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# 2023 National Electrical Code Update

PWD BUILDING DIVISION



# Electrical Code Background



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National Electrical Code Updates Every 3 - Years

PWD Policy – Update the NEC within one year of adoption by the State of Colorado as required by Title 12, Article 115 of the CRS.



NEC has been established to:

Protect Life

Protect Property

Improve Building Performance Re: Reduced Energy Consumption Through Automation & Controls

Coordinate With Industry Professionals

Recognize New / Emerging Alternative Materials and Practices

Revise Previously-Adopted Practices No Longer Deemed Relevant





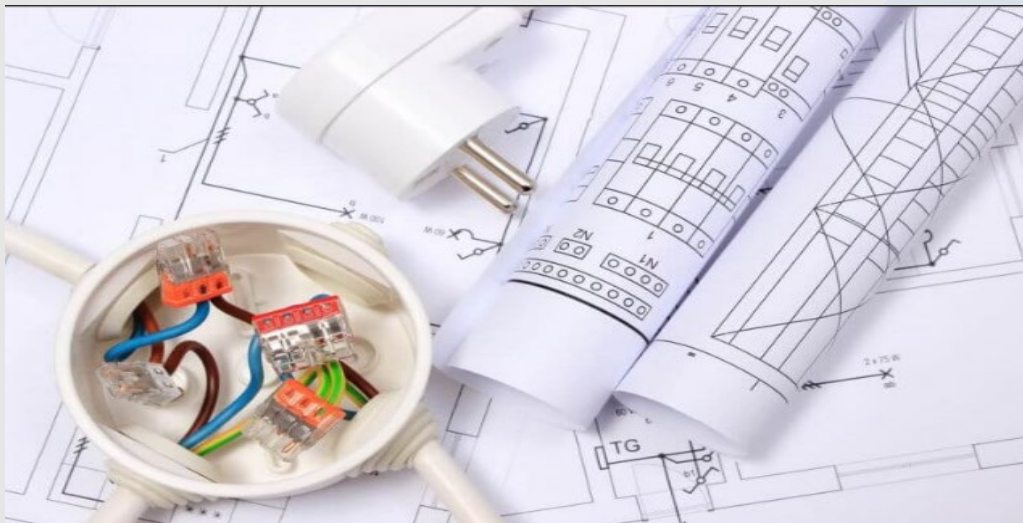
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# Proposed Code Update & Mandated By State of Colorado

## Current Code

### 2020 National Electrical Code

This Code has been in effect in Arapahoe County since the adoption of the 2021 Building Codes, as they were adopted concurrently, and with an implementation date of April 1, 2022.

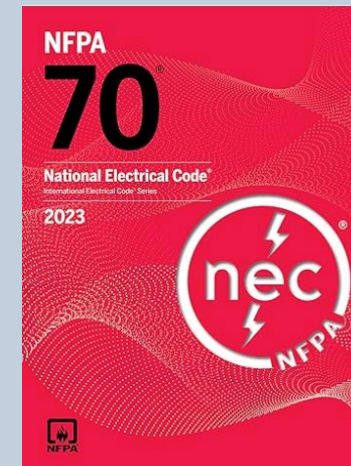


## Proposed Code

### 2023 National Electrical Code

This Code has been in effect at the State level since June 30, 2023 and as adopted by the State of Colorado / DORA.

We are required to adopt the NEC as recognized by the State of Colorado within one calendar year from date of adoption.





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# Benefits of the 2023 NEC Code

2020 to 2023

What Does It Mean?



# Professional Considerations



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## What does a new NEC adoption do that is different?

Provides Latest Protection Features re: Building Occupants & First Responders

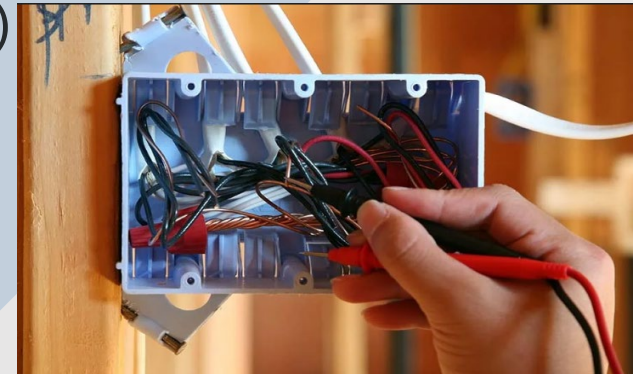
Provides Latest Means & Methods for Electrical Construction

Aligns With New & Emerging Trade Practices

Aligns With New Electrical Equipment Provisions, Requirements and Manufacturer Products

Incorporates New Products into The Body of the Code for Design Considerations and Offers Compliance Methods as Now "Formally Recognized".

Allows for Future-Planning re: Pending Long-Term Projects (Mass Production Residential / Same Code Cycle Throughout Course of Project & Master Plan Reviews)

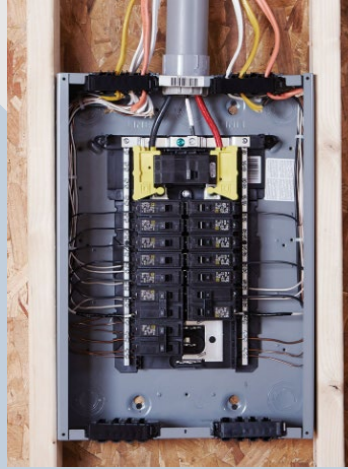


# Other NEC Considerations



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## Why adopt the latest National Electrical Code?



Pursuant to 2023 CRS, Title 12, Article 115, **We are required to do so.**

This Statute stipulates that any jurisdiction **must adopt** the latest Electrical Code as recognized by the State of Colorado within one calendar year of the adoption by the State.

**Failure** to do so, opens the door for the **State to assume operational control** of all electrical activity within the County.

It is a **best practice** recognized by virtually every other jurisdiction within the State of Colorado.

It brings **continuity and consistency** throughout the State, from the perspective of the Contractor / Customer / Trade-Professional / Design Professional, etc.



# Other Considerations



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## What else the BOCC should know..

There are (3) new House Bills that have an effective date sometime in 2023:

**Effective January 1, 2024:** HB23-1057 is in effect re: new construction and remodels exceeding \$10,000.00 for non-gender specific restroom accommodations, including baby-changing / station apparatus. (Represents increase in cost of construction)

**Effective March 1, 2024:** HB23-1233 is in effect re: electric vehicle charging station provisions and accommodations. (Represents increase in cost of construction)

**Effective June 30, 2024:** HB22-1362 will be in effect and adopted concurrently with the 2023 NEC, re: the Model Electric Ready & Solar Ready Code. (Represents increase in cost of construction)

**Effective July 1, 2026:** HB22-1362 Low Energy and Carbon Code – Currently Under Development

However, we have been proactive in publishing these anticipated changes, since they were signed into law, through pre-submittal documentation issued at the planning phase of project development & design.



# HB23-1233 Requirements



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HB 23-1233 requires the facilitation of EV charging at new multifamily housing and major renovations affecting more than 50% of the parking area of existing multifamily housing.

The bill facilitates level 1 or level 2 charging systems.

A prohibition for landlords does not allow them to prohibit the installation of EV charging in a leased premises or a unit that has an assigned or deeded parking space as long as the installation is done at the unit owner's expense.

It is unclear who is responsible for costs associated with electrical service upgrades as multifamily housing units typically have very little provision for electrical expansion.

This applies to residential or commercial rental properties.

EV parking spaces count in the quantity of the required parking spaces.

EV charging systems are exempt from property taxes.





# HB22-1362 Requirements

## Model Electric Ready & Solar Ready Code



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Bill provides that all new commercial and residential buildings must be solar ready which includes electric panel capacity, dedicated panel space, conduits, adequate physical roof space and structural capacity for future solar installations.

Residential buildings must be EV ready and EV Capable which includes electric panel capacity, dedicated panel space, conduit and wiring for future EV charging systems.

Multifamily and commercial buildings must be EV Ready, EV Capable with provisions for electric service capacity in 20% or more of parking spaces.

Electric ready requirements apply to residential buildings. This includes the requirement for adequate electric panel capacity, dedicated panel space and other requirements to accommodate high efficiency electrical appliances. Essentially, the requirement for the installation of a gas appliance also requires the provision of electrical circuitry to replace the gas appliance with a high efficiency electrical appliance.

Electric ready requirements also apply to multi-family and small commercial buildings under 10,000 sq ft.

EV supply requirements include electrical service space sized for the anticipated load of EV charging systems, panels and conduits are required for multifamily and commercial over 10,000 sq ft.

Allows the use of approved refrigerants in HVAC systems.

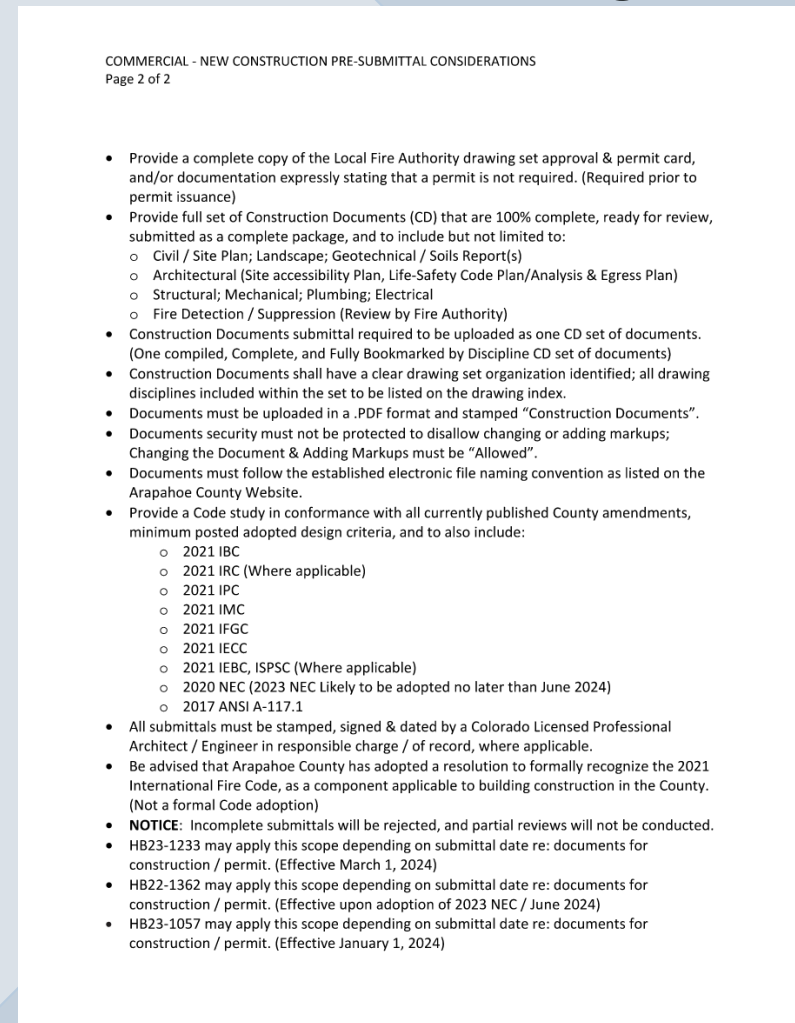
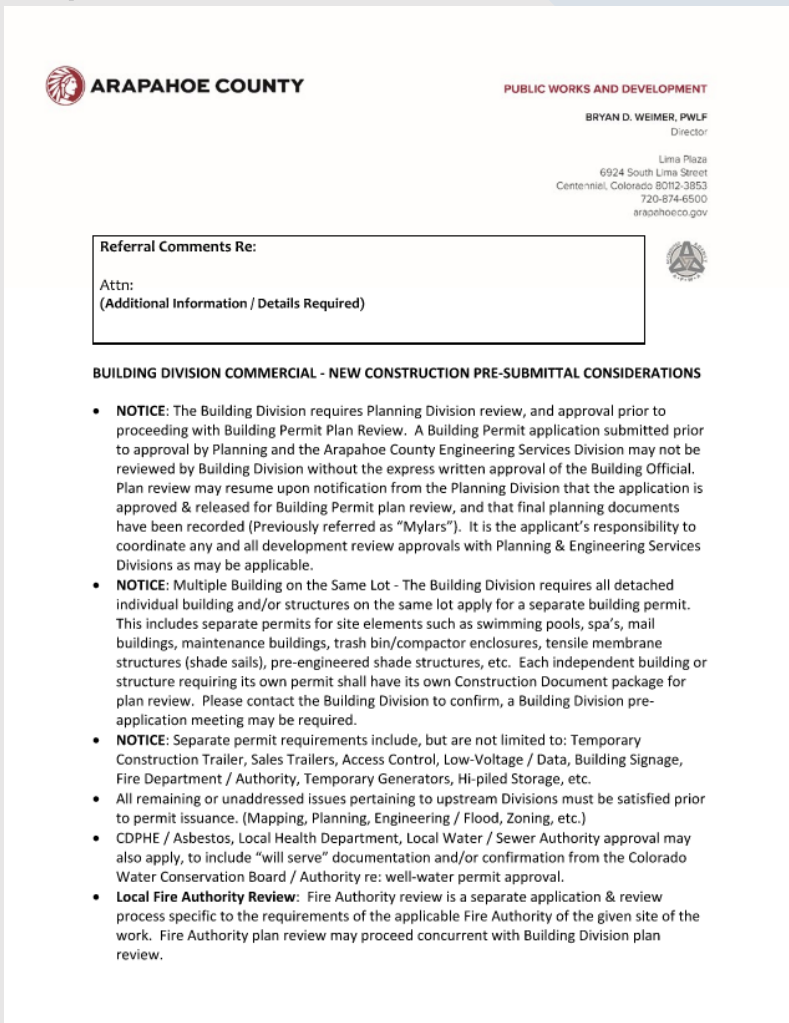


# Communication & Design Considerations



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An example as to how we have been proactive in communicating these changes:



# Proposed Schedule



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May 14, 2024

BOCC Study Session

June 11, 2024

BOCC Adoption

June 30, 2024

New Code Becomes Effective





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