

October 16th, 2024 - Initial Map Designs

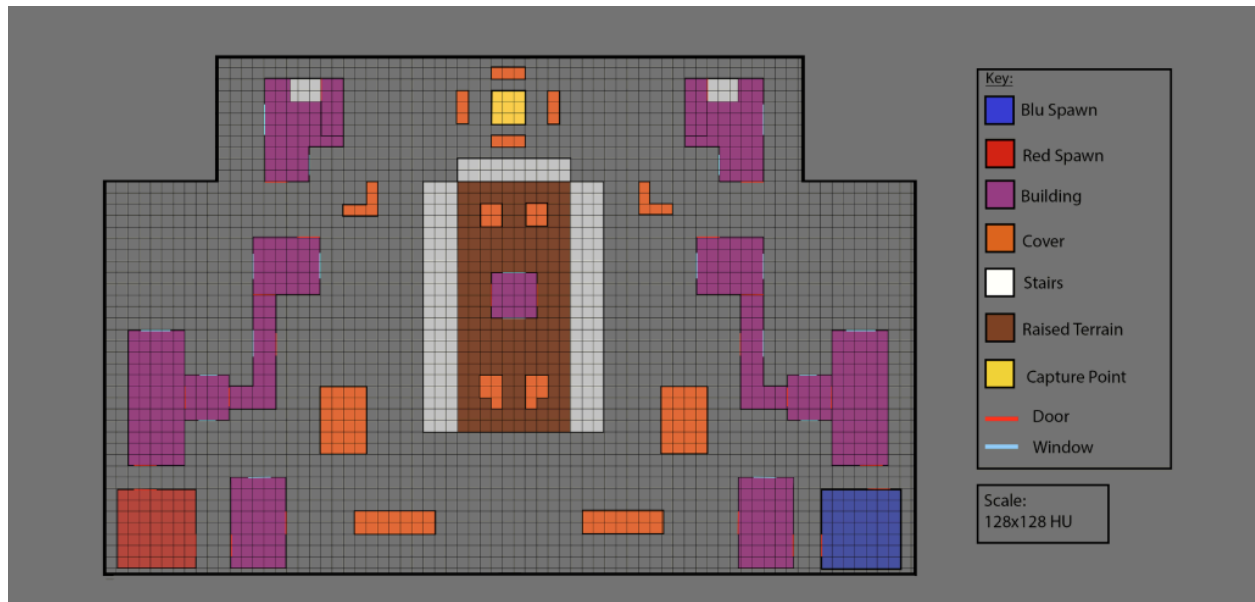
Here are the 3 map designs I created. These are some rough ideas that give me a base design to work with that I can then iterate and improve on.

Design 1:

For this design, I went for a point at the top of the map and the two spawns at the bottom. There is a main area that most teams will battle on which is a bridge that leads up to the point. I made the map more closed off, as most of this map is fairly open.

The top building is smaller and has a balcony that would be used by Snipers or any longer ranged character. The balcony has a good sight on the point, the cover would block some angles or if an enemy is stood right behind them, but apart from that there is a good sightline. The tradeoff is that the balcony doesn't have a sight on the bridge, meaning it's a good defensive area to cover the point, but there isn't complete control for snipers throughout the map.

The building in the middle of the bridge was designed to have a pickup in it that teams would be incentivised to go for, but at the same time would risk getting into even more danger. This gives the bridge a risk/reward aspect. The bridge also has an elevated view of the point, so teams will want to be contesting it.



Design 2:

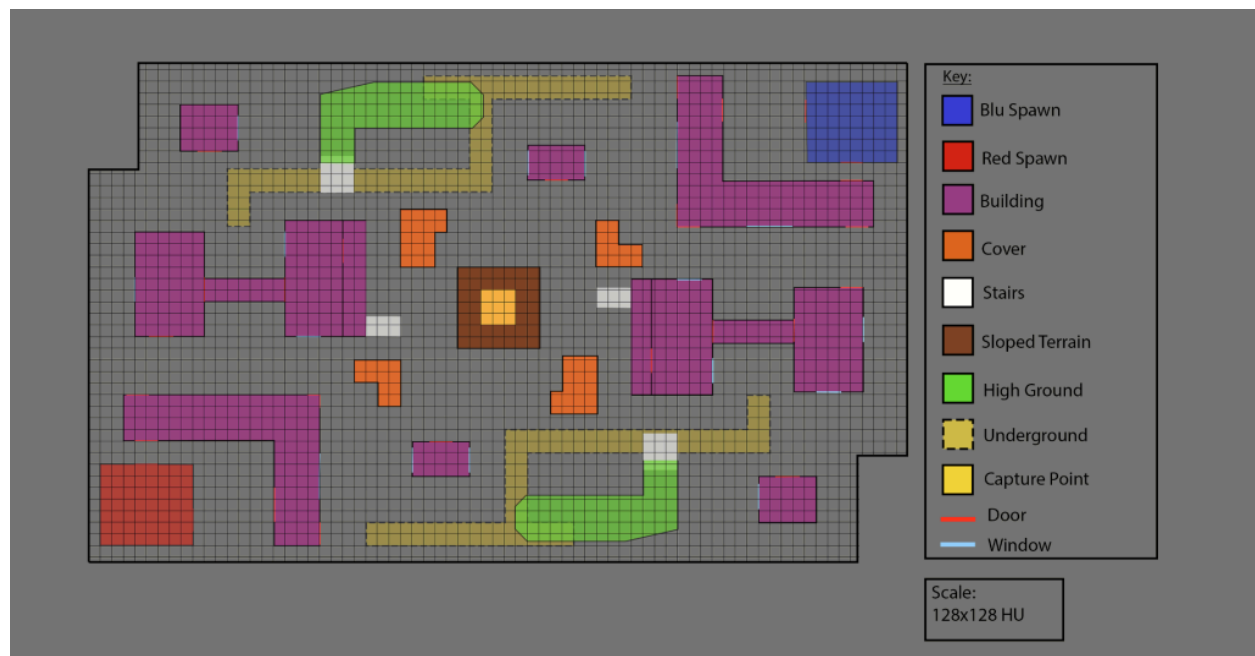
For this design, I wanted to play around with the idea of an underground aspect, similar to the sewers in 2Fort. The underground route brings the player into the middle of the enemy base, making it risk/reward in itself - there's a chance you get killed while making it there as the Underground essentially forces players into 1v1s, and also, being in the centre of the enemy base is very rewarding but there's also the chance the enemy is waiting for you out there.

The building in front of the underground is a bigger building that would have an ammo or health pickup in there, players will be using it to traverse from spawn, and it also has an elevated view of the point with a central sightline close to the point meaning mid-range characters and potentially Snipers will be drawn to it. I made the building big as it would be a potential area for enemy flankers to duck in and out of and also make use of the pickup in there. If I choose to expand on this

map, I would want to maybe add some more hallways to make it more suited for flankers, similar to the Farmhouse on Harvest.

The small building behind would have a pickup in which flankers could use to regenerate health as a reward for winning any potential encounters in the underground or above ground after making it to the base.

The elevated area is another potential sniper spot that has a different sightline on the point. This also has a view of the underground entrance, so Snipers can potentially see any flankers coming and get the drop on them, rewarding player awareness.

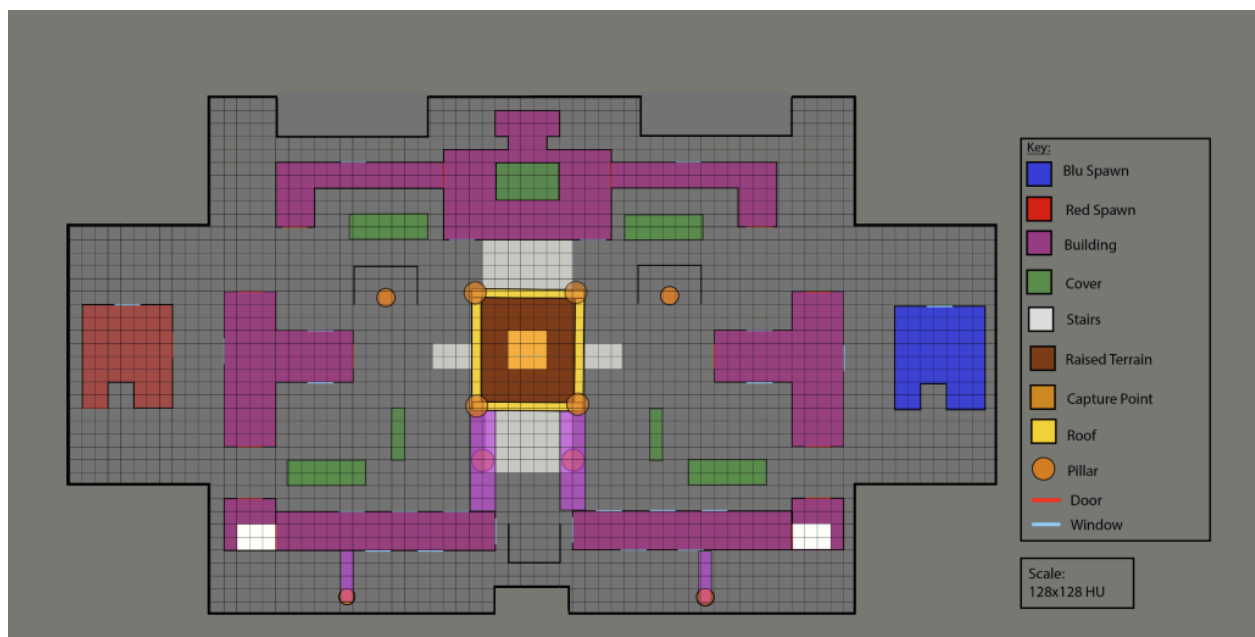


Design 3:

This is the final design I made. The top building would have some kind of pickup in it to incentivise players to go in there. It has cover in the centre to stop snipers from getting a clear sightline from what would be basically out of spawn for the other team which would be more frustrating. This building also has a angle on the top side of the point

which could catch some enemies out if they're looking elsewhere. The point is elevated, with stairs (slopes) on each side, making it quite open. There are 4 pillars on each side of the point which provide some outside cover, and also block some sniper sightlines. There are two small open buildings that will have a pillar in the middle for cover as they're in the sight of the sniper (for potential flankers) and also a health pickup behind.

The bottom building in the map has an upstairs long corridor that has windows for a Sniper to use. The pillars block some of this so the Sniper would have to readjust their position frequently, using the different windows. There is a flank route behind, and there would be a pickup behind this building which could be used either be a flanker or a sniper.



The next thing I will do is to continue researching FPS games to further my understanding of them, and also iterate upon a chosen layout.

October 22nd, 2024 - Palace Second Iteration

This is the second iteration of my chosen map. I made some changes to it as I have begun to look at my level as not just a base idea, but more into detail of how it will play out as a final level. I have gone with the name Palace for this map as it was the theme I had in mind while designing it.



I made some minor changes to the diagram and level:

- I changed the scale to 64 HU as after being introduced to Hammer in class sessions, I preferred to work at 64 HU.
- I changed the pillars to be square over a circle shape for the diagram. (The actual, in-game shape was always intended to be rectangular, but I initially made them circle to differentiate them from regular cover. I changed the shape to square for the diagram for visual clarity as I made the pickups circular.)
- I added an extra room, similar to the shacks on the Harvester map, that are small rooms with pickups in them. I felt like the level could use one or two more buildings to act as cover for flankers and also one building that isn't linked to one of the lanes to make the map look less restrictive - this may be something I come back to in future iterations depending on how playtesting goes, and how myself and others find the map flow. I enjoyed playing Scout on Harvest as there's a lot of hallways to slip in

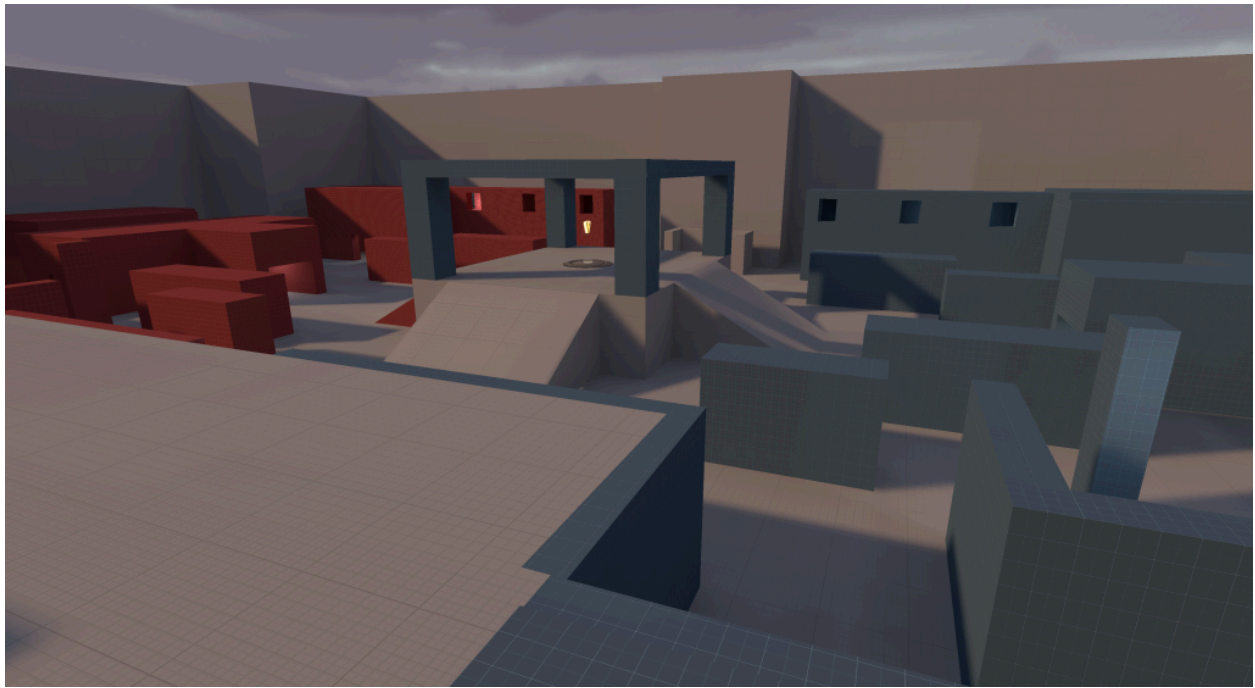
and out of, so I am thinking of adding a few more hallways to the buildings to make them less linear, but first I want to get the planned structure and blockout down and at least one playtesting session that I can then expand on from feedback.

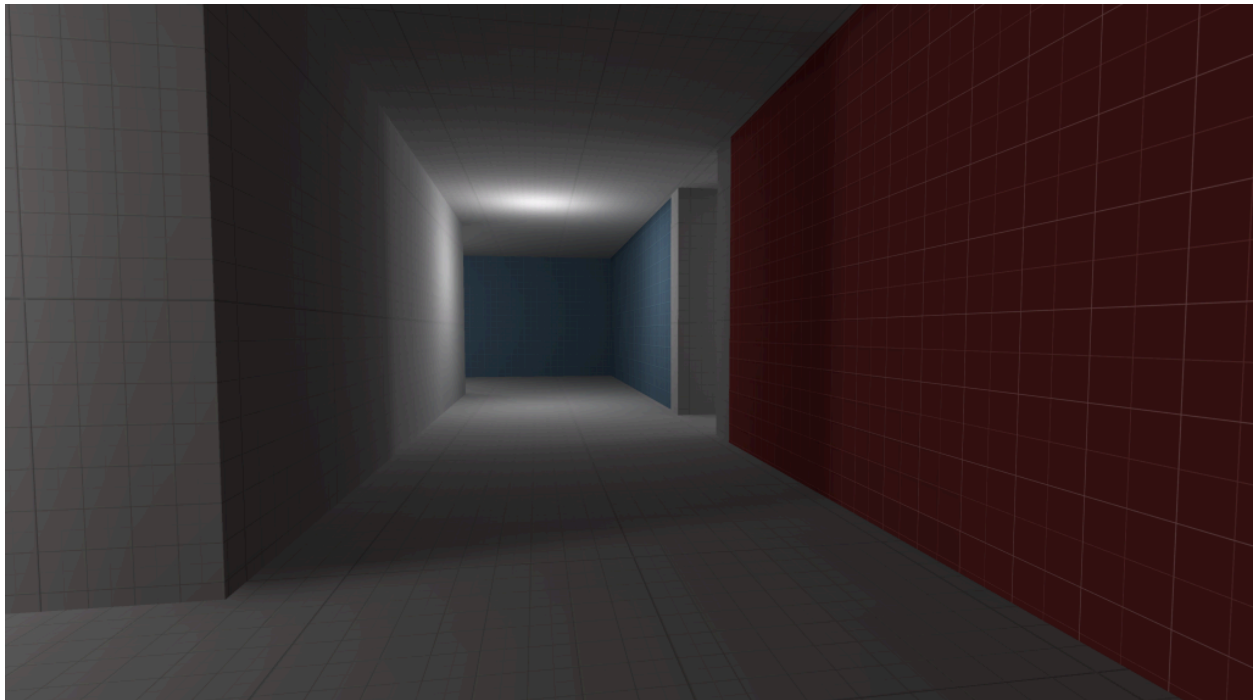
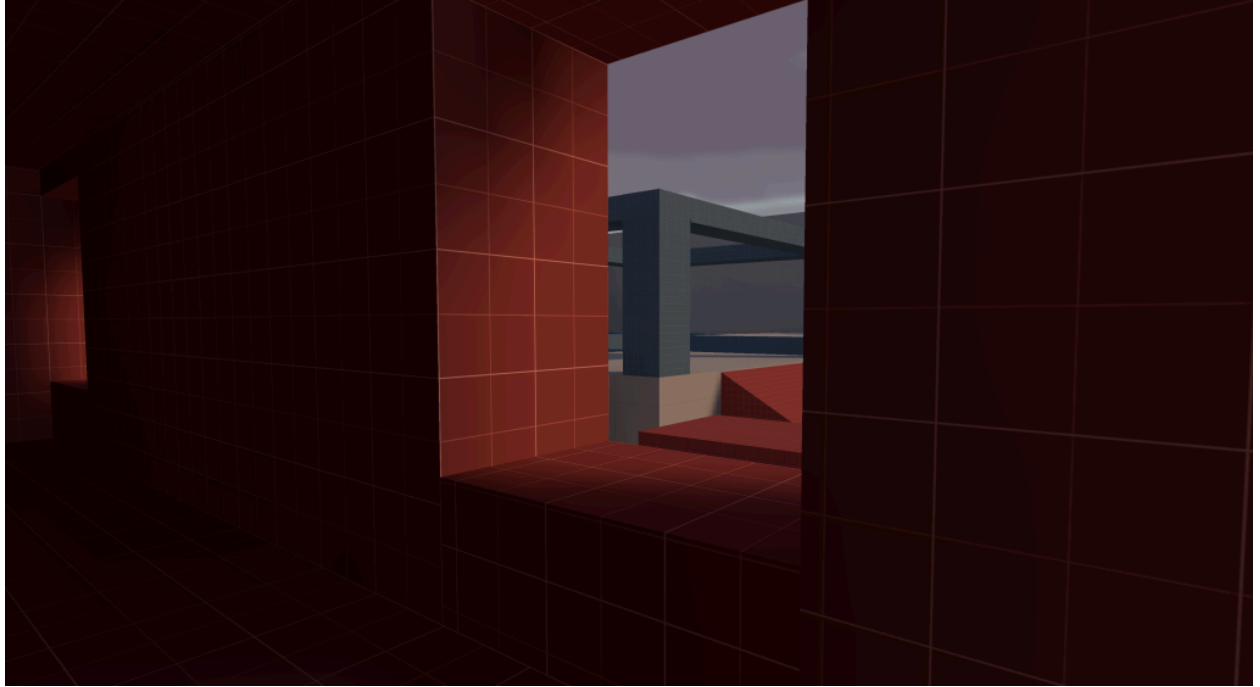
- Added pickup locations and added them to the key.

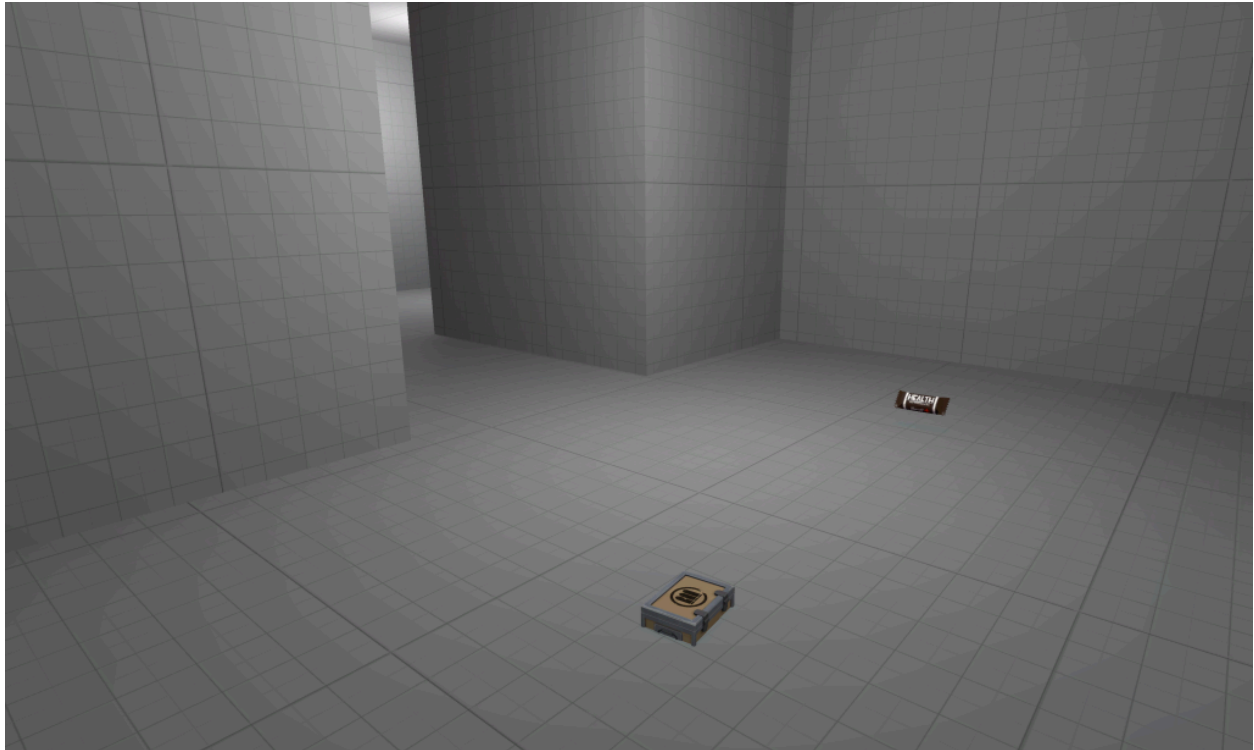
Now I will begin blocking out my level and have that completed before Friday's playtesting session. Before the session I also plan to playtest with bots.

October 28th, 2024 - Palace Blockout and Playtesting Session

Over the past few days, I was able to get my blockout complete and get my level playtested within Friday's session. The feedback I got was very informative and has given me a lot of pointers for how I can improve. Here are some screenshots of the finished blockout:







MS Form Feedback

Here is the feedback form I asked my peers to fill out:

1. How fair did the map feel? (1 being unfair, 5 being very fair)

8 Responses

ID ↑	Name	Responses
1		3
2		2
3		2
4		1
5		2
6		4
7		2
8		1

2. What did you like about the map?

8 Responses

ID ↑	Name	Responses
1		The rooms were nicely sized.
2		The amount of cover and the elevation on the control point
3		layout was good
4		I like playing sniper. I like the hight on the point.
5		Structure of the point area has some fun verticality
6		The Control point being elevated that high was cool, helped interrupt some of the mpas longer sightlines and made the climb up engaging
7		Very fun for sniper as there was a lot of open space (a lot of sightlines around the map).
8		I liked the large capture point, and the distance it was from pickups so you cant camp on it.

3. What do you think needs improvement?

8 Responses

ID ↑	Name	Responses
1		sightlines. The map was very sniper heavy
2		The amount of sightlines for the snipers. Very sniper leaning
3		It was very sniper heavy, i would push wit the heavy as a medic to help heal but i had no cover for myself so i was just getting sniped
4		sniper is op on this map (reduce long sight lines). have some high ground on level with the point other than the battlements.
5		definitely more cover
6		The map is quite big, and there are lots of very long unbroken sightlines, including one from the point all the way to spawn. Might be worth running around as sniper and checking where more cover could be added, or moving the pre-existing cover closer together
7		Need to reduce the amount of sightlines to give more cover for other classes. There's a sightline from spawn to the point, making it difficult to claim the point sometimes
8		The map feels huge with long sightlines everywhere, making the snipers OP.

4. Did you encounter any bugs? If so, what were they?

8 Responses

ID ↑	Name	Responses
1		no
2		None
3		no
4		no
5		incredibly long sightlines from both player spawns
6		Nope
7		No bugs
8		The capture point was slightly hovering off the ground, not game breaking, but it loses immersion.

5. How did/didn't the map fit TF2 conventions?

8 Responses

ID ↑	Name	Responses
1		there weren't many classes that were "sensible" to play as - due to heavy sniper usage.
2		It leaned to heavily into sniper conventions. No pickups
3		I felt it matched the conventions
4		too many long sight lines for sniper.
5		the scale is very larger for tf2 conventions
6		The map was a little too large to fit the TF2 conventions
7		Map was very large compared to other tf2 maps for king of the hill.
8		The map was a lot larger and more open than usual tf2 maps, making it OP for the sniper class.

6. Any additional comments/recommendations?

6 Responses

ID ↑	Name	Responses
1		Place pickups and either place more cover or get rid of some of the high places that snipers can shoot from
2		More Cover for people who aren't sniper or add a flank for spy so they can counter it
3		make the map a little smaller
4		Really liked the multi window sniper house on the right, it's just a little too strong as it's hard to attack from the point!
5		Make the map smaller and reduce the sightlines on the map. Maybe add more cover and areas for close combat so classes like scout can have more use.
6		I recommend you increase the capture zone size to fit the entire top of the hill. Currently its only in the centre but it feels as if I should be able to capture it from anywhere on that hill.

Playtesting Analysis

The fairness rating is lower than I would have liked, so I will make sure to take on board any feedback given to make sure the map feels more balanced. In terms of what the players liked, the amount of cover and the variation of elevation seemed to be the highlights. This is what I intended, the elevation of the point blocks the centre of the map and gives some variance elevation-wise. I tried to distance pickups from the point as having an elevated point gives the defending team an innate advantage, so I placed them within buildings to incentivise players to go in them and utilize the buildings as cover and as alternate routes to the point, and also so health and ammo is more accessible to the attacking team than the team holding the point.

In terms of what needs to be improved, the resounding answer is that there are too many sightlines which makes snipers feel too oppressive. I will look into this in my next iteration and will definitely place more areas of cover and also reduce the amount of sightlines. The sightline into spawn is one that I will focus on fixing in particular. A side note is that I made the map too big, initially when I tested my level on my own while making it, I felt like it was too small when going off of the map diagram size, so I increased the size and I ended up making it too big. Scale is something I tend to struggle with but I will make sure to fix this for my next iteration. I think that scaling the map down and condensing the buildings and cover will also make snipers less oppressive. In terms of bugs, no major bugs were encountered which I'm thankful for as it took me some time to get the spawns working properly. The capture point hovering

slightly is a quick fix that I can do before starting on my second iteration, and the sightlines are something I will be fixing with the next map iteration. In terms of matching TF2 conventions, all answers pointed towards the map being too big, which I will make my top priority alongside reducing the sniper sightlines.

The final recommendations are all very helpful and I'll make sure to consider them when making my next iteration. There were pickups placed in the level, however, I think due to the size of the map, the areas where they were placed were being underutilized as the time it takes to flank on the map is too long, which is why I think making it smaller will also fix a lot of problems, reducing the size also makes snipers easier to be got to by flankers. For the sniper houses, I'm going to work on adjusting them maybe so that there is some cover blocking it slightly so you don't have a clear view of the point (e.g. in Overwatch I notice from sniper positions often something like a traffic light, signpost or wall is placed in your sightline which gives the sniper a 'blind spot' to give cover to the other team.) I tried to implement this originally with the pillars around the point but I will look into other ways or just making the pillars cover more of the point.

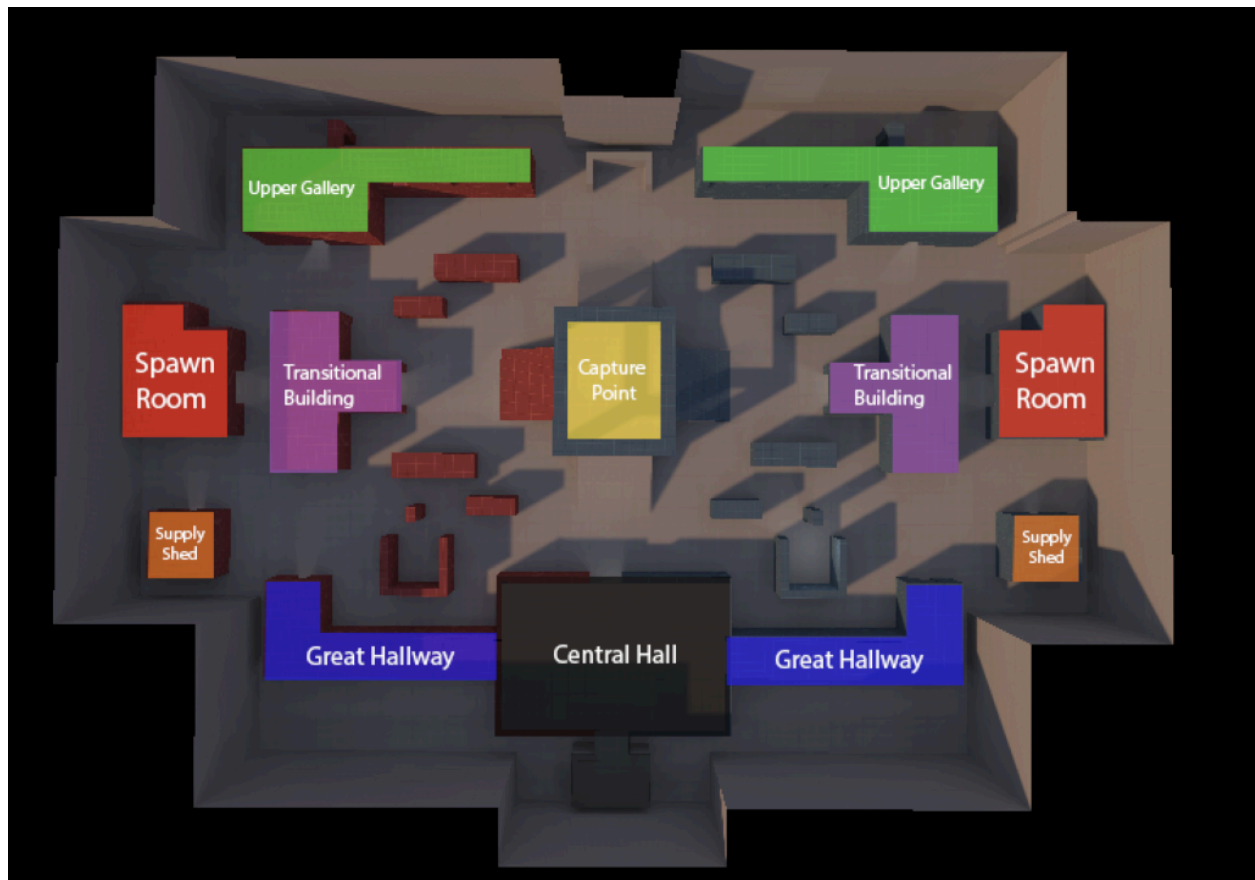
Planning Second Map Iteration

Now that feedback has been given, I can now begin working on making changes to the map. The three main critiques of my map were scale, cover and sightlines, so for this iteration, I'm going to put the most focus into these aspects, alongside some quality of life improvements.

Scale Planning

The first thing I will cover is scale. To get a better idea for how much the map needs to be reduced, I used a similar method from before, where I time how long it takes to get to certain POIs. To start with, I have taken the top down of my Hammer level and labelled the POIs in the map. This will help with this research and also I will use the names given going forward for my map when referring to the POIs in the future.

Palace Map Callout Diagram:



Since layouts and size vary from map to map, it won't be a direct comparison, but will give me a rough idea of how much the size needs to be changed so I can make my map a medium for TF2 maps to make it fit the conventions. To do this, I picked Scout and timed how long it takes to get to the enemy spawn (essentially timing how long it takes to get from one end of the map to the other) and how long it takes to get to the capture point. As the data shows below, my map takes the longest out of all of the maps to reach the enemy spawn room and to make it to the capture point. My goal to fit TF2 conventions more accurately is to try and scale down my map until it sits between the TF2 official values. The median value of the enemy spawn room time is 15.35s, and the capture point is 7.03s, so I'll be aiming for something roughly around those two times.

TF2 Maps vs Iteration 1 Comparison Table:

Scout	Spawn Room (Enemy)	Capture Point
Palace Iteration 1 (Student Map)	20.02s	8.92s
Harvest	13.96s	7.45s
Viaduct	19.24s	7.29s
Sawmill	15.85s	6.78s
Suijin	14.85s	6.46s

Key S = Seconds

Sightlines Planning

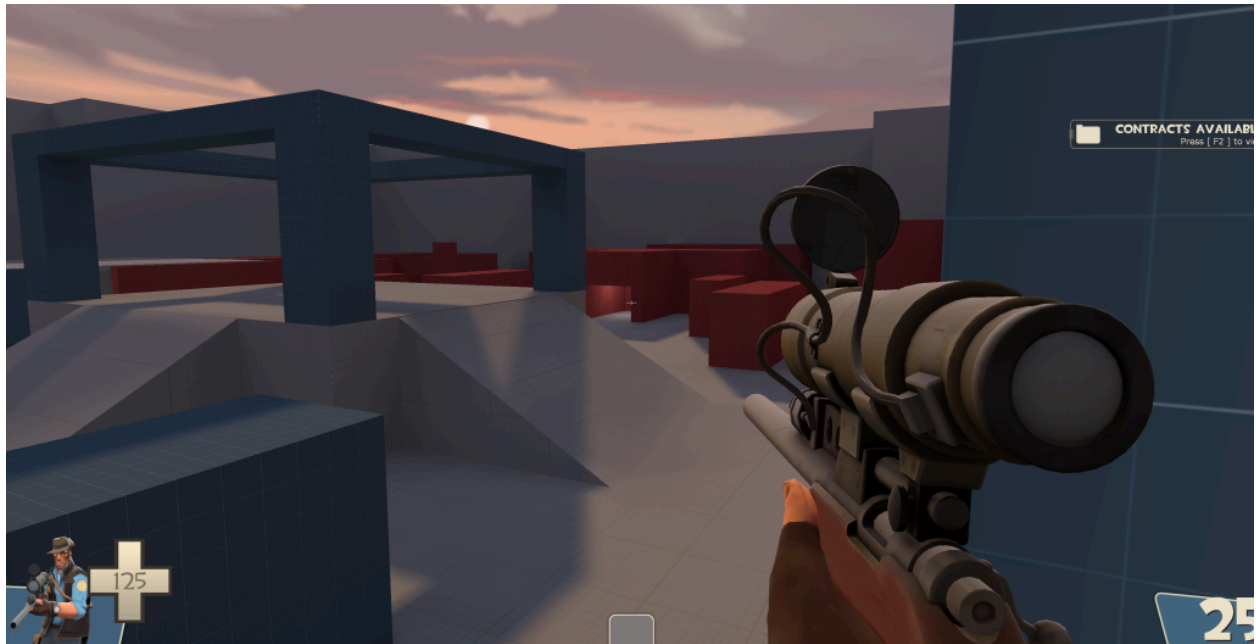
The next aspect I will cover is sightlines. The first thing I did was go through my map and analyse where these big sightlines are using the feedback given and my own knowledge of the map to plan where I need to make changes.

The first issue I wanted to cover was the sniper houses. Originally, they were to give a sniper sightline on the same elevation of the point and also your own half of the map. However, I saw that by jumping on the windows themselves and peering around the corner you could get a much wider view of the map that even goes into the enemy's transitional building.

Intended Sightline:



Unintended Sightline:



Another issue is that the flanking route has a full sightline down to the enemy's side of the map.



The final issue I found is that the transitional building doesn't provide as much cover as it should, and that the defending them can spam through it into the attacker's spawn from the point, and they also have a clear sightline on the spawn doors.



I wanted to look at how some games work around balancing a dedicated sniper position. I've noticed particularly in Overwatch but in some TF2 maps also, sniper sightlines tend to have something blocking the sightline that gives a 'blind spot' to the Sniper position to make it fairer. I found these to be notable around the paths to spawn rooms and around capture points.

Overwatch Midtown - Fire Engine covering Capture Point from attackers perspective



Overwatch Midtown - Pillar and other mesh covering the biggest defender spawn exit and some of the defending area.



Overwatch Busan - Vehicle, signpost and building geometry covering the pathway to spawn



Overwatch King's Row - Building Geometry obscuring part of the attacking area.



Overwatch Paraiso - Bridge covering the chokepoint (mostly, only the lower half of enemies are visible) and the stairs leading to the top balcony.



Overwatch Paraiso - Building geometry covering most of the street ahead (you can move slightly forward but it is still mostly obscured, especially to the right.)



TF2 Viaduct - Rocks and ledge covering capture point when looking from a deeper angle.



TF2 Sawmill - Saws and wood obscuring sightline.



Cover Planning - Spawn

A lot of my feedback mentioned a lack of cover around the spawn and how open the map is. I want to make sure that players don't feel like they can get killed out of spawn so I plan to make some changes to how the buildings close to the spawn interact with one another. An idea I have in mind is the Viaduct spawn/spawn yard, where there are no sightlines on the spawn and if the enemy want to go near the enemy spawn, they are more or less locked into this small zone around the spawn meaning it's more based on risk/reward compared to my map now where a Sniper can snipe you from the point as you exit spawn.



November 7th, 2024 - Palace Second Iteration Changelog

General Changes

Change 1 - Scale decreased by 0.85.

Reason - A lot of feedback stated the map was too big, so I scaled the whole map down by 0.85. The table below shows the difference between how long it takes to traverse the map between Iteration 1 and 2. The new iteration shows that the map falls between the distance of the official KOTH maps meaning it now better suits the conventions of the game.

Scout	Spawn Room (Enemy)	Capture Point
Palace Iteration 1 (Student Map)	20.02s	8.92s
Palace Iteration 2 (Student Map)	14.46s	7.12s
Harvest	13.96s	7.45s
Viaduct	19.24s	7.29s
Sawmill	15.85s	6.78s
Suijin	14.85s	6.46s

Key S = Seconds

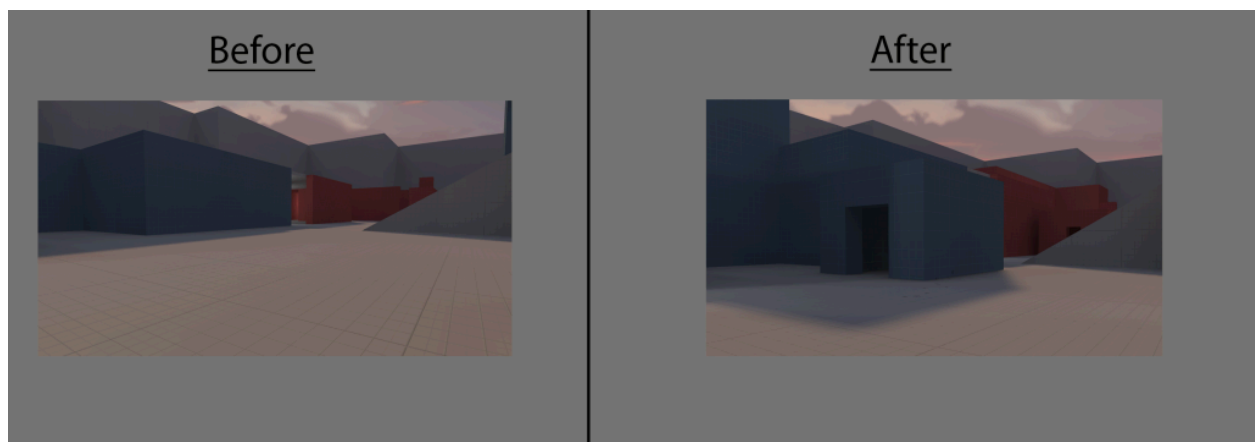
Change 2 - Capture point size increased.

Reason - A recommendation I got from my feedback was to increase the capture point size. I decided to implement this as it is another advantage to the attacker which is needed when the point has elevation.



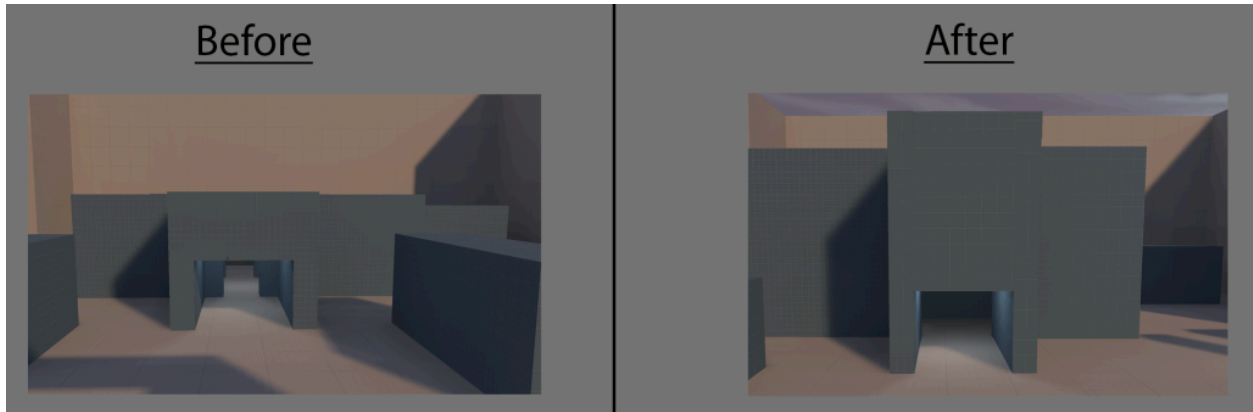
Change 3 - Added in another small building just below the Great Hallways.

Reason - This is to add additional cover to the map as the top side of the map doesn't have much cover as it is.



Change 4 - Extended building wall length.

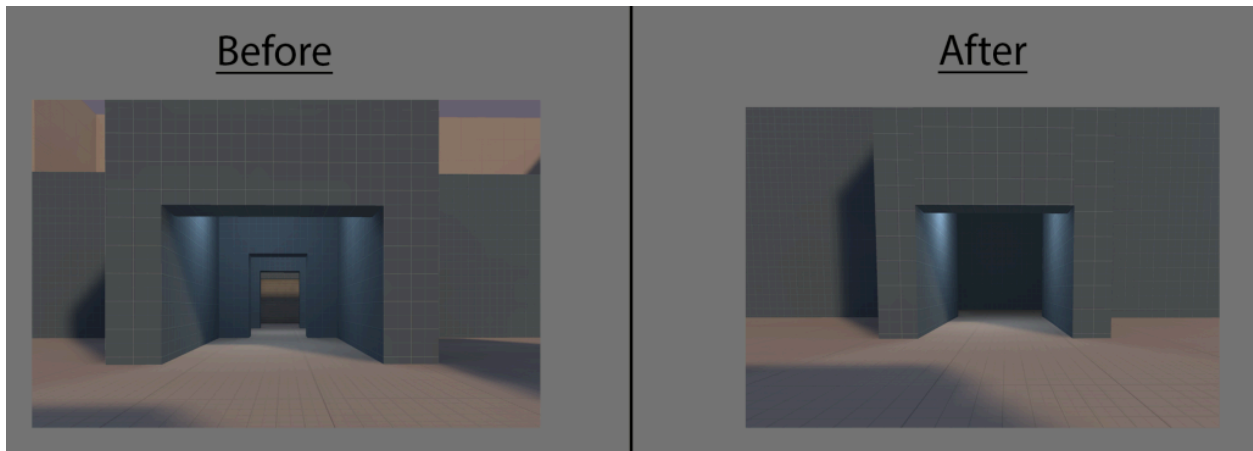
Reason - I tested the buildings to see which ones Soldier can rocket jump on, and there are a few that gives a big advantage with huge sightlines across the map. I extended the wall length of these buildings so Soldiers cannot make it onto the roofs of these buildings.



Transitional Building

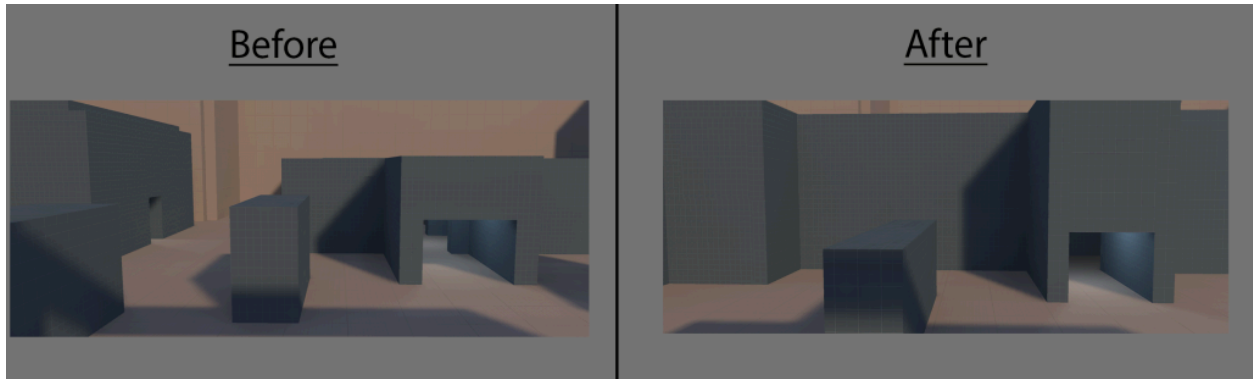
Change 1 - Central door removed and replaced with two doors that are placed slightly to the left and right.

Reason - Removes sightline into spawn from the point.



Change 2 - The transitional building and the upper gallery now have a hallway connecting them.

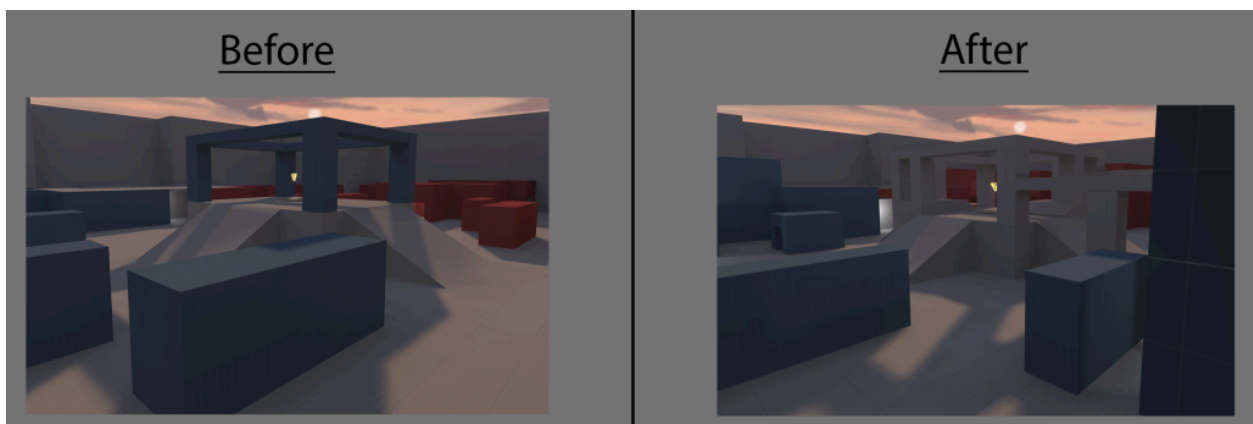
Reason - Since the map is quite open, this will reduce the amount of deaths within the player side of the map and give players a route that allows them to safely traverse to one of the lanes.



Upper Gallery

Change 1 - Window construction altered.

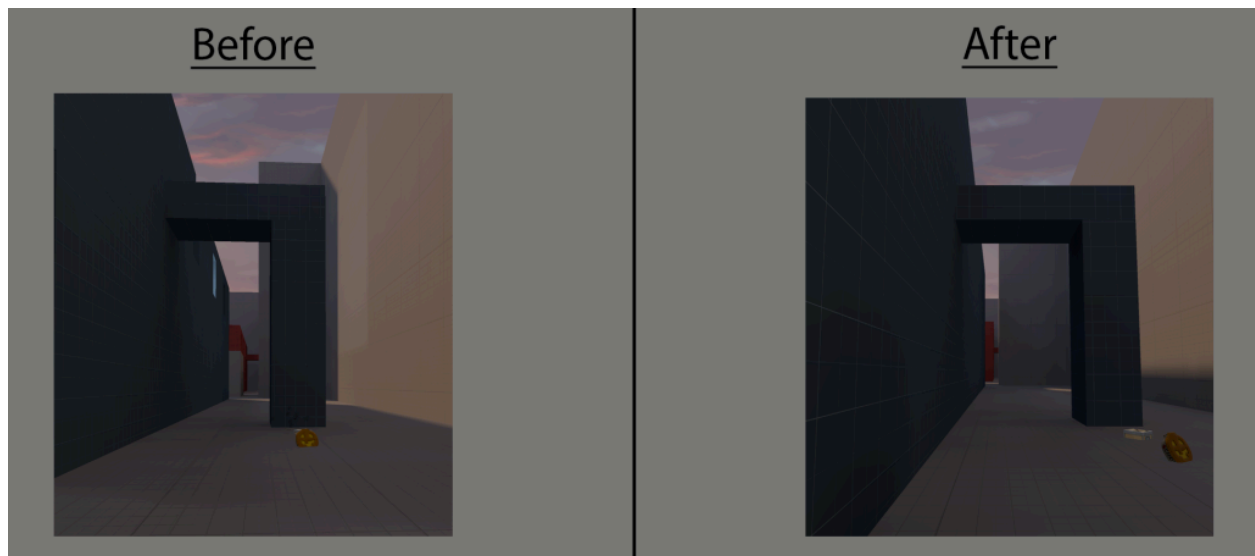
Reason - To combat people standing on the window sills to get unintended longer sightlines, I have made two fixes. The first is that I re-implemented in the pillars from Iteration 1, I initially decided to leave them out because I didn't think they were necessary, however after coming across this issue I felt they would be useful to block the sightlines. The other fix is that the window sill is smaller so now players cant get as far out without the risk of falling out of the window which would cause fall damage.



Change 2 - Map wall brought in behind Upper Gallery.

Reason - This was one of the longest sightlines on the map and needed some adjusting, especially as it is where Snipers will go to on the map because it is

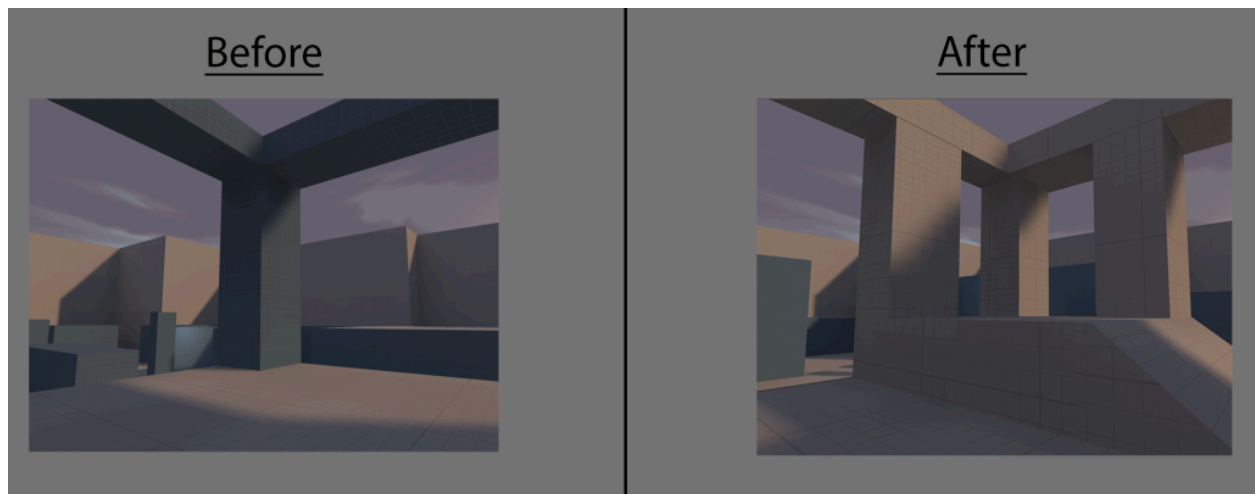
their lane. This route behind the upper gallery is intended for flankers so this gives them more cover to make it down this route without getting shot.



Capture Point

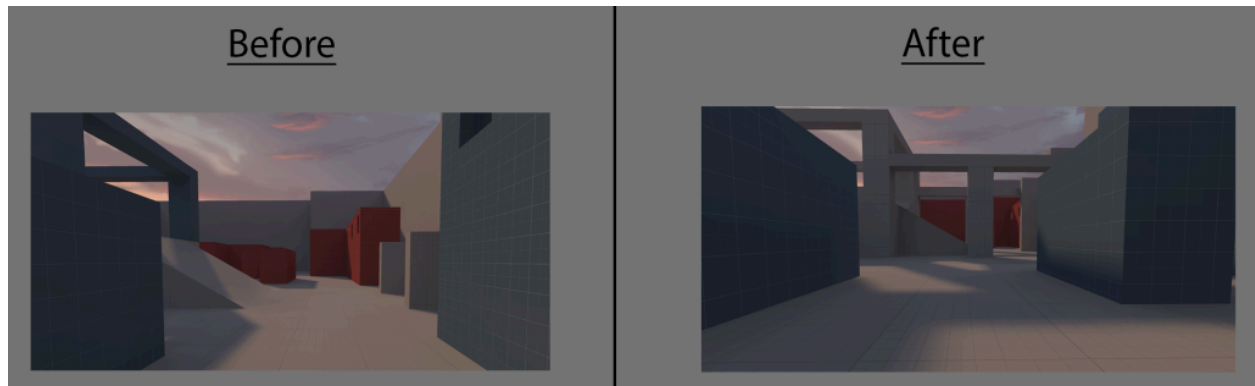
Change 1 - Varied elevation added.

Reason - The point is quite open, so adding this blocks off some sightlines on the point. Defenders can go onto this elevated platform but in doing so put themselves in the open on a high elevation. This change also gives some variance in elevation to make the map feel more dynamic.

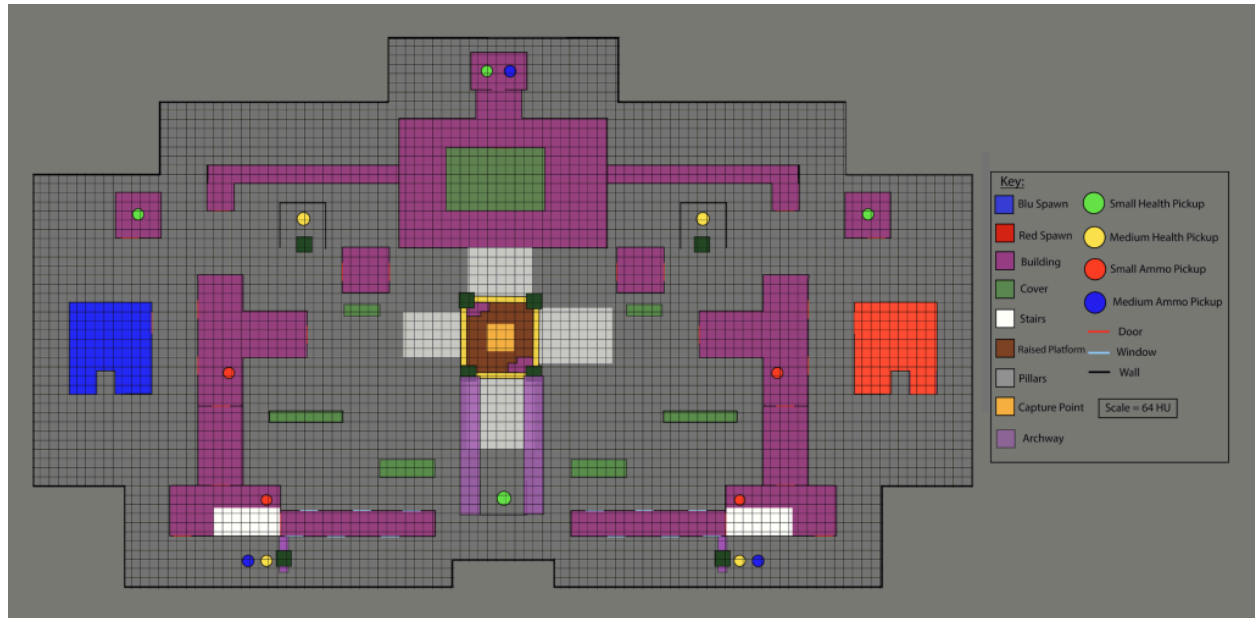


Change 1 - Connected the right side cover to the point

Reason - This was added for two reasons, the first is that it stops Snipers in the Upper Gallery from getting a sightline on the opposite team's spawn. The second is because it adds some cover to the map which was something I was advised to add on my playtesting feedback form.



November 9th, 2024 - Palace Third Iteration



November 14th, 2024 - Playtesting Session 2

This week I was able to get my map playtested with the changes I made in the Changelog in place.

1. How fair did the map feel? (1 being unfair, 5 being very fair)

[More details](#)



2. How did you find the size of the map?

[More details](#)



3. What do you think needs improvement?

11 Responses

ID ↑	Name	Responses
1		right of blue spawn has a long line of sight spanning the whole of the map. This seems to make that flank rout not used much
2		the sniper points are too uncontested, and they have full view of the point.
3		Took me over half of the map time to work out how to reach the enemy snipers vantage point, and I got killed about 6 times by him before I did
4		A bit more cover in the main area for the player approach
5		The height advantage provided by the hill makes it very difficult to attack
6		Some building confuse me at the first but I don't think needs much changes.
7		I think the capture zone could be a little bit larger so you can step up on the ramp next to point and still capture the point
8		I feel that the centre point is quite large and holds lots of angles over the map, making it hard to retake. Saying that in our playtest, we had a close game so maybe in a casual game this wont be an issue.
9		The sniper spot is odd as you have to double back on yourself or crouch jump through the windows to get out. Also needs more ammo packs
10		I think the map felt a bit too big so could be downsized slightly, and the flank route to the side was really long so that could be altered maybe
11		Primarily the point. It's too easy to take back due to the sniper and soldier rocket sightlines ripping through anyone standing on the point.

4. Did you encounter any bugs, if so, what were they?

8 Responses

ID ↑	Name	Responses
1		no
2		N/A
3		No
4		Not at the moment.
5		The pickups are a little bit in the floor
6		The sniper towers on the sides of the map had the walls slightly misaligned so I kept getting stuck on them which was frustrating.
7		No
8		Some clipping between blocks in a route to nowhere on the right side out of blue spawn.

5. How did/didn't the map fit TF2 Conventions?

11 Responses

ID ↑	Name	Responses
1		i think it fit well, i liked the openness
2		the map was structured a lot like an arena, rather than separate "battle areas" in lots of tf2 maps
3		Felt much more open than most tf2 maps, but i liked that :)
4		This map is quite open while tf2 maps are usually quite confined
5		I felt like it fit to them well
6		Fit
7		It had several paths to the point.
8		I feel that the map was more open than usual tf2 maps with less parts of cover.
9		It did
10		The capture point layout which made gameplay more chaotic and felt balanced for most classes. And the flow of the lanes in the map fit the TF2 conventions, it felt like they all connected well
11		Unsure of how to answer this? It felt like an appropriate map for TF2 though.

6. Any Additional Comments/Reccomendations?

5 Responses

ID ↑	Responses
1	I really liked the map! Especially liked the positioning of the pickups, and the design of the point - lots of cover to dance around, very fun :)
2	Add some easier / more obvious counter routes to the Hill to null the height advantage
3	Maybe change the snipe point a little just to slightly increase the aiming angle.
4	maybe could do with some more ammo pickups nearer the point, I only found one that was almost back at spawn.
5	As the point currently stands, a sniper can see the heads of almost anyone standing on the point which may be frustrating for high level players. Lighting could go a long way to not get killed in the spawn structures.

Playtesting Analysis

In terms of fairness, I got a much better result from this playtest than the previous one - the majority of answers given in the first playtest was 2/5, and for this one it was 4/5. This shows that the majority of changes I made had a positive impact on the level and this iteration is an improvement overall in terms of balance.

For this form I removed the 'what did you like?' question with, 'how did you find the size of the map?', as I felt that the first form gave me enough information to know what was well received, and the size of the map was a big issue on the first iteration so I wanted to get some data specific to this aspect of the map. The results were varied - none of the participants thought the map was way too big this time, but it was even between just right and a bit big. I'm thinking of scaling the map down by a small amount to try and make it so the majority of answers are within the 'just right' range.

In terms of what needs to be improved, it seems that snipers and sightlines still seem to still be an issue. For my first changelog I wanted to only implement some minor changes to sightlines to see if that would help the issue, but since it is still a problem, I will look into reducing sightlines further. However, I want to find a balance in the map as snipers still need areas to be viable in. The feedback that states that they couldn't work out how to reach the Sniper spot has made me think for this next iteration I need to add some visual affordance into the map, such as arrow signs. An oversight on my part is that the right side door was there to give an alternate route out of spawn if enemies were firing into spawn, but now this is not really an issue as nobody has brought up

being spawn camped/shot at from spawn in this new form, and last iteration I put a lot of focus into reducing sightlines into spawn, the spawn door feels like it doesn't have as much use. I want to repurpose this door into being entrance leading to the right-side flank, as I think at this moment it is too hidden and players aren't utilizing it to make it to the enemy sniper building which is why I placed it there which is then also making snipers less contested and more oppressive. To fix this, I'm going to extend the right spawn door to naturally lead into this flank route, add an arrow sign and also expand the pathway so that players know that this is a route that they can take. Some feedback also says that the fact that there is a long sightline down the flank route makes it less likely to be used, so I will look at bringing the wall in more to make the flank route safer. The windows were changed so that the only way you can jump onto the sills themselves is to crouch + jump onto them to make it feel more risk and reward - if the sniper wants to get the little extra bit of sightline they risk falling off, and being in a crouch position makes your movement speed slower which adds some vulnerability. However, I will look at changing this up and see what other ways I can implement these windows.

In terms of bugs, mostly none besides a few quick fixes. The route to nowhere stated is the right-side door I mentioned earlier which I'm going to repurpose as the need for a secondary door purely for if enemies have sightlines on the main door is not needed now that the spawn has no sightlines on it. I have looked at the sniper building and there was a wall slightly out of position which I can fix quickly alongside bringing the pickups a bit higher up.

In terms of if the map fit TF2 conventions, again, much more positive responses from the first iteration. Most players stated that it fit TF2 conventions and that it felt like a TF2 map. The comment about the map lanes flowing and connecting well was a big positive as the three lane structure aspect of map design is something I put a lot of emphasis on for my map. The map being open seems to have been received in a positive way by a few players, however, since I still have comments about sightlines and some of these comments brought up the openness being unconventional for TF2 maps, I will be looking at ways to make the map a bit less open in my next iteration to combat the issues. The feedback that talks about the arena feel to the map will hopefully be fixed by bringing the map in more to make the three lanes closer and more utilized.

The final comments/recommendations were all very helpful again, from these I plan to add more ammo pickups as this has been brought up twice within the feedback. The comment about being able to see the heads on the map is something to consider, I will experiment with angles and how much of the point I want to make visible for the sniper. In terms of routes, I plan to bring the top and bottom lanes in slightly along with scaling

down the map again a little bit to make these routes feel less time consuming and more utilized by players.

Overall, this iteration had mostly minor changes with more focus on quality of life improvements, as well as some experimentation with sightlines. I am hoping to get my level playtested once more to see what people think of these changes.

November 19th, 2024 - Palace Changelog 2

General Changes

Change 1: Pickups are now further up from the ground.

Reason: Pickups were functional but hovering slightly within the ground so all pickups on the map were brought upwards to no longer collide with the floor.

Change 2: Wall collision issue fixed in the Upper Gallery.

Reason: One wall in the Upper Gallery was misaligned which meant players who walked close to that wall would get temporarily stuck on it. This was aligned properly with the rest of the building for smoother gameplay.

Change 3: Map Scale reduced on the X and Y axis.

Reason: This was only moved from 0.94 to 0.93. This was done as in previous feedback there were some comments stating the level was a bit too big. Since this was considered to be only a bit and there were a good portion of players who also believed the map to be at the perfect size, the scale was only brought down by one unit on those two axis, as lowering the scale any more would begin to make the map fall out of TF2 conventions.

Scout	Spawn Room (Enemy)	Capture Point	Key S = Seconds
Palace Iteration 1 (Student Map)	20.02s	8.92s	
Palace Iteration 2 (Student Map)	14.46s	7.12s	
Palace Iteration 3 (Student Map)	14.11s	6.62s	
Harvest	13.96s	7.45s	
Viaduct	19.24s	7.29s	
Sawmill	15.85s	6.78s	
Suijin	14.85s	6.46s	

Spawn Room Zone

Change 1: Visual affordance added.

Reason: Some feedback made me realise the flank route isn't as clearly shown as an available route to players, leaving it underutilized which is causing additional problems

such as uncontested snipers. I also added this to the other two routes, however, it was more of a priority to highlight this route to players.

Change 2: Flank lane entrance size increased.

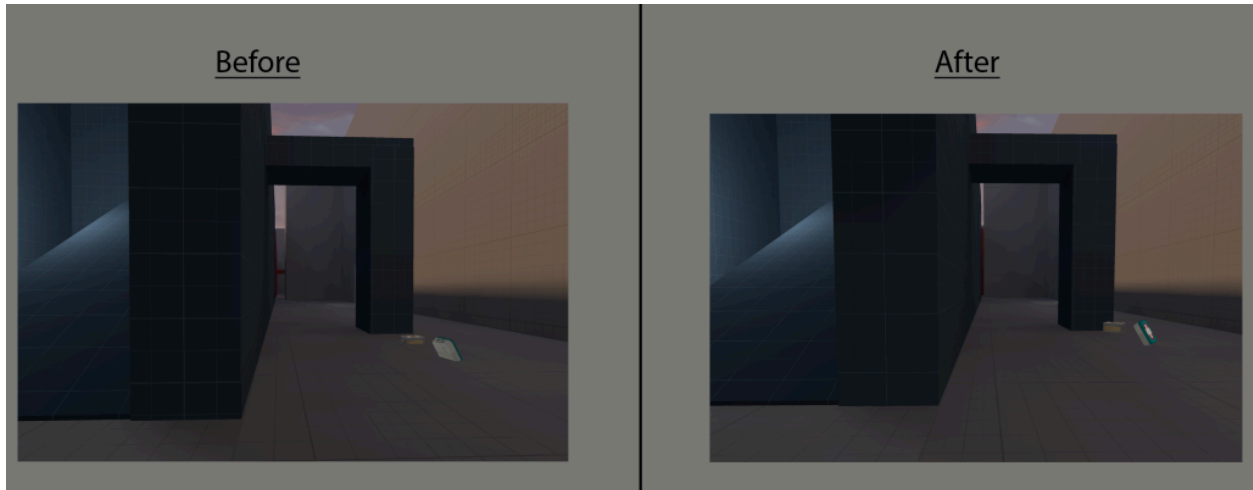
Reason: This is to combat the same problem as the flank route being underutilized. I expanded the pathway to make it more obvious that it is a route the player can take.



Upper Gallery

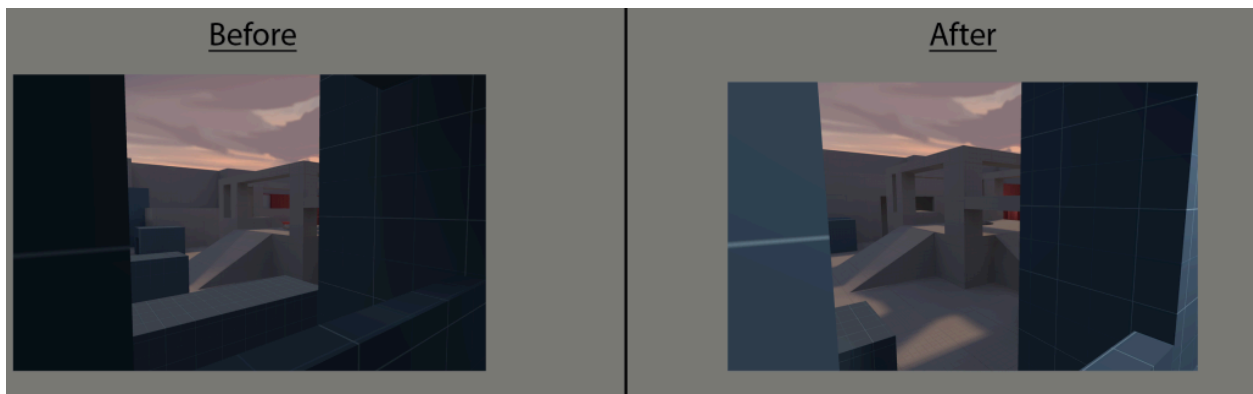
Change 1: Wall brought in along flank lane.

Reason: Since some playtesters complained about snipers and the sightline for this flank lane being too long, I brought in the wall further so that you are unable to be sniped while coming around the corner. This is also an attempt to buff flankers and nerf the sniper, as flankers now have a fairly safe route within their half of the map, the rate of conflict will increase when in the middle and then should be more dangerous as they enter the enemy half of the map, instead of potentially being headshot just as you choose your lane.



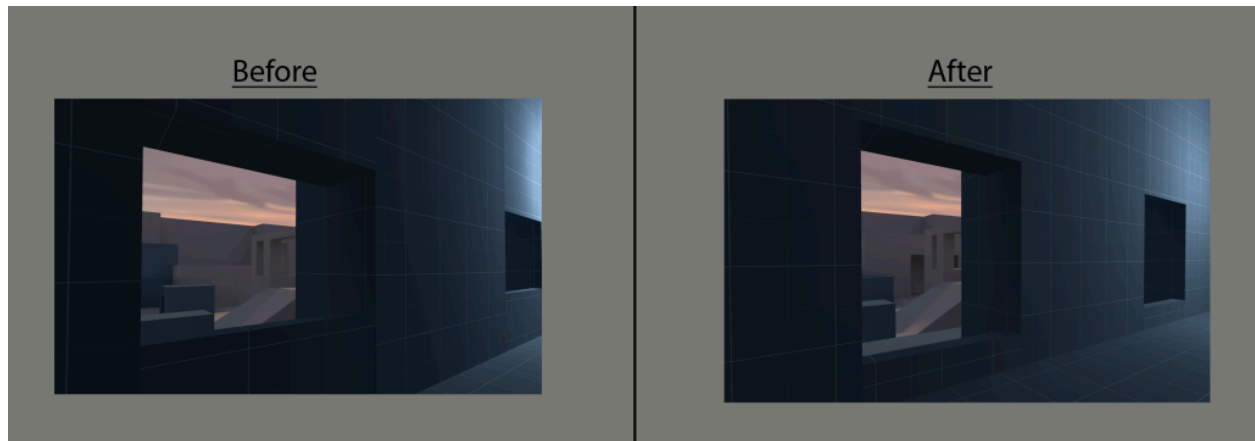
Change 2: Archway moved down.

Reason: This is to block off the sniper sightline slightly and make them less oppressive. This may be something that may need some more adjusting, but it should aid in snipers having a strong hold on the point by reducing how much they can see.



Change 3: Windows made bigger and sills made thinner.

Reason: The windows are now bigger so you can jump out of them and also stand on the sills without crouch jumping to make the gameplay feel more fluid, as some people did not like the previous implementation. This also suits TF2 conventions more as windows like on Harvest are constructed in this new way. However, the pillars still obscure the sightline into spawn and also the way the walls have been moved out make the sightlines less oppressive as before. If the player moves far enough to see the spawn, they will fall out of the window.



Change 4: *First window removed.*

Reason: Snipers have a lot of map coverage and the first window had the most, so removing this will help to balance snipers. The other three windows still give a good sight of the map, so removing the first helps to balance.

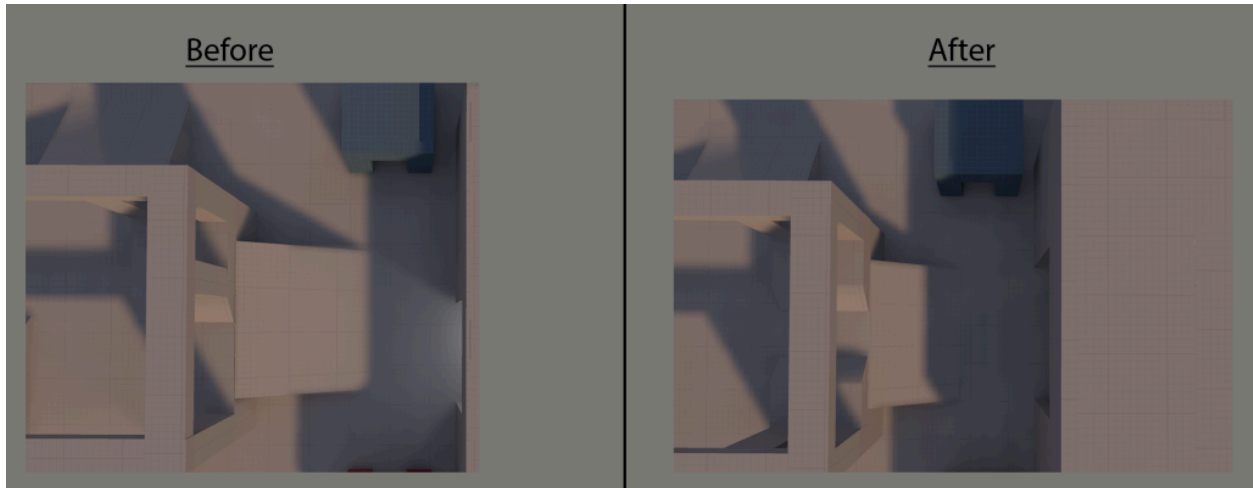
Great Hallway/Central Hall

Change 1: Building moved inwards.

Reason: This is in response to the 'arena' feedback and also the feedback suggesting to shorten this building. This building is now closer to the point making it a more viable route for characters like Pyro who have limited range and slower speed and also makes this building feel more involved with the rest of the map. The change may look small but it shaves off 0.5 seconds.

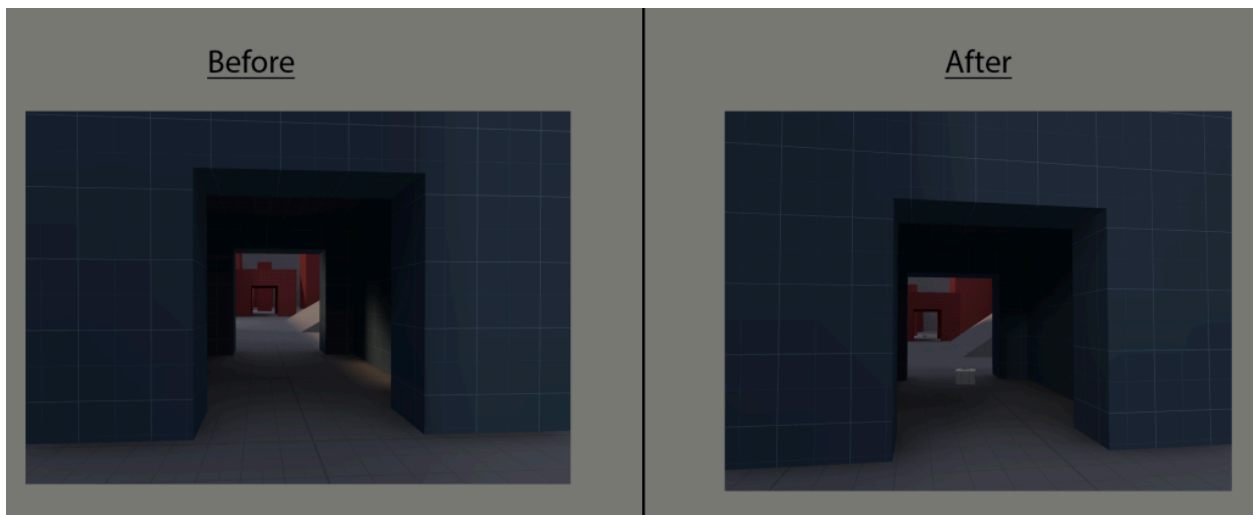
Change 2: Aligned door with ramp.

Reason: Initially this did not matter as the right side of the top of the point cant be walked up to because of the elevated area, so having the door slightly to the left. However, having a bigger doorway stops it from being as spamable and less of a funnel, so I decided to align it completely with the ramp.



Change 3: Outer buildings now have ammo pickups.

Reason: Some feedback mentioned to add some more ammo pickups, so now there are 2 more on the map within these buildings. This also incentivises players to use these areas of cover and to contest different zones of the map.

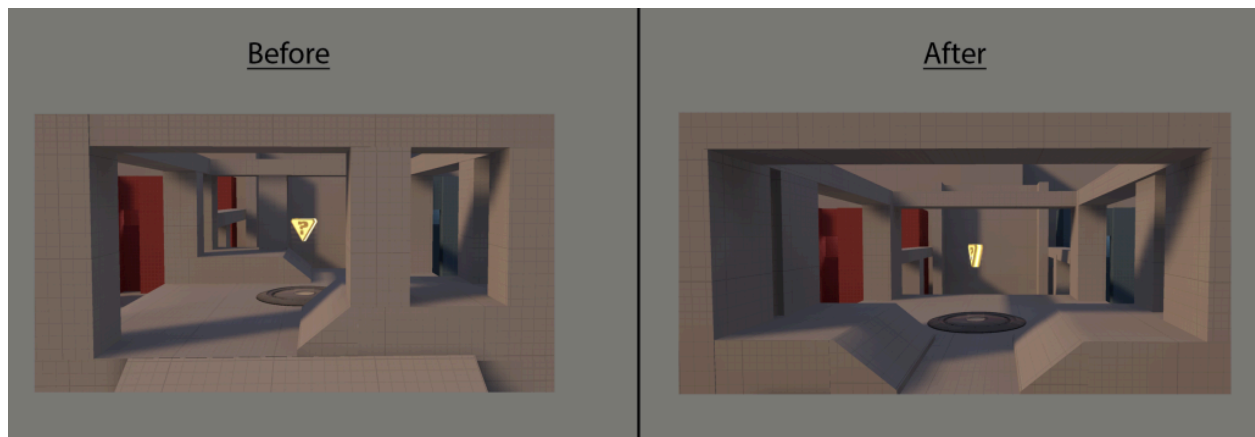


Capture Point

Change 1: Pillar moved to the other side of the point.

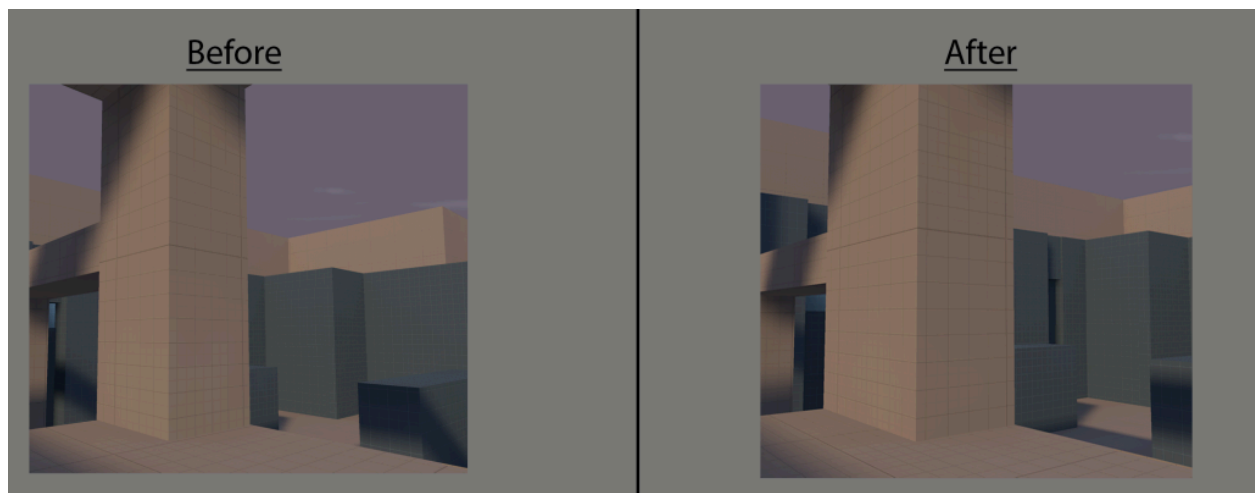
Reason: This wasn't mentioned in feedback but something I caught in my own bot testing sessions is that this actually gives the red team a disadvantage, as the elevated floor blocks some vision from the window, giving the blue team an innate advantage as

there isn't any floor blocking it on that side. To fix this I moved the pillar to be on the same side for both teams, removing this advantage.



Change 2: Pillars made thicker on the other side of the point.

Reason: Since there is no elevation on this side of the point now, it is a bit more open. To combat this, I have made the pillars thicker.



November 28th, 2024 - Palace Fourth Iteration



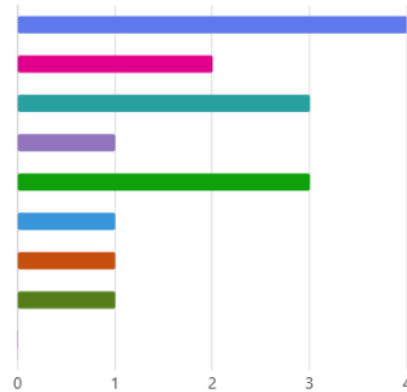
November 29th, 2024 - Playtesting Session 3

In the last session of the module, I was able to get my map's third iteration play tested.

1. What class did you play?

[More details](#)

Scout	4
Soldier	2
Pyro	3
Demoman	1
Heavy	3
Engineer	1
Medic	1
Sniper	1
Spy	0



2. What did you like about the map?

16 Responses

ID ↑	Name	Responses
1		playing pyro was fun
2		The layout was very unique and had good spaces for Medic to duck behind.
3		The hill the point is on
4		Good sightlines, lots of cover, good pathways
5		Great design, really easy to navigate
6		It was decently balanced
7		the point being elevated was fun
8		elevated capture point
9		I liked the elevation of the capture point
10		The main objective
11		The added geometry to stop snipers having too much control
12		The control point being elevated and offering multiple ways to attack it was good and the pickups were in decent places
13		The central combat zones are fast and each class feels playable.
14		i liked the super open point
15		I liked the capture point layout and how it was elevated because the elevation and cover was good for a variety of classes, also the side path for flanking
16		I liked the size, it felt appropriate in comparison to tf2's official KoTH maps

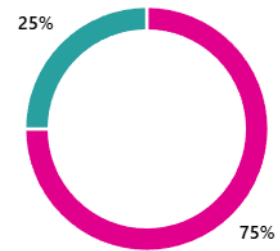
3. What do you think needs to be improved on?

16 Responses

ID ↑	Name	Responses
1		more pickups
2		It's a little difficult to re-capture the objective once the enemy team has it.
3		it was too open and defenders were prone to snipers and other long ranged attacked
4		Maybe and underground area under point?
5		Couple of spots where the are gaps that look being enough to walk through - but they aren't.
6		maybe a couple more pickups
7		lots of open space, and a few large sightlines
8		a lot of blind spots on the map for snipers to hide in
9		some cover when trying to regain the point would be helpful to make capturing the point feel more achievable.
10		The main objective, the high ground made it vey difficult to push when the enemy could retreat out of sight
11		some areas were not used as they took too long to navigate
12		Some of the sightlines for snipers are too long
13		The point itself needs some level of cover. Nobody would stand anywhere near the point, so gameplay often ended up being more about skirmishes trying to cut the attacking team off before they could get to the point - attackers were dying extremely quickly in some cases.
14		add blocking volumes on top of big buildings as demoman can sticky jump ontop of them
15		There could be some additional cover between the open area and capture point. The open area was good but in some spots it felt like it could just use a bit of additional cover
16		potentially some cover could empower classes like pyro, who appeared to struggle to get in range in this map

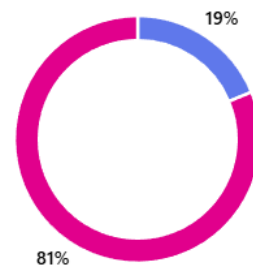
4. How did you find the pickups?

● Too many	0
● Just Enough	12
● Too Little	4



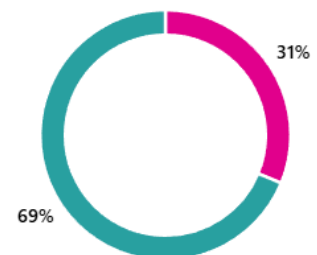
6. How did you find the sniper sightlines on the map?

● Too in favour of snipers	3
● Balanced	13
● Too weak for snipers	0



7. How did you find the size of the map?

● Way too big	0
● A bit big	5
● Just Right	11
● A bit small	0
● Way too small	0



Playtesting Analysis

The first question I asked was to do with classes played. This is because I haven't had any data on this yet, so I thought it would be handy as it would be the last time I could potentially get this data. Overall, I think it ended up being fairly balanced, every class was played once apart from Spy. I was expecting more Snipers due to sightlines being something playtesters have had issues with but only 1 was present on the map.

The next question I asked was what did the playtesters like. I brought this question back as I wanted to get some final feedback on the overall positive aspects for the map for what is the second to last iteration, where only minor changes are planned to be made at this stage before my final iteration. Overall, most people pointed towards the elevated point, map feeling balanced, being easy to navigate, and having a fast tempo. The added geometry was also brought up which was finalized in the last iteration, so it was good to see some positive feedback that my effort to balance the map for Snipers paid off. These other positives such as the elevated point and easy to navigate POIs are aspects I was hoping would appeal to players.

In terms of improvements, most people mentioned cover and sightlines. Throughout my iterations I have been making small improvements to these issues instead of drastic ones to make sure I find a good balance within my map. I plan to add some more cover to the map, however, there are only 2 sightlines (to the upwards side of the map which is quite narrow) and also the Upper Gallery which has five windows but with geometry added so that these are not clear, unbroken sightlines on the point. I plan to add some cover around the Transitional Building and also break up the one to the top so that it is still a Sniper sightline as there is only 3 maximum situational areas where Snipers can stay in (up top camping this narrow sightline, the Upper Gallery and the point, if captured.) the capture point I plan to add some cover to and also reduce the available sightlines from it. With these changes in mind, I think the map will be balanced in terms of sightlines and cover. The map will be on the open side but with these changes it should be enough for both attackers and defenders. The Demoman response was useful and I will definitely implement that. I think the elevation is fine as it is as if enemies are retreating from it that means the attackers can push. I think the level of pickups is adequate, they are spread equally through the map to encourage players to use all areas and there are 15 in total, and when looking at my previous research, Viaduct has 10 and Harvest has 14, which means my map falls just around TF2 conventions. In terms of some lanes taking too long, this was implemented as a risk-reward system. The shortest route is straight through the middle but is out in the open and much more hazardous. The lane at the top provides complete cover from the

player's side of the map through to the point. The two big risks being that it's closed off so if you're up against Pyro or a shotgun it's much more lethal (classes who will be more attracted to this side of the map either due to lack of mobility making them a big target in the open in Pyro's case or in Scout's case, being fast enough to make up for the extra seconds.) The map's size is also on the lower end of TF2 official maps so reducing it anymore will make it fall out of TF2 conventions. The gap mentioned is in the area near the Upper Gallery that I can fix.

The next thing I did was focus more on the issues people had last time - these being sightlines and pickups, and also I wanted a final answer on the map size. The first question I asked was if people thought there were enough pickups, which 75% of players did. Since my map already has 15, I don't believe it's necessary to add any more.

I then asked about sniper sightlines which 81% of people said felt balanced. I plan to add some more cover for my final iteration which should put the map in a good place.

In terms of map size, 69% of people said it was just right which is a big improvement from last time where it was 45-45% to being too big. I think this is a good place to stop scaling the map down as as already stated, it falls on the lower end of TF2 conventions and I have already had comments on the fast tempo of the map so reducing it anymore would make it too chaotic and too fast-paced.

The final question was if anyone encountered any bugs, where there were none.

November 29th, 2024 - Palace Iteration 4 (Final Iteration)

Changelog

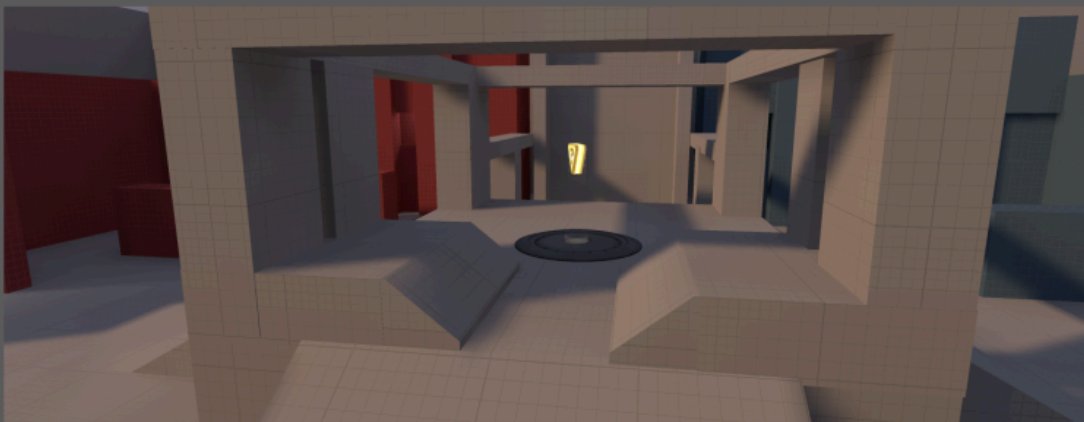
This final iteration was very minor and was purely just for making a few small changes based on the feedback I got in my last playtesting session.

General Changes

Change 1: Added new textures to the blockout.

Reason: This is to convey the theme of the map being in the theme of a palace garden, and to add polish.

Before

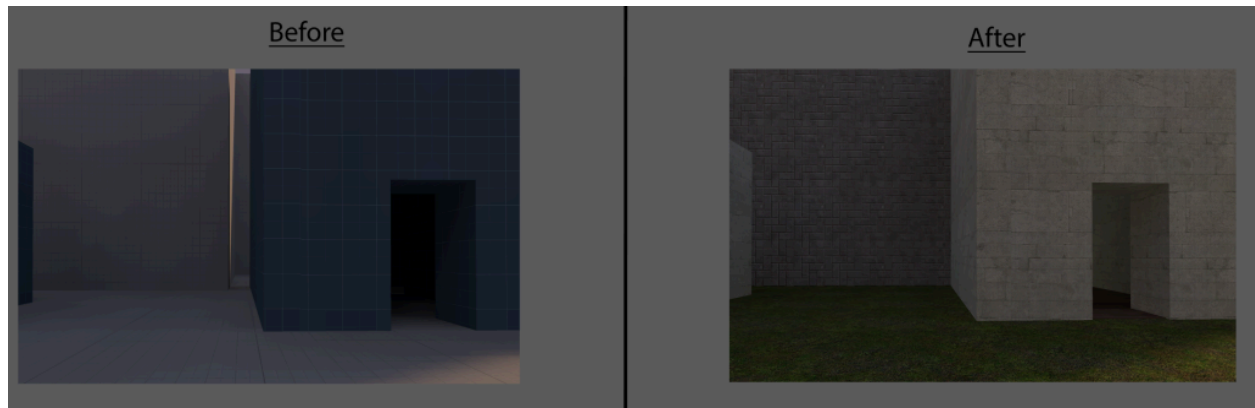


After



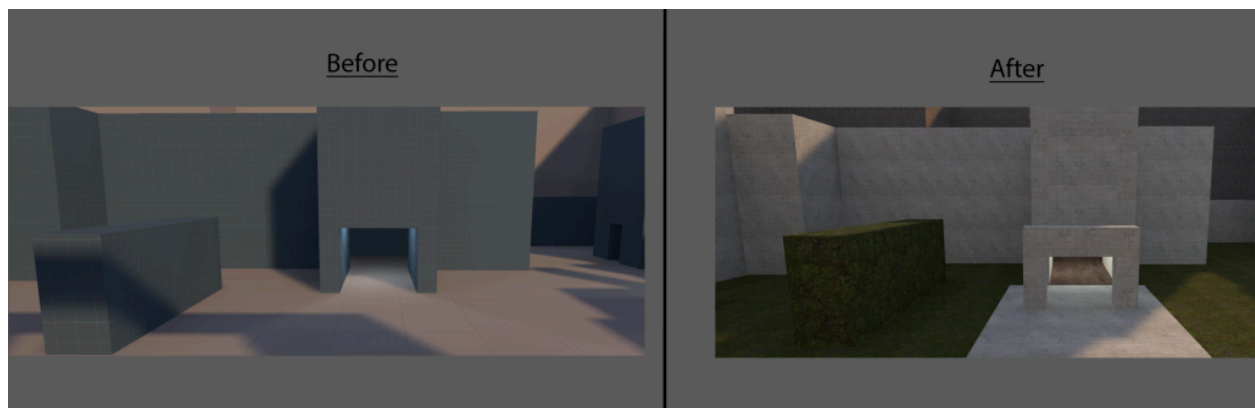
Change 2: Moved the map shape inward.

Reason: This is to get rid of a gap that was unnecessary because it looks like a flank route but is inaccessible. This change makes the map design more clear.



Change 3: Added an archway in front of the central entrance to the Transitional Building.

Reason: This is to add a slight bit of cover to players wanting to use this entrance to make it to the point. It makes enemies unable to headshot players as they walk through the building and up to this entrance.

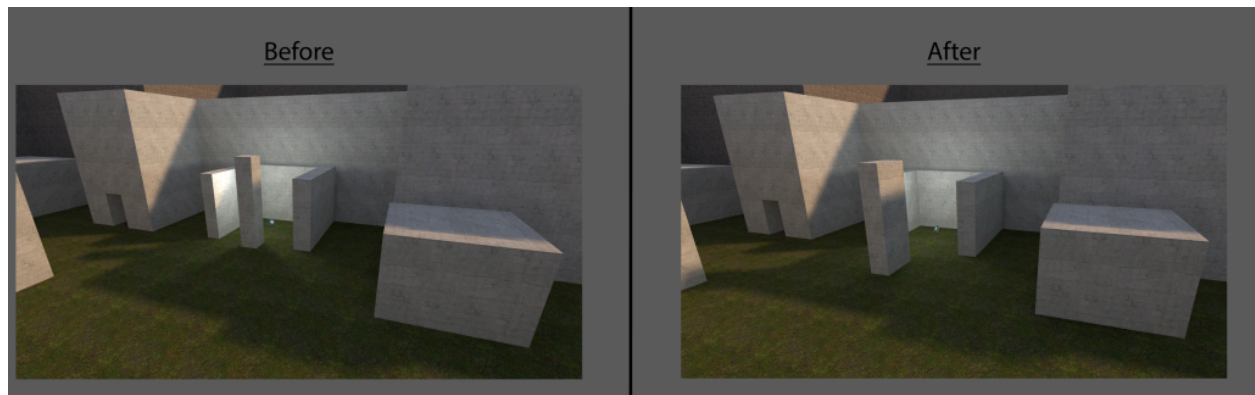


Change 4: Added blocking volumes to some buildings.

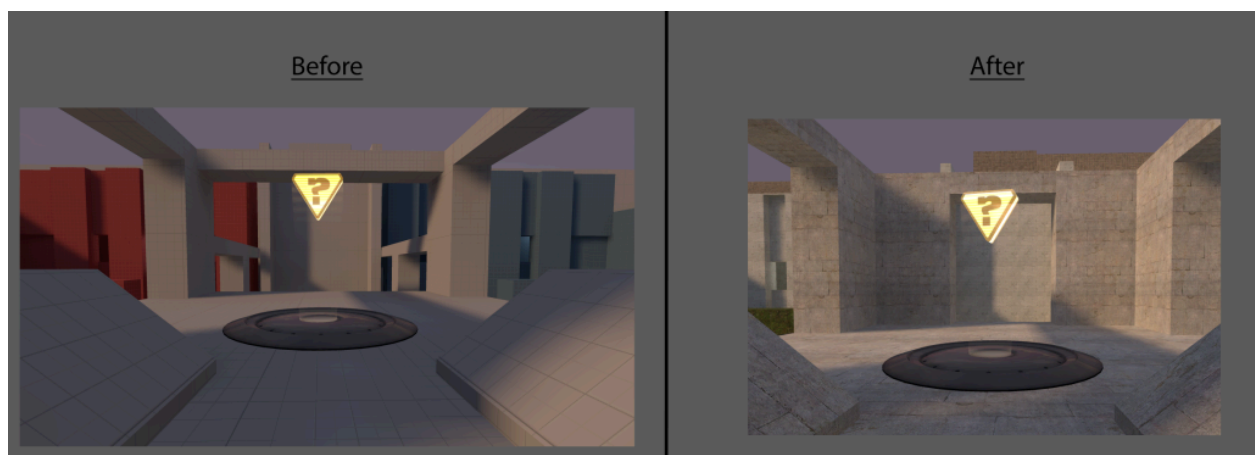
Reason: This is to stop players from getting into positions that were not intended.

Change 5: Thickened the pillars next to the pickup area near the Great Hallways.

Reason: This was the biggest sightline which goes from the blue side to the red side spawn width, so I trimmed it down by adding moving the pillars out and thickening them to the size of the doors on this side of the map. There is still enough space between everything where it doesn't disrupt the map flow to have this pillar more in the way, and also provides some extra cover. Now, the sightline starts in the two small buildings next to the Great Hallways on either side.



Capture Point

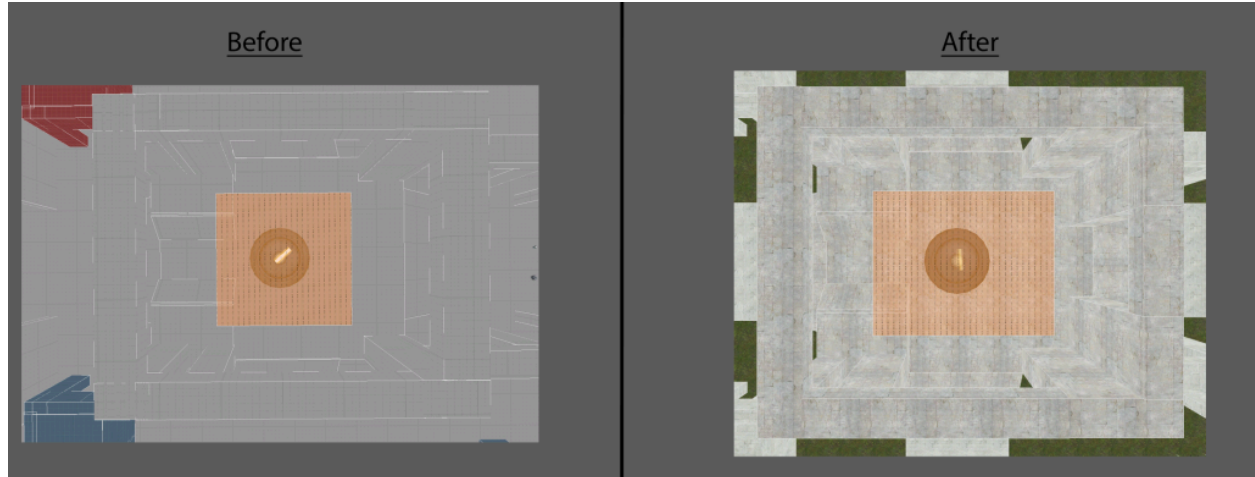


Change 1: Brought in the walls on both sides of the Upper Gallery's side of the point.

Reason: This is to make attacking/defending a bit easier and to give some more cover. Initially I wanted to avoid smaller entrances to the point as I didn't want any spamable characters to be able to neutralize it, however, the other 3 sides to the point are open, so this adds some gameplay variety as well as addressing the suggestion to add more cover as feedback.

Change 2: Extended the capture point radius.

Reason: I have had some feedback recommending this before but I didn't think it was necessary in the end. However, after running some of my own bot playtesting games I realised that there is nowhere in complete cover that you can capture the point. I decided to review this and extend the length of the capture point zone. Now with this extension, there are areas on the point that you can capture it while being completely in cover. This will make attacking the point easier and less of a risk.



November 30th, 2024 - 5th (Final) Map Iteration - Palace



December 3rd, 2024 - Final Iteration Minor Changes

Minor Changes To Final Iteration

While finishing up my map, I decided there was a need for some extra visual affordance. I added overlays beneath pickups and also added a red/blue rim to the Transitional Building to help guide players more. There is not much in the way of RED/BLU visual affordance so this will help players to not go the wrong side if they for example, skirmish in the Central Hall and then forget which side of the map they are on.

Final Map Iteration (5th) With Some Minor Changes



Palace Map Progress Gif (Iteration 1-4)

