Experimental Level Design
CS2 Map – '*Movie*'

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Contents

High Level Overview

Design Motivations and Objectives

'*Movie*' is a competitive **Bomb Defusal** map set in a large, abandoned film production set which mixes ancient ruins and modern cinematic props. The map is designed around **tactical gunplay** and easy of **movement mechanics** with a range of areas for dynamic and strategic gameplay.

Primary Designer Objectives

Primary Objectives	Motivations	Design Elements
Balanced Gameplay – The map needs to have fair play for both T and CT side	Map should allow for a wide range of strategy, encourage tactical play and both defensive and aggressive rounds.	A site requires forceful pushes while B site has more defensive cover requiring a more strategic approach.
Player Flow – Smooth movement around the map and consistent engagement.	Players should feel fluid around the map, with easy of navigation and constant proximity to action areas.	A site and Mid are fast paced and easier to push onto, while navigating to B site needs careful and deliberate players due to its longer flanking routes.
Game Mechanics - Ensuring all design have the games key mechanics in mind.	The map should allow for tactical gunplay and easy of movement to be successful.	Wide corridors and a range of sightlines allow for all weapons to be used.

Secondary Designer Objectives

Secondary Objectives	Motivations	Design Elements
Bombsite Design - Balances sites need defence and attack options.	Defensive layouts encourage utility, while sites utilising manpower need impactful plays.	B site has more natural cover compared to A which is open and aggressive.
Chokepoints – Choke areas should be contestable and avoid bottlenecks.	Strategically placing chokepoints will encourage engagements while still allowing players to take alternate routes.	A shorts entry is compact and ensures intense fighting. Mid's open centre promotes sniper battles and constant holding.
Sightlines – Ensure powerful sniper sightlines are limited.	Limited and controlled long-range areas with a variety of cover so snipers are viable to use but not overpowered.	Mid's long sightlines allows for weapons like AWP's to be used, but smokes and cover can be utilised to challenge this.
Map Semiotics and Readability – Ensure players can read the map and environment.	Visual and environmental cues should clearly communicate map information.	Props server as landmarks specific to their own areas, and signs act as identifiers for locations and pathways.
Rotations and Flanks – Should feel natural but challenging.	Both sides should have alternate routes to avoid one side having advantages.	T side have to push hard for A, however CT must rotate smartly around Mid.
Timings – Engagement and bomb planting should be within the games natural time scope.	T side should be able to get to site within the time limit and CT should have enough time to rotate between sites.	Mid allows for fast but risker rotates for CT, and the range of routes on T side give attackers multiple angles to attack a site from.
Competitive Play – The map should be playable from both a casual and competitive standpoint.	The map should offer a range of opportunities for fakes, retaking sites, executes and other strategy to supplement pro play as well as casual.	Multiple boost areas, zones of crossfire and smokeable entrances allow for precise pro play and strategy while still catering to low skilled players.

Level Goals

My goals of this map are:

- Create a map that aligns with CS2's design conventions and gameplay style.
- Ensure the level I design is created with the games key mechanics in mind and utilize them for gameplay.
- Distinct area identity so the map as a whole feels unique and each section is recognizable from specific gameplay style and landmarks.
- Fun and enjoyable for casual play but have strategic depth for higher skilled players to fully take advantage of map structure and design for competitive play.

Design Considerations

Gameplay:

- Fair T and CT timings to engagement areas. Mid should be relatively even, with CT able to reach bomb sites earlier to get into defensive positions.
- All areas of engagement and chokepoints should be contestable.
- Each site should have multiple viable attack routes, so gameplay isn't repetitive or restrictive.
- Rotations should be balanced so retakes and site holds are fairly timed.

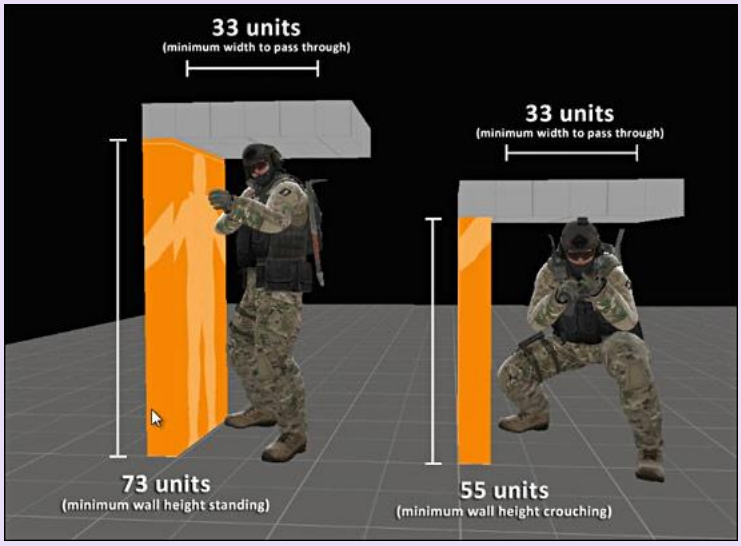
Player Navigation:

- Landmarks and distinct areas should match callouts and help players orientate themselves.
- All areas should be consistently well lit.
- Bombsites should be clear to tell apart.
- The map (as a whole) should avoid excess clutter to prevent unfair angles or hiding spots.

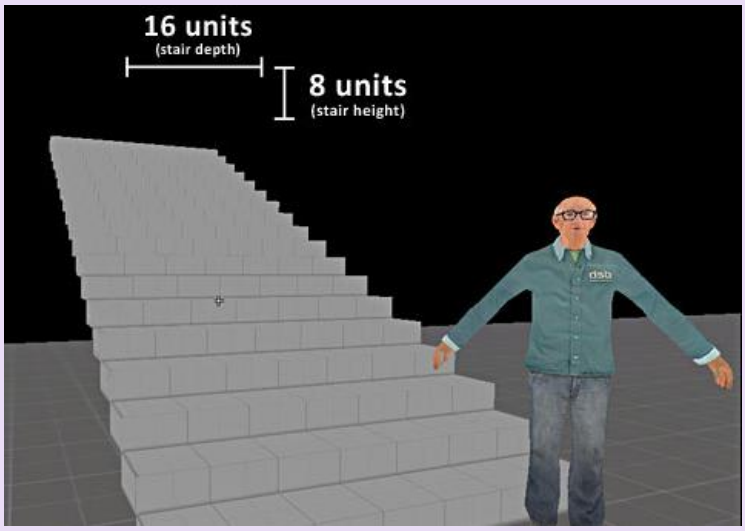
Optimization:

- Textures and props should be optimized to reduce framerate issues.
- Terrain should be smooth and consistent to prevent glitches.
- Collision of props and terrain should be considered as well to avoid unintended exploits or glitches.

Important considerations to take into account when design is player scale, which for CS2 is 33x77 Hammer Units standing.



The highest incline a player can walk is around 60°, however the more common stair angle for gameplay and ease of movement is around 30°.



Fall damage is also an important factor, with players taking fall damage from around 215 Hammer Units. In my map, 'Bridge' is the only area with a high enough drop to inflict damage from falling and leaves a full HP player after falling to 69HP.

Expected Player Experience

First-Time Player Experience

- Quickly understand the theme of the map
- Instinctively follow paths and recognice areas using landmarks and map structure
- Experience the different playstyles of both bomb sites
- Find Mid and be aware of its long sightline as a challenging but rewarding area of the map to control

Competitive Player Experience

- Use utility effectively, like smoking for control or mollies for clearing defensive angles.
- A range of dynamic fights around the map unique to specific location and game round.
- Find and use rotations and flanks to their teams advantage for strategic play.
- Take advantage of boostable areas for crossfires and flankable areas.

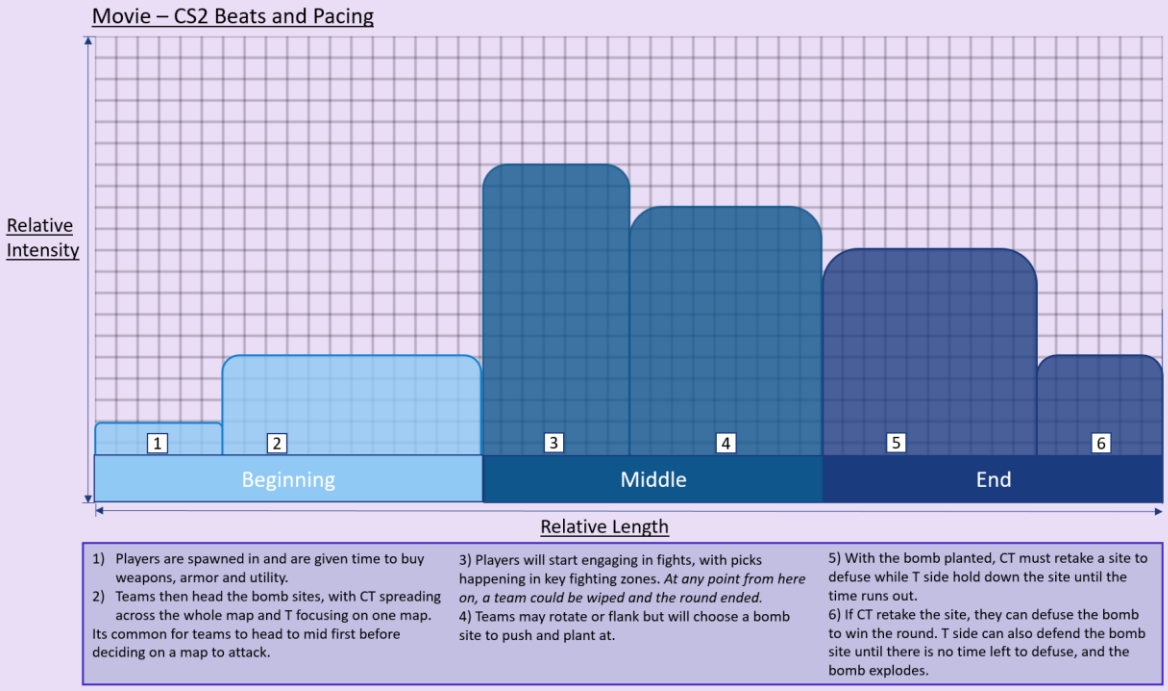
Narrative and Thematic Experience

- Notice the props and how they relate to the maps theme and enviromental storytelling.
-Recognice the map as unique from other offical CS2 maps in the game.
- Pick up on details and the use of props for visual enjoyment and design intentions.

Replayability and Longevity

- Learning smoke (or other utility) lineups from playing over time.
- Adapt to strageties and have plans to counter types of play.
- Have 'default' areas that players get used to playing around to improve their skill.
- Each game to feel fresh and slightly different so gameplay isn't predictable.

Beats and Pacing



1) Players are spawned in and are given time to buy weapons, armor and utility.
2) Teams then head the bomb sites, with CT spreading across the whole map and T focusing on one map.
Its common for teams to head to mid first before deciding on a map to attack.

3) Players will start engaging in fights, with picks happening in key fighting zones. *At any point from here on, a team could be wiped and the round ended.*
4) Teams may rotate or flank but will choose a bomb site to push and plant at.

5) With the bomb planted, CT must retake a site to defuse while T side hold down the site until the time runs out.
6) If CT retake the site, they can defuse the bomb to win the round. T side can also defend the bomb site until there is no time left to defuse, and the bomb explodes.

Mechanics

The mechanics I am focusing on are shooting and movement. Shooting weapons in a game such as CS2 requires good aim, positioning and map knowledge. Movement is also important to tactical shooters as it dictates positioning, weapon accuracy and map timings.

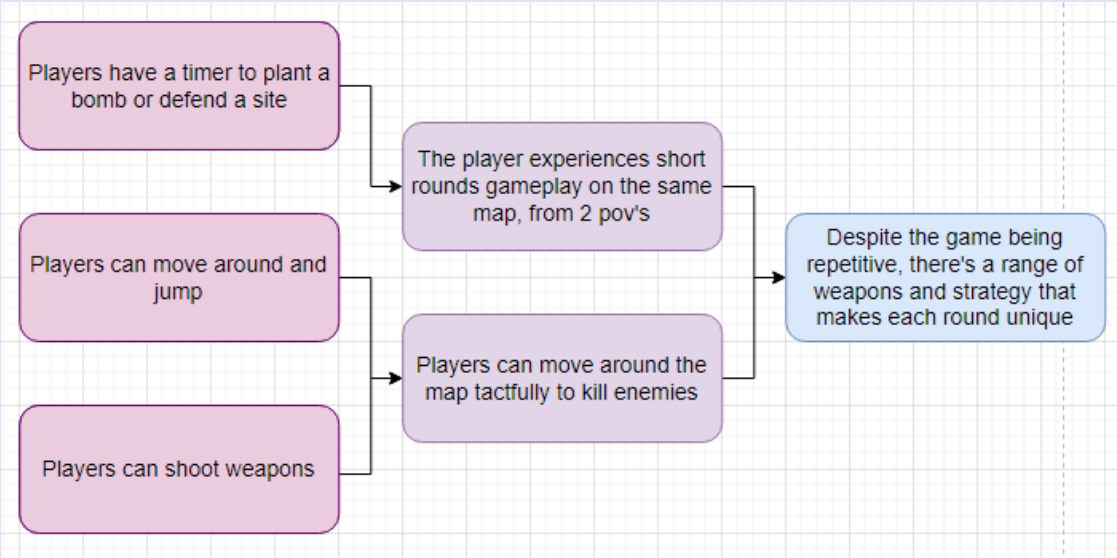
Mechanical Resonance Table

X	SHOOTING	WALKING	JUMPING	CROUCHING	USING ITEM	PLANTING BOMB	USING MEELE	CLIMBING LADDER
SHOOTING	X	A~	B~	1	0	0	0	0
WALKING	A~	X	1	1	1	0	1	D~
JUMPING	B~	1	X	C~	1	0	1	0
CROUCHING	1	1	C~	X	1	1	1	0
USING ITEM	0	1	1	1	X	0	0	0
PLANTING BOMB	0	0	0	1	0	X	0	0
USING MEELE	0	1	1	1	0	0	X	0
CLIMBING LADDER	0	D~	0	0	0	0	0	X

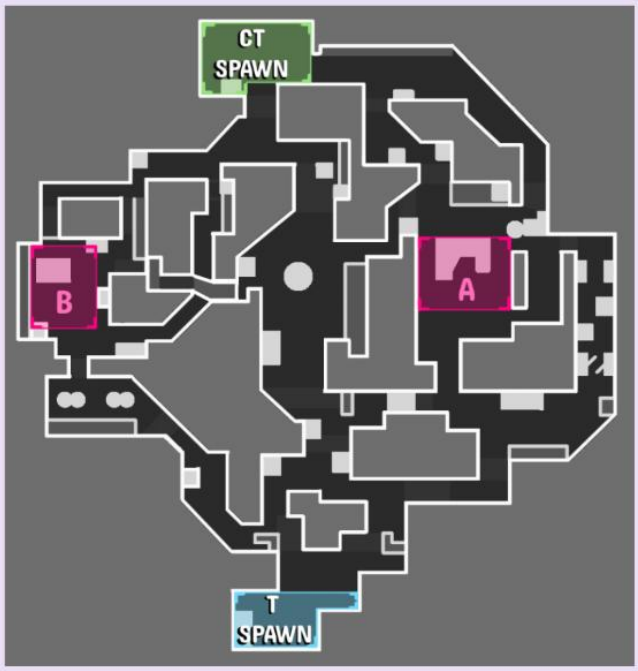
1	Yes -They interact
~	Somewhat– Explanation
0	No- They do not interact

A) Shooting/Walking—You can walk while shooting, but it decreases your weapon accuracy drastically. However, this is a common strategy used called 'run & gun'.
B) Shooting/Jumping—Again, you can jump while shotting but weapon accuracy is (further) massively decreased.
C) Jumping/Crouching— Jumping while crouched will result in jumping, however if you jump and crouch at the highest point of your jump, the player character can reach higher levels they would not be able to from jumping normally. This is called 'crouch jumping' and is used by players to be in unsuspecting places to surprise enemies.
D) Walking/Climbing Ladder—Walking while climbing a ladder will cause the player to move up or down the ladder, depending on the direction the player is looking. However, if you continue walking you will detach from the ladder completely.

MDA Flow Chart



Map Overview



CS2 MAP - MOVIE

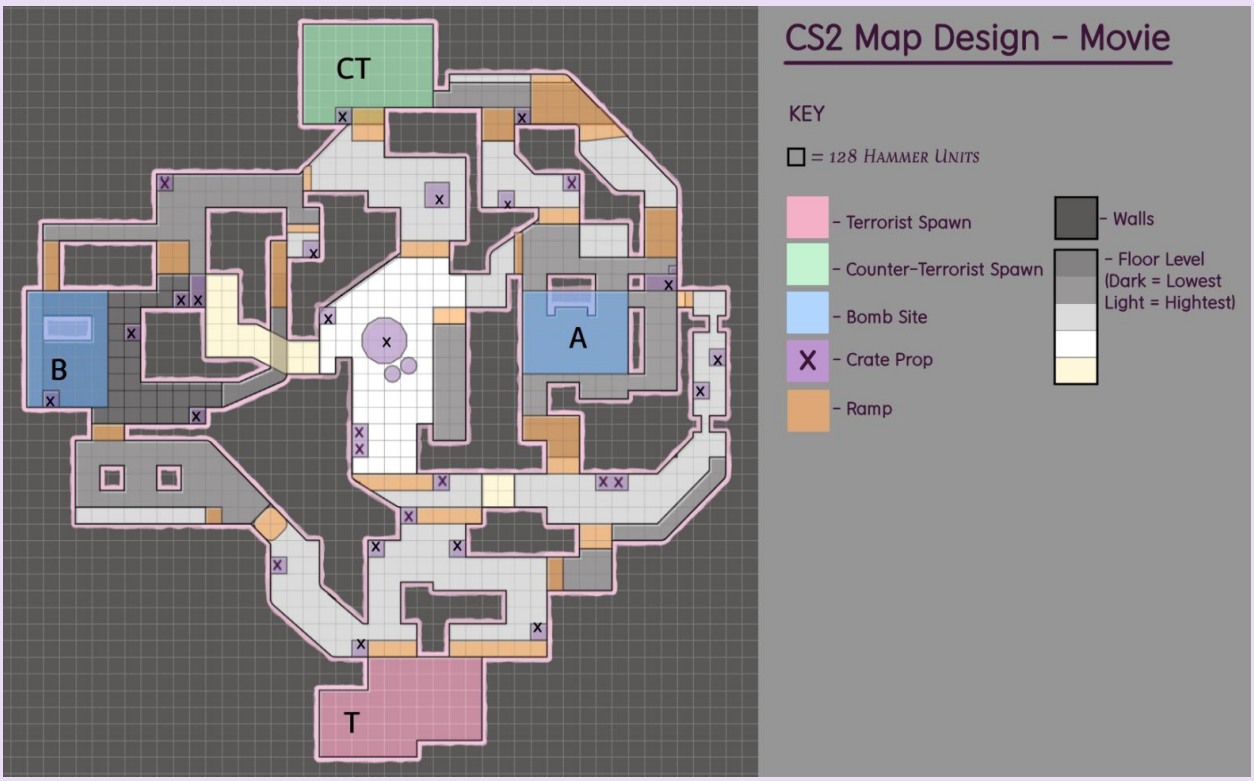
Map Size: Small-Medium

Theme: Nature ruins/ Modern filming set

Gameplay Type: Bomb Defusal (Casual 16v16 and Competitive 5v5)

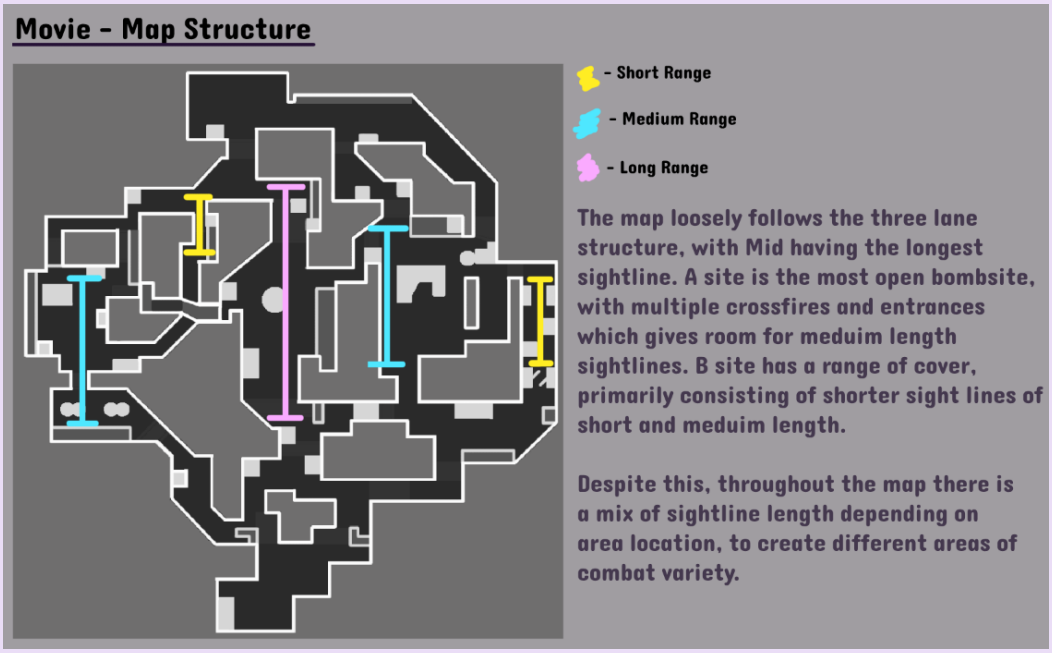
Inspirations: CS2 Maps 'Inferno', 'Mirage' and 'Dust II' ; Valorant Maps 'Bind' and 'Sunset'

Finalized Level Design Diagram



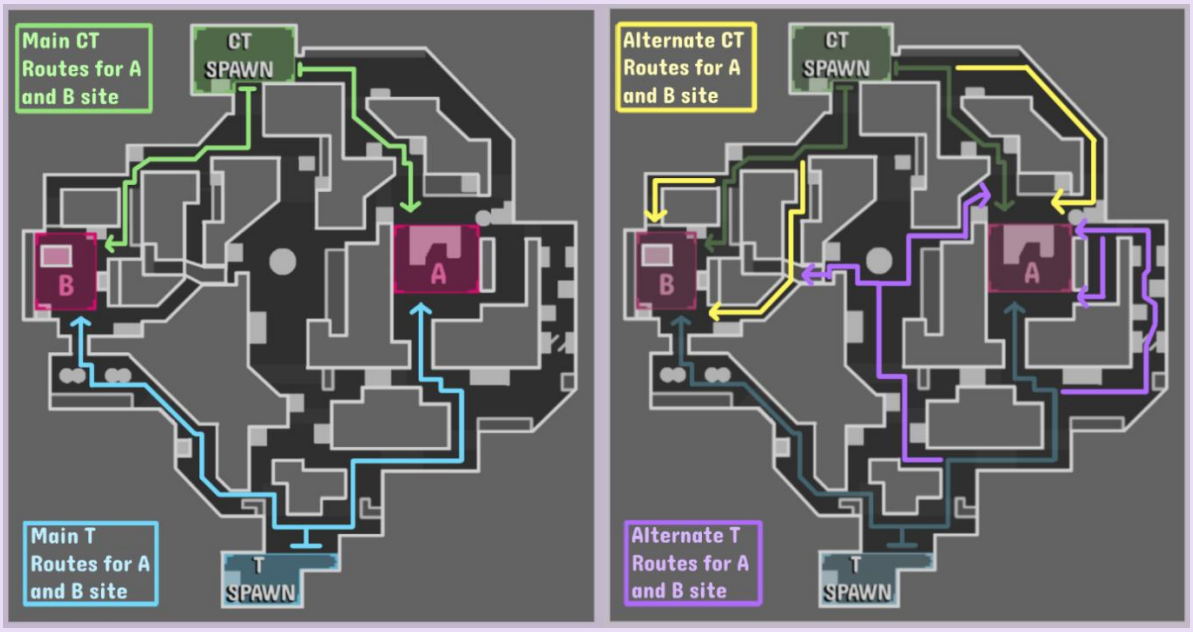
Map Structure

From research, I found that a lot of fps maps follow a ‘three lane’ structure, so I designed my map with a similar vision in mid. This ensures a range of sightlines and therefore different weapon usage.



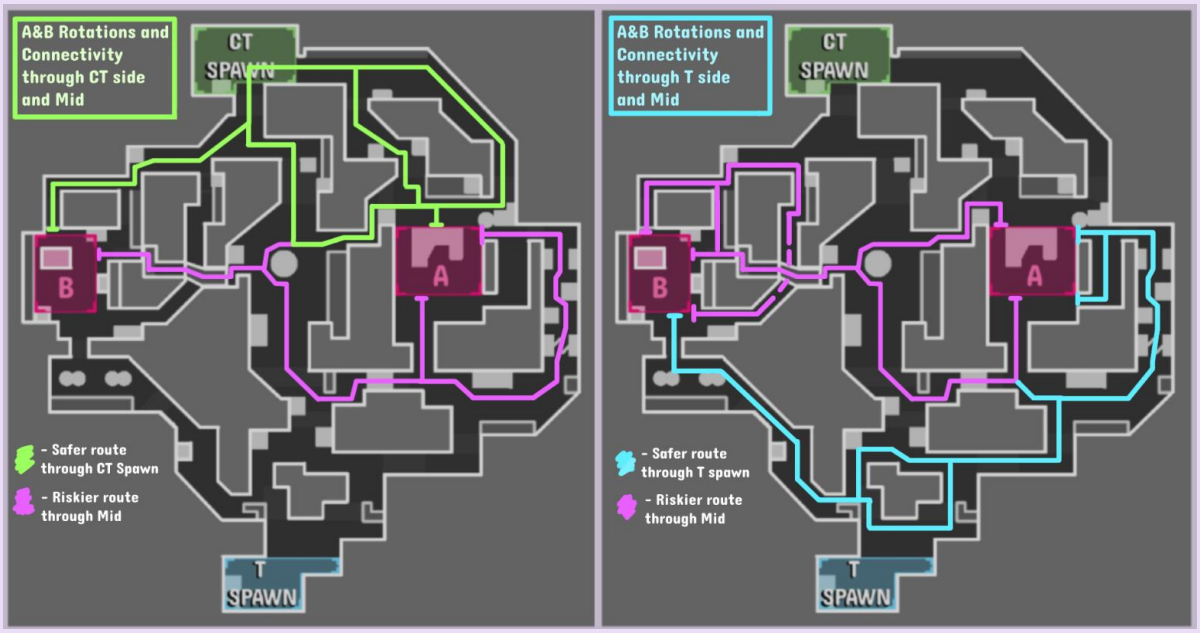
Player Paths

Key routes from spawns to sites are important as they are most commonly taken and therefore will have the most play time in these areas.



Map Pathways Connecting Areas

How areas of the map connect to one another is also important, as it dictates viable routes for flanks and rotates for each team. Having a range of routes each team can take when moving around the map is crucial as is gives opportunities for strategic and varied gameplay.



Key Timings

Route Taken	Time (seconds)
A > B *(Shortest)*	14.32
A > B *(Longest)*	34.4
T Spawn > A *(Shortest)*	15.34
T Spawn > B *(Shortest)*	14.5
T Spawn > Mid *(Shortest)*	8.4
CT Spawn > A *(Shortest)*	10.2
CT Spawn > B *(Shortest)*	10.6
CT Spawn > Mid *(Shortest)*	5.3
T > CT *(Shortest)*	17.7

Average Engagement Timings (form playtesting sessions):

A Site = *15 seconds*

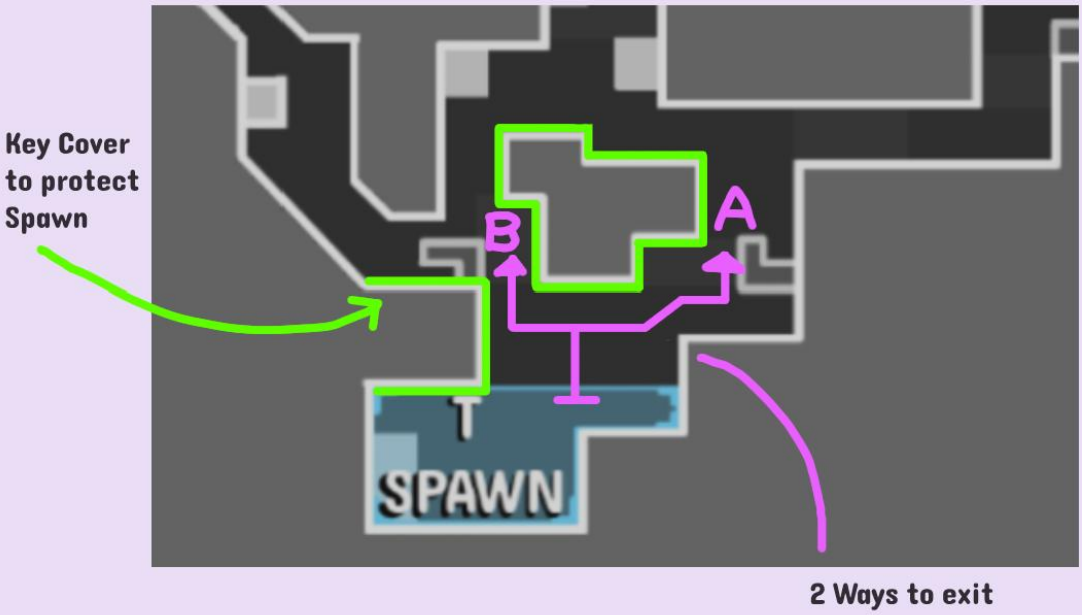
B Site = *13 seconds*

Mid = *10 seconds*

Spawn Areas

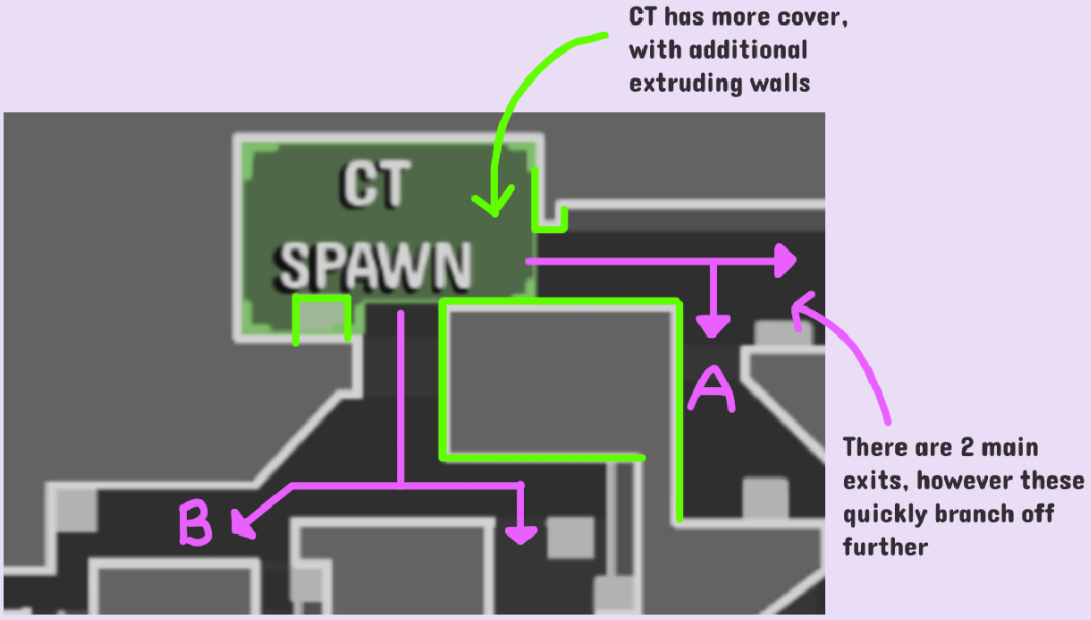
Terrorist Spawn (Attackers)

- 2 primary exits towards each site.
- Both exits come together towards mid to prevent spawning being held or bottlenecking.
- Large cover from mid to prevent attackers getting picked off when rotating through spawn.
- The distance between exits gives quick rotation and early game decisions, preventing T side from being vulnerable to early game.



Counter-Terrorist Spawn (Defenders)

- CT has direct access to A and B site, allowing for safe and quick dispersal of players at the start of rounds.
- B site route is fairly direct in small spaces, providing choke points and defensive positions to retreat to if site is taken.
- A site route is slightly further from spawn meaning it favours post-plant retakes over early game aggression. A have multiple entryways which additionally provides for retake opportunities.
- Large amount of cover from both sides gives a balanced defence, however, could become vulnerable to mid which forces CT side to priorities mid control as well as defending sites.



Conflict Points

Areas with longer sight lines tend to have the most conflict as they create exciting engagement with rewards teams for use of utility and map control. Mid is especially important in this map as it puts pressure on both bomb sites and needs to be countered by flanks and good use of utility.

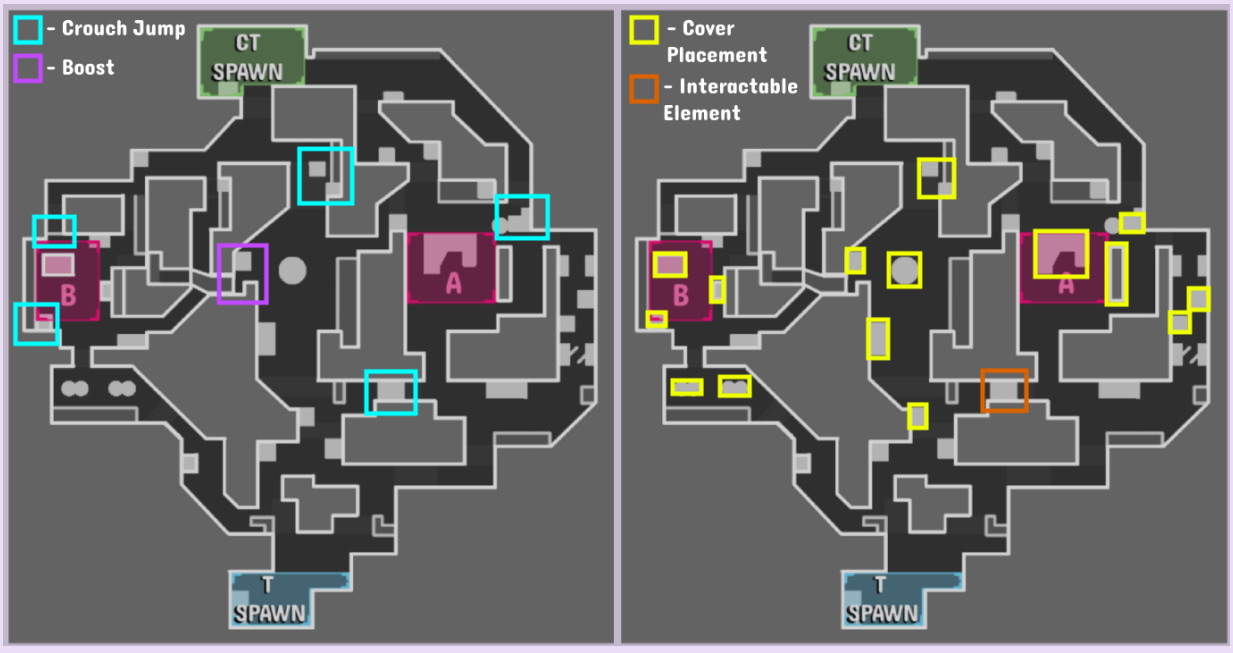
Heat Map - Movie

- High Intensity Conflict Zones

- Low conflict Zones

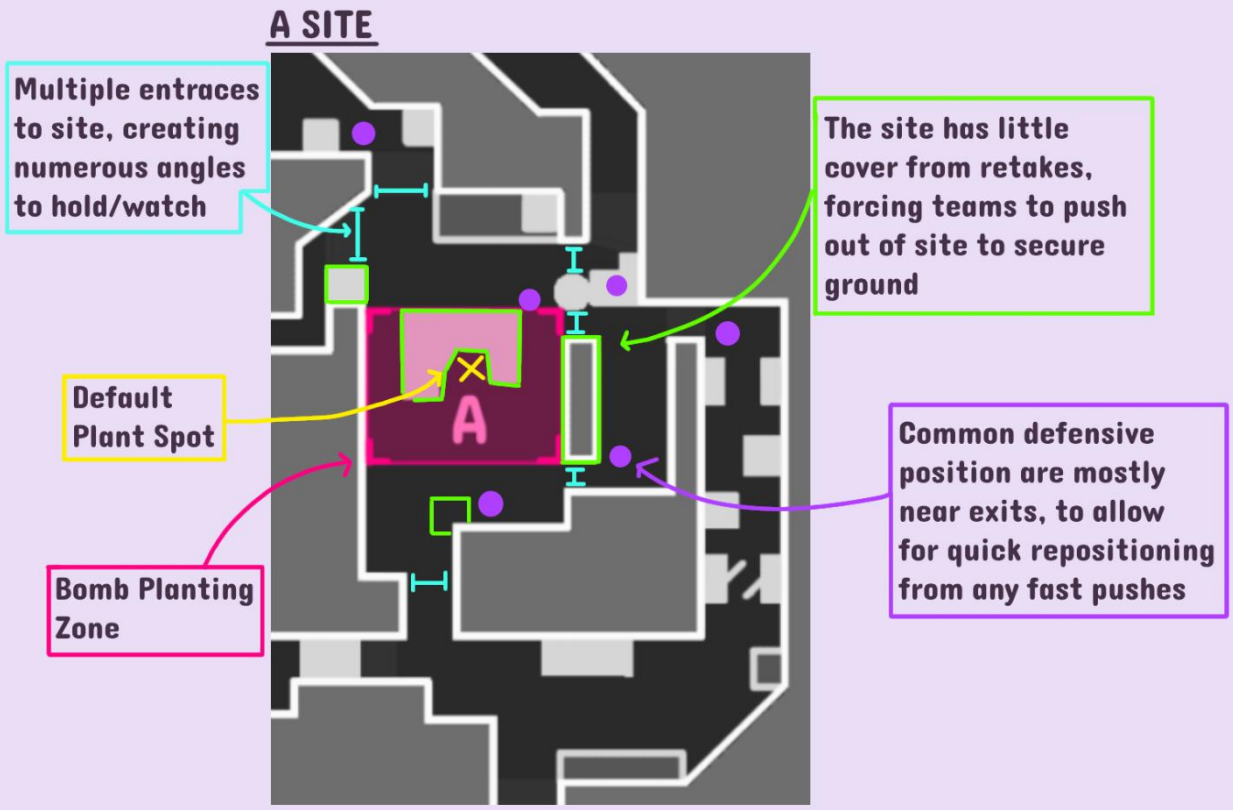
Main engagement zones include B main, A short, top and bot Mid, and entrances onto both bomb sites.

Boost Spots & Jump Mechanics add important elements to areas where elevated angles can provide slight advantages. These are found around most of the map's cover.



Points of Interest

A Site:



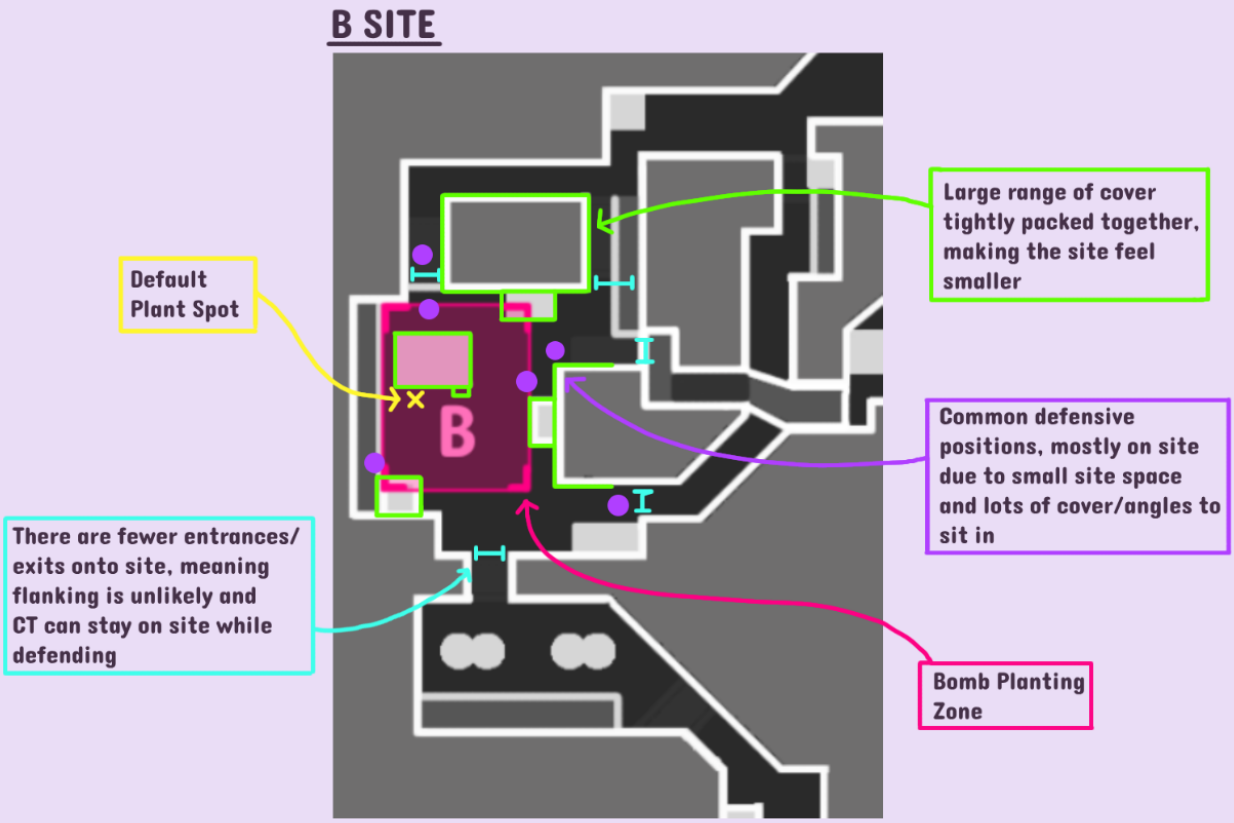
T side (Attackers) approach to A site:

- Fast executes with utility are key to overwhelm defenders and create space due to the number of angles that counter slow plays.
- There is a high lurking potential for attackers to flank to take the second entrance to add pressure and cover angles that teammates from A short cannot clear
- Aggressive rushing may work but requires proper coordination when entering and taking trades where possible.

CT side (Defenders) approach to A site:

- Defensive layout with a range of entrances favours CT, however defenders on site are extremely vulnerable to fast pushes (especially from mid or doors). Aggressive AWP or rifle holds from back site can shut down fast pushes like this.
- Utility to delay attackers and cut off entry points to disrupt T side coordination is extremely effective.
- Rotations from mid give backup options if the site is overwhelmed quickly.

B Site:



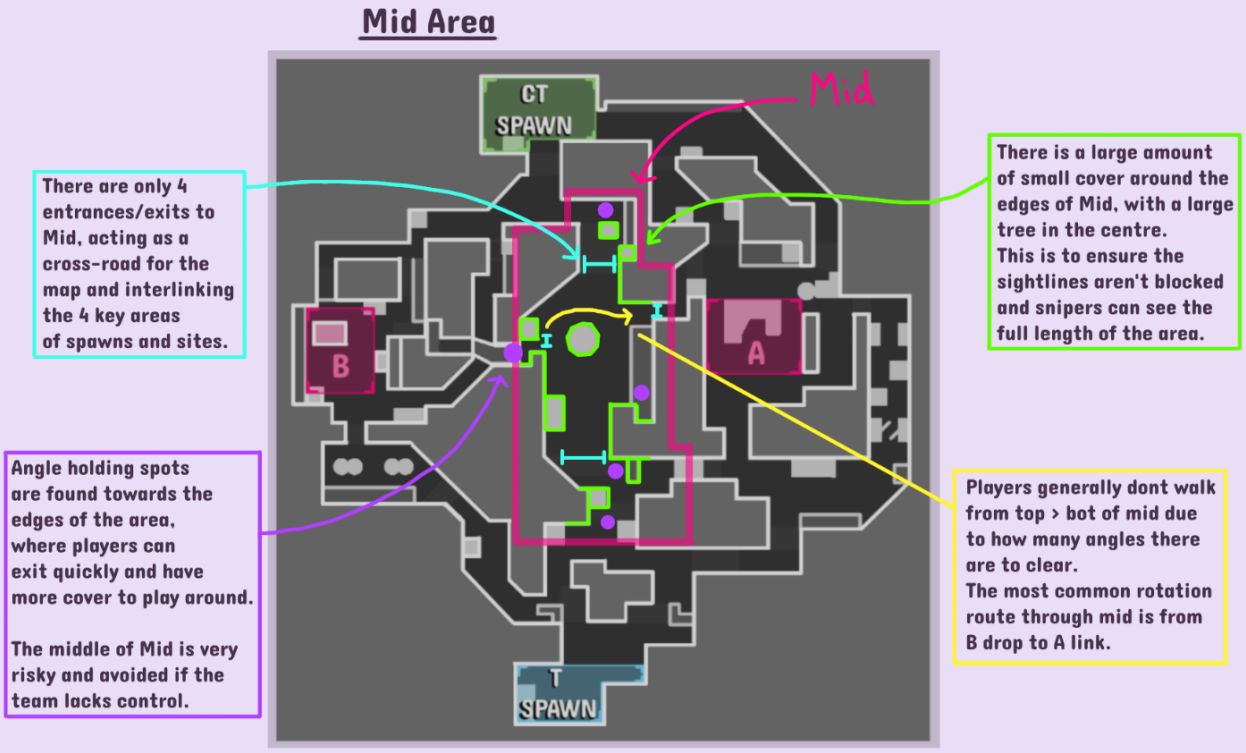
T side (Attackers) approach to B site:

- B site is more defence heavy, so T side should play slower to draw out utility.
- Playing default early also allows for attackers to lurk and push out into the map further to cover more ground.
- Due to the high cover, if bomb is planted then the site favours attackers in post plant scenarios as they are the ones utilising the cover on the map.
- Taking mid control and lurking into B from a slow push or rotate is also effective, as defenders have too many angles to hold both on and off site unless fully stacked onto the site.

CT side (Defenders) approach to B site:

- Defensive set ups and crossfires help CT anchor effectively.
- Rotations are slow to B so defenders are encourages to player deeper onto site to delay any potential pushes.
- Retakes are difficult, so CT may have to push Mid first rather than directly to site or fully flank for additional picks. Saving utility for post plant is something players must keep in mid on this map.

Mid:



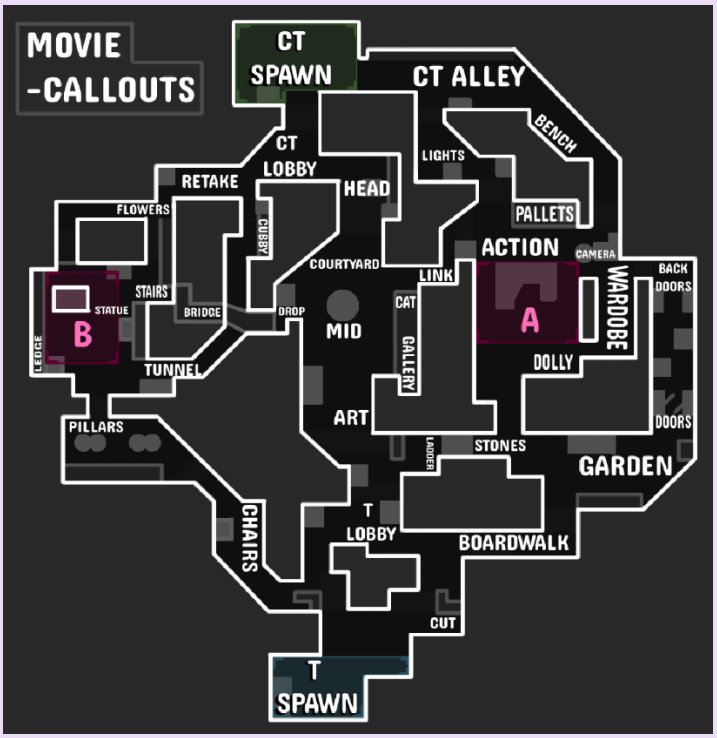
T side (Attackers) for Mid Control:

- Long sightlines mean high risk high reward and winning mid gives T a major advantage for splitting onto either site or rotating.
- AWP-heavy fights are likely here, and Ts will need utility to block key angles if they are to push deeper into mid.

CT side (Defenders) for Mid Control:

- Mid is essential for quick rotates, so loosing mid control makes retakes much harder.
- One AWP or rifle at the top of mid can provide enough pressure to delay and push back T side with no utility to burn.
- Aggressive peaks early and then falling back to defensive positions can force T side utility early and waste their resources.

Map Callouts



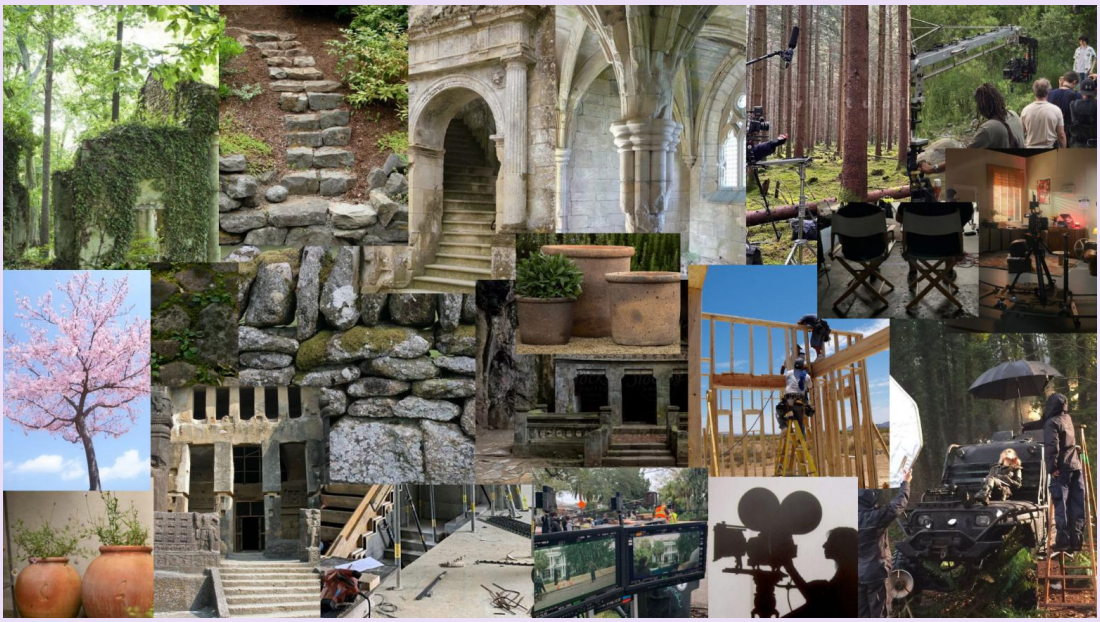
Common callouts used in other tactical shooters are still easily applied to the map, such as A bomb site having a short and long to reference to the two entrances from attacker's side.

However, there are some more specific callouts which refer areas of the map and what can be seen there. For example, 'Stones' is a pile of stones, 'Art' has multiple paints on the walls surrounding it, 'Head' has well… a head and so on.

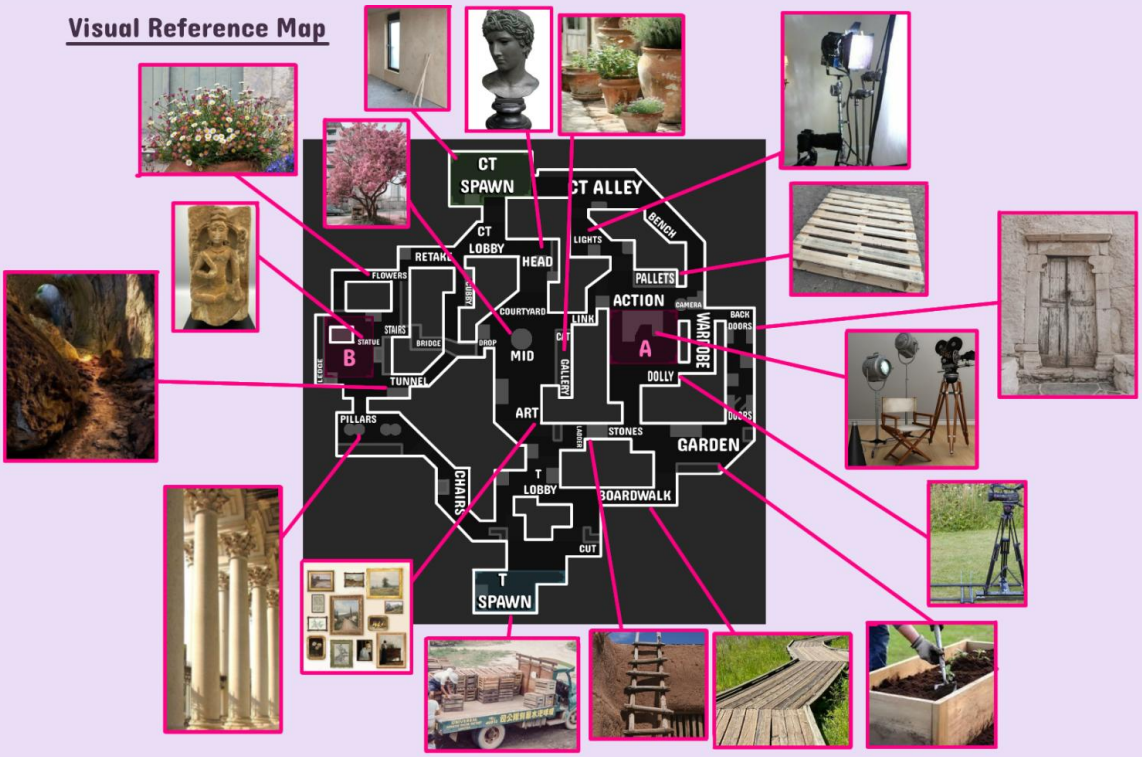
Aesthetics (Look and Feel)

Visual Development

Mood Board



Visual reference Map

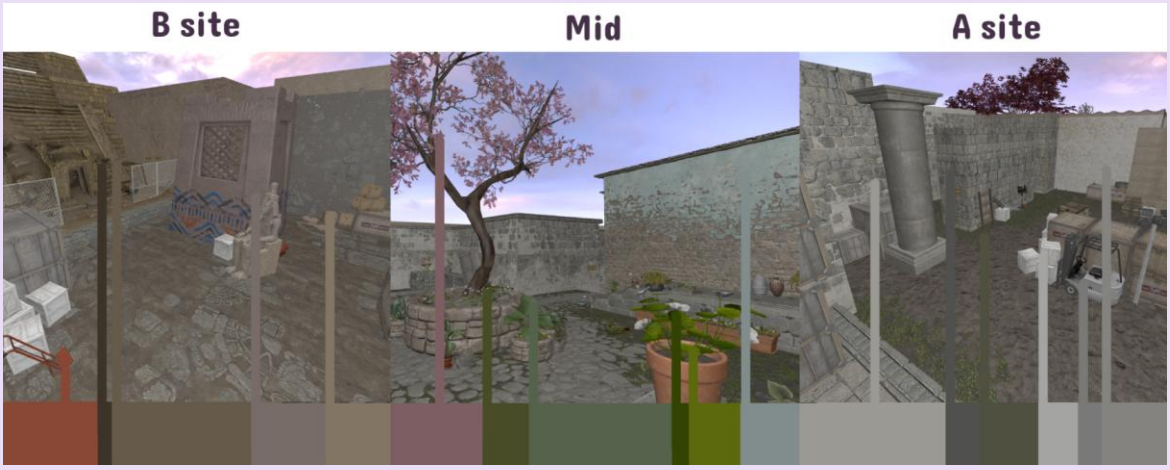


Meshing was a secondary thought to the map design, as I wanted the initial mechanics focus to lead the map theory and playstyle. However, I still used the themes of the map to influence areas for their looks and structure to look realistic for players.

I used techniques like asymmetry and framing to give a used and live-in look to areas of the map, and props to add to the environmental narrative elements to communicate the aesthetic and intended composition.

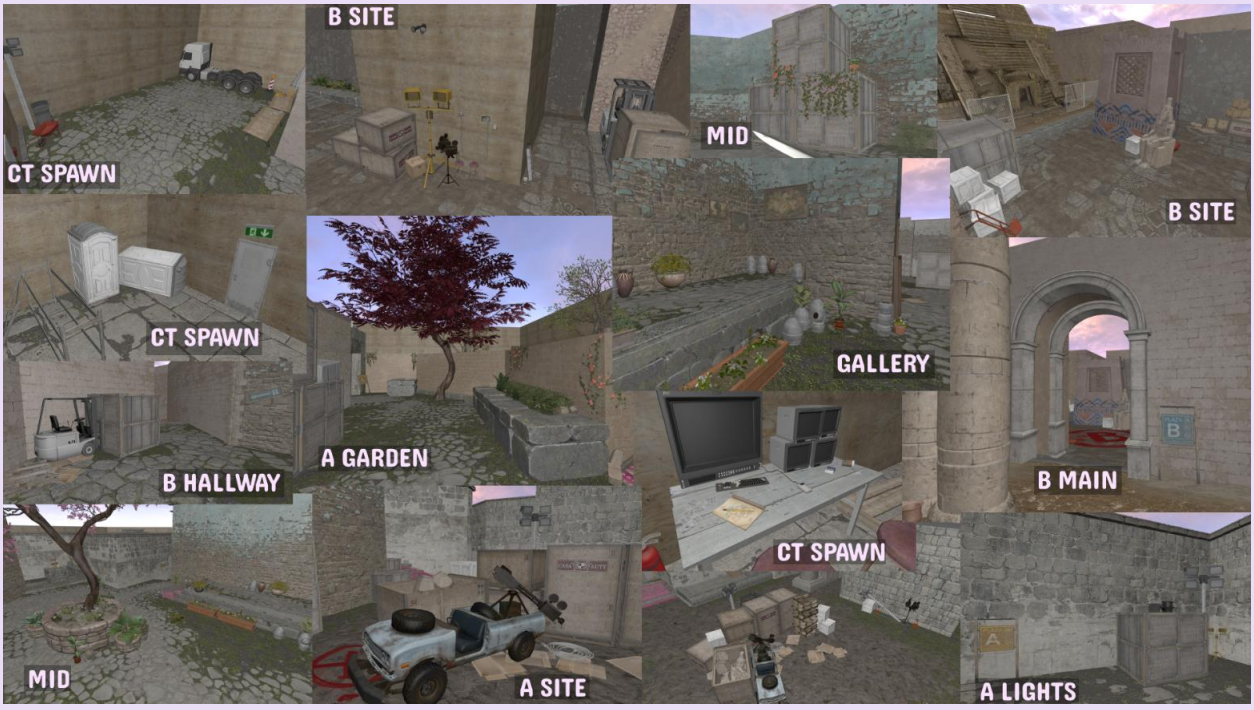
The map is open sky, so lighting is consistently good, and all areas are well lit as this is extremely important to fps games. I used a bright sky box and lighting settings to improve clarity and map readability.

I also applied colour theory knowledge, with B site being warmer toned and A site being cooler toned with different texture and props to provide easy orientation. Mid also stands out with bright blue walls and abundance of greenery compared to other areas of the map.



Meshing Showcase

Most of the map is quite plain and bland, with concrete walls and stone floors. It's the props and meshing that provides the narrative context and makes the map feel fuller and populated. In the future, I would like to do more research into map meshing and visuals, however the aim of the level was s design focus, so I didn't spend long on looks.



Visual Affordance

When meshing there was a few things I made sure to keep in mind to prioritise gameplay. Prop density and clutter control was crucial as I didn't want smaller props or oddly shaped objects giving peaking advantages or strange/unfair angles. Because of this, I made sure to test each area individually and standby/on/around any props or cover added to look for issues or exploits. I also noted in testing when there was an apparent problem I or a play tester found to adjust it in the next iteration.

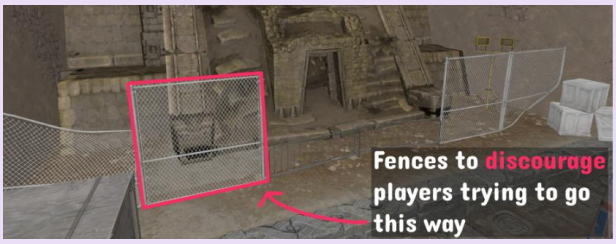
It was also important to ensure props weren't too interesting to look at to avoid unnecessary distraction, as the focus should be gameplay and not exploration.

Semiotics and Affordances

Throughout the map there is signage directing players to the bomb sites. There are also large overlays on the floor which indict where players can plant the bomb, and clearly ladling which site the player is on.

Along with this, each site has its own textures it uses to make it recognizable and easier to navigate.

As the map is a 'movie set', I was content with the edges of the map being walls and not requiring additional skybox materials as a movie set only constructs the key areas to film in. However, to ensure players know area bounds I used props and the player clip brush to stop out of bounds access.



This helps direct player behavior; in this case players know they cannot go past this point and can play around know this is a dead end/wall without a visual wall being there.

Balance

Game Balance

I play tested 4v4 players, using a random number generator to assign team selection each game. All players are ranked between silver to platinum as I wanted to ensure play testers had a range of skill while still understanding key elements of competitive play without causing an imbalance (for instance if there where challenger players and they were all randomly selected to be on one team, the results of the game would be invalid due to skill difference).

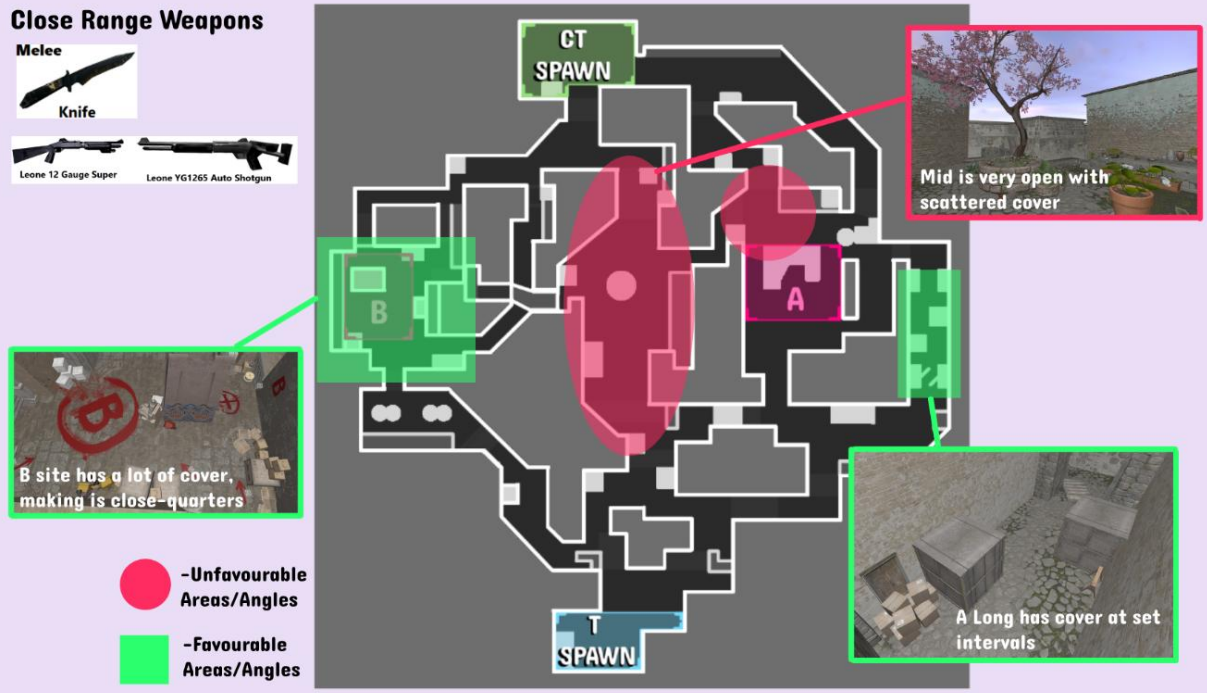
Games	Win Rate for CT	Win Rate for T
Planting A site (x8 games)	37.5%	62.5%
Planting B site (x6 games)	66.7%	33.3%
Mixed Direction (x4 games)	75%	25%

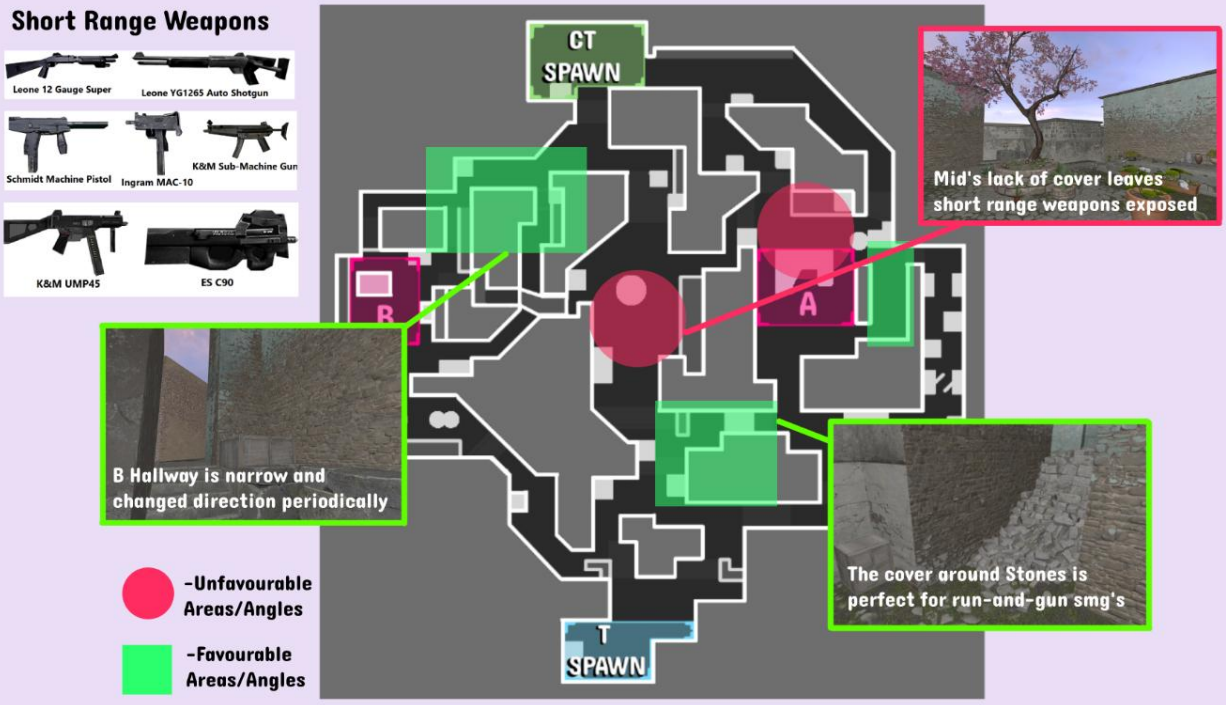
- *Games Played in Total = 18*
- *CT winning games: 10 (55.5%WR)*
- *T winning games: 8 (44.5%WR)*

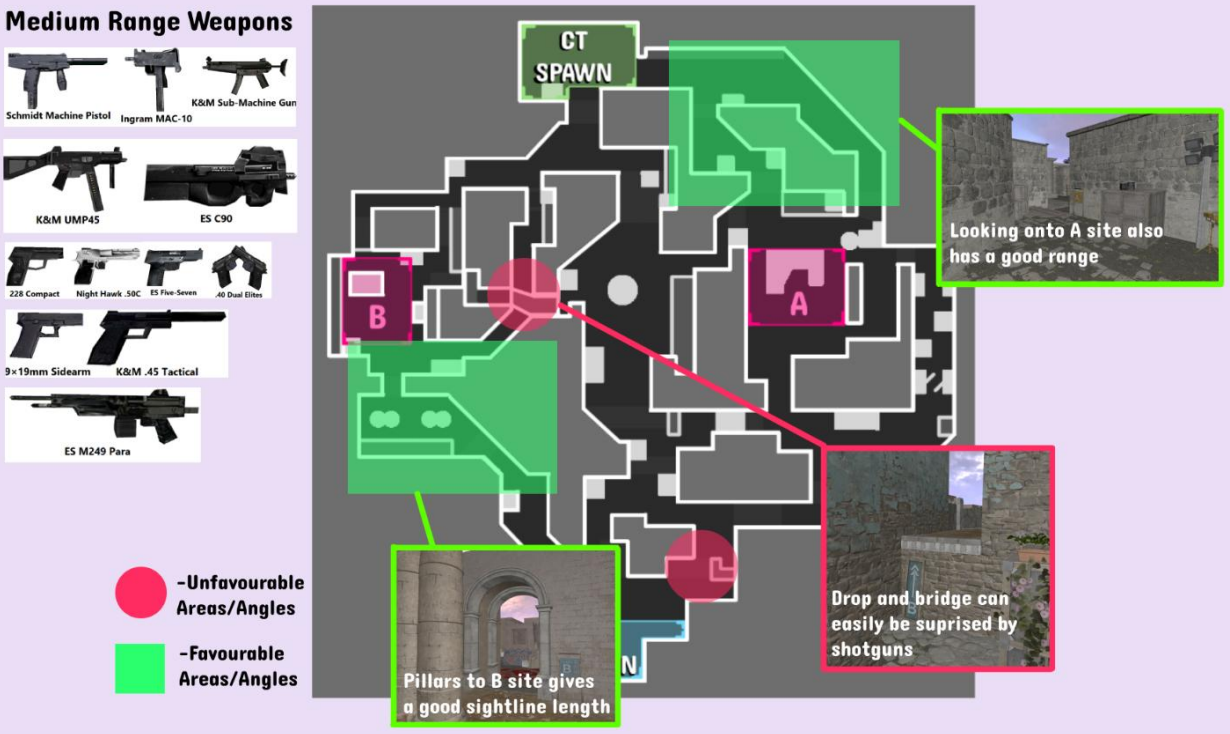
To summarise, from the small play testing session I conducted, CT had a slightly higher win rate of securing 2 more games than T side did. This suggests that the map is CT sided and has an advantage to defensive side, however a lot of CS2 map currently are CT sided and due to the small sample size I used, I don't believe these results to be completely accurate but more of a suggestion of balance and fairness. 55/45% WR is considerably fair with CT having a slightly higher chance of an advantage.

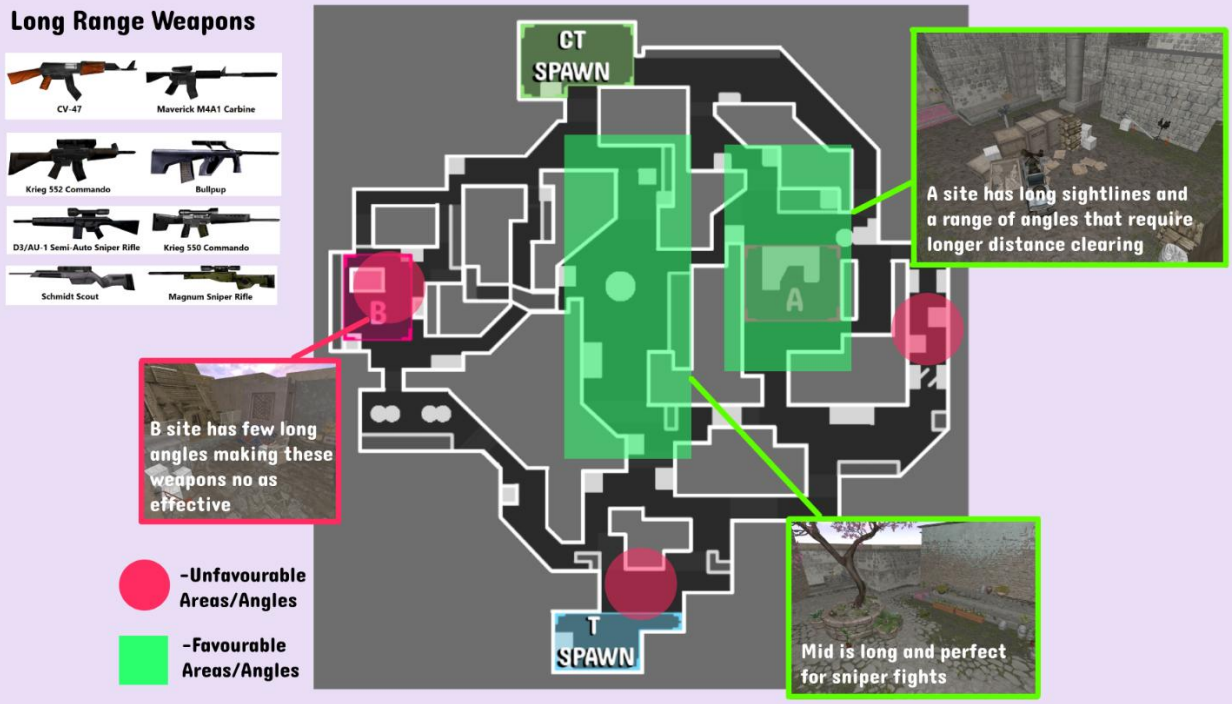
Considerations

I also wanted to look at the balance of weapons used. Despite AK and AWPS being the most popular weapon choices, there are still eco rounds and early rounds with less money where other weapons like shotguns and SMG's are bought.







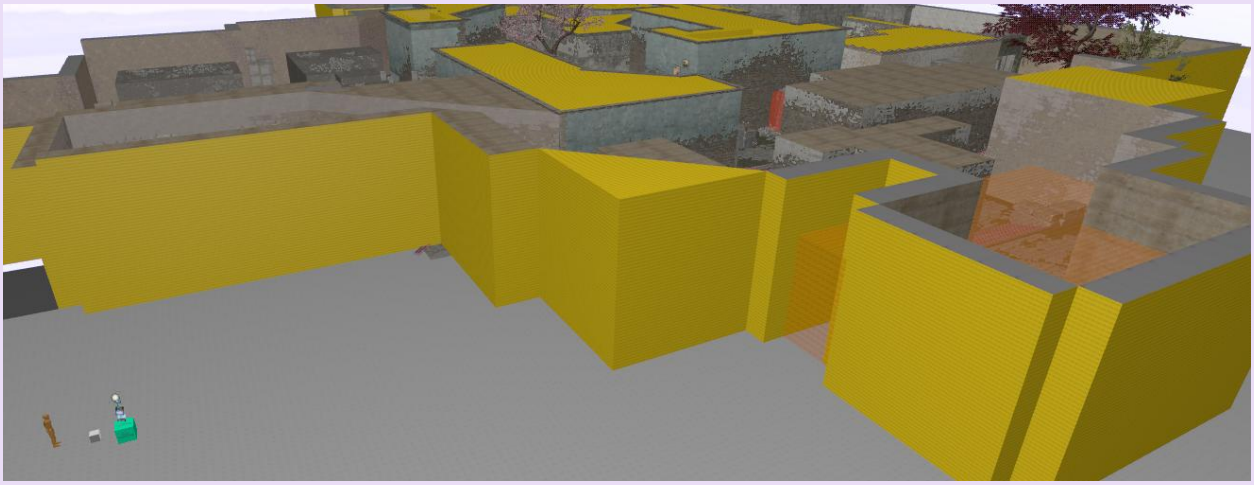


Sightlines & sniper positions are extremely important in CS2 as an FPS, and designers much avoid excessive long-range dominance in maps using high levels and cover to change scenery. Research on AWP angles shows that long sightlines should have counterplay options, so Mid features both a deep sniper nest and multiple cover spots.

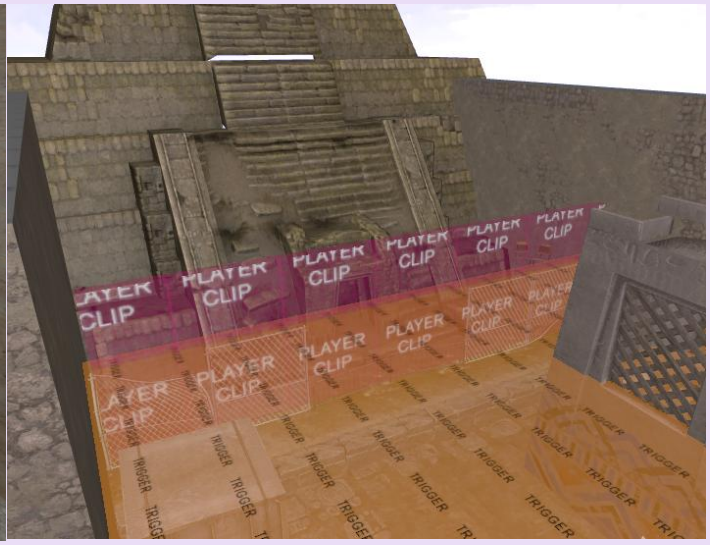
Optimization

I used a post processing volume to apply light settings in a controlled area size to avoid excess processing of lighting.

I also made sure to use a 'no draw' brush on any face that isn't seen in the map to lower excessive rending for optimised performance.



I also used a variety of shapes with 'player clip' texture to act as collision boxes to make stairs smoother to walk up and uneven terrain easy to move over. This made both sides of the map fair without any sections that were hard to traverse and could be considered a disadvantage to players.



Expected Issues

The main issue I had with this map was the lighting. My projects VRAD3 (the .exe needed for rendering lighting) crashed meaning I spent a lot of the development process with unbuilt lighting and trying to find a fix.

Eventually, I rebuilt the project in a new file and was able to fully compile and build lighting and reflective materials.

Additional issues I expect, like any map, are issues will arise after prolonged playtesting and further iterations will be needed to resolve issues or unfair exploits. For now, however, after testing I am happy with my maps balance and how it plays.

Testing

Testing Plan

My plan to test the map was for myself to playtest on each iteration and build, and every major change or stage would be tested on a group of peers. I mostly stuck to this by testing the map myself after every few changes I made. Peer testing came slightly later in development when I was happier with the map layout and wanted to look at feedback for specific areas or additions.

Testing Goals

Internal Testing Goals: I looked for immediate issues that needed fixing, as well as build quality and implementation of planned ideas.

Community Playtests: I gathered feedback from players that were willing to comment on the map and used their responses to iterate the map while adapting to their conclusions and opinions reasonably.

Evidence of Testing

My first play test of map layout, I recorded feedback through observation and wrote it down in a table while making sure I had a response from each player. This gave me direction for early design decisions.

V1	Postive Comments	Areas for Improvement	Additional Notes
Player 1	Mid is long/open	A is very open	Underpass is a bit useless
Player 2	B site is smaller	Walking to B is open	CT spawn is smaller than T
Player 3	Spawn sutible distance	Hard to rotate on Tside	Like the layout!

Later, I used round based categories to note down responses, each time iterating on the design and sending it out for testing again. This was effective but took a long time.

Round 1	Round 2	Round 3	Round 4	Round 5
They couldn't push onto A until they had mid control Mid is pretty empty, not a lot to do I like the flank opportunies Mid gives, but its hard it mid is being held	Again, A was easy to hold but it might be a skill issue The walk from Terrorist to A short is risky, hard to push short B feels a bit open I think A short needs a re work, the cover given is hard to play around.	Mid is long but not super long like Dust 2, so AK feels just as powerful as n APW A long is a death trap. Cannot be held or pushed The walk from spawn to B is a bit confusing A long has similar issues, more cover or ways in/out would work	B was find tp push, but there wasnt really anywhere to stand on site for the team? So we even up having to push up I think A site is small for how many paths go to it. So no one uses the corridoor A short is a horror to push, you get trapped Mid could do with more going on More crates for cover in main areas and less in random corridors	A is easy to hold as theres lots of cross fire, with B you have to push up or retake. B is okay to hold but once they take site its hard to get close. Not enough cover when approaching A site. B site needs more to it, if Im holding B theres only 3 places I an stand

Finally, once the map was mostly developed and I needed detailed feedback, I set up 4v4 and 5v5 playtesting and observed gameplay. This was extremely helpful as opinion didn't matter because I could visually see problems happening in real time or areas of the map that weren't playing how I expected them to.

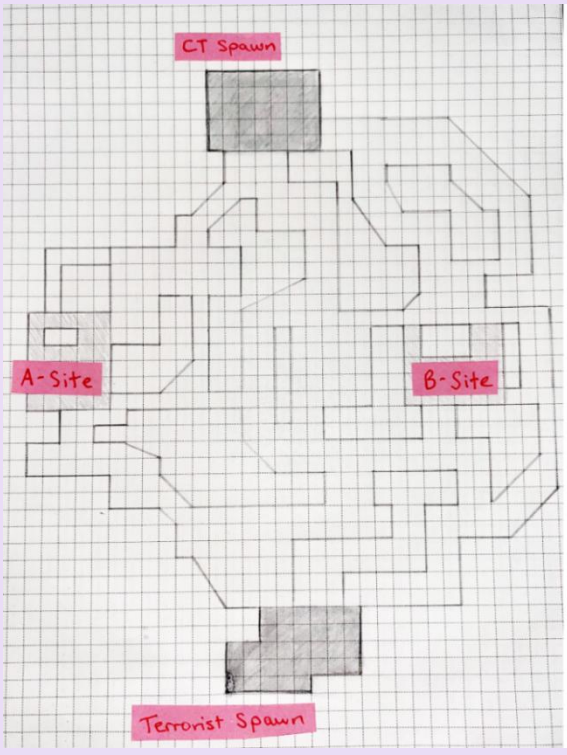
For this, I wrote a list of problems I observed and then later asked players how they felt about what I saw. The list spans over the whole development process, so I will provide the biggest issues I saw and got responses from.

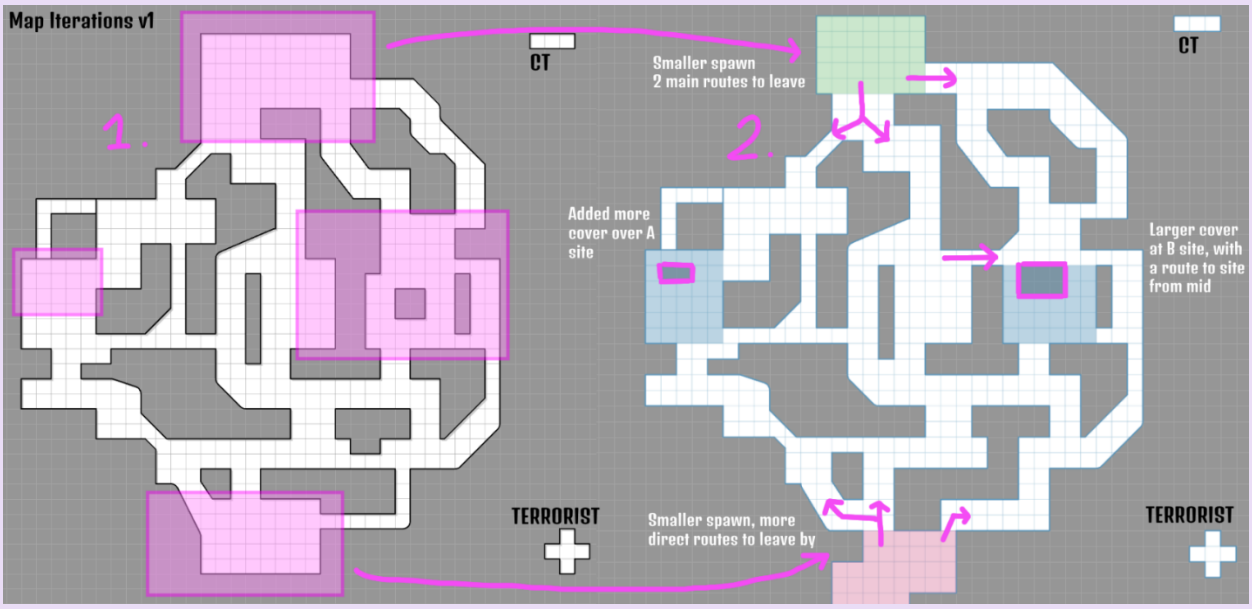
- 'A long has camping issues, as well as being difficult to push without site support.'
    - Players agreed, giving insight that it was intimidating to go through the passage due to how easy it was to be trapped, and this caused them to eventually avoid the area all together.
        - My solution to this was to extend the area but add more cover so the space was open but more protected.

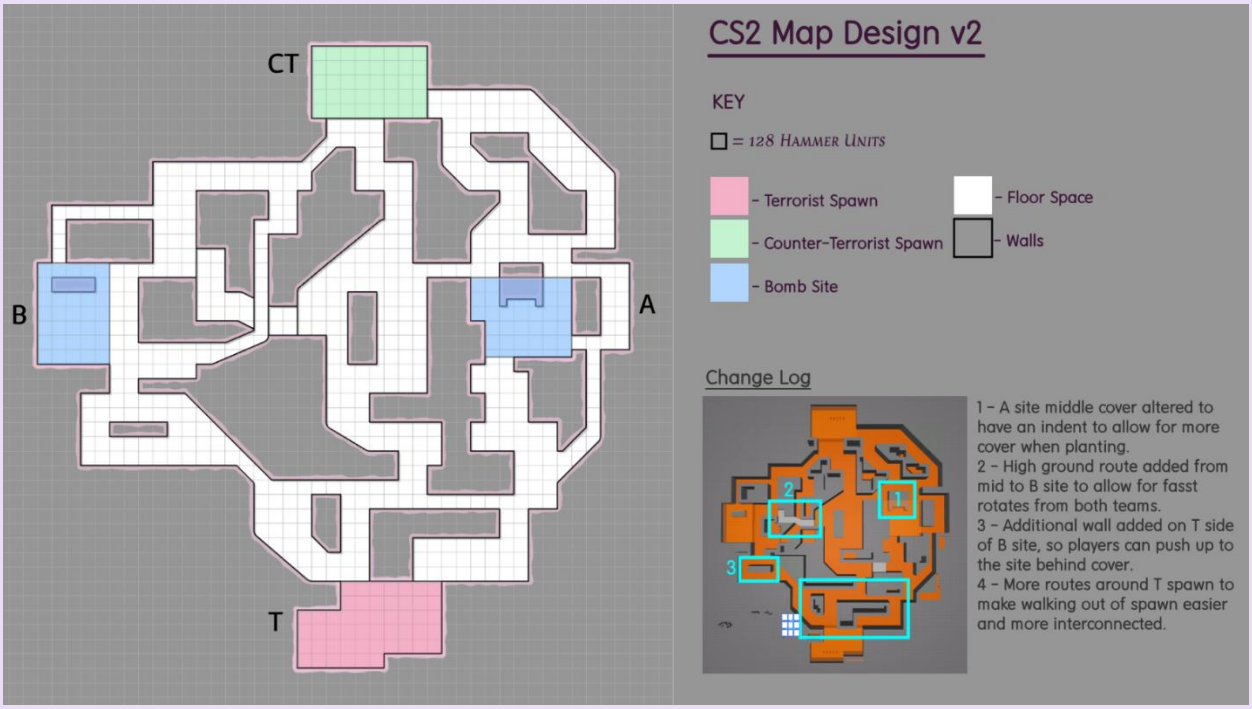
- ‘B site is difficult to push. Players get picked off before getting onto the site.’
    - T side, when going B, would either rush onto site and overwhelm CT or die trying to enter. Without utility, players were not favorable to pushing B main.
        - My solution to this was to add more pillars for cover, as well as a ledge to give attackers another level to swing from. I also readjusted some sightlines from behind cover to ease up on crossfire near the entrance.
- ‘CT spawn is easy to hold from mid, stopping rotating all together with mid control.’
    - Players were constantly rotating early in large groups to avoid dying from mid, causing misplays. A lot of rotated from CT side also fail and the team died before reaching the next site due to attacker lurking so far up.
        - I added more cover to CT spawn and enclosed it with walls, so it’s a much safter option for rotating or flanking through.

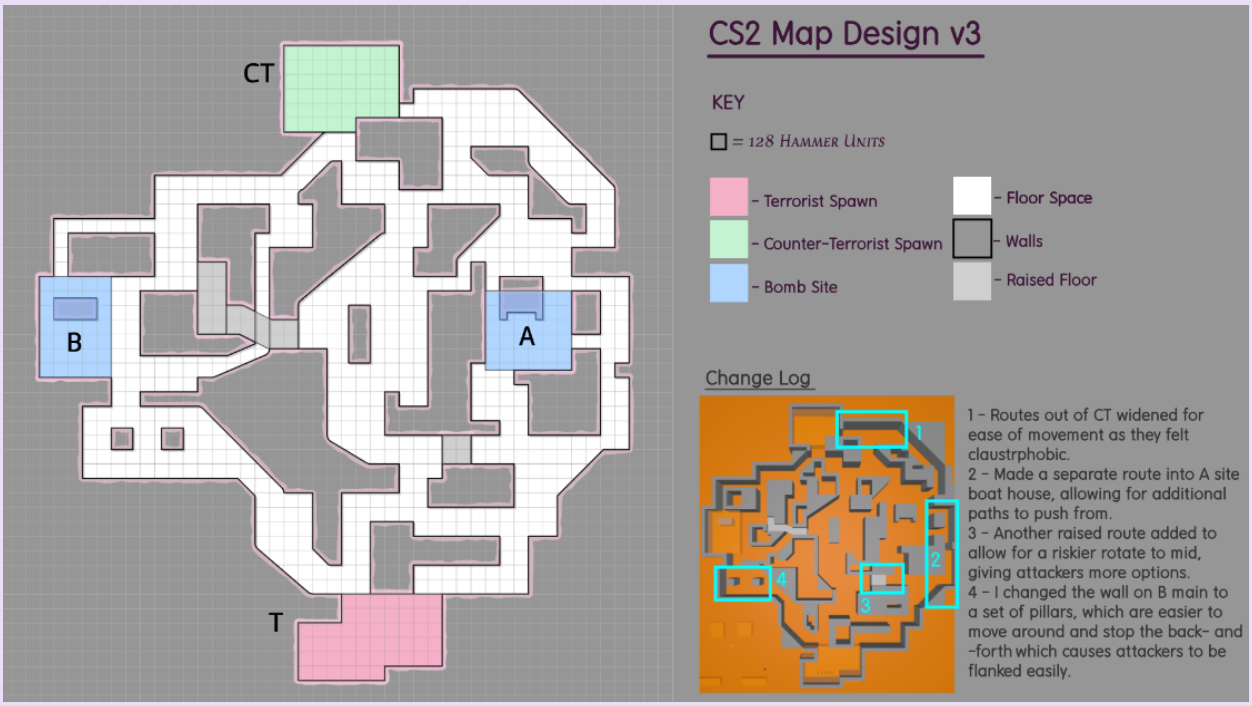
Level Development Log

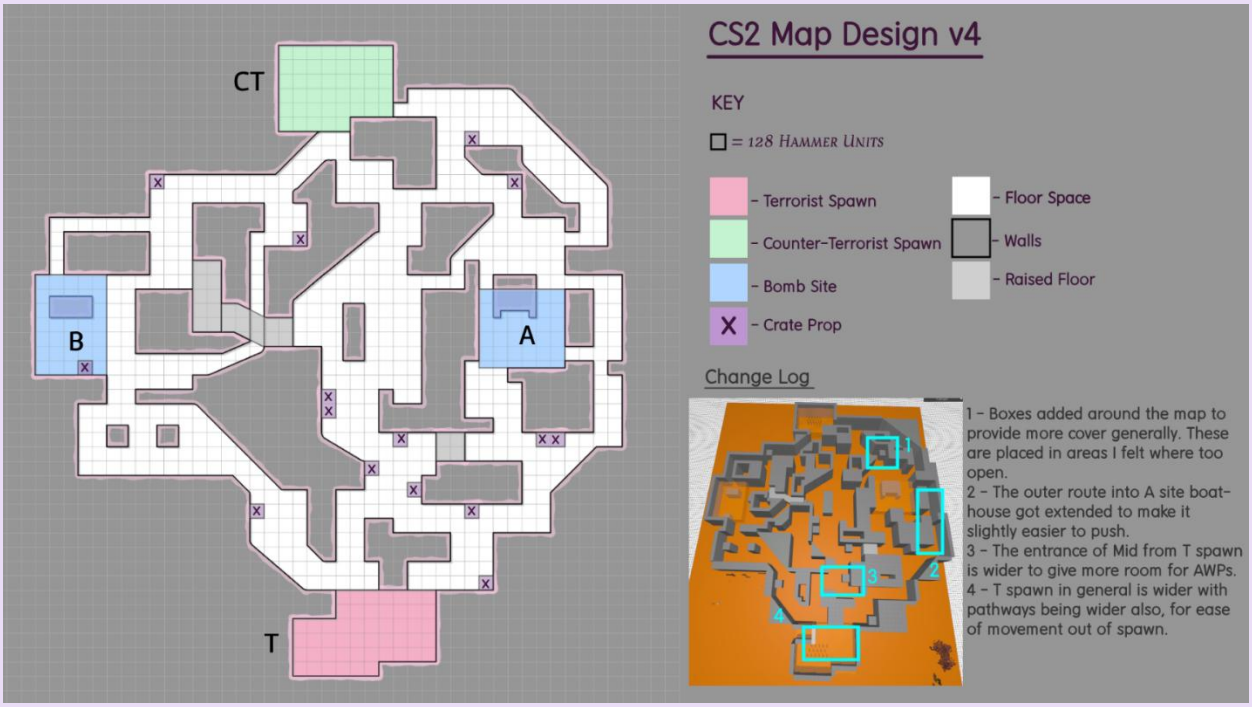
These are the map design iterations I went through when testing the map, and the subsequential changes I made from feedback.

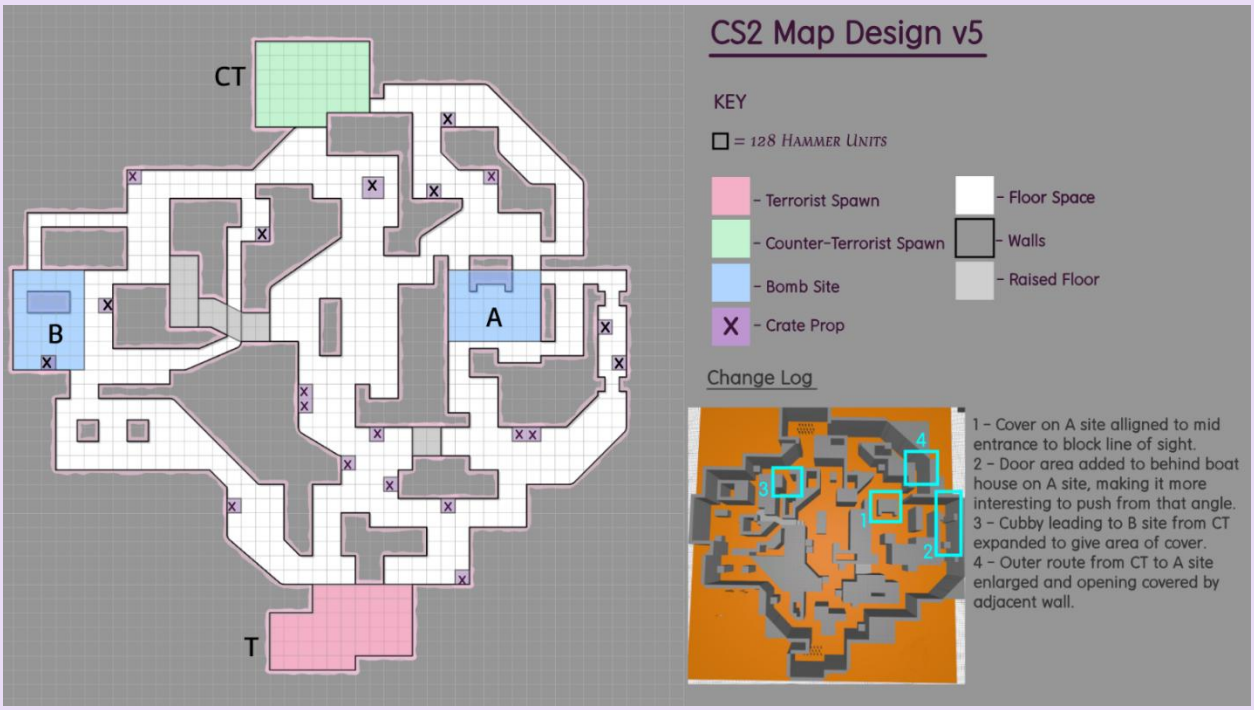


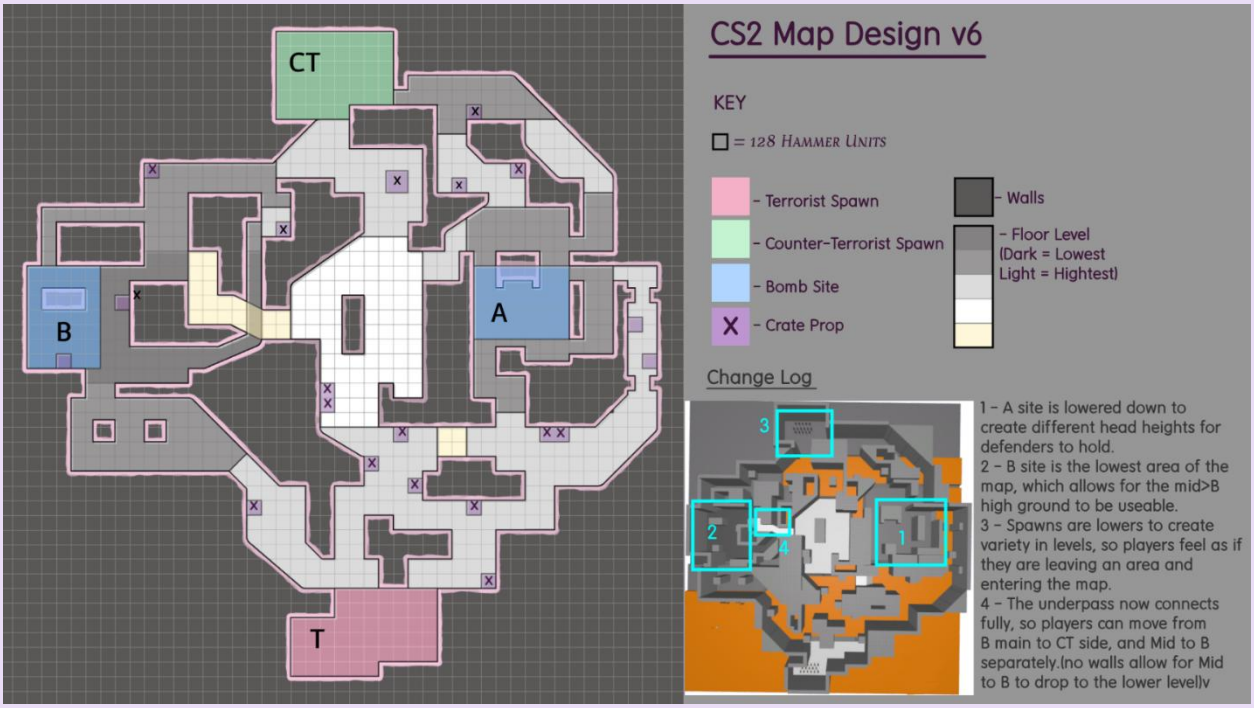

Map Iterations v1
1.
CT
TERRORIST
Smaller spawn
2 main routes to leave
2.
Added more
cover over A
site
Smaller spawn, more
direct routes to leave by
CT
Larger cover
at B site, with
a route to site
from mid
TERRORIST

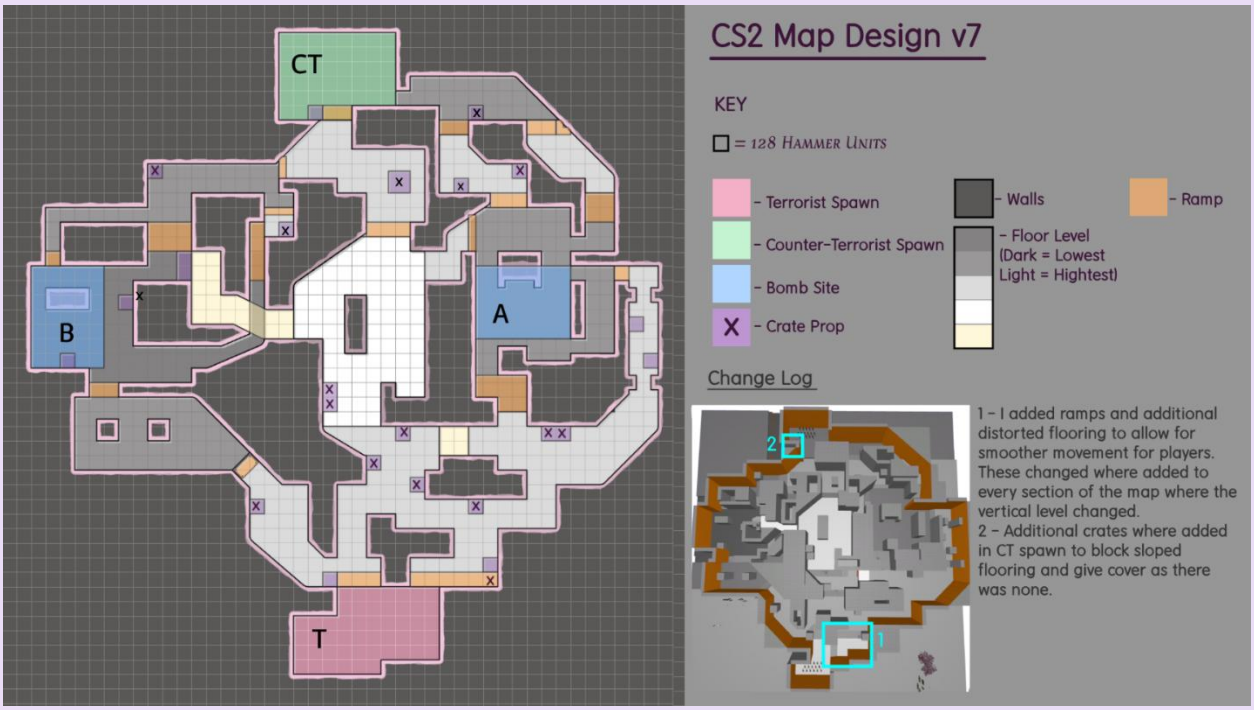

CT
B
A
T
CS2 Map Design v2
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
- Floor Space
- Walls
Change Log
1 - A site middle cover altered to have an indent to allow for more cover when planting.
2 - High ground route added from mid to B site to allow for fasst rotates from both teams.
3 - Additional wall added on T side of B site, so players can push up to the site behind cover.
4 - More routes around T spawn to make walking out of spawn easier and more interconnected.

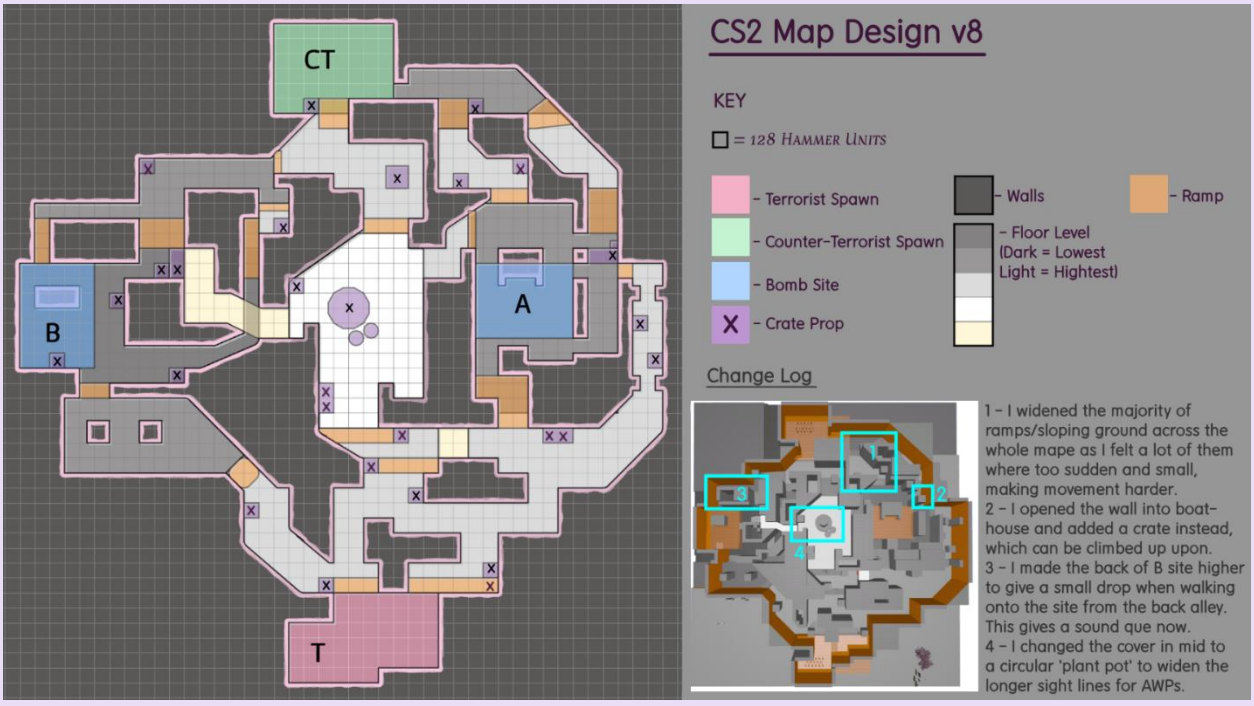

CT
B
A
T
CS2 Map Design v3
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
- Floor Space
- Walls
- Raised Floor
Change Log
1 - Routes out of CT widened for ease of movement as they felt claustrphobic.
2 - Made a separate route into A site boat house, allowing for additional paths to push from.
3 - Another raised route added to allow for a riskier rotate to mid, giving attackers more options.
4 - I changed the wall on B main to a set of pillars, which are easier to move around and stop the back- and -forth which causes attackers to be flanked easily.


CT
B
A
T
CS2 Map Design v4
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
X - Crate Prop
- Floor Space
- Walls
- Raised Floor
Change Log
1 - Boxes added around the map to provide more cover generally. These are placed in areas I felt where too open.
2 - The outer route into A site boat-house got extended to make it slightly easier to push.
3 - The entrance of Mid from T spawn is wider to give more room for AWPs.
4 - T spawn in general is wider with pathways being wider also, for ease of movement out of spawn.

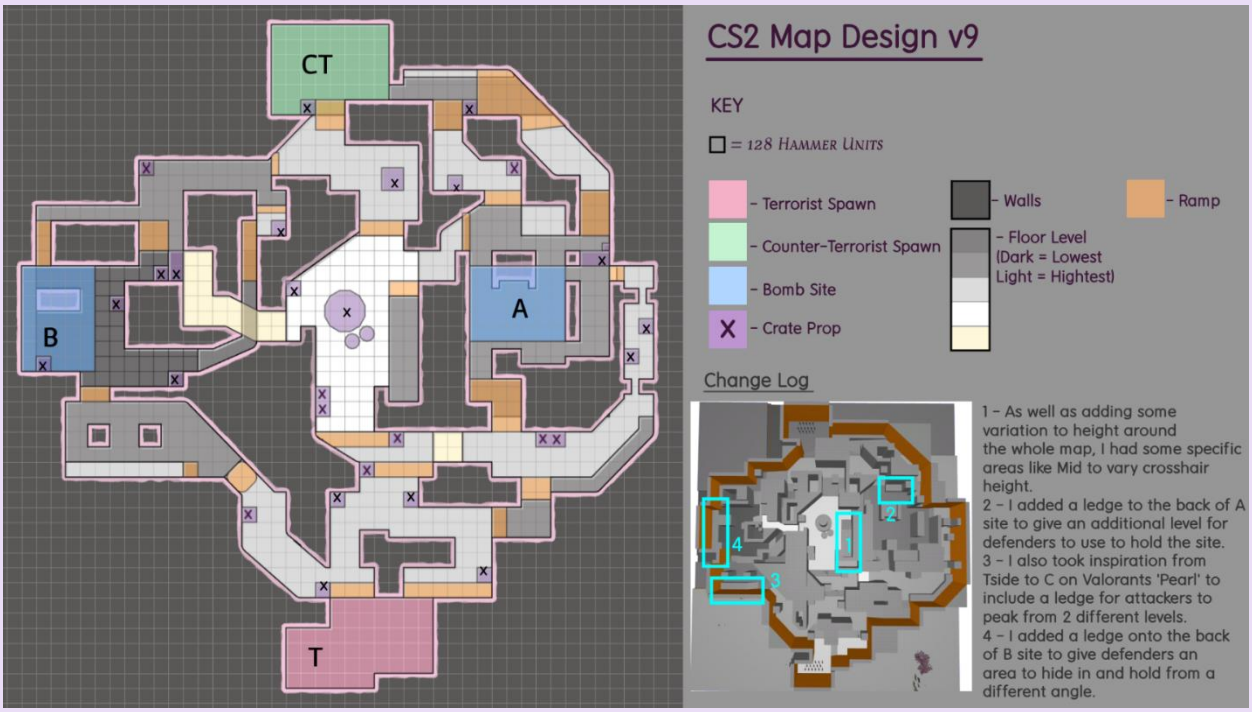

CT
B
A
T
CS2 Map Design v5
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
X - Crate Prop
- Floor Space
- Walls
- Raised Floor
Change Log
1 - Cover on A site alligned to mid entrance to block line of sight.
2 - Door area added to behind boat house on A site, making it more interesting to push from that angle.
3 - Cubby leading to B site from CT expanded to give area of cover.
4 - Outer route from CT to A site enlarged and opening covered by adjacent wall.


CT
B
A
T
CS2 Map Design v6
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
X - Crate Prop
- Walls
- Floor Level (Dark = Lowest Light = Hightest)
Change Log
1 - A site is lowered down to create different head heights for defenders to hold.
2 - B site is the lowest area of the map, which allows for the mid>B high ground to be useable.
3 - Spawns are lowers to create variety in levels, so players feel as if they are leaving an area and entering the map.
4 - The underpass now connects fully, so players can move from B main to CT side, and Mid to B separately.(no walls allow for Mid to B to drop to the lower levelly


CT
A
B
T
CS2 Map Design v7
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
- Crate Prop
- Walls
- Floor Level
(Dark = Lowest
Light = Hightest)
- Ramp
Change Log
1 - I added ramps and additional distorted flooring to allow for smoother movement for players. These changed where added to every section of the map where the vertical level changed.
2 - Additional crates where added in CT spawn to block sloped flooring and give cover as there was none.
1
2

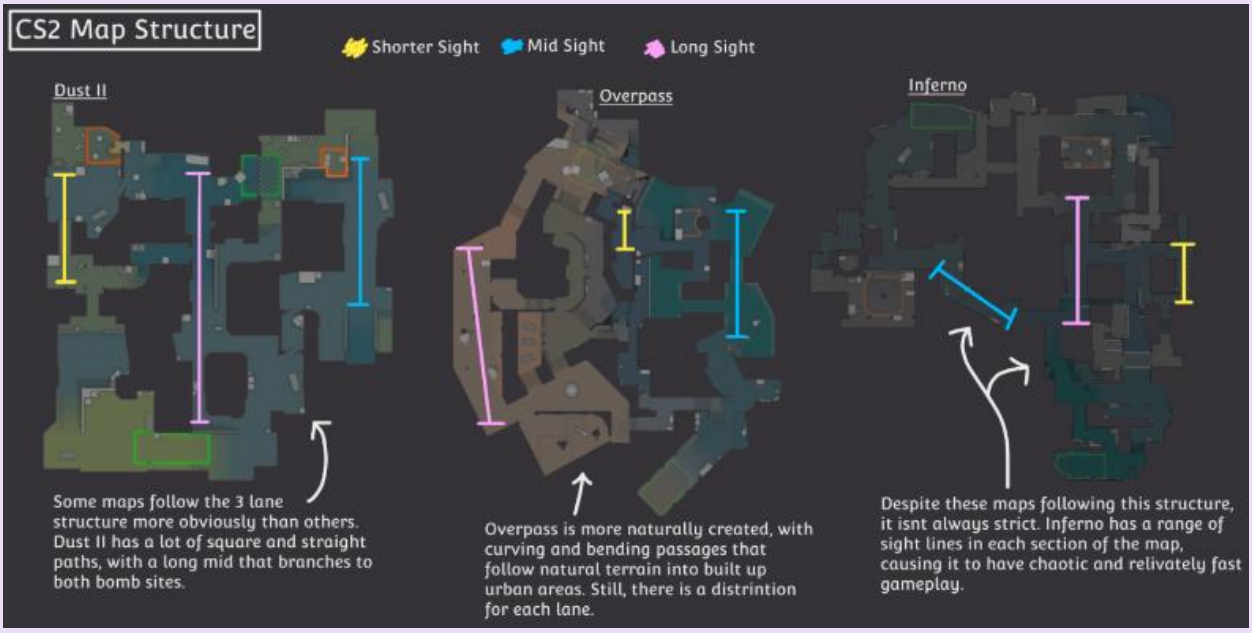

CT
A
B
T
CS2 Map Design v8
KEY
= 128 Hammer Units
- Terrorist Spawn
- Counter-Terrorist Spawn
- Bomb Site
- Crate Prop
- Walls
- Floor Level
(Dark = Lowest
Light = Hightest)
- Ramp
Change Log
1 - I widened the majority of ramps/sloping ground across the whole mape as I felt a lot of them where too sudden and small, making movement harder.
2 - I opened the wall into boat-house and added a crate instead, which can be climbed up upon.
3 - I made the back of B site higher to give a small drop when walking onto the site from the back alley. This gives a sound que now.
4 - I changed the cover in mid to a circular 'plant pot' to widen the longer sight lines for AWPs.
1
2
3
4

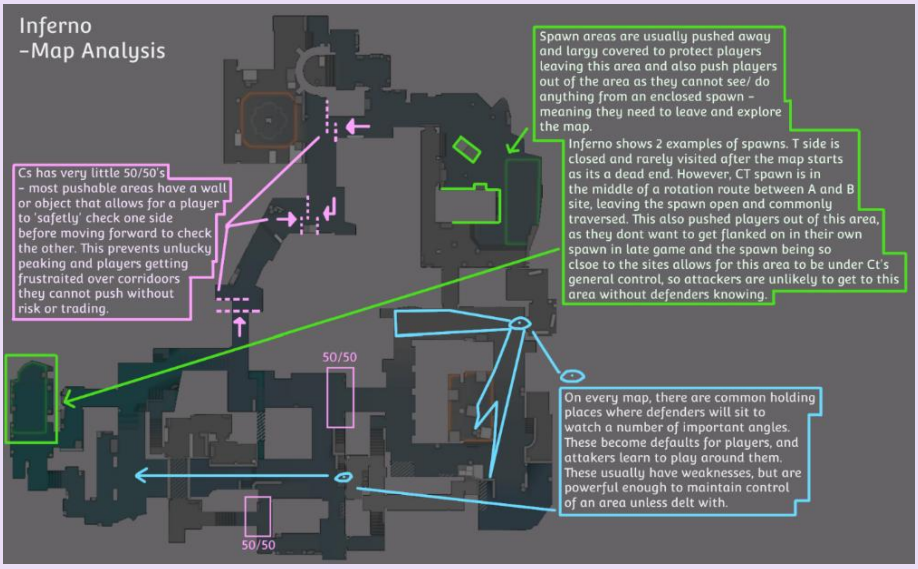
Final Level Design Map

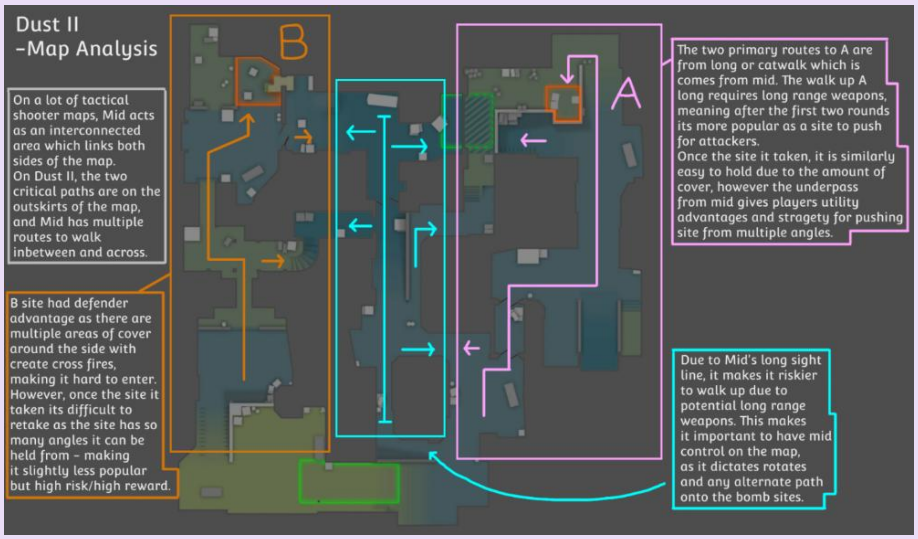


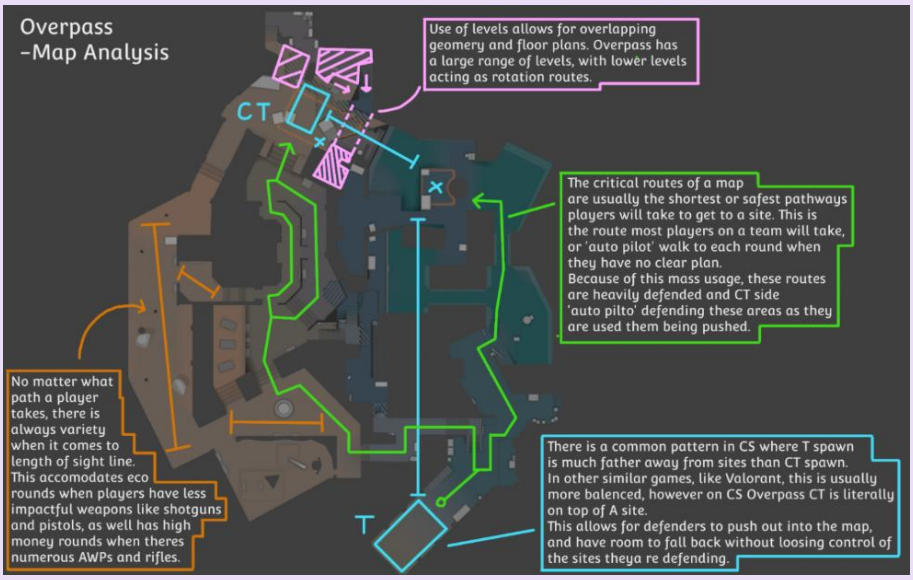
Additional Research and References

These are map analysis I did of CS2 maps for design theory and map development.




Inferno
-Map Analysis
Spawn areas are usually pushed away and largy covered to protect players leaving this area and also push players out of the area as they cannot see/ do anything from an enclosed spawn – meaning they need to leave and explore the map.
Inferno shows 2 examples of spawns. T side is closed and rarely visited after the map starts as its a dead end. However, CT spawn is in the middle of a rotation route between A and B site, leaving the spawn open and commonly traversed. This also pushed players out of this area, as they dont want to get flanked on in their own spawn in late game and the spawn being so clsoe to the sites allows for this area to be under Ct's general control, so attackers are unlikely to get to this area without defenders knowing.
Cs has very little 50/50's – most pushable areas have a wall or object that allows for a player to 'safetly' check one side before moving forward to check the other. This prevents unlucky peaking and players getting frustraited over corridoors they cannot push without risk or trading.
50/50
50/50
On every map, there are common holding places where defenders will sit to watch a number of important angles. These become defaults for players, and attakers learn to play around them. These usually have weaknesses, but are powerful enough to maintain control of an area unless delt with.


Dust II
-Map Analysis
B
A
On a lot of tactical shooter maps, Mid acts as an interconnected area which links both sides of the map.
On Dust II, the two critical paths are on the outskirts of the map, and Mid has multiple routes to walk inbetween and across.
The two primary routes to A are from long or catwalk which is comes from mid. The walk up A long requires long range weapons, meaning after the first two rounds its more popular as a site to push for attackers.
Once the site it taken, it is similarly easy to hold due to the amount of cover, however the underpass from mid gives players utility advantages and stragety for pushing site from multiple angles.
B site had defender advantage as there are multiple areas of cover around the side with create cross fires, making it hard to enter. However, once the site it taken its difficult to retake as the site has so many angles it can be held from – making it slightly less popular but high risk/high reward.
Due to Mid's long sight line, it makes it riskier to walk up due to potential long range weapons. This makes it important to have mid control on the map, as it dictates rotates and any alternate path onto the bomb sites.


Overpass
-Map Analysis
Use of levels allows for overlapping geomery and floor plans. Overpass has a large range of levels, with lower levels acting as rotation routes.
CT
The critical routes of a map are usually the shortest or safest pathways players will take to get to a site. This is the route most players on a team will take, or 'auto pilot' walk to each round when they have no clear plan.
Because of this mass usage, these routes are heavily defended and CT side 'auto pilto' defending these areas as they are used them being pushed.
No matter what path a player takes, there is always variety when it comes to length of sight line. This accomodates eco rounds when players have less impactful weapons like shotguns and pistols, as well has high money rounds when theres numerous AWPs and rifles.
T
There is a common pattern in CS where T spawn is much father away from sites than CT spawn. In other similar games, like Valorant, this is usually more balenced, however on CS Overpass CT is literally on top of A site.
This allows for defenders to push out into the map, and have room to fall back without loosing control of the sites theya re defending.