

# Fire Scene Documentation

Fire Marshal Inservice Training  
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*Fire & Explosion Investigation Unit*

## FIRE SCENE DOCUMENTATION

### WHY DO WE DOCUMENT?

- Document the scene in order to recall observations at a later date.
- Document conditions of the scene.
- Compile factual data which will support opinions and conclusions.

# **FIRE SCENE DOCUMENTATION**

**Compilation of factual data from a thorough & accurate documentation of the scene is critical.**

**This is where the investigative opinions and conclusions will be developed and supported.**

## **QUESTIONS**

- **Date and Time of the Incident/Investigation**
- **Location of the Incident**
- **Description of Fire Scene**
- **Exterior to Interior**
- **Least to Most**
- **Room of Origin**
- **Area of Origin**
- **Potential Ignition Sources**

# **FIRE SCENE DOCUMENTATION**

**Common methods for  
documenting the scene include:**

**Written Notes**

**Photographs**

**Video**

**Sketch Maps**

## **NOTE TAKING**

**Written notes should document:**

- **Activities at the scene**
- **Observations you made at the scene**
- **Anyone you encounter at the scene  
(Witnesses/Occupants/First in Firefighters, etc.)**

# NOTE TAKING

## Written Notes Help to:

- **Write your report**
- **Answer questions about the incident and how the investigation was conducted**
- **Recall the case and prepare for testimony**

# NOTE TAKING

- **Witnesses**
  - Name**
  - Date of Birth**
  - Address**
  - Phone Number**
  - Information they provide**
- **Structure Description**
- **Scene Examination**

## NOTE TAKING

### Written Field Notes

Save or Destroy?

Retain?

Where?

How Long?

## PHOTOGRAPHS

### Why Photograph?

**To document the fire scene and provide a TRUE and ACCURATE representation of the scene that will allow investigators to recall and communicate their observations at a later date.**

## PHOTOGRAPHS

- Still photographs are the most effective and reliable method to document a scene
- Still photographs can be brought into the court room and shown to the jury as evidence and documentation of the condition and exact location of evidence

## PHOTOGRAPHS

- **A picture is worth 1000 words**
- **Visual images can portray the scene better than words**
- **Patterns and items overlooked at the scene may become more evident in photographs**
- **Photographs can substantiate reports**

# PHOTOGRAPHS

## WHAT TO PHOTOGRAPH

**Overall Scene View from Various Angles to identify:**

- **Suspicious Vehicles**
- **Onlookers or Spectators**

**In larger fires that may draw a crowd of onlookers or spectators, take photographs of the crowd to later identify persons who may have knowledge of the fire**

# PHOTOGRAPHS

## WHEN TO PHOTOGRAPH

**The fire scene should be photographed  
PRIOR TO, DURING and AFTER  
the scene examination**

# PHOTOGRAPHS

## How Many Photos Should We Take?

- **As many photographs as are necessary to adequately document the scene**
- **More are better than less...Remember, once you leave the scene you may never be able to go back.**

# PHOTOGRAPHS

Take photographs **DURING or AS SOON AS POSSIBLE** after the fire.

Important because the scene may become altered, disturbed or destroyed:

1. **Building in danger of collapse/demolition**
2. **Conditions may create an environmental hazard that will hinder the investigation**
3. **Evidence/Fire Debris should be documented in layers as it is discovered (Archaeological Dig Theory)**

# FIRE SCENE DOCUMENTATION

- ➔ The fire in progress
- ➔ Fire suppression activities
- ➔ The crowd
- ➔ Fire Suppression Photographs
- ➔ All angles & corners of exterior
- ➔ Structural damage
- ➔ All exterior walls - regardless of burn damage



1009 hours

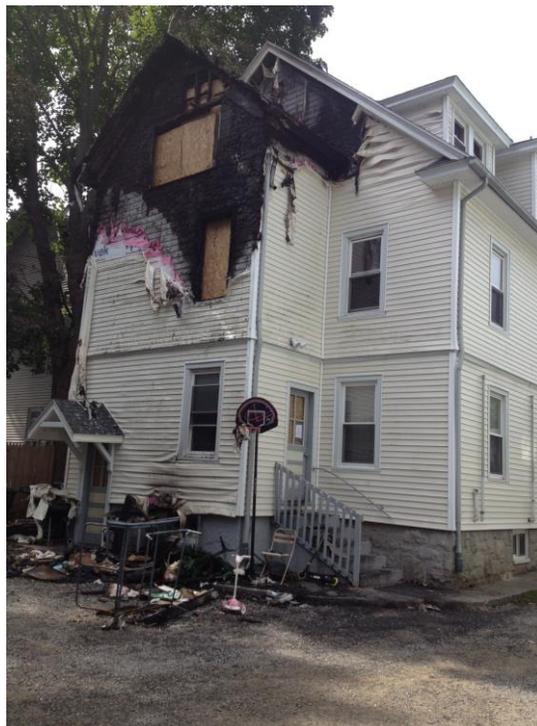


1010 hours



1014 hours







## **SCENE DOCUMENTATION**

- Aerial Views**
- Witness Viewpoint**
- Utilities**
- Evidence**
- Burn Patterns**

## AERIAL VIEWS



## WITNESS VIEWPOINT

**A photograph taken from the same vantage point as a witness who observed the fire to support or refute their credibility**

## PHOTO LOG

- **A Detailed Photo Log should be recorded at the scene while taking the photographs to include:**
  - **Description of each photo**
  - **Compass Direction to orient photo**

## EXTERIOR PHOTOGRAPHS

**Photograph the EXTERIOR of the structure first**

**A minimum of 8 Exterior Shots from various angles**

- **All 4 Sides**
- **All 4 Corners**

## **EXTERIOR PHOTOGRAPHS**

**Start at front of structure and move in a clockwise or counterclockwise direction and work back to the starting point**

**Move in the same direction each and every time**

## **EXTERIOR PHOTOGRAPHS**

### **Fire Damage to Exterior**

- **Burn Patterns/Damage/Lack of Damage**
- **Last exterior Photograph should be point of entry**

## Take a "Title Shot"

- **Incident Number**
- **Date/Time**
- **Location**
- **Photographer**
- **Orientation of Structure (Compass Direction)**



## EXTERIOR PHOTOGRAPHS

- **Real Estate View**
  - **Street Signs**
  - **Mailboxes**
  - **Numeric Identifiers**



## **EXTERIOR PHOTOGRAPHS**

**Photograph utilities on the exterior of the structure**

- Overhead Electric Service Drops**
- Electric Service Meters**
- Gas Meters**
- Propane/Gas Tanks**

## **EXTERIOR PHOTOGRAPHS**

**Photograph any physical evidence that may be located on the exterior of the structure**

- Graffiti or Tagging**
- Broken Glass from Doors or Windows**
- Burn or Pour Patterns**
- Evidence of Incendiary Devices**

## **EXTERIOR PHOTOGRAPHS**

**Photograph surrounding areas that may represent remote evidence or explain prolonged / hindered fire suppression activities**

- Limited Scene Access**
- Exposure Damage**

## **EXTERIOR PHOTOGRAPHS**

**The Conditions of Doors and Windows should be documented**

- Open / Closed**
- Locked / Unlocked**
  - Locking/Latching Mechanisms**
- Intact / Broken**
- Forced Entry / Pre-Existing Damage**

## EXTERIOR PHOTOGRAPHS

### Debris located outside the Building

- Fire Debris from inside the building that was removed during overhaul
- Glass from windows and doors  
(Pick it up and examine it)

## EXTERIOR PHOTOGRAPHS

### GLASS



## **EXTERIOR PHOTOGRAPHS**

- **Physical Evidence**
  - Containers
  - Ignition Sources
  - Incendiary Devices
  - Footprints
  - Tire Tread Impressions

## **EXTERIOR PHOTOGRAPHS**

### **Physical Evidence**

**Any other physical evidence that may have been left by a suspect or anyone who was at the fire scene**

## **EXTERIOR PHOTOGRAPHS**

- **Utilities (Electric)**

- Transformers
- Poles
- Service Entrances
- Meters
- Exterior Panels/Switches
- Telephone/Cable Services

## **EXTERIOR PHOTOGRAPHS**

- **Utilities**

- Gas
- Meters/Tanks
- Oil Fill Pipes
- Water Service
  - Garden Hoses

## **EXTERIOR PHOTOGRAPHS**

### **Outbuildings**

- Proximity to the structure**
- Exposure Damage**
- Contents of the outbuilding**

## **EXTERIOR PHOTOGRAPHS**

- Trash Receptacles**

**Contents of:**

- Trash Cans**
- Dumpsters**



## **EXTERIOR PHOTOGRAPHS**

### **Vehicles**

- Parked near the structure**
- License Plates**
- Interior Contents**
- Damage**

## **INTERIOR PHOTOGRAPHS**

**INTERIOR Photographs should begin  
in the area of LEAST damage  
and proceed to areas of  
MOST damage,  
ending in the Area of Origin**

## **INTERIOR PHOTOGRAPHS**

**Interior Photographs should be taken  
after the fire suppression activities  
have concluded, prior to any major  
overhaul or a layered scene  
examination begins**

## **INTERIOR PHOTOGRAPHS**

### **REMEMBER...**

**Photograph 6 sides of a room  
to include the walls, floor  
and ceiling and 2 sides of each door**

## **INTERIOR PHOTOGRAPHS**

**Photographs should be taken throughout the entire structure to document:**

- The condition of the structure after fire suppression**
- The remaining contents and their condition**
- Undamaged Areas**
- Smoke and Burn Patterns to show the progression of the fire**
- Area of Origin**

## **INTERIOR PHOTOGRAPHS**

**In an undamaged room, it is only necessary to document that the room did not receive smoke, fire or water damage.**

**2 photographs may be sufficient**

## **INTERIOR PHOTOGRAPHS**

**Photographs should be taken:**

- **Prior to the removal of debris and furnishings**
- **During the layered removal of debris**
- **After debris has been cleared the floor is exposed / washed down**
- **After the room has been reconstructed with remaining furnishings**

## **INTERIOR PHOTOGRAPHS**

### **SEQUENTIAL PHOTOGRAPHS**

**When an Area of Origin is identified, photographs should be taken in sequential order, first from a distance and then increasing closer until possible ignition sources are identified and documented with a close-up photograph**

## **INTERIOR PHOTOGRAPHS**

**Possible Ignition Sources that are  
identified in the Area of Origin  
that have been considered and ELIMINATED  
should be documented with photographs**

## **INTERIOR PHOTOGRAPHS**

**Close-up photographs of suspected  
ignition sources should be taken**

- From various angles**
- With and Without a Scale**

## **INTERIOR PHOTOGRAPHS**

### **Photograph Utilities and Appliances**

- Circuit Breaker Panel**
- Heating System / Positions of Switches**
- Water Heater**
- Electrical Appliances / Outlets**

## **INTERIOR PHOTOGRAPHS**

### **Photograph Fire Protection Systems**

- Smoke Detectors**
- Alarm Systems**
- Sprinkler Systems**
- Fire Extinguishers**

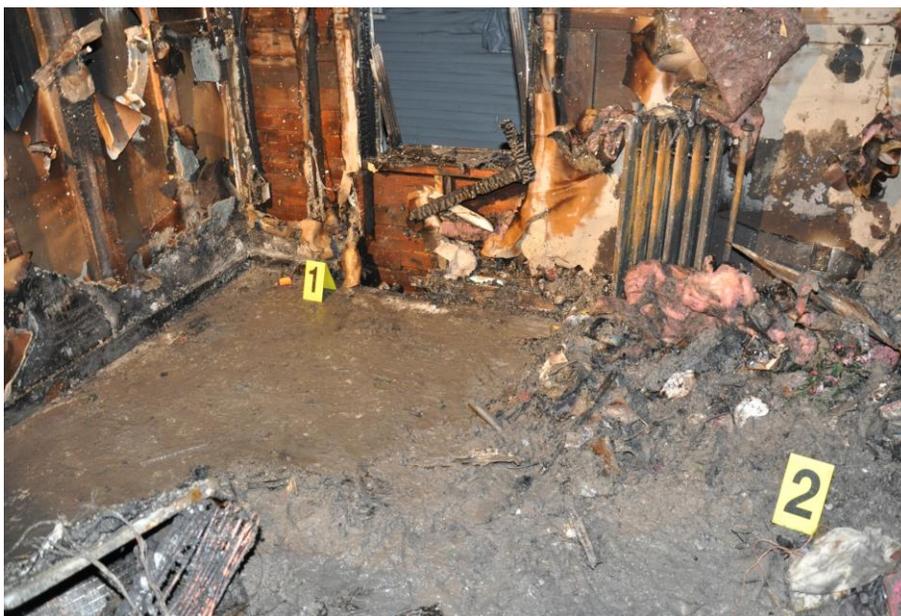
# Documenting Evidence Collection

**When potential evidence is identified and seized, several SEQUENTIAL photographs should be taken to document:**

- The item in its original position found
- The item with a scale
- The item with an evidence number
- The item after packaged as evidence with the can lid open and tools and









# VICTIM PHOTOGRAPHS

## Deceased or Injured Victims

- **Location Found**
- **Both Sides of body**
- **Facial Area (Mouth and Nasal Areas)**
- **Hands**
- **Protected Areas**
- **Body Outlines**
- **Clothing**



## **PHOTOGRAPHY CAUTIONS**

**Avoid photographing people  
inside the actual fire scene**

- Other Investigators**
- Fire Personnel**
- Police Personnel**
- Occupants**
- Witnesses**

## **PHOTOGRAPHY CAUTIONS**

**Avoid photographing items that do not  
belong in the scene and that were  
not there at the time of the fire**

- Fire Suppression Equipment**
- Investigation Tools**

## PHOTO REPORT

**Upon return of the photographs, a detailed photograph report should be completed and submitted with the actual photographs:**

- Photographer**
- Date / Time / Location Photos Taken**
- Camera Used**
- Refer to Photograph Numbers**
- Describe the Photograph in Detail**

## VIDEO

**VIDEO CAN BE VERY USEFUL. HOWEVER, VIDEO SHOULD ALWAYS BE USED IN CONJUNCTION WITH STILL PHOTOGRAPHY**

- Video documentation should not replace still photography because it is considered:**
  - Less Objective**
  - Less Reliable**

## **VIDEO CAUTION**

- **Clear the scene prior to videotaping**
  - **Eliminate all background noise and other people talking.**
    - **Someone may say something that should not be said.**
- **Mark CD (Case #, Address, Name, Date)**
- **Prevent over-recording (Use CD-R)**
- **Videotape process similar to that of photography (Exterior to Interior, Least to Most)**

## **SKETCH MAPS**

**The most common sketch of a fire scene used by a fire investigator is a top view/projection plan**

### **BIRD'S EYE VIEW**

# MEASUREMENTS

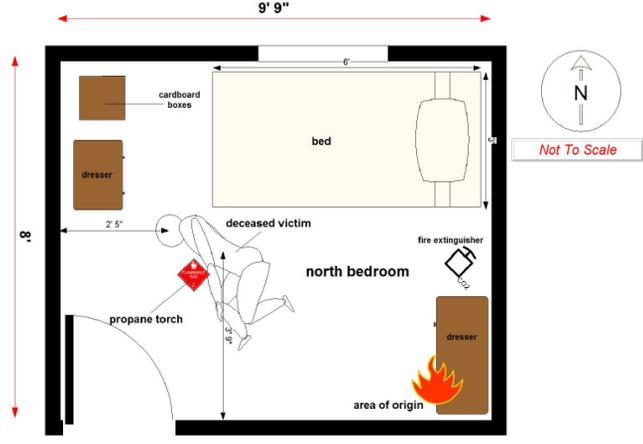
- **Measurements should be accurate and taken with a standard unit of measure**
  - Feet and Inches
  - Meters and Centimeters
- **Methods of Measurement can include**
  - Coordinate System
  - Baseline System
  - Angular Displacement System

To ensure intelligibility & acceptability as evidence every sketch must include:

- **Investigators name, rank, agency, & date & time the sketch was prepared.**
- **Case Number of incident**
- **Names of all persons involved in making the sketch or assisting in measurements.**
- **Address or location of the crime scene**
- **Geographical orientation (compass marking)**
- **Legend that includes: meaning of all symbols used,**
  - a numbered list of numbers or letters used to denote items of interest & their meanings, and
  - a scale of the drawing, or “Not to Scale”

	DATE 06/04/2015	BUILDING	PREPARED BY Det. Richard Gregory #1380
	LOCATION 43 Castle Road	Bethel	CT 06801
	NEAREST CROSS STREET	LATITUDE	LONGITUDE

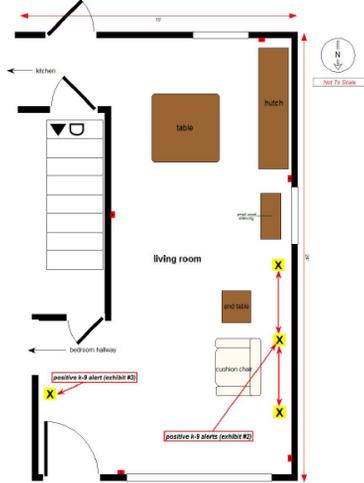
**Case # 1500327287**



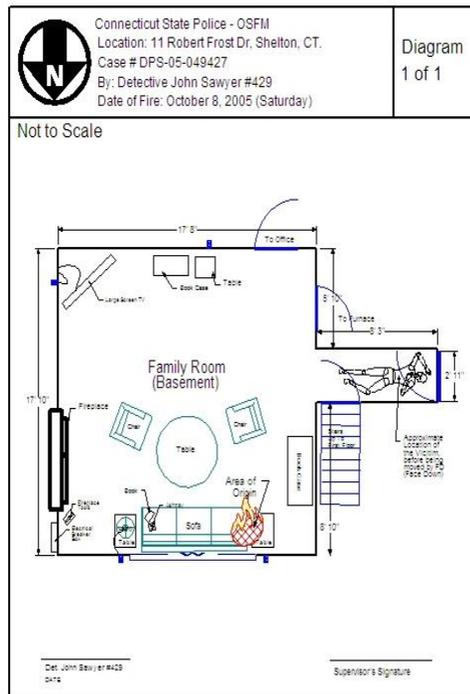
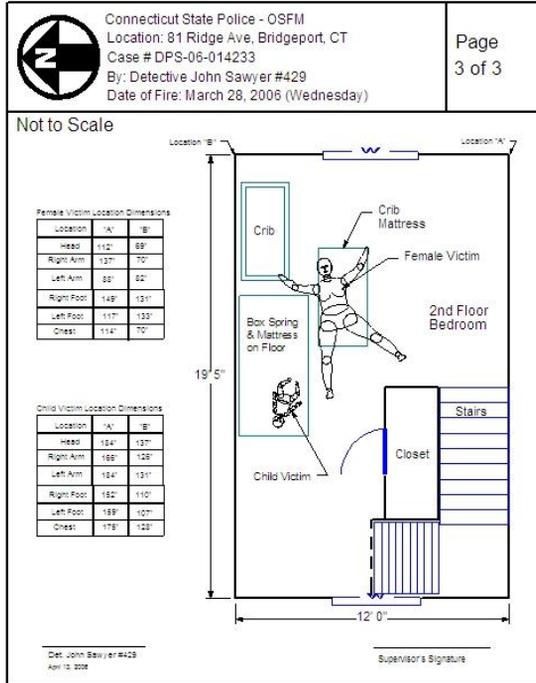
Detective Richard Gregory #1380 \_\_\_\_\_  
Sergeant William Bundy #103 \_\_\_\_\_

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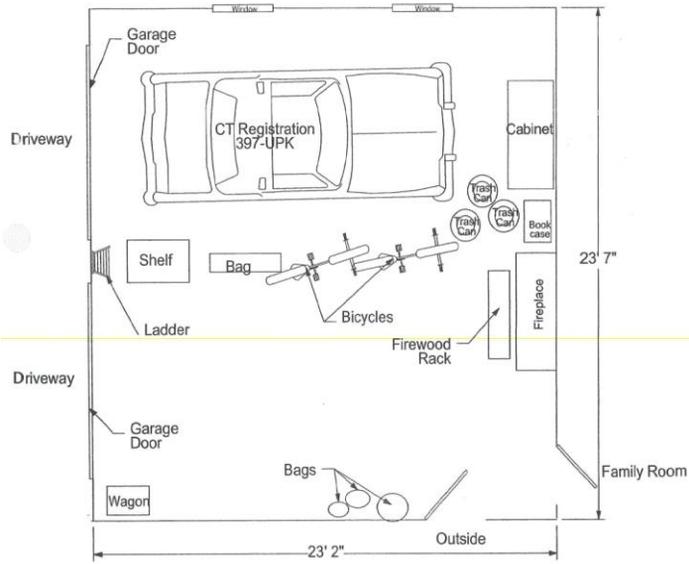
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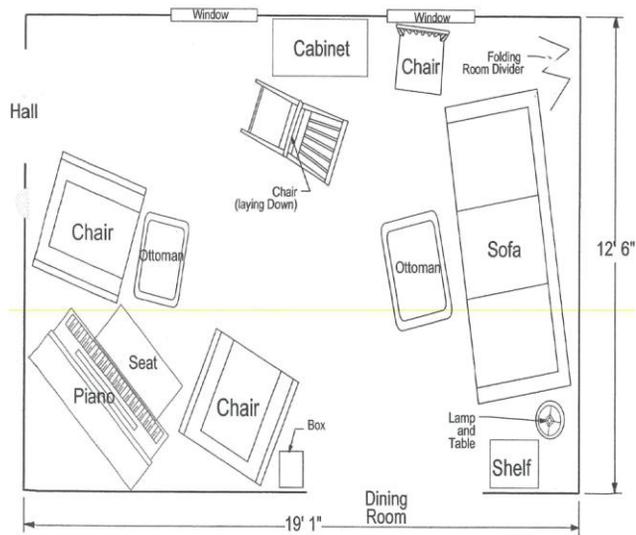
Detective Richard Gregory #1380 \_\_\_\_\_  
Sergeant William Bundy #103 \_\_\_\_\_



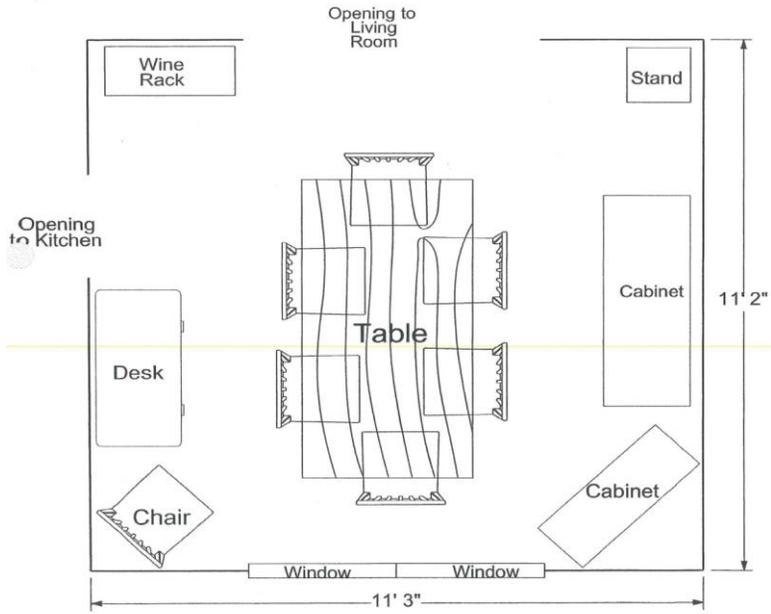
# Garage



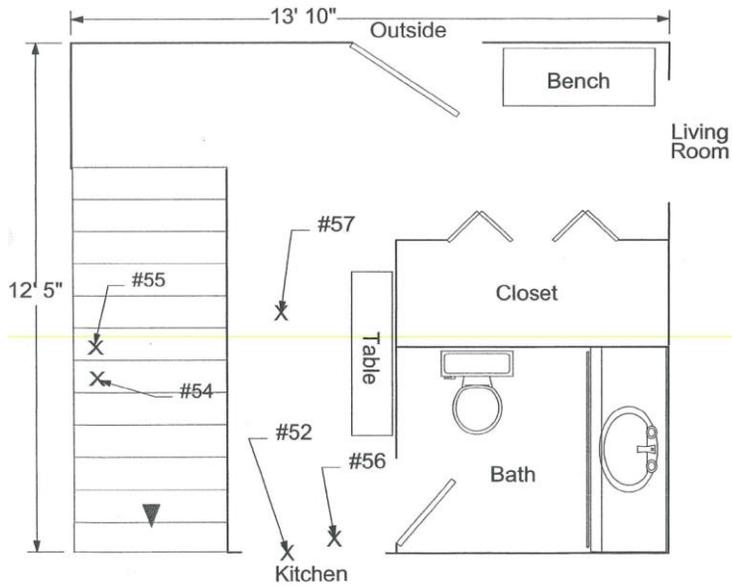
# Living Room

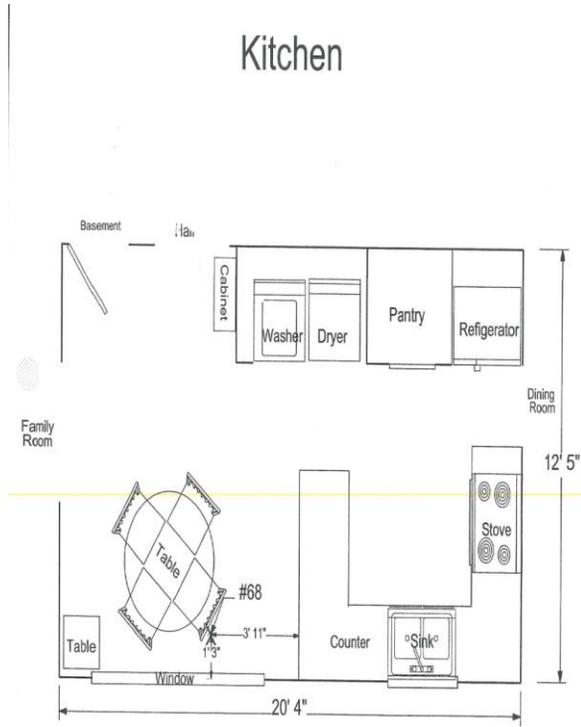


# Dining Room

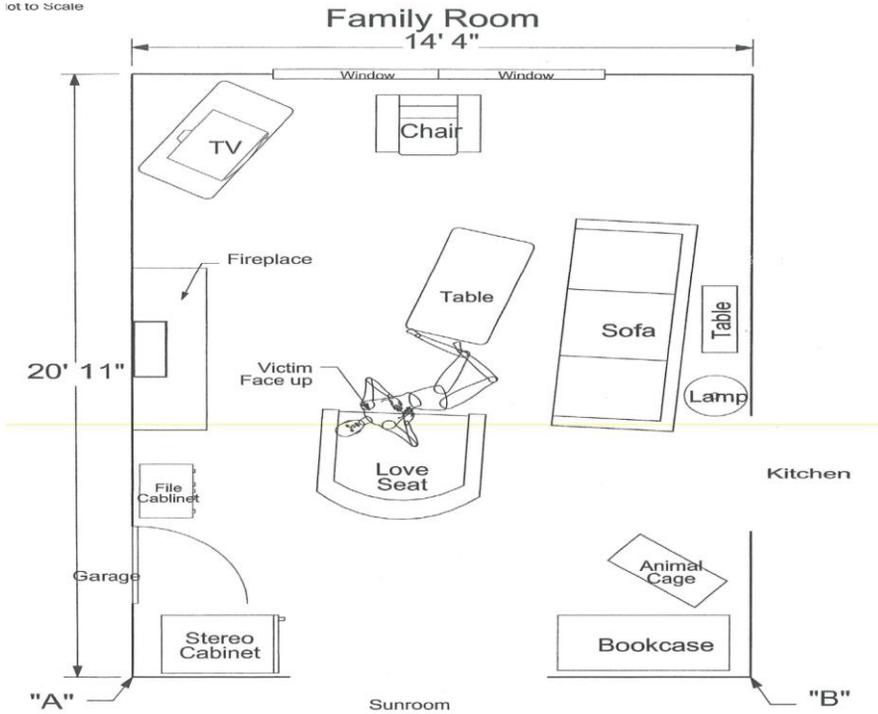


# Hall





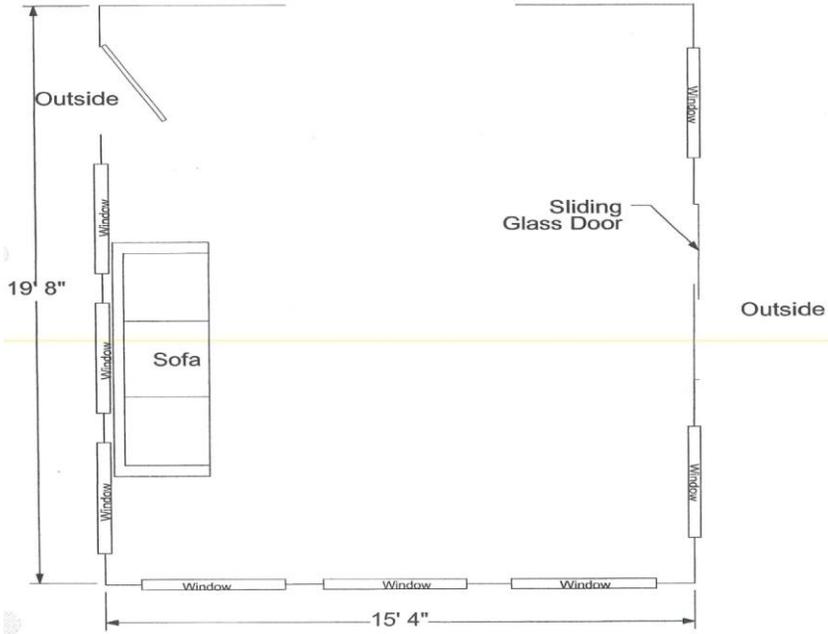
not to scale



to scale

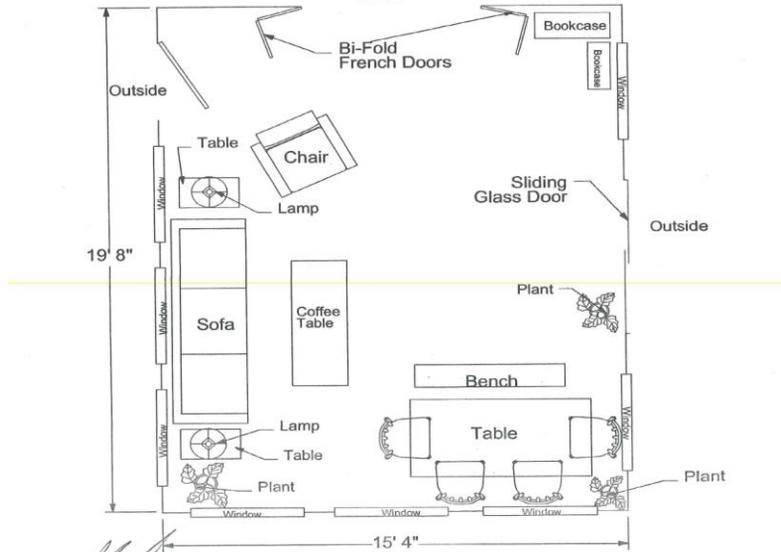
# Sunroom

Family Room



# Sunroom

Family Room



*[Signature]*  
 Tpr. John Sawyer #429  
 August 24, 2010

*[Signature]*  
 Supervisor Signature



**QUESTIONS?**

**THANK YOU!**

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