

GRIN Assignment – Level Design

16/3-2008

Arcade Berg [Swedish “Person Number” removed due to public display]

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Setup

The game takes place in a somewhat devastated area, the air is filled with poisonous gas reaching hazardous concentrations at a few meters above ground (gameplay: floor 2 and above). Below that anyone can reside for days without harm. This has forced most people to escape or go underground.

The gas isn't located inside tight areas.

Hostile forces are guarding the zone in which this level takes place, by being both on the surface with appropriate equipment and by staying below the ground, surfacing only when needed. (More on this in the Enemies-chapter of Game_Design_Arcade_Berg.doc)

The level takes place during early dawn when the ambient lighting isn't very intense but still bright enough for the player to be able to see and navigate along the level without any difficulties. Some areas will however be very dark and in need of player created light to be able to see. (More on this in the Players-chapter of Game_Design_Arcade_Berg.doc)

The players have reached the start-point of the level by moving underground in the sewers, but once they reach the zone they must surface because enemy concentration below the surface is too high and risky. The goal of the level is to reach “point B” which is a heavily guarded facility of some sort.

Theme for the level is a small city environment.

Winning Condition

Reach the end of the level with all four players.











External files








Full resolution image without notes:	<i>Map_WITH_NOTES.png</i>
Full resolution image with notes:	<i>Map_NO_NOTES.png</i>
Blocked version of the level, using Half-Life 2. (vmf-file for Hammer)	<i>arcade_berg_work_assignment.vmf</i>
Blocked version of the level, using Half-Life 2. (Playable. Compiled without lights)	<i>arcade_berg_work_assignment.bsp</i>

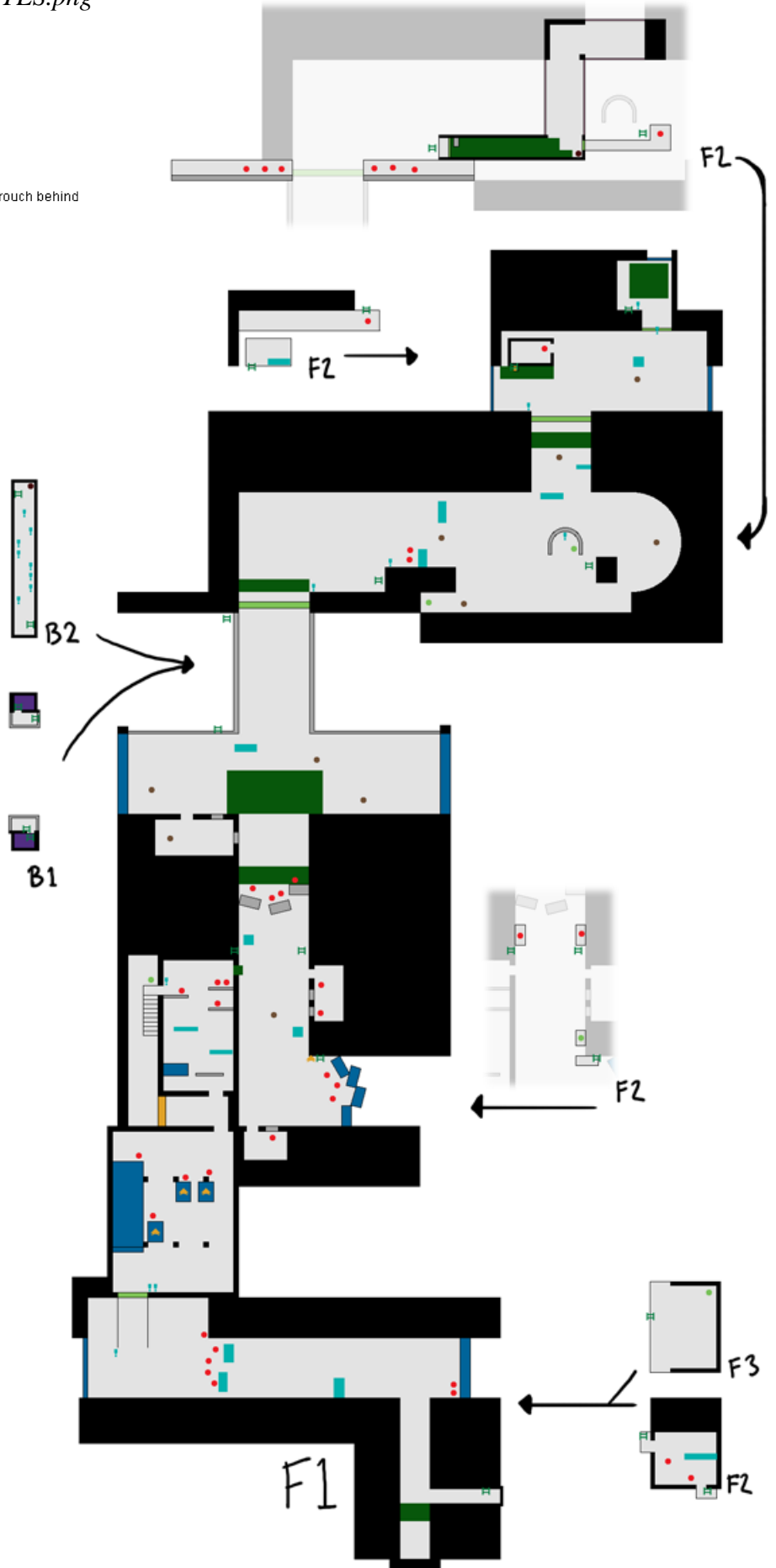
Map

Full resolution image: *Map_NO_NOTES.png*

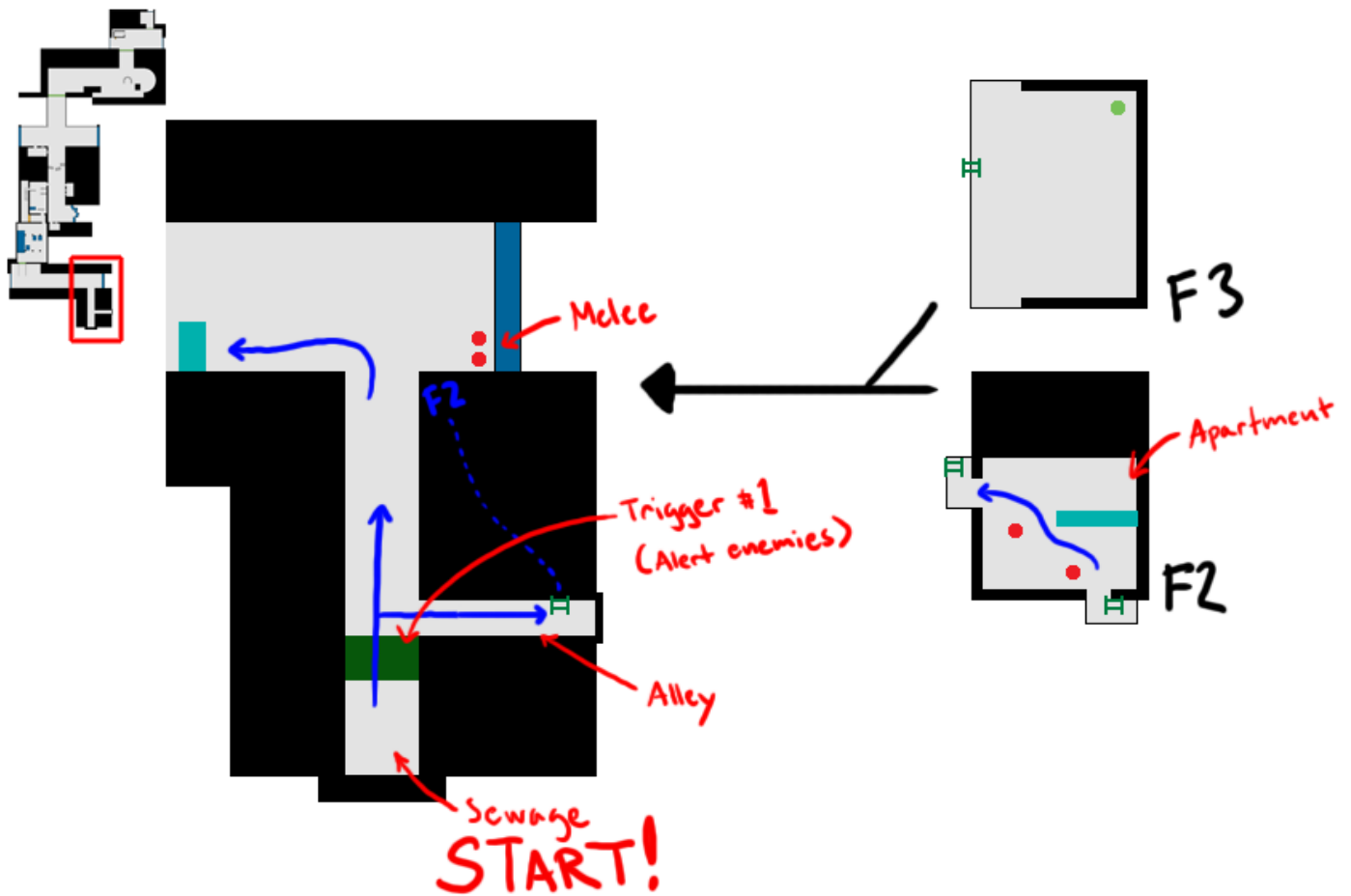
1024 Source Hammer Grid Units

-  Floor
-  Obstacle low enough to fire above and high enough to crouch behind
-  Walls
-  Doors / Gates
-  Hole downwards
-  Graphical obstacle that can't be passed
-  2P Climbable
-  Glass (Breakable)
-  Obstacle most often (but not always) low enough to fire above and high enough to crouch behind (...that requires **big** amounts of game testing to "get the right" placement and size.)
-  Trigger-box

-  Ladder
-  Requires 2P Climb to reach
-  Pre-placed enemies (Type not indicated with icon)
-  Gun-Turret
-  Interaction object (Switches, Computer-slots, etc.)
-  Health Pick-up
-  Pod surface point



Part 1 – The alley



The four players start in an alley by sewage manhole.

Once a player reaches **Trigger 1**, the melee enemies up north are activated and start charging towards the players as well as one of the enemies (ranged) on the 2nd floor in the apartment-building walking out to the balcony, firing at the players.

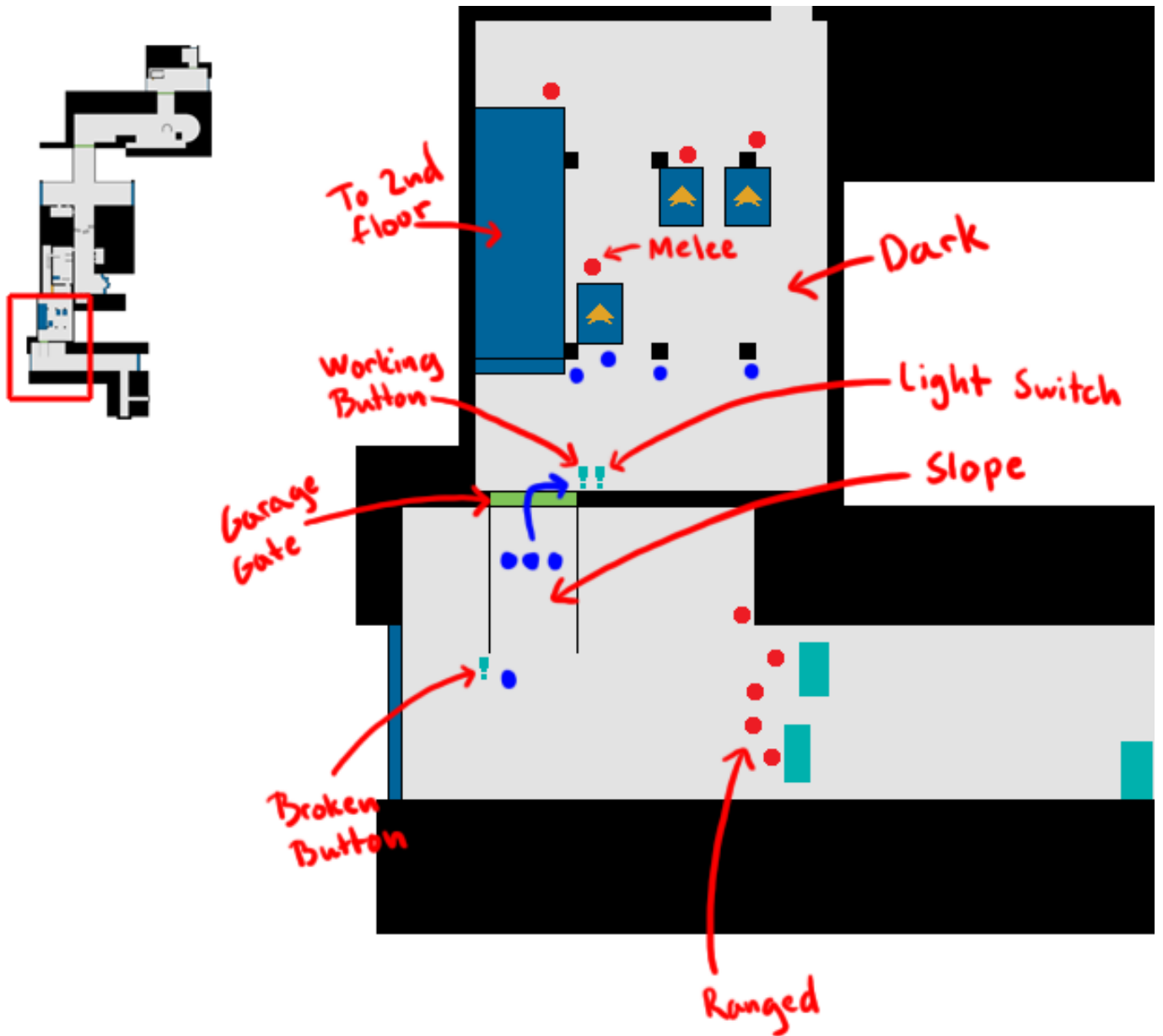
This is not very challenging but it “activates” the players at once getting them on the edge for further attacks.

To the right there is a smaller alley with a ladder up to the second floor. Anyone can use the ladder but only the gas-players will survive on F2 because of the gas. On F2 another (ranged) enemy is placed. He’ll run back for cover when engaged.

The player can advance further up to F3 to get a health-pack but also to get a good overview over the upcoming road. The player Sharpshooter would be a good choice, since he can take out enemies from a distance more easily than other players.

The main reasons for the apartment building is to early on present the players with the concept of splitting up as well as the gas.

Part 2 – Road and Garage



After the alley, the players follow along a wide road, facing ranged enemies behind a blockade. This is a simple corridor battle which will introduce the players to the concept of taking cover. The player with the shotgun will have to advance if he wants to be able to inflict massive damage, or he could act decoy for other players to advance.

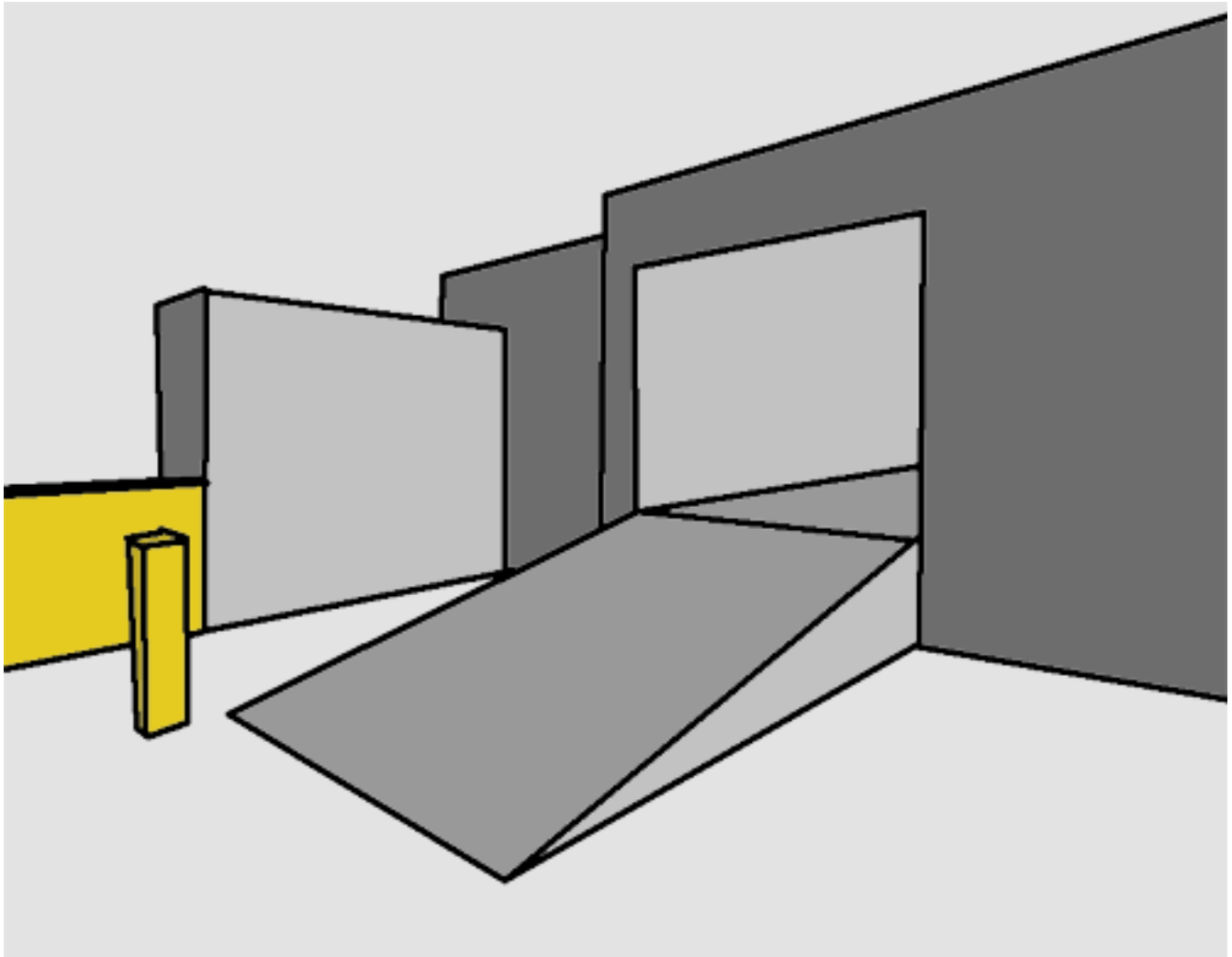
Once the enemies have been defeated the players face the levels first “puzzle”. There is a closed garage gate they’ll have to get open. To do this a player will have to press the **Broken Button** placed at the beginning of the road going into the garage. While pressed the gate is open but when the player pressing it moves the gate once again closes. To solve this one or several other players have to enter the garage while the gate is open, and then press the **Working Button** to open the gate for real.

The reason the players are not attacked while solving the puzzle to make it more difficult/exciting is to give the players some calm to adapt to this kind of thinking.

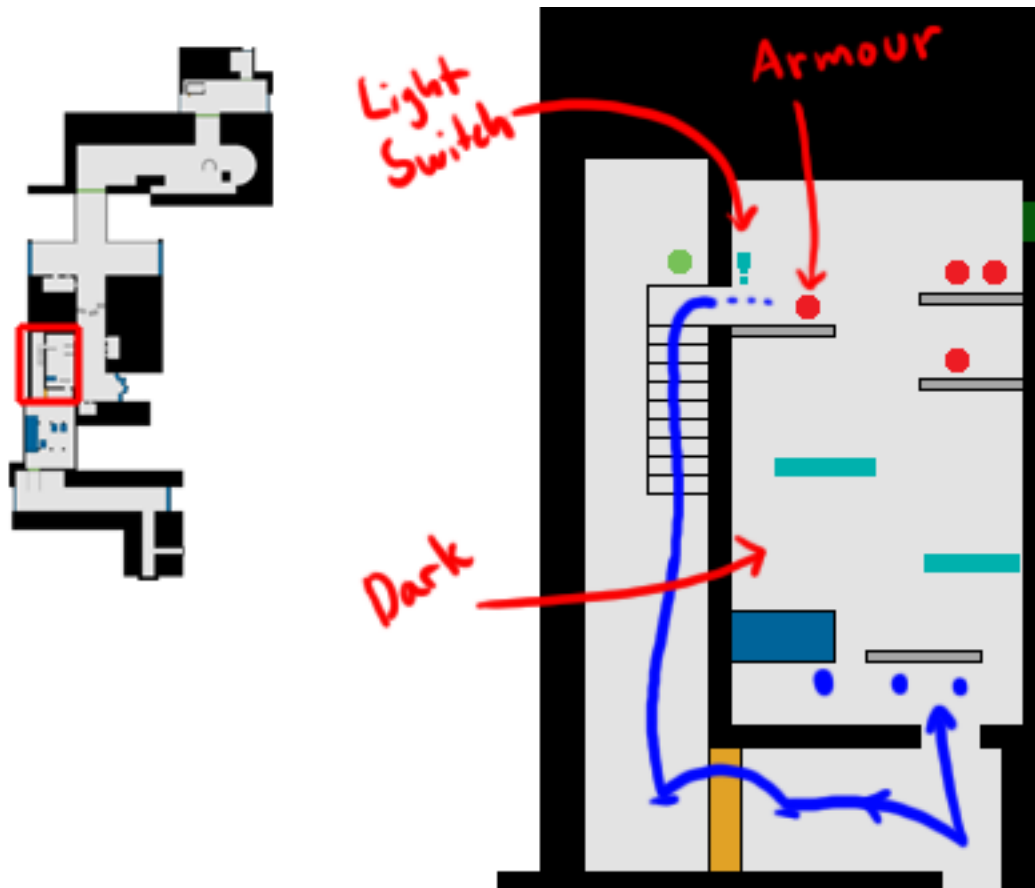
Right next to the **Working Button** is a **Light Switch**. If the **Light Switch** is toggled, the lights in the garage activate. If not, the garage remains pitch black, requiring a darkness-player to help navigate. The enemies in the garage are all ranged except for the one marked melee on the map. The reason for putting the **Light Switch** right next to the **Working Button** is to lead the player to it, presenting the concept of light switches with ease.

In the garage is also a blocked way for cars to get to the second floor of the garage. It is however impossible for the player to get there.

The road into the garage is slightly sloped.



Part 3 – Small warehouse



There are two entrances into the small warehouse (well, three but one is the exit). To get to the one up north-west the players need to execute a 2P Climb, helping one to three players over the obstacle. There is also a health-pack located there.

The warehouse is quite dark, but not pitch black.

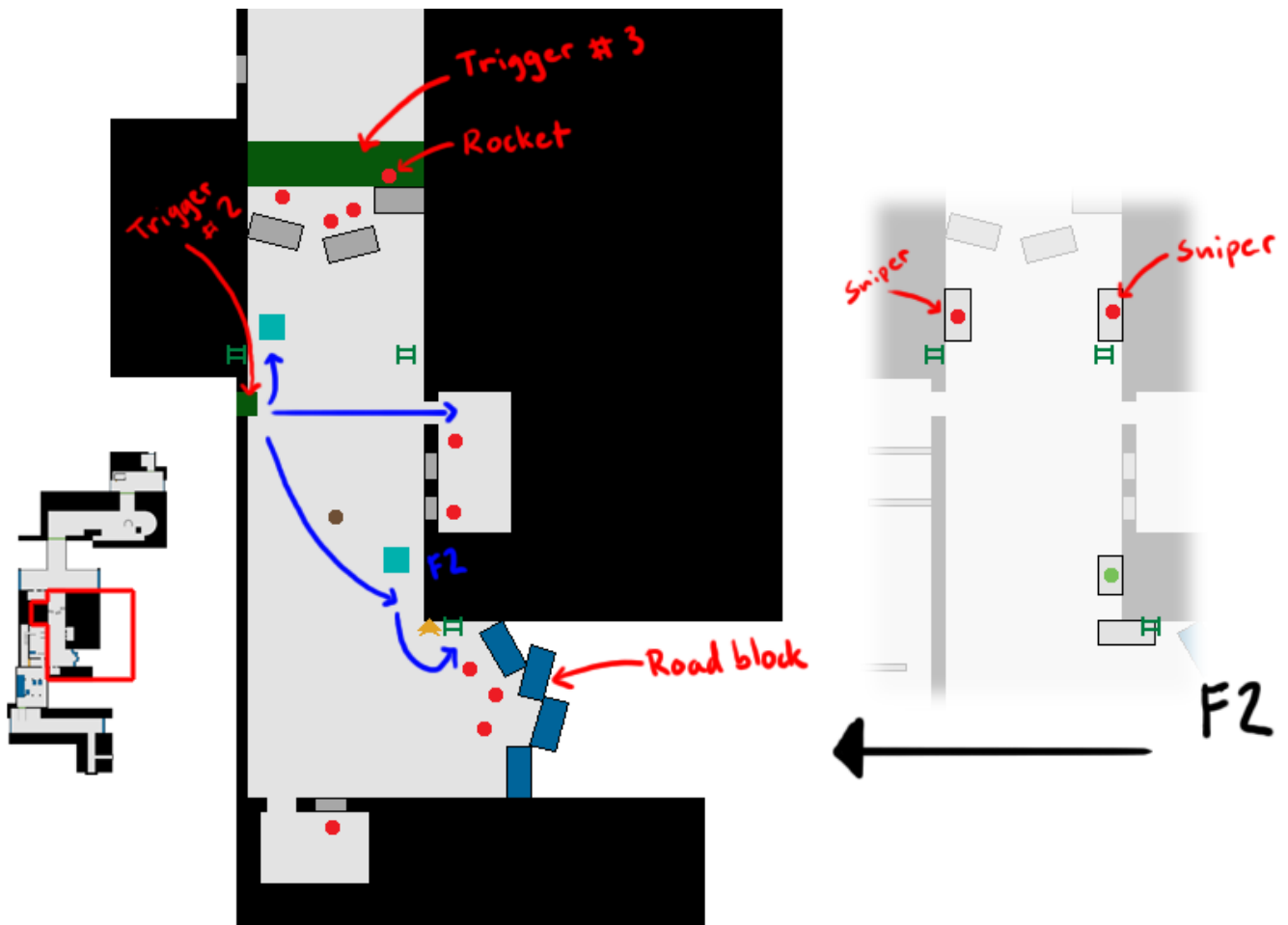
At the far end of the warehouse, there are ranged enemies, one being heavily armored, making him impossible to defeat unless flanked or confronted with explosives. The best way to flank him is to advance in the room using the main entrance, while one or two players go in using the backdoor. It's not a very good idea to have the majority of players using the backdoor. This is because the opening is quite narrow and is only wide enough for one player to get in at a time.

Right by the backdoor is also a **Light Switch**, used for turning on the lights in the warehouse.

When exiting the warehouse the players enters a trigger box.

I wanted it to be easy to flank the first armored enemy, to have the players grasp the technique.

Part 4 – Roadblocks



Part 4 of the level is a wide road with two roadblocks. Since the players enter from the side of the road, they find themselves behind one of the roadblocks, making those enemies' barricade useless as defense.

This part of the road is heavily guarded.

When entering the road the player activates **Trigger 2**, causing all enemies (in part 4) to be aware of their presence. All enemies are ranged unless shown otherwise on the map-image.

On F2 there are two sniping enemies placed on balconies on each side of the road.

The players can take cover from the enemies by the north roadblock behind objects placed on the road or by running to the room on the other side of the road. Preferably by dealing with the enemies in that room first.

The north roadblock is of great challenge because of the enemy with a rocket launcher. Taking him out early is a good idea.

The enemies by the south roadblock are fairly defenseless but still as aggressive as always. They will choose to charge at the players. They are however still ranged enemies but will run towards the players while firing.

By the south roadblock is a ladder, requiring 2P Climb to get up to. Once up the player can find a health-pack as well as high ground to attack from. If the snipers on the balconies aren't dead yet, this is a good place to

kill them from.

As always, F2 is full of gas, but a darkness-player can make it to health-pack and down again just in time before starting to lose health.

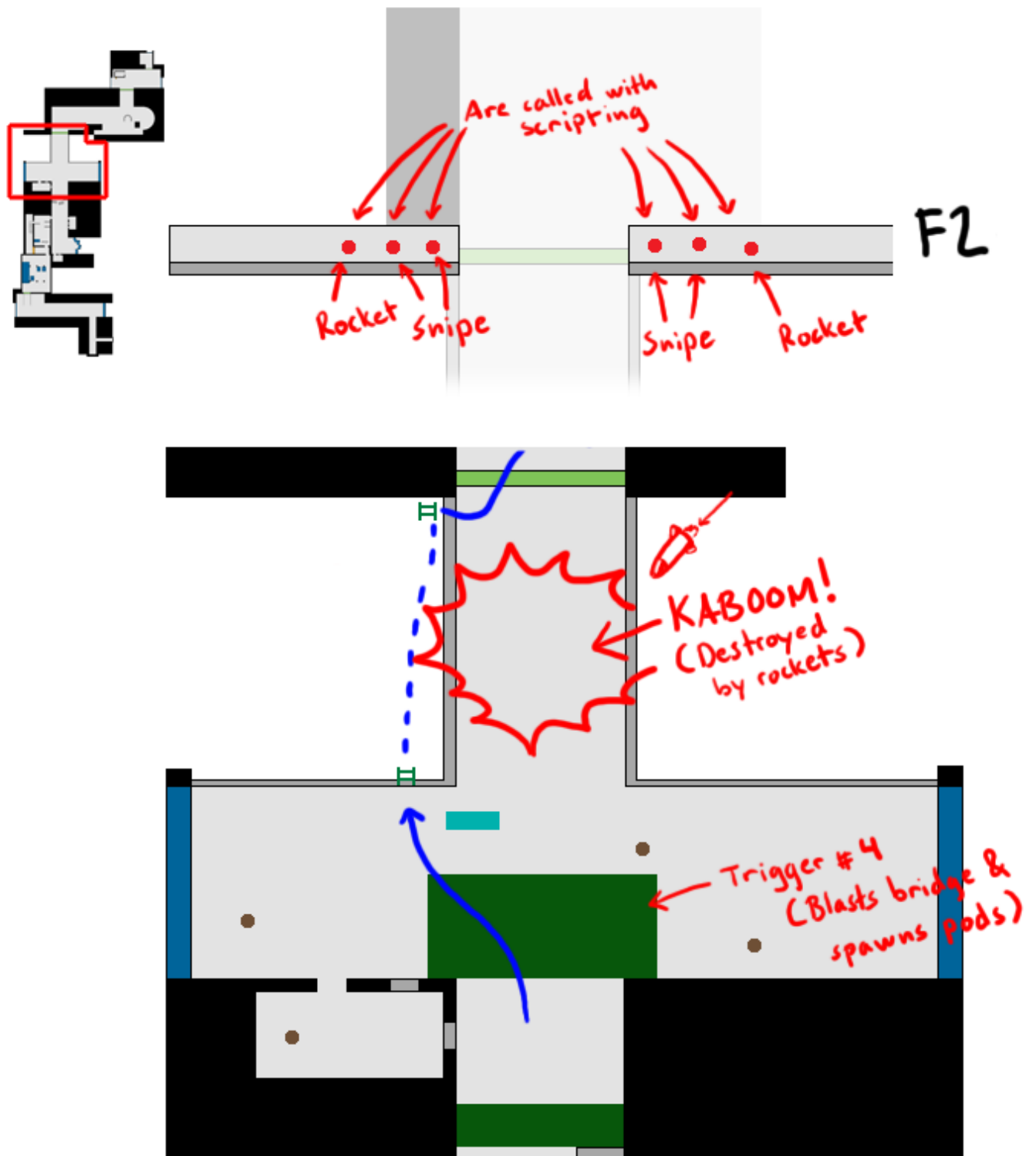
Once **Trigger 3** is reached, the first pod of the level appears in the middle of the road. Before it does, the metal detector starts going crazy, indicating it's coming.

This pod will spawn a variety of enemies, including one heavily armored. This could get very tough if all the players are north of it. But if one or several players are south of the pod, it can easily be deactivated early on, as well as taking out the armored enemy shouldn't be much of a challenge.

The metal detector will give the players some extra time before the pod arrives, making it possible to at least get to the room to the east for some of the players.

There is not a requirement to take out the pod, so players could chose to just keep going north.

Part 5 – Bridge



After the roadblocks, there is a crossroad with one road going north as a bridge.

On the other side of the bridge there is an open gate and to the right and left of the gate there are two massive walls.

Once a player closes in on the bridge (**Trigger 4**), enemies will rise from crouched position on top of the massive walls, showing themselves. Two of those enemies have rocket launchers and will each fire a rocket at the bridge, destroying it completely (scripting). Until the rockets are fired the rocket launching enemies are invincible. After the bridge is destroyed all enemies on the walls will start attacking the players and the metal detector starts beeping. After a few second four new pods will surface, spawning a large number of both melee and ranged enemies.

It will be extremely tough to keep the enemies at bay and destroy the pods. If they manage to do that (very unlikely) all they will get is tranquility.

The objective here is to get to the other side of the bridge, by going into the sewage. On the other side it will be a very apparent entrance/exit to the sewage a bit to the left of the bridge a few meters down. An entrance just like it is located at the players' side as well and to reach it they will have to climb down a ladder to the left of the bridge. While a player climbs down, the other players do best in trying to defend him. While climbing the ladder a player can not fire his weapon.

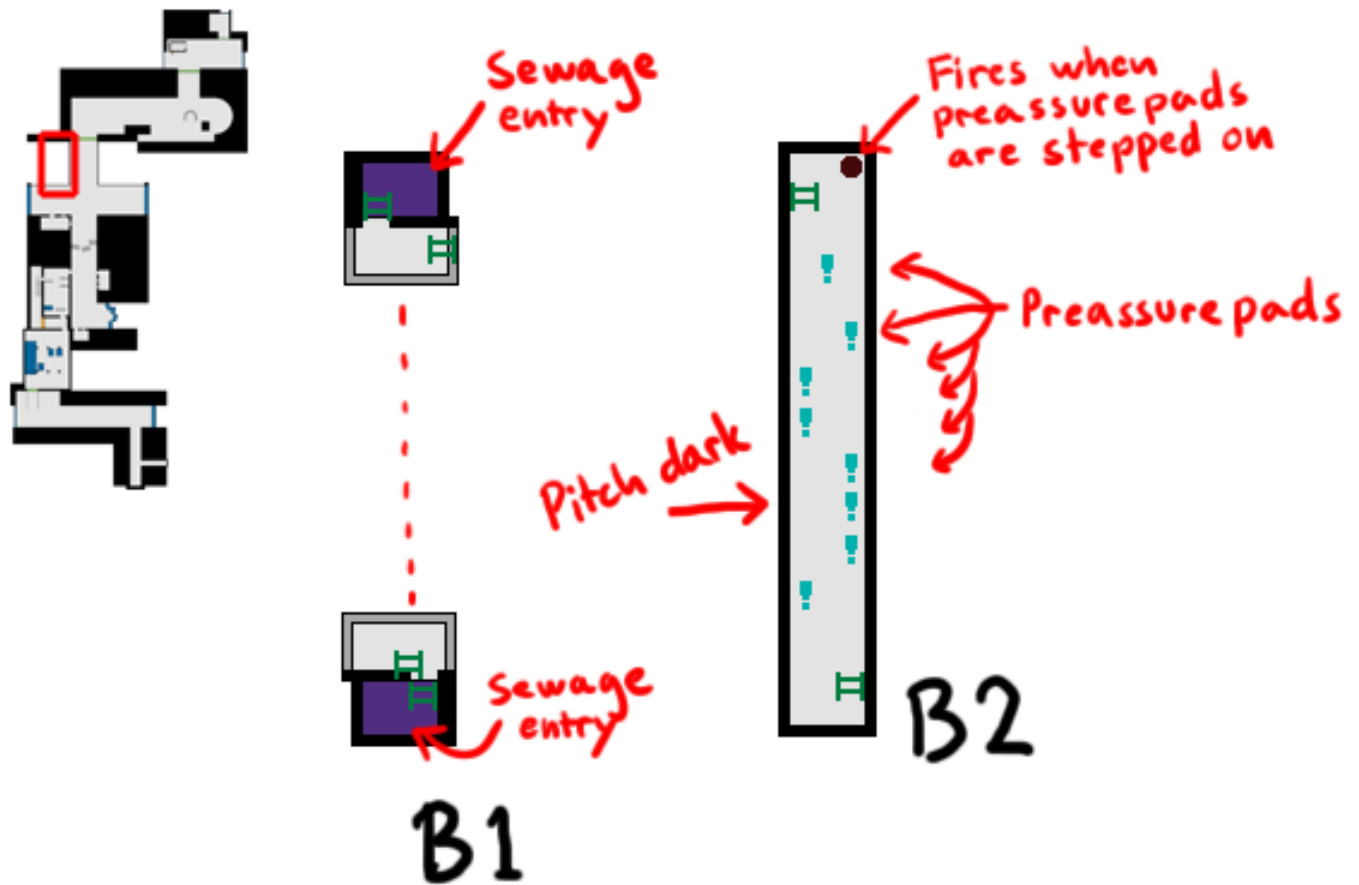
The ladder on the players' side will be visible from the crossroad.

Enemies from the pods will not follow the players down the ladder, however the enemies positioned on the great walls will keep firing at them unless they're taken out.

An invisible wall keeps players from falling down from the bridge etc.

Here I wanted to escalate the seriousness of the defense and really tell the players that they're getting close. I want to create a stressful situation where the players will feel outnumbered and will feel more willing to use grenades and flares.

Part 6 – Under the bridge



At first the players reach what is very much like a balcony (B1); a small platform with waist-high walls around it. From it there is the ladder with which the players arrived and an opening (**sewage entry**) to another ladder, leading down to B2.

B2 is completely dark and there is no light switch to change this fact. At the other end of the corridor, there is an automatic enemy gun-turret.

The turret only fires when a player is standing on a pressure pad on the floor. These pads are visible but as the corridor is so dark, darkness players will have to light up the corridor either by using flares or my helping all players navigate around the pressure pads using the flashlight.

The turret will keep firing for a couple of seconds even after a player leaves a pressure pad.

Here I wanted to give the advantage to the darkness players, as well as giving a great responsibility to them, as they are responsible for the entire teams' survival. The turret is very dangerous and the corridor is too long for a grenade to cross the entire distance.

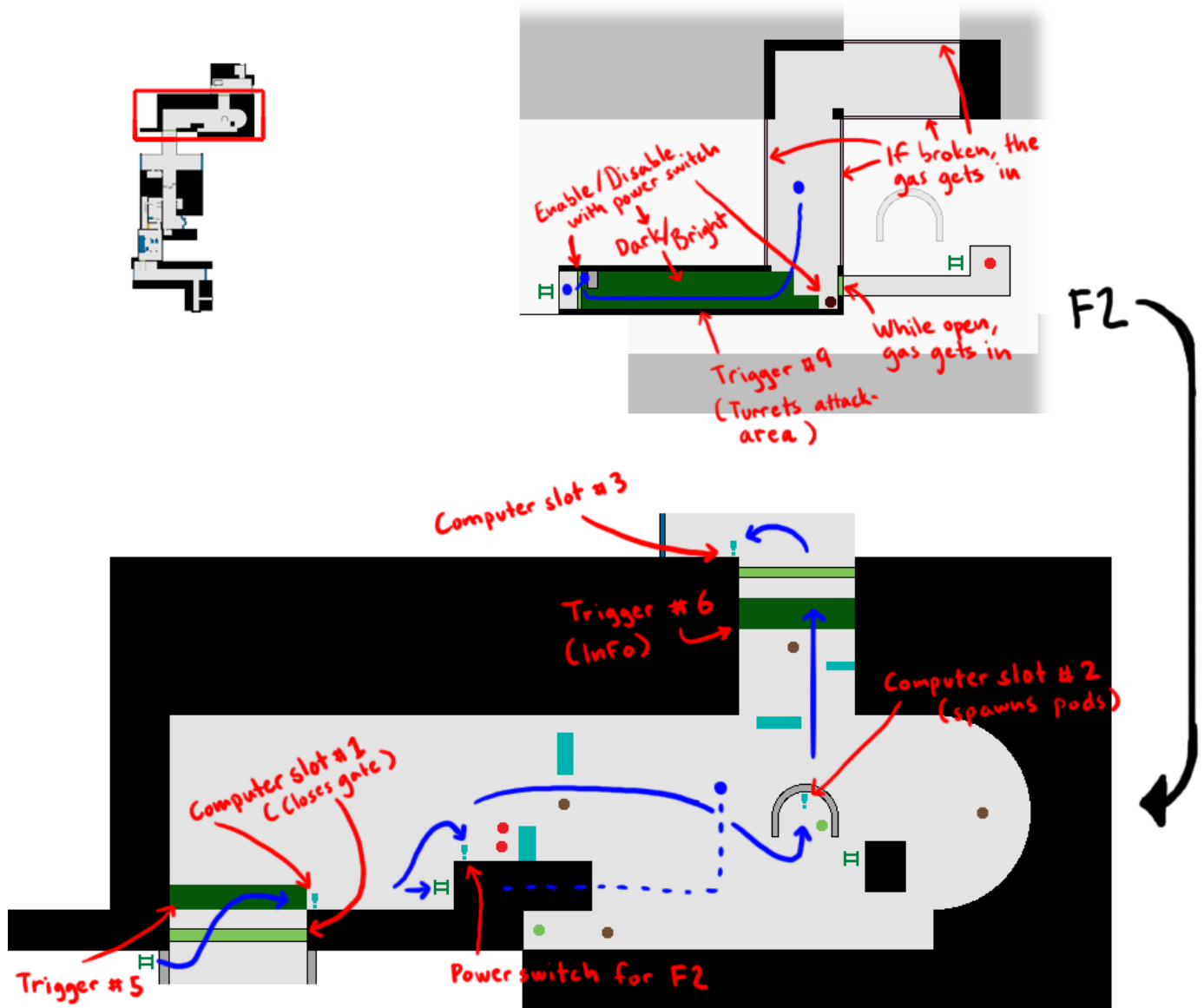
The players will have to consider if using flares is worth it, when it can be completed using the flashlight, even though it's a tad more challenging. "Maybe we'll need the flares later on, let's save them for now."

This corridor also introduces a new element of team work that differentiates greatly from the earlier combat oriented type.

Once the player has reached the other side, they'll all climb a ladder to get to the **sewage entrance** (B1) at the other side of the bridge.

From there they can climb up to the open gate between the great walls.

Part 7 – Inside the great walls



Once up on the far side of the bridge again, any remaining enemies on the great walls and the south side of the bridge will start attacking again. If there are pods left, it's pretty much impossible to stop the enemies from keep attacking. That is why the players should close the gate by using the **Computer Slot 1**.

Once **Trigger 5** is activated, the players are informed of what **Computer Slot** does. (A player character speaks, for example.)

When a player uses **Computer Slot 1**, the mentioned player picks up (starts carrying) an electronic-device and the gate is closed.

While carrying something you cannot fire a weapon. You can put down and pick up the device at any time. Any player can carry it.

If the device is placed back into **Computer Slot 1** the gate is once again opened and the device remains there

until picked up again.

There are two ranged enemies on guard in this area that will engage once they notice the players.

In the middle of Part 7 is a ladder leading up to a closed and locked door. Behind the door is a corridor. At the end of the corridor there is an automatic enemy turret. Inside the corridor there is no gas.

By the bottom of the ladder is a **Power switch for F2**. By using this switch, the power is activated on F2 and the locked door is opened, the light in the corridor is turned on and the turret is activated.

The turret fires at everything within **Trigger 9** when active.

To get past the turret, do this:

1. One player (P1) should stand by the **Power switch for F2** and turn on the power to open the door.
2. One or several other players (P2) should then enter the corridor and take cover from the turret.
3. P1 turns off the power. The door closes, the light turns off and the turret deactivates.
4. P2 can now safely navigate through the corridor. If one or several of them is a darkness-player, he can even light the way.

Once passed the turret, there is a wide corridor going over F1 with glass walls to the north and a door to the east.

If the door to the east is opened gas will slip and start filling the corridor while the door is open, but once it's closed the gas will expire and vanish.

Outside the door is a narrow path to a watch post. There is a ranged enemy there that can easily be taken out from the door. (Easier than approaching from F1.) There is also a ladder connecting F1 and F2 by the watch post.

At the end of the glass corridor going north is another corridor just like it, going east.

These corridors give a great overview of the surrounding and it's a great place to be when unlocking the gate up north (more on this soon).

When/if the glass in the corridors is broken, the corridors get filled with the poisonous gas forcing any darkness-players to get down to F1 immediately. This is a fun "Oh, crap!"-experience.

On F1 there is a health-pack located in a back corner.

At the end of the part 7 on F1 there is a big locked gate. If approached while it's being locked (**trigger 6**) the players are hinted that there is a terminal-center (**Computer Slot 2**) that seems to be connected to it to the south.

To unlock the gate, the electronic-device from **Computer Slot 1** is to be placed in the **Computer Slot 2**. Once the device is docked, the use command can now be initiated to start hacking the terminal. Once the hacking has started (by any player) the metal detector starts beeping and shortly four pods surface from the underground.

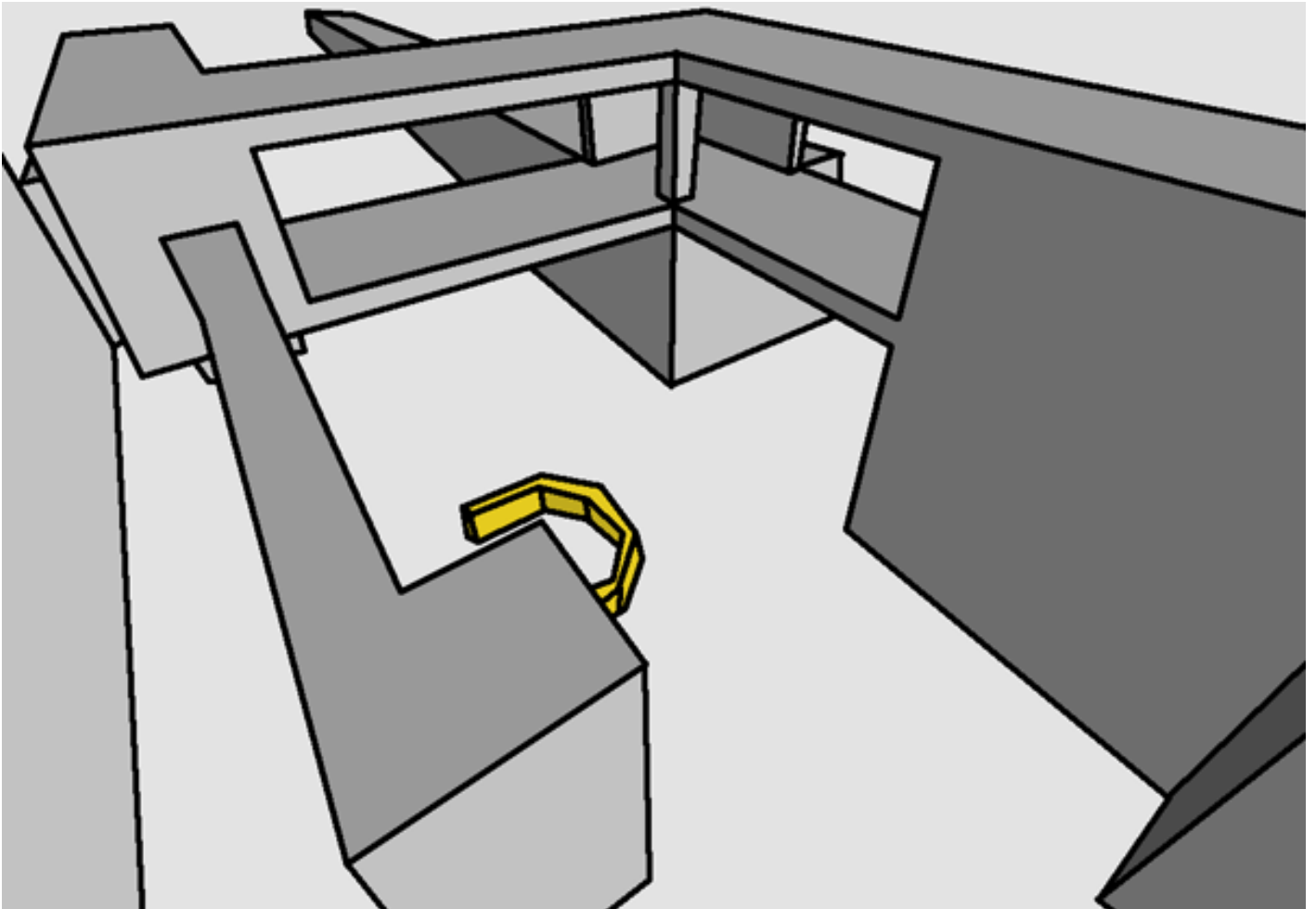
The hacking takes a while and the pods will spawn all varieties of enemies. This will require all players to defend the hacker at all cost! The hacker can crouch to take cover at any time, but while crouched the hacking is at a stand still.

This is a great time to be placed in the glass corridor, thanks to the overview and the ability to attack any enemy as well as taking cover by simply backing up. If the glass isn't broken yet, enemies will break it when trying to shoot the players up there (if detected by the enemies).

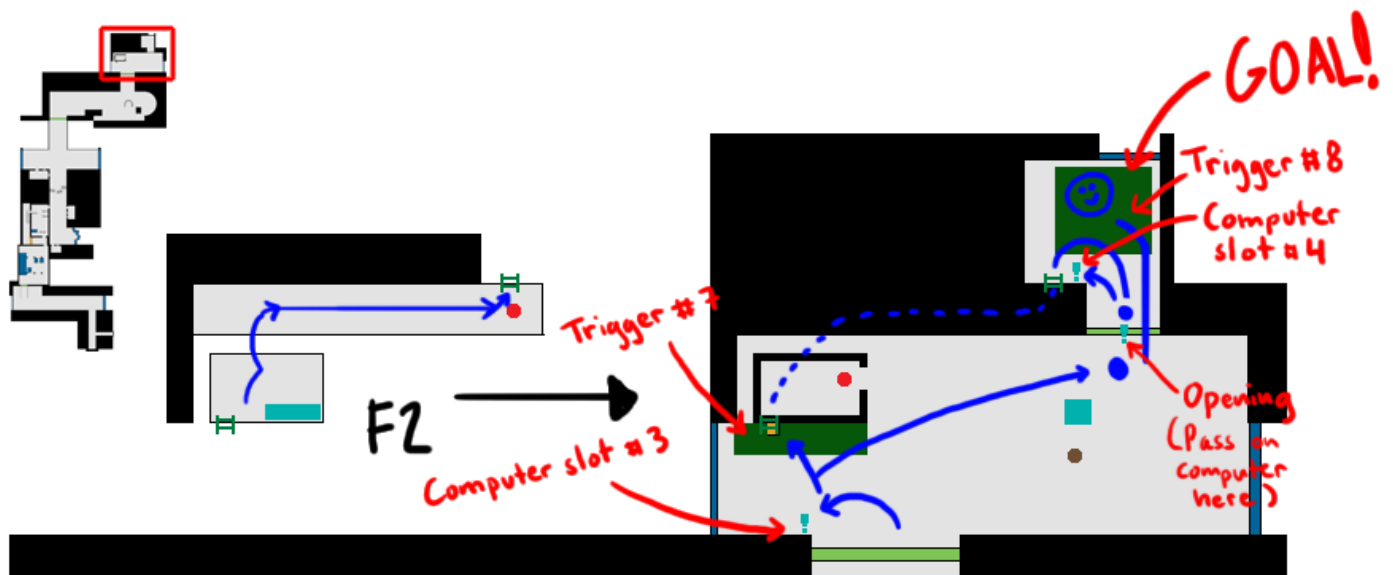
This part of the level requires the player to work as a team and position advantageously and tactically.

Once the hacking is done, the north gate is opened and the hacker automatically picks up the device again.

It would be wise to close the again after all players have gotten trough to stop the enemies from the pods to catch up. This is done by placing the device in the **Computer Slot 3**.



Part 8 – The gate with a hole



Part 8 is a narrow road with a guard house next to it, as well as a gate and the finish (**Trigger 8**).

Inside the guard house is an armored ranged enemy. He'll exit the small building and is pretty easy to take out if flanked by going around the house.

On top of the north wall connected to the north gate is a ranged enemy.

Along one of the walls of the house is **Trigger 7**. Once activated it calls forth a pod. This pods can be difficult to destroy due to it's location, however since it's only one and it spawns many melee enemies, it's easy for several players to work together to kill the spawned enemies as they come.

To the north is a locked gate.

The gate has a watch-hole big enough for the device to be passed through. However, there must be a player on the other end to pick it up and use it on the **Computer Slot 4**, which is on the other side of the gate.

For one player to reach the other side, a 2P Climb is necessary for him to reach a ladder outside the guard house. One cannot climb if carrying something (the device), that is why he can't take it with him.

Once on the roof (F2) the player can jump onto the wall of which the north gate is connected to. From the wall the player can get to the other side of the gate, take the device and use it on **Computer Slot 4** to open the gate.

Once all players stand on **Trigger 8**, they can see the facility true a fence and the level is finished.

