RESOLUTION NO. 2026-47

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK AND ENTITLED "THE 2024 SUITE OF BUILDING AND FIRE CODES AND RELATED AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE" WHICH INCLUDE THE FOLLOWING CODES, AS AMENDED: THE INTERNATIONAL BUILDING CODE, 2024 EDITION; INTERNATIONAL RESIDENTIAL CODE, 2024 EDITION; INTERNATIONAL EXISTING BUILDING CODE, 2024 EDITION; INTERNATIONAL MECHANICAL CODE, 2024 EDITION; INTERNATIONAL PLUMBING CODE, 2024 EDITION; INTERNATIONAL FUEL GAS CODE, 2024 EDITION; INTERNATIONAL ENERGY CONSERVATION CODE, 2024 EDITION; INTERNATIONAL SWIMMING POOL AND SPA CODE, 2024 EDITION; NFPA 70 – NATIONAL ELECTRICAL CODE, 2023 EDITION; ICC A117.1-2017 STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES; UNIFORM HOUSING CODE, 1997 EDITION; UNIFORM ADMINISTRATIVE CODE, 1997 EDITION; UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS, 1997 EDITION; INTERNATIONAL FIRE CODE, 2024 EDITION; INTERNATIONAL WILDLAND URBAN INTERFACE CODE, 2024 EDITION; AND THE RELATED AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE

RECITALS:

WHEREAS, pursuant to A.R.S. § 9-802 a municipality may enact or amend provisions of the City Code by reference to a public record, provided that the adopting ordinance is published in full; and

WHEREAS, the City Council of the City of Flagstaff ("City") wish to declare the document entitled *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* to be a public record and to permit its adoption by reference into the City Code; and

WHEREAS, the City Council has determined that adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* is necessary for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of buildings and structures; and

WHEREAS, the City Council has determined that adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* is necessary for providing the standards for supplied utilities, facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and

WHEREAS, the City Council has determined that adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* is necessary for providing the standards to provide safety to the public and first responders; and

WHEREAS, the City Council has determined that adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* is necessary for establishing requirements for the built environment in Flagstaff using prescriptive and performance provisions, and providing a comprehensive and holistic approach to enhancing building resilience from wildfires; and

WHEREAS, the City Council has determined that adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* is necessary for the issuance of permits and collection of fees pursuant thereto, and for implementing and enforcing each and all of the regulations, provisions, penalties, conditions and terms of an updated Flagstaff Building Code, Fire Code, and International Wildland Urban Interface Code.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

That certain document known as *"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"* attached hereto as Exhibit A is hereby declared to be a public record, and one (1) paper copy and one (1) electronic copy, maintained in compliance with A.R.S. § 44-7041, shall remain on file with the City Clerk and kept available for public use and inspection.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 6th day of October, 2026.

Becky Daggett
MAYOR

ATTEST:

Stacy Saltzburg
CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:
A - The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code.

"The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code"

TITLE 4
BUILDING REGULATIONS

CHAPTERS:

4-01 ADMINISTRATIVE ENACTMENTS

4-02 2024 INTERNATIONAL BUILDING CODE (IBC) AMENDMENTS

4-03 2024 INTERNATIONAL RESIDENTIAL CODE (IRC) AMENDMENTS

4-04 2024 INTERNATIONAL EXISTING BUILDING CODE (IEBC) AMENDMENTS

4-05 2024 INTERNATIONAL MECHANICAL CODE (IMC) AMENDMENTS

4-06 2024 INTERNATIONAL PLUMBING CODE (IPC) AMENDMENTS

4-07 2024 INTERNATIONAL FUEL GAS CODE (IFGC) AMENDMENTS

4-08 2024 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AMENDMENTS

4-10 2024 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC) AMENDMENTS

4-11 NATIONAL ELECTRICAL CODE (NEC), 2023 EDITION, AMENDMENTS

CHAPTER 4-01
ADMINISTRATIVE ENACTMENTS

SECTIONS:

4-01-001-0001 DEFINITIONS
4-01-001-0002 ADOPTION OF MODEL CODES
4-01-001-0003 SAVING CLAUSE
4-01-001-0004 VIOLATION AND PENALTIES

4-01-001-0001 DEFINITIONS

As used in all of the adopted model codes referenced herein, as amended, the following terms shall have the meaning herein prescribed:

A. Wherever the word "Municipality" or "[Name of Jurisdiction]" is used, it shall mean the City of Flagstaff.

B. Wherever the term "Department of Building Safety" is used, it shall mean "Planning & Development Services Division."

C. Wherever the term "Corporation Counsel" is used, it shall mean the Attorney for the City of Flagstaff.

D. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities (natural gas, electricity, internet and broadband service, telephone, and cable television), it shall mean the current contract company providing the respective service. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities or permits (water, sewer, storm water management and/or building permits), it shall mean the City of Flagstaff.

4-01-001-0002 ADOPTION OF MODEL CODES

There are hereby adopted by the City Council of the City of Flagstaff for the purposes of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, maintenance of buildings and structures, including permits and penalties, those certain model codes known and referred to with particularity as:

2024 International Building Code (IBC)*

2024 International Residential Code (IRC)*

2024 International Existing Building Code (IEBC)*

2024 International Mechanical Code (IMC)*

2024 International Plumbing Code (IPC)*

2024 International Fuel Gas Code (IFGC)*

2024 International Energy Conservation Code (IECC)*

2024 International Swimming Pool and Spa Code (ISPSC)*

National Electrical Code (NEC), 2023 Edition**

ICC A117.1-2017, Accessible and Usable Building and Facilities*

1997 Uniform Housing Code***

1997 Uniform Administrative Code***

1997 Uniform Code for the Abatement of Dangerous Buildings***

***Published by International Code Council (ICC)**
****Published by National Fire Protection Association (NFPA)**
*****Published by International Conference of Building Officials (ICBO)**

One (1) electronic copy of each model code listed above, and any amendments to said codes, are on file in the office of the City Clerk of the City of Flagstaff, and the same is made part hereof by this reference as if fully and completely herein set forth. The provisions of the aforestated codes shall be controlling for construction within the corporate limits of the City of Flagstaff.

4-01-001-0003 SAVING CLAUSE

Nothing in this Chapter or in the 2024 International Codes, 2023 National Electrical Code, ICC A117.1-2017, and Uniform Codes hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this Chapter.

4-01-001-0004 VIOLATION AND PENALTIES

A. Violations. It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or permit the same to be done in violation of the model codes adopted in section 4-01-001-0002 above, as amended.

B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 General Penalty. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 4-02
2024 INTERNATIONAL BUILDING CODE

4-02-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION
Section 101 Scope and General Requirements

Amend 2024 IBC 101.2, Scope, by deleting and replacing with:

The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every *building* or *structure* or any appurtenances connected or attached to such *buildings* or *structures*.

Exception: Attached and detached one- and two-family *dwellings*, triplexes, fourplexes, and *townhouses* not more than three *stories above grade plane* in height with a separate *means of egress*, and their accessory *structures* not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code*.

Amend 2024 IBC 101.2.1, Appendices, by adding:
The following Appendices are hereby adopted as part of the IBC:

APPENDIX C – Group U – Agricultural Buildings
APPENDIX I – Patio Covers
APPENDIX J – Grading
APPENDIX N – Replicable Buildings

Section 103 Code Compliance Agency
Amend 2024 IBC 103.1, Creation of enforcement agency, by deleting and replacing with:
The City of Flagstaff Building Safety & Code Compliance Section is appointed as the enforcement agency for purposes of this code, and the official in charge thereof shall be known as the Building Official. The function of the Section shall be the implementation, administration, and enforcement of the provisions of this code.

Section 105 Permits
Amend 2024 IBC 105.1, Required, by adding:
Approved portable equipment used in conjunction with special events in public locations (parks, parking lots, publicly owned land, et cetera) of 25 kW generator or greater shall have an Over-the-Counter Permit issued and a licensed electrical contractor for installation or setup. The Building Inspector must be given immediate notice when an installation is ready for either rough or final inspection.

Amend 2024 IBC 105.1 by adding subsections 105.1.3 through 105.1.7.1:
105.1.3 Application and fees. Application for an annual permit shall be filed with the Building Official, along with the application fee set forth in the City Fee Schedule.

105.1.4 Renewal application and fee. Annual permits expire on December 31. Application to renew an annual permit shall be filed with the Building Official by December 15, along with the renewal application fee set forth in the City Fee Schedule.

105.1.5 Denial of application. If the application or renewal is denied, the fee shall be refunded. The applicant may appeal the denial to the Building and Fire Code Board of Appeals within 10 calendar days after notice of the denial.

105.1.6 Suspension and revocation. The Building Official may suspend or revoke an annual permit upon violation of this code, including failure to apply for permits and inspections when required. Written notice of suspension or revocation shall be sent to the permit holder at least 10 calendar days before suspension or revocation. Appeal may be made to the Building and Fire Code Board of Appeals within 10 calendar days after notice of suspension or revocation. There is no fee refund if an annual permit is suspended or revoked.

105.1.7 Inspections. The Building Official, or their designee, may inspect all work and reject work or request corrections for any work in violation of this code.

105.1.7.1 Record exceptions. Work reports are not required for:

1. Installing machines, equipment, and processes related to production or testing.
2. Moving cases, counters, and partitions not over 5 feet 9 inches tall.

Amend 2024 IBC 105.4 Validity of permit, by adding:

A permit shall not be valid until a copy of the issued permit is signed and returned to the Building Safety & Code Compliance Section.

Amend 2024 IBC 105.5, Expiration, by deleting, replacing and adding sub sections 105.5.1 through 105.5.3:

Commercial Building Permits issued for new construction, remodels, additions, and alterations shall expire 24 months (730 days) from the date of issuance, unless extended as provided herein.

105.5.1: A permit shall become invalid if the work authorized by such permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days after commencement.

105.5.2: Only one extension not to exceed 365 days, may be granted by the Building Official upon written request and payment of a fee equal to one-half of the original building permit fee (excluding plan review fees).
Permits that exceed 1095 days (3 years) from the date of issuance, including extensions, and have not received final inspection approval shall expire. A new permit shall be required to complete the work, and all applicable fees shall be paid.

105.5.3: Over the counter permits (plumbing, mechanical, electrical, and re-roofing) shall expire if the work authorized by the permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days. Such permits shall not remain valid for more than 180 days from the date of issuance unless an extension is approved by the Building Official.

Section 107 Construction Documents

Amend 2024 IBC 107.1, General, by adding:

Where required by Arizona Revised Statutes, construction documents for new construction, additions, alterations, or repairs to commercial occupancies within the City of Flagstaff shall be prepared by an Arizona-registered design professional (i.e. architect and engineers) in good standing when:

1. The total square footage of any building exceeds 3,000 square feet, or
2. The total occupancy of the building exceeds twenty (20) persons, or
3. Any structural member required for the project exceeds twenty (20) feet in length

The Arizona Registered Design Professional of Record shall affix their seal to all construction documents. Construction documents not prepared by the Registered Design Professional of Record shall be identified as such; and the design professional's seal shall be affixed to all sheets in the construction document set to indicate that the project was prepared under the responsible control and coordination of the Registered Design Professional of Record.

Construction documents for retaining walls subject to surcharge loads from adjacent structural elements or other unbalanced loading that exceeds four (4) feet in height, shall be prepared by an Arizona Registered Design Professional.

Construction documents for electrical service equipment rated at 600 amperes or greater shall be prepared by an Arizona Registered Design Professional.

Section 109 Fees

Amend 2024 IBC 109.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2024 IBC 109.4, Work commencing before permit issuance, by adding:

Any person who commences any work to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of $94.00 or twice the permit fee, whichever is greater.

Amend 2024 IBC 109.5, Related fees, by adding:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives.
2. The approved plans are not on the job site at the time of inspection.
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. A $94.00 re-inspection fee shall be paid through the Building Permit Portal before a re-inspection may be scheduled, after the inspector has issued notice that such fee will be assessed.

Amend 2024 IBC 109.6, Refunds, by adding:

A refund of up to 80 percent of the building permit fee, excluding plan review fees, may be authorized by the Building Official, provided that no work has commenced and no inspections have been performed. Plan review fees shall not be refundable.

The Building Official is authorized to determine the amount of any refund based on the extent of administrative processing and work completed. No refund shall be issued for any required deposit once administrative routing or plan review has commenced.

Section 111 Certificate of Occupancy
Amend 2024 IBC 111.3, Temporary occupancy, by deleting and replacing with:
The Building Official is authorized to issue a Temporary Certificate of Occupancy (TCO) for residential construction, including detached one- and two-family dwellings, where the structure is safe for occupancy and no substantial hazard to life, health, or safety exists.

A Temporary Certificate of Occupancy shall only be issued when:

1. All required life-safety systems are complete and operational, including but not limited to means of egress, smoke and carbon monoxide alarms, required guards and handrails, and all utilities.
2. Any remaining work is limited to non-life-safety items, including but not limited to exterior flatwork, landscaping, or unfinished accessory spaces such as basements or bonus rooms, which shall be documented as "not inspected."
3. A bond or other financial assurance is provided when required by the Building Official for incomplete exterior improvements, including driveway approaches, where weather or other conditions prevent completion.
4. The Temporary Certificate of Occupancy shall be valid for a period not to exceed 60 days, unless extended by the Building Official for good cause.
5. Failure to complete the remaining work prior to expiration of the Temporary Certificate of Occupancy may result in revocation of occupancy approval and/or issuance of enforcement actions.

Occupancy of a structure prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy is prohibited and may result in enforcement action, including issuance of a "No Occupancy" notice.

Section 113: Means of Appeals
Amend 2024 IBC 113.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IBC Sections 113.2 through 113.4, by deleting in their entirety.

Section 1505 Fire Classification
Amend 2024 IBC 1505.4, Class C roof assemblies, by deleting in its entirety.

Amend 2024 IBC 1505.5, Nonclassified roofing, by deleting in its entirety.

Section 1506 Materials
Amend 2024 IBC 1506.3, Product identification, by adding:
All roofing materials used must be a class "A" or "B" material and rolled roofing is to be of a self-adhering polymer bitumen type material.

Section 1507 Requirements for Roof Coverings
Amend 2024 IBC 1507.8, Wood shingles, by deleting in its entirety.

Amend 2024 IBC 1507.9, Wood shakes, by deleting in its entirety.

CHAPTER 16 STRUCTURAL DESIGN
Section 1607 Live Loads
Amend 2024 IBC Table 1607.1, Minimum Uniformly Distributed Live Loads and Minimum Concentrated Live Loads, by revising the following values:
Habitable attics and sleeping areas: 40 psf

Section 1608 Snow Loads
Amend 2024 IBC 1608.2, Ground snow loads, by deleting and replacing with:
The ground snow *loads* to be used in determining the design snow *loads* for roofs shall be determined in accordance with the reliability-targeted (strength based) ground snow load values in Chapter 7 of ASCE/SEI 7. Site-specific case studies shall be determined in accordance with Chapter 7 of ASCE/SEI 7 and shall be *approved* by the *building official.*

Section 1612 Flood Loads
Amend 2024 IBC 1612.3, Establishment of flood hazard areas, as follows:
Replace "[INSERT DATE OF ISSUANCE]" with "09-03-2010".

APPENDIX J GRADING
Section J104 Permit Application and Submittals
Amend Appendix J by adding Section J104.5, Stormwater requirements, as follows:
1. Contractor shall submit to the Arizona Department of Environmental Quality a Notice of Intent (NOI) and a Notice of Termination (NOT) pursuant to the requirements of ARS Title 49, Chapter 2, Article 3.1. A copy of the submitted NOI and the NOT shall be provided to the City of Flagstaff Stormwater Section. The NOI shall be submitted prior to issuance of any City of Flagstaff grading, building, or offsite permits. The NOT shall be submitted prior to final acceptance of off-site improvements and the Certificate of Occupancy.

2. An Erosion Control Plan (ECP) shall be submitted to the City of Flagstaff Stormwater Section for review and approval as required by the City of Flagstaff Stormwater Manager. The ECP shall be prepared in accordance with the Arizona Department of Transportation (ADOT) Best Management Practices (BMP) Manual (or other BMPs as may be approved by the City of Flagstaff Stormwater Manager). Submittal shall be made concurrent with its respective permit application(s) and/or attached to the Civil Construction Document Plan Set submittal. Review timeframes shall be the same as the permit or civil reviews. City of Flagstaff permits that require an ECP will not be issued without review and approval by the City of Flagstaff Stormwater Section.

3. The ECP BMPs shall be set in place by the contractor, and the work inspected and approved by the City of Flagstaff Stormwater Section prior to commencement of grading activities. The contractor shall contact the City of Flagstaff Stormwater Section for this pre-grading inspection.

4. During construction, the ECP BMPs shall remain in place, and shall be maintained until project completion as witnessed by a Final Grading Certification and the filing of a NOT. Failure to maintain ECP BMPs may result in a Stop Work Order. Permits will not be closed or finalized unless the site has been inspected and approved for final stabilization by the City of Flagstaff Stormwater Section. The contractor shall contact the City of Flagstaff Stormwater Section for this closure inspection.

5. In accordance with the provisions of this section, the City of Flagstaff may withhold permits, occupancy or enforce by other remedy in order to ensure compliance.

CHAPTER 4-03

2024 INTERNATIONAL RESIDENTIAL CODE

4-03-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Residential Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION
Section R101: Scope and General Requirements

Amend 2024 IRC R101.1, Title, by deleting and replacing with:

These provisions shall be known as the *Residential Code* for One- and Two-family *Dwellings*, triplexes, fourplexes, and *townhouses* of the City of Flagstaff, and shall be cited as such and will be referred to herein as "this code."

Amend 2024 IRC R101.2, Scope, by deleting and replacing with:

The provisions of this code shall apply to the construction, *alteration*, movement, enlargement, replacement, *repair*, equipment, use and occupancy, location, removal and demolition of attached and detached one- and two-family *dwellings*, triplexes, fourplexes, and *townhouses* not more than three *stories above grade plane* in height with a separate means of egress and their *accessory structures* not more than three *stories above grade plane* in height.

Where a provision of this code does not specifically address a triplex or fourplex configuration, the Building Official is authorized to approve an alternative method or applicable code provision that provides an equivalent level of safety, provided such requirement does not conflict with A.R.S. § 9-462.13.

Compliance with this section shall not preclude an applicant from voluntarily electing to design and construct the building in accordance with the International Building Code where otherwise permitted.

> **Exception**: The following shall be permitted to be constructed in accordance with this code where provided with an automatic sprinkler system complying with Section P2904:
>
> 1. Live/work units located in *townhouses* and complying with the requirements of Section 508.5 of the *International Building Code*.
> 2. *Owner*-occupied *lodging houses* with five or fewer *guestrooms*.
> 3. A care facility with five or fewer *persons* receiving custodial care within a *dwelling unit*.
> 4. A care facility with five or fewer *persons* receiving medical care within a *dwelling unit*.
> 5. A day care facility for five or fewer *persons* of any age receiving care within a *dwelling unit*.

Amend 2024 IRC R101.2.1, Appendices, by adding:

The following Appendices are hereby adopted as part of the IRC:

APPENDIX BE — Radon Control Methods
APPENDIX BB — Tiny Houses

APPENDIX BI — Light Straw-Clay Construction
APPENDIX BJ — Strawbale Construction
APPENDIX NB — Solar-Ready Provisions
APPENDIX NE — Electric Vehicle Charging Infrastructure
APPENDIX NK — Electric-Ready Building Provisions
IBC APPENDIX J — Grading (as amended)

Section R103 Code Compliance Agency
Amend 2024 IRC R103.1, Creation of agency, by deleting and replacing with:
The City of Flagstaff Building Safety & Code Compliance Section is appointed as the regulating office and the official in charge thereof shall be known as the Building Official.

Section R105 Permits
Amend 2024 IRC R105.1, Required, by adding:
All manufactured housing (housing classified as modular, factory built or manufactured house) installed within the City of Flagstaff will be designed to meet Arizona Department of Housing, Office of Manufactured Housing standards. The City of Flagstaff enforces a 70 pound per square foot (psf) ground snow load for site-built construction. Arizona Department of Housing standards for snow winter areas in Arizona is not consistent with local conditions and owners should be aware of the differences.

For "used" manufactured housing or "resale"/relocated manufactured housing being brought into the City of Flagstaff, the following applies: As per direction from the Arizona Department of Housing, Office of Manufactured Housing, Arizona Revised Statutes Title 41, requires that all manufactured housing units be certified to meet the minimum standards of the United States Department of Housing and Urban Development and are to be designed in accordance with consistent Arizona Department of Housing standards for manufactured homes and related industries. An applicant requesting an installation permit and inspection will be required to provide proof to the Building Official of the current State certification or re-certification of the unit.

Amend 2024 IRC R105.5, Expiration, by deleting, replacing with new section R105.5, and adding subsections 105.5.1 through 105.5.5:
Section R105.5 Expiration.
Every residential building permit issued shall become invalid unless the work authorized by such permit is completed and a Certificate of Occupancy is issued within two (2) years from the date of permit issuance.

R105.5.1: A permit shall become invalid if the work authorized by such permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days after commencement.

R105.5.2: The Building Official is authorized to grant, upon written request submitted prior to permit expiration, one (1) extension of time not to exceed three hundred sixty-five (365) days, provided that:

1. The request includes documentation demonstrating justifiable cause, including but not limited to financial hardship, weather delays, or material delivery issues; and
2. Payment of a fee equal to one-half (½) of the original building permit fee, excluding plan review fees, is received.

R105.5.3: Under no circumstances shall a permit remain valid for more than three (3) years from the date of issuance.

105.5.4: Failure to obtain a Certificate of Occupancy within the maximum time allowed shall result in the permit expiring. In such cases, the Building Official may record a notice with the Coconino County Recorder's Office identifying the property as having incomplete construction or lacking a final inspection or Certificate of Occupancy.

105.5.5: All residential Over the Counter Permits for plumbing, mechanical, electrical, and re-roofing shall be valid for a maximum period of 180 days.

Section R106 Construction Documents

Amend 2024 IRC R106.1, Submittal documents, by adding:

Residential, single family detached, structures are exempt from the requirements for a Registered Design Professional under Arizona Revised Statutes unless circumstances dictate the necessity for professional design submittal. Duplexes and triplex units which do not exceed 3,000 square feet, two stories or a total occupant load of twenty (20), may also be designed by a non-registrant as long as the units have only one owner.

Sub-assemblies, such as commercially manufactured roof trusses or floor beams that indicate all imposed loading may be submitted without the seal of an Arizona Registered Design Professional. If a Registered Design Professional has sealed the construction documents, the Registered Design Professional shall state they have reviewed and approved of the design either on the construction documents or by providing a written letter stating as such, signed, sealed, and dated.

Construction documents for retaining walls subject to surcharge loads from adjacent structural elements or other unbalanced loading that exceeds four (4) feet in height, shall be prepared by an Arizona Registered Design Professional.

Amend 2024 IRC R106.1 Submittal documents, by adding subsection R106.1.6, Model plans:

R106.1.5 Model plans. An applicant may submit a model plan, which is a residential construction plan used two or more times. If approved, only modifications not shown on the model plan must be submitted for review. All modifications shall be clearly identified by clouded symbols, deltas, or other appropriate means. The review fee for modifications only will be hourly in accordance with the City Fee Schedule. If, in Building Official's judgement, the modifications are excessive or inadequately defined, the full plan review fee will be charged.

Section R108 Fees

Amend 2024 IRC R108.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2024 IRC 108.4, Related fees, by adding:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives.
2. The approved plans are not on the job site at the time of inspection.
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. A $94.00 re-inspection fee shall be paid through the Building Permit Portal before a re-inspection may be scheduled, after the inspector has issued notice that such fee will be assessed.

Amend 2024 IRC R108.5, Refunds, by adding:
A refund of up to 80 percent of the building permit fee, excluding plan review fees, may be authorized by the Building Official, provided that no work has commenced and no inspections have been performed. Plan review fees shall not be refundable.

The Building Official is authorized to determine the amount of any refund based on the extent of administrative processing and work completed. No refund shall be issued for any required deposit once administrative routing or plan review has commenced.

Amend 2024 IRC R108.6, Work commencing before permit issuance, by adding:
Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of $94.00 or twice the permit fee, whichever is greater.

Amend 2024 IRC R109, Inspections, by adding the following subsections:
R109.1.1.1: **Damp-proofing and waterproofing:** Damp-proofing and waterproofing and foundation drainage as required in Chapter 4 shall be inspected prior to covering.

R109.1.1.2: **Utility service provisions**: Underground utility service provisions for water, building sewer, and electricity shall be inspected prior to covering.

R109.1.4.1: **Roofing underlayment:** Roofing underlayment shall be inspected prior to installation of roof covering materials as required in Chapter 9 of this code.

R109.1.4.2: **Weather resistive barrier and window flashing:** Weather resistive barrier and window flashing shall be inspected prior to installation of exterior wall coverings as required in Chapter 7 of this code.

R109.1.4.3: **Energy efficiency inspections:** Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water-heating equipment efficiency.

Section R112 Means of Appeals
Amend 2024 IRC 112.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IRC Sections 112.2 through 112.4, by deleting in their entirety.

CHAPTER 2 DEFINITIONS
Section R202 Definitions
Amend 2024 IRC Section R202 by adding:
ACCESSORY DWELLING UNIT. Accessory dwelling units (ADU) are defined by the Flagstaff City Code, Title 10 - Flagstaff Zoning Code.

ACCESSORY ENERGY SYSTEM. An accessory energy system will include wind turbines, PV solar, thermal solar, geothermal, biomass and other technologies that provide heating, cooling or electrical energy. The systems will be subject to a building permit and limited by zoning ordinances for visual, design, height and setback requirements.

CHAPTER 3 BUILDING PLANNING

Section R301 Design Criteria

Amend 2024 IRC Table R301.2, Climatic and Geographic Design Criteria, as follows:

Ground snow load: 70 psf
Wind design – Speed (mph): 115mph (Vult) Exposure B
Wind design - Topographic Effects: NO
Wind design – Special wind region: NO
Wind design – Windborne debris zone: NO
Seismic design category: C
Subject to damage from – Weathering: Moderate
Subject to damage from – Frost line depth: 30 inches
Subject to damage from - Termite: Slight to moderate
Winter design temperature: 4 degrees F
Ice barrier underlayment required: YES
Flood hazards: a)12-16-1975, b)01-19-1983, c)09-03-2010*
Mean annual temperature: 45 degrees F

Residential heating and cooling equipment sizing using Manual J is optional per 2024 IRC M1401.3. When opting to use ACCA Manual J for HVAC system design, the criteria shall be from ACCA Manual J, Table 1A for Arizona, Flagstaff AP.
*The flood hazard dates reflect the current National Flood Insurance Program and the date of the currently effective "FIRM" Map (used by the City of Flagstaff). These maps are updated by the issuing agency and adopted by Storm Water Management without notice.

Amend 2024 IRC R301.2.3, Snow Loads, by deleting and replacing with:

Ground snow loads shall be 70psf or shall be determined in accordance in with Section 1608 of the *International Building Code*. Wood-framed construction, cold-formed, steel-framed construction and masonry and concrete construction, and *structural insulated panel* construction in regions with allowable stress design ground snow loads, $p_{g(asd)}$, 70 pounds per square foot (3.35 kPa) or less, shall be in accordance with Chapters 5, 6 and 8. *Buildings* in regions with allowable stress design ground snow loads, $p_{g(asd)}$, greater than 70 pounds per square foot (3.35 kPa) shall be designed in accordance with accepted engineering practice.

Amend 2024 IRC Table R301.5, Minimum Uniformly Distributed Live Loads, by revising the following values:

Residential - Habitable attics and sleeping areas: 40 psf

Section R302 Fire-Resistant Construction

Amend 2024 IRC R302.13, Fire protection of floors, by adding the following to Exceptions:

6. Floor assemblies located directly over crawl spaces with fuel-fired or electric-powered heating appliances where the maximum distance from crawl space floor to finish floor above does not exceed four (4) feet at any point.

Section R309 Automatic Fire Sprinkler Systems

Amend 2024 IRC R309.2, One- and two-family dwellings automatic fire sprinkler systems, by deleting and replacing with:
An automatic residential fire sprinkler system may be installed in one- and two-family dwellings. Arizona Revised Statutes prohibits jurisdictions from adopting any ordinance that mandates fire sprinklers in newly constructed one- and two-family dwellings.

Section R317 Garages and Carports
Amend 2024 IRC R317.5, Fire sprinklers, by deleting in its entirety.

Section R325 Light, Ventilation and Heating
Amend 2024 IRC R325.3, Mechanical ventilation, by deleting and replacing with:
Where the air infiltration rate of a *dwelling unit* is 5 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch wg (50 Pa) in accordance with Section N1102.4.1.2, the *dwelling unit* may be provided with whole-house mechanical ventilation in accordance with Section M1505.4.

CHAPTER 4 FOUNDATIONS
Section R401 General
Amend 2024 IRC R401.4.1, Geotechnical evaluation, by deleting and replacing with:
Construction in all new residential subdivisions require a geotechnical evaluation with foundation design recommendations. In established areas of the City of Flagstaff, "in-fill" lots or vacant lots in subdivisions established prior to 1996, the designer may use a load-bearing pressure of 1500 pounds per square foot (psf) in lieu of a geotechnical evaluation. Upon site excavation of foundation, where the Building Official determines that in-place soils with an allowable bearing capacity of less than 1500 pounds per square foot (psf) are likely to be present at the site, then allowable bearing capacity shall be determined by a geotechnical evaluation at the expense of the permit applicant.

Section R403 Footings
Amend 2024 IRC R403.1, General, by adding:
All footings located less than eighteen (18) inches below existing grade to be air entrained, 3,500 psi concrete (severe weather), and pinned to rock at intervals specified for foundation wall vertical reinforcements or as specified by the Arizona Registered Design Professional of Record.

CHAPTER 5 FLOORS
Section R502 Wood Floor Framing
Amend 2024 IRC R502.3, Allowable joist spans, by adding:
The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R502.3.1(1) and R502.3.1(2)

Amend 2024 IRC R502.3.1, Sleeping areas and attic joists, by deleting and replacing with:
Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and *attics* that are accessed by means of a fixed stairway in accordance with Section R318.7 provided that the design live load does not exceed 40 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds per square foot (0.96 kPa). The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.5.

Section R507 Exterior Decks
Amend 2024 IRC R507.5, Deck beams, by adding:
The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R507.5(4).

Amend 2024 IRC R507.6, Deck joists, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Table R507.6.

Amend 2024 IRC R507.9.2, Lateral connection, by adding:
Exception: Attached first floor decks that do not exceed 30 inches above grade at any point.

CHAPTER 7 WALL COVERING
Section R702 Interior Covering
Amend 2024 IRC R702.7, Vapor retarders, by deleting the following:
The requirement for Class I or Class II vapor retarders on the interior side of frame walls in Climate Zones 5, 6, 7, 8, and Marine 4. The use of vapor retarders shall be permitted but not required.

CHAPTER 8 ROOF-CEILING CONSTRUCTION
Section R802 Wood Roof Framing
Amend 2024 IRC R802.4.1, Rafter size, by adding:
The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R802.4.1(1) through R802.4.1(8).

CHAPTER 9 ROOF ASSEMBLIES
Section R904 Materials
Amend 2024 IRC R904.3, Material specifications and physical characteristics, by adding:
All roofing materials used shall be Class "A" or "B" and rolled roofing shall be a Class A or B material and shall be a self-adhering, polymer modified bitumen material.

Section R905 Requirements for Roof Coverings
Amend 2024 IRC R905.7, Wood shingles, by deleting in its entirety.

Amend 2024 IRC R905.8, Wood shakes, by deleting in its entirety.

CHAPTER 11 ENERGY EFFICIENCY
Section N1102 (R402) Building Thermal Envelope
Amend 2024 IRC N1102.1.2 (R402.1.2), Maximum Assembly U-Factors and Fenestration Requirements, by revising/adding the following to Table N1102.1.2 (R402.1.2) as follows:
Climate Zone 5, Wood frame wall R-value, shall be 15 high density in existing 2x4 framed walls in remodel work only.
Footnote b, add Exception: Windows used for the installation of glazing for an approved passive solar design.

Amend 2024 IRC table N1102.1.3 (R402.1.3), Insulation Minimum R-Values and Fenestration Requirements by Component, column 5 and 4 Marine, row Wood-Framed Wall R-Value by revising as follows:
21, or 13+5ci, or 0+15 ci

Section N1104 (R404) Electric Power, Lighting and Renewable Energy Systems
Amend 2024 IRC N1104 (R404), Electrical Power, Lighting, and Renewable Energy Systems, by deleting Sections N1104.2 (R404.2) through N1104.3.1 (R404.3.1) in their entirety.

CHAPTER 20 BOILERS AND WATER HEATERS
Section M2005 Water Heaters

Amend 2024 IRC M2005.1, General, by adding:
Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

CHAPTER 24 FUEL GAS
Amend 2024 IRC, section G2415.3, Prohibited locations, by adding: Piping shall not be installed to a structure that is not attached to a permanent foundation.

Section G2415.12 Minimum Burial Depth
Amend 2024 G2415.12, Minimum burial depth, by deleting and replacing with:
Underground piping systems shall be installed a minimum depth of 18 inches below grade, except as provided for in Section G2415.12.1.

Section G2445 Unvented Room Heaters
Amend 2024 IRC Section G2445, Unvented Room Heaters, by deleting in its entirety.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS
Section P2601 General
Amend 2024 IRC Section P2601, General, by adding subsection P2601.4, Prohibited Locations, as follows:
P2601.4: Prohibited locations.
Water and waste plumbing systems shall not be installed to a structure that is not attached to a permanent foundation.

Section P2602 Individual Water Supply and Sewage Disposal
Amend 2024 IRC P2602.1, General, by adding:
Building sanitary drainage piping and systems that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation.

Section P2603 Structural and Piping Protection
Amend 2024 IRC P2603.5.1, Sewer depth, by deleting and replacing with:
Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality. *Building sewers* that connect to the City of Flagstaff's sewage disposal system shall be not less than twelve (12) inches below grade.

CHAPTER 29 WATER SUPPLY AND DISTRIBUTION
Section P2903 Water Supply System
Amend 2024 IRC Table P2903.2, Maximum Flow Rates and Consumption for Plumbing Fixtures and Fixture Fittings, by revising and adding as follows:

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY
Lavatory faucet	1.5 gpm at 60 psi and WaterSense labeled
Showerhead[a]	1.8 gpm at 80 psi and WaterSense labeled
Sink faucet	2.2 gpm at 60 psi and WaterSense labeled

Water closet	1.28 gallons per flushing cycle and WaterSense labeled and has a Maximum Performance (MaP) rating score of at least 600 grams per flush. Dual-flush water closets: The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 31 VENTS
Section P3103 Vent Terminals
Amend 2024 IRC P3103.1.1, Roof extension, as follows:
Replace "6" with "twelve (12)" and delete "or 6 inches (mm) above the anticipated snow accumulation, whichever is greater".

CHAPTER 39 POWER AND LIGHTING DISTRIBUTION
Section E3901 Receptacle Outlets
Amend 2024 IRC E3901.4.2, Island and peninsular countertops and work surfaces, by deleting and replacing with:
At least one receptacle outlet shall be installed at each island countertop space with a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. [210.52(C)(2)]. Not less than one receptacle outlet shall be installed at each peninsular countertop long dimension space having a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall. [210.52(C)(3)].

Amend 2024 IRC E3902.5, Basement receptacles, by deleting in its entirety.

APPENDIX BE – RADON CONTROL METHODS
Section BE101 General
Amend 2024 IRC Section BE101.1, General, by deleting (including Figure BE101.1 and Table BE101.1) and replacing with the following:
Radon-resistant construction in accordance with this appendix shall be required for all new construction.

APPENDIX NB (RB)– SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES

Amend the title of 2024 IRC Appendix NB (RB) to read as follows:
Solar-Ready Provisions – Attached and Detached One- and Two-Family Dwellings, Triplexes, Fourplexes, and Townhouses.

Section NB103 (RB103)
Amend 2024 IRC NB103.1 (RB103.1), General, by deleting and replacing with the following:
New attached and detached one- and two-family *dwellings*, triplexes, fourplexes, and *townhouses* with not less than 600 square feet (55.74 m^2) of roof area oriented between 110 degrees and 270 degrees of true north, shall comply with Sections NB103.2 through NB103.10.

Exceptions:

1. New residential buildings with a permanently installed *on-site renewable energy* system.
2. A *building* where all areas of the roof that would otherwise meet the requirements of Section NB103 are in full or partial shade for more than 70 percent of daylight hours annually.

Amend 2024 IRC NB103.6 (RB103.6), Capped roof penetration sleeve, by deleting in its entirety.

APPENDIX NE (RE) – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE
Section NE101(RE101)
Amend 2024 IRC Section NE101.1 (RE101.1), Definitions, by deleting and replacing the definition of "Electric Vehicle Supply Equipment (EVSE)" with the following:
Electric Vehicle Supply Equipment (EVSE).
Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

Amend 2024 IRC Section NE101.2 (RE101.2), Electric vehicle power transfer infrastructure, as follows:
Change "NE101.2.5" to "NE101.2.6".

Amend 2024 IRC Section NE101.2 (RE101.2), Electric vehicle power transfer infrastructure, by adding:
Exceptions:
New detached garages or carports where electricity is not provided shall not be required to provide EV charging infrastructure.

Amend 2024 IRC Section NE101.2.1 (RE101.2.1), Quantity, by deleting and replacing with the following:
New one- and two-family dwellings, triplexes, fourplexes, and townhouses with a designated attached or detached garage or other on-site private parking provided adjacent to the *dwelling unit* shall be provided with one *EV ready space* or *Level 2 EVSE space* per *dwelling unit*. Two-family dwellings, triplexes, and fourplexes that include units without a designated attached or detached garage shall be permitted to provide one *EV ready space* or *Level 2 EVSE space* for use by all dwelling units without a designated garage. It shall be located in a common-use area and be accessible to all occupants.

Amend 2024 IRC Section NE101.2.3 (RE101.2.3), EV ready spaces, by deleting and replacing with the following:
Each branch circuit serving an EV ready space shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.
2. Terminate in a NEMA 14-50R receptacle outlet located within 6 feet (1828 mm) of each EV ready space it serves and marked "For electric vehicle supply equipment (EVSE)."
3. Be designated on the panelboard or other electrical distribution equipment directory as "For electric vehicle supply equipment (EVSE)."
4. Be installed in compliance with the currently adopted International Residential Code and National Electrical Code.

Amend 2024 IRC Section NE101.2.4 (RE101.2.4), EVSE spaces, by deleting and replacing with the following:

An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* serving either a single *Level 2 EVSE space* or multiple *Level 2 EVSE spaces* shall comply with all of the following:

1. Be served by an electrical distribution system in accordance with Section NE101.2.5.
2. Have a nameplate charging capacity of not less than 8.3 kVA (or 50A at 208/240V) per *Level 2 EVSE space* served. Where a *Level 2 EVSE* serves three or more *Level 2 EVSE spaces* and is controlled by an energy management system in accordance with Section RE101.2.5, the nameplate charging capacity shall be not less than 2.1 kVA per *Level 2 EVSE space* served.
3. Be located within 6 feet (1828 mm) of each *Level 2 EVSE space* it serves.
4. Be installed in accordance with NFPA 70 and be *listed* and *labeled* in accordance with UL 2202 or UL 2594.

Amend 2024 IRC Section NE101.2.5 (RE101.2.5), Electrical distribution system capacity, by deleting and replacing with the following:

The branch circuits and electrical distribution system serving each *EV capable space*, *EV ready space* and *Level 2 EVSE space* used to comply with Section NE101.2.1 (RE101.2.1) shall comply with all of the following:

1. Sized for a calculated *EV* charging load of not less than 8.3 kVA per *Level 2 EVSE*, *EV ready* or *EV capable space*. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.
2. The capacity of the electrical distribution system and each branch circuit serving multiple *Level 2 EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system in accordance with NFPA 70 shall be sized for a calculated *EV* charging load of not less than 2.1 kVA per space. Where an energy management system is used to control *EV* charging loads for the purposes of this section, it shall not be configured to turn off electrical power to *Level 2 EVSE* or *EV ready spaces* used to comply with Section NE101.2.1 (RE101.2.1).

Amend 2024 IRC Section NE101.2: (RE101.2), Electric vehicle power transfer infrastructure, by adding subsection NE101.2.6 (RE101.2.6), Construction documents, as follows:

NE101.2.6: (RE101.2.6) Construction documents.

Construction documents shall designate all *EVSE spaces, EV ready spaces,* and *EV capable spaces,* and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces, EV ready spaces,* and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV capable spaces* and *EV ready spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

APPENDIX NK (RK) –
ELECTRIC READY RESIDENTIAL PROVISIONS
Section NK101 (RK101)
Amend 2024 IRC Section NK101.1 (RK101.1), Electric readiness, by adding:

Exception:

1. New one- and two-family dwellings, triplexes, fourplexes, and townhouses can request an exception to the requirements in this appendix from the Building Official if electrical load calculations indicate a 400-amp electric service panel is required to meet the minimum requirements of the 2024 International Residential Code. Exceptions will be granted at the discretion of the Building Official.

Amend 2024 IRC Section NK101.1.1 (RK101.1.1), Cooking appliances, by deleting and replacing with the following:

A dedicated branch circuit outlet with a rating not less than 240 volts and not less than 50 amperes shall be installed and terminate within 3 feet (914 mm) of conventional cooking tops, conventional ovens or cooking appliances combining both.

Exception: Cooking appliances not installed in an individual *dwelling unit*.

CHAPTER 4-04

2024 INTERNATIONAL EXISTING BUILDING CODE

4-04-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Existing Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 105 Permits

Amend 2024 IEBC 105.1, Required, by adding:

Refer to the 2024 Amendments to Flagstaff City Code, Title 4, Building Regulations to the 2024 International Building Code (IBC) and 2024 International Residential Code (IRC) for building permit requirements.

Amend 2024 IEBC 105.5, Expiration, by deleting and replacing with:

Refer to the 2024 Amendments to Flagstaff City Code, Title 4, Building Regulations to the 2024 International Building Code (IBC) and 2024 International Residential Code (IRC) for the duration of building permits.

Section 112 Means of Appeals

Amend 2024 IEBC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IEBC Sections 112.2 through 112.4, by deleting in their entirety.

CHAPTER 4 REPAIRS

Section 408 Plumbing

Amend 2024 IEBC 408.2, Water closet replacement, by deleting and replacing with:

The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.28 gallons (4.84 liters) per flushing cycle or lower.

Dual-flush water closets: The effective flush volume for dual-flush toilets shall not exceed 1.28 gallons (4.84 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 12 HISTORIC BUILDINGS

Section 1201 General

Amend 2024 IEBC 1201.2, Report, by adding subsection 1201.2.1, Heritage Preservation Commission:

1201.2.1: Heritage Preservation Commission. Any exterior changes to a structure over 50 years old at the time of application shall be reviewed by the Heritage Preservation Officer and Current Planning Section, Planning & Development Services Division, prior to issuing a building permit. The project may be referred to the City's Inter-Division Staff (IDS) committee and/or the Heritage Preservation Commission for review. Heritage Preservation review will be conducted pursuant to Flagstaff Zoning Code Division 10-30.30: Heritage Preservation.

CHAPTER 4-05
2024 INTERNATIONAL MECHANICAL CODE

4-05-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS
The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Mechanical Code (IMC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION
Section 108 Fees
Amend 2024 IMC 108.6, Refunds, by deleting and replacing with:
Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeal
Amend 2024 IMC 112.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IMC Sections 112.2 through 113.1, by deleting in their entirety.

Section 114 Violations
Amend 2024 IMC 114.4, Violation penalties, by deleting and replacing with:
Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

Amend 2024 IMC 115, Stop work orders, by deleting and replacing with:
Stop work orders shall be in accordance with 2024 IBC Section 115, as adopted and amended by the City of Flagstaff.

CHAPTER 3 GENERAL REGULATIONS
Section 304 Installation
Amend 2024 IMC 304.2, Conflicts, by deleting and replacing with:
Where conflicts occur between the provisions of this code and the conditions of the listing or the manufacturer's installation instructions, the listing and manufacturer's installation instructions shall govern.

CHAPTER 4 VENTILATION
Amend 2024 IMC Chapter 4, Ventilation, by adding Section 408, Cannabis Related Occupancies, as follows:
408.1 General.
Any building used to cultivate, produce, infuse, or dispense cannabis shall be designed such that there shall be no emission of dust, fumes, vapors, or odors into the environment from the premises. A ventilation system shall be designed to prevent the distribution of odors to other occupied parts of the building or adjacent properties. Design of the odor control system shall be based on accepted engineering practices. All equipment and filter media shall be listed and labeled for the application. Exhaust systems used in odor control systems shall meet the requirements of Section 501. 408.1.1 Exhaust outlets. The termination point for exhaust outlets shall be in 65 accordance with Section 501.3. Exhaust from cultivation and production facilities shall be in accordance with Section 501.3.1(2) and for dispensaries in accordance with Section 501.3.1(3).

CHAPTER 5 EXHAUST SYSTEMS

Section 511, Sub-slab Soil Exhaust Systems

Amend 2024 IMC 511.1, General, by deleting and replacing with:

Sub-slab soil exhaust systems shall be required for all new construction within the jurisdiction where buildings are constructed in contact with the ground. Where a sub-slab soil exhaust system is provided, the system shall comply with the requirements of this section.

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

Section 903 Factory-Built Fireplaces

Amend 2024 IMC 903.3, Unvented gas log heaters, by deleting and replacing with:

An unvented gas log heater shall not be installed at any time unless first approved by the local gas utility company. A signed and dated letter of such approval shall be submitted to the Building Official before a permit can be issued.

CHAPTER 10 BOILERS, WATER HEATERS AND PRESSURE VESSELS

Section 1002 Water Heaters

Amend 2024 IMC 1002.1, General, by revising the second sentence to read:

Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

CHAPTER 4-06
2024 INTERNATIONAL PLUMBING CODE

4-06-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS
The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Plumbing Code (IPC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION
Section 108 Fees
Amend 2024 IPC 108.2, Schedule of permit fees, by deleting and replacing with:
The fees for all plumbing work shall be in accordance with 2024 IBC 109.2, as adopted and amended by the City of Flagstaff.

Amend 2024 IPC 108.6, Fee refunds, by deleting and replacing with:
Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeal
Amend 2024 IPC 112.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IPC Sections 112.2 through 113.1, by deleting in their entirety.

Section 114 Violations
Amend 2024 IPC 114.4, Violation penalties, by deleting and replacing with:
Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 3 GENERAL REGULATIONS
Section 301 General
Amend 2024 IPC 301.6, Prohibited locations, by adding:
Water and waste plumbing systems shall not be installed to a structure that is not attached to a permanent foundation.

Amend 2024 IPC 301.7, Conflicts, by deleting and replacing with:
Where conflicts between this Code and the conditions of the listing or the manufacturer's installation instructions occur, the listing or manufacturer's installation requirements shall apply.

Section 305 Protection of Pipes and Plumbing System Components
Amend 2024 IPC 305.4, Freezing, by revising the last sentence to read:
Exterior water supply piping shall be installed not less than thirty (30) inches below grade.

Amend 2024 IPC 305.4.1, Sewer depth, by deleting and replacing with:
Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation. Building sewers that connect to City-provided sewer shall be a minimum of twelve (12) inches below grade.

Section 312 Tests and Inspections
Amend 2024 IPC 312.1, Required tests, by replacing the fourth sentence with:

All plumbing system piping shall be tested with either water or air.

Amend 2024 IPC 312.3, Drainage and vent air test, by deleting the first sentence.

Amend 2024 IPC 312.5, Drainage and vent final test, by deleting in its entirety.

Amend 2024 IPC 312.7, Gravity sewer test, by deleting in its entirety.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION
Section 604 Design of Building Water Distribution System
Amend 2024 IPC Table 604.4, Maximum flow rates and consumption for plumbing fixtures and fixture fittings, by revising the following values:

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY[b]
Lavatory faucet, private	1.5 gpm at 60 psi and WaterSense labeled
Lavatory faucet, public (metering)	0.25 gallon per metering cycle and WaterSense labeled
Lavatory faucet, public (other than metering)	0.5 gpm at 60 psi and WaterSense labeled
Showerhead[a, c]	1.8 gpm at 80 psi and WaterSense labeled
Sink faucet	2.2 gpm at 60 psi and WaterSense labeled
Urinal	0.125 gallons (1 pint) per flushing cycle and WaterSense labeled
Water closet	1.28 gallons per flushing cycle and WaterSense labeled and has a Maximum Performance (MaP) rating score of at least 600 grams per flush. Dual-flush water closets: The effective flush volume for dual-flush toilets shall not exceed 1.28 gallons (4.84 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. A hand-held shower spray is a shower head.
b. Consumption tolerances shall be determined from referenced standards.
c. Shower heads shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1-2020/CSA B125.1.

CHAPTER 7 SANITARY DRAINAGE
Section 703 Building Sewer
Amend 2024 IPC 703, Building sewer, by adding section 703.7, Building sewer locating means:

703.7 Building Sewer Locating Means. All non-metallic building sewer piping shall be installed with a plastic covered No. 12 AWG Type UF 600V tracer wire taped to the top of the piping with a minimum 10 mil tape. The building sewer tracer wire shall be green in color.

CHAPTER 9 VENTS
Section 903 Vent Terminals
Amend 2024 IPC 903.1.1, Roof extension unprotected, as follows:
Replace "[NUMBER]" with "twelve (12)" and replace "(mm)" with "(304.8 mm)".

CHAPTER 4-07
2024 INTERNATIONAL FUEL GAS CODE

4-07-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Fuel Gas Code (IFGC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND APPLICATION

Section 108 Fees

Amend 2024 IFGC 108.6, Refunds, by deleting and replacing with:

Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeals

Amend 2024 IFGC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IFGC Sections 112.2 through 112.4, by deleting in their entirety.

Section 113 Violations

Amend 2024 IFGC 113.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 3 GENERAL REGULATIONS

Section 303 Appliance Location

Amend 2024 IFGC 303.3, Prohibited locations, by deleting numbers 3 and 4.

CHAPTER 4 GAS PIPING INSTALLATIONS

Section 403 Piping Materials

Amend 2024 IFGC 403.3.3, Copper and copper alloy, by deleting and replacing with:

Copper and brass, threaded copper, brass, and aluminum piping shall not be used for gas piping installations within the City of Flagstaff.

Section 404 Piping System Installation

Amend 2024 IFGC 404.3, Prohibited locations, by adding:

Piping shall not be installed to a structure that is not attached to a permanent foundation.

Amend 2024 IFGC 404.12, Minimum burial depth, by deleting and replacing with:

Underground piping systems shall be installed a minimum depth of 18 inches below grade, except as provided for in Section 404.12.1.

CHAPTER 6 SPECIFIC APPLIANCES

Section 621 Unvented Room Heaters

Amend 2024 IFGC Section 621, Unvented Room Heaters, by deleting in its entirety.

CHAPTER 4-08
2024 INTERNATIONAL ENERGY CONSERVATION CODE

4-08-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS
The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Energy Conservation Code (IECC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

COMMERCIAL PROVISIONS
CHAPTER [CE] 1 SCOPE AND ADMINISTRATION
Section C101 Scope and General Requirements
Section C101.2 Scope
Amend 2024 IECC Section C101.2, Scope, by adding the following:
Group R-2 buildings, where defined as residential buildings by Section C202, shall be permitted to comply with the Residential Provisions of this code, regardless of height. Such election shall be indicated on the construction documents at the time of submittal.

Section C101.2.1 Appendices
Amend 2024 IECC Section C101.2.1, Appendices, by adding:
The following Appendices are hereby adopted as part of the IECC:

APPENDIX CB – Solar-Ready Zone – Commercial
APPENDIX CG – Electric Vehicle Charging Infrastructure
APPENDIX CH – Electric-Ready Commercial Building Provisions
APPENDIX CI – Demand Responsive Controls

Section C101.4 Compliance
Amend 2024 IECC Section C101.4, Compliance, by adding the following:
Group R-2 buildings, where defined as residential buildings by Section C202, shall be permitted to comply with the Residential Provisions of this code, regardless of height. Where such election is made, all applicable Residential Provisions shall be followed in their entirety. Once selected, the compliance path shall not be changed without approval of the Building Official.

Section C109 Means of Appeals
Amend 2024 IECC C109.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IECC Sections C109.2 through 109.4, by deleting in their entirety.

CHAPTER [CE] 2 DEFINITIONS
Section C202 General Definitions
Amend 2024 IECC Section C202, General definitions, by deleting and replacing the definition of "Residential Building" with the following:
RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses, as well as Group R-2, R-3, and R-4 buildings. Group R-2 buildings, regardless of height, shall be permitted to comply with the Residential Provisions of this code, provided such designation is identified on the construction documents. Where a building includes accessory common uses and/or commercial

spaces, those portions of the building shall comply with the applicable commercial provisions of the International Energy Conservation Code.

CHAPTER [CE] 4 COMMERCIAL ENERGY EFFICIENCY

Section C402.1 General
Amend 2024 IECC table C402.1.3, Opaque Building Thermal Envelope Insulation Component Minimum Requirements, R-Value Method, Column 5 and Marine 4, sub-columns All other and Group R, row Wood framed and other by revising as follows:
R-0+R-16ci, or R-13+R-7.5ci, or R20+R3.8, or R-21

Section C405.12 Automatic Receptacle Control
Amend 2024 IECC C405.12 & 405.12.1, Automatic receptacle control, by deleting in their entirety.

Section C405.13 Energy Monitoring
Amend 2024 IECC Section C405.13, Energy monitoring, by adding the following:
Replace "shall" with "may" and add the following second sentence: Compliance with the provisions of Sections C405.13.1 through C405.13.11 is optional.

Section C405.15 Renewable Energy Systems
Amend 2024 IECC Section C405.15, Renewable Energy Systems, as follows:
Replace "shall" with "may" and add the following second sentence: Compliance with the provisions of Sections C405.15.1 through C405.15.4 is optional.

APPENDIX CG – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Section CG101.1 Definitions
Amend 2024 IECC Section CG101.1, Definitions, by deleting and replacing the definition of "Electric Vehicle Supply Equipment (EVSE)" with the following:
Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

CG101.2: Electric Vehicle Power Transfer Infrastructure.
Amend 2024 IECC Section CG101.2, Electric vehicle power transfer infrastructure, as follows:
Change "CG101.2.6" to "CG101.2.7".

Section CG101.2.1 Quantity
Amend 2024 IECC Section CG101.2.1, Quantity, by deleting and replacing with the following:
The number of required *Level 2 electric vehicle supply equipment (EVSE)* spaces, *EV capable spaces* and *EV ready spaces* shall be determined in accordance with this section and Table CG101.2.1 based on the total number of *automobile parking spaces*. For Group R-2 buildings, the Table CG101.2.1 requirements shall be based on the total number of *dwelling units* or the total number of *automobile parking spaces*, whichever is less.

1. Where more than one parking facility is provided on a *building site*, the number of required *automobile parking spaces* required to have EV power transfer infrastructure shall be calculated separately for each parking facility.

2. Where one shared parking facility serves multiple building occupancies, the required number of spaces shall be determined proportionally based on the floor area of each building occupancy.

3. Installed *Level 2 EVSE spaces* that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV ready spaces* and/or *EV capable spaces* on a one-to-one ratio.

4. Installed *EV ready spaces* that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV capable spaces* on a one-to-one ratio.

5. Where the number of *EV ready spaces* allocated for R-2 occupancies is equal to the number of *dwelling units* or to the number of *automobile parking spaces* allocated to R-2 occupancies, whichever is less, requirements for *Level 2 EVSE spaces* for R-2 occupancies shall not apply.

6. Requirements for a Group S-2 parking garage shall be determined by the occupancies served by that parking garage. Where new automobile spaces do not serve specific occupancies, the values for Group S-2 parking garage in Table CG101.2.1 shall be used.

7. For buildings that install *DCFC EVSE* spaces, each *DCFC EVSE* space shall be permitted to substitute up to 10 required *EV capable, EV ready*, or *Level 2 EVSE* spaces.

8. Group R-2 occupancies shall be permitted to install three *Level 1 EVSE* spaces for every required *Level 2 EVSE space* or *EV ready space but* cannot exceed 50 percent of the required Level 2 EVSE spaces or EV ready spaces.

9. All attached garages with direct connection to a *dwelling unit* shall be required to have one *EV ready or Level 2 EVSE space.*

10. When the calculation of required E*V capable, EV ready,* and/or *Level 2 EVSE spaces* results in a decimal number, a decimal of 0.5 or more shall be adjusted to the next higher whole number, and a decimal of less than 0.5 shall be adjusted to the next lower whole number.

Exception: Parking facilities serving occupancies other than R2 with fewer than 15 *automobile parking spaces*.

Amend 2024 IECC table CG101.2.1, Required EV Power Transfer Infrastructure, by deleting and replacing with the following:

TABLE CG101.2.1 REQUIRED EV POWER TRANSFER INFRASTRUCTURE

OCCUPANCY	LEVEL 2 EVSE SPACES	EV READY SPACES	EV CAPABLE SPACES
Group A	5%	0%	10%
Group B	5%	5%	10%
Group E	5%	5%	10%
Group F	2%	0%	5%
Group H	1%	0%	0%

Group I	5%	0%	10%
Group M	5%	0%	10%
Group R-1	5%	10%	15%
Group R-2	5%	10%	15%
Groups R-3 and R-4	0%	2%	5%
Group S exclusive of parking garages	1%	0%	0%
Group S-2 parking garages	15%	0%	30%

CG101.2.2 EV Capable Spaces.
Amend 2024 IECC Section CG101.2.2, EV Capable Spaces, by deleting and replacing with the following:
Each *EV capable space* used to meet the requirements of Section CG101.2.1 shall comply with all of the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the *EV capable space* and electrical distribution equipment.

2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit capacity in accordance with Section CG101.2.5.

3. The electrical distribution equipment to which the raceway or cable assembly connects shall have dedicated overcurrent protection device space and electrical capacity to supply a calculated load in accordance with Section CG101.2.5.

4. The enclosure or outlet and the electrical distribution equipment directory shall be marked: "For electric vehicle supply equipment (EVSE)."

CG101.2.3 EV Ready Spaces.
Amend 2024 IECC Section CG101.2.3, EV Ready Spaces, by deleting and replacing with the following:
Each branch circuit serving *EV ready spaces* used to meet the requirements of Section CG101.2.1 shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.

2. Terminate in a NEMA 14-50R receptacle outlet located within 3 feet (914 mm) of each EV ready space it serves.

3. Have a minimum system and circuit capacity in accordance with Section CG101.2.5.

4. The electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE).

5. Be installed in compliance with the currently adopted National Electrical Code.

CG101.2.4: EVSE Spaces

Amend 2024 IECC Section CG101.2.4, EVSE Spaces, by deleting and replacing with the following:
CG101.2.4.1: Level 2 EVSE spaces.
An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* installed to meet the requirements of Section CG101.2.1, serving either a single *Level 2 EVSE* or multiple *Level 2 EVSE*, shall comply with all of the following:

1. Have a minimum system and circuit capacity in accordance with Section CG101.2.5.
2. Have a nameplate rating not less than 8.3 kW.
3. Be located within 3 feet (914 mm) of each *Level 2 EVSE space* it serves.
4. Be installed in accordance with Section CG101.2.6.

CG101.2.4.2: Level 1 EVSE Spaces.
Each *Level 1 EVSE space* shall comply with all the following:

1. The receptacle shall be located within 3 feet (914 mm) of each *Level 1 EVSE space* it serves.
2. Have a minimum circuit capacity of 1.8 kVA (15 amperes 120 volts).
3. The electrical panel, electrical distribution equipment directory, and all receptacles or enclosures shall be marked "Level 1 Electric vehicle supply equipment (EVSE)."

Amend 2024 IECC Section CG101.2, Electric vehicle power transfer infrastructure, by adding Section CG101.2.7, Construction documents, to read as follows:
Construction documents shall designate all *EVSE spaces, EV ready spaces,* and *EV capable spaces,* and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces, EV ready spaces,* and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV ready spaces and EV capable spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

APPENDIX CI: DEMAND RESPONSIVE CONTROLS
Section CI103.1 Demand Responsive Lighting Controls
Amend 2024 IECC Section CI103, Demand Responsive Lighting Controls, by deleting in its entirety.

RESIDENTIAL PROVISIONS
CHAPTER [RE] 1 SCOPE AND ADMINISTRATION
Section R101 Scope and General Requirements
Amend 2024 IECC Section R101.2.1, Appendices, by adding.
The following Appendices are hereby adopted as part of the IECC:

APPENDIX RB – SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES
APPENDIX RE – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE
APPENDIX RK – ELECTRIC READY RESIDENTIAL BUILDING PROVISIONS
APPENDIX RL – RENEWABLE ENERGY INFRASTRUCTURE

Section R109 Means of Appeals

Amend 2024 IECC R109.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IECC Sections R109.2 through 109.4, by deleting in their entirety.

CHAPTER [RE] 2 DEFINITIONS

Section R202 General Definitions

Amend 2024 IECC R202, General definitions, by replacing the definition of "Residential Building" with the following:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses, as well as Group R-2, R-3, and R-4 buildings. Group R-2 buildings, regardless of height, shall be permitted to comply with the Residential Provisions of this code, provided such designation is identified on the construction documents. Where a building includes accessory common uses and/or commercial spaces, those portions of the building shall comply with the applicable commercial provisions of the International Energy Conservation Code.

CHAPTER [RE] 4 RESIDENTIAL ENERGY EFFICIENCY

Section R402 Building Thermal Envelope

Amend 2024 IECC Table R402.1.2, Maximum Assembly U-Factors and Fenestration Requirements, by adding the following:

Footnote b, Exception: Windows used for the installation of glazing for approved passive solar design.

Amend 2024 IECC Table R402.1.3, Insulation Minimum R-Values and Fenestration Requirements by Component, column 5 and 4 Marine, row Wood-Framed Wall R-Value by revising as follows:

21, or 13+5ci, or 0+15 ci (R15 high density shall be permissible in existing 2x4 framed walls)

Section R404 Electric Power, Lighting and Renewable Energy Systems

Amend 2024 IECC R404, Electrical Power, Lighting, and Renewable Energy Systems, by deleting Sections R404.2 through R404.3.1 in their entirety.

APPENDIX RB – SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES

Amend the title of 2024 IECC Appendix RB to read as follows:

Solar-Ready Provisions – Attached and Detached One- and Two-Family Dwellings, Triplexes, Fourplexes, and Townhouses.

Section RB103

Amend 2024 IECC RB103.1, General, by deleting and replacing with the following:

New attached and detached one- and two-family *dwellings*, triplexes, fourplexes, and *townhouses* with not less than 600 square feet (55.74 m^2) of roof area oriented between 110 degrees and 270 degrees of true north, shall comply with Sections NB103.2 through NB103.10.

Exceptions:

1. New residential buildings with a permanently installed *on-site renewable energy* system.
2. A *building* where all areas of the roof that would otherwise meet the requirements of Section NB103 are in full or partial shade for more than 70 percent of daylight hours annually.

Amend 2024 IECC RB103.6, Capped roof penetration sleeve, by deleting in its entirety.

APPENDIX RE – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Section RE101.1

Amend 2024 IECC Section RE101.1, Definitions, by deleting and replacing the definition of "Electric Vehicle Supply Equipment (EVSE)" with the following:

Electric Vehicle Supply Equipment (EVSE). Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

Section RE101.2

Amend 2024 IECC Section RE101.2, Electric vehicle power infrastructure, as follows:

Change "RE101.2.5" to "RE101.2.6".

Amend 2024 IECC Section RE101.2, Electric vehicle power transfer infrastructure, by adding:

Exceptions:

New detached garages or carports where electricity is not provided shall not be required to provide EV charging infrastructure.

Amend 2024 IECC Section RE101.2.1, Quantity, by deleting and replacing with the following sections RE101.2.1.1 - RE101.2.1.4.3:

Section RE101.2.1.1 One- and Two- Family Dwellings, Triplexes, Fourplexes, and Townhouses Regulated Under the 2024 International Residential Code

New one- and two-family dwellings, triplexes, fourplexes, and townhouses with a designated attached or detached garage or other on-site private parking provided adjacent to the *dwelling unit* shall be provided with one *EV ready space* or *Level 2 EVSE space* per *dwelling unit*. Two-family dwellings, triplexes, and fourplexes that include units without a designated attached or detached garage shall be permitted to provide one *EV ready space* or *Level 2 EVSE space* for use by all dwelling units without a designated garage. It shall be located in a common-use area and be accessible to all occupants.

Section RE101.2.1.2 Other Residential Occupancies

R-2 occupancies, allocated parking for R-2 occupancies in mixed-use *buildings,* R-3 occupancies (excluding one- and two-family dwellings, triplexes, fourplexes, and townhomes regulated under the 2024 International Residential Code), and R-4 occupancies shall meet the requirements in Table RE101.2.1.2(1) for *EV capable*, *EV ready,* or *EVSE* spaces, unless an attached garage with a direct connection to a dwelling unit is provided, in which case the dwelling unit shall be provided with EV charging infrastructure in accordance with RE101.2.1.3. At least one E*V capable, EV ready* or *EVSE space* shall be located in a common-use area and be available for use by all occupants.

When the calculation of required E*V capable, EV ready,* and *EVSE spaces* results in a decimal number, a decimal of 0.5 or more shall be adjusted to the next higher whole number, and a decimal of less than 0.5 shall be adjusted to the next lower whole number.

Table RE101.2.1.2(1) EV Infrastructure Requirements for Other Residential Occupancies

Building Type	Level 2 EVSE spaces	EV capable or EV ready spaces
Group R-2 occupancies three stories or less in height above grade plane with 15 or fewer parking spaces, excluding triplexes and fourplexes regulated under the 2024 International Residential Code	20% of spaces shall be either *Level 2 EVSE, EV ready,* or *EV capable* (not fewer than 1 space).	
Group R-2 occupancies three stories or less in height above grade plane with more than 15 parking spaces, excluding triplexes and fourplexes regulated under the 2024 International Residential Code	5%	15%
Group R-2 occupancies taller than three stories in height above grade plane	5%	25%
Group R-3 and R-4 occupancies with more than 15 parking spaces	0	7%

Exceptions:

1. R-3 and R-4 occupancies where fewer than 15 parking spaces are provided.
2. Where the local electric distribution entity certifies in writing that it is not able to provide 100 percent of the necessary distribution capacity within 2 years after the estimated certificate of occupancy date, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity.
3. Where substantiation is approved that meeting the requirements of Section RE101.2.5 will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than $450 per dwelling unit.

RE101.2.1.3 Attached garages. All attached garages with direct connection to a dwelling unit shall be required to have one EV ready space or EVSE space.

RE101.2.1.4 Parking Space Type Substitutions. Group R-2, R-3, and R-4 occupancies shall be permitted to substitute EV parking spaces required in Table 101.2.1.2(1) according to sections RE101.2.1.4.1 – RE101.2.1.4.3.

RE101.2.1.4.1 DC Fast Charging. For Group R-2, R-3, R-4 buildings that install *DCFC EVSE* spaces, each *DCFC EVSE* space shall be permitted to substitute up to 10 required *EV capable, EV ready*, or *Level 2 EVSE spaces* in Table RE101.2.1.2(1).

RE101.2.1.4.2 Level 1 EV Charging. For Group R-2 buildings that install *Level 1 EVSE spaces* in accordance with section RE101.2.5, three *Level 1 EVSE spaces* shall be permitted to substitute every *Level 2 EVSE space,* but cannot exceed 50 percent of the required *Level 2 EVSE* spaces in Table RE101.2.1.2(1).

RE101.2.1.4.3 Excess Level 2 EVSE Spaces. *Level 2 EVSE* spaces installed in accordance with Section RE101.2.4 that exceed the minimum requirements in Table RE101.2.1.2(1) are permitted to be used to meet the minimum requirements for *EV capable* or *EV ready spaces* on a one-to-one ratio.

Amend 2024 IECC Section RE101.2.3, EV Ready Spaces, by deleting and replacing with the following:

Each branch circuit serving an EV ready space shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.

2. Terminate in a NEMA 14-50R receptacle outlet located within 6 feet (1828 mm) of each EV ready space it serves and marked "For electric vehicle supply equipment (EVSE)."

3. Be designated on the panelboard or other electrical distribution equipment directory as "For electric vehicle supply equipment (EVSE)."

4. Installation shall comply with the currently adopted National Electrical Code.

Amend 2024 IECC Section RE101.2.4, EVSE Spaces, by deleting and replacing with the following:

RE101.2.4.1 Level 2 EVSE Spaces
An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* serving either a single *Level 2 EVSE space* or multiple *Level 2 EVSE spaces* shall comply with all of the following:

1. Be served by an electrical distribution system in accordance with Section RE101.2.5.

2. Have a nameplate charging capacity of not less than 8.3 kVA (or 50A at 208/240V) per *Level 2 EVSE space* served. Where a *Level 2 EVSE* serves three or more *Level 2 EVSE spaces* and is controlled by an energy management system in accordance with Section RE101.2.5, the nameplate charging capacity shall be not less than 2.1 kVA per *Level 2 EVSE space* served.

3. Be located within 6 feet (1828 mm) of each *Level 2 EVSE space* it serves.

4. Be installed in accordance with NFPA 70 and be *listed* and *labeled* in accordance with UL 2202 or UL 2594.

RE101.2.4.2 Level 1 EVSE Spaces.
Each *Level 1 EVSE space* shall comply with all the following:

1. The receptacle shall be located within 6 feet (1828 mm) of each *Level 1 EVSE space* it serves.

2. Have a minimum circuit capacity of 1.8 kVA (15A 120V).

3. The electrical panel, electrical distribution equipment directory, and all receptacles or enclosures shall be marked "Level 1 Electric vehicle supply equipment (EVSE)."

Amend 2024 IECC Section RE101.2.5, Electrical Distribution System Capacity, by deleting and replacing with the following:

The branch circuits and electrical distribution system serving each *EV capable space*, *EV ready space* and *Level 2 EVSE space* used to comply with Section RE101.2.1 shall comply with all of the following:

1. Sized for a calculated *EV* charging load of not less than 8.3 kVA per *Level 2 EVSE*, *EV ready* or *EV capable space*. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.

2. The capacity of the electrical distribution system and each branch circuit serving multiple *Level 2 EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system in accordance with NFPA 70 shall be sized for a calculated *EV* charging load of not less than 2.1 kVA per space. Where an energy management system is used to control *EV* charging loads for the purposes of this section, it shall not be configured to turn off electrical power to *Level 2 EVSE* or *EV ready spaces* used to comply with Section RE101.2.1.

Amend 2024 IECC Section RE101.2, Electric vehicle power transfer infrastructure, by adding Section RE101.2.6, Construction Documents, as follows:

RE101.2.6: Construction documents.

Construction documents shall designate all *EVSE spaces, EV ready spaces,* and *EV capable spaces,* and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces, EV ready spaces,* and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV ready spaces and EV capable spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

APPENDIX RK – ELECTRIC READY RESIDENTIAL CONSTRUCTION

Section RK101

Amend 2024 IECC Section RK101.1, Electric readiness, to add:

Exception:

1. New one- and two-family dwellings, triplexes, fourplexes, and townhouses can request an exception to the requirements in this appendix from the Building Official if electrical load calculations indicate a 400-amp electric service panel is required to meet the minimum requirements of the 2024 International Residential Code. Exceptions will be granted at the discretion of the Building Official.

Amend 2024 IECC Section RK101.1.1, Cooking appliances, by deleting and replacing with the following:

A dedicated branch circuit outlet with a rating not less than 240 volts and not less than 50 amperes shall be installed and terminate within 3 feet (914 mm) of conventional cooking tops, conventional ovens or cooking appliances combining both.

Exception: Cooking appliances not installed in an individual *dwelling unit*.

APPENDIX RL – RENEWABLE ENERGY INFRASTRUCTURE

Section RL101

Amend 2024 IECC Section RL101.1, Renewable energy infrastructure, by deleting and replacing with the following:

The *building* shall comply with the requirements of Section RL101.1.2.Solar-ready construction in accordance with this appendix shall be required for all new Group R occupancies, excluding one- and two-family dwellings, triplexes, fourplexes, and townhouses regulated under the 2024 International Residential Code.

Amend 2024 IECC Section RL101.1.1, One- and two-family dwellings and townhouses, by deleting entirely

CHAPTER 4-10
2024 INTERNATIONAL SWIMMING POOL AND SPA CODE

4-10-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS
The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Swimming Pool and Spa Code (ISPSC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION
Section 112 Means of Appeals
Amend 2024 ISPSC 112.1, General, by deleting and replacing with:
In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 ISPSC Sections 112.2 through 112.4, by deleting in their entirety.

Section 113 Violations
Amend 2024 IMC 113.4, Violation penalties, by deleting and replacing with:
Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 2 DEFINITIONS
Section 202 Definitions
Amend 2024 ISPSC Section 202, Definitions, by deleting and replacing the definition of "Residential Swimming Pool (Residential Pool)" with the following:
RESIDENTIAL SWIMMING POOL (Residential Pool). A pool intended for use that is accessory to a residential setting and available only to the household and its guests including any structure intended for swimming or recreational bathing that contains water over eighteen (18) inches in depth. This includes in-ground, above ground, and on-ground swimming pools, hot tubs, spas, and fixed in place wading pools. Other pools shall be considered to be public pools for purposes of this code.

CHAPTER 3 GENERAL COMPLIANCE
Section 305 Barrier Requirements
Amend 2024 ISPSC 305.2.1, Barrier height and clearances, by revising subsection 1 as follows:
Replace "48 inches" with "60 inches" and "1219 mm" with "1524 mm".

CHAPTER 4-11
NATIONAL ELECTRICAL CODE

4-11-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS
The following provisions shall have the effect of either amending, adding to, or deleting from the National Electrical Code (NEC), 2023 Edition, adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 GENERAL
Article 110 General Requirements for Electrical Installations
Part I General
Amend 2023 NEC Article 110.2, Approval, by deleting and replacing with:
All electrical conductors, components, material, and equipment shall be listed and labeled.

Amend 2023 NEC Article 110.5, Conductors, by deleting and replacing with:
Conductors used to carry current shall be copper. Aluminum or copper-clad aluminum conductors shall be permitted only for feeders and service-entrance conductors, where installed in accordance with this Code. Aluminum and copper-clad aluminum conductors shall not be used for branch-circuit wiring.
Where conductor material is not specifically identified, the conductor sizes and requirements of this Code shall be based on copper conductors.

Amend 2023 NEC Article 110.7, Wiring Integrity, by deleting and replacing with:
All equipment rated at 1000 amperes or more shall be tested for insulation breakdown, mechanical integrity, and workmanship prior to the equipment being energized. A certified high potential voltage test (hi-pot) shall be performed and a certificate issued to the Building Official. This test shall be performed in the presence of a Building Inspector and conducted by a testing firm approved by the Building Official.

Said test shall be performed for a period of one (1) minute, the application of a 60 hertz alternating potential of 1000 volts plus twice the rated phase to phase voltage of the equipment.

This test shall be performed between all phases to ground, phase to phase, and neutral if isolated.

CHAPTER 2 WIRING AND PROTECTION
Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal
Part I General
Amend 2023 NEC Article 210.5, Identification for Branch Circuits, by adding:
(D) Color Code. Where 15, 20, or 30 ampere branch circuits requiring a neutral are installed in raceways or cable assemblies, the conductor of branch circuits connected to the same system shall conform to the following color code:

Volts	Phase	System	Phase A	Phase B	Phase C	Neutral
120/208	3	Wye	Black	Red	Blue	White
120/240	3	Delta	Black	Orange	Blue	White
277/480	3	Wye	Brown	Orange	Yellow	Gray

Article
Amend 2023 NEC Article 210.8, Ground-Fault Circuit-Interrupter Protection for Personnel, by deleting subsection 210.8(A)(5) in its entirety.

Article 210.52
Amend 2023 NEC Article 210.52(C)(2), Island and peninsular countertops and work surfaces, by deleting and replacing with the following:

At least one receptacle outlet shall be installed at each island countertop space with a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. Not less than one receptacle outlet shall be installed at each peninsular countertop long dimension space having a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall. Receptacle outlets shall be installed in accordance with 210.52(C)(3).

Article 250 Grounding and Bonding
Part II System Grounding
Amend 2023 NEC Article 250.30, Grounding Separately Derived Alternating-Current Systems, (A) Grounded Systems, (4) Grounding Electrode, by adding:
All new building construction shall have a one-piece concrete-encased electrode and electrode conductor (Ufer ground), a minimum twenty (20) feet length in the footing, sized from the following table:

0-200 ampere service: 1 piece #4 copper (electrode and electrode conductor)

201-400 ampere service: 1 piece 1/0 copper (electrode and electrode conductor)

401-800 ampere service: 1 piece 2/0 copper (electrode and electrode conductor)

Larger than 800 ampere service: 1 piece 3/0 copper (electrode and electrode conductor)

Where the Ufer has been lost, damaged, or cannot be located, a ground ring or modification of the same consisting of thirty (30) feet of #2 bare copper wire, buried a minimum of thirty (30) inches deep in a trench, or a plate electrode per Article 250.53 (H) shall be required in lieu of a concrete-encased electrode.

Section 5-02-001
FIRE CODE

Sections:

5-02-001-0001 ADOPTION OF 2024 INTERNATIONAL FIRE CODE AND 2024 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE
5-02-001-0002 FIRE PREVENTION DIVISION: ESTABLISHMENT, DUTIES:
5-02-001-0003 SAVING CLAUSE
5-02-001-0004 VIOLATION AND PENALTIES
5-02-001-0005 AMENDMENTS

5-02-001-0001 ADOPTION OF 2024 INTERNATIONAL FIRE CODE AND 2024 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

There are hereby adopted by the City of Flagstaff for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, those certain Codes known as the 2024 International Fire Code and the 2024 International Wildland-Urban Interface Code, as amended below.

Said codes have been adopted as part of a public record through Resolution No. 2026-47 on October 6, 2026, entitled "The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code," one hard copy and one electronic copy of which are on file in the office of the City Clerk, made a part hereof as if fully set out in this chapter.

5-02-001-0002 FIRE PREVENTION DIVISION: ESTABLISHMENT, DUTIES:

A. The International Fire Code and International Wildland Urban Interface Code shall be enforced by the Fire Prevention Division.

B. The Fire Chief of the City shall be in charge of the Fire Prevention Division and may detail such members of the Fire Department as necessary to administer fire prevention efforts.

5-02-001-0003 SAVING CLAUSE

Nothing in this chapter or in the International Fire Code or International Wildland-Urban Interface Code hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this chapter.

5-02-001-0004 VIOLATION AND PENALTIES

A. Violations. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or property, or permit the same to be done in violation of this code.

B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 General Penalty. Each separate day

or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

5-02-001-0005 AMENDMENTS

The following provisions shall have the effect of either amending, adding to, or deleting from the International Fire Code, 2024 Edition:

CHAPTER 1. IFC. Administration

Amend Section 101.1 Title, to read:

These regulations shall be known as the Fire Code of City of Flagstaff, hereinafter referred to as "this code."

Delete and replace section 101.2.1 as follows:

[A] 101.2.1 Appendices: The following appendices are adopted and amended as part of this Code by the City of Flagstaff: B, C, D, E, F, G, H, I, J, L, and N as added and/or amended.

Appendix B Fire-Flow Requirements for Buildings
Appendix C Fire Hydrant Locations and Distribution
Appendix D Fire Apparatus Access Roads
Appendix E Hazard Categories
Appendix F Hazard Ranking
Appendix G Cryogenic Fluids – Weight and Volume Equivalents
Appendix H Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions
Appendix I Fire Protection Systems—Noncompliant Conditions
Appendix J Building Information Sign
Appendix L Requirements for Fire Fighter Air Replenishment Systems
Appendix N Indoor Trade Shows and Exhibitions

Amend Section 102.7 entitled "Reference codes and standards", by adding:

Referenced codes and standards as listed in Chapter 80, and in this document are adopted in their entirety.

Amend Section 105.5.36 Open Burning, by deleting

Exception: Recreational fires.

Add Section 105.6.26 Electronic access control systems:

Construction permits are required to install or modify an electronic access control system, as specified in Chapter 10. A separate construction permit is required to install or modify a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Add Section 105.6.27 Electric vehicle (EV) charging stations:

Construction permits are required to install or modify an electric vehicle charging station. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Add to section 110.3 as follows: [A] 110.3 Recordkeeping:

Fire system annual maintenance inspection reports shall be submitted through the web-based third-party reporting service, The Compliance Engine.

Amend Section 113.4 entitled "Violation penalties", to read:

Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under a provision or provisions of this code, shall be guilty of a class one misdemeanor and upon conviction shall be punishable by a fine and/or imprisonment set forth by the governing laws of the jurisdiction. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 2, IFC, Definitions

Amend Section 202 entitled "Definitions; Detached Building" to read:

DETACHED BUILDING: A separate standalone structure that is separated from other buildings in accordance with the requirements of the International Building Code, greater than 200 square foot and/or within 15 feet of the existing or primary structure. This classification shall include, but not limited to the following

Casitas
Gazebos
Storage Sheds
Garages
Green Houses
Ramadas
Barns
Work Shop

Chapter 3, IFC, General requirements

Add Section 323 Electric Vehicles (EVs).

323.1 Electric Vehicle Charging Stations. Electric vehicle (EV) charging stations shall not be located inside buildings, except where approved for parking garage locations as per the National Electrical Code.

323.1.1 Charging Stations Inside Parking Garage. EV charging stations located in parking garages shall be located at grade level along the exterior perimeter walls and shall be within 150 feet of fire apparatus access roadway or shall be located on the top level of the garage with no roof above.

323.1.2 Charging Stations inside R-3 and R-4 occupancies. Approved charging stations in the private garage shall have a listed heat alarm installed in the garage and interconnected to the smoke alarms inside the dwelling.

323.2 Disconnect. Locations containing electric vehicle charging stations shall be provided with a clearly identified and readily accessible emergency disconnect installed in an approved location. The emergency disconnects for exterior electric vehicle charging stations shall be

located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from the charging stations, unless otherwise approved by the fire code official.

323.2.1 Height. The height of the emergency disconnect switch shall be not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) measured vertically, from the floor level to the activating button.
323.2.2 Emergency Disconnect Sign. Emergency disconnect devices shall be distinctly labeled as: "EMERGENCY ELECTRIC VEHICLE CHARGER DISCONNECT." Signs shall be placed in an approved location and shall consist of all of the following:

1. White reflective background with red letters.
2. Weather-resistant durable material.
3. Lettering not less than 2 inches (51 mm) high.
4. Permanently affixed to the building or structure in an approved manner.

CHAPTER 5. IFC. Fire Service Features

Amend Section 503.2.3 Surface, to read:

Fire apparatus access roads shall be designed and maintained to support a minimum 80,000 pounds gross vehicle weight shall be surfaced as to provide all-weather driving capabilities. A maintenance agreement for private roads or other fire access may be required showing the responsibility for roadway maintenance and snow plowing.

Amend Section 503.2.4 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Turning Radius", to read:

The required minimum turning radius of a fire apparatus access road shall be 30 feet inside, 50 feet outside, or 40 feet on center

Amend Section 503.2.5 Dead ends, by adding:

There shall be no parking or other obstructions in fire apparatus turnaround areas that would impair turning of apparatus. When parking or other design features are desired, the proper design must be approved. Accumulation of snow must also be accounted for to prevent winter time obstructions.

Amend Section 503.2.7 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Grade, to read:

The gradient for a fire apparatus access road shall not exceed 10 percent on straight sections of roadway and 5 percent side slope on turnarounds and curves

Amend Section 505.1 Address Numbers, to Read:

505.1 Address Identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do

not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Buildings in multi-building complexes must be marked with 12" minimum height numbers. Approved identification shall also be provided on the rear door(s) at any location where access into the building may be difficult to determine.
Address identification shall be maintained.
Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 4 inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property.

Amend Section 507.2 Type of water supply, by adding:

Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8-inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.

Add a new section as follows: 510.5.6 Emergency responder communication enhancement system (ERCES) infrastructure:

New buildings or structures shall be required to install, at a minimum, two-inch (2") Electrical Metallic Tubing (EMT) conduit (between floors where applicable) dedicated for potential ERCES use. The conduit will have a breakout box in an equipment room for cables to be pulled. Guide wire will be provided in the conduit (between each floor, where applicable) in the breakout box. Conduit and breakout boxes shall be installed in accordance with NFPA 70. The conduit and breakout box will be labeled "PUBLIC SAFETY USE ONLY!". If it is determined that after all construction is complete that ERCES equipment is required, the conduit will make installation easier and more economical to the building owner. Such ERCES infrastructure shall be provided for the following:

1. New multi-story or multi-level buildings or structures;

2. New single-story buildings or structures totaling 45,000 square feet (4180 m^2) or more in size;

3. New buildings or structures containing a basement or other subterranean space totaling 250 square feet (23 m^2) in size.

4. Any new building or structure that the fire code official has determined to have been constructed in a manner which may limit, or with materials likely to limit, the ability of emergency response personnel to effectively use emergency radio communication while within that building or structure.

New building or structures containing any underground parking areas will be required to provide the capability for a future rooftop antenna to be installed, if deemed necessary, in addition to the above requirements for ERCES infrastructure.

CHAPTER 9. IFC. Fire Protection Systems

Add to section 901.4 as follows:

901.4.8 Installation: The layout, calculation, and installation of fire protection systems shall be performed by persons knowledgeable and trained in such systems. Only qualified professionals (NICET Level III or higher) or qualified Arizona registrants shall design or modify fire alarm systems or sprinkler systems requiring hydraulic calculation engineered to the standards outlined in Section 903.3.1.1. Contractors are required to possess a current Arizona License from the Register of Contractors to install fire protection systems. The installer shall follow all manufacturer guidelines for installation, inspection and testing. Contractors shall maintain certification when required by the manufacturer.

Add a new subsection as follows:

901.4.7.5 Minimum size: Rooms containing fire pump equipment and fire riser rooms for sprinkler systems installed in accordance with Section 903.3.1.1 shall be a minimum of four feet (121 cm) by four feet (121 cm) in size.

Add a new subsection as follows:

901.4.7.6 Room access: Pump and fire riser rooms shall have a door directly accessible from the exterior of the building.

Amend Section 903 entitled Automatic Sprinkler Systems by adding

903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. In addition to the requirements of the fire and building codes, an approved automatic monitored sprinkler system shall be installed throughout all levels of all new Group A, B, E, F, M, U and S occupancies 5,000 square feet (464m2) or greater and in all buildings over 3 stories in height regardless of the total square footage. Such systems shall be in accordance with the International Fire Code, International Building Code and installed in accordance with NFPA 13, 13D or 13R as specified by the fire code official. Notwithstanding the foregoing, an automatic monitored fire sprinkler system may be installed in any building regardless of floor area.

Amend Section 903.2.1.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-1, to read:

An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m2).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multi theater complex.

Amend Section 903.2.1.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-3", to read:

An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m2).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903.2.1.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-4", to read:

An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m2).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903.2.2 entitled Group B, by adding:

An automatic monitored sprinkler system shall be provided throughout all Group B occupancies where any of the following exist:

1. Where Group B fire area is 5,000 square feet (464m2) and greater, or
2. Fire area is located more than three stories above grade

Amend Section 903.2.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group E", to read:

An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5000 square feet (462m2) in area.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

3. The Group E area has an occupant load of 300 or more

Amend Section 903.2.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group F-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5,000 square feet (464m2).
2. A Group F-1 fire area is located more than three stories above grade plan.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m2).
4. A group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.
5. A group F-1 occupancy is used to manufacture vehicles, energy storage, or equipment containing lithium-ion or lithium batteries where the batteries are installed during manufacturing process.

Amend Section 903.2.7 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; Group M", to read:

An automatic sprinkler system shall be provided throughout buildings containing Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5,000 square feet (464m2).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m2).

Amend 903.2.8 entitled Group R, to read:

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: As limited by Arizona Revised Statues

Amend Section 903.2.9 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5,000 square feet (464m2).
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet.
4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).
5. A group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet.

Amend Section 903.2.9.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Repair Garages", to read:

An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet (464m2).

2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet (464m2).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).
5. A group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet.

Amend Section 903.2.10 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-2 enclosed parking garages", to read:

An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 5,000 square feet (464m2)
2. Where the enclosed parking garage is located beneath other groups.
   Exception: Enclosed parking garages located beneath Group R-3 occupancies.
3. Where the fire area of open parking garage exceeds 48,000 square feet.

Amend Section 1103.5 Sprinkler systems, deleting section 1103.5.1;

1103.5.1 Group A-2 ~~Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with a n automatic sprinkler system in accordance with section 903.3.1.1.~~

Amend Section 3107 Outdoor Assembly Events, by adding table 3107.3

Outdoor Assembly Events Table 3107.3

Occupant Load	Minimum number of Exits
1-500	2
501-1000	3
1001-1500	4
Each additional 500 Persons	36" of additional exit width for each exit

Amend Section 3107 by adding:
3107.3.3 Exit Width The aggregate clear width of exits shall be a minimum of 36 "width wide for each 500 persons to be accommodated

3107.3.4 Exit Signs Exits shall be identified with signs that read -EXIT – The signs shall be weather resistant with letters on a contrasting background. Lettering shall be of sufficient height and brush stroke to be visible within 100 feet. Placement of the exit signs shall be approved by the fire code official.

3107.3.5 Front Stage Isle/Separation Minimum 10 foot aisle space for front of stage, adequate crowd manager's during the concert or event to maintain minimum widths. Main isle shall be a minimum of 10 feet in width.

CHAPTER 50. IFC. Hazardous Materials – General Provisions

Amend Section 5004.9 Emergency alarm to read:

An approved manual emergency alarm system shall be provided in buildings, rooms or areas used for storage of hazardous materials. The emergency alarm system shall be designed using the manual fire alarm requirements of the *National Fire Alarm Code,* NFPA 72. Emergency alarm initiating devices shall be installed outside of each interior exit or exit access door of the storage buildings, rooms or areas. Activation of an emergency alarm-initiating device shall sound an audible signal distinctly different than that of the fire alarm signal. Emergency alarm notification devices shall be yellow or amber in color.

APPENDIX D Fire Apparatus Access Roads

Amend Section D102 Required Access to read:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be an accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved all-weather driving surface capable of supporting the imposed load of fire apparatus weighing at least 80,000 pounds.

Amend Section D107 Exception 1. to read:

1. Where there are ~~more than~~ 31 to 50 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, access from two directions shall not be required. 51 or more dwelling units will require two separate and approved fire access roads regardless of automatic sprinkler system installation.

The following provisions shall have the effect of either amending, adding to, or deleting from the International Wildland Urban Interface Code, 2024 Edition:

Add this to section 101.2 Scope: When determining which conditions constitute a distinct danger to life or property, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property.
In coordination with the Community Development Department, the provisions of this code shall be applied to all future developments to make properties Fire Adapted prior to the application of resource protection standards found in the Land Development Code.

Amend 101.2.1 Appendices by adding:
The following Appendices are hereby adopted as part of the IWUIC:

APPENDIX A – General Requirements

Amend 101.3 Purpose to read: The purpose of this code is to establish minimum regulations for the safeguarding of life and for property protection.
Regulations in this code are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels. The extent of this regulation is intended to be tiered commensurate with the relative level of hazard present.

The unrestricted use of property in wildland-urban interface areas is a potential threat to life and property from fire, economic, and resulting environmental impacts. Safeguards to prevent the occurrence of fires and to provide adequate fire protection facilities to control the spread of fire in *wildland-urban interface areas* shall be in accordance with this code.

This code shall supplement the jurisdiction's building and fire codes, if such codes have been adopted, to provide for special regulations to mitigate the fire- and life-safety hazards of the *wildland-urban interface areas*.

Amend 106.4 Vegetation management plans to read: Where utilized by the permit applicant pursuant to Section 502 forest stewardship plans shall be prepared and shall be submitted to the *code official* for review and approval as part of the plans required for a permit.

Insert to SECTION 202—DEFINITIONS:

FIRE RESISTIVE VEGETATION is those plants that burn at a relatively low intensity, slow rates of spread, and with short flame lengths. Characteristics include:

1. Growth with little or no accumulation of dead vegetation (either on the ground or standing upright)
2. Non-resinous plants (ex: flowers or aspen trees)
3. Low volume of total vegetation (ex: grass vs. brush)

4. Plants with high live fuel moisture (large amount of water in relation to their dry weight)
5. Drought tolerant plants
6. Stands without ladder fuels (plants without small, fine branches and limbs or adjacent shorter plants that create a ready-avenue for fire to move upward from the ground to the top of the vegetation)
7. Plants requiring little maintenance
8. Plants with woody stems and branches that require prolonged heating to ignite

FOREST MANAGEMENT PLAN is a comprehensive management plan that is applied to all lands within the city boundary, as well as any parcels or areas served by an emergency response/suppression contract.

FOREST STEWARDSHIP PLAN applies to subdivisions, multi-family residential, commercial, and industrial development both inside and outside the Resource Protection Overlay. It does not apply to individual hazard tree removal or individual single family residential parcels. Specific determination of need will be made by Staff.

• Forest Stewardship Plan must include both narrative and descriptive maps documenting how existing forest conditions will be modified to align with the desired conditions and tree density as stated in the Forest Management Plan.

• The Forest Stewardship Plan is in addition to the Flagstaff Zoning Code standards.

• If a parcel falls within the Resource Protection Overlay, a Forest Stewardship Plan must be reviewed and approved prior to the submittal of the Natural Resource Protection Plan that aligns with the Resource Protection Standards (10-50.90).

The Forest Stewardship Plan template is available on the Flagstaff Fire Department Wildland Fire Management website.

HAZARDOUS FUELS are weeds, grass, needles, straw, brush, trees, vines, wood chips, firewood, or other vegetation - living or dead - that a) if ignited, will present a risk to life or property, or b) if left in its current or natural state, will create an impediment to access, pose a threat to improvements, infrastructure, or public safety, or may cause a fire to ignite.

VEGETATION MANAGEMENT is a plan or operational activity, described below, that is undertaken by property owners at their own discretion or directed/approved by the Code Official designed or required to reduce wildfire threat, promote environmental sustainability, public welfare, and/or community well-being.

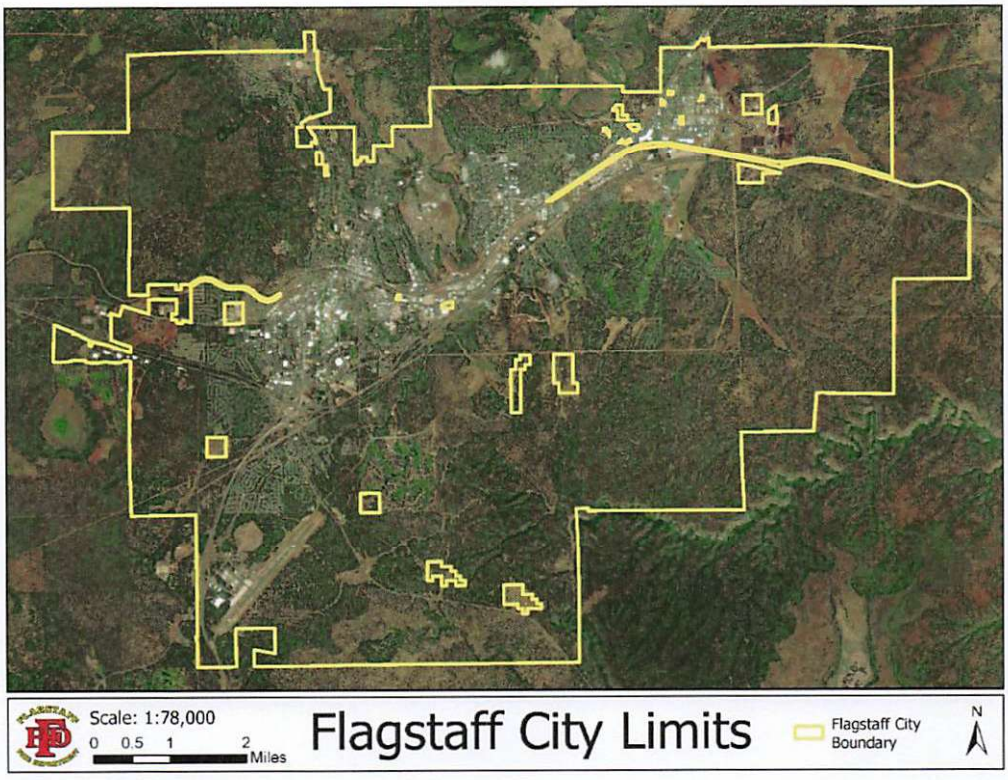
1. **Debris Disposal** - Removal of cut, dead, dying, and/or downed vegetation or other combustible materials, including flammable landscaping plants.

2. **Marking** - Designating trees or other vegetation, by location, paint, flagging, or other identification system, that are to be either removed or retained.
3. **Prescribed Fire** - The planned use of fire under specific environmental conditions to achieve forest management or community protection objectives. Used to reduce hazardous fuel levels, control unwanted vegetation, recycle nutrients, favor desired vegetation, and improve visibility and wildlife habitat.
4. **Selective Tree Thinning** - The periodic removal of individual trees or groups of trees to reduce threat of wildfire, improve individual tree vigor and forest health, or achieve other desired objectives.

Amend 301.1 Scope to read: The provisions of this chapter provide methodology to establish and record *wildland-urban interface areas* based on the findings of fact: high temperatures, low relative humidity, breezy/windy conditions, low fuel moistures, weather-related ignition potential, human-related ignition potential, historical fire data, natural fire- adapted ecosystem, ember lofting and carrying potential, tree densities, crown closure, ladder fuels, surface fuels, and other fire risk factors.

Amend 302.3 Review of wildland-urban interface areas to read:

All land within the Flagstaff City Limits is considered Wildland Urban Interface.



Section 4 WILDLAND-URBAN INTERFACE AREA REQUIREMENTS

Delete: User notes:

About this chapter: *Chapter 4 provides requirements that apply to all occupancies in the wildland-urban interface and pertain to all the following:*

1. Fire service access to the property that is to be protected, including fire apparatus access roads and off-road driveways.

2. Premises identification.

3. Key boxes to provide ready access to properties secured by gated roadways or other impediments to rapid fire service access.

4. Fire protection water supplies, including adequate water sources, pumper apparatus drafting sites, fire hydrant systems and system reliability.

5. Fire department access to equipment such as fire suppression equipment and fire hydrants.

6. Fire protection plans.

Amend 402.2.2 Water supply to read: Individual structures hereafter constructed or relocated into or within *wildland-urban interface areas* shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m2).

Delete Section 5 and replace with:

SECTION 501–GENERAL

501.1 Scope. Buildings and structures shall be constructed in accordance with the *International Residential Code and International Building Code* and this code.

Exceptions:

1. Accessory structures not exceeding 120 square feet (11 m2) in floor area where located greater than or equal to 50 feet from buildings containing habitable spaces.

2. Agricultural buildings greater than or equal to 50 feet from buildings containing habitable spaces.

501.2 Objective. The objective of this chapter is to establish minimum standards to locate, design and construct buildings and structures or portions thereof for the protection of life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels. The minimum standards set forth in this chapter vary with the

critical *fire weather*, slope and fuel type to provide increased protection, above the requirements set forth in the *International Building Code*, from the various levels of hazards.

501.3 Fire-resistance-rated construction. Where this code requires 1-hour *fire-resistance-rated construction*, the fire-resistance rating of building elements, components or assemblies shall be determined in accordance with the test procedures set forth in ASTM E119 or UL 263.

Exceptions:

1. The fire-resistance rating of building elements, components or assemblies based on the prescriptive designs prescribed in Section 721 of the *International Building Code*.

2. The fire-resistance rating of building elements, components or assemblies based on the calculation procedures in accordance with Section 722 of the *International Building Code*.

SECTION 503 NON-COMBUSTIBLE CONSTRUCTION AND MATERIAL

503.1 General. Buildings and structures hereafter constructed, modified or relocated into the City of Flagstaff, shall meet the construction requirements in accordance with Section 503.2 and 504.

503.2.1 Noncombustible material. Material shall comply with the definition of *noncombustible* materials in Section 202.

SECTION 504 EXTERIOR CONSTRUCTION

504.2 Roof assembly. Roofs shall have a *roof assembly* that complies with a Class A rating when tested in accordance with ASTM E108 or UL 790. For *roof assemblies* where the profile allows a space between the *roof covering* and *roof deck*, the space at the eave ends shall be fire stopped to preclude entry of flames or embers or have one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 installed over the combustible *roof deck*.

Class A rated roof covering types include, but are not limited to:

- Cement shingles or sheets.
- Exposed concrete slab roof.
- Ferrous or copper shingles or sheets.
- Slate shingles.
- Clay or concrete roofing tile.

  o Where provided, barrel tile or corrugated roof coverings shall include noncombustible bird stops at the eave ends to prevent the entry of embers and debris.

- The use of wood shake, wood shingle, or any wood roof covering material regardless of test rating are not permitted.

504.2.1 Roof valleys. Where provided, valley flashings shall be not less than 0.019 inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

504.3 Protection of eaves. Eaves shall be enclosed or protected on the exposed underside using noncombustible materials.

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of *noncombustible* (metal) material. Gutters shall be covered with a noncombustible material to prevent the accumulation of leaves and debris in the gutter.

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with:

1. *Approved noncombustible* materials. (e.g., metal, fibercement, masonry veneer, stucco, brick, concrete).

    • Where provided, all shutters (e.g., decorative and operable) shall be made of noncombustible material.

    • Note: Combustible wall cover material (e.g., wood shake, wood shingle, or any other wood siding material including ignition-resistant treatments and coatings) by construction or assembly are not permitted.

3. Heavy timber or *log wall construction may be permitted for projects based on Fire Code Official approval and Community Development review.*

504.5.1 Flashing. A minimum of 6 inches (152 mm) of metal flashing or noncombustible material applied vertically on the exterior of the wall shall be installed at the ground, decking and roof intersections where any non-combustible-gaps may occur.

504.6 Underfloor enclosure. Buildings or structures shall have underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5 with noncombustible corrosion-resistant mesh not to exceed 1/8-inch in diameter covering any openings.

Exception: Complete enclosure shall not be required where underfloor areas are elevated more than 4 feet above the ground. In such a case, columns and supporting walls must either be non-combustible or covered with non-combustible material.

504.7 Appendages, projections, attached patios, decks, and overhead structures (e.g., Covered Porches, Pergolas, Carports, and Gazebos). Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be constructed in accordance with one of the following methods:

1. All the components including posts, joists, railings, stairs, and walking surfaces are constructed with noncombustible materials.

2. Deck walking surfaces constructed with a solid (no gaps), noncombustible material such as metal or light-weight concrete; railings within 5 feet of the home constructed of a noncombustible material, including where railings attach to the home; and deck posts with a minimum of 6 vertical inches of noncombustible material at grade.

Staircases 4 feet in width or less that attach to a deck and are open underneath, shall meet one of the following requirements:

- Open risers (no solid risers)

  • shall have a minimum of 6 vertical inches of the bottom of stairs made from noncombustible material.

  • Stair treads should be a solid (no gaps), noncombustible material, such as metal or light-weight concrete.

- Closed risers

  • shall have a minimum of 6 vertical inches of the bottom of stairs made from noncombustible material.

  • Stair treads and risers should be a solid (no gaps), noncombustible material, such as metal or light-weight concrete.

    - Staircases wider than 4 feet that attach to a deck, the staircase shall be cleared underneath and enclosed with a noncombustible corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter and meet the following requirements:

3: Retrofits

o Deck Walking Surfaces shall be constructed with a solid, noncombustible material (e.g., metal or lightweight concrete) with no gaps.

o Deck Railings within 5 feet of the home shall be constructed with noncombustible material, including where they attach to the home.

o Deck posts shall have a minimum of 6-inches of noncombustible material (e.g., metal flashing or fibercement board) applied vertically to the base.

o Stairs Attached to a Deck shall meet one the following requirements:

- Stairs Less than 4 Feet Wide and Open Underneath:

  o A minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.

o Stair treads shall be a solid (no gaps) and made of noncombustible material (e.g., metal or lightweight concrete).

o Exception: If stairs are constructed with closed risers, they shall also be solid (no gaps) and made of noncombustible material.

- Stairs Wider Than 4 Feet:

o The area underneath shall be enclosed with noncombustible, corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter.

o A minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.

o Stairs shall have closed risers. Stair treads and risers shall be a solid, and made of noncombustible material (e.g., metal or light-weight concrete) with no gaps.

• **Roof Covering –** Shall meet one of the following requirements:

o A solid roof covering material with a Class A rating when tested in accordance with ASTM E108 or UL 790, or

o Constructed of combustible slats (e.g., pergola) that cover no more than 15% of the total surface area.

• **Setback –** A detached combustible overhead structure (e.g., pergola and gazebo) on an attached deck shall be at least 10 feet from all exterior walls of the home.

o *Exception:* An overhead structure constructed entirely of noncombustible materials is permitted with no setback requirement.

• **Posts –** exterior surface of the post must be non-combustible

• **Other –** Shall be free of any vegetation, curtains, drapes, and shade screens.

o *Exception:* Shade screens that retract into noncombustible housing are permitted.

• **Carports and Garages –** Must have noncombustible wall covering material and the 0–5 Foot Noncombustible Zone under and around the structure.

o An open carport with exposed combustible interior wall covering (e.g., wood), shall be enclosed.

• **6-inch Vertical Noncombustible Clearance –** Shall have noncombustible covering material for all posts, supporting walls, and stairs measured from the ground at grade.

• **Lattice and Mesh –** Must be noncombustible material (e.g., metal). Where noncombustible corrosion-resistant metal mesh is provided, the mesh shall be installed on the outside of the lattice.

o *Exception:* An open outdoor living area under the deck shall meet the same requirements (see "Top of walking surfaces" above).

• Additionally, decks with a walking surface of 4 feet or less above the ground, shall be enclosed with the following:

o When measured from the walking surface to the ground, the underdeck area with this height or less shall be enclosed with noncombustible, corrosion-resistant mesh. The mesh openings shall not exceed 1/8-inch in diameter and shall fully enclose the outer edge of the deck from the walking surface to the ground. This enclosure is required to reduce debris accumulation and limit ember intrusion beneath the deck.

Detached Decks and Overhead Structures (e.g., Covered Porches, Pergolas, Carports, and Gazebos) Where provided, detached decks and overhead structures within 10 feet of the home shall meet the same requirements as attached decks

504.7.1 Underfloor areas. Where the attached structure is located and constructed so that the structure or any portion there of projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed with exterior wall construction in accordance with Section 504.5.

504.8 Exterior glazing. ***Exterior Glass (Windows, Skylights, and Glazed Openings within Doors)***

All exterior windows, skylights, and glazed openings within doors shall comply with one of the following requirements:

• Multipaned glass with at least two tempered panes.

• Glass with a minimum of 20-minutes fire-resistance rating when tested in accordance with NFPA 257.

• Glass blocks (windows only).

• Operable skylights shall be protected by a noncombustible mesh screen where mesh openings shall not exceed 1/8-inch in diameter

- All retrofit/replacement windows must comply

504.9 Exterior doors. All exterior doors shall comply with one of the following requirements:

• Exterior doors shall be approved noncombustible construction, or solid-core wood not less than 1-¾ inches thick (44 mm). The exterior doors shall be constructed with

noncombustible threshold. Windows within doors and glazed doors shall be in accordance with this standard's exterior glass requirements (see 3.1.5 Exterior Glass).

• Exterior door assembly shall have a fire-resistance rating of not less than 20-minutes when tested according to NFPA 252.

• Doors made of combustible material (e.g. non-solid core wood doors) are permissible provided a noncombustible exterior storm door is installed as the outermost door.

504.10 Vents. Where provided, ventilation openings for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening intended to permit ventilation, either in a horizontal or vertical surface, shall meet one of the following requirement options:

• **Performance-based Option –** Corrosion-resistant vents installed, conforming with the following ASTM E2886 test requirements for flame- and ember-resistance:

o No flaming ignition of the cotton material during the Ember Intrusion Test.

o No flaming ignition during the Integrity Test portion of the Flame Intrusion Test.

o Temperature of the unexposed side of the vent does not exceed 662°F.

o *Note:* Joints around such vents shall be sealed with sealants in accordance with vent manufacturer installation instructions to avoid ember and flame intrusion through the joints.

• **Prescriptive Option –** Vents shall be covered with a noncombustible, corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter for ember-resistance.

o *Exceptions:*

o Forced air vents (e.g., dryer and central vacuum) shall have a functional louver or flap made of non-combustible material in lieu of mesh.

o Plumbing vents are excluded from this requirement.

504.10.3 Vent locations. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves or in other overhang areas. Gable-end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to grade as practical.

504.11 Detached accessory dwelling units and accessory structures. All accessory structures with a footprint greater than or equal to 120 square feet shall fully comply with Section 5 Construction, unless more than 50 feet away from habitable spaces.

SECTION 507–REPLACEMENT OR REPAIR

507.1 General. The *roof covering and siding* on buildings or structures in existence prior to the adoption of this code that have 25 percent or more replaced in a 12-month period shall be replaced with new construction requirements specified in accordance with Section 5. All *windows, eaves, vents, and exterior doors* on buildings or structures in existence prior to the adoption of this code must be replaced with new construction requirements specified in accordance with Section 5.

Additional information regarding eligibility, designation levels, requirements, process, and timing for the Insurance Institute for Business and Home Safety Wildfire Prepared Home program is available here: https://wildfireprepared.org/

Amend SECTION 602—AUTOMATIC SPRINKLER SYSTEMS to read: 602.1 General. Sprinkler systems must comply with ARS 9-807.

Amend 603.2 Fuel modification to read: Buildings or structures, shall comply with the 0-5 foot non-combustible info below, and with the City of Flagstaff Forest Management Plan, Landscaping Code and Resource Protection Standards.

Delete table 603.2

Insert 603.2.1 The 0–5 Foot Noncombustible Zone shall meet all the following requirements:

0–5 Foot Noncombustible Zone – Area within 5 Feet of the Home and Attachments

The first five feet surrounding the home and its attachments (e.g., decks, patios, overhead structures, stairs) is the **most critical area of defensible space.** This zone shall be established and maintained as noncombustible. The 0-5 Foot Noncombustible Zone is measured horizontally from the edge of the home's exterior walls and, if present, the outermost posts of a deck or overhead structure, extending outward to 5 feet (see Figure 2). This noncombustible area also extends vertically to the sky. The 0–5 Foot Noncombustible Zone shall meet all the following requirements:

- **Vegetation –**

o Shall remove all vegetation (e.g., grass, artificial turf, weeds, flowers, succulents, cacti, plants, shrubs, bushes, and vegetative debris) within 5 feet to bare mineral soil.

o Shall remove all trees, limbs, branches, and vines that are within and that overhang the 0–5 Foot Noncombustible Zone.

- **Groundcover –**

o Shall remove all combustible groundcover materials (e.g., wood and rubber mulch and exposed weed cloth) within 5 feet to bare mineral soil.

• **Note:** Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.

• **Fencing and Retaining Walls –**

o Shall remove combustible fencing materials (e.g., wood and vinyl), posts, gates, and retaining walls within 5 feet or replace with noncombustible material.

Parallel Fences within 5 to 30 feet

Back-to-back (parallel) combustible fencing (meaning separate fences that are combustible and closer than 5 feet apart) are not permitted.

• *Exception:* If one or both back-to-back (parallel) fences are constructed with noncombustible materials (e.g., concrete or metal).

• Note: Meeting this requirement may necessitate coordination with neighbors or an HOA to eliminate at least one of the combustible parallel fences.

Refer to City of Flagstaff Forest Management Plan and Landscaping Code for Tree and Shrub Spacing outside of the 0-5 foot zone.

Insert 603.2.2 Trees. Tree stems and canopies are allowed outside of the 0-5 foot zone, provided that they meet City of Flagstaff Forest Management Plan and Landscaping Code.

Other Requirements

- Tree limbs may not extend into the vertical plane of a chimney outlet
- Tree limbs shall not touch roof coverings at any time
- Hazard trees, as determined by the Code Official, shall be removed. When determining hazard trees, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property. Trees that are in such a position fall and endangering life or property are determined to be hazard trees.

Amend 603.2.3 Ground cover to read: Deadwood and litter shall be regularly removed from trees. Needles and/or duff layer shall not exceed 3 inches in depth.

Delete 604.4, 604.4.1, 604.4.2

Amend A104.4 Smoking to read: Where required by the *code official*, signs shall be posted stating NO SMOKING. Persons shall not smoke within 15 feet (4572 mm) of combustible materials or nonfire-resistive vegetation.

Smoking and use of electronic cigarettes is always prohibited in all public places within the City of Flagstaff.

Amend A104.5 Equipment and devices generating heat, sparks or open flames to read: Equipment and devices generating heat, sparks or open flames capable of igniting nearby combustibles may be prohibited in the wildland urban interface by the Code Official during periods of very high or greater fire danger as determined by the Coconino National Forest

Amend A104.6 Fireworks to read: The sale or use of consumer-grade fireworks within the City of Flagstaff may be prohibited based on fire restrictions

Amend A104.7.1 General. No person shall build, ignite, or maintain any outdoor fire of any kind for any purpose within the City of Flagstaff, except by the authority of a written permit from the Fire Department.

Exception: Outdoor fires within inhabited premises or designated campsites where such fires are in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator or grill, or any other outdoor fire appliance for such purposes, and are not less than 15 feet (9144 mm) from any combustible material or nonfire-resistive vegetation.

Amend A107.4 Trees. Portions of trees that extend to within 30 feet (9144 mm) of combustible portions of water storage and pumping facilities shall be removed unless approved by the Code Official.