

## TABLE OF CONTENTS

1. Site .....	Page 1
2. Space and Use .....	Page 2
3. Foundation .....	Page 2
4. Floors.....	Page 4
5. Walls .....	Page 4
6. Roofs .....	Page 5
7. Windows and Doors .....	Page 6
8. Weatherization .....	Page 8
9. Electrical .....	Page 9
10. Lighting .....	Page 11
11. Water Supply and Wastewater Systems .....	Page 12
12. Mechanical Systems .....	Page 14
13. Water Heater .....	Page 16
14. Manufactured Housing .....	Page 17
15. Accessibility .....	Page 17
16. Architectural Barriers .....	Page 18
17. Lead-Based Paint .....	Page 18

**CITY OF HOUSTON  
HOUSING AND COMMUNITY DEVELOPMENT DEPARTMENT**

**MINIMUM PROPERTY AND REHABILITATION STANDARDS**

The purpose of the Minimum Property and Rehabilitation Standards is to ensure that all persons who receive new or rehabilitated housing assistance through programs funded by the City of Houston, Housing and Community Development Department (HCDD) live in housing that is safe, decent and affordable. Furthermore, the Minimum Property and Rehabilitation Standards (MPR Standards) should ensure that the investment of public and homeowner funds is designed to increase the value of the property, lengthen the term of affordability, and preserve habitability.

All properties assisted with funds provided through HCDD must meet these MPR standards. These standards are not meant to replace the City of Houston's Building Code. Where there is a conflict between the two, the most stringent standard will apply.

**1.0 Site.**

1.1 Minimum Site Standards

- A. The lot or defined site must be free of debris; garbage or other accumulations of site stored items that create possibilities of infestations. The site should be generally level, well drained, and accessible.

1.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Rodents, insects, or other infestations and accumulated debris, waste, or garbage either in enclosed areas such as storage buildings or in yard areas, except for where garbage is stored;
  - 2. Deteriorated and/or irreparable outbuildings, sheds, wells, privies, or other structures that are no longer in use or are made unusable by their condition;
  - 3. Holes, ditches, exposed meter boxes, exposed pipes, railings or other conditions that create a tripping hazard, excluding drainage ditches, retention and/or detention ponds that are part of a designed drainage system;
  - 4. Standing water or depressions that hold water during wet weather, leaking water supply, percolating or leaking sewage;
  - 5. Damaged, missing or deteriorated walkways, steps and decks that create tripping hazards or are otherwise unsafe;
  - 6. Stairways or steps with two steps or more and without a functional rail.

## **2.0 Space and Use**

### **2.1 Minimum Space Standards for Ceilings**

- A. A habitable room in a dwelling or dwelling unit must have a ceiling height of not less than seven (7) feet six (6) inches except as otherwise permitted. At least          of the floor area of every habitable room located above the 1<sup>st</sup> floor must have a ceiling height of 7'-6". The floor area of that part of any room where the ceiling height is less than 7'-6" must not be considered as part of the floor area in computing the total floor area of the room for the purpose of determining maximum floor area.
- B. A ceiling height of a minimum of seven (7) feet is acceptable in kitchens, halls, bathrooms, toilet rooms and utility rooms.

### **2.2 Minimum Space Standards for Rooms**

- A. All rooms, except kitchens and/or kitchenettes and baths, hallways, storage rooms and porches must have a minimum width of seven (7) feet.

### **2.3 Minimum Space Standards for Kitchens (excluding Single Room Occupancy )**

- A. All kitchens must have adequate food storage facilities including at least three linear feet of counter area for food preparation, adequate cabinet space in good repair.
- B. All kitchens must have a working refrigerator, cook-top and oven (unless required to be furnished by homeowner).

### **2.4 Hazardous and Substandard Conditions**

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Lack of adequate food storage, food preparation area, refrigeration or cooking facilities.
  - 2. Spaces that are so small as to be unusable or inadequate for their intended purpose.
- B. Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **3.0 Foundations**

### **3.1 Minimum Foundation Standards**

- A. Pier placements will have allowable spans between piers or posts for a 4"x4" sill 6' on center or for a 4"x6" sill 6' on center.
- B. Joists shall match existing size and shall not be spliced.
- C. Stabilization of foundation must be done in a manner to permanently eliminate movement and sponginess of flooring.
- D. All piers should be designed in accordance with the local code.

- E. Leveling must be done in such a manner as to be permanent and must be completed before other work begins.
- F. New posts must be concrete or concrete-block piers or-treated wood posts, of a species that has a natural resistance to decay.
- G. Cedar posts and shims must be treated to prevent rot and deterioration and shall be no more than two (2) inches thick.
- H. When leveling, grades must be established from existing concrete porches, fireplaces and chimneys.
- I. When leveling is complete, doors, windows, and openings must be reasonably plumbed, level, and fully operational.
- J. Correct over spans by installing stringers and/or floor joists. Stringers are to be placed on concrete pads and piers.
- K. All sills must have twelve (12) inches minimum clearance above the ground when leveling is to be done unless otherwise specified.
- L. All newly installed foundations should be designed in accordance with local code.
- M. All concrete slabs except for foundations (see above) must be poured monolithically and is a minimum of four (4) inches thick. Reinforcing must be, at a minimum, 6"x6" Number 6 welded wire fabric unless otherwise specified. The top of a foundation slab poured on existing grade must be a minimum of eight (8) inches above surrounding soil level.
- N. Skirting must extend 4" below and at least 18" above grade and be lapped and fastened under siding on the same horizontal line of the entire wall or "side" of building.
- O. Skirting must have ventilation openings a minimum of 4' from each corner, and no less than every eight (8) feet. Vent openings should be covered by louvered screened vents, and should be a minimum of fifty (50) square inches.
- P. Creep-hole door must be hinged and constructed of such insect and decay resistant material to conform to foundation skirt, and must be of adequate size for entrance into crawl space (minimum of 16" x 16").

### 3.2 Hazards and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  1. Termite or other wood destroying insect damage to structural members;
  2. Water damage or dry rot to structural members;
  3. Broken, fire damaged or otherwise compromised beams, joist or sills;
  4. Unsupported beams, sills or joists in same that have no support; inadequate support;

5. Water draining and/or pooling under foundation area;
  6. Lack of underpinning, skirting, or other insulating feature to exposed plumbing.
  7. Existing skirting or underpinning that is cracked, damaged or not properly vented.
  8. Ground contact of untreated wooden structure;
  9. Severe slab cracks that create or threaten structural or other systems such as plumbing;
- B. Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **4.0 Floors**

### 4.1 Minimum Floor System Standards

- A. All sub-floors should be a minimum of three-fourth (3/4) inches thick, solid and continuous, without liberal movement or bounce, free from rot and deterioration.
- B. All floor covering must be a minimum of 3/32" thick, free from tripping hazards with a minimum of seams spaced at logical locations such as doorways and matched to the existing floor.
- C. All flooring must be sealed and/or tight at the edges.
- D. Install new 3/8" exterior grade plywood underlayment (AC or BC smooth on one side) over entire floor area or match existing.

### 4.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  1. Damaged, rotted or deteriorated sub-floor surfaces;
  2. Torn, missing, worn, burned or otherwise damaged floor coverings that create a tripping hazard or unsanitary condition;
  3. Missing base board, shoe mold or sealant that creates an unsanitary condition;
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **5.0 Walls**

### 5.1 Minimum Wall System Standards

- A. Exterior siding should be smooth and free from gaps, cracks, rot, termite damage, holes and other areas of damage. All gaps seams and laps should be sealed. All rotted wood, fire damaged or termite-damaged wood should be removed and replaced.
- B. Interior walls should be smooth wood, plywood or sheetrock/drywall.

1. All sheetrock/drywall, repaired or replaced, must be taped, floated, sanded, textured and painted.
  2. All interior walls, ceilings and trim must be painted.
- C. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 5.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
1. Termite or other wood destroying insect damage to siding, trim and/or structural members;
  2. Water damage or dry rot of siding, trim and/or structural members;
  3. Broken, fire damaged or otherwise compromised siding, trim and/or structural members;
  4. Exposed nails popped seams or other defects not representative of normal wear and tear;
  5. Cracked, peeling, or chipped paint. Exposed unpainted or untreated wood, drywall or other wall surface;
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 6.0 Roofs

### 6.1 Minimum Roof System Standards

- A. Roof surfaces should be smooth and free from defects. No indication of excessive wear or potential failure will be acceptable.
- B. No more than two complete layers of roofing materials will be acceptable.
- C. A second layer of shingles may be applied assuming no damage to decking, flashings jacks or leads has occurred necessitating removal and replacement of roofing materials. If decking materials are not solid (i.e. open sheathing), tear off and re-deck. All replaced decking must be of a type that is compatible with the existing decking thus making the roof sub-surface smooth and free from defects. 3/8" decking with "H" clips is acceptable for repairs when used to match 3/8" existing decking. If all roof decking is to be replaced, the minimum replacement decking shall be 1/2" decking.
- D. Roofing materials should be applied in accordance with the manufacturer's instructions as well as local codes.
- E. New applications on roofs between 4:12 and 20:12 pitch must include at a minimum, the application of 15 lb. felt, 20 yr. asphalt composition shingles, with one and one-fourth (1 1/4) inches galvanized roofing nails and trimmed with 1"x2" shingle mould and galvanized drip

edge. Other roofing types such as built up, modified, metal roofing and any other type must be installed according to the manufacturer's instruction and local code.

- F. All rotted or damaged wood decking must be removed and replaced. Where it is exposed it should be primed and painted.
- G. All rainwater shall be drained by seamless metal gutters, downspouts accompanied by splash blocks from the roof so as not to cause dampness/damage to walls, ceilings, or floors of any room within the unit. All draining devices shall be kept in a state of maintenance and repair.

## 6.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Water damage caused by water leaking through the roofing materials;
  - 2. Missing, worn or upturned shingles or other visible wear on the exterior of the roof envelope;
  - 3. Damaged or rusting roof jacks, leads, flashings drip edges, or other component;
  - 4. Structural damage evidenced by buckling, sagging, or broken members;
  - 5. De-lamination of materials, uplifted edges, or other failure of materials or application;
  - 6. Any condition, including normal wear which, in the best judgment of the inspector, and would lead to the failure of the roof envelope within five years;
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 7.0 Windows and Doors

### 7.1 Minimum Window and Door Standards

- A. All exterior doors to the outside or to a common public hall must be solid core one and three-fourth (1  $\frac{3}{4}$ ) inches thick and be equipped with adequate security locks including at least one single deadbolt/lock. Each door must be not less than 2'4" in width and not less than 6'-6" in height, except where larger doors and doorways are required to accommodate accessibility. In existing structures, if replacement to meet these requirements would be impossible or cost-prohibitive said requirements may be waived, in writing, by the building inspection department.
- B. All windows accessible from ground level without the aid of mechanical devices must have a security device/lock.
- C. Every window sash must be in good condition, fit tightly within its frame and:
  - 1. Fully equipped with glass windowpanes which are without cracks or holes, and all panes must be secured with an adequate amount of putty. Putty must not be cracked, broken or missing;

2. Other than a fixed window, must be capable of being easily opened, shut and locked and must be held in position by window hardware, not broom handles, sticks, or other such items;
- D. Every exterior and interior door, when closed, must fit well within its frame and:
1. Door hinge, door latch and/or lock must be maintained in good working condition;
- E. Every window, door and frame must be constructed and maintained in such relation to the adjacent wall construction, so as to exclude rain as completely as possible and to subsequently exclude wind from entering the dwelling or structure, i.e., it -must have adequate weather-stripping.
- F. Every window, exterior door, basement or cellar hatchway must be constructed and maintained as to prevent the entrance of rodents, snakes, and rain and surface drainage water into the dwelling or structure.
- H. Escape and rescue windows with a finished sill height below the adjacent ground elevation shall have a window. Window wells at escape or rescue windows shall comply with the following:
1. The clear horizontal dimensions shall allow the window to be fully opened and provide minimum accessible net clear opening of nine (9) square feet, with a minimum dimension of thirty-six (36) inches.
  2. Window wells with a vertical depth of more than forty-four (44) inches shall be equipped with an approved permanently affixed ladder or stairs that are accessible with the window in the fully open position. The ladder or stairs shall not encroach into the required dimensions of the window well by more than 6 inches.
- I. The total window area that can be opened in every habitable room must be equal to at least 50% of the minimum window area size. The window should be a viable means of egress and therefore accessible and adequately sized to provide this function.
- J. Every habitable room must have at least one window or skylight which can easily be opened, or other such device as will adequately ventilate the room.
- K. Every bathroom, toilet room, kitchen, and other similar room must have a window area of not less than 4 square feet. No window must be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system which will completely change the air every 7 minutes and which is kept in continuous operation when occupied.
- L. Every window or other opening to outdoor space which is used or intended to be used for ventilation must likewise be supplied with screens covering all of the window areas required for ventilation. The material used for all such screens (doors & windows) must be not less than 16 mesh per inch and must be properly installed, maintained and repaired to prevent the entrance of flies, mosquitoes or other insects. Half screens on windows may be allowed, provided, they are properly installed and are bug and insect tight.

## 7.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will

lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:

1. Broken, missing or cracked panes;
  2. Rotten or deteriorated sills, frames or trim;
  3. Dried, cracked or missing putty or gasket. Any missing seal or sealant resulting in loose panes or air leaks;
  4. Sealed or blocked windows including windows which have been painted shut, windows which are not operational or windows which will not function as a viable fire exit such as windows with burglar bars which cannot be opened readily from the inside;
  5. Windows that do not lock or locks that do not function with ease;
  6. Any door that is broken, deteriorated, or otherwise damaged so that it does not provide a sealed entry. Any door which does not shut neatly in order to provide a seal with the passage set or lock set fitting neatly within the strike plates;
  7. Any exterior door which is not solid core, sealed or painted, and which does not have a functioning lockable dead-bolt;
  8. Rotted, deteriorated, or broken thresholds, jambs, frames, trim or other functioning or passive pieces to the door system warrant replacement;
  9. For new construction including reconstruction, windows and/or doors that fail to meet the requirements of the model energy code, as applicable.
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **8.0 Weatherization**

### **8.1 Minimum Weatherization Standards**

- A. All holes, open seams, or other incursions that result in air leaks will be properly sealed.
- B. All windows should be properly sealed with elastic putty or gasket material provided to create a tight seal.
- C. All exterior doors should fit one-eighth (1/8) inch tight without the application of weather stripping. Weather stripping should then be applied to create a tight seal when the door is closed.
- D. All outlets, switches and fixtures that are installed on exterior walls will be insulated.
- E. All exposed plumbing must be freeze protected or insulated to a minimum R-value of 3.5.
- F. All attic spaces must be insulated to a minimum of R-30, when applicable.
- G. Whenever possible, and in new construction, wall insulation must be R-13.

- H. For new construction including reconstruction, homes must meet the Model Energy Code. Builder should provide MECheck 3.0 documentation/form.

## 8.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Air incursion from open holes or seam in exterior walls, windows or doors;
  - 2. Open seams in window casements, doors casements or other installations that create air leaks resulting in heat lose or gain;
  - 3. Missing caulk or putty in windows;
  - 4. Missing weather stripping or other seal at exterior doors;
  - 5. Air leaks from un-insulated outlets, switches or fixtures exposed to exterior walls;
  - 6. Exposed plumbing systems that present freeze hazards or heat loss to hot water pipes;
  - 7. Grossly inefficient heating, cooling or ventilation systems;
  - 8. Inadequate insulation in ceiling;
  - 9. For new construction including reconstruction, homes that fail to meet the Model Energy Code. Builder should provide MECheck 3.0 documentation/form.
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 9.0 Electrical

### 9.1 Minimum Electrical Standards

- A. The minimum electrical service for each dwelling and/or dwelling unit must be 100 amps, or as adjusted and approved, in writing, by the electrical inspector of the city.
- B. Service should be of a three-wire type, with service entry on an approved weatherhead at least twelve (12) feet from grade and not to extend beyond two (2) feet unsupported.
- C. All exposed wiring, service lines and feeders must be protected and properly shielded in approved conduit.
- D. Every habitable room within such dwelling must contain at a minimum, two- (2) separate and remote wall type electric convenience outlets. Habitable rooms over 120 square feet, must contain at a minimum, three- (3) separate and remote wall electric convenience outlets. All newly installed outlets must be of the grounded type. Temporary wiring, extension or zip cords must not be used as permanent wiring.
- E. Every habitable room must have at least one ceiling or wall type electric light fixture, controlled by a wall switch, or a wall type grounded electric convenience outlet controlled by a remote switch.

- F. Every toilet room, bathroom, laundry, furnace room, and hallway (hallway where applicable) must contain at least 1 supplied ceiling or wall type electric light fixture, controlled by a wall switch.
- G. Wherever a service outlet is installed within six feet of standing or running water source measurable to the shortest possible distance, (i.e. the top of tubs or lavatories) a functioning GFCI type outlet will be installed. One ( 1) GFCI outlet must be installed in wall on both sides of kitchen sink.
- H. Every kitchen must be wired to meet the requirements of the National Electrical Code (N.E.C.) based on the size and layout of each individual kitchen.
- I. All heavy-duty appliances (i.e., window air conditioners, freezers, stoves, washers, dryers, microwaves, etc.) must be supplied with its own proper outlets on separate circuits, as applicable.
- J. Receptacle convenience outlets installed in or on open porches, breezeways, garages, utility rooms, etc. must be of the GFI type.
- K. All wall and/or ceiling type lighting fixtures must be controlled by a wall switch.
- L. All electric lighting fixtures installed on the exterior must be of the type approved for exterior use.
- M. All broken and/or missing switch plates and/or receptacle plates must be replaced
- N. All outlets and fixtures must be properly installed, must be maintained in working condition, and must be connected to the source of electric power in a proper manner and must be in accordance with the electrical code of the city and/or the N.E.C., as applicable.
- O. All residential structures shall have U. L. approved “hard wired” smoke detectors or battery operated smoke detectors, properly installed in all bedrooms, halls or in area adjacent to bedrooms.
- P. All work done must be inspected and approved by the electrical inspector of the city.

## 9.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Equipment or wiring which is missing, broken, disconnected, loosely connected, burnt, unsupported, corroded, cracked, split, has evidence of overheating, physical damage, or misuse;
  - 2. Device or equipment is dirty, full of debris, infested etc.;
  - 3. Frayed wiring is present;
  - 4. Unshielded, knob and tube wiring is present;

5. Circuit breaker, switch, receptacle, fixed equipment, wiring or cable is not compatible with the phase, voltage, amperage, or other characteristics of the electricity in use;
  6. Intermittent operation of fixed equipment switches, outlets or other devices;
  7. Flexible cord is used as a permanent wiring method;
  8. Interior wiring is surface mounted and not conduit. This excludes crawl spaces and other allowable installations where access to wiring is limited;
  9. Exterior wiring which is exposed to damp conditions, sunlight or potential damage is not conduit;
  10. Bathroom receptacle, kitchen receptacle located within six feet of a water source, garage receptacle or other outdoor receptacle are not protected by a ground fault interrupting device;
  11. Polarity is reversed in connections or receptacles;
  12. Branch circuits, feeders lines, cable size, device rating, circuit breakers, sub-panels or service panels are inadequate for the load as calculated by the current NEC standard;
  13. Unlabeled circuit breakers;
  14. Circuits that have been expanded past their original design limits;
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **10.0 Lighting**

### **10.1 Minimum Lighting Systems Standards**

- A. At least one overhead or other switch operated lighting must be installed in each interior room.
- B. At least one light must be installed at each exterior door operated by an interior switch that is within reach of the door.
- C. Public halls and stairways in every dwelling containing two (2) to four (4) dwelling units, shall be provided with convenient wall-mounted light switches controlling an adequate lighting system that will provide at least two (2) foot candles of illumination on all parts thereof, and which may be turned on when needed. An emergency circuit is not required for this lighting.
- D. Public hall and stairways in every dwelling containing five (5) or more dwelling units shall be lighted at all times with an artificial lighting system. Said system shall provide at least 2 foot candles of illumination on all parts thereof at all times by means of properly located electric light fixtures, provided, that such artificial lighting may be omitted from sunrise to sunset where an adequate amount of natural light is provided. Whenever the occupancy of the building exceeds one hundred (100) persons, the artificial lighting system as required herein, shall be on an emergency circuit.
- E. The required intensity of illumination shall apply to both natural and artificial lighting.

## 10.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - 1. Missing or dysfunctional overhead or other switch-operated lighting in each interior room;
  - 2. Missing or dysfunctional lighting at each exterior door operated by an interior switch that is within reach of the door;
  - 3. Missing or dysfunctional artificial lighting system.
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 11.0 Water Supply and Wastewater Systems

### 11.1 Minimum Water Supply and Wastewater Systems Standards

- A. Every dwelling unit must be connected to a sanitary water supply and functioning sanitary waste/water disposal system.
- B. Every dwelling unit must contain a room that is equipped with a functioning toilet and a properly installed lavatory. Said lavatory must be properly connected to both hot and cold running water, under pressure, and must be properly maintained in working order. Faucets should be free from leaks or drips and should shut off completely.
- C. Every dwelling unit must contain a bathtub and/or shower. Bathtub and/or shower may be in the same room as the flush water closet and lavatory, or said bathtub and/or shower may be in a separate room. These facilities must be properly connected to both hot and cold running water lines, under pressure, and must be maintained in working order. Faucets should be free from leaks or drips and should shut off completely.
- D. Toilets, bedrooms and bathrooms must have doors with a privacy type lock and such doors, lock and hardware must be operable and maintained in working order.
- E. Every dwelling must have supplied water-heating facilities which are properly installed; are maintained in working condition and free of leaks, are properly connected to any required hot water lines; and, are capable of heating water to be drawn for every bath as well as general usage.
- F. Hot water storage associated with water heating facilities must be not less than thirty (30) gallons for a single-family dwelling. All water heaters must be properly vented and sealed and must be equipped with a pressure relief valve and drip log.
- G. Every kitchen sink, toilet, lavatory basin and bathtub/shower must be maintained in working condition and be properly connected to an approved water and sewer or septic system.
- H. Potable water supply piping, water discharge outlets, back-flow prevention devices or similar equipment must be in serviceable condition free from deterioration, corrosion and blockage and must not be so located as to make possible their submergence in any contaminated or polluted liquid or substance.

- I. The following shut off valves will be installed:
1. One shut off at the meter or supply source,
  2. One owner's shut off at the water line egress to house,
  3. One shut off at each toilet,
  4. One shut off each for hot and cold water at each sink/lavatory.
  5. One supply side shut off at each water heater.
  6. At least one exterior faucet must be installed and all faucets must be freeze protected.
- J. Gas water heaters are prohibited in sleeping rooms, bathroom and clothing closets.

#### 11.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
1. Lack of a continuous sanitary water supply. Where ground wells are used, this source should be approved for drinking or a secondary source of drinking water should be available;
  2. Lack of a continuously functioning sanitary wastewater disposal system;
  3. Missing, dysfunctional or non-existent sanitary facilities including a functioning toilet in a separate room designed for such purposes. The lack of at least one sink and or lavatory for hygiene and at least one sink for kitchen purposes each providing a continuous flow of both hot and cold water. The lack of at least one functional bathing facility;
  4. Deteriorated, rotted, broken or otherwise worn water supply or waste water pipes;
  5. Evident leaks either continuous or intermittent of either waste water or water supply lines. This includes evidence of pooling underground of water mains, sewer feeds or septic drain fields;
  6. Missing or blocked vent pipes;
  7. Missing or dysfunctional shut off valves as referenced in Section 11.1 I above.
  8. The lack of fully functioning faucets at each sink/lavatory, bathtub/shower, and at least one exterior hose bib.
- B. Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## 12.0 Mechanical Systems

### 12.1 Minimum Mechanical Systems Standards

- A. Each dwelling and/or dwelling unit must be supplied with its own heating system.
- B. All heating facilities must be properly installed, be maintained in working condition and be capable of adequately heating all habitable rooms, bathrooms, and toilet rooms contained therein, or intended for use by the occupants thereof, to a temperature of at least 70 degrees F. (21 -degrees C.) at a distance three (3) feet above the floor when the outside temperature is at or below minus 10 degrees F.
- C. Ambient heat must be supplied from an adequate heat source in an adjoining room or hallway;
- D. Every supplied central heating system must comply with all of the following requirements:
  - 1. The central heating unit must be safe and in good working condition.
  - 2. Every heat duct, steam pipe, and hot water pipe must be free of leaks and must function so that an adequate amount of heat is delivered where intended;
  - 3. Every seal between any of the sections of a hot air furnace must be airtight so noxious gases and fumes will not escape into the heat ducts; liner must be installed. The liner must meet or exceed the requirements of the local building/heating code and must be installed according to it.
  - 4. Whenever an existing structure has as its source of central heat the old octopus type conversion furnace, the unit must be inspected by a qualified furnace inspector to determine if the unit is still safe, free from carbon-monoxide leakage and capable of supplying heat as required above.
- E. Every supplied space heater must comply with all of the following requirements:
  - 1. No space heater burning solid, liquid, or gaseous fuels must be of a portable type;
  - 2. Every space heater burning solid, liquid, or gaseous fuels must be properly vented to a chimney or duct leading to outdoor space and must be so installed as to provide proper draft (except when a functioning ODS system and a CO testing device is installed).
  - 3. Every fuel burning space heater must have a fire-resistant panel between it and the floor or floor covering; whenever a space heater is located within two (2) feet of a wall, said wall must be protected with insulation sufficient to prevent overheating of the wall.
  - 4. Every space heater smoke pipe must be of a double walled variety and must be equipped with approved type thimbles or guards, properly constructed of non-flammable material. At the point where the pipe goes through any wall, ceiling, or partition, a protective collar or escutcheon must surround the pipe.
  - 5. Whenever feasible, un-vented freestanding space heaters should be removed and replaced with vented types.
- F. Whenever a dwelling is heated by means of a furnace, boiler or other heating apparatus under the control of the owner or operator, in the absence of a written contract or agreement to the contrary, said owner or operator shall be deemed to have contracted, undertaken, or bound himself/herself to furnish heat in accordance with the provisions of this section to every dwelling unit which

contains radiators, furnace heat, duct outlets or other heating apparatus outlets, and to every communal bathroom, communal toilet room and/or communal laundry located with such dwelling.

1. Every central heating unit, space heater, water heater, and cooking appliance shall be located and installed in such a manner so as to afford protection against involvement of egress facilities or egress routes in the event of uncontrolled fires in the structure(s);
  2. Every fuel burning heating unit or water heater shall be effectively vented in a safe manner to a chimney or duct leading to the exterior of the building. The chimney duct and vents shall be of such a design as to assure proper draft, shall be adequately supported and shall be kept clean and in a state of maintenance and repair;
  3. No fuel burning furnace shall be located in any sleeping room or bathroom unless provided with adequate ducting for air supply from the exterior, and the combustion chamber for such heating unit shall be sealed from the room in an airtight manner.
  4. Every steam or hot water boiler and every water heater shall be protected against overheating by appropriate temperature and pressure limit controls.
  5. Every gaseous or liquid fuel burning heating unit and water heater shall be equipped with electronic ignition or with a pilot light and an automatic control to interrupt the flow of fuel to the unit in the even of failure of the ignition device. All such heating units with plenum shall have a limit control to prevent overheating.
- G. All Texas, 'T' valves should be replaced with approved shut off valves.
- H. All mechanical work must be inspected and approved by the city's local mechanical/heating inspector and/or the building inspection department.

## 12.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
1. The lack of a steady and dependable source of heat which will supply heat to all living areas either directly or indirectly and be able to maintain this heat at least 70 degrees F. in all conditions;
  2. Open flame gas or propane heaters which exhaust fumes to the interior of the living area and are not equipped with an Oxygen Depletion System (ODS). If an open flame type heater equipped with ODS is used, a carbon monoxide detector must be installed;
  3. Leaking damaged or inadequate heat exchange units or venting systems, which create the danger of CO, build up;
  4. Leaking, corroded or damaged gas supply lines;
  5. Texas-T type shut valves;
  6. The lack of a functioning supply shut off valve for each gas or propane device;

7. The lack of a functional pilot or electric starts for each gas or propane device;
8. Ambient heat which is not supplied from an adjoining room;
9. Free standing electric heaters used for sole source of heat.

### **13.0 Water Heaters**

#### 13.1 Minimum Water Heater Standards

- A. All water heaters will have at least thirty (30) gallon capacity; able to supply a continuous flow of hot water of at least 102 degrees F, and properly installed with both gas and or electric shut-off valves as well as cold water supply shut-off valves.
- B. Each unit should be equipped with a functioning pressure release valve (TPL) which must release pressure at 150 P.S.I. and/or 210 degrees F. Water released must be exhausted to the exterior of the building.
- F. Each water heater must be enclosed (except where otherwise permitted by the local code) in a sealed closet designed for this purpose with combustion air drawn from outside the living area). Any gas water heater installed in garage areas will be located at least eighteen (18) inches above the floor in order to prevent combustion of fuel vapors.

#### 13.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  1. Gas water heaters are prohibited in bathrooms, sleeping rooms, and clothing closets;
  2. Missing gas shut off valve;
  3. Missing water supply shut off valve;
  4. Combustion air taken from living area except when adequate air exchange meets local code standards;
  5. Missing or dysfunctional TPL valve. TPL drain should flow at an angle not exceeding horizontal and exhaust flow to exterior of building;
  6. Inadequate exhaust pipe, combustion exhaust should be double walled and skirted at all penetrations;
  7. Storage tanks less than thirty gallons;
  8. Storage tanks that have calcified;
  9. Pipes, nipples or tanks elements that are rusted or corroded.
- B. Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **14.0 Manufactured Housing**

### 14.1 Minimum Manufactured Housing Standards

- A. Construction standards for new manufactured housing units are set by the National Manufactured Housing Construction and Safety Standards Act of 1974, the Texas Manufactured Housing Standards Act (Article 522 IF) and HUD Code Standards 3280 and 3282.
- B. All manufactured housing must be installed on a permanent foundation.
- C. All manufactured homes will be tied down through the installation of approved tie downs adequate to meet state requirements.
- D. All road transport accessories such as wheels, trucks and hitching devices must be removed in order to make installation permanent.

### 14.2 Hazardous and Substandard Conditions

- A. Hazardous conditions must include any condition that threatens the life, health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - I. A manufactured home that is not permanently situated on a permanent foundation;
  - 2. A manufactured home that is not adequately tied down or affixed by an approved tie down system;
  - 3. A manufactured home that has not had its wheels, truck and hitch removed;
- B. Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

## **15.0 Accessibility**

### 15.1 Minimum Standards - Accessibility

- A. All newly constructed housing, including reconstruction, must comply with Texas Accessibility Standards (TAS) but not limited to the following accessible features:
  - 1. At least one no step entry located so that entry can be accessed from the sidewalk or driveway. This entry must have a three (3) feet wide exterior door.
  - 2. Each interior door should have minimum doorway clearance of thirty-two (32) inches. This requires at least a thirty-two (32) inches wide door.
  - 3. Each hallway width should be at least thirty-six (36) inches wide and should be level with ramped or beveled changes at each doorway.
  - 4. Environmental controls, switches and electrical outlets no lower than fifteen (15) inches and no higher than forty-eight (48) inches.
  - 5. Reinforcement of bathroom walls to facilitate the future installation of support railings at the bath and toilet.

- 6. Doors pulls and faucet handles should be of a lever type operable with a closed fist.
- B. All stairways and steps of two (2) or more risers shall have at least one (1) handrail, and all stairways and steps which are five (5) feet or more in width, or, which are open on both sides, shall have a handrail on each side.
- C. All handrails shall be not less than thirty (30) inches vertically above the nose of the stair treads and not less than 36" above the stairway platform.
- D. All balconies and platforms which are thirty (30) inches or more above grade shall have a protective railing not less than thirty-six (36) inches in height above the balcony or platform level.
- E. All multiple dwellings, one (1) and two (2) family residences exempted, shall have a second exit stairway or approved fire escape available to all occupants from the second floor and above of all such structures.
- F. All stairs and steps shall have a rise height of not more than eight (8) inches and a tread with of not less than 9". This requirement may be waived if in an existing structure it would be impossible or cost-prohibitive to meet this requirement. In such cases, new stairs could be installed which have the same rise and run as the old.

**16.0 Architectural Barriers**

16.1 Minimum Standards-- Architectural Barriers

- A. For existing housing, architectural barrier removal or accessible features will be approved, as required, but when installed must meet the following requirements:
- B. All newly constructed ramps will have a maximum slope ratio of 12:1. Ramps will have two handrails and be constructed of a non-skid material. Wooden ramps will be constructed of treated material.

16.2 All newly installed bathroom hand rails will be placed to best meet the needs of resident but will be mounted to a reinforced wall surface or placed so as to be permanently affixed to the wall stud.

**17.0 Lead-Based Paint**

17.1 All homes constructed before January 1, 1978 will be evaluated for lead-based paint hazards.

17.2 A qualified, certified or licensed person as required under the regulations will do evaluation.

17.3 As required under 24 CFR 35, 24 CFR 570.608, 24 CFR 982.401 and 24 CFR 92.355, all lead-based hazards will be identified and reduced through paint stabilization, interim controls or abatement as required.

17.4 Safe work practices will be followed at all times.

17.5 During lead hazard reduction efforts, the work area will be sealed and the family will be protected or relocated as required by the regulations.

17.6 Final Clearance will be achieved on all lead hazard reduction activities as required under the regulations.