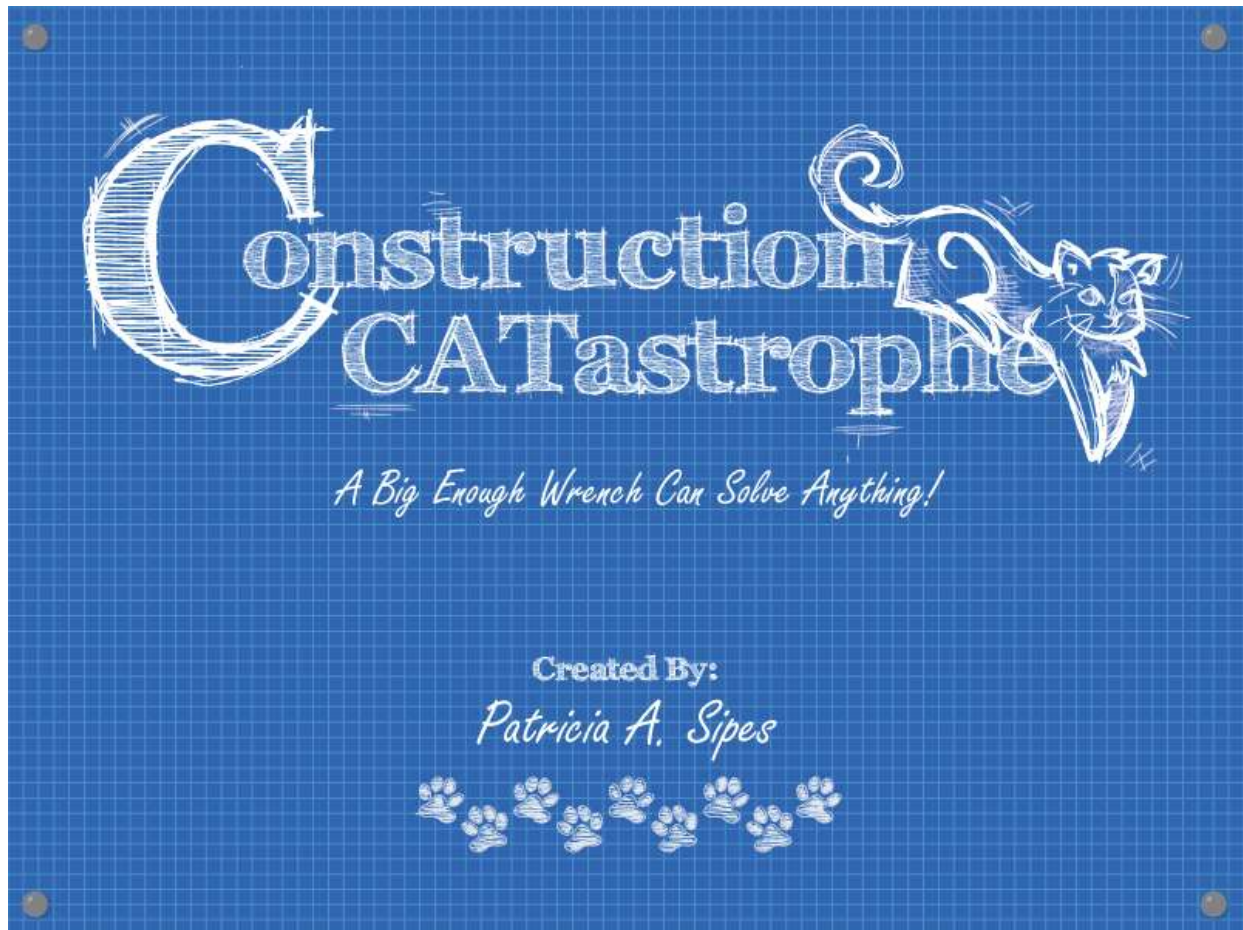


# DESIGN DOCUMENT



VERSION 1.3

# DESIGN DOCUMENT: Construction CATastrophe

## CONTENTS

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<b>1</b>	<b>GAME OVERVIEW .....</b>	<b>4</b>
1.1	Philosophy .....	4
1.1.1	What is the Game? .....	4
1.1.2	Why Create the Game? .....	4
1.1.3	What am I? .....	4
1.1.4	What am I Doing? .....	4
1.2	High Concept .....	4
1.3	Description .....	4
1.4	Genre .....	5
1.5	Features .....	5
1.6	Platform .....	5
1.7	Target Audience .....	5
<b>2</b>	<b>GAME WORLD .....</b>	<b>6</b>
2.1	Characters .....	6
2.1.1	Main Character .....	6
2.1.2	Objective Character .....	11
2.1.3	Enemy Characters .....	11
2.2	Setting .....	12
2.2.1	Overview .....	12
2.2.2	Level Maps .....	13

# DESIGN DOCUMENT: Construction CATastrophe

<b>3</b>	<b>GAME PLAY .....</b>	<b>18</b>
3.1	Game Flow .....	18
3.1.1	General .....	18
3.1.2	Title Screen .....	19
3.1.3	Win/Lose Scenario .....	21
3.1.4	Introduction Storyboards .....	23
3.2	User Interface/HUD .....	25
3.3	Key Controls .....	27
3.4	Level Flow .....	28
3.4.1	Level 1 .....	28
3.4.2	Level 2 .....	31
3.4.3	Level 3 .....	33
3.4.4	Level 4 .....	35
3.4.5	Level 5 .....	37
<b>4</b>	<b>APPENDICES .....</b>	<b>39</b>
4.1	Concepts and Doodles .....	39
4.2	Reference Images .....	42
4.2.1	Cats .....	42
4.2.2	Rats .....	43

# DESIGN DOCUMENT: Construction CATastrophe

## 1 GAME OVERVIEW

---

### 1.1 PHILOSOPHY

#### 1.1.1 What is the Game?

Feed your animal saving needs as you traverse a construction site, saving cats on the last of their nine lives with your giant magical wrench and creative manipulation of the girders. Can you jump, shoot and pull your way to all the cats without losing your own nine lives?

#### 1.1.2 Why Create the Game?

*Construction CATastrophe* fills a void of in the vast cats of the internet: construction sites. A crazy concept, based around the internet's favorite animal combines with simple gameplay that evolves over time, the game fills a "break time" treat space you didn't know you wanted.

#### 1.1.3 What am I?

A female construction worker by day, a semi transformed magical girl with a giant wrench with a grease paint mask when needed. Your wrench seems to have a magnetic pull, letting you control some of the girders on the site without having to physically manipulate them.

#### 1.1.4 What am I Doing?

Save the cats! Save the world!

...Or, at least your job and the construction site you work on. Traverse unfinished girders, solve puzzles with your magic wrench, and rescue cats that have mysteriously made their way to precarious posts all while protecting them (and yourself) from the infected rats looking for a fleshy snack. Make it high enough and you'll see just how down and dirty this conspiracy goes.

### 1.2 HIGH CONCEPT

Become a magical girl, save the cats, and save the world. ...Or at least your job.

### 1.3 DESCRIPTION

A 2D scrolling game featuring a camera following the player both vertically and horizontally, *Construction CATastrophe* features a simple, slightly caricatured and NON-pixelart art style, made to appeal to a general audience. A basic storyline (introduction to cats being everywhere, find the wrench, do stuff, fight an evil cat, win) without much explanation allows for focus on the mechanics and further exploration and expansion of the game. Game takes

# DESIGN DOCUMENT: Construction CATastrophe

place on bare girders (except for the final level which is sewer/basement based) making the set up easier and works on a zig zag orientation (Levels 1, 3, 5 are left to right; Levels 2, 4, are right to left).

## 1.4 GENRE

2D puzzle based side scroller with collection and traditional platformer aspects.

## 1.5 FEATURES

- Player
  - Single-player
  - Single weapon (wrench) used to manipulate girders and shoot rats
  - Simple keys, only horizontal and jump movement
- World
  - 2D game world
  - Animated background elements
  - Simplistic girder based foreground
  - 1940/50s based world
- Story
  - Linear story/gameplay
  - Short on story, high on cats.
- Other
  - Intro story cards
  - Level selection allows for skipping to most enjoyed level for replay/continued play

## 1.6 PLATFORM

*Construction CATastrophe* is being developed for web play on an 800 x 600 screen with room to manipulate and release for touch screen compatibility at a later time.

## 1.7 TARGET AUDIENCE

Casual gamers and kitsche and cat enthusiasts are targeted in development.

# DESIGN DOCUMENT: Construction CATastrophe

## 2 GAME WORLD

### 2.1 CHARACTERS

#### 2.1.1 Main Character

Finished sprite block is 105 x 105 px tall (character is about 82 px high).

[Nameless] Heroine works at a construction site, finds a magical wrench, has a soft spot for cats. Must save them all.

She has **9 Lives**. Lives can be lost by being bit by rats or falling.

#### Original Concepts:



#### Finished Art:



BUTTON	FUNCTION
←	Go Left
→	Go Right
SPACE	Jump
T	Transform
Q	Use Wrench: Shoot rats  Manipulate girders (pull, rotate)

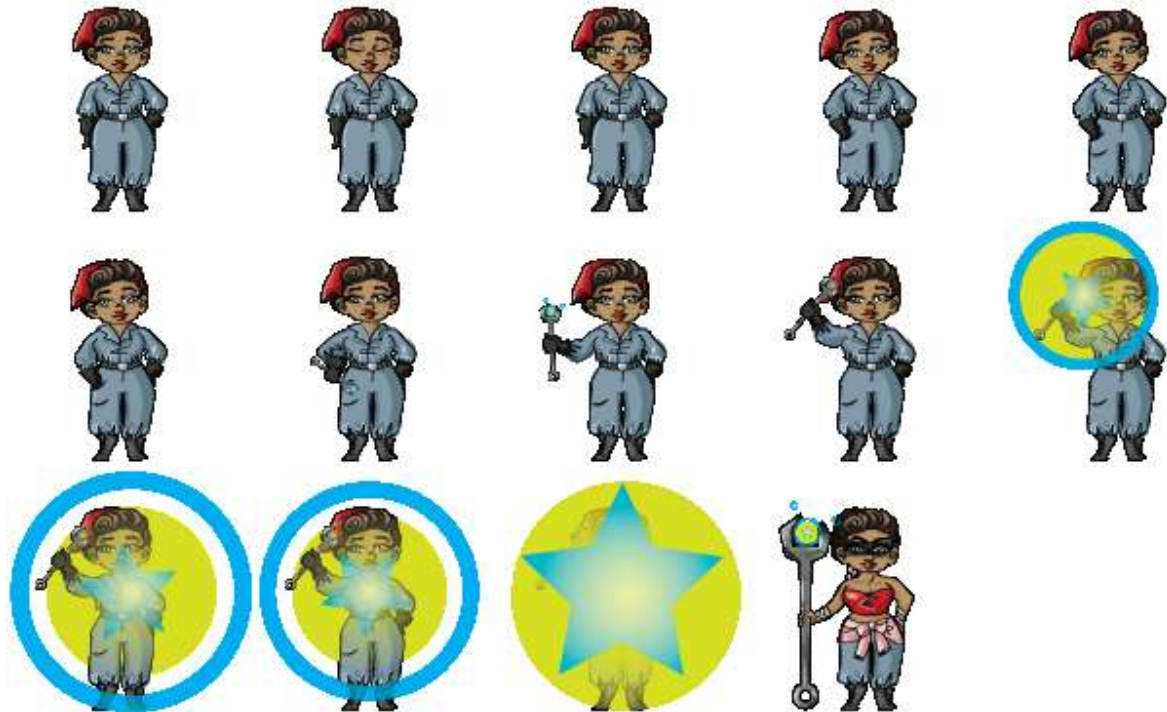
# DESIGN DOCUMENT: Construction CATastrophe

## SPRITE SHEETS:

norm blink



Transform





# DESIGN DOCUMENT: Construction CATastrophe

Norm\_walk



Norm\_jump



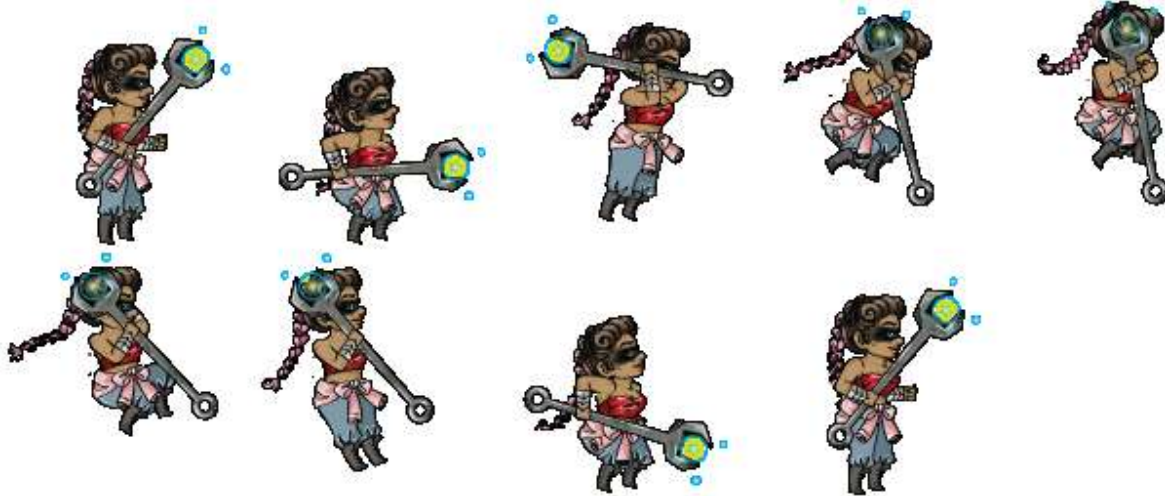


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Transform\_walk

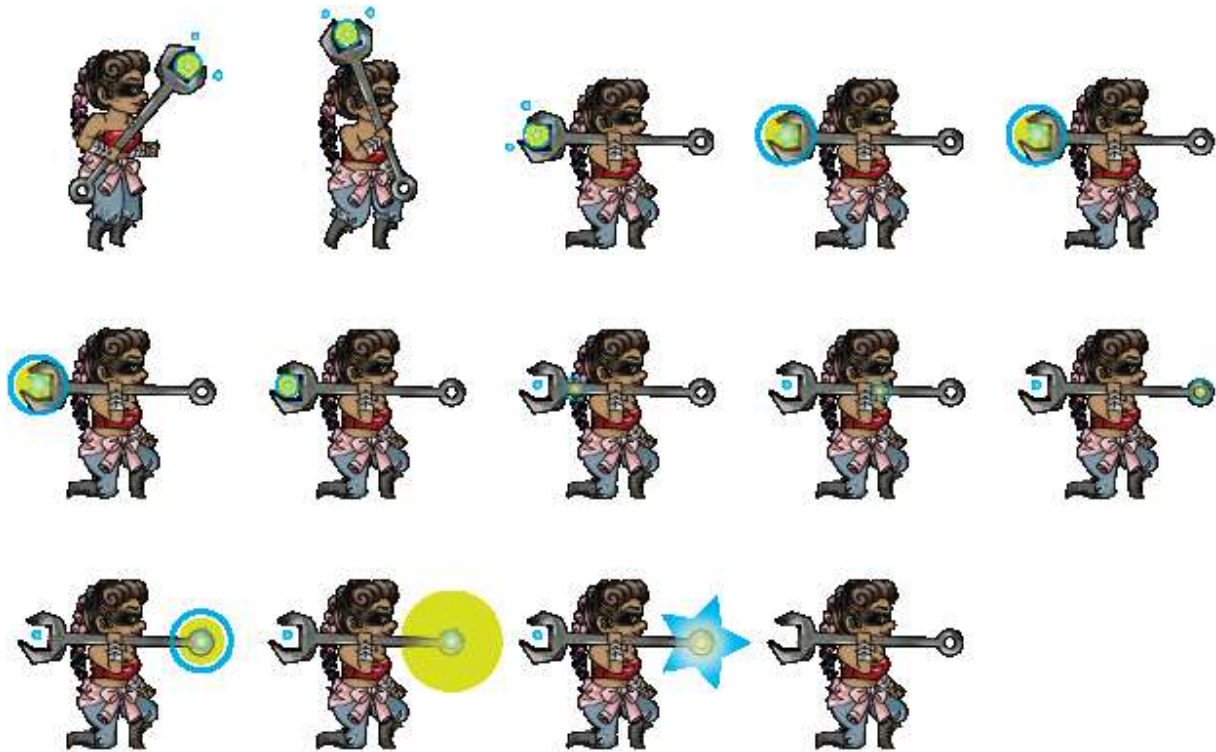


Transform\_jump



# DESIGN DOCUMENT: Construction CATastrophe

## Shoot



## RatBite

(CURRENTLY NOT DONE. NEEDS TO BLINK OUT)

## RatDEATH

(CURRENTLY NOT DONE. FALL OVER)

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## 2.1.2 Objective Character

Cats!

Cats that are reached by a rat become diseased. Diseased cats act like rats, cannot be picked up and will hurt the player (lose a life) if touched.

TYPES	COLOURS (reskins)	SPRITE SHEETS NEEDED (FOR EACH COLOR)*
Normal (collectible)	Orange Tabby	Walk
Paratrooper (collectible)	Blue Russian	Sit side with tail move
Diseased (avoid. Add disease bubbles above head)	White with black spots and mittens	Sit front with blink
	Calico	Stretch
		Belly rub position
		Parachute

\*Ideally all of these, but could be done with just a sit and a parachute option.

## 2.1.3 Enemy Characters

General enemy: Rats!

Rats are diseased creatures, they come in two forms: normal and parachute. Normal rats have a still and move sprite sheet. Parachute rats have parachutes. They (at the moment), do NOT follow the player, think of them like goombas or the spiky balls, merely traversing their path back and forth. If, on their path, they touch a cat, the cat will become diseased after a second touch.

\*These actually become your objective to catch in the final level and release on the final boss.

Boss enemy: Fat Cat

Cat in a business suit at the end of the 5<sup>th</sup> level. He is the boss. Nothing is ever explained other than you need to infect him while avoiding the rats he's commanding infecting you.

He has a jump, point and walk set.

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## 2.2 SETTING

### 2.2.1 Overview

The game takes place on a construction site (placed around 1940s/1950s, but as you really only see slight glimpses of buildings, it's not a particularly era needy setting) where the extent of work that has been completed is some girders. This provides for a simplistic set of pieces to build with (the girders) with the accompaniment of cranes, pullies, and ropes.

Girder piece: (finished girder is 30 px high)



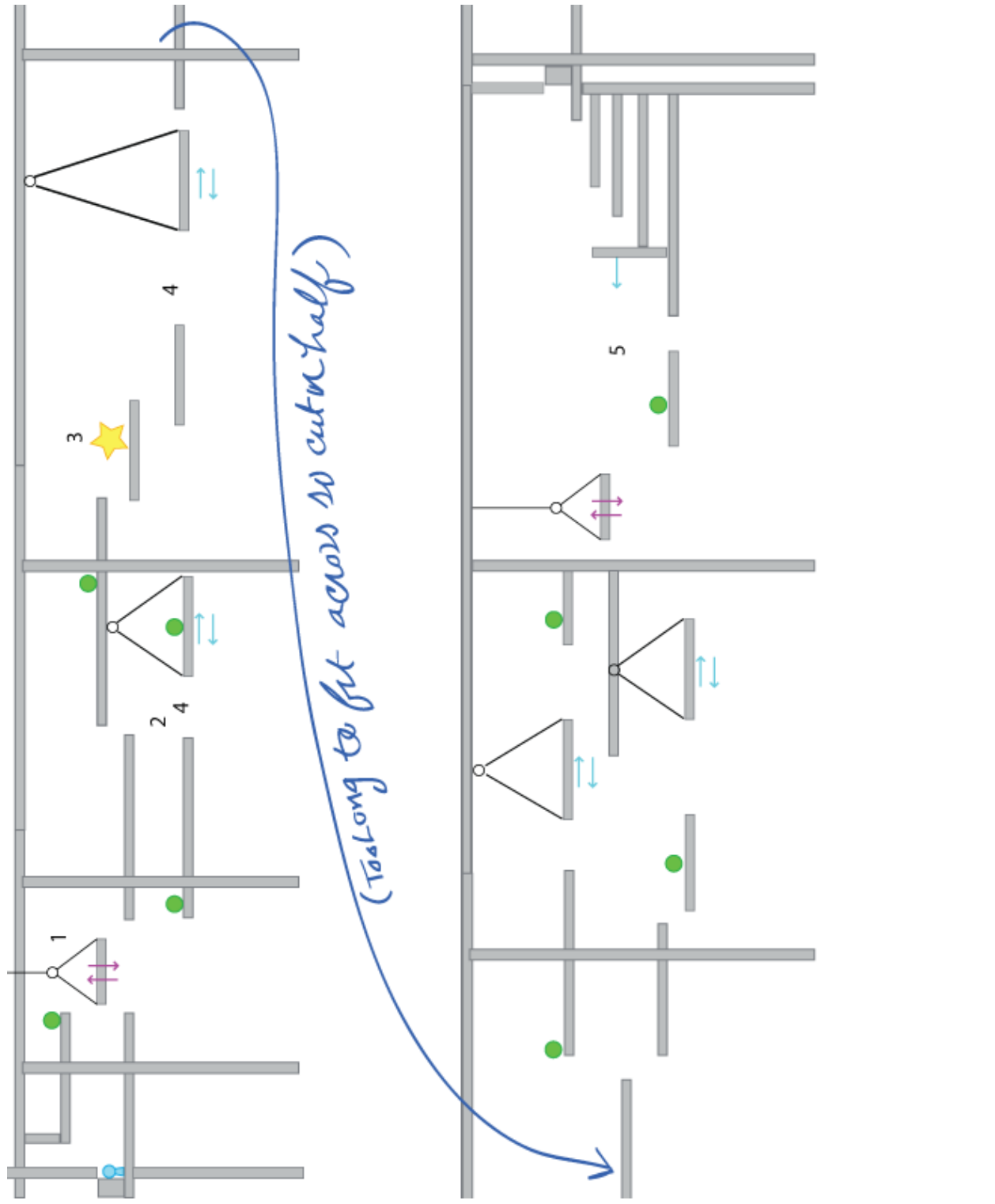
Occasionally a plane flies overhead, dropping rats/cats. Could either be an audible cue or drawn plane (current plane that is in assets is a British Corsair, which lends to time period and location without overtly saying it):



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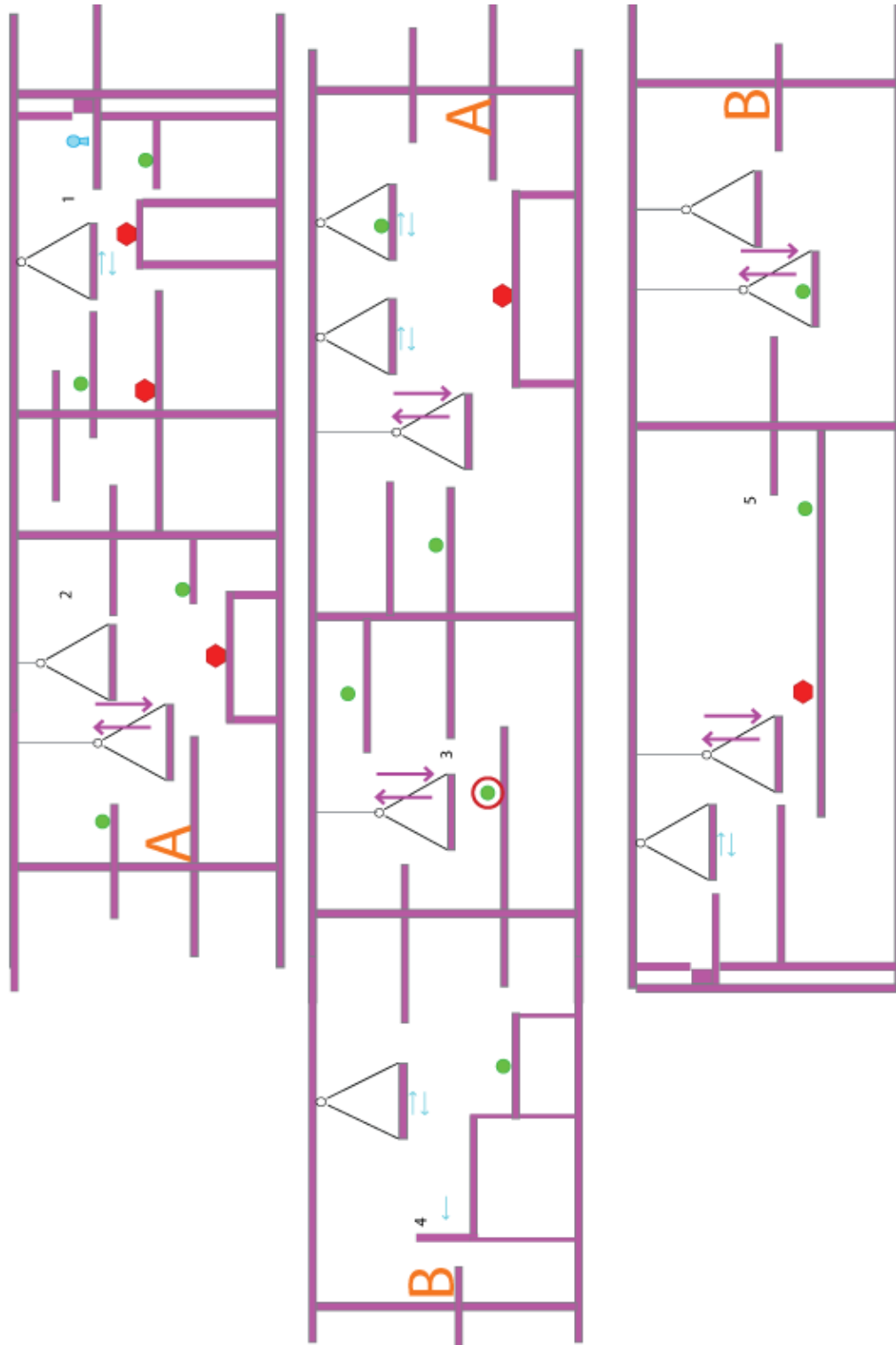
## 2.2.2 Level Maps

### 2.2.2.1 Level 1



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## 2.2.2.2 Level 2



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## *2.2.2.3 Level 3*



# DESIGN DOCUMENT: Construction CATastrophe

## *2.2.2.4 Level 4*

# DESIGN DOCUMENT: Construction CATastrophe

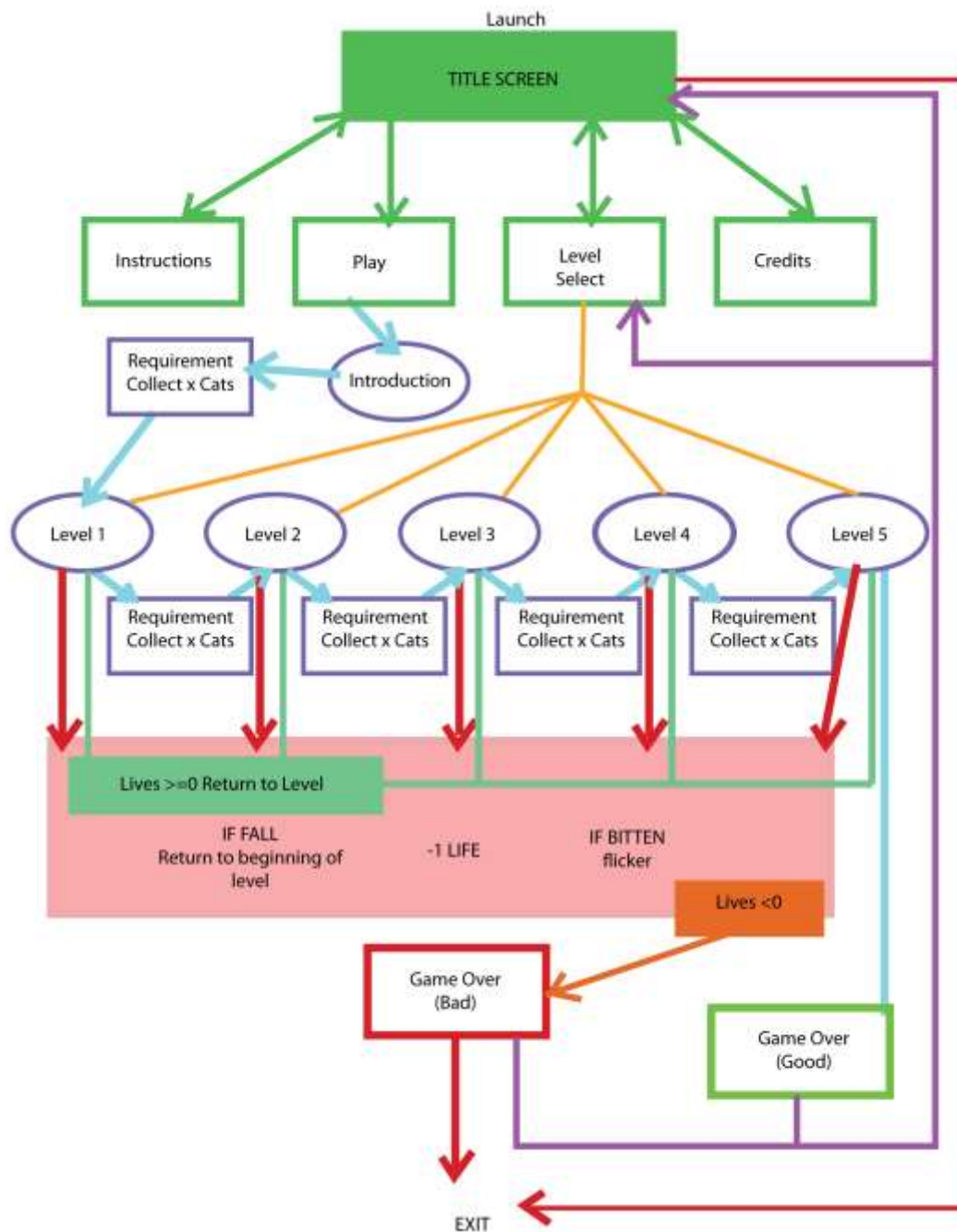
## *2.2.2.5 Level 5*

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## 3 GAME PLAY

### 3.1 GAME FLOW

#### 3.1.1 General



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## 3.1.2 Title Screen

### Buttons

- Instructions
  - Key chart
  - Short graphics about disease being dangerous
- Play
  - Goes to the intro, which is basically a set of slides that show main character initially finding a construction site full of cats.
  - Level start screen follows (each level has a “start” screen that tells the cats needed to continue to the next level)
    - I think I can do this with code, so that I call the same scene, and just have it correlate to level # (if level x, display x in # spots and x correlated message)
  - Level happens, elevator has a lock notice if requirement not met, tells how many cats needed
    - Maybe it should tell how many more cats are needed?
- Level Select
  - Levels selectable. If 1 is selected from here, no introduction, goes directly to first level start screen
  - Have thought about whether to have only 1-4 selectable, meaning 4<sup>th</sup> level has to be played before “boss” level.
- Credits

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Title Page concept

NOTE: Title, number of buttons, and resolution have changed since mock up.

Plan is to have it blueprint style. Which means less time can be spent worrying about colors and just getting lines down.



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## 3.1.3 Win/Lose Scenario

Level Goal: Collect the given number of cats for that level (5, 7, 10, 12) to be allowed to the next level.

Overall Goal: Defeat the evil tom cat at the end.

Winning is achieved upon defeating the tom cat. Win screen is displayed with REPLAY, MAIN MENU, or EXIT GAME options.



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Losing happens when all your lives are gone. Lives are lost when rats touch you, or when you fall. Player is given 9 lives to start with. Each level has ~15 cats available (but the unlock to the next level is a smaller). Collecting ALL the cats adds 1 to your life counter.

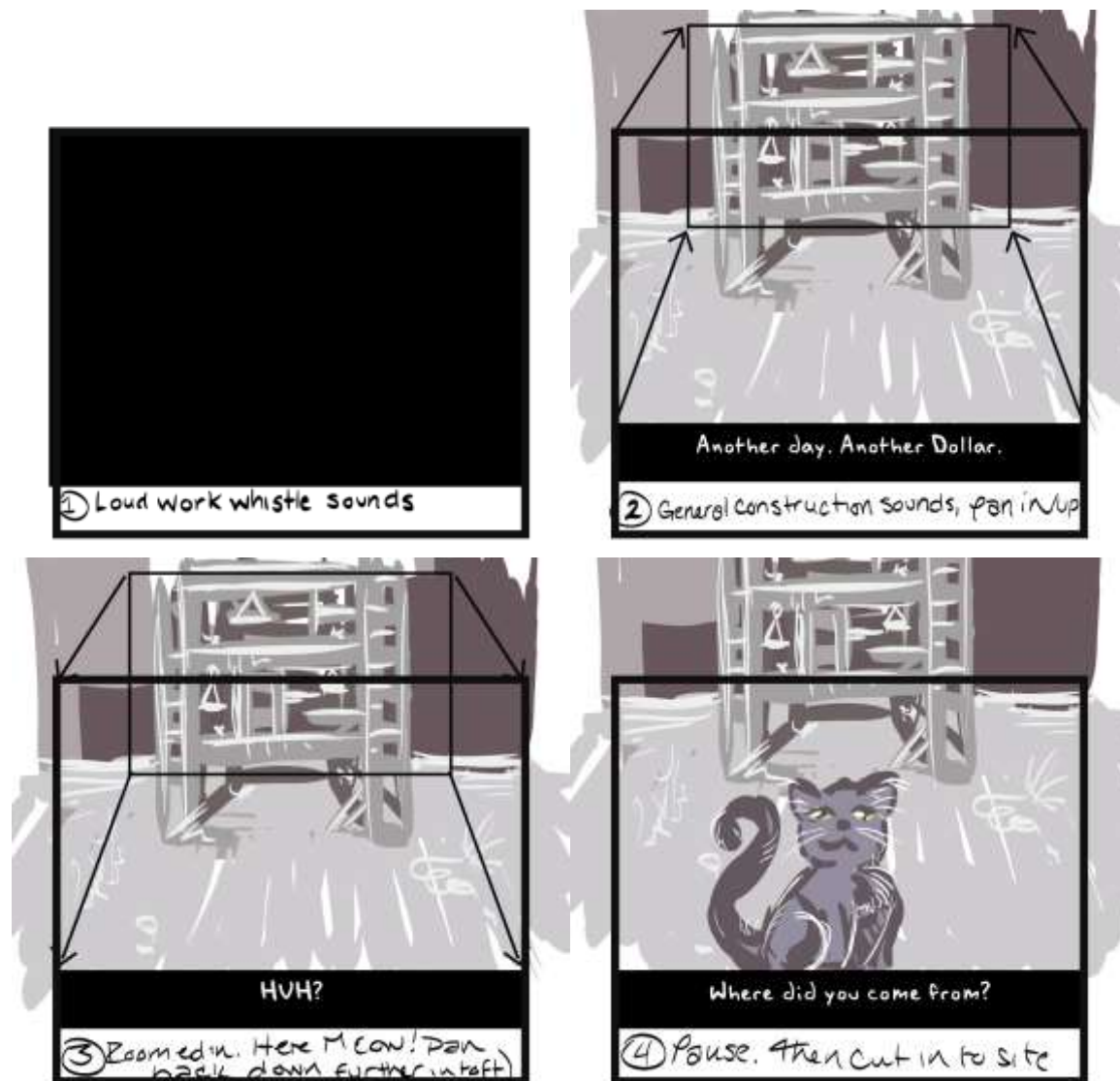
Falling below 0 lives prompts the lose screen. Gives you the option to RESTART LEVEL, MAIN MENU, or EXIT GAME.



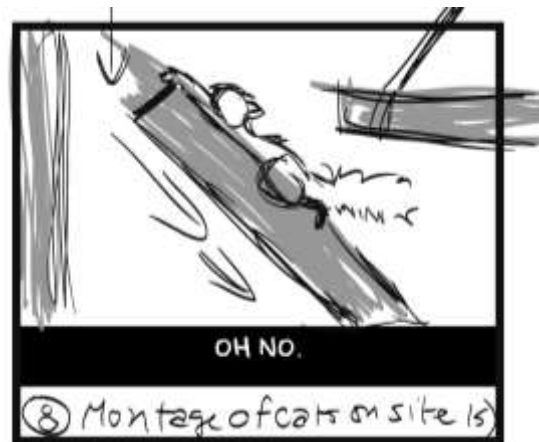
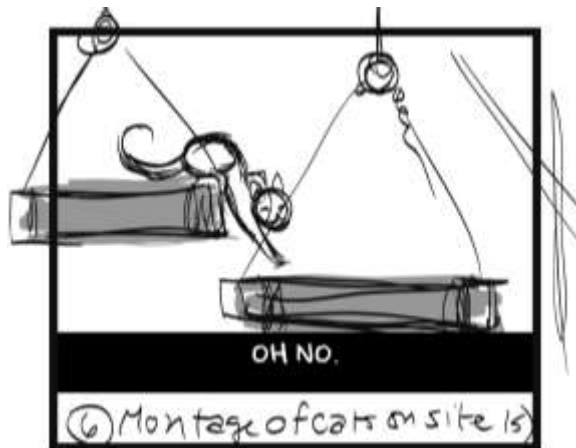


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## 3.1.4 Introduction Storyboards






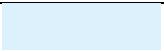
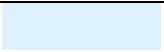


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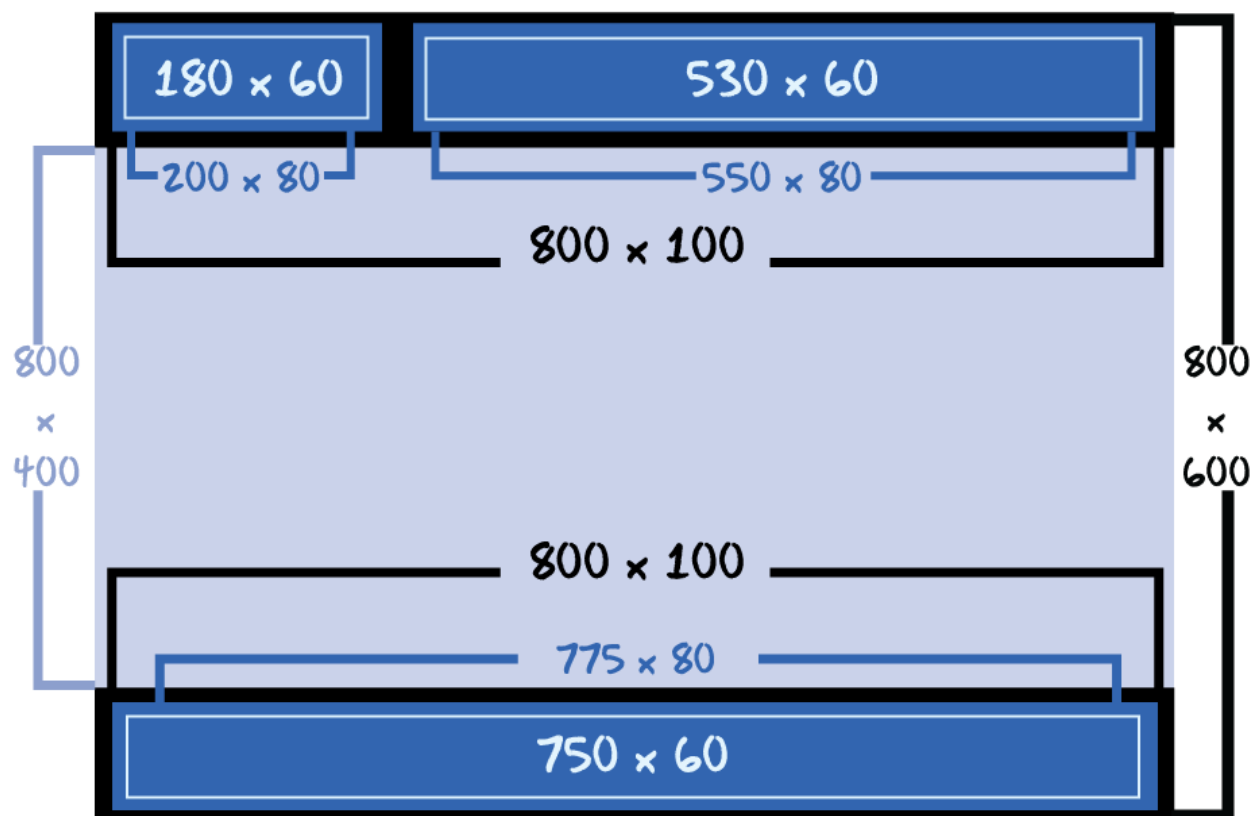


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## 3.2 USER INTERFACE/HUD

Element	Dimension
Game Window	800 x 600 px
Play Area (Displayed)	800 x 400 px
Header/footer (black)	800 x 100 px
Health Box	200 x 80 px
Health Writeable	180 x 60 px
Cat Box	550 x 80 px
Cat Writeable	530 x 60 px
Notification Box	775 x 80 px
Notification Writeable	750 x 60 px

Element	Hex	Color
Header/footer	000000	
"Blue Print"	3564B0	
Grid	458DC7	
Int. Border	DDF1FC	
Font	DDF1FC	
Empty Print	A3BFE4	
Full Print	204295	



# DESIGN DOCUMENT: Construction CATastrophe



Concept: Blue print based UI, carry over to other screens. Cat paws filled using a slider behind.

Historical accuracy: “Blue Prints” actually began to be phased out by the end of the 30s in favor of “White Prints” because they were easier to reproduce. Blue prints weren’t unheard of, so it’s not wrong if I’m going with the time frame, just not as seen.

Font choice: Currently “Pen of Truth” is on the mock ups, however, I haven’t looked at the updated license to see whether I can still use it freely. I want to go with a handwritten type font to help reinforce the blueprint feel, but have not done the research into other fonts that may be nicer or have a better feel.

\*\*\*When notification/info, debating on giving it a flash behind it. (like a ding ding, only visual)

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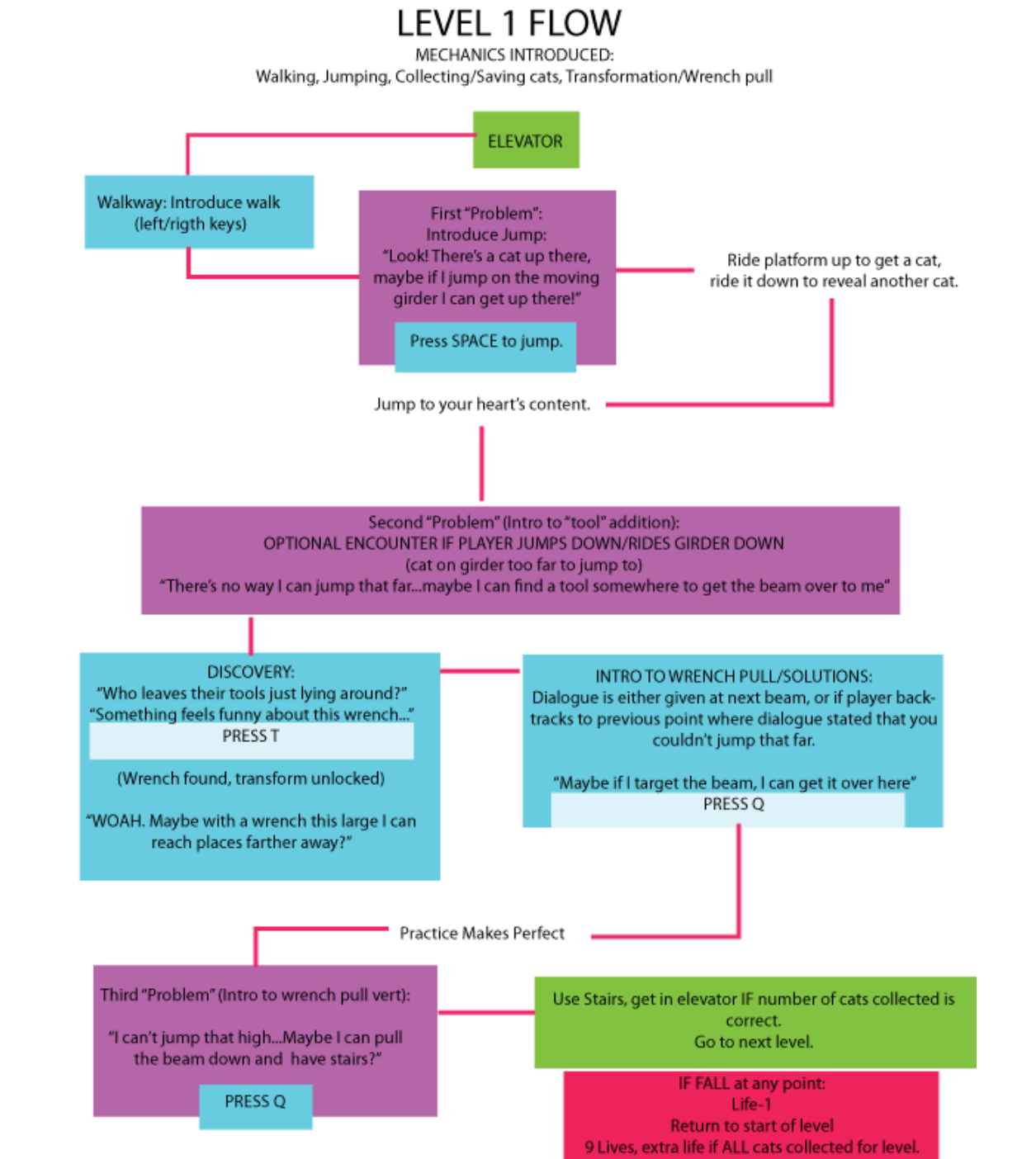
## 3.3 KEY CONTROLS

Control	Function
Left Click	Button selection
←	Move left
→	Move right
SPACE BAR	jump
T	Transform
Q	Shoot
Esc	Exit to main menu (press again to exit whole game)

# DESIGN DOCUMENT: Construction CATastrophe

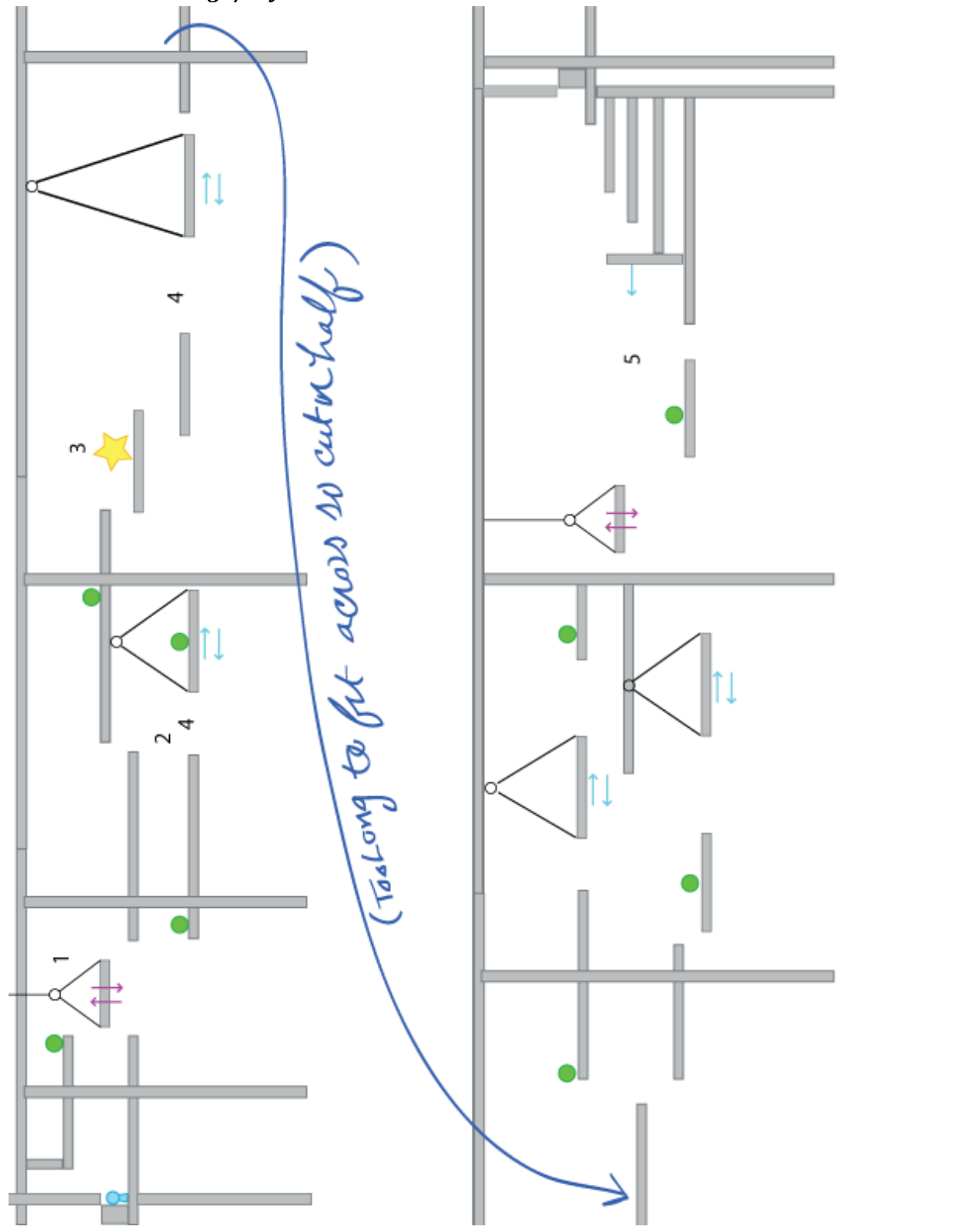
## 3.4 LEVEL FLOW

### 3.4.1 Level 1



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## 3.4.1.1 Walkthrough/Layout





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Green = Cats

Purple arrows = self propelled

Blue Arrows = must use shoot

After getting off the elevator, notification panel flashes, informing player to use arrow keys to move around.

1. Notification panel flashes at edge and player is told how to jump (space bar). Player can ride the platform to any open platform in that vertical stretch to jump off. First cat encounter flashes notification panel with something like "There, There, all safe. Now to find the rest!"
2. If player gets off at bottom layer, notification will go off "That panel is too far to jump for, Maybe if I had larger tools, I could reach it!"
3. Player is "forced" to pick up wrench. This prompts notification panel to pop up "Woah. Something feels funny about this wrench. PRESS T"
4. For this level, at all places where player interaction is needed to get the beam to move, notification panel will flash "Larger Wrench means Larger Reach. Press Q to grab that girder!" (Throughout game, girders that can be manipulated have a glow to help differentiate them).
5. Standing on the girder (that is currently floating, will be fixed), notification panel reads "I can't jump that...wonder if I can bring it down? Press Q"

Elevator is unlocked if 5 cats were collected. If not, message reads "I know I saw more cats than this, better go rescue X more!" Where x is the number needed further.

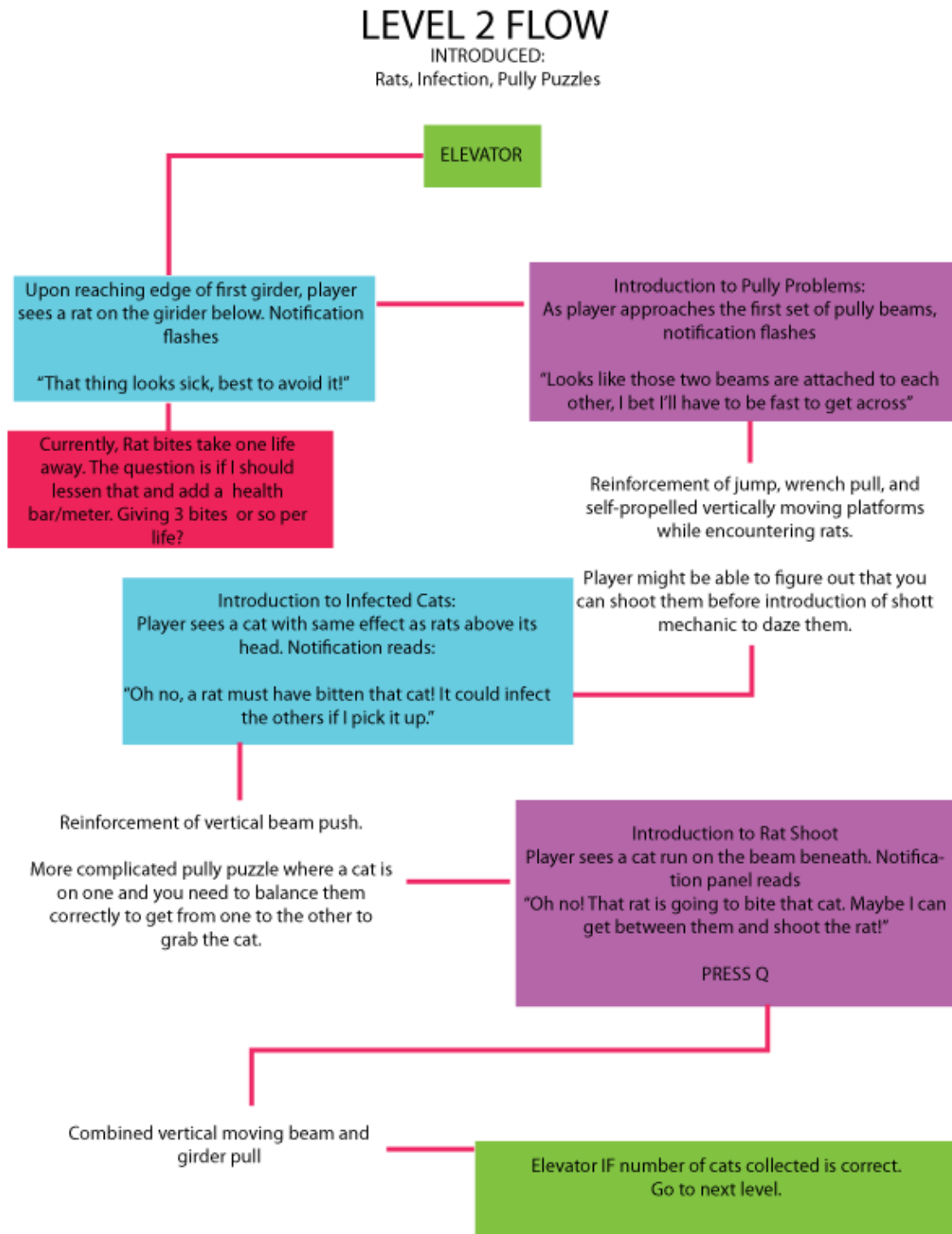
If all cats are collected, an extra life is added.

If the player falls at any time, a life is deducted and they are put back at the beginning. Notification panel flashes "Good thing I have x lives" IF lives >0 If at 0, "I better be careful, looks like my extra lives have run out!"

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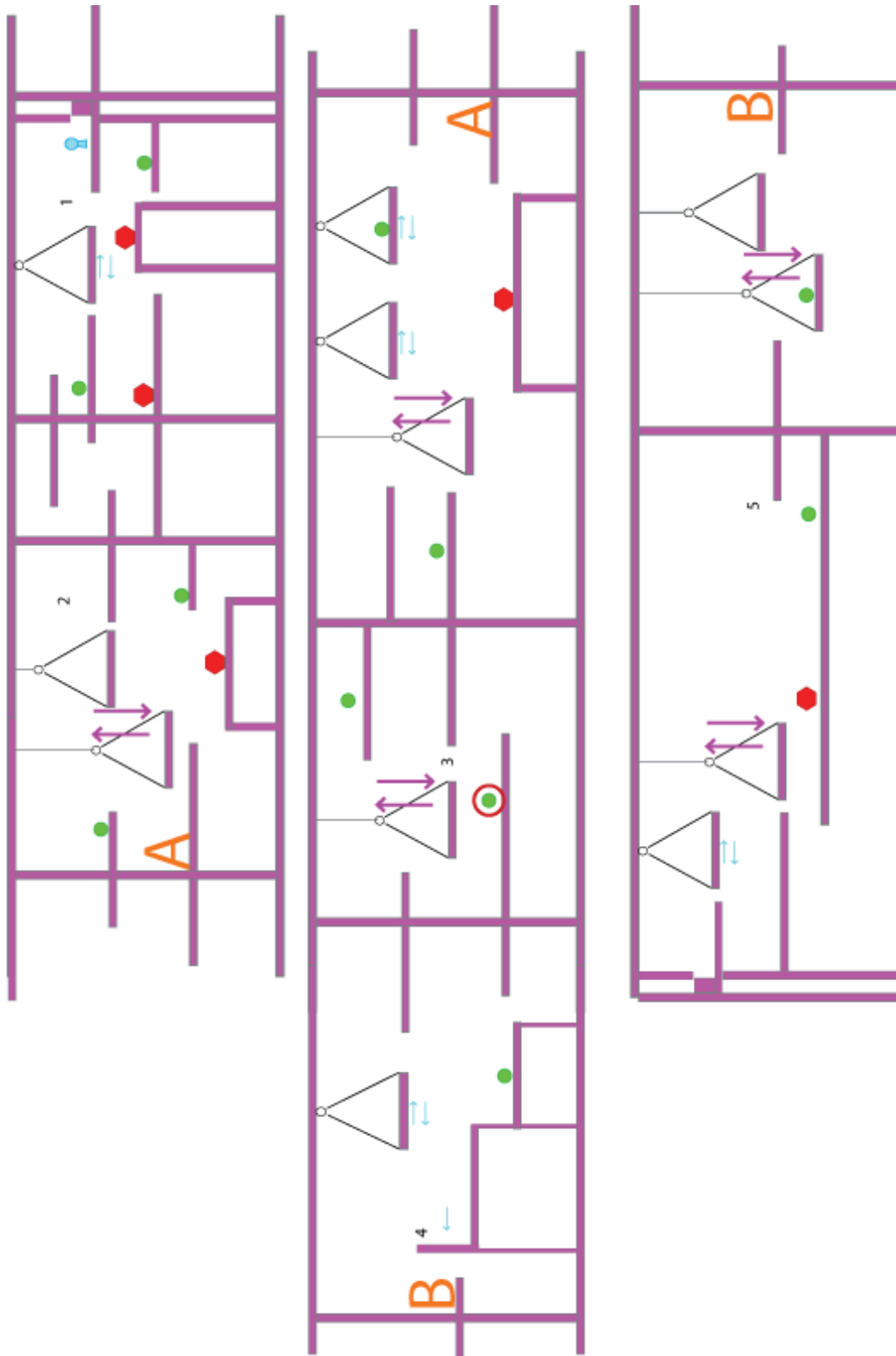
## 3.4.2 Level 2

### 3.4.2.1 Flow Chart



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### 3.4.2.2 Layout/Walkthrough



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## 3.4.3 Level 3

### 3.4.3.1 *Flow Chart*

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## 3.4.3.2 *Layout /Walkthrough*

1. Reinforce Rat shoot off ledge
2. Introduce rotating beam (like pully and pullable girders, this one has rope on it, but is only at a central point, meaning that putting weight on one end causes it to start going diagonal, meaning player can slip. Combines timing and luck to get across OR use slide to your advantage).
3. Pulley set with rat and cat (be sure to not get them together and thus lose that cat as grabbable)
4. Paratrooper cat. CATCH THAT CAT BEFORE IT FLOATS OUT OF FRAME.
5. Paratrooper rat. AVOID THAT RAT WHILE IT'S in Frame.
6. Introduce the idea of an unstable beam. This is a beam that can be interacted with, but once touched, it loses its grip and falls (can cause avalanche, such as the one seen in level 4).

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## 3.4.4 Level 4

### 3.4.4.1 *Flow Chart*

# DESIGN DOCUMENT: Construction CATastrophe

## 3.4.4.2 *Layout /Walkthrough*

1. This level is all about reinforcing/putting together everything that's been introduced. Sort of like the end of a tutorial set.
2. Introduce Windmill type rotation (four beams with previous level's central axis for each beam, causing sliding).
3. As a "final" challenge before the "boss" level, there is a collapsible staircase (with mechanic from previous level, just upped in collapsibility).



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## 3.4.5 Level 5

### 3.4.5.1 *Flow Chart*

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## 3.4.5.2 *Layout/Walkthrough*

Boss level, sewer (elevator falls). For this level, collection numbers don't matter for clear. What they do matter for is the "boss fight". The more cats collected, the more help you get. Before the fight you get a new wrench, with a faster shoot function for the oncoming battle. The tom cat sends out rats, your job is to get to him and shoot him by ducking, dodging, shooting the rats. Any rat you pass will focus on your cat army (and presumably lose), but the more you destroy, the stronger your shot will be.

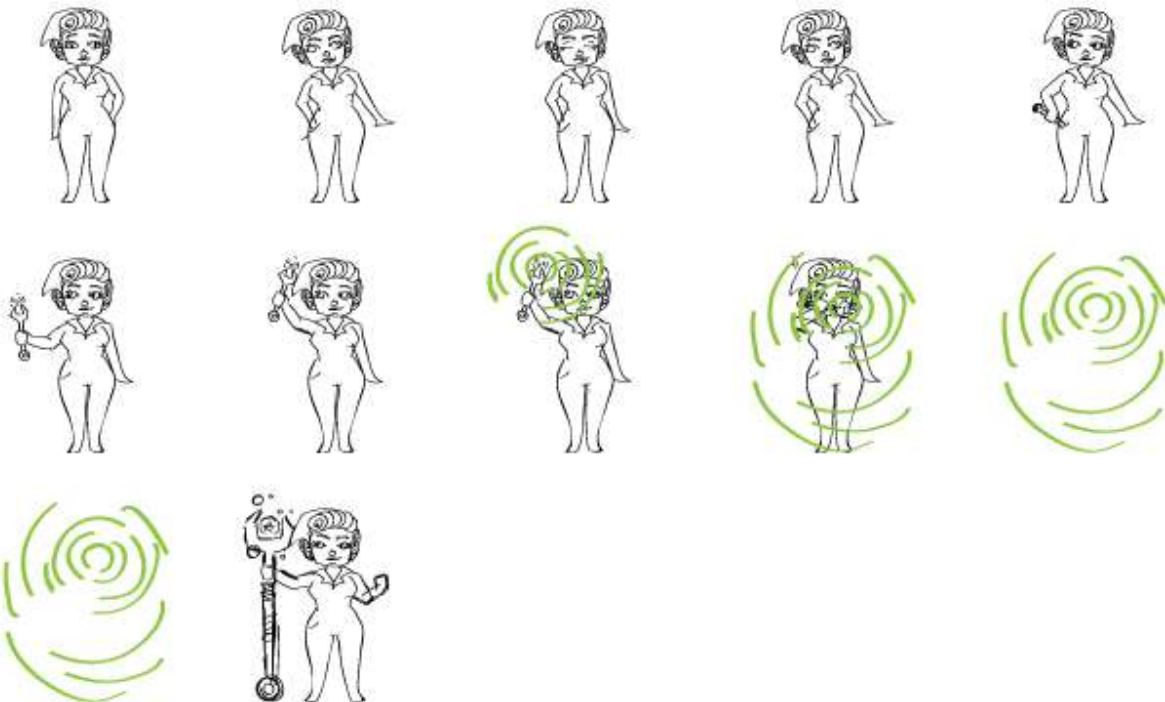
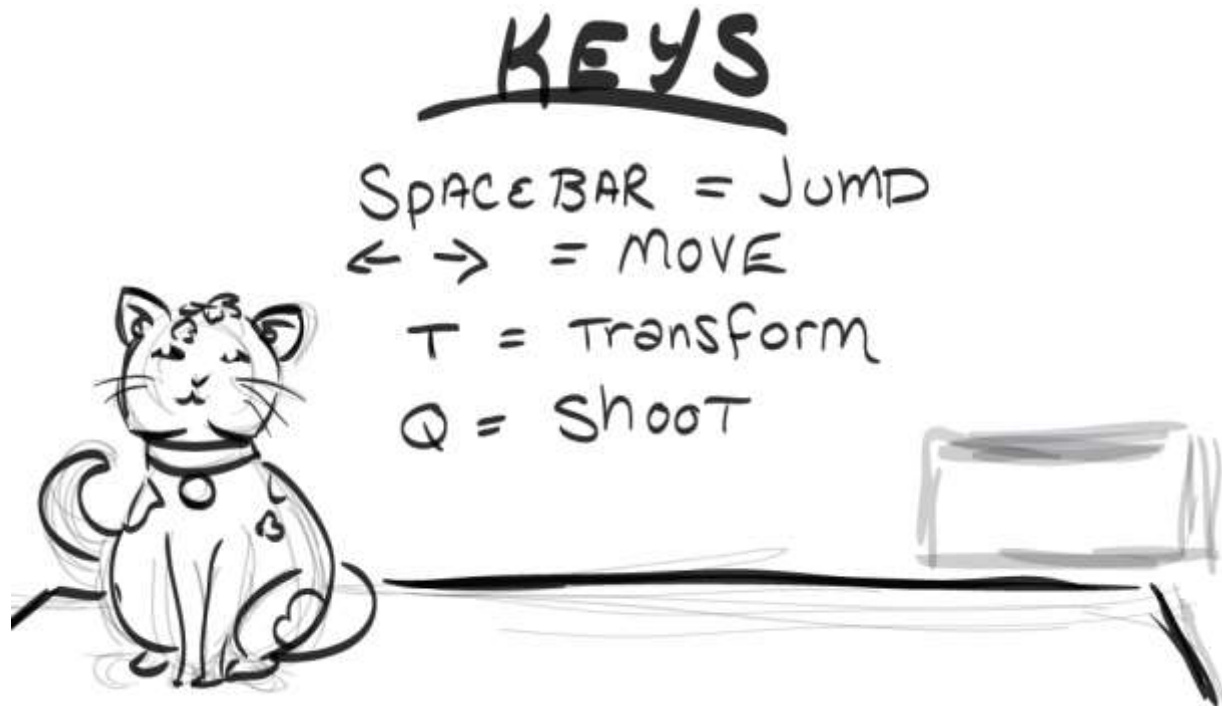
I honestly haven't quite worked this part out. I'm not sure if I'll have time to even complete up to this point AND it requires all new background assets. I may stop at 3 or 4.

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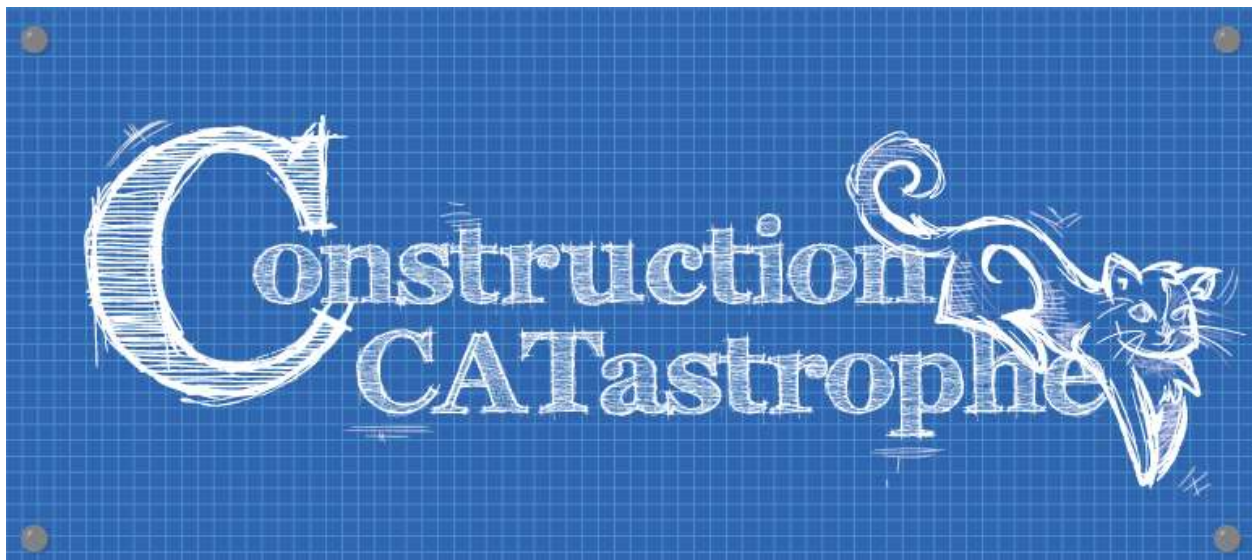
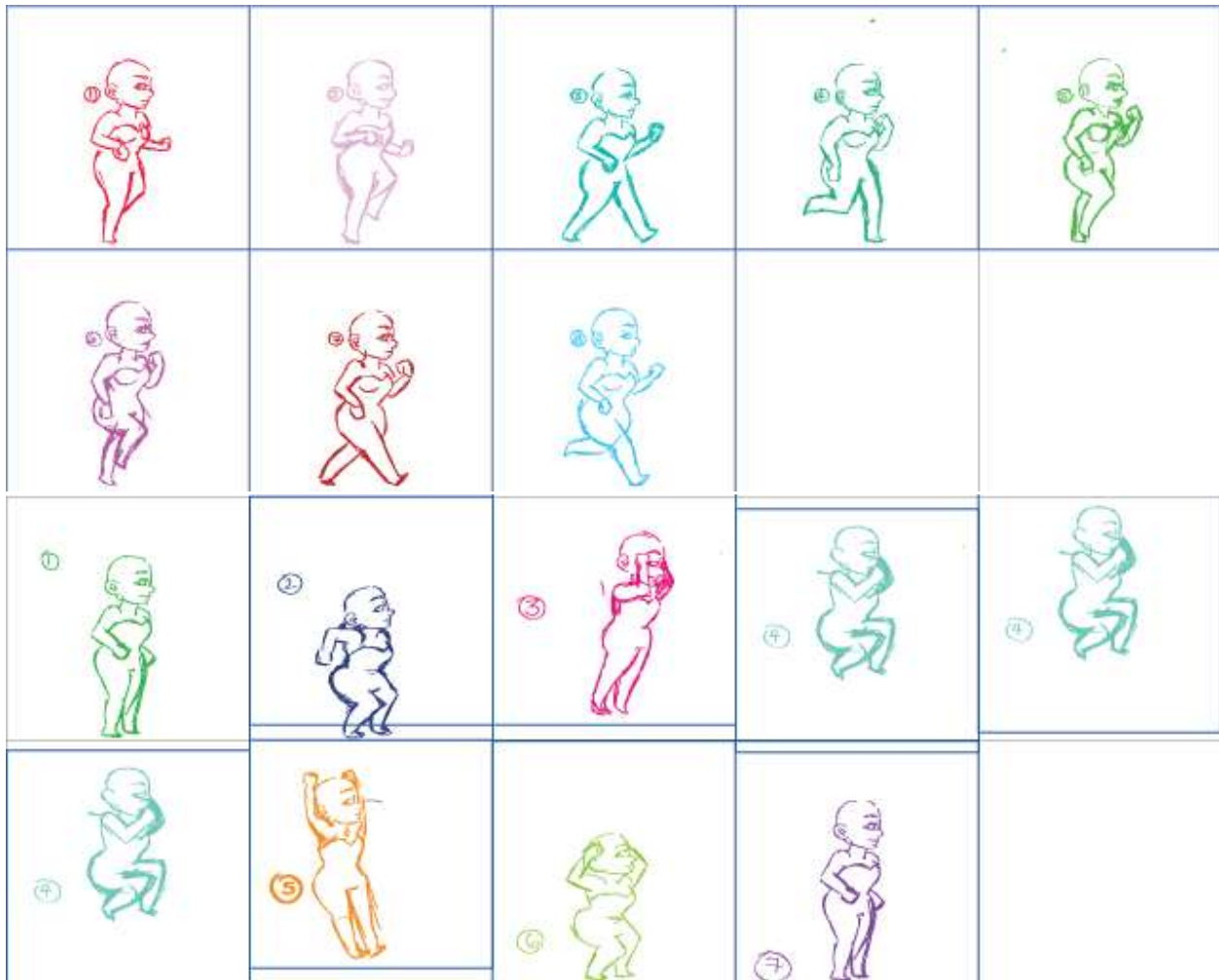
## 4 APPENDICES

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### 4.1 CONCEPTS AND DOODLES

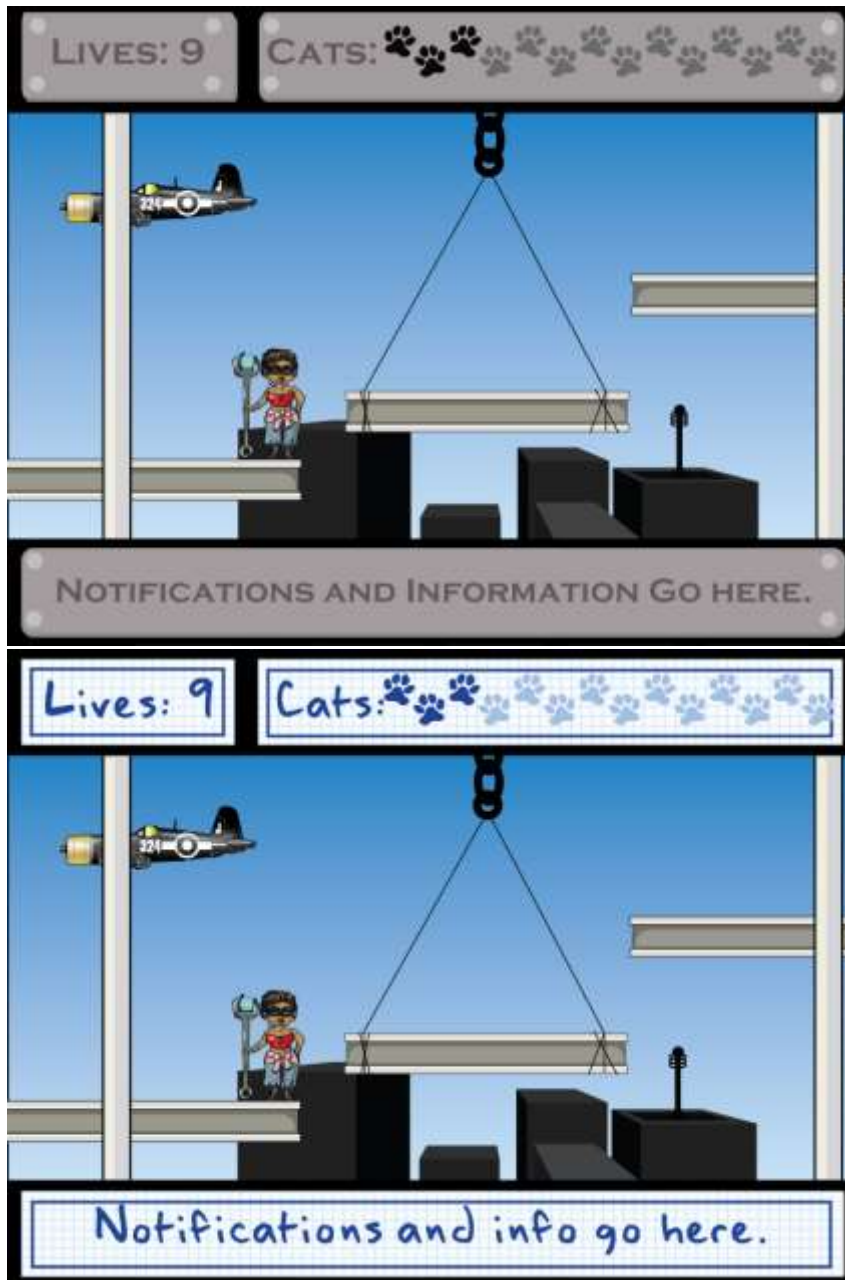


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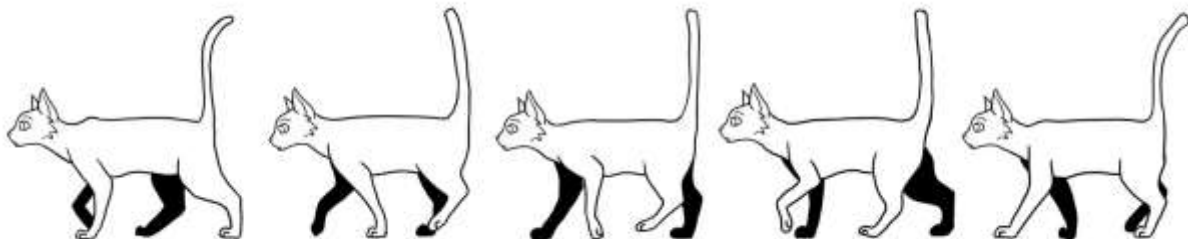
OTHER GEN UI DESIGNS (Not USED)



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## 4.2 REFERENCE IMAGES

### 4.2.1 Cats





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## 4.2.2 Rats

