

ARCHITECTURE UNDER THE INFLUENCE

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GLOSSARY

BARLEY: A cereal grain that is kilned creating a malt. Malts are one of the main ingredients in beer.

BARRELS: A unit of measurement used by brewers in some countries. In Britain, a barrel holds 36 imperial gallons (1 imperial gallon = 4.5 liters), or 1.63 hectoliters. In the United States, a barrel holds 31.5 US gallons (1 US gallon = 3.8 liters), or 1.17 hectoliters.

BREW PUB: A pub that makes its own beer and sells at least 50% on premises.

BREWMASTER: A person in charge of beer production at a brewery.

CARBONATION: Refers to the amount of CO₂ in a beer. The “fizz” or effervescence in a liquid. It is a by-product of yeast eating fermentable sugars (which releases carbon dioxide) if this happens in a closed container the beer reabsorbs the carbon dioxide in the form of carbonation. Carbonation can be also forced into a beer by adding pressurized carbon dioxide in a closed vessel.

CASK: A container for beer that is sealed. They can be wood or metal.

COLD FILTERING: An alternative to pasteurizing beer. In this process the beer is passed through a very fine filter that removes the yeast and halts the fermentation process. Preserving more beer flavour than pasteurization,

cold-filtered beers are often incorrectly called “draught”.

CRAFT BEER: Beers made by small, independent brewers with only traditional brewing ingredients such as malt, hops, yeast and water, and brewed with traditional brewing methods.

CRYSTAL MALT: When fresh malt is carefully dried at warm temperatures, some of the starches are converted to sugars which crystallize within the grains. When these crystal malts are used in brewing, they add sweetness, body and a reddish gold colour to the beer.

DRAUGHT/DRAFT: Beer that is served from the cask, keg or barrel. Draught can be pasteurized, filtered or cask-conditioned, but bottled or canned beer is not, by definition, draught. The word means “drawn” or pulled from the cask by a pump.

DRY HOPPING: The addition of dry hops during first or secondary fermentation to add a hoppy character to the beer without affecting the beer's bitterness. Adding hops after the boil or even in the cask to increase hop aroma and flavour. This is most often seen in various types of ales, but not in lagers.

FERMENTATION: The process of sugars being converted to alcohol and carbon dioxide by yeast.

GRIST: A dry mixture (flour like powder) of ground malts

IMAGE: *OPENING IMAGE*

Soweto Gold superior lager and apple ale.

Photograph by Author, Ubuntu Kraal Brewery, Soweto, South Africa, 2015.

and adjuncts used in mashing.

HOGSHEAD: A cask that holds 54 imperial gallons (245.489 litres).

HOPS: Hops are the spice and bittering ingredients in beer. They provide bitterness to balance the sweetness of the malt, as well as flavours and aromas from citrus, pine, earth and spice. When a beer is referred to as hoppy it tends to be more bitter than non-hoppy beers. Only the seed cones from the dried female blossoms on the hop vine are used in making beer.

KEG: A large metal (stainless steel) vessel that contains beer. They come in several sizes: 2.5 gallon, 5 gallon, 7.75 gallon and 15.5 gallon. Import kegs come are usually 13.2 gallons (50 litres).

LAUTER: The process of separating spent grains from the water into which the grain's sugars have been extracted by the mashing process.

LEES: Also known as "trub", lees are the deposit of yeast and sediments at the bottom of the tank after fermentation.

MALT: The finished product and process whereby barley is sprouted and then dried to release enzymes that catalyse the conversion of grain carbohydrates into fermentable sugars. The type of barley, the level of germi-

nation allowed and the temperature of drying all influence the resulting flavour of the malts.

MASHING: The process where the grist is added to hot water in order to extract the fermentable sugars from the malts. This process creates wort.

MICROBREWERY: A brewery that produces 15,000 barrels or less of beer a year.

PASTEURIZATION: Heating of beer to 60-79°C to stabilise it microbiologically.

PITCHING: The process of adding yeast to the wort in the fermentation tank.

SESSION BEER: An easy-drinking, mild beer with an alcohol content typically less than 4%, intended to be drunk several to a sitting.

WORT: Created by mashing, wort is liquid malt extract that is ready for the fermentation tank where yeast will be added.

YEAST: Single celled organisms of the fungus family that are responsible for converting the sugars contained in malt into alcohol and carbon dioxide.

ZYMURGY: The science of fermentation.

Beer terms derived from: (Devil's Peak, 2014).

Y(OUR) BEER

INTRODUCTION

This thesis explores the concept of social and cultural inclusivity and urban regeneration through a brewpub that celebrates South Africa's rich drinking history.

The history of beer is deep rooted in the soil of South Africa: from the traditional African beer makers who practiced ritual through their craft; to the notorious beer halls that were described as 'drinking cages' by the mine workers of Johannesburg. Today, the act of drinking beer is shared across multiple social spectrums – from the regular shebeen patrons to the trendy hipsters that crawl the city. Can these various social groups interact together over the common act of enjoying a beer with friends? Can a multi-cultural brewery overcome the many issues that occur within our diverse city?



A look at the drinking patterns that have emerged in South Africa as a result of the issues related to history, health and morality, sociability and state and the nation.

THEORY ESSAY

Here's to Society

01



HERE'S TO SOCIETY

Growing up in a household where alcohol has been viewed as a negative factor that can actually destroy the family, I have always wanted to know if it could in fact ignite some positivity in the lives of society. Common social perception dictates our individual views and opinions on alcohol, and these perceptions sometimes differ from society to society, and from culture to culture. I was always told: "Alcohol is evil and alcoholism is a disease," and although the latter statement might be somewhat true, I would like to question the first.

Much literature exists about the negativity of alcohol: its effects on the body and mind, drunk driving, alcohol as a drug and substance abuse; but there is little in comparison about the positive aspects of liquor drinking. In order to discover if these positive aspects even exist, one must take a look back at the history of society and see how its drinking patterns have transformed to what they are today.

The three themes of health and morality, sociability, and state and nation, as suggested by Mack P. Holt in the book *Alcohol: a social and cultural history*, are the analytical tools that can be used to dissect the interesting body that is society and drinking. These themes are vital in understanding the patterns of consumption and subjectively identifying their underlying meanings. This is the manner through which I will analyse five key drinking patterns that exist and have existed in South Africa. I will divulge some tales of the much hated beer halls, the vibrant shebeens and the

rituals practiced in traditional African beer drinking. I will also look into two topics which I am much more familiar with: the role of alcohol in sport and the trendy new notion of craft beer.

Ultimately, the understanding of these different aspects of consumption, be it religious, political, economic and historical, will hopefully lead me to the design of a new hybrid drinking establishment that will benefit the community in which it is situated. Beer holds a place "[...] in the total socioeconomic and ritual life of its brewers and drinkers," (Hagaman, 1980: 203), and only once we learn from the past, take notes from the unknown and allow inevitable changes to happen, can such a place truly feel welcome and open for all.

ALCOHOL AND SOCIETY THROUGH THE AGES

In his book, *Alcohol: A social and cultural history*, Holt uses alcohol as a lens through which to analyse the social and cultural transformations that have occurred in Westernised areas over the past 500 years. The book looks at how the kinds of beverages consumed have changed, how the spaces and circumstances in which they were consumed have changed, and how social and cultural phenomena (religion, class, politics and health) have changed because of the ways in which drinks have functioned (Holt, 2006). As I have mentioned before, three main themes will be used

IMAGE: *LEFT*
Castle draught.
Photograph by Mike Hutchings, South Africa, 2015.
From (Tshabalala, 2015).

to analyse the issues that alcohol has played on society: health and morality, sociability, and state and nation.

HEALTH AND MORALITY

Arguments about health and morality have always been used to either positively or negatively characterise alcohol. These characteristics are then used as tools for implementing societal control. To some, alcohol consumption was (and still is) negatively perceived as being the reason for many evils within society; and that only people with low morals abused the substance. To others, alcohol was viewed as an enabler for positive social change and sometimes even regarded as healthy.

For example, different countries had contrasting opinions about the effect that alcohol had on one's health, probably because doctors allowed the social and cultural perceptions of the times to influence their diagnoses and health policies (Holt, 2006). The Italian state attempted to introduce strict temperance laws in the country and often exaggerated the negative effects of alcohol on the body, mind and spirit. In France however, medical professionals were of a different opinion and actually stated that consuming wine was in fact a healthy act, although this was based less on medical evidence and more on an attempt to create a French 'wine-drinking' identity (Holt, 2006: 5).

Both the state, as well as the church, were responsible for

dictating these perceptions to the masses. Their efforts to control alcohol consumption, however, were met with limited success since "[...] no single group or institution, no matter how powerful, has been able to control the meaning and culture of drinking," (Holt, 2006: 4). This is even evident in the history of South African alcohol consumption and the failure of prohibition laws in our country's past. Alcohol has, and always will be, an integral part of human culture, no matter what perceptions of health and morality are cast upon society.

SOCIABILITY

Despite the many moralists that "[...] considered drunkenness a sin, drinking was not," (Holt, 2006: 99), and alcohol became a fundamental part to many people's diets (similar to the Xhosa culture who regarded beer as every-day food, as discussed later in my essay). Alcohol was an essential component in any communal celebration and it was both the maker and breaker of many social relationships, so much so that the refusal of an invitation to drink would even signify enmity (Holt, 2006).

Drinking patterns through the ages have demonstrated that the sociability of alcohol has actually dictated society to be how we know it today. Sixteenth century drinking habits indicated that the parish church, where feasts and celebrations after weddings and christenings were held, was the centre of social life in the community (Holt, 2006). These

rituals of sociability were eventually hosted in the new ale houses of the seventeenth century, signifying a departure from sacramentality (Holt, 2006). Taverns were then the norm in the eighteenth century; and in the nineteenth century, “[...] drinking wine in the Parisian cafes became a marker of social class,” (Holt, 2006: 6). Saloons and bars were also seen as sites that shaped Western culture since they housed negotiations of social affairs between locals and immigrants.

These various types of drinking establishments, where people of different social classes could make contact, have contributed to the building of public space where new notions of public opinion could be openly discussed and influenced (Holt, 2006). Alcohol loosened tongues and allowed the public to have revolutionary discussions of social change.

STATE AND NATION

Many countries used alcohol to create their own sort of national identity. Scotland, for example, had a different drinking pattern to that of England, even though the two countries were politically united in 1707 and even had shared duties on imported wine (Holt, 2006). According to a chapter in Holt’s book by Charles Ludington, the reason for the Scottish nation’s consumption of the more expensive claret was because they were fuelled by the struggle for an independent country and did not want to support the

English trade. It was an act of defiance toward the English government (Holt, 2006).

Countries have even become synonymous with certain alcoholic beverages. “[Drinking] vodka in a nineteenth-century Russian tavern served as a political marker linking the state and the drinker,” (Holt, 2006: 6), and proceeds from the sale of vodka have long been a significant source of income for the country.

Alcohol has played a major role in creating a country’s identity and shaping its public policy. Countries like Scotland, Russia, Australia and the United States are all testament to this. Perhaps South Africa’s identity has also been shaped by the act of drinking alcohol.

ALCOHOL IN SOUTH AFRICA

The history of beer drinking is deep rooted in the soil of South Africa: from the traditional African beer makers who practiced ritual through their craft; to the notorious beer halls that were described as ‘drinking cages’ by the mine workers of Johannesburg. In order to fully understand alcohol’s role on society in Johannesburg, it is important to start at the very beginning of the city’s origin. Today, the act of drinking beer is shared across multiple social spectrums. I will delve into these individuals and attempt to understand their identities within the drinking culture.

IMAGE: NEXT SPREAD
The day prohibition ended in South Africa.
Photograph, South Africa, April 1962.
Scan from (Bailey, et al, 1994: cover)





THE MINES

Mbembe and Nuttall said that Johannesburg is a city “[...] born out of a ruthless, extractive, mining economy,” (2004: 363). It was founded as a mining town that formed after the discovery of gold in the late nineteenth century. People from far and wide were coming to the city with gold prospects in mind and with them came the swarms of migrant workers willing to dig their lives away. The migrant workers, the miners were “[...] the characteristic urban figures that one would encounter in the past,” (Murray, Shepherd & Hall, 2007: 9), and these men were known to be victims of human labour exploitation. None the less, Johannesburg rapidly began to grow to what it is today.

Mining and municipal compounds began to litter the city in order to accommodate the growing number of migrant workers in Johannesburg. Quality of life was poor and liv-

ing conditions were even worse. This led to the labourers seeking an escape from reality through the consumption of alcohol, which, until the 1930s, was illegal for black people as stipulated by the prohibition act of 1897 because there were fears that their excessive drinking would undermine productivity,” (Blignaut & Sithole, 2014).

Eventually the liquor prohibition was lifted and it was legal for the workers to drink alcohol, but only when and where the government stipulated. Beer halls were built in accompaniment to the compounds and hostels to temporarily dull the complaints spewed by the workers and in order for the state to make a profit off of them. The first beer hall, which opened in May 1939 (Crush & Ambler, 1992), was situated near the Sulisbury and Jubilee compound in the centre of Johannesburg and therefore aptly named ‘Central’. Reports state that over 100 000 black workers would frequent the beer hall on any typical weekend (Crush &



Ambler, 1992). Soon after Central's successful opening, plans were put into motion to build five other similar drinking establishments in the city, and by the end of 1942, all were operational; although some were more successful than others.

This, however, did not come without a sense of control and submission. Drinking for the black workers, was to be done on the terms of their bosses. The trade of traditional beer was controlled and only the selling of commercially brewed beer was permitted within the beer halls (Blignaut & Sithole, 2014). The beer halls themselves were symbols of control and workers likened the experience of them to "drinking in a cage," (Blignaut & Sithole, 2014). The monotonous brick and metal sheeting structures offered its occupants little protection from the harsh summer or winter climate of South Africa. Rain turned the grounds inside to pools of mud (Crush & Ambler, 1992), and drinkers drank away their sorrows in the turnstile controlled cages like pigs in a grubby pen.

White residents in the city eventually became nervous of the growing number of drunk rowdy black workers that spilled out onto the street at the closing time of the beer halls. Drinkers began to express their feelings of mistreatment in the form of boycotts and riots until eventually the concerned government initiated the 'drinking apartheid' era. Beer halls in the city were closed down or exclusively operational within the compounds themselves and drinking

for the black race was confined to the townships in which they were allowed to roam freely. In the 1960s, twenty one beer halls and beer gardens were established in Soweto (Crush & Ambler, 1992) and the workers were forced to carry out their recreational activities away from their city.

THE SHEBEENS

It was simultaneous to the drinking prohibition and during the drinking apartheid that the shebeen began to emerge. Shebeens were a direct response to the repression that was happening in the city. Laws prevented the sale of liquor to black people outside the confines of their caged beer halls within their hostels or townships. Shebeens defied government control and were the much needed escape from reality that many of the repressed people craved. Shebeens were contested spaces "of constant inebriation but also freedom from white rule, which was tightening pass laws, imposing Bantu Education and entrenching the Group Areas Act," (Blignaut & Sithole, 2014).

Alcohol was seen as "[...] a commodity which could disintegrate people," (Bailey, et al, 1994: i), and shebeens were thought to be run by people with low morals who had little regard for the drinkers and only interested in turning out alcoholics for a profit. However, shebeens were less to blame for alcoholism than the prohibition laws itself:

It was always: gulp before they come and take it

IMAGE: LEFT
The Point beer hall - beer halls as drinking cages.
Photograph, Durban, South Africa.
Scan from (La Hausse, 1988: 23).



away from you. And that in itself must have been extremely destructive, even as destructive as the concoctions the shebeen queens were making. People drank with empty stomachs and they drank much more than their systems could take, and that is why some of our best people ended up destroyed by liquor. It was the attitude of the government of South Africa that created this.

(Bailey, et al, 1994: iii)

Contrary to this negative perception, frequent shebeen visitors described their drinking experiences in the tainted establishments with fond recollections and excitement. In fact, similar to the alehouses of England mentioned previously in my essay, shebeens were places that drinkers could meet with friends or business partners, discuss economics, talk education and anything else related to the human spirit. “Probably the birthplace of South Africa’s black consciousness movement,” (Bailey, et al, 1994: 9). Many shebeens in the country acted as the meeting places in which political talk of riots and a new future were discussed. “Liquor loosed tongues and opened eager ears. Revolutionary political talk was illegal and so was shebeen drinking,” (Bailey, et al, 1994: 3).

Since shebeen drinking was illegal, police would often raid the joints and arrest its occupants and landlords. At times, however, white cops were seen walking to the back rooms of the shebeens where they would receive “[...] a free drink

and a tip for not obstructing the business,” (Bailey, et al, 1994: vi). These incidents were far and few between and the frequent meeting of law enforcers and shebeeners were much more cynical in nature. This, however, did not deter the shebeen queens from conducting their business on a day to day basis. Specially made undergarments, prams and bicycle tubes filled with liquor were all used to smuggle alcohol to and from shebeens. One shebeen queen even went so far as to change the plumbing in her would-be domestic kitchen: “[...] hot water tap for brandy, and cold water for wine,” (Bailey, et al, 1994: 18).

This brings me to the physical establishments themselves: often hidden in plain sight, many shebeens simply operated out of the shebeen queen’s own house. “My mother turned our house into a shebeen, worked 10 hours a day pressing home brew called skokiaan and barberton,” wrote Drum journalist Bloke Modisane, (Blignaut & Sithole, 2014). Once inside the house, which is usually very well-ordered and reputable, class distinctions are the rule:

A sherry drinker is served in a room of his sort. He often sits in hard benches at a bare table. More expensive tastes are catered for in the front room or the lounge, where one sits on a comfortable Chesterfield suites and drinks are brought in on a tray and placed on a finely polished table.

(Bailey, et al, 1994: 17)

IMAGE: LEFT
Shebeen celebrations for GQOM music.
Photograph by Chris Saunders, KZN, South Africa 2014.
From (Saunders: 2014).



Shebeens were (and still are today) scattered throughout the city. Disguised with innocent facades and often in the most unexpected places, shebeens occupied “[...] well-known public buildings, office blocks, and flats,” (Bailey, et al, 1994: 14) when the working hours ended. Even churches would host the illicit businesses within their walls for an extra buck. Each establishment was different from the other: some were isolated in the heart of the city and others were completely out in the open for all to see, some operated as a drive-in mode of shebeen for strictly pick up and go purposes while others even sold Eastern cuisine to their patrons. Whatever style of shebeen imaginable, one thing was certain: “Legal bars were absolute monotone pits compared to the multi-coloured life and actions in shebeens,” (Bailey, et al, 1994: 2).

THE VILLAGE

Similar to the shebeen queen, the illusive ‘Aunties’ that ran their illicit money making establishments, are the women that make the traditional African beer. It is a topic that cannot be overlooked since South Africa is such a diverse country with a multitude of different cultures.

In his book Xhosa beer drinking rituals, McAllister stresses that “[...] all southern African ethnographies indicate the ritual and religious importance of beer,” (McAllister, 2006: 21). Beer, to many African cultures was (and still to this day is), regarded as not just a drink but also as a

wholesome or even essential food and formed part of their everyday diet. Many Africans would even subsist on it and it alone for several days on end (McAllister, 2006). Some called it the ‘food of the gods’ and “no occasion, whether social or ritual or economic, [was] complete without beer,” (Krige & Krige, 1943: 288).

Beer drinking was never a private activity in the traditional African home either. Rather, it was a communal celebration that reiterated the significance of neighbourhood ties. The community meant everything and all of its members would act for the greater good of the neighbourhood and beer was their compensatory reward. The act of brewing beer for the community was seen as a social obligation in which every household had to partake, even putting their reputations on the line (McAllister, 2006).

The spatial organisation and social order of the beer drinking ritual in the Xhosa culture relied heavily on the social organisation of the actual community, a topic that requires much more in depth analysis than will allow for in this essay. The basics behind the ritual, however, are divided into three simple principles: “space, beer and talk,” (McAllister, 2006: 184). Generally held inside a dimly lit hut with only a small door offering ventilation, the ritual began when the men (some rituals include women but generally they sit outside the hut) of the community would gather and start their light conversations about the day. The air was thick with the smell of tobacco, fermented beer, wood smoke,

IMAGE: LEFT
Beer being strained through a *juncus kraussii* beer strainer.
Photograph, South Africa, 1920.
Scan from (Cunningham & Terry, 2006).



grass and cow dung. Beakers were lined at the doorway, ready to be distributed by the injoli or master of ceremonies (McAllister, 2006). The beer was strong and pungent, and hard to drink at first but it eventually made the crowd grow louder and louder in talks about any aspect imaginable. The ritual offered the people of the community the opportunity to voice their concerns, appease their ancestors and catch up on the latest news for the week. "A large part of the pleasure of the beer drinking [was] listening to and engaging with eloquent and entertaining speakers," (McAllister, 2006: 181).

THE STADIUMS

Another form of celebration through alcohol consumption would be the relationship between drinking and sport. South Africans are ever so proud of their sporting culture and our successes and failures in the games. Since the "[...] desire to relax with alcohol and amuse oneself with games is almost as old as human culture itself," (Collins & Vamplew, 2002: 124), it is only natural to talk about alcohol and sport.

Originally, sporting matches were commonly played in the morning and cleverly organised to end at the exact time that the public houses or pubs were scheduled to open, (Collins & Vamplew, 2002: 34). Crowds of people would fill the pubs after the game where they would begin with their favourite past time: drinking with friends. In fact, these

drinking establishments were so closely related to the sporting world that they played host to numerous games within their grounds: these games ranged from darts and cock fighting to small football/soccer tournaments. Pubs were seen as a place for the community to be interactive and supporting. It is in this manner that many large football leagues that we know today were established (Collins & Vamplew, 2002).

Today however, "[...] the pub is less and less seen as a community centre and [rather as] just another in a range of leisure activities," (Collins & Vamplew, 2002: 123). It has become synonymous with the big screen television, and this along with their satellite broadcasting rights have been a major attraction for paying customers. My grandfather recollects on the times when he would wait in anticipation for the local newspaper to publish the results of the England First Division football league. Today, however, games which are not even aired on our normal television channels at home can be viewed at the pub down the road. Crowds of sports enthusiasts fill the drinking establishments with chants of "come on boys" or screams directed at the referee through the television set.

It is this act of viewing sporting activities through the television that brings to attention the alcohol industry's increased "[...] reliance on sport as a marketing vehicle," (Collins & Vamplew, 2002: 122), and perhaps vice versa. Today, internationally renowned brewery labels are spon-

IMAGE: LEFT
Sprinkbok supporters enjoying a beer at Ellis Park.
Photograph by Darren Smith, South Africa, 2009.
From (Smith, 2009).

JOZI CRAFT BEER FEST



soring crowd favourite athletes and sporting teams. It, however, does not go without concern from the public. Recently, there were talks about a bill that was to be presented to the South African government which proposed the ban of alcohol advertising and sponsorship in sports (Mdakane, 2013). News of this ban sparked outrage among the industries involved and many reports stated that the ban would do nothing to curb the supposed alcohol problem and that it would only harm the sporting economy. One article stated that: "South Africa's economy [stood] to lose out on R7.4 billion if a 'ban' on alcohol advertising was introduced," (Merten, 2013). It was mentioned in a committee meeting on the topic that the intention of alcohol advertising was never to increase consumption but rather to encourage consumers to drink the brands advertised and that abusive alcohol consumption was a result of other social and quality of life matters (Mdakane, 2013). Alas, alcohol advertising in sport in South Africa is still allowed and the recent Cricket World Cup has reiterated its ever prominent status in sport.

THE CRAFT

Lastly, I would like to talk about the trendy new drinking culture that has taken Johannesburg by storm over the last couple of years: craft beer drinking. Although beer making has always been regarded as a sort of craft, the term has only recently been coined to describe the beer produced at the multitude of micro-breweries that have sprung up

across the country. At least 118 of these craft breweries exist in South Africa and each one has its own unique beer and following (van Zyl, 2014).

The establishments, which have sponsored pages that pop up all over my Facebook feed in order to draw in the trendy crowds, are filled with young 'hipster' folk that lavish in the excellence of the creative craft and that are eager to try the next best thing. Only too happy to boast their brewing process to the masses, many establishments actually showcase their beer making in the heart of the drinking area itself and some are often coupled with a tour of the makings behind the brewery.

Along with the actual establishments themselves, the craft beer culture is well known for its eventful festivals and markets. With 16 markets that operate on a weekly basis and 42 festivals on offer throughout the year (van Zyl, 2014), the craft beer age is truly taking the country by storm. The Jozi Craft Beer Fest happens annually at Marks Park in Johannesburg. It is a coming together of people to socialise with loved ones whilst appreciating the craft of beer making and good artisan food (Slack, 2015). Not only is the event an opportunity for brewers around the country to showcase their special blend, but it also offers a wide range of music, food and games through which people can relax and socialise in a vibrant break from everyday life.

IMAGE: LEFT
Jozi Craft Beer Festival.
Photograph by Stephanie Early Green, Johannesburg, 2013.
From (Green, 2013).

IMAGE: NEXT PAGE
Students having discussions around a table of beers.
Photograph by Author, Wits University, Johannesburg, South Africa,
2014.



A PLACE FOR ALL?

This brief look at the various drinking patterns in our country has shown that alcohol has actually had an influence on the society of South Africa. Although our history is stained with blood, it acts as a reminder of our nation's struggle for freedom. Beer halls were boycotted and burnt to the ground because of what they represented to the people they were built for. Inebriated minds felt liberated to talk about acts of revolution within the safe, secretive confines of the shebeen. African culture sees beer as a way of life, a part of the everyday diet and a healthy food for the body and soul, and although alcohol has sometimes brought pain to many individuals, it has also been at root of many celebrations.

Similar to the 'tropes of space' that are used to illustrate the transforming urban landscape of South Africa in the book *Desire Lines: Space, Memory and Identity* in the post-apartheid city (Murray, Shepherd & Hall, 2007), I would like to liken the drinking patterns of Johannesburg and South Africa to the shapers of a new emerging public culture. Our last 'trope' is shared: a "[...] multicultural ideal of the postapartheid 'One Nation', discursively framed in the democratic moment of transformation in 1994," (Murray, Shepherd & Hall, 2007: 7). But can this utopia ever truly exist, is there really such a space in our country's future?

Contrary to many beliefs about South Africa being 'ever-divided', perhaps it is through the shared enjoyment of

drinking a beer that our society can truly be united, even if it only in one place and at one time. Throughout the ages, and within any number of cultures, it is alcohol that is the common denominator, the equaliser, the relatable factor. Could it also be the unifier?

Although the creation of this new 'multi-cultural' identity could suggest an amalgamation of cultures into one public sphere, I believe that celebrating the unique distinctions between the various drinking cultures will make for a more successful space. We need to "give our youth a vital insight into their parents' response to prohibition," (Bailey, et al, 1994: i), demonstrate the importance of freedom of speech and revolutionary talk, educate through practice the rituals that might not be known to them, and ultimately give them a place in which they can escape. It is "[...] in drinking beer [that] people are making and re-making reciprocal social connections with each other, connections which are of extreme social and economic significance in the context of everyday life," (McAllister, 2006: 17).

The lessons behind our country's exploitation, revolution, ritual, celebration and recreation are there to be learnt. Let us put them to good use.



The understanding of the various brewing
processes and customs is important in the
design of a socially inclusive brewpub.

PROCESS

Grains to Liquid Gold

02

INGREDIENTS

From: *Craft Beer, A Guide to South African Craft Breweries and Brewers* (Van Zyl, 2014: 8).



JUST ADD WATER

The sugars found in grains are vital for the beer making process as it is these enzymes which are broken down and converted into CO₂ and ethanol during the fermentation process. Grains are malted wetting the raw ingredient, leaving them to germinate and drying them in a kiln. Malts can then be roasted to varying degrees in order to create different beer flavours. Barley is the preferred grain, but other grains and seeds such as wheat, oats, maize and sorghum are used.

Hops are carefully cultivated and selected as only the best hops produce the perfect amount of aroma and bitterness needed in a beer. These vining plants are collected, spread out to dry or kilned in an oast house and are then pelleted for distribution to the breweries. Some brewers prefer the use of unpelleted hops for a so-called stronger aroma.

Yeast is the live bacteria that accelerates the fermenting process. Active yeasts can be re-used for different brews and can then be disposed of for livestock feed. Yeast producers cake or dry their products and distribute them to brewers.

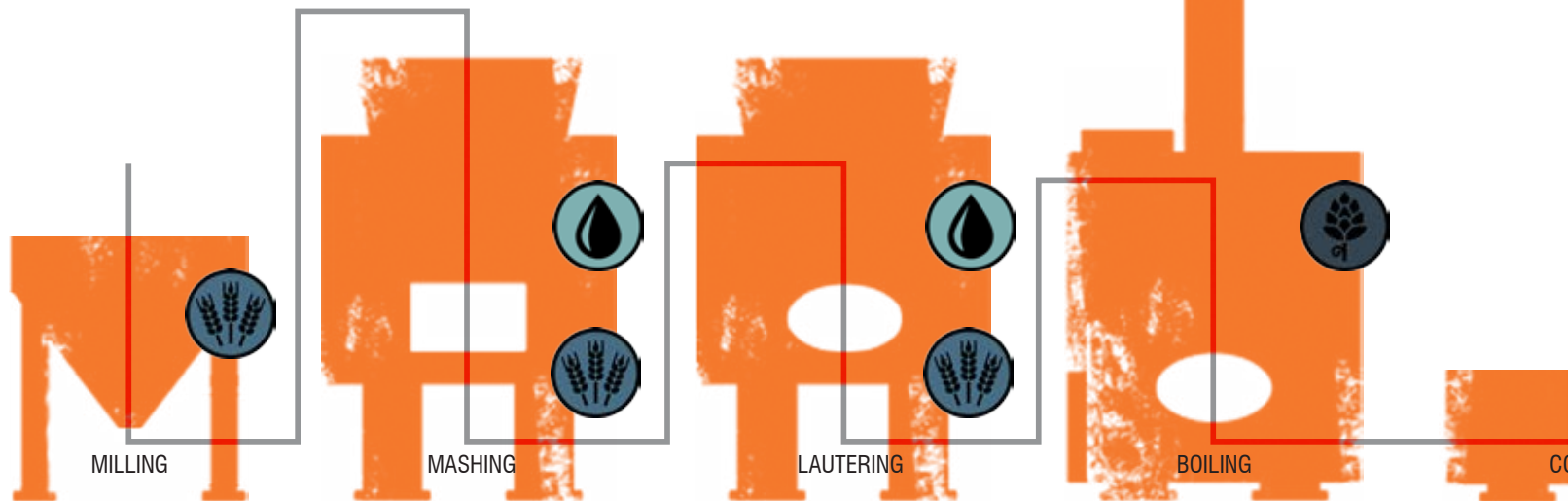
The last ingredient added to the mix is water. Breweries are generally built around a good water source or municipal water is used. Any water used is almost always filtered and treated on site before being added to the brewing process.

IMAGE: RIGHT AND ABOVE
Hop vines and barley plantation, the ingredients in beer.
Photograph by Author, World of Beer, Johannesburg, South Africa,
2015.



THE CRAFT BREWING PROCESS

Extract from: *Craft Beer, A Guide to South African Craft Breweries and Brewers* (Van Zyl, 2014: 8).



MILLING

Malted grain needs to be ground in order to expose the inside of the seed's endosperm. If the malt is too coarse then not enough endosperms will come into contact with water to be converted to sugar; too fine and the water wont flow through during the lautering and sparging processes.

MASHING

This is the actual brewing process where the ground grain is mixed to a slurry with hot liquor (water) or cold water and brought to and maintained at a temperature of around 60°C to 70°C for 2 hours. This provides the optimum conditions for the amaylase to work on the starches.

LAUTERING

German for 'purifying', it the process where the sugary liquid, called wort, is separated from the dregs of the grain in the porridgy slurry. The base of the mash tun may be slotted, allowing the wort to drain through the spent grain. Spent grain is then flushed with water or hot liquor to extract the last sugar from the mash or 'sparge' (sparging).

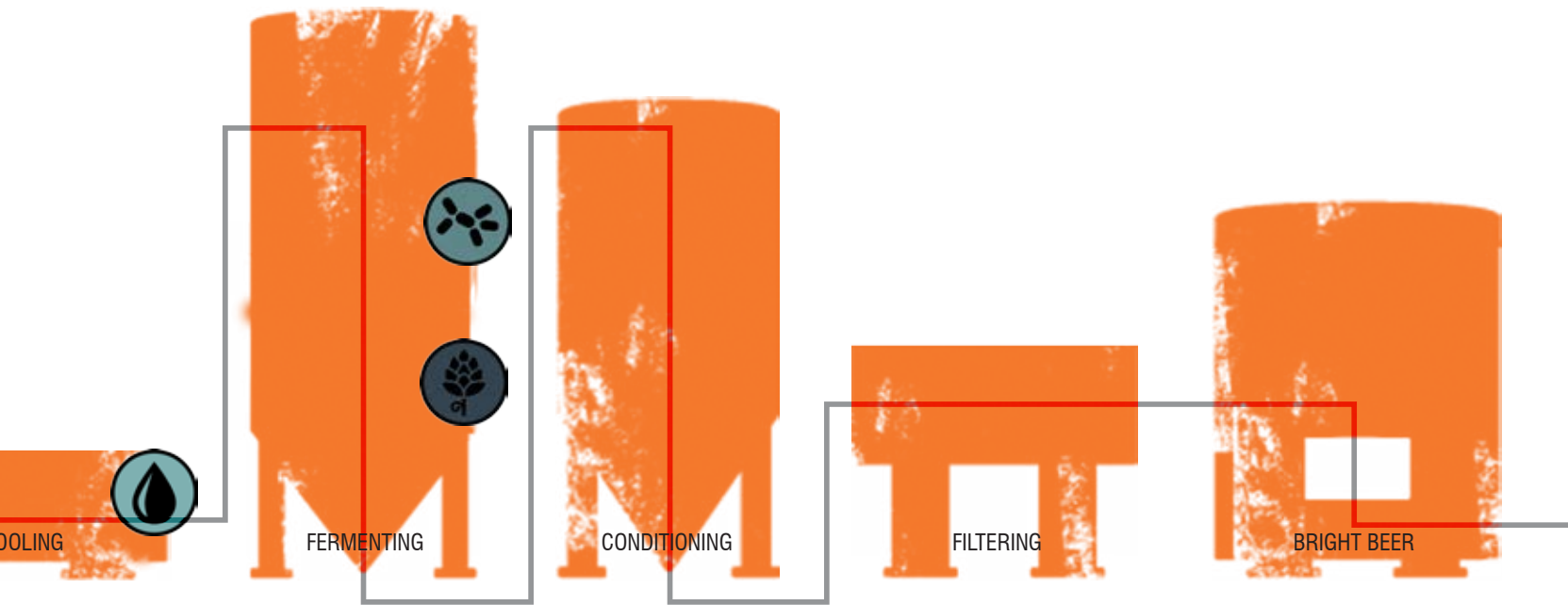
BOILING

In order to sterilize the wort and to drive off unwanted flavours, the wort is brought to the boil and maintained for about an hour. This takes place in a brew kettle. The boil is also where most of the hops are introduced to the wort. Generally bittering hops are added early in the boil and aroma hops much later.

IMAGE: NEXT SPREAD

Ubuntu Kraal Brewery, home of Soweto Gold.

Photograph by Author, Ubuntu Kraal Brewery, Soweto, South Africa, 2015.



COOLING

Unwanted organisms are killed and the optimum temperature for the required organisms to do their job is created by the cooling of the wort as fast as possible. This is usually done in counterflow heat exchangers or the kettles are simply immersed in a bath of ice water.

After cooling, the wort is transferred to the fermenter. Yeasts, either in powdered form or in an already activated state in a sugary solution, are now added to the wort (pitching).

FERMENTING (PRIMARY)

The wort should now be at the correct temperature for the yeasts being used. Ales would require a temperature of 10°C to 20°C where it would be maintained for about a week. At completion, the spent yeast would have risen to the top and skimmed off. Dry hopping can be added at this point for extra flavour. Lagers would require an initial wort temperature of 5°C and is allowed to rise to 9°C and cool to 5°C again. The primary fermentation for lagers lasts about 1 to 2 weeks.

CONDITIONING (SECONDARY)

Lagers are then lowered to a temperature near freezing point and maintained there for 4 or 5 weeks to 9 months or more. Yeasts will settle almost completely, leading to the clarity of lagers and pilsners. With ales, the second fermentation would be started with the addition of sugar therefore rendering the brew not entirely clear. Conditioning involves transferring the brew to special bunged tanks which will carbonate the beer while conditioning. Second fermentation can also occur in bottles or casks.

FILTERING

Not always employed, the beer may now be filtered and transferred to a bright beer tank or directly to the cask or bottle. Sometimes flash pasteurising (quickly heating and cooling the beer) is performed before bottling.

BRIGHT BEER TANK

Not always employed, the beer may now be filtered and transferred to a bright beer tank or directly to the cask or bottle.





STATIC PIPING SYSTEM

FERMENTATION TANKS

WORT KETTLE

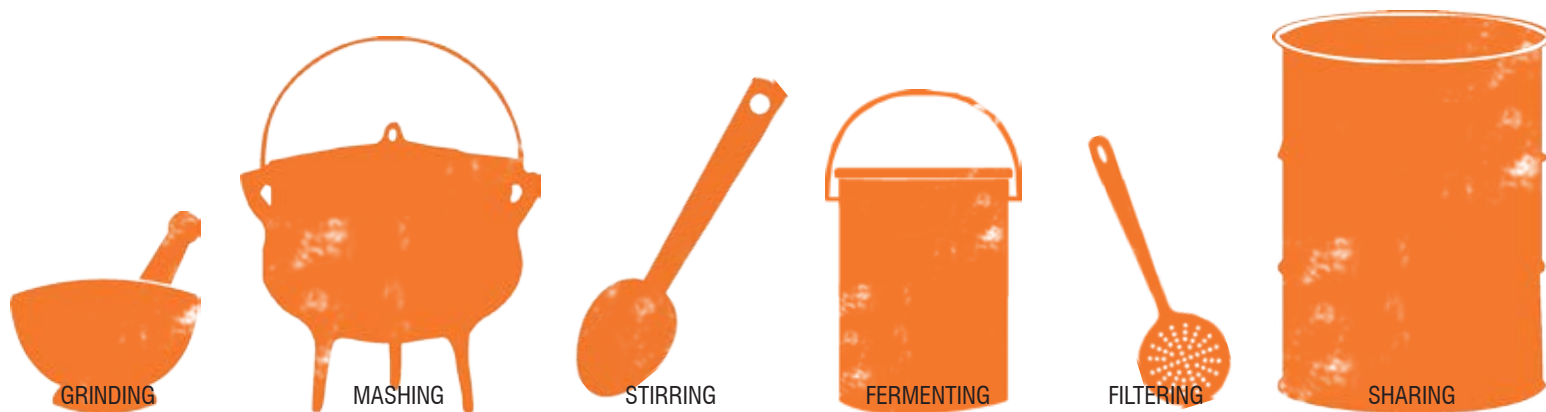
TWO VESSEL BREWHOUSE (MASH TUN / LAUTER TUN)

HOT WATER TANK

HEAT EXCHANGER

THE TRADITIONAL AFRICAN BREWING PROCESS

Extract from: *Tasty Tuesday - Traditional Xhosa Beer Recipe* (Tasty Tuesday: n.d).



Umqombothi beer is traditionally prepared outside the home and is made from mealie meal (corn meal) crushed mealie malt (corn malt) crushed sorghum malt and warm water.

The ingredients are mixed in a cast-iron pot where the mixture is left overnight to ferment and bubble. A small portion of the corn-flavoured water is removed and put to one side, and the remaining mixture is then cooked until a crusty sediment forms. This product

is known as isidudu and can be eaten as a porridge. The isidudu is then left to cool for a day.

After the mixture has cooled, it is poured into a large plastic vat and the corn-flavoured water that was set aside earlier is then added to the vat. A handful of sorghum malt and a handful of mealie malt is added to the vat.

The brew is stirred with a traditional stirring spoon called

an iphini and the vat is then covered with a lid and blanket (to retain heat). The vat is put in a warm place overnight, to encourage fermentation.

When the brew is ready, the mixture is filtered through a large metal strainer, to collect the excess corn. The sediment at the bottom of the vat is known as intshela and is added to the filtered beer, to give extra flavour. The corn solids, collected from filtering, are usually cast onto the ground

for chicken and the brewer of the beer traditionally gives thanks to the ancestors while casting the corn.

Once the beer has been strained, it is poured into a large communal drum known as a gogogo. It is ready for sharing with friends and family. When guests arrive at the brewer's home to taste the beer and join in the celebration, they traditionally bring a bottle of brandy, as a symbol of gratitude.

IMAGE: RIGHT
Bukelwa Qebeyi stirs a cauldron full of her popular beer.
Photograph by Masixole Feni, Eastern Cape, South Africa.
From (Xi, 2014.





A case study of existing microbreweries and drinking establishment typologies is necessary in order to determine specific spatial requirements of a brewpub for the people.

PRECEDENTS

Making and Consuming

03

BREWHOGS BREWERY (ACES LAGER)

The following information is based off an interview and site visit with Mike of Brewhogs Brewery in Kyalami.

Brewhogs brewery was retrofitted in a typical storage warehouse of approximately 335 square metres in Kyalami, Johannesburg. Relatively small in size, the brewery has a brewing capacity of up to 48 000 litres per month and is self proclaimed to be the third largest micro-brewery in the country. Comparatively, the largest micro-brewery in South Africa by volume is the Cape Brewing Company (CBC) in the Western Cape and it produces more than 5 times the amount of beer that Brewhogs produces. The image on the previous page shows CBC's fermentation plant which is substantially larger than that of Brewhogs' fermenters as seen in the image to the right. The brewing equipment was purchased from SAB's World of Beer in Newtown where it was once a working showpiece. Before World of Beer, the equipment belonged to Barney's Tavern at Gold Reef City where it was first established in 1985. The equipment was stripped, cleaned and re-assembled in its new location in Kyalami. The brewery is built for production with only a small area dedicated to the tap room (public beer tasting). Non-static piping lines transfer the brew from tank to tank and allows for easy removing and cleaning. The brewery also houses a small office and toilet for its three brewers and brewmaster as well as an area for beer testing and recipe sheets. Located in a separate warehouse on the property is a mass storage area of approximately the same size which is solely dedicated to the safe keeping of malt bags and hop pellets that are distributed to them by the SAB. Although the design intent is purely for production and is less concerned about the public, Brewhogs is a good example of how compact a 48 000 litre brewery can be.

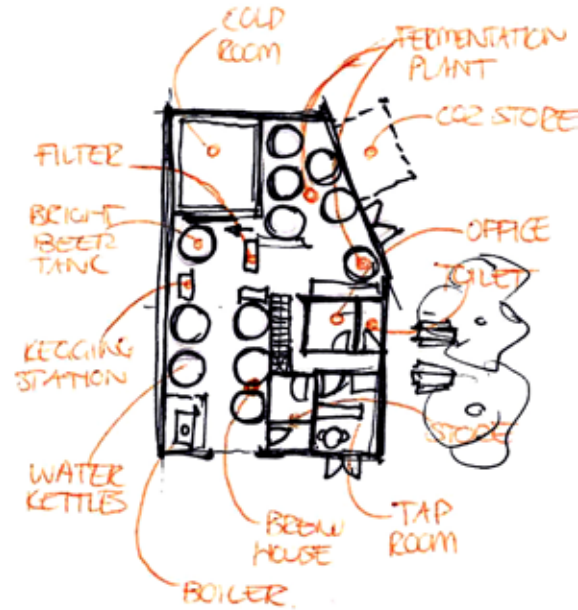


IMAGE: ABOVE
1:500 sketch ground floor plan of Brewhogs.
Illustration by Author, 2015.

IMAGE: PREVIOUS PAGE
Fermentation plant at Cape Brewing Company.
Photograph by Author, CBC, Paarl, South Africa, 2014.

IMAGE: RIGHT
3000L fermentation tanks at Brewhogs.
Photograph by Author, Brewhogs, Kyalami, South Africa, 2015.





UBUNTU KRAAL BREWERY (SOWETO GOLD)

The following information is based off a brewery tour at Ubuntu Kraal Brewery in Soweto.

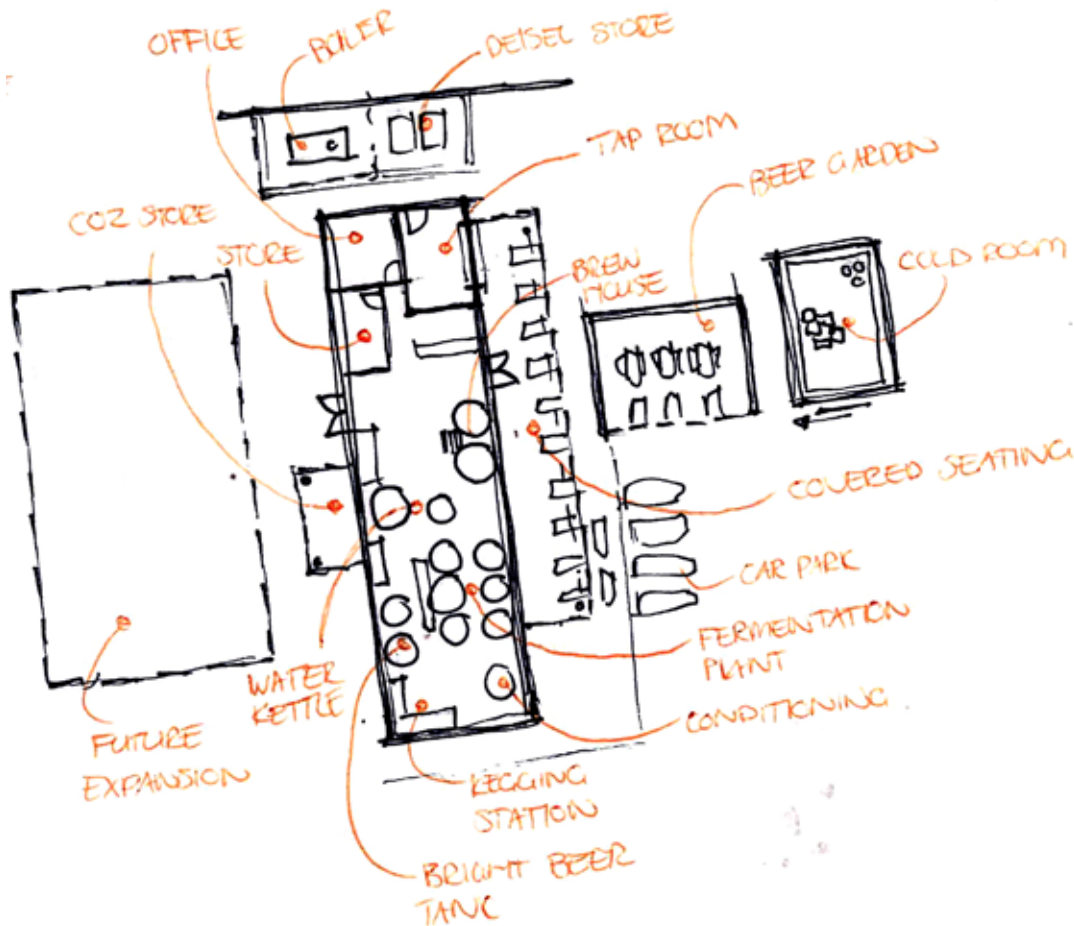


IMAGE: LEFT

Seating area with a view of the brew house at Ubuntu Kraal Brewery. Photograph by Author, Ubuntu Kraal Brewery, Soweto, South Africa, 2015.

IMAGE: ABOVE

1:500 sketch ground floor plan of Ubuntu Kraal Brewery. Illustration by Author, 2015.

UBUNTU KRAAL BREWERY (SOWETO GOLD)

The following information is based off a brewery tour at Ubuntu Kraal Brewery in Soweto.

Ubuntu Kraal Brewery is located just off the Klipspruit River in Soweto and is only a few kilometres away from the vibrant Vilakasi Street. This 50 000 litre a month brewery is the first of its kind in Soweto and it aims to introduce the notion of craft beer to the people that honed the brewing technique years and years ago. Not including the new expansion and storage area, the brewery hold approximately 585 square metres of brewing space. The brewery also holds a covered seating area as well as a small beer garden for various functions on the weekend. Unlike Brewhogs, the boiler and cold room for Ubuntu Kraal Brewery are situated outside the main brewing area and kegs are often carted between patrons to the cold room before being distributed. The public area of the brewery pays homage to its traditional beer brewing roots with ancient vessels and mashing pots placed strategically throughout the seating area. The covered seating area is also clad with panels of rusted and bent corrugated sheeting, perhaps to imitate the shacks in the area where women would brew for their community. At risk of sounding like an advertisement or review blog, Soweto Gold is perhaps my favourite beer to date and their Apple Ale is the best for a hot summer's day.



Traditional maize grinder and cast iron mashing pot.



Old metal casks.

IMAGE: THIS PAGE

Traditional brewing equipment.

Photographs by Author, Ubuntu Kraal Brewery, Soweto, South Africa, 2015.

IMAGE: RIGHT

The tap room at Ubuntu Kraal Brewery with wooden beer barrel.
Photograph by Author, Ubuntu Kraal Brewery, Soweto, South Africa, 2015.



DESIGN INFLUENCING FACTORS



BREWERY

It is vital for a brewery to be double volume and to preferably have a mezzanine level from which ingredients can be placed into the top of the brew house. Access to these areas needs to be quick and easy.

The boiler for the brewery needs to be cordoned off with access restricted due to its high temperatures. It is possible to place the boiler outside with a roof covering above. Fuel for the boiler, be it gas or diesel, also needs to be stored in a cordoned off area and should have a bund wall to prevent a spillage from contaminating any brewing equipment.

The floor of the brewery is always wet! Be it a spill from one of the tanks, a release of spoiled brew or simply water from hosing down the equipment, a well waterproofed floor and good drainage system is important. The cleaning and cooling processes are also both extremely water intensive and rapid drainage is essential.



STORAGE

Keg fillers and bottle fillers do not take up too much space. Although this is directly related to the brewing and bottling capacity of the brewery, keg fillers are surprisingly compact. They do however need to be located next to the bright beer tank and some kegs for immediate use. Filled kegs and bottles are then immediately transferred to a fridge where they are kept until distribution.

Quick access storage spaces will streamline the brewing process. Acid discharge needs to quickly be contained and stored for disposal later on. Bottles of glycol (for the cooling process) should be available right at hand.

A mass storage area needs to be separate from the main brewery so as to avoid spoiling the malt and other items with too much moisture. It is also important for these items to be elevated off the floor (possibly on wooden pallets) in order to avoid insect and rodent infestations.

IMAGES: ALL ABOVE
Key characteristics of a brewery.
Photographs by Author, Brewhogs, Kyalami, South Africa, 2015.

DRINKING SPOT TYPOLOGIES



A shebeen in Soweto with plastic chairs and a pool table.



The entrance to KK Sports Bar.



Children looking through the burglar bars to KK Sports Bar.

INFORMAL

Shebeens are a prime example of informal drinking establishments and are in many ways one of the shapers of the social drinking customs in South Africa today (as discussed previously in the theory essay). Although the prohibition liquor law has since been lifted, shebeens are still synonymous with illicit liquor trading due to the control of liquor licensing employed in order to curtail alcohol abuse (Charman et al., 2014: 46). It is this control that has influenced the spatiality of these drinking spots and therefore in turn allowed spatiality to influence drinking itself. Charman argues that the reverse is also true, that “drinking influences spaces,” (2014: 47). Charman’s research of shebeens in Sweet Home Farm show how the some homes

are restructured in a way to encourage rapid consumption with uncomfortable seats packed closely together while others allow for slow paced drinking with sofas and pool tables to entertain oneself. Informal drinking often leads to conflict outbursts and many owners have had to adapt their spaces in order to overcome the inevitable fight. In one case, drink ledges were introduced to prevent drink spillage (2014: 47). Although shebeens do not cater for the youth, non-drinkers and the disabled, they do still create a sense of community and often provide the much needed amenities (outhouses) and sense of entrepreneurship for their neighbours (2014:47).

IMAGES: ABOVE LEFT TO RIGHT

Photograph by Ryan Loughridge, Soweto, from (Loughridge, 2010).
Photograph by Demetris, Johannesburg, 2013, from (Demetris, 2013).
Photograph by Demetris, Johannesburg, 2013, from (Demetris, 2013).

IMAGE: RIGHT

Zwai’s shebeen arrangement at Sweet Home Farm.
Illustration, 2014.
From (Charman et al., 2014: 41).

DRINKING SPOT TYPOLOGIES



The rustic but neat bar at Social in Bryanston.



The prominent entrance to the Beer House in Fourways.



Bar stools and tables are scattered inside the Beer House while beer brand names line the black walls.

FORMAL

Much grander in stature, a typical formal drinking establishment would be your regular pub and grill or bar down the road. These drinking spots create a sense of isolation from the rest of the world and are often situated in commercial strip malls. With the exception of a just a handful, the establishments are generally inward facing or overlook a parking lot and don't speak much to their surroundings. The few that are street fronted in vibrant trendy areas have a more apparent sense of place. Unlike the insignificant human scale entrance of the informal shebeen, pubs and bar generally have large open doors just beyond a covered terraced seating area - which, to the newcomer, could be somewhat intimidating. Inside a typical English or Irish

pub is wall to wall timber cladding that speak to its origins. More contemporary pubs are opting for the unfinished industrial look that is on trend these days and they often have services and conduit exposed. Tables and chairs are grouped together in numbers of approximately 6 and they are ultimately focused around a central bar area. The bar is lined with various bottles of alcohol, easily identifiable to the demanding patrons and beers are poured from the tap. The atmosphere is generally light hearted and groups socialize amongst themselves. There does seem to be an absence of true South African culture from these sorts of establishments.

IMAGES: ABOVE LEFT TO RIGHT
Photograph from (The Curious Girl, 2014).
Photograph from (Randolf, 2014).
Photograph by Author, Johannesburg, 2015.



Xhosa women in a hut drinking beer from a tin.



Workers having a break drinking beer in a field.



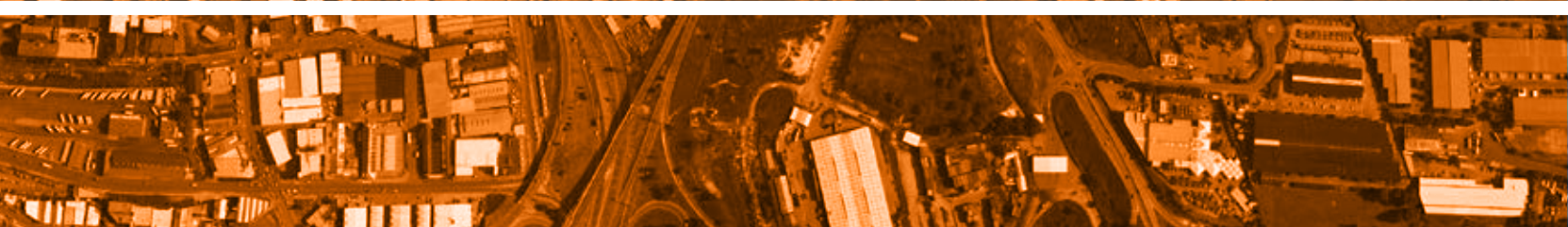
Distributing the beer to amongst everyone.

TRADITIONAL

The act of drinking traditional beer is much more ceremonial and is associated with a number of rituals which involve giving thanks to the ancestors. Typically the beer drinking ceremony will take place indoors although it has been seen to occur outside the home as well. The beer can be consumed in a self made village homestead or shanty town shack as well as in a typical RDP house found in many of the townships today. It is, however, customary for the beer to be brewed in a separate dwelling than which it is consumed in. Once all participants are seated on the floor, the beer is divided into smaller tins or drinking vessels and passed from person to person once the master of ceremonies has given thanks to the ancestors. The gathering

of people from the village or township is an opportunity to build a sense of community as discussions about politics, social issues and general information can take place at these events

IMAGES: ABOVE LEFT TO RIGHT
Scan of photograph from (McAllister, 2006: 182).
Scan of photograph from (McAllister, 2006: 231).
Scan of photograph from (McAllister, 2006: 207).



Historical and local context will help determine certain site parameters and ultimately influence the design of the brewery.

SITE ANALYSIS

Contextual Close-up

04

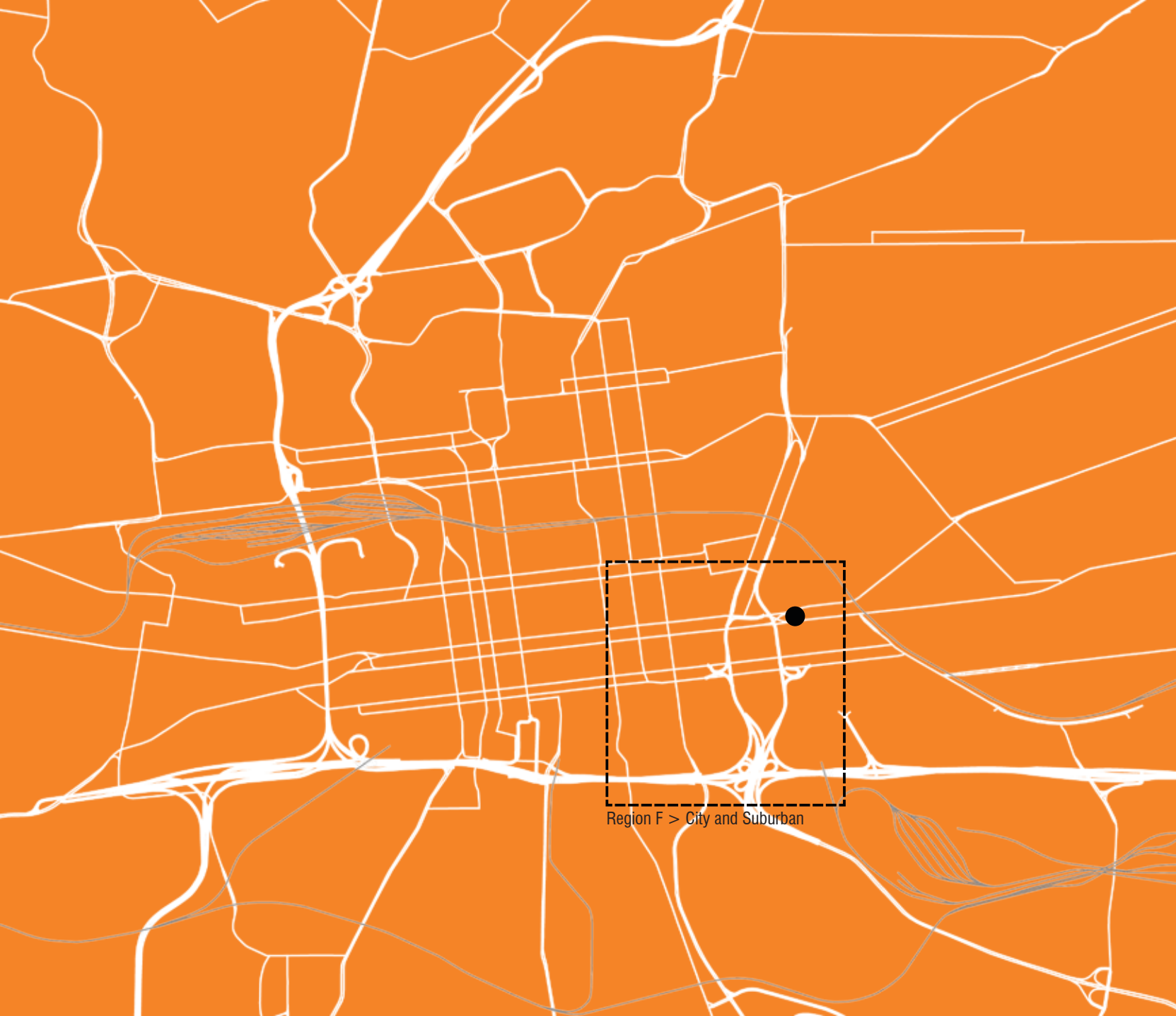


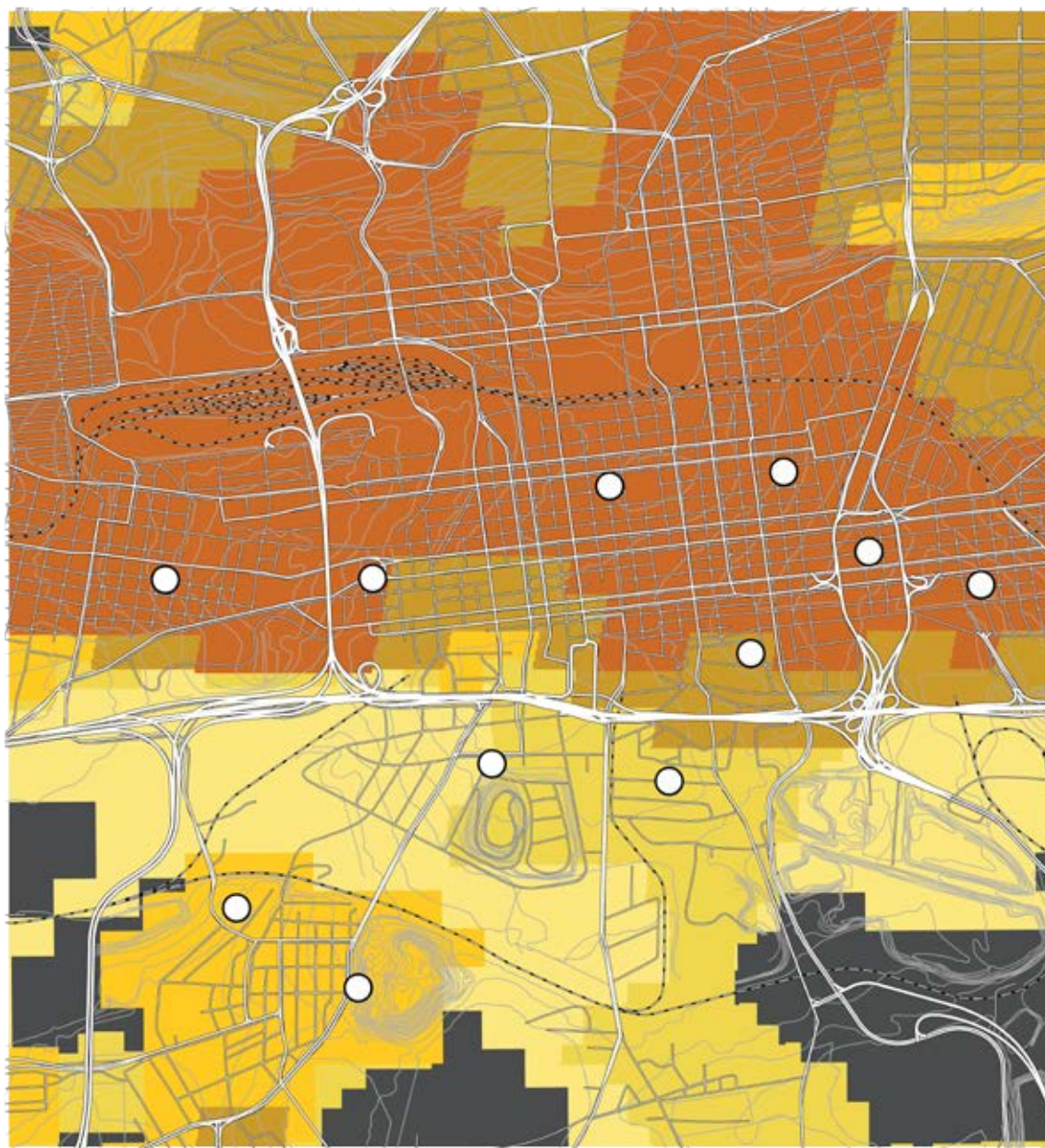
MACRO CONTEXT

The site is situated just to the North of the Francois Oberholzer Freeway (M2) that divides the Johannesburg southern suburbs from the inner city. To the East of the Johannesburg CBD, the site is bounded by prominent roads that lead to and from it. Joe Slovo and Sivewright Avenue run on bridges above to the West of the site and the newly named Albertina Sisulu Street and Commissioner Street comprise its North and South boundaries respectively. It is located on the junction of City and Suburban and Doornfontein suburbs and has Jeppestown enclosing it to the West.

IMAGE: PREVIOUS PAGE
 Aerial view of the Maboneng Precinct and surrounding suburbs.
 Satellite image, Johannesburg, 2015.
 From (Google Earth, 2015).







HISTORICAL CONTEXT

GROWTH OF JOHANNESBURG & HISTORICAL BEER HALLS

GEOGRAPHY OF BEER SALES IN GREATER JOHANNESBURG, APRIL 1962



The first map indicates the growth pattern of Johannesburg over 90 years. The map demonstrates how Johannesburg was developed on the periphery of the mine belt and how it eventually began to sprawl outwards and upwards. Mining and municipal compounds were built in order to efficiently accommodate the thousands of migrant workers that were employed there. A need for social recreation and escapism was sought after and beer halls were soon littered across the city. The very first beer hall, built in 1938, was located in the centre of town and aptly named 'Central'. It remained open for 25 years until the rowdy crowds began to unnerve the white residents of Johannesburg central. This is when locations further away from the city centre were established, and so began the 'drinking apartheid' era. (Note: the exact location of the beer halls may have some discrepancies due to vague base information.)

The second map then indicates how the beer halls and gardens in Soweto during the drinking apartheid in the 60s had significantly higher sales than those within the city.

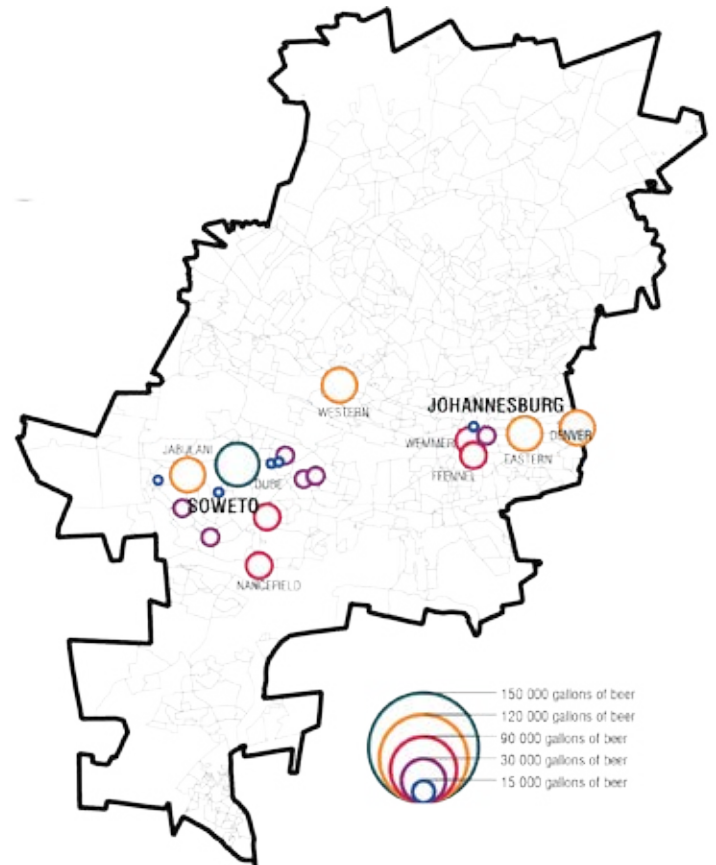


IMAGE: LEFT

Growth of Johannesburg and historical beer halls.

Illustrated map by Author, Johannesburg, 2015.

Derived from (Crush & Ambler, 1992) and (La Hausse, 1988).

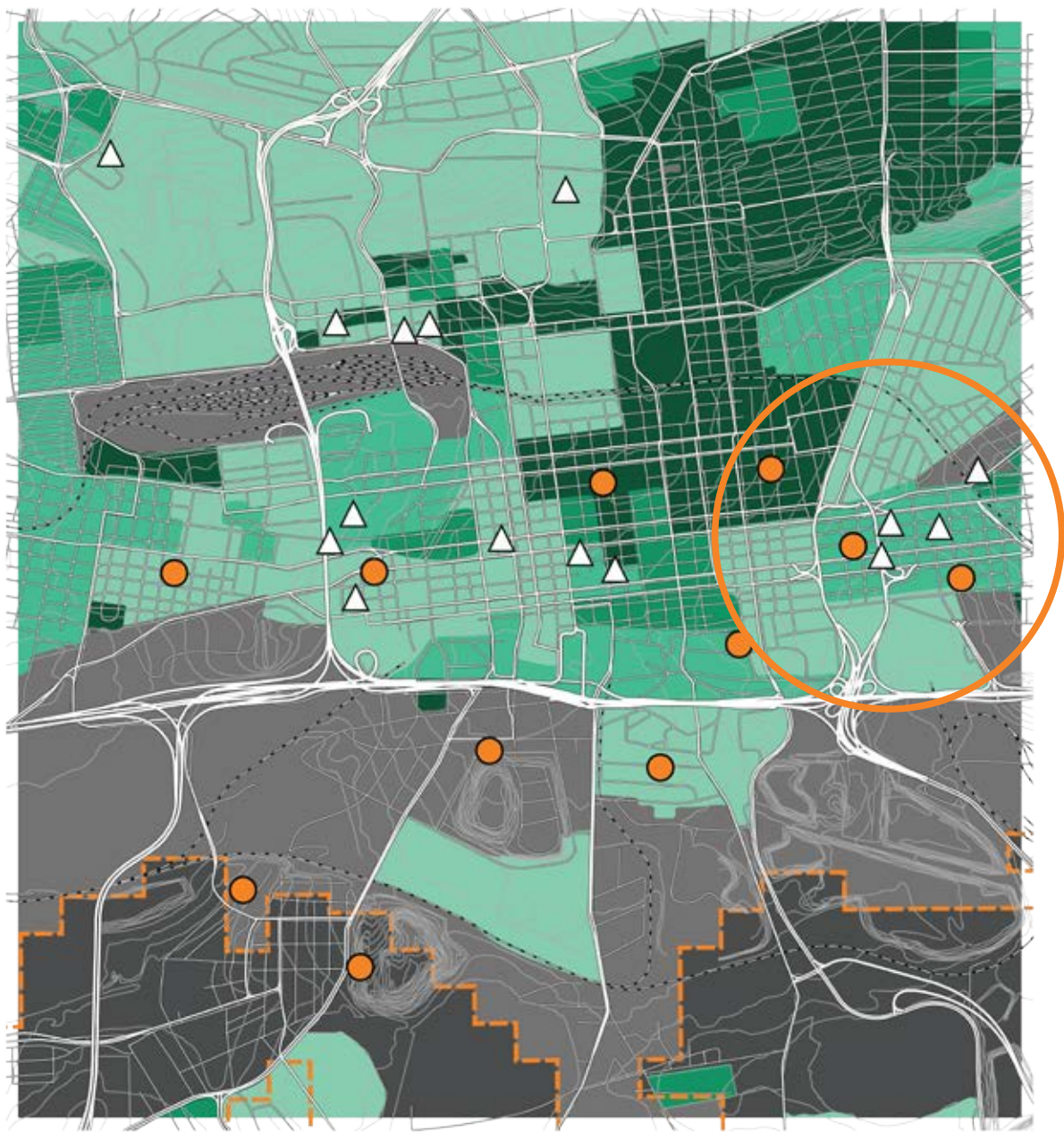
IMAGE: ABOVE

Geography of beer sales in the greater Johannesburg in April 1962.

Illustrated map by Author, Johannesburg, 2015.

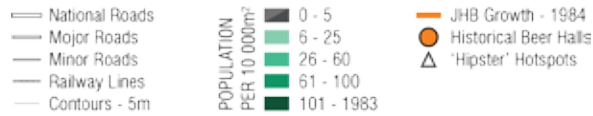
Derived from (Crush & Ambler, 1992).





OVERLAPPING HISTORIES

POPULATION DENSITY OF JOHANNESBURG & 'HIPSTER' HOTSPOTS



The map indicates the population density in Johannesburg that was obtained in the Census conducted in 2011. It is overlaid on the 1984 growth layer of Johannesburg in order to show how the sprawl that has occurred during the last couple of decades has caused a lack of density in certain areas in the city centre. Also indicated are the current 'hipster' hotspots which I mean to be places where many suburban residents come to socialise and drink craft beer in the city. Many of these places are in areas that are currently undergoing urban redevelopment and may also be in danger of gentrification. The new 'drinking spots' and old beer halls could say something interesting about the historical development and redevelopment of the social city.

It is the richness of the overlapping of these two aspects which initially informed my site selection.

IMAGE: LEFT
Population density of Johannesburg and 'hipster' hotspots.
Illustrated map by Author, Johannesburg, 2015.
Derived from (GCRO, 2015) and (Pubspace, 2014).

IMAGE: NEXT SPREAD
An overview of the Maboneng Precinct and its surroundings.
Photograph by Author, Maboneng Precinct, Johannesburg, 2015.

LOCAL CONTEXT

The Maboneng Precinct, an area undergoing massive urban regeneration but perhaps at the cost of gentrifying its local working class residents, is in need of a unifying architectural intervention that allows cultural and social inclusivity.



MOAD

PROPOSED SITE

COMMISSIONER STREET

THE LIVING ROOM

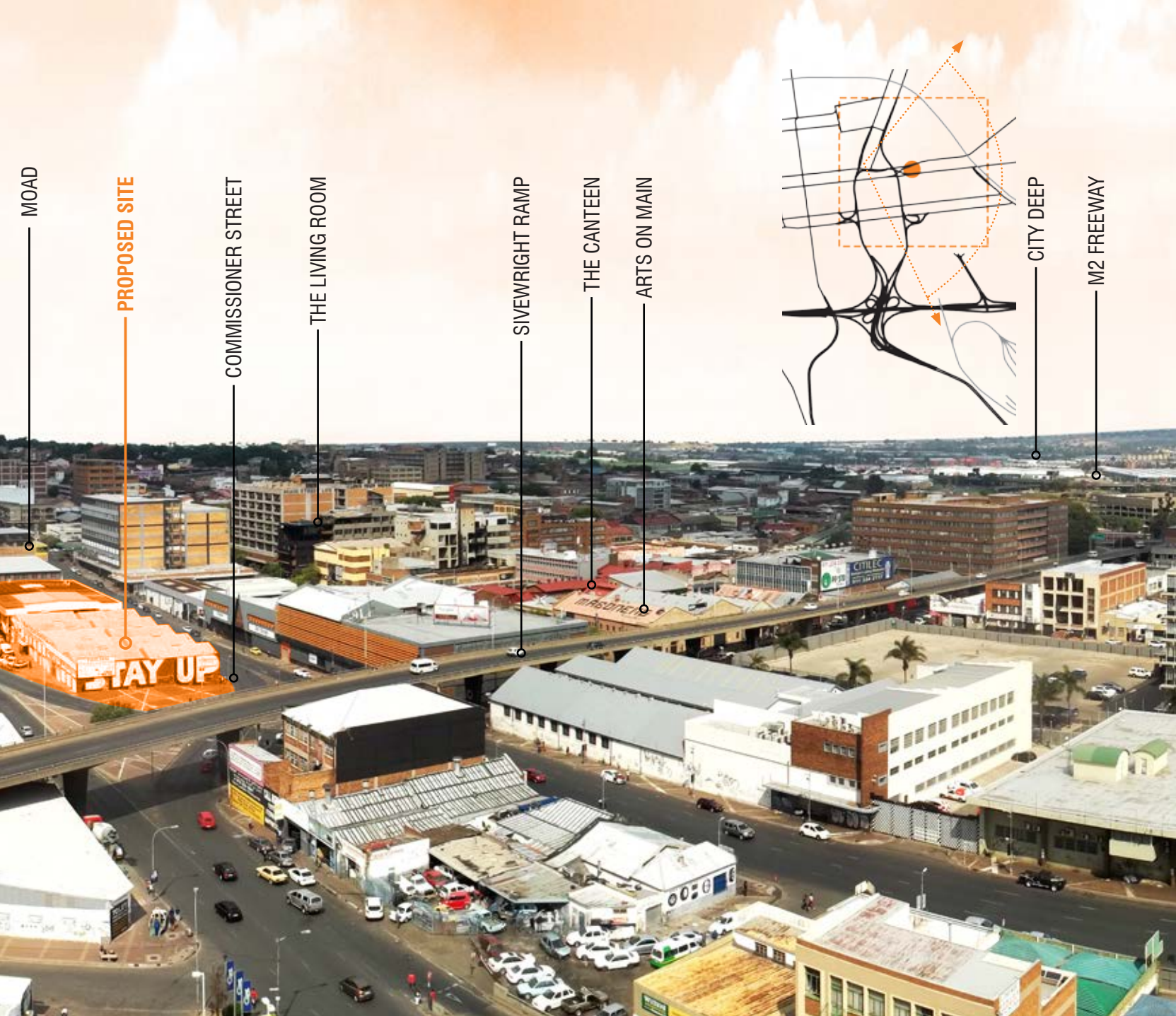
SIVEWRIGHT RAMP

THE CANTEN

ARTS ON MAIN

CITY DEEP

M2 FREEWAY



CARLTON CENTRE

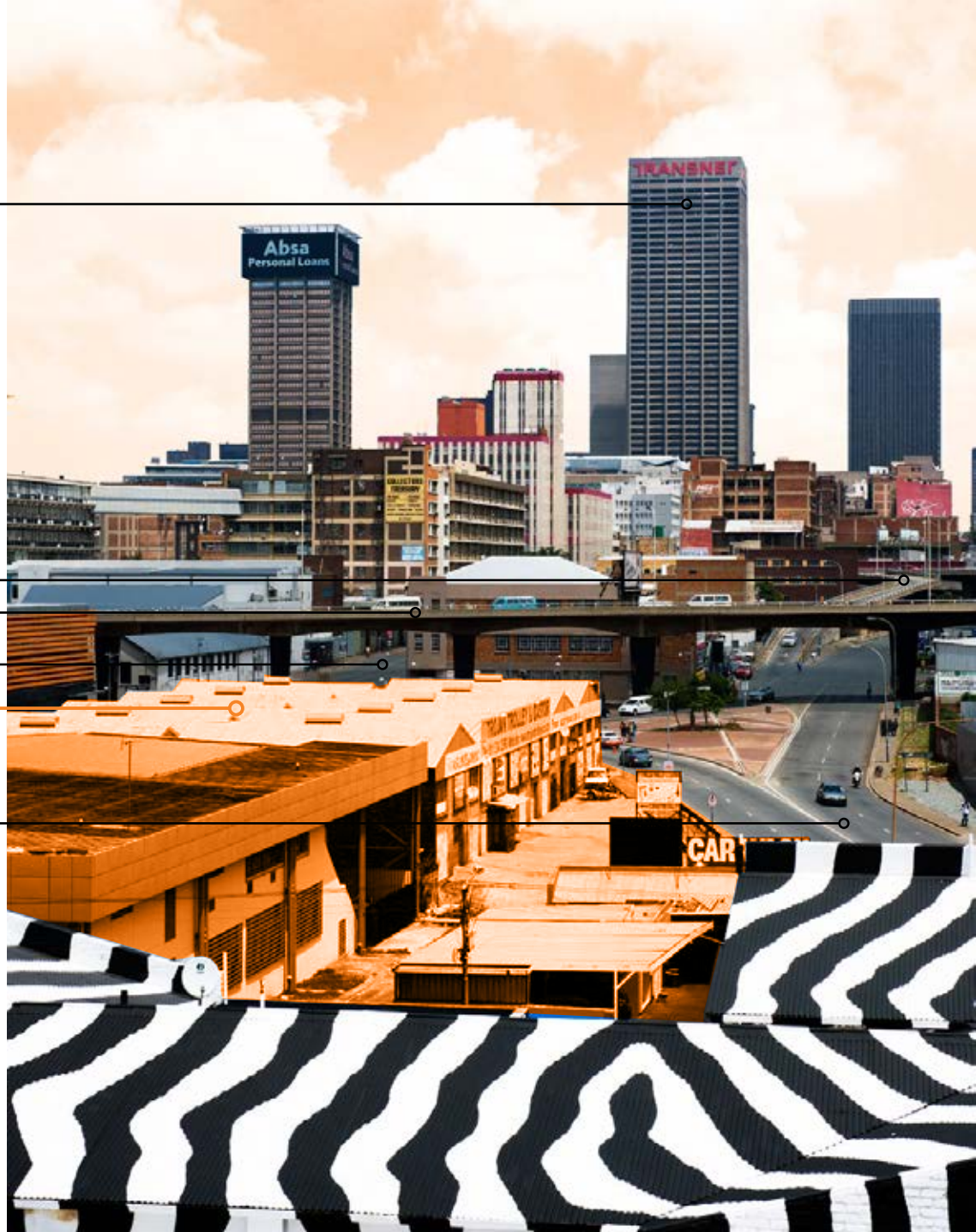
JOE SLOVO EXIT

SIVEWRIGHT AVE

COMMISSIONER ST

PROPOSED SITE

ALBERTINA SISULU ST



MOVEMENT AND ACCESS

- pedestrian
- taxi rank
- bus route
- bus stop
- main road
- national road
- train station



LAND USE ZONING

The following series of images indicated the land use zones of the surrounding stands of the selected site. The information is based on the type of use as seen from the street. Many stands have been re-purposed or retro-fitted (often without the consent of the council) and therefore have changed the land use zone for which it was initially intended. The selected site is always situated in the centre of the image and is highlighted in an orange line.



markets



taxi rank

IMAGE: PREVIOUS PAGE

A view to the city.

Photograph by Dook, Maboneng Precinct, Johannesburg, 2015.

From (Herimbi, 2014).



heritage sites



municipal



parking



religious



LAND USE ZONING

The selected site falls under the industrial zone and it is clear that this is the dominating land use zone in the area with an obvious industrial park in the suburbs to the south of the site. There are a number of various residential zones scattered throughout and the recent conversion of old buildings to new apartment blocks in the Maboneng Precinct is accountable for the a number of the residential zones in the area. Commercial and business zones then take up majority of the remaining land use.

The land use zone diagrams show how scattered and fragmented the area is and that it is not uncommon for a residential building to be located next to a factory. It speaks of diversity - the diverse functions found within the area as well as the diverse people that will occupy them. Factory workers and businessmen could visit the same take-away shop that the local residents would get their nightly meals. There are always people around, no matter what time of the day or night.

It is this fragmented diversity that I will aim to address in my design response.





petrol stations



commercial



residential



mixed use



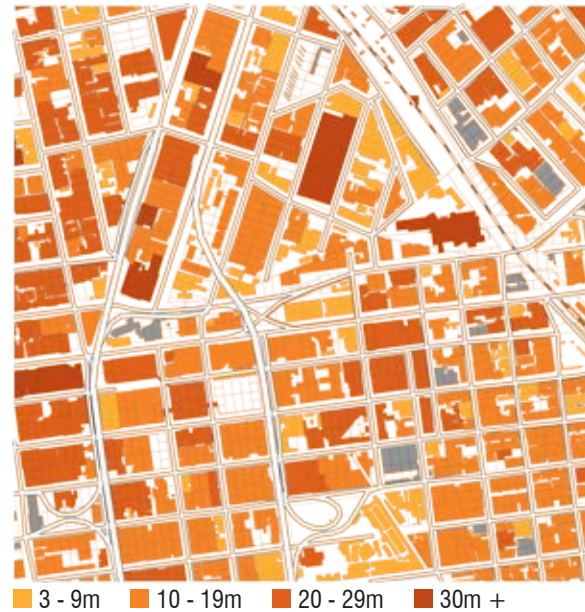




GRAIN

The site, located in the centre of the image, is surrounded by dense built area. The grain of the area changes as it moves from East to West away from the city. My area of interest has particularly diverse areas of built form with some buildings occupying the entire site footprint and others rather enclosing a courtyard.

IMAGE: LEFT
Aerial view of the Maboneng Precinct and surrounding suburbs.
Satellite image, Johannesburg, 2015.
From (Google Earth, 2015).



BUILDING HEIGHTS

Similar to the land use zoning, the building heights in the area are sporadic and vary from extremely tall to single storey dwellings. The sites immediate surrounds are no more than 3 storeys high.

IMAGE: NEXT PAGE
A view of the site and its mural. Artwork by Steve Espo Powers
Photograph by Martha Cooper, Maboneng Precinct, 2013.
From (Liebmann, 2013: 3).



DRINKING SPOTS



liquor store



shebeen



bar/pub



restaurant







15

16

11

10

9

8

17

site

5

6

7

14

12

2

3

4

1

13

SITE INFLUENCES

1. Arts on Main
2. Revolution House
3. Living Room
4. Apartments
5. Student Housing
6. Museum of African Design
7. Cosmopolitan Hotel
8. Artisan Lofts
9. Jeppe Police Station
10. Access City
11. Common Grounds - Nursery / Public Playground
12. Apartments
13. Castle Beer Hall
14. Jeppe Train Station and Market
15. Ellis Park Taxi Rank and Market
16. Ellis Park Train Station
17. Natsalspruit Canal

The above mentioned buildings are places of interest that have in one way or another informed certain design making decisions.







SITE INFLUENCES

THE MABONENG CANAL (NATALSPRUIT)

A proposal made by UrbanWorks Architecture and Urbanism during the Mabongeng 2.0 exhibition in 2012 showcases the idea of turning the existing water canal into a walkway that links Main Street to Fox Street. The brochure for the exhibition states that:

The lane is intended to be landscaped with decks, lighting and street furniture, optimising the various levels of the adjacent buildings. Spaces immediately adjacent to the lane are intended to relate to it directly via openings, doorways, balconies, gardens, etc.

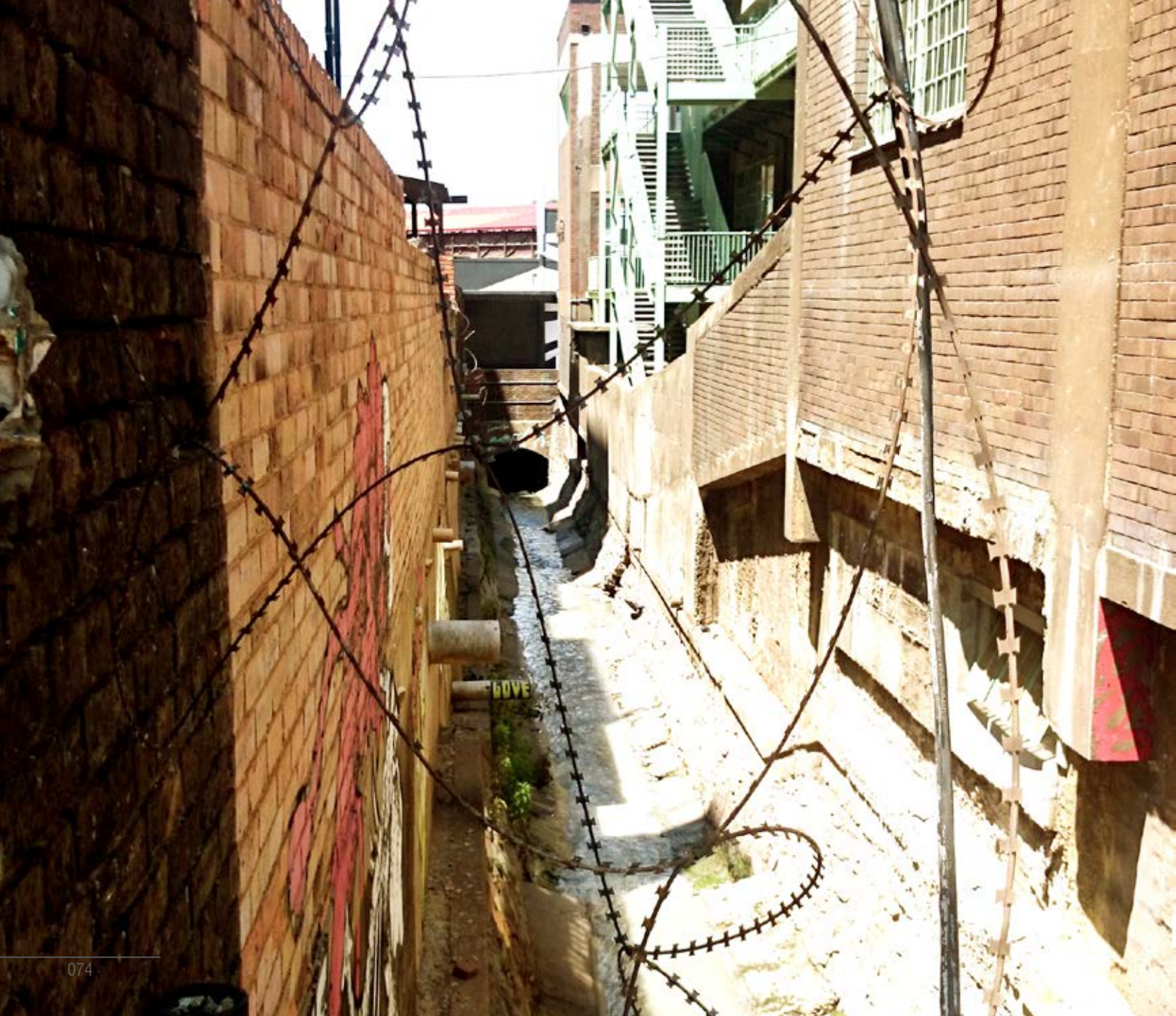
(Maboneng 2.0, 2012: 16).

IMAGE: LEFT

A proposal for the Maboneng Canal.

Illustration by UrbanWorks, Johannesburg, 2012.

From (Maboneng 2.0, 2012: 16).



SITE INFLUENCES

THE MABONENG CANAL (NATALSPRUIT)

Since breweries have long been known to be situated on or near a water source, my site selection is ideally situated in order to exploit the canal for its water use and linking potential. Currently, the water is dirty and has a foul odor, however a water treatment plant located below the brewery will treat the water before processing it for cooling purposes and transferring it back into the canal fresh and treated.

IMAGE: LEFT

The current state of the canal.

Photograph by Author, Maboneng Precinct, Johannesburg, 2015.





SITE INFLUENCES

THE JUNCTION NURSERY

Furthermore, the additional proposal made by UrbanWorks Architecture and Urbanism during the Mabongeng 2.0 exhibition in 2012 could be a design influencing factor. The proposal seeks to utilise the large wall on the West end of the site for advertising and art installations as well as converting the remaining open area around the intersection of Albertina Sisulu and Commissioner Street into a nursery for trees that can be used for planting in the area (Mabongeng 2.0, 2012: 16).

The brewery design does not completely disregard the idea to retain the existing wall. Rather, it will gently attach itself to a retained portion of the wall thereby still allowing for murals and advertisements to be strategically installed.

The nursery proposal will be added to in the form of a small planting area that grows the ingredients needed to make beer. The plantation will extend to the outside of the site and ultimately connect to the proposed nursery.

IMAGE: LEFT
A proposal for the Junction Nursery.
Illustration by UrbanWorks, Johannesburg, 2012.
From (Mabongeng 2.0, 2012: 15).

MICRO CONTEXT

CHARACTERISTICS OF THE PRECINCT



Local hang out building on Van Beek Street.



Propertytu head offices on Van Beek Street.



The Cosmopolitan Hotel on Commissioner Street is owned by SAB.

BUILDINGS



Arched brick-on-edge window sill on Fox Street.



Large pivot opening steel doors to clothing store on Main Street.



Grey plastered surrounds of window on Fox Street.

WINDOWS

IMAGES: ABOVE
Elements of the Maboneng Precinct.
Photographs by Author, Johannesburg, 2015.

IMAGE: RIGHT
Abandoned industrial building on Van Beek Street (refitted with skateboard ramps).
Photograph by Author, Maboneng Precinct, Johannesburg, 2015.



MICRO CONTEXT

CHARACTERISTICS OF THE PRECINCT



Tiger wall mural above a car repair shop on Lower Ross Street.



Nelson Mandela boxer on the Access City office building on Beacon Road.



Etched wall mural in front of Toyota car park on Fox Street.

STREET ART



Brick variations and infills on Van Beek Street.



Plaster scraped off to reveal brickwork underneath on Fox Street.



Brick variations and plaster on Fox Street.

BRICKWORK

IMAGES: ABOVE
Elements of the Maboneng Precinct.
Photographs by Author, Johannesburg, 2015.



Planted side walk on Van Beek Street.



Mosaic and brickwork patterns on Berea Street.



Grass and sand panels at Common Ground's playground.

GROUND TEXTURE



Corten signage on corrugated iron doors at Arts on Main entrance.



Corten clad wall and door at The Urban Fox on Fox Street.



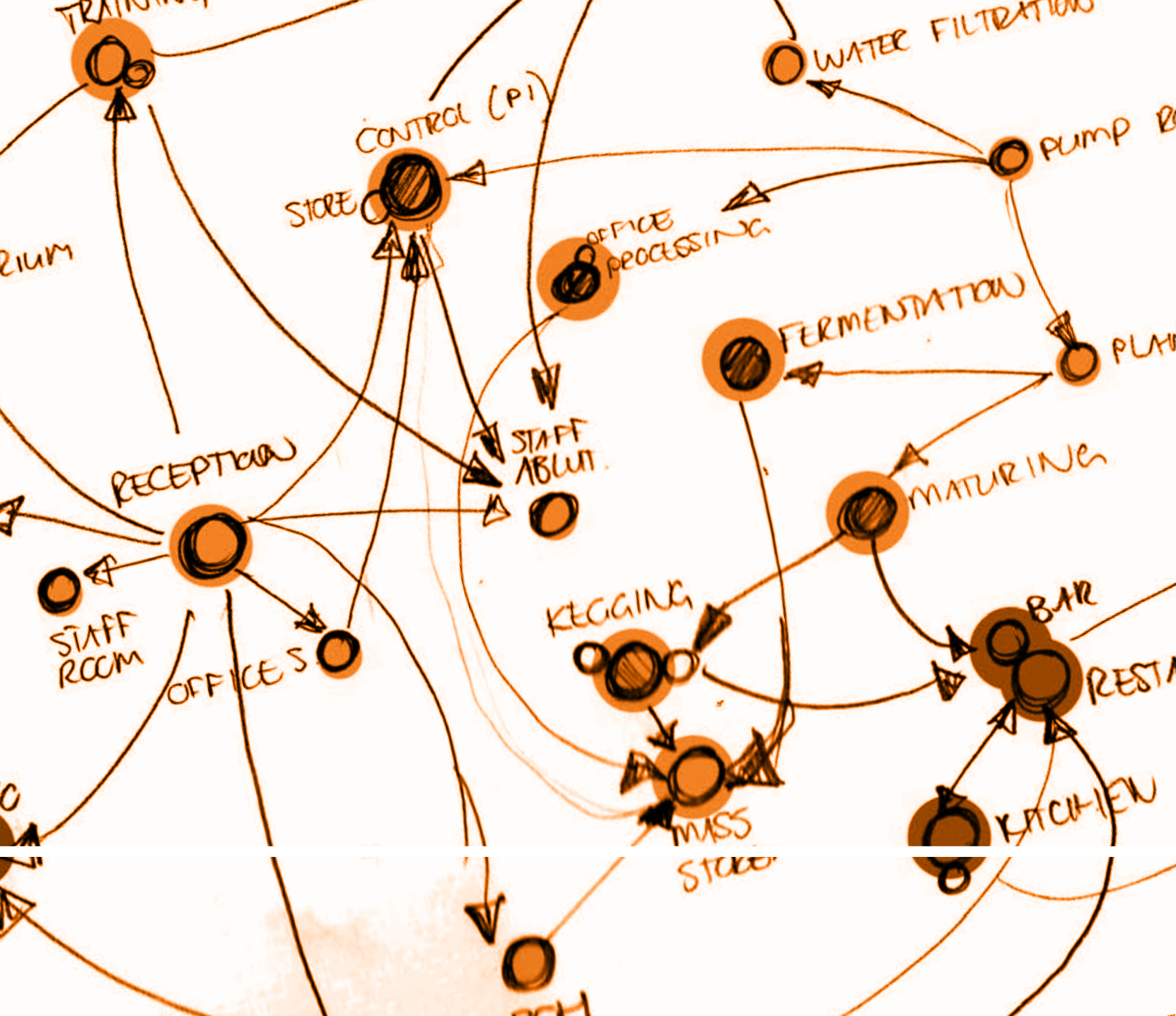
Corten signage on grey washed wall at Common Ground on Beacon Road.

CORTEN

IMAGE: NEXT SPREAD
Wall mural on Van Beek Street.
Photograph by Author, Maboneng Precinct, Johannesburg, 2015.







Realising the spatial requirements and supporting amenities for a brewpub in the city.

PROGRAMME

Functional Requirements

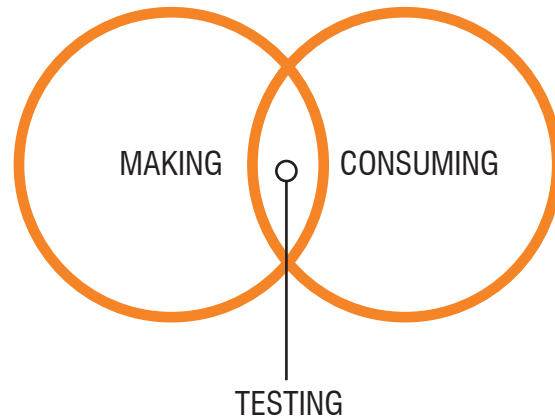
05

DEVELOPING A PROGRAMME

A RESPONSE TO THE FUNCTIONAL NEEDS OF A BREWERY

The programme responds directly to the functional requirements of a brewery based on the research thus far. In addition, the programme seeks to address a number of social and economical needs of the area.

The act of making and consuming beer brings forth a number of general requirements over and above the fore-mentioned chapters: process and precedent. The combination or overlapping of these two themes brings forth a new set of functions that could ultimately enrich the brewery experience. Testing connects the consumers to the brewing process and allows for market feedback.



An **administration** office is necessary for the day to day running of the brewery. Small offices will also be required for the brewmaster and brewers, the chef of the restaurant, as well as the dispatch and delivery control officers.



A **delivery and dispatch** yard would need to be accommodated for in order to receive ingredients and distribute finished products. The scale of the brewery would not require anything more than a small delivery van.

IMAGE: PREVIOUS PAGE
Spider diagram of programme and related functions.
Illustration by Author, Johannesburg, 2015.



A mass **storage** area as well as a number of smaller storage spaces will need to be provided for. This is where ingredients for the beer and chemicals for the cleaning process as well as extra equipment will be stored.



Research and training facilities will aid young entrepreneurs who want to break into the brewing industry. It is also an opportunity for the brewery business to bring in additional revenues.



Most breweries are situated on a good **water source** and will always treat their water before introducing it into the brew.



The provision of a **restaurant** will keep drinkers sustained and provided non-drinkers the opportunity to experience the building. A take-away portion attached to the kitchen will accommodate for the many residents in the area.

DEVELOPING A PROGRAMME

A RESPONSE TO THE FUNCTIONAL NEEDS OF A BREWERY



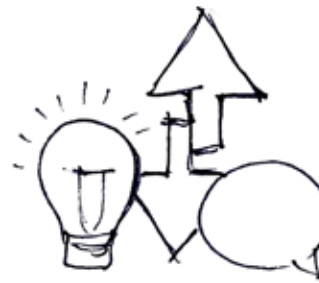
A small **retail** component to the building will provide additional opportunity for entrepreneurial endeavors of small business owners in the area. Small offices to lease will also achieve greater economic empowerment in the area.



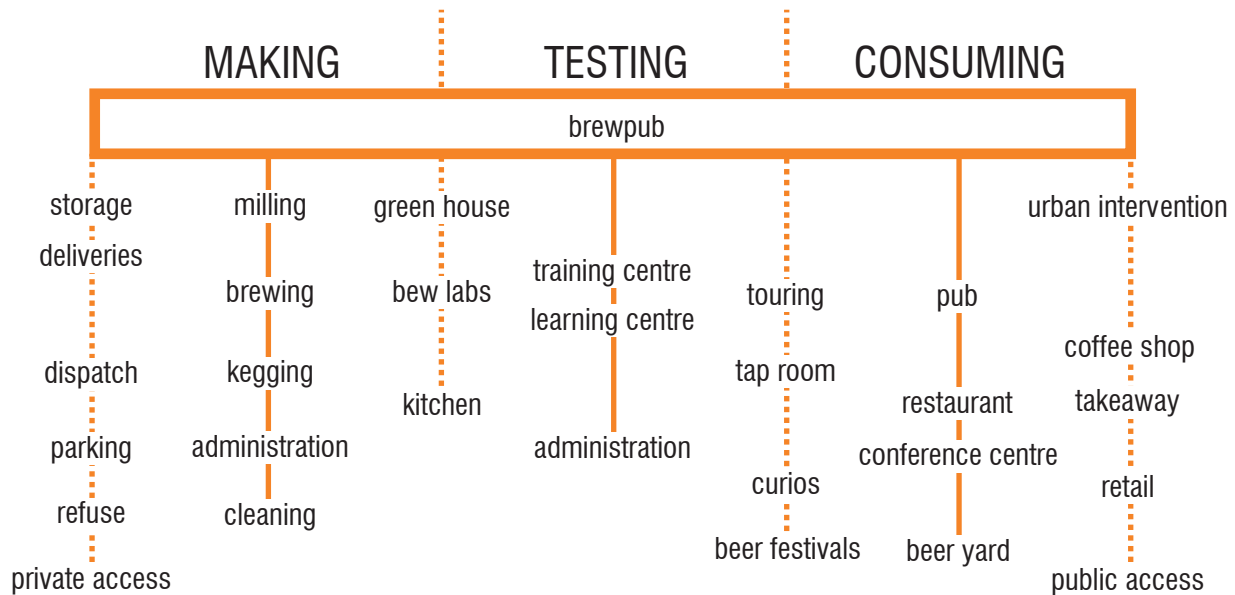
The brewery should also cater for the **youth** in the form of entertainment and recreation. A performance stage will attract culturally inclined individuals whilst grass and play equipment will keep children entertained.



The provision of a **conference centre** will allow for large gatherings of people in a formal environment in the area. The centre aims to promote investment in the redevelopment of the area.



A small centre for access to **information** could act as a community centre that has its neighbours best interests in mind. The small centre could also give information for tourists, prospective residents or business owners, as well as general brewery facts.



Separating the three basic functions of the brewpub to establish a programme which shows how certain aspects could and should overlap whilst at the same time establishing a boundary between others.

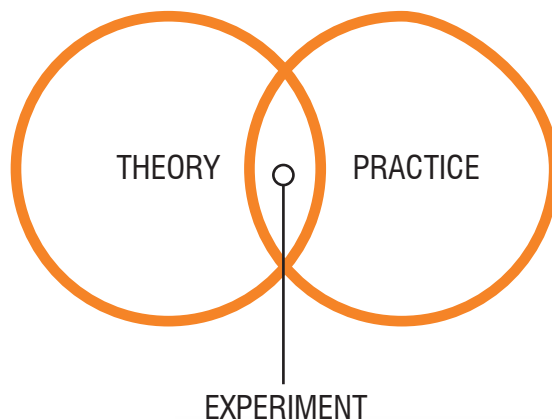
IMAGE: NEXT PAGE
Smack! Republic's 9000 L/m brewery in Maboneng.
Photograph, Maboneng Precinct, Johannesburg.
From (Smack Republic, n.d).

DEVELOPING A PROGRAMME

A RESPONSE TO THE CULTURAL NEEDS OF A BREWERY

In order to create a brewpub that celebrates diversity, various brewing cultures need to be accommodated for. This is achieved through the merging of the theoretical part of brewing, which will be taught in the learning centre, and the practical part of brewing that happens in the actual brewery. The merging of these two aspects of the building affords an experimental aspect to be introduced. This is where brewers with different background will come and brew their beer for possible production in the main brewery.

The aim is for a different brewer to occupy one of four 'brew labs' in the building. Although the labs are separate to emphasise individualism, they will each have access to the brewery and learning centre facilities. The ingredients they require will be grown in an experimental green house and all the necessary equipment and storage space will be provided in their own labs. Patrons can buy beer directly from the 'artisanal' brewers and ultimately assist in their own market research.



**MICROBREWERY
OPENING IN FEB**
WWW.SMACK!REPUBLIC.COM



SMACK!
REPUBLIC

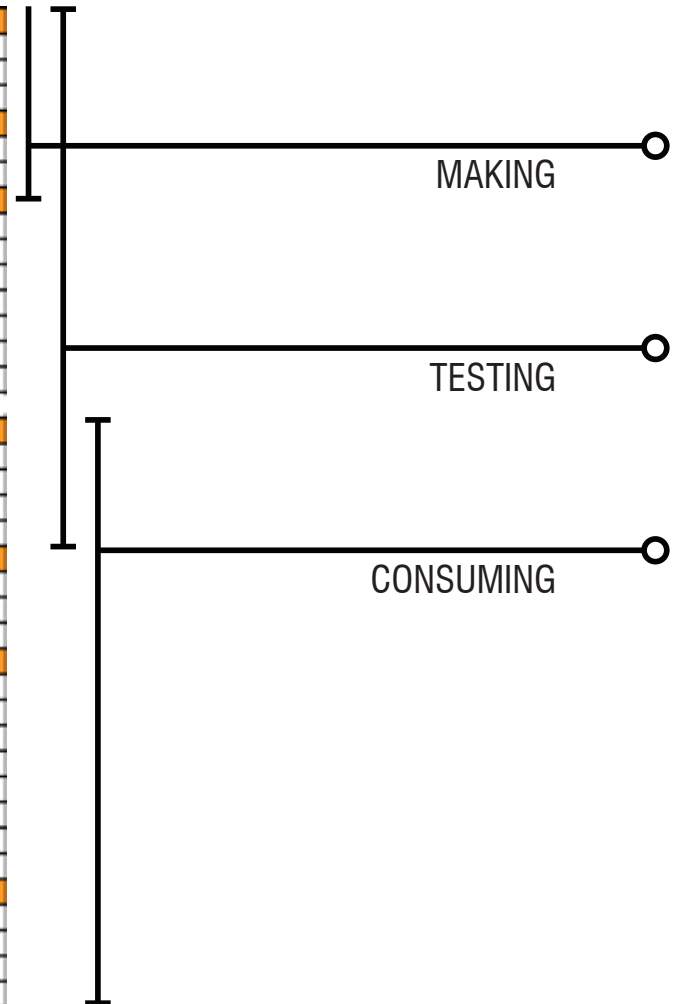
DETAILED PROGRAMME

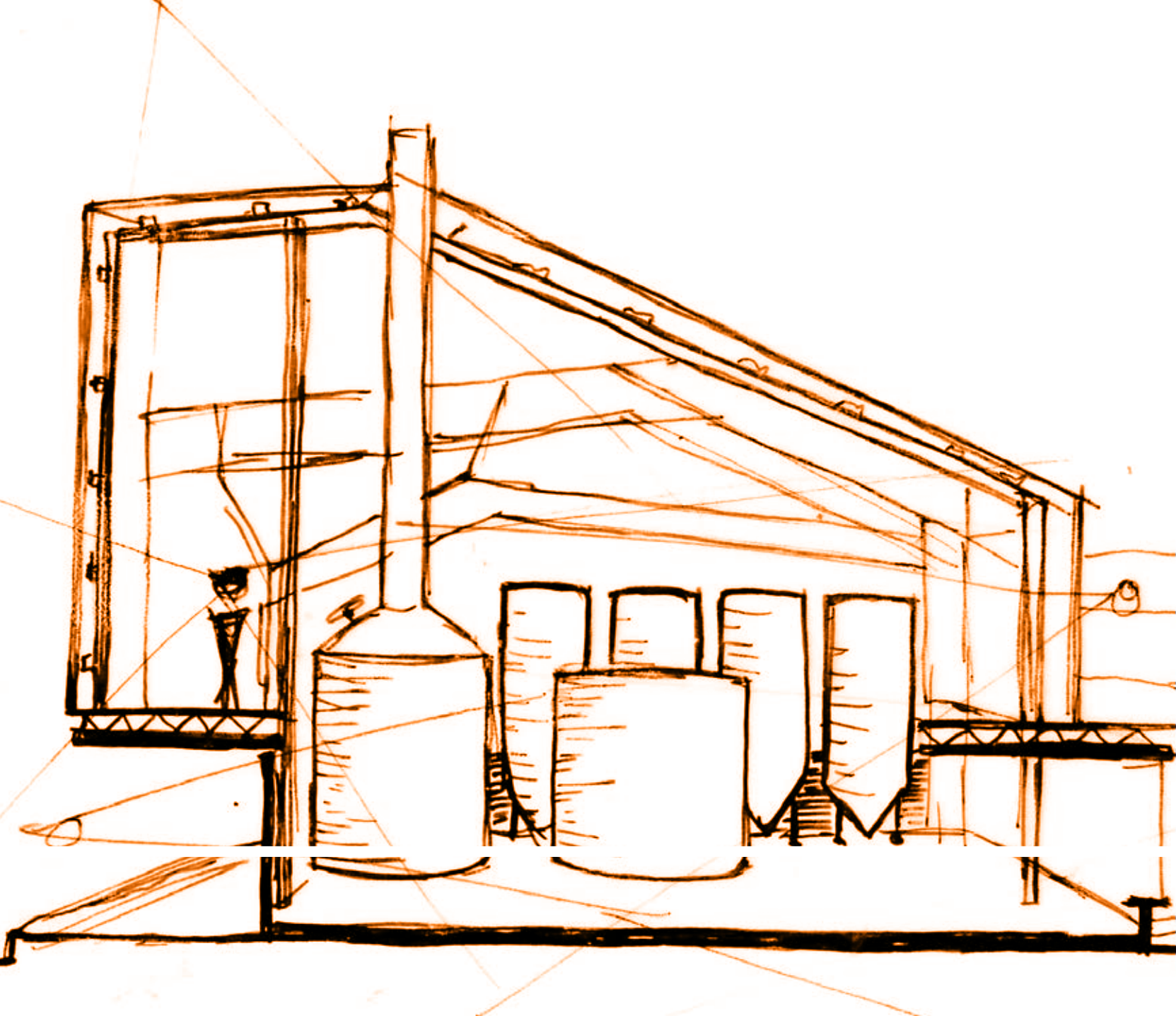
A BREAKDOWN OF THE SPACES AND THEIR REQUIRED AREAS

The new brewery programme is designed to brew a capacity of **50 000 litres** of beer per month. Based on the precedent breweries researched earlier, it can comfortably accommodate a double vessel brewhouse of 8 000 litres, two 3 000 litre water tanks, a boiler, eight 3 000 litre fermentation tanks, a conditioning tank of 4 000 litres and a bright beer tank of 4 000 litres as well as all the additional equipment involved in brewing. The addition of more fermentation tanks could increase the brewery's capacity substantially and space for expansion has been accommodated.

BACK OF HOUSE	586 m²
HOLDING BAY	20 m ²
SECURITY CONTROL	25 m ²
ABLUTIONS	30 m ²
MASS STORAGE	100 m ²
GOODS LIFT	6 m ²
REFUSE	25 m ²
PLANT ROOMS	60 m ²
PARKING	320 m ²
PHASE 1: MILLING	25 m²
MILL AREA	10 m ²
STORE	15 m ²
PHASE 2: BREWING	365 m²
CONTROL	10 m ²
BREW HOUSE	50 m ²
BOILER	25 m ²
DEISEL/GAS STORE	25 m ²
WATER KETTLES	50 m ²
HEAT EXCHANGE	5 m ²
FERMENTATION	100 m ²
FILTRATION	5 m ²
BRIGHT BEER TANKS	25 m ²
PLANT AND PUMP ROOM	15 m ²
STORE	15 m ²
WATER TREATMENT	50 m ²
BREWHOUSE: FINISHING	150 m²
KEGGING AREA	20 m ²
BOTTLING AREA	20 m ²
COLD STORE	50 m ²
STORE	25 m ²
BREWMASTER OFFICE	15 m ²
RECIPE TEST STATION	20 m ²
STAFF ROOMS AND ADMINISTRATION	240 m²
RECEPTION	30 m ²
LOUNGE AND LUNCH ROOM	50 m ²
GENERAL MANAGER	25 m ²
FINANCE MANAGER	25 m ²
BOARD ROOM	25 m ²
OPEN OFFICES	50 m ²
FILE STORE	5 m ²
ABLUTIONS	30 m ²

LABORATORIES X 4	440 m²
BREW LAB 1	55 m ²
STORE ROOM	35 m ²
OFFICE	20 m ²
GREENHOUSE	105 m²
PLANTING	75 m ²
STORE	30 m ²
LEARNING CENTRE	705 m²
WORKSHOP ROOM X 4	200 m ²
RESEARCH ROOM	120 m ²
SEMINAR ROOMS X 4	100 m ²
AUDITORIUM	150 m ²
OFFICES	70 m ²
STORE	10 m ²
ABLUTIONS	55 m ²
TAP ROOM	135 m²
SEATING AREA	50 m ²
BAR	20 m ²
WASH UP	15 m ²
ABLUTIONS	50 m ²
RESTAURANT	250 m²
SEATING AREA	180 m ²
BAR	20 m ²
ABLUTIONS	50 m ²
KITCHEN	120 m²
COLD ROOM	10 m ²
DRY STORE	15 m ²
WASHING	10 m ²
PREPARATION	10 m ²
COOKING	20 m ²
LOCKER ROOM	10 m ²
CHEF'S OFFICE	15 m ²
TAKE OUT	30 m ²
BEER YARD	350 m²
SEATING AREA	200 m ²
STAGE	50 m ²
STORE	50 m ²
PLAY AREA	50 m ²
CONFERENCE CENTRE	430 m²
CONFERENCE ROOM X 3	350 m ²
LOBBY / LOUNGE	80 m ²
EXTERNAL RETAIL	360 m²
RETAIL SHOPS X 4	200 m ²
LIQUOR STORE	50 m ²
CURIO SHOP	20 m ²
COFFEE SHOP	90 m ²
	3821 m²





Concepts aid in design making decisions and
show the thought process behind certain
aspects.

CONCEPTS

Bringing Meaning to the Design

06

SITE RESPONSES

The site is negligibly flat with a canal running just off the centre. It is long in a west - east direction and has varying lengths of 30m to 63m in a north - south direction. It affords excellent visual prominence from the Sivewright brings to its west and is bounded by arterial roads to its north and south.

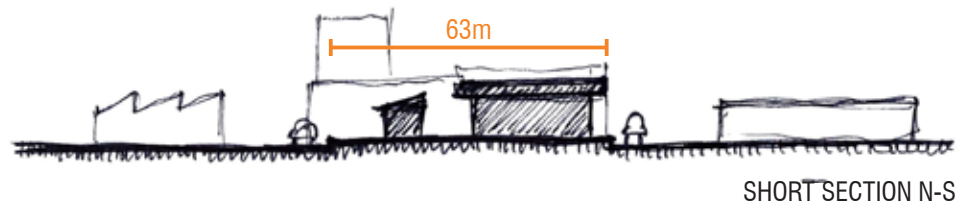
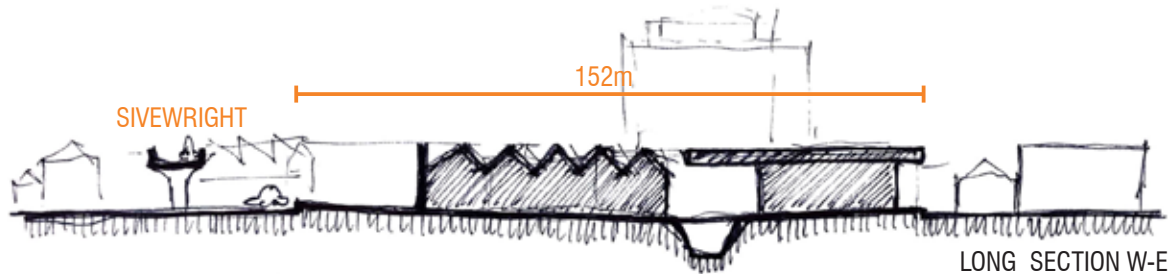


IMAGE: PREVIOUS PAGE
Sketch section of brewery.
Illustration by Author, Johannesburg, 2015.



OVERALL SCHEME

The overall scheme is to create a link between the industrial park to the south of the site, with the taxi rank and residential area to the north. This will be done along the canal that cuts through the Maboneng Precinct. Additionally the site it to be accessible from all corners in order to allow max-

imum penetration. The train station and bus stops to the east of the site will draw in foot traffic of people commuting to the taxi rank. The business area to the north west will also bring visitors seeking a lunch break and recreation.



SITE RESPONSES



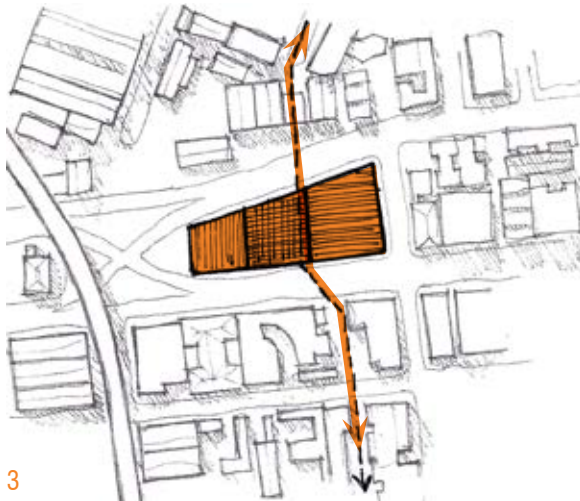
1

Using the angles and perpendicular angles of each site boundary offers the opportunity to efficiently cover the entire area.



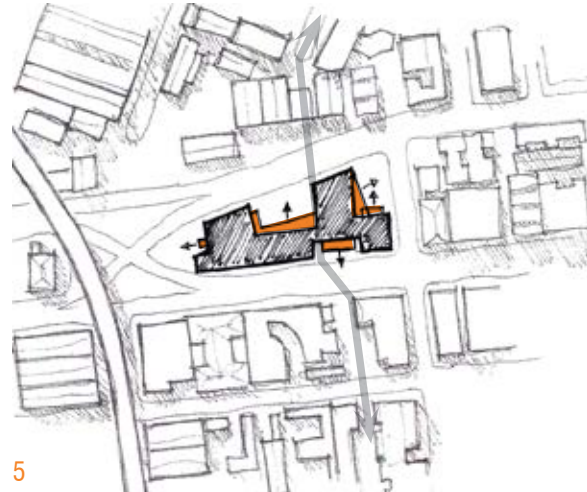
2

The canal will create a link through the site from which a public square to the north will open out. The large existing wall will be retained and form the western boundary of the building.



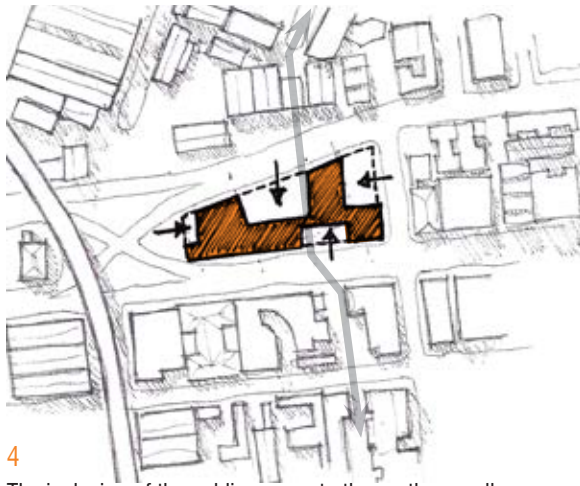
3

Covering the entire site, the building is then divided into its three programmatic aspects: left to right - consuming, testing and making.



5

The building then pushes back to offer its uses covered spaces and building pop outs.



4

The inclusion of the public square to the north as well as pushing from the various site approaches creates interest along the buildings edge.

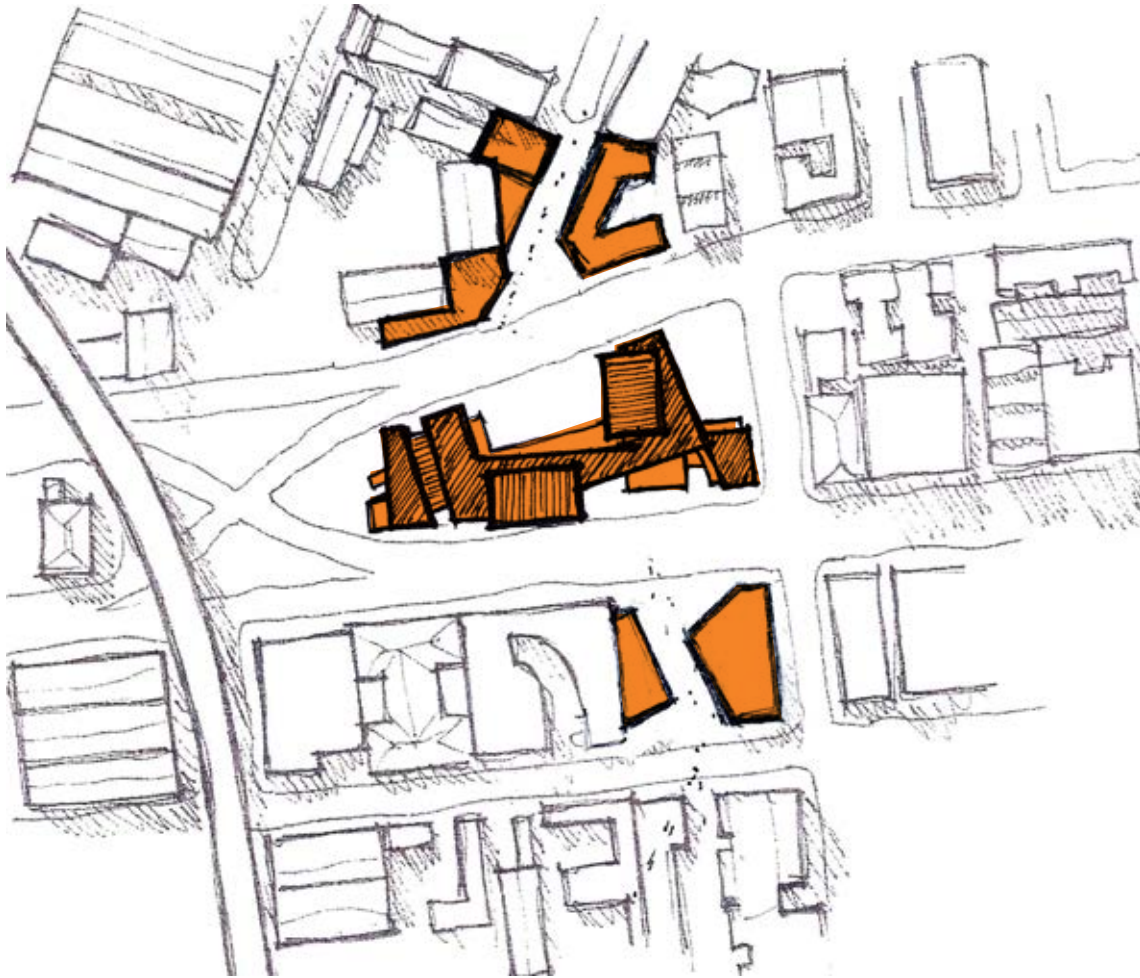


6

Further fragmentation of the building imitates the gritty grain of the surrounding area.



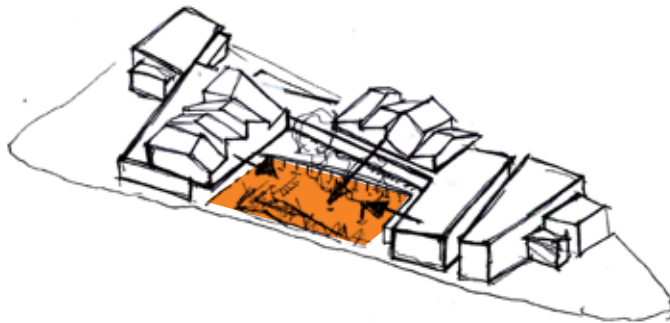
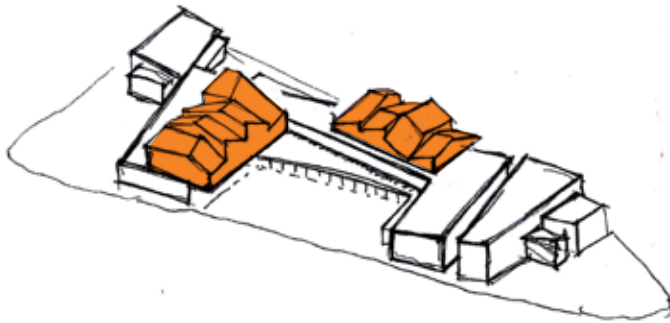
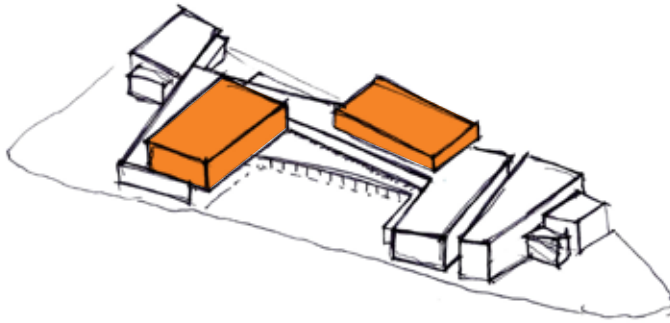
URBAN INTERVENTIONS



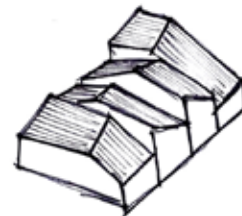
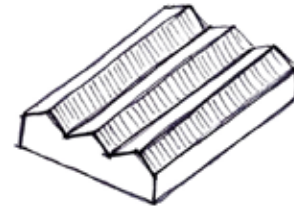
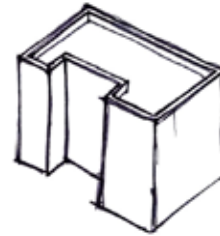
Re-purposing the buildings along the canal to accessible to the public will draw foot traffic up and through the site.



ROOF TYPOLOGIES

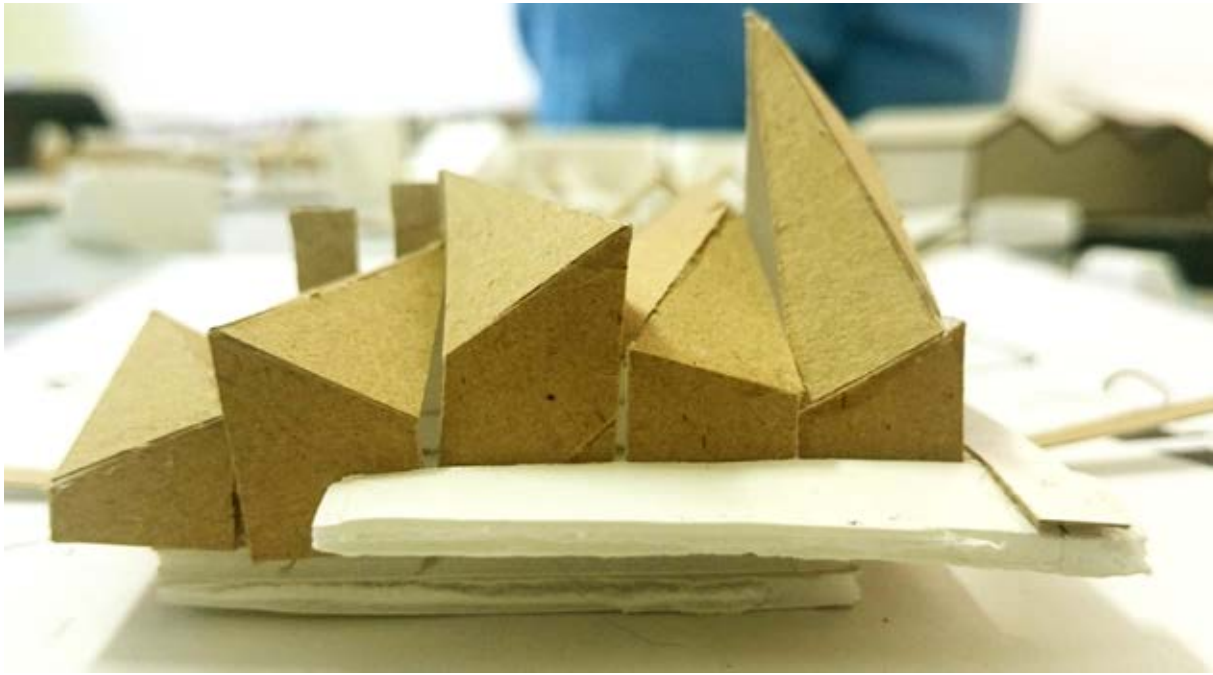


Another characteristic of the area is the creation of surprisingly soft interior courtyards surrounded by hard exteriors.



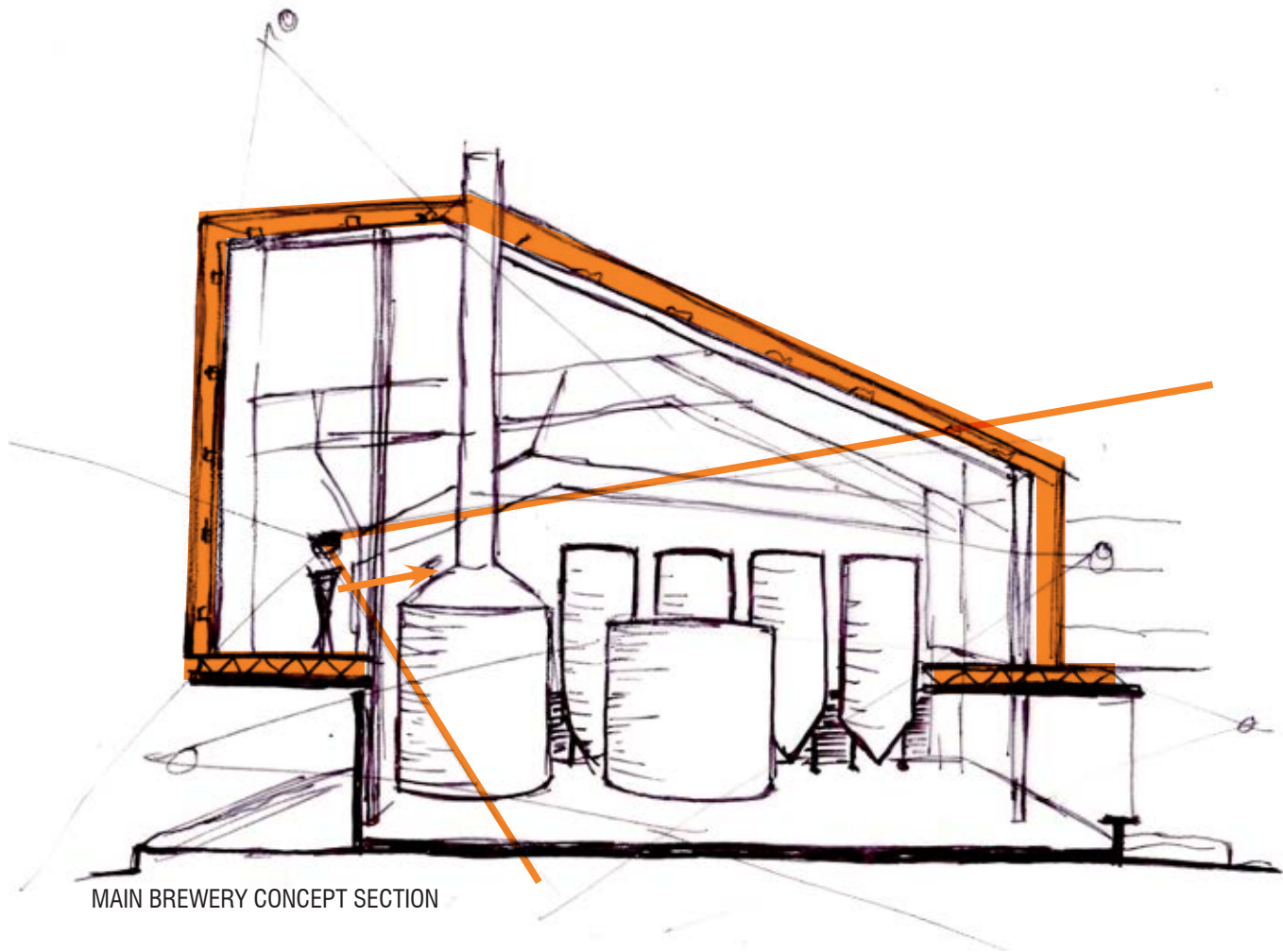
A combination of the various roof typologies pays homage to the general industrial feel of the area in a contemporary way.

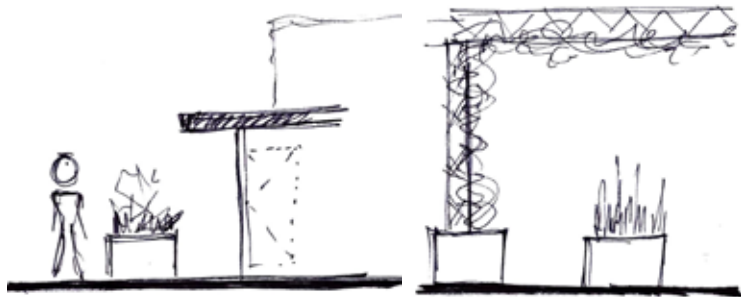
CONCEPT MODELS





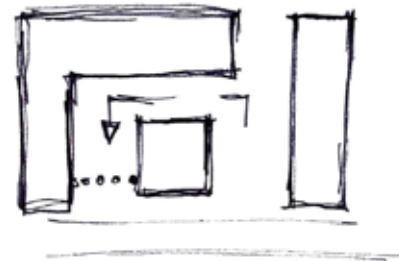
CONCEPT SECTIONS





human scale

self sufficient



hidden spaces



outside



street



comfort

DRINKING TYPOLOGY CHARACTERISTICS



STAY

An application of everything learned during
the research process into a practical building.
(Technical resolution to be expanded upon).

DESIGN

Developed Drawings

07

AERIAL PERSPECTIVE
NTS

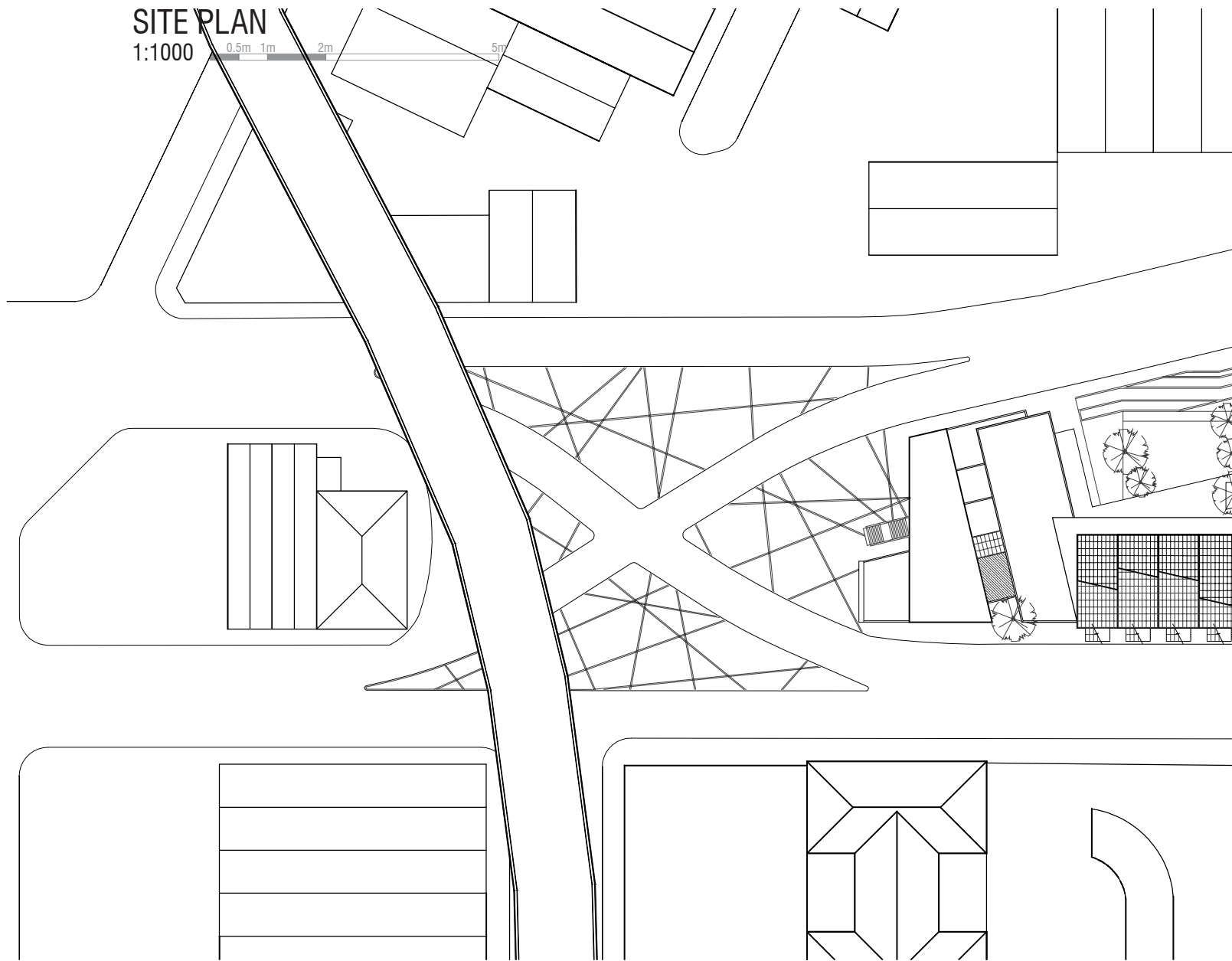


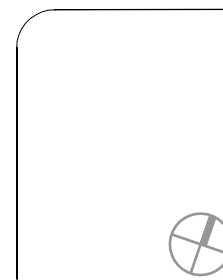
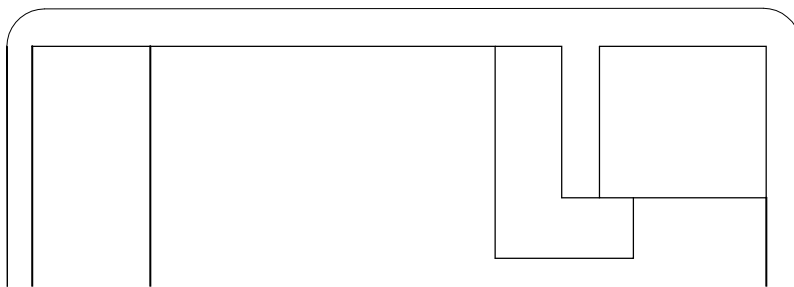
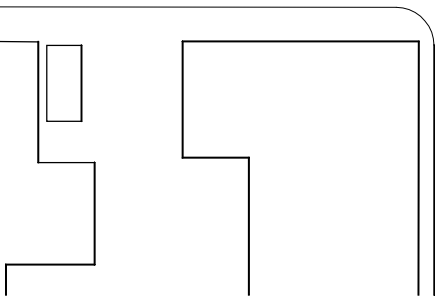
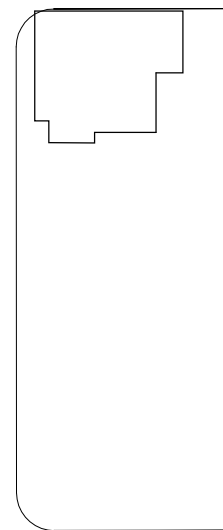
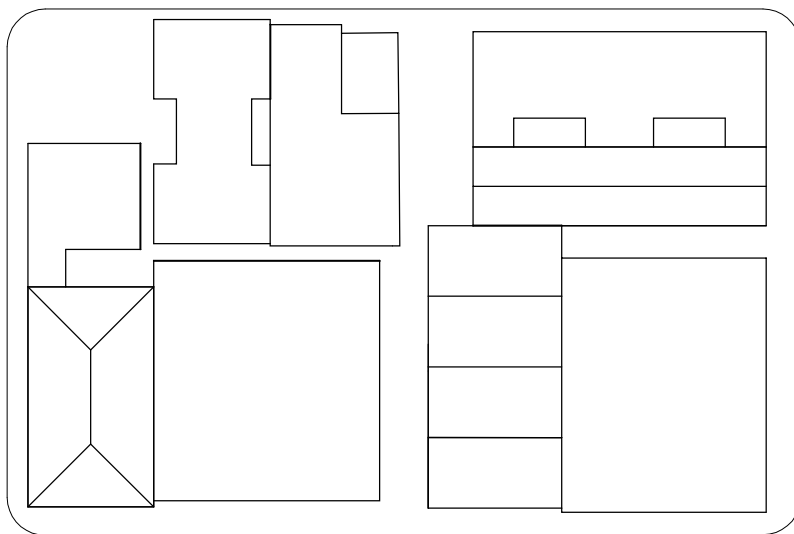
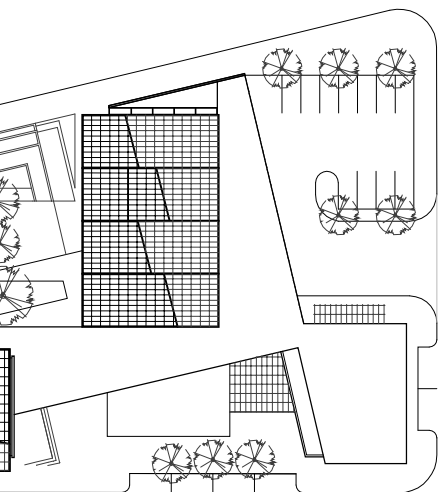
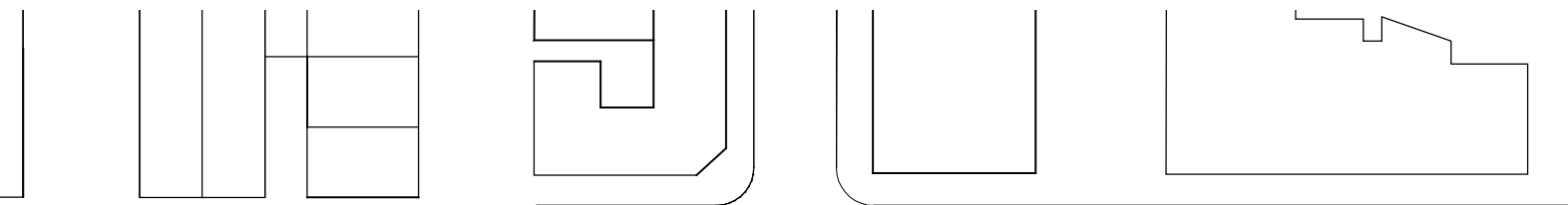


SITE PLAN

1:1000

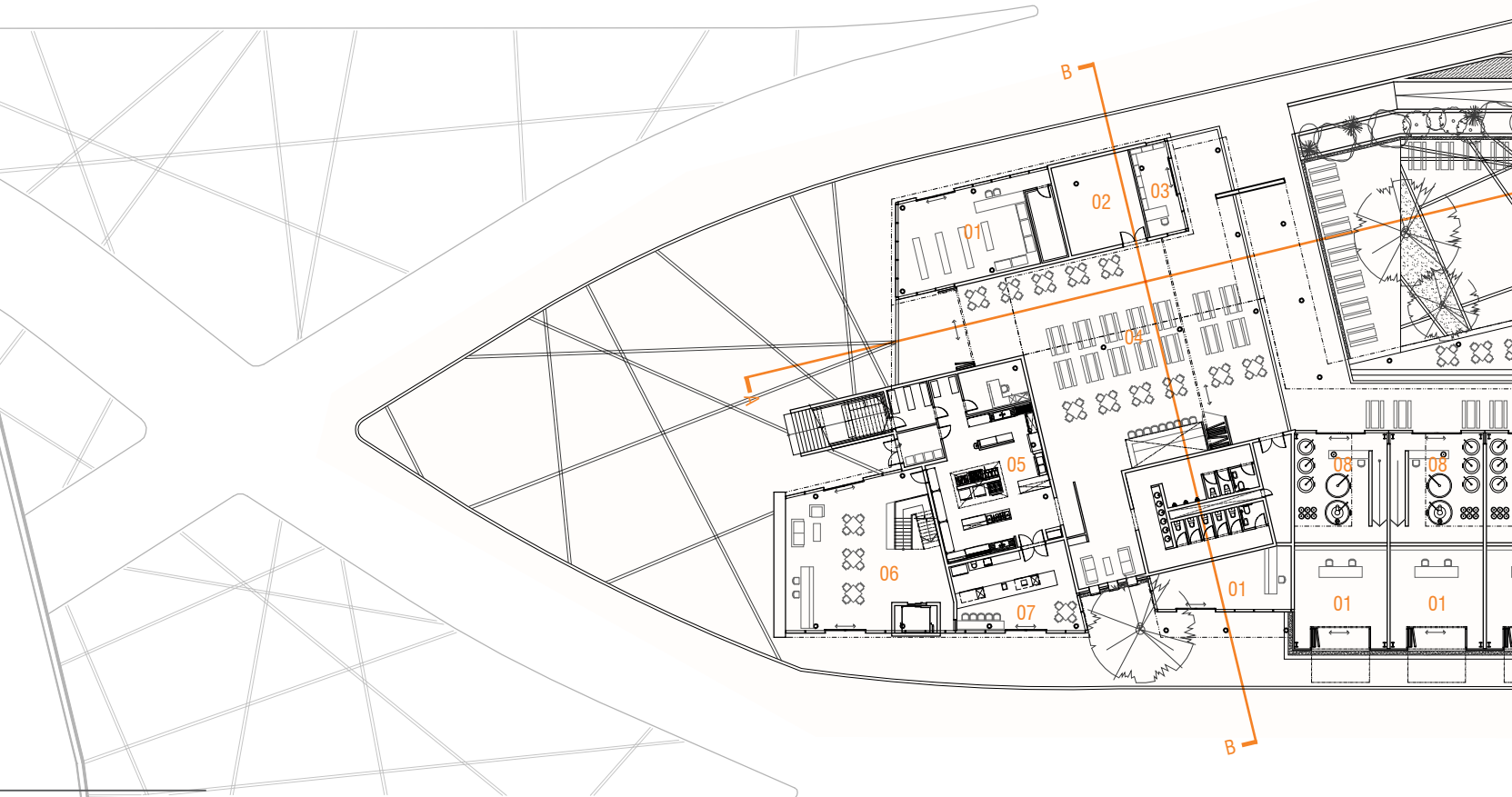
0.5m 1m 2m 5m

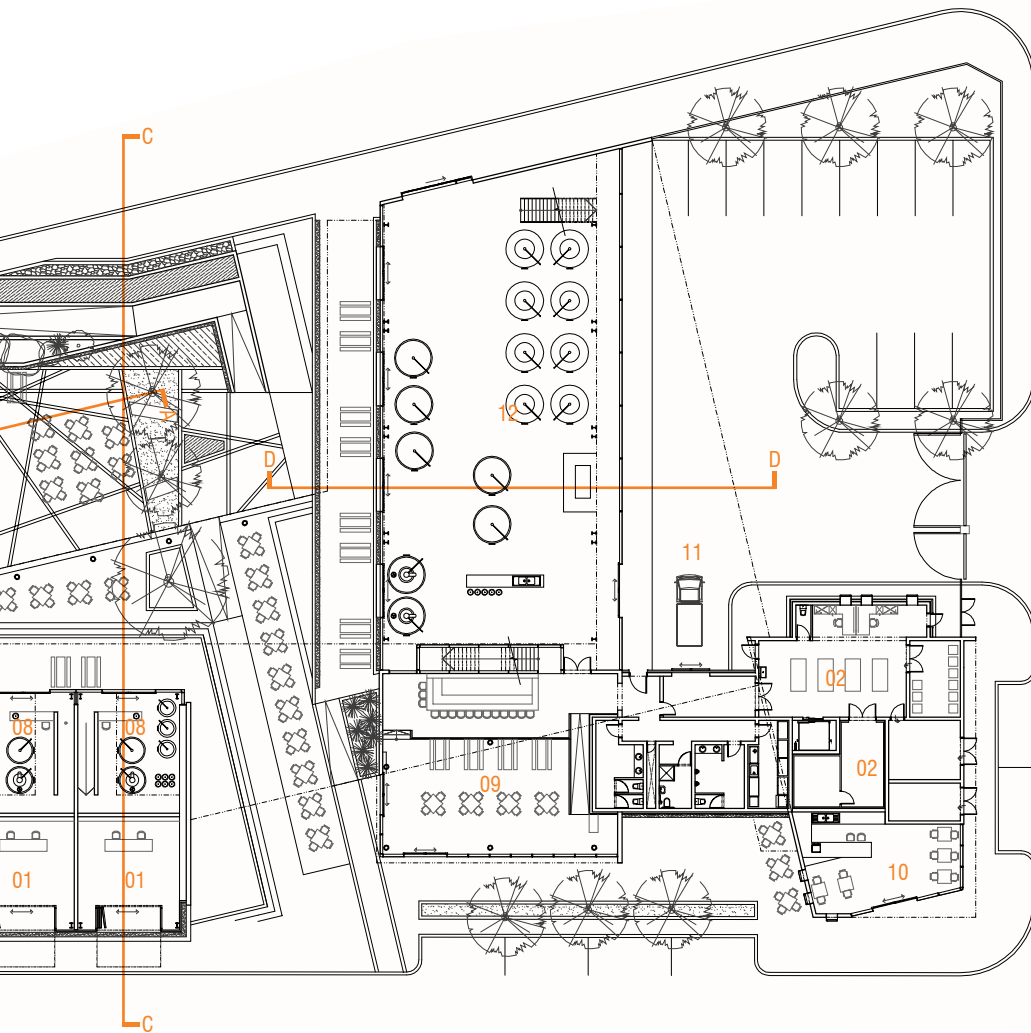




GROUND FLOOR PLAN

1:500 1m 5m 10m 20m



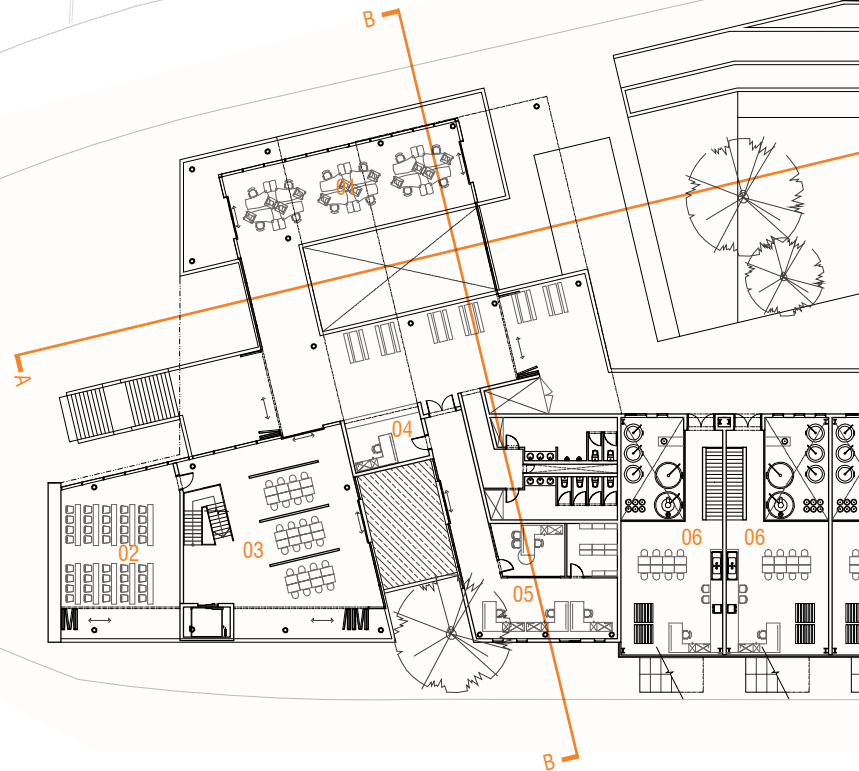


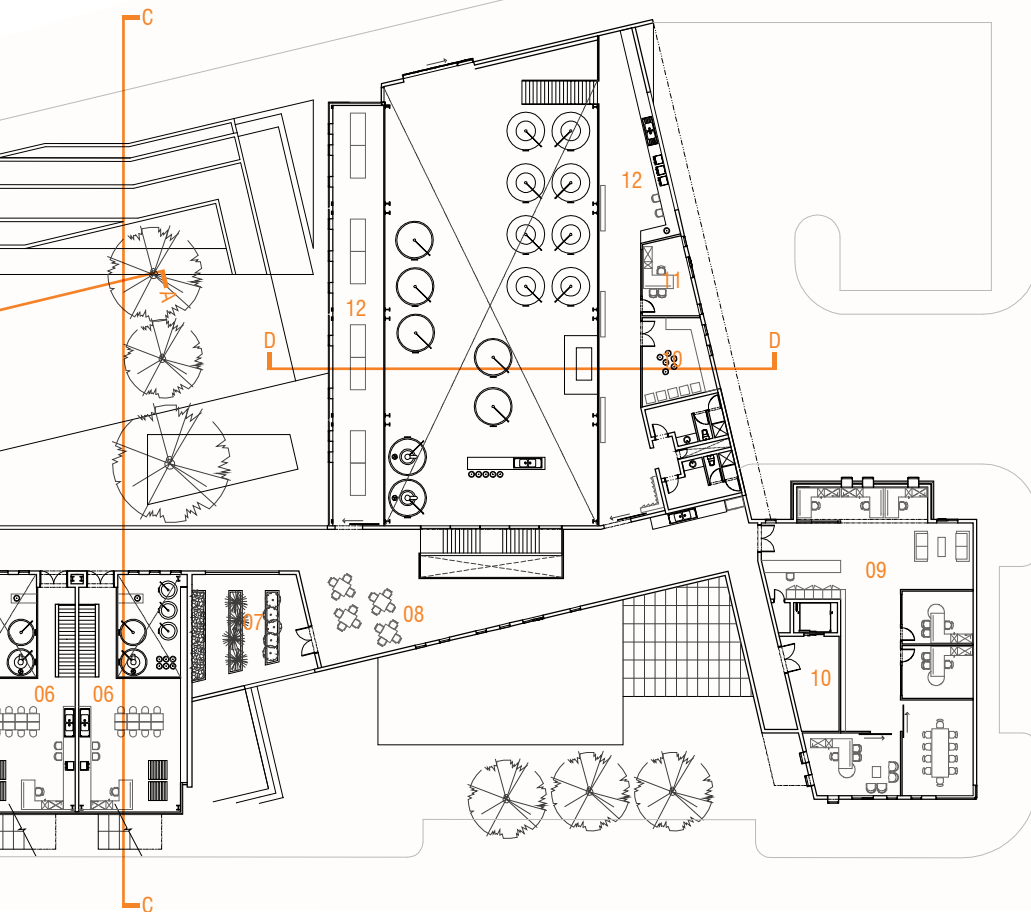
- retail 01
- storage 02
- curio shop 03
- restuarant 04
- kitchen 05
- conference lobby / info centre 06
- take-away restaurant 07
- brew lab 08
- tap room 09
- coffee shop 10
- delivery yard 11
- main brewery 12



FIRST FLOOR PLAN

1:500 1m 5m 10m 20m



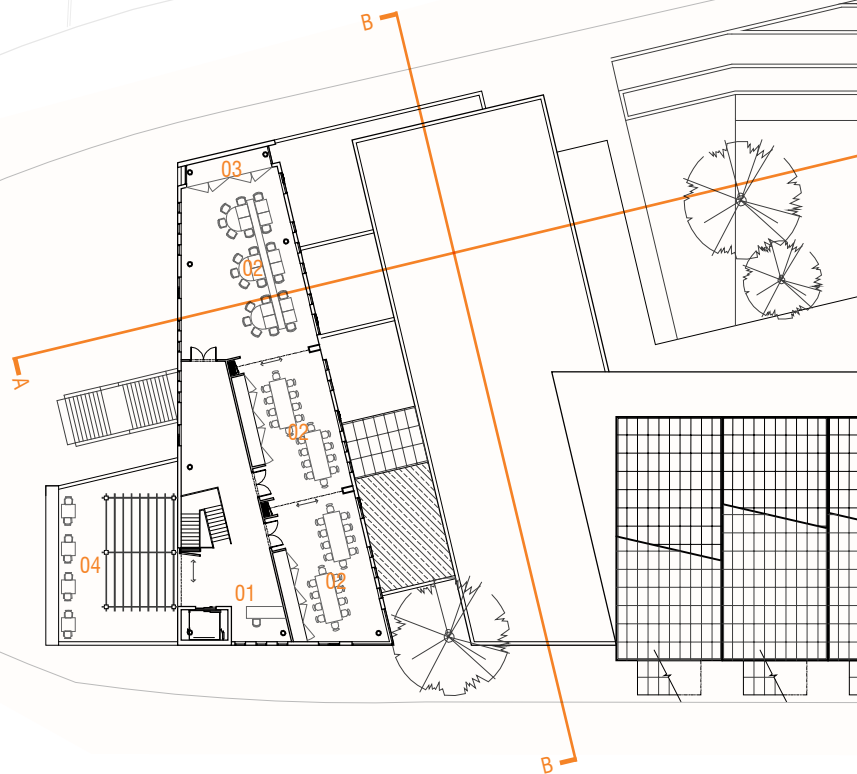


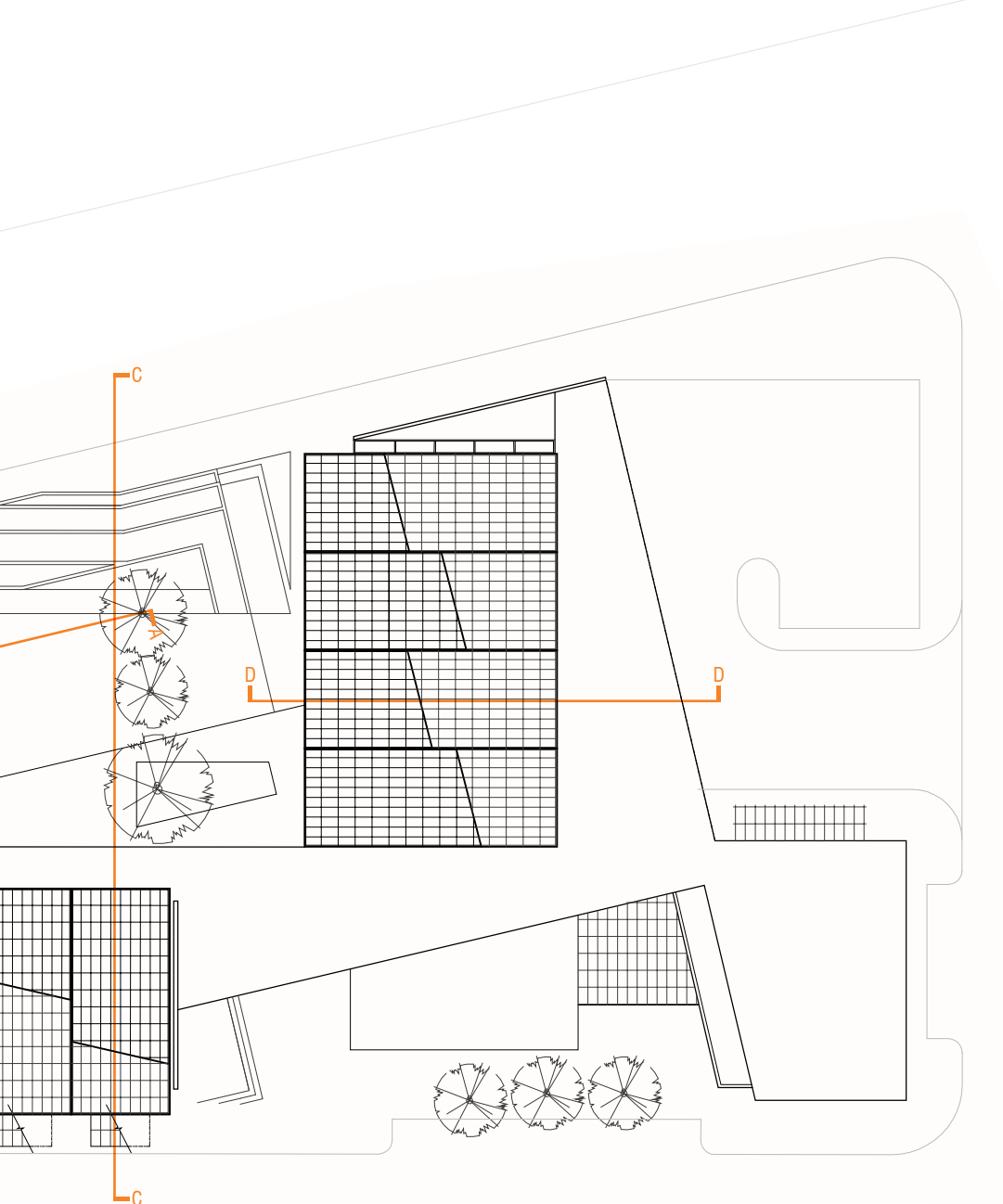
- research centre 01
- auditorium 02
- seminar rooms 03
- school reception 04
- school office 05
- brew lab / teaching lab 06
- green house 07
- staff lounge 08
- brewery administration 09
- storage 10
- brewmaster office 11
- operating platform and storage 12



SECOND FLOOR PLAN

1:500 1m 5m 10m 20m





conference reception 01
 conference room 02
 storage 03
 terrace 04

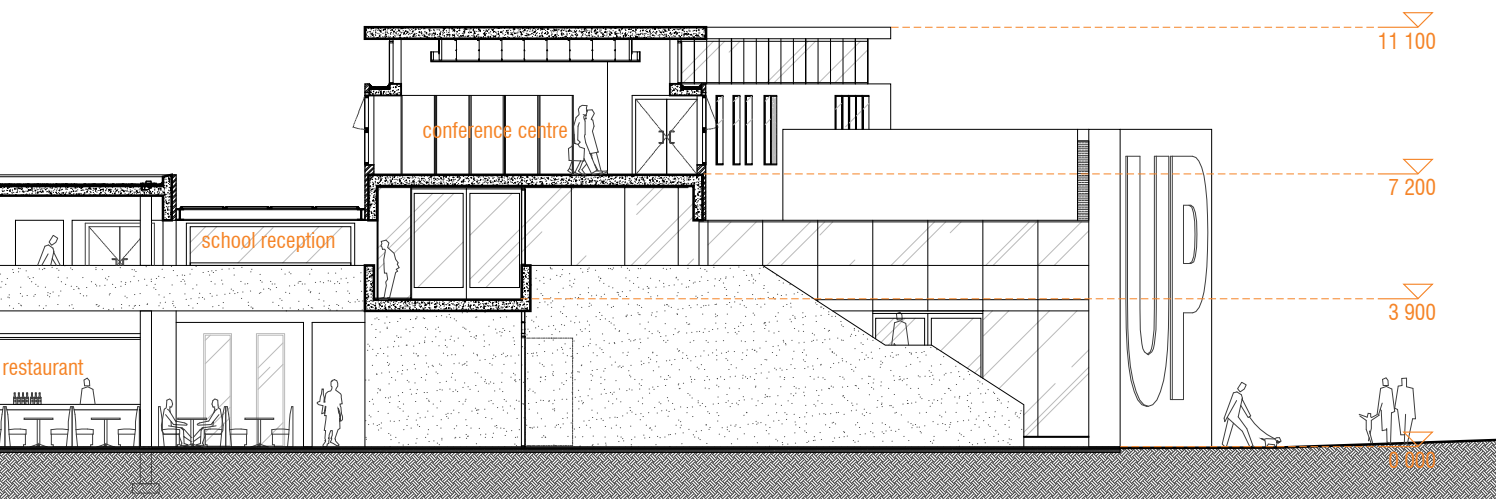


SECTION A

1:200

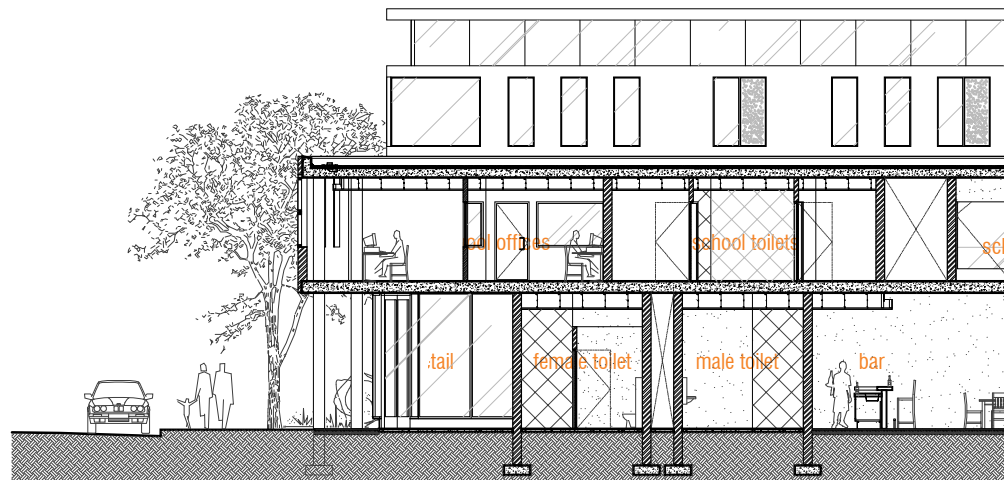
1m 3m 5m 10m

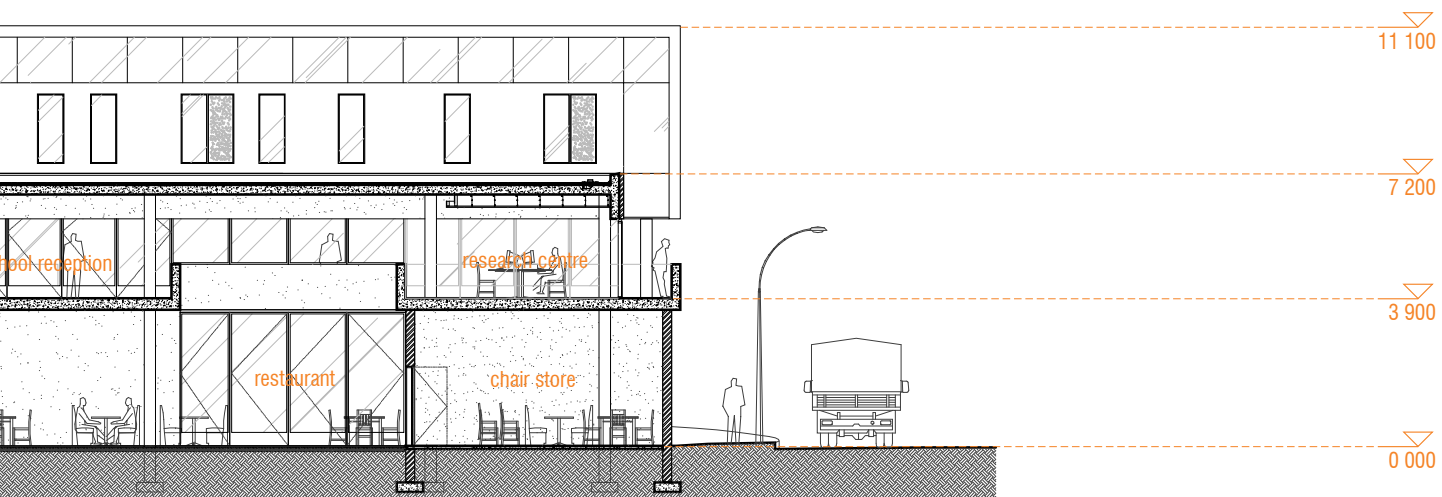




SECTION B

1:200

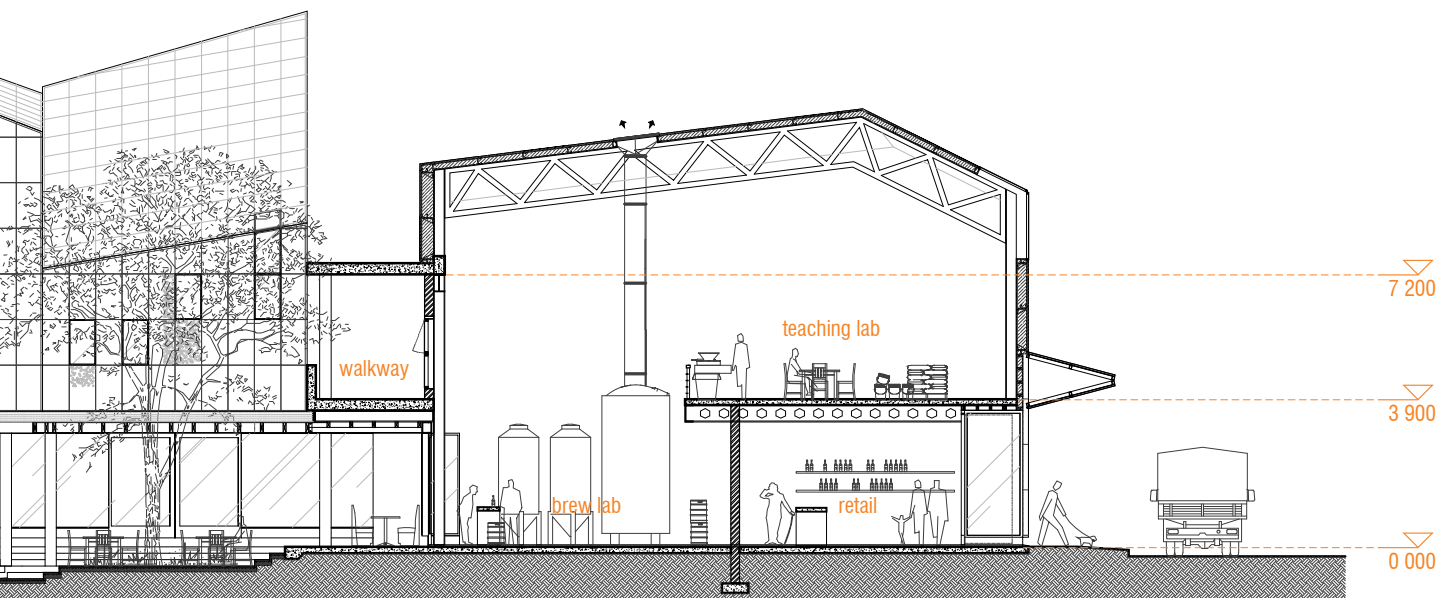




SECTION C

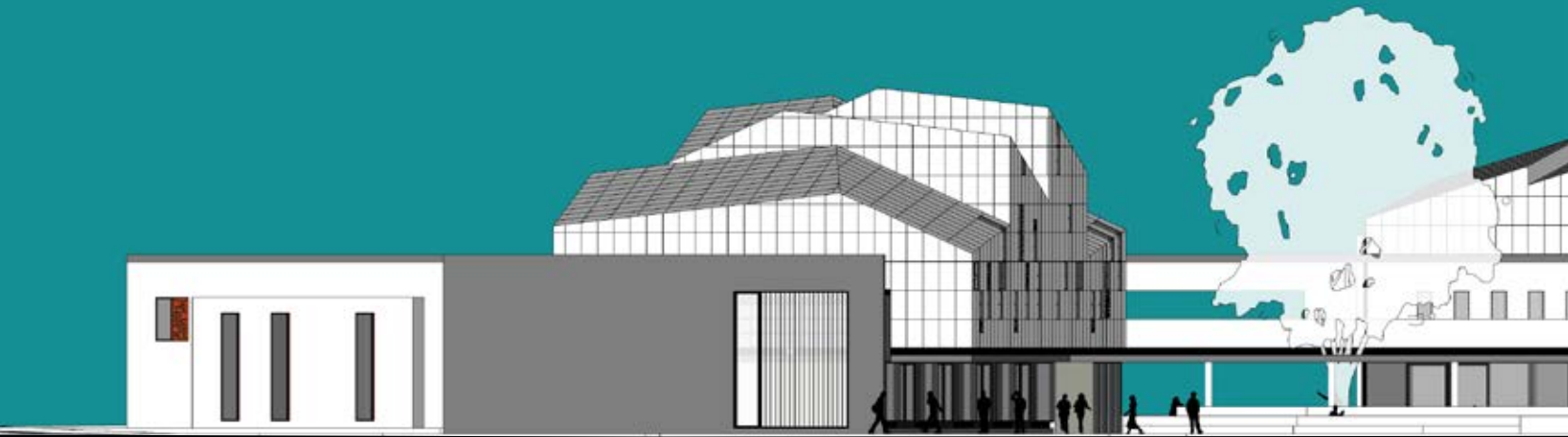
1:200





NORTH ELEVATION

NTS





SOUTH ELEVATION

NTS





WEST ELEVATION
NTS



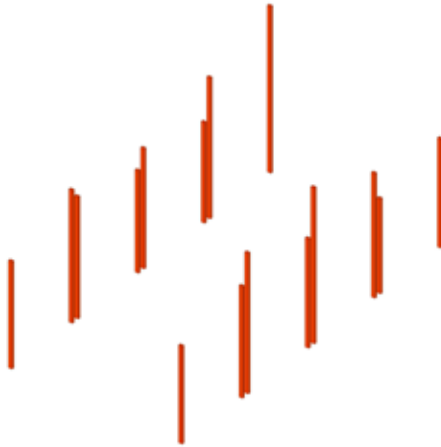
EAST ELEVATION

NTS

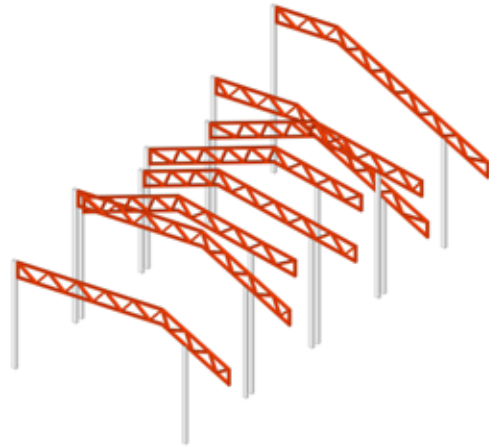


STRUCTURAL DIAGRAM

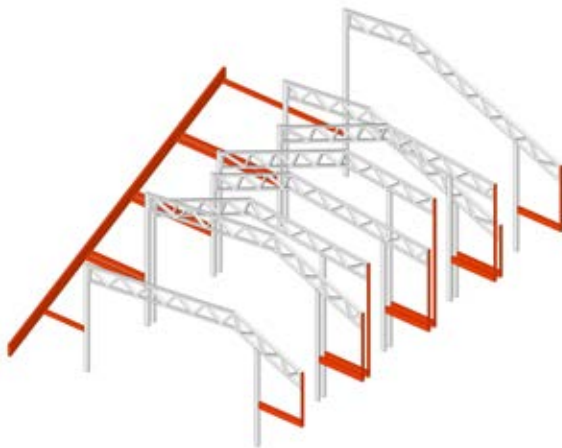
MAIN BREWERY



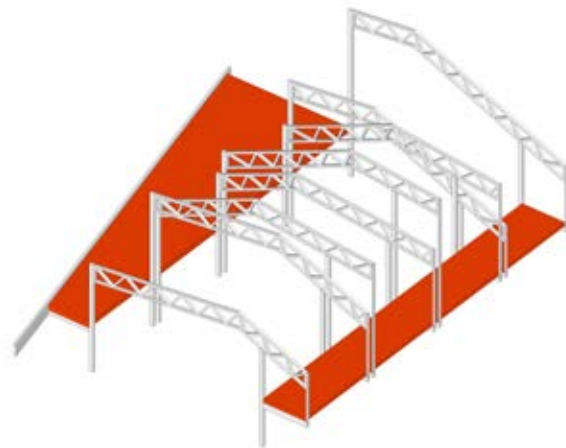
1. STEEL COLUMNS



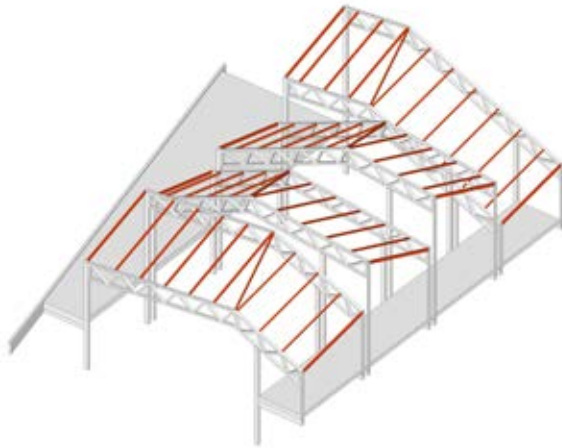
2. STEEL LATTICE TRUSSES



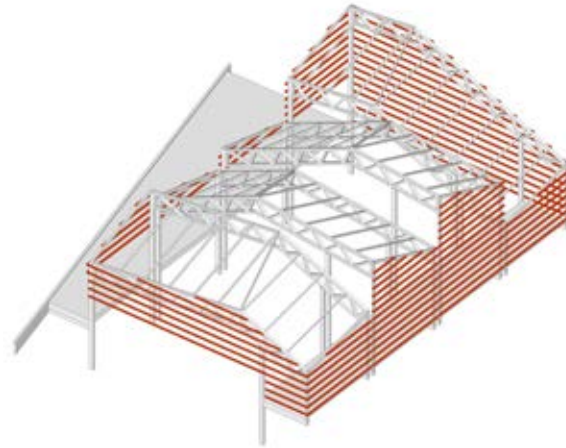
3. CASTELLATED STEEL BEAMS



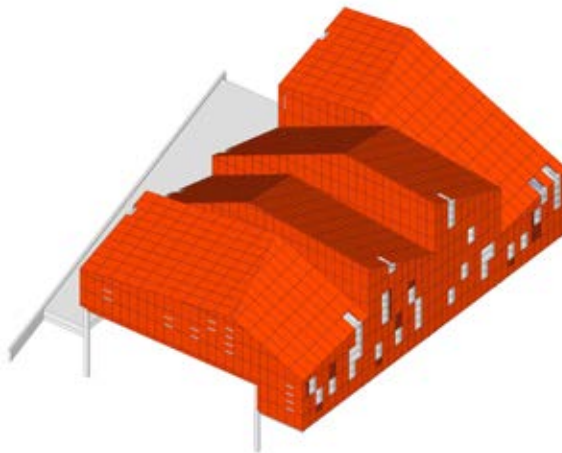
4. PRECAST CONCRETE ECO SLABS



5. STEEL PURLINS



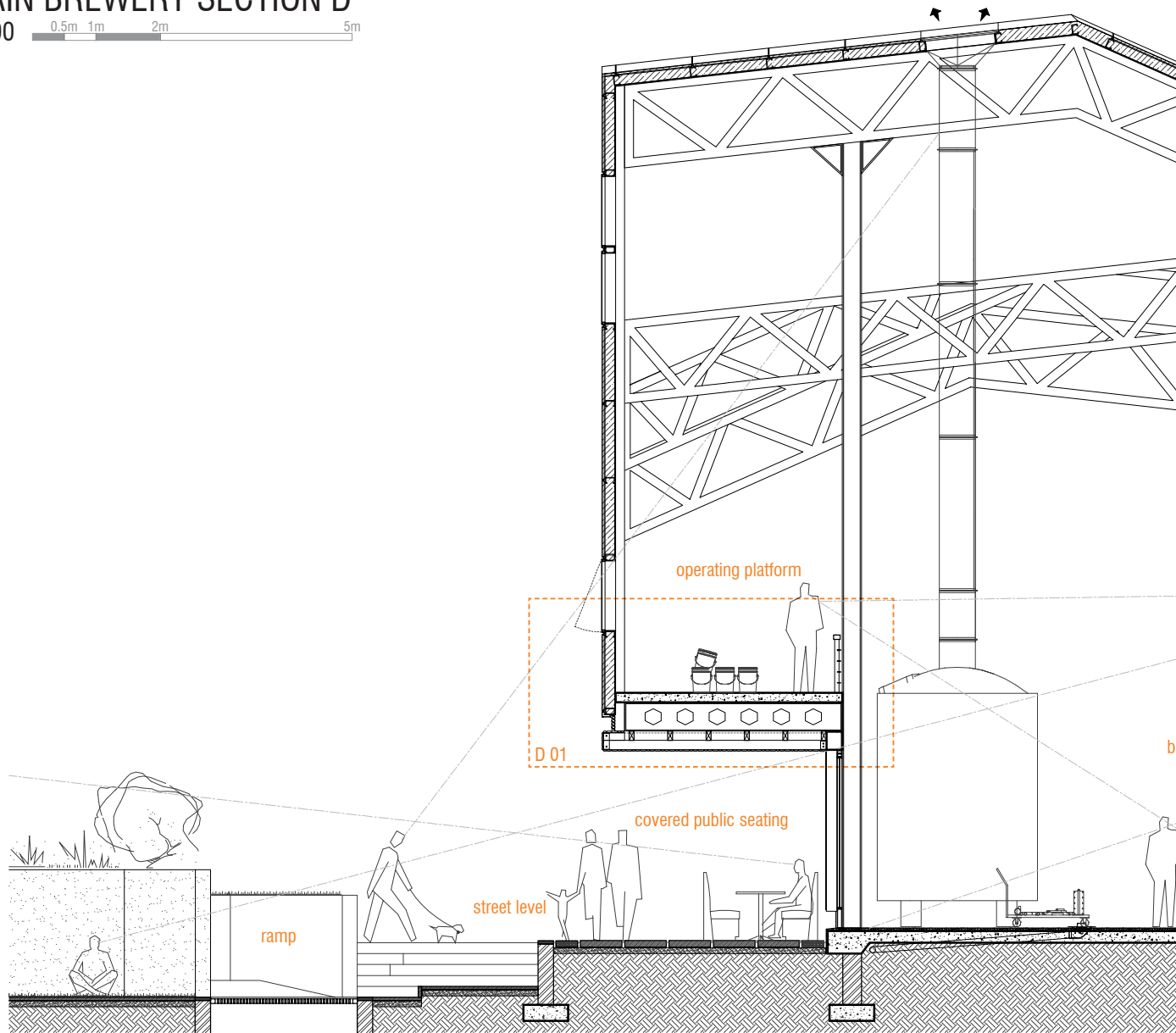
6. STEEL GIRTS

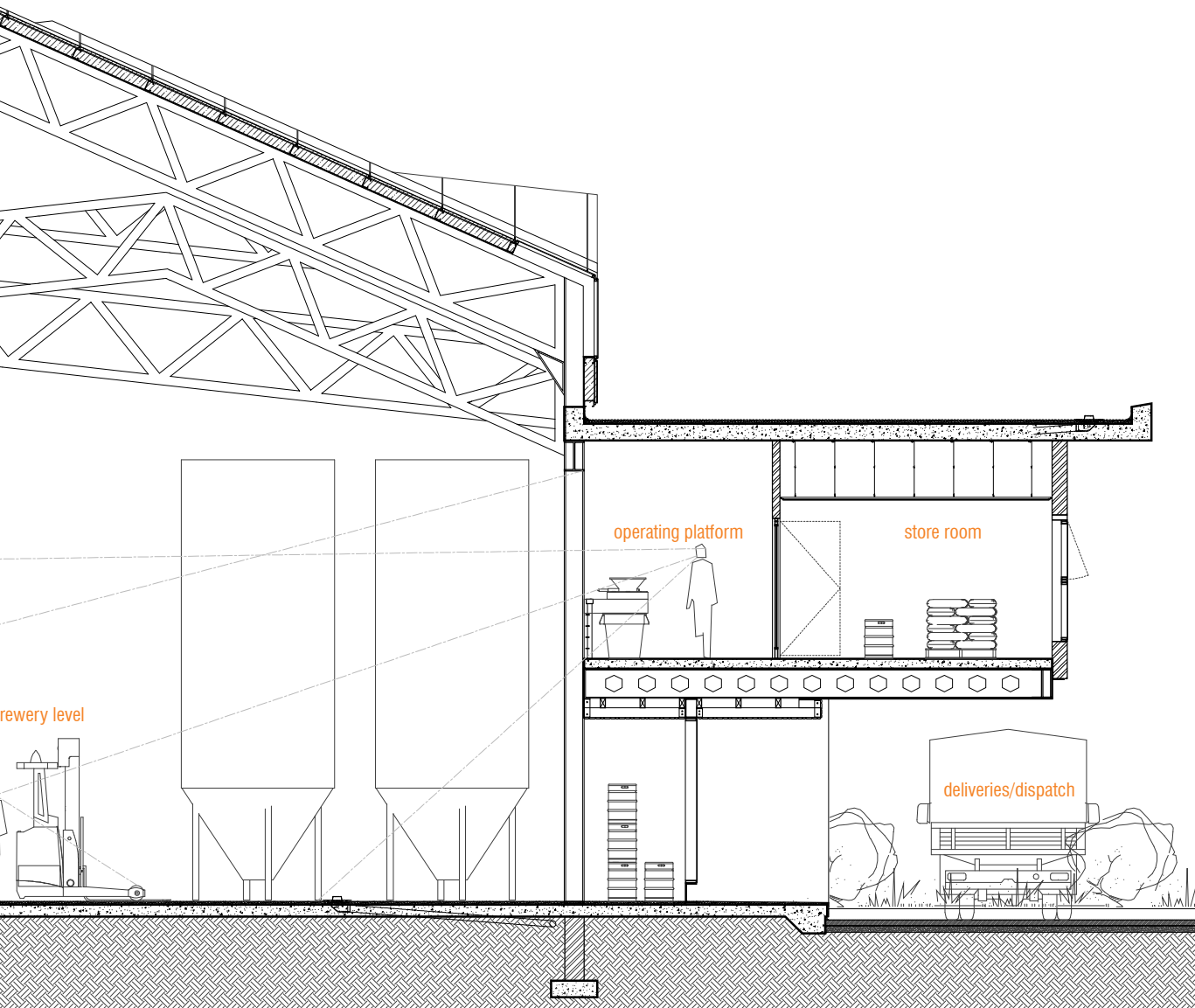


7. CLADDING SYSTEM

MAIN BREWERY SECTION D

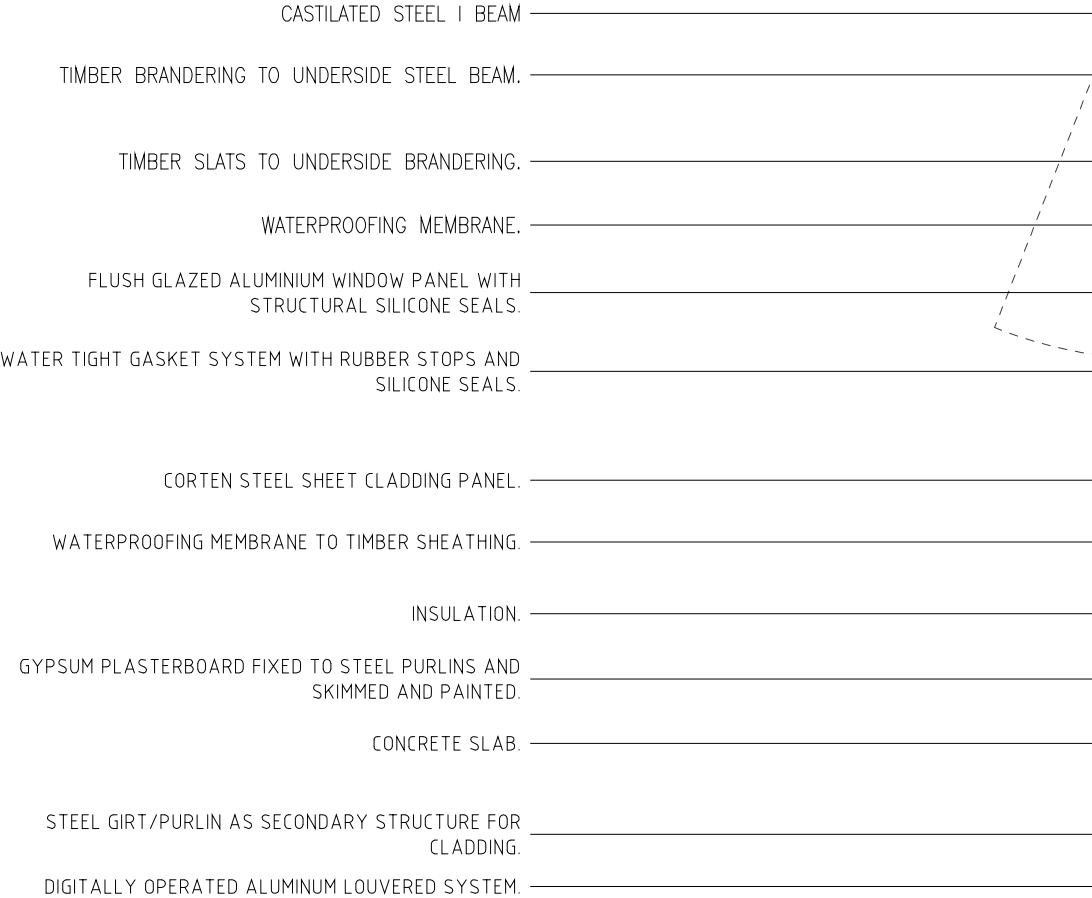
1:100 0.5m 1m 2m 5m

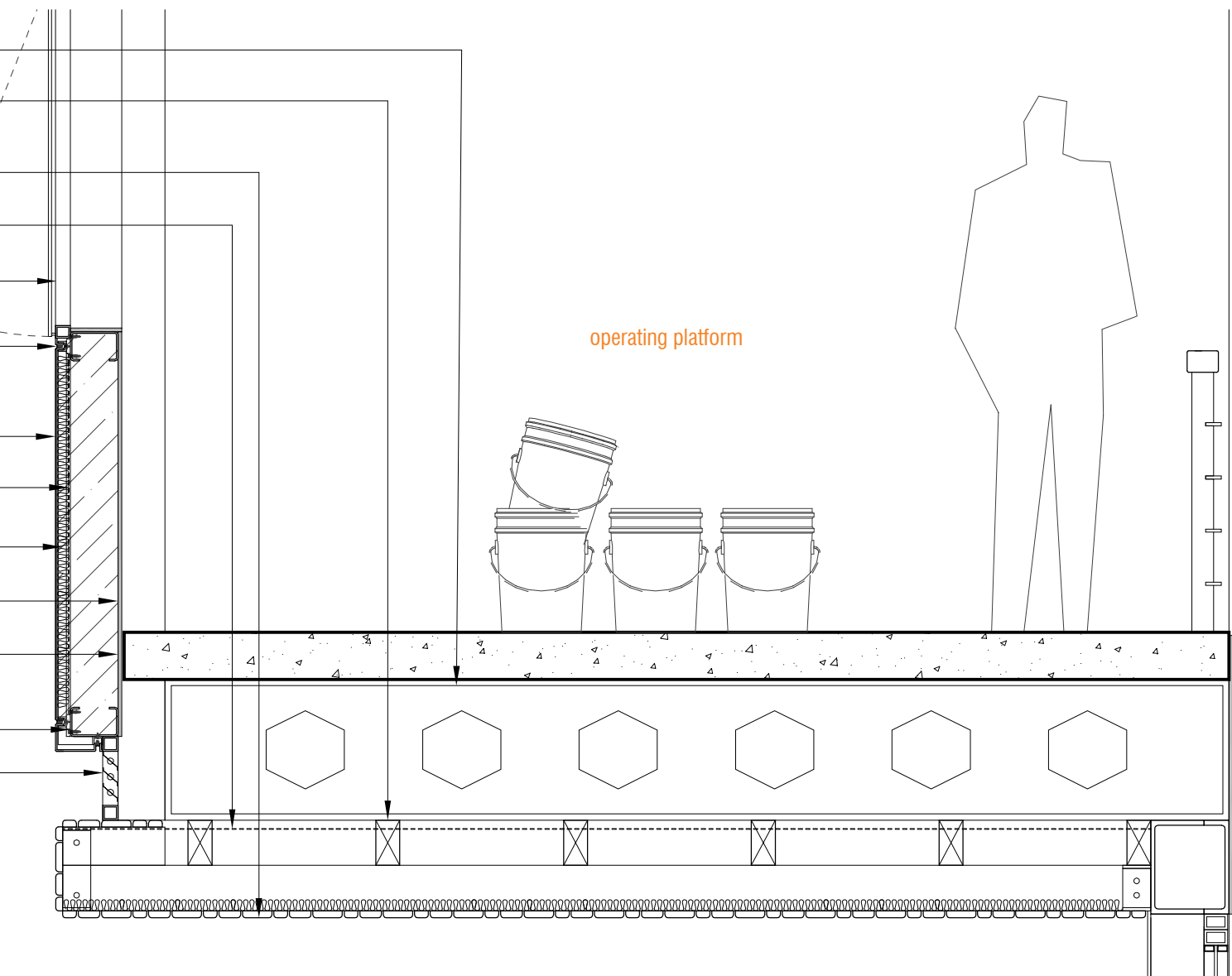




DETAIL SECTION 01

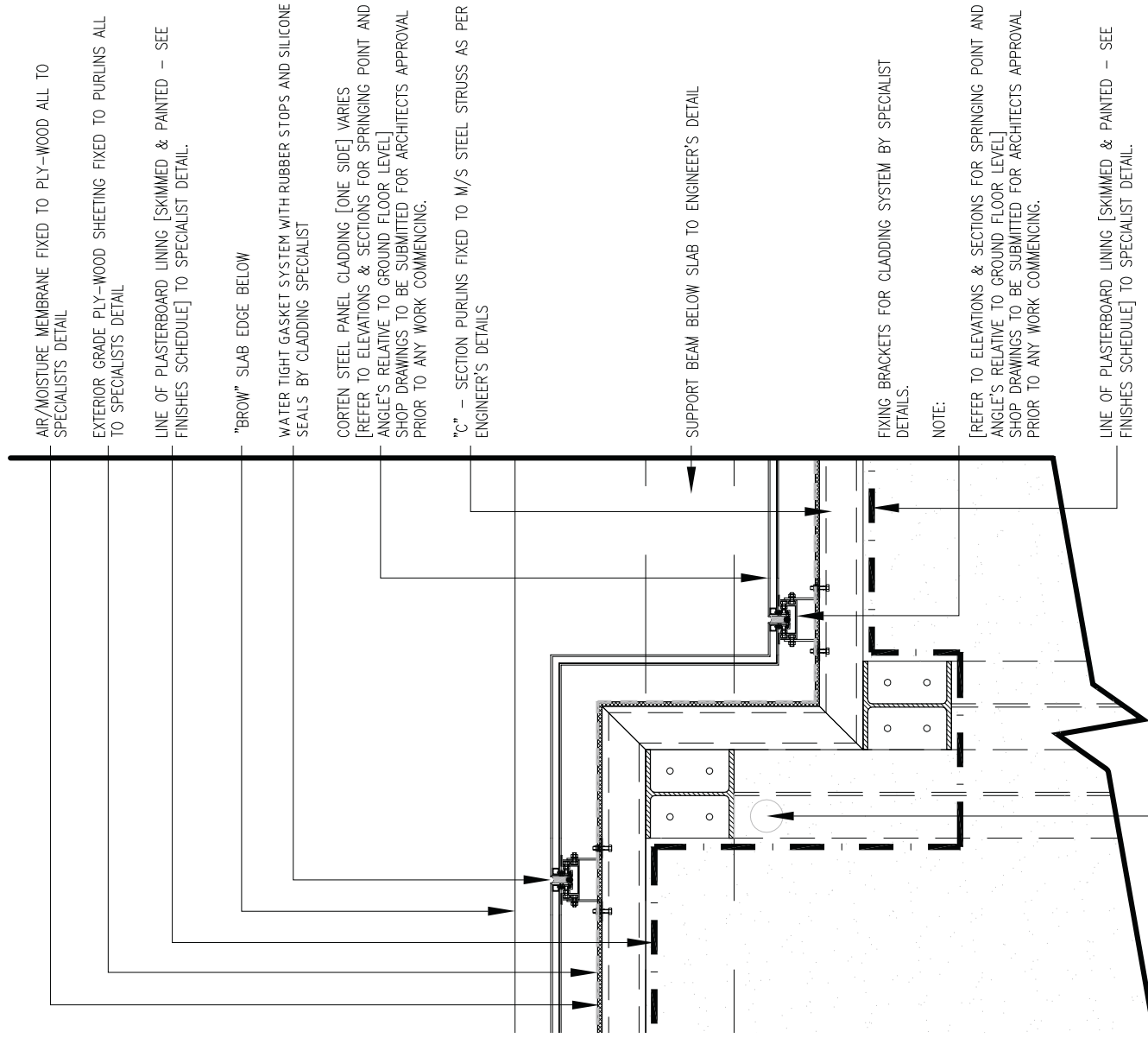
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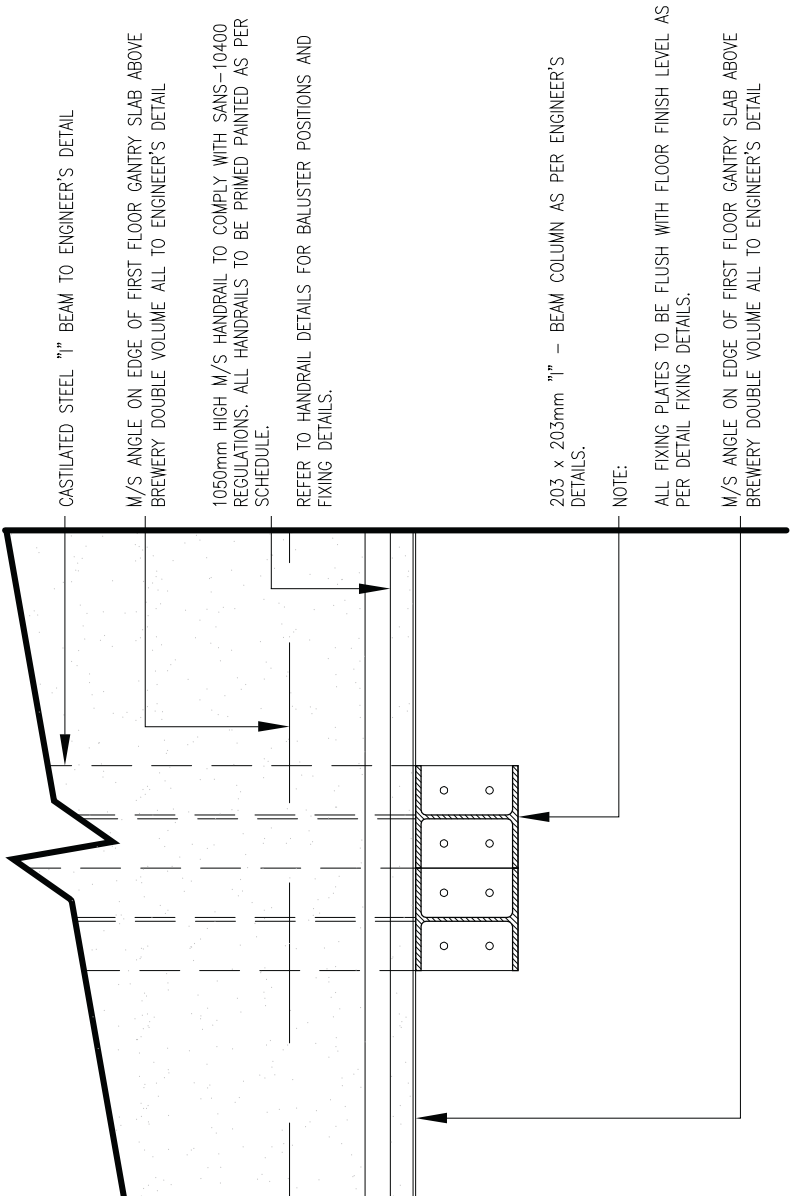


JUNCTION PLAN DETAIL 02

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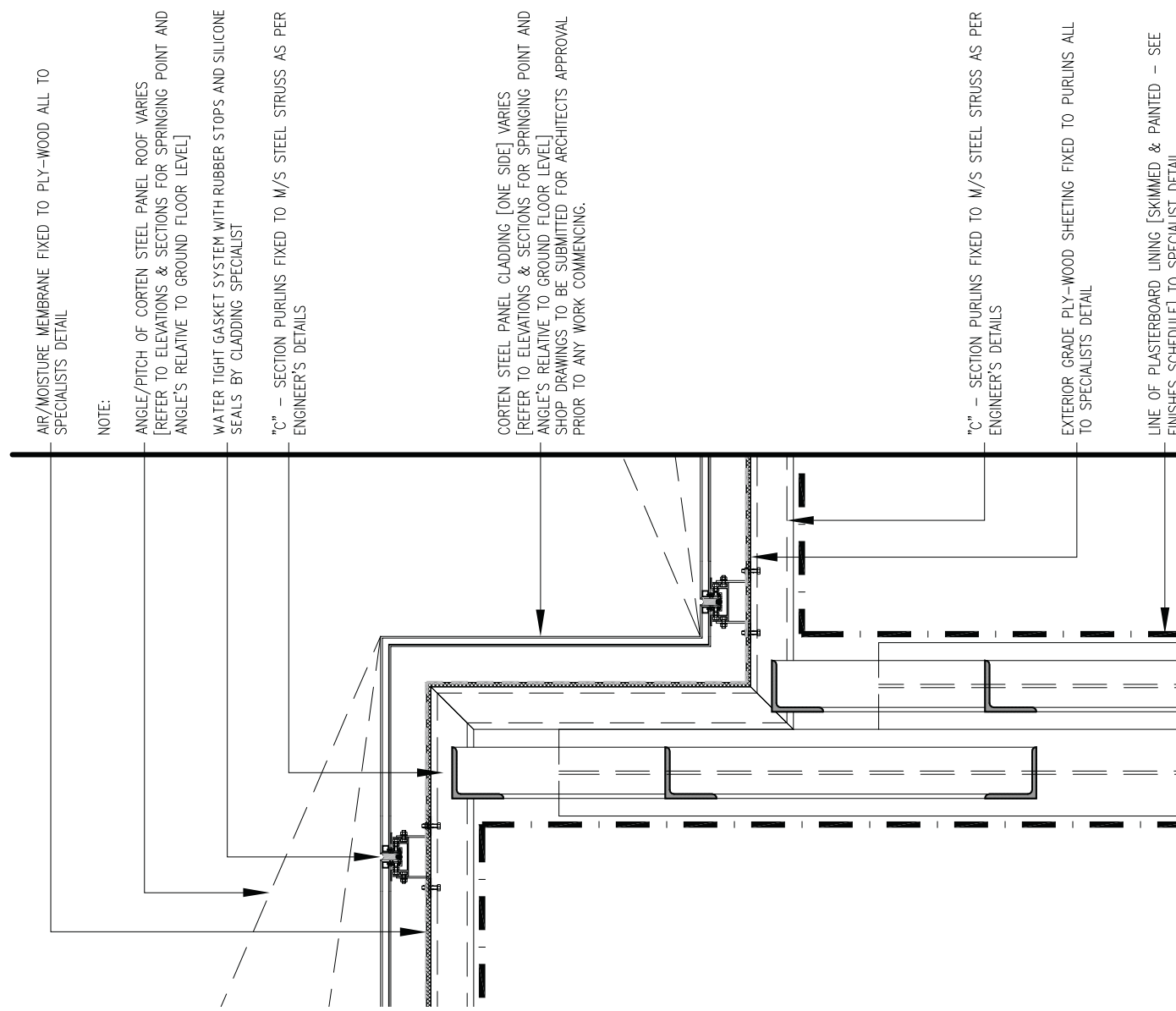


75mm DIA. RWDP FIXED TO 203 x 203mm "I" – BEAM.



JUNCTION SECTION DETAIL 03

NTS



AIR/MOISTURE MEMBRANE FIXED TO PLY-WOOD ALL TO SPECIALISTS DETAIL

NOTE:

ANGLE/PITCH OF CORTEN STEEL PANEL ROOF VARIES [REFER TO ELEVATIONS & SECTIONS FOR SPRINGING POINT AND ANGLE'S RELATIVE TO GROUND FLOOR LEVEL]

WATER TIGHT GASKET SYSTEM WITH RUBBER STOPS AND SILICONE SEALS BY CLADDING SPECIALIST

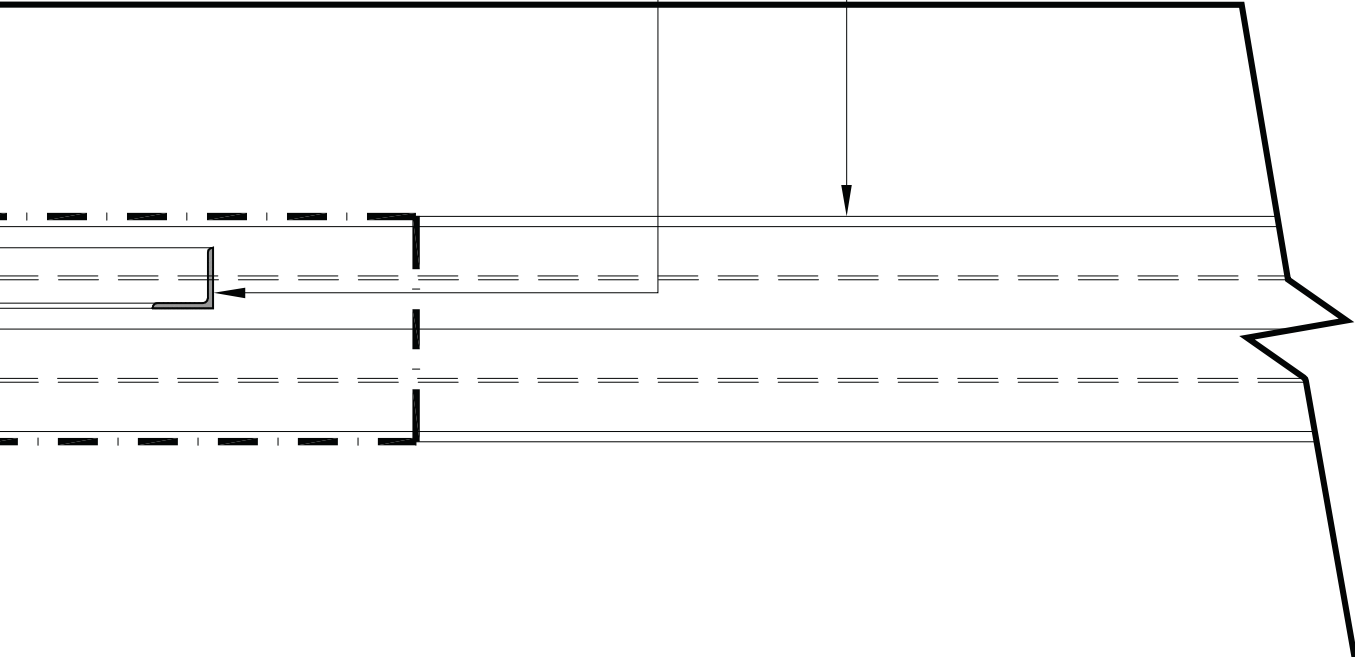
"C" - SECTION PURLINS FIXED TO M/S STEEL STRUSS AS PER ENGINEER'S DETAILS

CORTEN STEEL PANEL CLADDING [ONE SIDE] VARIES [REFER TO ELEVATIONS & SECTIONS FOR SPRINGING POINT AND ANGLE'S RELATIVE TO GROUND FLOOR LEVEL] SHOP DRAWINGS TO BE SUBMITTED FOR ARCHITECTS APPROVAL PRIOR TO ANY WORK COMMENCING.

"C" - SECTION PURLINS FIXED TO M/S STEEL STRUSS AS PER ENGINEER'S DETAILS

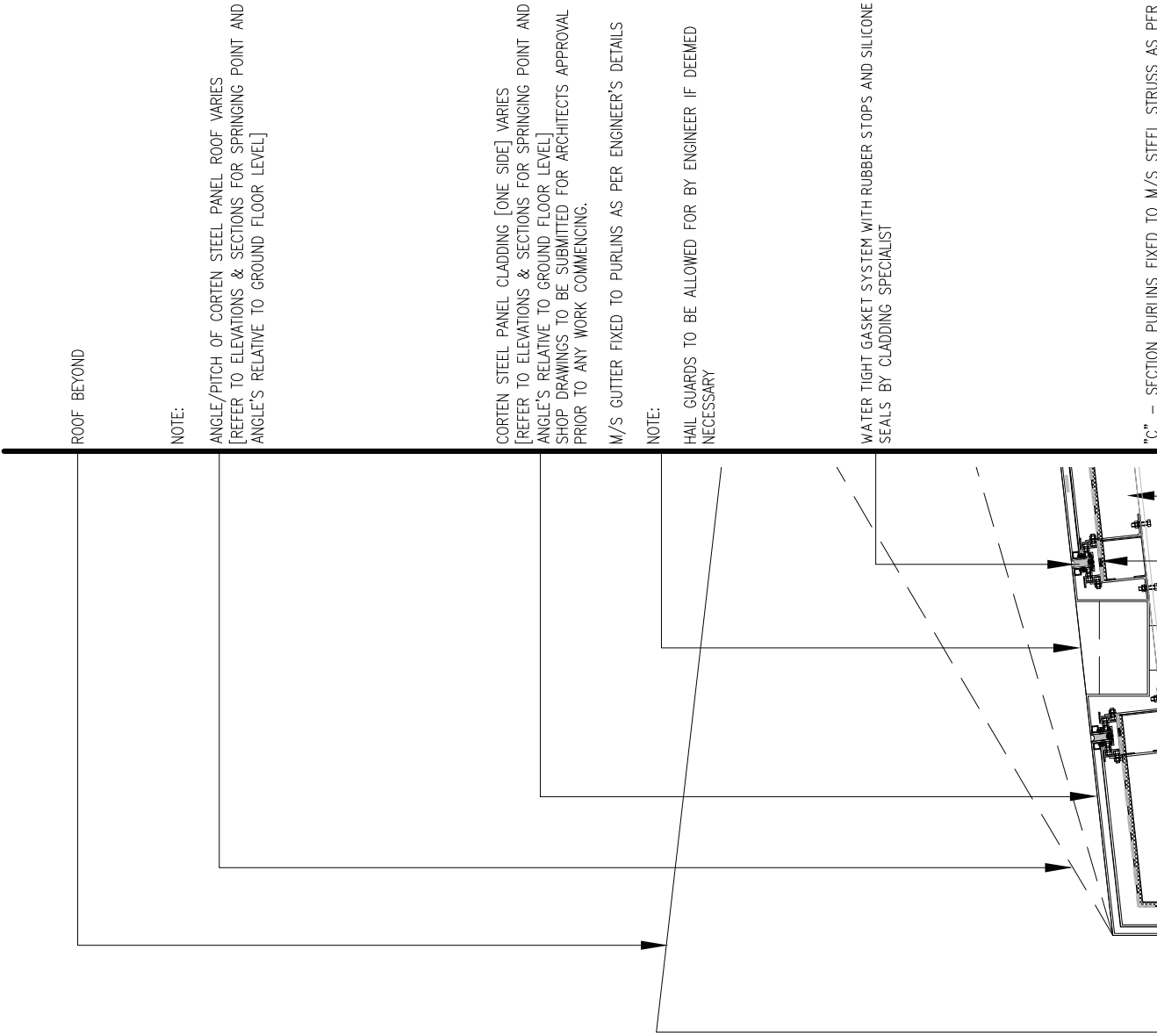
EXTERIOR GRADE PLY-WOOD SHEETING FIXED TO PURLINS ALL TO SPECIALISTS DETAIL

LINE OF PLASTERBOARD LINING [SKIMMED & PAINTED - SEE FINISHES SCHEDULE] TO SPECIALIST DETAIL



GUTTER DETAIL 04

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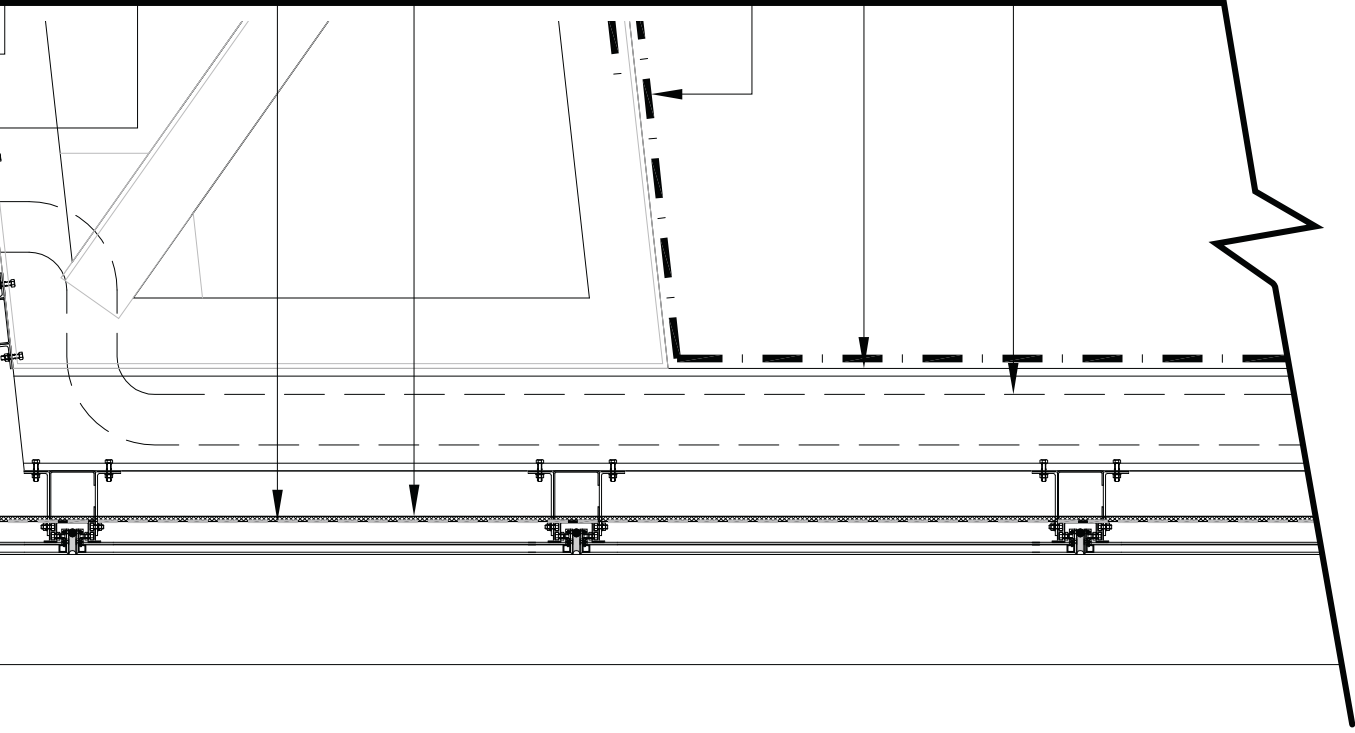
ENGINEER'S DETAILS
FIXING BRACKETS FOR CLADDING SYSTEM BY SPECIALIST
DETAILS.
NOTE:
[REFER TO ELEVATIONS & SECTIONS FOR SPRINGING POINT AND
ANGLE'S RELATIVE TO GROUND FLOOR LEVEL]
SHOP DRAWINGS TO BE SUBMITTED FOR ARCHITECTS APPROVAL
PRIOR TO ANY WORK COMMENCING.
AIR/MOISTURE MEMBRANE FIXED TO PLY-WOOD ALL TO
SPECIALISTS DETAIL

EXTERIOR GRADE PLY-WOOD SHEETING FIXED TO PURLINS ALL
TO SPECIALISTS DETAIL

LINE OF PLASTERBOARD LINING [SKIMMED & PAINTED - SEE
FINISHES SCHEDULE] TO SPECIALIST DETAIL.
203 x 203mm "I" - BEAM COLUMN AS PER ENGINEER'S
DETAILS.

NOTE:
ALL FIXING PLATES TO BE FLUSH WITH FLOOR FINISH LEVEL AS
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PRELIMINARY CONCEPT PERSPECTIVE

Albertina Sisulu Street View

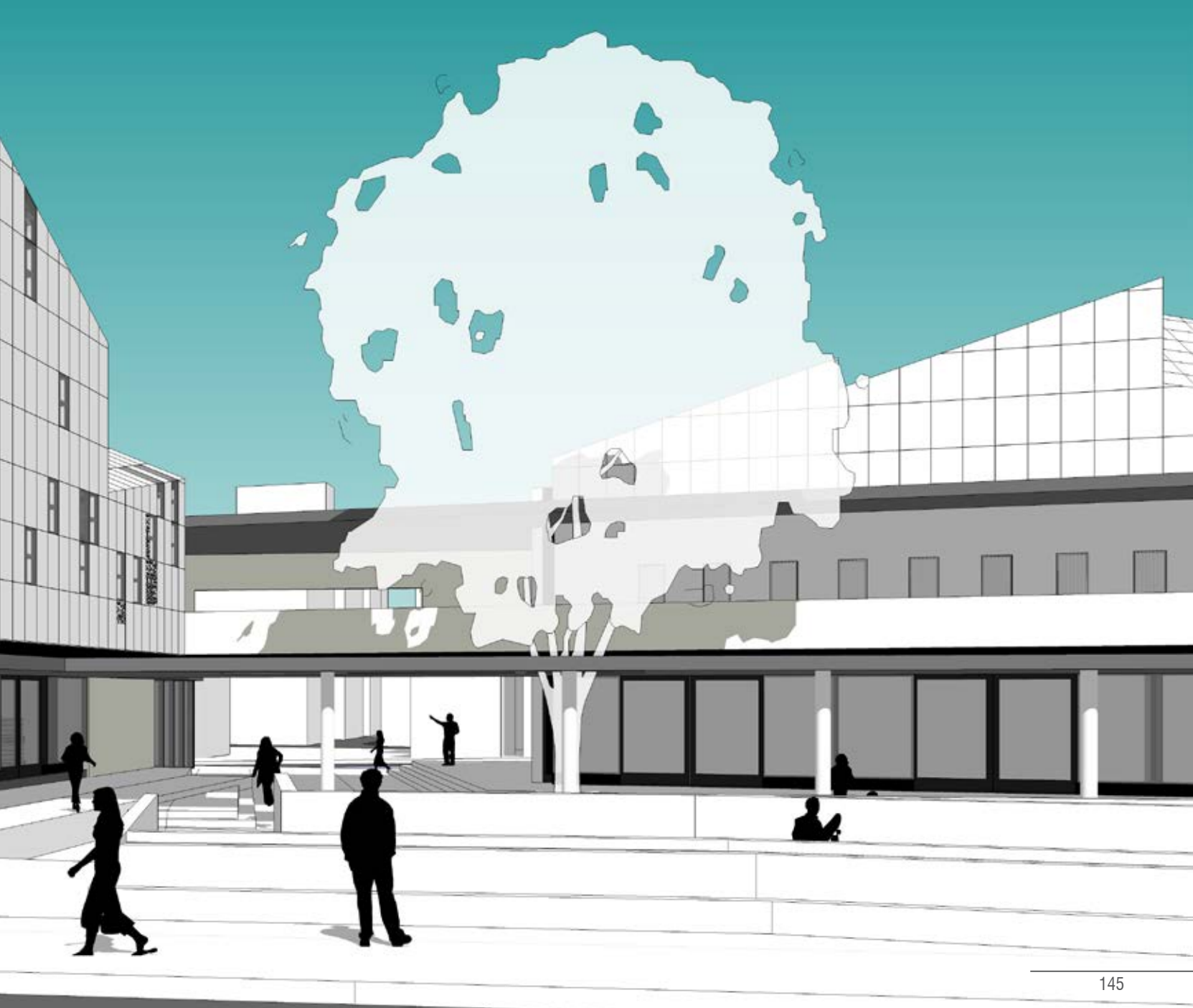




PRELIMINARY CONCEPT PERSPECTIVE

Canal Canopy View





PRELIMINARY CONCEPT PERSPECTIVE

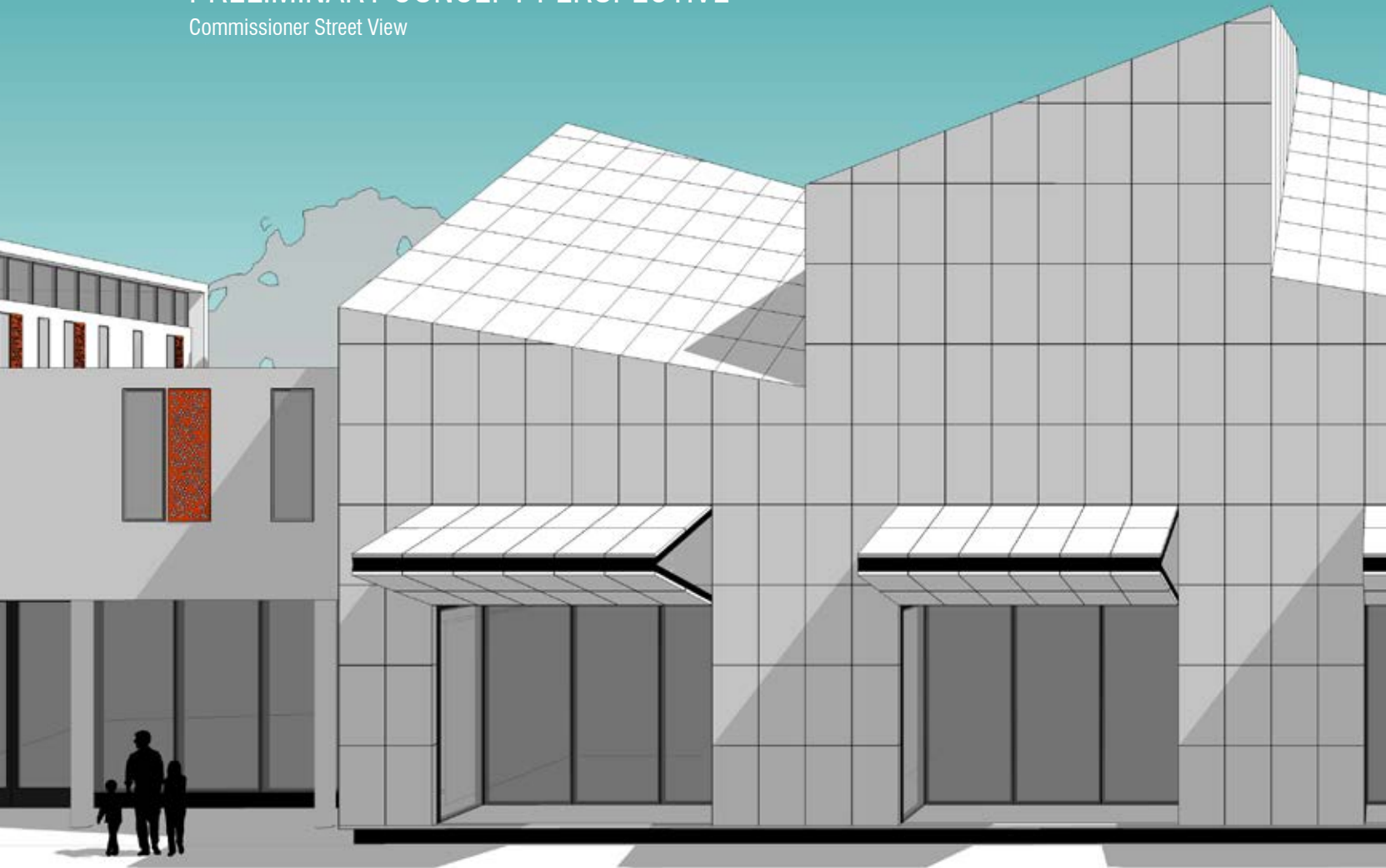
Intersection View





PRELIMINARY CONCEPT PERSPECTIVE

Commissioner Street View





PRELIMINARY CONCEPT PERSPECTIVE

Courtyard View





COURTYARD PERSPECTIVE FROM ALBERTINA SISULU STREET

The entire building is centred around a north facing courtyard, a beer garden spill out area for the restaurant and brewery. The main brewery is visible to the public from this space and it is a destination along the linking canal passage.





COMMISSIONER STREET PERSPECTIVE

The street fronted retail element of the building will attract additional patrons for the brewpub as well as build activity along Commissioner Street. The building has a robust presence with hard edges that seemingly peel away to reveal its soft interior - a characteristic of the surrounding area.





INTERNAL COURTYARD PERSPECTIVE

The courtyard acts as an interactive zone between each parts of the building. It is the place where students and brewers can meet and mingle with patrons and passers through.





INTERCHANGE PERSPECTIVE

A portion of the prominent graffitied wall is retained and acts as a landmark for the building while paying homage to its memory. The open square facilitates street vendors or beer festival stalls and is the start a public link into the building. The language of this portion of the building denotes its more formal function.





INTERIOR BREWERY PERSPECTIVE

The brewery interior is roughly finished with the structural system visible. The voluminous shapes of the structure allows for varying sizes of tanks to be accommodated for. A mezzanine operating platform allows ease of access to the tops of tanks for ingredients supply and cleaning.





GROUND FLOOR PLAN NTS

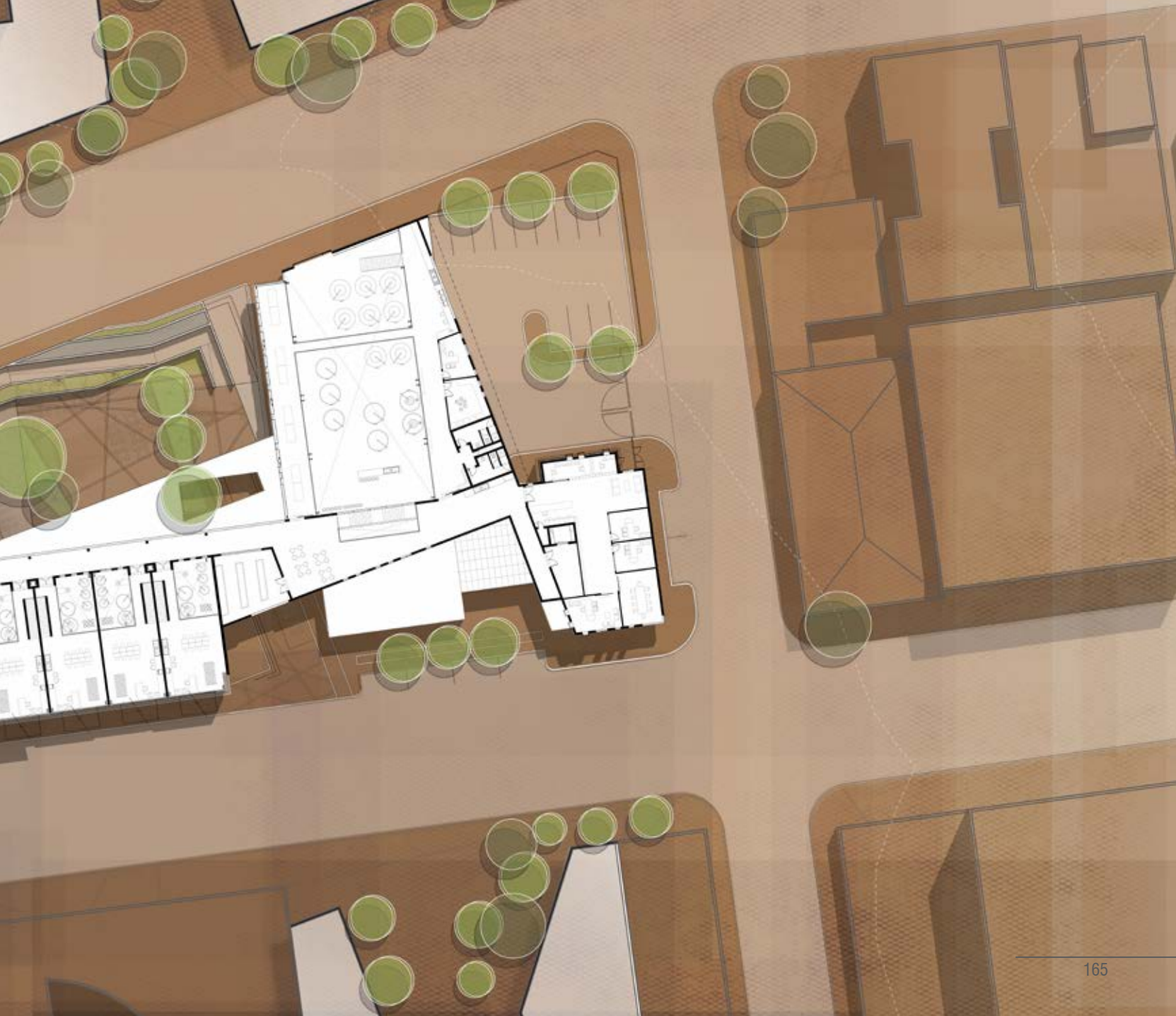




FIRST FLOOR PLAN

NTS





SECOND FLOOR PLAN NTS





How Will Also Be a ay": Antisocial Drinking es and Alcoholic Excess

narratives of excess drinking in South Africa do not necessarily implicate
r drinkers, nor do they tell us much about bottled beer. However, bottled
er cannot be dissociated from stories that come from cultures of drink.
Tales of intemperance arise in medical discourses, the polemics of social re-
formers, psychologists' reports, and government statements. As narratives
of consumption, they tell us how people inside and outside of government
tried to understand the abuse of and dependency on alcohol. They convey
cultural understandings of excess. For those in power, the notion
of "character," and "disease" and of the
control drinkers.

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The theory references are listed alphabetically
and image references listed in the order that
they appear in the document. All images not
referenced are by Author.

Intellectual Acknowledgments

08

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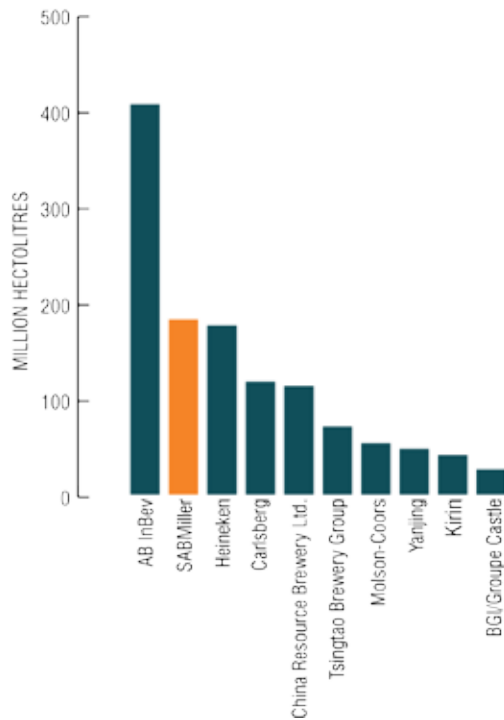
ENZYMES GRIST
SIMPLE
FERMENTABLE
SUGARS

MASH TUN

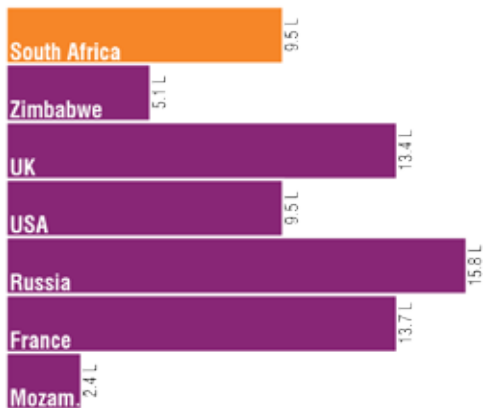
PROJECT VIABILITY
APPENDIX

Money-making Sense

A



Production volume of the 10 leading global breweries in 2014. Derived from (Statista, 2014).



Adult per capita alcohol consumption in South Africa vs selected countries.

GLOBAL BEER MARKET

The alcohol industry is booming, and the volumes of alcohol produced per annum are incomprehensible. Beer seems to be the number one drink of choice for many countries around the world and with the competition as hot as it is at the moment, it is sure to entice big mergers or innovative strategies in the near future. The world's leading brewing company, a large operation called Anheuser-Busch InBev which has its headquarters in Belgium, has a production volume of 411.5 million hectolitres per year (Statista, 2014). This is a staggering 20% of the total world beer production which is estimated to be about 1.96 billion hectolitres (Statista, 2014) - that's 28 litres for every person in the entire world each year! AB InBev's leading beer brands include Corona, Stella Artois and Budweiser, the popular beer beverage in the United States of America.



Adult alcohol consumption in South Africa by beverage type.

THE BEER MARKET IN SOUTH AFRICA

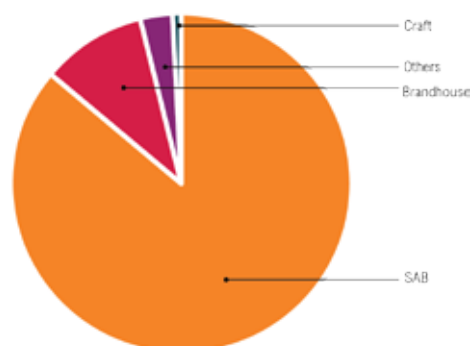
South Africa's history is filled with tales about beer drinking and making and the stories. Some stories begin at the start of colonialism in our country and how the British brought with them their commercial beer making processes. Other

stories are of a more indigenous nature where beer drinking is viewed as a basic form of nutrition and therefore become a part of our unique traditional African culture. One factor is constant with both stories though, prohibition and liquor laws in South Africa has shaped our beer market to what it is today. Today, the average adult per capita alcohol consumption is notably comparative to a number of countries known for their established drinking habits. With the average adult per capita alcohol consumption sitting at about 9.5 litres and with 56% of that consumption being beer, the beer market in South Africa is a force to reckon with.

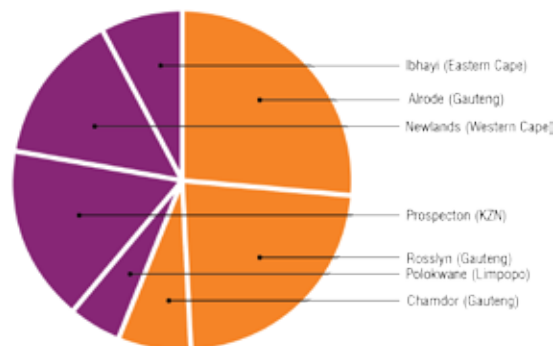
SOUTH AFRICAN BREWERIES (SAB) AND OTHER COMMERCIAL BREWERIES

South African Breweries (here after referred to as SAB) was founded in 1895 and “[...] was the first industrial share on the Johannesburg Stock Exchange,” (Mager, 2005: 164). Today, SAB is the local subdivision and historical origin of its parent company SABMiller, the second largest brewery in the world (see figure 1). SABMiller owns over 200 brands, produces nearly 200 million hectolitres of beer a year, and has brewing benefits and distribution arrangements in 75 countries in the world.

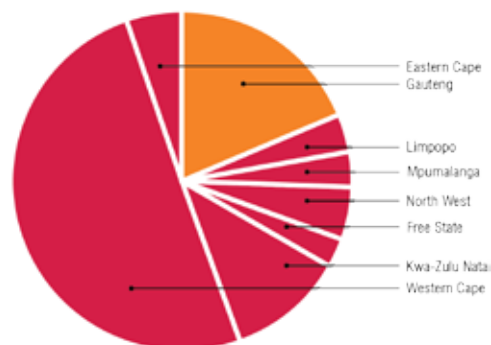
In South Africa, SAB has 7 brewing facilities throughout the country with a combined brewing capacity of 3.1 billion litres (Chalmers, 2012: 3). The majority of the breweries are located in Gauteng (see figure 4) which speaks of the high demand of commercial beer in the densely populated province. Additionally, they boast 1 hop production plant, 2 malting plants, 6 bottling plants and 40 distribution centres (Chalmers, 2012: 1). SAB are also very proud of their economic and social impact in South Africa and have stated that an impressive 355 000 jobs are supported by the company in the wider economy of the country (Chalmers, 2012: 1). Along with its soft drink sector, SAB have reported revenues in excess of R40 billion and at one stage held



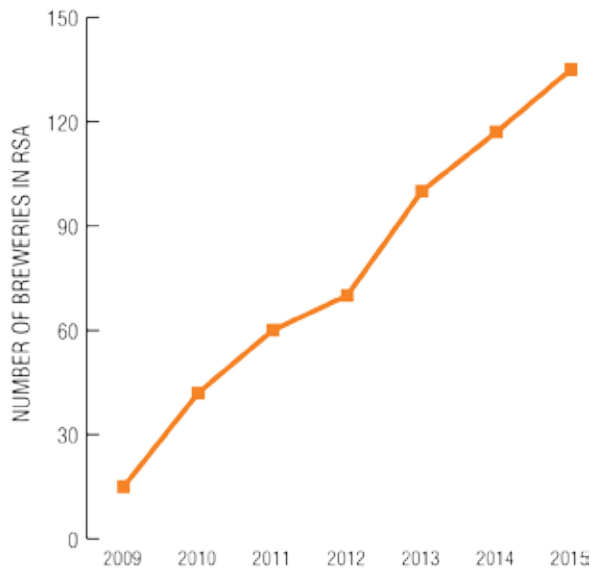
South Africa's beer market share by value. Derived from (Truen & Ramkolowan, 2011: 19).



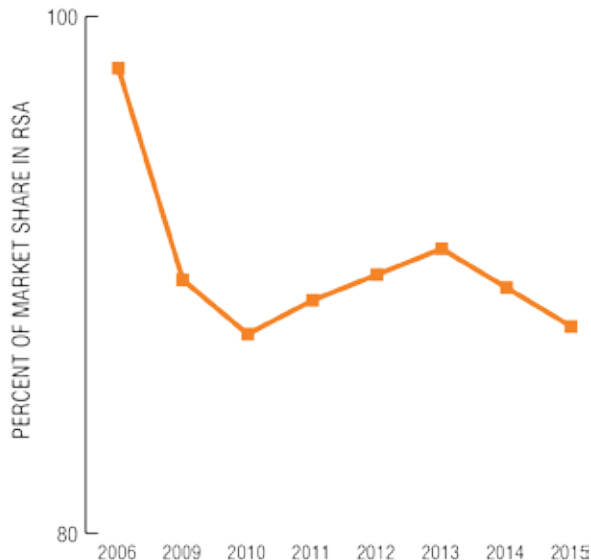
SAB has 7 breweries in South Africa which have a combined brewing capacity of 3.1 billion litres. Derived from (Chalmers, 2012: 18).



Amount of microbreweries per province in RSA . Derived from (van Zyl, 2014: 134).



The rising number of craft breweries in South Africa. Derived from (van Zyl, 2014: 134).



SAB's beer market share in South Africa by value from 2006 to 2015. Derived from (SAB Press Release, 2013).

98% of the local market share.

Today, SAB commands approximately 87% of the country's beer market share. Brandhouse Beverages, which began in 2004 as a joint venture between Diageo, Heineken International and Namibia Breweries Limited, accounts for approximately 10% of the market, which means that the remaining 3% belongs to South Africa's niche brewers and commercial traditional African beer like Umqomboti.

MICROBREWERIES

Craft breweries have taken South Africa by storm. There are currently over 135 microbreweries scattered throughout the country and the number is said to increase substantially in the next couple of years. The Western Cape is leading the country's craft brew industry by numbers as it is home to more than half the country's breweries. Cape Brewing Company (or CBC) is a craft beer brand that has the largest brewing capacity in the country. Each one of these breweries began in someone's back yard or garage as a hobby and now hundreds of budding brewers have and are busy turning their dreams into liquid gold and establishing breweries of their own.

Opening a new brewery, however, is not an easy task. It is said that it costs approximately upwards of R3 million to set up a micro-brewery (Todd, 2013) and that only includes some of the basic brewing equipment. The inclusion of a small drinking spot along with the brewery requires a lot of time, dedication, and money. Even once everything has been acquired and the brewery is put into operation, it is extremely difficult to get the beer brand out there as one of the major inefficiencies that exist in many microbreweries is the lack of "[...] distribution and marketing budgets," (Hedley, 2014). In fact many brewers can only get their craft out there at beer festivals which do not come around very often. SAB is however supporting the craft beer ini-

tative by financially backing these beer festivals, supplying hops and barley from their farms in George and sharing their expert advice and knowledge amongst those that are interested (Hedley, 2014).

SAB's INTEREST IN THE CRAFT BEER INDUSTRY

Although our markets vary significantly, the United States beer industry can be used as a precedent to give an indicator of the times to come. The US has been enjoying a booming craft beer industry for the past two decades and have thousands of microbreweries to showcase this lucrative business. According to statistics, the well-established craft beer industry of the US now "[...] commands about a 6% market share in a sizeable market," (Hedley, 2014). In South Africa, the craft beer industry is believed to hold a bit less than 1% (Hedley, 2014) but its growth and potential 3% future market share value has sparked SAB's interest.

Although the brewing capacities cannot be compared – as the second largest microbrewery in the country, Soweto Gold, "[...] produces as much beer a month as SABMiller makes every six minutes," (Sanchez, 2014) – an additional loss of 2% to microbreweries could mean a loss of R800 million a year for SAB. This means that it is vital that they hop on the hypothetical craft beer band wagon, and that is exactly what they are trying to do and what my thesis project suggests. SAB has recently invested in reviving one of their old microbreweries at Franssen Street which is connected to their large Chamdor Brewery. "The microbrewery was redeveloped to allow SAB to experiment with brewing and packaging, and develop beers for special events," (Hedley, 2014).

This is the starting point and business model on which I have based my proposed brewpub in Maboneng: an SAB concept store of sorts.

THE PROJECT

The idea is based on the notion of SAB regaining a bit of its lost market share and reaching a new target market that it was not able to reach before. Although the brewery will ultimately operate similarly to an independent microbrewery, the marketing and distribution aspects of the operation will be handled within SAB's own commercial department. This way, the brewery will have the expertise needed to succeed where many of its kind have failed before it.

Since the brewpub is a celebration of our unique culture and individuality, the model is based on facilitating the various types of brewing methods out there and encouraging people from all backgrounds to brew and drink beer. Three small brew labs will offer aspiring brewers the opportunity to come and test their brewing craft and try their hand at breaking into the business. The labs will already be equipped with all the necessary equipment and space required to brew 2000 litres a month. Brewers will have access to the main brewery's supplies and recipe sheets as well as to the experimental greenhouse where they can grow the ingredients that make their brews unique.

The beer garden will then give the brewers the opportunity to test their concoctions on the public and ultimately do the best market research available. Brews that are successful amongst the drinkers will then be put into production in the main brewery which would be operated under SAB licences and agreements. The risks and initial start-up capital required to establish a brewery are eliminated as the brewers will be able to get a feel for the industry before giving up everything to enter into it.

SAB would then operate the main brewery where they would employ brewers to produce 50 000 litres of beer a month (based on the average production capacity of the 5 largest microbreweries in the country). The office spaces would be used by SAB staff to manage the brewery, market

the brands and distribute the final product - as with any of their other commercial brands. Their success and expertise in the industry will ensure the success of this new craft beer brand. The commercialisation of the brand will also allow them to reach a market that the expensive craft beers could not reach before.

WHAT MAKES THE SITE WORK

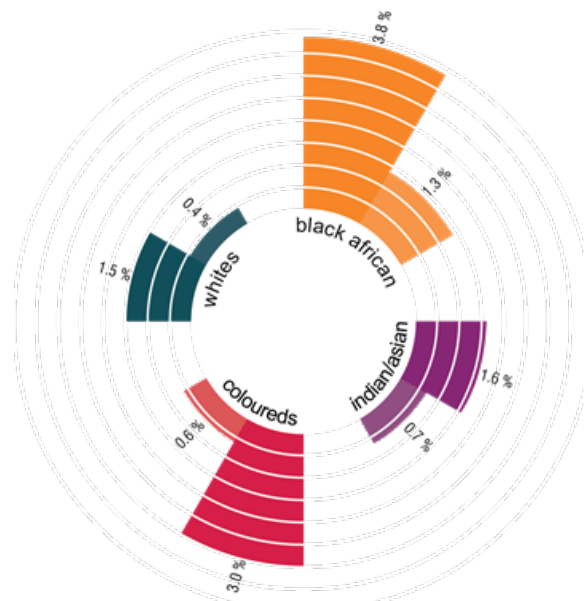
Since Maboneng's inception in 2007, many people have viewed the reforming area as a pit that has fallen prey to gentrification. There is little encouragement to the locals that once lived in the area, who have been forced out by high rentals and aliens moving in, to stay and support the regenerative initiatives that are taking place. Perhaps it is a small brewpub that will offer job opportunities and social spaces for every classification of person that can aid in negating the effect of gentrification on the area.

The site is situated at the 'gateway' to the Maboneng Precinct with Market and Commissioner Streets framing it to the north and south and Sivewright Avenue flanking it to the west. It has excellent visual prominence from the overhead highway which offers ideal advertising opportunities for the brewpub and its would-be investors.

According to the American Brewers Guild, a survey of successful brewpub operations was conducted in order to identify some of the important site characteristics required to contribute to the success of the business (Diebolt, 1998). Table 1 below outlines my findings with regards to these characteristics.

The site assessment analysis for a brewpub in the Maboneng Precinct meets all the recommendations except for the percentage of population in target age group as well as expansion potential. An adjustment to the target market age group could be made in order to increase the population of

potential clients. The potential to expand could mean that if expansion is required in the future, the brewpub may need to relocate the brewery to a secondary site whilst still having the pub in the Maboneng area. This, however is not ideal as it will increase expenditure costs due to the distance that would need to be travelled between the brewery and the pub. For now, the site has ample space to accommodate a growing business.



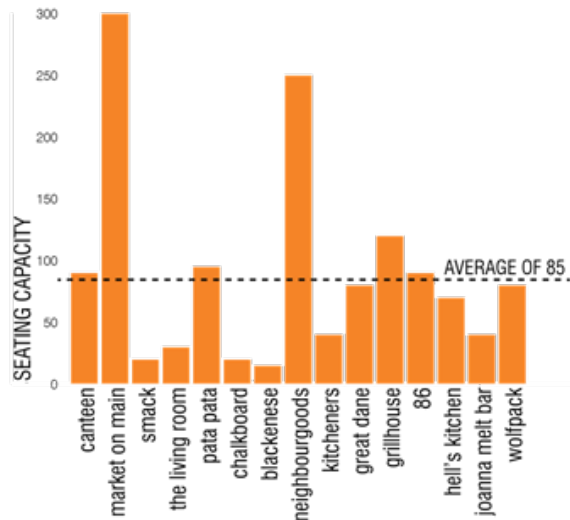
Percentage distribution of household expenditure on alcohol by race group, 2011.

TARGET MARKET

- Customers in university campus communities
- Professional men and women aged 20 – 55 living in affluent neighbouring metro communities

Large groups of people will be in the area at any given time. Over 60 000 students attend the nearby university, and Ellis

Park has a capacity of 50 000 people. All of these people could be potential customers for the brewpub along with the regular visitors of the area. After analysing some statistics on alcohol consumption in South Africa (see figure 9), it is clear that Maboneng will offer the best potential clientele for the brewpub. The area and its surrounding areas have predominantly black African residents who spend on average 3.8% of their household expenditure on alcohol.



Seating capacity on selected competitive establishments.

COMPETITION

It is important to identify the competition within a 10km radius of the site. A brewpub's competition includes other brewpubs, non-brewing restaurants and bars. All of these establishments would need to be analysed in terms of their parking, exterior and interior appearance, seating capacity, hours of operation, menu and pricing.

A few such establishments in the area include: Jeppe Liquor Land, Radium, Oasis Sports and Diner, Rocky

Sports Shebeen, Beauty's Restaurant and Bar, Canteen, Market on Main, The Living Room, Pata Pata, Chalkboard, Neighbourgoods, Kitcheners, Great Dane, Hell's Kitchen and Joanna Melt Bar.

Competitors also help gauge successful pricing and seating capacities that would be relevant for the area. After a basic analysis of the above mentioned establishments, an average of 85 seats and an average bill of R150 per person was determined (see figure 10). These figures were the basis on which I set my brewpub size and revenue calculations.

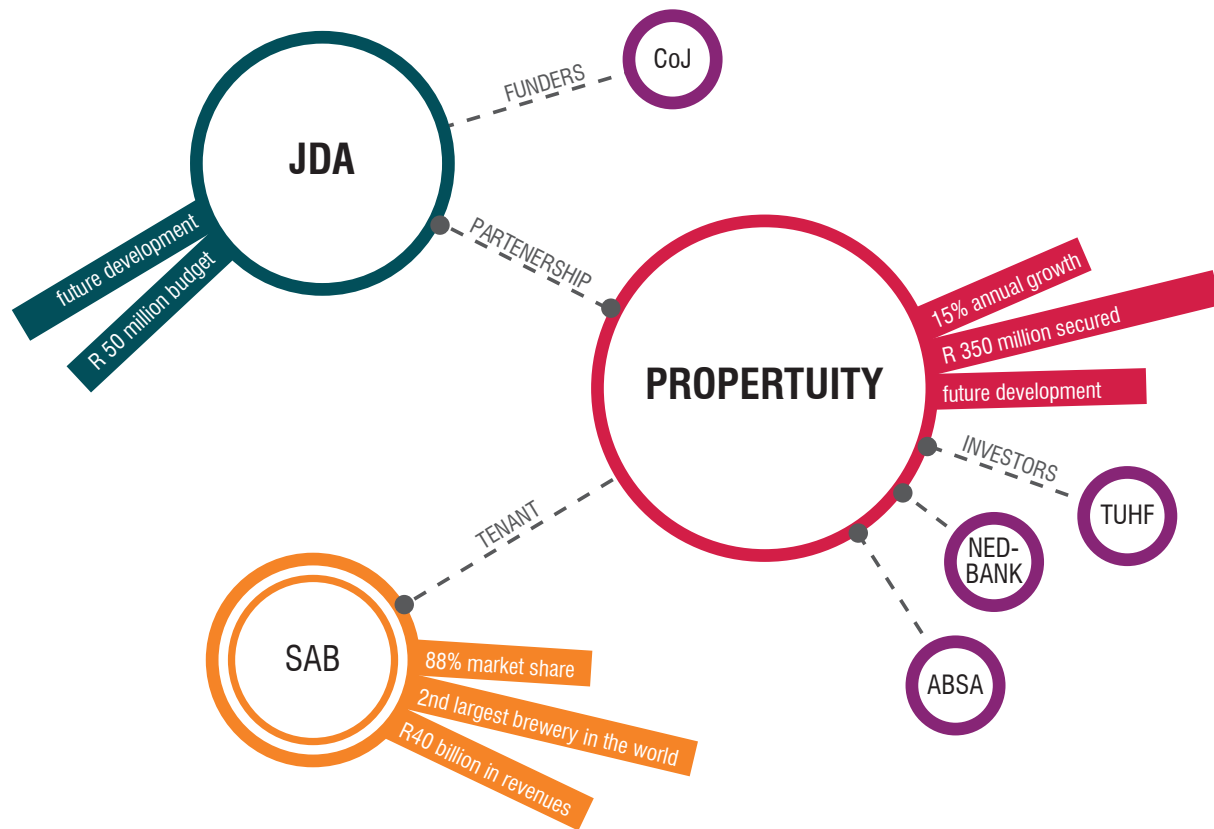
In order for additional revenues to be obtained that will allow affordability of the building to the tenants, a number of extra functions must be added to the building: a museum, curio shop, learning centre and conference centre.

The proposed brewpub will have a gross leasable area of 2670m² with a total building cost of about R 19,302,500.00. The area includes all functions of the building including back of house, delivery yard, offices, labs and restaurant. The rates are based on Hill Du Bois cc Quantity Surveyors, and are approximate and can vary according to the circumstances of the project.

MAKING THE BUILDING A REALITY

The realisation of the building could come about as a joint venture between organisations such as the JDA and Propertuity.

Propertuity uses art, design, architecture and cultural activities as tools for positive reformation of inner-city areas. Their development work started in 2007 after founder and CEO, Jonathan Liebmann, purchased his first bit of property in the Maboneng Precinct. Today, Propertuity has developed over 13 projects in the area (see figure 11) and has purchased a total of 37 buildings and sites for future devel-



The project's hypothetical organisational structure.

opment (see figure 12). One of the sites which they own is the proposed site for the new brewpub: the gateway to the Maboneng Precinct. They boast an impressive annual growth of 15 % and have also secured over R350,000,000 from return on other investments and from investors like Nedbank, ABSA and TUFH for future developments (Liebmann, 2013: 2).

In order to obtain the necessary capital without digging too much into the budget of future developments for the area, Propertyuity would benefit by partnering with an organisation like the Johannesburg Development Agency for the

project. A partnership between these two organisations has been successful in the past with the previous co-investment focusing on upgrading streets and sidewalks (insert picture) in the Maboneng Precinct (Hedley, 2013). The project improved the liveability and overall appearance of the area and therefore aided in gaining more private investment.

The JDA is described as an organisation which is:

[...] transforming the face of Johannesburg, promoting growth and development and creating efficient urban en-

vironments. The agency acts as a catalyst for area-based regeneration as well as development of new nodes, investing in infrastructure and urban environment upgrades to encourage private sector investment. It also works on regenerating areas of the city that are either in decay or declining, in order to enhance their ability to contribute to the development of the city and the quality of life of its residents.
(JDA, 2012)

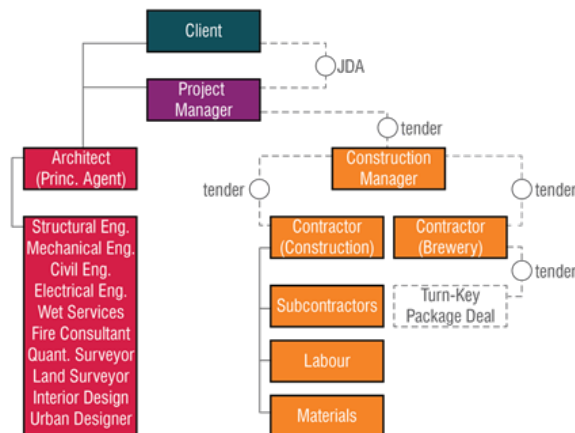
One of the JDA's many programmes which seeks for the management of "the development of the Johannesburg inner city through capital investments in selected areas," ("JDA Business Plan", 2014: 25) would be the Inner City Transformation programme 1. Within this programme, the public places partnership projects offers developers the opportunity to propose a project to the JDA for their strategic role in investing municipal funds in capital works projects that catalyse private investment in key areas in the inner city. The JDA has a budget of R50,000,000 for the next few years available for partnerships like this.

It is fitting that both the JDA and Propertytuity should co-fund a project like this trendy new craft beer brewpub. Both companies have similar visions of regenerating decaying areas of the city through new developments that will promote private investment. Bringing more people into the city is the only way to keep it alive and well and that is the main goal.

To summarise the hypothetical client organisation of the project:
Propertytuity, the site owners, could invest approximately 80% of the capital for the new brewpub development. They could then approach and propose a partnership with the JDA to co-fund the remaining 20% of the project using the budget from their Inner City Transformation programme.

The JDA has the skill capacity to act as Project Manag-

ers for a project like this and could therefore manage the project. They, along with the future tenants of the building, SAB, would consult with an architect to formulate the brief. Propertytuity, who has already acquired the land would then enter into an agreement with the tenant as the landlords. After the tender documentation is completed, an invitation to tender would be put forth by the project manager in order to obtain a construction manager who will then invite various contractors as elected by the client, to tender for the project.



The professional team procurement.

The diagram above shows the procurement of the various professionals that would need to be involved in a project like this. The architect would act as principal agent and principal consultant and would oversee all the other consultants who are elected and are managed by the project manager. The project manager would tender for a construction manager who would then manage and tender for the main contractor as well as for a turn-key package deal contractor for the brewery design and installation. The tender for a turn-key package deal for the brewery part of the project offers the expertise needed to ensure success for a new and on-going brewery operation. The consultants would

provide brewery dimensions, design and overall layout, as well as restaurant and kitchen design, flows and layouts. They would then supply and oversee the installation of the brewery, restaurant and kitchen equipment with one of their own. This option eliminates the need for the architect to do extensive research into the complicated science of brewing and ensure guaranteed performance due to the installation of professionals.

TALKING IN NUMBERS

After considering the above mentioned factors and costs, the gross development cost for the project could amount to anything upwards of R 25,846,531.58 which includes the cost of the construction works, professional team fees and any additional costs which can be foreseen.

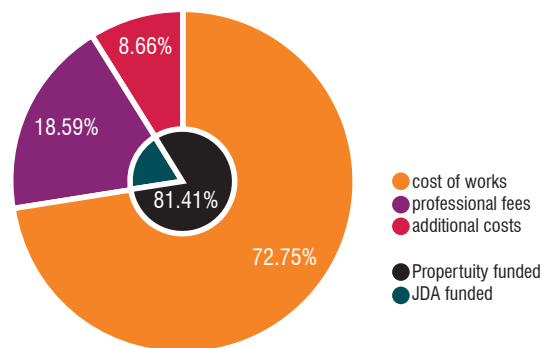
The cost of the construction works amounts to 72.75% of the gross estimated development cost with the professional fees amounting to 18.59% and additional cost being 8.66%. This gives the opportunity to divide the cost of the development up between its hypothetical co-funders. Propertytuity could source the bulk of the development cost as land owners and property developers. They would undertake the cost of construction as well as any additional costs which amounts to 81.41% of the gross development cost. The JDA would then fund the remainder of the development which will be the professional fees at 18.59% of gross costs.

RETURN ON INVESTMENT

A return on investment is a performance measure used to evaluate the efficiency of an investment. A return on investment of 7% is acceptable whereas a return of 11% is deemed successful. The JDA requires a return on investment of 5% and Propertytuity would expect a bit more. The

estimate monthly rent is revenue for the developer of the project.

If the gross leasable area of the building is 2670m² at a rate of R80 per m², then the estimate monthly rental for the building will be R243,504.00 including VAT. This means that on a gross development cost of R25,846,531.58 the return on investment will be 11.31% per annum, a very acceptable amount for Propertytuity.



Development cost percentages and sources of funding.

REVENUES FOR THE TENANT

The SAB concept brewery could base their income on a 100 barrels (bbl - where one bbl equates to 119.24 litres of beer) per week production capacity which would be approximately 50 000 litres per month (similar to the average capacity of the 5 largest microbreweries in the country). This means that they would have about 120 kegs or 14,400 pints available for distribution to the greater city of Johannesburg per week as well as 80 kegs or 9,600 pints for sale in the house pub per week. If the beers are sold at a mere R25 per pint (a fairly low value in comparison to other brands) then R 2,580,000.00 could be made per month through beer sales alone and R 1,842,550.00 could be made in the bar and restaurant. Additional reve-

nues could be made in other parts of the building, including brewery tours, the learning centre, conferences, curio shop and events and festivals.

The total annual revenue of the brewpub could be in the region of R54,606,600.00 per year. With an estimated yearly rental of R2,922,048.00 (a rate of R80.00 per square meter of 2760 square meters in total), therefore SAB is only expected to spend a mere 5.35% of their annual revenues on occupancy costs. This of course does not include the numerous additional expenses that SAB would need to undertake in order to run the microbrewery such as operational costs, maintenance costs, wages, distribution costs, import costs etc. Profit margins per keg sold but not including distribution and marketing costs are approximately 81.46% which is a positive outlook for any budding brewer.

Ultimately, the project will be a success with the developers obtaining a 11.31% return on investment and the tenants boasting profit margins of 81.46% It seems that everybody wins in this new development in the Maboneng Precinct.

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FINAL ORAL PRESENTATION
APPENDIX

26 November 2015

B

PRESENTATION BOARDS

ARCHITECTURE UNDER THE INFLUENCE

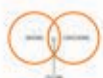
Callanetta thomasi Stead

to be the primary or direct cause of the accident, but rather, the cause of the accident is the failure of the primary cause to occur.

It is also important to understand that the failure of the primary cause to occur is not the same as the failure of the primary cause to occur at all. The failure of the primary cause to occur at all is a failure of the primary cause to occur at all, and the failure of the primary cause to occur at all is a failure of the primary cause to occur at all.

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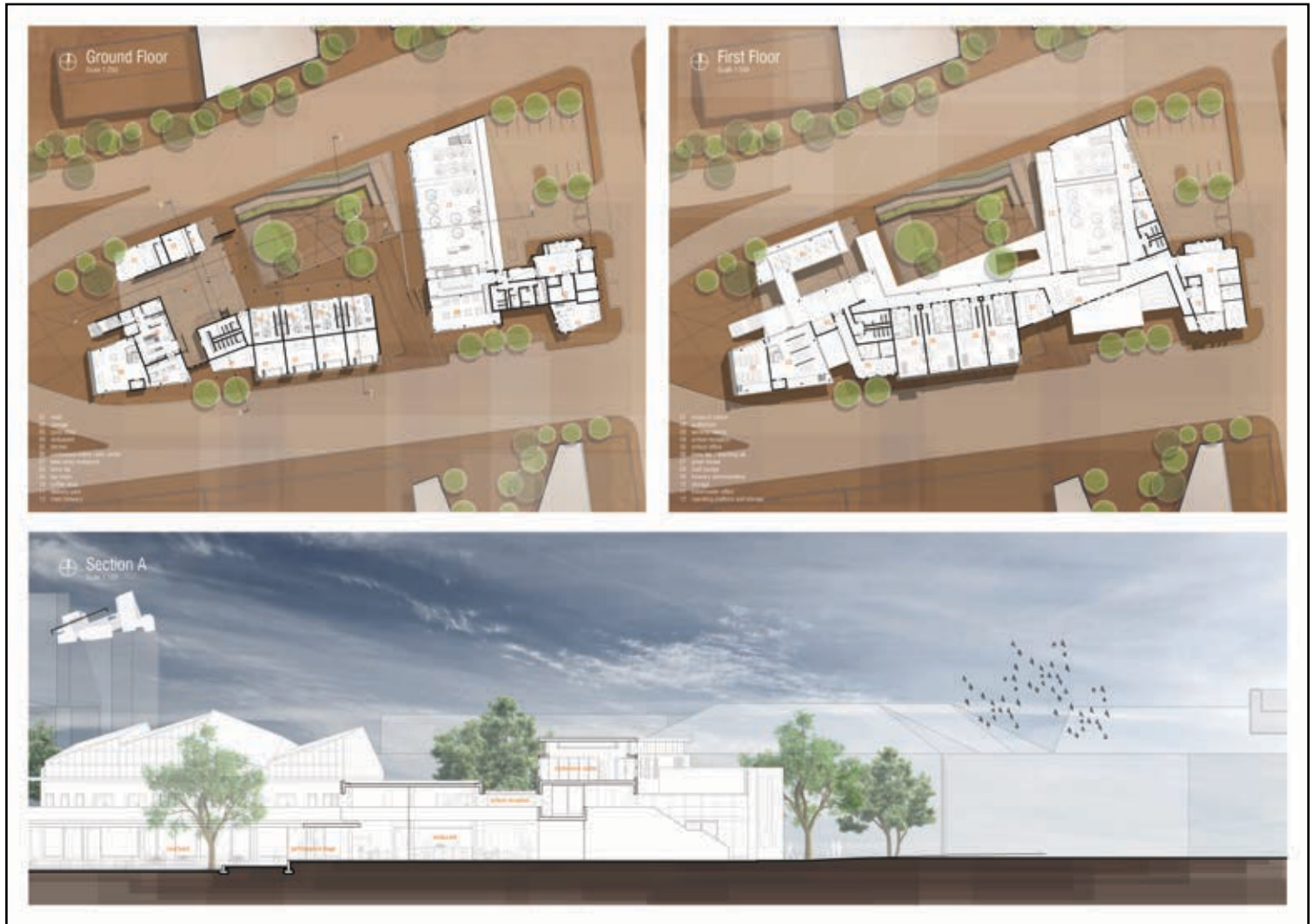
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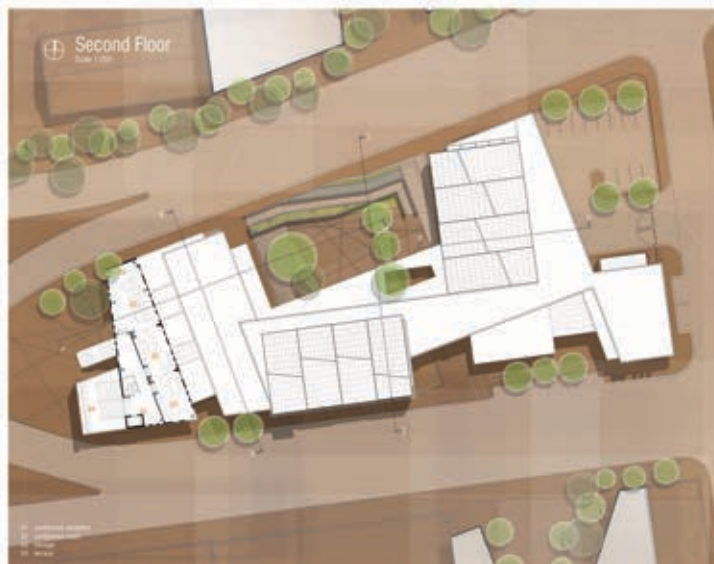
In order to create a successful long-term business, investors often attempt to achieve financial success by concentrating on a single growth strategy, such as selling their investments in a company, which is often referred to as the "exit strategy." However, this strategy is not always the best one for all investors. In fact, many investors who have followed this strategy have found that their investments have not performed as well as they had hoped.





PRESENTATION BOARDS





Form Development

Sketch Models and Diagrams



PRESENTATION BOARDS





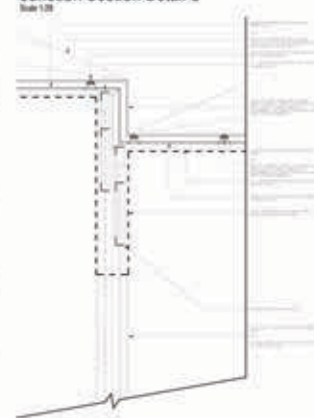
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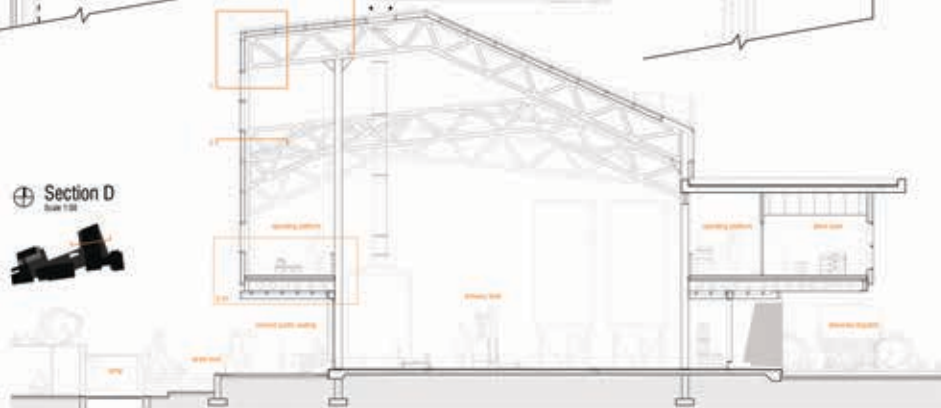
Junction Plan Detail 2
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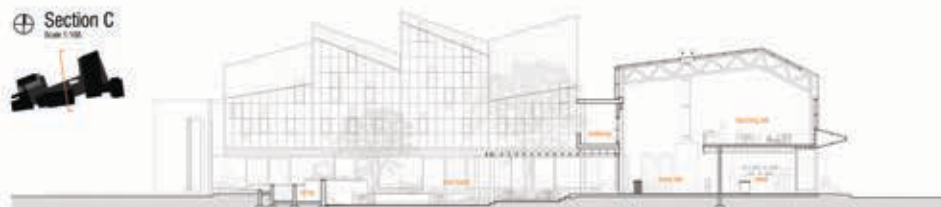
Junction Section Detail 3
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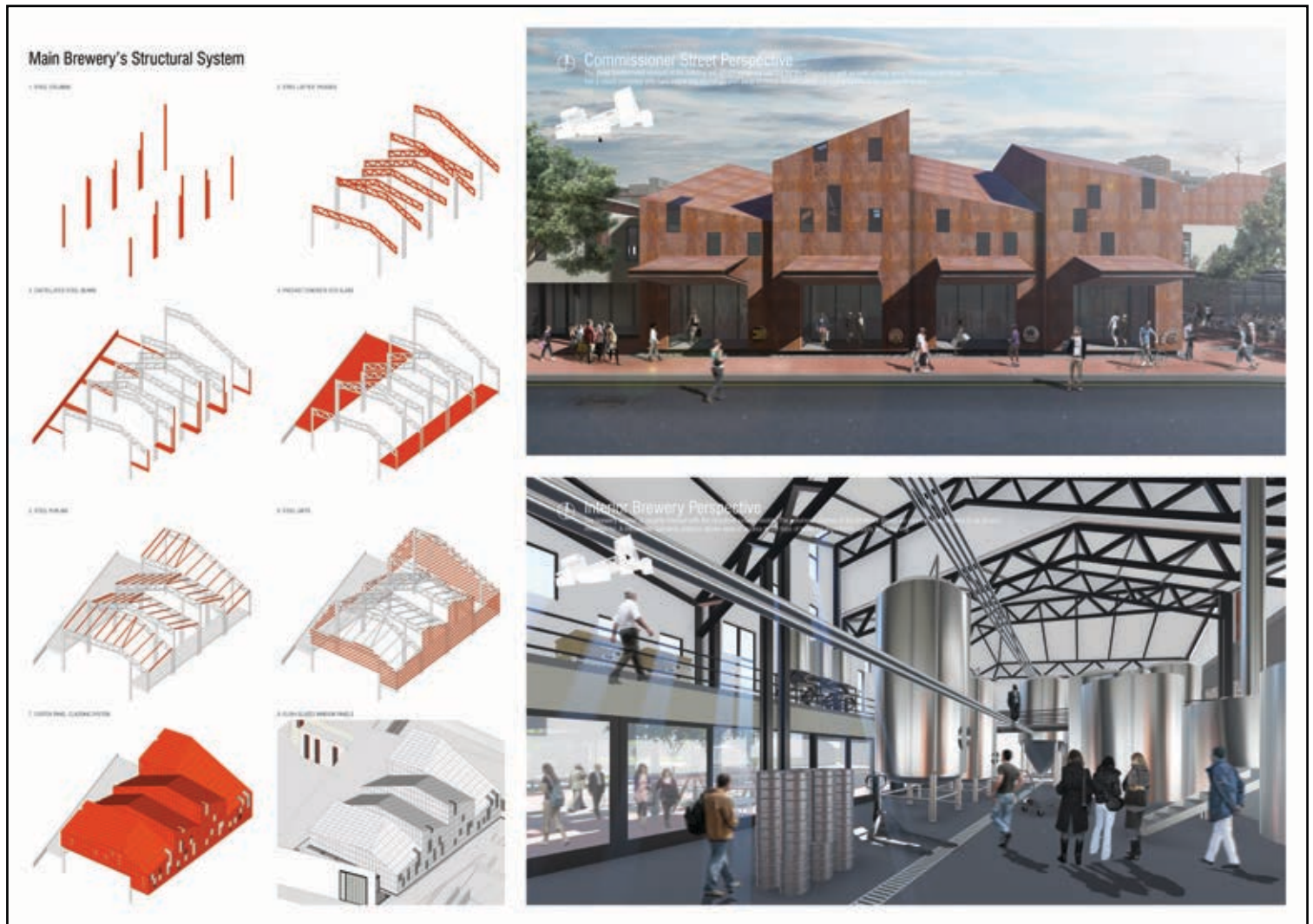
Section D
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Section C
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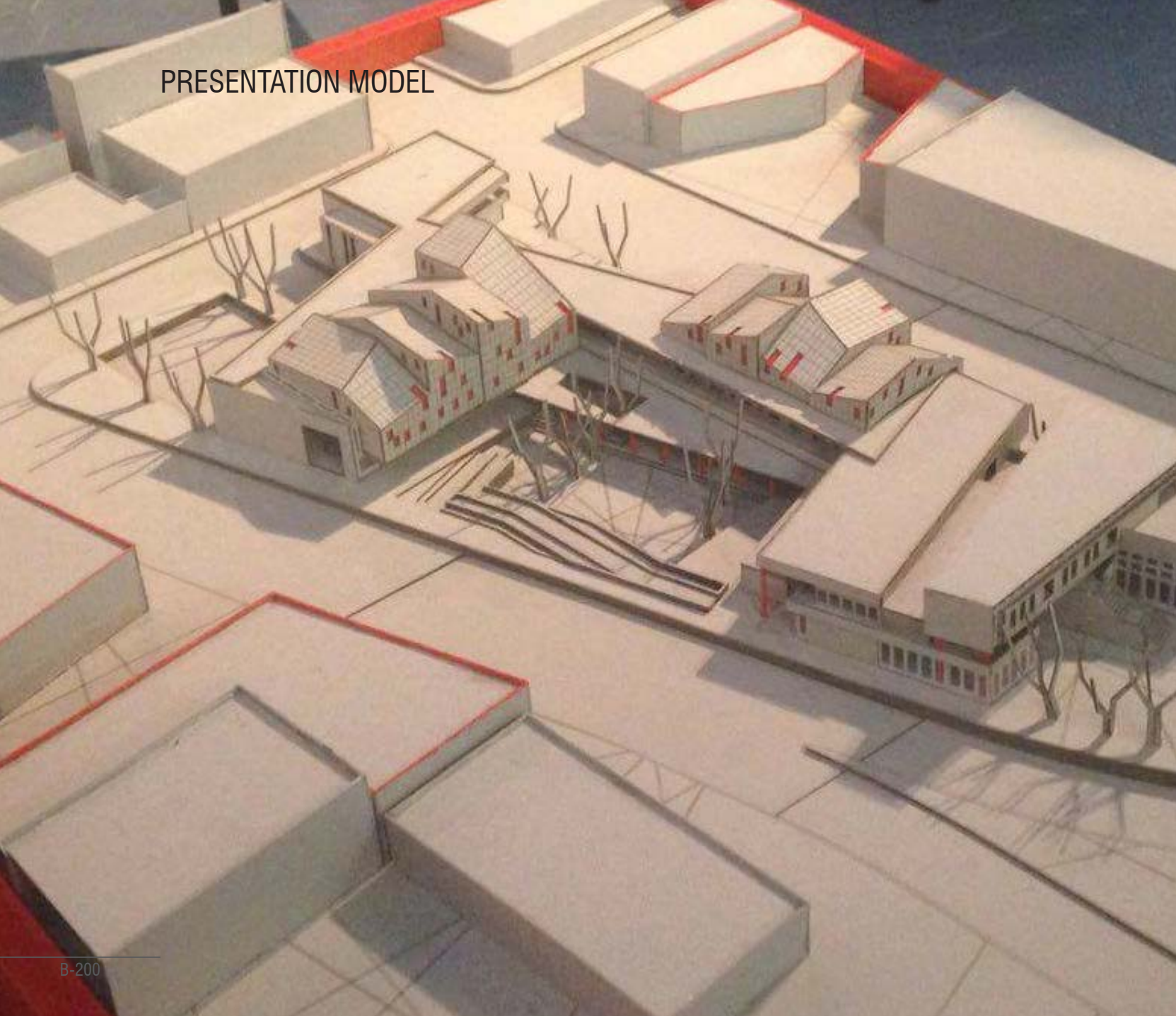


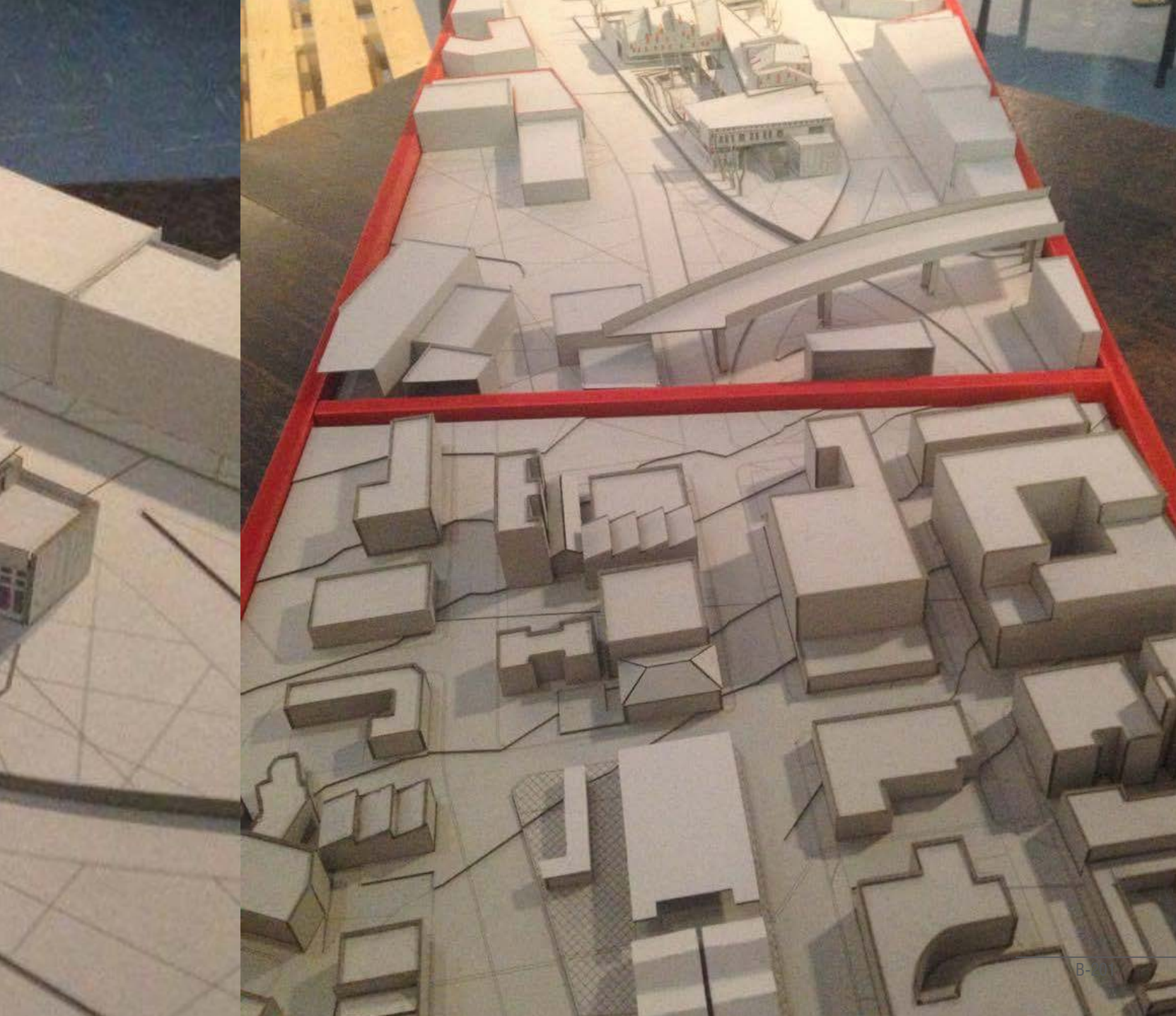
PRESENTATION BOARDS





PRESENTATION MODEL





CHEERS...