

VILLAGE OF DOWNERS GROVE
REPORT FOR THE VILLAGE COUNCIL WORKSHOP
OCTOBER 6, 2009 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
Adoption of Updated Building Codes and a Locally Administered Elevator Safety Program.	✓ Resolution ✓ Ordinance Motion Discussion Only	Tom Dabareiner, AICP Community Development Director

SYNOPSIS

Ordinances have been prepared adopting the International Code Council's (ICC) 2006 series of building and fire codes, the 2008 National Electrical Code, and updated amendments to the 2004 State of Illinois Plumbing Code. Additionally, a resolution has been prepared entering the Village into an agreement with the State of Illinois for locally administering an Elevator Safety Program.

STRATEGIC PLAN ALIGNMENT

The Five Year Plan and Goals for 2008-2013 identified *Exceptional Municipal Organization* with a supporting objective of *Providing Top Quality Core Services Responsive to Current and Future Community and Citizen Needs*. Also identified was the goal of *Preservation of Our Residential and Neighborhood Character* with a supporting objective of *Homes and Rental Units Up to Code*.

FISCAL IMPACT

N/A

UPDATE & RECOMMENDATION

This item was discussed at the September 22, 2009 workshop. During that meeting, the Village Council requested additional information pertaining to several items. These items are summarized below:

- Whether the use of panning and ductless returns is permitted by the 2009 Energy Conservation Code.
- When the proposed building code updates would go into effect.
- Whether the proposed building codes are more or less restrictive regarding veneer vapor barriers

Regarding the use of panning and ductless returns, a new state law mandates the use of the 2009 Energy Conservation Code. Section 403.2 deals with ducts. Under 403.2.3, "[b]uilding framing cavities shall not be used as supply ducts." However, panning may support return air flow only where the building cavity is completely sealed (403.2.2). This would require additional inspections and observation by Village inspectors.

In addition, the IRC 2006 code further restricts the practice of panning to single floor use. While an HVAC unit would be allowed return air flow via panning from the first floor, a second HVAC unit would be needed to serve a second floor. Based on this, it is likely less expensive and problematic to provide for ducted return air flow to a single HVAC unit. This concern, along with other potential issues indicated in staff's research (centering on mold, fire and cleanliness concerns) was and remains the basis for the recommended amendment. While the recommendation to allow the use of building cavities for heating or cooling non-habitable areas remains part of staff's proposed code amendments, the 2009 Energy Conservation Code now limits this to return air flow only.

Regarding the effective date of the proposed updates to the building codes, upon approval by the Village Council, the updated codes would be effective after 30 days.

Regarding veneer vapor barriers, in the 2007 update to the IRC's 2006 codes, several definitions were changed. Two of these dealt with "Adhered Stone or Masonry Veneer" and "Vapor Retarder Class." In both cases, the new definitions reflect advancements in the materials or installation process, or improvements in the industry's understanding of moisture removal. In both cases the new definitions mean new or refined steps are available to achieve an equal or superior outcome, compared with earlier versions of the building code.

Staff recommends approval on the October 6, 2009 active agenda.

BACKGROUND

The Village's current building code was adopted in April, 2005. The building code that was adopted at that time was the 2000 edition of the ICC codes. Staff is proposing that the Village update to the 2006 edition of the ICC's building and fire codes, and the *2008 National Electrical Code*. These codes would apply to all commercial and residential buildings throughout the community. The 2006 editions are the most widely adopted codes in the western suburbs. Adoption of these codes would be consistent with comparable communities.

Additionally, since 1985, the Village has operated a local elevator safety program with Elevator Inspection Services, Inc. (EIS). This program has consisted of performing plan reviews and inspections for new and existing elevators and other types of vertical conveyances such as escalators, hoists, and platform lifts through a building permit process and annual inspections. The State of Illinois has more recently passed legislation requiring a municipality to enter into an agreement by resolution with The Office of the State Fire Marshall (OSFM) of Illinois to continue to operate a locally administered program and indicate compliance with standards at least as stringent as those of the State. The legislation was prompted by elevator accidents that had occurred in rural areas of the State that had no program in place. Currently, 166 jurisdictions, primarily in the Chicagoland area, have opted to enter into this agreement. If a municipality chose not to operate a local program, the State would directly regulate vertical conveyances within a municipality. Agreeing to the resolution would mean no change to the Village's elevator inspection program and would maintain greater scrutiny than afforded through the state program.

The specific codes targeted for adoption are:

- *2006 International Residential Code* – governs construction of one and two-family residential buildings
- *2006 International Building Code* – governs construction of all other use types
- *2006 Property Maintenance Code* – governs maintenance of all existing buildings and properties.
- *2006 International Fire Code*- governs construction and maintenance of life safety systems in commercial and multi-family buildings
- *2009 Energy Conservation Code*,
- *2006 Fuel Gas Code*,
- *2006 Mechanical Code*,
- *2008 National Electrical Code* - govern new construction in all building types
- (Note: Additional Codes already in place are the *2004 State of Illinois Plumbing Code* and the *2003 NFPA Life Safety Code*)
- Nine industry standards for vertical conveyances from ANSI, ASME, and ASCE, consistent with State requirements – governs the installation and inspection of new and existing elevators, escalators, platform lifts, hoists, and dumbwaiters

Staff emphasized the following key concepts and strategies with the code adoption proposals:

- Align all regulations with specific Strategic Plan goals.
- Produce code books that are as clear and user friendly as possible.
- Reduce the number of local amendments.
- Maintain consistency with existing ordinance provisions of the Municipal Code and provide cross references.
- Enhance clarification of the code books as written.
- Maintain and provide code provisions that address local construction practices.
- Only include amendments that measure up favorably to a benefit/cost analysis.
- Align the Village's regulations with comparable communities.
- Obtain buy-in from the area builders, developers and property managers.

The following list highlights some of the specific key components and that will be accomplished with the proposed updates:

- Several residential construction existing local amendments have been eliminated in order to follow the baseline codes representing recognized industry standards.
- Sections have been reorganized and enhanced to increase the ability to locate and understand regulations for commonly reoccurring questions.
- Several cross references to State regulations, other code book sections, and the Municipal Code have been incorporated to increase usability of all documents.
- Conflicting provisions between various code books have been eliminated as well as provisions that do not apply to this geographic area of the country.
- One overall updated administrative section will exist in the Municipal Code that applies to all the various code books being adopted.
- Some updated definitions and code provisions from the 2007 ICC code development supplement have been incorporated to increase accuracy, add clarity, and assist with code enforcement activities.
- Long standing and recognized enhanced fire safety regulations have been maintained.
- Updates and clarifications have been provided for the pre-occupancy ordinance compliance approval procedure.
- Clarification on materials that can be used for construction in certain zoning districts such as the downtown area has been added.
- State authorized standards have been incorporated that assist with sizing water service supply lines for existing residences that are being remodeled.

Staff requested input on the proposed update from the Downers Grove Chamber of Commerce, contractors, builders, developers, architects and property managers. Staff representatives met with these individuals on three occasions at the Downers Grove Chamber of Commerce. The IRC proposed amendments were presented on May 14, 2009. The Mechanical, Fuel Gas, Energy Conservation, and Property Maintenance Codes were presented on May 21, 2009. The International Building Code, Electrical, Plumbing, and Fire Code were presented on July 16, 2009.

Based on input from this group of stakeholders, some modifications were made to the proposed codes. The adjustments centered on clarifying proposed language. There were helpful dialogues and no unaddressed or significant objections to the updates or the proposed amendments. Staff recommends approval of the building codes as proposed.

ATTACHMENT
Ordinance

ORDINANCE NO. _____

**AN ORDINANCE ADOPTING THE 2004 STATE OF ILLINOIS PLUMBING CODE
AND AMENDMENTS THERETO**

BE IT ORDAINED by the Village Council of the Village of Downers Grove in DuPage County, Illinois, as follows: (Additions are indicated by **shading/underline**; deletions by ~~strikeout~~):

Section 1. That Section 16.100.ART. is hereby added to read as follows:

16.100.ART. Article I. GENERAL

Section 2. Section 16.1. is hereby renumbered to be Section 16.101.

16.1. Title.

The provisions of this Chapter 16 may be cited and referred to as the "Downers Grove Plumbing Code" or the "Plumbing Code". (Ord. No. 2808, § 2.)

Section 3. Section 16.3. is hereby renumbered to be Section 16.102.

16.3. Definitions.

For the purposes of the Plumbing Code, the following words and phrases shall have the meanings respectively ascribed to them by this section:

Building official. The Director of Community Development of the Village.

Department. The Community Development Department of the Village.

~~—————*Fixtures.* Including but without limitation, the following: water closets, bidets, lavatories, bathtubs, hot water heaters, showers (built in or freestanding), kitchen sinks, utility sinks, drinking fountains, urinals, inground ejector pumps for removal of solid waste matter, floor drains and dishwashing machines. Note: Sump pumps for footing drain tile shall not be counted as fixtures. (Ord. No. 2808, § 2.)—~~

Section 4. Section 16.12. is hereby renumbered to be Section 16.103.

16.12. Work in public areas to comply with Chapter 19.

All work done in the public areas in the Village as defined in Chapter 19 shall be done in compliance with such Chapter. (Ord. No. 2808, § 2.)

Section 5. That Section 16.200.ART. is hereby added to read as follows:

16.200.ART. INTERNATIONAL PLUMBING CODE

Section 6. Section 16.2. is hereby renumbered to be Section 16.201.

16.2. 2004 State of Illinois Plumbing Code - Adoption.

The 2004 State of Illinois ~~State~~ Plumbing Code, as promulgated by the Illinois Department of Public

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Health, and any subsequent amendments adopted by the Department thereto, is hereby adopted for the purpose of establishing rules and regulations for the materials, construction, alteration and inspection of all plumbing placed in or in connection with any building within the Village. The same is adopted in its entirety, save and except such portions as are hereinafter amended, and is, together with such amendments, incorporated as fully as if set out at length herein, and shall control in the installation and maintenance of plumbing systems within the Village. Said plumbing code, as modified and amended, may be referred to for all purposes as the "Downers Grove Plumbing Code" or the "Plumbing Code". At least one copy of said Code, including such amendments to it as shall hereinafter be enacted, shall be filed in the office of the Village Clerk, with additional copies available in the Community Development Department of the Village. (Ord. No. 2808, § 2.)

Section 7. Section 16.4. is hereby renumbered to be Section 16.202.

16.4. State of Illinois Plumbing Code - Amendments.

The amendments to the Illinois State of Illinois Plumbing Code as referred to in Section 16-2 this Chapter are the following:

(a) ~~Section 890.1320(f) and (g) are hereby amended by deleting the same in their entirety and by substituting in lieu thereof the following:~~

~~"(f) **Small Piping.** Horizontal drainage piping of four (4) inches diameter or less shall be installed with a grade of at least one fourth (1/4) inch per foot.~~

~~"(g) **Large Piping.** Horizontal drainage piping larger than four (4) inches but less than eight (8) inches in diameter shall be installed with a grade of at least one eighth (1/8) inch per foot. For piping larger than eight (8) inches in diameter, the grade is determined by the number of drainage fixture units connected to the drain pipe. (See Appendix A: Table G.)"~~

(b) ~~Section 890. Appendix A, Table A, is hereby amended as follows:~~

~~(1) By deleting item numbers 1 and 9 in Table A, Approved Building Drainage/Vent Pipe, on page 1, and by adding the following note at the end of the Table: "Items listed in numbers 2, 4, 5, 6, 7 and 12 are permitted for above ground uses only."~~

~~(2) By deleting item numbers 1 and 2 in Table A, Approved Materials for Building Sewer, on page 3.~~

~~(3) By deleting item numbers 1, 2, 7 through 11, and 13 in Table A, Approved Materials for Water Service Pipe, on pages 4 to 5.~~

~~(4) By deleting item numbers 5 and 7 in Table A, Approved Materials for Water Distribution Pipe, on page 6, and by adding the following notes at the end of the Table: "The materials listed in item numbers 3 and 4 above shall be a type L copper."~~

(c) ~~Section 890.1190 is hereby amended by adding the following subsection:~~

~~"(h) **Lawn Sprinkling Systems.** Accessible shut off valves shall be provided for each lawn sprinkler system. Such shut off valve shall permit the system to be shut off without interference with the water supply to the building."~~

(d) ~~Section 890.1200(a) is hereby amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~"a) **Water Service Pipe Sizing.** The water service pipe from the street main (including the tap) to the water distribution system for the building shall be sized in accordance with Appendix A, Tables M, N, O, P and Q. Water service pipe and fittings shall be at least one (1) inch diameter. If flushometers or other devices requiring a high rate of water flow are used, the water service pipe shall be designed and installed to provide this additional flow."~~

(e) ~~Section 890.1220(a) is hereby amended by adding immediately at the conclusion thereof the following sentence:~~

~~"All potable hot water exposed supply lines shall be insulated."~~

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(f) ~~Section 890.1440(a) is hereby amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~"a) Vent Terminal Size. Each vent extension through the roof shall be a minimum of four (4) inches in diameter and no smaller than the vent which it terminates. Vent terminals shall not be screened."~~

(g) ~~Section 890.1130(c) is hereby amended by adding the following sentence: A backflow prevention device shall be installed, in accordance with Environmental Protection Agency regulations, specifically Ill. Admin. Code, Title 35, Section 653.803, on each water service pipe/line to a business, commercial or industrial facility unless the director of public works or his/her designee, upon certification from a cross connection control device inspector (CCCDI), determines that the building use does not pose an actual or potential hazard to the public water supply. This requirement applies whenever there is installation of a water service pipe/line, or alteration, renovation or replacement of an existing pipe/line, and for new construction. (Ord. No. 2808, § 2.)~~

(h) ~~The following section is added as Section 890.1250:~~

~~"Water saving plumbing fixtures shall be installed as follows:~~

~~(1) In all new construction and in all repair and replacement of fixtures or trim, only fixtures and trim not exceeding the following flow rates and water usage shall be installed. (These ratings are based on the pressure at the fixture of 40 to 50 psi.)~~

~~Water closets, tank type 3.5 gal. per flush~~

~~Water closets, flushometer type 3.0 gal. per flush~~

~~Urinals, tank type 3.0 gal. per flush~~

~~Urinals, flushometer type 3.0 gal. per flush~~

~~Shower heads 3.0 gal. per minute~~

~~Lavatory, sink faucets 3.0 gal. per minute~~

~~(2) In all new construction and in all repair and replacement of fixtures, faucets of lavatories located in restrooms intended for public use shall be of metering recessed self-closing type.~~

~~(3) In all new construction and replacement of fixtures, car wash installations shall be equipped with a water recycling system. All flush tank valves, fixture valves, and other taps, cocks, or faucets shall be so installed and maintained that they can be closed tightly against the passage of water.~~

~~(4) All air conditioning units installed in any building which is newly constructed, remodeled, or reconstructed shall be designed as a closed system to prevent discharge of cooling water."~~

Section 890.420 shall be amended to add the following condition:

6. The standpipe inlet for an automatic clothes washer shall extend a minimum of 18 inches and a maximum of 48 inches above the weir of a trap.

Section 890.550 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

Backwater valves- Sanitary System and Storm System. Backwater valves shall be provided as required by the Downers Grove Sanitary District.

Section 890.660 c) is amended by deleting the same in its entirety and substituting in lieu thereof the following:

890.660 c) Urinals. Trough urinals and waterless urinals are prohibited.

Section 890.1130 c) is amended by adding the following at the end of paragraph c):

"A backflow prevention device shall be installed, in accordance with the Environmental Protection Agency regulations, on each water service pipe/line to a business, commercial, or industrial facility unless the Director of Public Works, the Village Plumbing Inspector, or a designee, upon certification from a cross-connection control device inspector, determines that the building use does not pose an actual or potential hazard to the public water supply. This requirement applies whenever there is installation of a water service

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pipe/line, or alteration, renovation or replacement of an existing pipe/line, and for new construction.

Section 890.1150 a) 2) is amended by deleting the first sentence in its entirety and substituting in lieu thereof the following:

890.1150 a) 2) Water service pipe installation. When the 10 foot separation as described in no. 1 above cannot be achieved, the water service and building drain or building sewer may be installed in the same trench provided that the water service is placed on a solid shelf a minimum of 18 inches above the building drain or building sewer subject to review and approval of the code official prior to installation.

Section 890.1190 b) the first sentence shall be deleted in its entirety and substituting in lieu thereof the following:

890.1190 b) The utility meter shall be installed within the building.

Section 890.1190 f) shall be amended to delete the words "dwellings and" the first sentence.

Section 890.1190 h) shall be added as follows:

890.1190 h) Lawn sprinkling systems. Accessible shut-off valves shall be provided for each lawn sprinkler system. Such shut-off valves shall permit the system to be shut-off without interference with the water supply to the building.

Section 890.1200 a) shall be deleted in its entirety and substituting in lieu thereof the following

890.1200 a) Water service pipe sizing. The water service pipe from the street main (including the tap) to the water distribution system for the building shall be sized in accordance with Appendix A, Tables M,N,O,P and Q. New installations of water service pipe and fittings shall be at least (1) inch diameter. If flushometers or other devices requiring a higher rate of water flow are used, the water service pipe shall be designed and installed to provide this additional flow.

Section 890.1200 shall be further amended to add 890.1200 a) 1) as follows:

890.1200 a) 1) For addition and remodeling projects at existing single family homes, a pressure test performed per the State of Illinois guidelines, may be accepted in lieu of service sizing per fixture counts from Appendix A, Table N. Upon completion of a passing test, the owner shall forward the results to the State of Illinois Department of Public Health. A confirmation indicating the test results have been reviewed and approved shall be submitted to the Village prior to the issuance of the final certificate of occupancy.

Section 890.1220 a) shall be amended by adding the following to the end of the paragraph:

890.1220 a) All potable hot water exposed supply lines shall be insulated per Sections 403, 503, and 504 of the International Energy Conservation Code."

Section 890.1360 a) 2) shall be deleted in its entirety and substituting in lieu thereof the following:

890.1360 a) 2) Sanitary wastes below sewer. Sumps and ejectors handling sub-soil drainage and footing drains shall not receive any sewage. Sumps and ejectors handling sewage shall not receive subsoil drainage and footing drains. Provide a 10 foot separation between the subsoil drainage pit and the sub drain ejector pit or as permitted by the Sanitary District.

Section 890.1930 f) shall be deleted in its entirety and substituting in lieu thereof the following:

890.1930 f) Building Sewer. The building sewer shall be tested per the requirements of the Downers Grove Sanitary District.

Section 890 Appendix A Table A - Approved materials for building sewer. Shall be amended so that the requirements of the Downers Grove Sanitary District shall apply.

Section 890 Appendix A Table A - Approved materials for water service pipe. Shall be amended to delete item numbers 1, 2, 7, 8, 9, 10, 11, 13.

Section 890 Appendix A Table A - Approved materials for water distribution pipe. Shall be amended to delete item numbers 5 and 7

Section 890 Appendix A Table A - Approved materials for water distribution pipe. Shall be further amended to add the following note at the end of the table: The materials listed in item no. 3 and 4 above shall be Type L copper.

Section 8. That Section 16.300.ART. is hereby added to read as follows:

16.300.ART. PERMITS

Section 9. Section 16.5. is hereby renumbered to be Section 16.301.

16.5. Permit Required.

No plumbing work, including a connection with the public sewers or water pipes shall be done except in an emergency without first securing from the building official a written permit therefor; provided, however, that no permit shall be required for minor repairs which do not require changes in the piping to or from plumbing fixtures or involve the removal, replacement, installation or reinstallation of any pipe or plumbing fixtures.

Permits shall be issued only to a plumber licensed by the State of Illinois or to the owner/occupant of a single family residence for plumbing work on such single family residence. (Ord. No. 2808, § 2.)

Section 10. Section 16.6. is hereby renumbered to be Section 16.302.

16.6. Application; change of contractor.

A written application for a permit shall be filed with the Director of Community Development. If a connection with the public sewer is contemplated, such application shall be accompanied by a permit from the Downers Grove Sanitary District. All applications for permits shall be signed by the owner of the premises on which the proposed work is to be done or by his/her duly authorized agent.

Each application for work to be done on all construction other than single or two-family dwellings shall be accompanied by a complete and legible set of drawings and specifications of the work to be done, or in lieu thereof such written description or information as shall be acceptable to the building official.

A new application for a plumbing permit shall be submitted to the plumbing inspector for his/her approval if the contemplated work is the same but a different contractor is used. (Ord. No. 2808, § 2.)

Section 11. Section 16.8. is hereby renumbered to be Section 16.303.

16.8. Permit Issuance.

(a) The required permit shall be issued only after a determination by the building official that the plans and specifications for the proposed work conform to the requirements of the Plumbing Code and payment of the fees in accordance with the schedule of fees in Section 16-7401.

(b) In the case any work is begun on the installation of plumbing fixtures in any building or structure without a permit authorizing the same, the work shall be stopped until the necessary permit is issued and one hundred percent (100%) of a permit fee shall be added to the permit fee in accordance with Section 1.16 of

the Downers Grove Municipal Code.

(c) No fees shall be refunded when a permit has lapsed after work is started. When a permit is revoked at the request of the applicant prior to lapsing due to time limits, and no work has been done, all but a basic fee to cover costs incurred by the building department and the plan review fee may be refunded.

Section 12. Section 16.10. is hereby renumbered to be Section 16.304.

16.10. Permit Expiration.

All permits shall be for a period of one (1) year from the date of issuance. Permits shall become invalid if the work authorized thereby is suspended or abandoned for a period of thirty (30) days after the work is commenced. All extensions of permit time shall be calculated at twenty-five percent (25%) of the original total permit fee and shall extend the life of the permit for a six (6) month period. Extensions shall be requested in writing with justifiable cause demonstrated.(Ord. No. 2808, § 2.)

Section 13. Section 16.11. is hereby renumbered to be Section 16.305.

16.11. Changes in plans.

No changes shall be made in the proposed work from the plans and specifications on which a permit has been issued prior to submitting amended plans and specifications to the building official for approval. (Ord. No. 2808, § 2.)

Section 14. That Section 16.400.ART. is hereby added to read as follows:

16.400.ART. FEES

Section 15. Section 16.7. is hereby renumbered to be Section 16.401.

16.7. Fees.

(a) The fees to be charged for plumbing permits shall be as follows:

- | | | |
|----|-----------------|----------|
| 1. | Residential | \$225.00 |
| 2. | Non-Residential | \$375.00 |

(Ord. No. 2808, § 2; Ord. No. 3336, § 5; Ord. No. 3378, § 4.)

Section 16. That Section 16.500.ART. is hereby added to read as follows:

16.500.ART. INSPECTIONS

Section 17. That Section 16.9. is hereby amended to read as follows:

16.9. Certificates of Inspection - Required; contents.

Upon the completion of the plumbing fixture installation in or on any building or structure, it shall be the duty of the person doing the work to request an inspection by the Community Development Department. If such plumbing fixture installation conforms to the requirements of this Chapter, a written certificate of satisfactory inspection shall be issued. One (1) copy of the certificate shall be delivered to the person which is to furnish electrical service, and one (1) copy shall be retained in the Village files. The certificate of

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inspection shall contain the date of such inspection, the location or address of the plumbing fixture installation by street number or lot number, the name of the person actually completing the work, and the name of the person for whom the plumbing fixture installation work was performed.

Each job for which a permit is issued shall be entitled to one (1) rough inspection and one (1) final inspection and each business or multiple family dwelling which is licensed by the Village of Downers Grove shall be entitled to one (1) inspection and one (1) re-inspection per license period. ~~The fee for additional re-inspections made necessary due to failure to correct violations discovered during the initial inspections shall be fifty dollars (\$50.00) per re-inspection.~~ (Ord. No. 2808, § 2; Ord. No. 3356, § 1.)

Section 18. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 19. That this ordinance shall be in full force and effect November 6, 2009.

Mayor

Passed:

Published:

Attest: _____

Village Clerk