ORDINANCE NO: 21-1006

BE IT ORDAINED by the City Council of the City of Huntsville, Alabama, as follows:

Section 1. Chapter 7, Article IV, Technical Codes, of the Code of Ordinances of the City of Huntsville, Alabama, is hereby amended to read as follows:

ARTICLE IV -TECHNICAL CODES

DIVISION 1 - GENERALLY

Sec. 7-171. - Technical codes. The following generally described technical codes, as hereinafter more specifically set forth, and as hereinafter deleted, modified or amended, in this article, are adopted by the city council by reference pursuant to Code of Ala. Code 1975 § 11-45-8:

2018 International Residential Code: Covers one- and two-family dwellings, and townhomes not over three stories and live and work units complying with section R101.2 of the 2018 International Building Code.

2018 International Building Code: Covers all buildings and structures not covered in the 2015 International Residential Code.

2018 International Existing Building Code: Covers all work performed on existing buildings and structures.

2017 National Electrical Code: Covers all work electrical work performed as listed.

2018 International Fuel Gas Code and NFPA pamphlet numbers NFPA 54, 2015 edition and NFPA 58, 2017 edition: Covers all gas work performed as listed.

2018 International Mechanical Code: Covers all mechanical work performed as listed.

2018 International Plumbing Code: Covers all plumbing work performed as listed.

2018 International Swimming Pool and Spa Code: Covers all swimming pool and spa work performed as listed.

Alabama Energy Codes (2015 International Energy Conservation Code and ANSI/ASHRAE/IES Standard 90.1 – 2013, as amended at any time and from time to time by the rules promulgated by the Alabama Energy and Residential Codes Board): covers the energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in residential and commercial structures.

A copy of said technical codes shall be kept on file in the office of the city clerk-treasurer.

Sec. 172—7-189. - Reserved.

DIVISION 2 - GENERAL DEFINITIONS

Sec. 7-190. – Definitions. The following shall apply to the technical codes adopted by this article:

a. Any reference to the "municipality", “jurisdiction" or “convening body” shall mean the City of Huntsville, Alabama.

b. Any reference to the "legal counsel of the municipality" shall mean the city attorney.

c. Whenever the words "chief administrator" appears in the technical codes, they shall mean the mayor of the City of Huntsville.

d. Whenever the words "means of appeal" appear in the technical codes, they shall mean Board of Examination and Appeals for Construction Industries.

e. Whenever the words "the Department of Building Safety" appear in the technical codes, they shall mean the City of Huntsville Inspection Department.

DIVISION 3 - INTERNATIONAL RESIDENTIAL CODE

Sec. 7-191. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Residential Code, 2018 edition, Chapters 1—10; 44 and appendixes "E", "H," and "J," published by the International Code Council, Inc., save and except such portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

(b) Any plumbing work must meet the 2018 International Plumbing Code, as deleted, modified or amended in division 6; any mechanical work must meet the 2018 International Mechanical Code, as deleted, modified or amended in division 7; any gas work must meet the 2018 International Fuel Gas Code, as deleted, modified or amended in division 8; any electrical work must meet the 2017 National Electrical Code, as deleted, modified or amended in division 9; any swimming pool and spa work must meet the 2018 International Swimming Pool and Spa Code, as deleted, modified or amended in division 10; and any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-192. - Deletions, modifications and amendments.

The International Residential Code, 2018 edition, Chapters 1—10; 44 and appendixes "E", "H," and "J," as adopted in this division, are deleted, modified and amended with state law references, if any, as follows:

(1) Subsection [EB] R102.7 entitled "Existing Structures" shall be amended to read as follows:

"The legal occupancy of any structure existing on the date of adoption of this Code shall be permitted to continue without change, except as is specifically covered in this Code or as is deemed necessary by the Building Official for the general safety and welfare of the occupants and the public."

(2) Delete Subsection R104.10.1 "Flood hazard areas" in its entirety.

(4) Delete Subsection R105.2 "Work exempt from Permit" in its entirety.

(5) Delete Subsection R105.2.2 "Repairs" in its entirety.

(6) Delete Subsection R105.2.3 "Public service agencies" in its entirety.

(7) Delete Subsection R105.3.1.1 " Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. " in its entirety.

(8) Delete Subsection R106.1.4 "Information for construction in flood hazard areas" in its entirety.

(9) Amend Subsection R108.3 "Building permit valuations" to read as follows:

Building permit valuation shall include total value of the work for which a permit is being issued, such as electrical, gas, mechanical, plumbing equipment and other permanent systems, including materials and labor.

Building permits for the construction of, alterations to, repairs to, and/or additions to, buildings or other residential structures governed by this code shall be assessed in the following manner:

(a) For alterations to, repairs to, and/or additions to, buildings or to other residential structures governed by this code, the permit fee shall be the greater of $25.00 or the amount of the total contract price multiplied by .0055 of the full estimated cost of work for each building or structure; however, this section shall not apply to the repair of any building whenever the reasonable cost of the material and labor for such repair is not in excess of $250.00 and no structural work is involved.

(b) Valuation for new construction of residential one- and two- family dwellings the building permit fees shall be based on multiplying the heated area square footage by $15.00, the unheated areas and unheated basement area square footage by $7.50 and adding the results. The permit fee will be calculated on the value of the sum of the total valuation from above multiplied by .0055.

(c) Valuation for new townhomes/single family attached dwellings governed by this code, the permit fee shall be the greater of $25.00 or the amount of the total contract price multiplied by .0055 of the full estimated cost of work for each townhome/single family attached dwelling.

(d) For the moving of any building or structure, the fee shall be $25.00.

(e) For the demolition of Residential 1 and 2 family dwellings, the fee shall be $25.00.

(f) For the setup or installation of a manufactured home/mobile home the permit fee shall be $15.00.

(g) For retaining walls constructed of any material and retaining more than four feet of earth above the footing, the permit fee shall be greater of $25.00 or the amount of the contract amount of the wall construction multiplied by .0055.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(10) Subsection R109.1.2 "Plumbing, mechanical, gas, and electrical systems inspection" shall be amended to read:

"Rough inspection of plumbing, mechanical, gas and electrical systems, including low voltage wiring, shall be made prior to covering or concealment, before fixtures or appliances are set or installed, and prior to framing inspection."

(11) Subsection R109.1.3 "Floodplain inspections" shall be deleted in its entirety.

(12) Add Subsection R109.1.5.2 “Temporary power inspection”-Construction of new one-and-two family residential structures will require 30-day temporary power prior to the final inspection, in order to verify equipment safety and operation for all electrical, mechanical, gas and plumbing systems. The permit holder of record will schedule the inspection. Deficiencies noted in all equipment and systems shall be corrected and scheduled by the permit holder for re-inspection prior to final inspection. Upon re-inspection, if noted deficiencies have not been corrected, the Building Official shall be authorized to assess additional fees as necessary to be paid by the permit holder of record.

(13) Section R110 "Certificate of Occupancy" shall be amended to read as follows:

a. Amend subsection R110.1 "Use and occupancy" to read:

"No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy or letter of completion therefore as provided herein. Issuance of a certificate of occupancy or letter of completion shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid.

Exception: Certificates of occupancy are not required for work exempt from permits."

b. Amend subsection [EB] R110.2 "Change in use" to read:

"Changes in the character or use of an existing structure shall not be made except as specified

in the 2018 International Existing Building Code."

c. Amend subsection R110.3 "Certificate of Letter of Completion issued" to read:

"After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the Inspection Department, the building official shall issue a certificate of occupancy or letter of completion which shall contain the following:

1. The building permit number.
2. The address of the structure.
3. The name and address of the owner.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code.
6. The name of the building official.

7. Any special stipulations and conditions of the building permit."

d. Subsection R110.4 “Temporary Occupancy” shall be deleted in its entirety.

e. Amend subsection R110.5 "Revocation" to read:

"The building official shall, in writing, suspend or revoke a certificate of occupancy issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code."

(14) Section R112 "Board of Appeals" shall be deleted in its entirety.

(15) Amend subsection 201.3 "Terms defined in other codes" to read:

"Where terms are not defined in this code such terms shall have the meanings ascribed in other codes publications of the International Code Council and as defined per NFPA 70".

(16) Amend Section R202 "Definitions” The following definitions to read as:

“(RB) ACCESSORY STRUCTURE. As defined in the definition of the City of Huntsville Appendix A- Zoning Ordinance, Article 3.- Definitions, 3.1.- Interpretation. Accessory structure. A supplementary structure detached from a principal building on the same lot and customarily incidental and subordinate to the principal building or use, containing no plumbing facilities other than one laundry sink and/or one toilet, and meeting the requirements of section 73.8 with the exception that plumbing facilities may be allowed in an accessory structure that is used as a bathhouse in conjunction with a swimming pool, provided such bathhouse does not exceed 180 square feet in area.”

(RE) READY ACCESS (TO). Signifies access without the necessity for removing a panel or similar obstruction. "Attic or roof furnaces shall not be installed in any location inaccessible for inspection or repair. The space in which any attic furnace is installed shall be accessible by an opening and passageway as large as the largest part of the furnace, but not less than 22 inches by 36 inches and shall be continuous from opening to the furnace location. Every passageway in the attic shall have a solid continuous flooring 24 inches wide from the entrance opening to the furnace. A permanent light shall be provided in the passageway and appliance area. A ladder, pull down, disappearing type, or permanent stairway fastened to the building shall be provided leading to the attic opening or roof. All exterior ladders shall be metal. The requirements for a ladder, pull down disappearing type, or permanent stairway fastened to the building may be waived for the replacement of units installed before January 1986, in one - and two- family dwellings, provided a means of providing access to the units for inspection are met."

“(RB) Townhouse/Townhome and single family attached dwelling. A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with a yard or public way on not less than two sides. Per the City of Huntsville Zoning Ordinance Appendix A- Article 13, each single family attached dwelling shall be constructed on its own lot. Structures which are constructed by design as a single-family dwelling unit as noted in this definition, in which each individually single-family dwelling unit doesn’t reside on its own fee simple lot shall be consider an apartment type R-2 occupancy and must follow the International Building Code.

(17) Amend Table R301.2(1) **“CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA” to read as:**

TABLE R301.2(1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA (excerpt)

Roof Snow Load	Wind Design Speed	Seismic Design Category	Subject to Damage From	Winter Design Temp	Ice Barrier Underlayment Required	Flood Hazards	Air Freezing Index	Mean Annual Temp
footnote o	footnote d	footnote f		footnote e	footnote h	footnote g	footnote i	footnote j

			Weathering footnote a	Frost Line Depth footnote b	Termite footnote c					
10	90 mph	B	Moderate	12 inches	Very	16	NO	COH Local Adoption	Under 200	59.4

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

a. Where weathering requires a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code, the frost line depth strength required for weathering shall govern.
The weathering column shall be filled in with the weathering index, “negligible,” “moderate” or “severe” for concrete as determined from Figure R301.2(4). The grade of masonry units shall be determined
from ASTM C34, C55, C62, C73, C90, C129, C145, C216 or C652.

b. Where the frost line depth requires deeper footings than indicated in Figure R403.1(1), the frost line depth strength required for weathering shall govern. The jurisdiction shall fill in the frost line depth
column with the minimum depth of footing below finish grade.

c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.

d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(5)A]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.

e. The outdoor design dry-bulb temperature shall be selected from the columns of 971/2-percent values for winter from Appendix D of the International Plumbing Code. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official. [Also see Figure R301.2(1).]

f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.

g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction’s entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of the currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.

h. In accordance with Sections R905.1.2, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with “YES.” Otherwise, the jurisdiction shall fill in this part of the table with “NO.”

i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32°F).”

j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32°F).”

k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with “YES.” Otherwise, the jurisdiction shall indicate “NO” in this part of the table.

l. In accordance with Figure R301.2(5)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with “YES” and identify any specific requirements. Otherwise, the jurisdiction shall indicate “NO” in this part of the table.

m. In accordance with Section R301.2.1.2 the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate “NO” in this part of the table.

n. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b from ACCA Manual J or established criteria determined by the jurisdiction.

o. The jurisdiction shall fill in this section of the table using the Ground Snow Loads in Figure R301.2(6).

(18) Delete Section R301.2.4 "Floodplain Construction" in its entirety.

(19) Amend Subsection R302.1 "Exterior Walls" to read:

Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1 (1); or dwellings equipped throughout with an automatic sprinkler system shall compline with Table R302.1 (2).

Exceptions.

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of individual dwellings and their accessory structures located on the same lot.

3. Foundation vents installed in compliance with this code are permitted.

(20) Amend subsection R302.2.2 “Common Wall” to read.

Common walls separating townhouses shall be separated by a 2-hour fire-resistance-rated wall assemblies tested in accordance with ASTM E119, UL 263 or Section 703.3 of the International Building Code. The common wall shared by two townhouses shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be in accordance with NFPA 70. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302.4.

Exception:
Where a fire sprinkler system in accordance per NFPA 13D is provided, the common wall shall not be less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119, UL263 or Section 703.3 of the International Building Code.

(21) R302.3 Two-family dwellings. Amend to read “Dwelling units in two-family dwellings shall be separated from each other by a wall and floor/ceiling assemblies having not less than a 1-hour fire-resistance rating where tested in accordance with ASTM E 119 or UL 263 or Section 703.3 of the 2018 International Building Code.” Fire resistance-rated floor/ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing.

Exception: Where a fire sprinkler system in accordance per NFPA 13D is provided, the wall shall not be less than a 1/2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119, UL263 or Section 703.3 of the International Building Code.

(22) R302.13 Fire protection of floors.

Floor assemblies that are not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with NFPA 13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or for the installation of fuel-fired or electric-powered heating appliances.
3. Portions of floor assemblies shall be permitted to be unprotected where complying with the following:
   - 3.1. The aggregate area of the unprotected portions does not exceed 80 square feet (7.4 m2) per story.
   - 3.2. Fireblocking in accordance with Section R302.11.1 is installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

(23) R302.14 Combustible insulation clearance. Amend to read

Combustible insulation shall be separated not less than 3 inches (76 mm) from recessed luminaires, fan motors and other heat-producing devices.

Exception: Where heat-producing devices are listed for lesser clearances, combustible insulation complying with the listing requirements shall be separated in accordance with the conditions stipulated in the listing.

“Recessed luminaries installed in the building thermal envelope shall meet the requirements of current State of Alabama Adopted Residential Energy Code.”

(24) R303.1 Habitable rooms. Amend Exception #1 to read “The glazed areas need not be openable where the opening is not required by Section R310 and a whole-house mechanical ventilation system is installed in accordance with the 2018 International Mechanical Code.”

(25) R303.3 Bathrooms. Amend Exception to read: “The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be determined in accordance with the 2018 International Mechanical Code. Exhaust air from the space shall be exhausted directly to the outdoors.”

(26) R303.4. Mechanical Ventilation. Amend to read, “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 w.c (50 Pa) in accordance with the current State of Alabama Adopted Residential Energy Code, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with the 2018 International Mechanical Code”.

(27) R303.5.1 Intake openings. Exception #2 & #3 Amended to read,

2. “Vents and chimneys serving fuel-burning appliances shall be terminated in accordance with the applicable provisions 2018 International Mechanical Code.”

3. “Clothes dryer exhaust ducts shall be terminated in accordance with 2018 International Mechanical Code.”

(28) R307.1 Space required. Amend to read:

“Fixtures shall be spaced in accordance with Figure R307.1, and in accordance with the requirements of the 2018 International Plumbing Code

(29) Delete Subsection R309.3 "Flood Hazard Areas" in its entirety.

(30) R309.5 Fire Sprinklers. Amend to read, “Private garages shall be protected by fire sprinklers where the garage wall has been designed based on Table R302.1(2), Footnote a. Sprinklers in garages shall be connected to an automatic sprinkler system that complies with the 2018 International Plumbing Code. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft2. Garage doors shall not be considered obstructions with respect to sprinkler placement.”

(31) Amend Section R313 “Automatic Fire Sprinkler Systems” to read:

a. R313.1 Townhomes automatic fire sprinkler systems. Amend to read:

If an automatic residential fire sprinkler system is installed in townhouses, the design must be in accordance with NFPA 13D.

b. R313.2 One- and two-family dwellings automatic fire sprinkler systems. Amend to read:

If an automatic residential fire sprinkler system is installed in One- and two-family dwellings, the design must be in accordance with NFPA 13D.

(32) Section R322 Flood-Resistant Construction. Delete in entirety.

(33) Delete Table 403.1(1), Table 403.1(2), & Table 403.1(3) “Minimum Width and Thickness for Concrete Footings for Light-Frame Construction” in its entirety.

(34) Amend Subsection R403.1.1 "Minimum Size" to read:

The minimum size for concrete footings shall be in accordance with this section:

(a) Perimeter footings: Minimum depth of concrete shall be 12 inches by 16 inches wide unless brick veneer or masonry units are to be used for the structure, then the minimum width shall be 20 inches wide. Two (2) No. 5 reinforcing bars or Three (3) No. 4 bars, continuous at three inches above footing bottom and three inches from each side shall be used in the footings. Bottom of footing shall be a minimum of two feet below finished grade.

(b) Interior footings: Minimum size of concrete footing shall be 12 inches deep by 16 inches wide for required length unless masonry units are to be used, then the minimum width shall be 20 inches wide. Two (2) No. 5 reinforcing bars or Three (3) No. 4 bars, continuous at three inches above footing bottom and three inches from each side shall be used in the footing.

(c) Where slab and turned down footing construction is used, these minimum requirements shall not be applicable.

(d) Minimum pier footing size shall be 20 inches square by 12 inches of depth. No minimum depth of bottom of footing below finished grade is specified."

Exception: Footing designs accompanied by a geotechnical study conducted from an Alabama Licensed Engineer.

(35) Amend Subsection R403.1.7 "Footings on or adjacent to slopes" to read:

"On all building sites in the slope development district and other sites with identifiable or suspected potentially unstable subsurface soil conditions, the building applications for permitting shall be

accompanied by a geotechnical study conducted by and bearing the expertise in the science of soil mechanics.

The test and analysis requirements shall be as set forth in the slope development study, section VIII, subsection C, paragraph 4 as follows:

A. Geotechnical studies: field and laboratory.

1) Field studies:

a) Residential lots: borings as required per design geotechnical study.

b) Acceptable subsurface exploration methods: test pit excavations; soil test borings; mechanical or electrical cone borings.

c) Rock coring, if required: Minimum of five feet of rock coring per boring.

d) Soil and rock classification according to (ASTM) procedures.

2) Minimum soil properties tests (natural or fill soils):

a) Shear strength (as required for analysis).

b) Standard classification tests (ASTM).

c) Consolidation tests (as required).

d) Shrink/swell potential (if applicable).

3) Groundwater data: Each boring shall be measured for groundwater.

4) Analyze slope stability and structure performance:

a) Stability analyses should be performed on the best, worst, and average soil and embankment conditions:

1) Sliding wedge and slip circle analyses should be performed on the uphill side of any cut embankment.

2) Slip circle analyses should be performed on all fill embankments.

b) Based on the analyses, the lowest safety factors should be reported for each method along with all of the design conditions.

c) Structure performance should be analyzed with respect to bearing capacity and settlement.

The application shall contain a design footing and foundation meeting the requirements set forth in the adopted slope development study, section VIII, subsection C, paragraph 5 as follows:

5) Recommended design standards:

a) Safety factors for stability: Minimum safety factor of 1.5 with adequate data, including triaxial shear tests, multiple analyses (sliding wedge infinite slope and slip circle analyses) and confident groundwater (piezometer) measurements and control.

b) Where soil and rock data indicated a large variation in strength, analyses should be reported for the worst conditions encountered. Safety factor for bearing capacity: Minimum safety factor of 3.0.

c) Allowable settlement: Maximum settlement between column footings shall not exceed the angular distortion ration D/L (D-deflection inches, L - length between columns inches) as follows: Limiting Settlement

High continuous brick walls	.0005— 0.001
One-story brick buildings	.001
Reinforced concrete frame	.0025

Reinforced concrete curtain wall	.003
Steel Frame, continuous	.002
Steel Frame, simple	.005

d) Expansive soils: 2018 International Residential Code Subsection R403.1.8 sets requirements and Section 1808.6 of the 2018 International Building Code.

This design must be performed by, and bear the seal of, an engineer or architect registered in the state.

The engineer or architect shall inspect and certify that, to the best of his knowledge, the construction of the footing and foundation has been accomplished according to the required design. The certification must be on record before a certification of occupancy can be issued."

(36) Delete subsections R403.1.7.1 - R403.1.7.4 in its entirety.

(37) Amend Subsection R404.1.1 "Design required" to read: (adding #3 condition)

Concrete or masonry foundation walls shall be designed in accordance with accepted engineering practice where either of the following conditions exists:

1. Walls are subject to hydrostatic pressure from ground water.

2. Walls supporting more than 48 inches (1219 mm) of unbalanced backfill that do not have permanent lateral support at the top or bottom.

3. All freestanding or cantilevered retaining walls constructed of any material and retaining more than four feet of earth above the footing shall be designed and the drawings sealed by an engineer or architect registered in the state.

(38) Amend Section R405.1. "Concrete or masonry foundations" to read:

Drains shall be provided around concrete or masonry foundations that retain habitable space below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the top of the footing or below the bottom of the slab and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend not less than 1 foot (305 mm) beyond the outside edge of the footing and 6 inches (152 mm) above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper. Except where otherwise recommended by the drain manufacturer, perforated drains shall be surrounded with an approved filter membrane or the filter membrane shall cover the washed gravel or crushed rock covering the drain. Drainage tiles or perforated pipe shall be placed on not less than 2 inches (51 mm) of washed gravel or crushed rock not less than one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches (152 mm) of the same material.

For crawl spaces that retain earth the grading shall be done around every foundation in such manner that storm water shall drain away from the building. The crawl space underneath the ground floor must be so graded as to drain to a point at the exterior foundation wall where a drainpipe must be provided through the foundation wall leading from the building to a point of discharge, so that the crawl space under the building will be adequately drained at all times. The grade of the crawl space and the grade of the drainpipe must be established at an elevation that is sufficient enough to prevent storm water from backing up under the building from the point of discharge. The drainpipe shall be a minimum of four inches in diameter and graded with a slope not less than one-eighth inch per foot towards the point of discharge.

(39) Delete subsection R408.7 “Flood resistance” in its entirety.

(40) Amend Subsection R506.2.3 "Vapor Retarder" to read:

"A 6-mil polyethylene or approved vapor retarder with joints lapped not less than 6 inches shall be placed between the concrete slab and the base course or the prepared sub-grade where no base courses exist.

Exception: The vapor retarder may be omitted:

1. From detached garages, detached accessory/utility structures without heat.

2. From driveways, walks, patios, and other flatwork not likely to be enclosed and heated at a later date."

(41) Delete Subsection R602.5 “Interior nonbearing walls in its entirety.

(42) Amend Subsection R1003.11.3 "Gas Appliances" to read:

"Flue lining systems for gas appliances shall be in accordance with the 2018 International Mechanical Code."

(43) Amend Subsection R1003.14 "Flue Area (Appliance)" to read:

"Chimney flues shall not be smaller in area than that of the area of the connector from the appliance [See Table R1003.14(1) and R1001.11(2)]. The sizing of a chimney flue to which multiple-appliance venting systems are connected shall be in accordance with the 2018 International Mechanical Code."

(44) Amend Appendix H Subsection AH105.2 Footings to read: Footings shall be designed as required per the amended subsection R403.1.1 "Minimum Size".

(45) Delete Appendix J Subsection AJ102.4.1 "Energy efficiency” to read “Replacement windows shall comply with current state Energy Code adopted by the Alabama Energy and Residential Code Board”

(46) Delete Appendix J Subsection AJ102.4.4 “Window control devices” in its entirety.

(47) Delete Appendix J Subsection AJ102.5 "Flood Hazard Areas" in its entirety.

(48) Amend Appendix J Subsection AJ301.2 "Water Closets" to read:

"When any water closet is replaced with a newly manufactured water closet, the replacement water closet shall comply with the requirements of the 2018 International Plumbing Code."

(49) Delete Appendix J Subsection AJ301.3 "Electrical" in its entirety.

(50) Amend Appendix J Subsection AJ501.1 "Newly Constructed Elements" to read:

"All newly constructed elements, components, and systems shall comply with the requirements of this code.

Exceptions: Operable windows may be added without requiring compliance with the light and ventilation requirements of Section R303."

DIVISION 4 - INTERNATIONAL BUILDING CODE

Sec. 7-193. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Building Code, 2018 edition, Chapters 1—12 and 14—31; 33; 34; and 35 and appendix "C", published by the International Code Council, Inc., save and except such portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-194. - Deletions, modifications and amendments.

The International Building Code 2018 edition, Chapters 1—12 and 14—31; 33; 34; and 35 and appendix "C", as adopted in this division, are deleted, modified and amended as follows:

(1) Delete subsection 101.4.4 "Property Maintenance", in its entirety.

(2) Delete subsection 101.4.5 "Fire Prevention", in its entirety.

(3) Amend subsection 101.4.6 "Energy", to read.

The current State of Alabama Commercial Energy Code as adopted by the Alabama Energy and Residential Codes Board shall apply to all matters governing the design and construction of buildings for energy efficiency. The compliance to the current State of Alabama Commercial Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Registered Design Professional

(4) Amend subsection (A)102.6. "Existing Structures", to read:

"The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, or as deemed necessary by the building official for the general safety and welfare of the occupants and the public."

(5) Amend subsection (A) 103.3 "Deputies" to read:

"In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint a deputy building official, the related technical officers, inspectors, plan examiners, and other employees. Such employees shall have powers as delegated by the building official.

(6) Delete subsection [A] 104.10.1 “Flood hazard areas.” in its entirety.

(7) Delete subsection [A] 105.1.1 "Annual Permit", in its entirety.

(8) Delete subsection [A] 105.1.2 "Annual Permit Records", in its entirety.

(9) Delete subsection [A)]105.2 "Work Exempt Form Permit", in its entirety.

(10) Delete subsection [A] 105.2.3 "Public Service Agencies", in its entirety.

(11) Amend section [A] 105.3 to include item #8, “Include a contract indicating the cost of the proposed work to be signed by the property owner, building owner and by the builder or contractor proposing to complete work indicated in contract.”

(12) Delete section [A] 108 "Temporary Structures and Uses", in its entirety.

(13) Amend subsection 109.3 "Building Permit Valuations" to read:

Building permit valuation shall include total value of the work for which a permit is being issued, such as electrical, gas, mechanical, plumbing equipment and other permanent systems, including materials and labor.

Building permits for the construction of, alterations to, repairs to, and/or additions to, buildings or other structures governed by this code shall be assessed in the following manner:

(a) For new construction of, alterations to, repairs to, and/or additions to, buildings or to other structures governed by this code, the permit fee shall be the greater of $50.00 or the amount of the total contract price multiplied by .0055 of the full estimated cost of work for each building or structure; however, this section shall not apply to the repair of any building whenever the reasonable cost of the material and labor for such repair is not in excess of $250.00 and no structural work is involved.

(b) For the moving of any building or structure, the fee shall be $25.00

(c) For the demolition of interior or partial demolition of commercial buildings and structures, the fee shall be $50.00.

(d) For the full demolition of commercial buildings or structures, the fee shall be $100.00.

(e) For retaining walls constructed of any material and retaining more than four feet of earth above the footing, the permit fee shall be the greater of $50.00 or the contract amount of the wall construction multiplied by .0055.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(14) Delete subsections (A) 110.3.1 through (A) 110.3.6.

Amend subsection (A) 110.3. “Required inspections” to read

BUILDING

(1) Footing Inspections: Inspections are required for setbacks, footing depth and widths, and steel rebar.

(2) Monolithic Slabs: This inspection is to take place after plumbing and electrical inspections if applicable.

(3) Foundation Inspection: Made after grading of crawlspace area, placement of piers, anchor bolts, 4” drain and installation of floor system prior to installing subflooring.

(4) Pre-insulation Inspection: This inspection is to be made when shingles, sheathing, windows and doors are installed. Mechanical, electrical, plumbing, and gas inspections need to be made "if applicable", prior to this inspection. Brick ties should be installed over a moisture impermeable house wrap. When this inspection has passed, brick and insulation may be installed.

(5) Framing Inspection: This inspection is to be made after any framing corrections have taken place and after the building has been insulated. If framing corrections have been made, the framing inspection will be passed, and drywall may be installed.

(6) Temp 30: To obtain power to the structure, an affidavit must be signed by the contractor, permanent building number posted, and building can be locked. Building cannot be occupied until receipt of the Certificate of Occupancy.

(7) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after all trade inspections and is to view ceiling supports, fire caulking of rated walls and penetrations. If acoustical ceiling is not to be used this inspection is still mandatory for fire caulk inspection prior to painting walls.

(8) Final Inspection: When the building has been completed and mechanical, electrical, plumbing, and gas inspections "if applicable" have been completed, you may request the building final inspection.

ELECTRICAL

(1) Slab Inspection: If any electrical lines are installed in the slab or concealed in concrete walls.

(2) Underground: All conduits and direct burial cable placed in the ground must be inspected prior to covering.

(3) Rough-in Inspection: When wires are pulled and stapled prior to installation of sheetrock, "No insulation is to be installed prior to rough-in inspection." All areas of renovations where sheetrock has been removed will also require a rough-in inspection.

(4) Temp 30: The following are required: permanent house numbers, the building is lockable, the meter base and main panel are installed, and a receptacle with GFCI protection.

(5) Final Inspection: When all fixtures, plugs and appliances are installed. All electrical work should be completed at this time.

(6) Electrical Final for HVAC (If separate): Air conditioning final to be made when all electrical lines and disconnects are completed to heat and air units.

MECHANICAL & GAS

(1) Slab: To be made if gas lines or mechanical work is run under or through the slab. Inspection is to be made before the work is covered.

(2) Rough-In Inspection/Wall Rough: When all gas lines and refrigeration lines that are to be concealed are run inside structure prior to insulation and drywall. All ductwork in concealed locations must be inspected prior to installation of drywall.

(3) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after grid is installed and before ceiling tiles are placed. Inspection will verify equipment installation, service clearances, fire dampers, duct work and registers.

(4) Final Inspection: When all gas appliances are installed and completed, and all mechanical work finished. Service clearance area around all indoor and outdoor units must be provided based on code and manufacturer requirements.

PLUMBING

(1) Slab: To be made before gravel and poly are installed over pipes and water lines.

(2) Sewer/Water Lines: To be made before sewer lines and water lines are covered.

(3) Rough-in: To be made when all plumbing pipes are stubbed-out and pressure tested prior to sheetrock being hung. (No insulation is to be installed prior to this inspection.)

(4) 30 Day Temporary: To be made when the sewer and rough ins have been passed. (This inspection must be requested by the plumber.)

(5) Final: To be made when fixtures are set, and plumbing is completed and in working order.

(15) Amend subsection 110.3.8 "Energy Efficiency Inspections" to read “The compliance to the Current State of Alabama Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Licensed Design Professional.”

(16) Delete subsection [A] 111.3 "Temporary Occupancy" in its entirety.

(17) Delete section [A] 113 "Board of Appeals" in its entirety.

(18) Amend subsection 201.3 "Terms defined in other codes" to read:

"Where terms are not defined in this code such terms shall have the meanings ascribed in other codes publications of the International Code Council and as defined per NFPA 70".

(19) Amend Section 202 "Definitions” The following definition to read as:

“[A] Townhouse/Townhome. A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with a yard or public way on not less than two sides. Structures which are constructed as a Single-family dwelling unit as noted in this definition, in which each individually single-family dwelling unit doesn’t reside on its own fee simple lot shall be consider an apartment type R-2 occupancy and must follow the International Building Code.

(20) Amend subsection 603.1.3 "Electrical" to read:

"The use of electrical wiring methods with combustible insulation, tubing, raceways and related components shall be permitted when installed in accordance with the limitations of NFPA 70.

(21) Amend subsection [F] 903.2.9 “Group S-1” to read:
An automatic sprinkler system shall be provided throughout all
buildings containing a Group S-1 occupancy where one of the following conditions exists:
1. A Group S-1 fire area exceeds 12,000 square feet (1115 m2).
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 24,000 square feet (2230 m2).
4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m2).
5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).

Exception: Self-service storage facilities not greater than one story above grade where all storage spaces can be accessed directly from the exterior.

(22) Amend subsection 1404.11.4 "Grounding" to read:

"Grounding of metal veneers on buildings shall comply with the requirements of the NFPA 70."

(23) Delete subsection 1603.1.6 "Flood design data" in its entirety.

(24) Delete subsection 1612 "Flood Loads" in its entirety.

(25) Delete subsection 1804.5 "Grading and Filling in Floodways" in its entirety.

(26) Amend subsection 1808.7 "Footings on or Adjacent to Slopes" to read:

"On all building sites in the slope development district and other sites with identifiable or suspected potentially unstable subsurface soil conditions, the building applications for permitting shall be accompanied by a geotechnical study conducted by and bearing the expertise in the science of soil mechanics.

The test and analysis requirements shall be as set forth in the slope development study, section VIII, subsection C, paragraph 4 as follows:

(A) Geotechnical studies: field and laboratory.

(1) Field studies:

(a) Residential lots: borings as required per design geotechnical study.

(b) Acceptable subsurface exploration methods: test pit excavations; soil test borings; mechanical or electrical cone borings.

(c) Rock coring, if required: Minimum of five feet of rock coring per boring.

(d) Soil and rock classification according to (ASTM) procedures.

(2) Minimum soil properties tests (natural or fill soils):

(a) Shear strength (as required for analysis).

(b) Standard classification tests (ASTM).

(c) Consolidation tests (as required).

(d) Shrink/swell potential (if applicable).

(3) Groundwater data: Each boring shall be measured for groundwater.

(4) Analyze slope stability and structure performance:

(a) Stability analyses should be performed on the best, worst, and average soil and embankment conditions:

1) Sliding wedge and slip circle analyses should be performed on the uphill side of any cut embankment.

2) Slip circle analyses should be performed on all fill embankments.

(b) Based on the analyses, the lowest safety factors should be reported for each method along with all of the design conditions.

(c) Structure performance should be analyzed with respect to bearing capacity and settlement.

The application shall contain a design footing and foundation meeting the requirements set forth in the adopted slope development study, section VIII, subsection C, paragraph 5 as follows:

(5) Recommended design standards:

(a) Safety factors for stability: Minimum safety factor of 1.5 with adequate data, including triaxial shear tests, multiple analyses (sliding wedge infinite slope and slip circle analyses) and confident groundwater (piezometer) measurements and control.

(b) Where soil and rock data indicated a large variation in strength, analyses should be reported for the worst conditions encountered. Safety factor for bearing capacity: Minimum safety factor of 3.0.

High continuous brick walls	.0005— 0.001
One-story brick buildings	.001
Reinforced concrete frame	.0025
Reinforced concrete curtain wall	.003
Steel Frame, continuous	.002
Steel Frame, simple	.005

(c) Allowable settlement: maximum settlement between column footings shall not exceed the angular distortion ration D/L (D-deflection inches, L - length between columns inches) as follows: Limiting Settlement

(d) Expansive soils: 2018 International Residential Code Subsection R403.1.8 sets requirements and Section 1805.8 of the 2018 International Building Code.

This design must be performed by, and bear the seal of, an engineer or architect registered in the state.

The engineer or architect shall inspect and certify that, to the best of his knowledge, the construction of the footing and foundation has been accomplished according to the required design. The certification must be on record before a certification of occupancy can be issued."

(27) Delete subsection 1808.7.1 "Building Clearance from Ascending Slopes" in its entirety.

(28) Delete subsection 1808.7.2 "Footing Setback from Descending Slope Surface" in its entirety.

(29) Delete 1808.7.3 "Pools" in its entirety.

(30) Amend subsection 1907.1 "General" to read:

The thickness of concrete floor slabs supported directly on the ground shall be not less than 31/2 inches (89 mm). A 6-mil (0.006 inch; 0.15 mm) polyethylene vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the base course or subgrade and the concrete floor slab, or other approved equivalent methods or materials shall be used to retard vapor transmission through the floor slab.

Exception: A vapor retarder is not required:

1. For detached structures accessory to occupancies in Group R-3, such as garages, utility buildings or other unheated facilities.
2. For buildings of other occupancies where migration of moisture through the slab from below will not be detrimental to the intended occupancy of the building.
3. For driveways, walks, patios and other flatwork that will not be enclosed at a later date.
4. Where approved based on local site conditions.

(31) Amend subsection 2701.1 "Scope" to read:

"The provisions of this chapter and NFPA 70 shall govern the design, construction, erection and installation of the electrical components, appliances, equipment and systems used in buildings and structures covered by this code. The International Fire Code, and the NFPA 70 shall govern the use and maintenance of electrical components, appliances, equipment and systems. The International Existing Building Code and NFPA 70 shall govern the alteration, repair, relocation, replacement and addition of electrical components, appliances, or equipment and systems."

DIVISION 5 - INTERNATIONAL EXISTING BUILDING CODE

Sec. 7-195. - Adoption; edition; copies.

There is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Existing Building Code, 2018 edition, Chapters 1—16, published by the International Code Council, Inc., save and except such portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

Sec. 7-196. - Deletions, modifications and amendments.

The International Existing Building Code, 2017 edition, Chapter 1—16; as adopted in this division, are deleted, modified and amended as follows:

(1) Amend subsection (A) 101.4.2 to read "The legal occupancy of any building existing on the date of the adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, the International Building Code, or the International Residential Code, or as is deemed necessary by the code official for the general safety and welfare of the occupants and the public."

(2) Add subsection 101.4.3 "Maintenance" to read:

"Building and parts thereof shall be maintained in a safe and sanitary condition. All existing devices or safeguards shall be maintained in all buildings. The owner or the owner's designated agent shall be responsible for the maintenance of the building. To determine compliance with this subsection, the code official shall have the authority to require a building to be re-inspected. Except where specifically permitted by this code, the code shall not provide the basis for removal or abrogation of fire protection and safety systems and devices in existing buildings."

(3) Amend subsection (A) 103.1 Creation of enforcement agency. to read “The Department of Building Safety is hereby created and is to be known as The City of Huntsville Inspection Department, and the official in charge shall be known as the Director of Inspection Services. All future references to “the Department of Building Safety’ shall mean “the City of Huntsville Department of Inspections”. All future references to the “code official” shall mean “the Director of Inspection Services”.

Delete subsection (A) 104.2.1 “Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas” in its entirety.

Delete subsection (A) 104.10.1 “Flood hazard areas”. in its entirety.

(4) Delete subsection 105.1.1 "Annual Permit" in its entirety.

(5) Delete subsection 105.1.2 "Annual Permit Records" in its entirety.

(6) Delete subsection 105.2 "Work Exempt from Permit" in its entirety.

(7) Delete subsection 105.2.2 "Repairs" in its entirety.

(8) Delete subsection 105.2.3 "Public Service Agencies" in its entirety.

(9) Amend subsection (A) 108.3 “Building permit valuations” to read “The applicant for a permit shall provide an estimated permit value, verified by a signed contract submitted at the time of application. Permit valuations shall include total value of work including materials and labor for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment, and permanent systems. If, in the opinion of the code official, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the code official. Final building permit valuation shall be set by the code official.”

(10) Delete subsections (A) 109.3.1 through (A) 109.3.6.

Amend subsection (A) 109.3. “Required inspections” to read

BUILDING

(1) Footing Inspections: Inspections are required for setbacks, footing depth and widths, and steel rebar.

(2) Monolithic Slabs: This inspection is to take place after plumbing and electrical inspections if applicable.

(3) Foundation Inspection: Made after grading of crawlspace area, placement of piers, anchor bolts, 4” drain and installation of floor system prior to installing subflooring.

(4) Pre-insulation Inspection: This inspection is to be made when shingles, sheathing, windows and doors are installed. Mechanical, electrical, plumbing, and gas inspections need to be made “if applicable”, prior to this inspection. Brick ties should be installed over a moisture impermeable house wrap. When this inspection has passed, brick and insulation may be installed.

(5) Framing Inspection: This inspection is to be made after any framing corrections have taken place and after the building has been insulated. If framing corrections have been made, the framing inspection will be passed, and drywall may be installed.

(6) Temp 30: To obtain power to the structure, an affidavit must be signed by the contractor, permanent building number posted, and building can be locked. Building cannot be occupied until receipt of the Certificate of Occupancy.

(7) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after all trade inspections and is to view ceiling supports, fire caulking of rated walls and penetrations. If acoustical ceiling is not to be used this inspection is still mandatory for fire caulk inspection prior to painting walls.

(8) Final Inspection: When the building has been completed and mechanical, electrical, plumbing, and gas inspections “if applicable” have been completed, you may request the building final inspection.

ELECTRICAL

(1) Slab Inspection: If any electrical lines are installed in the slab or concealed in concrete walls.

(2) Underground: All conduits and direct burial cable placed in the ground must be inspected prior

to covering.

(3) Rough-in Inspection: When wires are pulled and stapled prior to installation of sheetrock, "No insulation is to be installed prior to rough-in inspection." All areas of renovations where sheetrock has been removed will also require a rough-in inspection.

(4) Temp 30: The following are required: permanent house numbers, the building is lockable, the meter base and main panel are installed, and a receptacle with GFCI protection.

(5) Final Inspection: When all fixtures, plugs and appliances are installed. All electrical work should be completed at this time.

(6) Electrical Final for HVAC (If separate): Air conditioning final to be made when all electrical lines and disconnects are completed to heat and air units.

MECHANICAL & GAS

(1) Slab: To be made if gas lines or mechanical work is run under or through the slab. Inspection is to be made before the work is covered.

(2) Rough-In Inspection/Wall Rough: When all gas lines and refrigeration lines that are to be concealed are run inside structure prior to insulation and drywall. All ductwork in concealed locations must be inspected prior to installation of drywall.

(3) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after grid is installed and before ceiling tiles are placed. Inspection will verify equipment installation, service clearances, fire dampers, duct work and registers.

(4) Final Inspection: When all gas appliances are installed and completed, and all mechanical work finished. Service clearance area around all indoor and outdoor units must be provided based on code and manufacturer requirements.

PLUMBING

(1) Slab: To be made before gravel and poly are installed over pipes and water lines.

(2) Sewer/Water Lines: To be made before sewer lines and water lines are covered.

(3) Rough-in: To be made when all plumbing pipes are stubbed-out and pressure tested prior to sheetrock being hung. (No insulation is to be installed prior to this inspection.)

(4) 30 Day Temporary: To be made when the sewer and rough ins have been passed. (This inspection must be requested by the plumber.)

(5) Final: To be made when fixtures are set, and plumbing is completed and in working order.

(11) Amend subsection (A) 109.3.8 to be number (A) 109.3.2

(12) Amend subsection (A) 110.1 "Altered area use and occupancy classification change" to read "Altered areas of a building shall not be used or occupied until the code official has issued a notice of completion or certificate of occupancy, as required by the City of Huntsville Inspection Department. Relocated buildings shall not be used or occupied and change in the existing use or occupancy classification of a building or portion thereof shall not be made until the code official has issued a certificate of occupancy therefor as provided herein. Issuance of a notice of completion or certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction."

(13) Delete subsection (A) 110.3 "Temporary occupancy" in its entirety.

(14) Delete section 112 "Board of Appeals" in its entirety.

(15) Amend subsection 116.6 "Hearing" to read:

"Any person ordered to take emergency measures shall comply with such order forthwith. Any affected person shall thereafter, upon petition to the Board of Examination and Appeals for Construction Industries, be afforded a hearing as described in this code."

(16) Delete subsection 502.3 "Flood hazard areas" in its entirety."

(17) Amend subsection "707.1 Minimum requirements." To read.
Level 1 alterations to existing buildings or structures do not require the entire building or structure to comply with the energy requirements of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board. The alterations shall conform to the energy requirements

of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board as they relate to new construction only.

(18) Amend subsection “810.1 Minimum requirements.” To read.

Level 2 alterations to existing buildings or structures do not require the entire building or structure are permitted without requiring the entire building or structure to comply with the energy requirements of the current State of Alabama Energy Code or Residential Energy Code as adopted by the Alabama Energy and Residential Codes Board. The alterations shall conform to the energy requirements of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board as they relate to new construction only.

(19) Amend subsection “907.1 minimum requirements” to read.

Level 3 alterations to existing buildings or structures do not require the entire building or structure are permitted without requiring the entire building or structure to comply with the energy requirements of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board. The alterations shall conform to the energy requirements of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board as they relate to new construction only.

(20) Delete subsection (BS) 1103.3 "Flood Hazard Areas" in its entirety.

(21) Amend subsection 1107.1 "Minimum requirements" to read.

Additions to existing buildings shall conform to the energy requirements of the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board as they relate to new construction.

(22) Delete subsection 1201.4 "Flood Hazard Areas" in its entirety.

(23) Delete subsection (BS) 1301.3.3 “Compliance with flood hazard provisions" in its entirety.

(24) Amend subsection 1401.2 "Conformance" to read:

"The building shall be safe for human occupancy as determined by the International Fire Code. Any repair, alteration, or change of occupancy undertaken within the moved structure shall comply with the requirements of this code applicable to the work being performed. Any field-fabricated elements shall comply with the requirements of the International Building Code or the International Residential Code as applicable."

(25) Amend subsection 1301.3.2 "Compliance with Other Codes" to read:

Buildings that are evaluated in accordance with this section shall comply with the International Fire Code."

(26) Delete subsection (BS) 1301.3.3 "Compliance with flood hazard provisions." in its entirety.

(27) Amend subsection 1401.2 "Conformance" to read:

“The building shall be safe for human occupancy as determined by the International Fire Code. Any repair, alteration or change of occupancy undertaken within the moved structure shall comply with the requirements of this code applicable to the work being performed. Any field-fabricated elements shall comply with the requirements of the International Building Code or the International Residential Code as applicable.”

(28) Delete subsection (BS) 1402.6 "Flood Hazard Areas" in its entirety.

DIVISION 6 - INTERNATIONAL PLUMBING CODE

Sec. 7-197. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Plumbing Code, 2018 edition, Chapters 1—11; 15 and appendixes "B", "C", "D" and "E", published by the International Code Council, Inc., save and except such

portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-198. - Deletions, modifications and amendments.

The International Plumbing Code, 2018 edition, Chapters 1—11; 15 and appendixes "B", "C", "D", and "E" as adopted in this division, are deleted, modified and amended as follows:

(1) Amend subsection 101.2 "Scope" to read:

"The provisions of this code shall apply to the erection, installation, alterations, repair use or maintenance of plumbing systems within this jurisdiction. The installation of fuel gas distribution piping and equipment, fuel gas-fired water heaters and water heater venting systems shall be regulated by the International Fuel Gas Code. Provisions in the appendices shall not apply unless specifically adopted.

Exception: Plumbing systems in existing buildings undergoing repair, alteration, or additions, and change of occupancy shall be permitted to comply with the International Existing Building Code."

(2) Delete Section 106.1.1 “Annual permit” in its entirety.

(3) Delete Section 106.1.2 “Annual permit records” in its entirety.

(4) Delete subsection 106.2 "Work Exempt from Permit" in its entirety.

(5) Amend subsection 106.3.1 “Construction documents” to read:

Construction documents, engineering calculations, diagrams and other shall be submitted with each application for a permit. The code official shall require construction documents, computations and specifications to be prepared designed by a registered design professional required by state law. Construction documents shall be scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made pipes, fittings and components and shall indicate the materials and methods for maintaining required structural safety, resistance rating and fireblocking.

Exception: The code official shall have the authority waive the submission of construction documents, calculations or other data if the nature of the work applied such that reviewing of construction documents is not necessary to determine compliance with this code.

(6) Delete Section 106.5.1 “Approved construction documents” in its entirety.

(7) Amend subsection 106.5.3 “Expiration” to read:

Every permit issued by the code official under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained.

(8) Amend subsection 106.5.4 “Extensions” to read:

Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause.

(9) Delete subsection 106.5.6 “Retention of construction documents” in its entirety.

(10) Amend subsection 106.6.2 "Fee Schedule" to read:

The fees for all plumbing work shall be as indicated in the following schedule:

(a) For residential one- and two-family dwellings with plumbing work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of ..... $ 25.00

In addition:

For each plumbing fixture or trap or set of fixture on one trap (including water and drainage piping) 2.50

For each house sewer 5.00

For each house sewer having to be replaced or repaired 5.00

Hot water heater, electric-water piping only 2.50

Dishwasher 2.50

Garbage grinder 2.50

For installation, alteration, or repair of water piping and/or treating equipment 5.00

For repair or alteration of drainage or venting piping 5.00

For vacuum breakers or backflow protective devices, installed subsequent to the installation of the piping or equipment served one (1) to five (5) 2.50

Rain leader and roof drain piping (interior) 2.50

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(b) For the plumbing work for a manufactured home/mobile home the permit fee shall be $15.00.

(c) For commercial buildings or commercial structures with plumbing work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of ..... $ 50.00

In addition:

For each plumbing fixture or trap or set of fixture on one trap (including water and drainage piping) 2.50

For each house sewer 5.00

For each house sewer having to be replaced or repaired 5.00

Hot water heater, electric-water piping only 2.50

Dishwasher 2.50

Garbage grinder 2.50

For installation, alteration, or repair of water piping and/or treating equipment 5.00

For repair or alteration of drainage or venting piping 5.00

For vacuum breakers or backflow protective devices, installed subsequent to the installation of the piping or equipment served one (1) to five (5) 2.50

Rain leader and roof drain piping (interior) 2.50

For new commercial construction, renovations, alternations of a sewer lateral or a building sewer for commercial projects a minimum permit fee of $50.00 plus the cost of $5.00 per each sewer lateral or building sewer.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article.

A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(11) Delete subsection 106.6.3 "Fee Refund" in its entirety.

(12) Amend subsection 107.2 “Required inspections and testing” to read

PLUMBING

(1) Slab: To be made before gravel and poly are installed over pipes and water lines.

(2) Sewer/Water Lines: To be made before sewer lines and water lines are covered.

(3) Rough-in: To be made when all plumbing pipes are stubbed-out and pressure tested prior to sheetrock being hung. (No insulation is to be installed prior to this inspection.)

(4) 30 Day Temporary: To be made when the sewer and rough ins have been passed. (This inspection must be requested by the plumber.)

(5) Final: To be made when fixtures are set, and plumbing is completed and in working order.

(13) Delete Section 109 "Means of Appeal" in its entirety.

(14) Amend subsection 201.3 "Terms defined in other codes" to read:

"Where terms are not defined in this code such terms shall have the meanings ascribed in other codes publications of the International Code Council and as defined per NFPA 70".

(15) Amend Section 301.3 “Connections to drainage system” delete the Exception in its entirety.

(16) Delete subsection 312.10 "Inspection and testing of backflow prevention assemblies" in its entirety.

(17) Delete subsection 312.10.1 "Inspections" in its entirety.

(18) Delete subsection 312.10.2 "Testing" in its entirety.

(19) Amend Section 410.4 “Substitutions” to read:

“Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies where drinking fountains are required, removable type water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains. Approved permanently installed type bottle filler may be used as a substitution for the required drinking fountain(s).”

(20) Amend subsection 413.3 “Size of floor drains” to read;

“Floor drains shall have a drain outlet not less than 3 inches in diameter.”

(21) Amend Section 414.1 "Approval" to read:

" Sanitary floor sink drains shall be a minimum of 3 inches and shall conform to the requirements of ASME A112.6.7."

(22) Amend Section 424.1 Approval to read:

“Urinals shall conform to ASME A112.19.2/ CSA B45.1, ASME A112.19.19 or CSA B45.5/IAPMO Z124. Urinals shall conform to the water consumption requirements of Section 604.4. Water-supplied urinals shall conform to the hydraulic performance requirements of ASME A112.19.2/CSA B45.1 or CSA B45.5/IAPMO Z124. The use of non-water or water-less urinals is prohibited.

(23) Delete subsection 602.3.4 “Disinfection of system” in its entirety.

(24) Amend subsection 606.1 “Location of full-open valves” to read:

Full-open valves shall be installed in the following locations:

1. On the water distribution supply pipe at the entrance into the structure.

2. On the discharge side of every water meter.
3. On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one- and two family residential occupancies.
4. On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.
5. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.
6. On the water supply pipe to a gravity or pressurized water tank.
7. On the water supply pipe to every water heater.

8. All pot fillers to be equipped with approved shut-off valves.

(25) Amend subsection 604.8 “Water pressure-reducing valve or regulator” to read:

Where water pressure within a building exceeds 80 psi (552 kPa) static, an approved water pressure-reducing valve conforming to ASSE 1003 or CSA B356 with strainer shall be installed to reduce the pressure in the building water distribution piping to not greater than 80 psi (552 kPa) static. The water pressure-reducing valve must be either be installed inside the building or inside an approved enclosure that is design per ASSE 1060. Backflow preventer must be installed per section 608 and 608.15.
Exception: Service lines to sill cocks and outside hydrants, and main supply risers where pressure from the mains is reduced to 80 psi (552 kPa) or less at individual fixtures.

(26) Section 606.2, Location of shutoff valves. Delete item #2 in its entirety.

(27) Amend subsection 607.2.1 " Circulation systems and heat trace systems for maintaining heated water temperature in distribution systems." to read:

For Group R2, R3 and R4 occupancies that are three stories or less in height above grade plane, the installation of heated water circulation and temperature maintenance systems shall be in accordance with Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board. For other than Group R2, R3 and R4 occupancies the installation of heated water circulation and heat trace systems shall be in accordance with the Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board.

(28) Amend subsection 701.2 "Connection to sewer required" to read:

“Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private sewer disposal system in accordance with the Inspection Department and the Madison County Health Department."

(29) Amend subsection 701.3 "Separate sewer connection" to read:

"Every independent building having plumbing fixtures installed and intended for human habitation, occupancy or use on premises abutting on a street, alley or easement in which there is a public sewer shall have a separate connection with the sewer. All sewer installations must follow the City of Huntsville Water Pollution Control Manual.

(30) Add new subsection 703.7 “Building sewer minimum size” to read:

All building sewers shall be a minimum of 4” inch in size and shall be tested out to the easement or other approved location.”

(31) Add new subsection 704.1.1 “Minimum size drainage piping” to read:

All 1 ½” inch drainage piping is prohibited in horizontal underground applications.”

(32) Amend subsection 705.3.3 “Mechanical joint coupling. Mechanical joint couplings for hubless pipe and fittings shall consist of an elastomeric sealing sleeve and a metallic shield that comply with CISPI 310, ASTM C1277 or ASTM C1540. The elastomeric sealing sleeve shall conform to ASTM C564 or CSA B602 and shall be provided with a center stop. Mechanical joint couplings shall be installed in accordance with the manufacturer’s instructions. The use of rubber couplings without shear bands in horizontal underground applications shall be prohibited.

(33) Amend subsection 904.1 "Required vent extensions" to read:

"The vent system serving each building drain shall have not less than one vent pipe that extends to the outdoors. All open vent pipes that extend through a roof shall be terminated at least 8 inches above the roof, except that where a roof is occupied as a habitable space for any purpose, the vent shall be extend to 7 feet above the roof if the vent termination is within 6 feet of the occupied space."

(34) Add subsection 912.1.2 “Prohibited horizontal wet vent design” to read:

“On a horizontal wet vent, water closets cannot wash past another fixture trap without a vent or being revented.”

DIVISION 7 - INTERNATIONAL MECHANICAL CODE

Sec. 7-199. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Mechanical Code, 2018 edition, Chapters 1—11,14, 15 and appendix “A”, published by the International Code Council, Inc., save and except such portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-200. - Deletions, modifications and amendments.

The International Mechanical Code, 2018 edition, Chapters 1—11,14,15 and appendix “A” as adopted in this division, are deleted, modified and amended as follows:

(1) Amend subsection 101.2 "Scope", to read:

"This code shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliance venting systems shall be regulated by the International Fuel Gas Code.

Exception: Mechanical systems in existing buildings undergoing repair, alterations, or additions, and change occupancy shall be permitted to comply with the International Existing Building Code."

(2) Delete subsection (A) 106.1.1 “Annual permit” & subsection (A) 106.1.2 “Annual permit records” in its entirety.

(3) Amend subsection 106.5.2 "Fee Schedule" to read:

Permit valuation shall include total value of the work for which a permit is being issued, such valuation shall include all materials and labor.

(a) For residential one- and two-family dwellings with mechanical work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of..... $ 25.00

In addition:

Fee for heating, ventilation, duct, air conditioning, and refrigeration systems shall be ten ($10.00) for the first one thousand dollars ($1000.00) of valuation of the installation plus two ($2.00) dollars for each additional one thousand ($1000.00) dollars or fraction thereof.

Repairs, alterations, and additions to an existing system where cost is over five hundred ($500.00) dollars shall be two ($2.00) dollars per each one thousand ($1000.00) dollars or fraction thereof in valuation. Where alterations, repairs, and additions to an existing system where the cost is under five hundred ($500.00) dollars where an inspection is required, the fee shall be five ($5.00) dollars.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-

inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(b) For commercial buildings or commercial structures with mechanical work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of..... $ 50.00

In addition:

Fee for heating, ventilation, duct, air conditioning, and refrigeration systems shall be ten ($10.00) for the first one thousand dollars ($1000.00) of valuation of the installation plus two ($2.00) dollars for each additional one thousand ($1000.00) dollars or fraction thereof.

Repairs, alterations, and additions to an existing system where cost is over five hundred ($500.00) dollars shall be two ($2.00) dollars per each one thousand ($1000.00) dollars or fraction thereof in valuation. Where alterations, repairs, and additions to an existing system where the cost is under five hundred ($500.00) dollars where an inspection is required, the fee shall be five ($5.00) dollars.

In all buildings, except one (1) and two (2) family dwellings using self-contained air conditioning units less than two tons, the fee charged shall be for the total cost of all units combined (see above for the rate). Minimum fee shall be $50.00.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(4) Amend subsection 107.2 “Required inspections and testing” to read

MECHANICAL & GAS

(1) Slab: To be made if gas lines or mechanical work is run under or through the slab. Inspection is to be made before the work is covered.

(2) Rough-In Inspection/Wall Rough: When all gas lines and refrigeration lines that are to be concealed are run inside structure prior to insulation and drywall. All ductwork in concealed locations must be inspected prior to installation of drywall.

(3) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after grid is installed and before ceiling tiles are placed. Inspection will verify equipment installation, service clearances, fire dampers, duct work and registers.

(4) Final Inspection: When all gas appliances are installed and completed, and all mechanical work finished. Service clearance area around all indoor and outdoor units must be provided based on code and manufacturer requirements.

(5) Delete Section 109 "Means of Appeal" in its entirety.

(6) Amend subsection 201.3 "Terms defined in other codes" to read:

"Where terms are not defined in this code such terms shall have the meanings ascribed in other codes publications of the International Code Council and as defined per NFPA 70".

(7) Amend Section 202 "General Definitions” the following definitions to read as:

"Ready Access (To)" to read:

“That which enables a device, appliance or equipment to be directly reached, without requiring the removal or movement of any panel or similar obstruction [see “Access (to)] Appliances located on the roof or other elevated locations shall be capable of being reached without requiring potable ladders, chairs, etc. A ladder pull down disappearing type or permanent stairway fastened to the building shall be provided leading to the attic opening or roof, unless approved by the Building Official. This requirement may be waived for the replacement of units installed before January 1986, in one- and two-family dwellings, provided a means of providing access to the units for inspection purposes exists."

(8) Amend subsection 301.2 "Energy utilization" to read:

"Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board; compliance to the current State of Alabama

Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Registered Design Professional."

(9) Amend subsection 301.16 Flood Hazard" to read:

"For structures located in the flood hazard areas, mechanical systems, equipment and appliances shall be located in accordance with Article 62 of the City of Huntsville Zoning Ordinance."

(10) Amend subsection 303.3 "Prohibited locations" to read:

"Fuel-fired appliances shall not be located in, or obtain combustion air from, any of the following rooms or spaces:

(A) Sleeping rooms

(B) Bathrooms

(C) Toilet rooms

(D) Storage closets

(E) Surgical rooms

Exception: This section shall not apply to the following appliances:

(1) Direct-vent appliances that obtain all combustion air directly from the outdoors.

(2) Solid fuel-fired appliances provided that the room is not a confined space and the building is not of unusually tight construction.

(3) Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Chapter 7. Access to such enclosure shall be through a solid door, weather-stripped in an approved manner and equipped with an approved self-closing device.

(11) Add subsection 306.3 Appliances in attics to be accessible" to read:

"All appliances in attics must be accessible and meet the requirements as found in the definition of Ready Access (To). Attics containing appliances shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest appliance. The passageway shall be not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the appliance. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance.

(12) Add subsection 306.3.1.1 "Disconnect Location" to read:

"Disconnecting means shall be within 6 feet and readily accessible from the appliance. The disconnecting means may be installed on or within the appliance. The disconnecting means shall not be located on panels that are designed to allow access to the appliance and shall not cover the manufacture's labeling. "

(13) Amend subsection 306.4.1 "Electrical requirements" to read:

"A lighting fixture controlled by a switch located at the required passageway opening and a receptacle outlet shall be provided at or near the appliance location in accordance with the NFPA 70.

(14) Amend subsection: 306.5. "Equipment and appliances on roofs or elevated structures" shall read:

"All equipment and appliances on roofs or elevated structures shall meet definition on regulations for Ready Access (To)." Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb above grade to access such equipment or appliances, an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) in height or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall. Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:
1. The side railing shall extend above the parapet or roof edge not less than 30 inches (762 mm).

2. Ladders shall have rung spacing not to exceed 14 inches (356 mm) on center. The uppermost rung shall be not greater than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
3. Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.
4. There shall be not less than 18 inches (457 mm) between rails.
5. Rungs shall have a diameter not less than 0.75-inch (19 mm) and be capable of withstanding a 300-pound (136.1 kg) load.
6. Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488.2 kg/m2). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.
7. Climbing clearance. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs
except where cages or wells are installed.
8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.
9. Ladders shall be protected against corrosion by approved means.
10. Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.
Exception: This section shall not apply to Group R-3 occupancies.

(15) Amend subsection [F] 311.1 "Required" to read:

"Approved smoke and heat vents shall be installed in the roofs of one story buildings where required by the International Fire Code. Smoke and heat vents shall be designed and installed in accordance with the International Fire Code.

Exception: This section does not apply to one- and two-family dwellings built on a fee simple lot."

(16) Amend subsection 312.1 "Load calculations" to read:
"Heating and cooling systems design loads for the purpose of sizing systems, appliances and equipment shall be determined in accordance with the procedures described in the ASHRAE/ACCA Standard 183. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board;"

(17) Amend 514.1 "General" to read:

"Energy recovery ventilation systems shall be installed in accordance with this section. Where required for purposes of energy conservation, energy recovery ventilation systems shall comply with the manufactures requirements and with the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board. Compliance with the current State of Alabama Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Licensed Design Professional."

(18) Add subsection 602.2.1 "HVAC and furnace closet" to read:
Any installation or design combination in which a HVAC unit, appliance and/or furnace installations is installed in a confined closet with an open plenum area were a wall louver or louvered door is utilized to convey return air flow, shall be prohibited from having any open indirect waste receptor, hub drain, floor drain or other open drainage device in which condensation drains, water heater drains & relief lines discharges into the sanitary sewer.

(19) Amend subsection 602.2.1.1 "Wiring" to read:

"Combustible electrical or electronic wiring methods and materials, optical fiber cable, and optical fiber raceway exposed within a plenum shall have a peak optical density not greater than 0.50, an average optical density not greater than 0.15, and a flame spread not greater than 5 feet when tested in accordance with NFPA 262 or shall be installed in metal raceways or metal sheathed cable. Combustible optical fiber and communication raceways exposed within a plenum shall be listed and labeled as having a peak

optical density not greater than 0.5, an average optical density not greater than 0.15, and a flame spread distance not greater than 5 feet (1524 mm) when tested in accordance with UL2024. Wiring, cable, and raceways addressed in this section shall be listed and labeled as plenum rated and shall be installed in accordance with the NFPA 70. “

(20) Amend subsection 603.6.1 "Flexible air ducts" to read:

"Flexible air ducts, both metallic and non-metallic, shall be tested in accordance with U.L. 181. Such ducts shall be listed and labeled as Class 0 or Class 1 flexible air connectors and shall be installed in accordance with Section 304.1 Bends in flexible duct shall be made such that the centerline radius of the bend is at least one duct diameter. Ducts should extend a few inches beyond the end of the point of attachment before bending. Ducts shall not be kinked or compressed. In one- and two-family dwellings where a flex duct attaches to a straight boot, a 90-degree elbow shall be used."

(21) Amend subsection 603.9 "Joints, seams, and connections, to read:

"All longitudinal and transverse joints, seams, and connections in metallic and non-metallic ducts shall be constructed, installed and sealed as specified in SMACNA HVAC Duct Construction Standards-Metal and Flexible and SMACNA/NAIMA Fibrous Glass Duct Construction Standards. Joints, longitudinal and transverse seams and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, liquid sealants or tapes. Tapes and mastics used to seal fibrous glass ductwork shall be listed and labeled in accordance with UL 181A and shall be marked “181 A-P” for pressure-sensitive tape, “181 A-M” for mastic or “181 A-H” for heat-sensitive tape. Tapes and mastics used to seal metallic and flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked “181 B-FX” for pressure-sensitive tape or “181 B-M” for mastic. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked “181 B-C.” Closure systems used to seal all ductwork shall be installed in accordance with the manufacturer's instructions.

Exception: For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams and locking-type joints and seams. This exception shall not apply to snaplock and button-lock type joints and seams located outside of conditioned spaces. "

(22) Amend subsection 604.1 "General" shall read:

"Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and with the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board. Compliance with the current State of Alabama Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Licensed Design Professional. All ducts located in unconditioned spaces including but not limited to attics, crawl spaces, basements, and garages as well as those located outside of the building must be insulated.

(23) Amend subsection 606.1 "Controls required" to read:

"Air distribution systems shall be equipped with smoke detectors listed and labeled for installation in air distribution systems, as required by this section. Duct smoke detectors shall comply with UL 268A. Other smoke detectors shall comply with UL 268.

Exception: This section does not apply to one- and two-family dwellings built on a fee simple lot."

(24) Amend subsection 606.2.1 "Return air systems" to read:

"Except in one- and two-family dwellings built on a fee simple lot, smoke detectors shall be installed in return air systems with a design capacity greater than 2000 cfm ($0.9m^3/s$), in the return air duct or plenum up steam of any filters, exhaust air connections, outdoor air connections, or decontamination equipment and appliances.

Exception: Smoke detectors are not required in the return air system where all portions of the building served by the air distribution system are protected by area smoke detectors connected to a fire alarm system in accordance with the International Fire Code. The area smoke detection system shall comply with Section 606.4."

DIVISION 8. - INTERNATIONAL FUEL GAS CODE/NFPA 54 & 58

Sec. 7-201. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Fuel Gas Code, 2018 edition, Chapters 1—8 and appendixes "A", "B", "C", and "D" as published by the International Code Council, Inc., and NFPA pamphlet numbers NFPA 54, 2015 edition and NFPA 58, 2017 edition, published by the National Fire Protection Association, save and except such portions as are deleted, modified or amended in this division; and the provisions of such codes shall be controlling as provided in this section. The 2018 International Fuel Gas Code shall apply to the piping and the installation of both natural and liquefied petroleum gases within the City of Huntsville, Alabama. NFPA pamphlet numbers NFPA 54, 2015 edition and NFPA 58, 2017 edition shall apply to handling and storage of liquefied petroleum gases within the City of Huntsville, Alabama.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-202. - Deletions, modifications and amendments.

The International Fuel Gas Code, 2018 edition, Chapters 1—8 and appendixes "A", "B", "C", and "D" and NFPA pamphlet numbers NFPA 54, 2015 edition and NFPA 58, 2017 edition, as published by the National Fire Protection Association, as adopted in this division, are deleted, modified and amended as follows:

(1) Amend subsection 101.2 "Scope", to read:

"This code shall apply to the installation of fuel-gas piping systems, fuel-gas utilization equipment and related accessories in accordance with Sections 101.2.1 through 101.2.5.

Exception: As an alternative to the provisions of this code, fuel-gas piping systems, fuel-gas utilization equipment and related accessories in existing buildings that are undergoing repairs, alterations, changes in occupancy or construction of additions shall be permitted to comply with the provisions of the International Existing Building Code."

(2) Delete subsection [A] 106.1.1 “Annual permit” & subsection [A] 106.1.2 “Annual permit records” in its entirety.

(3) Amend subsection 106.5.2 "Fee Schedule", to read:

The fees for all fuel gas work shall be as indicated in the following schedule:

(a) For residential one- and two-family dwellings with fuel gas work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of..... $ 25.00

In addition:

For each permit shall be paid as required at the time of filing application. Other permit fees shall be based on the total British Thermal Unit, hereafter referred to as BTU, input load for the installation shall be as follows:

a. 150,000 BTU or less ..... $ 25.00

b. 150,001 BTU to 250,000 BTU 30.00

c. 250,001 BTU to 500,000 BTU 35.00

d. 500,001 BTU to 1,000,000 BTU 40.00

e. 1,000,001 BTU to 1,500,000 BTU 65.00

f. 1,500,001 BTU to 3,000,000 BTU 100.00

g. Over 3,000,000 BTUs 150.00

Permit fees for an unsafe service ("Lock Off") shall be $25.00.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(b) For commercial buildings or commercial structures with fuel gas work governed by this code, the permit shall be the amount assessed in the following manner:

An issuing fee of..... $ 50.00

In addition:

Fees shall be based on the total British Thermal Unit, hereafter referred to as BTU, input load for the installation shall be as follows:

a. 150,000 BTU or less ..... $ 25.00

b. 150,001 BTU to 250,000 BTU 30.00

c. 250,001 BTU to 500,000 BTU 35.00

d. 500,001 BTU to 1,000,000 BTU 40.00

e. 1,000,001 BTU to 1,500,000 BTU 65.00

f. 1,500,001 BTU to 3,000,000 BTU 100.00

g. Over 3,000,000 BTUs 150.00

Permit fees for an unsafe service ("Lock Off") shall be $50.00.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(4) Amend subsection 107.2 “Required inspections and testing” to read

MECHANICAL & GAS

(1) Slab: To be made if gas lines or mechanical work is run under or through the slab. Inspection is to be made before the work is covered.

(2) Rough-In Inspection/Wall Rough: When all gas lines and refrigeration lines that are to be concealed are run inside structure prior to insulation and drywall. All ductwork in concealed locations must be inspected prior to installation of drywall.

(3) Above Ceiling Inspection: This inspection, (typically applicable on commercial projects), is to be done after grid is installed and before ceiling tiles are placed. Inspection will verify equipment installation, service clearances, fire dampers, duct work and registers.

(4) Final Inspection: When all gas appliances are installed and completed, and all mechanical work finished. Service clearance area around all indoor and outdoor units must be provided based on code and manufacturer requirements.

(5) Delete Section 109 "Means of Appeal" in its entirety.

(6) Amend subsection 201.3 "Terms defined in other codes" to read:

"Where terms are not defined in this code such terms shall have the meanings ascribed in other codes publications of the International Code Council and as defined per NFPA 70".

(7) Amend Section 202 "General Definitions” The following definitions to read as:

“[M] Ready Access (To)" to read:

“That which enables a device, appliance or equipment to be directly reached, without requiring the removal or movement of any panel or similar obstruction [see “Access (to)] Appliances located on the roof or other elevated locations shall be capable of being reached without requiring potable ladders, chairs, etc. A ladder pull down disappearing type or permanent stairway fastened to the building shall be provided leading to the attic opening or roof, unless approved by the Building Official. This requirement may be waived for the replacement of units installed before January 1986, in one- and two-family dwellings, provided a means of providing access to the units for inspection purposes exists."

(8) Amend subsection 301.2 "Energy utilization" to read:

"Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the current State of Alabama Energy Code as adopted by the Alabama Energy and Residential Codes Board; compliance to the current State of Alabama Energy Code must be verified by a State of Alabama Licensed Third-Party Energy Consultant or a State of Alabama Registered Design Professional."

(9) Delete subsection 303.7 "Pit locations" in its entirety.

(10) Amend subsection [M] 306.1 "Access for maintenance and replacement" to read:

" Clearances around appliances, control devices, heat exchangers and HVAC components that utilize energy shall be accessible for inspection, service, repair and replacement without disabling the function of a fire-resistance-rated assembly or removing any permanent construction, other appliances, or any other piping or ducts not connected to the appliance being inspected, serviced, repaired or replaced. A level working space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be provided in front of the control side to service an appliance. (See definition "Ready Access To)"

(11) Amend subsection 401.5 “Identification” to read:

For other than steel pipe, exposed piping shall be identified by a yellow label marked “Gas” in black letters. All two (2) pound systems must be marked and identified for the entire developed length of the pipping. The marking shall be spaced at intervals not exceeding 5 feet (1524 mm). The marking shall not be required on pipe located in the same room as the appliance served.

(12) Amend Subsection 402.3 "Sizing" to read:

"All gas piping shall be sized to natural gas standards to the point of exterior connection. Piping shall be sized to natural gas standards using one of the following:

1. Pipe sizing tables or sizing equations in accordance with section 402.4 or 402.5 as applicable.
2. The sizing tables included in a listed piping system's manufacturer's installation instruction.
3. Other approved engineering methods."

(13) Amend subsection 403.5.3 "Copper and copper alloy tubing" to read:

"Copper tubing shall comply with standard "K" or "L" of ASTM B88 or ASTM B280. Copper and coper alloy tubing shall not be used if the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 standard cubic feet of gas (0.7 milligrams per 100 liters). Underground copper tubing must be protected and must comply with ASTM B88 or ASTM B280. Underground copper may only be used between the tank and house piping or as approved by the code official. Interior copper and copper alloy tubing is only allowed to be used between rigid piping and appliances."

(14) Delete subsection 403.5.4 "Aluminum tubing" in its entirety.

(15) Amend subsection 403.5.5 "Corrugated stainless-steel tubing" to read:

"Corrugated stainless steel tubing shall be tested and listed in compliance with the construction, installation and performance requirements of ANSI LC 1/CSA 6.26. Tubing must be continuous from the supply to the demand. No splicing or joining of tubing will be allowed.

All fittings must be continuously accessible.

All fittings and manifolds must be readily accessible. (See definitions)

Installations shall be made in accordance with the manufacture's installation procedures or instructions except where the manufacture's procedures or instructions conflict with this or other sections of this code, as adopted by the City of Huntsville. A copy of the manufacturer's instructions and procedures must be available at the jobsite for review by the code official."

(16) Amend subsection 404.12 "Minimum burial depth" to read:

"Underground piping systems shall be installed a minimum depth of 12 inches below grade, except as provided for in Section 404.12.1. No gas piping shall be placed underground closer than 8 inches from a water pipe or sewer line.

(17) Amend subsection 404.12.1 "Individual outdoor appliances" to read:

Individual gas piping to outdoor lights, grills, other appliance and equipment shall be installed at a minimum depth of 12 inches below finish grade. If a minimum of 12 inches of cover cannot be maintained,

the pipe shall be installed in conduit or bridged (shielded). Buried gas metal piping shall be welded connection and properly electrically isolated and protected."

(18) Amend subsection 406.4.1 "Test pressure" to read:

The test pressure to be used shall be not less than 11/2 times the proposed maximum working pressure, with a minimum test pressures as followed:

Low pressure (not in excess of one (1) psig) gas piping shall withstand a pressure of at least ten (10) psig for a period of not less than ten (10) minutes without showing any drop in pressure or as stated in 406.4.2 "test duration".

A two (2) psig gas piping system shall withstand a test of thirty-five (35) psig for a period of not less than thirty (30) minutes.

For a two (2) psig system you must have a connected load of at least 450 MBH and/or approval from the Huntsville Utility Gas Department prior to installation.

Higher pressure (above 2 psig) piping shall withstand a test of at least fifty (50) psig, but never less than twice the maximum operating pressure of the system. The duration of the test shall not be less than twenty-four (24) hours. No drop in pressure will be permitted. A chart of recorded tests shall be provided to the gas inspector.

(19) Amend subsection 409.5.1 "Located within same room" to read:

"Equipment shutoff valves shall be located in the same room as the appliance. The shutoff valve shall be within 6 feet (1829 mm) of the appliance, and shall be upstream of the union, connector or quick disconnect device it serves. Shutoffs must be accessible without removing panels and must be located at the front or side of the appliance and out of the heat source. Appliance shutoff valves located in the firebox of a fireplace shall be installed in accordance with the appliance manufacturer’s instructions."

(20) Amend subsection 503.7 "Single-wall metal pipe" to read:

"Single-wall gas vents shall not be used within any building or within five (5) feet of any building within the city limits of the City of Huntsville, unless specified by the equipment manufacturer. Single-wall gas vents where allowed shall comply with Sections 503.7.1 through 503.7.13."

(21) Amend subsection 503.10.1 "Where required" to read:

"A vent connector shall be used to connect an appliance to a gas vent, chimney, or single-wall metal pipe, except where the gas vent, chimney, or single-wall metal pipe directly connected to the equipment. All single-wall metal pipe shall be as short as practical to achieve connection."

(22) Amend subsection 503.10.2.2 "Vent connectors located in unconditioned areas" to read:

"Where the vent connector used for an appliance having a draft hood or a category I appliance is located in or passes through attics, crawl spaces or other unconditioned spaces, that portion of the vent connector shall be listed Type B or Type L or listed vent material or listed material having equivalent insulation properties."

(23) Amend subsection 602.1 "General" to read:

"Decorative appliances for installation in approved solid fuel-burning fireplaces shall be tested in accordance with ANSI Z21.60/CSA 6.26 and shall be installed in accordance with the manufacture's installation instructions."

(24) Amend subsection 602.2 "Flame safeguard device" to read:

"Decorative appliances for installation in approved solid fuel-burning fireplaces shall utilize a direct ignition device, an igniter or a pilot flame to ignite the fuel at the main burner and shall be equipped with a flame safeguard device. The flame safeguard device shall automatically shut off the fuel supply to a main burner or group of burners when the means of ignition of such burners becomes inoperative."

(25) Amend subsection 603.1 "General" to read:

"Log lighters are prohibited."

(26) Amend subsection 609.2 "Placement" to read:

"The following provisions apply to floor furnaces.

(1) Floors. Floor furnaces shall not be installed in the floor of any doorway, stairway landing, aisle or passageway of any enclosure, public or private, or in an exit way from any such room or space.

(2) Walls and corners. The register of a floor furnace with a horizontal warm-air outlet shall not be placed closer than 6 inches to the nearest wall. A distance of at least 18 inches from adjoining sides of the floor furnace register to walls shall be provided to eliminate the necessity of occupants walking over the warm-air discharge. The remaining sides shall be permitted to be placed not closer than 6 inches to a wall. Wall-register models shall not be placed closer than 6 inches to a corner.

(3) Draperies. The furnace shall be placed so that a door, drapery or similar object cannot be nearer than 12 inches to any portion of the register of the furnace.

(4) Floor construction. Floor furnaces shall not be installed in concrete floor construction built on grade.

(5) Thermostat. The controlling thermostat for a floor furnace shall be located within the same room or space as the floor furnace or shall be located in an adjacent room or space that is permanently open to the room or space containing the floor furnace.

(6) No equipment shall be installed below ground level at installation location. Seepage pans and basins are prohibited."

DIVISION 9 - NATIONAL ELECTRICAL CODE

Sec. 7-203. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the National Electrical Code, 2017 edition, Article 90 and Chapters 1—9, published by the National Fire Prevention Association, Inc., save and except such portions as are deleted, modified or amended in this; and the provisions of such code shall be controlling as provided in this section.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-204. - Deletions, modifications and amendments.

The National Electrical Code, 2017 edition of NFPA 70, Article 90 and Chapters 1—9 as adopted in this division, are deleted, modified and amended as follows:

(1) Add subsection 90.4 (A) "Fees" to read:

Permit valuation shall include total value of the work for which a permit is being issued, such valuation shall include all materials and labor. Before any permit is granted for the installation or alteration of electrical equipment, the person making application for permit shall pay such fee(s) to the City of Huntsville Inspection Department.

The fees for all electrical work shall be as indicated in the following schedule:

(A) For residential one- and two-family dwellings electrical work governed by this code shall be the amount assessed in the following manner:

(a) For New Construction:

(1) For service entrance not exceeding two hundred twenty-five (225) amperes, a permit fee of ($25.00) dollars plus twenty ($.20) cents for each burning opening, toggle switch, or receptacle plus thirty ($.30) cents for each power opening or receptacle.

(2) For service entrance not exceeding four hundred (400) amperes, a permit fee of thirty ($30.00) dollars plus twenty ($.20) cents for each burning opening, toggle switch, or receptacle plus thirty ($.30) cents for each power opening or receptacle.

(3) For service entrance over four hundred (400) amperes through eight hundred amperes, a permit fee of forty ($40.00) dollars plus twenty ($.20) cents for each burning opening, toggle switch, or receptacle plus thirty ($.30) cents for each power opening or receptacle.

(4) For service entrance exceeding eight hundred (800) amperes, a permit fee of fifty ($50.00) dollars plus one (1) percent of the total contract price.

(b) For additions, alterations, repairs, and service changeovers less than ($1000) dollars total labor and materials and service changeovers less than (800) eight hundred amperes:

One permit fee of ($25.00) dollars plus one (1) percent of the cost of the total contract price.

(c) For additions, alterations, repairs, and service changeovers more than ($1000) dollars total labor and materials and service changeovers more than (800) eight hundred amperes:

One permit fee of forty ($40) dollars plus one (1) percent of the cost of the total contract price.

(d) For a temporary pole permit a fee of $25.00.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(B) For commercial buildings or commercial structures with electrical work governed by this code, shall be the greater of $50.00 or the amount assessed in the following manner:

(a) For new construction of, alterations to, repairs to, and/or additions to, buildings or to other structures multiply total cost of the contract value by .01 (1%).

(b) For low voltage wiring for new construction, renovations, alternations and or repairs of commercial projects total cost of the contract value multiplied by .01 (1%).

(c) For a temporary electrical pole permit for commercial construction the fee shall be $50.00.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(2) Add new subsection 230.85 ‘Emergency Disconnects” to read:

For one- and two-family dwelling units, all service conductors shall terminate in disconnecting means having a short-circuit current rating equal to or greater than the available fault current, installed in a readily accessible outdoor location. If more than one disconnect is provided, they shall be grouped. Each disconnect shall be one of the following:

(1) Service disconnect marked as follows:

EMERGENCY DISCONNECT,

SERVICE DISCONNECT

(2) Meter disconnects per 230.82(3) and marked as follows:

EMERGENCY DISCONNECT,

METER DISCONNECT,

NOT SERVICE EQUIPMENT

(3) Other listed disconnect switches or circuit breakers on the supply side of each service disconnect that are suitable for use as service equipment and marked as follows:

EMERGENCY DISCONNECT,

NOT A SERVICE EQUIPMENT

Markings shall comply with 110.21(B)

(3) Amend subsection 440.14 "Location" to read:

"Disconnecting means shall be within 6 feet and readily accessible from the HVAC or refrigerating equipment. The disconnecting means may be installed on or within the HVAC or refrigerating equipment. (See 210.63) The disconnecting means shall not be located on panels that are designed to allow access to the HVAC or refrigeration equipment and shall not cover manufacturers labeling."

DIVISION 10 – INTERNATIONAL SWIMMING POOL AND SPA CODE

Sec. 7- 205. - Adoption; edition; copies.

(a) Subject to subsection (b), there is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of establishing rules and regulations within the city for the construction, alteration, equipment, use and occupancy, location, removal and demolition of buildings or structures, including permits and penalties, a certain code known as the International Swimming Pool and Spa Code, 2018 edition, published by the International Code Council, Inc., save and except such portions as are deleted, modified or amended in this division; and the provisions of such code shall be controlling as provided in this section.

(b) Any energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in structures shall meet the Alabama Energy Codes, as deleted, modified or amended in division 11.

Sec. 7-206. - Deletions, modifications and amendments

The International Swimming pool and Spa code, 2018 edition, Chapters 1—11 as adopted in this division, are deleted, modified and amended as follows:

(1) Amend subsection 105.6.2 "Fee Schedule", to read:

Swimming pool permit valuation shall include total value of the work for which a permit is being issued, such as electrical, gas, mechanical, plumbing equipment and other permanent systems, including materials and labor.

The fees for all swimming pool and spa work shall be as indicated in the following schedule:

(A) Building permits for the construction of, alterations to, repairs to, and/or additions to, buildings or other residential structures governed by this code shall be assessed in the following manner:

(a) For new, alterations to, repairs to, and/or additions to, swimming pools and spas for residential structures governed by this code, the permit fee shall be the greater of $25.00 or the amount of the total contract price multiplied by .0055 of the full estimated cost of work for each building or structure; however, this section shall not apply to the repair of any building whenever the reasonable cost of the material and labor for such repair is not in excess of $250.00 and no structural work is involved.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections.

(B) For commercial swimming pool and spa work governed by this code, shall be the greater of $50.00 or the amount assessed in the following manner:

(a) For new, alterations to, repairs to, and/or additions to, swimming pools and spas for commercial structures governed by this code, the permit fee shall be the greater of $50.00 or the amount of the total contract price multiplied by .0055 of the full estimated cost of work for each building or structure; however, this section shall not apply to the repair of any building whenever the reasonable cost of the material and labor for such repair is not in excess of $250.00 and no structural work is involved.

If for any reason an installation does not pass inspection, an additional inspection shall be made after the installation has been changed so as to conform to the requirements set forth in the article. A re-inspection fee may be charged at the rate as follows: 1st re-inspection $25.00, 2nd re-inspection $50.00, 3rd re-inspection $75.00, 4 or more re-inspections $100.00.

(2) Section [A] "Means of Appeals" shall be deleted in its entirety.

DIVISION 11 – ALABAMA ENERGY CODES

Sec. 7-207. - Adoption; edition; copies.

There is hereby adopted, and incorporated herein by reference as if set out at length in this section, for the purpose of regulating the energy-efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems in residential and commercial structures, the International Energy Conservation Code, 2015 Edition, published by the International Code Council, Inc., and the ANSI/ASHRAE/IES Standard 90.1 – 2013, as such code or standard is or may be amended at any time and from time to time by the rules promulgated by the Alabama Energy

and Residential Codes Board, including, but not necessarily limited to, Ala. Admin. Code §§305-2-4-.08 and 305-2-4-.10, which such amendments of said board are incorporated herein by reference as if set out at length in this section (which said code and standard as amended by said board are referred to in this article as the "Alabama Energy Codes"); save and except such portions of such Alabama Energy Codes as are deleted, modified or amended in this division; and the provisions of such codes shall be controlling as provided in this section.

Sec. 7-208. - Deletions, modifications and amendments.

The Alabama Energy Codes, as adopted in this division, are deleted, modified and amended as follows:

(1) Compliance with the Alabama Energy Codes must be verified by a State of Alabama Licensed Third-Party Energy Consultant or by a State of Alabama Registered Design Professional.

(2) Alabama Energy Codes compliance steps throughout the construction process.

A. Step One: Prior to beginning construction and/or at plan review submission for all project other than residential one- and two- family dwellings, the building permit applicant/designer is required to submit a simple document confirming that the proposed project design is in compliant with the Alabama Energy Codes.

B. Step Two: Submit a simple document from your chosen energy verifier to confirm that compliance is achieved in concealed spaces prior to requesting a framing inspection and applying drywall. (Inspection requests for a framing inspection will not be accepted without this documentation.)

C. Step Three: Before the certificate of occupancy can be issued, a final energy certificate confirming the project is in full compliance with the Alabama Energy Codes must be submitted from energy verifier.

Secs. 7-209—7-310. – Reserved.

Section 2. The severability provisions of section 1-8 of the Code of Ordinances of the City of Huntsville, Alabama are specifically included herein by reference as if fully set forth.

Section 3. This Ordinance shall become effective on January 1, 2022.

ADOPTED this the 18th day of November, 2021.

/s/ John Meredith
President of the City Council of the City of Huntsville, Alabama

APPROVED this the 18th day of November, 2021.

/s/ Tommy Battle
Mayor of the City of Huntsville, Alabama