

# My Design Intent

## by Tan Poh Heng

### Task & Result

For this project, I needed to make a 150 by 150 tile map for an level in a game, along with an experience draft and a map program. For this document, I will be focusing on the workflow I applied to create this map.



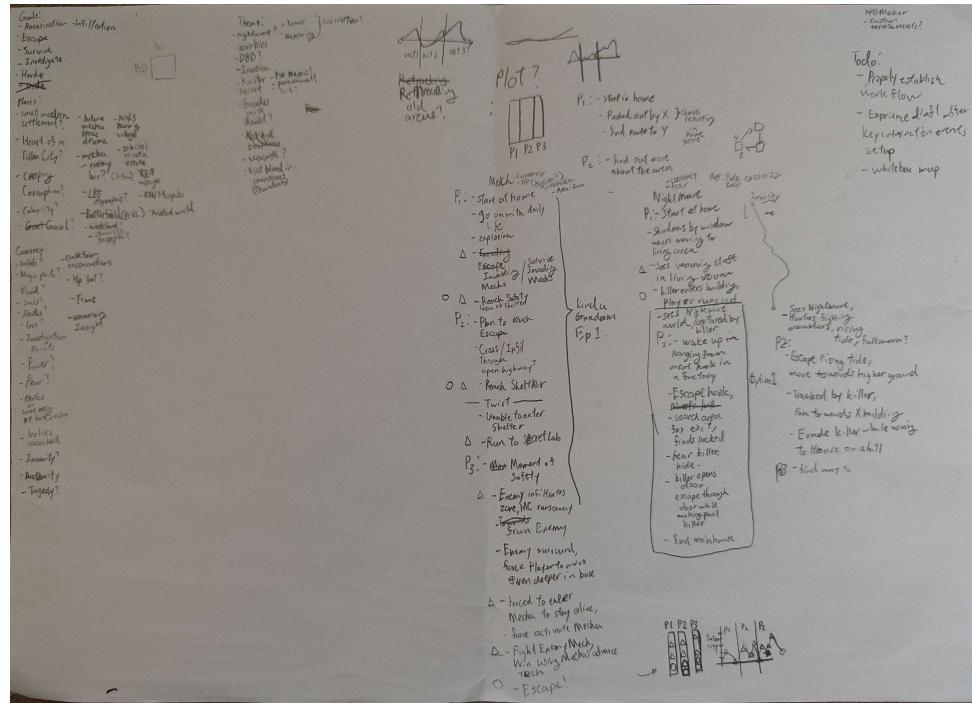
In a not too distant future, in a small town of a military nation surrounding a fictional superstructure called a mass driver (which is like a railgun for launching cargo), a prototype mechanized humanoid machine waits for its turn to be transported. On a fateful day, unknown enemy forces attack the town in search for the prototype.

The map above is a reflection of this scenario, and here is how I made it.

# Initial Theme

Before designing the level, I wanted to settle on a theme to guide my design process. I listed some interesting themes using stories I had experienced before and narrowing it down to the two most interesting ideas at the time.

After writing a short outline of the story for both themes, I eventually settled on the “Mecha” theme. With a general idea of the story of the level, I started working on elements that should be in the setting.

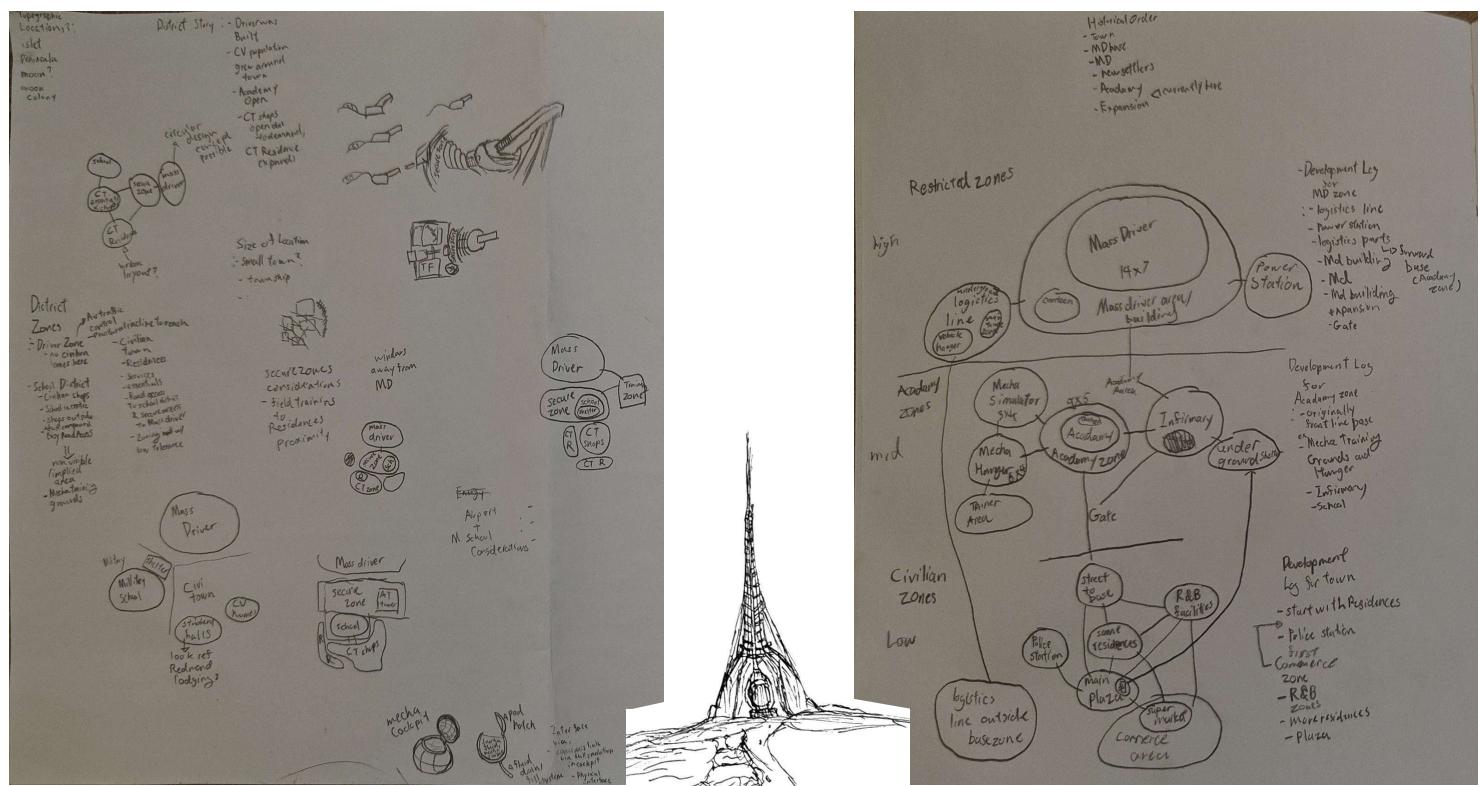


# Location

In order to figure out what was in the level, I expanded on the setting of the story by asking myself questions on what type of location the story would occur in.

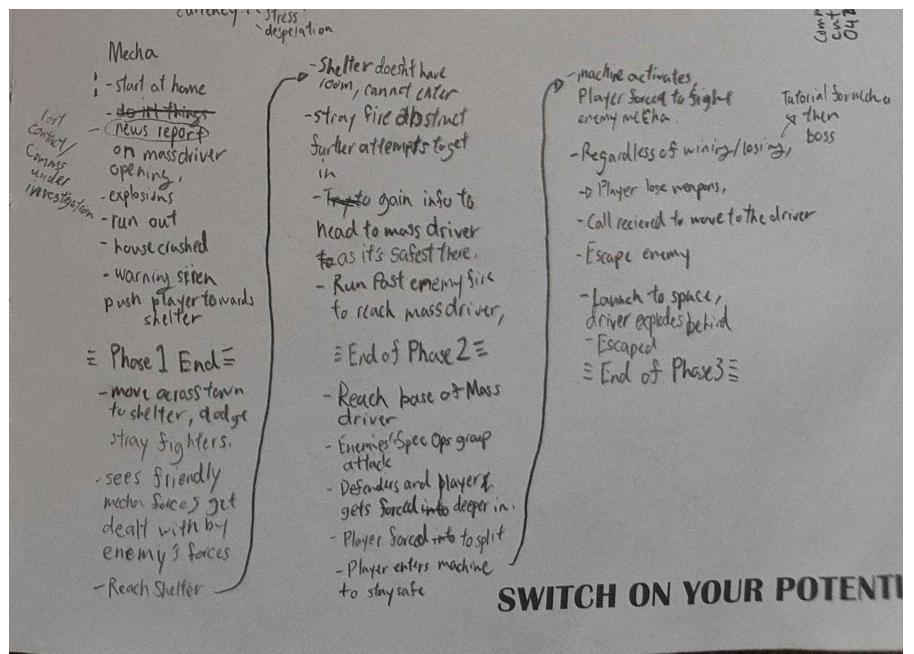
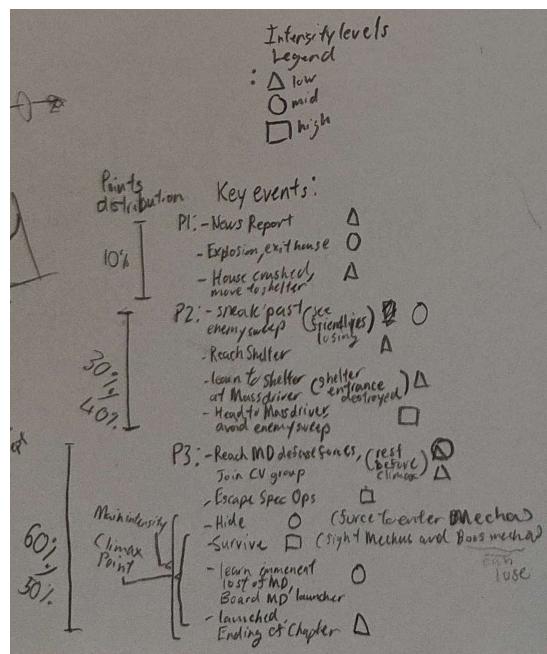
As I wanted the location to display some more unique aspects of the setting, I decided to make the location a place centered around a mass driver based on an old sketch of mine. Based on what I thought would be needed to drive the story forward, I wrote down which districts would likely surround the mass driver.

For each district I added, I tried to come up with an explanation of how the buildings got there and why it came to be by writing a simple district development log about the order each district came to be developed. This was how the first iteration of the map program came to be.



# The experience

After the location was decided, I worked on a detailed version of the experience the map was to offer. I paced the story by fitting the key events into a three act structure type pacing. Additionally, I plotted the general experience path for a first time player. These would help me identify which areas I would absolutely need in the map for the experience to work.



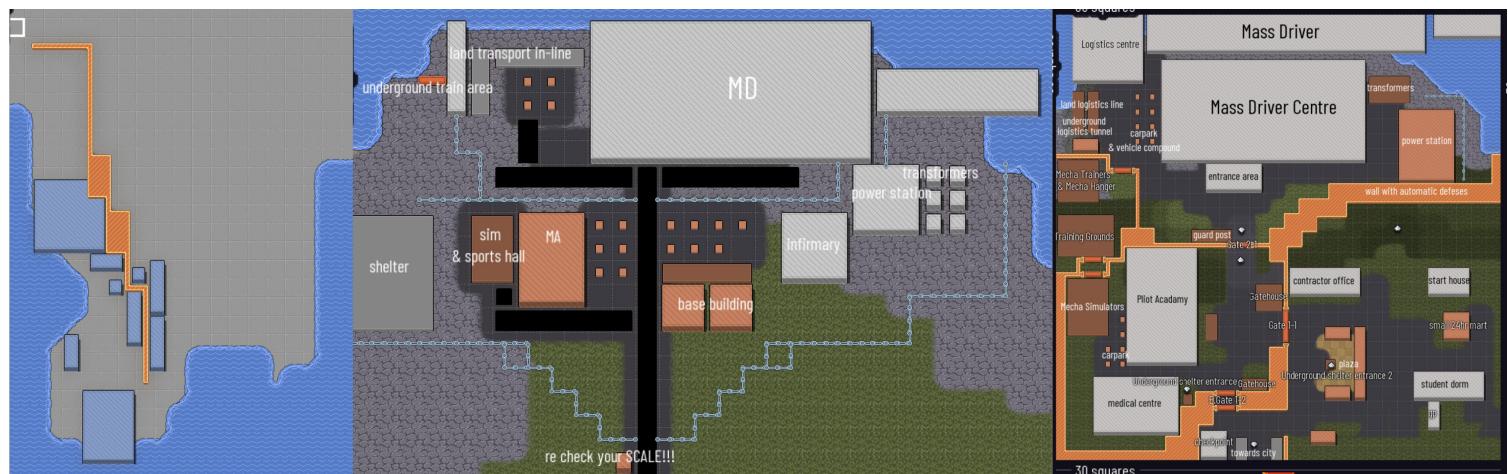
**SWITCH ON YOUR POTENTIAL**

## Whiteboxing

After a basic map program and experience draft was made, I started white boxing a layout in a 30x30 tile map. An issue I faced while whiteboxing on a map smaller than the final map was with the scale of the buildings involved.

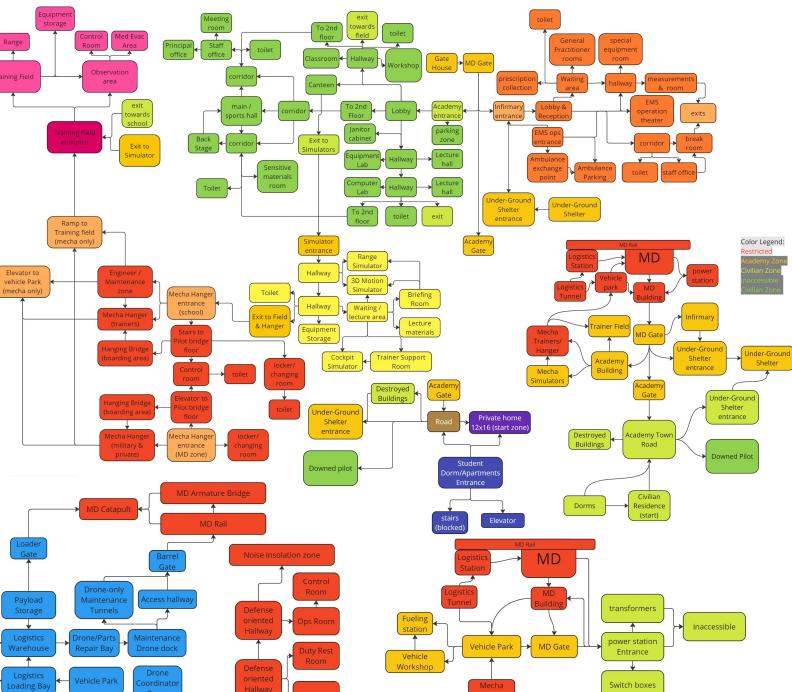
To remedy this, I tried denoting the area where buildings were with rectangular boxes in order to mark its bounds. This helped me to set the scale of each building to a relatable scale in the real world, but it also caused the buildings to take a box-like form which I felt carried over to the final product. In hindsight, it would probably had been a good idea to try making a Parti sketch for each district to get each building and connecting road to take a more cohesive and interesting shape.

One thing that the whitebox helped me with was in reducing the overall number of facilities in the map. By removing much of the civilian district, I was able to further streamline the experience towards the more interesting parts of the setting like the pilot academy and the mass driver district.



# In-depth program

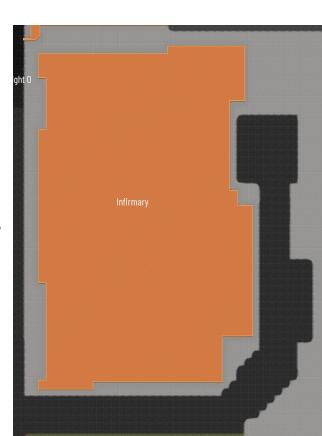
Before starting work on the actual map, I made a more in-depth program of each building in the map. This stage was when I added details of what would be in each building and how they were connected. Some buildings' program was based off experience while others were made with references from the internet.



## Designing buildings

With a basic whitebox and detailed building program, I started working on the buildings in the map.

The normal work flow was to mark the space allocated to a building with walls, then carve the different sections of the building with respect to how it was in the program.

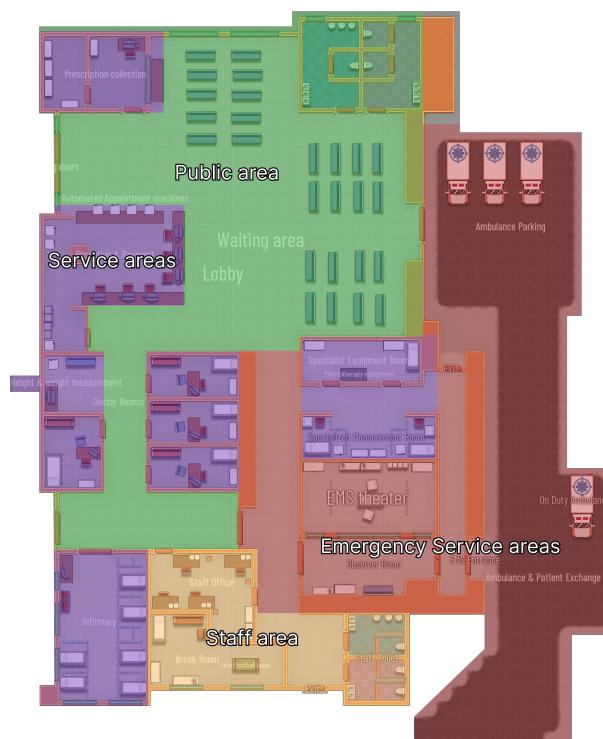


For buildings similar to places I had been before like the academy and infirmary, I used memories of how the spaces in those areas were split in real life as reference to divide the spaces into carve out spaces for the facility to function.

I would carve out areas by functions and accessibility, then block out the areas according to the building's program. This allowed me to mark out the circulation of the people who would use the building in a convincing manner while leaving enough room for some adjustments in the placement of each room.

An issue with this method however is that it barely changes the overall shape of the building. This meant that the rectangular boxes I used to mark the area rarely developed into more interesting shapes.

On the other hand, with real places as reference, blocking out areas based on their function made creating the building's composition easier.



As for buildings I had little reference for, it was more common for me to start at one room in the program and carve out the space for each connected room.

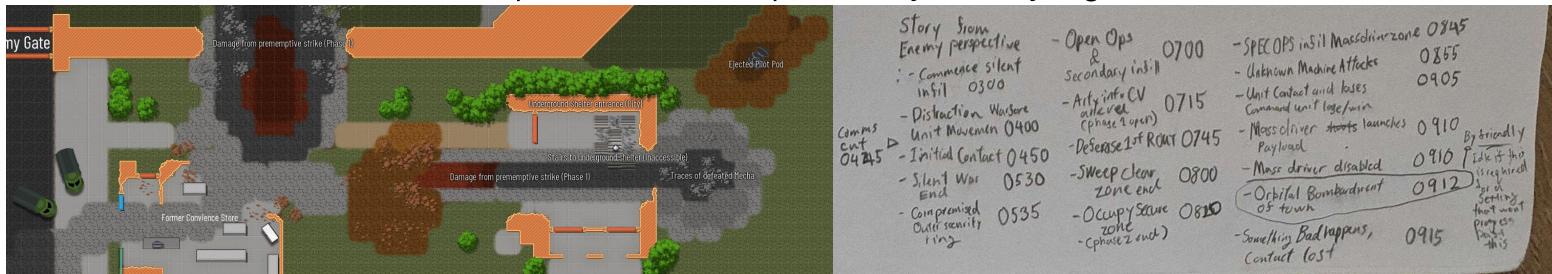
This would often result in more interesting overall shapes but at the cost of the circulation in these areas. In order to improve the circulation of these areas, I added non-natural passages such as walls that were damage by explosives.

## Set dressing

After designing the interiors of each building, the last thing to do was to add some details following the scenarios in the experience draft.



This often came in the form of painting in details using different sprites to depict scenes, or adding breaks in the structure of the map based on a simple enemy activity log.



I wanted the set dressing to help build make a believable environment where a player could immerse themselves in the setting. If I had more time for the project, I think this and more iterations would be a priority for me.

## Closing thoughts

Since I tend to build my levels by isolating the theme, building a story and drafting the background before working on the actual map, my maps are usually strongly theme and scenario focused. This means having a more restrictive themes usually results in a more focused map design.

However, this method of building levels means more work needs to be done before even working on a level. This takes up a lot of time, which usually leaves me struggling to find enough time to iterate on my work after the map itself is complete. Additionally, I often struggle to place leisure areas in my locations as my map program tends to be little more than the essential facilities.

In future projects, a more balanced approach to balance the pre design and design stages could give me more time to iterate my maps. Making a Parti sketch could also help me in both finding spaces for leisure spaces if I have trouble adding them to an area and making more interesting shapes for my buildings.