where one of the following conditions exists:’ and adding a period after the word ‘occupancy’.
2. Deleting list items 1 through 5.

**903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

**903.2.10 Group S-2.** An *automatic sprinkler system* shall be provided throughout all buildings with a Group S-2 fire area.

**903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

Add the following section:

**903.2.13 Group B.** An *automatic sprinkler system* shall be provided throughout buildings with a Group B fire area.

**903.3.5 Water supplies.** Modify this section by deleting the words ‘and the International Plumbing Code’, and replacing them with ‘, the Village of Arlington Heights, and the State of Illinois Plumbing Code.’

**903.4.3 Floor control valves.** Delete ‘in high-rise buildings’.

**905.4 Location of Class I standpipe hose connections.** Add the following text after the word ‘connections’:  
‘with a 2-1/2inch x 1-1/2 inch reducer and cap and chain’

**905.5 Location of Class II standpipes hose connections.** Add the following text after the word ‘connections’:  
‘with a 2-1/2inch x 1-1/2 inch reducer and cap and chain’

**905.12 Existing Buildings.** Add the following at the end:

Elimination of fire hoses from an existing Class III standpipe system is permitted only if all of the following conditions are met:

1. The building is equipped throughout with an automatic sprinkler system in accordance with 903.1.1 or 903.1.2 of the IFC.
2. Provide a 1-1/2" brass cap with chain.
3. Provide a 2-1/2" x 1-1/2" reducer with a 1-1/2" brass cap with a chain on the 2-1/2" fire hose valve.  
A permit, including review and approval by the Fire Chief, must be obtained for each building

4. A letter from the building insurance carrier is provided to the Fire Official which states that they are aware of the removal of the hoses.

A permit, including review and approval by the Fire Chief, must be obtained for each building where the fire hoses are to be removed. A final inspection by the Village will be conducted upon completion of the removal.

**907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

**907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

**907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

**907.2.5 Group H.** Modify this section by deleting 'H-5' and replacing with 'H'.

**907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

**907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

**907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

**907.2.12.2 Fire Department communications.** Add the following at the end:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

**907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words ‘ where required by Section 3206.5’.

**907.2.15 Aerosol storage uses.** Modify this section by deleting the words ‘ where required by this code’.

**907.5.2.3.1 Public use areas and common use areas.** Add the following language to the end:

A visible exterior weatherproof alarm notification device, emitting a red in color flashing light when activated, shall be located within closest proximity to the front main entrance of the building or tenant space as approved by the Fire Code Official.

**907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

**912.2.1 Visible Location.** Delete and replace with the following:

Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant or as directed by the Fire Chief or designee.

**912.6 Backflow protection.** Modify this section by deleting the words ‘International Plumbing Code’ and replacing them with ‘Village of Arlington Heights and the State of Illinois Plumbing Code’.

**913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.
2. Deleting method 4.

**1103.5.3 Group I-2, Condition 2.** Insert ‘A date specified in writing from the Village.’ for [DATE BY WHICH SPRINKLER SYSTEM MUST BE INSTALLED]

**2306.2.3 Above-ground tanks located outside, above grade.** Change 12,000 to 1,000 and 48,000 to 3,000.

**2306.2.4.1 Tank capacity limits.** Change 15,000 to 1,000 and 48,000 to 3,000.

**2306.2.4.2 Fleet vehicle motor fuel-dispensing facilities.** Change 20,000 to 1,000 and 80,000 to 3,000.

**2306.2.6 Special enclosures.** Item #6 - Change 6,000 to 1,000 and 18,000 to 3,000.

**2306.5 Secondary Containment.** Add the following at the end:  
Secondary containment shall be sized to provide 150% of the capacity of the tank.

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**5706.2.4.4 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**5806.2 Limitations.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

**6101.1 Scope.** Add the following at the end:  
It shall be unlawful for any person to operate a plant for the production of liquefied petroleum gases in the Village. No liquefied petroleum tank shall be filled within the Village.

**6104.2 Maximum capacity within established limits.** Change 2000 to 1000.

**6104.2 Maximum capacity within established limits.** Insert zoning districts M-1 and M-2 for [JURISDICTION TO SPECIFY].

**D103.4 Dead ends.** Delete the language of this section entirely and replace with:

Dead ends must be approved by the Fire Chief.

**Table D103.4 Requirements For Dead-end Fire Apparatus Access Roads.** Delete this table and do not replace.

**D103.5 Fire apparatus access road gates.** Begin the first sentence with:  
As approved by the Fire Code Official,

### **Section 23-702 Hazardous Materials Regulations**

**Section 23-702a Spills Prohibited.** It shall be unlawful, whether intentional or unintentional, for any person, firm or corporation to release, emit, spill or leak any material, which constitutes a hazardous material incident.

**Section 23-702b Definitions.** For the purpose of this Article, the following words and terms shall have the following meanings:

**Hazardous Material(s) Incident.** The leakage, release, seepage or emission of any substance or material which, due to its quantity, form, concentration, location or other characteristics, is determined by the Fire Chief or an authorized representative, based upon a reasonable degree of scientific certainty, to pose an unreasonable and inordinate risk to the life, health or safety of persons or property or to the ecological balance or the environment, including but not limited to, explosives, compressed gases, flammable and combustible liquids, flammable and water reactive solids, oxidizers and peroxides, poisons, radioactive materials, corrosives or otherwise regulated materials, or any substance determined to be hazardous or toxic under any federal or state law, statute or regulation.

**Expenses to the Village.** All costs and expenses of the Village incurred in the clean-up or abatement of hazardous materials or the extinguishing of a fire involving hazardous materials, including but not limited to the following: actual labor costs of Village personnel involved in the clean-up or abatement of the discharge(s) including Worker's Compensation benefits, fringe benefits and administrative overhead or any other medical expenses, immediate or long term, or personnel exposed to the hazardous material, cost of equipment operation, damage or loss as published and updated by the Village; cost of materials ordered directly by the Village; the cost of any labor and material(s) expended through the retention of other parties to assist in clean-up or abatement and the repair of the property in the area of the incident.

**Village.** Any Department of the Village of Arlington Heights.

**Section 23-702c Hazardous Material Responses - Cost Reimbursement.** Expense reimbursement to the Village: The person or companies in immediate control or possession of the hazardous material(s) at a hazardous materials incident, to which the Village has responded, shall be responsible for reimbursement to the Village of all expenses incurred by the Village related to the response, the handling or the clean-up of the material(s). There shall be joint and several liability for reimbursement including but not limited to the person(s) or companies in immediate control of the hazardous material(s), the shipper, the manufacturer, the distributor, the transporter of the material(s) involved, or third parties having caused or contributed to the cause of the release of the hazardous material(s).

**Section 23-702d Fault Not to be Considered.** The person or company in immediate control or possession of the hazardous material at a hazardous materials incident shall be liable for any other costs, fees or expenses of whatever kind or nature which are incurred by the Village or its agent in the abatement, clean-up or repair. The fault of the entity in immediate control or possession of this Article, repair shall mean, without exception, the return of the property to the condition that existed immediately prior to the incident.

**Section 23-702e Distribution of Reimbursed Costs - Replacement of Material(s) and/or Other Expenses.** The reimbursement funds may be used to replenish the supplies used by the Village at the scene of the hazardous material(s) incident. Supplies may include, but shall not be limited to, protective clothing, absorbents, neutralizing chemicals, detection monitoring equipment, firefighting forms and chemicals, overtime personnel expenses, laboratory analysis, medical treatment, immediate and long term, for exposed or injured personnel, or equipment or supplies damaged or destroyed by exposure to the hazardous material(s) at the incident.

**Section 23-702f Regulations or Remedies.** Nothing in this Article IV shall be deemed to relieve any party from any other obligation or responsibilities that it might otherwise have under law to any other agency or party.

**Section 23-702g Penalty.** Any person, firm or corporation who violates any provision of this Article shall, upon conviction, be fined not less than \$5 nor more than \$750.

### **Section 23-703 Fireworks**

**Section 23-703a Definitions.** Unless the context clearly indicates otherwise, fireworks shall mean and include any combustible or explosive composition, or any substance or combination of substances, or article prepared for the purpose of producing a visible or an audible effect by combustion, explosion, deflagration or detonation, and shall include blank cartridges, toy pistols, toy cannons, toy canes, or toy guns in which explosives are used, the type of balloons which require fire underneath to propel the same, firecrackers, torpedoes, skyrockets, roman candles, bombs, or any other devices of like construction and any devices containing any explosive or flammable compound, or any tablets or other device containing any explosive substance, except that the term "fireworks" shall not include sparklers, auto flares, paper caps containing not in excess of an average of 25/100 of a grain of explosive content per cap, and toy pistols, toy canes, toy guns or other devices which use caps, the sale and use of which shall be permitted.

**Section 23-703b Sale of Fireworks.** It shall be unlawful for any person within the Village to own, possess, discharge, manufacture, sell, expose for sale, loan or give away any substance or article of fireworks; except that the Village Manager may issue a permit for public fireworks displays.

**Section 23-703c Permit for Fireworks Display; Application.** An application for a permit to

conduct a public fireworks display shall be made in writing to the Village Manager and shall state the name of the person desiring to conduct such display, the place of residence and age, the proposed place for the public display of fireworks and what experience the applicant has had, if any, in the discharge of fireworks. This application shall be sworn to before a notary public or other officer authorized by law to administer oaths.

**Section 23-703d Inspection by Village.** The Village Manager shall, upon receipt of an application for a permit to conduct a public fireworks display, refer it to the appropriate Village departments for an inspection of the location designated in the application for the proposed public display of fireworks. If, after inspection, it is determined that it would not be hazardous to surrounding property or dangerous to any person or persons to permit the public display of fireworks at that location, the application shall be approved and returned to the Village Manager. After the applicant pays a \$115 fee, the Village Manager shall issue a permit, giving the applicant permission, upon satisfactory proof of bond, to conduct a public display of fireworks. The permits shall designate the kinds and quantities of fireworks to be used at such public display, and no other kinds and no greater quantities of fireworks than therein specified shall be used at the public display.

**Section 23-703e Transferability of Permits.** No permit issued under the provisions of this Article shall be transferable.

**Section 23-703f Bond.** All permits issued by the Village Manager are conditional upon the permittee furnishing a bond in an amount deemed adequate by the Director of Building for the payment of all damages which may be caused either to a person or persons or to property by reason of the permitted display, and arising from any acts of the permittee, permittee's agents, employees or subcontractors. Failure to present the Village Manager with proper evidence that the bond has been secured three days prior to the display will automatically result in revocation of the permit and forfeiture of the permit fee.

**Section 23-703g Fireworks Used in Public Display.** Fireworks to be used in a permitted public display may not be brought into the Village until satisfactory evidence of the bond, required by Section 27-606, has been presented to the Village Manager, and in no event more than five days before the proposed date of the display. The fireworks shall be stored in a safe place and any fireworks unused during the display shall be immediately disposed of in a manner safe for the particular type of fireworks remaining.

**Section 23-703h Seizure of Fireworks.** The Director of Building, Fire Chief or the Police Chief shall seize, take, remove, or cause to be removed at the owner's expense all stocks of fireworks possessed in violation of this Article.

**Section 23-703i Penalties.** Any person violating any provision of this Article shall be fined not less than \$5 nor more than \$750 for each offense; and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

**ARLINGTON HEIGHTS MUNICIPAL CODE  
CHAPTER 27 FIRE REGULATIONS**

**Article I Adoption of the International Fire Code**

- Section 27-101 Adoption of the International Fire Code
- Section 27-102 Modification by Amendment and Deletion of Various Sections of the International Fire Code

**Article II Hazardous Materials Regulations**

- Section 27-201 Spills Prohibited
- Section 27-202 Definitions
- Section 27-203 Hazardous Material Responses - Cost Reimbursement
- Section 27-204 Fault not to be Considered
- Section 27-205 Distribution of Reimbursed Costs - Replacement of Material(s) and/or Other Expenses
- Section 27-206 Regulations or Remedies
- Section 27-207 Penalty

**Article III Public Fireworks Displays**

- Section 27-301 Definitions
- Section 27-302 Sale of Fireworks
- Section 27-303 Permit for Fireworks Display: Application
- Section 27-304 Inspection by Village
- Section 27-305 Transferability of Permits
- Section 27-306 Bond
- Section 27-307 Fireworks Used in Public Display
- Section 27-308 Seizure of Fireworks
- Section 27-309 Penalty

NOTE--Fire Regulations will be moved from Chapter 27 of the Municipal Code to Article VII of Chapter 23.

# FIRE REGULATIONS

## Article I Adoption of the International Fire Code

### Section 27-101 Adoption of the International Fire Code

a. There is hereby adopted by reference the 2009 Edition of the International Fire Code for the purpose of establishing rules and regulations for safeguarding of life and property from fire and explosion hazards arising from storage, handling and use of hazardous substances, materials, devices and from operations and conditions hazardous to life or property in the occupancy or use of buildings, structures and premises, except as modified by this Article.

b. The International Fire Code shall:

1. Regulate all buildings, structures and premises where the provisions of this Chapter 23 specifically cover the subject matter in question.

2. In the event that a detail, operation or regulation is not covered by the 2009 Edition of the International Fire Code, the applicable provisions in the National Fire Protection Association Fire Codes 2008, published by the National Fire Protection Association, shall apply.

Recommendation: Delete this language and replace with new language.

Substantiation: See New Recommendations.

(Ord. #17-001)

c. All contractors who perform the tests required by Section 107.2 of the International Fire Code shall submit the records of all tests in the Village in a manner set forth by the Village. In addition, it shall be the responsibility of the owner of the property for which any test is required to ensure that its contractor performing the test submits it as required by the Village.

(Ord. #13-019)

**Section 27-102 Modification by Amendment and Deletion of Various Sections of the International Fire Code.** The 2009 Edition of the International Fire Code adopted by this Chapter is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the International Fire Code. Appendices D, I, and J are specifically adopted and the provisions in each Appendix are mandatory. To the extent any provision of the IFC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

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## CHAPTER 1 - SCOPE AND ADMINISTRATION

### 102.3 Change of Use or Occupancy.

Revised 102.3 to read as follows:

No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancies or in a different group of occupancies, unless such building is made to comply with the requirements of this Code for such division or group of occupancies. Subject to the approval of the Building Official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups in existing structures where the space at issue is 3,000 square feet or less of gross floor area, the structure at issue does not include residential occupancies, and the space at issue meets the fire separation requirements of Table 508.4 of the International Building Code.

Recommendation: Delete this amendment and do not replace.

Substantiation: The standard code language is adequate for dealing with this situation.

## CHAPTER 3 - GENERAL REQUIREMENTS

### 302.1 Definitions

In the definition of BONFIRE, Add the following after the word ceremonial:

pleasure, cooking, warmth or similar purposes having a total fuel area greater than 3 feet in diameter and 2 feet in height.

Recommendation: Reword this amendment as:

**Section 202 General Definition.** Change the definition of 'BONFIRE' to:

An outdoor fire with a fuel area greater than 3 feet in diameter and 2 feet in height utilized for ceremonial, pleasure, cooking, warmth, or similar purposes.

Substantiation: This maintains the same intention but provides clean language.

**FIRE REGULATIONS  
ARLINGTON HEIGHTS MUNICIPAL CODE**

**307.1 General**

Add the following at the end:

Fuel for open burning shall consist only of seasoned firewood and shall be ignited with a small quantity of paper. The fire shall not be utilized for waste disposal purposes.

Recommendation: Maintain this amendment as is.

Substantiation: Keeps people from burning garbage and other undesirable things.

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**307.4.1 Bonfires**

Delete the following from the first sentence:

unless the fire is contained in a barbecue pit.

Recommendation: Maintain this amendment as is.

Substantiation: A *bonfire* by its amended definition will not fit in a barbecue pit, but even it could, we'd still want it 50 feet away from structures.

---

**307.4.3 Portable Outdoor Fireplaces**

Delete the exception and replace it with the following:

Portable outdoor fireplaces used at detached single family dwellings.

Recommendation: Maintain this amendment as is.

Substantiation: We want to maintain the section requirement for attached single-family dwellings and two-family dwellings.

---

**308.1.4 Open Flame Cooking Devices**

Delete Exception 3.

Recommendation: Maintain this amendment as is.

Substantiation: We want to maintain the requirement for sprinklers for other than one- & two-family dwellings.

---

### **308.3 Group A Occupancies**

**Delete exception 1.2.**

Recommendation: Delete this amendment and do not replace.

Substantiation: With approval and following an NFPA standard which is specific for this application, an adequate level of safety will be in place.

---

## **CHAPTER 4 - EMERGENCY PLANNING AND PREPAREDNESS**

### **403.2 Public Safety Plan**

**Delete the following from the first sentence:**

**In other than Group A or E occupancies.**

Recommendation: Delete this amendment and do not replace.

Substantiation: This section of the code is entirely restructured with specific requirements laid out for each occupancy classification type.

---

## **CHAPTER 5 - FIRE SERVICE FEATURES**

### **503.2.5 Dead Ends**

Delete and replace with the following:

See Appendix D, as amended.

Recommendation: Maintain this amendment as is.

Substantiation: Dead ends are specifically covered in amended Appendix D.

---

### **503.3 Marking**

**Delete and replace with the following:**

**The Fire Code Official shall cause and direct that all fire lanes be clearly marked in a manner and under conditions he deems necessary and appropriate; including, but not limited to, the following regulations:**

**1. A sign shall be posted on both sides of an approach of any fire lane stating "NO PARKING - FIRE LANE". These signs shall have arrows indicating the area of parking restriction. Signs bearing the legends "DO NOT BLOCK", "FIRE LANE", "DO NOT ENTER", "EMERGENCY VEHICLES ONLY", or such other appropriate signs that may be directed for placement at positions near, along, or within such fire lanes as necessary.**

**2. In all other areas designated as fire lanes, there shall be posted signs stating**

## **FIRE REGULATIONS**

"NO PARKING - FIRE LANE". These signs shall be posted at intervals not exceeding 75 feet.

3. The Fire Chief or his authorized representative is the only authority for the direction and placement of signs herein. No signs shall be posted without the

## ARLINGTON HEIGHTS MUNICIPAL CODE

direction and approval of the Fire Chief or his authorized representative.

4. No sign shall be placed near, along or within a fire lane which does not conform with the color, size, material, legend and placement standards unless approved by the Fire Chief or his authorized representative.

5. The owner or occupant of the premises at his sole expense shall purchase, place and keep all signs clean and free of obstructions.

6. In all cases, fire lane signs shall be white with red three-inch letters. The dimensions of the sign shall be 12 inches horizontally and 18 inches vertically. These signs shall be installed so that the top of the sign is no less than 6 feet nor more than 6 feet above grade.

7. Snow shall be removed from all fire lanes.

8. There shall be no parking or placing of any objects in, along or within a fire lane or any approach to a fire lane at any time.

9. The direction and warning legend posted on signs shall control and take precedence over any pavement markings in the vicinity.

Recommendation: Delete this amendment and do not replace.

Substantiation: The standard language covers these amendment items, and actually reduces the Fire Chief's discretion for unique circumstances.

---

### 505.1 Address Notification

Change 4 inches to 6 inches

Recommendation: Maintain this amendment as is.

Substantiation: Larger lettering is better for visibility for emergency responders.

---

# FIRE REGULATIONS

## CHAPTER 6 - BUILDING SERVICES AND SYSTEMS

### 603.8 Incinerators

Delete the words "residential type" from the first sentence.

Recommendation: Delete this amendment and do not replace.

Substantiation: If a residential type incinerator was ever installed, we'd want it to have to conform to the listed codes.

---

### 603.8.1 Residential Incinerators

Delete and replace with the following:

Residential incinerators are prohibited.

Recommendation: Delete this amendment and do not replace.

Substantiation: As times are changing with energy needs, recycling options, etc. there may be viable, modern options for this. These have to be approved, so the Village still maintains control on whether they can be installed or not.

---

## CHAPTER 9 - FIRE PROTECTION SYSTEMS

### 903.2 Sprinklers where required

Revise 903.2 to read as follows:

Approved automatic sprinkler systems shall be required in all new buildings, except for open parking structures, open-air portions of Group A-5, and Group F-2 occupancies.

Recommendation: Delete this amendment and replace the intention by amending each specific occupancy classification section.

Substantiation: Better amendment structure will allow for cleaner and clearer interpretation as to intent.

### 903.3.7 Fire Department Connections

Replace "be approved by the fire code official" with:

"comply with the requirements of Section 912."

Recommendation: Delete this amendment and do not replace.

Substantiation: 2018 IFC references section 912.

**903.4.3 Floor Control Valves**

Change "high-rise buildings" to "all buildings"

Recommendation: Rewrite amendment as:

**903.4.3 Floor control valves.** Delete 'in high-rise buildings'.

Substantiation: Maintains the same intent, but this language matches up with the wording of the section in the 2018 IFC.

---

**904.3.5 Monitoring**

Delete and replace with the following:

Alternate automatic fire extinguishing systems shall be monitored in compliance with the provisions of this code and NFPA-72.

Recommendation: Delete this amendment.

Substantiation: The standard language adequately covers the intent of this amendment.

## FIRE REGULATIONS

---

### 905.4 Location of Class I Standpipes Hose Connections

Add the following text after the word "connections":  
with a 2-1/2inch x 1-1/2 inch reducer and cap and chain.

Recommendation: Maintain this amendment as is.

Substantiation: Reducer caps and chains allow for quicker and safer emergency response time.

---

### 905.5 Location of Class II Standpipe Hose Connections

Add the following text after the word "connections":  
with a 1-1/2inch cap and chain.

Recommendation: Maintain this amendment as is.

Substantiation: Reducer caps and chains allow for quicker and safer emergency response time.

### 905.6 Location of Class III Standpipe Hose Connections

Add the following text after the word "connections":  
with a 2Yz inch x 1Yz inch reducer and cap and chain.

Recommendation: Delete this amendment and do not replace.

Substantiation: It is unnecessary as Class I and Class II hose connections are covered in 905.4 and 905.5. Plus the word 'connections' exists twice in the first sentence, so the language structure is not proper and could cause confusion.

### 905.11 Existing Buildings

Add the following at the end:

Elimination of fire hoses from an existing Class III standpipe system is permitted only if all of the following conditions are met:

1. The building is equipped throughout with an automatic sprinkler system in accordance with 903.1.1 or 903.1.2 of the IFC.
2. Provide a 1-1/2" brass cap with chain.
3. Provide a 2-1/2" x 1-1/2" reducer with a 1-1/2" brass cap with a chain on the 2-1/2" fire hose valve.

A permit, including review and approval by the Fire Chief, must be obtained for each building where the fire hoses are to be removed. A final inspection by the Village will be conducted upon completion of the removal.

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Recommendation: Maintain this amendment as is, except to renumber as 905.12.

Substantiation: This provides clear requirements for removal of hose stations.

### **907.2.13 High-rise buildings**

Replace 75 feet with 60 feet

Recommendation: Delete this amendment and do not replace.

Substantiation: The language does not exist in the 2018 IFC.

---

### **907.2.13.2 Fire Department Communications**

Add the following at the end:

Each location of a fire department communication device shall be an independent zone from the control panel in the fire command room.

Recommendation: Maintain this amendment as is, except to renumber as 907.2.12.2.

Substantiation: This provides better ability for fire fighters to communicate.

---

## FIRE REGULATIONS

### 907.6.2.3.1 Public and Common Areas

Add the following at the end:

A visible exterior weatherproof alarm notification device shall be located within closest proximity to the front main entrance of the building or tenant space, as approved by the Fire Chief and the Building Director of duly authorized designees.

Recommendation: Rewrite this amendment as:

**907.5.2.3.1 Public use areas and common use areas.** Add the following language to the end:

A visible exterior weatherproof alarm notification device, emitting a red in color flashing light when activated, shall be located within closest proximity to the front main entrance of the building or tenant space as approved by the Fire Code Official.

Substantiation: This provides better ability for responders to locate the building.

---

### 907.7.3.1 Zoning Indicator Panel

Delete the first sentence and replace with the following:

A zoning indicator panel and the associated controls, or, fire alarm control panel shall be located within the closest proximity to the front main entrance of the building or tenant space as approved by the Fire Chief, Building Director or duly authorized designees.

Recommendation: Delete this amendment and do not replace.

Substantiation: The standard language requires the panel to be placed in an approved location. This amendment could be problematic if the Fire Official determined there was a better place than the front main entrance.

---

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### 912.2.1 Visible Location

Delete and replace with the following:

Fire department connections shall be fully visible and located at the main front entrance of the building and within a maximum travel distance of 100 feet to the nearest fire hydrant or as directed by the Fire Chief or designee.

Recommendation: Maintain this amendment as is.

Substantiation: Provides clarity for placement of the FDC.

---

### 913.4 Valve supervision

Delete methods 3 and 4.

Recommendation: Rewrite amendment as:

**[F] 913.4 Valve supervision.** Amend this section by:

1. Add the following language to the end of method 3: where approved in writing by the Fire Code Official or authorized designee.

2. Deleting method 4.

Substantiation: There have been instances where locking the valves open is deemed safe and a practical solution. Not absolutely excluding it allows for the Fire Code Official to make the determination.

# FIRE REGULATIONS

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## CHAPTER 22 - MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

### 2206.2.3 Above-ground tanks located outside, above grade

Change 12,000 to 1,000 and 48,000 to 3,000.

Recommendation: Maintain amendment written as is, except renumber as 2306.2.3.

Substantiation: Smaller tank capacities reduce hazard levels.

---

### 2206.2.4.1 Tank capacity limits

Change 15,000 to 1,000 and 48,000 to 3,000.

Recommendation: Maintain amendment written as is, except renumber as 2306.2.4.1.

Substantiation: Smaller tank capacities reduce hazard levels.

---

### 2206.2.4.2 Fleet vehicle motor fuel-dispensing facilities

Change 20,000 to 1,000 and 80,000 to 3,000.

Recommendation: Maintain amendment written as is, except renumber as 2306.2.4.2.

Substantiation: Smaller tank capacities reduce hazard levels.

---

### 2206.2.6 Special enclosures

Item #6 - Change 6,000 to 1,000 and 18,000 to 3,000, 20,000 to 1,000, and 80,000 to 3,000.

Recommendation: Maintain amendment written as is, except renumber as 2306.2.6, and drop '20,000 to 1,000, and 80,000 to 3,000' (which appears to be an editorial error).

Substantiation: Smaller tank capacities reduce hazard levels.

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## **2206.5 Secondary Containment**

Add the following at the end:

Secondary containment shall be sized to provide 150% of the capacity of the tank.

Recommendation: Maintain this amendment as is, **except renumber as 2306.5.**

Substantiation: Secondary containment capacity increase helps reduce potential for spillage and hazard level.

---

## **CHAPTER 24 - TENTS AND OTHER MEMBRANE STRUCTURES**

### **2403.2 Approval required**

**Change 400 to 120.**

Recommendation: Delete this amendment and do not replace.

Substantiation: Reduction of tent sizes below 400 square feet has shown to be overkill and unnecessary.

---

## **CHAPTER 34 - FLAMMABLE AND COMBUSTIBLE LIQUIDS**

### **3404.4.8 Empty containers and tank storage**

**Delete the following text from the first sentence:  
,unless free from explosive vapors.**

Recommendation: Delete this amendment and do not replace.

Substantiation: Tanks free from explosive vapors will not be a hazard.

**FIRE REGULATIONS**  
**CHAPTER 38 - LIQUID PETROLEUM GASES**

**3801.1 Scope**

Add the following at the end:

It shall be unlawful for any person to operate a plant for the production of liquefied petroleum gases in the Village. No liquefied petroleum tank shall be filled within the Village.

Recommendation: Maintain this amendment as is, except renumber as 6101.1.

Substantiation: We want to maintain restricting this type of operation.

---

**3803.1 General**

Add the following after the last sentence:

It shall be unlawful to retain on the premises any liquefied petroleum tank in conjunction with a fuel system when the supply of natural gas is sufficient to accommodate the needs of the related occupancy.

Recommendation: Delete this amendment and do not replace.

Substantiation: This language is too vague and subject to inconsistent interpretation. Example- It could be interpreted that a residence must have their BBQ hooked up with natural gas, and not use propane tanks.

---

**3804.2 Maximum capacity within established limits**

Change 2000 to 1000.

Recommendation: Maintain this amendment as is, except renumber as 6104.2.

Substantiation: Smaller tank capacities reduce hazard levels.

# ARLINGTON HEIGHTS MUNICIPAL CODE

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(Ord. #14-040)

## **CHAPTER 46 - CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS**

### **4603.6.6 Group R-2**

Amend the first paragraph to read as follows:

An automatic fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in existing Group R-2 occupancies more than three stories in height or with more than 16 dwelling or sleeping units. Automatic smoke detection shall be provided in all interior common areas of the building where not protected by an automatic sprinkler system.

Recommendation: Delete this amendment and do not replace.

Substantiation: The Life Safety Code, which is a State code, covers these requirements.

---

## **APPENDIX D**

### **D103.4 Dead ends**

Delete and replace with the following:

Dead-end fire apparatus roads shall be provided with a cul-de-sac for turning around all fire apparatus.

Recommendation: Delete amendment and replace with new amendment that changes the intent to allow dead ends where approved by the Fire Chief. See New Amendment Recommendations.

Substantiation: There are circumstances where dead ends may need to be allowed and the Fire Chief would determine these on a case by case basis.

---

### **Figure D103.1**

Delete all figures shown in D103.1 except for the cul-de-sac.

## FIRE REGULATIONS

Recommendation: Delete amendment and replace with new amendment that changes the intent to allow dead ends where approved by the Fire Chief. See New Amendment Recommendations.

Substantiation: There are circumstances where dead ends may need to be allowed and the Fire Chief would determine these on a case by case basis.

---

### **Table D103.4**

Delete the table in its entirety

Recommendation: Delete amendment and replace with new amendment that changes the intent to allow dead ends where approved by the Fire Chief. See New Amendment Recommendations.

Substantiation: There are circumstances where dead ends may need to be allowed and the Fire Chief would determine these on a case by case basis.

---

### **D103.5 Fire apparatus access road gates**

Begin the first sentence with:

As approved by the Fire Code Official,

Recommendation: Maintain amendment as is:

Substantiation: Requires all gates to be approved by the Fire Code Official.

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Recommendation: Hazardous Materials Regulations shall remain as is, except be renumbered in accordance with the updated ordinance numbering scheme.

Substantiation: This Article provides local rules dealing with issues not covered by the IFC.

### Article II Hazardous Materials Regulations

**Section 27-201 Spills Prohibited.** It shall be unlawful, whether intentional or unintentional, for any person, firm or corporation to release, emit, spill or leak any material, which constitutes a hazardous material incident.

**Section 27-202 Definitions.** For the purpose of this Article, the following words and terms shall have the following meanings:

- a. Hazardous Material(s) Incident. The leakage, release, seepage or emission of any substance or material which, due to its quantity, form, concentration, location or other characteristics, is determined by the Fire Chief or an authorized representative, based upon a reasonable degree of scientific certainty, to pose an unreasonable and inordinate risk to the life, health or safety of persons or property or to the ecological balance or the environment, including but not limited to, explosives, compressed gases, flammable and combustible liquids, flammable and water reactive solids, oxidizers and peroxides, poisons, radioactive materials, corrosives or otherwise regulated materials, or any substance determined to be hazardous or toxic under any federal or state law, statute or regulation.
- b. Expenses to the Village. All costs and expenses of the Village incurred in the clean-up or abatement of hazardous materials or the extinguishing of a fire involving hazardous materials, including but not limited to the following: actual labor costs of Village

## FIRE REGULATIONS

personnel involved in the clean-up or abatement of the discharge(s) including Worker's Compensation benefits, fringe benefits and administrative overhead or any other medical expenses, immediate or long term, or personnel exposed to the hazardous material, cost of equipment operation, damage or loss as published and updated by the Village; cost of materials ordered directly by the Village; the cost of any labor and material(s) expended through the retention of other parties to assist in clean-up or abatement and the repair of the property in the area of the incident.

- c. Village. Any Department of the Village of Arlington Heights.

**Section 27-203 Hazardous Material Responses - Cost Reimbursement.** Expense reimbursement to the Village: The person or companies in immediate control or possession of the hazardous material(s) at a hazardous materials incident, to which the Village has responded, shall be responsible for reimbursement to the Village of all expenses incurred by the Village related to the response, the handling or the clean-up of the material(s). There shall be joint and several liability for reimbursement including but not limited to the person(s) or companies in immediate control of the hazardous material(s), the shipper, the manufacturer, the distributor, the transporter of the material(s) involved, or third parties having caused or contributed to the cause of the release of the hazardous material(s).

**Section 27-204 Fault Not to be Considered.** The person or company in immediate control or possession of the hazardous material at a hazardous materials incident shall be liable for any other costs, fees or expenses of whatever kind or nature which are incurred by the Village or its agent in the abatement, clean-up or repair. The fault of the entity in immediate control or possession of this Article, repair shall mean, without exception, the return of the property to the condition that existed immediately prior to the incident.

**Section 27-205 Distribution of Reimbursed Costs - Replacement of Material(s) and/or Other Expenses.** The reimbursement funds may be used to replenish the supplies used by the Village at the scene of the hazardous material(s) incident. Supplies may include, but shall not be limited to, protective clothing, absorbents, neutralizing chemicals, detection monitoring equipment, firefighting forms and chemicals, overtime personnel expenses, laboratory analysis, medical treatment, immediate and long term, for exposed or injured personnel, or equipment or supplies damaged or destroyed by exposure to the hazardous material(s) at the incident.

**Section 27-206 Regulations or Remedies.** Nothing in this Article IV shall be deemed to relieve any party from any other obligation or responsibilities that it might otherwise have under law to any other agency or party.

**Section 27-207 Penalty.** Any person, firm or corporation who violates any provision of this Article shall, upon conviction, be fined not less than \$5 nor more than \$750.

## ARLINGTON HEIGHTS MUNICIPAL CODE

Recommendation: Public Fireworks Displays shall remain as is, except as noted in the section below and except for being renumbered in accordance with the updated ordinance numbering scheme.

Substantiation: This Article provides local rules dealing with issues not covered by the IFC.

### Article III Public Fireworks Displays

Recommendation: Retitle this article as 'Fireworks'

Substantiation: The article addresses more than just fireworks displays, so a broader title is appropriate.

**Section 27-301 Definitions.** Unless the context clearly indicates otherwise, fireworks shall mean and include any combustible or explosive composition, or any substance or combination of substances, or article prepared for the purpose of producing a visible or an audible effect by combustion, explosion, deflagration or detonation, and shall include blank cartridges, toy pistols, toy cannons, toy canes, or toy guns in which explosives are used, the type of balloons which require fire underneath to propel the same, firecrackers, torpedoes, skyrockets, roman candles,

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bombs, or any other devices of like construction and any devices containing any explosive or flammable compound, or any tablets or other device containing any explosive substance, except that the term "fireworks" shall not include sparklers, auto flares, paper caps containing not in excess of an average of 25/100 of a grain of explosive content per cap, and toy pistols, toy canes, toy guns or other devices which use caps, the sale and use of which shall be permitted.

**Section 27-302 Sale of Fireworks.** It shall be unlawful for any person within the Village to own, possess, discharge, manufacture, sell, expose for sale, loan or give away any substance or article of fireworks; except that the Village Manager may issue a permit for public fireworks displays.

Recommendation: **Change the title of the section to 'Fireworks Operations'.**

Substantiation: Since the section deals with more than just the sale of fireworks, a title with a broader scope is appropriate.

**Section 27-303 Permit for Fireworks Display; Application.** An application for a permit to conduct a public fireworks display shall be made in writing to the Village Manager and shall state the name of the person desiring to conduct such display, the place of residence and age, the proposed place for the public display of fireworks and what experience the applicant has had, if any, in the discharge of fireworks. This application shall be sworn to before a notary public or other officer authorized by law to administer oaths.

**Section 27-304 Inspection by Village.** The Village Manager shall, upon receipt of an application for a permit to conduct a public fireworks display, refer it to the appropriate Village departments for an inspection of the location designated in the application for the proposed public display of fireworks. If, after inspection, it is determined that it would not be hazardous to surrounding property or dangerous to any person or persons to permit the public display of fireworks at that location, the application shall be approved and returned to the Village Manager. After the applicant pays a \$115 fee, the Village Manager shall issue a permit, giving the applicant permission, upon satisfactory proof of bond, to conduct a public display of fireworks. The permits shall designate the kinds and quantities of fireworks to be used at such public display, and no other kinds and no greater quantities of fireworks than therein specified shall be used at the public display.

**Section 27-305 Transferability of Permits.** No permit issued under the provisions of this Article shall be transferable.

**Section 27-306 Bond.** All permits issued by the Village Manager are conditional upon the permittee furnishing a bond in an amount deemed adequate by the Director of Building for the payment of all damages which may be caused either to a person or persons or to property by reason of the permitted display, and arising from any acts of the permittee, permittee's agents, employees or subcontractors. Failure to present the Village Manager with proper evidence that the bond has been secured three days prior to the display will automatically result in revocation of the permit and forfeiture of the permit fee.

**Section 27-307 Fireworks Used in Public Display.** Fireworks to be used in a permitted public display may not be brought into the Village until satisfactory evidence of the bond, required by Section 27-606, has been presented to the Village Manager, and in no event more than five days

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before the proposed date of the display. The fireworks shall be stored in a safe place and any fireworks unused during the display shall be immediately disposed of in a manner safe for the particular type of fireworks remaining.

**Section 27-308 Seizure of Fireworks.** The Director of Building, Fire Chief or the Police Chief

## FIRE REGULATIONS

shall seize, take, remove, or cause to be removed at the owner's expense all stocks of fireworks possessed in violation of this Article.

**Section 27-309 Penalties.** Any person violating any provision of this Article shall be fined not less than \$5 nor more than \$750 for each offense; and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

## Recommendations to the Municipal Code Section Chapter 23 Article VII- Amendments to the 2018 IFC and Appendices.

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VII- Adoption of the 2018 International Fire Code and Appendices

Section 23-701 Adoption of the International Fire Code and Amendments.

a. There is hereby adopted by reference the 2018 International Fire Code (IFC), published by the International Code Council, Inc. and specifically includes Appendix D, except as modified by Section 23-701b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

ii. Where an installation or construction system is not specifically covered or referenced by the IFC, the most current published version of the following codes and standards of the National Fire Protection Association (NFPA) shall apply:

18, 36, 50, 50A, 50B, 51, 57, 59, 67, 68, 75, 76, 79, 82, 86C, 86D, 87, 88A, 88B, 91, 92A, 92B, 101A, 102, 115, 122, 140, 150, 214, 231, 231C, 231D, 231E, 231F, 232, 232A, 297, 328, 329, 430, 432, 434, 480, 481, 482, 485, 490, 499, 650, 651, 770, 780, and 855.

Substantiation: Some specialty systems that are installed in the Village are not covered adequately by the IFC. It is important to have a standard to regulate these systems.

**Section 23-701b Modification by Amendment and Deletion of Various Sections of the International Fire Code.** The IFC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFC sections.

**[A] 101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**Add the following section:**

**[A] 101.6 Referenced codes.** All referenced codes shall be considered referenced as adopted by the applicable Sections of Chapter 23 of the Municipal Code and shall include any amendments therein specified.

Substantiation: Clarifies that the referenced codes are intended to also include local amendments.

**[A] 110.4 Violation penalties.** Insert 'fire code violation' for [SPECIFY OFFENSE], \$750.00 for [AMOUNT], and seven (7) for [NUMBER OF DAYS].

Substantiation: Self-explanatory.

**[A] Section 112.4 Failure to comply.** Insert \$250.00 for the not less than amount and \$750.00 for the not more than amount.

Substantiation: Self-explanatory.

**Section 113 Board of Appeals**

Delete this section in its entirety.

Substantiation: The Village does not have a Board of Appeals, hence this section is deleted.

## Chapter 2

**Add the following Section:**

**201.5 Terms defined in the IFC or other ICC codes and the Municipal Code.** Where terms are defined in both the IFC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context

implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

Substantiation: This is an updated version of an existing amendment. The existing amendment stated that the Municipal Code definition always trumps the adopted code definition which could be problematic depending on circumstances. This update allows for the practical, intended application of a definition and gives the Building Official the authority to make that determination.

## Chapter 3

**308.2 Permits required.** Modify this section by deleting list item number 1.

Substantiation: We do not require a permit for this.

**315.2 Permit required.** Delete this section and do not replace.

Substantiation: We do not require a permit for this.

**319.2 Permit required.** Delete this section and do not replace.

Substantiation: We do not require a permit for this.

## Chapter 9

**901.4.6.1 Access.** Modify this section by adding ' in a location approved by the Fire Code Official' after the word 'access' in the first sentence.

Substantiation: Experience has shown that sometimes these rooms are placed in locations in a building that can compromise Fire Department operations. This amendment gives control to the Fire Code Official to have authority of the location of the room.

**901.6.3 Records.** Modify this section by adding to the end, 'The method of submitting records shall be done using systems approved by the Fire Code Official.'

Substantiation: This provides the authority to require testing records to be submitted in a particular format the Village chooses, e.g., through a web-based interface.

Substantiation: The following sections of Section 903 do not change the intent or spirit of our existing amendment, which in essence requires fire sprinklers in all buildings. But the structure of the amendment language has been modified to be specific for each section of the standard code, whereas with our current amendment, it in essence deletes all of these sections and says 'everything shall be sprinkled'. The existing language structure lead to the confusion of whether or not it was intended to sprinkle storage sheds, hence the new structure modifies each particular code section to avoid this type of interpretation problem.

**903.2.1.1 Group A-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 4.

**903.2.1.2 Group A-2.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.3 Group A-3.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.4 Group A-4.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy' that precedes the word 'where'.
2. Deleting list items 1 through 3.

**903.2.1.5 Group A-5.** Modify this section by:

1. Deleting the words 'in excess of 1,000 square feet (93 m<sup>2</sup>)'.

**903.2.1.5.1 Spaces under grandstands or bleachers.** Modify this section by:

1. Deleting the words 'where either of the following exists:' and adding a period after 903.1.1.
2. Deleting list items 1 and 2.

**903.2.1.6 Assembly occupancies on roofs.** Modify this section by:

1. Deleting the words 'with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies'.

**903.2.1.7 Multiple fire areas.** Modify this section by:

1. Deleting the words 'and the combined *occupant load* of these fire areas is 300 or more'.

**903.2.2 Ambulatory care facilities.** Modify this section by:

1. Deleting the words 'where either of the following conditions exist at any time:', and placing a period after the word '*facility*'.
2. Deleting list items 1 and 2.

**903.2.3 Group E.** Modify this section by:

1. Deleting the words 'as follows:' and placing a period after the word 'occupancies'.
2. Deleting list items 1 through 3.

**903.2.4 Group F-1.** Replace this section with:

**903.2.4 Group F-1 and F2.** An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 or Group F-2 occupancy.

**903.2.4.1 Woodworking operations.**

Delete this section in its entirety.

**903.2.5.3 Pyroxylin plastics.** Modify this section by deleting the words 'in quantities exceeding 100 pounds (45kg)'.

**903.2.6 Group I.** Modify this section by deleting all Exceptions.

**903.2.7 Group M.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy'.
2. Deleting list items 1 through 4.

**903.2.9 Group S-1.** Modify this section by:

1. Deleting the words 'where one of the following conditions exists:' and adding a period after the word 'occupancy'.
2. Deleting list items 1 through 5.

**903.2.10 Group S-2 enclosed parking garages.** Replace this section with:

**903.2.10 Group S-2.** An *automatic sprinkler system* shall be provided throughout all buildings with a Group S-2 fire area.

**903.2.11.1 Stories without openings.** Delete this section and subsections in their entirety.

Add the following section:

**903.2.13 Group B.** An *automatic sprinkler system* shall be provided throughout buildings with a Group B fire area.

**903.3.5 Water supplies.** Modify this section by deleting the words 'and the International Plumbing Code', and replacing them with ', the Village of Arlington Heights, and the State of Illinois Plumbing Code.'

Substantiation: The following sections of Section 907 in essence require that all buildings have fire alarm systems. While this is not technically required by existing amendments, practically since all buildings require fire sprinklers, and all fire sprinklers have to be monitored by an alarm system, a fire alarm system is already required in all buildings. These amendments just make that point clear.

**907.2 Where required-new buildings and structures.** Modify this section by adding the following language after the first paragraph:

All new fire alarm systems shall be capable of sending a wireless signal and shall be monitored by Northwest Central Dispatch. Once accepted, fire alarm system shall not be placed out of service unless approved by the Village. Landlords shall be responsible for tenant systems where leases have ended and/or the tenant is otherwise not maintaining the fire alarm system including the connection to Northwest Central Dispatch.

**907.2.1 Group A.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies.

**907.2.4 Group F.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies.

**907.2.5 Group H.** Modify this section by deleting 'H-5' and replacing with 'H'.

**907.2.7 Group M.** Replace the language of this section with:

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.

**907.2.8.1 Manual fire alarm system.** Modify this section by deleting Exception 1.

**907.2.9.1 Manual fire alarm system.** Modify this section by deleting Exceptions 1 and 3.

**907.2.14 High-piled combustible storage areas.** Modify this section by deleting the words 'where required by Section 3206.5'.

**907.2.15 Aerosol storage uses.** Modify this section by deleting the words 'where required by this code'.

**907.6.6 Monitoring.** Modify this section by adding the following language after the first sentence: New fire alarm systems shall be monitored by Northwest Central Dispatch.

**912.6 Backflow protection.** Modify this section by deleting the words 'International Plumbing Code' and replacing them with 'Village of Arlington Heights and the State of Illinois Plumbing Code'.

Substantiation: We are required to follow the State of Illinois Plumbing Code.

**1103.5.3 Group I-2, Condition 2.** Insert 'A date specified in writing from the Village.' for [DATE BY WHICH SPRINKLER SYSTEM MUST BE INSTALLED]

Substantiation: If such a situation is discovered, we'd have to work with the business to come up with a plan, so a hard date cannot be inserted.

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

Substantiation: We don't want these tanks in these districts because the danger risk is too great.

**5706.2.4.4 Locations where above-ground tanks are prohibited.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

Substantiation: We don't want these tanks in these districts because the danger risk is too great.

**5806.2 Limitations.** Insert zoning districts R-E, R-1, R-2, R-3, and R-4 for [JURISDICTION TO SPECIFY].

Substantiation: We don't want these tanks in these districts because the danger risk is too great.

**6104.2 Maximum capacity within established limits.** Insert zoning districts M-1 and M-2 for [JURISDICTION TO SPECIFY].

Substantiation: We want this storage only in these districts to limit the danger risk.

Appendix D

**D103.4 Dead ends.** Delete the language of this section entirely and replace with:

**Dead ends must be approved by the Fire Chief.**

Substantiation: There are designs where we don't want to allow 150' or less dead end without a turnaround, and longer distances where a turnaround may not be feasible. This amendment allows greater flexibility in determining circumstances on a case-by-case basis.

**Table D103.4 Requirements For Dead-end Fire Apparatus Access Roads.** Delete this table and do not replace.

Substantiation: There are designs where we don't want to allow 150' or less dead end without a turnaround, and longer distances where a turnaround may not be feasible. Deleting the table avoids confusion.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Fuel Gas Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Fuel Gas Code

**ATTACHMENTS:**

| <b>Description</b>  | <b>Type</b>  |
|---|--------------|
| IFGC - 2018 IFGC Adoption Language  | Presentation |
| IFGC - 2018 IFGC Adoption Language-<br>No Highlighting                          | Presentation |
| IFGC Chapter 23 Article 6 IFGC Marked<br>Up                                     | Presentation |
| IFGC - New Recommendationals to the<br>Municipal Code Chapter 23 Article 5 IFGC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article V- Regulations and Standards for Fuel Gas Systems,  
Section 23-501- Adoption of the 2018 International Fuel Gas Code

a. There is hereby adopted by reference the 2018 International Fuel Gas Code (IFGC), published by the International Code Council, Inc., except as modified by Section 23-501 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IFGC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFGC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Add this section:

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X'.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article V- Regulations and Standards for Fuel Gas Systems,  
Section 23-501- Adoption of the 2018 International Fuel Gas Code

a. There is hereby adopted by reference the 2018 International Fuel Gas Code (IFGC), published by the International Code Council, Inc., except as modified by Section 23-501 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IFGC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFGC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Add this section:

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X'.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

**Article VI Regulations and Standards for Fuel Gas and Related Systems;  
Adoption of the International Fuel Gas Code**

**Section 23-601 Adoption of the International Fuel Gas Code**

- a. There is hereby adopted by reference the 2009 Edition of the International Fuel Gas Code (IFGC) for the purpose of establishing rules and regulations for governing fuel gas systems, gas-fired appliances and related systems for use in buildings, structures and premises, except as modified by this Article.
- b. The International Fuel Gas Code shall:
  1. Regulate fuel gas and related systems in other than one- and two- family dwellings regulated by Article III, where the provisions of this Chapter 23 specifically cover the subject matter in question.

**ARLINGTON HEIGHTS MUNICIPAL CODE**

2. In the event that a detail or regulation is not covered by the 2009 Edition of the IFGC then the applicable provisions of the ASHRAE Standards, applicable provisions of the Village Code shall apply..

**Section 23-602 Modification by Amendment and Deletion of Various Sections of the International Fuel Gas Code.** The 2009 Edition of the International Fuel Gas Code adopted by this Chapter is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the International Fuel Gas Code. To the extent any provision of the IMC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

**Chapter 4 - Gas Piping Installations**

**403.4.3 Copper and brass**

Delete existing text and replace with the following: Copper and brass pipe shall not be used.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

**403.4.4 Aluminum**

Delete existing text and replace with the following:  
Aluminum-alloy pipe shall not be used

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

#### **403.5.2 Copper and brass tubing**

Delete existing text and replace with the following: Copper and brass tubing shall not be used.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

#### **403.5.3 Aluminum tubing**

Delete existing text and replace with the following:  
Aluminum-alloy tubing shall not be used in exterior locations or underground.

### **Chapter 5 - Chimneys and Vents**

#### **501.8 Appliances not required to be vented**

Delete items 1 and 2.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

#### **505.1.1 Commercial cooking appliances vented by exhaust hoods**

Delete existing text and replace with the following:  
Where commercial cooking appliances are vented by means of a Type I or II kitchen exhaust hood system that serves such appliances, the exhaust hood system shall comply with the applicable sections of the Municipal Code.

Recommendation: Delete this amendment and do not replace.

Substantiation: We want to maintain the standard code language for interlocking commercial cooking appliances and exhaust hoods.

## Recommendations to the Municipal Code Chapter 23, Article V- Amendments to the 2018 IFGC

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article V- Regulations and Standards for Fuel Gas Systems,  
Section 23-501- Adoption of the 2018 International Fuel Gas Code

a. There is hereby adopted by reference the 2018 International Fuel Gas Code (IFGC), published by the International Code Council, Inc., except as modified by Section 23-501 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IFGC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IFGC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**Add this section:**

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X'.

Substantiation: There are 5 references to the IPC throughout the IFGC. This covers all of them in one amendment instead of 5.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

Substantiation: The IBC will be used for the administration and enforcement language which will avoid potential conflicts and confusion.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Mechanical Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Mechanical Code

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| IMC- 2018 IMC Adoption Language  | Presentation |
| IMC - 2018 IMC Adoption Language -No Highlighting                      | Presentation |
| IMC Chapter 23 Article 5 IMC Marked Up                                 | Presentation |
| IMC New Recommendations to the Municipal Code Chapter 23 Article 4 IMC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VI- Regulations and Standards for Mechanical Systems,  
Section 23-401- Adoption of the 2018 International Mechanical Code

a. There is hereby adopted by reference the 2018 International Mechanical Code (IMC), published by the International Code Council, Inc., except as modified by Section 23-401 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

**Add this section:**

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VI- Regulations and Standards for Mechanical Systems,  
Section 23-401- Adoption of the 2018 International Mechanical Code

a. There is hereby adopted by reference the 2018 International Mechanical Code (IMC), published by the International Code Council, Inc., except as modified by Section 23-401 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Add this section:

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

**Article V Regulations and Standards for  
Heating, Ventilation, Air-Conditioning and Related Mechanical Systems;  
Adoption of the International Mechanical Code**

**ARLINGTON HEIGHTS MUNICIPAL CODE**

**Section 23-501 Adoption of the International Mechanical Code.**

- a. There is hereby adopted by reference the 2009 Edition of the International Mechanical Code (IMC) for the purpose of establishing rules and regulations for governing the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of heating, ventilation, air-conditioning and related mechanical systems, except as modified by this Chapter of the Municipal Code.
- b. The International Mechanical Code shall:
  1. Regulate heating, ventilation, air-conditioning and related mechanical systems in other than one and two family dwellings regulated by Article III, where the provisions of this Chapter 23 specifically cover the subject matter in question.
  2. In the event that a detail or regulation is not covered by the 2009 Edition of the International Mechanical Code, then the provisions of the ASHRAE Standards, applicable provisions of the Village Code shall apply.

**Section 23-502 Modification by Amendment and Deletion of Various Sections of the International Mechanical Code.** The 2009 Edition of the International Mechanical Code adopted by this Chapter is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the International Mechanical Code. To the extent any provision of the IMC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

**Chapter 3 - General Provisions**

**304.6 Public garages**

Add the following after the last sentence.

Appliances described in this Section shall be prohibited from serving areas other than the public garage.

Recommendation: Delete this amendment and do not replace.

Substantiation: There are many conceivable instances of an appliance located in a public garage that could serve other parts of the building, such as refrigeration condensers, water heaters, etc. This amendment is too restrictive and vague.

### **304.7 Private garages**

Add the following after the last sentence:

**Appliances described in this Section shall be prohibited from serving areas other than the private garage.**

Recommendation: Delete this amendment and do not replace.

Substantiation: There are many conceivable instances of an appliance located in a private garage that could serve other parts of the building, such as refrigeration condensers, water heaters, etc. This amendment is too restrictive and vague.

## **Chapter 5 - Exhaust Systems**

### **505.1 Domestic systems**

**Delete Exception 1.**

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment. If an appliance has been tested to be ductless, we should rely on this testing standard and listing as being satisfactory. This type of system may be an only solution in some instances, so we don't want to eliminate this option.

## **Chapter 6 - Duct Systems**

### **602.3 Stud cavity and joist space plenums**

**Delete this section in its entirety.**

Recommendation: Delete this section and do not replace.

Substantiation: There may be instances where utilizing a stud or joist space as a plenum is a practical solution, so we should not restrict this.

### **603.6.1.1 Duct length**

**Delete and replace with the following:**

**Flexible air ducts shall be limited to 8 feet.**

Recommendation: Delete this amendment and do not replace.

Substantiation: While there have been some installation and poor workmanship challenges with flexible ducts, they can most often be corrected. Flexible ducts are often a practical solution to ducting through truss joists, tight areas, and similar, hence should not be restricted from use.

### **603.6.2.1 Connector length**

Delete and replace with the following:

Flexible air connectors shall be limited to 8 feet.

Recommendation: Delete this amendment and do not replace.

Substantiation: Lowering the standard allowable length from 14 feet to 8 feet provides no perceivable safety improvement, and creates unnecessary potential difficulty in the installation of an air distribution system.

### **603.17 Registers, grilles and diffusers**

Add the following after the last sentence:

For residential uses under Article IV of Chapter 23 of the Municipal Code, cold air returns shall be located both high and low in the occupied space.

Recommendation: Delete this amendment and do not replace.

Substantiation: Depending on construction type, this may be impractical to install. Additionally, there are too many variables in an air distribution system to know if this provides any advantage, but it will always be more costly. This decision should be left to the designer.

## **Chapter 9 - Special, Appliances, Fireplaces And Solid Fuel Burning Equipment**

### **918.6 Prohibited Sources**

In item 1, delete 10 feet and replace it with 12 feet.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

## **Chapter 11 - Refrigeration**

### **1101.4 Water connection**

Delete and replace with the following:

Water supply and discharge connections associated with refrigeration systems shall be made in accordance with Chapter 24 of the Municipal Code. The use of open-loop water cooled equipment is prohibited. Exemptions from this prohibition may be granted by the Director of Public Works upon application submitted to the Director of Public Works for such exemption as part of the building permit submittal process.

Recommendation: Delete this amendment and do not replace.

Substantiation: There are 19 references to the International Plumbing Code in the IMC. We will be overriding these references with a blanket statement amendment- See New Amendment Recommendations.

## Chapter 12 - Hydronic Piping

### 1209.3.1 Steel pipe joints

Delete this section in its entirety.

Recommendation: Delete this amendment and do not replace.

Substantiation: Clarity on how to connect different types of embedded pipe joints is important to maintain in the code.

### 1209.3.2 Copper tubing joints

Delete this section in its entirety.

Recommendation: Delete this amendment and do not replace.

Substantiation: Clarity on how to connect different types of embedded pipe joints is important to maintain in the code.

## Recommendations to the Municipal Code Chapter 23, Article VI- Amendments to the 2018 IMC

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VI- Regulations and Standards for Mechanical Systems,  
Section 23-401- Adoption of the 2018 International Mechanical Code

a. There is hereby adopted by reference the 2018 International Mechanical Code (IMC), published by the International Code Council, Inc., except as modified by Section 23-401 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**Add this section:**

**102.8.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

Substantiation: There are 19 references to the IPC throughout the IMC. This covers all of them in one amendment instead of 19.

**Chapter 1, Part 2- Administration and Enforcement.** Delete this Part in its entirety and do not replace.

Substantiation: The IBC will be used for the administration and enforcement language which will avoid potential conflicts and confusion.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Property Maintenance Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Property Maintenance Code

**ATTACHMENTS:**

| <b>Description</b>  | <b>Type</b>  |
|---|--------------|
| IPMC - 2018 IPMC Adoption Language  | Presentation |
| IPMC - 2018 IPMC Adoption Language-<br>No Highlighting                          | Presentation |
| IPMC Chapter 26 Property Maintenance<br>Marked UP                               | Presentation |
| IPMC New Recommendations to the<br>Municipal Code Chapter 23 Article 16<br>IPMC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Building and Property Maintenance,  
Section 23-1601- Adoption of the 2018 International Property Maintenance Code

a. There is hereby adopted by reference the 2018 International Property Maintenance Code (IPMC), published by the International Code Council, Inc., except as modified by Section 23-1601 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IPMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IPMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Add this section:

**102.7.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**107.4 Unauthorized tampering.** After the word 'tags', add ', stop work orders, placards, '.

**302.4 Weeds.** Insert '12 inches from the ground on vacant land, or 8 inches from the ground on occupied premises' for [JURISDICTION TO INSERT HEIGHT IN INCHES].

**304.14 Insect screens.** Delete 'During the period from [DATE] to [DATE], ' and capitalize the word 'every'.

**404.4 .1 Room area.** Place a period after '70 square feet (6.5 m<sup>2</sup>)' and delete the remaining language.

**404.5 Overcrowding.** Delete this section and subsections including Table 404.5 in their entirety and do not replace.

**404.6 Efficiency unit.** Delete this section in its entirety and do not replace.

**602.3 Heat supply.** Delete the existing language and replace with the following:  
'Every owner and operator of any building who rents, leases or lets one or more dwelling unit, dormitory or guest room on terms, either express or implied, shall supply sufficient heat to

provide a minimum temperature of 68°F from 6:30 a.m. to 10:30 p.m., and a minimum temperature of 65°F at all other times.’; and delete Exception number 2 in its entirety and do not replace.

602.4 Occupiable workspaces. **Delete ‘during the period from [DATE] to [DATE] ‘**

### **Section 23-1602 Vacant Land Maintenance.**

Any property in the Village that remains undeveloped for a period of longer than 60 days or on which improvements have been demolished, and for which no application for redevelopment has been provided shall be appropriately landscaped. All pavement may be required to be removed and replaced with appropriate landscaping or maintained in a manner acceptable to the Director of Building or designee. For the purposes of this Article, appropriately landscaped shall consist of, at a minimum: grading to prevent water run-off on adjacent properties, four inches of topsoil, and grass or equivalent landscaping.

No person shall change the grade of a vacant lot by depositing dirt, refuse, garbage, or material of any nature whatsoever, without the approval of the Director of Building. If such change of grade shall take place without such approval, the owner or person in control shall be directed by the Village Manager to restore the grade of said lot. If, after ten days' notice, such restoration shall not have been made, the Village Manager may enter upon the lot and restore the grade and bill the owner for the cost of restoring the grade. If such bill is not paid, the cost of restoration shall be collected in an appropriate action brought by the Village in any court of competent jurisdiction.

All landscaping must be maintained in accordance with Chapters 19 and 28 of the Municipal Code of the Village of Arlington Heights.

All utilities must be appropriately terminated.

### **Section 23-1603 Unoccupied or Abandoned Building Maintenance.**

For purposes of this Article, a vacant building is any commercial building that remains unoccupied for 60 days or more.

All vacant buildings and accessory structures shall be maintained in accordance with the property maintenance requirements in the Municipal Code of the Village of Arlington Heights.

All signs and supporting structures must be removed in accordance with Chapter 30 of the Municipal Code of the Village of Arlington Heights.

The owner of any vacant building shall not allow the following on the property:

1. Buildings that are boarded up, partially destroyed, or left unreasonably in a state of partial construction for a minimum period of 60 days;

2. Broken windows in any structures;
3. Illegal parking of vehicles;
4. Accessory buildings and building exteriors, which are maintained in such condition as to become defective, unsightly, or in deterioration or disrepair;
5. Lumber, trash, debris or solid waste, as defined in Chapter 19 of the Municipal Code, on the property;
6. Abandoned, discarded or unused objects, vehicles or equipment;
7. Stagnant water;
8. Any device, decoration, design, fence or structure which is unsightly by reason of its condition or because it is in violation of any other Village ordinance, or
9. Dirt piles, broken pavement, concrete and asphalt debris.

#### **Section 23-1604 Corrective Measures.**

The Village Manager or designee shall serve a notice of violation or order on the property owner through certified mail or personal service. This order shall direct the Owner to make necessary repairs, to discontinue any illegal action or condition and to take any other necessary corrective measures.

If the property owner fails to correct the violation within 30 days after written notification is sent, the property owner shall be fined not less than \$100 and not more than \$750 notwithstanding any other penalties, actions or proceedings. Each day that a violation exists constitutes a separate offense.

The Village Manager or designee may undertake such repairs or action when, in his or her judgment, the failure to make them will endanger the public health, safety or welfare and the owner fails, neglects or refuses to make repairs or other corrective action called for by the notice of violations within 45 days after written notification is sent by certified mail or personally served. In accordance with State law, the Village Manager or designee shall apply to the Circuit Court of Cook County for an order authorizing action to be taken or for an order requiring the owner to take the necessary action. Any reasonable expense incurred by the Village in making such repairs or undertaking other corrective measures shall be a charge against the owner, which may be recovered, in an appropriate action at law.

In addition to all other remedies provided by law, the Village shall have a lien on the property for the reasonable costs of the repairs or corrective measures. The lien shall be superior to all other liens and encumbrances except tax liens. Within 180 days after the cost is incurred, the Village shall cause to be filed a notice of lien in the Office of the Recorder of Cook County. The notice shall consist of a sworn statement setting out: (1) a description of the real estate

sufficient for identification; (2) the amount of money representing the cost and expense incurred; and (3) the date or dates when the cost and expense were incurred by the Village.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Building and Property Maintenance,  
Section 23-1601- Adoption of the 2018 International Property Maintenance Code

a. There is hereby adopted by reference the 2018 International Property Maintenance Code (IPMC), published by the International Code Council, Inc., except as modified by Section 23-1601 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IPMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IPMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Add this section:

**102.7.3 Plumbing code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**107.4 Unauthorized tampering.** After the word 'tags', add ', stop work orders, placards, '.

**302.4 Weeds.** Insert '12 inches from the ground on vacant land, or 8 inches from the ground on occupied premises' for [JURISDICTION TO INSERT HEIGHT IN INCHES].

**304.14 Insect screens.** Delete 'During the period from [DATE] to [DATE], ' and capitalize the word 'every'.

**404.4 .1 Room area.** Place a period after '70 square feet (6.5 m<sup>2</sup>)' and delete the remaining language.

**404.5 Overcrowding.** Delete this section and subsections including Table 404.5 in their entirety and do not replace.

**404.6 Efficiency unit.** Delete this section in its entirety and do not replace.

**602.3 Heat supply.** Delete the existing language and replace with the following:  
'Every owner and operator of any building who rents, leases or lets one or more dwelling unit, dormitory or guest room on terms, either express or implied, shall supply sufficient heat to

provide a minimum temperature of 68°F from 6:30 a.m. to 10:30 p.m., and a minimum temperature of 65°F at all other times.’; and delete Exception number 2 in its entirety and do not replace.

602.4 Occupiable workspaces. **Delete ‘during the period from [DATE] to [DATE] ‘**

#### **Section 23-1602 Vacant Land Maintenance.**

Any property in the Village that remains undeveloped for a period of longer than 60 days or on which improvements have been demolished, and for which no application for redevelopment has been provided shall be appropriately landscaped. All pavement may be required to be removed and replaced with appropriate landscaping or maintained in a manner acceptable to the Director of Building or designee. For the purposes of this Article, appropriately landscaped shall consist of, at a minimum: grading to prevent water run-off on adjacent properties, four inches of topsoil, and grass or equivalent landscaping.

No person shall change the grade of a vacant lot by depositing dirt, refuse, garbage, or material of any nature whatsoever, without the approval of the Director of Building. If such change of grade shall take place without such approval, the owner or person in control shall be directed by the Village Manager to restore the grade of said lot. If, after ten days' notice, such restoration shall not have been made, the Village Manager may enter upon the lot and restore the grade and bill the owner for the cost of restoring the grade. If such bill is not paid, the cost of restoration shall be collected in an appropriate action brought by the Village in any court of competent jurisdiction.

All landscaping must be maintained in accordance with Chapters 19 and 28 of the Municipal Code of the Village of Arlington Heights.

All utilities must be appropriately terminated.

#### **Section 23-1603 Unoccupied or Abandoned Building Maintenance.**

For purposes of this Article, a vacant building is any commercial building that remains unoccupied for 60 days or more.

All vacant buildings and accessory structures shall be maintained in accordance with the property maintenance requirements in the Municipal Code of the Village of Arlington Heights.

All signs and supporting structures must be removed in accordance with Chapter 30 of the Municipal Code of the Village of Arlington Heights.

The owner of any vacant building shall not allow the following on the property:

1. Buildings that are boarded up, partially destroyed, or left unreasonably in a state of partial construction for a minimum period of 60 days;

2. Broken windows in any structures;
3. Illegal parking of vehicles;
4. Accessory buildings and building exteriors, which are maintained in such condition as to become defective, unsightly, or in deterioration or disrepair;
5. Lumber, trash, debris or solid waste, as defined in Chapter 19 of the Municipal Code, on the property;
6. Abandoned, discarded or unused objects, vehicles or equipment;
7. Stagnant water;
8. Any device, decoration, design, fence or structure which is unsightly by reason of its condition or because it is in violation of any other Village ordinance, or
9. Dirt piles, broken pavement, concrete and asphalt debris.

#### **Section 23-1604 Corrective Measures.**

The Village Manager or designee shall serve a notice of violation or order on the property owner through certified mail or personal service. This order shall direct the Owner to make necessary repairs, to discontinue any illegal action or condition and to take any other necessary corrective measures.

If the property owner fails to correct the violation within 30 days after written notification is sent, the property owner shall be fined not less than \$100 and not more than \$750 notwithstanding any other penalties, actions or proceedings. Each day that a violation exists constitutes a separate offense.

The Village Manager or designee may undertake such repairs or action when, in his or her judgment, the failure to make them will endanger the public health, safety or welfare and the owner fails, neglects or refuses to make repairs or other corrective action called for by the notice of violations within 45 days after written notification is sent by certified mail or personally served. In accordance with State law, the Village Manager or designee shall apply to the Circuit Court of Cook County for an order authorizing action to be taken or for an order requiring the owner to take the necessary action. Any reasonable expense incurred by the Village in making such repairs or undertaking other corrective measures shall be a charge against the owner, which may be recovered, in an appropriate action at law.

In addition to all other remedies provided by law, the Village shall have a lien on the property for the reasonable costs of the repairs or corrective measures. The lien shall be superior to all other liens and encumbrances except tax liens. Within 180 days after the cost is incurred, the Village shall cause to be filed a notice of lien in the Office of the Recorder of Cook County. The notice shall consist of a sworn statement setting out: (1) a description of the real estate

sufficient for identification; (2) the amount of money representing the cost and expense incurred; and (3) the date or dates when the cost and expense were incurred by the Village.

**ARLINGTON HEIGHTS MUNICIPAL CODE**

**CHAPTER 26 PROPERTY MAINTENANCE**

**Article I Adoption of the International Property Maintenance Code**

Section 26-101 Adoption of the International Property Maintenance Code

Section 26-102 Modification by Amendment and Deletion of Various Sections of the  
International Property Maintenance Code

Section 26-103 Notice

Section 26-104 Vacant Land Maintenance

Section 26-105 Unoccupied or Abandoned Building Maintenance

Section 26-106 Corrective Measures

## PROPERTY MAINTENANCE

### Article I Regulations and Standards for Property Maintenance and Upkeep; Adoption of the International Property Maintenance Code

#### Section 26-101 Adoption of the International Property Maintenance Code

- a. There is hereby adopted by reference the 2009 Edition of the International Property Maintenance Code (IPMC) for the purpose of establishing rules and regulations for governing the conditions and maintenance of all buildings, structures, and appurtenances thereto, and all premises, by providing standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit occupancy and use; and the condemnation of building, structures and premises unfit for human use, and to order demolition or removal of such existing structures and/or conditions, except as modified by other provisions in the Municipal Code.
- b. The International Property Maintenance Code shall:
  1. Regulate all buildings, structures and premises where the provisions of this Chapter specifically cover the subject matter in question.
  2. In the event that a detail, condition or regulation is not covered by the 2009 Edition of the International Property Maintenance Code or the Arlington Heights Municipal Code, the Building Director shall determine the measures that shall apply.

**Section 26-102 Modification by Amendment and Deletion of Various Sections of the International Property Maintenance Code.** The 2009 Edition of the International Property Maintenance Code adopted by this Chapter is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the International Property Maintenance Code. Appendix A is specifically adopted and the provisions in that Appendix are mandatory. To the extent any provision of the IPMC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

### CHAPTER 3 - GENERAL REQUIREMENTS

#### 302.4 Weeds

Add, in the second line, after in excess of:

12 inches in height from the ground on vacant land, or in excess of 8 inches from the ground on occupied premises

Recommendation: Rewrite amendment as:

**302.4 Weeds.** Insert '12 inches from the ground on vacant land, or 8 inches from the ground on occupied premises' for **[JURISDICTION TO INSERT HEIGHT IN INCHES]**.

Substantiation: Maintains the same intent, but the language is cleaner.

## ARLINGTON HEIGHTS MUNICIPAL CODE

### 303.2 Enclosures

Replace "48 inches" with "60 inches".

Recommendation: Delete this amendment and do not replace.

Substantiation: This change is inconsistent with the current requirements for barrier heights in Appendix G of the IRC and Section 3109 of the IBC. The standard barrier height of 48 inches in the 2018 ISPSC will not be recommended for an amendment.

### 304.14 Insect Screens

Delete the following text from the first sentence:  
During the period from [DATE] to [DATE],

Recommendation: Keep this amendment, except add the language 'and capitalize the word 'every'.

Substantiation: We want to require screens year round.

## CHAPTER 4-LIGHT, VENTILATION AND OCCUPANCY LIMITATIONS

### 404.3 Alternative devices

Replace the text "International Building Code" with "applicable requirements of the Arlington Heights Municipal Code."

Recommendation: Delete this amendment and do not replace.

Substantiation: Foundational ordinance language will clarify that when codes are referenced, that it shall mean the codes as referenced per the Municipal Code and will include any amendments also adopted. NOTE- This is section 401.3, not 404.3. 404.3 is presumed to be an editorial error.

### 404.3 Minimum ceiling heights

Replace the text "7 feet" with "6 feet 8 inches" throughout this Section.

Recommendation: Delete this amendment and do not replace.

Substantiation: Inconsistency with the IRC and IBC will be problematic. E.g., can an existing structure be allowed to have a lower ceiling height?? Also, older codes typically had higher ceiling requirements than current codes, so this situation will not be prevalent.

## PROPERTY MAINTENANCE

### 404.5 Overcrowding

Delete existing text and replace with the following:

Dwelling units shall not be occupied by more occupants than permitted by the minimum area requirements of Table 404.5. A space, room or dwelling unit shall be deemed by this code to be overcrowded when occupied by more occupants than permitted.

Recommendation: Delete this amendment and see New Recommendations.

Substantiation: There is extreme difficulty in enforcing overcrowding regulations, plus the courts have not ruled favorably in attempted enforcement of these types of regulations. It is recommended to take a laissez-faire approach to this issue.

### Table 404.5

Insert new Table 404.5 to read as follows:

**MINIMUM AREA REQUIREMENTS**

| ROOM<br>OR<br>SPACE | MINIMUM AREA IN SQUARE FEET   |                     |                        |
|---------------------|---|---------------------|------------------------|
|                     | 1 to 2<br>Occupants   | 3 to 5<br>Occupants | 6 or more<br>Occupants |
| Living room         | No requirements   | 120                 | 150                    |
| Dining room         | No requirements   | 80                  | 100                    |
| Bedrooms            | Shall comply with Section 404.4   |                     |                        |
| Sleeping area       | The minimum occupancy area required by this Table shall not be included as a sleeping area in determining the minimum occupancy area for sleeping purposes. All sleeping areas shall comply with Section 404.4.                                     |                     |                        |
| Combined spaces     | Combined living room and dining room spaces shall comply with the requirements of this Table if the total area is equal to that required for separate rooms and if the space is located so as to function as a combination living room/dining room. |                     |                        |

Recommendation: Delete this amendment and see New Recommendations.

Substantiation: There is extreme difficulty in enforcing overcrowding regulations, plus the courts have not ruled favorably in attempted enforcement of these types of regulations. It is recommended to take a laissez-faire approach to this issue.

# ARLINGTON HEIGHTS MUNICIPAL CODE

## CHAPTER 6 - MECHANICAL AND ELECTRICAL REQUIREMENTS

### 602.3 Heat supply

Delete existing text and replace with the following:

Every owner and operator of any building who rents, leases or lets one or more dwelling unit, dormitory or guest room on terms, either express or implied, shall supply sufficient heat to provide a minimum temperature of 68°F from 6:30 a.m. to 10:30 p.m., and a minimum temperature of 65°F at all other times.

Delete the following:

**The last sentence in Exception 1 and** Exception 2 in its entirety.

Recommendation: Modify this amendment by deleting 'The last sentence in Exception 1 and '. The rest shall remain as is.

Substantiation: A basis is needed for determining the winter outdoor design temperature. The remaining assures that heat is provided whenever necessary, but allows for a reduction during night time hours so landlords can save on energy costs.

### 602.4 Occupiable Work Spaces

Delete the following text:

during the period from [DATE] to [DATE]

Recommendation: Keep this amendment written as is.

Substantiation: Assures businesses provide heat for employees whenever necessary.

### **604.2 Service**

**Delete the existing text and replace it with the following:**

**The size and usage of appliances and equipment, and the electrical service for dwelling units shall be in accordance with the Electrical Regulations in the Municipal Code.**

Recommendation: Delete this amendment and do not replace.

Substantiation: Foundational ordinance language will clarify that when codes are referenced, that it shall mean the codes as referenced per the Municipal Code and will include any amendments also adopted.

## PROPERTY MAINTENANCE

### CHAPTER 7 - FIRE SAFETY REQUIREMENTS

Delete this chapter in its entirety and see Chapter 27 of the Municipal Code for Fire Regulations.

Recommendation: Delete this amendment and do not replace.

Substantiation: The topics covered may be useful for enforcement action. Also, there appear to be no conflicts between the IPMC and the IFC.

**Section 26-103 Notice.** A property owner must provide notice to the Director of Building within 30 days when a business located on the property ceases to operate. The notice must state:

- a. The date operations ceased;
- b. The cause for ceasing operations;
- c. The date for any new operations or occupancy.

Recommendation: Delete this ordinance and do not replace.

Substantiation: There is no purposeful course of action to be taken for failure to comply. Also, the cause for ceasing an operation may not be known by the property owner, and they may not have a new tenant to provide a date for a new occupancy. The IFC is amended to require that fire systems that are required are kept active by the property owner even when it may have been under the control of the tenant while the tenant existed--this is a much better way of maintaining and enforcing safety in a vacant tenant space.

### **Section 26-104 Vacant Land Maintenance.**

- a. Any property in the Village that remains undeveloped for a period of longer than 60 days or on which improvements have been demolished, and for which no application for redevelopment has been provided shall be appropriately landscaped. All pavement may be required to be removed and replaced with appropriate landscaping or maintained in a manner acceptable to the Director of Building or designee. For the purposes of this Article, appropriately landscaped shall consist of, at a minimum: grading to prevent water run-off on adjacent properties, four inches of topsoil, and grass or equivalent landscaping.
- b. No person shall change the grade of a vacant lot by depositing dirt, refuse, garbage, or material of any nature whatsoever, without the approval of the Director of Building. If such change of grade shall take place without such approval, the owner or person in control shall be directed by the Village Manager to restore the grade of said lot. If, after ten days' notice, such restoration shall not have been made, the Village Manager may enter upon the lot and restore the grade and bill the owner for the cost of restoring the grade. If such bill is not paid, the cost of restoration shall be collected in an appropriate

**ARLINGTON HEIGHTS MUNICIPAL CODE**

action brought by the Village in any court of competent jurisdiction.

- b. All landscaping must be maintained in accordance with Chapters 19 and 28 of the Municipal Code of the Village of Arlington Heights.
- c. All utilities must be appropriately terminated.

Recommendation: Keep this ordinance written as is, **except renumber appropriately.**

Substantiation: This covers specific circumstances we want to be able to enforce.

**Section 26-105 Unoccupied or Abandoned Building Maintenance.**

- a. For purposes of this Article, a vacant building is any commercial building that remains unoccupied for 60 days or more.
- b. All vacant buildings and accessory structures shall be maintained in accordance with the property maintenance requirements in the Municipal Code of the Village of Arlington Heights.
- c. All signs and supporting structures must be removed in accordance with Chapter 30 of the Municipal Code of the Village of Arlington Heights.
- d. The owner of any vacant building shall not allow the following on the property:
  - 1. Buildings that are boarded up, partially destroyed, or left unreasonably in a state of partial construction for a minimum period of 60 days;
  - 2. Broken windows in any structures;
  - 3. Illegal parking of vehicles;
  - 4. Accessory buildings and building exteriors, which are maintained in such condition as to become defective, unsightly, or in deterioration or disrepair;
  - 5. Lumber, trash, debris or solid waste, as defined in Chapter 19 of the Municipal Code, on the property;
  - 6. Abandoned, discarded or unused objects, vehicles or equipment;
  - 7. Stagnant water;
  - 8. Any device, decoration, design, fence or structure which is unsightly by reason of its condition or because it is in violation of any other Village ordinance, or
  - 9. Dirt piles, broken pavement, concrete and asphalt debris.

## PROPERTY MAINTENANCE

Recommendation: Keep this ordinance written as is, except renumber appropriately.

Substantiation: This covers specific circumstances we want to be able to enforce.

### Section 26-106 Corrective Measures.

- a. The Village Manager or designee shall serve a notice of violation or order on the property owner through certified mail or personal service. This order shall direct the Owner to make necessary repairs, to discontinue any illegal action or condition and to take any other necessary corrective measures.
- b. If the property owner fails to correct the violation within 30 days after written notification is sent, the property owner shall be fined not less than \$100 and not more than \$750 notwithstanding any other penalties, actions or proceedings. Each day that a violation exists constitutes a separate offense.
- c. The Village Manager or designee may undertake such repairs or action when, in his or her judgment, the failure to make them will endanger the public health, safety or welfare and the owner fails, neglects or refuses to make repairs or other corrective action called for by the notice of violations within 45 days after written notification is sent by certified mail or personally served. In accordance with State law, the Village Manager or designee shall apply to the Circuit Court of Cook County for an order authorizing action to be taken or for an order requiring the owner to take the necessary action. Any reasonable expense incurred by the Village in making such repairs or undertaking other corrective measures shall be a charge against the owner, which may be recovered, in an appropriate action at law.
- d. In addition to all other remedies provided by law, the Village shall have a lien on the property for the reasonable costs of the repairs or corrective measures. The lien shall be superior to all other liens and encumbrances except tax liens. Within 180 days after the cost is incurred, the Village shall cause to be filed a notice of lien in the Office of the Recorder of Cook County. The notice shall consist of a sworn statement setting out: (1) a description of the real estate sufficient for identification; (2) the amount of money representing the cost and expense incurred; and (3) the date or dates when the cost and expense were incurred by the Village.

Recommendation: Keep this ordinance written as is, except renumber appropriately.

Substantiation: This provides specific authority and powers we want to be able to use and enforce if necessary.

## Recommendations to the Municipal Code Chapter 23, Article XVI- Amendments to the 2018 IPMC

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Building and Property Maintenance,  
Section 23-1601- Adoption of the 2018 International Property Maintenance Code

a. There is hereby adopted by reference the 2018 International Property Maintenance Code (IPMC), published by the International Code Council, Inc., except as modified by Section 23-1601 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IPMC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IPMC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**Add this section:**

**102.7.3 Plumbing Code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

Substantiation: There are 4 references to the IPC throughout the IPMC. This covers all of them in one amendment instead of 4.

**107.4 Unauthorized tampering.** After the word 'tags', add ', stop work orders, placards, '.

Substantiation: Adds clarity to types of postings. In particular, stop work orders are often removed and we want to be able to assess fines when people do this.

**404.4 .1 Room area.** Place a period after '70 square feet (6.5 m<sup>2</sup>)' and delete the remaining language.

Substantiation: Its practically impossible to enforce, plus particular circumstances may be appropriate for additional people, such as several younger children.

**404.5 Overcrowding.** Delete this section and subsections including Table 404.5 in their entirety and do not replace.

Substantiation: It is practically impossible to enforce these issues, plus courts have not been ruling in favor of enforcement of these types of issues.

**404.6 Efficiency unit.** Delete this section in its entirety and do not replace.

Substantiation: It is practically impossible to enforce these issues, plus courts have not been ruling in favor of enforcement of these types of issues. Requirements for kitchens and bathrooms are covered in the IBC.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Residential Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Residential Code.

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| IRC 2018 IRC Adoption Language   | Presentation |
| IRC 2018 IRC Adoption Language - No Highlighting                       | Presentation |
| IRC Chapter 23 Article 3 IRC Marked Up                                 | Presentation |
| IRC New Recommendations to the Municipal Code Chapter 23 Article 2 IRC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article II- Regulations and Standards for One- and Two-Family Dwellings,  
Section 23-201- Adoption of the 2018 International Residential Code and Appendices for One- and  
Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Residential Code (IRC), published by the International Code Council, Inc. and specifically includes Appendices **J, K, M, and O**, except as modified by Section 23-201 b of this Article.

**i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.**

b. The IRC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IRC sections.

**R101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**R101.2 Scope.**

Add the following to the end of the paragraph:

Where this code does not cover the provision of an installation, the 2018 International Building Code shall be used, but the IBC shall not be used to otherwise circumvent administrative or technical requirements of this code.

**R101.2 Scope.**

Delete the entire Exception.

**R101.2.1 Plumbing scope.**

Add this section to read as follows:

Plumbing shall be done in accordance with Municipal Code Chapter 23 Article X. Any reference in this code to plumbing as defined in Municipal Code Chapter 23 Article X, cross references to or from other sections of this code to plumbing as defined in Municipal Code Chapter 23 Article X, and/or definitions of plumbing related items as defined in Municipal Code Chapter 23 Article X shall not be applicable, but sections of Part VII of this code that are specifically adopted, that are not regulated by Municipal Code Chapter 23 Article X shall be applicable.

**R101.2.2 Electrical scope.**

Add this section to read as follows:

Electrical installations shall be done in accordance with Municipal Code Chapter 23 Article VI.

**R101.2.3 Energy conservation scope.**

Add this section to read as follows:

Energy Conservation shall be done in accordance with Municipal Code Chapter 23 Article XII.

**R101.2.4 Antennas and earth stations.**

Add this section to read as follows:

Antennas and earth stations shall be installed in accordance with Municipal Code Chapter 23 Article XVII.

### **R105.1 Work exempt from permit.**

Delete the following list items:

**Building:**

List items 1, 2, 3, 4, 5, and 10.

**Electrical:**

List item 2.

**Plumbing:**

List items 1 and 2.

Modify the following list items:

**Building:**

List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops, kitchen or bathroom upper cabinets, cabinets in rooms other than kitchens or bathrooms, exterior siding and gutters, and roof coverings.

**Electric:**

List item 3 shall read as follows: Replacement of non-circuit breaker type overcurrent devices.

### **R105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

Add the following subsection:

#### **105.10 Safeguards during construction.**

All construction shall conform to Chapter 33 of the IBC as referenced by municipal code section 23-301.

### **R109.1.1 Foundation inspection.**

Delete the entire subsection and replace with:

#### **R109.1.1 Required inspections.**

All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection R109.4

### **R109.1.2 Plumbing, mechanical, gas and electrical system inspection.**

Delete the entire subsection.

### **R109.1.3 Floodplain inspections.**

Delete the entire subsection.

### **R109.1.4 Frame and masonry inspection.**

Delete the entire subsection.

**R109.1.5 Other inspections.**

Delete the entire subsection.

**R109.1.5.1 Fire-resistance-rated construction inspection.**

Delete the entire subsection.

**R109.1.6 Final inspection.**

Delete the entire subsection.

**R109.1.6.1 Elevation documentation.**

Delete the entire subsection.

**R110.3 Certificate issued.**

Delete list items number 3, 5, and 8.

**Section R112 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**R201.5 Terms defined in the IRC or other ICC codes and the Municipal Code.** Where terms are defined in both the IRC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**Table R301.2(1) Climatic and Geographic Design Criteria**

Insert the following values corresponding to the listed criteria:

Ground Snow Load- 25 psf

Wind Design:

Speed(mph)..... 115

Topographic effects.....No

Special wind region.....No

Windborne debris zone.....No

Seismic Design Category.....A

Subject To Damage From:

Weathering.....Severe

Frost Line Depth.....42 inches

Termite.....Moderate to Heavy

Winter Design Temp.....-4° F

Ice Barrier Underlayment Required.....Yes

Flood Hazards..... a. November 6, 2000;

b. August 19, 2008;

c. August 19, 2008 (all panels) Panel Numbers—

0044J, 0063J, 0064J, 0182J, 0184J, 0192J, 0201J, 0202J, 0203J, 0204J, 0211J, 0212J.

Air Freezing Index.....2000

Mean Annual Temp..... 47.6° (Waukegan 4 WSW station)

## **Table R301.2(1) Climatic and Geographic Design Criteria**

Delete the Manual J Design Criteria table.

### **R302.13 Fire protection of floors.**

Delete this section in its entirety including Exceptions.

### **R302.14 Combustible insulation clearance.**

Delete the last sentence.

### **R305.1.1 Basements.**

Delete main subsection (Exception shall remain) and replace with:

Portions of *basements* that do not contain *habitable space* or hallways shall have a ceiling height of 7 feet 2 inches as measured from the top of the concrete floor to the underside of the ceiling or floor joists above. Additional floor and/or ceiling finishes shall not reduce this value to less than 7 feet in accordance with R305.1 even if not defined as *habitable space* or hallway.

Add the following subsection:

**R309.6 Exterior walk through door.** Enclosed detached garages shall have at least one exterior walk through door which shall be side hinged and provide a clear width of not less than 32 inches where measured between the face of the door and the stop, with the door open 90 degrees (1.57rad). The clear height of the door opening shall be not less than 78 inches (1981mm) measured from the top of the threshold to the bottom of the stop. The door shall not rely on electrical power for operation, and shall be readily openable from the inside without the use of a key or special knowledge or effort.

**R310.4 Bars, grilles, covers, and screens.** Replace the existing language with:

Where bars, grilles, covers, screens, or similar devices are placed over emergency escape and rescue openings, area wells that serve an emergency escape and rescue opening, and/or window wells that serve an emergency escape and rescue opening, the minimum net clear opening size shall comply with Sections R310.2.1 through R310.2.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge, and/or force greater than that required for the normal operation of the emergency escape and rescue opening.

Add the following subsection:

**R310.4.1 Required covers.** Window wells shall be covered with a cover that allows light through, doesn't allow the passage of a 4 inch diameter sphere, and has a minimum rating of 250 pounds.

**R313.2 One- and two-family dwellings automatic fire sprinkler systems.**

Replace the existing language with:

An automatic residential fire sprinkler system is not required in one- and two-family dwellings, but if installed, shall be done in accordance with R313.2.1.

(The Exception to this subsection remains unchanged).

**R319.1 Address Numbers**

Delete this Section in its entirety and replace with the following:

1. New and existing buildings shall be provided with approved addresses. It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.
2. The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.
3. In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other such additional numbering signs or placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.
4. The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the Village.

#### **R401.1 Application.**

Delete everything after the second sentence.

#### **R402.1 Wood foundations.**

Replace the existing language with:

Wood foundation systems shall not be used. Any reference to wood foundation systems, including but not necessarily limited to, footings, fasteners, and/or wood treatment for wood foundation systems contained in this code shall not be used. Where any conflicts may arise, the Building Official is authorized to make a final determination.

**R403.1 General.** Remove the following language from the first sentence.

crushed stone footings, wood foundations,

**R403.1 General.** Add the following language to the end of the paragraph.

Also, concrete stairways with three or more risers placed as a single structure which serve the primary dwelling shall be provided with a footing in accordance with this section.

**R403.1 General.** Add the following Exception to this section.

Exception: Storage sheds that are 100 square feet or less are not required to be supported on a footing.

**R403.3 Frost-protected shallow foundations.** Remove this section in its entirety and do not replace.

**R403.4.1 Crushed stone footings.** Remove this section in its entirety and do not replace.

**R404.1.5.3 Pier and curtain wall foundations.** Remove this section in its entirety and do not replace.

#### **R407.3 Structural requirements.**

Add the following to the end of the main paragraph:

Steel columns shall be welded to a ½ inch thick base plate that extends beyond the outside edge of the column to allow for the required installation of a minimum of two ½ inch diameter anchor bolts. The minimum plan view dimension of the base plate shall be 4 inches. A concrete floor shall not be used to prevent lateral displacement of a column.

#### **R407.3 Structural requirements.**

Delete the Exception to R407.3.

### **R506.1 General**

Change 3 ½ inches in the first sentence to 4 inches.

**R507.3.2 Minimum depth.** Delete Exceptions 1 and 2, and replace Exception 1 with:

1. Free-standing decks that are not directly accessible from a door of the primary building need not be provided with footings that extend below the frost line.

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote d. to read:  
In kitchens, butler pantries, and similar areas where upper cabinetry will be or is likely to be installed, an adequate means shall be installed for support of such cabinetry. Gypsum board, lath and plaster, and/or stud spacing greater than 16 inches shall not be considered adequate support.

Add footnote d. to all spacing dimensions greater than 16 inches.

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote e. to read:  
Newly constructed walls which will contain plumbing drain, waste, and/or vent lines that are installed horizontally through the wall studs, shall be built with a minimum stud size of 2x6.

Add footnote e. to the table title.

**R602.10 Wall bracing.** Delete the existing language and replace with:  
Primary buildings and accessory buildings that shelter automobiles shall be braced using the continuously sheathed wood structural panel method (CS-WSP) listed in Table R602.10.4 in accordance with this section or shall be designed by a State of Illinois licensed Structural Engineer. Other buildings shall be braced in accordance with this section or, when applicable, Section R602.12.

**Table R602.10.4 Bracing Methods.** Replace 3/8" with 1/2" for the minimum thickness of bracing method continuously sheathed wood structural panel.

### **R801.3 Roof drainage**

Delete the following text:

In areas where expansive or collapsible soils are known to exist,

### **R801.3 Roof drainage**

Insert the following after the word *dwelling*:  
and accessory structures with a single roof plane that exceeds 100 square feet

**R802.3 Ridge.** Replace 1 (inch) with 2.

**R803.2.2.1 Allowable Thickness.** Wood structural panels used as roof sheathing for new construction and/or new additions of primary buildings and/or accessory buildings that shelter automobiles shall be a minimum of 5/8" thick.

Delete Chapter 11 in its entirety.

Add this subsection:

**M1602.4 Return air inlets.** Unless approved by the Building Official in writing, non-central return air inlets shall be installed both high and low in each room where return inlets are installed.

Except as noted in a. below, delete Chapter 25 in its entirety.

a. Section P2503.7 shall remain in effect only as referenced by Section P2904.8.1, list item number 8.

Except as noted in a. below, delete Chapter 26 in its entirety.

a. Section P2603.5 shall remain in effect only as referenced by Section P2904.2.3, but subsection 2603.5.1 is deleted.

Delete Chapter 27 in its entirety.

Delete Chapter 28 in its entirety.

Except as noted in a. below, delete Chapter 29 in its entirety.

a. Section P2904 shall remain in effect.

Delete Chapter 30 in its entirety.

Delete Chapter 31 in its entirety.

Delete Chapter 32 in its entirety.

Delete Chapters 34 through 43 in their entirety.

**AJ301.1.2 Plumbing materials and supplies.**

Delete this section in its entirety.

**AJ301.2 Water closets.**

Delete this section in its entirety.

#### AJ301.3 Electrical.

Delete this section in its entirety.

#### AJ501.5 Electrical equipment and wiring.

Delete this section in its entirety including all subsections and replace with:

##### AJ501.5 Specific work types.

AJ501.5.1 Kitchen remodels. Where base cabinets are removed to facilitate a kitchen remodel, the following items must be brought into compliance as noted:

1. Receptacle outlets in the kitchen shall comply with the 2017 National Electric Code sections 210.52(B) and (C).

2. The kitchen sink shall be vented in compliance with the State of Illinois Plumbing Code.

3. Exhaust vents must be terminated to the exterior of the structure.

Exception: The Building Official may waive these requirements where there is practical difficulty in achieving compliance.

#### AJ601.4 Ceiling height.

Delete the existing language in its entirety and replace with:

For buildings that contain *basements* without *habitable space* and/or hallways with ceiling heights not in compliance with this code for new construction, when an application is submitted to convert the basement to habitable space, the Building Official may grant approval upon review of the project and determination that there are other approved safety features of the space to offset the reduction in ceiling height, but in no case shall a ceiling below 6 feet 7 inches be allowed for use as *habitable space*. Where lay-in tile drop ceilings are installed, the determined ceiling height shall be measured from the finished floor to the bottom side of the ceiling grid.

For buildings that contain basements with habitable space where the existing ceiling height does not conform with this code for new construction, when an application is submitted to remodel the basement habitable area, the application may be approved if:

a. The remodel will increase the ceiling height to be compliant with this code for new construction.

b. The Building Official grants approval upon review of the project and determination that there are other approved safety features of the space to offset a reduction of a non-compliant ceiling height in conformance with the first paragraph of this section.

c. Historical records show that the basement ceiling height as exists was previously approved by the Building Official and the remodel plans do not further reduce the ceiling height.

#### AK101.1 General.

Add the following sentence to the end:

Walls and floor-ceiling assemblies within the same dwelling unit are not required to meet sound transmission ratings.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article II- Regulations and Standards for One- and Two-Family Dwellings,  
Section 23-201- Adoption of the 2018 International Residential Code and Appendices for One- and  
Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Residential Code (IRC), published by the International Code Council, Inc. and specifically includes Appendices J, K, M, and O, except as modified by Section 23-201 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The IRC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IRC sections.

**R101.1 Title.**

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**R101.2 Scope.**

Add the following to the end of the paragraph:

Where this code does not cover the provision of an installation, the 2018 International Building Code shall be used, but the IBC shall not be used to otherwise circumvent administrative or technical requirements of this code.

**R101.2 Scope.**

Delete the entire Exception.

**R101.2.1 Plumbing scope.**

Add this section to read as follows:

Plumbing shall be done in accordance with Municipal Code Chapter 23 Article X. Any reference in this code to plumbing as defined in Municipal Code Chapter 23 Article X, cross references to or from other sections of this code to plumbing as defined in Municipal Code Chapter 23 Article X, and/or definitions of plumbing related items as defined in Municipal Code Chapter 23 Article X shall not be applicable, but sections of Part VII of this code that are specifically adopted, that are not regulated by Municipal Code Chapter 23 Article X shall be applicable.

**R101.2.2 Electrical scope.**

Add this section to read as follows:

Electrical installations shall be done in accordance with Municipal Code Chapter 23 Article VI.

**R101.2.3 Energy conservation scope.**

Add this section to read as follows:

Energy Conservation shall be done in accordance with Municipal Code Chapter 23 Article XII.

**R101.2.4 Antennas and earth stations.**

Add this section to read as follows:

Antennas and earth stations shall be installed in accordance with Municipal Code Chapter 23 Article XV.

### **R105.1 Work exempt from permit.**

Delete the following list items:

Building:

List items 1, 2, 3, 4, 5, and 10.

Electrical:

List item 2.

Plumbing:

List items 1 and 2.

Modify the following list items:

Building:

List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops, kitchen or bathroom upper cabinets, cabinets in rooms other than kitchens or bathrooms, exterior siding and gutters, and roof coverings.

Electric:

List item 3 shall read as follows: Replacement of non-circuit breaker type overcurrent devices.

### **R105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

Add the following subsection:

#### **105.10 Safeguards during construction.**

All construction shall conform to Chapter 33 of the IBC as referenced by municipal code section 23-301.

### **R109.1.1 Foundation inspection.**

Delete the entire subsection and replace with:

#### **R109.1.1 Required inspections.**

All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection R109.4

### **R109.1.2 Plumbing, mechanical, gas and electrical system inspection.**

Delete the entire subsection.

### **R109.1.3 Floodplain inspections.**

Delete the entire subsection.

### **R109.1.4 Frame and masonry inspection.**

Delete the entire subsection.

**R109.1.5 Other inspections.**

Delete the entire subsection.

**R109.1.5.1 Fire-resistance-rated construction inspection.**

Delete the entire subsection.

**R109.1.6 Final inspection.**

Delete the entire subsection.

**R109.1.6.1 Elevation documentation.**

Delete the entire subsection.

**R110.3 Certificate issued.**

Delete list items number 3, 5, and 8.

**Section R112 Board of Appeals**

Delete this section in its entirety.

Add the following Section:

**R201.5 Terms defined in the IRC or other ICC codes and the Municipal Code.** Where terms are defined in both the IRC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

**Table R301.2(1) Climatic and Geographic Design Criteria**

Insert the following values corresponding to the listed criteria:

Ground Snow Load- 25 psf

Wind Design:

Speed(mph)..... 115

Topographic effects.....No

Special wind region.....No

Windborne debris zone.....No

Seismic Design Category.....A

Subject To Damage From:

Weathering.....Severe

Frost Line Depth.....42 inches

Termite.....Moderate to Heavy

Winter Design Temp.....-4° F

Ice Barrier Underlayment Required.....Yes

Flood Hazards..... a. November 6, 2000;

b. August 19, 2008;

c. August 19, 2008 (all panels) Panel Numbers—

0044J, 0063J, 0064J, 0182J, 0184J, 0192J, 0201J, 0202J, 0203J, 0204J, 0211J, 0212J.

Air Freezing Index.....2000

Mean Annual Temp..... 47.6° (Waukegan 4 WSW station)

## **Table R301.2(1) Climatic and Geographic Design Criteria**

Delete the Manual J Design Criteria table.

### **R302.13 Fire protection of floors.**

Delete this section in its entirety including Exceptions.

### **R302.14 Combustible insulation clearance.**

Delete the last sentence.

### **R305.1.1 Basements.**

Delete main subsection (Exception shall remain) and replace with:

Portions of *basements* that do not contain *habitable space* or hallways shall have a ceiling height of 7 feet 2 inches as measured from the top of the concrete floor to the underside of the ceiling or floor joists above. Additional floor and/or ceiling finishes shall not reduce this value to less than 7 feet in accordance with R305.1 even if not defined as *habitable space* or hallway.

Add the following subsection:

**R309.6 Exterior walk through door.** Enclosed detached garages shall have at least one exterior walk through door which shall be side hinged and provide a clear width of not less than 32 inches where measured between the face of the door and the stop, with the door open 90 degrees (1.57rad). The clear height of the door opening shall be not less than 78 inches (1981mm) measured from the top of the threshold to the bottom of the stop. The door shall not rely on electrical power for operation, and shall be readily openable from the inside without the use of a key or special knowledge or effort.

**R310.4 Bars, grilles, covers, and screens.** Replace the existing language with:

Where bars, grilles, covers, screens, or similar devices are placed over emergency escape and rescue openings, area wells that serve an emergency escape and rescue opening, and/or window wells that serve an emergency escape and rescue opening, the minimum net clear opening size shall comply with Sections R310.2.1 through R310.2.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge, and/or force greater than that required for the normal operation of the emergency escape and rescue opening.

Add the following subsection:

**R310.4.1 Required covers.** Window wells shall be covered with a cover that allows light through, doesn't allow the passage of a 4 inch diameter sphere, and has a minimum rating of 250 pounds.

**R313.2 One- and two-family dwellings automatic fire sprinkler systems.**

Replace the existing language with:

An automatic residential fire sprinkler system is not required in one- and two-family dwellings, but if installed, shall be done in accordance with R313.2.1.

(The Exception to this subsection remains unchanged).

**R319.1 Address Numbers**

Delete this Section in its entirety and replace with the following:

1. New and existing buildings shall be provided with approved addresses. It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.

2. The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.

3. In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other such additional numbering signs or placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.

4. The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the Village.

**R401.1 Application.**

Delete everything after the second sentence.

**R402.1 Wood foundations.**

Replace the existing language with:

Wood foundation systems shall not be used. Any reference to wood foundation systems, including but not necessarily limited to, footings, fasteners, and/or wood treatment for wood foundation systems contained in this code shall not be used. Where any conflicts may arise, the Building Official is authorized to make a final determination.

**R403.1 General.** Remove the following language from the first sentence.

crushed stone footings, wood foundations,

**R403.1 General.** Add the following language to the end of the paragraph.

Also, concrete stairways with three or more risers placed as a single structure which serve the primary dwelling shall be provided with a footing in accordance with this section.

**R403.1 General.** Add the following Exception to this section.

Exception: Storage sheds that are 100 square feet or less are not required to be supported on a footing.

**R403.3 Frost-protected shallow foundations.** Remove this section in its entirety and do not replace.

**R403.4.1 Crushed stone footings.** Remove this section in its entirety and do not replace.

**R404.1.5.3 Pier and curtain wall foundations.** Remove this section in its entirety and do not replace.

**R407.3 Structural requirements.**

Add the following to the end of the main paragraph:

Steel columns shall be welded to a ½ inch thick base plate that extends beyond the outside edge of the column to allow for the required installation of a minimum of two ½ inch diameter anchor bolts. The minimum plan view dimension of the base plate shall be 4 inches. A concrete floor shall not be used to prevent lateral displacement of a column.

**R407.3 Structural requirements.**

Delete the Exception to R407.3.

### **R506.1 General**

Change 3 ½ inches in the first sentence to 4 inches.

**R507.3.2 Minimum depth.** Delete Exceptions 1 and 2, and replace Exception 1 with:

1. Free-standing decks that are not directly accessible from a door of the primary building need not be provided with footings that extend below the frost line.

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote d. to read:

In kitchens, butler pantries, and similar areas where upper cabinetry will be or is likely to be installed, an adequate means shall be installed for support of such cabinetry. Gypsum board, lath and plaster, and/or stud spacing greater than 16 inches shall not be considered adequate support.

Add footnote d. to all spacing dimensions greater than 16 inches.

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote e. to read:

Newly constructed walls which will contain plumbing drain, waste, and/or vent lines that are installed horizontally through the wall studs, shall be built with a minimum stud size of 2x6.

Add footnote e. to the table title.

**R602.10 Wall bracing.** Delete the existing language and replace with:

Primary buildings and accessory buildings that shelter automobiles shall be braced using the continuously sheathed wood structural panel method (CS-WSP) listed in Table R602.10.4 in accordance with this section or shall be designed by a State of Illinois licensed Structural Engineer. Other buildings shall be braced in accordance with this section or, when applicable, Section R602.12.

**Table R602.10.4 Bracing Methods.** Replace 3/8" with 1/2" for the minimum thickness of bracing method continuously sheathed wood structural panel.

### **R801.3 Roof drainage**

Delete the following text:

In areas where expansive or collapsible soils are known to exist,

### **R801.3 Roof drainage.**

Insert the following after the word *dwelling*s:

and accessory structures with a single roof plane that exceeds 100 square feet

**R802.3 Ridge.** Replace 1 (inch) with 2.

**R803.2.2.1 Allowable Thickness.** Wood structural panels used as roof sheathing for new construction and/or new additions of primary buildings and/or accessory buildings that shelter automobiles shall be a minimum of 5/8" thick.

Delete Chapter 11 in its entirety.

Add this subsection:

**M1602.4 Return air inlets.** Unless approved by the Building Official in writing, non-central return air inlets shall be installed both high and low in each room where return inlets are installed.

Except as noted in a. below, delete Chapter 25 in its entirety.

a. Section P2503.7 shall remain in effect only as referenced by Section P2904.8.1, list item number 8.

Except as noted in a. below, delete Chapter 26 in its entirety.

a. Section P2603.5 shall remain in effect only as referenced by Section P2904.2.3, but subsection 2603.5.1 is deleted.

Delete Chapter 27 in its entirety.

Delete Chapter 28 in its entirety.

Except as noted in a. below, delete Chapter 29 in its entirety.

a. Section P2904 shall remain in effect.

Delete Chapter 30 in its entirety.

Delete Chapter 31 in its entirety.

Delete Chapter 32 in its entirety.

Delete Chapters 34 through 43 in their entirety.

AJ301.1.2 Plumbing materials and supplies.

Delete this section in its entirety.

AJ301.2 Water closets.

Delete this section in its entirety.

AJ301.3 Electrical.

Delete this section in its entirety.

AJ501.5 Electrical equipment and wiring.

Delete this section in its entirety including all subsections and replace with:

AJ501.5 Specific work types.

AJ501.5.1 Kitchen remodels. Where base cabinets are removed to facilitate a kitchen remodel, the following items must be brought into compliance as noted:

1. Receptacle outlets in the kitchen shall comply with the 2017 National Electric Code sections 210.52(B) and (C).
2. The kitchen sink shall be vented in compliance with the State of Illinois Plumbing Code.
3. Exhaust vents must be terminated to the exterior of the structure.

Exception: The Building Official may waive these requirements where there is practical difficulty in achieving compliance.

AJ601.4 Ceiling height.

Delete the existing language in its entirety and replace with:

For buildings that contain *basements* without *habitable space* and/or hallways with ceiling heights not in compliance with this code for new construction, when an application is submitted to convert the basement to habitable space, the Building Official may grant approval upon review of the project and determination that there are other approved safety features of the space to offset the reduction in ceiling height, but in no case shall a ceiling below 6 feet 7 inches be allowed for use as *habitable space*. Where lay-in tile drop ceilings are installed, the determined ceiling height shall be measured from the finished floor to the bottom side of the ceiling grid.

For buildings that contain basements with habitable space where the existing ceiling height does not conform with this code for new construction, when an application is submitted to remodel the basement habitable area, the application may be approved if:

- a. The remodel will increase the ceiling height to be compliant with this code for new construction.
- b. The Building Official grants approval upon review of the project and determination that there are other approved safety features of the space to offset a reduction of a non-compliant ceiling height in conformance with the first paragraph of this section.
- c. Historical records show that the basement ceiling height as exists was previously approved by the Building Official and the remodel plans do not further reduce the ceiling height.

**AK101.1 General.**

Add the following sentence to the end:

Walls and floor-ceiling assemblies within the same dwelling unit are not required to meet sound transmission ratings.

Article III will be renumbered as Article II, Section 201. Recommendations will be written as general in nature and the specific language recommendations will be provided in a separate document as the complete rewrite. The original adopting language was left written as is, for the sake of context and will be changed appropriately for the final version.

### **Article III Regulations and Standards for One- and Two-Family Dwellings; Adoption of the International Residential Code**

#### **Section 23-301 Adoption of the International Residential Code for One- and Two-Family Dwellings**

- a. There is hereby adopted by reference the 2009 Edition of the International Residential Code for One- and Two-Family Dwellings (IRC), for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures, except as modified by Section 23-302 of this Article.
- b. The International Residential Code shall:
  1. Regulate the construction of all one- and two-family residential construction where the provisions of this Chapter specifically cover the subject matter in question.
  2. In the event that a detail of the construction or regulation is not covered by the 2009 Edition of the International Residential Code, the provisions of Article IV of this Chapter shall apply.

**Section 23-302 Modification by Amendment and Deletion of Various Sections of the International Residential Code.** The 2009 Edition of the IRC adopted by this Article is modified for use in the Village by the following amendments, which amendments are given articles and section numbers identical to the IRC. Appendices **G, H, K and M** are specifically

adopted. To the extent any provision of the IRC conflicts with any provision of the Arlington Heights Municipal Code, the Municipal Code provision will apply.

Note: Appendix G is replaced by section R326, H is to be dropped, K to be kept but amendments will be changed, M to be kept.

## Chapter 2- Definitions

### **R201.3 Terms defined in other codes**

Add the following text at the end:

Where terms are defined in both the IRC or other ICC codes and the Municipal Code, the definitions in the Municipal Code shall apply.

Recommendation: This section shall be reworded to not have the Municipal Code definitions override IRC definitions. Renumbered as 201.5.

Substantiation: Context is a critical element to a definition and the new language will take that into consideration. (See New Recommendations).

## Chapter 3- Building Planning

### **R301.1 Application**

Delete the text and replace with the following:

Buildings and structures and all parts thereof shall be designed by a State of Illinois licensed architect or structural engineer; and shall be constructed, by a licensed contractor or owner who shall be responsible for compliance with the Village Code for construction, to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, wind loads and seismic loads as prescribed by this code.

Recommendation: This amendment to the standard code language shall be eliminated, and leave the standard code language as is written.

Substantiation: The Illinois Architectural Licensing Act defines when buildings are required to be designed by a Licensed Architect. Following these rules provides for consistency and an acceptable level of quality. Our existing amendment requires, as an example, a bathroom remodel to be designed by a licensed architect, which adds unnecessary cost to a minor project.

**R301.1.1 Alternative provisions**

Delete the first sentence and replace it with the following:

The following standards, where used by the licensed architect or engineer, are also permitted subject to the limitations of this Article and any applicable Village restrictions.

Recommendation: This amendment to the standard code language shall be eliminated, and leave the standard code language as is written.

Substantiation: The Illinois Architectural Licensing Act defines when buildings are required to be designed by a Licensed Architect. Following these rules provides for consistency and an acceptable level of quality. Use of these alternate standards is not common and would likely be required by the State of Illinois that an architect do the design anyways.

**Table R301.2(1)**

Revise Table R301.2(1) to read as follows:

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

| Gr<br>Sn<br>Lo   | Wind Design           |                                 | Sei<br>De<br>Cat  | Subject to Damage From |                                 |                   | Wi<br>De<br>Te | I<br>b<br>u<br>l<br>n<br>R | Flo<br>Ha<br>Ch<br>15<br>of<br>Vil<br>Co<br>de | Air<br>Fre<br>Ind | Mean<br>Annu<br>Temp<br><br>NOA<br>Data<br>Wauk |
|------------------|-----------------------|---------------------------------|-------------------|------------------------|---------------------------------|-------------------|----------------|----------------------------|--|-------------------|---|
|                  | S<br>p<br>e<br>e<br>d | T<br>o<br>p<br>o<br>-<br>g<br>r |                   | Weat<br>herin<br>g     | F<br>r<br>o<br>s<br>t<br>L<br>i | Term<br>ite       |                |                            |  |                   |   |
| M<br>i<br>n<br>3 | M<br>i<br>n<br>9      | N<br>O                          | C<br>at<br>e<br>g | Sever<br>e             | 4<br>2<br>i<br>n                | M<br>o<br>d<br>er | -<br>40<br>F   | Y<br>E<br>S                | No<br>v<br>6,<br>20                            | 20<br>00          | 47.6°<br>F                                      |

NOTE: This table in the 2018 IRC will be populated with the appropriate data.

**Figure R301.2(2) Seismic Design Categories - Site Class D**

Add the following text at the bottom of figure R301.2(2):

**SEISMIC DESIGN CATEGORIES-SITE CLASS D\***

\* Site Class D shall be assumed in Arlington Heights, but where soil reports indicate worse conditions, Site Class shall be re-evaluated by the Soils Engineer and the Building Official.

Recommendation: Delete this amendment and do not replace.

Substantiation: The language of **R301.2.2.1.1 Alternate determination of seismic design category**, contains the necessary language for dealing with an unknown site class. This amendment is redundant and unnecessary. It will also very likely never be used to increase the Seismic Design Category.

**Table R301.5 Minimum Uniformly Distributed Live Loads**

Amend Table R301.5 by changing live loads for sleeping rooms from 30 to 40.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification to make this increase.

**R302.1 Exterior Walls**

Delete Exceptions 1, 3, 4, and 5.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification to delete this exceptions and practical application of the code is difficult without the exceptions.

### **R302.3 Two-family Dwelling Structures**

Delete Exceptions 1 and 2.

Recommendation: Delete this amendment and do not replace.

Substantiation: Allowing alternatives is a fundamental basis of the ICC codes and deleting the exceptions may dissuade someone from installing a fire sprinkler system. Even if Arlington Heights chooses not to require them, persuasion to install them should not be reduced by eliminating possible cost trade-offs.

### **Table R302.6 Dwelling/Garage Separation**

Amend Table R302.6 to read as follows:

Change 1h inch to 5/8 inch in all rows of Table R302.6.

Add footnote to read as follows:

When any portion of a detached garage is within 10 feet of a dwelling, all four interior walls and the ceiling shall be covered with a minimum of 5/8-inch fire-resistance-rated (Type X) gypsum board.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

### **R304.2 Other Rooms**

Change 70 to 100.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

### **R305.1 Minimum Height**

Delete the existing language and replace it with the following:

All first floor habitable spaces, hallways, corridors, bathrooms, toilet rooms, laundry rooms, and portions of basements containing such rooms shall have a minimum ceiling height of not less than 8 feet. All second floor rooms and other spaces in the building shall have a clear ceiling height of not less than 7 feet 6 inches.

Exceptions 1 and 2 remain unchanged.

Add the following as Exception 3:

3. Crawl spaces shall have a minimum clear height of 30 inches measured from the slush coat to the bottom of the floor joist or any support beam above.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment and it is not in tune with energy conservation or residents wanting to create habitable space in a currently existing unfinished basement.

### **R305.1.1 Basements**

Change 6 feet 8 inches to 7 feet.

In the Exception, change 6 feet 4 inches to 6 feet 8 inches.

Recommendation: Rewrite amendment as:

#### **R305.1.1 Basements.**

Delete main subsection (Exception shall remain) and replace with:  
Portions of *basements* that do not contain *habitable space* or hallways shall have a ceiling height of 7 feet 2 inches as measured from the top of the concrete floor to the underside of the ceiling joist or floor joists above. Additional floor and/or ceiling finishes, including lay-in tile drop ceilings, shall not reduce this value to less than 7 feet in accordance with R305.1 even if not defined as *habitable space* or hallway.

Substantiation: New construction will require basements to be built with a ceiling height that allows for building it out as habitable space in the future- this adds value to homes and prevents frustration of an owner when they find out they can't (legally) use their basement for habitable space. (See Appendix J Section AJ601.4 Ceiling Height, in New Recommendations to the IRC, for language dealing with existing basements.)

### **R309.1 Floor Surfaces, Separation of Structures and Minimum Dimensions**

Revise R309.1 to read as follows:

- a. Garage floor surface shall be of approved noncombustible construction. The area of the floor used for parking automobiles and vehicles shall be sloped to facilitate the movement of liquids to approved drain or toward the main vehicle entry. The floor surface of the garage shall be a minimum of 6 inches below any adjacent space. In lieu of this requirement, a 6-inch high by 6-inch wide concrete or nonabsorbent curb shall be placed against all common walls.

Recommendation: Delete this amendment and do not replace.

Substantiation: The first two sentences are in the standard code. The next two sentences are confusing and can be read to apply in a manner that is not prudent. For example, it could be interpreted that a detached garage is required to have the floor below the ground outside of the garage; this does not make sense. While it is likely the intent is to assure that an attached garage doesn't have run-off into the house, the language creates confusion as to intent.

- b. There shall be a minimum of a 3 feet wide walkway between the house and any detached garage or other accessory structure.

Recommendation: Delete this amendment and do not replace.

Substantiation: The intent of this section is confusing. Is the intent to keep a detached garage 3 feet away from the house? Or is it to assure there is paved surface between the house and the garage? Also, since the title of this section is Garages and Carports, stating that a walkway is required between the house and 'other accessory structure', such as a shed, can be confusing and misleading; who's going to look for info about a shed under Garages and Carports? Also, is it really intended that if someone builds a shed that they have to have a walkway going to it from the house? Also, what is a walkway?—A concrete sidewalk? Pavers? Stepping stones? Limestone?

(Ord. #13-055)

- c. Any garage with multiple doors or with a garage door width wider than 12 feet shall be considered at least a two-car garage.

The following minimums shall be for newly constructed garages only. These minimums shall not apply to modifications or additions to existing garages, unless the existing interior dimensions are proposed to be reduced. In those cases, the minimums set forth below shall apply.

### 1. Minimum Interior Garage Dimensions

| Number of | Depth of Garage  | Width of Garage |
|-----------|------------------|-----------------|
| 1         | 21 feet 4 inches | 12 feet         |
| 2         | 21 feet 4 inches | 21 feet         |
| 3         | 21 feet 4 inches | 30 feet         |

### 2. Minimum Garage Door Sizes

| Number of Cars | Door Size to be at least               |
|----------------|--|
| 1              | 9 feet                                 |
| 2              | 16 feet or two 8-foot doors            |
| 3              | 16 feet + 8 feet or three 8-foot doors |

### 3. Minimum Ceiling Height:

The minimum ceiling height for a carport, attached garage or detached garage shall be 7 feet 6 inches.

Recommendation: Delete this amendment and do not replace.

Substantiation: 1. This is a 'comfort' code and if wanted by the Village, it belongs in the Zoning Code.

2. There are variations to construction that this language can be difficult to apply. For example, if someone is adding an attached garage to an existing house, does this apply? What about tight side driveways where building a detached garage to these specs would be impractical?

3. As the world becomes more energy conscious, if someone wishes to drive a moped and a smart car, forcing them to build a larger than necessary garage may be viewed as 'too much government' or 'red-tape'.

4. Because this is in the Building Code, it is often overlooked during early design phases by architects. There have been several instances of this which has caused consternation and placed the Village in a position to have to allow for a variance or cancel an entire project at the 11<sup>th</sup> hour.

d. One side-hinged egress door shall be provided for any detached garage.

Recommendation: Rewrite this amendment as:

Add the following subsection:

**R309.6 Exterior walk through door.** Enclosed detached garages shall have at least one exterior walk through door which shall be side hinged and provide a clear width of not less than 32 inches where measured between the face of the door and the stop, with the door open 90 degrees (1.57rad). The clear height of the door opening shall be not less than 78 inches (1981mm) measured from the top of the threshold to the bottom of the stop. The door shall not rely on electrical power for operation, and shall be readily openable from the inside without the use of a key or special knowledge or effort.

Substantiation: Assuring there is a walk through door allows for better, quicker access for emergency responders, as well as allowing for someone to get out where there is loss of power to a garage door opener.

### **R310.2 Window Wells**

Add the following after the last sentence:

The window well shall be of galvanized metal or other approved material and shall be bolted to the foundation wall with a minimum of 4 anchor or expansion bolts. The base of the well shall be equipped with a screened drain tied into the drainage system of the foundation with a rigid pipe. The base of the well shall have a minimum of 4 inches of washed stone fill.

Recommendation: Delete the amendment and do not replace.

Substantiation: There are many different designs for window wells which may not require bolting to the foundation wall or a certain type of fill. Drainage is now required in the 2018 IRC so an amendment is not needed for this.

### **R310.4 Bars, Grilles, Window-well Covers and Screens**

Add the following after the last sentence:

Window wells shall be covered with a metal grated cover or clear plastic or translucent fiberglass type cover. The cover shall be capable of supporting a minimum load of 250 lbs. The cover must be removable from the inside without the use of a key, tool, or force greater than that, which is required for normal operation of the emergency escape and rescue opening

Recommendation: Rewrite the amendments as:

**R310.4 Bars, grilles, covers, and screens.** Replace the existing language with: Where bars, grilles, covers, screens, or similar devices are placed over emergency escape and rescue openings, area wells that serve an emergency escape and rescue opening, and/or window wells that serve an emergency escape and rescue opening, the minimum net clear opening size shall comply with Sections R310.2.1 through R310.2.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge, and/or force greater than that required for the normal operation of the emergency escape and rescue opening.

Substantiation: The existing code language does not define a window well or area well as only serving emergency escape and rescue openings; the amendment language clarifies that the minimum size is only intended for those specific area wells and window wells. NOTE- A new amendment requiring all window wells to have a cover is being added as R310.4.1

### **R311.2 Egress door required**

Delete the existing language and replace it with the following:

Not less than two egress doors shall be provided from each dwelling unit. At least one required egress door shall be side-hinged, and shall provide a minimum net clear opening of 3 feet in width and 6 feet 8 inches in height. Egress doors shall be readily openable from the inside of a dwelling without the use of a key or special knowledge or effort.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for the amendment.

### **R311.7 Stairways**

Add the following text to this Section:

Stairways shall be designed and constructed in accordance with R311.7.1 through R311.7.9.2. Exterior stairways of wood shall be supported at least 2 inches above the finish grade on a concrete slab or piers. The maximum length of unsupported wood treads shall be limited to 3 feet. For stairways greater than 3 feet in width, additional stringer supports shall be provided such that no span exceeds 3 feet.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for the amendment, plus it is confusing and misleading and could lead to unsafe installations, such as a 1x4 used as a stair tread.

### **R311.7.9.1 Spiral stairways**

Add the following sentence at the beginning of this Section:

Spiral stairways are not permitted for use as the primary egress.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for the amendment, plus it is confusing. 'Primary egress' is not a defined or used term in the IRC.

### **R313.1.1 Design and installation**

Replace "Section 2904" with "NFPA 13D."

Recommendation: Delete the amendment and do not replace.

Substantiation: This subsection was updated to include either/or both systems so the amendment is not needed.

### **R313.2 One- and two-family dwellings automatic fire systems**

Delete in its entirety.

Recommendation: Rewrite the amendment as:

#### **R313.2 One- and two-family dwellings automatic fire sprinkler systems.**

Replace the existing language with:

An automatic residential fire sprinkler system is not required in one- and two-family dwellings, but if installed, shall be done in accordance with R313.2.1.

(The Exception to this subsection remains unchanged).

Substantiation: Newer construction methods reduce the spread of fire adequately enough without the added expense of installation and maintenance, plus there is added risk of damage due to an inadvertent release or system leakage.

### **R316.5.3 Attics**

Delete 3.1, 3.2, 3.3 and 3.4.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment.

### **R316.5.4 Crawl Spaces**

Delete 3.1, 3.2, 3.3 and 3.4.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment.

### **R317.1 Location Required**

Amend item 2 by deleting everything from "and are less" to the end of the sentence.

Recommendation: Keep the amendment as is.

Substantiation: Final grade elevations are difficult to determine at time of framing inspections; also, concrete/masonry draws water through capillary action, hence will be wet even when the top is above 8 inches.

### **R317.1.4 Wood Columns**

Delete the exceptions.

Recommendation: Keep the amendment as is.

Substantiation: Columns are not allowed in the locations covered by Exception 1 and 2 per local amendment- this just provides clarity. Deck columns are subject to snow piles, etc., hence should remain required to be protected.

### **R319.1 Address Numbers**

Delete this Section in its entirety and replace with the following:

1. New and existing buildings shall be provided with approved addresses. It shall be the duty of the owners of every building in the Village to have placed thereon the assigned numbers above the door which is the principal entrance fronting on the street, or where no street exists, the assigned numbers shall be above or on the principal entrance to the building via an alley, driveway, parking lot, fire lane, or other improved right-of-way. The assigned numbers shall be Arabic numerals at least six inches high and of such size and shape so as to be easily visible from the street, alley, driveway, parking lot, fire lane, or improved right-of-way. The Arabic numerals shall be constructed of a durable material which contrasts with the background upon which the assigned numbers are affixed.

2. The practice of affixing numbers in script or word form is not prohibited; however, the Arabic numerals required herein must be affixed on or over the principal entrance.

3. In any instance where numbers located on the principal entrance of the building are not easily visible and identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way upon which the principal entrance fronts, the Building and Fire Departments may require a monument, pole or other

such additional numbering signs or placards on or about the building and premises as necessary to ensure that such buildings are easily identifiable from the street, alley, driveway, parking lot, fire lane, or other improved right-of-way.

4. The names of all new buildings and developments shall not include any numerical references in vanity addresses or in identifying the buildings or development name unless the numerical references and name are the property number and actual street address assigned by the

Village.

Recommendation: Leave amendment written as is.

Substantiation: The existing amendment clarifies addressing issues that the standard code doesn't.

## Chapter 4 - Foundations

### **R401.1 Application**

Delete the last sentence and the Exceptions.

Recommendation: Modify the amendment to read as:

### **R401.1 Application.**

Delete everything after the second sentence.

Substantiation: The intent is to eliminate the use of wood foundations; both the 3<sup>rd</sup> and 4<sup>th</sup> sentence along with the Exceptions (which are between the 3<sup>rd</sup> and 4<sup>th</sup> sentences), pertain to use of wood foundations. This rewrite provides the clearer intent.

### **R401.2 Requirements**

Delete the section and replace with the following:

Foundation construction shall be capable of accommodating all loads according to R301 and of transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice.

- a. All organic material including topsoil and all landscape materials and debris shall be removed prior to the placing of foundations, slabs, raised porches, stoops, or similar construction.
- b. Stoop foundations, the main entry stoop and all porches, terraces, and flights of stairs exceeding three risers shall be supported on engineered foundation.

Recommendation: Delete the amendment and do not replace.

Substantiation: Section 403.1 covers supporting footings on undisturbed natural soil or engineered fill. This amendment is redundant and unnecessary.

### **R402.1 Wood Foundations**

Delete and replace with the following:

Wood foundations are not permitted within the Village

Recommendation: Reword this amendment as:

### **R402.1 Wood foundations.**

Replace the existing language with:

Wood foundation systems shall not be used. Any reference to wood foundation systems, including but not necessarily limited to, footings, fasteners, and/or wood treatment for wood foundation systems contained in this code shall not be used. Where any conflicts may arise, the Building Official is authorized to make a final determination.

Substantiation: Wood foundation systems are very uncommon and it is practically infeasible to properly inspect and monitor the proper installation of such systems which is very likely to lead to premature degradation and potentially severe structural deficiencies. Also, there has been no requests or argument to allow for such systems.

### **R403.1.1 Minimum Size**

Add after the second sentence:

At a minimum, it shall be twice the foundation wall thickness.

Change the third sentence to be 8 inches instead of 6 inches. Add the following new paragraphs:

a. All footings should be designed for a soil bearing capacity of 3,000 psf. Soil bearing capacity shall be verified prior to placement of concrete footings by a licensed engineer.

1. Pier, post and column footings shall have a minimum pad size of not less than 30 inches square by 12 inches thick.

2. Cast in place piers shall be allowed in the construction of exterior decks the elevation of which is not more than 5 feet above grade. The minimum diameter shall be 8 inches with the bottom belled to a diameter of 12 inches.

b. Where approved engineering design is provided to account for soil bearing capacity, trench foundations may be used.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment. Also, it is completely inappropriate to demand that footings are designed for a soil bearing capacity of 3,000 psf—footings should be designed to the actual soil capacity. Also, the code has provisions for requiring soils testing and presumption of load-bearing values for soils, so the requirement for a licensed engineer to evaluate this is overkill and ‘red tape’-- this language technically requires the Building Dept. to require a licensed engineer to evaluate the soil for a new deck. Also part a. 2. often misleads people into thinking that deck piers only ever have to be 8 inches belled out to 12 inches (even though that is not what it says).

### **Table R403.1 Minimum Width of Concrete, Precast or Masonry Footings**

Revise the values in Table R403.1 to be not less than 16 inches.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment.

### **R403.3 Frost protected shallow foundation**

Delete this section in its entirety and replace with the following: Frost protected shallow foundations are not permitted.

Recommendation: Rewrite amendment as:

**R403.3 Frost-protected shallow foundation.** Delete this section in its entirety and do not replace.

Substantiation: There are very limited applications for this, and other communities have experienced issues with them when owners change site grading.

#### **R404.1.2 Concrete foundation walls**

Delete the last sentence and replace with the following:

Beam pockets shall be not less than 1 inch wider than the beam supported shall be installed to provide a minimum end bearing of 4 inches.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment. Allowing a design provided by the IRC and not requiring an architect is a primary goal of the code—reducing ‘red tape’. Information regarding beam pockets and minimum bearing is not appropriate in this Chapter of the code and conflicts with Section 502.6.

#### **R404.3 Wood sill plates**

Delete and replace with the following:

Wood sill plates shall be a minimum of 2-inch by 4-inch nominal lumber. Plates shall be shimmed level to provide solid contact with the foundation wall. Shims shall be placed not more than 32 inches on center. Voids underneath shall be filled with approved material to prevent air infiltration and pest infestation.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment. The State Energy Code covers air infiltration. Also, reference to other sections of the code was deleted by this amendment and those references need to remain.

#### **R407.1 Wood Column Protection**

Delete and replace with the following:

Wood columns are not permitted in below-grade applications.

Recommendation: Rewrite the amendment as:

#### **R407.1 Wood column protection.**

Add the following at the end:

Wood columns are not permitted for use below the *grade plane*.

Substantiation: Steel columns typically last longer than wood; wood columns require structural calculations.

### **R407.3 Structural Requirements**

Delete and replace with the following:

The columns shall be restrained to prevent lateral displacement at the bottom and top ends. Steel columns shall not be less than 3-inch-diameter concrete-filled steel pipe standard weight or heavier. Column caps must be bolted or welded to steel girders. Shim columns only at the bottom and for a maximum height of 2 ¼ inches. No loose shims are permitted. Embed in a minimum of 2 inches of concrete or bolt to floor or foundation with a minimum of two ½ inch diameter anchor bolts per base plate. Provide ½ inch thick minimum base plate.

Recommendation: Rewrite the amendment as:

### **R407.3 Structural requirements.**

Add the following to the end of the main paragraph:

Steel columns shall be welded to a ½ inch thick base plate that extends beyond the outside edge of the column to allow for the required installation of a minimum of two ½ inch diameter anchor bolts. The minimum plan view dimension of the base plate shall be 4 inches. A concrete floor shall not be used to prevent lateral displacement of a column.

Substantiation: The amendment provides clarity for column support and lateral displacement not provided by the standard code. The rewritten version eliminates redundant info, such as attachment of the cap to the girder, and unclear language such as shimming columns only at the bottom for a maximum height of 2 ¼ inches. Also added is language that prohibits reliance on the basement concrete to prevent displacement because the column could move while the floor is being poured and/or floors themselves can move/shift in a manner not uniform with the foundation causing unwanted movement of the column.

### **R408, R408.1 through R408.7 Under-Floor Space**

Delete text of Section R408.1 through R408.7, and replace with the following paragraphs as part of revised Section R408:

- a. At a minimum, the clear height of under-floor spaces shall be not less than 30 inches.
- b. All crawl spaces shall have a floor slab consisting of 2 inches of concrete over 2 inches minimum stone over a minimum 6-mil vapor barrier.
- c. Access shall be provided to all under-floor spaces via an interior space. Access openings shall be not less than 30 inches by 30 inches.
- d. Exterior ventilation is not allowed for under-floor space.
- e. Insulation shall be based on the Energy Conservation provisions of this Code.

Recommendation: Delete the amendment and do not replace.

Substantiation: There is no justification for this amendment. Also, the Energy Conservation provisions of this code are to be replaced with the State of Illinois Energy Code.

Recommendation: Delete all existing amendments to Chapter 5, except as noted.

Substantiation: There is no justification for any of these amendments. Particularly, amendment 502.3 is the antithesis of one of the most fundamental purposes of the IRC, which is to allow for simplification of design. Amendment 502.3 requires that all structures with floors, including such things as decks, be designed by a licensed architect or engineer—this should not be the case.

## Chapter 5 - Floors

### **R502.3 Allowable joist spans**

Delete and replace with the following:

Spans shall be in accordance with the design by the licensed architect or engineer, but in no case shall joist dimensions be less than 2 x 8.

### **R502.3.1**

Delete and replace with the following:

For all Tables, in this chapter of the IRC, the minimum floor joist shall be 2 x 8.

### **R502.6.2 Joist framing**

Delete and replace with the following:

Joists framing into the side of a wood girder, steel beam, masonry wall, or concrete foundation wall shall be supported by approved framing anchors.

### **R502.7.1 Bridging**

Change 2 inches by 12 inches in the first sentence to 2 x 8 or larger.

Recommendation: Rewrite amendment as:

### **R502.7.1 Bridging.**

Replace 12 (inches) with 6.

Substantiation: Field experience shows severe twisting of floor joists of smaller dimensions occurs.

### **R504 Pressure Preservatively Treated-Wood Floors (On Ground)**

Delete this entire section and replace with the following:

Wood floors on ground/grade are not permitted.

### **R506.1 General**

Change 3.5 inches in the first sentence to 4 inches.

Recommendation: Leave amendment written as is. (With editorial change of 3.5 written as 3 ½).

Substantiation: Field experience has shown early degradation of slabs less than 4 inches thick.

### **R506.2 Site Preparation**

Add at the end of the first paragraph:

Basements shall be pumped and kept dry at least 24 hours before the floor is to be placed.

### **R506.2.2 Base**

Delete the Exception.

Recommendation: Delete all existing amendments to Chapter 6.

Substantiation: There is no justification for any of these amendments. Particularly, amendments 602.7, 606.1.1, and 611.1 are the antithesis of one of the most fundamental purposes of the IRC, which is to allow for simplification of design. Also, requiring no greater than 16" spacing of studs is not aligned with Green construction and Energy Conservation practices.

## **Chapter 6 - Wall Construction R602.3 Design and Construction**

Add the following after the last sentence:

Balloon framing construction shall not be permitted in the Village.

### **Figure R602.3(1) Typical Wall, Floor and Roof Framing**

Delete the drawing for Balloon Framing Construction.

### **R602.3.2 Top plate**

Delete the Exception.

### **R602.4 Interior load-bearing walls**

Add at the end:

Wood frame bearing walls are not permitted in basements.

### **R602.5 Interior non-bearing walls**

Delete the first sentence and replace it with the following:

Interior nonbearing walls shall be constructed with a minimum of 2x4 studs spaced a maximum of 16 inches on center.

### **R602.7 Headers**

Delete and replace with the following:

Header spans shall be designed by a licensed architect or engineer and shall not be less than the requirements of Tables R502.5(1) and R502.5(2).

### **R602.7.2 Headers in Non-bearing walls**

Delete and replace with the following:

Openings exceeding three feet shall have a minimum of two 2x4 studs laid on edge.

Openings less than three feet may have one 2x4 stud laid flat.

### **R606.1.1 Professional registration not required**

Delete in its entirety.

### **R611.1 General**

Delete the second sentence.

Recommendation: Delete all existing amendments to Chapter 7.

Substantiation: There is no justification for any of these amendments.

## Chapter 7 - Wall Covering

### Table R702.3.5 Minimum Thickness and Application of Gypsum Board

Delete data for rows corresponding to a single layer of  $\frac{1}{2}$  inches thickness of gypsum board.

Add footnote f to read as follows:

f. For the interior finish of an exterior building envelope assembly; the gypsum board shall (at a minimum) be  $\frac{5}{8}$  inch thick. Gypsum board shall be taped and finished to at least a 'level one' in unoccupied spaces and 'level three' in occupied spaces, as specified by the US Gypsum Association document GA-214-07.

### R703.2 Water-resistive barrier

Delete all exceptions.

### R703.3.1 Panel siding

Add the following at the end:

All panels shall contain an approved rated siding grade mark.

### R703.7.3 Lintels

Add the following after the last sentence:

All shop-primed steel lintels that are left exposed to the weather shall have a finish coat of paint applied.

### R703.7.4.3 Mortar or grout fill

Delete in its entirety.

### R703.7.6 Weepholes

Add the following at the end (delete the period and continue the sentence):

, including at head and sill flashing of windows. A vermin-proof barrier to prevent pests and rodents from entering the wall cavity without inhibiting the flow of moisture is required.

Recommendation: Except as noted, delete all existing amendments to Chapter 8.

Substantiation: There is no justification for any of these amendments.

## **Chapter 8 - Roof-Ceiling Construction**

### **R801.2 Requirements**

Add the following at the end:

Roof and ceiling construction shall be designed by a licensed architect or engineer of record.

### **R801.3 Roof drainage**

Delete the following text:

In areas where expansive or collapsible soils are known to exist,

Recommendation: Keep this amendment as written.

Substantiation: We do not want water draining off a roof uncontrolled to the ground.

### **R802.3 Framing details**

Change ridge board from 1-inch to 2-inch.

Recommendation: Rewrite this amendment as:

**R802.3 Ridge.** Replace 1 (inch) with 2.

Substantiation: Field experience has shown that 1" nominal ridge boards splinter and split when fastening rafters to them.

#### **R802.3.1 Ceiling joist and rafter connections**

Change the dimensions for the collar ties in the last paragraph from 1-inch by 4-inch to 2-inch by 4-inch.

#### **R802.11.1 Uplift Resistance**

Delete the first sentence and replace it with the following:

Roof assemblies shall have roof rafters or trusses attached to their supporting wall assemblies by connections capable of providing the resistance required in Table R802.11.

Add the following at the end of the second paragraph:

At a minimum, tie down clips installed in accordance with the manufacturer's requirements shall be provided at all truss and rafter ends bearing on outside wall plates to tie the roof framing to the wall framing with a continuous load path designed to transmit the uplift forces from the rafter or truss ties to the foundation.

### **R803.2.2 Allowable spans**

Add the following sentence at the end:

Sheathing clip supports shall be used when framing centers exceed 16 inches on-center.

### **R806.2 Minimum area**

Delete the last sentence.

Recommendation: Delete all existing amendments to Chapter 9.

Substantiation: 903.4 is unnecessary as the requirement for controlled water from a roof is already required by Section R801.3. There is no justification to require a Class C label. Existing roofs may not be able to meet the requirements of R806 without redesigning the roof—the Village should not make people redesign their roofs to put a new covering on it.

## **Chapter 9 - Roof Assemblies**

### **R903.4 Roof drainage**

Add a second sentence to read as follows :

Where roofs are sloped to drain over roof edges, gutters and downspouts are required.

After the last sentence, add the following:

Gutters and downspouts shall comply with the following requirements:

1. Gutters and downspouts shall be installed on all dwelling units unless omission is specifically permitted by the Code Official.
2. Downspouts shall not be connected to the sanitary sewer system or to the footing drain tile system. All outlets shall discharge into the front or rear yards only through an open splash-block or as otherwise permitted by the Code Official.
3. Acceptable materials include the following:
  - i. 16 ounce, hard, cornice tempered copper,
  - ii. 26 gauge galvanized sheet metal with a 1.25 ounce total weight per square foot zinc coating,
  - iii. Aluminum with a minimum gauge of 0.019,
  - iv. Plastic, vinyl or other material as permitted by the Code Official.

### **R905.2.4 Asphalt Shingles**

Add the following sentence:

Asphalt shingles shall be of a Class C label or better.

### **R907.1 Roof Recovering**

Add the following sentence:

When recovering or replacing an existing roof, the roof shall be ventilated in accordance with the requirements of R806 for new roofs.

Recommendation: Delete all existing amendments to Chapter 10.

Substantiation: There is no justification for any of these amendments. Also, the State Energy Code adequately covers the requirements for determining the thermal envelope of a building, so language pertaining to insulation is redundant, unnecessary, and potentially conflicting.

#### **Chapter 10 - Chimneys and Fireplaces R1004.1 General requirements for factory-built fireplaces**

Add the following at the end:

Fire-blocking shall be provided in accordance with R1003.19. When the enclosing chase is located on an outside wall or adjacent to an unheated area, it shall be insulated in the same manner as the adjacent walls. Combustible framing within the enclosure, except the supporting floor construction, shall then be covered with 5/8 inch minimum drywall, taped and sealed.

#### **R1004.2 Hearth extensions**

Add the following at the end:

Units without a sealed firebox shall have hearth extensions of not less than 3/8 inch thick stone, tile, or other approved non-combustible material, and shall comply with R1001.10.

#### **R1004.4 Unvented gas log heaters**

Delete and replace with the following:

Unvented gas log heaters are not permitted.

#### **R1005.1 General requirements for factory-built chimneys**

Add the following at the end:

Fire-blocking shall be provided in accordance with R1003.19. When the enclosing chase is located on an outside wall or adjacent to an unheated area, it shall be insulated in the same manner as the adjacent wall. Combustible framing within the enclosure, except the supporting floor construction, shall then be covered with 1 1/2 inch minimum drywall, taped and sealed.

#### **Chapter 11 - Energy Efficiency**

Delete this Chapter in its entirety and refer to Article X, Regulations and Standards for Energy Conservation and Sound Control Measures.

Recommendation: Delete this amendment and rewrite as:

Delete Chapter 11 in its entirety.

Substantiation: The State of Illinois Energy Code does not allow for modifications to it for residential applications. Also, Article VII (which is improperly referenced as Article X) Section 23-704 is, at least partially, modifying energy code requirements under the guise of 'sound control' which is disingenuous and confusing, not to mention it being most often overlooked by design professionals and contractors because it is not grouped with the IRC amendments. There is no justification for any of these amendments, plus it is practically impossible to field determine actual STC and IIC.

Recommendation: Delete all existing amendments to Chapter 14.

Substantiation: There is no justification for any of these amendments. Particularly, adding sprinkler protection for furnaces and boilers poses many practical installation and maintenance problems. Also, the amendment does not specify a standard by which the sprinkler is to be installed to, which leads to inconsistent interpretations, and makes it difficult for designers.

## **Chapter 14-Heating and Cooling Equipment**

### **M1401.1 Installation**

Add the following at the end:

Systems shall be arranged so that the circulating air from one dwelling unit does not discharge into another dwelling unit.

Add the following at the end:

In houses that are not fully sprinklered, fire sprinkler protection shall be provided for furnaces and boilers. Sprinkler head type and temperature rating shall be dependent upon room configuration and ambient room temperature. Sprinkler head temperature rating shall be not less than 212 degrees Fahrenheit nor greater than 286 degrees Fahrenheit. Water supply to the sprinkler head(s) may be fed from a branch of the domestic water supply in compliance with the Code.

### **M1408.5 Installation**

Delete 3 and replace it with the following:

3. Floor furnaces shall be installed not closer than 6 inches to the ground. The lower six inches of the furnace shall be sealed to prevent water entry.

### **M1411.3 Condensate Disposal**

Add the following at the end:

Condensate pumps shall be prohibited in new construction.

#### **M1411.3.2**

Add the following at the end:

The maximum length for such drain pipes shall be 15 feet.

### **M1413.1 General**

Delete and replace with the following:

Evaporative cooling equipment is prohibited.

Recommendation: Delete all existing amendments to Chapter 16.

Substantiation: There is no justification for any of these amendments, though it is noted that a variation to 1602.1 Return air, will be presented as a new amendment.

## **Chapter 16 - Duct Systems M1601.1.1 Above-ground Duct Systems**

Delete paragraph 7 and replace it with the following:

7. For flexible duct work and connectors:

7.1 Flexible air ducts shall be limited to 8 feet in length.

7.2 Flexible air connectors shall be limited to 8 feet in length.

### **M1601.4.5 Duct Installation**

Add the following new paragraphs:

4. All duct work installed in an attic shall be insulated. All metal supply duct work installed in a ventilated crawl space or other non-conditioned space shall be insulated. Insulation shall be a minimum 2-inch,  $\frac{1}{2}$  pound density blanket, or 1-inch thick, 1  $\frac{1}{2}$  pound density liner.

5. When non-metallic ducts or other approved insulating or lining materials are used, the minimum thermal conductance value of the material shall be 0.23 at 75 degrees Fahrenheit.

6. Where duct liner has been interrupted, a duct covering of equal thermal performance shall be installed.

7. Service openings shall not be concealed by duct coverings unless the exact location of the opening is properly labeled.

8. All ducts which operate at temperatures in excess of 120 degrees Fahrenheit shall have sufficient thermal insulation to limit the exposed surface temperature to 120 degrees Fahrenheit, and a vapor barrier shall not be required.

### **M1602.1 Return Air**

Add the following at the end:

All ducted cold air return inlets shall be located both high and low on walls, except in areas listed as a prohibited source in Section M1602.2. Each return inlet register shall have operable louvers.

### **M1602.2 Prohibited Sources**

Delete item 4 and replace with the following:

4. A closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room, furnace room, unconditioned spaces (including cellars, cavity walls, attics, under-floor space) or from another dwelling unit.

**Chapter 18 - Chimneys and Vents M1803.4 Connection to  
Fireplace Flue**

Delete Section M1803.4 and replace with the following:

Connection of appliances to chimney flues serving fireplaces is prohibited.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

**Chapter 21 - Hydronic Piping**

**M2103.1 Piping Materials**

Delete the following materials:

standard weight steel pipe, copper tubing, chlorinated polyvinyl chloride (CPVC), polybutylene

Add the following at the end:

Only the above mentioned piping materials shall be used for Table M2101.1.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

**Chapter 22 - Special Piping and Storage Systems**

**M2201.3 Underground tanks**

Delete Section M2201.3 and replace with the following:

Underground tanks are prohibited.

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

Recommendation: Delete all existing amendments to Chapter 24.

Substantiation: There is no justification for any of these amendments.

## Chapter 24 - Fuel Gas

### **G2406.2 Prohibited Locations**

Add the following as 6:

No appliance shall be located under stairways used as a means of egress.

### **G2407.11 Combustion air ducts**

Delete the Exception in paragraph 1.

### **G2426.7 Protection Against Physical Damage**

Add the following at the end:

Portions of vents which extend through occupied spaces shall be protected to prevent damage to the vent.

## Chapters 25 to 33 Plumbing

Delete all of Chapters 25 through 33 and replace with the following:

The applicable provisions of the Plumbing Regulations in the Municipal Code shall establish the general scope of the plumbing system and equipment requirements for One- and Two-Family Dwelling structures.

Recommendation: Rewrite amendment to Chapters 25 to 33 as:

Except as noted in a. below, delete Chapter 25 in its entirety.

a. Section P2503.7 shall remain in effect only as referenced by Section P2904.8.1, list item number 8.

Except as noted in a. below, delete Chapter 26 in its entirety.

a. Section P2603.5 shall remain in effect only as referenced by Section P2904.2.3, but subsection 2603.5.1 is deleted.

Delete Chapter 27 in its entirety.

Delete Chapter 28 in its entirety.

Except as noted in a. below, delete Chapter 29 in its entirety.

a. Section P2904 shall remain in effect.

Delete Chapter 30 in its entirety.

Delete Chapter 31 in its entirety.

Delete Chapter 32 in its entirety.

Substantiation: All 'plumbing' as regulated by the State of Illinois is being removed from the IRC, but there is language within these Chapters of the IRC that are not, at least solely, 'plumbing' as regulated by the State, hence are being kept. Of particular note is Section P2904 which regulates the installation of fire sprinkler systems—while fire sprinklers are being recommended as not required, if someone chooses to install them, it is important to have an adopted standard by which they are to be installed. Chapter 33 pertains to subsoil drainage which is not a 'plumbing' system, hence being kept. (See New Recommendations for plumbing scope.)

## Chapters 34 to 43 Electrical

Delete all of Chapters 34 through 43 and replace with the following:

The applicable provisions of the Electrical Regulations in the Municipal Code shall establish the general scope of the electrical system and equipment requirements for One- and Two-Family Dwelling structures.

Recommendation: Rewrite amendment as:

Delete Chapters 34 through 43 in their entirety.

Substantiation: While the language of this section comes directly from the NEC, the potential for inconsistencies exist with the restructuring done in the IRC, as well as there being potential for something not carried over from the NEC to the IRC that may need to be used. In short, sticking to one book makes things easier and reduces potential for errors and different interpretations. (See New Recommendations for electrical requirements).

## Chapter 44 - Referenced Standards

### **GGA Gypsum Association**

Add the following row:

GA 214-07 Recommended Levels of Gypsum Board Finish .....Table R702.3.5

Recommendation: Delete this amendment and do not replace.

Substantiation: The amendment to Table R702.3.5 is being eliminated and this reference relates to that amendment.

## **Appendix G AG103.2 Above-ground pools and on-ground pools**

Replace ANSI/NSPI-4 with ANSI/APSP-4-2007.

### **AG108.1 General**

Replace ANSI/NSPI-4-99 standard for above-ground/on-ground residential swimming pools with ANSI/APSP-4-2007 standard for above-ground/on-ground residential swimming pools

Recommendation: Delete this amendment and do not replace.

Substantiation: Pool installations are now referenced by IRC Section R326. Appendix G covers a different topic. There is also no need to update the ANSI code referenced standard.

## **Appendix K**

### **AK101.1 General**

Revise to read as follows:

- a. Every exterior wall of a dwelling that is part of the building's thermal envelope shall be designed and constructed to reduce the transmission of sound as provided for in Article III.
- b. Every exterior wall of a dwelling that is part of the building's thermal envelope shall be designed and constructed to reduce the transmission of sound as provided for in Article III.
- c. All components of the building's exterior envelope shall be designed and constructed in accordance with the provisions of the IRC as amended, to reduce the transmission of noise into every habitable livable dwelling space.
- d. Wall and floor-ceiling assemblies separating dwelling units including those separating adjacent townhouse units shall provide air-borne sound insulation for walls, and both air-borne and impact sound insulation for floor-ceiling assemblies.

Recommendation: Rewrite this amendment as:

### **AK101.1 General.**

Add the following sentence to the end:

Walls and floor-ceiling assemblies within the same dwelling unit are not required to meet sound transmission ratings.

Substantiation: This clarifies intent which would otherwise be subject to different interpretations based on the language structure being inconsistent from Section AK102 and Section AK103- i.e., AK103 specifically defines the area between dwelling units as where it is applicable, but Section AK102 does not and could be interpreted as it is intended that all walls and floors, including those in the same dwelling unit, are required to meet the STC rating.

Requiring sound transmission ratings on exterior walls is practically impossible to enforce. Also, the State Energy Code is going to require insulation which will serve adequately for sound transmission. Also, a. and b. are repeated language. Also, c. is subject to a wide range of interpretation and really serves no purpose that wasn't covered by a. (and b.). Lastly, d. is standard code language which will remain.

**AK102.1 General**

Revise as follows:

Change Sound Transmission Class (STC) rating of 45 to: Sound  
Transmission Class (STC) rating of 55

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

**AK1 03.1 General**

Revise as follows:

Change Impact Insulation Class (IIC) rating of not less than 45 to: Impact  
Insulation Class (IIC) rating of not less than 55

Recommendation: Delete this amendment and do not replace.

Substantiation: There is no justification for this amendment.

## Recommendations to the Municipal Code Chapter 23, Article II- Amendments to the 2018 IRC and Appendices.

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article II- Regulations and Standards for One- and Two-Family Dwellings,  
Section 23-201- Adoption of the 2018 International Residential Code and Appendices for One- and Two-Family Dwellings

a. There is hereby adopted by reference the 2018 International Residential Code (IRC), published by the International Code Council, Inc. and specifically includes Appendices J, K, M, and O, except as modified by Section 23-201 b of this Article.

Substantiation: Appendix J is needed to deal with existing construction. Appendix O covers vehicular gates.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The IRC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 IRC sections.

### Chapter 1

#### R101.1 Title.

Insert 'The Village of Arlington Heights' as [NAME OF JURISDICTION].

**R101.2 Scope.**

Delete the entire Exception.

Substantiation: These types of occupancies should be left to conform to the IBC, particularly because any existing house won't have a fire sprinkler system, and any new house being built will not be being built with the intent of any of these uses.

**R101.2 Scope.**

Add the following to the end of the paragraph:

Where this code does not cover the provision of an installation, the 2018 International Building Code (IBC) shall be used, but the IBC shall not be used to otherwise circumvent administrative or technical requirements of this code.

Substantiation: Clarifies that if someone builds a house using 'commercial' methods, that the IBC shall be used. Also clarifies that someone cannot use rules from the IBC to override the IRC requirements—someone tried to do this pertaining to a shed installation where the IBC allowed for a closer setback.

**R101.2.1 Plumbing scope.**

Add this section to read as follows:

Plumbing shall be done in accordance with Municipal Code Chapter 23 Article X. Any reference in this code to plumbing as defined in Municipal Code Chapter 23 Article X, cross references to or from other sections of this code to plumbing as defined in Municipal Code Chapter 23 Article X, and/or definitions of plumbing related items as defined in Municipal Code Chapter 23 Article X shall not be applicable, but sections of Part VII of this code that are specifically adopted, that are not regulated by Municipal Code Chapter 23 Article X shall be applicable.

Substantiation: Intended to be 'catchall' language saying that plumbing (as defined by the State of Illinois) shall be done in accordance with the State Code and not the IRC. But also clarifies that items under the 'Plumbing' section of the IRC, which are not defined as 'plumbing' by the State, shall be applicable (where we specifically adopt it). Trying to catch every cross-reference to sections of the code that may be defined as 'plumbing' is difficult and this language helps eliminate potential loopholes.

**101.2.2 Electrical scope.**

Add this section to read as follows:

Electrical installations shall be done in accordance with Municipal Code Chapter 23 Article VI.

Substantiation: The electrical section of the IRC is being deleted (explained below). This establishes where/how electrical is regulated.

**101.2.3 Energy conservation scope.**

Add this section to read as follows:

Energy Conservation shall be done in accordance with Municipal Code Chapter 23 Article XII.

Substantiation: The energy section of the IRC is being deleted (explained below). This establishes where/how energy is regulated.

**101.2.4 Antennas and earth stations.**

Add this section to read as follows:

Antennas and earth stations shall be installed in accordance with Municipal Code Chapter 23 Article XVII.

Substantiation: The IRC does not contain specific rules for antennas and earth stations. This establishes where/how they are regulated.

**R105.1 Work exempt from permit.**

Delete the following list items:

Building:

List items 1, 2, 3, 4, 5, and 10.

Substantiation: The Village should regulate these items and require a permit for them.

1. Detached accessory structures, such as sheds, are regulated by zoning and need to be reviewed. Additionally, there has been a recent history of poorly constructed sheds- the Building Dept. believes it is important to do a review regarding the structural elements so as to avoid complete reworking after a failed inspection.
2. Fences are regulated by the zoning code, and have historically been required to get a permit anyways, so this change is just setting the code to reality.
3. We don't want people installing retaining walls without them being reviewed.
4. While very uncommon, if someone did want to install a 5000 gallon water tank in their yard, it would be prudent to review it for location if nothing else.
5. Sidewalks and driveways have historically been required to get a permit, so this change is just setting the code to reality.
10. All decks should be required to obtain a permit for zoning and structural review.

Electrical:  
List item 2.

Substantiation: The Village should regulate these items and require a permit for them.

1. One of the most common electrical violations is improperly wired receptacles. Permits should be obtained so an inspection is done.

Plumbing:  
List items 1 and 2.

Substantiation: These items are removed so as to avoid any conflict with the State of Illinois Plumbing Code.

Modify the following list items:

Building:  
List item 6 shall read as follows: Painting, papering, tiling, carpeting, countertops, kitchen or bathroom upper cabinets, cabinets in rooms other than kitchens or bathrooms, exterior siding and gutters, and roof coverings.

Substantiation: This list is modified to be more precise and practical as well as consistent with reality. Also since there is practical difficulty in a Village inspector inspecting a roof installation's critical elements, a permit should not be required so as to not mislead residents in regards to what they should expect from the Village.

Upper cabinets most often don't lead to code issues, but base cabinets most often do.

Siding and gutters has not required a permit, so this language is just setting code to reality.

#### **Electric:**

List item 3 shall read as follows: Replacement of non-circuit breaker type overcurrent devices.

Substantiation: Replacing fuses should not require a permit (because this is analogous to flipping back on a circuit breaker). But the replacement of circuit breakers potentially involves moving them into a different location in the panel which can be very dangerous by causing the grounded conductor (neutral) to be overloaded, overheat, and cause a fire.

#### **105.3 Application for permit.**

Add the following language after the first sentence: Where required by the Building Official, plans shall be submitted for plan review and approved prior to the submittal of application(s) for permits.

Substantiation: The Village may consider requiring plans to be submitted for review before permits are applied for. This language clarifies that this is allowed.

Add the following subsection:

#### **105.10 Safeguards during construction.**

All construction shall conform to Chapter 33 of the IBC as referenced by municipal code section 23-301.

#### **109.1.1 Foundation inspection.**

Delete the existing text of the subsection and replace with:

#### **109.1.1 Required inspections.**

All inspections required by the Village shall be requested by the permit holder and shall be approved in accordance with subsection R109.4

Substantiation: The existing code language structure of listing some of the types of inspections, then adding a catchall that says 'anything else required by the Building Official' is often misinterpreted and leads to misunderstandings. This amendment helps clear up that confusion by just telling people that they have to check with the Village.

**109.1.2 Plumbing, mechanical, gas and electrical system inspection.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.3 Floodplain inspections.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.4 Frame and masonry inspection.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.5 Other inspections.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.5.1 Fire-resistance-rated construction inspection.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.6 Final inspection.**  
Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**109.1.6.1 Elevation documentation.**

Delete the entire subsection.

Substantiation: All inspections will be required by Section 109.1.1

**110.3 Certificate issued.**

Delete list items number 3, 5, and 8.

Substantiation: Number 3-Properties may be owned by a company or partners with multiple addresses, owners' addresses may change, and this is private information that may not want to be shared. Number 5- COs may be issued for change of use which involves no work- the phrase 'compliance with this code' can be misleading. Number 8- This information serves no practical purpose. If a house is built with a sprinkler system that is not required, and subsequently the system is decommissioned, the CO could be misinterpreted.

**Section R112 Board of Appeals**

Delete this section in its entirety.

Substantiation: The Village does not have a Board of Appeals, hence this section is eliminated.

## Chapter 2

Add the following Section:

**R201.5 Terms defined in the IRC or other ICC codes and the Municipal Code.** Where terms are defined in both the IRC or other ICC codes and the Municipal Code, the meaning shall be interpreted as the context implies. The Director of the Building & Life Safety Department is authorized to make the determination of such meaning where conflicts may arise.

Substantiation: This is an updated version of an existing amendment. The existing amendment stated that the Municipal Code definition always trumps the adopted code definition which could be problematic depending on circumstances. This update allows for the practical, intended application of a definition and gives the Building Official the authority to make that determination.

## Chapter 3

### Table R301.2(1) Climatic and Geographic Design Criteria

Delete the Manual J Design Criteria table.

Substantiation: This part of the table is being eliminated to avoid potential conflicts with the State of Illinois Energy Code.

### R302.13 Fire protection of floors.

Delete this section in its entirety including Exceptions.

Substantiation: This is an attempt to force the fire sprinkler agenda. There is no evidence or history of firemen falling through a residential floor that was built with 2x8s. Practically applying this code is difficult at best and is likely to create other hazards such as hidden shut-off valves, undetected leaks, and less smoke collection area in the event of a fire below.

### 302.14 Combustible insulation clearance.

Delete the last sentence.

Substantiation: This is regulated by the State of Illinois Energy Code.

Add the following subsection:

**310.4.1 Required covers.** Window wells shall be covered with a cover that allows light through, doesn't allow the passage of a 4 inch diameter sphere, and has a minimum rating of 250 pounds.

Substantiation: Uncovered window wells create an obvious degree of danger that is easily remedied with this amendment.

## Chapter 4

**R403.1 General.** Remove the following language from the first sentence.

crushed stone footings, wood foundations,

Substantiation: It is recommended to not use these types of footings due to concerns of long-term structural integrity.

**R403.1 General.** Add the following language to the end of the paragraph.

Also, concrete stairways with three or more risers placed as a single structure which serve the primary dwelling shall be provided with a footing in accordance with this section.

Substantiation: The code is silent on this type of structure, so this clarifies the requirements that have been historically enforced and should be kept as there is much field evidence of movement of these structures which creates tripping hazards (and looks bad as well). The language also clarifies that this is intended for a single structure only, and not intended for a series of concrete sidewalks. NOTE- The allowance for elevation differences in R311.3.1 and R311.3.2 will not be considered a riser.

**R403.1 General.** Add the following Exception to this section.

Exception: Storage sheds that are 100 square feet or less are not required to be supported on a footing.

Substantiation: The code is silent on this type of structure, so this clarifies the requirements that have been historically enforced and should be kept as there is no good reason for it.

**R403.4.1 Crushed stone footings.** Remove this section in its entirety and do not replace.

Substantiation: It is recommended to not use this type of footing due to concerns of long-term structural integrity.

**R404.1.5.3 Pier and curtain wall foundations.** Remove this section in its entirety and do not replace.

Substantiation: It is recommended to not use this type of foundation system. It is not common in residential construction and it's not likely we would see someone try to use it anyways.

**R407.3 Structural requirements.**  
Delete the Exception to R407.3.

Substantiation: It's safer to provide restraint for lateral displacement and there will be very few, if any, projects where this situation occurs anyways.

## Chapter 5

**R507.3.2 Minimum depth.** Delete Exceptions 1 and 2, and replace Exception 1 with:

1. Free-standing decks that are not directly accessible from a door of the primary building need not be provided with footings that extend below the frost line.

Substantiation: Field experience has shown that movement of free-standing decks, stairs, and similar occurs and can create a tripping hazard when placed adjacent to buildings. Requiring a footing for decks below the frost line will reduce the potential for differential movement relative to the building, thus reducing potential for this hazard. Decks that do not serve the primary structure, e.g., deck in the middle of a yard, may still be built without the expense of frost protected footings.

## Chapter 6

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote d. to read:

In kitchens, butler pantries, and similar areas where upper cabinetry will be or is likely to be installed, an adequate means shall be installed for support of such cabinetry. Gypsum board or lath and plaster shall not be considered adequate support.

Add footnote d. to all spacing dimensions greater than 16 inches.

Substantiation: If 24 inch spacing is used for studs, there is often inadequate support for cabinetry that holds heavy dishes, glasses, etc. This amendment allows for requiring 16 inch spacing in certain areas, yet allowing other areas of less concern to use 24 inch spacing which is in tune with green and energy conscious construction.

**Table R602.3(5) Size, Height and Spacing of Wood Studs.** Add footnote e. to read:

Newly constructed walls which will contain plumbing drain, waste, and/or vent lines that are installed horizontally through the wall studs, shall be built with a minimum stud size of 2x6.

Add footnote e. to the table title.

Substantiation: It is a very common problem that 2x4 studs are bored and/or notched over the allowable amount to accommodate plumbing DWV piping. Methods for providing repairs to these studs are practically difficult, if not often impossible, to install. The difference in cost is negligible to increase the stud size and is recouped by not adding extra labor and materials for remedies, not to mention project delays due to failed inspections.

**R602.10 Wall bracing.** Delete the existing language and replace with: Primary buildings and accessory buildings that shelter automobiles shall be braced using the continuously sheathed wood structural panel method (CS-WSP) listed in Table R602.10.4 in accordance with this section or shall be designed by a State of Illinois licensed Structural Engineer. Other buildings shall be braced in accordance with this section or, when applicable, Section R602.12.

Substantiation: Continuously sheathed wood structural panel is the de facto method used in Chicagoland for building wood frame homes, (probably because it is the simplest yet most reliant method in terms of achieving a safe, reliable, and compliant installation), hence this amendment is going to have no real impact on builders/homeowners. What it does do is assure that if a builder wants to veer from this method, that plans are carefully and clearly designed to help assure structural integrity. The general quality and professionalism of the carpentry trade has been on a decline and using only one empirically known reliable method promotes construction quality and timely project completion.

**Table R602.10.4 Bracing Methods.** Replace 3/8" with 1/2" for the minimum thickness of bracing method continuously sheathed wood structural panel.

Substantiation: Continuously sheathed wood structural panels of less than 1/2" thickness have been observed to be more likely to experience warping, nail head pull through, and general damage from construction site operations. A minimum of 1/2" assures a minimum quality level for the Village, plus it also the most commonly used size in Chicagoland already so it will not be a change from current construction practice.

## Chapter 8

### **R801.3 Roof drainage.**

Insert the following after the word *dwelling*s:  
and accessory structures with a single roof plane that exceeds 100 square feet

Substantiation: This amendment is intended to require detached garages to have gutters, but not sheds or other smaller, similar types of accessory structures. For example, A 20x20 garage with hip roof will exceed 100 sq. ft. on a single roof plane, but a 10 x 15 shed with a gable roof won't.

**R803.2.2.1 Allowable Thickness.** Wood structural panels used as roof sheathing for new construction and/or new additions of primary buildings and/or accessory buildings that shelter automobiles shall be a minimum of 5/8" thick.

Substantiation: Using 5/8" plywood for roofs reduces potential for errors that are very difficult to remedy after the roof covering has been installed. The additional price per 4x8 sheet is small at under \$2.00.

## Chapter 16

Add this section:

**M1602.4 Return air inlets.** Unless approved by the Building Official in writing, non-central return air inlets shall be installed both high and low in each room where return inlets are installed.

Substantiation: Because HVAC systems are never 'designed' for homes, and due to the fact that ACCA Manuals are fairly complex, and ACCA Manual T is not a directly referenced standard from the IRC, this amendment allows for enforcement of a practical and low cost way to assure a new home or addition has an increased likelihood of 'good' space conditioning in every room. There have been numerous examples of contractors installing supply and return openings very close to one another, or furniture blocking the returns which leads to 'poor' space conditioning.

## Appendix J

**AJ301.1.2 Plumbing materials and supplies.**

Delete this section in its entirety.

Substantiation: This is removed to avoid potential conflict with the State of Illinois Plumbing Code.

**AJ301.2 Water closets.**

Delete this section in its entirety.

Substantiation: This is removed to avoid potential conflict with the State of Illinois Plumbing Code.

**AJ301.3 Electrical.**

Delete this section in its entirety.

Substantiation: This language can be confusing and interpreted in many ways. Also, it may conflict with municipal code section 23-205 which will adopt the 2017 NEC and be applicable to all electrical installations. Note- The electrical section of the IRC is being eliminated.

#### AJ501.5 Electrical equipment and wiring.

Delete the existing text of this section in its entirety, including all subsections, and replace with:

#### AJ501.5 Specific work types.

**AJ501.5.1 Kitchen remodels.** Where base cabinets are removed to facilitate a kitchen remodel, the following items must be brought into compliance as noted:

1. Receptacle outlets in the kitchen shall comply with the 2017 National Electric Code sections 210.52(B) and (C).

2. The kitchen sink shall be vented in compliance with the State of Illinois Plumbing Code.

3. Exhaust vents must be terminated to the exterior of the structure.

Exception: The Building Official may waive these requirements where there is practical difficulty in achieving compliance.

Substantiation: AJ501.5 is being repurposed to cover some practical, common field issues with the intent of assuring a quality and safe installation, particularly with systems that are difficult to analyze when the transfer of a property occurs. The amendments are intended to be of a 'scoping' nature, not technical, and this structuring will allow for easy updates for other types of work. The electrical items are being removed to avoid potential conflict with municipal code section 23-601 which will adopt the 2017 NEC.

AJ501.5.1 is added to cover specifics related to a kitchen remodel. People (quite often flippers), will attempt to 'remodel' a kitchen by updating cabinets and making it appear 'new', all while leaving outdated systems in place. This could be viewed as a deceptive practice, and often new homeowners having problems with their new kitchen will wonder how the Village could have approved it this way. The removal of base cabinets is a good threshold by which to require that systems directly related to the kitchen are modernized as well.

#### AJ601.4 Ceiling height.

Delete the existing text of this section in its entirety and replace with:

For buildings that contain *basements* without *habitable space* and/or hallways with ceiling heights not in compliance with this code for new construction, when an application is submitted to convert the basement to habitable space, the Building Official may grant approval upon review of the project and determination that there are other approved safety features of the space to offset the reduction in ceiling height, but in no case shall a ceiling below 6 feet 7 inches be allowed for use as *habitable space*. Where lay-in tile drop

ceilings are installed, the determined ceiling height shall be measured from the finished floor to the bottom side of the ceiling grid.

For buildings that contain basements with habitable space where the existing ceiling height does not conform with this code for new construction, when an application is submitted to remodel the basement habitable area, the application may be approved if:

a. The remodel will increase the ceiling height to be compliant with this code for new construction.

b. The Building Official grants approval upon review of the project and determination that there are other approved safety features of the space to offset a reduction of a non-compliant ceiling height in conformance with the first paragraph of this section.

c. Historical records show that the basement ceiling height as exists was previously approved by the Building Official and the remodel plans do not further reduce the ceiling height.

Substantiation: This amendment allows for better and more practical control over existing basement ceiling heights, as well as being slightly less restrictive than current code. It also provides decision making power to the Building Official.



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the International Swimming Pool and Spa Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the International Swimming Pool and Spa Code.

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| ISPSC 0 2918 ISPSC Adoption Language                                       | Presentation |
| ISPSC 2018 ISPSC Adoption Language - No Highlighting                       | Presentation |
| ISPSC New Recommendations to the Municipal Code Chapter 23 Article 9 ISPSC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Swimming Pools and Spas,  
Section 23-901- Adoption of the 2018 International Swimming Pool and Spa Code

a. There is hereby adopted by reference the 2018 International Swimming Pool and Spa Code (ISPSC), published by the International Code Council, Inc., except as modified by Section 23-901 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The ISPSC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 ISPSC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

**Chapter 1, Part 2-Administration and Enforcement.** Delete this section in its entirety and do not replace.

Add this section:

**102.7.2 Plumbing Code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**306.3 Step risers and treads.** Modify this section as follows:

1. In the first sentence replace 3-3/4 with 4, 95 with 102, 7-1/2 with 7, and 191 with 178.
2. In the third sentence replace 7-1/2 with 7-3/4.

**307.1.4 Accessibility.** Delete the language of this section and replace with:  
'Pools and spas shall meet the requirements of the Illinois Accessibility Code including an accessible route to the pool and/or spa.'

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Swimming Pools and Spas,  
Section 23-901- Adoption of the 2018 International Swimming Pool and Spa Code

a. There is hereby adopted by reference the 2018 International Swimming Pool and Spa Code (ISPSC), published by the International Code Council, Inc., except as modified by Section 23-901 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

b. The ISPSC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 ISPSC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

**Chapter 1, Part 2-Administration and Enforcement.** Delete this section in its entirety and do not replace.

Add this section:

**102.7.2 Plumbing Code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

**306.3 Step risers and treads.** Modify this section as follows:

1. In the first sentence replace 3-3/4 with 4, 95 with 102, 7-1/2 with 7, and 191 with 178.
2. In the third sentence replace 7-1/2 with 7-3/4.

**307.1.4 Accessibility.** Delete the language of this section and replace with:  
'Pools and spas shall meet the requirements of the Illinois Accessibility Code including an accessible route to the pool and/or spa.'

## Recommendations to the Municipal Code Chapter 23, Article IX- Amendments to the 2018 ISPSC

The following recommendations are new recommendations that do not relate to any existing ordinance language. Not highlighted language is added where needed to provide context for the highlighted language.

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article XVI- Regulations and Standards for Swimming Pools and Spas,  
Section 23-901- Adoption of the 2018 International Swimming Pool and Spa Code

a. There is hereby adopted by reference the 2018 International Swimming Pool and Spa Code (ISPSC), published by the International Code Council, Inc., except as modified by Section 23-901 b of this Article.

i. The First Printing: August 2017 was utilized in the adoption of this code and modifications. Any future errata of a formatting or clarifying nature shall be considered as part of this code. Future errata and/or printing changes of a contextual nature shall have their applicability determined by the Director of the Building & Life Safety Department.

Substantiation: As future errata and printing versions are published, there is potential for conflicting information from the first printed version. This language clarifies that the Building Official is authorized to make the decision regarding intent and applicability in the event of a conflict.

b. The ISPSC adopted by this Article is modified for use in the Village by the following amendments. The following Code sections shall be referenced in place of the corresponding 2018 ISPSC sections.

**101.1 Title.** Insert 'The Village of Arlington Heights' for [NAME OF JURISDICTION].

Substantiation: Self-explanatory.

**Chapter 1, Part 2-Administration and Enforcement.** Delete this section in its entirety and do not replace.

Substantiation: The IBC or IRC Administration and Enforcement section, as applicable, will be used. Not having multiple sections avoids confusion and potential conflict.

Add this section:

**102.7.2 Plumbing Code references.** All instances of reference to the '*International Plumbing Code*' in this code shall be replaced with 'Village of Arlington Heights Municipal Code Chapter 23, Article X', except where the reference relates to a subject not covered by Chapter 23, Article X.

Substantiation: There are 8 references to the IPC throughout the ISPSC. This covers all of them in one amendment instead of 8.

**306.3 Step risers and treads.** Modify this section as follows:

1. In the first sentence replace 3-3/4 with 4, 95 with 102, 7-1/2 with 7, and 191 with 178.
2. In the third sentence replace 7-1/2 with 7-3/4.

Substantiation: These dimensions maintain consistency with the IBC and IRC which will avoid confusion.

**307.1.4 Accessibility.** Delete the language of this section and replace with:  
'Pools and spas shall meet the requirements of the Illinois Accessibility Code including an accessible route to the pool and/or spa.'



**Building Code Review Board  
10/25/2019**

**Item:** Proposed changes to the Village Code related to the National Electrical Code

**Department:** Building & Life Safety

Proposed changes to the Village Code related to the National Electrical Code.

**ATTACHMENTS:**

| <b>Description</b>   | <b>Type</b>  |
|--|--------------|
| NEC-2017 NEC Adoption Language - No Highlighting                       | Presentation |
| NEC-New Recommendations to the Municipal Code Chapter 23 Article 6 NEC | Presentation |

Municipal Code Chapter 23- Building Construction & Property Maintenance Standards,  
Article VI- Regulations and Standards for Electrical Installations,  
Section 23-601- Adoption of the 2017 National Electrical Code

a. There is hereby adopted by reference the 2017 National Electrical Code (NEC), published by the National Fire Protection Association (NFPA), except as modified by Section 23-602 of this Article.

Section 23-602. The NEC adopted by this Article is modified for use in the Village by the following amendments.

a. **Allowed Wiring Methods.** The following Table shows allowed wiring methods and related requirements. This Table shall be presumed to be more restrictive than allowed by the NEC, and shall not be presumed to allow for anything less restrictive than allowed by the NEC.

**Table 23-602 Allowed Wiring Methods<sup>13</sup>**

| Circuit Class   | Circuit Type              | Inside or Outside of Structure              | Below or Above Ground <sup>4</sup> | Inside Installation Location <sup>3</sup> | Below Grade: Install Method       |  | Wall, Floor, or Ceiling Covering (At Time of Installation) | Allowed Wiring Methods (NEC Article # Listed) <sup>1</sup> |   |               |
|---|---------------------------|---|------------------------------------|---|-----------------------------------|--|--|--|---|---------------|
|   |                           |   |                                    |   | Above Grade: Physical Damage Risk |  |  |  |   |               |
| Power, Lighting, & Class 1 Remote Control and Signal Circuits <sup>16</sup> | Service <sup>10</sup>     | Outside                                     | Below                              | -   | Open Trench                       | -  | 342, 344, 352, 353, 354, 355                               |  |   |               |
|   |                           |   |                                    |   | Directional Boring                | -  | 353, 354   |  |   |               |
|   |                           |   |                                    |   | Not Subject To Physical Damage    | -  | 344  |  |   |               |
|   |                           |   | Above                              | -   | Subject to Physical Damage        | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Open Trench                       | -  | 342, 344, 352  |  |   |               |
|   |                           | Inside                                      | Below                              | -   | Open Trench                       | -  | 342, 344, 352  |  |   |               |
|   |                           |   |                                    |   | Above                             | Concealed  | -  | Uncovered  | 344   |               |
|   |                           |   |                                    |   |                                   |  | -  | Covered  | See Footnote 2.                                 |               |
|   |                           |   | Exposed                            | -   | Not Subject To Physical Damage    | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Subject to Physical Damage        | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |   |               |
|   | Feeders <sup>11, 12</sup> | Outside                                     | Below                              | -   | Open Trench                       | -  | 342, 344, 350, 352, 353, 354, 355, 356                     |  |   |               |
|   |                           |   |                                    |   | Directional Boring                | -  | 353, 354   |  |   |               |
|   |                           |   |                                    |   | Not Subject To Physical Damage    | -  | 344  |  |   |               |
|   |                           |   | Above                              | -   | Subject to Physical Damage        | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Open Trench                       | -  | 342, 344, 352  |  |   |               |
|   |                           |   | Inside                             | Below                                     | -                                 | Listed System  | -  | 342, 344, 352, 372, 374, 390                               |   |               |
|   |                           |   |                                    |   |                                   | Above  | Concealed  | -  | Uncovered                                       | 342, 344, 358 |
|   |                           |   |                                    |   |                                   |  |  | -  | Covered   | 348           |
| Exposed   |                           | -   |                                    | Not Subject To Physical Damage            | -                                 | 342, 344, 358  |  |  |   |               |
|   |                           |   |                                    | Subject to Physical Damage                | -                                 | 342, 344   |  |  |   |               |
|   |                           |   |                                    | Subject to Severe Physical Damage         | -                                 | 344  |  |  |   |               |
| Branch-circuits <sup>11, 12</sup>   |                           | Outside                                     |                                    | Below                                     | -                                 | Open Trench  | -  | 342, 344, 350, 352, 353, 354, 355, 356                     |   |               |
|   |                           |   |                                    |   |                                   | Directional Boring   | -  | 353, 354   |   |               |
|   |                           |   |                                    |   |                                   | Not Subject To Physical Damage   | -  | 342, 344, 350, 352, 356, 358                               |   |               |
|   |                           |   | Above                              | -   | Subject to Physical Damage        | -  | 342, 344, 358  |  |   |               |
|   |                           |   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |   |               |
|   |                           |   |                                    |   | Open Trench                       | -  | 342, 344, 352  |  |   |               |
|   | Inside                    | Below                                       | -                                  | Open Trench                               | -                                 | 342, 344, 352  |  |  |   |               |
|   |                           |   |                                    | Above                                     | Concealed                         | -  | Uncovered  | 342, 344, 348 <sup>5</sup> , 358                           |   |               |
|   |                           |   |                                    |   |                                   | -  | Covered  | 320, 330, 348, 350   |   |               |
|   |                           | Exposed                                     | -                                  | Not Subject To Physical Damage            | -                                 | 342, 344, 348 <sup>14</sup> , 358, 366 <sup>6</sup> , 368, 376, 380, 384, 386, 388 |  |  |   |               |
|   |                           |   |                                    | Subject to Physical Damage                | -                                 | 342, 344, 358, 366 <sup>6</sup> , 368, 376, 380, 384, 386, 388                     |  |  |   |               |
|   |                           |   |                                    | Subject to Severe Physical Damage         | -                                 | 344  |  |  |   |               |
|   |                           | Grounding Electrode Conductors <sup>9</sup> | Inside                             | Below                                     | -                                 | Open Trench  | -  | 344  |   |               |
|   |                           |   |                                    | Above                                     | Concealed                         | All  | Any  | 342, 344, 358  |   |               |
|   |                           |   |                                    |   |                                   | All  | -  | 342, 344, 358  |   |               |
| Fire Alarm Circuits <sup>7, 15</sup>  | All                       | Inside                                      | Below                              | -   | Open Trench                       | -  | Conductors/cables allowed by Article 760 in 344 or 352     |  |   |               |
|   |                           |   |                                    |   | Above                             | Concealed  | -  | Uncovered  | 342, 344, 358                                   |               |
|   |                           |   |                                    |   |                                   |  | -  | Covered  | Conductors/cables allowed by Article 760 in 348 |               |
|   |                           | Exposed                                     | -                                  | Subject to Physical Damage <sup>8</sup>   | -                                 | 342, 344, 358  |  |  |   |               |
|   |                           |   |                                    | Subject to Severe Physical Damage         | -                                 | 344  |  |  |   |               |
|   |                           |   |                                    |   |                                   |  |  |  |   |               |

Specific Footnotes to Table 23-602a.

1. This is not intended to exclude metersockets, junction boxes, cabinet enclosures, panel boards, or similar enclosures, but these enclosures shall be metallic.
2. Service conductors may not be fished into concealed spaces.
3. Concealed spaces are considered not subject to physical damage.
4. Below ground includes embedded in concrete.
5. Short sections that connect concealed junction boxes to exposed luminaires or appliances; or with specific approval from the Building Official where it is not feasible to install non-flexible wiring methods.
6. Metal only.
7. Does not include one- & two-family detached structures.
8. Any area from the floor to 7 feet above the floor shall be considered subject to physical damage.
9. All wiring methods may terminate within 5 feet of the connection to the grounding electrode.
10. The maximum length of raceways inside buildings that contain service conductor shall be 5 feet. The length of service conductors inside the service enclosure does not contribute to this calculated length.
11. All flexible raceways shall include an equipment grounding conductor sized according to the NEC.
12. All raceways installed below ground shall include an equipment grounding conductor sized according the NEC.
13. Listed products shall be allowed to use any wiring method that is included as part of the listing of the product.
14. Allowed for final connections to equipment, appliances, and/or luminaires.
15. Fire alarm conductors shall not be installed in the same raceway with other types of circuits.
16. Conductors shall be copper.

**Section 23-602 b- Grounding Electrode Conductor for New Construction.** For new construction where concrete footings or trench foundations are installed, a concrete-encased electrode shall be installed in accordance with NEC section 250.52 (A)(3). The concrete-encased electrode and the connection to the grounding electrode conductor shall be inspected and approved by the Village before concrete is placed.

**Section 23-602 c- Fan Rated Boxes.** Where junction boxes are installed in dwelling unit ceilings where a ceiling fan type fixture could and would likely be installed in the future, a fan-rated box shall be installed.

**Section 23-602 d- Services for One- & Two-Family New Construction.** Overhead service conductors and/or service drops shall not be allowed for services for new construction of one- & two-family dwellings.

## **Recommendations to the Municipal Code Chapter 23, Article VI- Amendments to the 2017 NEC**

The NEC amendments presented below have undergone a major restructuring and as such are only being presented as 'new recommendations'; there will not be a corresponding 'marked up' version of the existing amendments as is being provided for the IRC, IBC, IFC, etc. With this stated, many (but not all) of the intentions of the existing amendments are maintained in this new structure.

Municipal Code Chapter 23- Electrical Construction Standards,  
Article VI- Regulations and Standards for Electrical Installations,  
Section 23-601- Adoption of the 2017 National Electrical Code

a. There is hereby adopted by reference the 2017 National Electrical Code (NEC), published by the National Fire Protection Association (NFPA), except as modified by Section 23-602 of this Article.

Section 23-602. The NEC adopted by this Article is modified for use in the Village by the following amendments.

a. **Allowed Wiring Methods.** The following Table shows allowed wiring methods and related requirements. This Table shall be presumed to be more restrictive than allowed by the NEC, and shall not be presumed to allow for anything less restrictive than allowed by the NEC.

**Table 23-602 Allowed Wiring Methods<sup>13</sup>**

| Circuit Class   | Circuit Type                                | Structure | Inside or Outside of              | Below or Above Ground <sup>4</sup> | Inside Installation Location <sup>3</sup> | Below Grade: Install Method       |  | Wall, Floor, or Ceiling Covering (At Time of Installation) | Allowed Wiring Methods (NEC Article # Listed) <sup>1</sup> |                              |
|---|---|-----------|-----------------------------------|------------------------------------|---|-----------------------------------|--|--|--|------------------------------|
|   |   |           |                                   |                                    |   | Above Grade: Physical Damage Risk |  |  |  |                              |
| Power, Lighting, & Class 1 Remote Control and Signal Circuits <sup>16</sup> | Service <sup>10</sup>                       | Outside   | Below                             | -                                  |   | Open Trench                       | -  | 342, 344, 352, 353, 354, 355                               |  |                              |
|   |   |           |                                   |                                    |   | Directional Boring                | -  | 353, 354   |  |                              |
|   |   |           |                                   |                                    |   | Not Subject To Physical Damage    | -  | 344  |  |                              |
|   |   |           | Subject to Physical Damage        | -                                  | 344                                       |                                   |  |  |  |                              |
|   |   |           | Subject to Severe Physical Damage | -                                  | 344                                       |                                   |  |  |  |                              |
|   |   |           | Open Trench                       | -                                  | 342, 344, 352                             |                                   |  |  |  |                              |
|   |   | Inside    | Below                             | -                                  |   |                                   | Open Trench  | -  | 342, 344, 352  |                              |
|   |   |           |                                   |                                    |   |                                   | Concealed  | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Exposed  | -  | 344  |                              |
|   |   |           | Above                             | -                                  |   |                                   | Not Subject To Physical Damage   | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Physical Damage   | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Severe Physical Damage  | -  | 344  |                              |
|   | Feeders <sup>11, 12</sup>                   | Outside   | Below                             | -                                  |   |                                   | Open Trench  | -  | 342, 344, 350, 352, 353, 354, 355, 356                     |                              |
|   |   |           |                                   |                                    |   |                                   | Directional Boring   | -  | 353, 354   |                              |
|   |   |           |                                   |                                    |   |                                   | Not Subject To Physical Damage   | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Physical Damage   | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Severe Physical Damage  | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Open Trench  | -  | 342, 344, 352  |                              |
|   |   |           | Above                             | -                                  |   |                                   |  | Not Subject To Physical Damage                             | -  | 344                          |
|   |   |           |                                   |                                    |   |                                   |  | Subject to Physical Damage                                 | -  | 344                          |
|   |   |           |                                   |                                    |   |                                   |  | Subject to Severe Physical Damage                          | -  | 344                          |
|   |   |           |                                   |                                    |   |                                   |  | Open Trench  | -  | 342, 344, 352                |
|   |   |           |                                   |                                    |   |                                   |  | Listed System  | -  | 342, 344, 352, 372, 374, 390 |
|   |   |           |                                   |                                    |   |                                   |  | Concealed  | -  | 342, 344, 358                |
|   |   | Inside    | Below                             | -                                  |   |                                   | Open Trench  | -  | 342, 344, 352  |                              |
|   |   |           |                                   |                                    |   |                                   | Concealed  | -  | 342, 344, 358  |                              |
|   |   |           |                                   |                                    |   |                                   | Exposed  | -  | 342, 344, 358  |                              |
|   |   |           | Above                             | -                                  |   |                                   | Not Subject To Physical Damage   | -  | 342, 344   |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Physical Damage   | -  | 342, 344   |                              |
|   |   |           |                                   |                                    |   |                                   | Subject to Severe Physical Damage  | -  | 344  |                              |
|   | Branch-circuits <sup>11, 12</sup>           | Outside   | Below                             | -                                  |   |                                   | Open Trench  | -  | 342, 344, 350, 352, 353, 354, 355, 356                     |                              |
|   |   |           |                                   |                                    |   |                                   | Directional Boring   | -  | 353, 354   |                              |
|   |   |           |                                   |                                    |   |                                   | Not Subject To Physical Damage   | -  | 342, 344, 350, 352, 356, 358                               |                              |
| Subject to Physical Damage  |   |           | -                                 | 342, 344, 358                      |   |                                   |  |  |  |                              |
| Subject to Severe Physical Damage   |   |           | -                                 | 344                                |   |                                   |  |  |  |                              |
| Open Trench   |   |           | -                                 | 342, 344, 352                      |   |                                   |  |  |  |                              |
| Above   |   | -         |                                   |                                    |   | Not Subject To Physical Damage    | -  | 342, 344, 350, 352, 356, 358                               |  |                              |
|   |   |           |                                   |                                    |   | Subject to Physical Damage        | -  | 342, 344, 358  |  |                              |
|   |   |           |                                   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |                              |
|   |   | Inside    | Below                             | -                                  |   |                                   | Open Trench  | -  | 342, 344, 352  |                              |
|   |   |           |                                   |                                    |   |                                   | Concealed  | -  | 342, 344, 348 <sup>5</sup> , 358                           |                              |
|   |   |           |                                   |                                    |   |                                   | Exposed  | -  | 320, 330, 348, 350   |                              |
| Above   | -   |           |                                   |                                    | Not Subject To Physical Damage            | -                                 | 342, 344, 348 <sup>14</sup> , 358, 366 <sup>6</sup> , 368, 376, 380, 384, 386, 388 |  |  |                              |
|   |   |           |                                   |                                    | Subject to Physical Damage                | -                                 | 342, 344, 358, 366 <sup>6</sup> , 368, 376, 380, 384, 386, 388                     |  |  |                              |
|   |   |           |                                   |                                    | Subject to Severe Physical Damage         | -                                 | 344  |  |  |                              |
|   | Grounding Electrode Conductors <sup>9</sup> | Inside    | Below                             | -                                  |   |                                   | Open Trench  | -  | 344  |                              |
|   |   |           |                                   |                                    |   |                                   | Concealed  | Any  | 342, 344, 358  |                              |
|   |   |           |                                   |                                    |   |                                   | Exposed  | -  | 342, 344, 358  |                              |
| Above   |   | -         |                                   |                                    |   | Open Trench                       | -  | 344  |  |                              |
|   |   |           |                                   |                                    |   | Concealed                         | Any  | 342, 344, 358  |  |                              |
|   |   |           |                                   |                                    |   | Exposed                           | -  | 342, 344, 358  |  |                              |
| Fire Alarm Circuits <sup>7, 15</sup>  | All   | Inside    | Below                             | -                                  |   | Open Trench                       | -  | Conductors/cables allowed by Article 760 in 344 or 352     |  |                              |
|   |   |           |                                   |                                    |   | Concealed                         | -  | 342, 344, 358  |  |                              |
|   |   |           |                                   |                                    |   | Exposed                           | -  | 342, 344, 358  |  |                              |
|   |   | Above     | -                                 |                                    |   |                                   | Open Trench  | -  | Conductors/cables allowed by Article 760 in 348            |                              |
|   |   |           |                                   |                                    |   |                                   | Concealed  | Uncovered  | 342, 344, 358  |                              |
|   |   |           |                                   |                                    |   |                                   | Exposed  | Subject to Physical Damage <sup>8</sup>                    | 342, 344, 358  |                              |
|   |   |           |                                   |                                    |   | Subject to Severe Physical Damage | -  | 344  |  |                              |

## Specific Footnotes to Table 23-602a.

1. This is not intended to exclude metersockets, junction boxes, cabinet enclosures, panel boards, or similar enclosures, but these enclosures shall be metallic.
2. Service conductors may not be fished into concealed spaces.
3. Concealed spaces are considered not subject to physical damage.
4. Below ground includes embedded in concrete.
5. Short sections that connect concealed junction boxes to exposed luminaires or appliances; or with specific approval from the Building Official where it is not feasible to install non-flexible wiring methods.
6. Metal only.
7. Does not include one- & two-family detached structures.
8. Any area from the floor to 7 feet above the floor shall be considered subject to physical damage.
9. All wiring methods may terminate within 5 feet of the connection to the grounding electrode.
10. The maximum length of raceways inside buildings that contain service conductor shall be 5 feet. The length of service conductors inside the service enclosure does not contribute to this calculated length.
11. All flexible raceways shall include an equipment grounding conductor sized according to the NEC.
12. All raceways installed below ground shall include an equipment grounding conductor sized according the NEC.
13. Listed products shall be allowed to use any wiring method that is included as part of the listing of the product.
14. Allowed for final connections to equipment, appliances, and/or luminaires.
15. Fire alarm conductors shall not be installed in the same raceway with other types of circuits.
16. Conductors shall be copper.

**Section 23-602 b- Grounding Electrode Conductor for New Construction.** For new construction where concrete footings or trench foundations are installed, a concrete-encased electrode shall be installed in accordance with NEC section 250.52 (A)(3). The concrete-encased electrode and the connection to the grounding electrode conductor shall be inspected and approved by the Village before concrete is placed.

Substantiation: Water services get disconnected, may be replaced with plastic in the future, concrete-encased electrodes have proven to be an effective and reliable grounding means, and the cost is minimal.

**Section 23-602 c- Fan Rated Boxes.** Where junction boxes are installed in dwelling unit ceilings where a ceiling fan type fixture could and would likely be installed in the future, a fan-rated box shall be installed.

Substantiation: Lights are often replaced with ceiling fans. If and when this occurs, it would be much easier to do so without having to replace the junction box or install some alternative kit to compliantly support the ceiling fan. Also, this would add only a few dollars to the total cost of a new house.

**Section 23-602 d- Services for One- & Two-Family New Construction.** Overhead service conductors and/or service drops shall not be allowed for services for new construction of one- & two-family dwellings.

Substantiation: Underground services prevent power outages from storm damage. This is required by our existing electrical amendments.