

# **Saratoga Estates**

## **Wildland Fire Safe Plan**

**Prepared for:**

**Renasci Development**

**Prepared by:**

**CDS Fire Prevention Planning  
William F. Draper  
Registered Professional Forester  
#898  
4645 Meadowlark Way  
Placerville, CA 95667**

**January 12, 2015**

Saratoga Estates

Approved by:

*Michael L. Lilienthal*  
Michael Lilienthal, DC  
Fire Marshal  
El Dorado Hills Fire Protection District

1-14-15  
Date

*Dario McFarlin*  
Dario McFarlin, FC  
Fire Prevention  
California Department of  
Forestry and Fire Protection

1-14-15  
Date

Prepared by:

*William F. Draper*  
William F. Draper  
RPF# 898

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## **I. PURPOSE AND SCOPE**

Communities are increasingly concerned about wildfire safety. Drought years coupled with flammable vegetation and annual periods of severe fire weather insure the potential for periodic wildfires.

The purpose of this plan is to assess the wildfire hazards and risks of the Saratoga Estates development, to identify measures to reduce these hazards and risks and to protect the native vegetation. There are moderate fuel hazards and moderate topography associated with this proposed development both on and adjacent to the project.

The possibility of large fires occurring when the Saratoga Estates project is complete will be reduced. However, small wildfires in the open space areas may occur due to the increase in public uses.

Incorporation of the fire hazard reduction measures into the design and maintenance of the development will reduce the size and intensity of wildfires and help prevent catastrophic fire losses. State and County regulations provide the basic guidelines and requirements for fire safe standard requirements and defensible space around dwellings. This plan builds on these basic rules and provides additional fire hazard reduction measures customized to the topography and vegetation of the development with special emphasis on the interface of homes and wildland fuels.

The scope of the Saratoga Estates Wildland Fire Safe Plan recognizes the extraordinary natural features of the area and designs wildfire safety measures which are meant to compliment and become part of the community design. The Plan contains measures for providing and maintaining defensible space along roads and around future homes. Plan implementation measures must be maintained in order to assure adequate wildfire protection.

Homeowners who live in and adjacent to the wildfire environment must take primary responsibility along with the fire services for ensuring their homes have sufficient low ignitability and surrounding fuel reduction treatment. The fire services should become a community partner providing homeowners with technical assistance as well as fire response. For this to succeed, it must be shared and implemented equally by homeowners and the fire services.

## **II. FIRE PLAN LIMITATIONS**

The Wildland Fire Safe Plan for the Saratoga Estates development does not guarantee that wildfire will not threaten, damage or destroy natural resources, homes or endanger residents. However, the full implementation of the fire safe standard requirements will greatly reduce the exposure of homes to potential loss from wildfire and provide defensible space for firefighters and residents as well as protect the native vegetation. Specific items are listed for homeowner's attention to aid in home wildfire safety.

### III. THE SARATOGA ESTATES WILDLAND FIRE SAFE PLAN

#### 1. PROJECT DESCRIPTION

The Saratoga Estates development is located within the unincorporated community of El Dorado Hills and on the western edge of El Dorado Hills at the El Dorado-Sacramento County line on a generally southern facing hillside with slopes up to approximately 20% and lies just north of Highway 50. Saratoga Way will be extended to Empire Ranch to form the southern border. Wilson Way will extend from the north and connect to Saratoga Way. This project will divide APN: 120-070-021 consisting of 121.95 acres into 316 residential lots. There are open space lots surrounding the project area on three sides and running down through the development along the stream channel. There are 3 parks. They are located near the northeast corner and southeast corner along Wilson Way and near the center of the project (Lots C, F, I). The interior roadways going through this development are to be 24' wide curb face to curb face allowing for parking on one side of the street. All the streets shall have rolled curbs. The key topographic feature is the stream channel and riparian zone running from north to south through the project area. The development is on slopes.

Structural fire protection is provided by the El Dorado Hills Fire Department and wildland fire protection by the California Department of Forestry and Fire Protection (CAL FIRE). A fire hydrant system will serve the new area. Water is to be supplied by El Dorado Irrigation District (EID).

#### 2. PROJECT VEGETATION (FUELS)

For wildfire planning purposes the vegetation is classified as follows:

- (a) ground fuels- annual grasses, elderberry, blackberries, cattails, and down limbs (Brush)
- (b) overstory- scattered oaks in the open space on the east side

Light fuel loading is throughout the majority property. The riparian zone along the stream channel has pockets of blackberries and cattails and an occasional willow tree. The Promontory has an open space adjacent to the west border of the development. The open space area surrounding the perimeter is primarily grass and two large oaks and brush along the eastern edge.

#### 3. PROBLEM STATEMENTS

##### **A. The grass/brush fuels will ignite and have a rapid rate of spread.**

Fire in the grass/brush fuels on the slopes of the development are the most serious wildfire problem for this project.

##### **B. Risk of fire starts will increase with development.**

The greatest risk from fire ignition will be along roads, in the open space areas and on large lots as human use on these areas increase.

##### **C. Provisions must be made to maintain all fuel treatments.**

The wildfire protection values of fuel reduction are rapidly lost if not maintained. Annual maintenance by June 1 of each year is necessary.

**D. Typical home design and siting often does not recognize adequate wildfire mitigation measures.**

A review of many wildfires has conclusively shown that most home losses occur when: (1) there is inadequate clearing of flammable vegetation around a house, (2) roofs are not fire resistant, (3) homes are sited in hazardous locations, (4) firebrand ignition points and heat traps are not adequately protected and (5) there is a lack of water for suppression.

**4. GOALS**

- A. Modify the continuity of high hazard vegetation fuels.
- B. Reduce the size and intensity of wildfires.
- C. Ensure defensible space is provided around all structures.
- D. Design fuel treatments to minimize tree removal
- E. Ensure fuel treatment measures are maintained.
- F. Identify fire safe structural features.
- G. Help homeowners protect their homes from wildfire.

**5. WILDLAND FIRE SAFE STANDARD REQUIREMENTS**

Wildland fire safe standard requirements are designed to accomplish the Goals by providing and maintaining defensible space and treating high hazard fuel areas. Fire hazard severity is reduced through these fire safe standard requirements. The Wildland Fire Safe Plan places emphasis on defensible space around structures.

**Saratoga Estates**

A total of 316 lots are planned for this development. There will be a narrow open space along the west side (Lot A) and a portion of the north side (Lot B). There is a large open space on the south side between Saratoga Way and backing up to by residential lots (Lots E, M). Lots J, K and L will be open space along the east side of Wilson Way. There will be a need for nonflammable fencing along all the open space areas that back up to lots. Most of the open space areas are on slopes and have flashy grass fuel. Fuel treatment within the open spaces shall be for the entire open space area. Sidewalks and landscaped front yards will provide for the fuel hazard reduction zones along most of the interior roads. The new streets shall have rolled curbs to provide added width for vehicle passage on the roadway. Streets without sidewalks shall have a fuel hazard reduction zone (FHRZ) of 10'. This zone may incorporate the landscaping of frontyards. All fuel hazard reduction zones shall be annually maintained. The roads shall conform to El Dorado Transportation Division (TD) specifications. The roads are yet to be named.

The stream channel that parallels Wilson Way (Lots B, D) and runs the length of the project area shall have an untreated riparian zone of 20 feet on both sides of the channel. The remaining open space area leading up to the backyards and edge of Wilson Way shall be treated according to Fuel Hazard Reduction (FHRZ) Standards for open space. The FHRZ along the back of all the lots in this development that are adjacent to the open space shall be the entire width of the open space (Lots A, E, J, K, L) due to the slopes and flashy fuels. Lots C, F and I are to be landscaped.

The project is in a Moderate Fire Hazard Severity Zone. All residences shall be required to have NFPA 13D fire sprinkler systems. Implementation of Wildland-Urban Interface Fire Area Building Standards will be required for the construction of new residences. These standards address roofing, venting, eave enclosure, windows, exterior doors, siding, and decking.

Clearance along the road and around structures is very important and necessary. Fire Safe specifications state that all trees in the fuel hazard reduction zones shall be limbed so that branches on the trees are not touching the ground and be pruned up 10 feet as measured on the uphill side of the tree. Grass shall be kept mowed to a 2 inch stubble annually by June 1.

**More restrictive standards maybe applied by approving El Dorado County authorities. Approval of this plan does not guarantee approval of this project.**

### **FIRE SAFE STANDARD REQUIREMENTS:**

- **Driveways shall be 12 feet wide. Driveways shall comply with the weight and grade standards.**
  - a. **Responsibility- homeowner**
- **All private driveway gates shall be inset on the driveway at least 30 feet from the road. Gate opening shall be 2 feet wider than the driveway. Knox lock assess shall be provided to the fire department.**
  - a. **Responsibility- homeowner**
- **All homes shall have Class A listed roof and assembles and siding of fire resistant material.**
  - a. **Responsibility- builder/homeowner**
- **Decks that are cantilevered over the natural slope shall be enclosed.**
  - a. **Responsibility- homeowner (See Appendix C for guidelines)**
- **The houses shall be constructed with exterior wall sheathing that shall be rated noncombustible.**
  - a. **Responsibility-builder**
- **Windows and glass doors on the sides of the structure shall have tempered glass and fire resistant frames.**
  - a. **Responsibility-builder**
- **Rafter tails shall be enclosed with noncombustible material on the sides of the structure.**
  - a. **Responsibility-builder**
- **Gutters and downspouts shall be noncombustible.**
  - a. **Responsibility-builder**
- **Attic and floor vents shall be covered with ¼ inch, or less, noncombustible mesh and horizontal to the ground.**

**a. Responsibility-builder**

- **The fire department shall review the Wildland Fire Safe Plan within 5 years to determine its adequacy. It may require modification as necessary.**
  - a. Responsibility- fire department**

**6. OTHER FIRE SAFE REQUIREMENTS**

- A. A Notice of Restriction shall be filed with the final subdivision map which stipulates that a Wildland Fire Safe Plan has been prepared or if a legal entity, Homeowners Association (HOA) is created the recorded Declaration of Covenants, Conditions and Restrictions (CC&R) shall include the Wildland Fire Safe Plan. The property owners and the HOA shall comply with the requirements of the Wildland Fire Safe Plan.**
- B. A copy of the Wildland Fire Safe Plan shall be given to each new landowner within the development.**
- C. Each new property owner prior to construction shall be required to contact El Dorado Community Development Agency/Building Division to have the residential fire sprinkler plan approved. All fire sprinkler systems shall be designed and installed by a licensed contractor.**
- D. Road improvements and fire hydrants shall be completed prior to the filing of the final map or bonding for the associated improvements through the local agencies.**
- E. The project shall meet all the Public Resource Codes 4290 as amended (the 1991 SRA Fire Safe Regulations- Article 2 Access, Article 3 Signing, Article 4 Water, Article 5 Fuels), County and Fire Department ordinances.**
- F. The fire hydrant system shall meet the California Fire Code specifications to water volume, pressure and spacing.**
- G. The homeowner/property owner is responsible for any future fire safe or building code changes adopted by the State or local authority.**
- H. Fuel treatment along subdivision streets and driveways shall have all fuels within 10 feet of the curb of the street treated annually by June 1 (See Appendix A).**
- I. The fuel hazard reduction zone along streets may incorporate irrigated landscaping providing the planting is less than 24" in height and has low flammability.**
- J. Clearance requirements may be required by El Dorado County at the time of construction.**



- K. All roads less than 24 feet wide curb face to curb face shall be posted “No Parking”.
- L. Residential construction contractors may be required to submit a parking plan to El Dorado Hills Fire Department to insure off street parking during construction.
- M. Fencing adjacent to open space shall be constructed from nonflammable material.
- N. The El Dorado Hills Fire Department Weed Abatement ordinance shall apply to any vacant lot.

## **8. OPEN SPACE GUIDELINES**

- A. Remove all dead trees and limbs within 100’ of all property lines (outer and inner lines).
- B. Remove all dead limbs from live trees that are within 10’ of the ground.
- C. Limb all trees within 30’ of the property lines at least 10’ above the ground as measured on the uphill side of the tree.
- D. The Fuel Hazard Reduction Zone (FHRZ) shall be from the development property line to the residential lot line or the edge of the roadway. It shall also be 20’ from the centerline of the stream channel.
- E. Annually by June 1 cut or remove all grass and brush to a 2” stubble within the FHRZ along the property lines adjacent to the residential lots and along streets.
- F. Any trails shall have a 10’ fuel hazard reduction zone along each side of the trail. The zone shall be annually maintained by June 1.
- G. Open space areas shall comply with the Weed Abatement Resolution of the Fire District.
- H. All access points to open space shall have rolled curbs and be posted “No Parking” to allow fire vehicle access. A lockable barrier (knock down bullard) may be installed after consultation with the Fire District.
- I. Mature or multi stemmed oaks can present a serious wildfire problem if untreated. Treat the oaks as to the following specifications: (a) remove all dead limbs and stems and (b) cut off green stems at 10’ above the ground that arch over and are growing down towards the ground. Measure from the uphill side of the tree to determine the appropriate height.

## **E. Appendix**

**APPENDIX A**

**SARATOGA ESTATES**

**FUEL TREATMENT SPECIFICATIONS**

**For**

**OAK WOODLAND**

**Within The Designated Fuel Treatment Areas**

1. Leave all live trees where possible.
2. Remove all dead trees.
3. Remove all brush.
4. Prune all live trees of dead branches and green branches 10 feet from the ground as measured on the uphill side of the tree, except no more than 1/3 of the live crown is removed. All slash created by pruning must be disposed of by chipping or hauling off site.
5. Annually by June 1, reduce the grass or weeds to a 2 inch stubble by mowing, chemical treatment, disking or a combination of treatments.

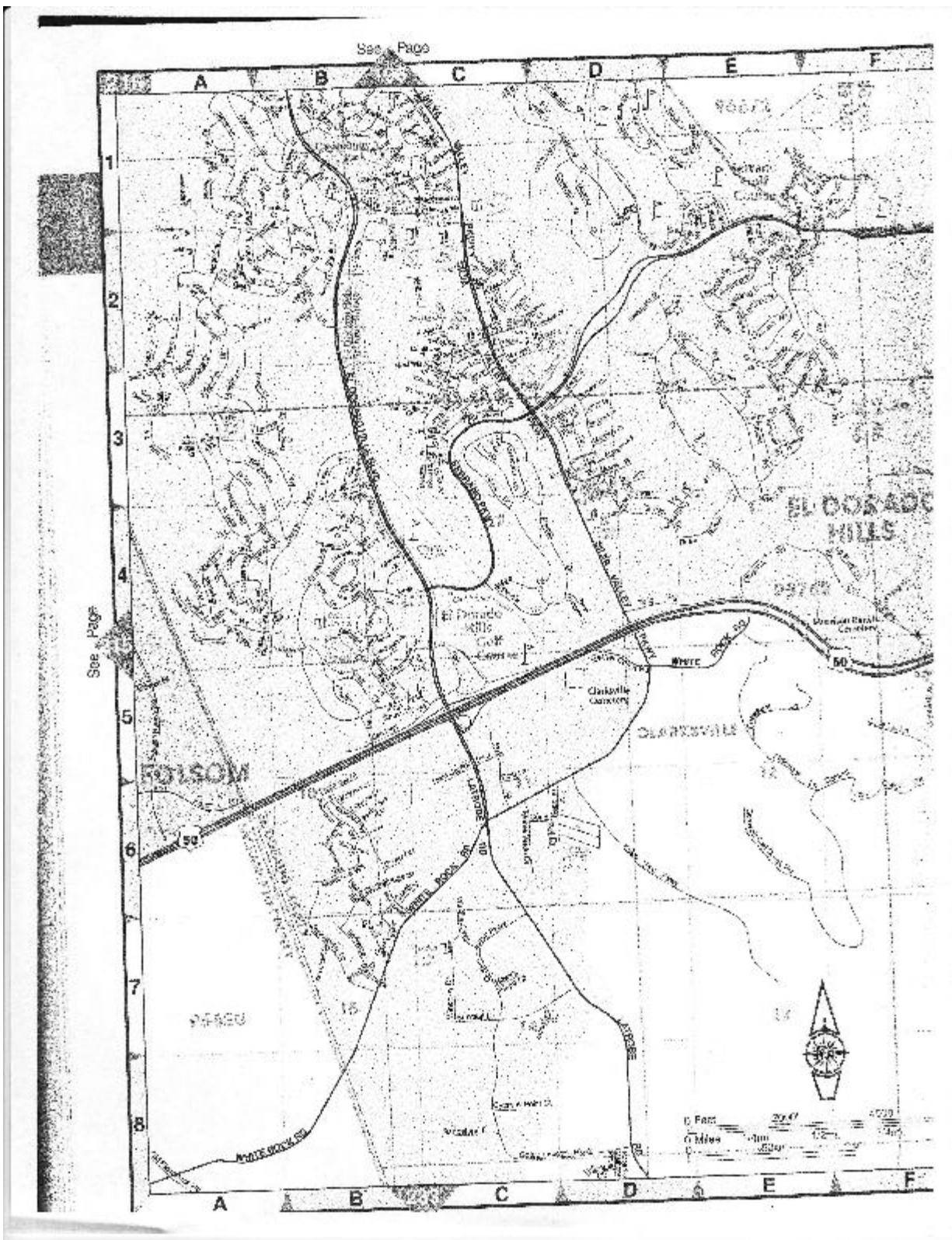
**APPENDIX B**

**SARATOGA ESTATES**

**ENCLOSED DECK GUIDELINES**

The purpose of enclosing the underside of decks that are cantilevered out over the natural slope is to help prevent heat traps and fire brands from a wildfire igniting the deck or fuels under the deck.

1. Does not apply to decks that are constructed using fire resistant materials such as concrete, steel, stucco etc.
2. Any deck shall not include non fire rated composite deck material.
3. This applies to decks one story or less above natural slopes.
4. Combustible material must not be stored under the deck.



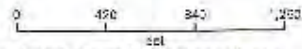
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Map displayed in High Plane Coordinate System (NAD 1983 California Zone 2, feet)





State of California  
Department of Forestry and Fire Protection

## NOTICE OF FIRE HAZARD INSPECTION

A representative from CAL FIRE has inspected your property for fire hazards. You are hereby notified to correct the violation(s) indicated below.  
**Failure to correct these violations may result in a citation and fine.**

Occupant:		Physical Address:			Phone #:	
Occupant Not Home: 1 <sup>st</sup> Attempt: / /	Occupant Not Home: 2 <sup>nd</sup> Attempt: / /	Refused Inspection: / /	For Questions, Contact Inspector at: ( ) - ( ) - ( )		Battalion #:	
Roof Construction Combustible/Non-Combustible	Exterior Siding Combustible/Non-Combustible	Window Panes Single Pane/Double Pane	Decks Finished/Unfinished	Decks or Porches Masonry/Composite/Wood	Location of Structure Flat, Ground/Slope/Ridge Top	

	<b>Corrected:</b>	<b>Defensible Space Zone (within 30 feet of all structures or to property line):</b>	
<input type="checkbox"/>	2 3	A.	Remove leaves, needles or other vegetation on roofs, gutters, decks, porches and stairways etc. PRC §4291(a)(6)
<input type="checkbox"/>	2 3	B.	Remove all dead trees, shrubs or other plants adjacent to or overhanging buildings. PRC §4291(a)(5)
<input type="checkbox"/>	2 3	C.	Remove all dead or dying branches and stems from trees, shrubs or other plants adjacent to or overhanging buildings. PRC §4291(a)(5)
<input type="checkbox"/>	2 3	D.	Remove all branches within 10 feet of any stovepipe or chimney outlet. PRC §4291(a)(4)
<input type="checkbox"/>	2 3	E.	Remove all dead or dying grass, leaves, needles or other vegetation. PRC §4291(a)(1)
<input type="checkbox"/>	2 3	F.	Remove or isolate live flammable ground cover and shrubs (i.e. Bear Clover, Mountain Misery, Juniper etc.). PRC §4291(a)(1)
		<b>Reduced Fuel Zone (within 30 - 100 feet of all structures or to property line):</b>	
<input type="checkbox"/>	2 3	G.	Mow dead or dying grass to a maximum of 4 inches in height. Trimmings may remain on the ground. PRC §4291(a)(1)
<input type="checkbox"/>	2 3	H.	Live flammable ground cover less than 18 inches in height (i.e. Mountain Misery, Bear Clover etc.) may remain, but overhanging and adjacent trees must be pruned up to 15 feet. PRC §4291(a)(1)
<input type="checkbox"/>	2 3	I.	Reduce fuels in accordance with the Continuous Tree Canopy Standard (see back). PRC §4291(a)(1)
<input type="checkbox"/>	2 3	J.	Reduce fuels in accordance with the Horizontal Spacing Standard (see back). PRC §4291(a)(1)
		<b>Defensible and Reduced Fuel Zone (within 100 feet of all structures or to property line):</b>	
<input type="checkbox"/>	2 3	K.	Logs or stumps embedded in the soil must be removed or isolated from structures and other vegetation. PRC §4291(a)(1)
<input type="checkbox"/>	2 3	L.	Remove all dead or dying brush, trees and branches within 15 feet of the ground. PRC §4291(a)(1)
		<b>Other Requirements:</b>	
<input type="checkbox"/>	2 3	M.	Clear dead, dying or flammable vegetation within 10 feet around and above propane tanks. CFC §3807.3
<input type="checkbox"/>	2 3	N.	Address numbers shall be displayed in contrasting colors (4" Min. Size) and readable from the street or access road. CFC §505.1
		<b>Other Recommendations:</b>	
<input type="checkbox"/>		Cover all chimney or stovepipe openings with a metal screen having openings no larger than 1/2 inch.	
<input type="checkbox"/>		Clear 10 feet around and 15 feet above fuels (i.e. Woodpiles, lumber, scrap etc.). Move woodpiles as far as possible from structures.	
<input type="checkbox"/>		Remove flammable materials stored under decks and similar overhangs of structures.	
<input type="checkbox"/>		Clear vegetation 10 feet from sides and 15 feet above all driveways and turnaround areas.	

Checked boxes indicate violations.

Recommendations:

**Comments:**

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Additional Information on Back

Complete only if occupant contacted

1. Inspector: _____	Date: / /	A re-inspection will occur on/after: / /
2. Inspector: _____	Date: / /	A re-inspection will occur on/after: / /
3. Inspector: _____	Date: / /	

AEU 02/09

(White-Inspector, Canary-1<sup>st</sup> to Occupant, Pink-2<sup>nd</sup> to Occupant, Gold-3<sup>rd</sup> to Occupant)