



Matthew Chan Shao Jie

Level Designer

Introduction

Hello! I'm Matthew, and I enjoy creating game worlds that enhance players' experiences.

I am a fan of sandbox and open world games, where player freedom and expression are a major focus. As such, I like working on open worlds for players to explore, hiding secrets and alternate routes off the beaten path.

My design process

In order to create larger levels, I tend to draw up zones for the player to traverse, and decide how and when to unlock them in order to control the flow of the game.

As an example, I was tasked with creating a 150mx150m level for a level design class. My goal was to create a large town with several buildings, allowing the player to explore the majority of them without causing option paralysis



The final chase, route is highlighted in green



The player's house/starting location



Extra content to fill in empty areas



Traffic jam, cleared by player to unlock more of the map



A city map with several roads and branching pathways



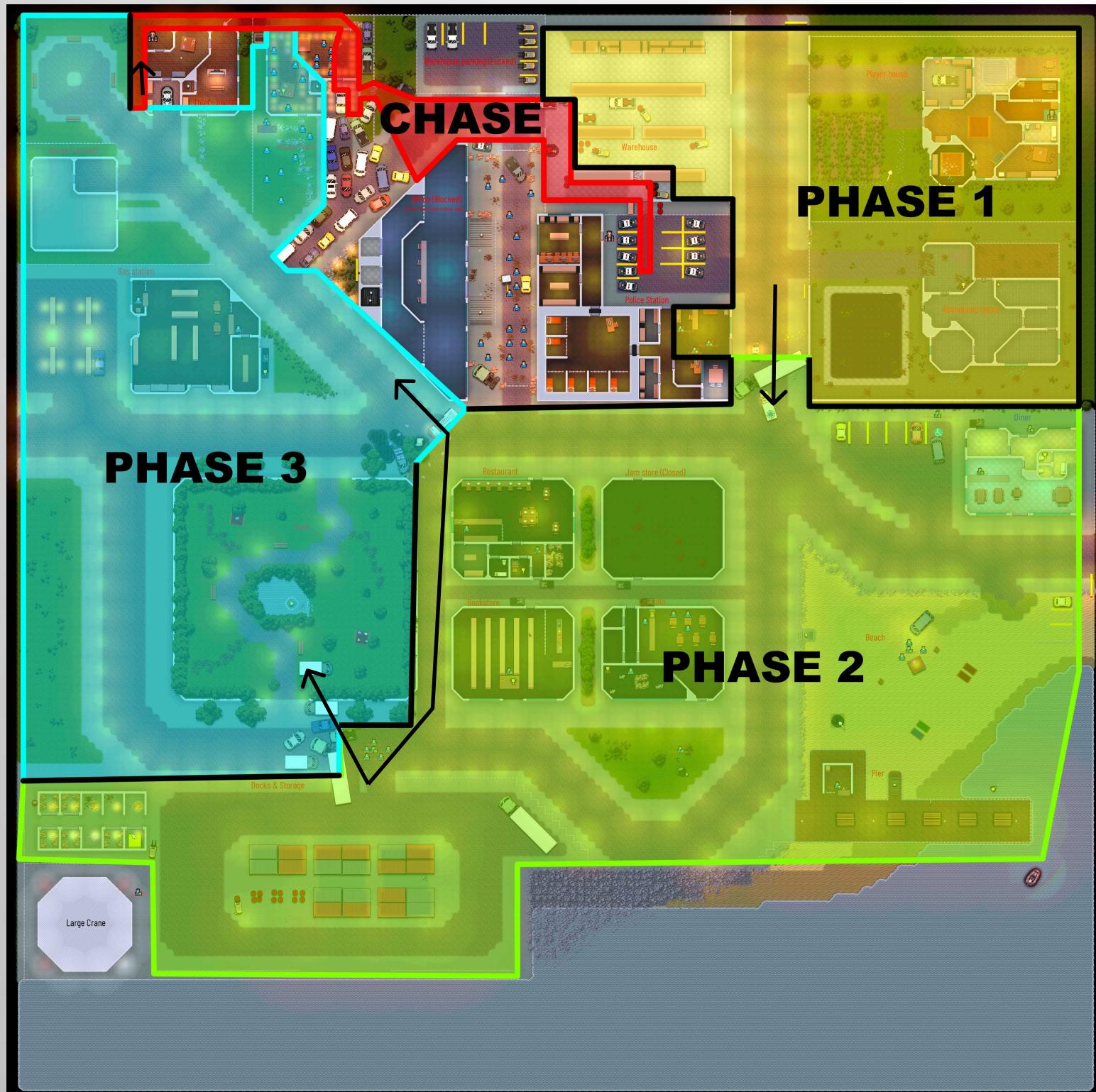
Crashed truck, moved after a story beat



Extra content to fill in empty areas

Blocking zones

For a map of this size, I wanted to give the player freedom to explore large areas of the map without immediately unlocking everything, which helps to reduce confusion. To achieve this, I unlocked various sections of the map as the player progressed through the story.



The city map with different zones highlighted. Zones are labeled via which game phase unlocks it. "Chase" Zone is used for the finale of the game story.

As shown in the image, each section of the map unlocks as the game phases progress. This allows the player's options to slowly open as they progress, ensuring the pacing of the level remains under control and the player's enjoyment is not hindered.

Engagement beats

In order to maintain player engagement, I also distribute engagement beats throughout the level. These can be tied to the change of game phase or simple side content, and ensure that the player always has something new to discover around the level.



Legend



Collectible trophy



Collectible poster



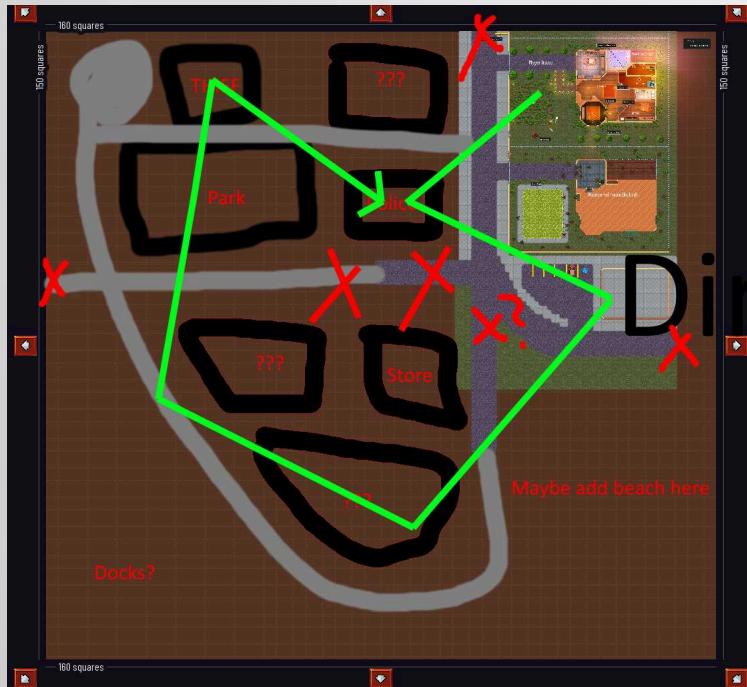
Optional NPC



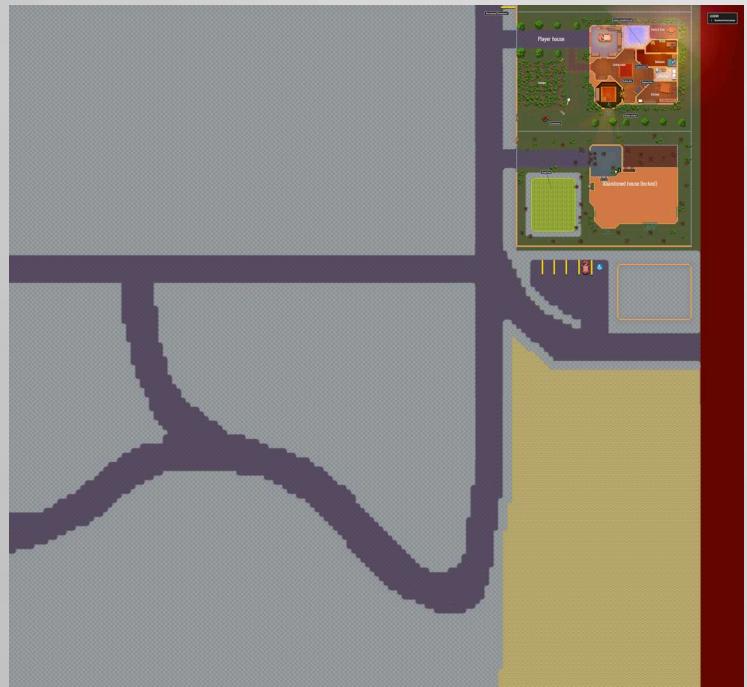
Required NPC

References

When initially designing the level, I took reference from open world games such as Grand Theft Auto V (GTAV) and drew a basic outline of how the map would look, plotting how the different roads and pathways will interact before making the map.

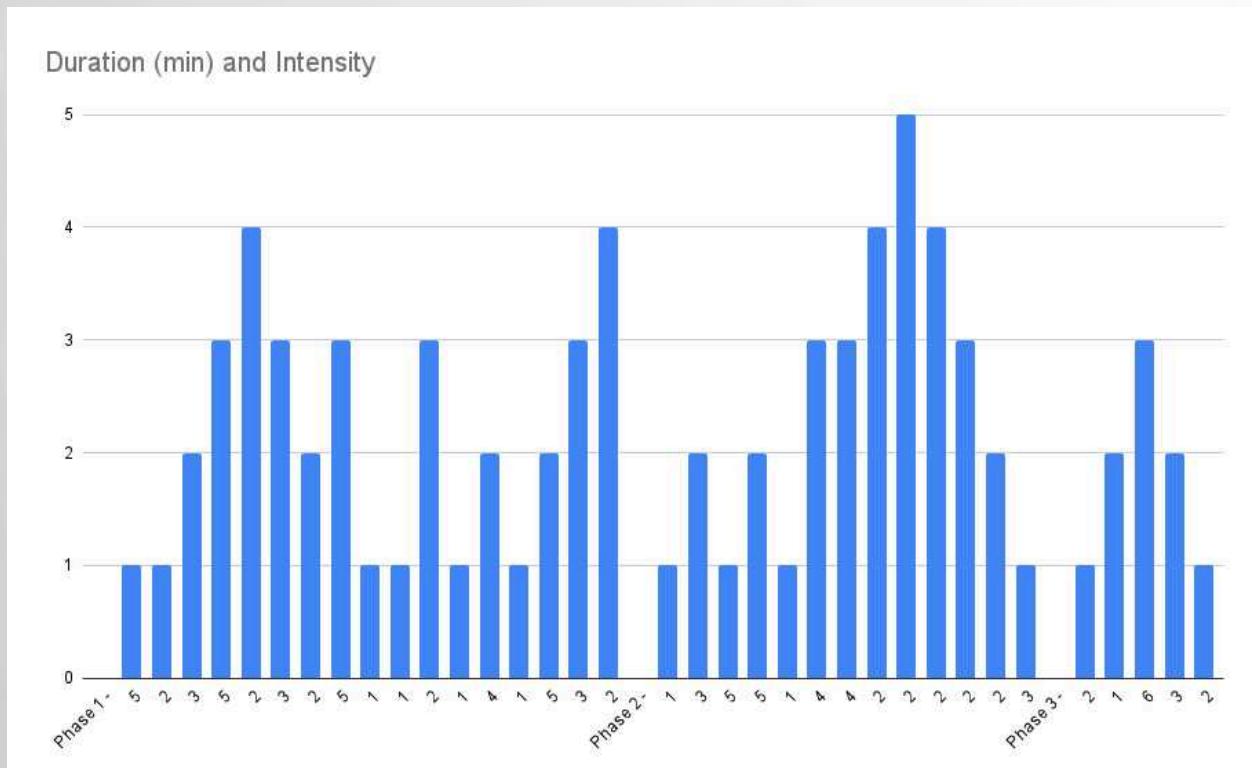


An initial concept for the level. Buildings on the right are part of a requirement to include our previous project in this assignment. Crosses represent planned blockages.



Pacing

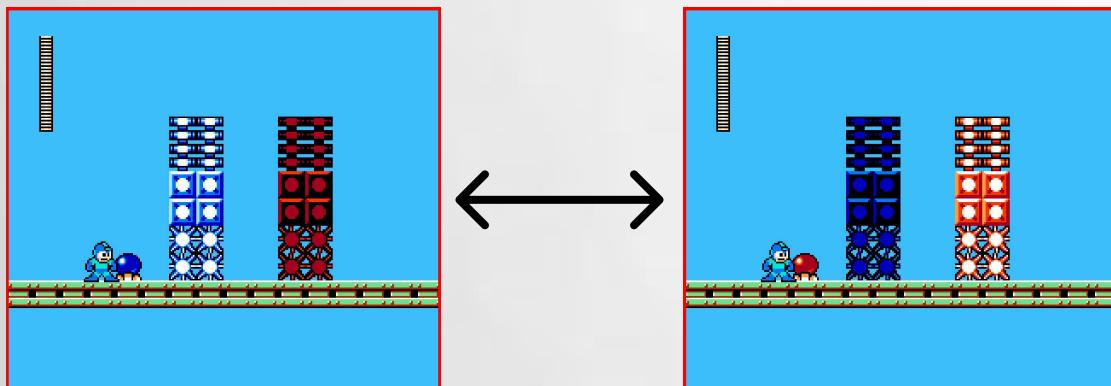
The pace of the map is also taken into consideration, as each encounter and interaction is balanced to maintain a level of intensity that keeps players engaged throughout. Here is the pacing curve for the level's Golden path. This is what an average playthrough of the level will look like.



Cadence (On a smaller scale)

When designing levels, sometimes a more linear level is required. For another assignment, I was tasked with designing three different levels in the game MegaMaker; One Easy, Medium and Hard difficulty level. For example, here is a full layout of my Medium level.

Main theme - Switching between red/blue objects by shooting switches



Blue objects are solid before the switch is shot while red objects are non-solid. This is inverted whenever a switch is shot, as seen next to the player.



The level in full. The player's path is highlighted in green, and alternate routes are highlighted in magenta.

As shown, the level features several unique mechanics that are intended to challenge the player, but not without introducing and teaching the player first.

Below is a legend of each cognitive challenge introduced in this stage. When listing the challenges, a challenge will be marked with a ' (e.g. A') if it has additional difficulty or is a variation of the challenge.

A - Switching (Between red/blue objects)

B - Timing Challenge

C - Platforming Challenge

D - Laser Challenge

E - Destructible/Gravity Blocks Involved

F - Spikes Involved



Screen 1 - AEF

Intro to switches, destructible blocks



Screen 2 - E,AC,ACE,A,C

Switches and platforming



Screen 3 - E,ACF,AC,ACF'

Switch platforming + intro to lasers



Screen 4 - AD

Blocking moving lasers



Screen 5 - AC'

Ladder switching challenge with death pit



Screen 6,7 - A'C'B'

Vertical platforming + switching challenge



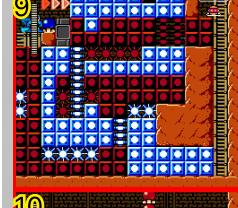
Screen 6,7 (shortcut) - A' B"C'

The player can choose a tighter timing challenge with potential time save in this area.



Screen 8 - ACE'

Ladders + dropping blocks puzzle



Screen 9 - F,CF,C

Two different levels in the same room. Both have similar difficulty.

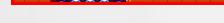


Screen 10,11 - AD,AF,ACD'



Screen 12 - AB'CD'

Jumping + switching challenge



Screen 13 - A'B'C,AB'F'

Jump + double switch challenge
Drop + double switch challenge



Screen 9 (Alt) - C,F,F'C