

# Building Criteria Manual

## PREFACE

The items contained in this Building Criteria Manual are presented to help the reader become more familiar with various processes related to building construction in the City of Austin and its territorial surroundings.

The rules, administrative procedures and ordinances contained in the Building Criteria Manual have been promulgated to administer and implement the regulations concerning building, food establishments and swimming pools. These shall be maintained in accordance with the Rules Ordinance.

Adopted Local Amendments to the Building Code, Electrical Code, Mechanical Code, Plumbing Code, Energy Code, ~~or Solar Energy Code, Housing Fire Code, and Dangerous Buildings~~ Property Maintenance Code, and Residential Code may only be changed by ordinance. Please refer to the Appendix of this manual for a description of the local amendments to the above Codes.

## Building Criteria Manual

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# SECTION 7 – GREEN BUILDING PROGRAM

## 7.1.0 GENERAL PROVISIONS

Section seven describes the processes, requirements, and procedures necessary to obtain a site plan permit, building permit, and Certificate of Occupancy for the construction of a building requiring a Green Building Program Rating. Included are requirements for Commercial, Multi-Family, and Single Family developments. ~~The requirements of this section are voluntary unless required by city code or ordinance.~~

### 7.1.1 ~~Purpose~~ PURPOSE

A.—~~The purpose of the Green Building Program is to encourage best practices~~ lead the transformation of design and construction in order to develop a durable, aesthetically pleasing, well-built, energy efficient, healthy city that promotes environmental stewardship and the well-being of its citizens.

B.—~~A development or the building project that receives a~~ industry to a sustainable future. Green Building Program Rating is the art and science of designing and constructing buildings to reduce their effect on human health and the natural environment.

A project that earns an AEGB rating embodies good practice in regard to community, health, and the management of energy, water, and material resources. It also ~~promotes~~ bolsters the local economy ~~and is socially acceptable by promoting the use of locally-sourced construction materials.~~

C.—~~The Green Building Program~~ AEGB offers three distinct programs (Single-Family, Multi-Family and Commercial) based on building type/use. Each program utilizes a different tool to rate buildings ~~and developments.~~

—1.—~~Commercial Program: Applicable~~ each tool has been optimized for all projects for Commercial Uses a particular building type. AEGB representatives can provide guidance as defined by Chapter 25-2 of the Land Development Code to which tool is appropriate.

—2.—~~Multi-Family Program: Applicable for all projects for Residential Uses as defined by Chapter 25-2 of the Land Development Code~~ intended for more than two (2) family units.

—3.—~~Single-Family Program: Applicable for all projects for Residential Uses as defined by Chapter 25-2 of the Land Development Code~~ intended for one (1) or two (2) family units.

~~D.—Mixed use projects shall participate in the Program(s) (Commercial, Multi-Family, or Single-Family) based on the Use Classification of the project, as defined by Chapter 25-2 of the Land Development Code. This may require participation in more than one Program.~~

## 7.1.2 ~~Definitions~~ DEFINITIONS

For the purpose of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**COMMERCIAL** ~~—Those~~ PROGRAM - The Commercial Rating is applicable to projects which do not qualify for Commercial Uses as defined by Chapter 25-2 of the Land Development Code ~~Multi-Family or Single Family ratings.~~

**CONDITIONAL APPROVAL** – Approval by GBP Staff, based on contents of construction documentation and necessary supporting evidence, prior to building plan review. For projects in which GBP Star Rating is required, Conditional Approval is a required submittal as part of the Building Permit Application. **CONDITIONAL APPROVAL** under this section shall not be deemed or construed to constitute approval of any building or other permit required pursuant to other applicable provisions of this manual and any other ordinances of the city.

**DENIED** – The requirements for conditional approval or final approval have not been met and the development shall not receive a Green Building Program Star Rating.

**GREEN BUILDING ~~PROGRAM~~ (GBP- (AEGB) RATING TOOL** – The applicable tool utilized by the Green Building Program to determine the correct Star Rating for a project or development.

**GREEN BUILDING ~~PROGRAM~~ REPRESENTATIVE (GBP(AEGB) Rep)** – The Green Building Program staff person who is the main point of contact for use by a **Participant**.

**GREEN BUILDING ~~PROGRAM~~ (GBP(AEGB) STAR RATING** – Completion of all requirements of ~~the GBP(AEGB) Rating Tool~~ to achieve a GBP(AEGB) Star Rating, AND the payment of any applicable fees as specified in Section 7.3.1 of this manual, AND receipt of documentation from ~~the GBP(AEGB)~~ that will include the Project Name, Parties involved, and ~~the GBP(AEGB) Star Rating~~ achieved.

**INCOMPLETE** – Approval has been temporarily denied due to missing or incomplete information.

~~**MULTI-FAMILY**—Those projects for Residential Uses as defined by Chapter 25-2 of the Land Development Code intended for more than two (2) family units.~~

**MULTI-FAMILY PROGRAM** - The Multifamily Rating is applicable for multifamily and mixed-use developments six stories or less in height above grade. Multifamily and mixed-use developments taller than six stories must use the Commercial Rating. Townhouses (that meet the

definition of in the IRC) must use the Single-Family Home Rating. If there are multiple buildings in a development, each building must individually meet AEGB requirements and credits.

**PARTICIPANT** – The responsible party who represents the owner of a project or development that is involved in any part of the process to achieve a GBPAEGB Star Rating.

~~**PARTICIPATION REQUEST**—The formal application form required by the Commercial Program and the Multi-family Program that initiates the process toward a voluntary GBP Star Rating. Submission of a Participation Request is required to meet the minimum requirements of this document. A Participation Request is located in Section 7.4.0 of this manual or by contacting a GBP Representative.~~

**SCHEMATIC DESIGN PHASE** – The design phase during which time building orientation, occupied spaces, space functions, and some material choices are made. Schematic Design Phase occurs prior to the development of Construction Documents including specifications.

~~**SINGLE-FAMILY**—These~~**PROGRAM** - The Single Family Rating is applicable to detached one and two family dwellings and multiple single family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures.

## **7.1.3 PROCESS**

The different AEGB programs (single-family, multifamily and commercial) have similar – yet distinct – procedures under which a rating is earned. The differences in these processes reflect the differences in building types and the differences in professional need that each program covers.

Beginning October 2010 all AEGB projects will be rated using a web-based online system developed to facilitate the management of said projects. This online platform allows the rating process to be tailored to the requirements of each of the three programs. The process flow for Residential Uses as each program is unique to that program.

Certain City of Austin ordinances and programs (for example, the S.M.A.R.T. Housing Program) mandate that a particular AEGB star rating be achieved. In addition, an AEGB rating can be required of projects located in defined by Chapter 25-2 of the areas of the city. Since every project will have its own, unique set of characteristics, each project is responsible for determining what requirements it must meet.

To begin the ratings process, participants will need to register and set up a participant profile within the online system:

[https://www.greenbuildingsystem.austinenergy.com/User/Project\\_Request\\_Review.aspx](https://www.greenbuildingsystem.austinenergy.com/User/Project_Request_Review.aspx)

### **7.1.3.1 - Single Family Program**

Single-family program participants are required to attend an orientation session prior to submitting their first project. The orientation covers the rating process and provides detailed information on the rating, especially the basic requirements needed for a single-family, one-star rating.

### **7.1.3.2 - Commercial and Multi-Family Programs**

#### **1. Getting Started: Log on to the AEGB Rating System at:**

<https://www.greenbuildingsystem.austinenergy.com>

- a) *Create a User Profile for your Company:* If you are not already registered, we need to know more about the services that you provide and contact information about the project professionals. You can update this information as needed, and we encourage you to do so regularly. (Should you elect to be part of our professional directory, this is the information that will be used.)
- b) *Start a New Project:* The information that you provide about your project will enable us to verify that your project is eligible for a rating within our program, and assign the appropriate Rating and AEGB staff to the project.
- c) *Accept the Terms and Conditions:* Once AEGB has accepted the project and assigned AEGB representatives to your project, we will send you an e-mail requesting you log-on to the system and accept the *Terms and Conditions* for participation.

\* - Now that you have accepted the *Terms and Conditions*, you will find new tabs are available on the web page.

- d) *“Worksheet” Tab:* This is where you will find all of the specific information about the requirements for achieving and documenting points in the Rating.
- e) *“Team” Tab:* Invite the other professionals working on the project to participate in the online AEGB Rating System. Click on “Add Team Member”. In the “Select Organization” field begin typing the name of the Organization you wish to add. The Organization you are adding may already have a profile- it is important to select their name from the drop down menu, if it is available. Failure to do so will result in multiple profiles for an Organization and confusion. If the Team member you wish to add does not have a User Profile, add them and include an e-mail address so that we can contact them. Team members you may want to include are: the project owner, architect, interior designer, commissioning agent, engineers (mechanical, electrical, structural, and civil), landscape architect, and the general contractor.
- f) *“Documents” Tab:* Here you will find important documents such as the *Terms and Conditions* and the *Letter of Intent (LOI)*. It is also a great place to upload your SMART Housing Certificate, if you have one. As you achieve milestones, additional documents will become available to you.

An Important Note about the Letter of Intent: When zoning or other City of Austin criteria requires an AEGB Rating, please download, execute and upload the signed AEGB Letter of Intent. This will enable AEGB staff to sign and return the LOI. You will need to present the completed LOI to Land Use Review in order to receive a Site Development Code intended for one (1) or two (2) family units Permit.

### **7.1.3 Process**

**2. The Planning Phase:** The planning phase is the time for planning, meeting, establishing goals, and developing plans and designs.

- a) Meeting: AEGB Staff would like to meet with the entire design team as early in the process below must be followed to the fullest extent as possible in order to meet the intent. This will provide an opportunity to walk through the online AEGB Rating System, introduce features of this section and the the Rating program you might not be familiar with and provide an opportunity to answer any questions you may have. Meeting early in the process is a great way to set the tone for a successful project.
- b) Fees: AEGB cannot approve planning phase documents until receipt of Registration Fee.
- c) Regular Updates to the online AEGB Rating System: The system should be updated at the following project milestones: Schematic Design, 50% and 100% Design Development, 50% Construction Documents, the Building Permit Set, and Pre-Construction. Take note that the Online Rating System details when specific information should be uploaded.
- d) Approval: AEGB will “Approve” requirements herein and points in the planning phase, indicating that the contract documents reflect that the team is on track to achieve the point. This approval does not guarantee award of any requirement or point, but enables project teams to assess likelihood of credit achievement and requires follow-through to ensure the design is executed in the construction phase according to the design specifications.

~~A.— Commercial or Multi-family Residential project Participant shall begin this process by submitting a “Participation Request” to GBP Representative. The Participation Request must be completed to the fullest extent possible. It shall be submitted before the schematic design phase of the project. A Participation Request is located in Section 7.4.0 of this manual or may be obtained by contacting a GBP Representative.~~

~~B.— For all developments that are required to achieve a minimum GBP Star Rating, Participant must:~~

~~— 1.— Submit a completed and signed (by, at a minimum, GBP Representative and Participant) “GBP Letter of Intent” with the Administrative Site Plan application.~~

~~— 2.— Submit a completed and signed “GBP Conditional Approval” as a part of the Building Permit application. In order to achieve a GBP Conditional Approval, the necessary construction documents, including plans, specifications, mechanical plans, Manual J (applicable for Multi-Family Rating and Single-Family Rating), and the GBP Rating Tool completed through 100%~~

completion of the Construction Documentation Phase, shall be submitted to the project's GBP Representative. The GBP Rep will reply to Participant within five (5) business days with a written GBP Conditional Approval, Denied, or Incomplete.

C.— Conditional Approval under this section shall not be deemed or construed to constitute approval of any building or other permit required pursuant to other applicable provisions of this manual and any other ordinances of the city.

D.— If GBP Conditional Approval is Denied or determined to be Incomplete, Participant shall resubmit required documentation to demonstrate that all Required Measures will be met.

E.— During the Construction Phase, Participant shall retain documentation to use as evidence for fulfilling each Required Measure. The Participant shall schedule a "Walk through" with GBP Staff to be completed soon after the mechanical system has been installed. For residential projects, the walk through shall take place prior to when insulation is installed.

F.— For developments that are required to achieve a minimum GBP Star Rating, Participant must submit a "GBP Final Approval" as part of the Certificate of Occupancy Application. If GBP Final Approval is Denied, a written explanation of the reasons will be returned to the Participant within ten (10) business days of submission of a GBP Final Approval Request and the necessary support documentation.

G.— Final Approval under this section shall not be deemed or construed to constitute approval of any building or other permit required pursuant to other applicable provisions of this manual and any other ordinances of the city.

H.— If GBP Final Approval is Denied, Participant shall resubmit required documentation to demonstrate that all Required Measures will be met.

I.— All consulting, document review, and certification services provided by the Green Building Program for projects within the Austin Energy service area shall be at no charge. For developments outside the Austin Energy Service Area, see Section 7.3.1 of this manual for applicable fees.

J.— A Participant who desires to achieve a higher GBP Star Rating shall follow the voluntary measures outlined in the applicable Program.

*An Important note about Conditional Approval: Upon satisfactory review of these documents AEGB will issue Conditional Approval. This document will appear within the "Documents" tab. When zoning or other City of Austin criteria require an AEGB Rating, the AEGB Conditional Approval letter must be attached to the front of the Building Permit set at the time of intake with the Planning and Development Review Department (PDRD).*

**3. The Construction Phase:** This is the time for action by following through with the well laid plans and updating AEGB on a monthly basis with your progress towards your goals.

- a) Regular Updates to the AEGB Rating System: During Construction, provide monthly updates of the “Worksheet” tab including: building materials information, construction waste management calculations, and submittals.
- b) Fees: Payment of the Services Fee is due before AEGB can perform site visits.
- c) Site Visits: Please coordinate access to the building site with your AEGB project representatives, as necessary.
- d) Approval: AEGB will “Approve” requirements and points in the Construction phase, indicating the requirement or point has been awarded.

An Important note about Final Approval: Upon satisfactory review, AEGB will issue a Final Approval. This document will appear in the “Documents” Tab after the Rating Requirements for the project have been met. When zoning or other City of Austin criteria require an AEGB Rating, this Final Approval may be necessary to acquire a Certificate of Occupancy.

**4. The Close-Out Phase:** This phase will give you an opportunity to reflect on the project’s accomplishments and celebrate the team’s successes.

Professional Directory: Ensure that the Company profile is correct, and indicate whether or not you want to be added to the AEGB Professional Directory.

Publish Case Studies: Work with AEGB to publish a case study on the AEGB website celebrating the project’s accomplishments.

## 7.2.0 RATING SYSTEMS

### 7.2.1—\_\_\_ Commercial Rating

~~A.—Required Measures.~~ The completion of all of the required measures in this subsection shall qualify as meeting the requirements of a ~~GBP One Star Rating of the Commercial Program.~~

~~— 1.— Building systems commissioning.~~ Verify and ensure that all fundamental building elements and systems are designed, installed and calibrated - Please refer to operate according to the design intent and the owner’s operational needs, and includes the following:the AEGB Commercial Guidebook

~~— a.— Develop design intent and basis of design documentation~~

~~— b.— Develop and utilize a commissioning plan~~

~~— c.— Include commissioning~~

<https://my.austinenergy.com/wps/wcm/connect/3241bd0043363fddb3e4f3ac1623868e/aegbCommercialGuidebook.pdf.pdf?MOD=AJPERES>

for detailed information on the requirements in the construction documents

- ~~— d. — Verify installation, functional performance, training and documentation~~
- ~~— e. — Complete a commissioning report~~
- ~~— 2. — Storm water run-off and water quality Control. Meet current city drainage and water quality standards applicable in of the watershed where the project is located~~
- ~~— 3. — Urban heat island reduction. Use ENERGY STAR compliant, high-reflectance roofing (according to the EPA Energy Star Roof Criteria), for a minimum of 75% of the roof surface.~~
- ~~— 4. — Energy reduction. Reduce building design energy use compared to the current City of Austin Energy Code by 15%.~~
- ~~— 5. — Building water use reduction. Reduce planned indoor water consumption below the current City of Austin Plumbing Code in aggregate by a minimum of 15%.~~
- ~~— 6. — Low emitting paint for indoor environmental quality. All paint used in the interior of the building must meet or exceed the VOC (volatile organic compounds) limit of Green Seal Environmental Standard GS-11.~~
- ~~— 7. — Storage and collection of recyclables. Provide an easily accessible area that serves the entire facility and is dedicated to the separation, collection, and storage of materials for recycling including, at a minimum, the top two identified recyclable waste stream items. Building loading dock or pick-up location must be sized appropriately to handle the recycling material volumes generated by the building occupants.~~
- ~~— 8. — Construction waste management plan. Recycle or salvage at least 50% (by weight) of construction, demolition, and land clearing waste.~~

*B. Voluntary Measures For HIGHER GBP STAR RATINGS.*

- ~~1. — A Participant who voluntarily desires to achieve a GBP Star Commercial Rating higher than the minimum requirements of this document shall follow the process in this section to — the fullest extent possible System.~~
- ~~— 2. — Participant must comply with all applicable requirements outlined in Section 7.1.3 of this manual.~~
- ~~— 3. — Participant must attend a meeting between GBP Staff and as many members of the project team as possible, at a minimum to include a financial decision-maker for the project and the project’s design professional and mechanical engineer, to discuss the project including location, type of development, and current design phase, as well as the basic requirements in order for a project to achieve a GBP Star Rating.~~
- ~~— 4. — Participant may complete a variety of the voluntary measures in order to achieve a higher GBP Star Rating.~~

## 7.2.2 Multi-Family Rating

**7.2.2** ~~A. *Required Measures.* The completion of all of the measures in this subsection shall qualify as meeting the requirements of a GBP One Star Rating of the - Please refer to the AEGB Multi-Family Program. The requirements herein may also be known as Green Building Level 1 Standards. Guidebook~~

~~1. Code compliance.~~

~~a. International Residential Code (IRC) in effect in the City of Austin is met, regardless of project location.~~

~~b. International Energy Conservation Code (IECC) and City of Austin Energy Code in effect in the City of Austin are met, regardless of project location.~~

~~(1) Accurate Manual J (or equivalent residential HVAC sizing calculation) submitted to, reviewed and approved by GBP Staff prior to installation.~~

~~2. Energy.~~

~~a. Installed cooling equipment tonnage determined by GBP approved Manual J calculation.~~

~~b. 12.0 SEER minimum cooling equipment efficiency (matched per ARI); OR federal minimum standard, whichever is higher.~~

~~c. All ductwork installed in conditioned space (e.g. no ductwork in attic, including top floor).~~

~~d. Low-E glazed windows with a Solar Heat Gain Coefficient (SHGC) of  $\leq 0.4$ ; OR Energy Code maximum allowed SHGC, whichever is less.~~

~~e. Continuous soffit and ridge (or adequate gravity) vents or attic space is within the thermal envelope and not vented.~~

~~f. Roof radiant barrier, metal roof or alternate GBP reviewed and pre-approved roofing system.~~

~~g. At least one (1) interior ceiling fan installed per number of bedrooms in each unit.~~

~~h. Fluorescent lamps (compact or tube) installed in a minimum of two (2) light fixtures in each living unit.~~

~~i. All exterior lighting has fluorescent lamps, or motion detectors and photocell controllers, or is solar powered.~~

~~j. All installed appliances are Energy Star labeled (<https://my.austinenergy.com/wps/wcm/connect/dbb29e0043364031b3f1f3ac1623868e/aegbMultifamilyGuidebook.pdf?MOD=AJPERES>~~

~~for all appliances for which Energy Star labels are available).~~

~~3. Materials:~~

~~a. No solid lumber 2x10s or larger used in floor or roof framing system.~~

~~b. Poreh/Deck/Patio made of concrete, masonry, or reused, reclaimed, or recycled composite.~~

~~4. Water:~~

~~a. Any turf grass/lawn in full sun is GBP approved low water variety (e.g. common bermuda, zoysia japonica, buffalo).~~

~~b. At least 90% of plants are from City of Austin *WaterWise* or *Grow Green* Plant List.~~

~~c. Plant based mulch covers all planting beds to a minimum two (2) inch depth.~~

~~d. Open end of splash blocks (if used) inclined and directed away from foundation.~~

~~5. Health and safety:~~

~~a. Interior wall and ceiling paint VOC levels (volatile organic compounds) do not exceed 100 grams per liter (g/l) for water based paints and 380 g/l for solvent based paints.~~

~~b. Exhaust fans installed and vented to exterior for cook top/stove and any room with a tub or shower.~~

~~c. No vapor barrier (including vinyl wallpaper) installed detailed information on inside of perimeter walls.~~

~~d. No unvented gas logs, fireplaces, or heaters installed.~~

~~e. Any exterior wood to concrete connections are separated by metal or plastic fasteners/dividers.~~

~~f. One inch minimum pleated media filter installed in all HVAC returns prior to final GBP inspection.~~

~~6. Community:~~

~~a. Exterior light fixtures are designed to prevent up lighting and light pollution.~~

~~— b. — On-site recycling is made possible and convenient for tenants of projects with fifty (50) or more units.~~

~~B. — Performance Based Rating Tool and HIGHER GBP STAR RATINGS.~~

~~— 1. — Participant who wishes to achieve a GBP Star Rating higher than the minimum the requirements listed above shall work with a GBP representative, using the current of the Multi-Family Rating System.~~

~~— 2. — In special cases, as determined by the GBP Program Manager, the current Multi-Family Rating tool at the time of initial contact with GBP Representative may be utilized to evaluate a performance-based GBP Rating in lieu of meeting 7.2.2A Required Measures. The performance-based GBP Rating is a detailed tool that may be obtained by contacting a GBP Representative.~~

~~— 3. — Participant utilizing the performance-based GBP Rating Tool shall follow the process required in Section 7.1.3 of this manual.~~

~~7.2.3 — **7.2.3 Single-Family Rating** - Please refer to the AEGB Single Family Guidebook~~

~~A. — *Required Measures.* The completion of all of the measures in this subsection shall qualify as meeting~~

~~<https://my.austinenergy.com/wps/wcm/connect/b9a73300433640a6b40ef7ac1623868e/aegbSingleFamilyHomeRatingGuide.pdf?MOD=AJPERES>~~

~~for detailed information on the requirements of a GBP One Star Rating of the Single Family Program. The requirements herein may also be known as Green Building Level I Standards.~~

~~— 1. — Code compliance.~~

~~— a. — International Residential Code (IRC) in effect in the City of Austin is met, regardless of project location.~~

~~— b. — International Energy Conservation Code (IECC) and City of Austin Energy Code in effect in the City of Austin are met, regardless of project location.~~

~~— (1) — Manual J calculation to determine correct sizing of mechanical equipment, based on actual design, specifications and orientation of the project, to be submitted to the GBP.~~

~~— 2. — Energy.~~

~~— a. — 13.0 SEER (as per ARI) minimum cooling equipment efficiency; or federal minimum standard, whichever is higher~~

~~— b. — Installed cooling equipment tonnage determined by Manual J calculation~~

~~— c. — Direct duct pressure test performed by GBP approved professional; results show  $\leq$  10% air leakage (submit AE GBP test form obtainable from a GBP Representative; or all duct work and indoor heating and cooling equipment are located within the thermal envelope)~~

~~— d. — Low E glazed windows with a Solar Heat Gain Coefficient (SHGC) of  $\leq$  0.40; or Energy Code maximum allowed SHGC, whichever is less~~

~~— e. — Roof radiant barrier; or metal roofing or other GBP approved roofing; or all duct work and indoor heating and cooling equipment are located within the thermal envelope~~

~~— f. — Ceiling fans in all main rooms and bedrooms, except kitchen and dining areas~~

~~— g. — Fluorescent lamps (compact or tube) installed in a minimum of three (3) light fixtures~~

~~— h. — All exterior lighting has fluorescent lamps, or motion detectors and photocell controllers, or is solar powered~~

~~— i. — All appliances installed are Energy Star labeled (for all appliances for which Energy Star labels are available)~~

~~— 3. — Materials:~~

~~— a. — No solid lumber 2x10's or larger used in floor or roof framing system.~~

~~— b. — Durable materials — at least one of the following:~~

~~— (1) — Porch/Deck/Patio made of concrete or masonry, or decking is recycled composite material, or reused, or reclaimed; or~~

~~— (2) — Flooring is durable material for a minimum of 50% of all floor area (e.g. concrete, stone, wood, ceramic tile), or~~

~~— (3) — Tile or metal roofing installed.~~

~~— 4. — Water:~~

~~— a. — Any turf grass/lawn in full sun is GBP approved low water variety (e.g. common bermuda, zoysia japonica, buffalo):~~

~~— b. — At least 90% of new plants are from City of Austin *WaterWise* or *Grow Green* Plant List (4 plants minimum):~~

~~— c. — Plant based mulch covers all planting beds to a 2 inch minimum depth.~~

~~— 5. — Safety and health.~~

~~— a. — Exhaust fans installed and vented to exterior for cook top/stove and any room with a tub or shower.~~

~~— b. — Any exterior wood to concrete connections (such as at posts, deck supports, or stair stringers) are separated by metal or plastic fasteners/dividers.~~

~~— c. — No vapor barrier (including vinyl wallpaper) installed on inside of perimeter walls~~

~~— d. — No unvented gas logs, fireplaces, or heaters installed.~~

~~— e. — Interior wall and ceiling paint VOC (volatile organic compounds) levels do not exceed 150 grams per liter (g/l) for water based paints and 380 g/l for solvent based paints.~~

~~— f. — Pleated media filter installed in heating and cooling system (electronic filter also acceptable). Note: mechanical system must be designed for filter used.~~

~~— 6. — Community:~~

~~— a. — Home has a covered porch with one side facing the street, a 6 ft. minimum depth, and a 60 sq. ft. minimum area; or home is built to zero lot line.~~

~~— b. — Homeowner Information materials (available from GBP) supplied to homeowner.~~

~~B. — *Performance Based Rating Tool and HIGHER GBP STAR RATINGS.*~~

~~— 1. — Participant who wishes to achieve a GBP Star Rating higher than the minimum requirements listed above shall work with a GBP representative, using the current Single Family Rating.~~

~~— 2. — In special cases, as determined by the GBP Program Manager, the current Single Family Rating tool at the time of initial contact with a GBP Representative may be utilized to evaluate a performance-based GBP Rating in lieu of meeting the measures outlined in Section 7.2.3(A) of this manual. The performance-based GBP Rating is a detailed tool that may be obtained by contacting a GBP Representative.~~

~~— 3. — Participant utilizing the performance-based GBP Rating Tool shall follow the process required of in Section 7.1.3 of this manual Rating System.~~

## **7.3.0 MISCELLANEOUS**

### **7.3.1 — Fees**

A.—All consulting, document review, registration fee and certificationan AEGB services provided by fee is assessed per project based on the Green Building Programdevelopment type and size of the built structures.

Development Type	Size	Registration	Services	Total
Single Family	Any	\$50 per home certified	N/A	\$50
Multifamily/Commercial	< 50,000 ft <sup>2</sup>	\$250 per building	\$1,000 per building	\$1,250
Multifamily/Commercial	50,000 – 250,000 ft <sup>2</sup>	\$250 per building	\$3,500 per building	\$3,750
Multifamily/Commercial	> 250,000 ft <sup>2</sup>	\$250 per building	\$7,000 per building	\$7,250

**Invoicing**

*Registration fee*

Once your project application has been accepted, the primary contact will receive an electronic invoice via email from AE Accounts Receivable for projects within the registration fee. The primary contact is the person or team that initiated the project in the AEGB online rating system. Your AEGB representative cannot approve your planning phase documents until the fee has been paid.

*AEGB Services Fee*

When AEGB has received and approved all design documents and your project has advanced to the construction phase, the primary contact will receive an electronic invoice via email for the AEGB Services Fee. Your AEGB representative cannot perform site visits until the fee has been paid.

**Payment Reminders**

The primary contact will receive a payment reminder via email every 20 days until your fees have been paid.

**How to Pay**

Fees can be paid by check only, made out to AE Cash Receipts, with the invoice number printed on the check. Mail the check to the address designated in the invoice.

**Waivers**

By City code, only S.M.A.R.T. housing and other City of Austin Energy service area shall be at no charge. supported affordable housing developments are eligible to receive fee waivers. AEGB staff reviews eligibility before the registration fee is invoiced.

**B.—**For projects outside the Austin Energy service area, consult the Austin Energy Green Building Program for a current fee schedule.

### **7.3.2—\_\_\_Failure to Comply**

A site plan may not be approved unless the development complies with this section.

### **7.4.0 ~~PARICIPATION REQUEST FORM~~**

(See Figure 7-1 in Appendix I of this Manual)

**Disclaimer:**

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## ~~APPENDIX A: BUILDING CODE~~

### ~~ORDINANCE 880128-N~~

#### ~~BUILDING CODE~~

~~AN ORDINANCE AMENDING CHAPTER 13-5 OF THE AUSTIN CITY CODE OF 1981; REPEALING THE UNIFORM BUILDING CODE, 1982 EDITION, LOCAL AMENDMENTS TO THE 1982 BUILDING CODE; ADOPTING BY REFERENCE THE UNIFORM BUILDING CODE, 1985 EDITION, WITH APPENDIX, PUBLISHED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS, SAVE AND EXCEPT SPECIFIC SECTIONS DELETED BY THIS ORDINANCE; ADOPTING CERTAIN LOCAL AMENDMENTS TO THE 1985 UNIFORM BUILDING CODE; DIRECTING THE CITY CLERK TO PUBLISH THE LOCAL AMENDMENTS TO THE 1985 UNIFORM BUILDING CODE IN A SEPARATE COMPILATION TO BE KNOWN AS "LOCAL AMENDMENTS TO THE UNIFORM BUILDING CODE, 1985 EDITION"; WAIVING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.~~

~~PART 1. Chapter 13-5 of the Austin City Code of 1981 is amended by repealing the Uniform Building Code, 1982 Edition with Appendix, published by the International Conference of Building Officials, adopted by reference in Section 13-5-1. All local amendments to the Uniform Building Code, 1982 Edition are also repealed by this ordinance.~~

~~PART 2. Chapter 13-5 of the Austin City Code of 1981 is further amended to adopt and incorporate by reference as Section 13-5-1 the publications known as the Uniform Building Code, 1985 Edition, with Appendix published by the International Conference of Building Officials, a copy of which is attached and incorporated into this ordinance by reference as Exhibit "A" (the "1985 Uniform Building Code"), save and except the following numbered sections and appendices which are hereby deleted from the 1985 Uniform Building code:~~

<del>Section 104(C)</del>	<del>Section 3801(d)</del>
<del>Section 204</del>	<del>Appendix Chapter 1</del>
<del>Section 304(b,c)</del>	<del>Appendix Sec. 1202</del>
<del>Section 307(c)</del>	<del>Appendix Chapter 23</del>
<del>Table 3A</del>	<del>Appendix Chapter 35</del>
<del>Section 3203(f)(5)</del>	<del>Appendix Chapter 5301(b)</del>
<del>Section 3203(f)(6)</del>	<del>Appendix Chapter 70</del>

~~PART 3. Chapter 13-5 is further amended to add the following sections as local amendments to the 1985 Uniform Building Code, as follows:~~

~~Section 104(c)  
Existing Installations~~

~~—Buildings in existence at the time of the, adoption of this code may have their existing use or occupancy continued if such use or occupancy was legal at the time of the adoption of this code, and provided that such continued use is not dangerous to life.~~

~~—Any change in the use or occupancy of any existing building or structure shall comply with the provisions of Sections 307 and 502 of this code.~~

~~—Portable classroom buildings may be moved into or within the City limits or within public school districts without conformance to Appendix Chapter 53 of this code. For the purpose of site plan review, these portable classroom buildings shall be considered as temporary structures rather than as moved buildings.~~

#### Section 204 Board of Appeals

~~—(a) Appointments. To hear and decide appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretations of this code, there is hereby created a Building Code and Fire Code Board of Appeals consisting of seven members who are qualified by experience and training to pass upon matters pertaining to building construction and fire prevention, and who are not employees of the City of Austin; at least two board members shall have experience in fire prevention inspection and fire suppression activity.~~

~~—(1) One Board member of record shall have a minimum combination of five years fire service experience and training, and will have held a State of Texas Fire Fighter's Certificate (or equivalent) for a minimum of four years.~~

~~—(2) One Board member shall have earned an accredited B.S. Degree in Fire Protection Engineering, Industrial Hygiene, Chemistry, or a related field, and have four years experience in the application of fire protection engineering techniques and in the handling and storage of hazardous materials, or the equivalent combination of education and experience.~~

~~—The Building Official shall serve as an ex-officio, non-voting secretary to the Board. The Fire Marshal shall serve as an ex-officio, non-voting member of the Board. The Board shall not be empowered to waive the requirements of this code. The Board shall review any appeal filed pursuant to Chapter 13-1 of the Austin City Code of 1981, as amended.~~

~~—The initial membership of the Board shall be comprised of the five existing members of the Board who formerly reviewed the decisions of the Building Official; and two members who shall be appointed by the City Council.~~

~~—(b) Term of Office. The City Council shall appoint each member to a two-year term. The terms of three of such members shall expire July 1 of odd numbered years. The term of four such members shall expire July 1 of even numbered years. The terms of the existing five members of the former Board shall remain unchanged on the newly established Board. The staggered terms of the two new members of the Board shall be~~

determined by the draw of lots at the first meeting of the Board. The term of one such member shall expire on July 1, 1989 and the term of the other member shall expire July 1, 1990 and the term of the other new member shall be filled by appointment by City Council for any such unexpired term.

~~—(c) Quorum. Four members of the Board shall constitute a quorum. To interpret the application of any provision of this code, or in modifying an order of the Building Official, affirmative votes of four members shall be required. No member of the Board shall pass upon any questions in which he or she, or any corporation in which he or she is a shareholder, has a vested interest.~~

~~—(d) Meetings and Records. Meetings of the Board shall be held at the call of the Chair and at other such times as the Board may determine. All hearings before the Board shall be open to the public. The Building Official shall retain minutes, and forward these minutes to the respective Board members within ten working days of the Board meeting. These minutes, when approved by the Board, shall become public record.~~

~~—(e) Procedure. The Board shall establish rules for its own procedure consistent with the provisions of this Code.~~

~~—(f) Notice. The Board shall render all decisions and findings in writing to the appellant; copies shall be retained by the Building Official.~~

~~—(g) Appeal to City Council. Any person who is aggrieved by a decision of the Board shall have an opportunity to appeal such decision to the City Council in accordance with the following:~~

~~—(1) The appeal shall be made by filing a written notice of appeal with the City Clerk. The notice of appeal shall contain: (a) the name of the person filing the appeal, (b) a background of the case, and a summary of the decision from which the appeal is taken, (c) a statement containing facts which show, beyond a reasonable doubt, that the decision appealed from was incorrect because of its inconsistency or conflict with City ordinance or State law, or that a finding of fact by the Board was clearly contrary to the evidence before the board, and (d) the relief requested from the City Council.~~

~~—(2) Notice of appeal from a decision of the Board made on or after the effective date of this ordinance shall be filed within 14 days after the date on which the decision appealed from was made.~~

~~—(3) If the last day for filing the notice of appeal is a Saturday, Sunday, or City holiday, then the notice of appeal may be filed on the next day which is not a Saturday, Sunday, or City holiday.~~

~~—(4) Any person filing a notice of appeal under this section shall, on the same day of the filing, mail or deliver a copy of the notice of appeal to the Board.~~

~~—(5) The City Council shall have the authority, in the disposition of any such appeal, to waive any requirement of any ordinance in any case in which the Council~~

~~considers the application of such requirement to be unjust and unnecessary to achieve the purposes of the ordinance. The City Council shall have the authority to take any other action it deems advisable in deciding any appeal under this paragraph.~~

#### ~~Section 302 Contract Documents~~

~~—(d)— Trench Protection. Applications shall include documentation that trench safety systems required by State law meet Occupational Safety and Health Administration standards (Section 5.26, article 601b (VTCS) State Purchasing and General Services Act).~~

#### ~~Section 304 Fees~~

~~—(b)— Permit Fees. Permit fees shall be established under separate ordinance by action of the City Council.~~

~~—(c)— Plan Review Fees. Plan review fees shall be established under separate ordinance by action of the City Council.~~

#### ~~Section 307~~

~~—(c)— Certificate Issue. After the Building Official inspects the building or structure and finds no violations of the provisions of this code or other laws which are enforced by the City of Austin, the Building Official shall issue a Certificate of Occupancy which shall contain the following:~~

- ~~— 1. — The building permit number.~~
- ~~— 2. — The address of the building.~~
- ~~— 3. — The name and address of the owner.~~
- ~~— 4. — A description of that portion of the building for which the certificate is issued.~~
- ~~— 5. — A statement that the described portion of the building has been inspected for compliance with the requirements of this code for the group and division of occupancy and the use for which the proposed occupancy is classified.~~
- ~~— 6. — The name of the Building Official.~~

#### ~~Section 410~~

~~Inspector – An "inspector" is an employee of the City of Austin who has attained certification as a Building Inspector pursuant to the certification program established by the International Conference of Building Officials and who performs inspections pursuant to Section 305.~~

— Exception

— 1) — ~~Persons who perform only inspections of one- and two-family dwellings may substitute a certification acceptable to the Building Official in lieu of Building Inspector certification.~~

— 2) — ~~Persons who perform only housing inspections and energy inspections may substitute a certification acceptable to the Building Official in lieu of Building Inspector certification.~~

— 3) — ~~Persons employed by the City of Austin on the effective date of this code shall attain certification within two years of the effective date of this ordinance.~~

— 4) — ~~Persons hired as building inspectors, housing inspectors, residential inspectors, or energy inspectors after the effective date of this code shall attain certification within two years of the date of employment.~~

— 5) — ~~The Building Official may establish a list of Building Inspectors certified by the International Conference of Building Officials who are not employees of the City of Austin. Persons listed as Building Inspectors by the Building Official may be authorized to perform inspections pursuant to Section 305 of this code.~~

— 6) — ~~The Building Official may establish a list of One- and Two-Family Dwelling Inspectors certified by the International Conference of Building Official who are not employees of the City of Austin. Persons listed as One- and Two-Family Dwelling Inspectors by the Building Official may be authorized to perform inspections pursuant to Appendix Chapter 12 of this code.~~

~~Section 417 Portable Classroom Building is any E-1, E-2, or E-3 occupancy which has been designed to be transported from one location on a specific site to another location either on the same lot or a location on a separate lot.~~

~~Section 1210(e)~~

~~Retroactive Installation of Smoke Detectors~~

— ~~All existing Group R-1 occupancies shall be required to be provided with a smoke detector conforming to Uniform Building Code Standard 43-6 as follows:~~

— ~~Group R-1 occupancies (apartment houses, hotels, and motels)~~

— ~~Any existing R-1 occupancies shall be required to install smoke detectors conforming to the requirements of the Uniform Building Code Standard 43-6 and Section 1210 as adopted or amended by subsequent ordinance. The smoke detectors may be battery operated.~~

— ~~Group R-3 occupancies (one- and two-family residential units)~~

~~— All existing R-3 occupancies shall be required to install smoke detectors conforming to the requirements of the Uniform Building Code Standard 43-6 and Section 1210 as adopted, or as amended by subsequent ordinance. The smoke detectors may be battery operated. No certificate of occupancy shall be issued after the effective date of this ordinance, following any remodeling, repairs, additions or structural changes to R-3 occupancies unless an approved smoke detector has been installed. All R-3 occupancies shall comply with smoke detector requirements for rental property promulgated the State of Texas.~~

~~Section 3203(f)(5). Wood shingles (treated).~~

~~Section 3203(f)(6). Wood shakes (treated).~~

~~Section 3801(d) Standards. Fire extinguishing systems shall comply with the Fire Code.~~

#### ~~Chapter 41~~

~~In order to establish minimum standards to make dwelling units resistant to unlawful entry, the Uniform Building Security Code, 1985 Edition, published by the International Conference of Building Officials is adopted.~~

~~Buildings regulated by this chapter shall be designed and constructed in accordance with the Uniform Building Security Code, 1985 Edition.~~

#### ~~Section 4502~~

##### ~~Fire Escapes and Ventilating Ducts~~

~~— Exception 3: The provisions of this section shall not apply to fire escape or ventilating ducts, provided that they are located and constructed so as to not obstruct pedestrian or vehicular traffic.~~

#### ~~Section 4508~~

##### ~~Aerial Passageway~~

~~— (a) Definition. An aerial passageway over an alley connecting two buildings on opposite sides thereof, where previous consent thereto has been granted by resolution of the City Council, and a building permit has been issued by the Building Official.~~

~~— (b) Such consent may be granted by the City Council upon such additional conditions as said Council may prescribe, but the following conditions shall apply to all structures:~~

~~— (1) That the structure be used for access only, and not for storage or occupancy.~~

~~— (2) That the structure shall be constructed entirely of non-combustible materials.~~

~~— (3) — That self-closing Class "A" fire doors be placed at each end of said passageway.~~

~~— (4) — That if the structure interferes with any public utility facilities, all costs of relocation shall be borne by the owner, and that no electric, gas, water, telephone or other lines shall be attached to, or permitted to cross on, or in, said structure.~~

~~— (5) — That a minimum clearance of 14 feet above the surface of the alley shall always be maintained.~~

#### Appendix 1, Division 1 ~~Life Safety Requirements for Existing Buildings Other Than High Rise Buildings~~

~~Section 110 — All residential buildings shall be maintained in accordance with the provisions of the Housing Code.~~

~~Section 111 — All non-residential buildings shall be maintained in accordance with the Uniform Code for Building Conservation, 1985 Edition, published by the International Conference of Building Officials. The Uniform Code for Building Conservation, 1985 Edition, is hereby adopted by reference.~~

~~Section 112 — All dangerous building conditions shall be abated in accordance with the provisions of the Dangerous Buildings Code.~~

#### Appendix 1, Division 2 ~~Life Safety Requirements for Existing High Rise Buildings~~

##### Section 113 ~~Retroactive Installation of Fire And Safety Equipment~~

~~— (a) — Scope. This ordinance shall apply to all existing Group B, Division 2, occupancies (offices), and Group R, Division 1, occupancies (apartment houses, hotels and motels), and buildings annexed which have floors used for human occupancy located more than 75 feet above the lowest level of Fire Department vehicle access.~~

~~— NOTE: Any building built outside the corporate limits which is subsequently annexed shall comply with the provisions of this chapter within three years of the date of annexation.~~

~~— (b) — Time Frame. The implementation of this ordinance shall be divided into three phases as follows:~~

~~— 1. — PHASE I. The requirements of subparagraphs (c) through (i) shall be fully implemented during Phase I of the implementation period. For buildings in existence within the corporate. City limits on October 29, 1981, this phase was required to have been completed on or before October 29, 1984.~~

~~— 2. — PHASE II. The requirements of subparagraph (j) shall be fully implemented during Phase II of the implementation period. For buildings in existence within the~~

~~corporate City limits on October 29, 1981, this phase was required to have been completed on or before October 29, 1986.~~

~~3. PHASE III. Any building built outside the corporate limits which is subsequently annexed shall comply with the provisions of this chapter within three years of the date of annexation.~~

#### ~~PHASE I~~

~~(c) Smoke Detection Systems. The following areas shall have installed at least one approved smoke detector suitable for the intended use:~~

~~1. Every mechanical equipment room, electrical transformer room, telephone equipment room, elevator machine room or other similar room.~~

~~2. The main return and exhaust air plenum of each air conditioning system; such smoke detector shall be located in a serviceable area downstream of the last duct inlet.~~

~~3. Each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air conditioning system; in Group R, Division I, Occupancies, an approved smoke detector may be used in each return air riser carrying not more than 5000 cfm and serving not more than ten air inlet openings.~~

~~The actuation of any detector required by this section shall operate the voice alarm system and shall shut down the air handling system to prevent the recirculation of smoke. The actuation of any detector required by this section shall also cause the transmission of an alarm to an approved central, proprietary or remote station service or a local alarm which will give an audible signal at a constantly attended location.~~

~~(d) Alarm and Communication Systems. The alarm and communication systems shall be designed and installed so that damage to any terminal unit or speaker will not render more than one zone of the system inoperative.~~

~~The voice alarm and public address system may be a combined system. If approved, the Fire Department communications system may be combined with the voice alarm system and public address system.~~

~~Three communication systems which may be combined, as set forth above, shall be provided as follows:~~

~~1. Voice Alarm System. The operation of any smoke detector, sprinkler, waterflow device or manual fire alarm station shall automatically sound an alert signal to the affected areas followed by voice instructions giving appropriate information and direction to the occupants.~~

~~The central control station shall contain controls for the voice alarm system so that a selective or general voice alarm may be manually initiated.~~

~~— A manual fire alarm system (pull boxes) shall be installed in accordance with UBC Standard 18-1. The system shall be supervised to cause the activation of an audible trouble signal in the central audiopath including amplifiers, speaker wiring, switches and electrical contacts, and shall detect opens, shorts and grounds which might impair the function of the system.~~

~~— The alarm shall be designed to be heard clearly by all occupants within the building or designated portions thereof, as is required for the public address system.~~

~~— 2. Public Address System. A public address communication system designed to be clearly heard by all occupants of the building shall operate from the central control station. It shall be activated on a selective or general basis to the following terminal areas:~~

~~— A. Elevators~~

~~— B. Elevator lobbies~~

~~— C. Corridors~~

~~— D. Exit stairways~~

~~— E. Rooms and tenant spaces exceeding 1,000 square feet in area~~

~~— F. Dwelling units in apartment houses~~

~~— G. Hotel guest rooms or suites~~

~~— 3. Fire Department Communication System. A two-way Fire Department communication system shall be provided for Fire Department use. It shall operate between the central control station and every elevator, elevator lobby and entry to every enclosed exit stairway.~~

~~— (e) Central Control Station. A central control station for Fire Department operations shall be provided in a location approved by the Fire Department. It shall contain:~~

~~— 1. The voice alarm and public address system panels.~~

~~— 2. The Fire Department communications panel.~~

~~— 3. Fire detection and alarm system annunciator panels.~~

~~— 4. Annunciator visually indicating the location of the elevators and whether they are operational.~~

~~— 5. Status indicators and controls for all required air handling systems.~~

~~— 6. Controls for unlocking all stairway doors simultaneously.~~

~~— (f) — Elevators. Elevators and elevator lobbies shall comply with the provisions of Chapter 51 and Appendix Chapter 51.~~

~~—— 1. — Each elevator lobby shall be provided with an approved smoke detector located on the lobby ceiling. When the detector is activated, elevator doors shall not open and all cars serving that lobby are to return to the main floor and be under manual control only. If the main floor detector, or a transfer floor detector, is activated, all cars serving the main floor or transfer floor shall return to a location approved by the Fire Department and Building Official and shall be under manual control only. The smoke detector shall operate before the optical density reaches 0.03 per foot.~~

~~—— 2. — A permanent sign shall be installed in each elevator cab adjacent to the floor status indicator, and at each elevator call station on each floor, reading "IN FIRE EMERGENCY, DO NOT USE ELEVATOR - USE EXIT STAIRS", or similar wording approved by the Building Official.~~

~~—— 3. — Elevator hoistways shall not be vented through an elevator machine room. Cable slots entering the machine room shall be sleeved beneath the machine room floor and extend to not less than 12 inches below the shaft vent to inhibit the passage of smoke into the machine room.~~

~~— (g) — Standby power, light and emergency systems shall be provided with battery packs and self-contained power sources for all emergency systems under PHASE I.~~

~~— (h) — Exits. Exits shall comply with other requirements of this code and the following:~~

~~—— 1. — All stairway doors that lock from the stairway side must be able to be unlocked simultaneously without unlatching upon a signal from the central control station.~~

~~—— 2. — A telephone or other two-way communications system connected to an approved emergency service which operates continuously shall be provided at not less than every fifth floor in each required stairway where other provisions of this code permit the doors to be locked.~~

~~—— 3. — Smoke proof enclosures may be eliminated if all enclosed stairways are pressurized, to a minimum of 0.15 and a maximum of 0.50 inch of water column in accordance with standards for mechanically operated smokeproof enclosures established in the Code.~~

~~— (i) — Provisions for the Handicapped. In all R-1 occupancies, provisions shall be made to conspicuously display, at the registration desk, the room numbers occupied by handicapped persons. The room numbers shall be readily identifiable as handicapped occupancy for use by Fire Department and/or other emergency personnel for the evacuation of the handicapped in the event of an emergency.~~

## PHASE II

~~— (j) 1. Standby Power Generating System. A standby power generating system conforming to UBC Standard 18-1 shall be provided. The system shall be equipped with suitable means for automatically starting the generator set upon failure of the normal electrical supply systems and for automatic transfer of all functions required by this section at full power within 60 seconds of such normal service failure. System supervision with manual start and transfer features shall be provided at the central control station.~~

~~— An on-premise fuel supply sufficient for not less than two hours full demand operation of the system shall be provided.~~

~~— The standby system shall have a capacity and rating that would supply all equipment required to be operational at the same time. The generating capacity need not be sized to operate all the connected electrical equipment simultaneously.~~

~~— All power, lighting, signal and communication facilities specified in (c), (d), (e), (f), (g), and (h) as applicable; fire pumps required to maintain pressure, standby lighting, and normal circuits supplying exit signs and exit illumination shall be transferable to the standby source.~~

~~— 2. Standby Lighting. Standby lighting shall be provided as follows:~~

~~— A. Separate lighting circuits and fixtures sufficient to provide light with an intensity of not less than one foot candle measured at floor level in all edit corridors, stairways, smoke proof enclosures, elevator cars and lobbies and other areas which are clearly a part of the escape route.~~

~~— B. All circuits supplying lighting for the central control station and mechanical equipment rooms.~~

~~— 3. Emergency Systems. The following are classified as emergency systems and shall operate within ten seconds of failure of the normal power supply:~~

~~— A. Exit sign and exit illumination as required by Section 3313 and 3314.~~

~~— B. Elevator car lighting.~~

~~— (k) Violations and Penalty.~~

~~— 1. All existing Group B, Division 2, and Group R, Division 1, occupancies which fail to timely comply with the provisions of this ordinance are hereby declared to constitute a hazard to safety, health or public welfare by reason of inadequate fire safety equipment and are declared to be unsafe buildings.~~

~~— 2. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures provided by law.~~

~~3. Whenever any building is being used or occupied contrary to the provisions of this section, the Building Official may order such use discontinued and the structure, or a portion of the structure, vacated by a specified date that is not less than 120 days from the date of notice if compliance with this section is not achieved. Such notice shall be served on the owner of said building and any tenant in possession of any part of said building. In addition, the Building Official may cause to be posted a notice of the vacation order at all entrances to the building in a form provided as specified in subsection (k)(4) of this section.~~

~~4. Upon determining that a violation of this section exists, and upon ordering the vacation of the structure pursuant to Section 202(e), the Building Official may cause to be posted at each entrance to said building, a notice to be read as follows:~~

~~WARNING  
THIS IS AN UNSAFE BUILDING~~

~~— ACCORDING TO THE PROVISIONS OF THE AUSTIN CITY CODE OF 1981, IT SHALL BE UNLAWFUL TO OCCUPY OR LEASE FOR OCCUPANCY ANY PORTION OF THIS BUILDING AFTER \_\_\_\_\_ (DATE) UNLESS COMPLIANCE WITH THE REQUIREMENTS FOR RETROACTIVE INSTALLATION OF FIRE AND SAFETY EQUIPMENT ARE MET.~~

~~(1) Penalties. Notwithstanding the provisions of subsection (k) of this section, it shall be unlawful for any person to erect, construct, enlarge, alter, repair, move, remove, demolish, convert, equip, use or occupy or maintain any building and/or structure in the City of Austin, contrary to, or in violation of, any pertinent provisions of this section, or to cause, permit, or suffer the same to be done.~~

~~Any person violating any of the provisions of this section shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this code is committed, continued or permitted, and upon the conviction of any such violation such person shall be punishable by a fine of not more than \$1,000 nor less than \$100.~~

~~Appendix Section 1202. Buildings regulated by this chapter shall be designed and constructed to comply with the requirements of the One- and Two-Family Dwelling Code, 1986 Edition, promulgated jointly by the International Conference of Building Officials, the Building Officials and Code Administrators International, Inc., and Southern Building Code Congress International, Inc., save and except for Part V, Part VI, and Part VII.~~

~~Appendix Section 5301 Energy Conservation in New Building Construction~~

~~(a) Model Energy Code Adopted. Adopted by reference is the Model Energy Code, 1986 Edition, promulgated jointly by the International Conference of Building Official (ICBO); the Southern Building Code Congress International, Inc. (SBC-CI); the Building Officials and Code Administrators International, Inc. (BOCA); and the National~~

Conference of States on Building Codes and Standards, Inc. (NCSBCS), save and except the following numbered sections which are hereby deleted from the 1986 Model Energy Code:

- ~~— Section 101.3.1 — Section 505 — Fig. 1~~
- ~~— Section 402 — Table No. 5-13A — Fig. 2~~
- ~~— Section 502.1.1 — Table No. 5-13B — Fig. 3~~
- ~~— Section 502.3 — Table No. 5-13C — Fig. 4~~
- ~~— Table No. 5-1 — Table No. 6-6 — Fig. 5~~
- ~~— Table No. 5-2 — Chart 6-A — Fig. 6~~
- ~~— Table No. 5-3 — Chart 6-B — Fig. 7~~
- ~~— Section 502.2.1.2 — Fig. 8~~
- ~~— Section 503.4.3 — Fig. 9~~
- ~~— Section 503.4.5 — Fig. 10~~
- ~~— Table No. 5-6 — Fig. 11~~
- ~~— Section 503.5~~

~~— (b) — Local Amendments. Chapter 13-5 is further amended to add the following sections as local amendments to the 1986 Model Energy Code:~~

~~— Section 101.3.1 Exempt Buildings~~

~~— The following buildings are exempt:~~

~~— 1) — Buildings and structures, or portions thereof, which are neither heated or cooled, and whose peak design rate of energy usage is less than 3.4 Btu/h per square foot or 1.0 watt per square foot of floor area for all purposes.~~

~~— 2) — Buildings and structures, or portions thereof, whose heated and cooled floor area is equal to, or less than, 600 square feet.~~

~~— Section 104.2 Details~~

~~— The Building Official may require manufacturers to submit product specifications on materials and equipment to be used in the area of code enforcement.~~

~~— Section 201.1 Exposed Fenestration~~

~~— Exposed Fenestration: an external glass area used as a wall or roof of a building exposed to direct sunlight on August 21 at any time from 8:00 a.m. through 4:00 p.m. central daylight time.~~

~~— Section 201.1 Seasonal Energy Efficiency Ratio~~

~~— Seasonal Energy Efficiency Ratio (SEER): the total cooling of a central air conditioner in Btu's during its normal annual usage period for cooling divided by the total electric energy input in watt-hours during the same period as established by the City of Austin.~~

## ~~Section 402- Energy Conservation in New Building Design by Systems Analysis~~

### ~~402.1 Scope~~

~~—This section provides an alternative to the application of the specific criteria of sections 502 through 505 of this code. This section provides a procedure for determining compliance through an energy analysis, which demonstrates that the expected annual energy use does not exceed a reference annual energy use which is based on the criteria of Sections 502 through 505. The energy analysis described in this section is not required for: (a) buildings which comply with all of the requirements of Sections 502 through 505, or buildings whose systems and equipment have been modified to comply with the requirements of Sections 502 through 505.~~

### ~~402.2 General~~

~~—This section shall be used to determine compliance with the standard in the following cases:~~

~~—(a) If one or more of the systems (i.e., envelope, lighting or heating and cooling) of a proposed building design do not comply with the requirements of Sections 502 through 505, while one or more of the other components or systems exceed the stated requirements; or~~

~~—(b) If it is predetermined that an annual energy analysis will be used in lieu of the application of the specific criteria of Sections 502 through 505.~~

### ~~402.3 Analysis Procedure Criteria~~

~~—The analysis procedure used to determine the expected and reference annual energy use of the proposed building and its service systems shall meet the following criteria:~~

~~—402.3.1 For buildings with gross floor areas of less than 30,000 sq. ft. (2700m<sup>2</sup>) with a system designed such that simultaneous heating and cooling of the same space is not possible, a simplified energy analysis, including bin or degree-day method, may be used.~~

~~—402.3.2 For all other buildings the calculation procedure used in determining the expected and reference annual energy use shall be of sufficient detail to permit evaluation of the effects of:~~

~~— a. Climate data: sufficient coincident hourly data for temperatures, solar radiation, wind, and humidity to represent seasonal variations over a full year of operation.~~

~~— b. Building data: orientation, size, shape and mass of the building, and the air, moisture, and heat transfer characteristics of the materials used in the building.~~

~~— c. System design and operational data: full and part load performance characteristics of the systems used to control temperature, humidity, ventilation, and illumination (including variations between occupied and non-occupied hours).~~

~~— d. Mechanical equipment data: both design capacity and partload performance characteristics of equipment. Manufacturer's data or comparable field test data should be used, when available, in the simulation of all systems' components and equipment.~~

~~— e. Internal heat generation data: heat gain from lighting, equipment, and people during occupied and non-occupied periods.~~

~~— 402.3.2.1 The calculation procedure used to simulate the operation of the building and its service systems through a full-year operating period shall be detailed to permit the evaluation of the effect of system design, climate factors, operational characteristics, and mechanical equipment on annual energy usage. Manufacturer's data or comparable field test data shall be used when available in the simulation of systems and equipment. The calculation procedure shall be based upon 8,760 hours of operation of the building and its service systems and shall utilize the design methods specified in Standards RS-1, -11, -12 and -13.~~

#### ~~402.4 Determination of Compliance~~

~~— Compliance with this section shall be established as specified in Section 402.4.1 through 402.4.3. At such time as approved design energy budgets and performance procedures have been developed, this section will be revised to include them as an alternative means of compliance.~~

~~— 402.4.1 Under this section, the reference annual energy use shall be determined by applying the individual criteria of Sections 502 through 505 of this code as specified below:~~

~~— Beginning with the design of the building to be built and the systems, primary equipment and energy type to be used, compare the building components, systems and equipment characteristics with the criteria set forth in Sections 502 through 505. If the building components, systems, or equipment do not meet these criteria, adjust them sufficiently to achieve minimum compliance. For the purpose of determining the reference annual energy use, building components, systems, or equipment which exceed the performance specified by these criteria may also be adjusted downward to achieve minimum compliance. The total floor area and primary equipment energy type shall not be changed from that of the proposed (unadjusted) design.~~

~~— When sufficient adjustments have been made to achieve minimum compliance with Sections 502 through 505, use an analysis procedure which meets the requirements of Section 402.3 to determine the annual energy use for energy type used by the adjusted building, systems, and equipment. This analysis procedure is the reference annual energy use of each energy type.~~

~~— 402.4.2 — Calculate the annual energy use of the proposed (unadjusted) building, system, and equipment as designed, using the same climate data, operating and use schedules, equal environmental requirements, and the same analysis procedures. This is the expected annual energy use for each energy type.~~

~~— 402.4.3 — Compare the expected annual use of each energy type as determined in Section 402.4.2 with the reference annual energy use from Section 402.4.1. All forms of energy usage covered under the provisions of Sections 4 and 5 shall be included in the comparison. For purposes of determining compliance, the use of each energy type shall be expressed in Btu/year (kJ/year).~~

~~— 402.4.3.1 — If the expected annual energy use is equal to or less than the reference annual energy use for each energy type, then the proposed building, system, and equipment as designed shall be determined to be in compliance with the requirements of this standard.~~

~~— 402.4.3.2 — If the expected annual energy use exceeds the reference annual energy use of each energy type, the proposed building design does not comply with the requirements of this standard.~~

~~— 402.4.3.3 — If the expected annual energy use of one type of energy is greater than the reference energy type, while another is less than its reference annual energy use, compliance shall be determined as follows:~~

~~— (a) — Multiply the expected annual use Btu/year (kJ/year) of each energy type by the cost \$/Btu (\$/kJ) of supplying that energy type and determine the sum for all energy types used.~~

~~— (b) — Do the same calculation as set forth in Section 402.4.3.3.(a) for the reference annual use.~~

~~— (c) — If the total energy cost (\$/year) of all energy types for the expected annual use is greater than the proposed energy type, the proposed building components, systems, and equipment shall be considered as having complied with the standard. The cost \$/Btu (\$/kJ) of supplying each energy type used in these calculations shall be determined from applicable current utility rate schedules.~~

#### ~~402.5 Documentation~~

~~— An energy analysis shall be submitted to demonstrate compliance. The energy analysis shall provide sufficient technical detail on the proposed building, its service systems, and on data used in the analysis to verify that the analysis procedures meet the criteria of Chapter 4 of this code.~~

~~— 402.5.1 — The energy analysis shall also provide results from analysis in sufficient detail to demonstrate that the expected annual energy use is less than or equal to the reference annual energy use as determined by the procedures of Section 402.4~~

~~— 402.5.2 — The calculations, evaluations, and analysis required by this section shall be performed by persons having qualifications specified by the responsible building regulatory agency. In the absence of specific legal requirements for determining such qualifications, the calculations, evaluations, and analysis shall be performed by an architect or engineer licensed by the state.~~

#### ~~Section 502.2.1.2 Roof/Ceiling.~~

~~— A building that is heated and/or mechanically cooled shall have a combined thermal transmittance value ( $U_0$ ) for the gross area of the roof assembly which does not exceed the value given in Table 5-1. Equation 2 shall be used to determine acceptable combinations to meet this requirement.~~

~~— No roof of a black color shall be permitted. All non-white roofs installed subsequent to the adoption of this code shall have mandatory  $U_0$  of 0.38. Btu/h/ft<sup>2</sup>. See Table 5-11.~~

#### ~~Section 502.2.2 False Floors~~

~~— When false floor assemblies are employed, the false floor assembly shall:~~

~~— For thermal transmittance purposes, not include the false floor proper nor the plenum space as part of the assembly; and,~~

~~— For gross area purposes, be based upon the interior face of the lower plenum surface.~~

#### ~~Section 502.2.3 Fenestration Shading Coefficient.~~

~~— All exposed fenestration facing directions within the true compass range from 15 North of East clockwise to 45 North of West shall have a shading coefficient no greater than 0.5. After January 1, 1987, the shading coefficient shall be no greater than 0.35.~~

~~— Glass areas can be exempted from the shading coefficient requirements provided that the total area exempted does not exceed 20% of the total glass area for the east, west and south exposures of the structure. The exemption includes, but is not limited to:~~

- ~~— 1. Casement and awning windows~~
- ~~— 2. Garden Windows~~
- ~~— 3. Angular or trapezoidal fixed windows~~
- ~~— 4. Decorative windows with decorative glass~~
- ~~— 5. Round, octagon, arch top, eyebrow and radius top windows~~
- ~~— 6. Skylight and operating roof windows~~
- ~~— 7. Decorative entry door system with glass in doors, sidelights and transfer.~~

— 8. — Atrium and patio doors

— Only shading devices which are directly applied to the window or are attached to the external structure are acceptable.

— EXCEPTION: The Building Official may accept equivalent methods of shading to external shading devices, if the shading of the equivalent method can be determined by standard engineering analysis.

Section 502.2.4 Air Leakage for Residential Buildings

502.3.2 — Exterior doors and windows shall be designed to limit air leakage into or from the building envelope. Manufactured doors and windows shall have air infiltration rates not exceeding those shown in Table 5-2. site-constructed doors and windows shall be sealed in accordance with 502.2.3.3.

502.2.3.3 — Either exterior or interior joints in the building envelope that are sources of air leakage shall be caulked, gasketed, weather stripped, or otherwise sealed in an approved manner. Such sources of air leakage, include, but are not limited to: around window and door frames, between wall cavities and window or door frames; between walls and foundations, between walls and roof/ceilings and between wall panels, openings at penetrations of utility services through walls, floors and roofs/ceilings, and all other such openings in the building envelope. Such approved manner shall be evidenced by:

- a. — On-site inspection of the individual air leakage control components; or
- b. — Approved air leakage control measurements, with acceptable rates and measurement techniques to be determined by the Building Official.

TABLE 5-1 <sup>1,2,3</sup>			
ELEMENT	MODE	Type A-1 Buildings	Type A-2 Buildings
		U <sub>e</sub>	U <sub>e</sub>
Walls	Heating or Cooling	.22	.22
Roof/Ceiling	Heating or Cooling	.045 <sup>4</sup>	0.45 <sup>4</sup>
Floors over	Heating or	.27	.27

unheated spaces	Cooling		
Heated slab on-grade	Heating	R-Value 8.0	R-Value 8.0
Unheated slab on grade	Heating	R-Value -----	R-Value -----
<sup>4</sup> —In calculating the actual $U_o$ for apertures, resistance R of movable insulation may be included, providing that the movable insulation is installed as part of the aperture (e.g., shutters, sliding panels, etc.) and is sized to cover the aperture area considered to the extent of the $U_o$ required for the building.			
<sup>2</sup> —For floors over outdoor air, U-values shall meet the same requirements as for roof/ceiling assemblies, as shown above.			
<sup>3</sup> —U-value should take into account wall, ceiling, and floor performance as a system, including all factors.			
<sup>4</sup> —All non-white roof/ceiling assemblies shall have $U_o$ no greater than 0.038 BTU ft <sup>2</sup> -°F.			

TABLE 5-2  
ALLOWABLE RESIDENTIAL AIR INFILTRATION RATES<sup>4</sup>

WINDOWS <sup>2,3</sup>	DOORS <sup>4,5</sup>
(cfm per foot of operable sash crack) —	(cfm per square foot of door area) Swinging and sliding
0.34	0.5
<sup>4</sup> —When tested at a pressure differential of 1.567 lb./ft. <sup>2</sup> , which is equivalent to the impact pressure of a 25 mph wind.	

~~<sup>2</sup>All aluminum windows of the single-hung type shall conform to the requirements for "Quality Certified" aluminum windows of the Architectural Aluminum Manufacturers' Association Master Specification DH-B1-HP-40 (RS-22).~~

~~<sup>3</sup>All aluminum windows of the horizontal slider type shall conform to the requirements for "Quality Certified" aluminum windows of the Architectural Aluminum Manufacturers' Association Master Specifications HS-B1-HP-40 and HS-B2-HP-40 (RS-22).~~

~~<sup>4</sup>Compliance with the criteria for air leakage shall be determined by Standard RS-2, Standard Method of Test for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.~~

~~<sup>5</sup>All aluminum doors of the sliding glass type shall conform to the requirements for "Quality Certified" aluminum windows of the Architectural Aluminum Manufacturers' Association Master Specification SGD-B1-HP-40 (RSO22).~~

## Section 502.3 Criteria for All Other Buildings

### 502.3.1 Scope

~~—The criteria of this section establish the minimum thermal requirements of the exterior envelope for new buildings other than Group R. The equations, charts (which may be interpolated as necessary), and tables in this section are intended only for use in defining these criteria. These criteria explicitly consider a number of factors important in appropriate thermal envelope design across a range of commercial building functions and climates. The factors considered include, but are not limited to, the following building configuration, size, orientation, and mass daylighting, and electrical lighting. If a system analysis approach to building design is required, for example, when applying a passive strategy not covered by this section, then the requirements of Sections 402 and/or 403 shall apply.~~

### 502.3.2 General

~~502.3.2.1—The intent of this section is to provide minimum requirements for commercial building envelope construction to conserve energy. These requirements are not intended to be, nor should they be constructed as, optimum energy-conserving practices.~~

~~502.3.2.2 — All buildings that are to be heated and/or mechanically cooled shall be designed to meet (a) the heating criteria of Section 502.3.6.1; (b) the annual and peak cooling criteria of Section 502.3.6.2; and (c) the air leakage criteria of Section 502.3.8.~~

~~502.3.2.2.1 — In determining compliance with the thermal performance criteria of Section 502.3, the appropriate thermal property and heat transfer data contained in RS-1 shall be used. Measured thermal performance data for building envelope sections or components resulting from tests administered by independent laboratories, using methods approved by accredited authoritative agencies may also be considered. (Section 701.1). Additional data may be considered when shown to be in compliance with Section 103.~~

~~502.3.2.2.2 — The following dry bulb temperatures shall be used as appropriate in selecting thermal property data and in demonstrating compliance with the thermal performance criteria of Section 502.5.~~

<del>-</del>	<del>Indoor</del>	<del>Outdoor</del>
<del>Heating</del>	<del>70°F</del>	<del>28°F db</del>
<del>Cooling</del>	<del>78°F</del>	<del>98°F db/77°F wb</del>

~~502.3.2.3 — The gross area of exterior walls is measured on the exterior for walls which enclose a heated and/or mechanically cooled space. The gross area of exterior walls consists of: (a) all opaque wall areas (including between floor spandrels, peripheral edges of floors, including interstitial areas, etc.); (b) window areas (including sash); and (c) door areas.~~

~~502.3.2.4 — The gross area of a roof assembly consists of the total exterior surface of the roof assembly and shall be considered to include all roof/ceiling components through which heat may flow between indoor and outdoor air and enclosing heated and/or mechanically cooled space. The roof assembly shall be considered to include all roof/ceiling components through which heat may flow between indoor and outdoor environments (including skylights and clerestory surfaces.)~~

~~502.3.2.4.1 — When return air ceiling plenums are employed, the roof/ceiling assembly shall:~~

~~— a. — not include the resistance of the ceiling proper or of the plenum space as part of the total resistance of the assembly for thermal transmittance purposes, and~~

~~— b. — be based upon the interior face of the upper plenum surface for gross area purposes.~~

~~502.3.2.5 — The design of buildings for energy conservation may increase the water vapor pressure differentials between the interior and exterior environments. Vapor~~

barrier retarders, ventilation, and interior humidity control may be required to maintain the thermal and moisture integrity of the envelope.

### 502.3.3 Criteria for All Other Building Envelopes

502.3.3.1 Heating Criteria: The heating criteria shall establish the maximum allowable thermal transmittance of all building envelope components. Compliance with this requirement may not, in some cases, yield the most energy efficient building. For buildings with high internal heat gains and/or unusual schedules for operation, it is suggested that consideration should be given to using the provisions of Section 402 in order to justify alternative designs for improved thermal performance.

502.3.3.1.1 Roof Criterion: Any building that is heated shall have a combined thermal transmittance value ( $U_o$ ) for the gross area of the roof assembly not exceeding 0.10 BTU/h ft<sup>20</sup>F. Equation 3 shall be used to determine acceptable combinations to meet the required  $U_o$ .

$$U_o = \frac{(U_R \times A_R) + (U_S \times A_S)}{A_o} \dots \text{EQUATION 3}$$

WHERE:

—  $U_o$  = The average thermal transmittance of the gross roof/ceiling area, BTU/h ft<sup>20</sup>F.

—  $A_o$  = The gross area of the roof/ceiling assembly, ft<sup>2</sup>.

—  $U_R$  = The thermal transmittance of all elements of the opaque roof/ceiling area, BTU/h ft<sup>20</sup>F.

—  $A_R$  = Opaque roof/ceiling assembly area, ft<sup>2</sup>.

—  $U_S$  = The thermal transmittance of all skylight and other non-opaque elements in the roof/ceiling assembly, BTU/h ft<sup>20</sup>F.

—  $A_S$  = Skylight area (including frame), ft<sup>2</sup>.

NOTE: Where more than one type of roof/ceiling and/or skylight or other non-opaque materials are used, the  $U \times A$  term for that exposure shall be expanded into its sub-elements as follows:

$$(U_{R1} \times A_{R1}) + (U_{R2} \times A_{R2}) + \dots, \text{etc.}$$

**EXCEPTIONS:** If skylights are used in conjunction with automatic daylighting controls and meet all of the following conditions:

— a. The opaque roof  $U_o$  does not exceed 0.10 BTU/h ft<sup>20</sup>F.

— b. Skylight area (including framing) as a percentage of roof area does not exceed the following:

Installed Lighting Capacity of Area Served by the Skylights in W/ft <sup>2</sup>	Maximum Skylight Area (percent of roof area)
Less than 1.0	2%
From 1.0 to less than 2.0	5%
From 2.0 to 3.0	8%
Greater than 3.0	10%

— c. — All lighting fixtures which have an installed lighting capacity in Section 502.3.3.1.1.b. above are automatically controlled by daylighting as provided in Section 505.9.4.

— d. — Skylight curbs have a  $U_e$  value no greater than 0.21 BTU/h ft<sup>2</sup>°F.

— e. — The infiltration rate of the skylights does not exceed 0.5 cfm per square foot of skylight area.

502.3.3.1.1.1 — The effects of roof absorptivity/reflectivity and strategies for external shading of roof surfaces should be considered.

502.3.3.1.2 — Wall Heating Criterion: The heating criterion for the wall components of the building envelope is stated in order to provide flexibility in the design of complying wall sections. The wall heating criterion is specified by Figure 5.1 and is based on the thermal performance of all of the wall components taken together. Demonstration of compliance with this criterion requires consideration of each wall component and its orientation. Compliance is demonstrated by completion of the Appendix Thermal Requirements - Wall Heating Compliance Worksheet or approved equivalent with the calculation of a total heating factor which is less than, or equal to, that specified in Figure 5.1. The Wall Heating Compliance Worksheet is completed by using thermal transmittance and area data usually gathered in sizing heating equipment and using coefficients from Figure 5.2. Equation 4 describes the process of Appendix Worksheet 1 and may be used directly for the calculation as an alternative to the completion of Appendix Worksheet 1.

502.3.3.1.2.1 — A daylighting factor,  $K_H$  of less than 1.0 shall be applied when credit for daylighting is claimed under Section 505; otherwise,  $K_H$  shall be set equal to 1.0.

#### EQUATION 4

$$C_H = [(F_G)(U_G)(C_h)(M_h)] + [(F_s)(L_d)(1 - R_e K_h)(L_h)(M_h)]$$

~~————— Conduction by ————— Solar Gain by — Light Gain by  
————— Orientation ————— Orientation ————— Orientation~~

~~WHERE:~~

~~—  $C_H$  = Wall Heating Compliance Value.~~

~~—  $F_e$  = Fraction of total surface area for component.~~

~~—  $U_e$  = Average thermal transmittance.~~

~~—  $C_h$  = Conduction coefficient.~~

~~—  $N_h$  = Mass Factors for Wall Heating~~

~~—  $F_s$  = Fraction of total surface area for fenestration.~~

~~—  $S_C$  = Shading Coefficient.~~

~~—  $S_{EH}$  = External Shading Factor.~~

~~—  $S_h$  = Solar Coefficient.~~

~~—  $L_d$  = Power limit.~~

~~—  $L_h$  = Lighting Coefficient~~

~~—  $R_e$  = % of daylighting zone automatically diced.~~

~~—  $K_h$  = Daylight Adjustment Factor~~

~~—  $1 - R_e K_h$  = Daylight Modifier~~

~~502.3.3.2 — Cooling Criteria: The cooling criteria, annual and peak, shall establish the maximum allowable solar transmission and shading coefficients for all fenestrations. Compliance with the specified cooling criteria may not, in some cases, yield the most energy efficient building. For buildings of unusual design it is suggested that consideration be given to use of the provisions of Sections 402 and 403 to justify alternative designs for improved thermal performance.~~

~~502.3.3.2.1 — Wall Cooling Criteria: The wall cooling criteria are designed to provide flexibility in the design of complying wall sections. The wall annual cooling criteria are specified by Figure 5.3 and are based on consideration of the thermal performance of all of the wall components taken together. The Figure 5.3 criterion considers annual energy use for cooling. Compliance is determined by completion of Appendix Thermal Requirements – Annual Wall Cooling Compliance Worksheet or Approved Equivalent and arriving at a total annual cooling factor that is less than, or equal to, the criterion specified by Figure 5.3. The Figure 5.5 criterion considers the peak cooling components that influence the air delivery system and fan capacities. Compliance is determined by~~

completion of Appendix Thermal Requirements – Peak Cooling Compliance worksheet and arriving at total peak cooling factor that is less than, or equal to, the criterion specified by Figure 5.5. Equation 5 and Equation 6 described the processes of the Annual and Peak Cooling worksheets 2 and 3 respectively and may be used directly for the calculations:

**EQUATION 5**

$$C_A = [(F_c)(U_e)(C_a)(M_a) + (M_a)(F_s)(S_c)(S_{EA})(S_a)] - (M_a)(F_c)(L_d)(L_a)(1 - [R_c K_a])$$

— Conduction by — Solar Gain by — Light Gain by  
 — Orientation — Orientation — Orientation

**WHERE:**

- $C_A$  = Wall Annual Cooling Compliance Value
- $F_c$  = Fraction of Total Surface Area of Component
- $U_e$  = Average Thermal Transmittance of the Surface Area
- $C_a$  = Conduction Coefficient
- $M_a$  = Mass Factors for Annual Cooling  $F5$  = Fraction of Total Surface Area of Fenestration
- $S_c$  = Shading Coefficient
- $S_{EA}$  = External Shading Factor
- $S_a$  = Solar Gain Coefficient
- $L_d$  = Power Limit
- $L_a$  = Lighting Coefficient
- $R_c$  = % of Daylighting Zone Automatically Diced
- $K_a$  = Daylight Adjustment Factor
- $1 - R_c K_a$  = Lighting Gain

**EQUATION 6**

$$C_P = [(M_p)(F_e)(U_e)(C_p) + (M_p)(F_s)(S_c)(S_{EP})(S_p)] - (M_p)(F_c)(L_d)(L_p)(1 - R_c K_p)$$

— Condition by — Solar Gain by — Light Gain by  
 — Orientation — Orientation — Orientation

WHERE:

- $C_p$  = Peak Cooling Compliance Value
- $F_e$  = Fraction of Total Surface Area of Component
- $U_e$  = Average Thermal Transmittance of Surface Area
- $C_p$  = Conduct ion Coefficient
- $M_p$  = Mass Factors for Peak Cooling
- $F_s$  = Fraction of Total Surface Area of Fenestration
- $S_e$  = Shading Coefficient
- $S_{EP}$  = External Shading Factor
- $S_p$  = Solar Gain Coefficient
- $L_d$  = Power Limit
- $L_p$  = Lighting Coefficient
- $R_e$  = X of Daylighting Zone Automatically Dimmed
- $K_p$  = Daylight Adjustment Factor
- $1 - R_e K_p$  = Daylight Modifier

502.3.3.2.1.1 — Daylighting factors  $K_a$  and  $K_p$  of less than 1.0 shall be applied only when the lighting in the space served by daylighting is controlled automatically, as specified in Section 505.9.4, and the window size and placement meet the criteria of Section 502.8; otherwise,  $K_a$  and  $K_p$  shall be set equal to 1.0.

502.3.3.2.1.2 — Credit for daylighting shall be determined only on the basis of the Daylighting Aperture Ratio (DAR). The DAR is defined as that percentage of gross wall area between the work plane and the ceiling which is glazed. For daylighting credit the top boundary of the glazing shall be calculated from 36 inches above the finished floor.

502.3.3.2.1.3 — Wall mass correction factors obtained from Figures 5.2, 5.4 & 5.6 may be used to adjust for the effects of mass where insulation is external to the wall mass. Where the wall mass is external to insulation or is not at least 3 in. (7.62 cm.) solid concrete, 6 in. (15.24 cm.) concrete block or equivalent, the mass correction factors shall be set equal to 1.0.

502.3.3.2.2 — Roof criterion: The combined thermal transmittance shall not exceed 0.10 BTU/hr ft<sup>2</sup>°F.

~~502.3.3.2.3—Floor over unconditioned spaces: For floors of conditioned spaces over unconditioned areas, the  $U_o$  value shall not exceed 0.10 BTU/h ft<sup>2</sup>F~~

~~502.3.3.2.4—Slab-on-grade floors: The insulation shall extend downward from the top of the slab for a minimum distance of 24 inches or downward to the bottom of the slab, then horizontally beneath the slab, for a minimum total distance of 24 inches and shall be of an approved type.~~

#### ~~502.3.4 Natural Ventilation~~

~~—Consideration should be given to providing natural ventilation in appropriate building locations to supplement HVAC systems operation. (See Code Standard RS-3.)~~

#### ~~502.3.5 Air Leakage for All Other Buildings~~

~~502.3.5.1—The requirements of this section are limited to those locations separating exterior ambient conditions from interior building conditioned air space and are not applicable to the separation of interior conditioned spaces from each other. Utility penetrations which extend into adjoining unconditioned spaces through the top or bottom plates of interior partition walls shall comply with Section 502.3.5.4.~~

~~502.3.5.2—Compliance with the criteria for air leakage through building components shall be determined by ANSI/ASTM E 283-73, Standard Method of Test for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors, at a pressure differential of 1.57 lb/ft<sup>2</sup> (75 Pa) which is equivalent to the effect of a 25 mph (11.1 m/s) wind.~~

#### ~~502.3.5.3 Requirements~~

~~502.3.5.3.1—Windows: Windows shall be designed to limit air leakage; the air infiltration rate shall not exceed 0.32 ft<sup>3</sup>/min per foot ( $5 \times 10^{-4}$  m<sup>3</sup>/s per meter) of sash crack.~~

~~502.3.5.3.2—Entrance Swinging and Sliding Doors for Use in Residential Spaces: Swinging and sliding doors used for entrance or exit from residential living units shall be designed to limit air leakage; the air infiltration rate shall not exceed 0.5 ft<sup>3</sup>/min per square foot ( $2.54 \times 10^{-3}$  m<sup>3</sup>/s per square meter) of door area or equivalent air infiltration.~~

~~502.3.5.3.3—Swinging, Revolving, or Sliding Doors: If these types of doors are used, then they shall be designed to limit air leakage; the air infiltration rate shall not exceed 11 ft<sup>3</sup>/min per linear foot ( $1.70 \times 10^{-4}$  m<sup>3</sup>/s per linear meter) of door crack. If other types of coverings are used for door openings, they shall be designed not to exceed the same air leakage rate.~~

~~502.3.5.4—Exterior joints in the building envelope that are sources of air leakage shall be caulked, gasketed, weatherstripped, or otherwise sealed in an approved manner. These sources of air leakage include, but are not limited to the following: around window and door frames, between wall cavities and window or door frames; between wall cavities and window or door frames; between wall and foundations, between walls~~

and roof/ceilings and between wall panels, openings at penetrations of utility services through walls, floors and roof/ceilings, and all other such openings in the building envelope.

503.4.1.3—In all Type A-1, and individually metered Type A-2 units over 1000 sq. ft. using electric resistance heating, at least one central heat pump is required.

503.4.3—HVAC System Combustion Equipment. Gas and oil-fired comfort heating equipment as listed below shall have a minimum combustion efficiency not less than the values in Table 5-4. After September 1, 1985, all gas furnaces were required to be fitted with electronic ignition devices.

503.4.5.2—Seasonal energy efficiency ratio (SEER) means the total cooling of a central air conditioner in BTU's during its normal annual usage period for cooling divided by the total electric power input in watt-hours during the same period.

—Energy efficiency ratio (EER). A ratio calculated by dividing the cooling capacity in BTU/hr by the power input in watts at any given set rating conditions, expressed in BTU/hr per watt (BTU/hr/Watt).

TABLE 5-5—MINIMUM EER AND COP FOR ELECTRICALLY DRIVEN HVAC SYSTEM EQUIPMENT—COOLING <sup>1,2</sup>		
STANDARD RATING CAPACITY	SEER	EER
Under 65,000 Btu/h, split systems		
—single phase—Air	9.0	--
—single phase—W/E	--	8.8
Under 65,000 Btu/h, split systems		
—three phase—Air	--	7.8
—three phase—W/E	--	8.8
Under 65,000 Btu/h, single package units		
—single phase—Air	8.2	--
—single phase—W/E	--	8.8
Under 65,000 Btu/h, single package units		

<del>— three phase— Air</del>	<del>--</del>	<del>7.8</del>
<del>— three phase— W/E</del>	<del>--</del>	<del>8.8</del>
<del>Over 65,000 Btu/h, Air</del>	<del>--</del>	<del>8.2</del>
<del>— Water/Evaporative</del>	<del>--</del>	<del>9.2</del>
<sup>4</sup> <del>When tested at the standard rating conditions specified in Table 5-9B.</del>		
<sup>2</sup> <del>The Department of Energy has established required test procedures for single phase air-cooled residential central air conditioners under 19 kW (65,000 Btu/h) in capacity, which have been incorporated into ARI standard 210-79. EER and COP values in Table 5-5 are based on Test A of the DOE Test Procedures.</del>		
<sup>3</sup> <del>Weighted average values for RER may be used when a building has more than one air conditioning unit.</del>		

### 503.5 Transport Energy

503.5.1 — All Air Systems. The air transport factor (ATF) for each all-air constant volume system with fan motors rated one horsepower or more shall not be less than the values shown below. Condition A is for constant volume systems where life/safety codes require a fully ducted return and the system is not exempted by 503.1. Condition B is for all other constant volume systems. The minimum air transport factor for variable air volume systems shall not be less than 75 percent of the values shown below:

#### Largest Fan Motor in system, HP

	<del>1-10</del>	<del>Over 10-25</del>	<del>Over 25</del>
Condition A	8.5	7.0	5.5
Condition B	10.0	8.5	7.0

The factor shall be based on design system air flow. Energy for transfer of air through heat recovery devices shall not be included in determining the factor; however, such energy shall be included in the evaluation of the effectiveness of the heat recovery system.

$$\text{Air Transport Factor} = \frac{\text{Space Sensible Beat Removal}^*}{(\text{Supply}^{**})}$$

\*Both expressed in either Btu/h or watts.

Where:

— Space Sensible Beat Removal\* = the design sensible cooling load used to calculate design system air flow of all spaces to which the system provides cooling.

— Supply\*\* = return fan(s) power input\*\*\*.

— Fan Power Input - the rate of energy delivered to the fan prime mover at design system air flow.

— EXCEPTIONS: HVAC system equipment that includes supply and/or return or exhaust air fans in the ERR (COP) listed in 503.4.5.

503.5.1 — Other Systems. Air and Water. All water and unitary systems employing chilled, hot, dual temperature or condenser water transport systems to space terminals shall not require greater transport energy (including central and terminal fan power and pump power) than an equivalent all-air system providing the same space sensible heat removal and having an air transport factor not less than that shown in 503.5.1, condition B.

503.5.3 — In buildings with multiple systems or in systems where multiple buildings are served from a central plant, consideration shall be given to reducing transport energy by utilizing high temperature drops for chilled water, primary/secondary pumping loops, variable volume pumping, variable speed pumping, and design of pipe systems that are inherently well balanced.

503.5.4 — In buildings with all air heating/cooling constant air volume systems, design consideration shall be given to permit reducing system air quantities during the heating mode when life/safety codes and ventilation requirements allow.

504.2.1.3 — In type A-1 and A-2 Buildings greater than 100 sq. ft. per unit, the primary source of hot water shall be one of the following: Solar, Heat Recovery or Heat Pump. A secondary electric residential system is permitted if piped in series with a primary system.

#### 504.9 Use of Waste Heat or Solar Energy

504.9.1 — An evaluation should be made as to the potential for the use of condenser heat, waste energy, or solar energy to supplement hot water requirements.

504.9.2 — High temperature condensate, when returned to condensation pump tanks or other vented tanks, will have a certain portion flashed into steam, thus wasting energy. To conserve this energy, a heat exchanger should be considered for use in the

~~condensate return line to heat or preheat the service water, cool the condensate, and prevent flashing.~~

~~504.9.3—Storage should be used for optimum heat recovery when the flow of heat to be recovered is out of phase with the demand for heated water.~~

## ~~SECTION 505 ELECTRICAL POWER & LIGHTING~~

### ~~505.1—Scope~~

~~—The procedure outlined in this section provides criteria for power and control of illumination systems in new buildings.~~

~~—The rooms, spaces and areas covered by this procedure include:~~

~~——(1)—Building interiors;~~

~~——(2)—Building exteriors including open-air roofed areas, porches, entrances, exits, loading areas, parking areas, driveways, and similar spaces associated with the buildings where lighting is required;~~

~~——(3)—Building facade and exterior supplementary lighting.~~

### ~~505.2—Exceptions~~

~~—Rooms, spaces, areas, and equipment exempted from this procedure include:~~

~~——(1)—Lighting power for theatrical productions, entertainment facilities, and audiovisual presentations where lighting is an essential technical element for the function performed;~~

~~——(2)—Residential living spaces within each of the following: apartments, condominiums, hospitals, health care facilities, hotels, motels, and other permanent and transient living spaces:~~

~~——(3)—One and two-family detached dwellings and the dwelling portion of multi-family buildings.~~

### ~~505.3—Intent~~

~~—The procedure described in this section is not to be used for a lighting design. Its purpose is to establish a methodology for determining the upper power limit and minimum control systems for lighting systems, and to provide the appropriate inputs to the exterior envelope design criteria of Section 502.~~

### ~~505.4—Recommendations~~

— If appropriate, the designer is encouraged to use less power than the limit allows, and less energy overall, by:

— (1) — Using task lighting;

— (2) — Using daylighting, daylighting controls and room occupancy monitor control systems;

— (3) — Using more efficient lamps and luminaries;

— (4) — Using luminaries with heat removal and heat recovery capabilities — energy efficient lamps should be installed in a manner consistent with manufacturers suggested practice with regard to the use of heat removal light fixtures;

— (5) — Using systems that provide more light on tasks, i.e., specifying fixtures with higher Coefficients of Utilization (CU).

— (6) — Reducing light losses, i.e., providing systems with better Light Loss Factors (LLF).

— (7) — Using at least two separate central switching devices for four-lamp and three-lamp fluorescent luminaries with multiple ballasts.

#### 505.5 General

— This procedure requires the listing of the total area of all interior rooms which have similar tasks or activities to determine the lighting power budgets for activity areas. The summation of these budgets shall constitute the lighting power limit for the building interior. Separate lighting power limits shall be determined for exterior activity areas and for facade and exterior supplementary lighting.

— When sufficient information is not known about the specific use of an interior room or external activity area, power budgets are to be based upon the apparent intended use of the room or activity area.

#### 506.6 Lighting Power Limit for Building Interiors

— The lighting power limit for the building interior is determined by totaling the activity area lighting power budgets calculated in accordance with 505.6.1. Appendix Form 2071 provides a suggested format for summarizing room area data, determining activity areas and budgets, and calculating the lighting power limit.

505.6.1 — Activity Area Budget. The lighting power budget for an activity area is determined by the following equation:

$$Pa = Aa \times PD \times AF$$

— Where:

— Pa = power budget for the activity area in watts.

— Aa = activity area; the sum of the room areas in square feet (square meters) associated with a particular building activity and the same ceiling height. Activities are listed in Appendix Table A5.1. Areas are calculated on a room interior dimension basis.

— PD = power density for the activity in watts per square foot (watts per square meter) from Appendix Table A5.1.

— AF = area factor from Appendix Table A5.2 for the average area of all rooms with the same ceiling height associated with the activity. (Average room area is calculated by dividing the total area dedicated to an activity by the number of rooms characterized by that activity.)

— The area factor may also be determined by the area factor equation:

$$\text{Area Factor} = 1/0.9^n$$

$$\text{Where } n = \frac{((\text{ceiling height} \times 10)^{-25})}{(\text{Area}^{0.5})} - 1$$

505.6.1.1 — The power density (PD) is that which will provide sufficient power to satisfy the lighting requirements of the listed activities of the room. Power density values for specific activities are given in Appendix Table A5.1.

— In multi-function rooms (such as hotel banquet/meeting rooms) where multiple illumination systems are installed for essentially independent operation, the power density for the activity shall be 1.5 times the power density associated with the activity having the highest power density. In rooms with multiple simultaneous activities (such as a room with dedicated office and drafting activities), each activity area shall be considered a separate room for the purpose of determining the interior power limit.

— Where specific building activities are not shown in Appendix Table A5.1 the designer shall select activities closest to those provided in the table.

505.6.1.2 — The area factor (AF) is a multiplying factor that adjusts the power density for each activity to account for the effects of room configuration on lighting efficiency. Area factors are given in Table A5.2 and shall be determined for each activity area using the average area for all rooms with the same ceiling height associated with specific activity.

#### 505.7 Lighting Power Limit for Building Exteriors

— The lighting power limit for the building exterior is determined by totaling the activity area lighting power budgets derived from Table A5.1.

#### 505.8 Lighting Power Limit for Building Facade and Exterior Supplementary Lighting

~~—The lighting power limit for building facade and exterior supplementary lighting for uses other than those covered by Section 505.7 shall be set equal to 5 percent of the total building interior lighting power limit.~~

#### ~~505.9 Control for Building Interiors~~

~~505.9.1—Each room enclosed by ceiling-height partitions shall have independent control of the lighting within that area. This control shall be readily accessible to personnel occupying that area.~~

~~—EXCEPTION: Automatic controls or those for special purpose application that require trained operators or those that would pose safety problems or security hazards.~~

~~505.9.2—Where spaces are served by more than one lighting circuit, each individual lighting circuit shall be controlled by a separate control device accessible from within the space.~~

~~505.9.3—Any area over 500 square feet (37.1722) and having a general lighting power density greater than 1.0 watt per square foot (10.76 w/m<sup>2</sup>), should be controlled so as to be able to reduce any general lighting by at least approximately one-half in a uniform pattern. Four-lamp and three-lamp fluorescent luminaires with multiple ballasts shall have at least two separate central devices. The intent of this provision is to allow reduced lighting during periods of reduced lighting demand.~~

~~505.9.4—In all rooms over 500 square feet where use can be made of daylight, lighting systems shall be designed so that luminaires in portions of the room where daylight is available can be controlled separately from the rest of the room. At a minimum, the row of luminaires nearest the source of daylight shall comply.~~

~~—A zone depth equal to 15' shall be considered for daylighting control.~~

#### ~~505.10 Controls for Building Exteriors~~

~~—Facade lighting and other exterior area lighting shall be automatically switched by timer or photoelectric cell, for non-operation when daylighting is available to meet design criteria.~~

~~EXCEPTIONS: safety, security, and sign lighting.~~

#### ~~505.11 Illumination System Performance~~

~~—The lighting systems designed for the rooms and activity areas should be analyzed to insure that the systems, as designed, meet the illuminance quantity and quality criteria required to support the room functions.~~

#### ~~505.12 Compliance~~

~~505.12.1— Compliance with the illumination systems design procedure is achieved when:~~

~~—(1)— Total dedicated interior power is less than or equal to the building interior lighting power limit computed by the procedure in Section 505.6;~~

~~—(2)— Total dedicated exterior power is less than or equal to the building exterior lighting power limits computed by the procedure in Section 505.7;~~

~~—(3)— Total dedicated facade and exterior supplementary power is less than or equal to the building facade and supplementary lighting power limit computed by the procedure in Section 505.8;~~

~~—(4)— Building lighting controls are designed to accordance with Sections 505.9.1, 505.9.2, 505.9.4, 505.10; or~~

~~—(5)— Sum total of the building lighting power limits (interior, exterior and facade) is less than or equal to the sum total of the dedicated power levels.~~

~~— Power limit compliance is not required on a room-by-room or exterior area-by-area basis.~~

~~505.12.2— For the purposes of allowing additional lighting to supplement areas using daylighting and for calculating compliance in rooms using automatic daylighting controls, the dedicated power of the controller lighting fixtures may be computed to 0.8 times their rated wattage.~~

~~505.12.3— For the purposes of calculating compliance in rooms using occupancy sensors for lighting controls and not addressed under 505.12.2 the dedicated power of the controlled lighting fixtures may be computed at 0.9 times their rated wattage.~~

~~505.12.4— The total interior connected load shall be employed in the appropriate equations for exterior envelope compliance in Section 502.~~

~~505.12.5— For the purposes of allowing additional lighting to supplement areas using daylighting and for calculating compliance in rooms using automatic daylighting controls, the dedicated power of the controller lighting fixtures may be computed at 0.8 times their rated wattage.~~

~~505.12.6— For the purposes of calculating compliance in rooms using occupancy sensors for lighting controls and not addressed under 505.12.2 the dedicated power of the controlled lighting fixtures may be computed at 0.9 times their rated wattage.~~

~~505.12.7— The total interior connected load shall be employed in the appropriate equations for exterior envelope compliance in Section 502.~~

TABLE 606
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<del>MINIMUM EER AND COP FOR ELECTRICALLY DRIVEN HVAC SYSTEM EQUIPMENT—COOLING</del>		
<del>STANDARD RATING CAPACITY</del>	<del>SEER</del>	<del>EER</del>
<del>Under 65,000 Btu/h, split systems — single phase — Air — single phase — W/E</del>	<del>9.0 —</del>	<del>— 8.8</del>
<del>Under 65,000 Btu/h, split systems — three phase — Air — three phase — W/E</del>	<del>— —</del>	<del>7.8 8.8</del>
<del>Under 65,000 Btu/h, single package units — single phase — Air — single phase — W/E</del>	<del>8.2 —</del>	<del>— 8.8</del>
<del>Under 65,000 Btu/h, single package units — three phase — Air — three phase — W/E —</del>	<del>— — —</del>	<del>7.8 8.8</del>
<del>Over 65,000 Btu/h, Air Water/Evaporative</del>	<del>— —</del>	<del>8.2 9.2</del>
<del><sup>1</sup> When tested at the standard rating conditions specified in Table 5-9B.</del>		
<del><sup>2</sup> The Department of Energy has established required test procedures for single phase air-cooled residential central air conditioners under 19 kW (65,000 Btu/h) in capacity, which have been incorporated into ARI standard 210-79. EER and COP values in Table 5-5 are based on Test A of the DOE Test Procedures.</del>		
<del><sup>3</sup> Weighted average varies for EER may be used when a building has more than one air conditioning unit.</del>		

## ~~530 (c) Appendix Section~~

~~— (c) — Application of Chapter 53. The Model Energy Code, 1986 edition, as amended by the deletion of those provision expressed in Section 5301 (a) and the addition of those provisions expressed in Section 5301 (b), shall apply to all buildings, structures, or building systems within the city, and to any building, structure, or building system outside the city connected to the city electric system.~~

~~ Figure 5.1 Wall Heating Criterion~~

~~[Click to view figure](#)~~

~~ Figure 5.2 Coefficients for Determining Compliance with the Wall Heating Criterion~~

~~[Click to view figure](#)~~

~~ Figure 5.3 Wall Annual Cooling Criterion~~

~~[Click to view figure](#)~~

~~ Figure 5.4 Coefficients for Determining Compliance with the Wall Annual Cooling Criterion~~

~~[Click to view figure](#)~~

~~ Figure 5.5 Peak Cooling Criterion~~

~~[Click to view figure](#)~~

~~ Figure 5.6 Coefficients for Determining Compliance with the Peak Cooling Criterion~~

~~[Click to view figure](#)~~

## ~~Appendix Chapter 56 ————— FLOODPLAIN REGULATIONS~~

### ~~Section 5601 General~~

~~— (a) — The purpose of this chapter is to regulate the design and construction of buildings in flood hazard areas.~~

~~— (b) — The official floodplain maps showing the extent and boundaries of the regulated flood hazard areas are hereby declared and established as part of these regulations on file in the Office of Land Development Services. For the purpose of these regulations, the Regulatory Flood Datum hereinafter referred to as the RFD, is declared and established as part of these regulations.~~

### ~~Section 5602 Definitions.~~

~~—(a)— The following definitions and abbreviations shall supplement these definitions and abbreviations found in Chapter IV of the Uniform Building Code and its amendments.~~

~~—(1)— Channel. A natural or artificial water course of perceptible extent, with definite bed and banks to confine and conduct continuously or periodically flowing water. Channel flow, is water which flows within the limits of a defined channel. (See Fig. #2)~~

~~—(2)— Emergency (or Temporary) Flood-Proofing. Emergency measures would be taken upon receipt of a warning or forecast, either improved just before or during an actual flood or carried out according to an established emergency plan of action. This plan is to be established and implemented by the building occupant.~~

~~—(3)— Encroachment Lines. Lines indicating the nearest permissible proximity of fill or other construction to restrict flood flow to the channel of a river, stream, branch, creek or watercourse which will not increase water surface elevations at any point by more than one foot.~~

~~—(4)— Flood. An overflow of lands adjacent to a stream, river, lake, etc., not normally covered by water; otherwise, it is normally considered as any temporary rise in stream flow or stage that results in significant adverse effects in the vicinity. Adverse effects may include damages from overflow of land areas, backwater effects in sewers and local drainage channels, creation of unsanitary conditions, soil erosion, deposition of materials during flood recessions, rise of ground water coincident with increased overflow, contamination of domestic water supplies and other problems.~~

~~—(5)— Flood Crest. The maximum stage or elevation reached by the waters of a flood at a given location.~~

~~—(6)— Flood Plain. the area adjoining the channel of a river, stream or waterway, lake or other body of standing water which has been or may be covered by flood water.~~

~~—(7)— Flood Plain Regulations. A general term applied to the full range of codes, ordinances and other regulations relating to the use of land and construction within flood plain limits. The term encompasses zoning ordinances, subdivision regulations, building and housing codes, encroachment laws, open area (space) regulations, and watershed regulations.~~

~~—(8)— Flood Plain Management. A term applied to the full range of public policy and action for insuring wise use of the flood plains. It includes everything from collection and dissemination of flood control information, enforcement of building code regulations, and the building of flood modifying structures.~~

~~—(9)— Floodway. The channel of the stream or body of water and those portions of the flood plains which are reasonably required to carry and discharge flood water or flood flow of a designated magnitude. (See Fig. #2)~~

—— (10) — Floodway Fringe. The area of the flood plain not lying within a floodway which may be covered by flood waters up to the Regulatory Flood. (See Fig. #2)

—— (11) — Flood Profile. A graph or a longitudinal profile showing the relationship of the water surface elevation of a flood to location along a stream or river.

—— (12) — Flood Proofing. A combination of structural changes and/or adjustments incorporated in the design and/or construction and alterations of individual buildings, structures or properties which are subject to flooding primarily, for the reduction or elimination of flood damage.

—— (13) — Freeboard. A factor of safety, expressed in feet, above a design flood level for flood protection. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions such as wave action, bridge opening and floodway obstructions, and the hydrological effects of urbanization of the watershed. (See Fig. #2)

—— (14) — Partial Flood Proofing. Flood proofing measures which require, on warning or forecast, some minimal action to make them work.

—— (15) — Permanent Flood Proofing. Permanent protection that does not depend upon any judgment, flood forecast, or emergency or periodic action to put flood protection measures into effect.

—— (16) — Primary Flood Hazard Areas. The lands adjoining the channel of a river, stream or water course, that would be covered by flood water during a Regulatory Flood. (See Fig. #2)

—— (17) — Regulatory Flood (RF). A flood having an average frequency of occurrence in the order of one in 100 years, although more than one such flood may occur in any selected year (a 1% chance of two regulatory floods occurring in any year). The RF is based on statistical analysis of stream flow records available for the watershed and on analysis of rainfall and runoff characteristics in the "general region of the watershed". (See Fig. #2)

—— (18) — Regulatory Flood Datum (RFD). An established plane of reference from which elevations and depth of flooding may be determined for specific locations of the flood plain. It is the water level of the regulatory flood plus a freeboard factor of one foot. Regulatory flood plus freeboard equals Regulatory Flood Datum (RFD). (See Fig. #2)

—— (19) — Secondary Flood Hazard Areas. The land area beyond the runout line of the Regulatory Flood that could be affected by higher floods and by underground water travel, back flooding of sewage, drainage, domestic water supply, and public utility systems, or cause other flood related problems during a Regulatory Flood. (See Fig. #2)

—— (20) — Watercourse. Any natural or man-made depression with a bed and well defined banks two feet or more below the surrounding land serving to give direction to a current of water.

### Section 5603 Nonconforming Uses

~~A structure, or the use of a structure or premises, which was lawful before the adoption of this ordinance, but which is not in conformity with the provisions of these regulations, may be continued subject to the following conditions:~~

~~—(1)— No such use shall be expanded, changed, enlarged, or altered in a way which increases its nonconformity.~~

~~—(2)— No structural alterations, additions or repairs exceeding 50% of the market value of the structure shall be made unless the structure is changed to conform with these regulations.~~

~~—(3)— If a nonconforming use is abandoned for a period of 90 days, any future use of the building or premises shall conform to these regulations.~~

~~—(4)— Any nonconforming use or structure which is destroyed by means, including floods, to an extent of 50% or more of its market value, shall not be reconstructed except in conformance with the provisions of these regulations.~~

### Section 5604 Permits and Inspections.

~~—(a)— The provisions of Chapter 2 and Chapter 3 of the Uniform Building Code and its amendments concerning permits, inspections, maintenance of records, fees, board of appeals, violations, and penalties shall apply equally to these regulations.~~

~~—(b)— No person, firm, or corporation shall erect, enlarge, alter, repair, move, remove, convert, or demolish any structure, excavate or perform any type of earth moving, including planting or removal of trees, within the primary flood hazard areas without first obtaining from the Director of the Watershed Protection and Development Review Department a flood-proofing permit for the structure, if any, and from the Director of the Watershed Protection and Development Review Department a flood plain improvement permit. These regulations apply to mobile homes and all manufactured buildings regulated by the State of Texas.~~

~~—(c)— The owner or any architect or professional engineer, registered or licensed to practice in the State of Texas, authorized to represent the owner, shall file with the Director of the Building Safety Department complete plans accompanied by a statement of intention to improve (see Fig. #1) including the following:~~

~~—(1)— A description of work covered by the request for the permit which shows a list of all spaces affected by these regulations, gives the flood-proofing class, the elevation of RFD, the floor elevation, the proposed uses and contents, the flood-proofing measures applying to each space, the plot plan showing location of the building on the site, the profile drawings of land configuration showing drainage, and an estimate of the value of the improvements.~~

~~—(2)— Three complete sets of plans and specifications, except those plans and specifications for any and all proposed improvements located in the primary flood areas, shall be prepared by an engineer licensed to practice in the State of Texas. All plans and specifications shall be noted with the proposed flood-proofing class of each space below the RFD, including detailed drawings of walls and wall openings.~~

~~—(3)— The application for a permit to construct or improve within the designated flood areas shall be submitted in the form to be provided by the Director of the Watershed Protection and Development Review Department. The application, together with plans and specifications shall be processed as follows: (see Fig. #1)~~

~~—(a)— Three copies to be retained by the Director of the Watershed Protection and Development Review Department.~~

~~—(b)— Upon approval of the flood plain improvement, the Director of the Watershed Protection and Development Review Department shall attach to the file copy all of the annotations and issue the building flood-proofing permit.~~

~~—(c)— A copy of the authenticated plans shall be returned to the owner for his or her use during construction. These plans shall be available at the construction site at all times. Inspectors from the Watershed Protection and Development Review Department shall check these sites to insure that work is progressing according to the approved plans and specifications.~~

~~—(d)— Buildings or structures, and parts thereof, that contain or use emergency type flood-proofing elements or devices shall be subject to inspection by the Building Official at intervals of three years or less. The owner, or his or her agent, shall be notified at least ten days in advance of the inspection date and shall be requested to be present at the inspection. The owner shall be responsible for demonstrating the availability, installation and proper function, anchorage and support of all closures and any other emergency flood-proofing items. All necessary corrections of deficiencies shall be performed within 90 calendar days of the inspection date and at the owner's expense.~~

#### Section 5605 Provisions of Safe Refuge

~~—(a)— Every building or structure erected after the effective date of this Ordinance that is located in the regulated Flood Hazard Areas where the ground surface is one foot or more below the RFD, or where flood water velocities at the building may exceed five feet per second, shall be provided with an enclosed refuge space above the RFD of sufficient area to provide for the occupancy load with minimum of 12 square feet per person. It shall be provided with one or more exits through the exterior walls above the RFD to an exterior platform and stairway not less than three feet wide.~~

~~—(b)— Existing buildings and structures in the Primary Flood Hazard Areas that are subject to flood conditions such as in 5605(a), as (a) above, and which, after the effective date of this Ordinance, are enlarged, extended or altered, or where change of~~

use of occupancy shall be made, shall conform to all provisions required for new construction as in Section 5605(a) above.

~~—(c)— No floor level or portion of the building or structure erected after the effective date of this Ordinance that is below the RFD regardless of the structure or space classification shall be used residentially, or for storage of any property, materials, or equipment that might constitute a safety hazard when contacted by flood waters.~~

~~Section 5606 Classification of buildings and structures.~~

~~—For administration purposes of coordination of regulations, inspections of structures and conduct of emergency public safety operations, all buildings or structures in the Flood Hazard Areas, whether existing or hereafter erected shall be classified and posted in accordance with this section. (See Table #1)~~

~~—(a)— Classification FP-1 is any building or structure completely flood-proofed, which is located in a Flood Hazard Area with no space below the RFD or with spaces below the RFD classified W-1 or W-2 (see Table #2) without employing any contingent closure, removal, protection, or any other measure requiring human intervention for effectiveness in the event of a flood.~~

~~—(b)— Classification FP-2 is any building or structure completely flood-proofed, which is located in a Flood Hazard Area with spaces below the RFD, classified as W-1 or W-2 (see Table #2) but for which one or more of these spaces employs any contingent closure, removal, protection, or any other measure which requires human intervention for effectiveness in the event of a flood.~~

~~—(c)— Classification FP-3 is any building or structure, partially flood-proofed, located in a Flood Hazard Area which contains a combination of spaces below the RFD that are classified W-1 or W-2 which is achieved without human intervention and/or one or more spaces that will be flooded internally (W-3 and/or W-4). (See Table #2)~~

~~—(d)— Classification FP-4 is any building or structure, partially flood-proofed, located in the Flood Hazard Area which contains a combination of spaces below the RFD that are classified W-1 or W-2 (See Table #2) which is achieved with human intervention, and/or one or more spaces that will be flooded internally (W-2 and/or W-4).~~

~~—(e)— Classification FP-5 is any existing building or structure located in a Flood Hazard Area which contains one or more spaces below the RFD that are flood-proofed.~~

~~—(f)— Classification FP-6 is any building or structure located in the Flood Hazard Area that is provided with a safe refuge area.~~

~~Section 5607 Flood-Proofing classification of spaces below the Regulatory Flood Datum (RFD).~~

~~— See Table #2~~

~~—(a)— Assignment of flood-proofing classes is made by the owner at the time of application for a permit and subject to the approval of the Director of Building Safety Department. Every space of an improvement in a Flood Hazard Area which impinges in whole or in part upon the RFD shall be assigned a flood-proofing class, and all requirements associated with flood-proofing shall be met by the space to which they apply in addition to all other requirements of these regulations and the building code.~~

~~—(b)— Flood-Proofing Class W-1. These spaces shall remain completely dry during flooding to the RFD. Walls shall be impermeable of water and water vapor. Permitted contents and interior finish materials are virtually unrestricted, except for high hazard type uses or human habitation, as provided in Section 5605(c) of the Building Code. Structural components shall be able to resist hydrostatic and hydrodynamic loads and the effects of buoyancy to which the structure shall be subjected.~~

~~(c) — Flood-Proofing Class W-2. These spaces shall remain essentially dry during flooding to the RFD. Walls shall be substantially impermeable to water, but may pass some water vapor or seep slightly. Contents and interior finish materials are restricted if hazardous or vulnerable under these conditions. Structural components shall be able to resist hydrostatic and hydrodynamic loads and the effects of buoyancy to which the structure shall be subjected.~~

~~—(d)— Flood-Proofing Class W-3. These spaces will be flooded internally with potable water, provided by the owner, in order to maintain the building's structural integrity by equaling pressures on structural components during flooding to the RFD. Walls shall be sufficiently impermeable to prevent passage, infiltration or seepage of contaminated flood waters. Contents and interior finish materials are restricted if hazardous or vulnerable under internal flooding conditions.~~

~~—(e)— Flood-Proofing Class W-4. These spaces will be flooded with flood water (which may be contaminated) by automatic means, or are otherwise partially exposed to the unmitigated effects of the flood. Although there are minimal structural requirements to be met for walls and other structural components, contents and interior finish materials are restricted to types which are neither hazardous nor vulnerable to loss under these flooding conditions. (Most spaces in existing building would have this classification if provided with a suitable automatic flooding system. Carports, loading platforms, open crawl spaces, porches and patios would generally fall into this classification.)~~

~~—(f)— Non-Flood-Proofed Class W-5. A non-flood-proofed space in an existing building or structure does not meet the requirements of W-1, W-2, W-3, and W-4 described above.~~

#### Section 5608 Structural Requirements. See Table #2

~~—(a)— All buildings and structures covered by these regulations and all parts thereof shall be capable of resisting all loads required by this Code.~~

~~—(b)— Class 1 Loads reflect the probable effects of flooding on structures which are waterproofed (W-1 or W-2). These loads will be calculated as outlined in this Section and shall include all water impact and soil loads specified in this Code.~~

~~(c)— Class 2 Loads reflect the probable effects of flooding on structures which include internal flooding as a means of structural protection and which shall be so flooded in accordance with Section 36-5614. These loads shall be calculated in accordance with this section except that only hydrodynamic and impact loads must be considered when the interior and exterior water levels are equal.~~

~~—(d)— Class 3 Loads apply to buildings or structures which are to be flooded with flood water either internally by automatic means or externally in partially exposed areas. For internal flooding, Class 3 loads shall coincide with those of Class 2. For partially exposed spaces, however, any dependent or supporting structure components shall be designed for Class 1 or Class 2 loads if they are also structural components of any adjacent enclosed space whichever is required; isolated or freestanding columns or walls shall meet the criteria of Section 5611 and 5612 (d).~~

~~—(e)— Water Loads are loads or pressures on surfaces of buildings or structures caused and induced by flood water. These loads are of two types: hydrostatic and hydrodynamic.~~

~~—(1)— Hydrostatic Loads are those caused by water above or below the ground surface, free or confined, which is either stagnant or moves at velocities less than five feet per second. These loads are equal to the product of the water pressure times the surface area on which the pressure acts. The pressure at any point is equal to the unit weight of water (62.5) pounds per cubic foot) multiplied by the height of water above the point or by the height in which confined water would rise if free to do so. Hydrostatic pressures at any point are equal in all directions and always act perpendicular to any surface on which they are applied. Hydrostatic loads are subdivided into the following types.~~

~~—(a)— Vertical Loads. These are loads acting vertically downward on horizontal or inclined surfaces of buildings or structures, such as roofs, decks, floors, and walls caused by the weight of flood waters above them. Full intensity of hydrostatic pressures caused by a depth of water between the design level and the RFD applied on all surfaces.~~

~~—(b)— Lateral Loads. These hydrostatic loads are those which act in a horizontal direction, against vertical or inclined surfaces, both above and below the ground surface and which tend to cause lateral displacement and overturning of the building, structure or parts thereof. Full intensity of hydrostatic pressures is caused by depth of water between the design elevation and the RFD applied over all surfaces involved, both above and below  $f$  = ground level, except that for surfaces exposed to free water, the design depth shall be increased by one foot.~~

~~—— (c) — Uplift Loads. These loads act vertically upwards on the underside of surfaces of buildings or structures such as basement, slabs, footings, floors, decks, roofs, and overhangs. The hydrostatic pressures are caused by a depth of water between the design level and the RFD acting on all the undersides of surfaces involved, unless provisions are made to reduce uplift intensity as permitted by anchorage. (See Section 5609 (c).)~~

~~—— (d) — Hydrostatic Loads shall be used in the design of buildings and structures exposed to water loads from stagnant flood waters, for conditions when water velocities do not exceed five feet per second, and for buildings and structures or parts thereof not exposed to flowing water. For buildings or structures which are exposed to flowing water having a velocity greater than five feet per second, hydrostatic and hydrodynamic loads shall apply.~~

~~—— (e) — Hydrodynamic Loads are those induced on buildings or structures by the flow of flood water moving at moderate or high velocity around the building or parts of the building above ground level.~~

~~Hydrodynamic loads may occur below ground level when openings or conduits exist which will allow free flow of flood waters. Hydrodynamic loads are basically of a lateral type and relate to direct impact by the moving mass of water, and to drag forces as the water flows around the obstruction. Where application of hydrodynamic loads is required, the loads shall be computed or estimated by recognized and authoritative methods. Evaluation of water velocities and related dynamic effects are beyond the scope of these regulations, but shall be subject to approval by the Director of the Building Safety Department. When water velocities do not exceed ten feet per second, the dynamic effects of the moving water may be converted into equivalent hydrostatic loads by adding the depth of water above the RFD elevation by an amount  $d_h$ , on the headwater side and above the ground level only, equal to:~~

$$\frac{aV^2}{2g} = d_h \text{ where}$$

~~——  $V$  = average velocity of the water in feet per second~~

~~——  $g$  = acceleration of gravity, 32.2 feet per second~~

~~——  $a$  = coefficient of drag or shape factor (the value of "a", unless otherwise evaluated, indicated and approved by the Building Official shall not be less than 1.25)~~

~~The equivalent surcharge depth  $d_h$  shall be added to the depth measured between the design level and the RFD and the resultant pressures applied to, and uniformly distributed across, the vertical protected area of the building or structure which is perpendicular to the flow. Surfaces parallel to the flow or surfaces wetted by the tailwater shall be considered subject to hydrostatic pressures for depth to the RFD only. Hydrodynamic loads regardless of evaluation, shall be applied to full intensity over all above ground surfaces between the ground level and the RFD.~~

~~— (f) — Impact Loads are those which result from floating debris, etc., striking against buildings and structures or parts thereof. These loads are of three basic types:~~

~~—— (1) — Normal Impact Loads are loads which relate to isolated occurrences of logs or other floatable objects striking buildings. A concentrated load acting horizontally at the RFD, or at any point below it, is equal to the impact force produced by a 1000-pound mass traveling at the velocity of the flood water on a one square foot of surface of the structure.~~

~~—— (2) — Special Impact Loads are loads that relate to a large conglomerate of floatable objects, such as debris striking or resting against the building. Where these loads are likely to occur, they shall be considered in the design of buildings, unless rational and detailed analysis is made and submitted to the Building Official for approval, the intensity of the load shall be taken as 100 pounds per foot acting horizontally over a one foot wide horizontal strip at the RFD or at any more critical level below it. Where natural or artificial barrier would prevent these special impact loads, the loads may be ignored in the design.~~

~~—— (3) — Extreme Impact Loads are those which relate to large floatable objects and masses such as barges, buildings and structures striking the building. Accordingly, except for special cases when exposure to these loads is highly probable, no allowance for these loads need be made in the design.~~

~~— (g) — Soil Loads. Full consideration shall be given in the design of buildings to the loads or pressure resulting from the presence of soils against or over the structure. Loads or pressures shall be computed in accordance with accepted engineering practice, giving full consideration to the effect that the presence of flood water, above or within the soil, has on loads and pressures. When expansive soils are present, the Director of the Building Safety Department may require that special provisions be made in foundation and wall design and construction to safeguard against damage due to this expansiveness.~~

~~— (h) — Loading Conditions. Buildings covered by these regulations shall be designed according to the loads specified by the Building Code in addition to loads due to flooding conditions. In a separate analysis, the effects of flood related loads and loading conditions shall be calculated such that the maximum value of combined loads and member stresses shall then be computed. The buildings, structures and all structural members shall be capable of resisting these maximum loads and stresses without exceeding allowable stresses.~~

~~— (i) — Allowable Soil Pressures. Under flood conditions, the bearing capacity of submerged soils is affected and reduced by the buoyancy effect of the water on the soil. For foundations of buildings and structures covered by these regulations, the bearing capacity of soils shall be evaluated by a recognized acceptable method. Expansive soils which lose all bearing capacity when saturated or become "liquefied" shall not be used for supporting foundations. If a detailed soil analysis and investigation is not made and if bearing capacity of the soils are not evaluated as required above, allowable soil~~

pressures permitted by the Building Code may be used provided those values are reduced by a percent to be determined for each locality and soil type by the Building Official.

#### Section 5609 Stability.

—(a)—Overtuning. All buildings and structures covered by these regulations shall be proportioned to provide a minimum factor of safety of 1.50 against failure by sliding or overturning when subjected to flood related loads or combined loads. (See 5608(h)). For the purpose of providing stability, only the dead loads shall be considered effective. No use shall be made of any resistance, either as weight or frictional or passive, from soils which would be removed by excavation, scour or other causes. Similarly, no use shall be made of frictional resistance between the foundation and the underlying soil in the case of structures.

—(b)—Flotation. The building or structure and all appurtenances of components thereof not rigidly anchored to the structure, shall have enough weight (dead load) to resist the full or reduced hydrostatic pressure and uplift from flood water at the RFD with a factor of safety of 1.33. For provisions governing reduced uplift intensities see Section 5610(a) below.

—(c)—Anchorage. Any building or structure, as a whole, which lacks adequate weight and mass to provide the required safety factor against overturning, sliding and flotation shall be permanently anchored to the ground and, preferably, to underlying sound rock formations. In addition, all elements of a building or structure such as walls, floor slabs, girders, beams, columns, and other members, shall be connected or anchored to form an adequate structural system to support the individual members and all the applied loads. provisions for adequate anchorage shall also apply to tanks, sealed conduits, pipes, sumps and similar structures which have negligible weight of their own.

#### Section 5610 Reduction of uplift pressures.

—Uplift forces, in conjunction with lateral hydrostatic forces, are the most adverse flood-related load on buildings and structures. Their combined effect determines, to a major extent, the requirements for weight and anchorage of a structure to assure stability against flotation, sliding and overturning. Uplift forces applied to footings, walls, and particularly basement slabs, constitute the critical loads on such elements. It is permissible to make revisions for reducing uplift forces under the structure. Data and design procedures shall be based on recognized and acceptable methods of foundation drainage and waterproofing. Such provisions shall include, but are not limited to, impervious cutoffs, foundation drainage, and sumps and pumps.

#### Section 5611 Water proofing. (See Table #2)

—(a)— This section shall govern the design, use and methods of construction and materials to obtain the degree of protection for a space against water, water vapor, and water borne contamination determined by the hazard potential to the contents and interior finish materials to permit meeting the flood proofing classification of the space.

Three types of construction are defined as to the degree they satisfy a standard of dryness. The specifications of Type "A" waterproofing construction, as detailed below, shall be the guide to measure prerequisites for attaining this standard of dryness.

— (b) — Type "A" Construction. Type "A" waterproofing construction is completely impermeable to the passage of external water and water vapor under hydrostatic pressure of flooding to the RFD. Type "A" waterproofing construction shall consist of:

— (1) — Type "A" Membrane Construction. Type "A" membrane waterproofing forms a continuous external impervious lining to protect a structure with a concrete floor slab and concrete or reinforced concrete masonry unit walls. It shall comply with the following requirements for structural prerequisites, materials and installation.

— (a) — Continuity of Structure. Structural slabs below grade shall be continuous under perimeter walls to prevent differential settlement and shall be designed to act monolithically with the walls; reinforced concrete masonry unit walls shall be connected rigidly to slabs with reinforcing steel. (See Figures 3, 4 & 5)

— (b) — Projection of Slab. Where slab is continuous under perimeter walls, it shall project not less than six inches beyond the outside of the wall in order to provide spaces for joining horizontal and vertical membranes. (See Figures 3, 4 & 5)

— (c) — Columns. If columns occur, there shall be no vertical discontinuity or abrupt changes in slab cross sections. If slab thicknesses change, they shall do so gradually and the effects of pressure distribution on the thinner portion of the slab cross section shall be considered. (See Figures 3, 4 & 5)

— (d) — Protection. All membranes shall be installed on exterior surfaces of perimeter walls. For floor slabs, the membrane shall be installed between the structural slab and wearing surface or otherwise placed on a non-structural concrete sub-base at least two inches in thickness to protect the membrane and insure its flatness; in the latter case (see Figures 3, 4, & 5) a two inch thick sand-cement screen shall be placed over the membrane before laying reinforcing steel for the structural slab.

— (e) — Materials. For the purpose of these regulations, a membrane shall be a layered sheet construction of tar-asphalt bitumen and felts, at least three-ply in thickness neoprene-coated nylon fabric; other approved sheet material, or multiple applied hydrolithic coatings of asphaltic bitumens. All applicable ASTM standards shall apply to Type "A" membranes and their component parts.

— (f) — Permeability. Type "A" membrane shall permit passage of no more than three pounds of water per 1000 square feet in 24 hours at 40 psi.

— (g) — Plastic Waterproofing Materials. Various plastic materials, including, among others, polyethylene, PVC, polyurethane, and polyisobutylene, shall be permitted in sufficient thickness in sheets or coatings.

~~————— (h) — Turns. Turns and corners, both vertical and horizontal, shall be made with chamfers and fillets of not less than two inches dimension on any side.~~

~~————— (i) — Seams. Membrane seams or overlaps, if any, shall be interleaved and protected in accordance with accepted practice, but in no case shall seams or overlaps be less than two inches in any direction.~~

~~————— (j) — Pipes. Points where pipes or ducts penetrate waterproofed construction shall be designed to be watertight in accordance with accepted engineering practice.~~

~~————— (k) — Joints. Membranes shall be continuous across expansion, control and construction joints, with water stops.~~

~~————— (l) — Excavations. Excavations preceding construction shall extend a minimum distance of 24 inches beyond the exterior wall lines to facilitate construction operations. In areas where this requirement cannot be met, excavation limits shall be as designated by the Building Official.~~

~~————— (2) — Type "A" Integrally Waterproofed Concrete Construction. Type "A" integrally waterproofed concrete construction shall comply with the following requirements for structural prerequisites, materials, and installation:~~

~~————— (a) — Continuity of Structure. Structural slabs shall be continuous under perimeter walls. Slabs shall be designed to act monolithically with perimeter walls, or otherwise shall carry them nonrigidly in a recess with mastic "V" fillings and waterstops. (See Figures 3, 4, & 5)~~

~~————— (b) — Deflections. To prevent increases of permeability in tension zones, the maximum deflection of any structural slab or perimeter wall shall not exceed 1/5000 of its shorter span.~~

~~————— (c) — Columns. (See Section 5611(b)(1)(c) above.)~~

~~————— (d) — Materials. All Type "A" integrally waterproofed concrete shall have a seven day compressive strength of at least 3000 psi and a 28 day compressive strength of 4000 psi.~~

~~————— (e) — Waterproofing Admixtures. If an approved waterproofing admixture is used, the cement content required to achieve the strength specifications may not be reduced by more than ten percent. Approved admixture shall not reduce the compressive strength of the concrete and shall act as a densifier and/or to increase workability.~~

~~————— (f) — Joints. Expansion joints shall be keyed, provided with water stops and thoroughly roughened and cleaned before continuation of concrete placement.~~

~~———— (g) — Protection of Fresh Concrete. When potentially aggressive ground water conditions exist, the Building Official may require the protection of fresh concrete from contact with ground water for a period of not less than 14 calendar days.~~

~~———— (3) — Type "A" Interior Linings. A Type "A" interior lining forms a continuous internal impervious barrier to protect a structure with a concrete floor slab and concrete or reinforced concrete masonry unit walls. All Type "A" interior lining shall conform to the following requirements for structural prerequisites materials, and installation:~~

~~———— (a) — Continuity of Structure. (See Section 5611(b)(2)(a) above)~~

~~———— (b) — Columns. (See Section 5611(b)(2)(c) above)~~

~~———— (c) — Deflections. (See Section 5611(b)(2)(b) above)~~

~~———— (d) — Materials shall be any continuous coating, parging or rendering of cementous or other approved waterproofing material or compound with adequate structural strength and impermeability to serve its intended purpose. All relevant ASTM standards shall apply.~~

~~———— (e) — Permeability. Type "A" interior lining shall permit the passage of no more than three pounds of water per 1000 square feet in 24 hours at 40 psi.~~

~~———— (f) — Turns, Pipes, and Joints. See (b)(i)(h), (j), and (k) and (b)(2)(f) above.~~

~~———— (g) — Existing Spaces. Spaces in existing structures which become subject to these regulations may be approved as having Type "A" waterproofing upon inspection and acceptance by the Building Official.~~

~~———— (c) — Type "B" Construction. Type "B" construction shall be substantially impermeable but may pass water vapor and seep slightly during flooding to the RFD. Large cracks, openings, or other channels that could permit unobstructed passage of water shall not be permitted. In no case shall there be permitted the accumulation of more than four inches of water depth in such space during a 24 hour period if there were no devices provided for its removal. However, sump pumps shall be required to control this seepage.~~

~~———— (1) — Upgrading Existing Spaces. Spaces with a Type "B" waterproofing construction may be upgraded to Type "A" by installing a continuous interior or exterior lining or combination of both which the Building Official may approve as meeting Type "A" construction.~~

~~———— (d) — Type "C" Construction. Type "C" constructions are any which do not satisfy the requirements of Type "A": or "B" construction.~~

~~———— (1) — Upgrading Existing Spaces. (See Section 5611(c)(1) above)~~

~~Section 5612 Requirements for other floodproofing methods. (See Figures 19 thru 28)~~

~~—(a)— A building shall be considered to be completely floodproofed if the lowest elevation of all spaces within the building perimeter is above the RFD u achieved by:~~

- ~~——(1)—— Building beyond the RFD.~~
- ~~——(2)—— Building on fill.~~
- ~~——(3)—— Building on columnar members.~~
- ~~——(4)—— Protection by dikes, levees and/or flood walls.~~

~~(These methods may be used alone or in combination to achieve the required degree of floodproofing.)~~

~~—(b)— Building on Natural Terrain. The building shall be located not less than one foot back from the line of incidence of the RFD on the ground or shall be positioned on foundation with elevation not less than one foot from RFD. Foundation design shall take into consideration the effects of soil saturation on the performance of the foundation. The effects of flood waters on slope stability shall be investigated. Normal access to the building shall be by direct connection with areas above the RFD. All utility service lines shall be designed and constructed as required to protect the building and/or its components from damage or failure during a flooding event to the RFD.~~

~~—(c)— Building on Fill. The building and all parts thereof may be constructed on fill. Prior to placement of any fill or embankment materials, the area upon which the fill is to be placed shall be cleared of standing trees and snags and any other objects or debris unsuitable for foundation material. Fill material shall be of a selected type, preferably granular and free-graining, placed in compacted layers. The minimum elevation of the top of the slope for fill section shall be at the RFD. Minimum distance from any point of the building perimeter to the top of the fill slope shall be at least twice the depth of fill at that point. Fill slopes shall be no steeper than one vertical to two horizontal, unless substantiating data justifying steeper slopes are approved by the Building Official. For slopes exposed to flood velocities of less than five fps, grass or vine cover, weeds, bushes, and similar vegetation undergrowth will be considered to provide adequate scour protection. For higher velocities, stone, rock slope, or concrete protection shall be provided.~~

~~—(d)— Building on Columnar Members. The buildings may be constructed above the RFD by supporting it on columnar type members, such as stilts, piers, and, in certain cases, walls. Clear spacing of columnar support members, measured perpendicular to the general direction of flood flow, shall be not less than eight feet apart at the closest point. They should be, as far as is practical, free of any appendages which may trap or restrict passage of debris during a flood. Walls, if used, shall be oriented with the longest planned dimension of its members parallel to the flow. Stilts shall be capable of resisting all applied loads as required by the Building Code and all applicable flood-related loads. Bracing, where used to provide lateral stability, shall be of a type that causes the least obstruction to the flow and the least potential for trapping flood debris.~~

~~—(e)— Protection by Dikes, Levees, and Floodwalls. The building shall be considered 5 floodproofed type when it is protected from flood waters to the RFD by means of dikes, levees, or flood wall, used alone or in combination. Regardless of type and method of construction, dikes, levees, and floodwalls shall be designed and constructed in accordance with recognized engineering principles. They shall have adequate strength and stability to resist all applied loads and shall provide an effective watertight barrier at least up to the RFD. All seepage and storm drainage shall be collected by a sump or sumps where it may be pumped out over the dikes. Normal surface runoff within and into the dike area during nonflood periods may be discharged through drainage pipes or culverts through the dike. Such culverts shall have dependable flaps, a slide gate, or a backflow preventing device which would close automatically to prevent backflow during a flood. Clearance from the toe of the dike to the building shall be a minimum of 20 feet or twice the height of the dike or levee above the interior finished grade. Floodwalls may be of concrete, steel, sheet piling or other suitable construction material. Adequate expansion and contraction joints shall be provided.~~

~~Section 5613 Closure of openings. (See Figures 6 thru 18)~~

~~—(a)— Openings in exterior or interior walls of buildings or structures in the Flood Hazard Area which is wholly or in part below the RFD shall be provided with waterproofed closures meeting the requirements of one of the five types classified below:~~

~~—(1)— Type 1 Closure. Shall conform to a complete sealed barrier over the opening, impermeable to the passage of water at the full hydrostatic pressure of a flood to the RFD.~~

~~—(2)— Type 2 Closure. Shall form essentially dry barriers or seals allowing only slight seepage during hydrostatic pressure conditions of flooding to the RFD.~~

~~—(3)— Type 3 Closure. Shall form barriers or seals that are impermeable to the passage of water-borne silt and debris under equalized pressure conditions.~~

~~—(4)— Type 4 Closure. Shall form barriers to the passage of flood-carried debris and the loss of floating items from the interior but is not required to form impermeable seals.~~

~~—(5)— Type 5 Closure. Existing spaces which do not meet the requirements of any of the above types, but are in use as required by the Building Code.~~

~~—(b)— Design Standards for Closure Assemblies. The structural capacity of all closures shall be adequate to support all flood loads acting upon its surface. Closure assembly shall be attached to the building or structure at its immediate location of use, i.e., hinged, on slides, or in a vertical recess. The closure device shall be capable of being set in place with minimal manual effort. Seals, if required, shall be gasketed pressure-type and permanently anchored or attached to the structure or to the closure assembly. Closures, when not in use, shall not impede fire exit or the functioning of fire~~

exit facilities. In the closed position, the closure assembly shall engage fixed wedging blocks that will force the closure into a tight sealing position.

~~—(c)— Frames for Openings. Each opening below the RFD shall have a metal frame suitable for providing an adequate sealing surface and for supporting the floodproofing closure assembly. The frame shall be secured to the adjacent walls and floors and provide adequate bearing surface and anchorage to transfer the panel load into the wall.~~

~~—(d)— Openings in Shafts. All buildings or structures which have enclosing walls, decks, or shafts with horizontal or inclined openings at the top that are below the RFD and which would inundate W-1 or W-2 spaces shall be provided with type 1 closure assemblies. Windows, grilles, vents, door openings, etc, in the side walls or shafts, and below the RFD shall be provided with floodproofing closures meeting /the requirements of Section 5613 (a)(1), (2) and (3) above.~~

#### ~~Section 5614 Internal flooding and drainage.~~

~~—(a)— Spaces to be intentionally flooded (V-3 spaces) to maintain a balanced internal and external pressure condition shall be filled automatically with potable water from a source to be provided by the owner. The level of filling provided shall be equal to that of the external RFD flood surface, unless a reduction in the internal flooding level is requested by the owner in writing which substantiates that full internal flooding is unnecessary to protect the structure. The potable water flooding shall actuate automatically. The drainage system shall also be provided that will assure positive drainage at a rate comparable to the reduction of exterior flood height when flood waters are receding.~~

~~—(b)— Spaces to be intentionally flooded with flood water (W-4 spaces) shall be provided with the necessary equipment, devices, piping controls, etc., necessary for automatic flooding during the flood event to the RFD level and drainage of the space when flood waters recede. The automatic flooding and drainage shall be of sufficient capacity for raising and lowering the internal water level at a rate comparable to the anticipated rate of rise and fall of the flood that would reach the RFD. Provisions are to be made to prevent unbalanced filling of chambers or parts within the structure. All spaces below the RFD shall be vented to the outside with air vents extending at least three feet above the RFD to prevent trapping of air by rising water surface.~~

#### ~~Section 5615 Flooring. (See Table #3)~~

~~—(a)— Floor systems and flooring materials are divided into five classes according to their degree of vulnerability to flood water:~~

~~——(1)— Class 1 floorings require conditions of dryness provided by V-1 spaces.~~

~~——(2)— Class 2 floorings require essentially dry spaces which may subject to water vapor and slight seepage that is characteristics of W-2 spaces.~~

~~—— (3) — Class 3 floorings may be submerged in clean water during periods of intentional flooding as provided by W-3 spaces.~~

~~—— (4) — Class 4 floorings may be exposed to and/or submerged in flood waters in interior spaces and do not require special waterproofing protection.~~

~~—— (5) — Class 5 floorings are permitted for semi-enclosed or outside uses exposed to flood.~~

~~—— (b) — Table #3 depicts the vulnerability of typical flooring materials with respect to the criteria stated above. It is intended to aid owners, architects/ engineers in assessing the correct class of flooring materials.~~

#### ~~Section 5616 Walls and ceilings. (See Table #4)~~

~~—— (a) — Materials treated In this section are those which constitute interior walls and ceilings including their finishes and structural constructions upon which they depend, such as sheathing insulation, and are restricted according to their susceptibility to flood damage. Susceptibility of a given material or construction is dependent upon one or more of the following:~~

~~—— (1) — Adhesives specified for above-grade use which are water soluble or which are not resistant to alkali or acid in water.~~

~~—— (2) — Wall or ceiling material contains wood, wood products, gypsum products, or other material which dissolves or deteriorates, loses structural integrity or is adversely affected by water.~~

~~—— (3) — Wall or ceiling material is not resistant to alkali or acid in water.~~

~~—— (4) — Material is impervious but dimensionally unstable.~~

~~—— (5) — Materials absorb or retain water excessively after submergence.~~

~~—— (b) — Classes of Walls and Ceilings. Wall and ceiling materials and systems are divided into five classes according to their degree of vulnerability as described above:~~

~~—— (1) — Class 1 materials require conditions of dryness provided W-1 spaces.~~

~~—— (2) — Class 2 materials require essentially dry spaces which may be subject to water vapor and slight seepage that is characteristics of W-2 spaces.~~

~~—— (3) — Class 3 wall and ceiling materials may be submerged in clean water during periods of intentional flooding as provided by W-3 spaces.~~

~~—— (4) — Class 4 materials may be exposed to or submerged in flood waters in interior spaces that do not require special water proofing treatment or protection.~~

~~—— (5) — Class 5 wall and ceiling material are permitted for semi-enclosed or outside uses.~~

~~—— (c) — Classes of Typical Wall/Ceiling Materials. Table #4 depicts typical wall and ceiling materials with their corresponding classification number as described above:~~

~~Section 5617 (See Table #5)~~

~~—— (a) — The contents of an improvement consist of all items situated or placed within the confines of the space and which are not an integral part of the structure. The contents of an improvement are classified into seven classes according to the degree of flood-proofing required to protect them from becoming hazards or losses as follows:~~

~~—— (1) — Class XX items are extremely hazardous or vulnerable to flood conditions and they shall not be permitted in the flood hazard areas.~~

~~—— (2) — Class X items are sufficiently hazardous or vulnerable to require their prohibition in all spaces below the RFD. They shall be placed at least one floor level above the RFD.~~

~~—— (3) — Class 1 items require the protection of W-1 spaces.~~

~~—— (4) — Class 2 items require the protection of W-2 spaces.~~

~~—— (5) — Class 3 items require the protection of W-3 spaces.~~

~~—— (6) — Class 4 items are generally not damageable by flood waters moving at low velocities (W-4 spaces).~~

~~—— (7) — Class 5 items are sufficiently non-hazardous and non-vulnerable to permit their placement anywhere.~~

~~ Figure 1 – Supplementary Application~~

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~~ Figure 2 – Flood Hazard Areas and Regulatory Flood Datum~~

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~~ Figure 3 – Type “A” Membrane Water Proofing in Floor Slabs~~

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~~ Figure 4 – Non-Rigid Perimeter Wall and Floor Slab Connections~~

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~~ Figure 5 – Typical Foundation Drainage and Waterproofing~~

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 Figure 6 Typical Steel Basement Window for Reinforced Masonry Walls

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 Figure 7 Closure Panel for Basement Window for Small Windows and Shallow Depth of Flooding

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 Figure 8 Flood Shield Behind Window Lowered into Position and Attached to Frame with Quick Disconnect Type Fasteners

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 Figure 9 Bond Beams and Vertical Reinforcement at Large Openings

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 Figure 10 Bond Beams and Vertical Reinforcement at Large Openings

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 Figure 11 Typical Door

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 Figure 12 Display Window Flood Shield Details

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 Figure 13 Closures for Horizontal Openings Below RFD

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 Figure 14 Closure Panel Assembly Fastening Methods

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 Figure 15 Flood Proofing Closure for Large Horizontal Opening Below RFD

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 Figure 16 Flood Shield Installations — Sliding Flood Shield for Door

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 Figure 17 Flood Shield Installations — Hinged Flood Shield for Loading Deck

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 ~~Figure 18 Flood Shield Installations—Stored Flood Shield Behind Window~~

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 ~~Figure 19 Structures on Natural Terrain or Fill~~

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 ~~Figure 20 Building on Stilts~~

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 ~~Figure 21 Flood Protection with Floodwalls~~

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 ~~Figure 22 Flood Protection by Dikes~~

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 ~~Figures 23, 24, 25 Dike or Levee Protection~~

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 ~~Figure 26 Various Flood Wall Types~~

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 ~~Figure 27 Structure on Natural Terrain or Fill~~

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 ~~Figure 28 Structure on Natural Terrain or Fill~~

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 ~~Figure 29 Prevention of Backflow Thru Sewer System~~

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 ~~Table 1 Classification of Buildings and Structures~~

CLASSIFICATION OF BUILDINGS AND STRUCTURES	
Building or	SPACE CLASSIFICATION

Structure Classification							
-	W1		W2		W3	W4	W5
-	Completely Dry		Essentially Dry		Flooded with Potable Water	Flooded with Flood Water	Non-Flood-Proof
-	Without H1	With H1	Without H1	With H1	-	-	-
FP1	✗	-	✗	-	-	-	-
FP2	✗	✗	✗	✗	-	-	-
FP3	✗	-	✗	-	✗	✗	-
FP4	✗	✗	✗	✗	✗	✗	-
FP5	-	-	-	-	-	-	✗

Table 2 Space Specification Chart

FLOOD-PROOFING CLASSIFICATION OF SPACES									
Flood-Proofing Classes	MINIMUM REQUIREMENTS								
-	Water-Proofing	Structural Loads	Closure of Openings	Internal Flood & Drainage	Flooring	Walls and Ceilings	Contents	Electrical	Mechanical
W1 Complet	Type A	Class 1	Type 1		Class 1	Class 1	Class 1		

ely-Dry				See Chapter 11				See Chapter 12	See Chapter 12
W2 Essentially-Dry	Type B	Class-1	Type-1		Class 2	Class 2	Class 2		
W3 Flooded with Potable Water	Type A	Class-2	Type-3		Class 3	Class 3	Class 3		
W4 Flooded with Flood Water	Type C	Class-3	Type-4		Class 4	Class 4	Class 4		
W5 Non-Flood-Proofing	--	--	Type-5		Class 5	Class 5	Class 5		

Table 3 – Flooring

FLOORING

	Class
-	
Asphalt Tiles (A)	4
— With asphaltic adhesives	3
Carpeting (glued-down types)	4
Cement/bituminous, formed-in-place	4
Cement/latex, formed-in-place	4

Ceramic tiles (A)	4
— With acid and alkali-resistant grout	3
Chipboard	4
Clay tile	5
Concrete, precast or in situ	5
Concrete tile	5
Cork	4
Enamel felt-base floor coverings	4
Epoxy, formed-in-place	5
Linoleum	4
Magnesite (magnesium oxychloride)	4
Mastic felt-base floor coverings	4
Mastic flooring, formed-in-place	5
Polyurethane, formed-in-place	5
PVA emulsion cement	4
Rubber sheets (A)	4
— With chemical-set adhesives (B)	5*
Rubber tiles (A)	4

<del>— With chemical-set adhesives (B)</del>	4
Silicone floors, formed-in-place	5
Terrazzo	4
Vinyl sheets (homogeneous) (A)	1
<del>— With chemical-set adhesives (B)</del>	5*
Vinyl tile (homogeneous) (A)	1
<del>— With chemical-set adhesives (B)</del>	4
Vinyl tile or sheets (coated on cork or wood product backing)	1
Vinyl asbestos tiles (semi-flexible vinyl) (A)	1
<del>— With asphaltic adhesives</del>	4
Wood flooring with underlayments	1
Wood composition blocks, laid in cement mortar	2
Wood composition blocks, dipped and laid in hot pitch or bitumen	2

\*Not permitted as Class 2 flooring

Notes: (A) Using normally-specified suspended floor (i.e., above-grade) adhesives, including sulfite liquor (lignin or “linoleum paste”), rubber/Asphaltic dispersions, or “alcohol” type resinous adhesives (cumar, oleoresinous).

~~— (B) e.g. epoxy — polyamide adhesives or latex-hydraulic~~

cement

Table 4 Walls and Ceilings

	Class
-	
Asbestos-cement board	5
Brick, faced or glazed	5
— Common	2
Cabinets, built-in	-
— Wood	2
— Metal	5
Cast stone (in waterproof mortar)	5
Chalkboards	-
— Slate, porcelain glass, nucite glass	5
— Cement-asbestos	2
— Composition	2
Chipboard	4
— Exterior Sheathing Grade	2
Clay tile	-
— Structural glazed	5

— Ceramic veneer, ceramic wall tile mortar set	4
— Ceramic veneer, organic adhesives	2
Concrete	5
Concrete block	5
Corkboard	2
Doors	-
— Wood hollow	2
— Wood, light weight panel construction	2
— Wood, solid	2
— Metal, hollow	5
— Metal, Kalamein	2
Fiberboard panels, Vegetable types	-
— Sheathing grade (asphalt coated or impregnated)	2
— Otherwise	4
Gypsum products	-
— Gypsum board	2
— Keene's cement on plaster	2

— Plaster, otherwise, including acoustical	2
— Sheathing panels, exterior grade	2
Glass (sheets, colored tiles, panels)	4
Glass blocks	5
Hardboard	-
— Tempered, enamel or plastic coated	2
— All other types	2
Insulation	-
— Foam or closed-cell types	4
— Batt or blanket types	4
— All other types	2
Metals, non-ferrous (aluminum, copper, or zinc tiles)	3
— Ferrous	5
Mineral fiberboard	4
Plastic wall tiles (polystyrene, formaldehyde, etc.) with waterproof adhesives, painted with waterproof grout	3
— Set in water-soluble adhesives	2
Paint	-

— Polyester-epoxy and other waterproof types	4
— All other types	4
Paperboard	4
Partitions, folding	-
— Metal	4
— Wood	2
— Fabric-covered types	4
Partitions, stationary	-
— Wood frame	4
— Metal	5
— Glass, unreinforced	4
— Reinforced	4
— Gypsum, solid or block	4
Rubber, mouldings and trim with epoxy-polyamide adhesive or latex-hydraulic cement	4
— All other applications	4
Steel (panels, trim, tile) with waterproof applications	5

— With non-waterproof adhesives	2
Stone, natural solid or veneer, waterproof grout	5
Stone, artificial non-absorbent solid or veneer, waterproof grout	5
— All other applications	2
Strawboard	-
— Exterior grade (asphalt-impregnated kraft paper)	2
— All other types	4
Wall coverings	— -
— Paper, burlap, cloth types	2
Wood	— -
— Solid (boards, sheets, or trim)	2
— Plywood	-
— Exterior grade	2
— Otherwise	4

Table 5 Contents of Buildings and Structures

Musical instruments	<del>—</del> -
<del>— Pianos, organs, violins, etc.</del>	4
<del>— All other types</del>	2(3)
Nitric acid, oxides of nitrogen	XX
Oxygen	2(3)
Paints, enamels, varnishes (in quantity)	2
Paper or paper products	4
Petroleum products storage	-
<del>— (unless buried or constrained)</del>	X
Phosphorous	XX
Potassium	XX
Recreation equipment	-
<del>— Sports gear, toys</del>	2(3)
<del>— Pool tables</del>	4

~~PART 4. This Ordinance applies only to offenses committed on or after February 7, 1988. A criminal action for an offense committed on or before February 6, 1988 is governed by the law in effect before February 7, 1988, and the law in effect before February 7, 1988 is continued in effect for that purpose as if this ordinance had not been adopted. For purposes of this PART 4, an offense is committed on or after February 7, 1988, if any element of the offense occurs on or after February 7, 1988.~~

~~PART 5. The City Clerk is directed to compile all sections of this ordinance amending the 1985 uniform Building Code into a separate publication known as "Local Amendments to the Uniform Building Code, 1985 Edition."~~

~~PART 6. The requirement imposed by Section 2-2-3 of the Austin City Code of 1981 that this ordinance be read on three separate days is waived by the affirmative vote of five members of the City Council to pass this ordinance through more than one reading on a single vote.~~

~~PART 7. This ordinance shall be effective ten days following the date of its final passage.~~

PASSED AND APPROVED:

~~\_\_\_\_\_ January 28 \_\_\_\_\_, 1988 \_\_\_\_\_ /s/ \_\_\_\_\_  
\_\_\_\_\_ Frank C. Cooksey \_\_\_\_\_  
\_\_\_\_\_ Mayor \_\_\_\_\_~~

~~APPROVED: \_\_\_\_\_ /s/ \_\_\_\_\_ ATTEST: \_\_\_\_\_ /s/ \_\_\_\_\_  
\_\_\_\_\_ Jonathan Davis \_\_\_\_\_ James E. Aldridge \_\_\_\_\_  
\_\_\_\_\_ Acting City Attorney \_\_\_\_\_ City Clerk \_\_\_\_\_~~

SPECIAL INSPECTIONS INFORMATION SHEET

~~A. This rule is promulgated to administer and implement the special inspection provisions of the Building Code.~~

~~B. The owner shall maintain a current special inspection report file at the job site for review by the building inspector.~~

~~C. Effective December 31, 1988, all individuals conducting welding inspections shall be certified as an inspector by the American Welding Society AWS-QC1.~~

~~D. Reinforcing steel for the concrete structural elements, required to be inspected by Section 306 of the Building Code, shall be approved by the designated special inspector prior to the placement of the concrete.~~

~~E. All welded structural elements required to be inspected per section 306 Uniform Building Code, shall be welded in accordance with the standards specified by the American Welding Society. Inspection reports forwarded to the City of Austin Watershed Protection and Development Review Department shall state that inspected welds were in accordance with the applicable American Welding Society Standards.~~

~~F. Soil reports required at the time of permit application shall indicate definitions and classifications of soil materials according to Uniform Building Code Standard No. 29-1.~~

~~G.— Foundations for structures resting on soils with an expansion index greater than 20 shall require special design consideration, and shall be noted and included with the permit application documents.~~

~~H.— Concrete mix design shall be forwarded to the Building Inspection Department at the plan submittal of the permitted structure.~~

~~I.— All concrete cylinder test reports shall include the following information:~~

- ~~— 1.— Consecutive specimen number of test cylinder.~~
- ~~— 2.— Class of concrete.~~
- ~~— 3.— Required strength/days of that class of concrete.~~
- ~~— 4.— Location of the placement of the concrete specimen.~~
- ~~— 5.— Batch proportions.~~
- ~~— 6.— Time batched.~~
- ~~— 7.— Time poured.~~
- ~~— 8.— Weather conditions.~~
- ~~— 9.— Concrete temperature and ambient temperature.~~
- ~~— 10.— Fineness modules.~~

~~J.— The compressive strength of each specimen shall be noted as well as the average compressive strength for three (3) consecutive specimen sets as required by Uniform Building Code, Section 2604(h) 2c.~~

~~K.— Drilled pier reports must include specified bearing stratum, required penetration into the bearing stratum and the actual penetration.~~

~~L.— All soils not meeting the specified soil density shall be retested.~~

~~M.— Requests for alternate methods of compliance shall be reviewed in accordance with the provisions of Section 105 and Section 107 of the Building Code.~~

~~Building Code 25-12-1.306~~

#### ~~QUALIFICATION REQUIREMENTS FOR A "SPECIAL INSPECTOR"~~

~~This rule is promulgated to administer and implement the special inspection provisions of the Building code. Reference Uniform Building Code, Chapter 3, Section 306.~~

~~A.— Concrete.~~

~~—1. Approved testing laboratories or their designate.~~

~~—2. Engineer, his or her designate.~~

~~—3. ICBO Certified Inspector.~~

~~B. Bolts Installed In Concrete.~~

~~—1. Approved testing laboratories or their designee.~~

~~—2. Engineer, his or her designee.~~

~~—3. ICBO Certified Inspector.~~

~~C. Ductile Moment-Resisting Concrete Frame.~~

~~—1. Approved testing laboratories and their designate.~~

~~—2. Engineer, his or her designate.~~

~~—3. ICBO Certified Inspector.~~

~~D. Reinforcing Steel and Prestressing Steel.~~

~~—1. Approved testing laboratories and their designate.~~

~~—2. Engineer, his or her designate.~~

~~—3. ICBO Certified Inspector.~~

~~E. Welding.~~

~~—1. AWS QC1/CWI Inspector.~~

~~F. High-Strength Bolting.~~

~~—1. Approved testing laboratories and their designate.~~

~~—2. Engineer, his or her designate.~~

~~—3. ICBO Certified Inspector.~~

~~G. Structural Masonry.~~

~~—1. Approved testing laboratories and their designate.~~

~~—2. Engineers, his or her designate.~~

~~—3. ICBO Certified Inspector.~~

H.— Reinforced Gypsum Concrete.

- 1.— Approved testing laboratories and their designate.
- 2.— Gypsum manufacturer's designate.
- 3.— Engineer, his or her designate.
- 4.— ICBO Certified Inspector.

I.— Insulating Concrete Fill.

- 1.— Approved testing laboratories and their designate.
- 2.— Engineers, his or her designate.
- 3.— ICBO Certified Inspector.

J.— Spray-applied Fire Proofing.

- 1.— Manufacturer's designate.
- 2.— Approved testing laboratories and their designate.
- 3.— Engineer, his or her designate.

K.— Piling, Drilled Piers and Caissons.

- 1.— Approved testing laboratories and their designate.
- 2.— Engineers, his or her designate.
- 3.— ICBO Certified Inspector.

L.— Shotcrete.

- 1.— Approved testing laboratories or their designee.
- 2.— Engineer, his or her designee.
- 3.— ICBO Certified Inspector.

M.— Special Grading, Excavation and Filling.

- 1.— Approved testing laboratories and their designate.
- 2.— Engineer, his or her designate.

N.— Special Cases.

~~—1.— Approved testing laboratories or their designee.~~

~~—2.— Engineer, his or her designee.~~

~~—3.— ICBO Certified Inspector.~~

~~O.— Approved Fabricators.~~

~~Must have a valid certification issued by the building official.~~

## REFERENCES FOR SPECIAL INSPECTIONS

~~This list of references is provided for informational purposes only.~~

### ~~ANSI/ASME A17.1 CODE - 1981~~

~~Safety Code for Elevators and Escalators, an American National Standard published by the American Society of Mechanical Engineers.~~

### ~~ANSI/ASME QE-1 - 1984~~

~~Standard for the Qualifications of Elevator Inspectors~~

### ~~ANSI A17.2 - 1982~~

~~Elevator Inspector's Manual American Standard Practice for the Inspection of Elevators, Escalators and Moving walks.~~

~~Checklists:~~

~~A.— Checklist for Initial Inspection and Test of Electric Elevators.~~

~~B.— Checklist for Initial Inspection of Hydraulic Elevators.~~

~~C.— Checklist for Initial Inspection and Test of Escalators.~~

~~D.— Checklist for Initial Inspection and Test of Moving walks.~~

~~ACI Standard 318 Reinforced Concrete Design, ACI Code Commentary (ACI 318R) published by the American Concrete Institute.~~

~~Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products, PCI Prestressed Concrete Institute, 1985 Edition.~~

~~PCI Design Handbook, Prestressed concrete Institute, 1985 Edition.~~

~~Fire Protection Handbook, 16th Edition, published by the National Fire Protection Association.~~

~~Industrial Fire Hazards Handbook, second edition published by the National Fire Protection Association.~~

~~Manual of Build-Up Roof Systems, by the American Institute of Architects.~~

~~Fire and Flammability Handbook by Neil Schultz.~~

~~Architectural Graphic Standards, 6th Edition~~

~~Building Design and Construction Handbook, 4th Edition.~~

~~Structural Welding Code - Reinforcing Steel AWS D1.4-79 of the American Welding Society, Inc.~~

~~Erection, Fabrication, Identification and Painting of Structural Steel. Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings of the American Institute of Steel Construction, Inc.~~

~~Structural Welding Code - Steel ANSI/AWS D1.1-84 of the American Welding Society, Inc.~~

~~Structural Welding Code - Sheet Steel ANSI/AWS D1.3-81 of the American Welding Society, Inc.~~

~~—Effective December 31, 1988, all individuals conducting welding inspections shall be certified as an inspector by the American Welding Society AWS QC1.~~

~~B.I.D. FORM S.I.A.~~

### ~~SPECIAL INSPECTION CHECK LIST~~

~~— DATE: \_\_\_\_\_~~

~~— PROJECT NAME: \_\_\_\_\_~~

~~— ADDRESS OF PROJECT: \_\_\_\_\_~~

~~— TYPE OF CONSTRUCTION: \_\_\_\_\_~~

~~— OCCUPANCY: \_\_\_\_\_~~

~~— BUILDING OWNER: \_\_\_\_\_~~

Type of Special Inspections Required:

A. Concrete

B. Bolts Installed in Concrete

~~C.— Ductile Moment-Resisting Concrete Frame~~

~~D.— Reinforcing Steel and Prestressing Steel~~

~~E.— Welding~~

~~F.— High-Strength Bolting~~

~~G.— Structural Masonry~~

~~H.— Reinforced Gypsum Concrete~~

~~I.— Insulating Concrete Fill~~

~~J.— Spray-applied Fire Proofing~~

~~K.— Piling, Drilled Piers and Caissons~~

~~L.— Shotcrete~~

~~M.— Special grading, Excavations and Filling~~

~~N.— Special Cases~~

~~Requested by: \_\_\_\_\_ of Watershed Protection and Development Review  
Department, Plan Review.~~

~~— Building Code 25-12-1.302(c)~~

### ~~SPECIAL INSPECTOR DESIGNATION FORM~~

~~CITY OF AUSTIN  
WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT  
PLAN REVIEW DIVISION  
AUSTIN, TEXAS 78701~~

~~JOB ADDRESS:~~

~~GENTLEMEN:~~

~~IN COMPLIANCE WITH SECTION 306 OF THE BUILDING CODE, I AM SUBMITTING  
HEREWITH THE NAMES OR NAME OF MY SPECIAL INSPECTOR FOR THE  
PARTICULAR TYPES OF CONTINUOUS INSPECTIONS REQUIRED BY THE  
SPECIAL INSPECTIONS CHECK LIST.~~

~~THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE  
BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD AND OTHER  
DESIGNATED PERSONS, WITH PROPER JOB ADDRESS, BUILDING PERMIT  
NUMBER, TYPE OF REPORTS AND SEQUENCE NUMBER OF THAT REPORT~~

TYPE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.

IT IS UNDERSTOOD AND AGREED THAT NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL THE SPECIAL INSPECTOR SUBMITS A FINAL SIGNED REPORT STATING THE TYPES OF CONTINUOUS INSPECTIONS PERFORMED WITH TOTALS FOR EACH REPORT TYPE. THE FINAL REPORT WILL INCLUDE THE STATEMENT: TO THE BEST OF HIS OR HER KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE PROVISIONS OF THE UNIFORM BUILDING CODE.

\*\*\*\*\*  
\*\*\*\*

BUILDING OWNER OR AUTHORIZED REPRESENTATIVE:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City, State & Zip: \_\_\_\_\_  
Telephone #: (\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
# \_\_\_\_\_ TYPE OF INSPECTIONS

\*\*\*\*\*  
\*\*\*\*

SPECIAL INSPECTOR:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone #:(\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
# \_\_\_\_\_ TYPE OF INSPECTIONS

\*\*\*\*\*  
\*\*\*\*

STRUCTURAL ENGINEER OF RECORD:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone #(\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
# \_\_\_\_\_ TYPE OF INSPECTIONS

\*\*\*\*\*  
\*\*\*\*

ENGINEERING SOILS REPORT:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone: #(\_\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
License # \_\_\_\_\_  
\*\*\*\*\*  
\*\*\*\*

GENERAL CONTRACTOR OF RECORD:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone: #(\_\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
NOTE: The General contractor shall maintain a Special Inspection Report file at the job site.  
\*\*\*\*\*  
\*\*\*\*

STRUCTURAL STEEL FABRICATOR:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone: #(\_\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_  
\*\*\*\*\*  
\*\*\*\*

PRECAST OR PRESTRESSED CONCRETE MANUFACTURER:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_,  
City, State & Zip: \_\_\_\_\_,  
Telephone: #(\_\_\_\_\_) \_\_\_\_\_, Contact Person: \_\_\_\_\_

REQUEST FOR TEMPORARY BUILDING PERMIT

City of Austin  
Watershed Protection and Development Review Department

I, \_\_\_\_\_, do hereby certify that I am the applicant for the construction work for which a building permit application has been filed. I submit this application for a temporary building permit pursuant to Section 303(a) of the Building Code of the City of Austin.

ADDRESS \_\_\_\_\_

LOT \_\_\_\_\_ BLOCK \_\_\_\_\_

SUBDIVISION \_\_\_\_\_

DESCRIPTION OF PROPOSED CONSTRUCTION: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Furthermore, I certify and acknowledge that:

— 1. — A building permit application has been submitted on (date) \_\_\_\_\_.

— 2. — Work has begun \_\_\_\_\_ has not begun \_\_\_\_\_.

— 3. — If work has begun, I will be required to pay all investigation fees prior to approval of this temporary building permit.

— 4. — All work shall be at my own risk and will not proceed beyond the first required rough-in inspection without the purchase of the full building permit.

Signature of Applicant \_\_\_\_\_

Printed Name of Applicant \_\_\_\_\_

Telephone Number \_\_\_\_\_

Date of Application \_\_\_\_\_

Approved \_\_\_\_\_ Denied \_\_\_\_\_

\_\_\_\_\_  
Permit and License Center

APPENDIX B: ELECTRICAL CODE

ORDINANCE NO. 880218-J

ELECTRICAL CODE

~~AN ORDINANCE AMENDING CHAPTER 13-6 OF THE AUSTIN CITY CODE OF 1981, BY REPEALING THE NATIONAL ELECTRIC CODE, 1981 EDITION, AND LOCAL AMENDMENTS TO THE 1981 NATIONAL ELECTRICAL CODE; ADOPTING BY REFERENCE THE NATIONAL ELECTRICAL CODE, 1987 EDITION, PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION, SAVE AND EXCEPT SPECIFIC SECTIONS DELETED BY THIS ORDINANCE; ADOPTING BY REFERENCE THE UNIFORM ADMINISTRATIVE CODE PROVISIONS FOR THE NATIONAL ELECTRICAL CODE, 1987 EDITION, PUBLISHED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS; ADOPTING CERTAIN LOCAL AMENDMENTS TO THE 1987 NATIONAL ELECTRICAL CODE; WAIVING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.~~

~~PART 1. Chapter 13-6 of the Austin City Code of 1981 is amended by repealing the National Electrical Code, 1981 Edition, published by the National Fire Protection Association, adopted by reference in Section 13-6-1. All local amendments to the National Electrical Code, 1981 Edition, are also repealed by this ordinance.~~

~~PART 2. Chapter 13-6 is further amended to adopt and incorporate by reference as Section 13-6-1 the publication known as the Uniform Administrative Code Provisions for the National Electrical Code, 1987 Edition, published by the International Conference of Building Officials, a copy of which is attached and incorporated into this ordinance as Exhibit "A" (the "1987 Uniform Administrative Code Provisions for the National Electrical Code"), save and except the following numbered sections which are hereby deleted from the 1987 Uniform Administrative Code Provisions for the National Electrical Code:~~

~~\_\_\_\_\_ Section 203 \_\_\_\_\_ Section 304(b)  
\_\_\_\_\_ Section 304(a) \_\_\_\_\_ Table 3-A~~

~~PART 3. Chapter 13-6 is further amended to adopt and incorporate by reference as Section 13-6-2 the publication known as the National Electrical Code, 1987 Edition, published by the National Fire Protection Association, a copy of which is attached and incorporated into this ordinance as Exhibit "B" (the "1987 National Electrical Code"), save and except the following numbered sections which are hereby deleted from the 1987 National Electrical Code:~~

~~Article 220-17 \_\_\_\_\_ Article 310-5  
Article 220-22 \_\_\_\_\_ Article 338-2  
Article 225-26 \_\_\_\_\_ Article 339-1  
Article 230-2 Exception 3 \_\_\_\_\_ Article 339-3  
Article 230-3 \_\_\_\_\_ Article 350-2(1)~~

~~Article 230-7 Article 384-3(f)  
Article 230-24(b) Article 424-19  
Article 230-40 Exception 1 Article 424-J  
Article 250-42(f) Exception 4 Article 450(c)  
Article 250-91(a) Article 680-8  
Article 300-15(b) Exception 8~~

~~PART 4. Chapter 13-6 is further amended to add the following sections as local amendments to the 1987 National Electrical Code, as follows:~~

~~SECTION 203 Board of Appeals~~

~~—(a)— Appointments. In order to hear and decide appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretations of this Code, an Electrical Board is created by this ordinance to pass upon matters pertaining to electric installation; this Board shall consist of seven members, none of whom are employees of the City of Austin. The Board shall consist of two active licensed master electricians, two active licensed journeyman electricians, one electrical engineer, and two citizens. The Building Official shall serve as an ex officio nonvoting secretary to the Board. The Board shall not be empowered to waive the requirements of this Code. The Board shall review any appeal filed pursuant to Chapter 13-1 of the Austin City Code of 1981, as amended.~~

~~—(b)— Term of Office. The City Council shall appoint each Board member to a two-year term. The terms of four Board members shall expire on July 1 of odd-numbered years. The terms of three Board members shall expire on July 1 of even-numbered years. A vacancy upon this board shall be filled by appointment of the City Council for any unexpired term.~~

~~—(c)— Quorum. Four members of the Board shall constitute a quorum. In interpreting the application of any provisions of this Code or modifying an order of the Building Official, an affirmative vote of four Board members shall be required. No member of the Board shall pass upon any question in which he or she, or in which any corporation of which he or she is a shareholder, has a vested interest.~~

~~—(d)— Meetings and Records. Meetings of the Board shall be held at the call of the Chair and at other such times as the Board may determine. All hearings before the Board shall be open to the public. The Building Official shall forward meeting minutes to the respective Board members within ten working days of the Board meeting. These minutes, when approved by the Board, shall become public record.~~

~~—(e)— Procedure. The Board shall establish rules for its own procedure consistent with the provisions of this Code.~~

~~—(f)— Notice. The Board shall render all decisions and findings in writing to the appellant and copies shall be retained by the Building Official.~~

~~— (g) — Appeal to City Council. Any person who is aggrieved by a decision of the Board shall have an opportunity to appeal such decision to the City Council in accordance with the following:~~

~~— (1) — The appeal shall be made by filing a written notice of appeal with the City Clerk. The notice of appeal shall contain: a) the name of the person filing the appeal; b) a background of the case and a summary of the decision from which the appeal is taken; c) a statement containing facts which show, beyond a reasonable doubt, that the decision appealed from was incorrect due to its inconsistency or conflict with City ordinance or state law, or that a finding of fact by the Board was clearly contrary to the evidence before the Board; and, d) the relief requested from the City Council.~~

~~— (2) — Notice of appeal from a decision of the Board made on or after the effective date of this ordinance shall be filed within 14 days after the date on which the decision appealed from was made.~~

~~— (3) — If the last day for filing the notice of appeal is a Saturday, Sunday, or City Holiday, the notice of appeal may be filed on the next day which is not a Saturday, Sunday, or City Holiday.~~

~~— (4) — Any person filing a notice of appeal under this section shall, on the same day of the filing, mail or deliver a copy of the notice of appeal to the Board.~~

~~— (5) — The City Council shall have authority in the disposition of any such appeal to waive any requirement of any ordinance in any case in which the Council considers the application of such requirement to be unjust and unnecessary to achieve the purposes of the ordinance. The City Council shall have authority to take any action it deems advisable.~~

#### SECTION 205 Licenses.

~~— (a) — License Required. Any person performing electrical work requiring an electrical permit shall have in his or her possession a valid license, issued by the Building Official, which shows that he or she is entitled to do the work he or she is performing.~~

~~— Exception. Homestead Permit. A person who is not licensed to do electrical work may perform such work with his or her own hands within his or her dwelling premises owned by him or her provided such person has filed with the Building Official an affidavit stating that the location at which such work is to be done is his or her homestead. Before performing such work he or she shall obtain from the Building Official a permit to do such work, and shall pay required permit fees. No person who has obtained a homestead permit within the preceding twelve (12) months shall secure a homestead permit at a different location. Any person who obtains a homestead permit and allows any person other than the permittee to perform electrical work under such permit shall render such homestead permit null and void.~~

~~—(b)— Application. An applicant for an electrician's license shall complete the application form furnished by the Building Official and shall pay the required examination fee.~~

~~—(c)— Examination. The examination for an electrician's license shall be of such a nature as to show the applicant's satisfactory knowledge of the current Electrical Code. If the applicant decides to do only electrical work in a restricted field provided for in this chapter, he or she shall only be required to pass a special examination applicable to that restricted field.~~

~~—(d)— Retesting. If an applicant for a license under this article fails to pass the examination for a license, he or she shall not be eligible for another examination for a period of: (1) six months in the case of master electricians; and (2) three months in the case of all other licensed electricians.~~

~~—(e)— Issuance. Upon payment of the required fee, the Building Official shall issue to each person the class of license that each applicant is qualified to receive under the provisions of this article.~~

~~—(f)— Expiration. Renewal. All licenses issued under this chapter shall expire on the last day of the month of the licensee's birth month. Any licensee who fails to make application for renewal of license before his or her current license expires shall be considered as an applicant for an original license.~~

~~— Exception: Any licensee who has tested successfully in Austin, or in a city with which Austin currently reciprocates, may apply for renewal if the licensee tenders the required license fee and presents the Electrical Board with satisfactory reasons for failure to timely renew such license. All expired licenses not renewed as provided by the preceding subsection shall be deemed canceled, and the Building Official shall make appropriate notations on his or her records to reflect such cancellation.~~

~~—(g)— Notice of Change of Address. If an applicant or licensee moves from the address named in such application or in the license issued to him or her, then he or she shall immediately notify the Building Official, in writing, of his or her former address, present address, and license number.~~

~~—(h)— Duplicate Licenses. In the event that an apprentice, journeyman or master electrician's license issued under the provisions of this chapter is lost or destroyed, the person to whom the same was issued may obtain a duplicate or substitute license upon furnishing sufficient proof to the Building Official that such license was lost or destroyed, and upon payment of the required fee.~~

~~—(i)— License Display. Every licensee shall have his or her apprentice, journeyman or master electrician's license in his or her immediate possession at all times when doing any electrical work and shall display the same upon demand by the Building Official or by the owner of the premises or property upon which the licensee is working, offering to work or has worked. In addition, all master licensed electrical contractors shall display on two sides of any vehicles being used for, or in connection with, electrical work a sign~~

~~depicting the electrical master license number issued by the City of Austin. The sign shall have numbers and letters not less than three inches high which may be of the removable type.~~

~~— (j) License and Examination Fees. License and examination fees shall be established by separate ordinance adopted by the City Council.~~

~~— (k) Qualifications. The qualifications for specific electrician licenses shall be the following:~~

~~—— 1) Master Electrician - persons applying for a master electrician's license shall be at least 21 years of age, have at least six years' electrical experience, and maintain a permanent mailing address. A master electrician shall have held a journeyman's license for at least two years in Austin prior to receiving a master's license.~~

~~—— 2) Journeyman Electrician - Persons applying for a journeyman electrician's license shall be at least 20 years of age and shall have at least four years' electrical experience.~~

~~—— 3) Restricted Journeyman Electrician - persons applying for a restricted journeyman electrician's license shall be at least 18 years of age and shall have at least two years' electrical experience.~~

~~—— 4) Restricted Residential Electrician - Persons applying for a restricted residential electrician's license shall be at least 18 years of age and shall have at least two years' electrical experience. Electrical experience shall mean the same as defined in Article 100 except that the doing of electrical work in or on commercial type buildings or premises is not included or required.~~

~~—— 5) Apprentice Electrician - Persons applying for an apprentice electrician's license shall be at least 16 years of age.~~

~~—— 6) Restricted Master Electrician's License - An electrician who shows himself or herself otherwise qualified under the provisions of this chapter may be issued a license as a master electrician, restricted to one or more of the following specialized fields of electrical work:~~

~~—— (a) Repair Service - A repair service license restricted to the connecting or disconnecting of any electrical wiring regulated by this chapter, not including the changing, extending, installing or repairing of any part of a wiring system.~~

~~—— (b) Signs - A sign license restricted to the installation, repair, or maintenance of: (1) electrical signs; (2) transformers for the operation of neon and similar tubing on or in buildings; and (3) high tension cables between tubing and transformers for the same. Such license shall not include connection of any electrical signs, transformers or other type of load to a source of electrical power, or the changing, extending, installing or repairing of any part of a wiring system.~~

~~—————(c)—— Elevators — An elevator license restricted to the installation, alteration, repair or maintenance of only the control panel and control wiring of elevators and escalators.~~

~~—————(d)—— Maintenance — a maintenance license restricted to the maintenance, repair, relocation or replacement of any electrical conductor or equipment pertaining to branch circuits, including extension of or additions to branch circuits permitted under this chapter, by a person who is regularly employed by one employer upon a permanent basis for the performing of such work within the confines of the building or premises of such employer.~~

#### ~~SECTION 206 — Reciprocal Licenses~~

~~A person licensed to perform electrical work in other cities of this state for at least one year preceding application to the City of Austin may apply for, and receive, a similar license in the City of Austin without taking required examinations under the following conditions:~~

~~——(a)—— The applicant holds a current license with a city approved for reciprocity by the Electrical Board,~~

~~——(b)—— The applicant provides evidence that the license was obtained through written examination in the city described in (a) above; and~~

~~——(c)—— The applicant has paid all fees required by the City of Austin and has complied with all other requirements of this chapter.~~

#### ~~SECTION 207 — License Suspension~~

~~The Building Official may suspend the license of any electrician who has knowingly and willingly violated this code by performing any of the following acts:~~

~~——(a)—— Displayed, caused or permitted to be displayed or had in one's possession any instrument purporting to be any license for the performing of any electrical work, while he or she knew such instrument to be false or to have been canceled, suspended or altered.~~

~~——(b)—— Loaned or knowingly permitted the use of any license for the performing of any electrical work to any person not entitled to such license under the provisions of this chapter.~~

~~——(c)—— Displayed, or represented as one's own, any license for the doing of any electrical work when such license has not been lawfully issued to the person so displaying the same.~~

~~——(d)—— Failed or refused to surrender to the Building Official, on demand, any license for the doing of any electrical work which has been suspended or canceled as provided by law.~~

~~—(e)— Applied for, or had in one's possession, more than one current license of the same type provided for in this chapter.~~

~~—(f)— If, in any application for any license provided for in this chapter, or in any renewal or duplicate of any such license, a person:~~

~~—(1)— used a false name;~~

~~—(2)— gave a false address;~~

~~—(3)— knowingly made a false statement;~~

~~—(4)— knowingly concealed a material fact; or~~

~~—(5)— otherwise committed fraud.~~

~~—(g)— Employed as a master, journeyman, or apprentice electrician any person not then licensed as such as provided in this chapter.~~

~~—(h)— Performed any kind of electrical work for which a license is required without the license required by this chapter, or while such license is suspended or canceled.~~

~~—(i)— Performed electrical work in any manner in violation of any restrictions imposed on a restricted license issued to him or her.~~

~~—(j)— Performed or caused to be performed electrical work not authorized by the permit holder.~~

#### ~~SECTION 208 Supervision~~

~~Except as otherwise provided in this Code, all electrical work shall be performed under the supervision, direction, and control of the master electrician who has secured the permit. When supervision of work on-site is performed by a journeyman electrician under the direction of the permit holder, the ratio of apprentice electricians to journeyman electricians shall not exceed five apprentices for each journeyman present on site. The ratio of apprentice electricians to journeyman electricians shall not exceed three apprentices for each journeyman present on site when the electrical work is performed in a building regulated by Article 300-23.~~

#### ~~SECTION 301(c) Scope~~

~~The provisions of this chapter shall apply to all electrical work, wiring, and equipment installed within the corporate city limits of Austin. The provisions of this chapter shall apply to all electrical work, wiring, and equipment to which electricity is to be supplied by any electrical distribution system owned or leased by the City; however, electrical work, wiring or equipment related to the generation, transmission, distribution, and sale of electrical energy or communication service by a public utility, telephone, telegraph or district messenger company permitted to operate shall not be applicable. The provisions~~

~~of this chapter pertaining to licenses, permits, fees, and bonds shall not apply to the generation, transmission, distribution or sale of electrical energy communication by such communication companies and their employees; however, any electrical work, wiring or installations for light, heat and power equipment of such companies shall be done accordingly to the requirements of this chapter and shall require licensing, fees, and permits.~~

#### ~~SECTION 304 (a) Permit Fees~~

~~Permit fees shall be established under separate ordinance by action of the City Council.~~

#### ~~—(b)— Plan Review Fees~~

~~Plan review fees shall be established under separate ordinance by action of the City Council.~~

#### ~~Article 100.C. Supplemental Definitions~~

~~—The following definitions and abbreviations shall supplement those definitions and abbreviations found in Article 100.A. and Article 100.B of this Code.~~

~~—(a)— Apprentice Electrician – A person who is learning the trade of an electrician and who works only under the direct supervision of a master or journeyman electrician and who is licensed as an apprentice as provided in this chapter.~~

~~—(b)— Electrical Experience – Active and practical experience during which not less than two-thirds (2/3) of one's time, exclusive of normal periods of rest and recreation, has been spent in the performing of electrical work in or on residential or commercial buildings or premises. A bachelor's of science degree in electrical engineering from a college or university which requires at least four years of study in residence as a prerequisite to such degree shall be considered the equivalent of three years' experience, and the satisfactory completion of 120 semester hours of work required for such degree shall be considered the equivalent of one year's experience in the absence of a bachelor's of science degree.~~

~~—(c)— Electrical Work – Any act in connection with the installing, altering, repairing or maintaining of electrical wires, conduits, apparatus or other electrical installation, designed for, or capable of, carrying electrical energy, which act ordinarily requires the use of tools. However, the repair, installation or replacement of electrical components or control wiring for air conditioning equipment installed in a single-family or two-family dwelling as authorized by a mechanical permit and inspected by a mechanical inspector shall not be considered as "electrical work" for the purposes of this chapter.~~

~~—(d)— Journeyman Electrician – A person licensed as a journeyman electrician in compliance with the requirements of this chapter, who works for and under the general supervision and direction of a master electrician, performing electrical work contracted for by a master electrician, and who does not hold himself or herself out to the public as being qualified to contract for the performing of electrical work.~~

~~—— (e) Master Electrician — Any person licensed as a master electrician in compliance with the requirements of this chapter, who employs journeyman electricians and/or apprentice electricians to perform electrical work in accordance with this Code or who performs electrical work himself or herself in accordance with this Code.~~

~~—— (f) Restricted Residential Electrician — A person licensed as a restricted residential electrician in compliance with the requirements of this chapter, who works for and under the general supervision and direction of a master electrician, performing electrical work on residential type premises or buildings only, and who does not hold himself or herself out to the public as being qualified to contract for the performing of electrical work.~~

~~—— (g) Inspector — An employee of the City of Austin who has attained certification as an electrical inspector pursuant to the certification program established by the International Conference of Building Officials.~~

~~—— Exceptions~~

~~—— (1) — Persons employed by the City of Austin on the effective date of this Code shall obtain certification within two years of the effective date of this ordinance.~~

~~—— (2) — Persons hired as electrical inspectors after the effective date of this Code shall obtain certification within two years of the date of employment.~~

~~—— (3) — The Building Official may establish a list of Electrical Inspectors certified by the International Conference of Building Officials who are not employees of the City of Austin. Persons listed by the Building Official may be authorized by the Building Official to perform inspections pursuant to Section 305 of this Code.~~

~~ARTICLE 101 Individual Electric Metering for Dwelling Units~~

~~Dwelling units shall be separately metered when so required by the electric utility serving the unit.~~

~~ARTICLE 102 Electrical Submetering for Dwelling Units~~

~~Dwelling units may be submetered if submeters are installed in accordance with the regulations of the electric utility serving the unit.~~

~~ARTICLE 110-35 Requirements for Electrical Installations~~

~~—— A. Identification Marks:~~

~~—— The manufacturer's name, trademark and other identification symbols shall be placed on all electrical materials, devices, equipment and appliances used or installed under this chapter.~~

~~—— B. Installation of Utility Owned Equipment:~~

~~— Equipment owned and furnished by the serving utility and installed by the owner or electrician on private premises shall be in accordance with the requirements of the utility furnishing electrical energy.~~

~~— C. Three Phase Motor Wiring:~~

~~— All three phase motor wiring, including all control wiring in dwellings and all motor wiring in other types of structures, shall be installed in an approved metal raceway.~~

~~— D. Color Coding of Conductors:~~

~~— Color coding of conductors shall be as follows:~~

~~— (A) (B) (N)~~

~~— (1) Single phase 120-240 volt wiring system. RED-BLACK-WHITE~~

~~— (2) Three phase 120-208 volt wiring system.~~

~~— (A) (B) (C) (N)~~

~~— RED-BLACK-BLUE-WHITE~~

~~— (A) (B) (C) (N)~~

~~— (3) Three phase delta RED-BLACK-ORANGE-WHITE (ORANGE shall be used only for the high leg of the delta system).~~

~~— (A) B (C)~~

~~— (4) 480-277 volt system shall be BROWN-YELLOW-PURPLE for phase conductors and natural gray for neutral.~~

~~— (5) GREEN will be used for grounding only.~~

~~— (6) Marking of wire at all termination points will be approved for size number 8 AWG and larger.~~

~~— (7) All colors shall be consistent throughout each system.~~

~~— (8) Branch circuit conductors of different systems shall not be mixed in raceways, junction boxes and outlet boxes. In addition for separate voltage systems all junction boxes will be permanently identified according to examples below:~~

~~Emergency Systems shall be permanently identified red  
277-480 volt system shall be permanently identified yellow  
120-240 3 phase delta systems permanently identified orange~~

~~ARTICLE 210-52 Dwelling Circuits~~

~~— (g) Kitchen and Dining Room area (New or Remodeled):~~

~~Receptacle outlets installed in the kitchen and dining room of each dwelling-type occupancy shall be supplied with no less than two 20-ampere small-appliance branch circuits. These circuits shall not extend beyond this area and shall have no other outlets. No outlet box housing these receptacles shall contain any ungrounded conductor of a different circuit. A maximum of six duplex receptacles shall be permitted on each of these circuits. In addition, a duplex receptacle supplied by an individual 20-ampere branch circuit shall be supplied by an individual 20-ampere branch circuit which shall be installed for the microwave oven. Dishwashers, trash compactors, disposals, refrigerators, and other motor-operated appliances shall be installed on separate circuits respectively and each shall have an approved disconnecting means within six feet of the appliance.~~

~~(h) All remaining receptacles and lights must be equally divided on 20-ampere circuits. No more than 12 convenience outlets and lights shall be connected to any circuit and no single circuit shall supply more than 500 square feet.~~

#### ARTICLE 210-70(c) Other Requirements

~~At least one convenience outlet and at least one lighting outlet will be required in all attic space or under floor spaces where mechanical, electrical, or plumbing equipment is located. These outlets shall be within six feet of this equipment.~~

#### ARTICLE 220-222 Neutral Conductor

~~Neutral conductors shall have an ampacity at least as great as that of the ungrounded conductor.~~

#### ARTICLE 225-26 Live Vegetation

~~Live vegetation, such as trees, shall not be used for support of overhead conductor spans, except for temporary wiring installed in accordance with Article 305.~~

#### ARTICLE 230-2(a) Multiple Occupancy Building Service

~~All multiple-occupancy buildings which have mains and meters grouped in a common location on the exterior of the building shall be permanently marked for each respective occupancy or unit.~~

#### ARTICLE 230-3 Service Conductors

~~Service conductors supplying buildings or other structures shall not pass through the interior of another building or other structure, except where the buildings or other structures served are under single occupancy or management.~~

#### ARTICLE 230-7 Service Raceway

~~Conductors, other than service conductors, shall not be installed in the same service raceway or service-entrance cable.~~

~~—(a)— Fused and unfused conductors shall not be installed in a common raceway.~~

~~—(b)— Metered and un-metered conductors shall not be installed in a common raceway.~~

~~Exception: Grounding conductors.~~

#### ~~ARTICLE 230-24(b) Vertical Clearances Above Ground~~

~~Overhead service drop conductors must have minimum ground clearances as required by the Code. In order to maintain these ground clearances the following attachment heights for service racks or masts at the electric service entrance to buildings shall be provided:~~

~~—(1)— For Services rated 200 amps or less:~~

~~—— 10 feet —— single phase, 120/240 volts, single family residential services passing over areas accessible to pedestrians only. Horizontal clearances shall comply with Article 680-8.~~

~~—— 12 feet —— three phase, 120/240 volts, single family residential services passing over areas accessible to pedestrians only if the service is more than 25 feet in any direction from a swimming pool, swimming area, or diving platform.~~

~~—— 15 feet —— services passing over residential driveways and commercial area not subject to truck traffic.~~

~~—— 18 feet —— services passing over roads, streets, alleys, parking lots subject to truck traffic or other land traversed by vehicles such as cultivated forest, orchard, etc.~~

~~—— 27 feet —— services passing over track rails of railroads.~~

~~—(2)— If services are rated over 200 amperes, or if physical features, such as terrain or vegetation, require higher vertical clearances, then higher clearances may be required by the electric utility servicing the site. The decision of the electric utility shall take precedence over the specific requirements of this section.~~

~~—(3)— Mast Risers: Mast risers must be a minimum two-inch rigid or intermediate steel galvanized conduits mast over four feet from strapping or supports must be guyed and no fittings may be located above the roof.~~

#### ~~ARTICLE 230-24(e)~~

~~The Fire Chief of the City of Austin may require the relocation of wires which may interfere with the use of Fire Department apparatus or equipment.~~

#### ~~ARTICLE 230-42(d) Size and Rating~~

~~Three Phase Delta Systems:~~

~~— On any three phase delta supply system the requirement shall be that all panelboards and switchboards use only "bolt-in" type breakers where the neutral and high leg (C phase) are both present in the panelboard or switchboard.~~

#### ARTICLE 240-24(e) Location of Panelboards or Over Current Devices

~~— Panelboards or overcurrent devices shall not be located in bathrooms or within six feet of sinks, lavatories, or similar fixtures. Panelboards shall also have the following minimum clearances: Six feet three inches of headroom, three feet of walk up clearance and 30 inches minimum horizontal with a minimum of six inches on each side of enclosure.~~

#### ARTICLE 250-42(f) Equipment Grounding Over 150 Volts to Ground

~~— Exception No. 4: Listed information processing equipment protected by a system of double insulation, or its equivalent, shall not be required to be grounded. Where such system is employed, the equipment shall be distinctively marked.~~

#### ARTICLE 250-91 Material

~~— (a) — Grounding Electrode Conductor: The grounding electrode conductor for all services will be of copper only, with a minimum size of #6 AWG. The material shall be resistant to any corrosive condition existing at the installation or shall be suitably protected against corrosion. The conductor shall be solid or stranded, insulated, covered, or bare and shall be installed in one continuous length without a splice or joint.~~

~~— Exception No. 1: Splices in busbars shall be permitted.~~

~~— Exception No. 2: Where a service consists of more than a single enclosure as permitted in Section 230-40, Exception No. 2, it shall be permissible to connect taps to the grounding electrode conductor. Each such tap conductor shall extend to the inside of each such enclosure. The grounding electrode conductor shall be sized in accordance with Section 250-94, but the tap conductors shall be permitted to be sized in accordance with the grounding electrode conductors specified in Section 250-94 for the largest conductor serving the respective enclosures.~~

#### ARTICLE 300-23 Commercial Wiring Methods

~~— A. — This article shall govern electrical work in the following types of buildings:~~

~~— 1. — Apartment houses greater than three stories in height.~~

~~— 2. — Rooming houses greater than one story in height.~~

~~— 3. — Boarding houses greater than one story in height.~~

~~— 4. — All buildings other than dwellings.~~

~~— B. — All electrical work in buildings regulated by this article shall be installed in accordance with one of the following approved wiring methods:~~

- ~~—— 1. — Standard rigid steel or aluminum conduit~~
- ~~—— 2. — Thin wall conduit~~
- ~~—— 3. — Surface metal raceways~~
- ~~—— 4. — Nonmetallic raceways~~
- ~~—— 5. — Flexible metallic conduit not enclosed in plaster or masonry~~
- ~~—— 6. — Electrical nonmetallic tubing~~

~~— C. — Where the provisions of this article conflict with other provisions of this code, the most restrictive shall govern.~~

#### ARTICLE 310-5 Minimum Size of Conductors

~~Whether solid or stranded, conductors shall not be smaller than No. 12 copper or No. 6 aluminum or copper-clad aluminum.~~

- ~~— Exception No. 1: For flexible cords as permitted by Section 400-12.~~
- ~~— Exception No. 2: For fixture wire as permitted by Section 410-23.~~
- ~~— Exception No. 3: For fractional hp motors as permitted by Section 430-22.~~
- ~~— Exception No. 4: For cranes and hoists as permitted by Section 610-14.~~
- ~~— Exception No. 5: For elevator control and signaling circuits as permitted by Section 620-12.~~
- ~~— Exception No. 6: For Class 1, Class 2 and Class 3 circuits as permitted by Sections 725-16, 725-37, and 725-40.~~
- ~~— Exception No. 7: For fire protective signaling circuits as permitted by Sections 760-16, 760-27, and 760-30.~~
- ~~— Exception No. 8: For aerial spans conductors of triplex or quadraplex will be of minimum #6 aluminum.~~
- ~~— Exception No. 9: Single conductor spans overhead shall be minimum #10 copper AWG.~~

#### ARTICLE 310-16 (Note 1A) Conductor Ampacity

~~Ampacities of insulated conductors listed in the 85 C and 90 C columns shall be that listed in the 75 C column. Terminations are designed only for 60 C or 75 C maximum temperatures; therefore, the higher rated ampacities for conductors of 90 C, 110 C, etc., cannot be utilized unless the terminations have comparable ratings.~~

#### ~~ARTICLE 328-16(a) Anchoring of Flat Conductor Cable (F.C.C.)~~

~~The top shield will be permanently anchored every two (2) feet with drive in metal anchors on both sides.~~

#### ~~ARTICLE 338-2 Service Entrance Cable~~

~~Service entrance cable shall not be used for service entrance conductors unless installed in an approved raceway.~~

#### ~~ARTICLE 339-3 Uses Permitted~~

~~Type UF cable shall be permitted for use underground, including direct burial in the earth, on residential branch circuits 150V to ground 30 amps or less where provided with overcurrent protection of the rated ampacity as required in Section 339-4.~~

#### ~~ARTICLE 348-1(4) Electrical Metallic Tubing~~

~~Electrical metallic tubing shall not be permitted for direct burial in earth or installed in or under concrete on grade or below grade.~~

#### ~~ARTICLE 350-2(1) Flexible Metal Conduit~~

~~Flexible metal conduit shall not be used in areas exposed to weather.~~

#### ~~ARTICLE 384-3(f) Phase Arrangement~~

~~The phase arrangement on the three phase buses shall be A, B, C, from front to back, top to bottom, or left to right, as viewed from the front of the switchboard or panelboard. The C phase shall be that phase having the higher voltage to ground on three phase, delta-connected systems. Other busbar arrangements shall be permitted for additions to existing installations and shall be marked.~~

#### ~~ARTICLE 424-19 Disconnecting Means~~

~~An approved disconnecting means shall be required on all fixed electric space heating equipment. The disconnecting means shall be mounted adjacent to the equipment and within sight of the equipment. Disconnecting means shall not be mounted on the fixed electrical space heating equipment. Where heating equipment is supplied by more than one source, the disconnecting means shall be grouped and identified.~~

~~In residential applications only, approved receptacle cord and cap assemblies may be substituted for the disconnect means.~~

In addition, a light fixture shall be installed within six feet of equipment when the fixed electrical space heating equipment is installed in attics, crawl spaces, or mechanical rooms.

#### ARTICLE 424-J Electric Radiant Heating Panels and Heating Panel Sets

~~—(1)—~~ The provisions of Part J of this article shall apply to radiant heating panels and heating panel sets.

~~—(2)—~~ Electric radiant heating panels and heating panel sets shall not be installed in the corporate City limits unless they have been approved by the Electrical Board. Approved electric radiant heating panels and heating panel sets shall be installed in accordance with their listings and in accordance with the conditions specified by the Electrical Board.

#### ARTICLE 450-C Transformer Vaults

~~Transformer vaults shall be installed in accordance with the rules and standards of the electric utility serving the location.~~

#### ARTICLE 600-6 Electrical Signs

~~—(d)—~~ Outside signs: All lighting classified as signs, and which is installed outside the main walls of any building, shall be on approved circuits which supply no load within the building.

#### ARTICLE 680-8 Overhead Conductor Clearances (Swimming Pools)

~~Overhead conductors shall not span across the water and must have a minimum horizontal clearance of ten feet from the water's edge.~~

~~PART 5. This Ordinance applies only to offenses committed on or after February 28, 1988. A criminal action for an offense committed on or before February 27, 1988, is governed by the law in effect before February 28, 1988, and the law in effect before February 28, 1988, is continued in effect for that purpose as if this Ordinance had not been adopted. For purposes of this PART 5, an offense is committed on or after February 28, 1988, if any element of the offense occurs on or after February 28, 1988.~~

~~PART 6. The City Clerk is directed to compile all sections of this ordinance amending the 1987 National Electrical Code into a separate publication to be known as "Local Amendments to the National Electrical Code, 1987 Edition."~~

~~PART 7. The requirement imposed by Section 2-2-3 of the Austin City Code of 1981 that this ordinance be read on three separate days is waived by the affirmative vote of five members of the City Council to pass this ordinance through more than one reading on a single vote.~~

~~PART 8. This ordinance shall be effective ten days following the date of its final passage.~~

PASSED AND APPROVED:

~~February 18, 1988 \_\_\_\_\_ /s/ \_\_\_\_\_  
\_\_\_\_\_ Frank C. Cooksey  
\_\_\_\_\_ Mayor~~

~~APPROVED: \_\_\_\_\_ ATTEST: \_\_\_\_\_  
\_\_\_\_\_ Jonathan Davis \_\_\_\_\_ James E. Aldridge  
\_\_\_\_\_ Acting City Attorney \_\_\_\_\_ City Clerk~~

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## ~~APPENDIX C: MECHANICAL CODE~~

~~ORDINANCE NO. 880114-I~~

### ~~MECHANICAL CODE~~

~~AN ORDINANCE AMENDING CHAPTER 13-8 OF THE AUSTIN CITY CODE OF 1981, BY REPEALING THE UNIFORM MECHANICAL CODE, 1982 EDITION, AND LOCAL AMENDMENTS TO THE UNIFORM MECHANICAL CODE, 1985 EDITION, WITH APPENDIX, PUBLISHED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS AND THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS SAVE AND EXCEPT SPECIFIC SECTIONS DELETED BY THIS ORDINANCE; ADOPTING CERTAIN LOCAL AMENDMENTS TO THE 1985 UNIFORM MECHANICAL CODE; DIRECTING THE CITY CLERK TO PUBLISH THE LOCAL AMENDMENTS TO THE 1985 UNIFORM MECHANICAL CODE IN A SEPARATE COMPILATION TO BE KNOWN AS "LOCAL AMENDMENTS TO THE MECHANICAL CODE, 1985 EDITION"; WAIVING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.~~

~~BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:~~

~~PART 1. Chapter 13-8 of the Austin City Code of 1981 is amended by repealing the Uniform Mechanical Code, 1982 Edition with Appendix, published by the International Conference of Building Officials, adopted by reference in Section 13-8-1. All local amendments to the Uniform Mechanical Code, 1982 Edition, are also repealed by this ordinance.~~

~~PART 2.~~ Chapter 13-8 is further amended to adopt and incorporate by reference as Section 13-8-1 the publication known as the Uniform Mechanical Code, 1985 Edition, with Appendix, published by the International Conference of Building Officials, a copy of which is attached and incorporated into this ordinance as "Exhibit A" (the "1985 Uniform Mechanical Code"), save and except the following numbered sections and appendices which are hereby deleted from the 1985 Uniform Mechanical Code:

~~Section 203~~      ~~Appendix Section 2126~~  
~~Section 304(b)~~      ~~Appendix Chapter 22~~  
~~Table 3A~~

~~PART 3.~~ Chapter 13-8 is further amended to add the following sections as local amendments to the 1985 Uniform Mechanical Code, as follows:

Section 203 Board of Appeals

~~(a) Board Established. In order to determine the suitability of alternate materials and methods of construction and to provide for reasonable interpretations of the Mechanical Code, Plumbing Code, and Solar Code, there is hereby established the Mechanical, Plumbing, and Solar Board. The Board shall consist of seven members who are qualified by experience and training to pass upon matters pertaining to installation and design of mechanical systems, plumbing, and solar energy systems. The Board shall include two licensed air conditioning contractors, two licensed master plumbers, a professional engineer with design experience in mechanical systems, a representative of the natural gas utility, and a citizen of the City of Austin. No member shall be an employee of the City of Austin. The Building Official shall be an ex officio member of, and shall act as secretary for, said board. The Board shall review any appeal filed pursuant to Chapter 13-1 of the Austin City Code of 1981, as amended. The Board shall not be empowered to waive any of the requirements of this Code.~~

~~(b) Term of Office. The City Council shall appoint each member to a two-year term. The terms of four of such members shall expire July 1 of odd-numbered years. A vacancy upon this Board shall be filled by appointment of the City Council for any unexpired term.~~

~~(c) Quorum. Four members of the Board shall constitute a quorum. To modify an order of the Building Official or to render an interpretation of the code, an affirmative vote of four members shall be required. No member of the Board shall pass upon any matters in which he or she, or any corporation in which he or she is a shareholder, has a vested interest.~~

~~(d) Meetings and Records. Meetings of the Board shall be held at the call of the Chair and at other such times as the Board may determine. All hearings before the Board shall be open to the public. The Building Official shall retain minutes of Board proceedings, and shall forward these minutes to the respective Board members within ten working days of the Board meeting. These minutes, when approved by the Board, shall become public record.~~

~~—(e)— Procedure. The Board shall establish rules for its own procedures consistent with the provisions of this code.~~

~~—(f)— Notice. The Board shall render all decisions and findings in writing to the appellant; copies shall be retained by the Building Official.~~

~~—(g)— Appeal to City Council. Any person who is aggrieved by a decision of the Board shall have an opportunity to appeal such decision to the City Council in accordance with the following:~~

~~——(1)—— The appeal shall be made by filing a written notice of appeal with the City Clerk. The notice of appeal shall contain: a) the name of the person filing the appeal; b) a background of the case and a summary of the decision from which the appeal is taken; c) a statement containing facts which show, beyond a reasonable doubt, that (1) the decision appealed from was incorrect due to its inconsistency or conflict with City Ordinance or state law, or (2) that a finding of fact by the Board was clearly contrary to the evidence before the Board; and d) the relief requested from the City Council.~~

~~——(2)—— Notice of appeal from a decision of the Board made on or after the effective date of this ordinance shall be filed within 14 days after the date on which the decision appealed from was made.~~

~~——(3)—— If the last day for filing the notice of appeal is a Saturday, Sunday, or City Holiday, then the notice of appeal may be filed on the next day which is not a Saturday, Sunday, or City Holiday.~~

~~——(4)—— Any person filing a notice of appeal under this Section shall, on the same day of the filing, mail or deliver a copy of the appeal to the Board.~~

~~——(5)—— The City Council shall have the authority in the disposition of any such appeal to waive any requirement of any ordinance in any case in which the Council considers the application of such requirement to be unjust and unnecessary to achieve the purposes of the ordinance. The City Council shall have the authority to take any action it deems advisable in deciding any appeal under this paragraph.~~

#### Section 301

~~—(c)— Scope of Jurisdiction. Permit requirements shall apply to mechanical installations in the corporate City limits and to installations serviced by City of Austin electric service outside the corporate City limits.~~

#### Section 302(a)

~~——(7)—— Contain the name of the air conditioning contractor licensed by the State of Texas who shall perform the work.~~

#### EXCEPTION

~~Homestead permit. A person who is not licensed to do mechanical work may perform such work with his or her own hands within his or her dwelling premises owned by him or her, if such person has filed with the Building Official an affidavit stating that the location at which such work is to be done is his or her homestead. Before performing such work, he or she shall obtain from the Building Official a permit to do such work, and shall pay required permit fees. No person who has obtained such a permit within the preceding 12 months shall secure a homestead owner's permit at a different location. Any person who obtains a homestead owner's permit and allows any person other than a licensee under the provisions of the Code to perform any mechanical work under such permit, shall render his or her homestead permit null and void.~~

#### Section 304

~~—(b)— Permit Fees and Plan Review Fees. Permit fees and Plan Review fees shall be established under separate ordinance by action of the City Council.~~

#### Section 411 Inspector.

~~— An "Inspector" is an employee of the City of Austin who has attained certification as a Mechanical Inspector pursuant to the certification program established by the International Conference of Building Officials.~~

#### EXCEPTIONS.

~~— 1.— Persons employed by the City of Austin on the effective date of this code shall attain certification within two years of the effective date of this code.~~

~~— 2.— Persons hired as mechanical inspectors subsequent to the effective date of this code shall attain certification within two years of the date of employment.~~

~~— 3.— The Building Official may establish a list of Mechanical Inspectors certified by the International Conference of Building Officials who are not employees of the City of Austin. Persons listed as Mechanical Inspectors by the Building Official may be authorized by the Building Official to perform inspections pursuant to Section 305 of this code.~~

#### Section 510

~~—(c)— A flow switch wired to shut off power to all cooling equipment may be installed in lieu of an auxiliary drain line. Condensate drain lines may discharge into storm sewer or trapped and vented sanitary sewer. If storm sewer or sanitary sewer is not available, the condensate drain line may discharge into an approved leach field or condensate pump.~~

#### Section 512 Requirements for Floodplain Areas.

~~—(a)— Heating, air conditioning, and ventilating equipment shall be installed in areas above the Regulatory Flood Datum (RFD). This equipment may be located in W-1 or W-~~

2-spaces, with direct access from a location above the RFD, when approved as a modification by the Building Official.

~~—(b)— Heating systems using a gas or oil-fired furnace shall have a float-operated automatic control valve installed in the fuel supply line which shall be set to operate when flood waters reach an elevation equal to the floor level of the space where furnace equipment is installed. A manually operated gate valve that can be operated from a location above the RFD shall be provided in the fuel supply line to serve as a supplementary safety provision for fuel cutoff.~~

~~—(c)— The heating equipment and fuel storage tanks shall be securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel line supply. As an alternate means of protection, elevation of the heating equipment and fuel storage tanks above the RFD is permitted. Fuel lines shall be attached to furnaces by means of flexible swing-type couplings. All heating equipment and fuel storage tanks shall be vented to an elevation of at least three feet above the RFD and the air supply for combustion shall be furnished, if required, for systems installed in W-1 or W-2 spaces at a height at least three feet above the RFD.~~

~~—(d)— All duct work for warm air heating systems which is located below the RFD shall be provided with emergency openings for internal flooding and drainage of the ducts. All openings shall have covers with gravity operators for closure during normal operation. Duct work passing through water-tight walls or floors below the RFD shall be provided with shut-off valves to isolate the piping system in the event of a flood. Electric heating systems, where used in flood hazard areas, shall be installed in accordance with the Electrical Code.~~

~~—(e)— Air conditioning and ventilation systems located below the RFD shall be installed in W-1 or W-2 spaces; installation, piping, duct work connections, and safety features shall be the same as for heating systems.~~

~~—(f)— All fuel supply lines that originate outside W-1 or W-2 spaces or pass through areas that flood, shall be equipped with an automatic shut-off valve to prevent loss of fuel. The wall opening shall be flood-proofed by using embedded collars, sleeves, waterstops or other means approved by the Building Official.~~

#### Section 602

~~—(d)— If a fuel-burning appliance is installed in an enclosure directly below a well-ventilated attic space, then combustion air may be supplied to that appliance by leaving the entire ceiling of the enclosure open to the well-ventilated attic space. The enclosure shall be provided with a sleeve of galvanized steel 28 gauge or heavier, in compliance with Chapter 10. Wood of not less than 1/2 inch thickness, extending from the appliance enclosure to at least eight inches (nominal eight inch thickness above the top of the ceiling joists), may be accepted in lieu of the galvanized steel sleeve. The upper opening of such sleeve shall not be screened.~~

#### Section 708

## EXCEPTION

~~— 2. — A disappearing stairway, located as specified by this section, which is large enough to permit removal of the largest piece of equipment for which the stair provides access shall be deemed to be in compliance with this section. A permanent electric outlet and lighting fixture controlled by a switch located at the required passageway opening shall be provided within five feet of the furnace.~~

### Section 1004

~~— (d) — All nonmetallic plenums, when protected from the weather, shall be attached to a coil or furnace with the hard cast system. All nonmetallic plenums, when exposed to the weather, shall be attached to a coil or furnace with waterproof hard cast system or its equivalent.~~

### Section 1004(e)

~~— (1) — Flexible Duct hangers and supports. Flexible duct shall be hung with 3/4-inch 26-gauge perforated metal or one-inch 28-gauge (or heavier) galvanized metal and spaced a maximum of four feet on center. A galvanized metal cradle three inches wide, of minimum 26-gauge, and one-half of the circumference of the duct, shall be installed between the hanger and duct. The cradle shall be attached to the hanging strap in a manner approved by the Building Official. Flexible duct with the manufactured hanging grommets attached to the flexible duct is acceptable.~~

### Section 1004(e)

~~— (2) — Rigid duct to grilles. Duct shall be cut flush with the top sides of ceiling materials or with the back side of wall materials, and held in place with a metal grille assembly of one-inch x one-inch 26-gauge angles attached to joints, studs or grids at each end of angles. All sides of each duct shall be attached to the grille assembly in accordance with manufacturer's specification and made airtight.~~

### Section 1004(e)

~~— (3) — Flexible duct to grilles. Flexible ducts shall be attached to an approved adapter bucket with sheet metal screws or manufactured clamps. Each bucket shall be firmly attached to joints, studs or grids with one-inch x one-inch 26-gauge angles on at least two sides of buckets.~~

### Appendix 2126

~~Steam and hot-water boilers and piping shall be installed and maintained with Boiler Law Rules and Regulations published by the Texas Department of Labor and Standards.~~

### Appendix E Mechanical Licenses.

~~—Mechanical installations regulated by this code shall be performed in accordance with the Air Conditioning Contractor License Law, Texas Civil Statutes, Article 8861.~~

~~PART 4. This Ordinance applies only to offenses committed on or after January 24, 1988. A criminal action for an offense committed on or before January 23, 1988, is governed by the law in effect before January 24, 1988, and the law in effect before January 24, 1988, is continued in effect for that purpose as if this Ordinance had not been adopted. For purposes of this PART 4, an offense is committed on or after January 24, 1988, if any element of the offense occurs on or after January 24, 1988.~~

~~PART 5. The City Clerk is directed to compile all sections of this ordinance amending the 1985 Uniform Mechanical Code into a separate publication to be known as "Local Amendments to the Uniform Mechanical Code, 1985 edition."~~

~~PART 6. The requirement imposed by Section 2-2-3 of the Austin City Code of 1981 that this ordinance be read on three separate days is waived by the affirmative vote of five members of the City Council to pass this ordinance through more than one reading on a single vote.~~

~~PART 7. This ordinance shall be effective ten days following the date of its final passage.~~

PASSED AND APPROVED:

January 14, 1988 \_\_\_\_\_ /s/ \_\_\_\_\_ Mayor

APPROVED: \_\_\_\_\_ /s/ \_\_\_\_\_ ATTEST: \_\_\_\_\_ /s/ \_\_\_\_\_  
City Attorney City Clerk

## ~~APPENDIX D: PLUMBING CODE~~

~~ORDINANCE NO. 880114-J~~

### ~~PLUMBING CODE~~

~~AN ORDINANCE AMENDING CHAPTER 13-9 OF THE AUSTIN CITY CODE OF 1981; REPEALING THE UNIFORM PLUMBING CODE, 1982 EDITION, AND LOCAL AMENDMENTS TO THE 1982 UNIFORM PLUMBING CODE; ADOPTING BY REFERENCE THE UNIFORM PLUMBING CODE, 1985 EDITION, WITH APPENDIX, PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, SAVE AND EXCEPT SPECIFIC SECTIONS DELETED BY THIS ORDINANCE; ADOPTING CERTAIN LOCAL AMENDMENTS TO THE 1985 UNIFORM PLUMBING CODE; DIRECTING THE CITY CLERK TO PUBLISH THE LOCAL AMENDMENTS TO THE 1985 UNIFORM PLUMBING CODE IN A SEPARATE COMPILATION TO BE KNOWN AS "LOCAL AMENDMENTS TO THE UNIFORM PLUMBING CODE, 1985 EDITION"; WAIVING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE (3) SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.~~

~~— BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:~~

~~PART 1. Chapter 13-9 of the Code of the Austin City Code of 1981 is amended by repealing the Uniform Plumbing Code, 1982 Edition with Appendix, published by the International Association of Plumbing and Mechanical Officials, adopted by reference in Section 13-9-1. All local amendments to the Uniform Plumbing Code, 1982 Edition, are also repealed by this ordinance.~~

~~PART 2. Chapter 13-9 is further amended to adopt and incorporate by reference as Sec. 13-9-1 the publication known as the Uniform Plumbing Code, 1985 Edition with Appendix, published by the International Association of Plumbing and Mechanical Officials, a copy of which is attached and incorporated into this ordinance as Exhibit "A" (the "1985 Uniform Plumbing Code"), save and except the following numbered sections and appendices which are hereby deleted from the 1985 Uniform Plumbing Code:~~

~~— Sec. 10.3 — Sec. 608(c) — Sec. 1008(c) — Sec. 1305(c)  
— Sec. 20.4(d) — Sec. 614 — Sec. 1101(d) — Sec. 1306(b)  
— Sec. 20.7 — Sec. 708(b) — Sec. 1201 — Sec. 1310(d)  
— Sec. 20.14 — Sec. 1004(a) — Sec. 1206 — Appendix H  
— Sec. 119(g) — Sec. 1005(c) — Sec. 1213(b) — Appendix I~~

~~PART 3. Chapter 13-9 is further amended to add the following sections as local amendments to the 1985 Uniform Plumbing Code, as follows:~~

~~Section 10.3 Scope.~~

~~—The provisions of this Code shall apply to the erection, installation, alteration, addition, repair, regulation, replacement, maintenance or uses of any plumbing system, except as otherwise provided for in this Code.~~

~~—This Code shall apply to all plumbing within the corporate City limits and any plumbing outside the city connected to either the City water or sewage system.~~

#### ~~Section 20.4(d)~~

~~—The permit shall contain the name of the master plumber licensed by the State of Texas who shall perform the work.~~

#### EXCEPTIONS:

~~—(1) Homestead permit. A person who is not licensed to do plumbing work may perform such work with his or her own hands within his or her dwelling premises owned by him or her, provided such person has filed with the Building Official an affidavit stating that the location at which such work is to be done is his or her homestead. Before performing such work he or she shall obtain from the Building Official a permit to do such work, and shall pay required permit fees. No person who has obtained a homestead permit within the preceding twelve (12) months shall secure a homestead permit at a different location. Any person who obtains a homestead permit and allows any person other than the permittee to perform plumbing work under such permit shall render his or her homestead permit null and void.~~

~~—(2) Persons authorized by the Plumbing License Law of the State of Texas to perform plumbing without a license are authorized to secure required permits.~~

~~—(3) Persons licensed by the Texas Board of Irrigators shall secure required plumbing permits prior to the installation of landscape irrigation or yard sprinkler systems.~~

#### Section 20.7 Cost of Permit and Plan Review Fee

~~—Plumbing permit and Plan Review fees shall be established under separate ordinance by the City Council.~~

#### Section 20.14 Board of Appeals

~~—(a) Board Established. In order to determine the suitability of alternate materials and methods of construction and to provide for reasonable interpretations of the Mechanical Code, Plumbing Code, and Solar Code, there is hereby established the Mechanical, Plumbing, and Solar Board. The Board shall consist of seven members who are qualified by experience and training to pass upon matters pertaining to installation and design of mechanical systems, plumbing, and solar systems. The Board shall include two licensed air conditioning contractors, two licensed master plumbers, a professional engineer with design experience in mechanical systems, a representative of the natural gas utility, and a citizen of Austin. No member shall be an employee of the~~

City of Austin. The building official shall be an ex-officio member of and shall act as secretary to said Board. The Board shall review any appeal filed pursuant to Chapter 13-1 of the Austin City Code of 1981, as amended.

~~— (b) Term of Office. The City Council shall appoint each member to a two-year term. The terms of four Board members shall expire on July 1 of odd-numbered years. The terms of three Board members shall expire on July 1 of even-numbered years. A vacancy upon this Board shall be filled by appointment of the City Council for any unexpired term.~~

~~— (c) Quorum. Four members of the Board shall constitute a quorum. In modifying an order of the Building Official or rendering an interpretation of the Code, an affirmative vote of four members shall be required. No member of the Board shall pass upon any questions in which he or she, or any corporation in which he or she is a shareholder, has a vested interest.~~

~~— (d) Meetings and Records. Meetings of the Board shall be held at the call of the Chair and at other such times as the Board may determine. All hearings before the Board shall be open to the public. The building official shall retain minutes of Board proceedings, and shall forward these minutes to the respective Board members within ten working days of the Board meeting. These minutes, when approved by the Board, shall become public record.~~

~~— (e) Procedure. The Board shall establish rules for its own procedure consistent with the provisions of this Code.~~

~~— (f) Notice. The Board shall render all decisions and findings in writing to the appellant and copies shall be retained by the Building Official.~~

~~— (g) Appeal to City Council. Any person who is aggrieved by a decision of the Board shall have an opportunity to appeal such decision to the City Council in accordance with the following:~~

~~— (1) The appeal shall be made by filing a written notice of appeal with the City Clerk. The notice of appeal shall contain a) the name of the person filing the appeal, b) a background of the case and a summary of the decision from which the appeal is taken, c) a statement containing facts which show, beyond a reasonable doubt, that the decision appealed from was incorrect due to its inconsistency or conflict with City ordinance or state law, or that a finding of fact by the Board was clearly contrary to the evidence before the Board, and, d) the relief requested from the City Council.~~

~~— (2) The notice of appeal shall be filed within fourteen (14) days after rendition of the decision from which the appeal is taken.~~

~~— (3) If the last day for filing the notice of appeal is a Saturday, Sunday, or City Holiday, the notice of appeal may be filed on the next day which is not a Saturday, Sunday, or City Holiday.~~

~~— (4) — Any person filing a notice of appeal hereunder shall, on the same day of the filing, mail or deliver a copy of the notice of appeal to the Board.~~

~~— (5) — The City Council shall have the authority, in the disposition of any such appeal, to waive any requirement of any ordinance in any case in which the Council considers the application of such requirement to be unjust and unnecessary to achieve the purposes of the ordinance. The City Council shall have the authority to take any action it deems advisable in deciding any appeal under this section.~~

#### ~~Section 110(f) Inspector.~~

~~— An "inspector" is an employee of the City of Austin who has attained certification as a Plumbing Inspector pursuant to the certification program established by the International Conference of Building Officials.~~

#### ~~EXCEPTIONS.~~

~~— (1) — Persons employed by the City of Austin on the effective date of this Code shall attain certification within two years of the effective date of this Code.~~

~~— (2) — Persons hired as plumbing inspectors subsequent to the effective date of this Code shall attain certification within two years of the date of employment.~~

~~— (3) — The Building Official may establish a list of Plumbing Inspectors certified by the International Conference of Building Officials who are not employees of the City of Austin. Persons listed as plumbing inspectors by the Building Official may be authorized by the Building Official to perform inspections pursuant to Section 20.8 of this Code.~~

#### ~~Section 119(g) Restricted Use Restroom.~~

~~— A restricted use restroom is one for which there is direct access only through one or more single occupant offices and said restroom is located on a floor where adequate public restroom facilities are also available.~~

#### ~~Section 323 Requirements for Floodplain Areas.~~

~~— (a) — For the purpose of these regulations, plumbing systems shall include sanitary and storm drainage, sanitary facilities, water supply and storm water disposal systems.~~

~~— (b) — Sanitary sewers and storm drainage systems that have openings below the Regulatory Flood Datum (RFD) shall be provided with automatic back water valves or other automatic back flow devices that are installed in each discharge line passing through a building exterior wall. In W-1 spaces, manually operated shut-off valves that can be operated from a location above the RFD shall also be installed on such lines to serve as supplementary safety provisions for preventing back flow in the event that the automatic back flow device fails.~~

~~—(c)—Whenever the dryness of a space depends on sump pump systems, all interior storm water drainage or seepage, appliance drainage, and underslab drain tile system shall be directly connected to the sump pump and discharged at an elevation of five feet above the RFD.~~

~~—(d)—Cesspools, septic tanks or disposal beds will not be permitted in the 25 year flood hazard area. In other areas, it will be subject to the approval of Health Authority for sewage disposal within the flood hazard areas.~~

~~—(e)—Potable water supply systems which are located in the flood hazard area shall be designed and installed in such a manner as to prevent contamination from flood waters up to the RFD.~~

~~—(f)—Approved back flow preventers or devices shall be installed on main water service lines to all building entry locations to protect the system from back flow or back siphonage of waters or other contaminants in the event of a line break. Devices shall be installed at accessible locations and shall be maintained in accordance with this Code.~~

#### Table 4-3

Footnote 6.—Under no circumstances shall any building sewer be less than four (4) inches in diameter.

#### Section 608

~~—(c)—No domestic dishwashing machine shall be directly connected to a drainage system or foodwaste disposal without the use of one of the following: (1) an approved dishwasher air gap fitting on the discharge side of the dishwashing machine; (2) an approved backflow preventer on the discharge line; or (3) by a discharge loop installed as high as possible underneath the cabinet top and under no circumstance lower than the bottom of the sink. The loop shall be approved flexible drain material securely strapped under the cabinet top or approved rigid pipe.~~

#### Section 614 Special Venting for Island Fixtures

~~—Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not lower than the drainboard height and then returning the vent downward and connecting the vent to the horizontal sink drain immediately downstream from the vertical fixture drain.~~

~~—The return vent shall be connected to the horizontal drain through a Y-branch fitting and shall be provided with a foot vent taken off the vertical fixture vent by means of a Y-branch immediately below the floor. The vent shall extend to the nearest partition and thence through the roof to the open air or may be connected to other vents at a point not less than six (6) inches above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter ( $\frac{1}{4}$ ) inch per foot back to the drain shall be maintained. The return bend~~

~~used under the drainboard shall be a one piece fitting or an assembly of a forty-five (45) degrees, a ninety (90) degree, and a forty-five (45) degree elbow in the order named.~~

~~—Deep seal P-traps may be installed under the floor of island fixtures if: (1) the trap size is at least two inches and (2) the trap is vented with a two inch soil pipe to the nearest partition wall with a cleanout installed in the riser and thence through the roof to the open air. Pipe sizing for island fixtures shall be as elsewhere required in this Code.~~

#### ~~Section 708~~

~~—(b)—The size, type and location of each interceptor or separator shall be approved by the administrative authority, in accordance with its standards. Except where otherwise specifically permitted, no wastes other than those requiring treatment or separation shall be discharged into any interceptor.~~

#### ~~Section 912 Water Conservation~~

~~—(a)—The following maximum flow rates and/or water usage standards shall apply for fixtures in:~~

~~\*—any new building or structure or portions thereof;~~

~~\*—additions to existing buildings that provide facilities or shelter for public assembly, education, business, mercantile, institutional, residential occupancy;~~

~~\*—and hotels, motels, condominiums, day care centers, nursing homes and apartments.~~

~~————(1)——Tank type water closets shall provide a maximum flush not to exceed 3.5 gallons.~~

~~————(2)——Shower heads shall have a maximum flow which does not exceed three gpm at pressure ranges from 20 to 80 psig.~~

~~————(3)——Lavatory and kitchen faucets shall be equipped with flow controllers, aerators or spray taps which result in a maximum delivery not to exceed 2.75 gpm (+ .25 gpm) at pressure ranges from 20 to 80 psig when both hot and cold water supply are in full open position.~~

~~————(4)——Flushometer type water closets shall adequately flush and clean fixtures, and shall discharge no more than three gallons per flush.~~

~~————(5)——Tank type urinals shall have a maximum flush not to exceed three gallons per flush.~~

~~————(6)——Flushometer type urinals shall adequately flush and clean fixtures, and shall discharge not more than one gallon per flush.~~

~~—————(7)———Lavatory faucets for public facilities may be equipped with (a) outlet devices which limit the flow of hot water to a maximum of 0.5 gpm, or (b) self-closing valves that limit delivery of hot water to a maximum of 0.25 gpm and delivery of cold water to a maximum of 1.75 gpm for a maximum combined delivery of 2 gpm.~~

~~——(b)——The standards set forth in Section 912a shall not apply to hospitals, laboratories, and any other application where health and safety are dependent upon particular water flow rates. The Building Official shall determine whether application requires exception from these standards. The above standards shall not apply to industrial applications installed pursuant to the Industrial Waste Discharge Ordinance.~~

~~——(c)——Fixture flow performance requirements shall be rated by data furnished by the equipment supplier or certified under a nationally recognized certification program or rating procedure.~~

~~——(d)——Water conservation standards for existing buildings shall be as established by separate ordinance of the City Council.~~

#### Section 1003

~~——(g)——To protect the public water supply, a reduced pressure back flow preventer shall be installed on the customers side of the meter of any service connection supplying water to premises where any toxic substance is handled or where any substance is handled under pressure higher than atmospheric; this backflow preventer is in addition to any such back flow protection within the water user's piping system. The reduced pressure backflow preventer shall be installed above the flood level or finished grade. The backflow preventer shall include process waters and waters originating from the public water supply which have been subject to deterioration in sanitary quality.~~

#### Section 1004

~~——(a)(1)——Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, polybutylene plastic, CPVC or other approved materials. P.E. or P.V.C. water pipe manufactured to recognized standards may be used for cold water distribution systems outside a building. All materials used in the water supply system, except valves and similar devices shall be of like material, unless otherwise approved by the administrative authority.~~

~~——(a)(2)——Approved plastic water piping installations shall be limited to installations permitted by the Building Code.~~

#### Section 1005

~~——(c)——All valves used to control two or more openings shall be fullway gate valves, butterfly valves, ball valves or other approved valves designed and approved for the service intended.~~

#### Section 1008

~~—(c)— Water piping installed within a building and in or under a concrete floor slab resting on the ground shall be installed in accordance with the following requirements:~~

~~—(1)— Where metallic water piping is used on the exterior of the building for the purpose of grounding the electrical system, the pipe shall extend at least 12 feet outside of the foundation's perimeter.~~

~~—(2)— Where metallic water piping is used in the interior underneath the concrete slab for the purpose of grounding the electrical system, the pipe shall be located under the concrete slab and under the vapor barrier. Pipe shall be no less than 12 feet and shall extend two feet outside the foundation's perimeter.~~

#### Section 1104

~~—(d) The drainage system of every house or building shall be separately and independently connected with an organized sewage disposal system when any part of the lot or tract which contains the house or building is within 100 feet, in horizontal distance (measured on the closest practicable access route), of an organized sewage disposal system. Exceptions to this rule exist when:~~

~~—(1)— The property owner has received a written denial of service from the owner or governing body of the organized disposal system; or~~

~~—(2)— The property owner has received a written determination from the Health Authority that it is not feasible for the building to be connected to the organized disposal system; or~~

~~—(3)— The property is served by an existing private sewage facility and the Health Authority has determined that the private sewage facility may continue to be used, based on such factors as: the type of facility served; the age, condition and capacity of the private sewage facility; the availability of records system and changes on the system; or the generating unit.~~

~~—(4)— There are single-family dwellings with utility systems which are metered separately, or which have utility systems which will be converted to separate meters prior to occupancy, if private easements have been established for utility systems which cross property lines, and provided that prior to the conversion the dwelling had a plumbing system which was legally installed in accordance with City plumbing system regulations. In addition, the converted dwelling's electrical system must comply with Article 13-6-230-3 of the City's Electrical Code, regarding separate electrical service.~~

~~— If no organized sewage disposal system exists within 100 feet of the property, then a private sewage facility approved by the Health Authority under the provisions of Chapter 6-10 of the Austin City Code shall be used.~~

#### Section 1119

~~—(f)—The Health Authority is charged with the enforcement of those provisions regulating private sewage disposal systems.~~

#### ~~Section 1201 General~~

~~—The regulations of this chapter shall govern the installation of all fuel gas piping in, or in connection with, any building or structure, as well as fuel gas piping installed on private property which is not utility service pipe.~~

~~—Installation of liquefied petroleum gas (L.P.G.) piping shall be in accordance with standards established by the State of Texas and by the Fire Code.~~

#### ~~Section 1206~~

~~—(c)—The Building Official shall make the following inspections and shall either approve that portion of the work as completed, or shall notify the permit holder when the same fails to comply with this Code.~~

~~——(1)—Top out inspection. This inspection shall be made after all piping authorized by the permit has been installed and before the portions of the piping which are to be covered or concealed are so concealed and before any fixture, appliance or shutoff valve has been attached to the pipeline.~~

~~———This inspection shall include an air pressure test, at which time the gas piping shall stand a pressure of not less than ten pounds per square inch gauge pressure or, at the discretion of the administrative authority, the piping and valves may be tested at a pressure of at least six inches of mercury measured with a manometer or slope gauge. Test pressures shall be held for a length of time satisfactory to the administrative authority, but in no case for less than 15 minutes with no perceptible drop in pressure. For welded piping, and for piping carrying gas at pressures in excess of 14 inches water column pressure, the test pressure shall not be less than 60 pounds per square inch and shall be continued for a length of time satisfactory to the administrative authority, but in no case for less than 30 minutes. These tests shall be made using air pressure only, and shall be made in the presence of the administrative authority. All necessary apparatus for conducting tests shall be furnished by the permit holder.~~

~~——(2)—Final gas inspection. A final test on the gas piping shall be made after the water heaters, floor furnaces and gas appliance shutoff valves have been installed, and shall be made with a minimum of five pounds of air pressure. Whenever changes or extensions are made to any gas piping from a point where no gas stop valve has been provided in the original gas system, the plumber or person in charge of the same shall prepare the entire system for inspection and test the same with a minimum of five pounds air pressure test for 15 minutes.~~

~~———The permittee shall notify the plumbing inspector when the system is ready for final inspection and arrange for the buildings to be unlocked so the inspector may enter them.~~

~~—————The testing equipment and labor necessary for making the required tests and inspections shall be furnished by the permittee.~~

### Section 1213

~~—(b)—No gas piping shall be installed in or on the ground or under a concrete slab under any building or structure and all exposed gas piping shall be kept at least six inches above grade or structure. Concealed unprotected gas piping may be installed above grade in approved recesses or channels.~~

### ~~—EXCEPTION~~

~~—When necessary, due to structural conditions, approved gas piping may be installed in other locations when permission has first been obtained from the administrative authority.~~

### Section 1305

~~—(c)—Gas storage-type water heaters and hot water boilers shall be provided with, in addition to the primary temperature controls, an over-temperature and over-pressure safety protection device constructed, listed and installed in accordance with nationally recognized applicable standards for such devices. Boilers shall be installed and maintained in accordance with the Boiler Law Rules and Regulations promulgated by the State of Texas.~~

### Section 1306

~~—(b)—All storage-type water heaters and hot water boilers deriving heat from fuels or types of energy other than gas, shall be provided with, in addition to the primary temperature controls, an over-temperature and over-pressure safety protection device constructed, listed and installed in accordance with nationally recognized applicable standards for such devices.~~

### Section 1310

~~—(d)—An approved dielectric insulator shall be required on the water piping connections of water heaters and related water heating equipment.~~

### Section 1314

~~—(f)—Electric water heaters with a capacity of 15 gallons or less may be installed with access thereto as approved by the Building Official.~~

### Appendix E. Mobile Home Parks and Recreational Vehicle Parks

~~—The provisions of this chapter shall apply to mobile home parks and recreational vehicle parks within the corporate City limits and any mobile home parks or recreational vehicle parks connected to either the City water or sewage systems.~~

Appendix G. Swimming Pools, Hot Tubs, and Spas

~~—Swimming pools, hot tubs, and spas within corporate City limits and those connected to either the City water or sewage system shall comply with the standards of this Code.~~

~~—Installation of swimming pools within the corporate City limits shall be in accordance with other applicable provisions of the Austin City Code of 1981 and regulations promulgated by the State of Texas.~~

Appendix H. Recommended Procedures for Sizing Commercial Kitchen Grease Interceptors

~~—All installations of commercial kitchen grease interceptors within the corporate City limits and those connected to the City sewage system shall comply with the Industrial Waste Ordinance.~~

Appendix I. Private Sewage Disposal Systems

~~—Private sewage disposal systems within the corporate City limits and within Travis County shall be reviewed and inspected by the Health Authority. Those systems shall comply with the standards of the Austin City Code of 1981.~~

~~PART 4. This Ordinance applies only to offenses committed on or after January 24, 1988. A criminal action for an offense committed on or before January 23, 1988 is governed by the law in effect before January 24, 1988, and the law in effect before January 24, 1988 is continued in effect for that purpose as if this Ordinance had not been adopted. For purposes of this PART 4, an offense is committed after January 24, 1988, if any element of the offense occurs after January 24, 1988.~~

~~PART 5. The City Clerk is directed to compile all sections of this ordinance amending the 1985 Uniform Plumbing Code into a separate publication to be known as the "Local Amendments to the Uniform Plumbing Code, 1985 Edition."~~

~~PART 6. The requirement imposed by Section 2-2-3 of the Austin City Code of 1981 that this ordinance be read on three (3) separate days is waived by the affirmative vote of five (5) members of the City Council to pass this ordinance through more than one reading on a single vote.~~

~~PART 7. This ordinance shall be effective ten (10) days following the date of its final passage.~~

PASSED AND APPROVED:

January 14, 1988 \_\_\_\_\_/s/  
\_\_\_\_\_ Mayor

APPROVED: \_\_\_\_\_/s/ ATTEST: \_\_\_\_\_/s/  
\_\_\_\_\_ City Attorney \_\_\_\_\_ City Clerk

14JAN88  
(J-4-e)  
SJH:bldg.saf

~~— A. — Shutoff Valves. Property owner shutoff valves located in the ground at the water meter shall meet A.W.W.A. standards.~~

~~— B. — Insulated Exterior Walls.~~

~~—— 1. — Option A: If the wall member is six (6) inches or greater in nominal width, the piping may be placed on the conditioned side of the wall insulation and no additional pipe insulation is required; or~~

~~—— 2. — Option B: If the wall is less than six (6) inches nominal width, the piping shall be insulated with material that has an r-value of at least four (4). The water piping and the pipe insulation shall be placed on the conditioned side of the wall.~~

~~— C. — Uninsulated Exterior Walls, Attics and Crawl Spaces.~~

~~—— 1. — All water piping installed in uninsulated exterior walls and unconditioned crawl spaces shall be protected by pipe insulation having a minimum r-value of at least four (4).~~

~~—— 2. — All water piping installed in attics above the building insulation shall be protected with pipe insulation having an r-value of at least six point five (6.5).~~

~~— D. — Exterior Hose Bibbs.~~

~~—— 1. — Option A: Exterior hose bibbs shall be of the self-draining frost resistant type with integral backflow preventor; or~~

~~—— 2. — Option B: Standard type hose bibbs shall be protected by adding pipe insulation up to the inside edge of exterior masonry or siding that has an r-value of at least four (4).~~

~~:- SOLAR CODE~~

~~ORDINANCE NO. 880114-K~~

~~SOLAR CODE~~

~~AN ORDINANCE AMENDING CHAPTER 13 OF THE AUSTIN CITY CODE OF 1981, BY REPEALING THE PROVISIONS OF THE SOLAR CODE AS PREVIOUSLY ADOPTED BY ORDINANCE NO. 850321-I; ADOPTING BY REFERENCE THE GUIDELINES FOR SOLAR ENERGY INSTALLATIONS, 1984 EDITION, WITH APPENDIX, PUBLISHED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS, SAVE AND EXCEPT SPECIFIC SECTIONS DELETED BY THIS ORDINANCE; ADOPTING CERTAIN LOCAL AMENDMENTS TO THE 1984 GUIDELINES FOR SOLAR ENERGY INSTALLATIONS; DIRECTING THE CITY CLERK TO PUBLISH THE LOCAL AMENDMENTS TO THE 1984 GUIDELINES FOR SOLAR ENERGY INSTALLATIONS IN A SEPARATE PUBLICATION TO BE KNOWN AS "LOCAL AMENDMENTS TO THE GUIDELINES FOR SOLAR ENERGY INSTALLATIONS, 1984 EDITION"; WAIVING THE RULE REQUIRING THE READING OF ORDINANCES ON THREE SEPARATE DAYS; AND PROVIDING AN EFFECTIVE DATE.~~

~~— BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:~~

~~PART 1. The Austin City Code of 1981 is amended by repealing Ordinance No. 850321-I, which previously adopted the Solar Code.~~

~~PART 2. That Chapter 13 of the Austin City Code of 1981 is amended by adopting by reference the publication known as the Guidelines for Solar Energy Installations, 1984 Edition, with Appendix, published by the International Conference of Building Officials, a copy of which is attached and incorporated into this ordinance as Exhibit "A", save and except the following numbered sections and appendices which are hereby deleted from the 1984 guidelines for Solar Energy Installations:~~

~~— Section 102 — Section 318.1 (a), (b), (c)-5  
— Section 103.2 — Section 403.2  
— Section 107.1 — Section 403.5  
— Section 107.2 — Section 417.1  
— Section 107.3 — Section 601  
— Section 107.4 — Section 602.1  
— Section 203 — Section 605  
— Section 303 — Section 606.4  
— Section 314 — Section 902.8~~

~~PART 3. Chapter 13 is further amended to add the following sections as local amendments to the 1984 Guidelines for Solar Energy Installations, as follows:~~

~~SECTION 102 — General~~

## SECTION 102.1 Scope

~~—These requirements, including the Appendix, apply to construction, alteration, and moving of solar energy systems and parts thereof used for domestic water heating and active solar space conditioning, and to recreational and therapeutic water heating systems. Solar water heating systems include active solar water heating systems, systems employing circulation created by density differences in the fluid (thermosiphon systems) and integral collector/storage water heating systems. Passive space-conditioning systems, photovoltaic systems, and wind-energy conversion systems are not included within the scope of these requirements.~~

## SECTION 102.2 Enforcement

~~—(a)—It shall be unlawful for any person, firm, or corporation to erect, install, alter, repair, relocate, add to, or replace solar energy systems or cause the same to be done without having first obtained a solar energy permit.~~

~~—(b)—Any person to whom a solar energy permit has been issued pursuant to Section 107.1 herein commits a violation thereof, punishable hereunder, if such person fails to observe, perform, or adhere to the terms and conditions in such permit.~~

~~—(c)—A true copy of the permit issued to any person, firm, or corporation shall be kept at the site work or location at all times while work is being performed. Failure to do so shall constitute a violation of this Ordinance.~~

~~—(d)—All maintenance or installation of solar energy systems or equipment after the effective date of this ordinance shall be in accordance with the provisions and regulations of this Ordinance. Failure to do so shall constitute violation of this Ordinance.~~

## SECTION 107.1 Permits

~~—A solar permit issued pursuant to these requirements is required to construct, alter, erect, relocate, add to, replace, install, or move a solar energy system.~~

~~—Exception: Replacement of any component part which does not alter its original approval, and which complies with other applicable requirements of this Code, shall not require a permit.~~

## SECTION 107.2 Application for Permit

~~—(a)—To obtain a permit, the applicant shall file an application form provided for that purpose. This form shall contain all the information necessary for the lawful enforcement of the provisions of this Code. The permit form shall be filed by a person holding a valid and authenticated Master Solar Energy System license or his or her authorized agent.~~

~~—(b)—1.—Permits and inspections are required and shall apply with equal force to all installations and all premises within the City limits, whether public or private, and~~

~~shall also apply to installations in buildings, structures and premises located outside the City limits when connected to the water, electric, or sewage systems of the City. Premises for which title is vested in the United States government or the State of Texas are exempt from this chapter.~~

~~2. All solar system designs shall be reviewed by the Building Official. Standard designs can be preapproved for each model number and kept on file by the Building Official. Only approved designs shall be installed.~~

~~3. Plans, engineering calculations, diagrams, and other data shall be submitted in one or more sets with each application for a permit when the solar energy system has 600 square feet or more of collector surface area. Plans, computations, and specifications shall be prepared and designed by an engineer or architect licensed by the State of Texas to practice as such. This requirement does not apply to single-family residential structures.~~

#### SECTION 107.2 Homestead Permit

~~(c) A person who is not licensed to do solar work may perform such work with his or her own hands within his or her dwelling premises owned by him or her, provided that such person has filed with the Building Official an affidavit stating that the location at which such work is to be done is his or her homestead. Before performing such work he or she shall obtain from the Building Official a permit to do such work, and shall pay required permit fees. No person who has obtained a homestead permit within the preceding 12 months shall secure a homestead permit at a different location. Any person who obtains a homestead permit and allows any person other than the permittee to perform solar work under such permit shall render his or her homestead permit null and void.~~

#### SECTION 107.3 Permit Issuance

~~(a) Issuance. The application, plans, and specifications and other data filed by an applicant for permit shall be reviewed by the Building Official. Such plans may be reviewed by other departments of this jurisdiction to verify compliance with applicable laws under their jurisdiction. If the Building Official finds that the work described in an application for a permit and the plans, specifications and other data filed therewith conform to the requirements of this Code and other pertinent laws and ordinances and that the required fees have been paid, then he or she shall issue a permit therefor to the applicant.~~

~~When the Building Official issues the permit where plans are required, he or she shall endorse in writing or stamp the plans and specifications "APPROVED." Such approved plans and specifications shall not be changed, modified or altered without authorization from the Building Official, and all work shall be done in accordance with the approved plans.~~

~~The Building Official may issue a permit for the construction of a part of a solar energy system before the entire plans and specifications for the whole system have~~

~~been submitted or approved, provided adequate information and detailed statements have been filed which comply with all pertinent requirements of this Code. The holder of such permit may proceed at his or her own risk without assurance that the permit for the entire building, structure, or solar energy system will be granted.~~

~~—(b)—Retention of Plans~~

~~—One set of approved plans, specifications, and computations shall be retained by the Building Official until final approval of the work covered therein. One set of approved plans and specifications shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.~~

~~—(c)—Validity of Permit~~

~~—The issuance of a permit or approval of plans and specifications shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this Code or of other ordinance of the jurisdiction. No permit presuming to give authority to violate or cancel the provisions of this Code shall be valid.~~

~~—The issuance of a permit based upon plans, specifications, and other data shall not prevent the Building Official from thereafter requiring the correction of errors in said plans, specifications, and other data or from preventing building operations being carried on thereunder when in violation of this Code or of other ordinances of this jurisdiction.~~

~~SECTION 107.3 (d) Expiration~~

~~—Every permit issued by the Building Official under the provisions of this code and in accordance with the provisions of the Uniform Building Code, 1985 Edition, as amended, shall expire 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 to do so, provided no changes have been made or will be made in the original plans and specifications for such work and provided further that such suspension or abandonment has not exceeded one year. The fee for such permits shall be established by action of the City Council of Austin under separate ordinance.~~

~~—Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence work under that permit when he or she is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee for a period not exceeding 180 days upon written request by the permittee which shows that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than twice. In order to renew action on a permit after expiration, the permittee shall pay a new permit fee.~~

~~— A permit is not transferable. A change in solar energy system contractors, for any reason, shall make the initial permit null and void. The initial contractor shall be entitled to no permit fee refund if any solar energy system has begun. The new solar energy system contractor shall be required to obtain a new permit before work is allowed to proceed.~~

#### SECTION 107.4 Fees

~~— (a) Permit Fees. Permit fees shall be established under separate ordinance by action of the City Council.~~

~~— (b) Expiration of Plan Review. Applications for which no permit is issued within 180 days following the date of application shall expire, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. The Building Official may extend the time for action by the applicant for a period not exceeding 180 days upon request by the applicant which shows that circumstances beyond the control of the applicant have prevented action from being taken. No application shall be extended more than once. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.~~

~~— (c) Investigation of Work Without a Permit. Whenever any work for which a permit is required by this Code has been commenced without first obtaining said permit, a special investigation may be made before a permit may be issued for such work.~~

~~— (d) Fee Refunds~~

~~— 1. The Building Official may authorize the refunding of any fee paid hereunder which was erroneously paid or collected.~~

~~— 2. Permit fees of \$25.00 or less will not be refunded. The Building Official may authorize the refunding of not more than 75 percent of that portion of the permit fee in excess of \$25.00 when no work has been done under a permit issued in accordance with this code.~~

~~— 3. Permits for which solar energy system work has been abandoned for a period of 180 consecutive days shall not be entitled to any refund.~~

~~— The Building Official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 180 days after the date of fee payment.~~

#### SECTION 107.6 Licenses

~~— (a) Any person performing any type of solar energy system work, erection, installation, alteration, repair, maintenance, relocation, or replacement work in the City of Austin, and/or within the City of Austin's area of jurisdiction, shall have in his or her possession a valid license, which license shows that he or she is entitled to do the work~~

which he or she is performing, issued by the Building Official, except as otherwise provided under this subsection and section 13-1-107.67(e).

—(b)—A solar energy system license may be issued to any person who: meets the prerequisites listed below, successfully completes the solar energy system examination, and has paid the required license fee.

—Exception: Anyone who has fulfilled a contract to build a solar system in Texas employing over 200 square feet of glazed collectors (or over 800 square feet of unglazed collectors) that has been successfully operated for one year, as determined by the Solar Appeals Board, will be exempt from the Master-Unrestricted Exam if application is made within 90 days of the effective date of this ordinance.

—Anyone who has fulfilled contracts to build six solar systems in Texas that have been successfully operated for one year, as determined by the Board, will be exempt from the Master Residential System Exam if application is made within 90 days of the effective date of this Ordinance.

—Anyone who applies for a specific license classification within 90 days of the effective date of this Ordinance shall be granted an opportunity to take the respective examination. If the applicant fails the exam, he or she may, within one year of the date of application, apply for any of the exemptions described in this section.

—(c)—An applicant for a solar energy system license shall complete the application form obtained from the Building Official. The application form shall be accompanied by the license corresponding to the type of license request as shown below:

Type License	Original Fee	Renewal Fee
(1) Master-Unrestricted	\$60.00	\$40.00
(2) Master-Residential Systems —Less Than 200 Square Feet, —Glazed (800 square Feet, Unglazed)	\$60.00	\$40.00
(3) Journeyman	\$15.00	\$ 7.50
(4) Apprentice	\$ 4.00	\$ 2.00

The following prerequisites must be met in addition to those listed above:

	Years of Experience
Master License	6*
Journeyman	1**
Apprentice	None***

\*— Minimum two years as Journeyman or Registered Professional Engineer proficient in the solar field, or experienced equivalent thereto as approved by the Solar Energy Systems Appeal Board.

\*\*— One year experience under a local Master License holder and be recommended by that Master for a Journeyman License.

\*\*\*— No examination required.

— (d) — A total of six months may be credited to experience required to obtain a Journeyman or Master License if the applicant can submit proof of satisfactory completion of a solar energy system training program from any school accredited by the State of Texas. A total of three years may be credited to the experience required to obtain a Master License when the applicant can submit satisfactory proof of any one of the following qualifications:

- (1) — Registered Professional Engineer proficient in the solar field
- (2) — Master Plumber License
- (3) — Master Heating and Air Conditioning License
- (4) — B.S. or M.S. degree in Solar or equivalent

— (e) — Any applicant who fails the examination for a solar energy system license shall not be eligible for re-examination for a period of 30 days. A new fee corresponding to the type of license requested must be paid prior to each re-examination.

— (f) — Any applicant who fails to pass the required examination at any subsequent time shall not be eligible for another examination for a period of six months.

— (g) — Persons holding valid licenses from other jurisdictions may apply for and receive a similar license in this City without taking the required examination, under the following conditions:

~~— (1) — He or she shall submit evidence satisfactory to the majority of the Board that his or her license was issued under conditions not less restrictive than required by the City of Austin.~~

~~— (2) — He or she shall pay the license fee and comply with all other requirements of the Code.~~

~~— (3) — The Board may enter into a reciprocal agreement with other cities, if such cities are operating under a nationally recognized solar energy system's code.~~

~~— (h) — Duplicate Licenses. Any person whose license was destroyed or lost may obtain a duplicate license upon payment of a fee of \$1.25.~~

~~— (i) — Change of Address. Any person holding a solar energy system license shall report to the Building Official any change of address in order to maintain accurate license renewal records.~~

~~— (j) — License Renewal. All licenses issued under this chapter shall expire on the date which corresponds to the licensee's date of birth. The Building Official shall mail to the address of record of each person holding a valid solar energy system license, a license renewal form in sufficient time to have the license renewal form returned to the Building Official with the appropriate renewal fee, prior to the expiration date.~~

~~— Any person who does not renew his or her license prior to the expiration date, whether or not said notice was received, may, within the first 90 consecutive days after the expiration date, pay a double license fee and have his or her license renewed. After said 90th day prior to the end of that licensing year, a license may be renewed within one year of the expiration date, and the holder thereof shall be considered to be an original applicant and be required to pass a written test and pay the fee for an original license.~~

~~— (k) — Suspension of License. The Board may suspend any solar energy system license for a period of not more than one year, after determining at a proper hearing that the licensee had done any of the following:~~

~~— (1) — Committed an offense of which he or she has not been convicted, but for which automatic suspension of a license would follow under the provisions of this chapter upon conviction.~~

~~— (2) — Permitted an unlawful or fraudulent use of such license.~~

~~— (3) — Committed an offense in another state, county or city which if committed in this city would be grounds for suspension or revocation.~~

~~— (4) — If the licensee is a habitual violator of this chapter (habitual shall mean three or more separate violations).~~

~~—— (5) — Performed solar energy system work that is in violation of this chapter and then failed or refused to make corrections necessary for the work to conform to this chapter.~~

~~—— (6) — Performed any solar energy system work that is in violation of this chapter and such work is found to be the cause or a contributing cause of a fire, whether or not there is any actual damage or loss.~~

~~—— (l) — Certain Acts Prohibited. In addition to other provisions of this Code, it shall be unlawful for any person to do any of the following acts:~~

~~—— (1) — To knowingly display or cause or permit to be displayed or to have in one's possession any instrument purporting to be any license for the doing of any solar energy system work, when such instrument is fictitious or has been canceled, revoked, suspended, or altered.~~

~~—— (2) — To lend or knowingly permit the use of any license for the doing of any solar energy system work, to any person not entitled thereto under the provisions of this chapter.~~

~~—— (3) — To display, or represent as one's own, a license for the doing of any solar energy system work when such license has not been lawfully issued to the person so displaying the same.~~

~~—— (4) — To fail or refuse to surrender to the Building Official on demand any license for the doing of any solar energy system work which has been suspended, canceled, or revoked as provided by law.~~

~~—— (5) — To apply for or have in one's possession more than one current license of the same type provided for in this chapter.~~

~~—— (6) — To use a false or fictitious name or give a false or fictitious address in any application for any license provided for in this chapter, or any renewal or duplicate thereof, or knowingly make a false statement or knowingly conceal a material fact or otherwise commit fraud in making any such application.~~

~~—— (7) — To employ as a master, journeyman, or apprentice solar energy system installer any person not then licensed as provided in this chapter.~~

~~—— (8) — To perform any character of solar energy system work for which a license is required, without the license required by this chapter or while such license is suspended, canceled, or revoked.~~

~~—— (m) — All solar energy system installation contractors holding a master's license from the City of Austin shall display on two sides of any vehicles being used for or in connection with solar energy system installation, the master's license number issued by the City of Austin. The sign shall have numbers not less than three inches high and may be of a removable type.~~

~~— (n) — Right of Appeal. Any person denied a license or whose license has been suspended or revoked by the Board shall have the right to appeal such order or action to be perfected within 14 days to any court of competent jurisdiction after having first exhausted the remedies provided by this Code.~~

~~— (e) — Any person who has met the prerequisites as specified in subsections 107.6(b) and (c), above, shall be issued the license to which he or she is entitled and shall be defined as, and entitled to do, the following:~~

~~— (1) — Solar Energy System Master. Any person licensed as a solar energy system master in compliance with the prerequisites of this chapter, who holds himself or herself out to the public as being qualified to do the kind of solar energy work, or to contract for the doing of the kind of solar energy system work by himself or herself, or by the employment of solar energy system journeymen or apprentices, which his or her license authorizes him or her to do.~~

~~— (2) — Master (restricted to solar energy system residential systems less than 200 feet glazed or 800 feet unglazed). Any person license as a residential system master in compliance with the prerequisites of this chapter, who holds himself or herself out to the public as being qualified to perform the kind of residential solar energy system work by himself or herself, or by the employment of solar energy system journeymen or solar energy system apprentices, which his or her license authorized him or her to do.~~

~~— It is further provided that a master (restricted to residential solar energy system) license shall be qualified to install, service, and maintain residential solar energy systems only.~~

~~— (3) — Solar Energy System Journeyman. A person licensed as a journeyman, in compliance with the requirements of this chapter, who works for and under the general supervision and direction of a solar energy system master, doing solar energy systems work contracted for by a solar energy system master, and who does not hold himself or herself out to the public as being qualified to contract for the doing of solar energy system work.~~

~~— (4) — Solar Energy System Apprentice. Any person who is learning the trade of solar energy system and who works only under the direct supervision of a solar energy system master or journeyman and who is licensed as an apprentice as provided by this chapter.~~

#### SECTION 107.7 Board of Appeals

~~— All appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretations of this Code shall be made to the Mechanical, Plumbing, and Solar Board, as provided in Sections 13-9-20.14(a) through 13-9-20.14(g) of the Austin City Code of 1981.~~

#### SECTION 203 Acronyms

~~ANSI: American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018~~

~~ARI: Air Conditioning and Refrigeration Institute  
1815 North Fort Myer Drive  
Arlington, Virginia 22209~~

~~ASHRAE: American Society of Heating, Refrigerating and  
Air-Conditioning Engineers, Inc.  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329~~

~~ASME: The American Society of Mechanical Engineers  
United Engineering Center  
345 East 47th Street  
New York, NY 10017~~

~~ASTM: American Society for Testing and Materials  
1916 Race Street  
Philadelphia, PA 19103~~

~~IAPMO: International Association of Plumbing and Mechanical Officials  
5032 Alhambra Avenue  
Los Angeles, CA 90032~~

~~ICBO: International Conference of Building Officials  
5360 South Workman Mill Road  
Whittier, CA 90601~~

~~NEC: National Electrical Code  
Copyright by NFPA and approved by ANSI~~

~~NFPA: National Fire Protection Association  
Batterymarch Park  
Quincy, MA 02269~~

~~SRCC: Solar Rating and Certification Corporation  
1001 Connecticut Avenue, N.W., Suite 800  
Washington, D.C. 20036~~

~~UBC: Uniform Building Code  
Copyright by ICBO~~

~~UMC: Uniform Mechanical Code  
Copyright jointly by ICBO and IAPMO~~

UPC: ~~Uniform Plumbing Code~~  
~~Copyright by IAPMO~~

### SECTION 403.2 Automatic Air Elimination

~~Those systems which may be damaged by the pressure of air in the system shall incorporate a means to automatically eliminate air from the system while in operation. The air elimination device shall be designed for the pressure and temperature of the system at that point. This requirement may be met by incorporating a mechanical device designed specifically for that purpose or through the design and construction of the solar system itself.~~

### SECTION 403.5 Tamper-resistant Devices

~~Points of filling and/or draining, other than discharge points for pressure relief or temperature and pressure relief valves, shall be equipped with a loose-key hose bib or other tamper-resistant device or shall have the handle removed.~~

### SECTION 417.1 Gravity Drainage

~~Systems which rely upon drainage for freeze protection shall be piped so that all piping has a minimum slope as indicated in Table 417 to facilitate complete drainage by gravity. Systems using pipe of two inches or greater diameter or nonpressurized systems using plastic pipe are exempt from this requirement.~~

Table 417  
Minimum Pipe Slope in Gravity Drain Systems

<del>Greater Than</del>	<del>Less Than or Equal to</del>	<del>Minimum Slope Per Foot</del>
<del>0"</del>	<del>3/8"</del>	<del>1/4"</del>
<del>3/8"</del>	<del>3/4"</del>	<del>1/8"</del>
<del>3/4"</del>	<del>2"</del>	<del>1/16"</del>

### SECTION 601 Collector Certification

~~Collectors, other than those which are owner built, shall be tested and certified by SRCC ARI, California Testing and Inspection Program for Solar Equipment or Florida Solar Energy Center or shall be approved by the Building Official. This shall include collectors sold in kit form consisting of premanufactured components which are assembled after purchase. Collectors shall be tested in accordance with Table No. 601. The Board may grant exemption from this section for permits issued within one year of~~

Board action for collectors pending testing and certification, provided that collector safety can be demonstrated to the satisfaction of the Board.

Table 604

Collector Test Standards

<u>Collector Type</u>	<u>Standard</u>
Tracking and/or Concentrating Collector	ASHRAE 93-77
Glazed Flat Pipe	NBSIR 78-1305A, Part 7.1 and ASHRAE 93-77
Unglazed Collectors	ASHRAE 96-80
Integral Collector/Storage Systems	ASHRAE 95-81
Thermosiphon Collectors	ASHRAE 93-77 or ASHRAE 95-81

SECTION 602.1 Domestic Hot Water Systems

— Solar collectors in domestic water heating systems shall be installed on a surface that receives direct solar radiation. Collectors may be oriented up to 90 degrees from true south if the sum of the orientation in degrees from the true south and tilt angle in degrees from horizontal is less than or equal to 135 degrees. Collectors shall be installed with a minimum tilt sufficient to assure drainage of the collector array.

SECTION 605 — Collector Installation - Collectors Mounted Directly to the Surface of the Roof

SECTION 605.1 Flexible Strip Type Collectors

— (a) — Flexible strip collectors which are mounted directly on the roof covering with adhesives shall provide regularly spaced unbounded areas to permit drainage of moisture from under the collector strips. Adhesives shall be applied in accordance with the manufacturer's recommendations.

— (b) — Flexible strip type collectors shall be installed in rows parallel with the peak of the roof with a minimum distance of 1/4 inch of unobstructed roof surface between parallel rows to permit the covered areas in the roof to dry.

— (c) — Flexible strip type collectors shall be installed individual strips of no more than six inches in width.

— (d) — Flexible strip type collectors installed on wood roofs with adhesives shall augment the adhesive with fasteners, straps or other approved means of reinforcement. Fasteners shall be sized to prevent full penetration of the roofing material and shall not form a continuous barrier of the roof covered by the collector strips. Strips shall be anchored in accordance with Section 606.3 of this Code.

SECTION 605.2 Glazed Collectors

~~—Glazed collectors mounted directly to a roof surface not the uppermost roof surface shall be suitably flashed.~~

SECTION 606.4 Rack Design Strength

~~—Standard collector support rack designs shall be preapproved by the Building Official and kept on file by the Building Official. Special collector support rack designs shall be approved by the Building Official prior to issuance of a permit.~~

SECTION 902.8 Wiring Insulation

~~—The wire shall be insulated with material which is resistant to degradation due to exposure to the elements.~~

PART 4. ~~This Ordinance applies only to offenses committed on or after January 24, 1988. A criminal action for an offense committed on or before January 23, 1988 is governed by the law in effect before January 24, 1988, and the law in effect before January 24, 1988 is continued in effect for that purpose as if this ordinance had not been adopted. For purposes of this PART 4, an offense is committed after January 24, 1988, if any element of the offense occurs on or after January 24, 1988.~~

PART 5. ~~The City Clerk is directed to compile all sections of this ordinance amending the 1984 Guidelines for Solar Energy Installations into a separate publication to be known as the "Local Amendments to the Guidelines for Solar Energy Installations, 1984 Edition."~~

PART 6. ~~The requirement imposed by Section 2-2-3 of the Austin City Code of 1981 that this ordinance be read on three separate days is waived by the affirmative vote of five members of the City Council to pass this ordinance through more than one reading on a single vote.~~

PART 7. ~~This ordinance shall be effective ten days following the date of its final passage.~~

~~PASSED AND APPROVED:~~

~~January 14, 1988 \_\_\_\_\_ /s/ \_\_\_\_\_  
\_\_\_\_\_ Mayor~~

~~APPROVED: \_\_\_\_\_ /s/ \_\_\_\_\_ ATTEST: \_\_\_\_\_ /s/ \_\_\_\_\_  
\_\_\_\_\_ City Attorney \_\_\_\_\_ City Clerk~~

~~§~~ APPENDIX F: HOUSING CODE

~~§~~ ORDINANCE NO. 990225-70; 031211-11.

~~HOUSING CODE~~

~~ARTICLE 9. UNIFORM HOUSING CODE.~~

~~§ 25-12-211 — Housing Code~~

~~§ 25-12-212 — Citations to the 1994 Uniform Housing Code~~

~~§ 25-12-213 — Local amendments to the Housing Code~~

~~§ 25-12-211 HOUSING CODE.~~

~~— (A) — The Uniform Housing Code, 1994 Edition, published by the International Conference of Building Officials (“1994 Uniform Housing Code”) is adopted and incorporated by reference into this section in its entirety, except for the provisions of the 1994 Uniform Housing Code deleted by subsection (B).~~

~~— (B) — The following provisions of the 1994 Uniform Housing Code are deleted:~~

~~— Section 104.2~~

~~— Section 203~~

~~— Section 1001.1~~

~~— Section 1001.8~~

~~— Chapter 11~~

~~— Chapter 12~~

~~— Chapter 14~~

~~— Chapter 15~~

~~— Chapter 13~~

~~— Chapter 16~~

~~— (C) — The city clerk shall retain a copy of the 1994 Uniform Housing Code with the official ordinances of the City of Austin.~~

Source: Section 13-8-600; Ord. 990225-70; Ord. 031211-11.

~~§ 25-12-212 CITATIONS TO THE 1994 UNIFORM HOUSING CODE.~~

~~— In the City Code, “Housing Code” means the 1994 Uniform Housing Code adopted by Section 25-12-211 (Housing Code), as amended by Section 25-12-213 (Local Amendments to the Housing Code). In this article, “Code” means the Housing Code.~~

~~Source: Section 13-8-601; Ord. 990225-70; Ord. 031211-11.~~

~~§ 25-12-213 LOCAL AMENDMENTS TO THE HOUSING CODE.~~

~~— The 1994 Uniform Housing Code, as adopted by Section 25-12-211 (Housing Code), is amended to add the following provisions as local amendments. Each provision of this section is a substitute for any identically numbered provision of the 1994 Uniform Housing Code deleted by Section 25-12-211 (Housing Code) or an addition to the Housing Code.~~

~~Source: Section 13-8-602; Ord. 990225-70; Ord. 000330-85; Ord. 031211-11.~~

~~— Section 105 DANGEROUS BUILDINGS.~~

~~— Buildings, structures, and properties subject to this Code are also subject to the Dangerous Buildings Code.~~

~~— Section 203 BUILDING AND STANDARDS COMMISSION.~~

~~— Sec. 203.1 Powers and Duties. The Building and Standards Commission shall hear and determine cases concerning alleged violations of the City’s housing and dangerous buildings ordinances relating to dangerously damaged or deteriorated buildings or improvements. The Commission may:~~

- ~~1. order the repair, within a fixed period, of buildings found to be in violation of an ordinance;~~
- ~~2. declare a building substandard in accordance with the powers granted under state law and the city’s ordinances;~~
- ~~3. order, in an appropriate case, the immediate removal of persons or property found on private property, enter on private property to secure the removal if it is determined that conditions exist on the property that constitute a violation of an ordinance, and order action to be taken as necessary to remedy, alleviate, demolish, or remove any substandard building or structure found to exist;~~
- ~~4. issue orders or directives to any peace officer of the state, including a sheriff or constable or the Austin Chief of Police, to enforce and carry out the lawful orders or directives of the Commission;~~
- ~~5. determine the amount and duration of the civil penalty allowed under state law;~~

~~6. hear and decide appeals which may be taken to the Commission; and~~

~~7. consider and recommend amendments to the City's housing and dangerous buildings ordinances.~~

~~Sec. 203.2 Rules. The Commission shall adopt rules for its own procedure. The rules must establish procedures to provide opportunity for presentation of evidence and testimony in its hearings by persons who are alleged to have violated ordinances.~~

~~Sec. 203.3 Meetings. Meetings of the Commission are held at the call of the Chairperson and at other times as the Commission may determine. The Chairperson, or the Acting Chairperson in the absence of the Chairperson, may administer oaths and compel the attendance of witnesses. Four members constitute a quorum and the concurring vote of four members is necessary to take any action under this chapter. The Commission shall render all decisions and findings in writing to the appellant no later than 14 days of the conclusion of the hearing.~~

~~Sec. 203.4 Records. The Commission shall keep records of its hearing, decisions and other official actions, which shall be filed in the office of the Building Official. The Building Official shall keep the minutes of the Commission meetings, showing the vote of each Commission member on each question submitted to the Commission, or the fact that a member is absent or fails to vote. The Building Official shall forward a draft version of the completed minutes to each Commission member no later than 14 days after each Commission meeting.~~

~~Sec. 203.5 Notice.~~

~~1. The Commission shall provide notice of all Commission hearings by certified mail, return receipt requested, to the record owners of the affected property, and each holder of recorded lien against the affected property, as shown by the records in the office of the county clerk of the county in which the affected property is located if the address of the lien holder can be ascertained from the deed of trust establishing the lien or other applicable instruments on file in the office of the County Clerk; and to all unknown owners, by posting a copy of the notice on or near the front door of each improvement situated on the affected property.~~

~~2. The notice must be mailed and posted on or before the date of the hearing before the Commission and must state the date, time and place of the hearing. In addition, the notice must be published one time in a newspaper of general circulation in the City of Austin not later than the ninth before the date fixed for the hearing.~~

~~Sec. 203.6 Orders. After concluding an appeal or other hearing concerning a building, structure or property, the Commission shall mail a copy of the Commission order by certified mail, return receipt requested, to all persons entitled to service under Section 203.7 of this Code. In addition, an abbreviated copy of the order shall be published one time in a newspaper of general circulation in the City within 10 calendar days after the date the order is mailed and must include the street address or legal description of the property, the date of the hearing, a brief summary of the order, and~~

~~information stating where a complete copy of the order may be obtained. An order issued by the Commission under this section is final unless appealed in accordance with Chapter 54 of the Texas Local Government Code.~~

~~Sec. 203.7 Recordation of Order. The Building Official shall file in the office of the county clerk of the county in which the building is located a Commission order issued under Section 203.6 of this Code. The Building Official will file a release of order after the corrections identified in the order are completed or the building is demolished so that it no longer exists as a substandard building and after penalties ordered by the Commission, liens associated with securing the building, and fees associated with recording the release of order have been paid.~~

~~Sec. 203.8 Appeal. An order issued by the Commission under this section is final unless appealed in accordance with Chapter 54 of the Texas Local Government Code.~~

~~Sec. 203.9 Failure to Comply with a Commission Order is an Offense.~~

~~1. Criminal Offense and Penalty. A person commits an offense if the person fails to comply with a final order issued by the Building and Standards Commission under this chapter. Each day that a person fails to comply with a final order is a separate occurrence. An offense under this section is a class C misdemeanor. The maximum penalty shall be \$500 per offense, per occurrence. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~2. Civil Offense and Penalty. A person must comply with a final order issued by the Building and Standards Commission under this chapter. A person who fails to comply with a final order issued under this chapter commits a civil offense punishable by a maximum fine of \$1,000 a day for each day that the person fails to comply with an order as provided by Chapter 54 of the Texas Local Government Code. Criminal conviction under subsection 1 above does not preclude enforcement under this section.~~

~~Sec. 203.10 Satisfaction of Civil Penalty.~~

~~(A) This section applies to a civil penalty assessed under Section 203.9 of this Code for violations relating to a:~~

~~(1) structure that is designated as an historic landmark or located in a designated historic district; or~~

~~(2) single-family residential structure.~~

~~(B) The Building Official shall accept as full payment of the civil penalty an amount equal to the assessed penalty minus the cost to complete repairs required by the Building and Standards Commission order establishing the penalty if:~~

~~(1) all repairs required by the Building and Standards Commission order establishing the penalty have been completed;~~

~~\_\_\_\_\_ (2) the Building Official has determined that all repairs comply with City regulations; and~~

~~\_\_\_\_\_ (3) a lawsuit based on the Building and Standards Commission order assessing the penalty has not been initiated by the City.~~

~~\_\_\_\_\_ (4) The person subject to the civil penalty must provide evidence to the Building Official of the cost of repairs required by a Building and Standards Commission order.~~

~~\_\_\_\_\_ (5) The Building Official shall determine whether the costs provided under Subsection (C) of this section are associated with a repair ordered by the Building and Standards Commission. The determination by the Building Official under this subsection may not be appealed.~~

~~— Section 401 DEFINITIONS.~~

~~— NUISANCE. The following shall be defined as nuisances:~~

~~\_\_\_\_\_ 1. Any public nuisance known at common law or in equity jurisprudence.~~

~~\_\_\_\_\_ 2. Any attractive nuisance which may prove detrimental to children whether in a building, on the premises of a building, or on an unoccupied lot. This includes any abandoned wells, shafts, basements, or excavations; abandoned refrigerators and motor vehicles; or any structurally unsound fences or structures; or any lumber, trash, fences, debris or vegetation which may prove a hazard for inquisitive minors.~~

~~\_\_\_\_\_ 3. Whatever is dangerous to human health or is detrimental to health, as determined by the health officer.~~

~~\_\_\_\_\_ 4. Overcrowding a room with occupants.~~

~~\_\_\_\_\_ 5. Insufficient ventilation or illumination.~~

~~\_\_\_\_\_ 6. Inadequate or unsanitary sewage or plumbing facilities.~~

~~\_\_\_\_\_ 7. Uncleanliness, as determined by the health officer.~~

~~\_\_\_\_\_ 8. Whatever renders air, food or drink unwholesome or detrimental to the health of human beings, as determined by the health officer.~~

~~\_\_\_\_\_ 9. Occupancy or use of the residential part of a mixed occupancy building if the non-residential part of the building is classified for use as a high hazard occupancy, or if the non-residential use is obnoxious or offensive to residential occupancy or use.~~

~~10. — Lack of an enclosure device around an outdoor swimming pool or lack of approved self-closing, self-latching devices as required by Chapter 25-12, Article 3 (Swimming Pools).~~

~~11. — A utility room not maintained free of flammable liquids, oil and grease, and other similar materials.~~

~~12. — Failure to appropriately drain surface and subsurface water to protect buildings and structures and to prevent ponding.~~

~~13. — Steps, walks, driveways, parking spaces, and similar paved areas not maintained to give safe and convenient passage.~~

~~14. — Yards, courts, and vacant lots not maintained clean and free of holes, excavations, dead trees and tree limbs, sharp protrusions, and other objects, conditions and hazards that are reasonably capable of causing injury to a person.~~

~~15. — Ground cover which is not properly established and maintained to prevent undue soil erosion.~~

~~16. — Heavy undergrowth and accumulations of plant growth which are noxious or detrimental to health or safety.~~

~~17. — Failure to maintain a manufactured residential building, mobile home, or tourist court in accordance with the provisions of this code, the manufacturer specifications under which the structure was constructed, or the Land Development Code.~~

~~18. — Holes, cracks, breaks and loose surface materials that are health or safety hazards in or on floors, walls, and ceilings.~~

~~— Section 506 INSECT AND RODENT HARBORAGE.~~

~~— Every dwelling shall be kept free from infestation by insects, rodent's vermin or other pests and where the insects, rodents, vermin or other pests are found, they shall be promptly exterminated. After extermination, proper precautions shall be taken to prevent reinfestation. For purposes of this section, infestation shall mean the presence within or around a dwelling of insects, rodents, vermin or other pests to a degree that is harmful to the dwelling or its occupants.~~

~~— Section 602 HAND RAILS.~~

~~— Stairs, steps, balconies, porches, and other similar features shall be provided with hand rails as specified in the Uniform Building Code. Hand rails shall at all times be maintained so as to be useable and structurally sound.~~

~~— Section 802 COMPLIANCE STANDARDS.~~

~~Sec. 802.1 Standards. An emergency escape or rescue window required in a sleeping room under this Code complies with this Code if the window satisfies one of the following or if the owner complies with the alternate methods of compliance set forth in Section 802.2 below:~~

~~1. the net clear opening, height, width, and sill height above grade requirements in Section 1204 of the 1991 Uniform Building Code;~~

~~2. the dimensions specified in Section R-210.2 of the 1992 One and Two Family Dwelling Code;~~

~~3. the dimensions required by the code under which the building was constructed; or~~

~~4. the dimensions required by the 1977 Housing Code.~~

~~Sec. 802.2 Alternate Methods of Compliance.~~

~~1. The owner of an existing building that has one or more sleeping rooms that lack a window with the dimensions required by Section 802.1 of this Code may replace battery operated smoke detectors with hard-wired smoke detectors that are served with primary power from the building wiring and that are equipped with battery backup.~~

~~2. The owner of an existing building that has one or more sleeping rooms in which the height of the sill for the window required by this chapter exceeds the maximum permissible distance from the floor may construct a permanently attached stairway complying with Section 1009 of the International Building Code from the floor to the window sill to reduce the sill height to 48 inches.~~

~~Sec. 802.3 Compliance with Other Requirements. Modifications made under Section 802.2 of this Code must comply with all electrical, building, and other permit and inspection requirements established by law.~~

~~Section 803 SECURITY DEVICES.~~

~~Bars, grilles, grates, or similar devices may be installed on emergency escape or rescue windows, doors, or window wells if the following conditions exist:~~

~~1. the devices are equipped with approved release mechanisms that are openable from the inside without the use of a key or special knowledge in accordance with applicable requirements; and~~

~~2. the building is equipped with smoke detectors installed in accordance with applicable requirements.~~

~~Section 902 SMOKE DETECTORS.~~

~~Sec. 902.1 General. Dwelling units and hotel and other guest rooms subject to this code that are used for sleeping purposes shall be provided with approved smoke detectors. Detectors shall be installed in accordance with the approved manufacturer's instructions.~~

~~Sec. 902.2 Power Source. Smoke detectors may be battery operated or may receive their primary power from the building wiring when the wiring is served from a commercial source. Wiring shall be permanent and without a disconnection switch other than those required for over-current protection.~~

~~Sec. 902.3 Location within dwelling units. In dwelling units, detectors shall be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to each separate sleeping area. Where sleeping rooms are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. Detectors shall also be installed in the basement of dwelling units having a stairway which opens from the basement into the dwelling. Detectors shall sound an alarm audible in all sleeping areas of the dwelling unit in which they are located.~~

~~Sec. 902.4 Location in efficiency dwelling units and hotels. In efficiency dwelling units, hotel suites and hotel sleeping rooms, detectors shall be located on the ceiling or wall of the main room or hotel sleeping room. When sleeping rooms within a hotel suite are on an upper level, the detector shall be placed at the center of the ceiling directly above the stairway. When actuated, the detector shall sound an alarm audible within the sleeping area of the dwelling unit, hotel suite, or sleeping room in which it is located.~~

~~Sec. 1001.1 General. Any building or structure, or portion of a building or structure, which is determined to be an unsafe building in accordance with Section 102 of the Building Code, or any building or structure, or portion of a building or structure, including any dwelling unit, guest room or suite of rooms, or the premises on which they are located, in which there exists any prohibited condition referenced in this chapter or any other violation of this Code is considered substandard.~~

~~Sec. 1001.8 Faulty Weather Protection. Buildings or portions of building are considered substandard when they have faulty weather protection, which includes, but is not limited to, the following:~~

- ~~1. deteriorated, crumbling, or loose plaster.~~
- ~~2. deteriorated or ineffective waterproofing for exterior wall coverings, roof, foundations, or floors, including broken windows or doors.~~
- ~~3. defective or lack of weather protection for exterior wall coverings, including lack of paint or weathering due to lack of paint or other approved protective covering.~~
- ~~4. broken, rotted, split, or buckled exterior wall covering or roof coverings.~~
- ~~5. lack of insulation rated at least R-19 in ceilings.~~

~~6. lack of insulation rated at least R-11 in walls, except that double wall construction that was installed, and that has been maintained, in compliance with city ordinances existing at the time of original construction are not considered substandard for lacking insulation rated R-11 in walls.~~

## ~~CHAPTER 11: ACTION BY THE BUILDING OFFICIAL~~

### ~~Section 1101 GENERAL.~~

~~Sec. 1101.1 Commencement of Proceedings. Whenever the Building Official has inspected or caused to be inspected any building, structure, or property and has found that the building, structure or property is substandard, the Building Official shall begin proceedings to cause the repair, rehabilitation, vacation, demolition, removal, boarding or fencing or other means of closure of the building, structure or property.~~

~~Sec. 1101.2 Notice. The Building Official shall issue a written notice directed to the record owner of the building, structure or property. The notice shall:~~

~~1. identify the building, structure, property by street address, or provide a description sufficient for identification of the property or the location of the building or structure;~~

~~2. state that the Building Official has found the building, structure, or property to be substandard, with a summary description of the applicable provisions of this Code and the alleged violations;~~

~~3. specify the corrective measures required to bring the building, structure, or property into compliance with applicable provisions of this Code;~~

~~4. provide a time period for compliance;~~

~~5. include a description of the appeal procedures established in Section 1101.5 of this Code; and~~

~~6. include a provision in Spanish stating that a Spanish translation will be provided on request if the recipient is not able to read the notice in English.~~

~~Sec. 1101.3 Service of Notice. The notice required by Section 1101.2 of this Code shall be served on the record owner. One copy of the notice shall be served on each of the following if known to the Building Official or if disclosed by the property records in the office of the county clerk for the county in which the property is located: the holder of any mortgage or deed of trust or their lien of record, the owner or holder of any lease of record, and the holder of any other estate or legal interest of record in the building, structure, or property. Failure of the Building Official to serve any person required to be served by this section does not invalidate any proceedings under this section as to any other person properly served or relieve that person from any duty or obligation imposed by this Code.~~

~~Sec. 1101.4 Method of Service. The notice required by Section 1101.2 of this Code to be served on persons identified in Section 1101.3 of this Code may be served personally or by mailing the notice by certified mail, postage prepaid, return receipt requested, to the address of the person as the address appears in the records of the county clerk of the county in which the property is located or as otherwise known to the Building Official. If the certified mail is returned unclaimed, the notice shall be posted in a conspicuous place on or about the building affected by the notice. The Building Official may also give a copy of the notice to the property manager. On receipt of a copy of the notice under this section, a property manager shall notify the owner of the specifics of the notice within 10 days and shall make every reasonable effort to have the owner correct the violation.~~

~~Sec. 1101.5 Appeal. A person affected by a notice may appeal the notice to the Building and Standards Commission by filing a written appeal with the Building Official. The appeal must be filed not later than 20 days after the date the notice is mailed by the City of Austin. An appeal must contain a brief statement identifying the notice or action being appealed, setting forth any facts supporting the appeal, describing the relief sought, and presenting the reasons why the appealed notice or action should be reversed, modified or otherwise set aside. Filing an appeal stays further City action under the notice being appealed unless, in the opinion of the Building Official, a delay would present an immediate danger to any person.~~

~~Section 1102 REPAIR, BOARDING, FENCING, VACATION AND DEMOLITION.~~

~~The following standards shall be followed by the Building Official (and by the Building and Standards Commission if an appeal is taken) in recommending the repair, vacation, or demolition of any substandard building or structure:~~

~~1. Any building declared a substandard building under this Code shall be made to comply with one of the following:~~

~~1.1 The building shall be repaired in accordance with the current Building Code or other current code applicable to the type of substandard conditions requiring repair; or~~

~~1.2 The building shall be demolished; or~~

~~1.3 If the building does not constitute an immediate danger to the life, limb, property, or safety of the public, it may be vacated, secured, and maintained against entry.~~

~~2. If the building or structure is in a condition as to make it immediately dangerous to the life, limb, property, or safety of the public or its occupants, it shall be ordered to be vacated.~~

~~3. If the owner or other affected person does not comply with the recommendation of the Building Official within the identified time period, the Building Official may serve notice to the person(s) to appear before the Building and Standards~~

~~Commission to show cause why the building should not be ordered repaired, boarded, fenced, vacated, or demolished.~~

~~—Section 1103 UTILITY HOLD~~

~~—Sec. 1103.1 Defined. A utility hold is a notation placed in the file of a City utility customer by the Building Official that prohibits the reconnection of City utility service to a building, structure, or property or portion of a building, structure, or property.~~

~~—Sec. 1103.2 Utility Hold Authorized. A hold may be placed on utility service only if all of the following conditions exist:~~

~~———1. the Building Official determines that a building, structure or property or portion of a building, structure, or property is substandard;~~

~~———2. the Building Official has provided notice to the record owner of the building, structure, or property in accordance with Section 1101 of this Code;~~

~~———3. the record owner fails to make corrections identified by the Building Official in the notice within the time specified for compliance; and~~

~~———4. prior to the correction of all violations, utility service has been disconnected to the building, structure, or property for any reason or the customer of record changes.~~

~~—Sec. 1103.3 Removal of Utility Hold. A utility hold shall be removed by the Building Official after the Building Official determines that all violations have been corrected in accordance with the notice provided under Section 1101 of this Code.~~

~~—Sec. 1103.4 Appeal of Utility Hold. The decision of the Building Official to place a utility hold on a customer's service may be appealed under Section 1101.5 of this Code.~~

~~—Section 1104 NOTICE TO VACATE.~~

~~—Sec. 1104.1 Posting. In addition to the requirements of Sections 1101.3 and 1101.4 of this Code, a notice to vacate shall be posted at or on each exit of the building. The notice shall be in substantially the following form:~~

~~———DO NOT ENTER~~

~~———UNSAFE TO OCCUPY~~

~~———IT IS UNLAWFUL TO OCCUPY THIS~~

~~———BUILDING OR TO REMOVE OR DEFACE~~

~~———THIS NOTICE.~~

~~———— BUILDING OFFICIAL~~

~~———— CITY OF AUSTIN~~

~~———— Sec. 1104.2 Compliance. Whenever a notice to vacate is posted, the Building Official shall include a notification of the notice to vacate in the notice issued under Section 1101.2 of this Code, reciting the emergency and specifying the conditions that necessitate the posting. No person may remain in or enter any building or structure that is posted with a notice to vacate unless the person has obtained a permit from the Building Official to repair, demolish, or remove the building or structure. No person may remove or deface the notice to vacate after it is posted until the required repair, demolition, or removal is completed and a certificate of occupancy is issued under the Building Code. No person may lease or otherwise induce another to occupy a building or structure after the person is served with a notice to vacate or after a notice to vacate is posted, whether or not the notice has been unlawfully removed, until the required repair is completed and a certificate of occupancy for the building or structure is issued by the Building Official.~~

~~———— Sec. 1104.3 Appeal. A determination by the Building Official under this section may be appealed as provided in Section 1101.5 of the Code, except that the filing of an appeal shall not stay vacation of the building or structure. A determination by the Building and Standards Commission under this section may be appealed as provided in Section 203.08 of this Code.~~

~~———— Sec. 1104.4 Offenses – Criminal.~~

~~———— 1) A person commits an offense under this section if the person does the following:~~

~~———— a) remains in or enters any building or structure that is posted with a notice to vacate; removes or defaces a notice to vacate that is posted until after the required repair, demolition, or removal of the building or structure is completed and a certificate of occupancy is issued under the Building Code; or leases or otherwise induces occupancy of a building or structure after a notice to vacate is issued and posted until after the required repair, demolition, or removal is completed and a certificate of occupancy is issued by the Building Official.~~

~~———— b) It is not a defense to prosecution under this section that a notice to vacate has been removed from the premises.~~

~~———— c) It is an affirmative defense to prosecution under this section if a person enters into a building or structure for which a notice to vacate has been issued and posted to repair, demolish, or remove the building or structure under a permit issued by the Building Official.~~

~~———— 2) An offense under this section is a class C misdemeanor, punishable by a fine not to exceed \$500 per offense, per occurrence.~~

~~3) Each day a person commits an offense or remains in violation of a provision of this section is a separate occurrence.~~

~~4) Proof of a culpable mental state is not required for conviction of an offense under this section.~~

~~Sec. 1104.5 Offenses – Civil.~~

~~1. A person may not do the following:~~

~~1.1 remain in or enter any building or structure that is posted with a notice to vacate;~~

~~1.2 remove or deface a notice to vacate that is posted until after the required repair, demolition, or removal of the structure is completed and a certificate of occupancy is issued under the Building Code; or~~

~~1.3 lease or otherwise induce the occupancy of a building or structure after a notice to vacate is issued and posted until after the required repair, demolition, or removal is completed and a certificate of occupancy is issued by the Building Official.~~

~~2. Under Chapter 54 of the Texas Local Government Code, a person who commits any of the acts prohibited in subsection 1 of this section commits a civil offense punishable by a fine not to exceed \$1,000 a day per violation, per occurrence.~~

~~3. Criminal conviction under Section 1104.4 does not preclude enforcement under this section.~~

~~Section 1105 EMERGENCY POWERS.~~

~~Sec. 1105.1 Emergency Closure. The Building Official may secure a building or structure before a public hearing is held by the Building and Standards Commission if the Building Official determines that the building or structure meets one of the following criteria:~~

~~1. violates this Code and is unoccupied; or~~

~~2. is occupied only by persons who do not have a right of possession to the building or structure.~~

~~Sec. 1105.2 Notice.~~

~~1. Not later than the 10th day after the date the building or structure is secured, the Building Official shall give notice of the closure to the owner by one of the following methods:~~

~~1.1 personal service to the owner; or~~

~~1.2~~ notice by certified mail, return receipt requested, to the owner at the owner's last known address; or

~~1.3~~ if personal service cannot be obtained and the owner's post office address is unknown, either by publication at least twice within a 10-day period in a newspaper of general circulation in the county in which the building or structure is located or by posting the notice on or near the front door of the building or structure.

~~2.~~ The notice must contain the following:

~~2.1~~ an identification, which is not required to be a legal description, of the building or structure and the property on which it is located;

~~2.2~~ a description of the violations of the Code that are identified at the building or structure;

~~2.3~~ a statement that the Building Official has secured the building or structure ;and

~~2.4~~ an explanation of the owner's right to request a hearing about any matter relating to the securing of the building or structure by the Building Official.

~~Sec. 1105.3 Appeal of Emergency Closure.~~ The owner of a building or structure may appeal an emergency closure under this section to the Building and Standards Commission. A written appeal must be filed not later than 30 days after the date the Building Official secured the building or structure. A hearing on the appeal will be scheduled on the Commission's agenda not later than 20 days after the date the appeal is filed.

~~Sec. 1105.4 Costs.~~ The City may assess costs incurred for emergency closures under this section against the owner of the affected property and may secure those costs with a lien against the affected property in the manner authorized by state law.

~~Section 1106 LEGAL ACTION.~~

~~The Building Official may enforce the provisions of this Code by pursuing all civil and criminal actions, and civil and injunctive remedies available to a city under state law, or by any other remedy or combination of remedies available at law or equity, including, in any court action, the collection of attorney's fees and costs, and maximum interest on liens and judgments as allowed by law. All remedies authorized under this code are cumulative of all others unless otherwise expressly provided. The filing of a criminal action shall not preclude the pursuit of a civil or administrative action for violation of this Code, nor shall the filing of a civil action preclude the pursuit of any other action or remedy, whether administrative or criminal.~~

~~CHAPTER 12: RESTRICTION ON TRANSFER AND LEASE OF PROPERTY.~~

~~Section 1201 TRANSFER OF PROPERTY.~~

~~— Sec. 1201.1 Execution of Order Not Affected by Transfer. When an order has been filed in the deed records, execution of the order is not affected by sale or other transfer of the property. A person acquiring an interest in property after an order has been recorded is subject to the requirements of the order. The provisions of this subsection shall be included as part of each order.~~

~~— Sec. 1201.2 Transfer of Property. An owner of a building, structure, or property who has been served with a notice, order, or other notification under this Code may not sell, transfer, grant, mortgage, or otherwise dispose of the building, structure, or property until the owner has:~~

~~— 1) furnished to the purchaser, transferee, grantee, mortgagee, or lessee a true copy of the notice, order or other notification; and~~

~~— 2) simultaneously provided adequate notice to the Building Official of the owner's intent to enter into a transaction affecting the building, structure, or property, including the name and address of the proposed buyer, transferee, grantee, mortgagee, or lessee.~~

~~— Sec. 1201.3 Responsibility of Purchaser. A purchaser of a property on which a notice, order, or other notification has been issued under this Code and recorded in the real property records of the county in which the property is located is bound by the terms of the notice, order, or other notification.~~

~~— Section 1202 LEASING OF SUBSTANDARD PREMISES IS AN OFFENSE.~~

~~— Sec. 1202.1 Criminal Offense and Penalty.~~

~~— 1. A person commits an offense if, prior to the time that the owner receives notice from the Building Official that required corrections have been made, the person does the following:~~

~~— 1.1 leases or causes to be leased a building or structure or portion of a building or structure that is vacant at the time that the owner receives notice from the Building Official that the building or structure is substandard; or~~

~~— 1.2 leases or causes to be leased a building or structure or portion of a building or structure that becomes vacant after the owner receives notice from the Building Official that the building or is substandard.~~

~~— 2. Each day that a person commits an offense or remains in violation of this section is a separate occurrence. An offense under this section is a Class C misdemeanor. The maximum penalty shall be \$2000 per offense, per occurrence. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~— Sec. 1202.2 Civil Offense and Penalty.~~

~~1. A person may not, prior to the time that the owner receives notice from the Building Official that all required corrections have been made, lease or cause to be leased a building or structure or portion of a building or structure that is vacant at the time that the owner receives notice from the Building Official that the building or structure is substandard; or~~

~~2. A person may not, prior to the time that the owner receives notice from the Building Official that all required corrections have been made, lease or cause to be leased a building or structure or portion of a building or structure that becomes vacant after the owner receives notice from the Building Official that the building or structure is substandard.~~

~~3. Under Chapter 54 of the Texas Local Government Code, a person who commits any of the acts prohibited in this Section 1202.2 commits a civil offense punishable by a fine not to exceed \$1,000 a day per violation, per occurrence.~~

~~4. Criminal conviction under Section 1202.1 of this Code does not preclude enforcement under this section.~~

## ~~CHAPTER 13: HOTEL, BOARDING HOUSE, ROOMING HOUSE, AND BED AND BREAKFAST ESTABLISHMENT REGULATIONS.~~

### ~~Section 1301 GENERAL.~~

#### ~~Definitions:~~

~~Bed and breakfast establishment means the use of an owner-occupied single-family residential structure to provide rooms for temporary lodging for overnight guests on a paying basis.~~

~~Boarding House means a building other than a hotel, where lodging and meals for six or more unrelated persons are provided for compensation.~~

~~Hotel/motel means a building or a part of a building, in which there are guest rooms, rooming units, or apartments which may be rented on a daily basis and are used primarily for transient occupancy, and for which desk service is provided. In addition, one or more of the following services may be provided: maid, telephone, bellboy, or furnishing of linen. When used in this chapter, the term hotel includes a motel.~~

~~Rooming House means a building, other than a hotel, where lodging for six or more unrelated persons is provided without meals.~~

### ~~Section 1302 INSPECTIONS.~~

~~The Building Official shall make inspections to determine the condition of boarding houses, hotels, rooming houses, and bed and breakfast establishments located within the City, to ensure compliance with this chapter and other applicable laws enforced by the Building Official. For the purpose of making inspections, the Building Official or the~~

~~Building Official's representative may enter, examine, and survey, at all reasonable times, all buildings, dwelling units, guest rooms, and premises on presentation of the proper credentials. The owner or operator of a boarding house, hotel, rooming house, or bed and breakfast establishment, or the person in charge, shall give the Building Official free access to the building, dwelling unit, guest room and its premises, at all reasonable times, for the purpose of inspection, examination and survey.~~

~~—Section 1303 LICENSES AND PERMITS REQUIRED.~~

~~No person may operate a boarding house, hotel, rooming house, or bed and breakfast establishment unless a license for the operation, in the name of the operator and for the specific dwelling used, has been issued by the Building Official. Unless specifically exempted by the provisions of Chapter 10-3 (Food and Food Handlers) of the City Code, each boarding house and bed and breakfast establishment is required to have a permit as a food service establishment issued by the Health Authority.~~

~~—Section 1304 LEASING OR RENTING ROOMS IN AN UNLICENSED HOTEL, BOARDING HOUSE, ROOMING HOUSE OR BED AND BREAKFAST ESTABLISHMENT IS AN OFFENSE.~~

~~An owner of a hotel, boarding house, rooming house, or bed and breakfast establishment commits an offense if the owner leases, rents or otherwise induces occupancy of a room in a hotel, boarding house, rooming house, or bed and breakfast establishment which does not have a valid license issued and displayed as required by this chapter.~~

~~Each day that an owner leases, rents or otherwise induces occupancy of a room in a hotel, boarding house, rooming house, or bed and breakfast establishment which does not have a valid license issued and displayed as required by this chapter is a separate occurrence. An offense under this section is a class C misdemeanor, punishable by a fine not to exceed \$2000 per offense, per occurrence. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~—Section 1305 APPLICATION.~~

~~An application for a license required by this chapter must be in writing and submitted to the Building Official.~~

~~—Section 1306 FEE.~~

~~Each application for a rooming house, hotel, boarding house, or bed and breakfast establishment license must be accompanied by the payment of a fee in an amount established by separate ordinance, to be pro-rated on a quarterly basis.~~

~~—Section 1307 ISSUANCE.~~

~~— A boarding house, hotel, rooming house, or bed and breakfast establishment license shall be issued by the Building Official after the Building Official determines that the owner or operator has complied with all applicable ordinances and rules.~~

~~— Section 1308 LICENSE SUSPENSION.~~

~~— Whenever the Building Official finds on inspection of any boarding house, hotel, rooming house, or bed and breakfast establishment that conditions or practices exist that violate any provision of the Uniform Housing Code, the Dangerous Building Code or any rule or regulation adopted under those codes, the Building Official shall give written notice to the owner of the property and the operator of the boarding house, hotel, rooming house, or bed and breakfast establishment that unless the violations are corrected by an identified deadline, the boardinghouse, hotel, rooming house, or bed and breakfast establishment license shall be suspended. At the end of the time provided for correction of the violation(s), the Building Official shall re-inspect the boarding house, hotel, rooming house, or bed and breakfast establishment and, if the conditions or practices have not been corrected, shall suspend the license and give written notice to the licensee that the license has been suspended. On receipt of notice of suspension, the licensee shall immediately stop operation of the boarding house, hotel or, rooming house, or bed and breakfast establishment, and no person may occupy for sleeping or living purposes any rooming unit therein except as provided by Section 1204 of this code. The notice required by this subsection shall be served in accordance with the provisions of Section 1101.~~

~~— Section 1309 APPEAL FROM LICENSE SUSPENSION OR DENIAL.~~

~~— The following actions of the Building Official may be appealed to the Building and Standards Commission as provided in this Code:~~

~~— 1. — the denial of an application for a license to operate a boarding house, hotel, rooming house, or bed and breakfast establishment;~~

~~— 2. — the suspension of a license to operate a boarding house, hotel, rooming house, or bed and breakfast establishment;~~

~~— 3. — the issuance of a notice that a license to operate a boarding house, hotel, rooming house, or bed and breakfast establishment will be suspended unless existing conditions or practices are corrected.~~

~~— An appeal filed under this section must be filed with the Building Official no later than the 20th day following the date on which the license was denied or suspended, or notice of violation was received.~~

~~— Section 1310 EXPIRATION.~~

~~— Each boarding house, hotel, rooming house, and bed and breakfast establishment license expires at the end of the calendar year for which it is issued, unless suspended or revoked as provided in this chapter.~~

~~—Section 1311 TRANSFER AND NOTICE ON SALE OF PREMISES.~~

~~—A license issued under this chapter is not transferable. Every person holding a license shall give written notice to the Building Official no later than 10 days after the conveyance, transfer, or any other disposition of the ownership of, interest in, or control of any boarding house, hotel, rooming house, or bed and breakfast establishment. The notice must include the name and address of the person succeeding to the ownership or control of the boarding house, hotel or, rooming house, or bed and breakfast establishment.~~

~~—Section 1312 DISPLAY.~~

~~—The license required by this chapter must be displayed at all times in a conspicuous place designated by the Building Official within each boarding house, hotel, rooming house, or bed and breakfast establishment.~~

~~CHAPTER 14: LANDLORD/TENANT RELATIONSHIPS~~

~~—Section 1401 RESPONSIBILITY OF LANDLORD.~~

~~—The owner of a building, structure, or property remains responsible for compliance with this Code notwithstanding any rental or other agreement purporting to give tenants or other third parties certain duties or responsibilities with respect to the building, structure, or property.~~

~~—Section 1402 RETALIATION AGAINST TENANT IS AN OFFENSE.~~

~~—A property owner, owner's agent, management company, or other person responsible for managing a property commits an offense if the property owner, owner's agent, management company, or other person responsible for managing a property raises a tenant's rent, diminishes services to the tenant, or attempts eviction for reasons other than nonpayment of rent or other good cause for six months after a complaint is filed by the tenant with the Building Official complaining of violations of this Code or for six months after completion of repairs required by a notice or order issued under this Code, whichever time period is longer.~~

~~—An offense under this section is a class C misdemeanor, punishable by a fine not to exceed \$500 per offense. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~—The following actions are not a violation of this section:~~

~~—1.—an increase in rent under an escalation clause for utilities, taxes, or insurance in a written rental agreement;~~

~~—2.—an increase in rent or reduce services against the complaining tenant which are a part of a pattern of rental increases or service reductions for an entire multifamily dwelling project of four or more units; and~~

~~3. an increase in rent that is reasonably related to repairs or improvements actually made by the landlord after a complaint has been filed and which do not cause the total rent to exceed fair market value of the premises. However, no rental increase may be made until the structure is in full compliance with any notice or order issued under this Code.~~

#### ~~CHAPTER 15: INTERFERENCE WITH REPAIR OR DEMOLITION WORK PROHIBITED.~~

##### ~~Section 1501 GENERAL.~~

~~No person shall obstruct, impede, or interfere with an officer, employee, contractor, or authorized representative of the City, or with a person who owns or holds an estate or interest in a building or structure that has been ordered repaired, vacated, or demolished under this Code, or with a person to whom such a building has been lawfully sold under this Code, whenever the officer, employee, contractor, or authorized representative of the City, person who owns or holds an estate or interest in the building or structure, or purchaser is engaged in repairing, vacating or demolishing a building under the provisions of this Code, or in performing a necessary act preliminary to or incidental to work authorized under this Code.~~

#### ~~CHAPTER 16: PERFORMANCE OF CLOSURE AND CLEANING.~~

##### ~~Section 1601 GENERAL PROCEDURE.~~

~~Sec. 1601.1 Closure and Cleaning Authorized. In addition to any other remedy provided in this section, and on the failure of the owner to comply with a notice and order of closure and cleaning, the Building Official may cause the closure of a building and the cleaning of the premises and the lot. The expense of closing and cleaning the building shall be paid and recovered as provided by Section 1501.3 of this Code and other applicable law.~~

~~Sec. 1601.2 Personalty on the Premises. Removal of personalty from a structure ordered vacated or demolished shall be accomplished by the property owner. Personalty remaining on the property at the time of demolition by the city is considered abandoned, and may be removed by the city in the same manner as other rubbish or debris.~~

~~Sec. 1601.3 Costs. The cost incurred by the Building Official in closing or cleaning a building shall be paid from demolition funds budgeted by the city council. The expense incurred by the City under this section may be recorded as a lien against the real property on which the building is located, with interest on the unpaid balance to accrue at the maximum rate established by law.~~

~~APPENDIX G: DANGEROUS BUILDINGS CODE~~

~~ORDINANCE NO. 990225-70; 031211-11~~

~~ARTICLE 10. DANGEROUS BUILDINGS CODE.~~

~~§ 25-12-231 — Dangerous Buildings Code~~

~~§ 25-12-232 — Citations to the 1994 Uniform Code for the Abatement Dangerous Buildings~~

~~§ 25-12-233 — Local amendments to the Dangerous Buildings Code~~

~~§ 25-12-231 — DANGEROUS BUILDINGS CODE.~~

~~— (A) — The Uniform Code for the Abatement of Dangerous Buildings, 1994 Edition, published by the International Conference of Building Officials (the "1994 Uniform Dangerous Buildings Code") is adopted and incorporated by reference into this section in its entirety, except for the provisions of the 1994 Uniform Dangerous Buildings Code deleted by subsection (B).~~

~~— (B) — The following provisions of the 1994 Uniform Dangerous Buildings Code are deleted:~~

~~— Section 205 — Chapter 6 — Section 802~~

~~— Chapter 4 — Section 701 — Chapter 9~~

~~— Chapter 5 — Section 801.1~~

~~— (C) — The city clerk shall retain a copy of the 1994 Uniform Code for the Abatement of Dangerous Buildings with the official ordinances of the City of Austin.~~

~~Source: Section 13-8-700; Ord. 990225-70; Ord. 031211-11.~~

~~§ 25-12-232 — CITATIONS TO THE 1994 UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS.~~

~~— In the City Code, "Dangerous Buildings Code" means the 1994 Uniform Code for the Abatement of Dangerous Buildings adopted by Section 25-12-231 (Dangerous Buildings Code), as amended by Section 25-12-233 (Local Amendments To The Dangerous Buildings Code). In this article, "Code" means the Dangerous Buildings Code.~~

~~Source: Section 13-8-701; Ord. 990225-70; Ord. 031211-11.~~

~~§ 25-12-233 — LOCAL AMENDMENTS TO THE DANGEROUS BUILDINGS CODE.~~

~~—The 1994 Dangerous Buildings Code, as adopted by Section 25-12-231 (Dangerous Buildings Code), is amended to add the following provisions as local amendments. Each provision of this section is a substitute for identically numbered provisions of the 1994 Dangerous Buildings Code deleted by Section 25-12-231 (Dangerous Buildings Code) or an addition to the Dangerous Buildings Code.~~

~~Source: Sections 13-8-702 and 13-1-745(p); Ord. 990225-70; Ord. 000330-85; Ord. 031211-11.~~

## ~~CHAPTER 4: ACTION BY THE BUILDING OFFICIAL~~

### ~~—Section 401 GENERAL.~~

~~—Sec. 401.1 Commencement of Proceedings. Whenever the Building Official has inspected or caused to be inspected any building or structure and has found that the building or structure is dangerous, the Building Official shall begin proceedings to cause the repair, rehabilitation, vacation, demolition, removal, boarding, fencing, or other means of closure of the building or structure.~~

~~—Sec. 401.2 Notice. The Building Official shall issue a written notice directed to the record owner of the building, structure or property. The notice shall:~~

~~1. identify the building, structure, property by street address, or provide a description sufficient for identification of the property or the location of the building or structure;~~

~~2. state that the Building Official has found the building, structure, or property to be dangerous, with a summary description of the applicable provisions of this Code and the alleged violations;~~

~~3. specify the corrective measures required to bring the building, structure, or property into compliance with applicable provisions of this Code;~~

~~4. provide a time period for compliance;~~

~~5. include a description of the appeal procedures established in Section 401.4 of this Code; and~~

~~6. include a provision in Spanish stating that a Spanish translation will be provided on request if the recipient is not able to read the notice in English.~~

~~—Sec. 401.3 Service of Notice. The notice shall be served in accordance with Sections 1101.3 and 1101.4 of the Uniform Housing Code.~~

~~—Sec. 401.4 Appeal. A person affected by a notice may appeal the notice to the Building and Standards Commission by filing a written appeal with the Building Official. The appeal must be filed not later than 20 days after the date the notice is mailed by the City of Austin. An appeal must contain a brief statement identifying the notice or action~~

~~being appealed, setting forth any facts supporting the appeal, describing the relief sought, and presenting the reasons why the appealed notice or action should be reversed, modified or otherwise set aside. Filing an appeal stays further City action under the notice being appealed unless, in the opinion of the Building Official, a delay would present an immediate danger to any person.~~

~~—Section 402 REPAIR, BOARDING, FENCING, VACATION AND DEMOLITION:~~

~~—The following standards shall be followed by the Building Official (and by the Building and Standards Commission if an appeal is taken) in ordering the repair, vacation, or demolition of any dangerous building or structure:~~

~~——1. Any building declared a dangerous building under this Code shall be made to comply with one of the following:~~

~~——1.1 The building shall be repaired in accordance with the current Building Code or other current code applicable to the type of dangerous conditions requiring repair; or~~

~~——1.2 The building shall be demolished; or~~

~~——1.3 If the building does not constitute an immediate danger to the life, limb, property, or safety of the public it may be vacated, secured, and maintained against entry.~~

~~——2. If the building or structure is in a condition as to make it immediately dangerous to the life, limb, property, or safety of the public or its occupants, it shall be ordered to be vacated.~~

~~——3. If the owner or other affected person does not comply with the recommendation of the Building Official within the identified time period, the Building Official may serve notice to the person(s) to appear before the Building and Standards Commission to show cause why the building should not be ordered repaired, boarded, fenced, vacated, or demolished.~~

~~—Section 403 UTILITY HOLD.~~

~~——Sec. 403.1 Defined. A utility hold is a notation placed in the file of a City utility customer by the Building Official that prohibits the reconnection of City utility service to a building, structure, or property or portion of a building, structure, or property.~~

~~——Sec. 403.2 Utility Hold Authorized. A hold may be placed on utility service only if all of the following conditions exist:~~

~~——1. the Building Official determines that a building, structure or property or portion of a building, structure, or property is dangerous;~~

~~2. the Building Official has provided notice to the record owner of the building, structure, or property in accordance with Section 401 of this Code;~~

~~3. the record owner fails to make corrections identified by the Building Official in the notice within the time specified for compliance; and~~

~~4. prior to the correction of all violations, utility service has been disconnected to the building, structure, or property for any reason or the customer of record changes.~~

~~Sec. 403.3 Removal of Utility Hold. A utility hold shall be removed by the Building Official after the Building Official determines that all violations have been corrected in accordance with the notice provided under Section 401 of this Code.~~

~~Sec. 403.4 Appeal of Utility Hold. The decision of the Building Official to place a utility hold on a customer's service may be appealed under Section 401.4 of this Code.~~

~~Section 404 NOTICE TO VACATE.~~

~~Sec. 404.1 Posting. In addition to the requirements of Section 401.2 of this Code, a notice to vacate shall be posted at or on each exit of the building. The notice shall be in substantially the following form:~~

~~DO NOT ENTER~~

~~UNSAFE TO OCCUPY~~

~~IT IS UNLAWFUL TO OCCUPY THIS~~

~~BUILDING OR TO REMOVE OR~~

~~DEFACE THIS NOTICE.~~

~~BUILDING OFFICIAL~~

~~CITY OF AUSTIN~~

~~Sec. 404.2 Compliance. Whenever a notice to vacate is posted, the Building Official shall include a notification of the notice to vacate in the notice issued under Section 401.2 of this Code, reciting the emergency and specifying the conditions which necessitate the posting. No person may remain in or enter any building or structure that is posted with a notice to vacate unless the person has obtained a permit from the Building Official to repair, demolish, or remove the building or structure. No person may remove or deface the notice after it is posted until the required repair, demolition, or removal is completed and a certificate of occupancy is issued under the Building Code. No person may lease or otherwise induce another to occupy a building or structure after the person is served with a notice to vacate or after a notice to vacate is posted, whether or not the notice has been unlawfully removed, until the required repair~~

is completed and a certificate of occupancy for the building or structure is issued by the Building Official.

~~Sec. 404.3 Appeal of Notice to Vacate. A determination by the Building Official under this section may be appealed as provided in Section 401.4 of this Code, except that the filing of an appeal does not stay vacation of the building or structure. A determination by the Building and Standards Commission under this section may be appealed as provided in Section 505 of this Code.~~

~~Sec. 404.4 Offenses – Criminal.~~

~~1. A person commits an offense if the person does the following:~~

~~1.1 remains in or enters any building or structure that is posted with a notice to vacate;~~

~~1.2 removes or defaces a notice to vacate that is posted until after the required repair, demolition, or removal of the building or structure is completed and a certificate of occupancy is issued under the Building Code; or~~

~~1.3 leases or otherwise induces occupancy of a building or structure after a notice to vacate is issued and posted until after the required repair, demolition or removal is completed and a certificate of occupancy is issued by the Building Official.~~

~~2. It is not a defense to prosecution under this section that a notice to vacate has been removed from the premises.~~

~~3. It is an affirmative defense to prosecution under this section if a person enters into a building or structure for which a notice to vacate has been issued and posted to repair, demolish, or remove the building or structure under a permit issued by the Building Official.~~

~~4. An offense under this section is a class C misdemeanor, punishable by a fine not to exceed \$2000 per offense, per occurrence.~~

~~5. Each day a person commits an offense or remains in violation of a provision of this section is a separate occurrence.~~

~~6. Proof of a culpable mental state is not required for conviction of an offense under this section.~~

~~Sec. 404.5 Offenses – Civil.~~

~~1. A person may not do the following:~~

~~1.1 remain in or enter any building or structure that is posted with a notice to vacate;~~

~~1.2~~ remove or deface a notice to vacate that is posted until after the required repair, demolition, or removal of the structure is completed and a certificate of occupancy is issued under the Building Code; or

~~1.3~~ lease or otherwise induce the occupancy of a building or structure after a notice to vacate is issued and posted until after the required repair, demolition, or removal is completed and a certificate of occupancy is issued by the Building Official.

~~2.~~ Under Chapter 54 of the Texas Local Government Code, a person who commits any of the acts prohibited in subsection 1 of this section commits a civil offense punishable by a fine not to exceed \$1,000 a day per violation, per occurrence.

~~3.~~ Criminal conviction under Section 403.4 of this Code does not preclude enforcement under this section.

#### ~~Section 405 EMERGENCY POWERS.~~

##### ~~Sec. 405.1 Emergency Closure.~~

~~The Building Official may secure a building or structure before a public hearing is held by the Building and Standards Commission if the Building Official determines that the building or structure meets one of the following criteria:~~

~~1.~~ violates this Code and is unoccupied; or

~~2.~~ is occupied only by persons who do not have a right of possession to the building or structure.

##### ~~Sec. 405.2 Notice.~~

~~1.~~ Not later than the 10th day after the date the building or structure is secured, the Building Official shall give notice of the closure to the owner by one of the following methods:

~~1.1~~ personal service to the owner; or

~~1.2~~ notice by certified mail, return receipt requested, to the owner at the owner's last known address; or

~~1.3~~ if personal service cannot be obtained and the owner's post office address is unknown, either by publication at least twice within a 10 day period in a newspaper of general circulation in the county in which the building or structure is located or by posting the notice on or near the front door of the building or structure.

~~2.~~ The notice must contain the following:

~~2.1~~ an identification, which is not required to be a legal description, of the building or structure and the property on which it is located;

~~————— 2.2 — a description of the violations of the Code that are identified at the building or structure;~~

~~————— 2.3 — a statement that the Building Official has secured the building or structure; and~~

~~————— 2.4 — an explanation of the owner's right to request a hearing about any matter relating to the securing of the building or structure by the Building Official.~~

~~— Sec. 405.3 Appeal of Emergency Closure. The owner of a building or structure may appeal an emergency closure under this section to the Building and Standards Commission. A written appeal must be filed not later than 30 days after the date the Building Official secured the building or structure. A hearing on the appeal will be scheduled on the Commission's agenda not later than 20 days after the date the appeal is filed.~~

~~— Sec. 405.4 Costs. The City may assess costs incurred for emergency closures under this section against the owner of the affected property and may secure those costs with a lien against the affected property in the manner authorized by state law.~~

## ~~CHAPTER 5: BUILDING AND STANDARDS COMMISSION~~

### ~~— Section 501 GENERAL.~~

~~— The Commission shall have the powers and duties under this Code listed in Section 203.3 of the Uniform Housing Code. The Commission shall hear evidence from each party present concerning the matters brought before the Commission and shall issue orders regarding the matters, as appropriate. Orders regarding repair, securing, or demolition of buildings shall identify the time period in which work must begin and the time period by which work must be completed.~~

### ~~— Section 502 NOTICE OF COMMISSION ORDER~~

~~— Notice of a Building and Standards Commission order shall be provided in accordance with Section 203.8 of the Uniform Housing Code.~~

### ~~— Section 503 RECORDATION OF ORDER.~~

~~— The Building Official shall file in the office of the county clerk of the county in which the building is located a Commission order issued under Section 501 of this Code. The Building Official shall file a release of order after the corrections identified in the order are completed or the building is demolished so that it no longer exists as a dangerous building and after penalties ordered by the Commission, liens associated with securing or demolishing the building, and fees associated with recording the release of order have been paid.~~

### ~~— Section 504 COMMISSION ORDERS FINAL.~~

~~—Unless appealed in accordance with state law, all orders of the Commission made under the Code are final and binding in all things, and no person to whom an order is directed shall fail, neglect, or refuse to obey the order.~~

~~—Section 505 APPEAL.~~

~~—An order issued by the Commission under this section is final unless appealed in accordance with Chapter 54 of the Texas Local Government Code.~~

~~—Section 506 FAILURE TO COMPLY WITH COMMISSION ORDER IS AN OFFENSE.~~

~~—Sec. 506.1 Criminal Offense and Penalty. A person commits an offense if the person fails to comply with a final order issued by the Building and Standards Commission under this chapter. Each day that a person fails to comply with a final order is a separate offense. An offense under this section is a class C misdemeanor. The maximum penalty shall be \$2000 per offense, per occurrence. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~—Sec. 506.2. Civil Offense and Penalty. A person must comply with a final order issued by the Building and Standards Commission under this chapter. A person who fails to comply with a final order issued under this chapter commits a civil offense punishable by a maximum fine of \$1,000 a day for each day that the person fails to comply with an order as provided by Chapter 54 of the Texas Local Government Code. Criminal conviction under Section 506.1 does not preclude enforcement under this section.~~

~~—Section 507 SATISFACTION OF CIVIL PENALTY.~~

~~—(A) This section applies to a civil penalty assessed under Section 506.2 of this Code for violations relating to a:~~

~~—(1) structure that is designated as an historic landmark or located in a designated historic district; or~~

~~—(2) single-family residential structure.~~

~~—(B) The Building Official shall accept as full payment of the civil penalty an amount equal to the assessed penalty minus the cost to complete repairs required by the Building and Standards Commission order establishing the penalty if:~~

~~—(1) all repairs required by the Building and Standards Commission order establishing the penalty have been completed;~~

~~—(2) the Building Official has determined that all repairs comply with City regulations; and~~

~~———— (3) — a lawsuit based on the Building and Standards Commission order assessing the penalty has not been initiated by the City.~~

~~———— (C) — The person subject to the civil penalty must provide evidence to the Building Official of the cost of repairs required by a Building and Standards Commission order.~~

~~———— (D) — The Building Official shall determine whether the costs provided under Subsection (C) of this section are associated with a repair ordered by the Building and Standards Commission. The determination by the Building Official under this subsection may not be appealed.~~

## ~~CHAPTER 6: RESTRICTIONS ON TRANSFER AND LEASE OF PROPERTY.~~

### ~~— Section 601 TRANSFER OF PROPERTY.~~

~~— Sec. 601.1 Execution of Order Not Affected by Transfer. When an order has been filed in the deed records, execution of the order is not affected by sale or other transfer of the property. A person acquiring an interest in property after an order has been recorded is subject to the requirements of the order.~~

~~— The provisions of this subsection shall be included as part of each order.~~

~~— Sec. 601.2 Transfer of Property. An owner of a building or structure who has been served with a notice or order under this Code may not sell, transfer, grant, mortgage, lease or otherwise dispose of the building or structure until the owner has:~~

~~———— 1. — furnished to the purchaser, transferee, grantee, mortgagee, or lessee a true copy of the notice or order; and~~

~~———— 2. — simultaneously provided adequate notice to the Building Official of the owner's intent to enter into a transaction affecting the building or structure, including the name and address of the proposed buyer, transferee, grantee, mortgagee, or lessee.~~

~~— Sec. 601.3 Responsibility of Purchaser. A purchaser of property on which a notice, order, or other notification is issued under this Code and recorded in the real property records of the county in which the property is located is bound by the terms of the notice, order or notification.~~

### ~~— Section 602 LEASING OF DANGEROUS PREMISES IS AN OFFENSE.~~

~~— Sec. 602.1 Criminal Offense and Penalty.~~

~~———— 1. — A person commits an offense if, prior to the time that the owner receives notice from the Building Official that all required corrections have been made, the person does the following:~~

~~———— 1.1 — leases or causes to be leased a building or structure or portion of a building or structure that is vacant at the time that the owner receives notice from the Building Official that the building or structure is dangerous; or~~

~~———— 1.2 — leases or causes to be leased a building or structure or portion of a building or structure that becomes vacant after the owner receives notice from the Building Official that the building or is dangerous.~~

~~———— 2. — Each day that a person commits an offense or remains in violation of this section is a separate occurrence. An offense under this section is a Class C misdemeanor. The maximum penalty shall be \$2000 per offense, per occurrence. Proof of a culpable mental state is not required for conviction of an offense under this chapter.~~

~~—— Sec. 602.2 Civil Offense and Penalty.~~

~~———— 1. — A person may not, prior to the time that the owner receives notice from the Building Official that all required corrections have been made, lease or cause to be leased a building or structure or portion of a building or structure that is vacant at the time that the owner receives notice from the Building Official that the building or structure is dangerous; or~~

~~———— 2. — A person may not, prior to the time that the owner receives notice from the Building Official that all required corrections have been made, lease or cause to be leased a building or structure or portion of a building or structure that becomes vacant after the owner receives notice from the Building Official that the building or structure is dangerous.~~

~~———— 3. — Under Chapter 54 of the Texas Local Government Code, a person who commits any of the acts prohibited in this Section 1202.2 commits a civil offense punishable by a fine not to exceed \$1,000 a day per violation, per occurrence.~~

~~———— 4. — Criminal conviction under Section 1202.1 of this Code does not preclude enforcement under this section.~~

~~—— Sec. 801. GENERAL.~~

~~—— Demolition, boarding, fencing, or other closure of a building or structure may be accomplished by an owner or by the Building Official. The City may assess costs incurred for demolition, boarding, fencing, or other closure. The expense incurred by the City under this section may be recorded as a lien against the real property on which the building or structure is located, with interest on the unpaid balance to accrue at the maximum~~

~~—— Alternate Method of Compliance Form —  
<http://www.ci.austin.tx.us/development/bpinfo1.htm>~~

~~—— Commercial Building and MEP Inspections Flow-Charts.~~

~~— <http://www.ci.austin.tx.us/development/insinfo1.htm>~~

~~— Residential Inspections Flow-Charts.~~

~~— <http://www.ci.austin.tx.us/development/insinfo1.htm>~~

~~— Watershed Protection and Development Review Department Flood Plain Information Request Forms~~

~~— 1.—~~

~~[http://www.ci.austin.tx.us/watershed/downloads/fp\\_development\\_information\\_request\\_form.pdf](http://www.ci.austin.tx.us/watershed/downloads/fp_development_information_request_form.pdf) --- form~~

~~— 2.—~~

~~[http://www.ci.austin.tx.us/watershed/downloads/fp\\_development\\_form\\_instructions.pdf](http://www.ci.austin.tx.us/watershed/downloads/fp_development_form_instructions.pdf) --- instruction sheet~~

## ~~MANAGED GROWTH AGREEMENT~~

~~June 2009~~

~~CITY OF AUSTIN~~

### ~~MANAGED GROWTH AGREEMENT APPLICATION~~

#### ~~A: MANAGED GROWTH AGREEMENT APPLICATION OVERVIEW~~

##### ~~GENERAL INFORMATION~~

~~This packet outlines the procedures and submittal requirements necessary to obtain a Managed Growth Agreement within the City of Austin jurisdiction (full-purpose and limited-purpose city limits). The regulatory requirements and procedures for approval are defined in Volume III, Chapter 25 of the Code of the City of Austin. Chapter 25 was adopted by City Council in order to protect the health, safety and welfare of the Austin community.~~

##### ~~WHAT IS A MANAGED GROWTH AGREEMENT?~~

~~Sec. 25-1-540 of the City Code states that an applicant may request the city council enter into a Managed Growth Agreement for planning and developing large projects, long term projects or any project which has special benefits in the public interest. The agreement may specify the time period during which an application may comply with original regulations and shall establish an expiration date for each application necessary to complete the project if the otherwise applicable expiration date is to be extended.~~

##### ~~WHO APPROVES MANAGED GROWTH AGREEMENTS?~~

~~A Managed Growth Agreement must be approved by the City Council.~~

## ~~B. MANAGED GROWTH AGREEMENT REVIEW PROCEDURES~~

~~The procedures for review and approval of Managed Growth Agreements are based on Volume III, Chapter 25 of the City of Austin Code. The process is summarized below:~~

### ~~STEP 1: DEVELOPMENT ASSESSMENT (Optional)~~

~~A person may request an assessment of a proposed development prior to formal submittal by contacting the Development Assistance Center (DAC). The assessment is based on the information provided by the applicant at the time that an assessment is requested. An assessment of the project includes applicable code requirements pertaining to the site and identification of major development issues. A Development Assessment application (Application Packet #01) can be submitted any working day of the week with an appointment to the Intake Office. . An appointment is necessary. Please contact Intake at one of the numbers listed above to schedule an appointment.~~

~~Contact:~~

~~City of Austin~~

~~One Stop Shop—Development Assistance Center~~

~~505 Barton Springs Road, 1st Floor~~

~~Austin, Texas—78704~~

~~Phone : (512) 974-6370~~

~~Fax: (512) 974-6305~~

### ~~STEP 2: COMPLETENESS CHECK~~

~~In order to submit a site plan or Subdivision for review, an application for Completeness Check must be submitted to the Intake staff. Completeness Check hours are from 8:30am to 10:30 am Monday–Friday. No appointment is necessary. Intake reviews the application and pertinent information to determine if all required administrative items have been submitted. Intake then forwards it to the completeness check team, which determines whether the technical items needed for review have been submitted.~~

~~An application for completeness check must include:~~

- ~~• Managed Growth Agreement Application~~
- ~~• \$200.00 review fee (check, cash, money order or credit card)~~
- ~~• 2 copies of site plan or subdivision.~~
- ~~• Summary letter~~

- ~~Tax certificate~~

~~The completeness check review takes a maximum of 10 business days from the date of submittal. The applicant will be notified via e-mail or fax whether the application is approved or additional information is required for submittal. When the application packet is approved, the plans can be formally submitted for a detailed review. If it is determined that the new application qualifies for a Managed Growth Agreement, the fee for the MGA will also be paid at the formal submittal along with the other required review fees. When the application is formally submitted, the \$200 completeness check fee is credited to the application fee. The application must be submitted formally within 45 calendar days of the initial completeness check or it will expire and a new completeness check will be required.~~

~~Contact:~~

~~City of Austin~~

~~One Stop Shop: Land Use Review – Intake Section~~

~~505 Barton Springs Road – 4th Floor~~

~~Austin, Texas 78704~~

~~Phone: (512) 974-2681 or (512) 974-2350 or (512) 974-7208 or (512) 974-2689~~

~~Fax: (512) 974-2620~~

### ~~STEP 3: FORMAL SUBMITTAL REVIEW PROCESS~~

~~The next step is to submit the application packet to Intake to start the review process. Electronic copies of the application packet are available online at <http://www.ci.austin.tx.us/development/packets.htm>. Applications may be submitted to Intake Monday through Friday. An appointment is necessary. Please contact Intake at one of the numbers listed above to schedule an appointment. For submittal, the applicant will need to provide 2 copies of plans along with the remaining balance of the fee (which will be listed on the completeness check response).~~

~~A Case Manager with the Land Use Review section is assigned to coordinate interdisciplinary reviews and provide guidance on code requirements and procedures. A review team is also assigned to the project. The team reviews the plans and prepares a Master Comment Report that contains specific areas of non-compliance. The initial review of the plans by the team can take up to 28 days from the date that the plans were formally submitted. The Comment Report can be viewed on the City of Austin website, [www.ci.austin.tx.us/development](http://www.ci.austin.tx.us/development).~~

### ~~STEP 4: APPROVAL~~

~~Once the staff review has been complete, the Case Manager will notify you of the staff recommendation and schedule the case for City Council approval. A written agreement will be prepared by the staff listing the terms of the agreement, and you will receive a copy for your review and signature prior to the Council hearing. The Case Manager will inform you of the date and time of the public hearing. You should attend the hearing to present reasons why the application should be approved. If Council approves the application, you will receive a copy of the agreement once it is signed by the City.~~

## ~~C. SUBMITTAL INFORMATION & REQUIREMENTS~~

### ~~1. COMPLETED APPLICATION FORM~~

~~The application must be complete and accurate prior to submittal.~~

#### ~~Section 1: Primary Project Data~~

~~— Project Name~~

~~— Street Address~~

~~— Subdivision Reference and Legal Description~~

~~The site plan will not be released unless it has been determined the tract is a legal lot/tract. This determination will be made during the review process, and if it cannot be determined the tract is a legal lot/tract, the applicant will be requested to prove legal lot status or subdivide. If a subdivision is required, it must be recorded prior to the release of the site plan.~~

~~— Grid Number~~

~~This can be found from a Mapsco, a grid map located on the 1st floor, or the GIS viewer on the City's website.~~

~~— Tax Parcel Numbers~~

~~These numbers may be found on the tax plats or tax certificates you are providing. The Intake Center or Document Sales Window can assist you with these numbers.~~

#### ~~Section 2: Site Area Information~~

~~— Site Area~~

~~— Indicate the Net and Gross site area. See Sec. 25-8-62 of the City Code for a definition of Net Site Area and 25-1-21 (10) for a definition of Gross Site Area.~~

~~— Building coverage~~

~~— Provide the building coverage in square feet. See Sec. 25-1-21(10) for a definition of building coverage.~~

~~— Number of living units~~

~~— Indicate the number of living units for all multi-family projects.~~

~~— Complete the chart, indicating the zoning (within the City limits), existing and proposed uses, and area of each tract. If there is only one tract, refer to it as Tract 1.~~

~~— Description of Proposed Development~~

~~— Provide a summary description of the proposed project, including type of development, number of buildings, and other proposed site improvements such as parking, water quality/detention ponds, landscaping, etc.~~

~~Section 3: Related Cases~~

~~— Provide the file numbers which relate to applications on this property that have been filed in the past.~~

~~Section 4: Land Use Site Plan Data~~

~~— Indicate whether the project is subject to the requirements listed in this section.~~

~~Section 4: Ownership Information~~

~~— If the owner uses an agent or other representative to prepare and submit an application and fill out this section, other than sole or community property, use the boxes provided or attach a list of the partners /beneficiaries/ principals and their positions.~~

~~Section 5: Owner Information~~

~~— The current owner must sign the application or attach a written authorization for the agent. Be sure all signatures are legible and address information is correct.~~

~~Section 6: Applicant Information~~

~~— If an agent is designated, this is considered the “Applicant” and will be WPDR's primary contact.~~

~~Section 7: Engineer/Landscape Architect/Other~~

~~Section 8: Engineer/Landscape Architect/Other~~

~~2.— SUBMITTAL VERIFICATION~~

~~3.— INSPECTION AUTHORIZATION~~

~~4.— SUMMARY LETTER~~

**ADDITIONAL REQUIREMENTS FOR MANAGED GROWTH AGREEMENT APPLICATION**

**1. TAX CERTIFICATE**

Tax certificates can be obtained from:

- Hays County: Hays County Tax Assessor Office, 102 N. LBJ Dr., San Marcos;
- Travis County: Courthouse Annex, 5501 Airport Blvd. The tax certificate should indicate that there are no taxes owed;
- Williamson County: Williamson County Tax Assessor/Collector Office, 904 S. Main St., Georgetown.

**2. LOCATION MAP**

Provide a 4" x 4" location map on a separate 8-1/2" x 11" sheet (not required on small projects).

**3. 8 1/2 X 11 (Letter-sized) REDUCTION OF SITE PLAN or subdivision.**

Include a letter-sized copy of the subdivision or site plan (DIMENSION CONTROL) PAGE page only. This will be included in the distribution packet, which is viewable online.

**DEPARTMENTAL USE ONLY**

Application Date \_\_\_\_\_ File \_\_\_\_\_  
Number \_\_\_\_\_ Development Review \_\_\_\_\_  
Type \_\_\_\_\_

Case Manager \_\_\_\_\_

Application Accepted By \_\_\_\_\_

Application Type \_\_\_\_\_

**Section 1: PRIMARY PROJECT DATA**

Project Name \_\_\_\_\_

Project Street Address (or range) \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

— If project address cannot be defined, such as utility lines, provide the following information:

\_\_\_\_\_ Along the \_\_\_\_\_ Side of \_\_\_\_\_  
\_\_\_\_\_

— Frontage Rd. \_\_\_\_\_ N S E W \_\_\_\_\_ Frontage Road

— Approximately \_\_\_\_\_ From the Intersection  
with \_\_\_\_\_

— \_\_\_\_\_ Distance \_\_\_\_\_ Direction \_\_\_\_\_ Cross Street

Provide either subdivision reference or brief legal description

— 1. Subdivision Reference

— Name \_\_\_\_\_ Approved \_\_\_\_\_  
\_\_\_\_\_

— Block(s) \_\_\_\_\_ Lot (s) \_\_\_\_\_ Outlot \_\_\_\_\_  
\_\_\_\_\_

— Plat Book \_\_\_\_\_ Page Number \_\_\_\_\_  
\_\_\_\_\_

— Case # \_\_\_\_\_

— 2. Brief Legal Description

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

— Grid Number(s) \_\_\_\_\_  
\_\_\_\_\_

— Tax Parcel Numbers \_\_\_\_\_  
\_\_\_\_\_

DEED REFERENCE OF DEED CONVEYING PROPERTY TO THE PRESENT OWNER

Volume \_\_\_\_\_ Page (s) \_\_\_\_\_ Sq.Ft. \_\_\_\_\_ or  
Acres \_\_\_\_\_

FILE NUMBER \_\_\_\_\_

Section 2: SITE AREA INFORMATION

Gross Site Area: Acres \_\_\_\_\_ or  
Sq.ft. \_\_\_\_\_

Net Site Area: Acres \_\_\_\_\_ or  
Sq.ft. \_\_\_\_\_

Building coverage: Sq.ft. \_\_\_\_\_

Number of living units (if applicable): \_\_\_\_\_

EXISTING ZONING	EXISTING USE	TRACT #	ACRES/SQ FT
PROPOSED USE			

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_

Description of Proposed Development:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Section 3: RELATED CASES

FILE NUMBERS

Development Assessment? YES / NO

\_\_\_\_\_  
\_\_\_\_\_

Zoning Case? YES / NO

\_\_\_\_\_

Restrictive Covenant? YES / NO

\_\_\_\_\_  
\_\_\_\_\_

Subdivision? YES / NO

\_\_\_\_\_

Land Status Report? YES / NO

\_\_\_\_\_  
\_\_\_\_\_

Existing Site Plan? YES / NO \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Section 4: OWNERSHIP INFORMATION

Type of Ownership: \_\_\_\_\_ Sole \_\_\_\_\_ Community Property \_\_\_\_\_ Trust  
\_\_\_\_\_ Partnership \_\_\_\_\_ Corporation

If ownership is other than sole or community property, list the individuals, partners, principals, etc. below or attach a separate sheet.

Section 5: OWNER INFORMATION

Signature \_\_\_\_\_ Name \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Firm Name \_\_\_\_\_ Phone  
# \_\_\_\_\_

Street  
Address \_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Contact \_\_\_\_\_

Section 6: APPLICANT - *if applicable*

Signature \_\_\_\_\_ Name \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Firm Name \_\_\_\_\_ Phone # \_\_\_\_\_  
\_\_\_\_\_

Street  
Address \_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Contact \_\_\_\_\_

Section 7: ENGINEER / LANDSCAPE ARCHITECT / OTHER - *Circle 1 or More*

Firm Name \_\_\_\_\_ Phone  
# \_\_\_\_\_

— Street  
Address \_\_\_\_\_  
\_\_\_\_\_

— City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

— Contact \_\_\_\_\_

Section 8: ENGINEER/ LANDSCAPE ARCHITECT/ OTHER — *Circle 1 or More*

— Firm Name \_\_\_\_\_ Phone  
# \_\_\_\_\_

— Street  
Address \_\_\_\_\_  
\_\_\_\_\_

— City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

— Contact \_\_\_\_\_

#### SUBMITTAL VERIFICATION

My signature attests to the fact that the attached application package is complete and accurate to the best of my knowledge. I understand that proper City staff review of this application is dependent upon the accuracy of the information provided and that any inaccurate or inadequate information provided by me/my firm/etc., may delay the proper review of this application.

PLEASE TYPE OR PRINT NAME BELOW SIGNATURE AND INDICATE FIRM REPRESENTED, IF APPLICABLE.

\_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_

Name (Typed or Printed)

\_\_\_\_\_

Firm

#### INSPECTION AUTHORIZATION

As owner or authorized agent, my signature authorizes staff to visit and inspect the property for which this application is being submitted.

PLEASE TYPE OR PRINT NAME BELOW SIGNATURE AND INDICATE FIRM REPRESENTED, IF APPLICABLE.

\_\_\_\_\_  
Signature \_\_\_\_\_ Date

\_\_\_\_\_  
Name (Typed or Printed)

\_\_\_\_\_  
Firm

### SUMMARY LETTER

Submit a summary letter which explains why a Managed Growth Agreement is being requested and how the project meets one or more of the following criteria. The letter should also state the proposed time period during which an application may comply with original regulations and should establish an expiration date for each application necessary to complete the project.

Definitions and Criteria:

•    A large project:

- \_\_\_\_\_  Consists of three or more phases, constructed sequentially, or
- \_\_\_\_\_  requires more than two building permits to complete the project

•    A long-term project:

- \_\_\_\_\_  Is a master planned development
- \_\_\_\_\_  Fund raising is necessary for implementation
- \_\_\_\_\_  Is a mixed-use project, or
- \_\_\_\_\_  design and construction will exceed five years

•    Special public benefit includes one of the following:

- \_\_\_\_\_  501 C3 project that complements city initiatives
- \_\_\_\_\_  Educational facilities
- \_\_\_\_\_  Hospitals, medical research, or other health facilities

- ~~o Joint public/private projects~~
- ~~o Emerging technology/small or minority business~~
- ~~o Sustainable development in the Desired Development Zone~~
- ~~o Cultural arts and heritage~~
- ~~o Other public benefit as determined by City Council~~
- ~~• Other requirements~~

~~A Managed Growth agreement application must meet or exceed current code and will not impede or delay other city initiatives related to economic development or sustainable growth. Staff will make a recommendation to Council.~~

## ~~APPENDIX H: MISCELLANEOUS PERMITS, APPLICATIONS, CHECK LISTS, AND FORMS~~

- ~~1. MEC CHECK COMPLIANCE REPORT
 
  - ~~1993 Model Energy Code~~
  - ~~MEC Check Software Version 2.0 and 2.1~~~~
- ~~2. Conventional Energy Code Compliance Form~~
- ~~3. City of Austin Model Energy Code A-1 and Prescriptive Compliance Option~~
- ~~4. City of Austin Model Energy Code A-2 and Prescriptive Compliance Option~~
- ~~5. Commercial Energy Short Form (5,000 square feet or less)~~
- ~~6. Commercial Energy Code Compliance Form~~