AMERICAN UNIVERSITY OF BEIRUT

ASSESSING THE PUBLICNESS IN NEOLIBERAL WATERFRONT DEVELOPMENT: BEIRUT POST WAR MARINAS COMPARED

by
DIMA ALI EL HOUSSEINI

A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Urban Planning and Policy
to the Department of Architecture and Design
of the Maroun Semaan Faculty of Engineering and Architecture
at the American University of Beirut

Beirut, Lebanon
August 2023

AMERICAN UNIVERSITY OF BEIRUT

ASSESSING THE PUBLICNESS IN NEOLIBERAL WATERFRONT DEVELOPMENT: BEIRUT POST WAR MARINAS COMPARED

by

DIMA ALI EL HOUSSEINI

Approved by:

Signature	
Dr. Mona Fawaz, Professor Department of Architecture and Design	Advisor
Signature	
Dr. Howayda Al-Harithy, Professor Department of Architecture and Design	Member of Committee
Signature	
Dr. Mona Harb, Professor Department of Architecture and Design	Member of Committee

Date of thesis defense: August 28, 2023

AMERICAN UNIVERSITY OF BEIRUT

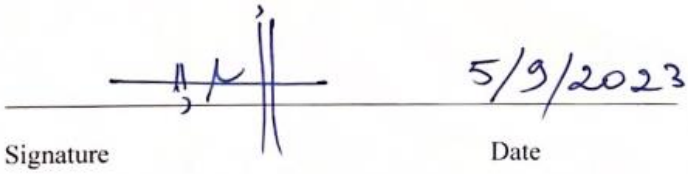
THESIS RELEASE FORM

Student Name:

El Housseini	Dima	Ali
Last	First	Middle

I authorize the American University of Beirut, to: (a) reproduce hard or electronic copies of my thesis; (b) include such copies in the archives and digital repositories of the University; and (c) make freely available such copies to third parties for research or educational purposes:

- ☒ As of the date of submission
- ☐ One year from the date of submission of my thesis.
- ☐ Two years from the date of submission of my thesis.
- ☐ Three years from the date of submission of my thesis.



Signature Date

ACKNOWLEDGEMENTS

My journey through my master's degree

My deepest gratitude goes to my parents who taught me patience and perseverance.

This journey through my master's degree would not have been possible without the unfaltering love and support from my husband Rafic, my daughters Mila and Haya, my brother Ibrahim, and my sister Nada.

I am also grateful to my friends and family who never wavered in their encouragement. Special thanks go to Allen, Ikram, Jamil, Jean Pierre, May, Zein, and Ziad for being there through best and worse.

I dedicate this work to the late Professor Robert Saliba who guided my academic studies from the beginning, the late Professor Jamal Abed who mentored me through my professional experience in planning, and the late President Hussein El Housseini who nurtured my passion to public endeavors.

I would like to express my deepest appreciation to my academic advisor Professor Mona Fawaz. Without her guidance and support, the completion of my degree would not have been possible.

I extend my deepest gratitude to my readers Professor Howayda Al-Harithy and Professor Mona Harb for their invaluable comments and inspirational advice.

Finally, a big appreciation goes to my Alma Mater, the American University of Beirut, for leading the way to knowledge and success.

ABSTRACT
OF THE THESIS OF

Dima Ali El Housseini for Master of Urban Planning and Policy
Major: Urban Planning

Title: Assessing the Publicness in Neoliberal Waterfront Development: Beirut Post War Marinas Compared

Since the 80s, many coastal cities around the world have invested in high-end marina developments. Despite a claim that such marinas can act as public amenities, these marinas have been criticized as a market-led development type that 'privileged economic interests and consumerist citizenship over community interests' (Boland et al., 2017 after MacLeod, 2011 p. 2).

In this thesis, I investigate the ability of marinas developed in post-war Beirut to act as public venues, especially, after the newly established ownership pattern has abstracted them to a sum of privately owned lots. "Public" here refers to the practice of space unrelatedly to land property, codification, and regardless of legal, ownership and governance statuses.

The thesis takes for case study the marinas of (a) Beirut Marina- Zaituna Bay and (b) Dbayeh Marina-Waterfront City. The thesis aims to analyze and compare the "publicness" of these marinas, looking at the impacts of urban policies, design approaches, and governance /management mechanisms in balancing between private interest and public profit.

The thesis adopts the Varna & Tiesdell star model to assess publicness and measure open spaces quality. The model takes 'five meta dimensions', namely *ownership, control, civility, physical configuration,* and *animation.* While classic models limit the understanding of "publicness" to property ownership, the Star Model hybridizes public and private by blurring boundaries and hence *developing a more flexible definition of public space* (Varna & Tiesdell 2010). The thesis extends further the indicators by accounting for informal practices as an integral part of the control, levels of civility, and introduced animations in the analyzed spaces. The selected tool will dissect the layers of publicness into a matrix that classifies spaces from least public to most public, measuring the level of publicness in each dimension and converging towards a more precise classification of public space based on the set of formal and informal indicators.

The thesis finds that despite a relatively similar ownership model, the two marinas studied in the thesis have very different levels of publicness. It shows that Zaituna Bay has achieved a much higher level of publicness most notably the outcome of its design, connectivity, and its management policies. Conversely, the thesis shows that the exceptions that were introduced by public policymakers during the development process of these marinas undermined in both cases their public nature.

In conclusion, the thesis aligns with Varna & Tiesdell's discourse on ownership as being insufficient to measure publicness, centering design approaches (physical configuration) and management strategies (control, civility, and animation) as basis to maximize publicness through boosting different forms of access (visual, physical, financial, cultural).

The thesis contributes knowledge towards the articulation of proper urban policies, strategic design guidelines, and responsive governance mechanisms to maximize access and promote *public benefit* when Public Private Partnership approaches are adopted for waterfront marina developments.

TABLE OF CONTENTS

ILLUSTRATIONS

Figure

TABLES

Table

ABBREVIATIONS

ZB - Zaituna Bay
WFC – Waterfront City
SOLIDERE - Société Libanaise pour le Développement et la Reconstruction
CDR - Council for Development and Reconstruction
JV – Joint Venture
IDAL - Investment Development Authority of Lebanon
AAVB Agence pour l'Aménagement de la Valée du Bourgreg
MAF – Majid Al Futtaim

CHAPTER I

INTRODUCTION

"Publicness" is the sum of the characteristics that give a place the quality of being public (Varna, G. 2014). It is the multi-layered benchmark that identifies key functions and desirable feature and qualities of the public realm (Varna G. & Tiesdel S.2010). Although often idealized, the publicness of a space is often a relative quality (De Magalhães 2010), with some attributes of qualities that are more "public" than others. Consequently, assessing the publicness of a place is done by evaluating its characteristics according to criteria known to enhance characteristics associated with publicness such as accessibility, openness, and others. This should be done without reducing public space to a list of desirable features, or simply imagining a process in which spaces are classified from more to less public Németh & Stephen, 2011) . Instead, planners are challenged to understand the numerous contextual, social, spatial, managerial, and design decisions that influence the practice of specific spaces for particular populations during historical periods or moments (Li et al, 2022).

Lebanon's post-civil war period has been widely decried as one in which the public realm has been privatized and commercialized in a context of rampant neoliberalism. Perhaps most emblematic is the reconstruction of the city's historic core under the control of a private real-estate development agency, Solidere, a process that transferred and consolidated ownership in the hands of a few (Makdisi xx, Becherer xx). Since the early 1990s, private developments have proliferated, becoming a dominant mode of urban renewal.

Conversely, despite this privatization, many have also described private spaces such as malls and marinas, to be among the most functional public spaces for the city's population. Research indicated that users appreciate "privately produced" open spaces for the pleasant, clean, safe environment, and the many social and cultural opportunities they provide (Leclercq, E. & Pojani, D. 2023). Calling for a new public narrative, Carmona (2015) provocatively suggests that privatization can act as a 'narrative of renewal' as opposed to its typically described association with 'reduced publicness'. He argues that the transformation in political and public sector approaches to public space, by involving the private sector, allows for a revisited public space pattern where urban planning and design innovation lead policymaking and investments towards qualitative and appealing public spaces for the city. Within this line of argumentation, the private sector can provide a pathway for cities to secure a diversity of quality sustainable spaces instead of pursuing an 'elusive ideal public space' that is hard to achieve and sustain (Carmona 2021).

The assumption that privately held spaces can act as functional public spaces is best validated in the development of Marinas that are increasingly emerging as a global typology of public/private spaces. As port areas begin to expand their functions towards leisure activities and many cities see in marinas an opportunity to expand their appeal and consequently their economic basis, marinas are increasingly adopted as a development typology. For example over 180 marinas were developed along the French riviera during the 1980 and 90s, despite their private ownership, these marinas remained open to the public due to the policy framework and strict urban regulations that prevented enclosure and secured a continuous public access to the sea. (Miossec, A. 1992). The success of the French riviera in attracting tourists, providing exquisite public

beaches, and protecting the publicness of open spaces around the new marinas is largely due to the strong governance and policy framework that prioritized inclusivity. Thus, Loi Littoral (passed Jan. 3, 1986) controlled construction along the coastal zone, organized the management of coastal areas, protected environmental characteristics, and imposed proper public participation dictating that residents should be "properly informed" and that their opinions and counter-propositions should be accounted for when decisions are taken by public authorities (Miossec, A. 1992 P.735). [Add here, even by listing, that other cities such as Barcelona also designed publicly accessible marinas]

Not all marinas are however public, and scholars do not necessarily agree on the impacts of development. For example, Bogaert (2018) contends that in Rabat, the marina design supported the enclaving and justified closure. He argues that even though the mega-development of marinas brought economic growth, however, it has led to the deprivation of public space, the relocation of entire neighborhoods and more importantly gentrification. On the other hand, Hamukoma, Doyle and Muzenda's (date) argue that Rabat and and its suburb, the less privileged Salé, benefited from the mega projects and the marina along the Bouregreg River because it bridged the the gap between the two cities. The privatization of the marina zone has been facilitated by the state through the setting of a specialized one stop agency, Agence pour l'Aménagement de la Valée du Bourgreg (AAVB), outside of traditional hierarchies and processes. AAVB secured public benefit and enhanced accessibility through the realization of sustainable urbanism around the mega developments such as public transport, educational centers, and public open spaces around the new high-end marina development.

In order to test the hypothesis related to the public benefit in privatized developments in Beirut (Lebanon), this thesis analyses comparatively two private marinas along Beirut's waterfront, both designed by star architects: (1) Steven Holl - Beirut Marina Zaituna Bay and (2) Ricardo Bofill - Dbayeh Marina Waterfront City development. The thesis documents the characteristics of these marinas and assesses their publicness, investigating hence whether these marinas can provide lesssons that counter the image or function of exclusive waterfront developments (Macdonald, E. 2018) and provide instead an adequate prospect for publicness.

A. RQ, Argument, Significance: why it is important

The research is interested in the following dilemma: How can waterfront redevelopment balance between *private interest* and *public benefit*? What type of urban policies, design decisions, and governance mechanisms can best achieve this balance? In order to provide insights to this question, the thesis begins by adopting the framework of the "five dimensions of publicness", as proposed by Varna and Tiesdell (date), to assess the publicness of two marinas in Beirut. The thesis begins with the five meta dimensions of *ownership, control, civility, physical configuration,* and *animation,* and it examines each of these characteristics in relation to Lebanon's context in order to adapt and extend the tool to Beirut's conditions. More specifically the thesis introduces two critical modifications to the original framework. First, it accounts for a higher rate for design decisions, given that they are central to the publicness of projects given the absence of a regulatory framework. Second, the thesis acknowledges the widespread informality of numerous practices of control and animation, and expands therefore its observation of these patterns to account for Beirut's social practices.

1. Thesis Main Findings

The thesis applied an adapted version of the Varna and Tiesdell's star model to two marinas in Beirut (Lebanon). These two developments are urban design *plug in*s, privatized with the intention to catalyze post war urban regeneration schemes. However, the two projects adopted different approaches in the design conception and management process, which affected, the thesis will show, their level of publicness. The thesis found that Beirut's marina displayed considerably higher levels of publicness than the other studied case, the Dbayeh marina, with a noticeable difference in the animation and the physical configuration, the two design-based dimensions of publicness, as well as civility, the managerial dimension of publicness (Varna and Tiesdell, 2010). Assessing indicators such as centrality, connectedness, visual permeability, thresholds, gateways, opportunities for discovery, and engagement within the developments, maintenance and facility provision, the thesis captured site-specific strengths and weaknesses in the design and managerial frameworks of the two marinas. The thesis further found that the absence of a general regulatory framework that protects the coast facilitates privatization and threatens the sustainability of the public dimension.

2. Significance

The findings of this work can inform other design projects with similar characteristics and offer lessons for urban designers invested in improving the public dimension of private projects.

B. Context in Short

1. Post-War Lebanon

The laissez-faire attitude (siyasat al-yad al-marfu'a) and neoliberal approach to post war reconstruction in Lebanon has led to an increasing privatization of prime public assets (Leenders 2004). Lebanese policymakers and political actors monopolized the reconstruction arena to enrich their personal land portfolios, focusing their efforts on waterfront renewal and land reclamation projects. By swapping incurred land reclamation cost for land ownership, private contractors like Rafic Hariri and Joseph G. Khoury acquired prime public waterfront assets. As a result, public space on seashore was lost and a new form of private developments emerged in its place. Public-ization (Carmona 2021) of private space, or the reverse of privatization, compensated for the loss of public space and retrieved public benefit from privately operated public places. This approach attempted to deliver private spaces accessible to the public in areas such as Beirut's historic core, now known as SOLIDERE, after the private real-estate company that took on its redevelopment, or the LITTORAL NORD projects. The two case studies adopted for this thesis, namely Beirut's Zaituna Bay and Dbayeh's Waterfront City marinas, are examples of such developments. The following sheds a light on the policy making and political meddling in the making of both case studies. During this post war phase, urban regeneration was widely led by the private sector, particularly in Beirut central district where reconstruction was fully delegated to a real-estate agency, SOLIDERE (Makdisi 1997). As decades unfolded, public agencies looked to facilitate the work of such private actor, even when this required them to issue exceptions and/or informalize decision making (Krijnen and Fawaz 2010). This approach has further weakened state's governance over the public domain.

The decade of the 1990s witnessed the emergence of two groups of private actors. The first group included those Baumann (1992) called the 'contractor bourgeoisie', men like Najib Mikati, Mohammad Safadi, Issam Fares, and most powerful among them, the late PM Rafic Hariri. These were extremely rich men of Lebanese descent who had typically made their fortunes in the Arab Gulf and came to exert political and economic influence in the country's reconstruction. The second group was formed of technocrats, individuals acting behind the scenes to back and legitimize these contractors' operations. Among those, one can list Fouad Siniora, Jihad Azour, Raya Hassan, and the late Bassel Fuleihan and Mohammad Chattah all of whom formed an expert and professional group that formulated the legal, financial, regulatory, economic and policy frameworks that supported Hariri's reconstruction scheme from the 90's onward (Arsan 2018). Finally, Taef agreements ending the civil war in 1991 aimed for a quick socio-economic recovery to address the dire need for reunification and paved the way for the reconstruction.

C. Methods

In order to assess the "publicness" of Beirut's marina, this research uses a mixed-method approach combining both qualitative and quantitative research methods. The methodology of the research opted for qualitative assessments to uncover and compare the development of the policies and regulations behind the making of the marinas.

For data collection, the thesis relied on the use of documents, plans, and reports to analyze the current spatial status and the governance structures of the two waterfront marinas. Data collection was done in two steps:

(1) Desk and literature reviews to understand and uncover the legislative process such as decree setting, policy making, building law, urban regulations formulation and design decisions. It sheds a light on the derogations and changes that overshadowed those legislations.

(2) Interviews with key informants from both sides, the developer, and the authorities, to know how and why the derogations, exceptions and exemptions were meddled through.

These interviews and access to information was facilitated by the fact that the thesis author worked as an urban designer and was directly involved in one of these projects.

The collected data was then assessed according to the Star Model's meta-dimensions to rate the publicness of each marina. The resulting benchmarks are compared to establish the framework upon which public benefit is defined and increased in future marina developments.

D. Thesis outline

After analyzing the different approaches, the thesis opted for the Star Model to assess the publicness and set a comparable benchmark to the two marina case studies. The thesis builds on the strength of this multi layered approach in analyzing the complexity of the development process. In chapter 1, the thesis introduced the research question and unveiled the significance of the study. In chapter 2, the thesis delves into the meaning of publicness and the different approaches to assess it. In chapter 3 and 4, it identifies what works and what doesn't in the case study marina developments and delivers a comprehensive assessment based on the interaction of the five meta-dimensions for both case studies. In chapter 5, the thesis uses the Star Model

benchmarks to compare the case studies and understand how one place is more public than the other. Finally, the thesis recommends steps to improve the publicness of future marinas based on the five dimensions.

CHAPTER II
ASSESS PUBLICNESS

This chapter introduces the theoretical background of the thesis covering the notion of publicness as a measurable scale to assess public benefit. In the first section, I begin by fleshing out the various models or approaches used to measure the "publicness" of space and reviewing selected references on mono-dimensional (Clarkson 1972; Demsetz 1967), three-dimensional (Nemeth and Schmidt, 2009), and multi-dimensional publicness assessment models (Varna and Tiesdell, 2010). After an overview, the chapter introduces the Star Model and fleshes out the five dimensions of the Star Model that will be adopted for the thesis. Building mostly on the work of Varna and Tiesdell, the chapter ends with adapting the multi-dimensional star model to assess and compare marina developments case studies.

A. What Is Publicness?

Publicness is defined as "the quality or state of being public or being owned by the public"[1].

For Kohn (2004) public space is a multi-dimensional concept, and the "publicness" of a specific space entails grouping different values and standards that qualify the space as "public" as examples of this Kohn lists the spaces of 'pluralistic society' being the public spaces by the people and for the people as opposed to the POPS[2] spaces of privately owned 'third Places'. Similarly, Németh and Schmidt (2010) argue that the

[1] Collins dictionary, 2023. https://www.collinsdictionary.com/dictionary/english/publicness#google_vignette last visited 15/08/23.
[2] Privately owned public spaces, also known by the acronym POPS, are spaces dedicated to public use and enjoyment and which are owned and maintained by private property owners, in exchange for bonus floor area or waivers. https://www.nyc.gov/site/planning/plans/pops/pops.page last visited 15/08/23.

concept of publicness comprises multiple, interconnected definitions such privately managed safe, accessible, and planned for law abiding desirable users or informal places created through “post-Fordist” placemaking, insofar as their production is flexible, mobile, and fostering innovation.

Varna and Tiesdell (2010) understand publicness as a multi-layered benchmark that recognizes key functions, characteristics, and qualities of the public realm. In order to understand these dimensions, Varna and Tiesdell suggest that a multi-disciplinary approach that extends over multiple fields of study needs to be adopted (see figure 1 below).

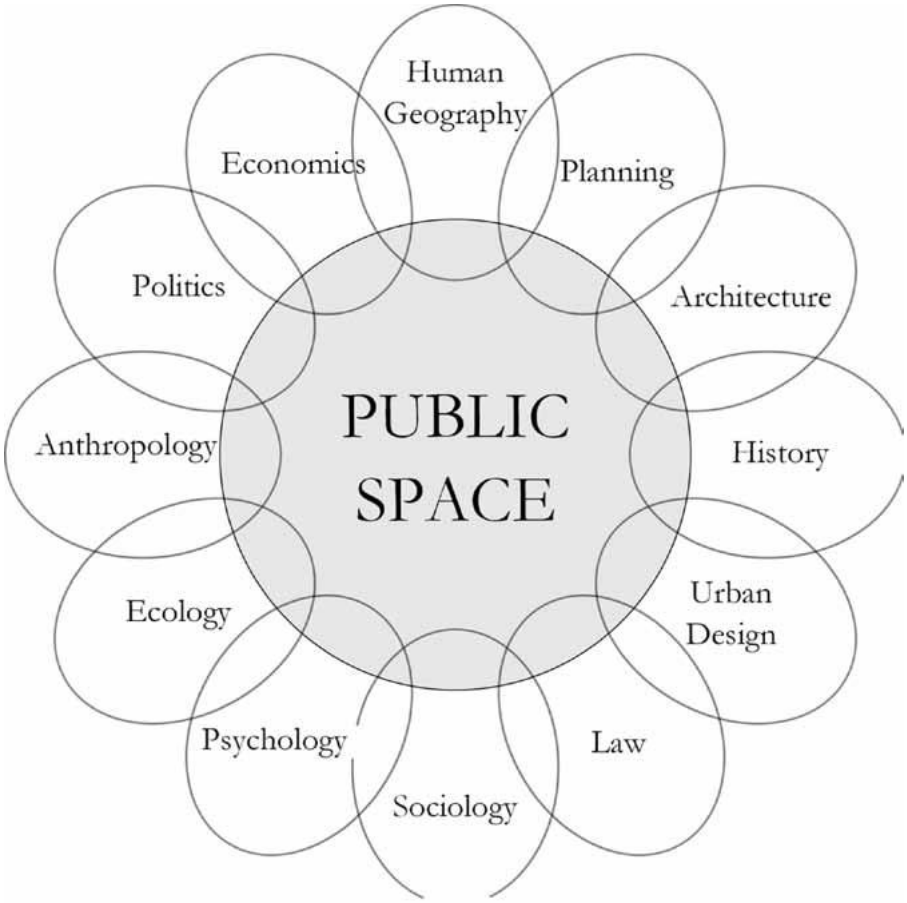


Figure 1 Public space a multidisciplinary approach - source Varna (2014)

B. The Different Approaches to Assess Publicness

Historically, public space was associated with the state as the only "public" institution, and state agencies such as planning agencies or municipalities were seen as the regulators of these spaces. The notion of public benefit in neoliberal space is challenged and redefined, especially when publicly accessible spaces are increasingly provided by private actors. Hence, assessing and measuring publicness of those spaces requires a complex process that necessitates understanding the multiplicity of actors, layers, and dimensions that constitute the public benefit (Németh & Schmidt 2010). Of the several assessment models, the thesis reviews the mono-dimensional model. It refers to Benn and Gauss (1983), Lessig (, 2001), Németh and Schmidt (2010) three-dimensional model and adopts Varna & Tiesdell (2010) multi-dimensional model.

1. The mono-dimensional Model

The mono-dimensional approach to assess publicness is the conventional model that establishes a simple association between ownership and publicness. Based on the assumption that public ownership leads to lower efficiency in producing social and economic benefits (Clarkson 1972; Demsetz 1967) under weak (government) governance, public space is rated as a direct outcome of the effectiveness of government and weak governance typically lead to a weak publicness rating for a space that is then deemed unattractive to the wider audience, whereas private ownership, associated with better achievements would yield a better rating.

Németh argues that a simple one-dimensional metric to assess space, would be in the case the space is free access to everyone. He considers that this type of spaces fosters innovation as it is used freely and without inhibitions. However, if space accessibility

requires permission than the space is not legally open and accessible to all. Moreover, when entry requires permission, it must be granted 'neutrally' and 'without prejudice' (Lessig 2001). However, a space open to everyone is a space that requires a certain level of control for the safety of all users alike. The questions then are "how much control is too much?" and "When, exactly, is space "taken out" of the commons?". (Németh 2012). This is where Németh's view on privatization expresses his concern that if public spaces are allocated by private entities their access decision risks being controlled and monopolized by the owners. If so, this might kill them. Nemeth argues that the mono-dimensional assessment limits the reading of space to one dimension, one perspective and fails to recognize the variety of users, multiple experiences, and different needs. This is why the three-dimensional, and more so, the following multidimensional models of publicness, with multiple dimensions, will give an in-depth understanding of the concept when a space is privately owned and publicly accessible.

2. The three-dimensional assessment

In assessing public spaces with more complex ownership patterns such as private public partnership, privatization, and privately held public spaces (POPS), the mono-dimensional-model fails to reflect an accurate assessment and hence it is fair to say that the model would not be efficient (Németh & Schmidt, 2012). That is why Németh and Schmidt's three-dimensional model assesses publicness in relation to ownership, management and uses.

a. Ownership

In this model, the ownership dimension is combined with operation; predictably, publicly owned spaces are publicly operated, whereas privately owned spaces are privately operated. However, the model accounts for the four possible ownership and management combinations. (Refer to figure 2: Ownership and management combinations).

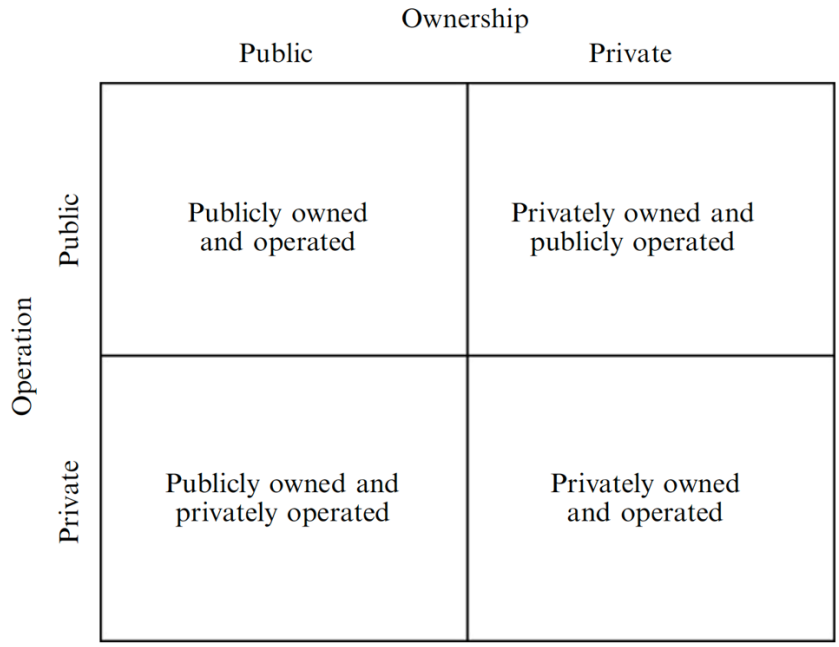


Figure 2 Ownership and operation combinations – source Németh and Schmidt (2010)

b. Management

For Németh and Schmidt, Spatial management refers to space operation. Management could be handled in different styles and degrees of control. Management tasks include the setting of rules, regulation, permitted as well as prohibited uses; The design and organization of the space, utilities and amenities and maintenance; the provision of access and control. The presence of controls can be subtle or overt and can range from very accessible-encouraging free use and easy access- to stringent - discouraging users; thus the resulting publicness

assessment rating associated with the management dimension varies from inclusive and open to exclusive and closed (Németh, J. & Schmidt, S. 2010).

c. Uses

The third dimension in this model refers to use and users. It deals with the quantitative assessment of uses and types of users and investigates the diversification of activities; qualitatively, it analyzes the user's perception and their behaviors in the space. The difficulty in this dimension lies in the fact that what might be perceived as public to someone might feel less public to someone else; also, describe how space is used and appropriated in ways not originally intended. In this assessment, the user's perception can measure the potential of publicness unlike the other two dimensions, ownership and management which deal with the actual publicness. The following graphical representation of the three-dimensional model compares the publicness of two hypothetical spaces A&B:

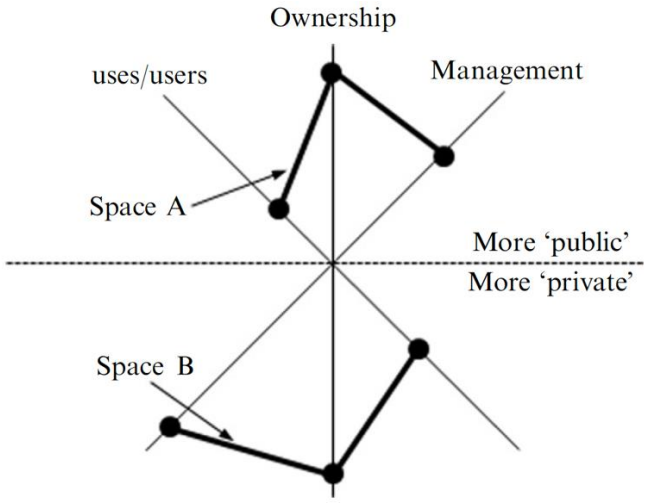


Figure 3 Comparative of publicness based on the three-dimensional model – source Németh and Schmidt (2010)

Given the subjectivity of the three dimensional model in qualifying the users' perception of space, it remains limited in giving an overarching value of publicness. Other three-dimensional assessment such as Benn and Gauss (1983) adopt access, agency, and interest as publicness dimensions; Interest referring to the users and their practice of space, agency to the control and decision makers, and access to the ability to occupy the space and its function. (Németh, J. 2012)

3. The multi-dimensional assessment

Varna & Tiesdell's multi-dimensional model is devised to measure and assess the public meaning of a space by analyzing the complex development process involved in the making. Considering that this space is the result of several decisions made by different development actors -the owner, the developer, the planner, the funder/investor, the architect/urban designer, and the user- the actors who play a major role in the production of a space influence the quality of its publicness. Németh resumes the inductive (critical realist) approach of Varna and Tiesdell means that publicness assessment is external and not deductive/internal as it tries to recognize what is out there. This type of approach is meant to avoid the subjectivity of the deductive approach which considers 'publicness in the eye of the beholder' (Varna and Tiesdell, 2010, p. 578).

The model identifies 5 themes intrinsic to space making and reflects the interactions between those key players. The themes that the authors refer to as "meta-dimensions" are ownership, control, civility, animation, and physical configuration. Assessing the 5 meta-dimensions in the eye of the users helps identify the level of

freedom in accessing and using the space. “Access is understood as imbedded in the meaning of the five meta-themes” (Varna and Tiesdell, 2010, p. 78).

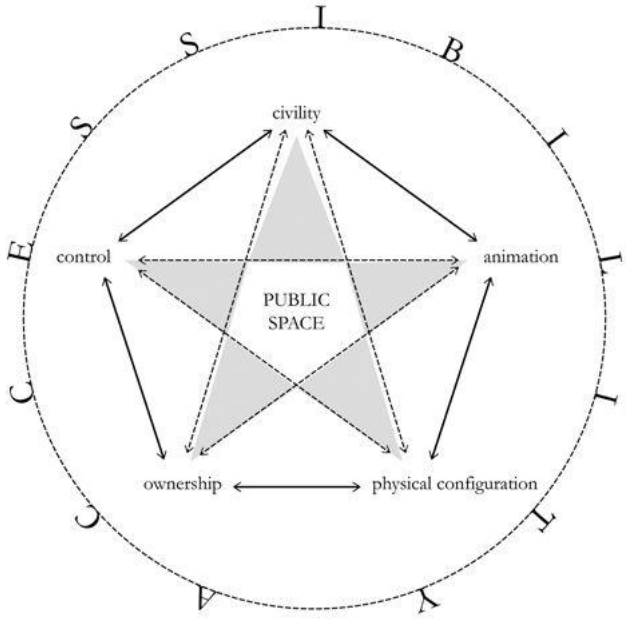


Figure 4 The accessibility of public space as a resultant from the five meta-themes of publicness – source Varna and Tiesdell (2010)

The model dissects each of the 5 dimensions into a set of indicators or characteristics that are scored on a scale of 1 to 5, where 1 is the least public and 5 is the most public. Represented with a five-legs star, each leg of the model refers to a dimension with the length representing the score of the indicators developed for each dimension. The longer the leg the higher the score, and the bigger the star the more significant the publicness rating of the space is.

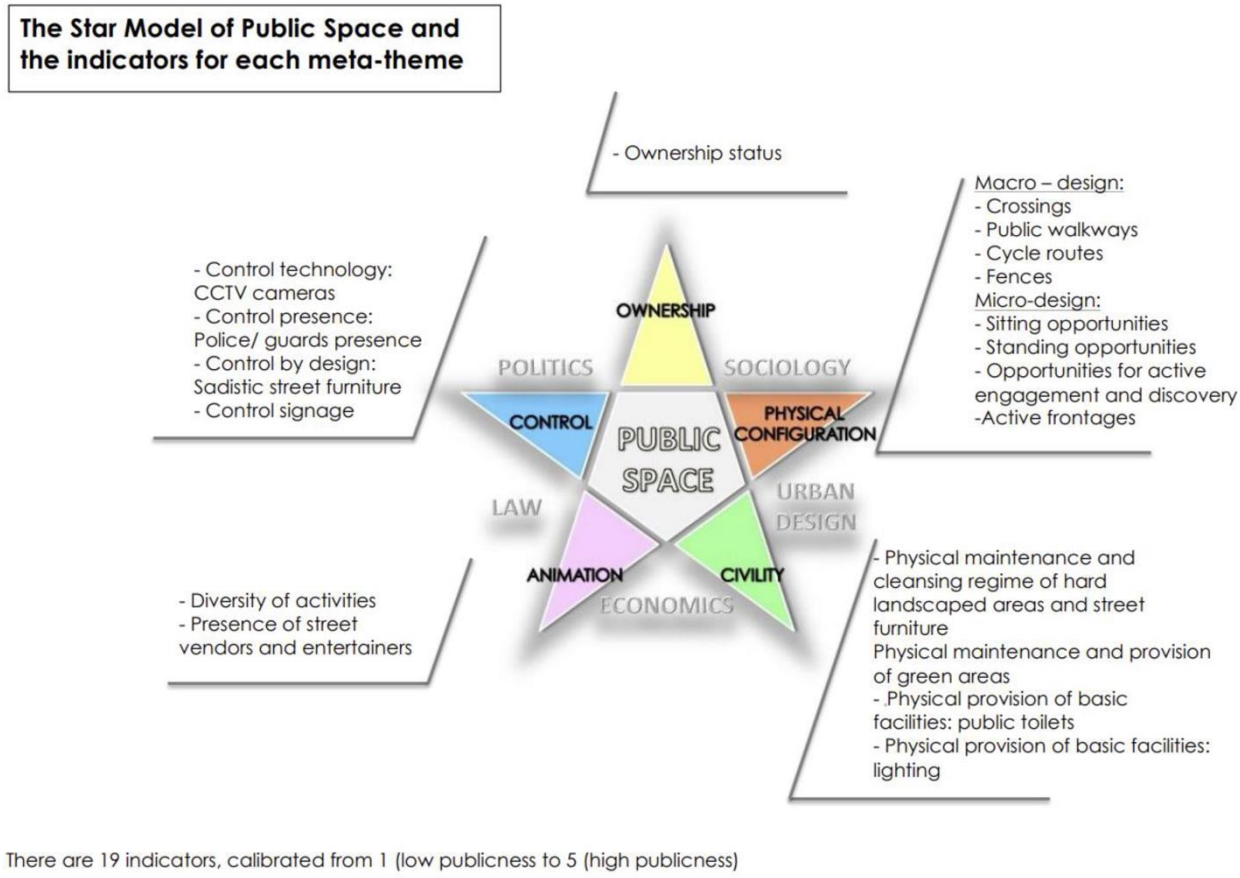


Figure 5 The Star Model of Public Space and indicators for each meta-theme - source Varna & Damiano (2013)

Among publicness assessment techniques, the multi layered model has been widely seen as the most effective to assess qualitatively a particular place.[3] In her book, Varna considers that the Star Model of Publicness offers an objective tool for comparing public places. The added value in this comparative analysis lies in the 'knowledge exchange and lessons learned from the success and/or failure of different projects (Varna, 2014, p.9).

Varna adopts the star model to assess and compare the publicness of three of Glasgow's main waterfront public places: Pacific Quay, Glasgow Harbour and Broomielaw.

[3] Varna, G. Tiesdell, S. (2010) Assessing the Publicness of Public Space: The Star Model of Publicness

C. The Star Model

In the following section, the thesis introduces the star model of publicness, defining each of the five meta-dimension indicators, and extending their original definition to adapt it to the contexts of the studied marinas. In addition to the dimensions introduced by Varna and Tiesdell, I extend the model to emphasize in each of the five elements the role of design as a critical element. I further recognize informal practices as an integral element of the functioning and definitions of the two projects that influences sizably their level of publicness or lack thereof. To calculate the publicness of the two case studies in chapters 3 and 4, I have broken down each of the two marina developments into their main constituents: the private plots, the public and semi-public spaces. Each constituent is then weighed according to the main indicators of each dimension. The final rating per each of the five dimensions is then deduced from the total weighted average.

1. Ownership

Table 1 Ownership indicators matrix - source Varna & Tiesdell (2010)

Indicators of publicness for each meta-dimension					
	MORE PUBLIC				LESS PUBLIC
	5	4	3	2	1
(i) OWNERSHIP					
Ownership	Public		Public-private partnership		Private
'Headline' function	Public (e.g. street/access or route).		Transit interchange; retail premise.		Private (e.g. residence).

Ownership, the first dimension of publicness in Varna & Tiesdell's model, refers to the legal property status of a place, who holds the property title and legal rights for the land on which the project is located. Evidently, ownership by state institutions (or public ownership) of a specific land indicates a higher level of "publicness". In addition, ownership is assessed in relation to the defined function of the space, given that the function determines the allocated users, and hence who has the right to use the space and how. Hence, functions such as passage (street) or playground (open space) that encourage a wider population to use the space determine a higher "publicness" of the ownership criteria while private functions, such as "residence", determine a lower score. Intermediate positions exist when ownership is consigned to a public-private partnership or joint venture and occupied by a public function (G. Varna & S. Tiesdell, 2010).

Typically, ownership is associated with a relatively simple understanding of property where the boundaries of a lot are clearly defined. However, designers can blur these boundaries, effectively diluting the sharpness of the public/private divide and creating instead a more hybrid appearance of ownership that blurs the public and the private. Such blurred boundaries, in turn, encourage blended social practices where public functions are associated with the use of private spaces, for example, effectively diluting private ownership. Similarly, management can blur the boundaries of property by extending informally management of the project over a contiguous public space. Blurred boundaries resulting from either planning guidelines, design or management approaches merge the public and private realms into a loose hybrid space in between. This hybrid space, the semi-public, facilitates access, offers freedom of movement

across realms, thus enhances the publicness of the development beyond divided ownership patterns and boundary limits.

The calculation methodology for the ownership criterion is conducted with scales varying from least public (i.e., private ownership) to most public (i.e., public ownership). This calculation is refined by identifying intermediate values relating to semi-public spaces associated with public private partnership (PPP). In the calculation of publicness, the marina space is subdivided into categories of ownership and functions and the weighted average is prorated to the different areas each associated with its respective scale (refer to marina case study assessment section, matrices, and ownership maps)

2. Control

Table 2 Control indicators matrix - source Varna. & Tiesdell (2010)

Indicators of publicness for each meta-dimension					
	MORE PUBLIC				LESS PUBLIC
	5	4	3	2	1
(ii) CONTROL					
Purpose of control	'Big Father' (policed state), protecting the freedoms and liberties of citizens.				'Big Brother' (police state), protecting the interests of the powerful.
Control ordinance	Any additional site-specific rules and				Additional site-specific rules and

	regulations that exist are enacted in the wider public/collective/ community interest (i.e. protecting people, rather than property, from harm).		regulations enacted in a narrower private interest (e.g. rules enacted to prohibit certain behaviors objectionable to certain (dominant) groups for reasons of profitability or marketability).
Control presence	No visible/overt control presence No visible/overt security guards	Subtle/non-visible expression of control presence. Ambient – seductive.	Highly visible/overt expressions of control presence—public and private policing (especially security guards).
Control technology	No CCTV cameras evident.	Some CCTV cameras evident Ambient – seductive.	Many CCTV cameras evident. Ambient – seductive. Electronic surveillance – covert and overt.

Along with civility, control is one of the two managerial dimensions of publicness in Varna's star model. "Control" refers to the presence of visible policing or other forms of rule enforcement.

The calculation (or evaluation) of the control meta-dimension criteria is based on rating control in relation to whether it is enacted on the one hand in the wider public, collective, or community interest (i.e., protecting people rather than property from harm) or, on the other hand, it is enacted for narrower private interests, negatively affecting the publicness of the open spaces. (Varna and Tiesdell, 2010). Furthermore, the more control there is on the space, the less it is public. That, Varna and Tiesdell locate on the one end of the spectrum 'free use', with some form of what they term 'Big

Father control', and on the other end, the 'highly visible and oppressive' forms of control or 'Big Brother control' (Varna and Tiesdell, 2010)

In the Star Model, the control meta-dimension is assessed based on four main indicators: purpose of control, control ordinance, control presence, and control technology. Contextualizing the indicators to the marina development, the thesis identified the following site-specific management patterns for the control of open spaces, which are listed from the least to the most severe.

- No control: Access is free and there are no restrictions or control on who uses a space and how.
- Control by quality: The high quality of space generates a sense of pride in a place, discourages crime, and promotes respectful behavior. In other words, the quality of space induces good, self-policed behavior by eliciting a positive relation with users. As such, it encourages a form of control that supports freer uses and more inclusion that is highly desirable if the aim is to produce a more "public" space.
- Controlling usages: By controlling usages, management can enact a number of restrictions that serve to protect the functions for which the space is introduced. This form of control can be signaled through signage and pictograms that indicate to users the regulations imposed by management on these spaces. This type of control is often enacted in the interest of the operation, for example when management restricts users from bringing food or drinks, driving bikes or skates, smoking, or bringing pets along with or without leashes. The higher the restrictions on free uses, the less welcome and more controlled users feel, and the less "public" the quality of space.

- Control by branding: By displaying visible corporate branding at main venue entrances, management heightens a sense of proprietorship over a space, indicating clearly who has authority over its use (Gavin 2015).
- Control by filter: Management-operated security points and secures the presence of a "friendly" police that is intended to protect people and property against vandalism and misuse. This type of control filters the flow of visitors across spaces, monitor offensive behaviors, and limit the risk of vandalism. However, "friendly" policing begets the question of "friendly to whom", particularly in contexts where filtering reflects biases along race, gender, or other lines. In some cases, such controls can be exerted informally, which means that there is no declared policies but one notices a consistent effort to exclude specific groups –typically reflecting some concern by management.
- Members' only control: A stricter form of control involves gated entries, such as in the yacht clubs, and restricts entrance to members and their guests.
- Control by price: Price barriers control access and inhibit some social groups and community members from accessing the space (Worpole 2007). Exclusive by nature, marina developments require berthing fees and rents, and prices can be set high to control or limit the types of boat owners and marina users who can enter a premise.

Aside from formal controls, numerous informal controls can be deployed in spaces that are defined as public. Among those, numerous social biases and inequalities can affect how specific groups are able to experience an otherwise public space. For example, a publicly held space could be inaccessible to women due to social

discrimination, or again to members of a specific national group. In these cases, controls are exerted informally.

- Control by Guards: Guards are unofficially informed to prohibit entry of migrant workers as their presence might be "objectionable to certain (dominant) groups hindering profitability or marketability of the hospitality strip. When interviewed, the guards denied the existence of such control, however, several incidents were reported on social media and by word of mouth where migrant workers were harassed and/or stopped at the gate.

The Control calculation methodology is as follows:

● Identify control typology over the different marina components based on the above-mentioned criteria.

● Prorate control scale to the area where the control is applied. Weighted average is computed based on the overall sum of controls.

3. Civility

Table 3 Civility indicators matrix - source Varna & Tiesdell (2010)

Indicators of publicness for each meta-dimension					
	MORE PUBLIC				LESS PUBLIC
	5	4	3	2	1
(iii) CIVILITY Physical maintenance and cleansing regime	Cared-for; well kempt; proactive maintenance practices (e.g. emptying of bins; cleaning of graffiti; repairs; well maintained green spaces; etc).		Caretaking staff; proprietary staff (wardens, bus conductors).		

Physical provision of facilities	Provision of facilities for basic needs—toilets; shelter, food vendors; seats; lighting.	Lacking basic amenities and facilities.

In Varna and Tiesdell's matrix, Civility determines how much the open space appears to be—cared-for, how "welcoming" it actually is. In this scale, the highest public rating is attained when the open space is (i) cared-for; (ii) well-kept; and (iii) managed with public interest in mind, whereby management balances the needs of different social groups. The lowest public rating is given for spaces that lack basic amenities and facilities. The assumption made by this rating is that a civil, positive, and welcoming ambience encourages civil behavior and hence enhances positively the "publicness" of open spaces. Conversely, poorly maintained spaces discourage civility and can precipitate a spiral of decline. In some ways, this hypothesis recalls Wilson & Kelling's (1982) broken windows theory of crime prevention which contends that the widespread appearance of disrepair encourages a trend of abandonment and neglect. In their words, "one unrepaired window is a signal that no one cares, and so breaking more windows costs nothing". [4]

According to the Star Model, two main indicators are considered for the publicness assessment under civility:

- Physical maintenance & cleaning regime: studied areas are well kept, regularly cleaned and maintained.
- Physical provision of facilities: basic facilities are available, such as toilets, food vendors, seats, and lighting.

[4] Wilson & Kelling (1982) Public Places - Urban Spaces - Page 328

The civility dimension is Calculated based on (1) the availability of the maintenance services and (2) the level of service to the area where it is applied.

Weighted average is computed based on the overall sum of grades.

4. Physical Configuration

Table 4 Physical configuration indicators matrix - source Varna & Tiesdell (2010)

Indicators of publicness for each meta-dimension					
	MORE PUBLIC 5	4	3	2	LESS PUBLIC 1
(iv) PHYSICAL CONFIGURATION					
Centrality and connectedness	"Centrality (well located) within the overall movement network, facilitating both more movement-to and movement-through the space; desire lines within surrounding area continue into and through the space"				"Centrality (poorly located) within the overall movement network, facilitating little movement-through the space; desire lines within surrounding area do not continue into and through the space."
Visual permeability	Space has strong visual connection with external (surrounding) public realm.				"Space has strong visual connection with external (surrounding) public realm."

Thresholds and gateways	Implicit/invisible thresholds and entry points – space is not distinguished from surrounding public realm (e.g. one does not know precisely when the space is entered – i.e. the threshold is crossed).	Thresholds and entry points to space signified by, for example, changes of materials but otherwise no active constraints on access.	Explicit thresholds and entrances, with active constraints on access (e.g. manmade check points and gates that can be closed to prevent access).

In the Star Model for publicness, the physical configuration captures the design of the space internally and its relationship with its surrounding context. The space's physical characteristics are assessed on two levels of design, the macro level dealing with centrality and connectedness of the place to the outside world, and the micro level which relates to the inner physical characteristics like seating, walking, frontages, and display opportunities offered in the premise. The highest physical configuration score for an open space is attained when the space is

a. Centrally located within the city and well connected to pedestrian and vehicular networks
b. visually connected to the external public realm,
c. and seamless integrated within its surroundings rather than earmarking clear entrances and thresholds.

5. Animation

Table 5 Animation indicators matrix - source Varna & Tiesdell (2010)

Indicators of publicness for each meta-dimension					
	MORE PUBLIC				LESS PUBLIC
	5	4	3	2	1
(v) ANIMATION					
Opportunities/potential for passive engagement	Multiple opportunities (and reasons) for peoplewatching; multiple and varied formal and informal seating opportunities (perhaps including moveable as well as fixed seating), well located to observe activity within the space (i.e. the life of the space) and/or views from the space.				Few reasons for people-watching; few seating opportunities.
Opportunities/potential for active engagement	High density/proportion of active frontages (active edge); seating well located (or moveable) to facilitate social interaction; diversity of events and activities (e.g. life in the space) occurring spontaneously or through programming.				High density/proportion of blank, inanimate frontages (‘dead edge’/blank frontages). Few events and activities occurring either spontaneously or programmed
Opportunities for discovery and display	‘Loose’ space—adaptable, un-restricted spaces, used for a variety of functions, ad hoc as well as planned.				‘Tight’ space—fixed, physically constrained or controlled in terms of the types of activities that can occur there.

Animation refers to the uses allocated to a space, and how it is actually practiced or used. This dimension covers the type of activities offered and how the user is

engaged (whether passively or actively), and how much the design encourages shared spaces among many.

Varying from most public with a wide range of potential uses and activities to least public dead spaces, animation is one of two design-oriented dimensions of publicness, the other being physical configuration (see above).

The "animation" or uses of spaces can take many forms, and design help guide it. On the one hand, opportunities for "passive" uses involve essentially viewing activities, which can be towards a natural scenery, a sports game, and a performance. A well-animated space with passive functions will encourage many viewers to share in the experience. "Something happens because something happens because something happens". (Gehl, 1996: 77)

According to the Star Model, animation is rated through the following indicators:

a. Opportunities/ potential for passive engagement and where the space provides the opportunity for people-watching (Varna and Tiesdell, 2010) It satisfies the " . . . the need for an encounter with the setting, albeit without becoming actively involved" (Carr et al., 1992, p. 103 such as good opportunities for sitting, eating, reading, sleeping, knitting, playing chess, sunbathing, watching people, talking, and so on. (Gehl 1996)
b. Opportunities/ potential for active engagement are spaces for 'discovery', 'comfort' and'relaxation' (Varna, G. and Tiesdell, S. 2010). Opportunities for discovery & display

The calculation method of the offered animation in the venue is based on the degree to which the design of the place creates opportunities for active/passive

engagements, and whether or not it supports sharing activities among different groups of users.

D. Methodology for Computing Publicness Scores

The scoring of each dimension is computed based on Varna and Tiesdell's dimensions' characteristics for each dimension indicator, listed in this chapter's Star Model section. (refer to tables 1 to 6)

	MORE PUBLIC 5	4	3	2	LESS PUBLIC 1
(i) OWNERSHIP					
Ownership	Public.	–	Public-private partnership.	–	Private.
'Headline' function	Public (e.g. street/access or route).	–	Transit interchange; retail premise.	–	Private (e.g. residence).
(ii) CONTROL					
Purpose of control	'Big Father' (policed state), protecting the freedoms and liberties of citizens.	–	–	–	'Big Brother' (police state), protecting the interests of the powerful.
Control ordinance	Any additional site-specific rules and regulations that exist are enacted in the wider public/collective/community interest (i.e. protecting people, rather than property, from harm).	–	–	–	Additional site-specific rules and regulations enacted in a narrower private interest (e.g. rules enacted to prohibit certain behaviours objectionable to certain (dominant) groups for reasons of profitability or marketability).
Control presence	No visible/overt control presence No visible/overt security guards.	–	Subtle/non-visible expression of control presence. Ambient – seductive.	–	Highly visible/overt expressions of control presence—public and private policing (especially security guards).
Control technology	No CCTV cameras evident.	–	Some CCTV cameras evident. Ambient – seductive.	–	Many CCTV cameras evident. Electronic surveillance – covert and overt.
(iii) CIVILITY					
Physical maintenance and cleansing regime	Cared-for; well kempt; proactive maintenance practices (e.g. emptying of bins; cleaning of graffiti; repairs; well maintained green spaces; etc).	–	Caretaking staff; proprietary staff (wardens, bus conductors).	–	–
Physical provision of facilities	Provision of facilities for basic needs—toilets; shelter, food vendors; seats; lighting.	–	–	–	Lacking basic amenities and facilities.

(iv) PHYSICAL CONFIGURATION					
Centrality and connectedness	Centrality (well located) within the overall movement network, facilitating both more movement-to and movement-through the space; desire lines within surrounding area continue into and through the space.[1]	–	–	–	Centrality (poorly located) within the overall movement network, facilitating little movement-through the space; desire lines within surrounding area do not continue into and through the space.
Visual permeability	Space has strong visual connection with external (surrounding) public realm.	–	–		Space has weak or non-existent connections with external (surrounding) public realm.
Thresholds and gateways	Implicit/invisible thresholds and entry points – space is not distinguished from surrounding public realm (e.g. one does not know precisely when the space is entered – i.e. the threshold is crossed).	–	Thresholds and entry points to space signified by, for example, changes of materials but otherwise no active constraints on access.	–	Explicit thresholds and entrances, with active constraints on access (e.g. manmade check points and gates that can be closed to prevent access).
(v) ANIMATION					
Opportunities/potential for passive engagement	Multiple opportunities (and reasons) for people-watching; multiple and varied formal and informal seating opportunities (perhaps including moveable as well as fixed seating), well located to observe activity within the space (i.e. the life of the space) and/or views from the space.	–	–	–	Few reasons for people-watching; few seating opportunities.
Opportunities/potential for active engagement	High density/proportion of active frontages (active edge); seating well located (or moveable) to facilitate social interaction; diversity of events and activities (e.g. life in the space) occurring spontaneously or through programming.	–	–	–	High density/proportion of blank, inanimate frontages ('dead edge'/blank frontages). Few events and activities occurring either spontaneously or programmed
Opportunities for discovery and display	'Loose' space—adaptable, un-restricted spaces, used for a variety of functions, ad hoc as well as planned.	–	–	–	'Tight' space—fixed, physically constrained or controlled in terms of the types of activities that can occur there.

Table 6 Indicators of Publicness for each dimension-source Varna & Tiesdell (2010)

Moreover, for each indicator in the Varna & Tiesdell matrix, the thesis adapts the Star Model characteristic to the marina sites, when the context presents site specific informalities that need to be captured for a thorough site sensitive analysis. As an example of this adaptation, we present the case of the control indicator "purpose of control" where the thesis modified the scale criteria to account for the informal control practice by marina guards whereby they are assigned to informally monitor the admission of certain groups of people belonging to a specific race/gender/nationality. The impact of this control adaptation is reflected in the score of the marina indicator, whereby, to guard the interest and safety of the users some of them are discriminated against, based on their nationality, race or gender, and are considered a source of danger (refer to table 7 purpose of control characteristic):

Study Area Components	Adjacent corniche promenade	Sidewalk at St George edge	Marina boardwalk	ZB loose space extending corniche	ZB Loose space extending boardwalk	Yacht Cub exterior loose space	Open space	ZB Retail & Commercial units terraces	ZB Commercial units	Marina amenities	Parking (surface & underground) Semi-Public	Mid-block easement on St George plot	Yacht Cub (interior)	St George development	**Marina total study area (Without water body)**
Area per component	4.000	2.000	12.000	7.374	6.518	1.056	800	1.650	7.374	6.450	19.500	850	5.941	15.633	**91.146**
Area Percentage from total	4,39%	2,19%	13,17%	8,09%	7,15%	1,16%	0,88%	1,81%	8,09%	7,08%	21,39%	0,93%	6,52%	17,15%	**100%**
Indicator 1	**Purpose of control**														
Purpose of Control characteristics per area	No control		Safe place with private guards protecting property/users However, -Informally monitor offensive behaviors and limit the risk of vandalism. Informally they are assigned the control of the admission of certain groups of people belonging to a specific race/gender/nationality					Management control to secure the interest of the operation				Exclusivity barrier -Guarded gate for members only			**Grade 1**
	5	5	3	3	3	3	3	2	2	2	2	1	1	1	
Purpose of Control grade per area	0,22	0,11	0,39	0,24	0,21	0,03	0,03	0,04	0,16	0,14	0,43	0,01	0,07	0,17	**2,26**

Table 7 Caption of the control dimension grading matrix

The calculation of the score is done as per the following steps:

- As it is illustrated in table 7, the marina studied area is broken down into the constituting components, where the thesis organizes the components horizontally in the calculation matrix indicating their relative areas and area percentage from the total area of the marina venue.
- The thesis grades, on a scale from 1 to 5, each component according to the relative indicators' characteristic of the dimension in question (refer to table 8).
- Each component rating is then multiplied by the relative area percentage to compute the prorated rating per zone.
- The total grade for each indicator is calculated as the sum of the components' grades.
- The final dimension rating is evaluated based on the weighted average of the relative indicators 'grades.
-

Beirut Marina Zaituna Bay	Star Model for Publicness														
Study Area Components	Adjacent corniche promenade	Sidewalk at St George edge	Marina boardwalk	ZB loose space extending corniche	ZB Loose space extending boardwalk	Yacht Cub exterior loose space	Open space	ZB Retail & Commercial units terraces	ZB Commercial units	Marina amenities	Parking (surface & underground) Semi-Public	Mid-block easement on St George plot	Yacht Cub (interior)	St George development	**Marina total study area (Without water body)**
Area per component	4.000	2.000	12.000	7.374	6.518	1.056	800	1.650	7.374	6.450	19.500	850	5.941	15.633	**91.146**
Area Percentage from total	4,39%	2,19%	13,17%	8,09%	7,15%	1,16%	0,88%	1,81%	8,09%	7,08%	21,39%	0,93%	6,52%	17,15%	**100%**
Indicator 1	**Purpose of control**														
Purpose of Control characteristics per area	No control		Safe place with private guards protecting property/users However, -informally monitor offensive behaviors and limit the risk of vandalism. Informally they are assigned the control of the admission of certain groups of people belonging to a specific race/gender/nationality					Management control to secure the interest of the operation				Exclusivity barrier -Guarded gate for members only			**Grade 1**
Purpose of Control grade per area	5	5	3	3	3	3	3	2	2	2	2	1	1	1	
	0,22	0,11	0,39	0,24	0,21	0,03	0,03	0,04	0,16	0,14	0,43	0,01	0,07	0,17	**2,26**
Indicator 2	**Control ordinance**														
Control Ordinance characteristics per area	rules enacted in the best interest of wider public		Site specific rules & regulations enacted to preserve the quality standards and sustainability of the venue (management high end standards & high fees)									Rules enacted in the best interest of the private property			**Grade 2**
Control Ordinance grade per area	5	5	4	4	4	4	4	4	4	4	4	1	1	1	
	0,22	0,11	0,53	0,32	0,29	0,05	0,04	0,07	0,32	0,28	0,86	0,01	0,07	0,17	**3,33**
Indicator 3	**Control Presence**														
Control Presence characteristics per area	Subtle with presence of guards overall mood remains welcoming									Overt security guard at venue entrance					**Grade 3**
Control Presence grade per area	4	4	4	4	4	4	4	4	4	2	2	2	2	2	
	0,18	0,09	0,53	0,32	0,29	0,05	0,04	0,07	0,32	0,14	0,43	0,02	0,13	0,34	**2,94**
Indicator 4	**Control Technology**														
Control Technology characteristics per area	Some CCTV cameras evident														**Grade 4**
Control Technology grade per area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
	0,13	0,07	0,39	0,24	0,21	0,03	0,03	0,05	0,24	0,21	0,64	0,03	0,20	0,51	**3,00**
														Control Rating (indicators grade average)	**2,88**

Table 8 Beirut Marina Control Rating Matrix

.

E. Conclusion

After analyzing the different approaches, the thesis opted for the Star Model to assess the publicness and set a comparable benchmark to the two marina case studies. The thesis builds on the strength of this multi layered approach in analysing the complexity of the development process. In chapter 3, it identifies what works and what doesn't in the marina development and delivers a comprehensive assessment based on the interaction of the five meta-dimensions.

CHAPTER 3

CASE STUDY 1: ZAITUNA BAY

To assess the publicness of post war marina in Beirut, this chapter will rely on the metrics of the five meta-themes developed in Varna and Tiesdell's Star Model, as fleshed out in Chapter 2. It will take each of the five dimensions, namely ownership, control, civility, physical configuration, and animation, and attempt to define a score for the project. As publicness is not "a static image to be analyzed at a certain point in time", but also the result of a complex land and real estate development process (Varna, G. 2014), this chapter will examine the particularities of the production process and design approach. It will learn more about the ramifications of the complicated process in the making of public places.

A. Zaituna Bay [ZB] Project Details

1. The ZB Description

Zaituna Bay [ZB] stands perhaps as the most popular destination on Beirut's Corniche. Launched in 2011 as the main waterfront to the glamorous hotel district, the venue stretches 500 meters along Beirut Marina and houses 17 restaurants and cafés, five retail outlets and an exclusive yacht club. Walking down the street past the now dilapidated St George Hotel and yacht club, the corniche widens and extends to form landscaped piazzas overlooking the 500 berths marina. Siting in the central piazza on top, you can watch people enjoying a walk by the sea or sipping a cup of coffee in one of the cafés open-air terraces. From the corniche, the lower marina venue is easily accessed, by stairs or ramps via 7 main pedestrian entrances. The under-corniche parking facility is also available to guests with direct pedestrian access to the to the

marina level. At this level, successive green spaces, open-air terraces, and the wooden marina boardwalk extend F&B and retail activities and offer a variety of pleasant loose space to sit, walk, run and exercise. While the southern and northern ends of the marina house exclusive and members' only clubs, the central ZB vibrant section is open to all. It is designed as the hinge between Ras Beirut's corniche and SOLIDERE's waterfront promenade. Despite a long history of exclusivity, class division and social segregation, which started in 1934 with St George marina and still is to date with SOLIDERE's rich enclave era, ZB's accessible, safe, and qualitative environment has gained public appeal as the marina urban beach attracting users from all walks of life (Gavin 2015).

Figure 6 Zaituna Bay Promenade

2. Political Framework

As noted in the introduction, the post-civil-war period is widely associated with a neoliberal turn in urban governance where the state abdicated its responsibilities to

market actors (Sarkis and Rowe, date, Makdisi, 1997). The delegation of the area now knows as Zaytouna Bay to the real-estate company Solidere was done in a series of legal measures of which I list a few below.

> In 1991, decree 117/91 appointed SOLIDERE the company for the Lebanese Company for the Development and Reconstruction of Beirut Central District.[5]
> In 1994 SOLIDERE was effectively established as a real-estate company that monopolizes the reconstruction of Beirut's historic core.[6]
> In 1994, the Council for Development and Reconstruction- (CDR)[7] - tasked SOLIDERE with the reclamation of the Normandy landfill. Ownership of waterfront plots 1455 & 1456 – surrounding the marina – were transferred to the private company as part of their remuneration.
> In 1997, the state granted SOLIDERE a 50-years concession right to operate and exploit Beirut's newly built Marina.[8]
> In 2000, late PM Rafik Hariri requested from Mr. Najib Mikati, then Minister of Public Works and Transport, to prepare a decree proposal ratifying Resolution 83/1995 and confirm the inclusion of Sector 5, an entire district of Beirut's historic core, as an integral part of the Western Marina, thus denying sea access to the nearby St. Georges Hotel. The Council of Ministers 'approved' CDR's recommendation to implement the decision, to include sector 5 as part of the marina, through the Directorate General of Transport (DGT) who in turn prepared the issuing of the decree.[9]
> In 2001, to further facilitate the development of the waterfront, late PM Hariri granted IDAL power under the terms of Law 360 /2001 to exclusively supersede public administrations decisions, authorities and municipalities administrative permits and licenses.

3. Corporate Framework

In 2004, Beirut Waterfront Development S.A.L. (BDW), a 50/50 joint venture was established between two private actors: SOLIDERE, the private real-estate company

[5] Prior to this, decree 959/1965 advocated the adoption of several 'Real Estate Compan**ies'** (REC) formed by the owner/renter bodies, and the state, as the framework solution and development tool for post-war reconstruction within an expedited timeframe.
[6] Numerous important figures in Lebanon describe this delegation as shifting the objectives of Beirut's reconstruction from national unification to profit, resulting in a new form of class divisions and segregation. Interview with the late President Hussein El Housseini – Former Speaker of the Lebanese Parliament – Beirut 28th of May 2022.
[7] CDR governmental organization established in 1977, during the Lebanese civil war, which has taken a major role in the sequence of rebuilding the damaged infrastructure of the country.
[8] Interview with Samer Bsat- Former General Manager of BWD – interviewed in Beirut, June 11, 2022
[9] This is according to a SOLIDERE Quarterly Report: SOLIDERE, Quarterly Report: Issue 4, (Beirut: SOLIDERE, 2000).

that was entrusted with the post-civil-war reconstruction of Beirut's historic core in 1993, and UK based STOW Capital Partners[10], partially held by one of Lebanon's dominant political figures. STOW invested what was then estimated as the equivalent of the land value[11] that was put forward by SOLIDERE. The new company's scope was to rehabilitate and develop the land around the Marina, namely Mina El Hosn private plots 1455 and 1456, as a distinctive marina gateway.

This joint venture proved to be advantageous for SOLIDERE. By introducing the British investors to the project, public funding was encouraged and facilitated via the Investment Development Authority of Lebanon (IDAL), contributing $80.9 million to the project.

In 2011, the 'pedestrian esplanade'[12] was opened to the public.

Despite being politically aligned, the stakeholders had diverging objectives for the marina development. As the master developer, SOLIDERE prioritized the exclusivity of the marina, which it approached as an opportunity to create additional real estate value. Conversely BWD, the master operator of the development, leaned towards a more accessibleapproach to increase footfall and consequently ensure the financial feasibility of F&B and retail commercial activities.

BWD's decision to target high income profile users in their F&B offering across ZB venues was revised a year later due to the decreasing sales figures despite an increasing popularity and public appeal. BWD hospitality consultants revised ZB tenants' mix to

[10] A UK based property investment, development and management company with operation in the UK and the Middle East, whose 25% of shares are owned by the Lebanese Finance Minister Mohammed al-Safadi (2011 – 2014)

[11] According to the agreement, SOLIDERE would contribute 22,351 square metres of land (with about 20,000
square metres in built-up area), and STOW Capital would contribute US$31.6 million. See: SOLIDERE, Annual Report, (Beirut: SOLIDERE, 2004), p.22.

[12] https://www.nytimes.com/2012/02/19/travel/in-beirut-the-zaitunay-bay-promenade-opens.html

include more middle-class targeted venues. In a statement, BWD co-chair Farouk Kamal[13] emphasized the importance of middle-class audiences. According to Kamal, appealing to middle class key to increase sales and attract tourists. Post 2019 political and economic turmoil, ZB's versatile design, with its flexibility to calibrate restaurant venues and include more social classes, proved to be key for the venue's commercial success and public appeal.

4. Design Framework

In 2002, SOLIDERE held a limited competition among selected architects for the design of the Beirut marina, but the competition did not render a winning concept. Instead, a direct commission was made in November 2002 to three partnering firms, Steven Holl Architects, LEFT Architects, and Nabil Gholam et al.[14] who were asked to design 'a year-round haven' of leisure, social, and cultural activities on SOLIDERE's owned plots 1455 & 1456 (Gavin, A. 2015). The making of Beirut Marina involved a series of design strategies that answered to financial objectives, development aspirations, and masterplan guidelines. The development objectives centered around 1) creating value and ensuring profitability 2) maximizing outdoor and indoor spaces with sea views, 2) fitting within SOLIDERE's open spaces hierarchy ranging from metropolitan scale to local squares and food & beverage terraces, 3) designing pedestrian connections and linkages guaranteeing permeability and continuity and 4) planning qualitative infrastructure for sustainable and high level of service.[15]

[13] https://www.executive-magazine.com/business/stowing-the-rich
[14] List all consultants involved
[15] Private Development Versus the Public Realm - #01 REMAKING BEIRUT - Angus Gavin

To understand the evolution of the marina from St Georges Bay to Zaituna Bay, the next section identified the masterplan key changes that led to post war urban metamorphosis of Beirut waterfront. The pictures below trace the changing morphology of the area, starting with the 1920's Avenue des Français - nouvelle jetée', going through the 1970s Golden Era of the Hotel District St Georges Bay, and finally the current Zaituna Bay configuration. (See Figure 6, 7 & 8 below respectively 1926, 1970, and 2012.) Along the years, the changes not only impacted the ownership pattern of the waterfront but also transformed the functions of the spaces from public beach to an urban and relatively private marina. However, what remains constant is the attractiveness of the promenade. Ironically, since 1920, the avenue des Français has been an enlarged corniche sidewalk section built over a landfill along the two bays of Zaituna and Saint Georges Bay[16]. (Hindi, N. 2021). The innovative design by steven Holl retraced this promenade and widened it even further.

[16] The Saint Georges bay appears in cadastral maps as Ras Minet el-Hussain, it owes its name to the Saint Georges Hotel constructed in 1933-34.

Figure 7 Avenue des Français, La Nouvelle Jetée Promenade ,1920-1926. Anonymous photographer - source: Debbas (1997)

Figure 8 Avenue des Français, 1970’s - source Telko Sport Collection

Figure 9 The Zaituna Bay development, Photo Credit Bryan Denton – source The New York Times Feb. 17, 2012.

B. ZB Publicness Assessment

In this section, the thesis identifies the main characteristics that give Beirut Marina-Zaituna Bay development - the 'quality of being public' and weighs them to assess the publicness of the venue according to Varna and Tiesdell star model. Formal and informal regulations and key design features promoting accessibility, comfort, security, engagement, good image, and sense of community are closely analyzed to capture the specificities and sensitivities of the context. The case study indicators are elaborated in the following paragraphs. As a reminder, Star Model publicness indicators are scaled from 1 to 5, 5 being the most public and 1 the least (Varna 2014).

1. ZB Ownership (Rating 2.71)

Beirut 1954 master plan, regulated via decree number 6285, classified the coastline as Zones 9 and 10 . This zoning considered all seafront as unbuildable and protected the entire coastline from any building development. Several amendments, exceptions and exemptions succeeded the 1954 decree. The amendments in the 1991 decree, classified the newly created marina under SOLIDERE "Sector B- BCD Hotel District", Minet al Hosn plots 1455 and 1456, hence paved the way for its privatization and introduced private developments on the coast around the marina.

Besides the legal ownership status of plot, the ownership pattern of Beirut marina is impacted by many important factors (refer to ownership map & space as practiced map) such as the plot configurations, adjacencies between public and private domains. Another important factor is the project's management structure, for example public private partnership concession agreement on public lots 1460 and 1357, granting SOLIDERE's 50 years-rights operate and exploit Beirut Marina, boardwalk, and amenities. Also, the joint venture agreement between SOLIDERE and STOW for the development of Zaituna bay plots 1455 & 1456 has a major impact on ownership and function dimension. The regulated land uses and functions stipulated by the decree for every plot is also an important factor in the definition of the ownership pattern of the development. That been said, the ownership dimension is assessed by answering the two main questions in star model 'who owns the space' and 'what function it holds', as well as answering the thesis' additional questions 'what form of design it has' and 'who is it built for'.

Starting with 'who owns the space', the allocated ownership score is (2.17/5) based on the following categorization.

- 46% of the land is owned by private parties. This includes:
    - Private plot 1455, owned by BWD, houses the temporary structure of Zaituna Bay F&B, the retail strip, open spaces, and terraces.
    - Private plot 1456, owned by BWD, houses the Yacht Club and terrace with members only access.
    - St George private plots, owned by the Khoury family, house the St George hotel and yacht club with members only and/or paying fees for access.
- 9% of the lots are held by State agencies:
    - The public easement, running between St George plots, guarantees continuity and permeability from the corniche to the marina boardwalk. This space is currently inaccessible as it is blocked by the St George venue.
    - The corniche promenade section adjacent to the maritime public domain,
    - The open space (T4) totally incorporated in semi-public pedestrian alleyway extending the corniche promenade.
    - However pedestrian bridges, two within the public realm and one within the private realm, are the missing component as they are planned yet not executed. Once implemented, those bridges would enhance the ownership dimension of this marina development by adding more publicly owned and publicly accessible spaces.
- 45% Publicly owned and privately management under a PPP agreement:
    - marina & marina boardwalk (T1)
    - Surface parking servicing the vehicular access to the marina
    - Under -corniche parking with paid entry with direct pedestrian access to the marina level.

Factoring design and management into the ownership assessment, the venue succeeded in allowing more public access by blurring the boundaries and diluting the sharpness of the public/private divide within the marina. It generated a new form of ownership, referred to as semi-public, blending the two realms by associating public functions to private space. Consequently, the publicness ratio for this hybrid component shifted the score to “more public” specifically in the following areas of ZB:

- The loose space created at the eastern edge of private plot 1455, merges with the sidewalk and forms a hybrid semi-public space extending the corniche promenade.
- The western edge of private plot 1455 & 1456 loose area merges with marina quayside and extends the boardwalk promenade.

ZB design and management approaches increased the area of qualitative loose space by introducing hybrid ownership patterns to this dimension. Factoring the macro and micro design approaches, which associated public functions with private space along ZB private plots, the blended public and private realms around the marina enhance the overall publicness. Consequently, the ownership average combined with the allocated functions increases the cumulative weighted average of this dimension from 2.17 to 3.25 (Refer to tables 6 & 7 ownership and function matrix).

Table 9 ZB ownership matrix - source author (2023)

Beirut Marina Zaituna Bay	Star Model for Publicness											
Ownership dimension	**Study Area Components**	Open space	Easement	Sidewalk/ crossing/ pedestrian bridge	Marina boardwalk	Marina amenities	Parking (surface & underground)	ZB Retail & Commercial units	SOLIDERE Plots 1455 & 1456	St George private plot outside SOLIDERE	**Marina total study area (Without water body)**
	Area per component	800	850	6.000	12.000	6.450	19.500	7.374	22.539	15.633	**91.146**
	Area Percentage from total	1%	1%	7%	13%	7%	21%	8,09%	19%	19%	**100%**
Indicator 1	**Ownership**										
	Map color coding		Public		Puplic Private Partnership (PPP)			Private			**Grade 1**
Indicator: Ownership											
Indicator Grade		5	5	5	3	3	3	1	1	1	**2,17**

Table 10 ZB ownership function matrix - source author (2023)

Ownership dimension	**Study Area Components (after introducing the function)**	Open space	Mid-block easement on St George plot	Sidewalk at St George edge	Adjacent corniche promenade	ZB loose space extending corniche	ZB Loose space extending boardwalk	Yacht Club loose space	Marina boardwalk	Marina amenities	Parking (surface & underground)	St George development	**Marina total study area (Without water body)**
	Area per component	800	850	2.000	4.000	7.374	6.518	1.056	12.000	6.450	19.500	15.633	**91.146**
	Area Percentage from total	0,88%	0,93%	2,19%	4,39%	8,09%	7,15%	1,16%	13,17%	7,08%	21,39%	17,15%	**100%**
Indicator 2	**Function**												
	Map color coding		Public				Semi- Public			Public Private Partnership		members' only	**Grade 2**
Function characteristics per area													
Function grade per area		5	5	5	4	4	4	4	4	3	3	2	**3,25**
												Ownership Rating (indicators grade average)	**3,12**

Figures 9 and 10 below illustrate the transformation of the ownership dimension when associated with function, or the space as practiced:

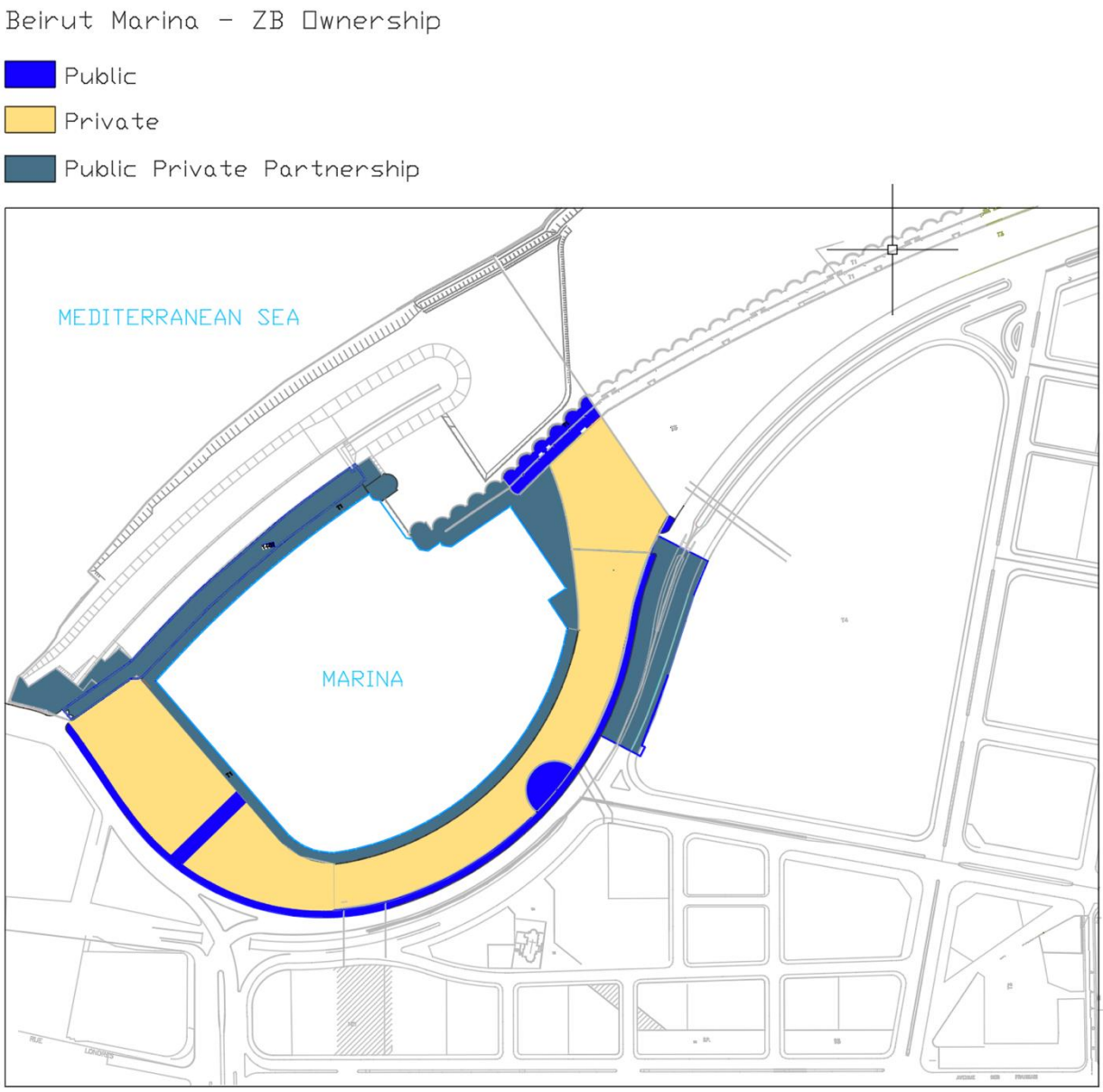


Figure 10 ZB ownership map - source author (2023)

In the case of ZB, blurring the boundaries and adopting a striated organization of function impacted the reading of private space by strengthening its relation to the adjacent public. The semi-public – an intermediate position is introduced when ownership is consigned to a public-private partnership or joint venture and occupied by a public function.

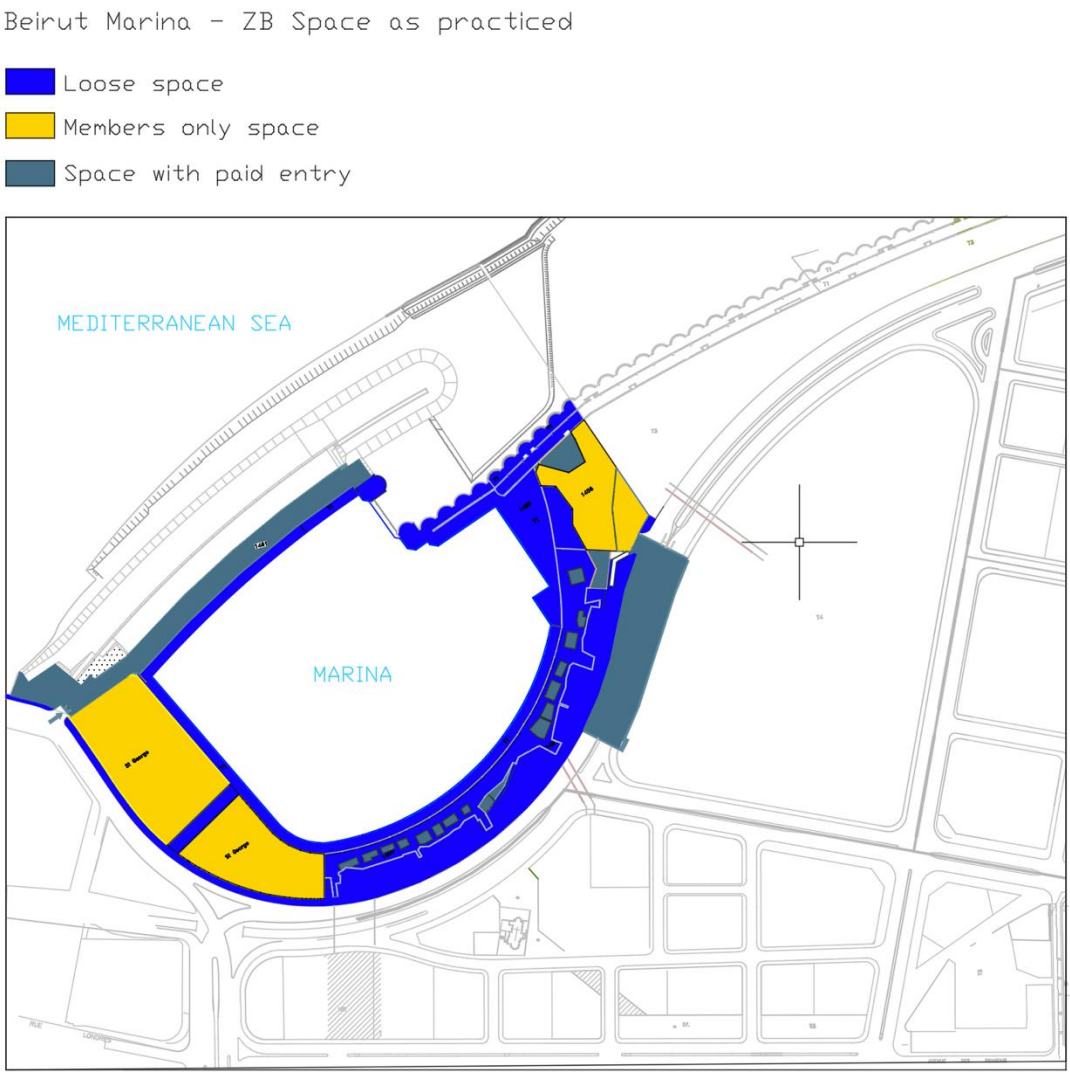


Figure 11 ZB space as practiced – source author (2023)

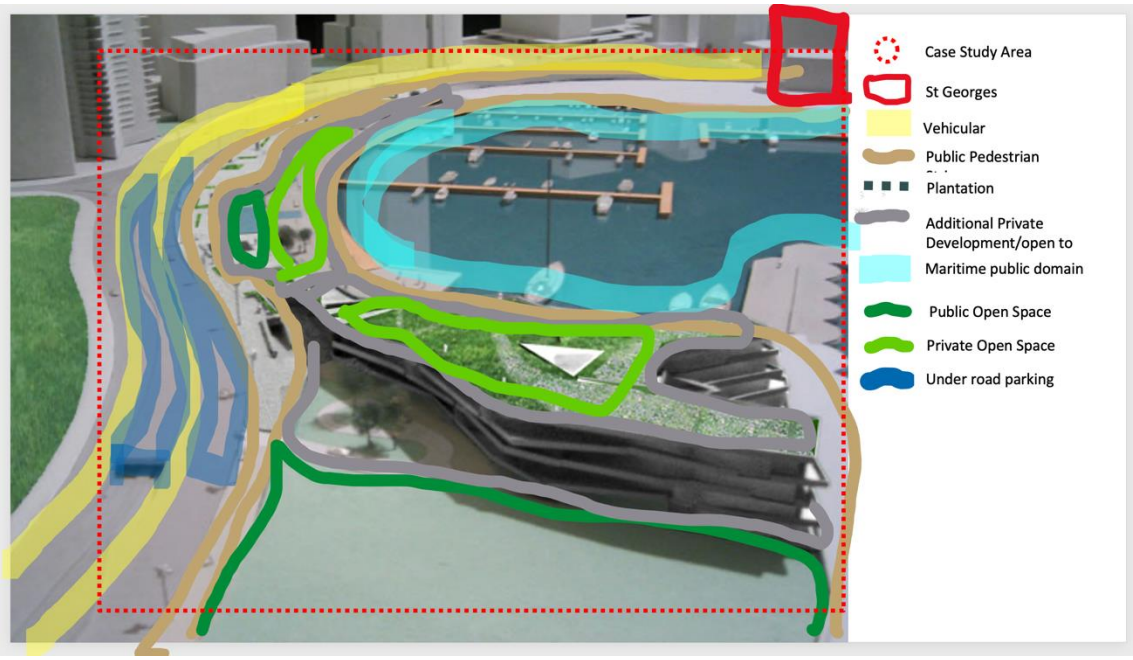


Figure 12 ZB striated arrangement - Source: Author (2023)

Despite being privately owned in majority, the medium value of the ownership dimension is due to the hinged design of the edges, blurred boundaries, especially along plot 1455, thus improving connectivity, creating public walkways, and ensuring a relatively continuous accessibility.

2. ZB Control (Rating 2.88)

Control impacts accessibility, the less control, the more access there is. For SOLIDERE, easing the control over the marina, allowing entry for non-members constituted a risk to the "exclusive" nature of the marina and thus threatens to impact 'investors' appeal; For BWD, allowing public to the marina, increased footfall for higher returns on investment.[10] After long negotiations, SOLIDERE agreed to allow access to the marina with varying controls via formal and informal barriers.

To control access to the marina yacht club, SOLIDERE added operable fences to the northern lower boardwalk, disrupting the continuity of pedestrian flow between ZB and the waterfront promenade.

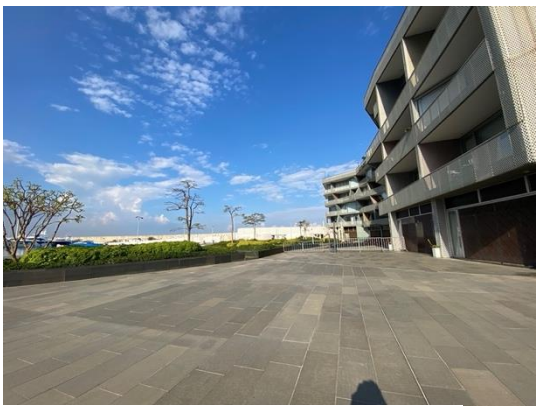


Figure 14 SOLIDERE fence

Figure 13 ZB guard house at entry point

The east-west permeability was smoother as it was filtered with CCTV control and the presence of guards in kiosks. Control by filter was the other most used technique by Management. Round the clock operated security points with “Nice Police” protect people and property against vandalism and misuse by filtering the flow of visitors; their presence across the open spaces monitors offensive behaviors and limit the risk of vandalism. Informally they are assigned the control of the admission of certain groups of people belonging to a specific race/gender/nationality.

The diagram below illustrates the control over ZB access points:

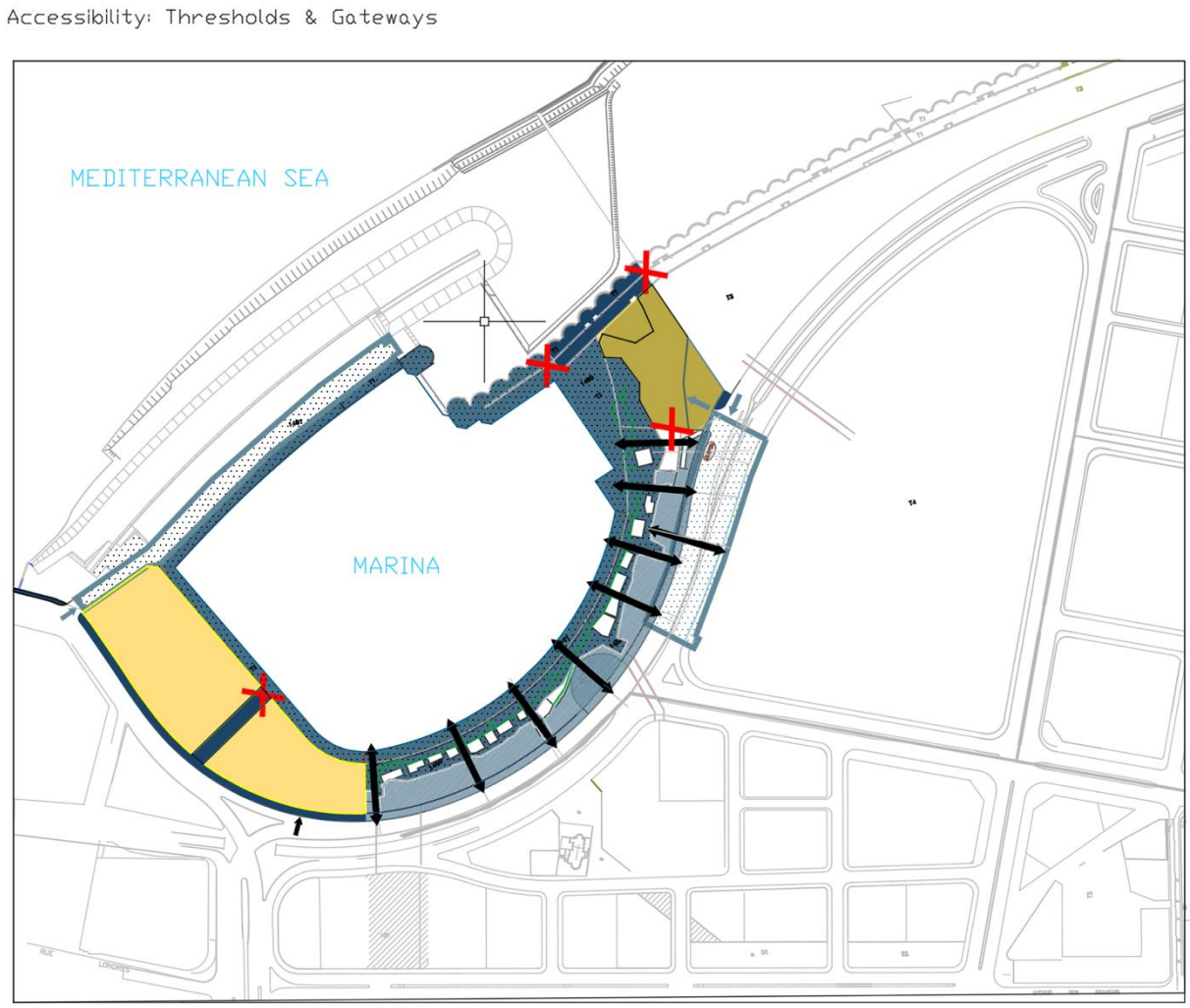


Figure 15 ZB accessibility control – source author (2023)

assessed based on 3 levels : (1) The control enacted in the interest of the public (2) The control enacted in the interest of the operation like for example the members-only yacht club on plot 1456 and the St George plots. And (3) The control intended to maintain operation interest while promoting public accessibility, a level of interest that enhances ZB publicness.

The matrix below illustrates the control dimension indicators rating per zone, control dimension score is 3.12 on the publicness scale.

Table 11 ZB control indicators matrix - source author (2023)

Beirut Marina Zaituna Bay																
								Star Model for Publicness								
Control dimension	Study Area Components	Adjacent corniche promenade	Sidewalk at St George edge	Marina boardwalk	ZB loose space extending corniche	ZB Loose space extending boardwalk	Yacht Club exterior loose space	Open space	ZB Retail & Commercial units terraces	ZB Commercial units	Marina amenities	Parking (surface & underground) Semi-Public	Mid-block easement on St George plot	Yacht Club (interior)	St George development	Marina total study area (Without water body)
	Area per component	4.000	2.000	12.000	7.374	6.518	1.056	800	1.650	7.374	6.450	19.500	850	5.941	15.633	91.146
	Area Percentage from total	4,39%	2,19%	13,17%	8,09%	7,15%	1,16%	0,88%	1,81%	8,09%	7,08%	21,39%	0,93%	6,52%	17,15%	100%
Indicator 1									**Purpose of control**							
	Purpose of Control characteristics per area	Regulated Free use	Safe place/ Nice police - Private guards for property/users security -informally monitor offensive behaviors and limit the risk of vandalism. Informally they are assigned the control of the admission of certain groups of people belonging to a specific race/gender/nationality						Management control to secure the interest of the operation				Exclusivity barrier -Guarded gate for members only			**Grade 1**
	Purpose of Control grade per area	5 0,22	5 0,11	3 0,39	3 0,24	3 0,21	3 0,03	3 0,03	2 0,04	2 0,16	2 0,14	2 0,43	1 0,01	1 0,07	1 0,17	**2,26**
Indicator 2									**Control ordinance**							
	Control Ordinance characteristics per area	rules enacted in the best interest of wider public	Site specific rules & regulations enacted to preserve the quality standards and sustainability of the venue (management high end standards & high fees)										Rules enacted in the best interest of the private property			**Grade 2**
	Control Ordinance grade per area	5 0,22	5 0,11	4 0,53	4 0,32	4 0,29	4 0,05	4 0,04	4 0,07	4 0,32	4 0,28	4 0,86	1 0,01	1 0,07	1 0,17	**3,33**
Indicator 3									**Control Presence**							
	Control Presence characteristics per area	Subtle with presence of guards overall mood remains welcoming							Overt security guard at venue entrance							**Grade 3**
	Control Presence grade per area	4 0,18	4 0,09	4 0,53	4 0,32	4 0,29	4 0,05	4 0,04	4 0,07	4 0,32	2 0,14	2 0,43	2 0,02	2 0,13	2 0,34	**2,94**
Indicator 4									**Control Technology**							
	Control Technology characteristics per area	Some CCTV cameras evident														**Grade 4**
	Control Technology grade per area	3 0,13	3 0,07	3 0,39	3 0,24	3 0,21	3 0,03	3 0,03	3 0,05	3 0,24	3 0,21	3 0,64	3 0,03	3 0,20	3 0,51	**3,00**
	Control Rating (indicators grade average)															**2,88**

3. ZB Civility (Rating 4.4)

ZB is well-kept. The overall physical maintenance and cleaning regime of open spaces are jointly cared-for by SOLIDERE, the master developer, BWD, the developer, the F&B industries, and hotel operators during operating and closing hours (24 hours basis). The physical provision of facilities is guaranteed by SOLIDERE. The F&B and hospitality operations are supported by efficient facilities with easy access for maintenance. The design equipped the venue with service areas, storage areas, refrigerated garbage rooms, parking, and toilets (though available for guests with valid receipt proving consumption). The civility is also enhanced by the provision of urban furniture signage, wayfinding, and lighting across the venue. Civility scored 4.4, the highest ratio on the publicness assessment due to the high level of maintenance and consistency of this dimension across the venue public and private components alike. This level of civility enhanced the publicness of the marina and rendered the open spaces accessible, safe, and enjoyable. (Refer to Figure 15 and table 9).

Figure 16 ZB Signage

Table 12 ZB civility matrix - source author (2023)

Civility dimension	Beirut Marina Zaitouna Bay	Star Model for Publicness														
	Study Area Components	Marina boardwalk	Adjacent corniche promenade	ZB loose space extending corniche	ZB Loose space extending boardwalk	Yacht Club exterior loose space	Open space	Yacht Club interior	ZB Commercial units terraces	ZB Retail & Commercial units	Parking (surface & underground)	Marina amenities	St George development	Mid-block easement on St George plot	Sidewalk at St George edge	**Marina total study area (Without water body)**
	Area per component	12.000	4.000	7.374	6.518	1.056	800	5.941	1.650	7.374	19.500	6.450	15.633	850	2.000	**91.146**
	Area Percentage from total	13,17%	4,39%	8,09%	7,15%	1,16%	0,88%	6,52%	1,81%	8,09%	21,39%	7,08%	17,15%	0,93%	2,19%	**100%**
Physical maintenance & cleansing regime																
Indicator 1	Physical maintenance & cleansing characteristics per area	Macro managed Well kept & Cared-for by operating entities with power over the overall mood of the space											Managed	Cared-for by operating entity	Cared-for by Municipality	**Grade 1**
	Physical maintenance & cleansing grade per	5	5	5	5	5	5	5	5	5	5	5	2	2	1	**4,37**
Physical provision of facilities																
Indicator 2	Physical provision of facilities characteristics per area	Macro design strategy providing structure for efficient, long term facilities that support operational needs.												Basic provision	Lacking provision	**Grade 2**
	Physical provision of facilities grade per area	5	5	5	5	5	5	5	5	5	4	4	4	2	1	**4,43**
		0,66	0,22	0,40	0,36	0,06	0,04	0,33	0,09	0,40	0,86	0,28	0,69	0,02	0,02	
Civility Rating (indicators grade average)																**4,40**

4. ZB Physical Configuration (Rating 4.34)

The design of ZB capitalized on the central location of plots 1455 and 1456 around the marina and at the heart of Downtown Beirut to create an accessible pleasantwaterfront destination . It played a major role in tying the exclusive center of SOLIDERE to the surrounding realms by hinging Ras Beirut corniche with the new waterfront promenade, forming approximately an 8.5 km long promenade from Ramlet al Bayda to waterfront district. Strongly connected to the overall movement network, with approximately 450 m long interface with the corniche, ZB became the hotel district marina waterfront, drawing more and more people to the center. To achieve inclusivity, ZB increased accessibility adopting as the golden rule: ‘more movement-to and movement-through the space’, extending surrounding area into and through the space (Varna and Tiesdell 2011).

Figure 17 Beirut corniche promenade - Source AUB Urban Lab

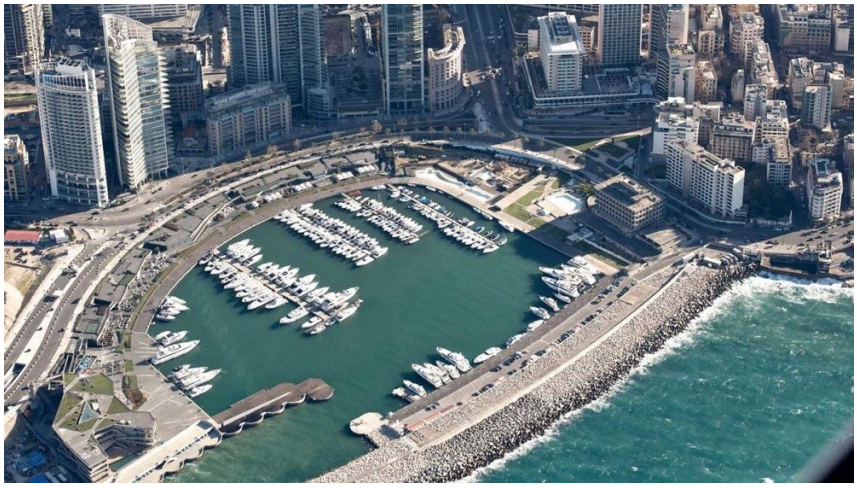


Figure 18 Hotel district waterfront – Source Steven Holl website

ZB's physical configuration, rated the highest score among the other publicness dimensions. Macro (from without) and micro (from within) design approaches responsible for altering the reading of private to more public are analyzed in this section on three main levels: general masterplan strategies, sector or urban block character, and the plot building regulation and design.

a. SOLIDERE Masterplan Strategies

In the following section we analyze SOLIDERE planning strategies to understand how the masterplan guidelines impacted the publicness of Zaituna Bay marina development:

- Open Space Strategy: SOLIDERE considered the waterfront open space as 'an extensive public realm' forming the backbone of the reconstruction plan. The corporate narrative [17]confirmed that SOLIDERE's waterfront promenade is intended as a natural continuation of the existing corniche acting as the city's

[17] SOLIDERE website: https://www.solidere.com/city-center/solidere-developments/open-spaces

meeting point. The narrative forwarded by SOLIDERE further claimed that the open space design approach is meant to reconcile communities in the postwar era and that it conceives of the marina as part of a sequence of networked open spaces that could serve as a shared or common grounds for all Lebanese communities.

Despite these claims for inclusion, the corporation didn't hide its profit led intentions and recognized that the open space strategy should also contribute to encourage land sales and increase land values. This was the same approach adopted by SOLIDERE across the entire historic core, and it prioritized the design and execution of some 20 public spaces ranging from major public gardens to small local squares and pocket parks (Gavin, A. 2015).

In the case of Beirut Marina, the open space strategy's objective to bring people together by reconstituting the city center open spaces was achieved through the following components:

- Open space network: A succession of open spaces, running through public realm and across private easements, created a fluid public private interface. This interface proved to be advantageous to the marina development by supporting the pedestrian flow, guaranteeing east west continuity from and to the marina, and securing north south continuity between Ras Beirut's corniche and BCD's waterfront promenade via ZB hinge. This placed the marina development at the central of the open space strategy.

Figure 19 Open space diagram - source SOLIDERE

Figure 20 ZB open space & loose space

- Pedestrian network: Beirut marina, waterfront city park, old shoreline walks and gardens, quaysides and seafront promenades, all form a sequence of well-defined open spaces networked around the marina and connect it through pedestrian trails and sidewalks aligned with trees, shrubs and seasonal plants. The masterplan proposes a series of pedestrian crossings (bridge and underpass) to network the open spaces across the corniche's vehicular edge. The bridges are

planned but not executed yet. Pedestrian trails are aided with signage and wayfinding design to lead the way around the marina and its context.

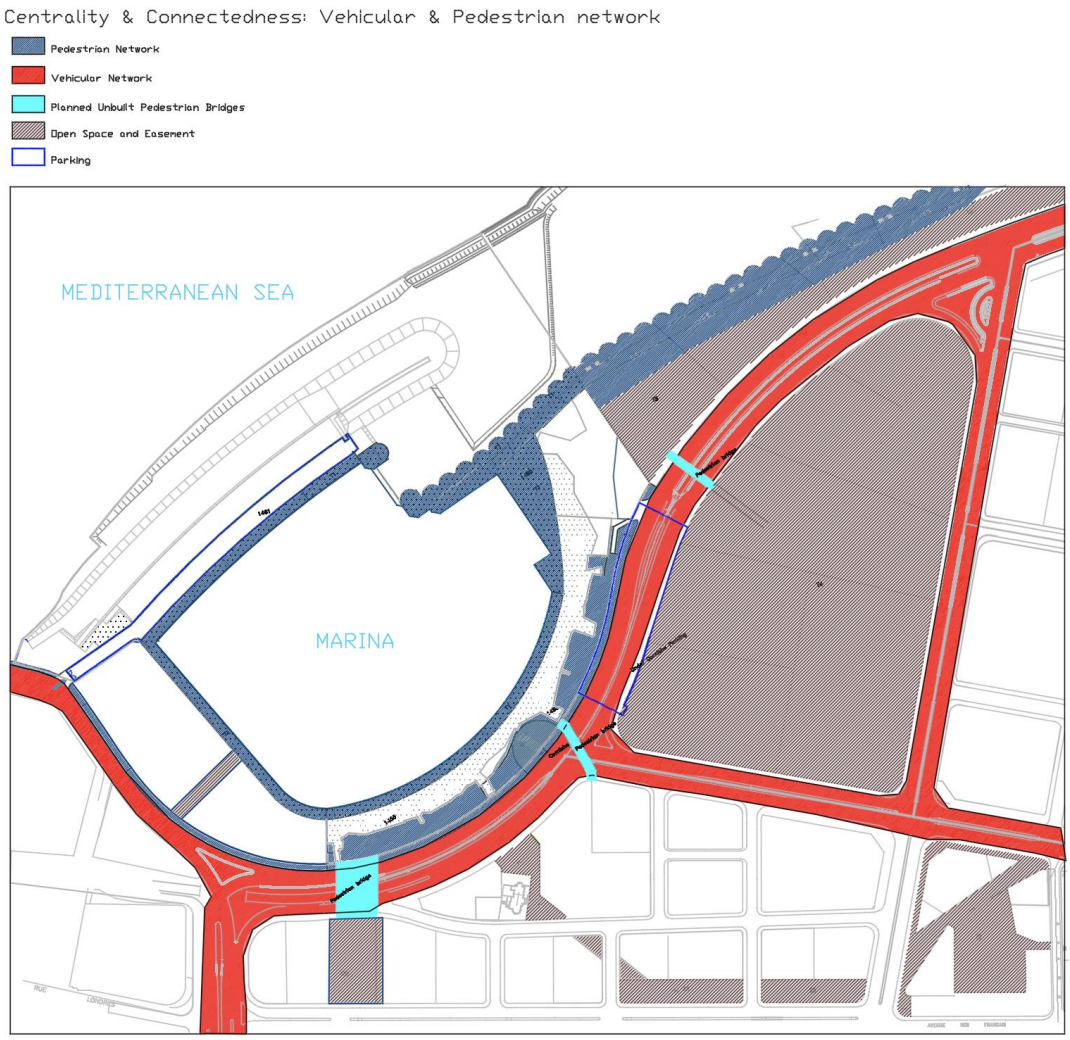


Figure 21 ZB pedestrian and vehicular networks

- Circulation Strategy:

From Ramlet al Bayda, through Al Manara to Zaituna bay, Corniche Beirut is one continuous north-south spine stretching along the city's coastal developments. East-west pedestrian crossings happen at intervals and ensure the pedestrian flow between both sides of the Corniche Road, where GF land use activity is maximized to capture the added value of the corniche promenade.

- Land Use Strategy**:**

The marina mixed-use program includes apartments, restaurants, outdoor public spaces with art installations, specialty stores, harbormaster, yacht club, and public facilities. The marina uses are distributed over three areas 1) the southeastern curved edged accommodating Zaituna Bay F&B strip on SOLIDERE plot 1455, 2) the east bay housing the new yacht club and 'summer apartments'[18] on SOLIDERE plot 1456, and 3) the west bay featuring the pre-war St George Hotel & old yacht club– outside SOLIDERE. Some prohibited uses including no dogs, no cycling, no food and no hookah allowed on premises are announced in a signage at the boundaries of the private plot (refer to image of prohibited uses signs).

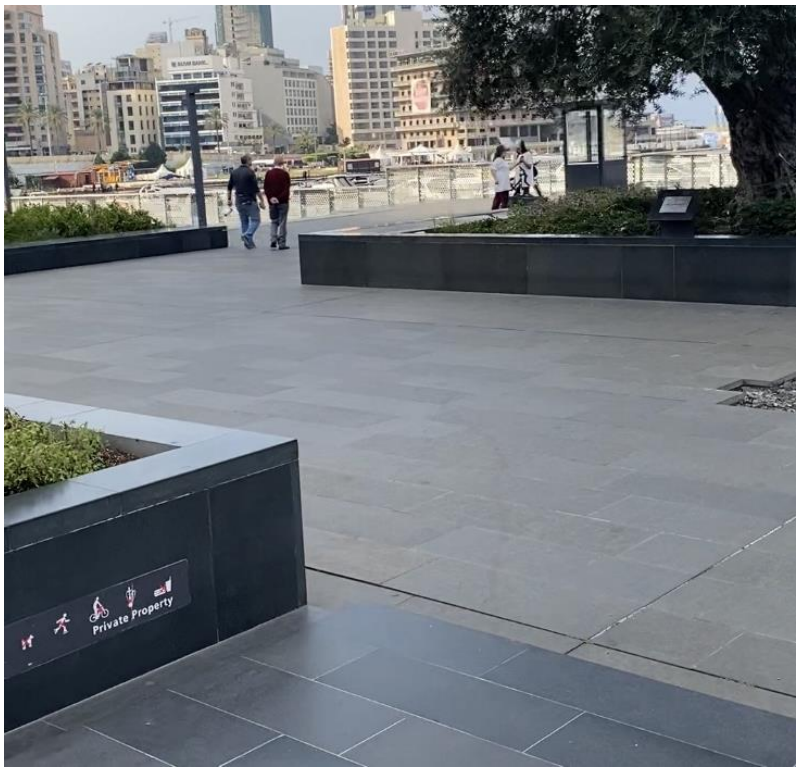


Figure 22 ZB prohibited uses sign

[18] SOLIDERE annual report 2002

The high level of services provided for the assigned land uses around the marina equipped the latter with clean, safe, user-friendly, and inviting open spaces. This has helped attract people to this space, regardless of race, gender, class, or age. The aggregated reviews and opinions of travelers on research platform rated ZB venue 4.5 with 2,142 reviews. Nevertheless some restaurants and activities were criticized for being expensive. [19]

Figure 23 ZB Promenade

- Parking Strategy:

In addition to the on-street parking, the provision of 400-spaces under-corniche car park facility, directly connected to the marina level via a pedestrian passage, facilitated the accessibility to the marina and increased footfall. The design capitalized on this underground parking allocation by incorporating a direct pedestrian access in the center landing guests in the center of ZB venue with signage and wayfinding to indicate entry to and from the marina.

[19] Trip Advisor Zaituna Bay review on July 20; 2023

Infrastructure Strategy:

Guidelines for adequately sized and designed to purpose infrastructure played a major role in offering the users with a wide range of services. The infrastructure provided to the F&B and retail ensured a qualitative service and ambiance to sustain the smooth and efficient flow to the operation.

b. The Sector Level

SOLIDERE district or sector guidelines[20] set the urban character of the neighborhood to promote the sector uses, increase its accessibility and hence inclusivity[21].

The analysis focuses on the guidelines that impacts the physical configuration dimension of sector A housing ZB marina development. Visual permeability between public and private realms and connectedness are important characteristic that alter the reading of boundaries between realms allowing more access. Several strategies were development and adopted to enhance the accessibility of the sector,

[20] BCD Development plan for Sector B – the Hotel District (dated June 1997) by Perkins & Will, Koetter Kim & Associates, and City formation International

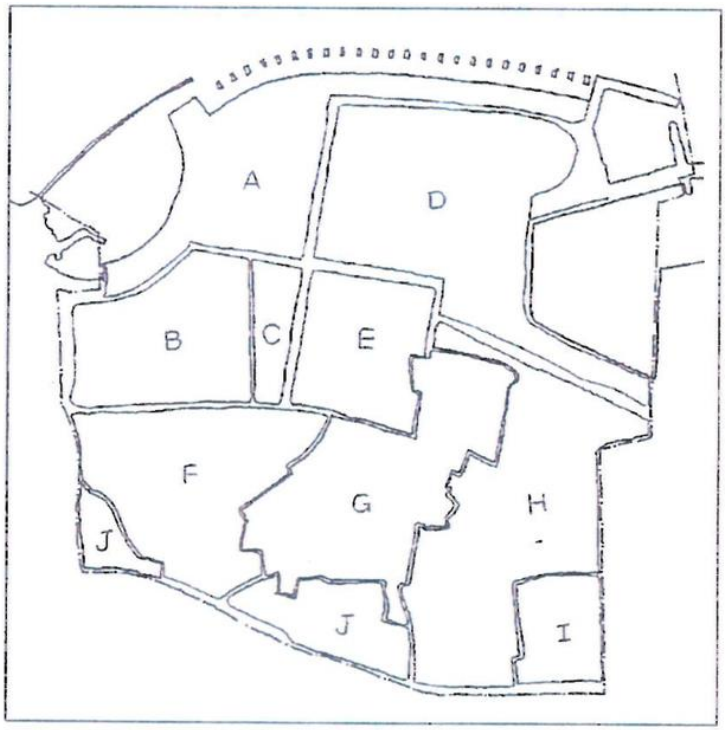


Figure 24 SOLIDERE sectors - source SOLIDERE website

however the main strategy that altered the exclusivity of the marina and connected it more to its context is the:

- Place Making Strategy retracing the old shoreline walk and gardens along the old Avenue des Français linking the marina development to its historical context. This strategy contributed to the visibility, centrality, connectedness and accessibility of the marina. ZB development linked the waterfront sector to the city center.

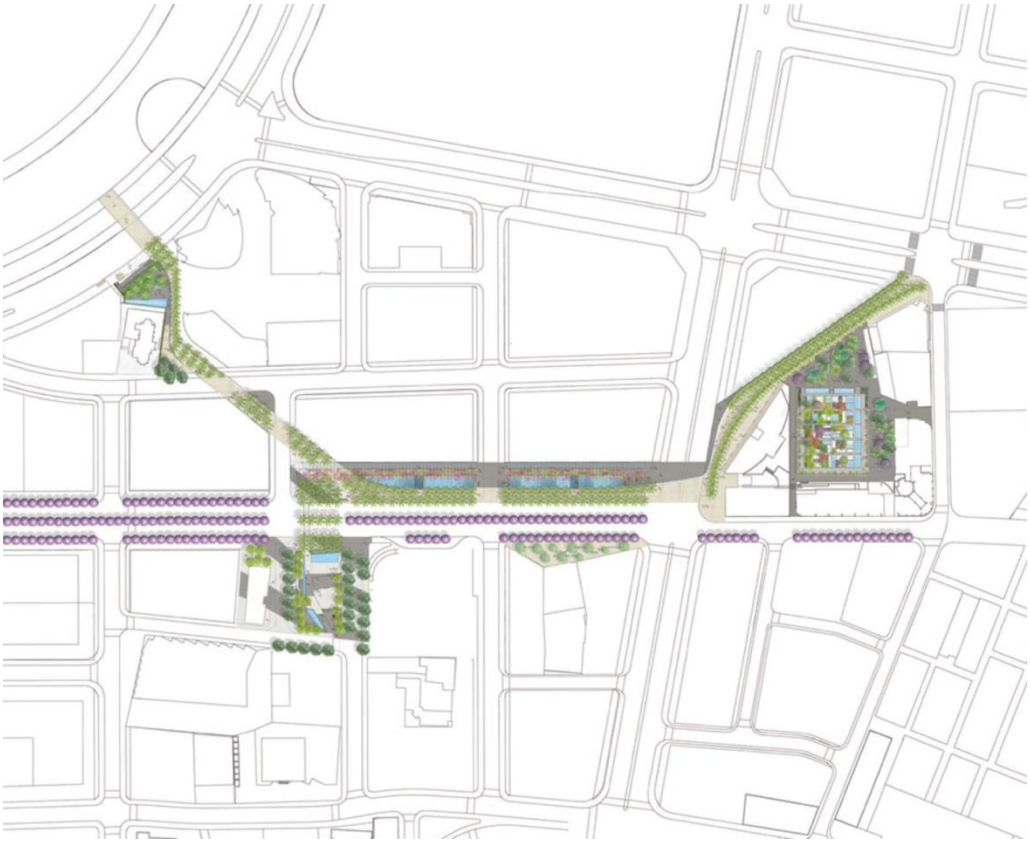


Figure 25 Old shoreline walk and gardens - source SOLIDERE website

Along the old shoreline, squares and pedestrian trails are successively designed in continuity with the marina. All open spaces are networked and interconnected with blurred boundaries. Consistency in the overall mood of the open spaces deliver an un-restricted space inviting users from all walks of life.

Marina open spaces extend to the streets introducing the concept of "living street".[22]

- Height, Density and Street Wall Control (SWC) Strategy:

[22] Lively city proposal Linking Beirut Souks commercial district to Saint George Bay waterfront and marina.
https://www.livelicity.com/projects/oldshorelinewalk

The low density around plots 1455 and 1456 allow for an uninterrupted visual permeability towards the marina development.

Figure 26 SOLDERE masterplan - source SOLIDERE website

Figure 27 ZB marina visual permeability

Street wall controls allowing for colonnaded building basis enhances the interaction and pedestrian flow within the marina sector. This building typology is complemented with commercial GF uses that promote street life and activity.

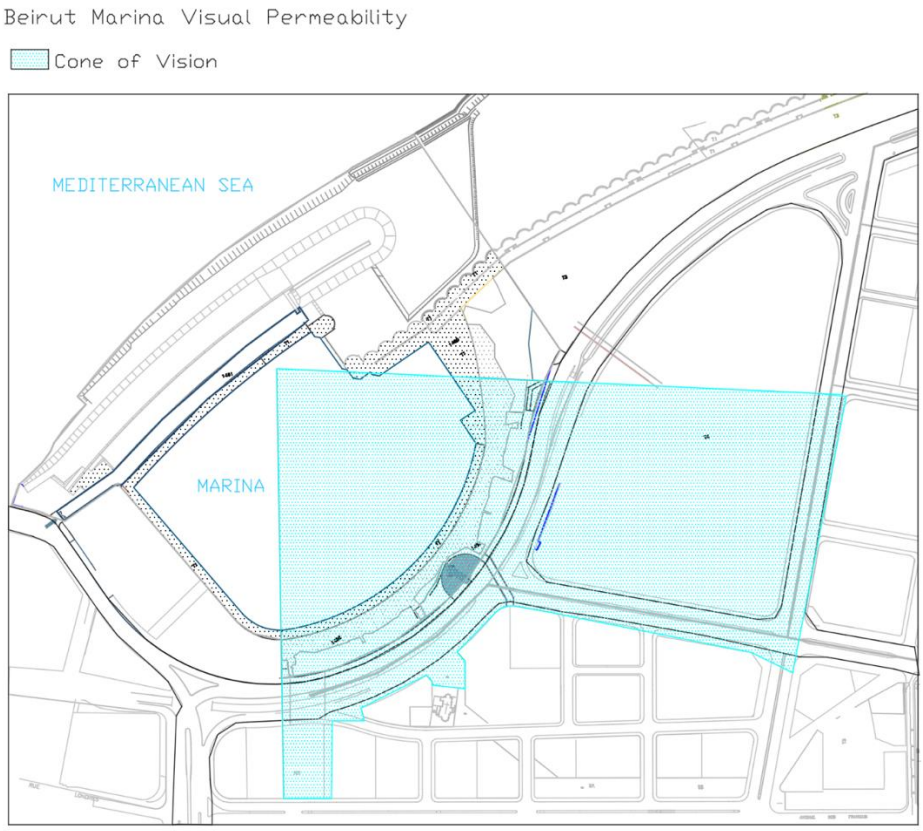


Figure 28 ZB marina visual permeability - source author (2019)

c. <u>The Plot guidelines</u>

Sector special conditions and building regulations define the role of the plot within the overall district scheme and are set to optimize the plot value. The rezoning of the marina area in 1991, followed by a series of amendments and exemptions, produced guidelines that played a major role in defining the publicness of ZB development.

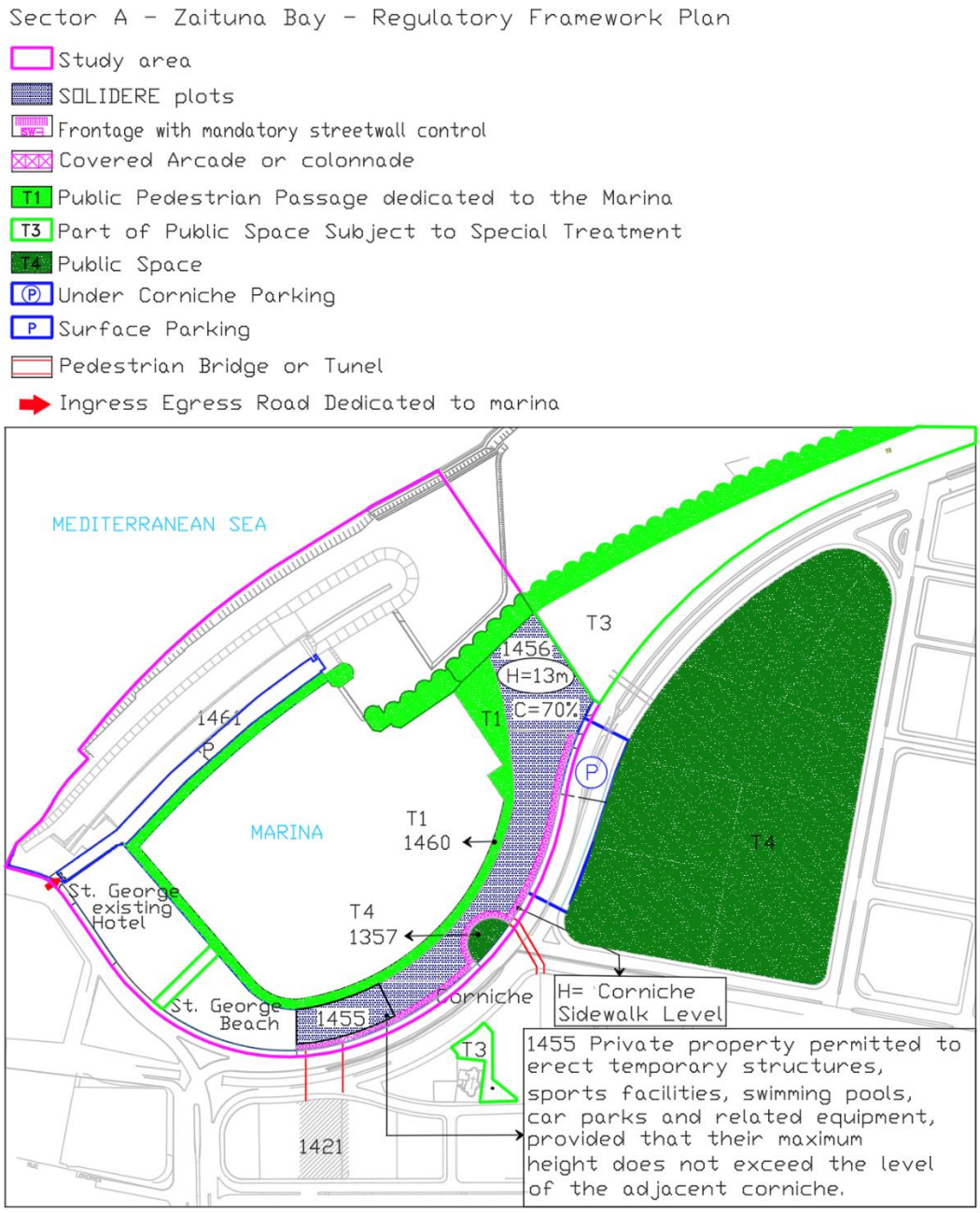


Figure 29 ZB urban guidelines - source SOLIDERE

Table 13 The transformation of Beirut Marina guidelines

Planning Regulation Comparative Matrix - Plots 1455 & 1456 Controls									
Controls	**Maritime Property Law**	**Real Estate Companies Law 117/91 - Mina el Hosn**					**Excemption & Amendments of Law 117/91 - Decree 16546 in 2006 (faciltated the private construction)**		**Exemption in the Permit issued on the 13th of November 2007**
Plot #	**Plot adjacent to maritime property**	**Plot 1455**	**Plot 1456**	**T1 1460**	**T1 1461**	**T4 1357**	**Plot 1455**	**Plot 1456**	**Plot 1456**
Zone	9	A	A	Beirut Marina Landscaping	breakwater parking area	Entrance Piazza	A	A	A
Property type	Public beach	Private (newly created parcel) reclaimed area	Private (newly created parcel) reclaimed area	Public (PPP)	Public (PPP)	Public (PPP)	Private (newly created parcel) reclaimed area	Private (newly created parcel) reclaimed area	Private (newly created parcel) reclaimed area
Permitted Land Use	Industrial, hospitality, tourism	Temporary retail, hospitality, entertainment)	Mixed use (retail, hospitality, residential, entertainment)	Marina Boardwalk	Marina Parking	Marina open space (entrance)	Temporary retail, hospitality, entertainment)	Mixed use (retail, hospitality, residential, entertainment)	Mixed use (retail, hospitality, residential, entertainment)
FAR	N/A	0,30	2,00	N/A	N/A	N/A	0,30	2,00	2,00
SEF %	N/A	50%	50%	N/A	N/A	N/A	50%	70%	70%
Set back	30m from water body	30m from water body	Varying width (5 to 10 m) open terrace	N/A	N/A	N/A	30m from water body	none	none
Pedestrian Passagae	not interrupted	Varying width (5 to 10 m) open terrace /green open space connected/extending to boardwalk	Varying width (5 to 10 m) open terrace /green open space connected/extending to boardwalk	10m wide not interrupted boardwalk (promenade)	connected to 10m wide promenade not interrupted	connected to plot 1455 coverd arcade or colomade and accessed from Corniche side and to Plot 1418 across the street via à pedestrian bridge	Exempted from regulations dictating the surface area of surrounding 'green areas	Exempted from regulations dictating the surface area of surrounding 'green areas	Exempted from regulations dictating the surface area of surrounding 'green areas
# of floors	N/A	O Floor above corniche level	3 Floors below corniche reference level & 1 floors above reference Corniche level	N/A	N/A	N/A	1	3 Floors below corniche reference level & 2 floors above reference Corniche level	Permitted 3 Floors below corniche reference level & 4 floors above reference Corniche level
Maximum Height	N/A	Adjacent level of Corniche	11m	N/A	N/A	N/A	Adjacent level of Corniche	13 m above Corniche level	not specified haight above Corniche level
GF Land Use	Public beach	Private temprorary structure	Private	Pedestrain boardwalk	Parking	Public Piazza	Private temprorary structure	Private	Private
Upper Floor Land Use	N/A	N/A	Private	N/A	N/A	N/A	N/A	Private	Private
Parking	TBD	dedicated 3 basements under Corniche road reservation with direct pedesterian acess	dedicated 3 basements under Corniche road reservation with direct pedesterian acess	N/A	Parking dedicated to Marina members	N/A	dedicated 2 basements under Corniche road reservation with direct pedesterian acess	dedicated 2 basements under Corniche road reservation with direct pedesterian acess	dedicated 2 basements under Corniche road reservation with direct pedesterian acess
SWC	N/A	Temp. structure height not to exceed corniche height with covered arcade or colonnade	none	N/A	N/A	N/A	Exempted from regulations dictating the surface area of balconies surrounding 'green areas	Exempted from regulations dictating the surface area of balconies	Exempted from regulations dictating the surface area of balconies
Architecture Typology	N/A	Tailored finishes As per sector design brief	Tailored finishes As per sector design brief	Wood deck @ plot1 455 & tiles similar to adjacent terrace @ plot 1456	Asphalted surface	Continuity with tailored finishes on Private plots 1455 & 1456	As per sector design brief	As per sector design brief	As per sector design brief

ee No. 16,546 (dated the 9th of March 2006). See: Al-Jarida ar-Rasmiya, No. 14, 16
)06, p.1291. Available at: http://www.pcm.gov.lb/arabic/subpgoldJo.aspx?pageid=3836 (Accessed
ıer 2013).

The following section illustrates the most significant regulations that governed the plots constituting ZB and impacting its publicness :[23]:

- Private Plot 1455 houses the ZB F&B strip. It is characterized by:
    - The Land use permitted on this plot included sports facilities, swimming pools, car parks and related equipment uses such as restaurant and retail. Those uses enhanced the attractiveness of the frontages from within and without the marina.
    - The 1 floor temporary structure with height limited to the adjacent corniche level. This guideline has been instrumental in transforming the corniche section into a linear open space. The public private interface turned into a linear piazza permeable to pedestrian along the whole length of the plot. This control played a major role in the visual and physical access increasing the permeability of the F&B venue and through it to the marina proper. (See figure 29: Regulation diagram)
    - The 30m setback from sealine to temporary structure facilitated the introduction of terraces and green open spaces between the boardwalk and the F&B strip.
    - The 0.3 FAR lowered the density of the plot allowing for more visibility to the marina.
    - The material palette continuity between private and public loose space created a seamless and blurred boundaries between realms.

[23] Extracted from SOLIDERE's Regulatory Framework Plan

- Private Plot 1456 houses the marina yacht club. It is regulated by many exemptions and exceptions that altered the final structure.
    - The most significant alteration was the height control which was altered in decree 16546/2006 stipulating the increase of the plot allowable height, above corniche level, from 1 floor to 2 floors. In 2007, Zaituna bay's permit was issued according to 2006 amendment; In 2009, Beirut Governor approved a permit modification allowing 2 additional floors to plot 1456, bringing the total number of floors to 4 instead of the initial allowed 1 floor above corniche [24]. The figure below illustrates how this height blocked the view to adjacent quayside. According to Samer Bsat-Former GM at Stow Capital[25], the additional floors were essential to provide enough height clearance for the erection of the pedestrian fly over bridge intended to link the corniche promenade to the rooftop of the yacht club, however, never executed.
    - The surface exploitation was also increased (Arsan, A. 2018). Initially set to 50%, the SEF was increased to 70% according to decree 16546/2006, thus negatively impacting publicness by decreasing the area of loose space.
    - Decree 16546/2006 also exempted the plot from setback with and no dictated area for surrounding 'green areas decreasing the area of loose space.

[24] See: Hadi Makarem Actually Existing Neoliberalism: The reconstruction of Downtown Beirut in post-civil war Lebanon. It is not clear what prompted Qalloush to alter the building permit, but it was suspected that
corruption was involved. For details, see: The Daily Star, 'Beirut governor protecting corrupt employees: council member', The Daily Star, 22 December 2011.
[25] Interview with Samer Bsat- Former General Manager of BWD – interviewed in Beirut, June 11, 2022

- The permitted uses, hospitality, retail and entertainment enhanced the attractiveness of activity frontages, though those were dedicated, in big portion, to yacht club members only access.

Figure 30 The yacht club - source Steven Holl website

Figure 31 The 4 Floor high Yacht Club on plot 1456 blocks the view to St. George

Existing St. George Hotel and yacht club height is 4 floors above corniche level. Initially, the hotel was directly connected to the marina. In the new marina configuration, the St. George Hotel is separated from the water by the new quayside boardwalk. The St George management opted to turn its back to the marina by placing a rope-fence at the edge with the boardwalk. The discontinuity of the active edge along the hotel weakened the publicness of the marina. Additionally, a public easement separating the two hotel plots planned to ensure the accessibility to the marina from the road, is blocked by the old structure fences.

Figure 32 St George building rising above corniche level

Figure 33 St. George rope-fence edge with marina boardwalk

- Public Plot 1460 (T1) is the 10m wide non -interrupted quayside boardwalk promenade by the marina water. The quayside promenade extends ZB open spaces and terraces forming a substantial area of loose space offering multiple seating opportunities.

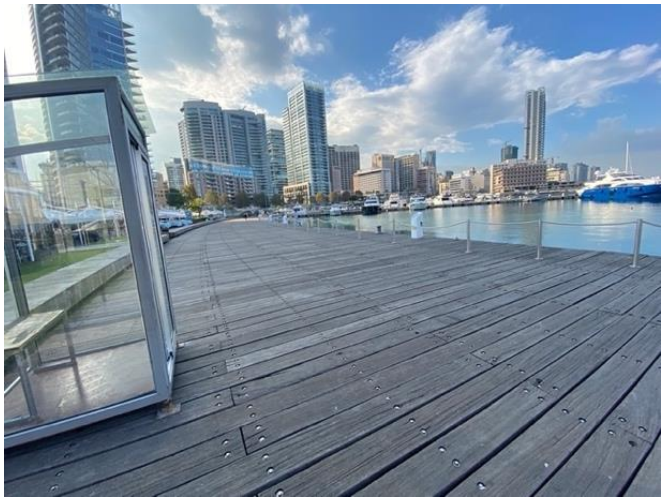


Figure 34 Zb marina boardwalk

- **Public plot 1357 (T4) is** destined as a public garden, the plot is engulfed within private plot 1455 to its western side and the sidewalk to the east. It is designed in continuity with the plot open spaces and merges with the corniche sidewalk. The planned, not executed, fly over pedestrian bridge will eventually connect it to private plot 1418, the Four Season's Hotel plot across the corniche. This planned - yet not executed - pedestrian bridge is intended to connect the venue loose spaces to the city center via the 'old shoreline' green pedestrian strip as part of a placemaking strategy by SOLIDERE to enliven the area[26]. (Refer to Open space and networks maps).

[26] [26] interview with Bashir Moujais

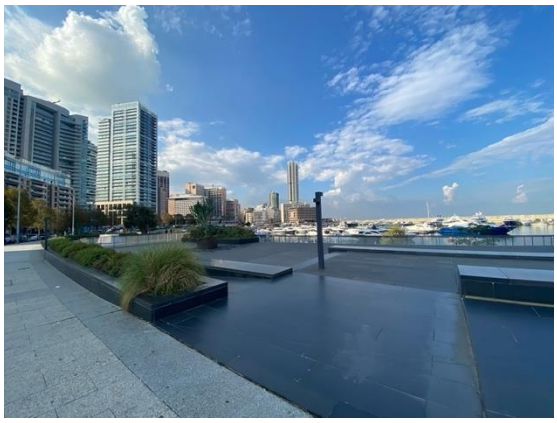


Figure 35 Public plot 1357

Figure 36 Indicative location of the crossing bridge

The design capitalized on planning regulation guidelines. By optimizing visibility and accessibility, the design guidelines succeeded in altering the exclusive nature of the marina development and enhance the publicness of the destination. ZB spatial configuration increased accessibility along the entire private public interface by blurring ownership boundaries with extended functions. Furthermore, the intricate design of piazzas and pedestrian trails in the semi-public zones extended the public areas, the continuity in material finishes creating a qualitative continuous ‘loose’ space not distinguished from the surrounding public realm. capping the height of temporary structure on private plot 1455 to below corniche level allowing high visual

permeability. For Plot 1456 and to counter the impact of the allowed building height the design included a feature bridge extending the corniche promenade to the club rooftop. However, this main feature of the design was never built.

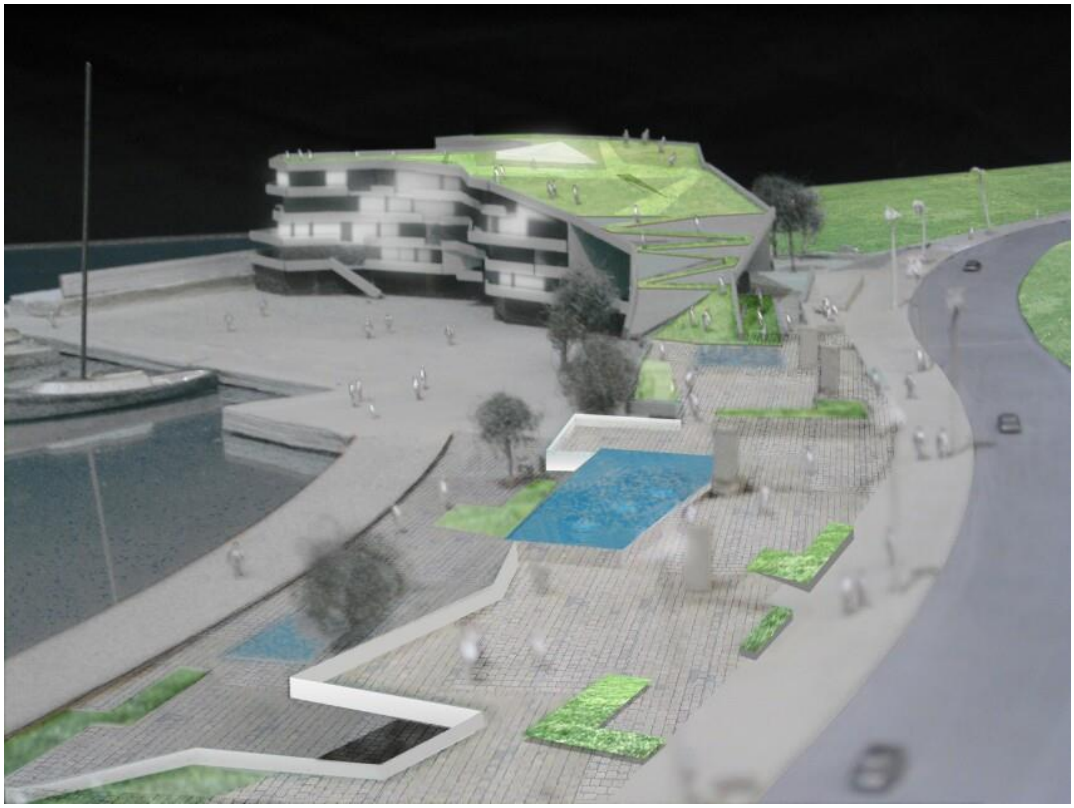


Figure 37 Visual permeability from corniche– source Steven Holl website

Additionally height restriction on plot 1455 allowed for the corniche section to widen and grow into ‘overlapping platforms’ of open spaces and piazzas and forming the 'urban beach’[27].

[27] Steven Holl website https://www.stevenholl.com/project/beirut-marina-zaitunay-bay/ visited on July 20, 2023.

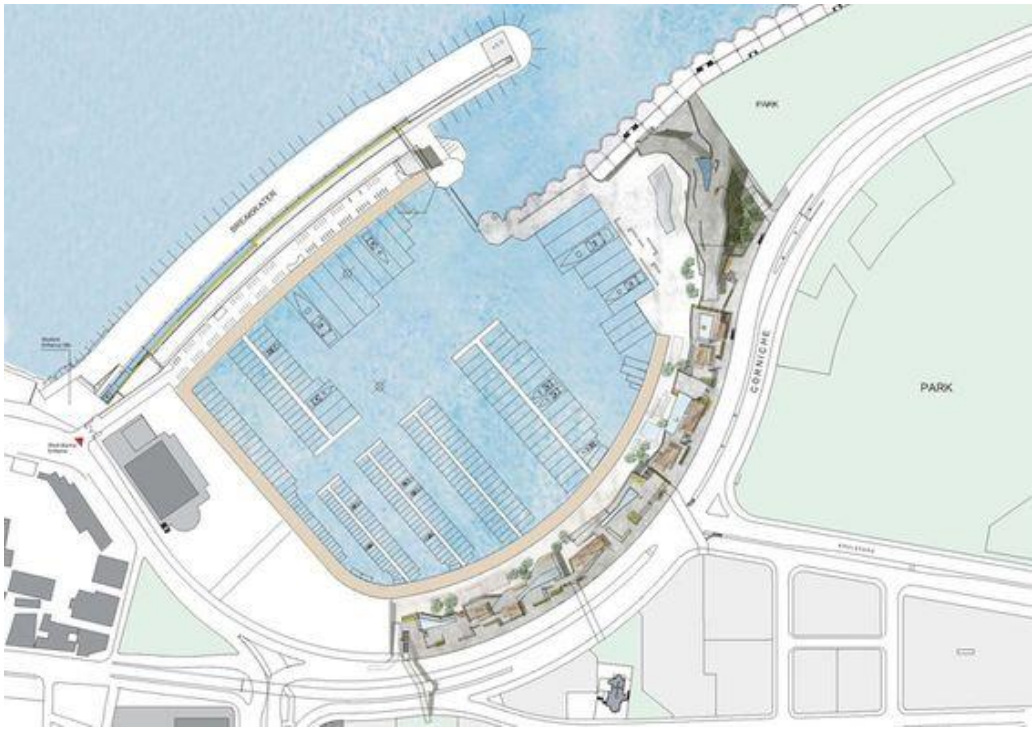


Figure 38 ZB urban beach 450 m long interface with the corniche- Source: Steven Holl website

Based on the analysis, the matrix below illustrates the publicness rating of ZB's design following the Star Model main indicators, (1) Centrality and Connectedness, (2) visual permeability, and (3) threshold and gateways

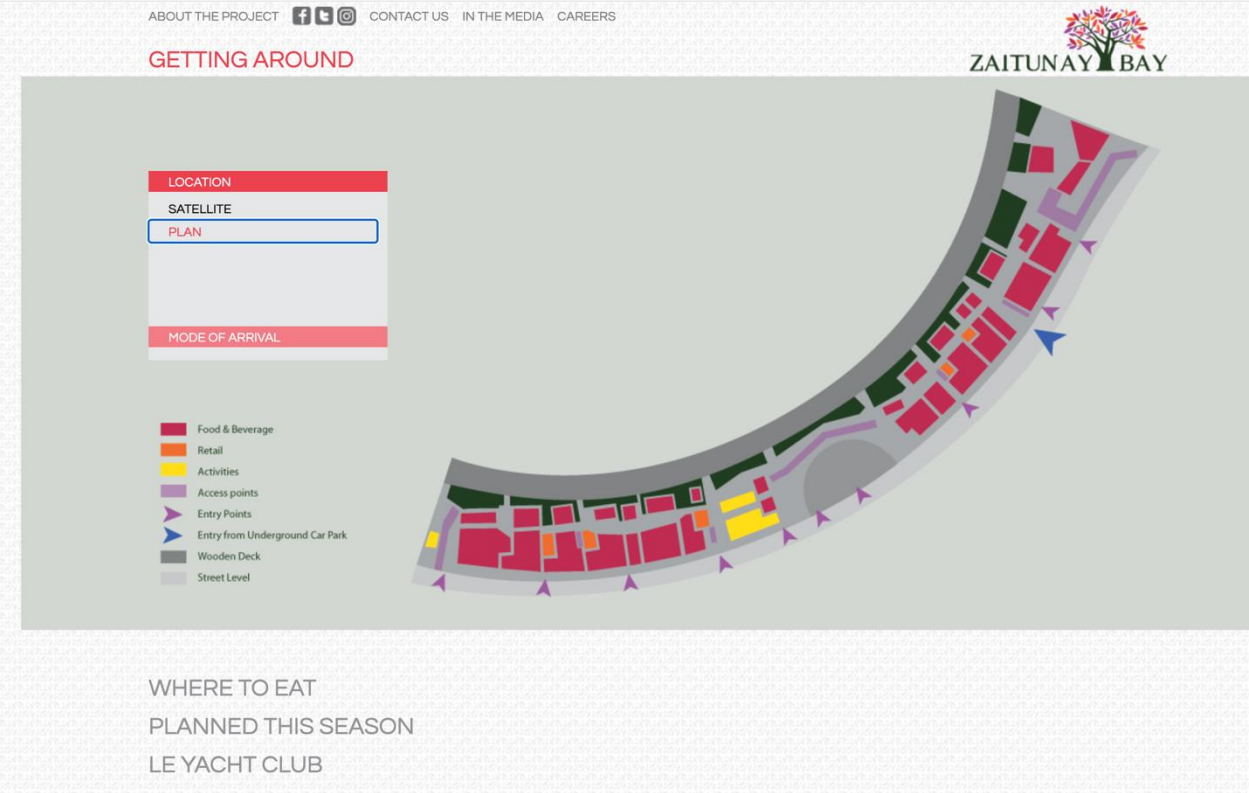
Table 14 ZB physical configuration matrix - source author (2023)

Physical Configuration Dimension

Beirut Marina Zaituna Bay	**Star Model for Publicness**														
Study Area Components	Marina boardwalk	Adjacent corniche promenade	ZB Loose space extending Corniche	ZB Loose space extending boardwalk	Open space	ZB Retail and commercial units	ZB F&B and Cafes unit	Yacht Cub exterior Loose space	Parking (surface & underground)	Marina amenities	Yacht Club	St George development	Adjacent sidewalk	Mid-block easement	**Total Study Area**
Area per component	12.000	4.000	7.374	6.518	800	1.650	7.374	1.056	19.500	6.450	5.941	15.633	2.000	850	**91.146**
Area Percentage from total	13,17%	4,39%	8,09%	7,15%	0,88%	1,81%	8,09%	1,16%	21,39%	7,08%	6,52%	17,15%	2,19%	0,93%	**100%**
Indicator 1	**Centrality & Connectedness**														
Centrality & Connectedness characteristics per area	**Macro level:** Strongly connected and Central (well located) within the overall vehicular movement network, facilitating both more movement-to and movement-through the space; **Micro level:** Pedestrian passage continuity within surrounding area continue into and through the space.														**Grade 1**
Centrality & Connectedness grade per area	5 0,66	5 0,22	5 0,40	5 0,36	5 0,04	5 0,09	5 0,40	5 0,06	5 1,07	5 0,35	5 0,33	5 0,86	5 0,11	5 0,05	**5,00**
Indicator 2	**Visual Permeability**														
Visual Permeability characteristics per area	Strong visual connection with external surrounding SWC planning regulation guideline capping height of temporary structure on private plot to below corniche level allowing high visual permeability										Weak visual connection (Fence barrier)				**Grade 2**
Visual Permeability grade per area	5 0,66	5 0,22	5 0,40	5 0,36	5 0,04	5 0,09	5 0,40	5 0,06	5 1,07	5 0,35	2 0,13	2 0,34	2 0,04	2 0,02	**4,20**
Indicator 3	**Threshold & Gateways**														
Threshold & Gateways characteristics per area	**Macro level:** Height below corniche with burred boundaries between public corniche & private maximizing access & providing multi-point filtration. Level transition via stairs /ramps connecting the different activities, amenities and functions. **Micro level:** Plot 1455 continuity of material and signage along with wayfinding allowing ease of movement, clarity and legibility of space at thresholds.							Direct pedestrian access only to marina promenade level		Gated 'Vehicular/pedestrian acess			Fenced edge	No access	**Grade 3**
Threshold & Gateways grade per area	5 0,66	5 0,22	5 0,40	5 0,36	5 0,04	5 0,09	5 0,40	4 0,05	4 0,86	3 0,21	2 0,13	2 0,34	2 0,04	1 0,01	**3,82**
Physical Configuration Rating (indicators grade average)															**4,34**

5. ZB Animation (Rating 4.01)

Animation, the second design-oriented dimensions of publicness, scored second highest rate in the Star Model assessment after the physical configuration dimension. This is mainly due to the many opportunities for passive and active engagements offered around the marina, including formal and informal seating, an array of views and reasons for people watching and observing the different activities within and from the marina space. ZB active frontages foster social contact and interaction with flexible loose spaces adapted to the different activities and catering for a variety of spontaneous, ad hoc, or planned events.



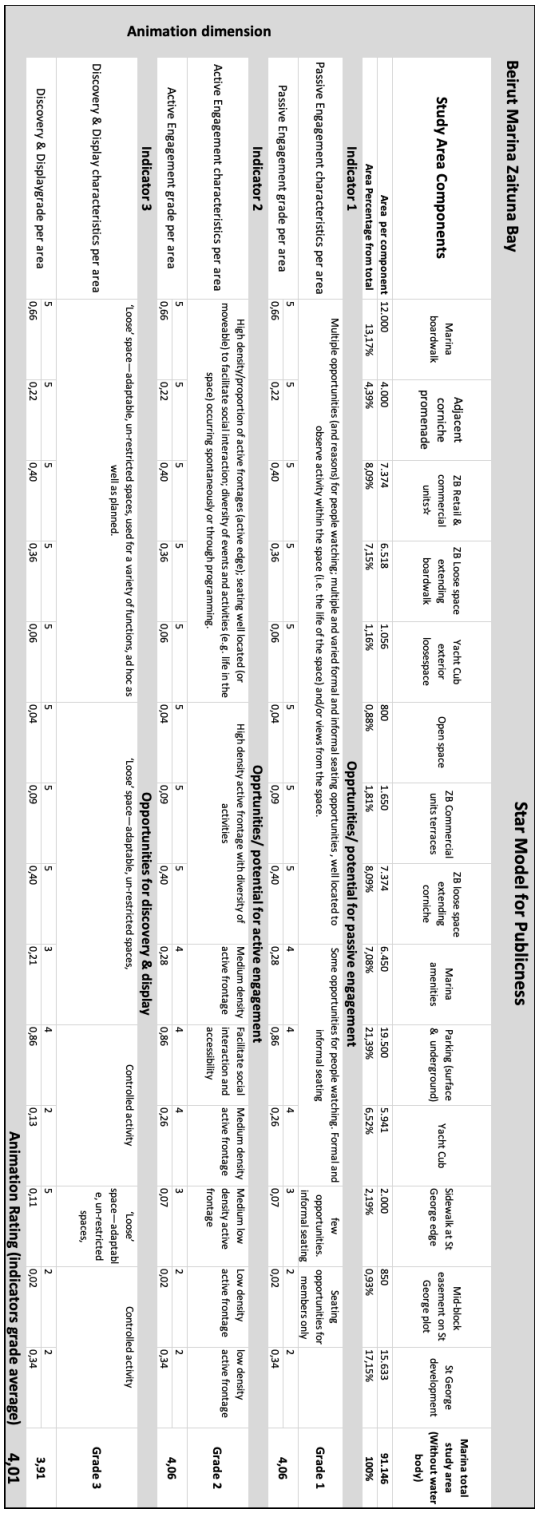
The St George, opposing ZB, did not take part in the animation of the marina. The old hotel and beach structure turning its back to the marina since 1993 because SOLIDERE took over the marina and he has no longer access to the sea, forms a physical barrier along the marina promenade. Placing a strip of planters and a rope fence and refusing to take part in the new marina project, the St George owners demand to STOP SOLIDERE[28]. (Refer to fig 39).

Figure 39 St. George Hotel and Marina circa 2014 – Source Wikipedia

The opposition to the new marina project disrupts and weakens the overall marina animation dimension.

[28] Financial times article by Ferry Biederman in published in Beirut JUNE 23, 2017

However, and despite St George's activity gap, the animation dimension of the marina rated 4.01 owing it to the extensive activity frontage along ZB plots 1455 and 1456. This result is illustrated in the matrix below:



Beirut Marina Zaituna Bay		Star Model for Publicness														
Animation dimension	Study Area Components	Marina boardwalk	Adjacent corniche promenade	ZB Retail & commercial units+	ZB Loose space extending boardwalk	Yacht Club exterior loosespace	Open space	ZB Commercial units terraces	ZB loose space extending corniche	Marina amenities	Parking (surface & underground)	Yacht Club	Sidewalk at St George edge	Mid-block easement on St George plot	St George development	Marina total study area (Without water body)
	Area per component	12.000	4.000	7.374	6.518	1.056	800	1.650	7.374	6.450	19.500	5.941	2.000	850	15.633	91.146
	Area Percentage from total	13,17%	4,39%	8,09%	7,15%	1,16%	0,88%	1,81%	8,09%	7,08%	21,39%	6,52%	2,19%	0,93%	17,15%	100%
Indicator 1	Oprtunities/ potential for passive engagement															
	Passive Engagement characteristics per area	Multiple opportunities (and reasons) for people watching; multiple and varied formal and informal seating opportunities , well located to observe activity within the space (i.e. the life of the space) and/or views from the space.								Some opportunities for people watching. Formal and informal seating		few opportunities. informal seating	Seating opportunities for members only			Grade 1
	Passive Engagement grade per area	5	5	5	5	5	5	5	5	4	4	4	3	2	2	4,06
		0,66	0,22	0,40	0,36	0,06	0,04	0,09	0,40	0,28	0,86	0,26	0,07	0,02	0,34	
Indicator 2	Opprtunities/ potential for active engagement															
	Active Engagement characteristics per area	High density/proportion of active frontages (active edge); seating well located (or moveable) to facilitate social interaction; diversity of events and activities (e.g. life in the space) occurring spontaneously or through programming.					High density active frontage with diversity of activities			Medium density active frontage	facilitate social interaction and accessibility	Medium density active frontage	Medium low density active frontage	Low density active frontage	low density active frontage	Grade 2
	Active Engagement grade per area	5	5	5	5	5	5	5	5	4	4	4	3	2	2	4,06
		0,66	0,22	0,40	0,36	0,06	0,04	0,09	0,40	0,28	0,86	0,26	0,07	0,02	0,34	
Indicator 3	Opportunities for discovery & display															
	Discovery & Display characteristics per area	'Loose' space—adaptable, un-restricted spaces, used for a variety of functions, ad hoc as well as planned.					'Loose' space—adaptable, un-restricted spaces,			Controlled activity			'Loose' space—adaptable, un-restricted spaces,	Controlled activity		Grade 3
	Discovery & Displaygrade per area	5	5	5	5	5	5	5	5	3	4	2	5	2	2	3,91
		0,66	0,22	0,40	0,36	0,06	0,04	0,09	0,40	0,21	0,86	0,13	0,11	0,02	0,34	
	Animation Rating (indicators grade average)															4,01

C. ZB Star Model (Overall Rating 3.67)

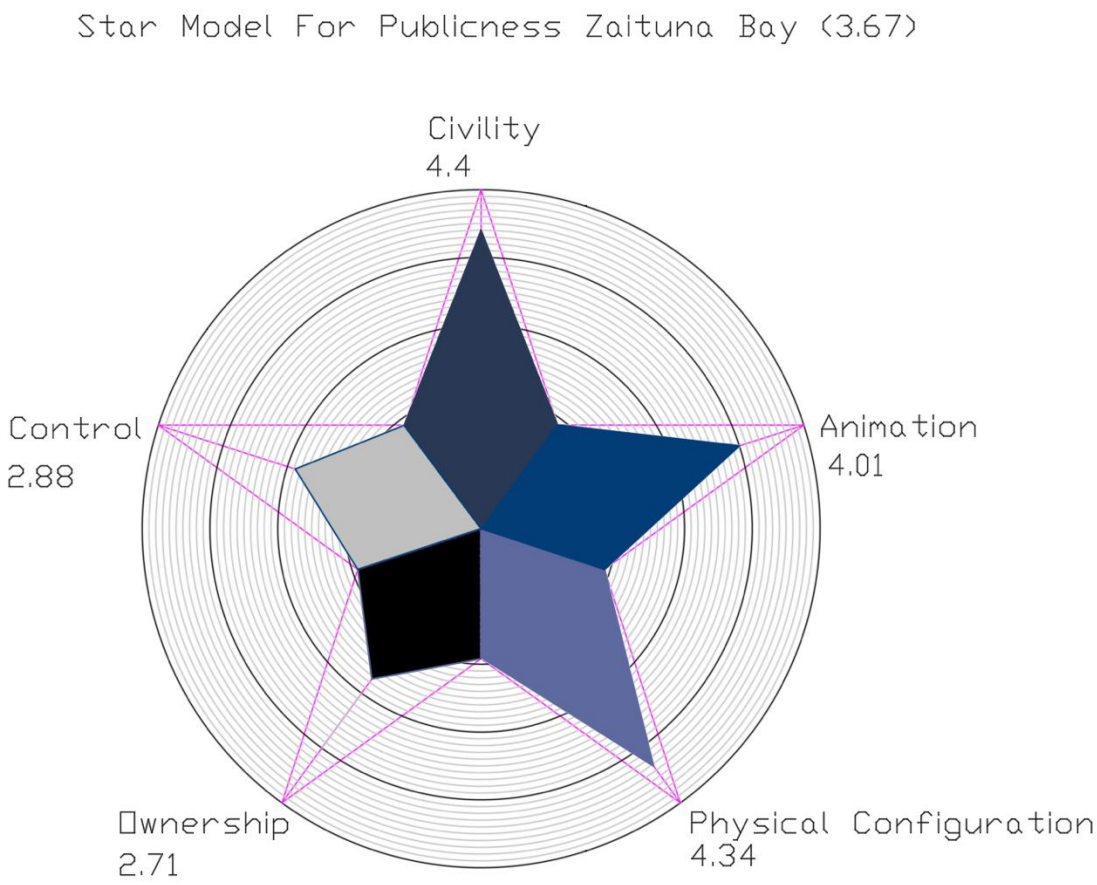


Figure 40 ZB Star Model of Publicness – source author (2023)

The Beirut marina Zaituna Bay Star Model combines the ratings of the five meta-dimensions to obtain the final rating of the case study, as also outlined in detail in the table below (Table 13). With a total rating of 3.67, the star reflects a 'fairly high' level of publicness. The highest "publicness" scores is achieved by the civility indicator (4.4), one of the managerial dimensions of publicness (with the other being control), followed by physical configuration (4.34) and animation (4.01). The latter are two design-oriented dimensions of publicness, emphasizing hence the importance of design

in the publicness of the project. Looking at the shape of the Beirut marina publicness star, one sees a distorted figure that also reflects the weakness of the project: a high level of control. Thus, the star shape indicates that the innovative design of the Zaituna Bay substantially contributed to the high level of publicness by capitalizing on the centrality and visibility of the venue to enhance accessibility. Moreover, the integrated management of the development, which forces the marina and the F&B businesses to share the same promenade, ultimately added to the high level of civility by forcing the corporation to maintain a clean and tidy environment with a welcoming, well-lit at night, with few dark areas, and high level of maintenance to all functions, even those who do not serve the wealthy clients of the marina. In turn, this management may well have promoted a good practice of space by enhancing appeal and encouraging users' active engagement in the open spaces it offers, if the theory holds true. Despite this publicness, the project still retains a visible degree of control over its most exclusive functions, namely the two yacht clubs open for members only, with gated entries and fences surrounding the site rendering their open spaces poorly connected to the venue as well as the surrounding urban fabric. The widening of sidewalks around Zaituna Bay to support walking not only enhanced the accessibility to the marina but has also created a considerable amount of lose space with uninterrupted views to the sea. The fact that this extension of public is interrupted at the St George edge has weakened the publicness of the edge with a lack of active frontages, and little opportunities for engagement around the old hotel structure. A lower degree of publicness is measured at the Marina Yacht Club due to an increase in the building height.

The star model ownership, control, civility, physical configuration, and animation relatively high publicness score is confirmed by the turnout of visitors

"voting ZB public with their feet" (Watson, S. 2006). Whether attracted by aesthetics and state of the art infrastructure, or by the variety of animations and interaction opportunities, people don't seem to mind the top-down corporate control and macro managed urban experience in ZB privatized marina spaces, (Leclercq, E. & Pojani, D. 2023) but rather enjoy the consistency and sense of security that this waterfront development is providing.

Table 15 Beirut marina ZB development publicness rating breakdown - source author (2023)

Star Model for Publicness	**Beirut Marina Development**	
Meta Dimension	**Indicator**	**Rating**
Ownership	Ownership Blended Public- Semi public - Private	2,17
	Function Complementary Function (public/private)	3,25
	Ownership rating	**2,71**
Control	Purpose of control Safe Place	2,26
	Control ordinance Regulated Usage	3,33
	Control présence Visible Control	2,94
	Control technology Evident	3,00
	Control rating	**2,88**
Civility	Physical maintenance & cleansing regime Macro Managed Well Kept & Cared-For	4,37
	Physical provision of facilities State of the Art Infrastructure	4,43
	Civility rating	4,40
Physical Configuration	Centrality and connectedness Central & Connected	5,00
	Visual permeability **Planning Regulation Impact on Visual Permeability**	4,20
	Thresholds & gateways **Blurred Boundaries & Multi-Point Filtration**	3,82
	Physical Configuration rating	4,34
Animation	Opprtunities/ potential for passive engagement **Comfortable and Relaxing Space**	4,06
	Opprtunities/ potential for active engagement **Active Inner Edges**	4,06
	Opportunities for discovery & display **Controlled 'Loose Space'**	3,91
	Animation rating	4,01
	Beirut Marina Development Total Rating	**3,67**

CHAPTER 4

CASE STUDY 2: WATERFRONT CITY [WFC]

A. WFC Project details

1. Waterfront City [WFC] Description

Waterfront City [WFC] Dbayeh is the development around the 'La marina Dbayeh' that I study as the counterpart of Beirut marina -Zaituna Bay. Fourteen kilometers north of Beirut, the Dbayeh marina is another post-civil war reconstruction project that was completed in 1998 as part of the Littoral Nord reclamation project. With the objective to become the new center of the Metn area, the 'La marina Dbayeh' was advertised as Lebanon's key port to the north. [29] The Marina was designed by Spanish architect Ricardo Bofill and conceived in the tradition of European ports berthing 700 fancy yachts and catering for high society yachters. The project houses a leisure port, outdoors sports facilities, a private club, and a shopping gallery. After the landfill completion, the site remained vacant for decades and became stigmatized as being the "depressed, large and empty parcels within a rigid grid of road infrastructure" (El-Khoury 2021)

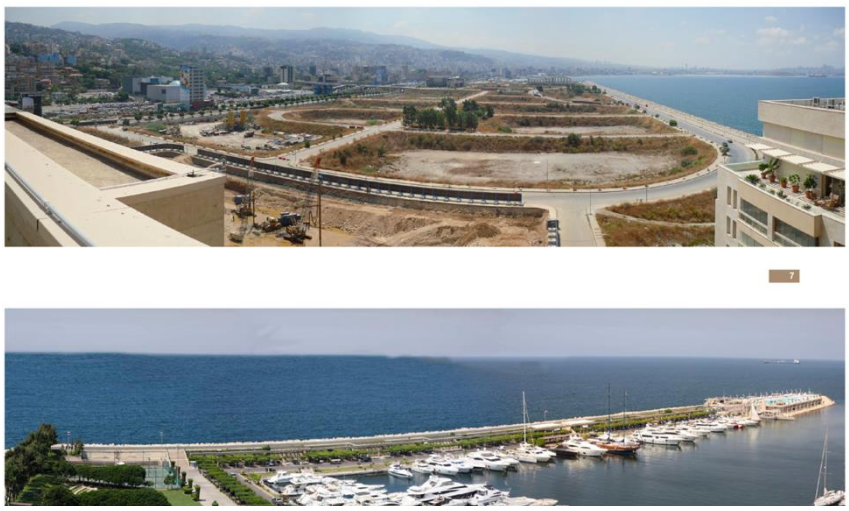


Figure 41 Dbayeh marina landfill

It is only in 2005, that a joint

[29] Corporate narrative – La Marina Joseph Khoury website

venture (JV) between the Emirati Majid al Futtaim group and Joseph Khoury , the contractor who now owns 50% of the landfill, was set up to develop Waterfront City project engulfing the marina. In 2011, the JV launched the construction of WFC Phases 1 & 2 high end residences along the 700m long promenade overlooking the marina with 30 high-end retail and 16 restaurant/café F&B strip.

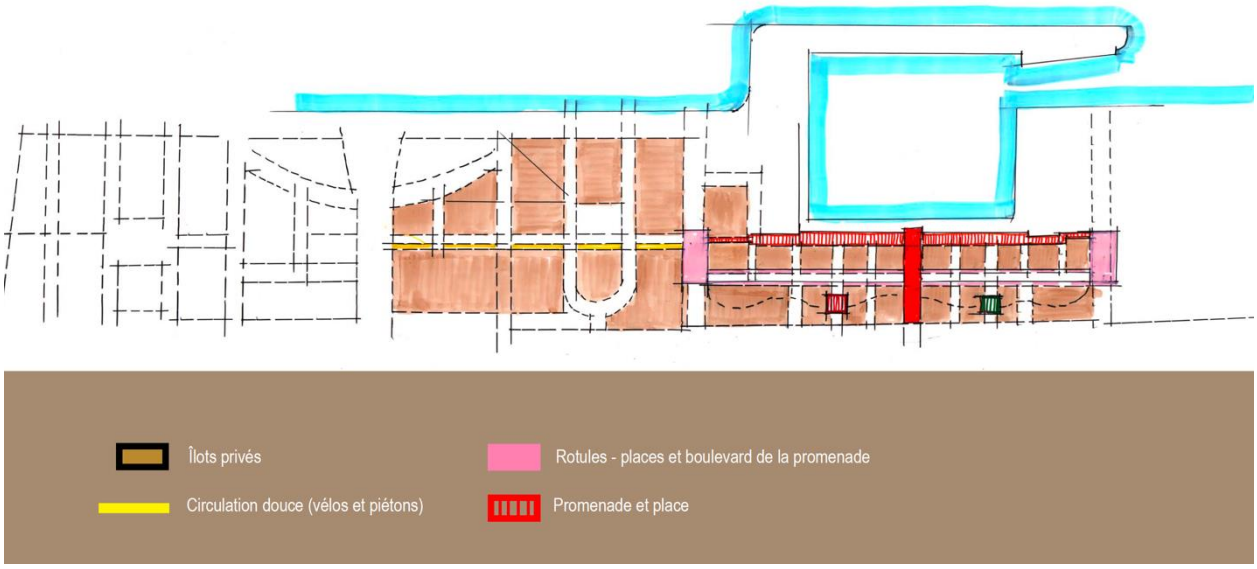


Figure 42 Waterfront City joint venture area

Critics believed that WFC project did not induce the change needed to create the hub initially intended for the Metn area[30]. With frequently reported security incidents, the development didn't deliver on the promise of a real suburbia (El-Khoury, R. 2021). Despite some negativity around the site, the marina development portrayed distinctive spatial qualities attracting formal and informal users. The corniche promenade and open spaces appeal to many early morning joggers and sports' lovers. Low-income families,

[30] Fouad Gemayel article in Le commerce du levant dated November 3, 2017:John Ward : « Nous voulons faire de Dbayeh Waterfront City le centre-ville du Metn » https://www.lecommercedulevant.com/article/27849-john-ward-nous-voulons-faire-de-dbayeh-waterfront-city-le-centre-ville-du-metn-

homeless people, and refugees also find in it a springtime escapade while lovers see it as a romantic retreat.

Figure 43 WFC corniche

Since 2019, and despite efforts from the JV to materialize the ambitious plans of the Promenade retail & F&B strip, commeasuring with Zaituna bay, WFC development phases are put on an undetermined hold amidst the country's economic meltdown.

2. Political Framework

The following section details the political framework behind the making of WFC. It sheds light on the evolution of the project from and urban planning endeavor to a lucrative real estate development for the new rising downtown of Metn.

> In 1974 Littoral Nord Decree 7510/95 was initiated by a proposal by engineer and urbanist Gabriel Char to expand the port of Beirut to the North. Char's project aimed at expanding the port facilities into the existing industrial zone along the coast and to the Metn where residential and commercial spaces are needed for the development of the area (Char 1974). Entitled Épure Nouvelle du Liban, this project was overlooked by the authorities at the time. The project was however re-activated in 1981, already before his mandate as president of the republic Amine Gemayel (1982-1989) re-activated the Metn project. This time, the project was intended to counterbalance Beirut Central District waterfront expansion and set up a Christian hub in the eastern Metn area, competing with its western Muslim counterpart in the hope of acquiring some of BCD's touristic, business, and financial functions (Verdeil 2017). To that end the northern coast land reclamation project was placed under the supervision of the Council of the Development and Reconstruction (CDR).
>
> In 1983, CDR called upon two of its public works 'contractors'[31] Rafik Hariri and Joseph Khoury (Verdeil 2017), and commissioned them to conduct feasibility studies, prepare a detailed master plan, and carry out the backfilling work. In remuneration for their work, the contractors were to receive a share of the land that they can market, develop, and sell. This arrangement seemed suitable for the state since public payment will be minimized with the contractors financing the project costs (studies and execution) upfront. At this time, the land reclamation project was an average of 10 km long and 400 m wide. It included 305ha of backfill, to which are added 165ha recovered on dry land.
>
> In 1984, the project faced several technical difficulties and a new troubled political situation thus obstructing its execution. Meanwhile the financial forecasts of the project experienced a drop as the Lebanese pound faced a severe depreciation. when Rafik Hariri disengaged from the project, and in 1985, Joseph Khoury demanded a renegotiation of the contract under penalty of abandonment of the work (which has not started yet!).

[31] Rafik Hariri and Joseph Khoury

In 1987 When Amine Gemayel' situation got more complicated as he faced financial scandals, his control over the northern part of the Metn was downsized, he resorted to a new arrangement limiting the land reclamation intervention- the first phase- to the northern section of the Metn, between Antelias and Nahr el Kalb. Joseph Khoury reinitiated the studies based on the new assigned area and called for Ricardo Bofill for redesign. The remaining part became known as the LINORD project, strongly linked to the Burj Hammoud dumpsite. The project was however halted by the outbreak of violence at the time.

in 1994 when the situation stabilized, phase 1 was reinitiated by Minister of the Interior then, Michel Murr. The review by the commission chaired by Murr maintained the 1987 phasing of the project, starting with its northern part, which at the time was the least technically difficult. The private company, Dar Al Handasah, was commissioned to develop the masterplan studies based on the initial concept developed by Bofill. In 1995, the project got approved via Presidential Decree 7510 signed by then president of the republic Elias El Hrawi.

In 1997, Joseph Khoury completed the 1,000,000 square meter land reclamation project including the Dbayeh yacht marina (AKA Joseph Khoury marina), an exclusive members' only yacht club, a gym, and a swimming pool "within rising complaints about the exclusiveness of the project and the privatization of the seashore" (Khoury, R. 2021).

3. Corporate Framework

Post war, the state remained weak in negotiating urban regeneration projects with private sector in the name of the common interest. By the time Khoury signed the renegotiated contract, the state had abandoned any ambition of urban restructuring to incorporate new services for the Metn area. The contract conditions were advantageous to the interests of the promoter over public interest by granting in addition the increased percentage versus the works to be completed, the 25 years concession of the marina. In 1995, the state appointed Joseph El Khoury to undertake Dbayeh waterfront reclamation project following decree 7510/1995. The agreement granted the contractor 50% of the reclaimed waterfront properties in return for contracting costs. Throughout the negotiation process, the land granted to the contractor was significantly increased compared to the first version of the contract. Moreover, apart from two plots at the extremities of the land fill planned for schools, no other public service was designated

in the project, and no public beach was considered. In 2003, another agreement with the state granted 'Joseph G. Khoury Holding & Fils' (JGKH&F) 25- years right to build operate & transfer (BOT) the Marina in Dbayeh (ending by 2028). In 2001, Club la Marina was founded on plots 190 & 191. Both marina and club access is limited to members-only. In 2005, Waterfront City (WFC) - a 50/50 joint venture company between JGKH&F and retail and leisure pioneer Majid Al Futtaim[32] (MAF) launched the development of WFC Promenade on GF of plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 as a F&B destination with no direct access to the marina, following a decision by the concessionaire (JGKH&F) not to open the marina to the public. In 2019, the WFC Promenade was inaugurated and marketed as Metn's elegant pedestrian esplanade overlooking Joseph Khoury's members' only marina with a relatively low occupancy rate.

[32] Founded in 1992, Majid Al Futtaim is the leading shopping mall, communities, retail, and leisure pioneer across the Middle East, Africa, and Asia. A remarkable business success story, Majid Al Futtaim started from one man's vision to transform the face of shopping, entertainment, and leisure to 'create great moments for everyone, every day'.

Figure 44 WFC Phase 1

Figure 45 WFC Promenade

4. Design Framework

This section sheds a light on the design framework that influenced the making of the marina case study. In 1990, Italian starchitect Ricardo Bofill Barcelona office was commissioned to develop the master plan concept design for Dbayeh's one square kilometer landfill north of Beirut. For this job, Bofill was assisted by local architect Nabil Gholam. 10 years later, in 2000, the two architects were assigned, as joint venture, the detailed design of La Marina Dbayeh, the 700-berth marina, pool and club at the heart of the new area. The contract included infrastructure, landscape, traffic, parking, lighting, urban furniture and finishing works. 10 years later, in 2010, WFC joint venture management called upon Millennium Development International, ERGA, Rafik El Khoury/TUP joint venture, ZMK, G, Khatib & Alami, Dar al Handasah, SETS and Penguin Cube to develop the urban design, architecture, landscape, sustainability, traffic, parking signage & wayfinding strategies to be incorporated in phases 1 and 2 of WFC, the mixed-use destination overlooking the marina. The 2010 design exercise was crucial to address the JV concerns and requirements to embark on WFC devolvement catering for the 40,000 m2 lifestyle center housed within WFC consolidated GF units. The program included an open-air mall, high end residences, business park, retail, and F&B concepts forming WFC Promenade, overlooking La Marina Dbayeh and commeasuring with Beirut Marina - Zaituna Bay development. WFC promenade upgrades focused on enhancing the publicness of the marina area, making it more accessible.

The design framework of the Dbayeh marina area is further analyzed in the following section to understand the impacts of the initial design, and later upgrades, on the publicness of the development.

B. WFC Publicness Assessment

In this section, the thesis identifies the main characteristics that give the Dbayeh Marina- Waterfront City development - the 'quality of being public' and weighs them to assess the publicness of the venue according to Varna and Tiesdell's star model. The model's meta dimensions are analyzed, and site-specific indicators are identified to measure the key planning guidelines and design decisions which most impacted the overall publicness of the marina open spaces.

Formal and informal regulations and key design features promoting accessibility, comfort, security, engagement, good image, and sense of community are closely analyzed to capture the specificities and sensitivities of the context. The case study indicators are elaborated in the following paragraphs. Star model publicness indicators are scaled from 1 to 5, 5 being the most public and 1 the least (Varna, G. 2014).

1. WFC Ownership - Rating 2.54

The Dbayeh marina ownership dimension is assessed based on two indicators: (1) the owner and (2) the function. The assessment of this dimension is governed by several factors: (refer to ownership map & space as practiced map)

- The masterplan plot subdivision.
- The legal ownership of the plot.
- The 2003 public private partnership agreement through which the State granted Joseph G. Khoury Holding & Fils (JGKH&F) a 25-years right to build, operate, and transfer (BOT) the Marina in Dbayeh (ending in 2028).

- The joint venture agreement between JGKH&F, the master developer, and Majid al Futtaim Properties (MAFP) for the development of Waterfront City on plots 193, 206, 207, 208, 209, 210, 211, 218, 219, 220, 221.
- The functions associated with every plot.

The assessment answers the questions raised by the star model, ‘who owns the space?’ and ‘what function does it hold?’, as well as the two additional questions introduced by the thesis ‘how the design of functions impacts publicness?’ and ‘who is it built for?’.

Starting with ‘who owns the space’, I have computed an ownership score of (1.97/5) based on the following analysis:

- 58% Private ownership:
    - Private plot 193, 206, 207, 208, 209, 210, 211, 218, 219, 220, 221, jointly owned by the JV, houses on its GF WFC F&B, retail strip, open spaces & terraces.
    - Private plot 190 & 191, owned by JGKH&F, houses the Yacht Club and terrace with members only access.
    - Private plot 189 & 192, owned by JGKH&F, still not developed
- 7% Public ownership:
    - Public easements stipulated between plots 192 & 193 and 218 & 219 guaranteeing corniche continuity.
    - The sidewalks connected to the easements.
    - Open space DP 1285 totally incorporated in semi-public pedestrian alleyway extending the corniche promenade.
    - Public pedestrian crossing (planned and not executed)

- 35% Public private partnership:
    - Marina boardwalk and amenities
    - Surface parking servicing the vehicular access to the marina
    - Pool and sports courts.

Factoring the macro and micro design approaches, which associated public functions with private space along WFC private plots, the blended public and private realms around the marina enhance the overall publicness. Consequently, the ownership average combined with the allocated functions increases the cumulative weighted average of this dimension from 1.97 to 2.54 (Refer to ownership and function matrix and maps).

Table 16 WFC ownership matrix - source author (2023)

Dbayeh Marina Waterfront City — **Star Model for Publicness**

Ownership dimension	Study Area Components	Open space at Promenade Central Plaza	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	Marina boardwalk	Amenities	Parking (surface & underground)	WFC Plots 189, (underground on private plot annexed to 190, 191, 192, 193, 206, 207, 208, 209, 210, 211, 218, 219, 220, 221.	Parking Marina Promenade (Without water body)	Marina total study area (Without water body)
Indicator 1	Area per component	1.525	1.315	5.000	10.000	28.500	3.150	69.064	3.685	118.554
	Area Percentage from total	1%	1%	4%	8%	24%	3%	19%	visitors)	100%
Map color coding	Ownership characteristics per area	Public			Public Private Partnership (PPP)			Private		Total
	Ownership grade per area	5	5	5	3	3	3	1	1	Grade 1
										1,97

Table 17 WFC function matrix - source author (2023)

Ownership dimension	Study Area Components (after introducing the function)	Open space at Promenade Central Plaza	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	WFC Private Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 loose space extending promenade	Parking (underground on private plot annexed to Promenade visitors)	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units terraces & loose space open to Promenade	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units<	Marina boardwalk (for marina users and members only)	Amenities (serving marina users only and members only)	Marina Parking (surface serving marina users only)	WFC plot 189, 190 and 191 (Yacht Club & Residences for owners & members only)	Marina total study area (Without water body)
	Area SQM ☆☆	1.525	1.315	5.000	9.890	3.685	20.213	20.172	10.000	28.500	3.150	15.104	118.554
	% from total area	1,29%	1,11%	4,22%	8,34%	3,11%	17,05%	17,02%	8,43%	24,04%	2,66%	12,74%	100%
Indicator 2	Function												
Map color coding		Public			Semi-Public				Public Private Partnership			members' only	
	Function characteristics per area												Grade 2
	Function grade per area	5	5	5	4	4	3	3	3	3	3	2	3,12
												Ownership total Grade	**2,54**

Figure 45 illustrates WFC ownership dimension before associating it with function, design, and users' spatial practices.

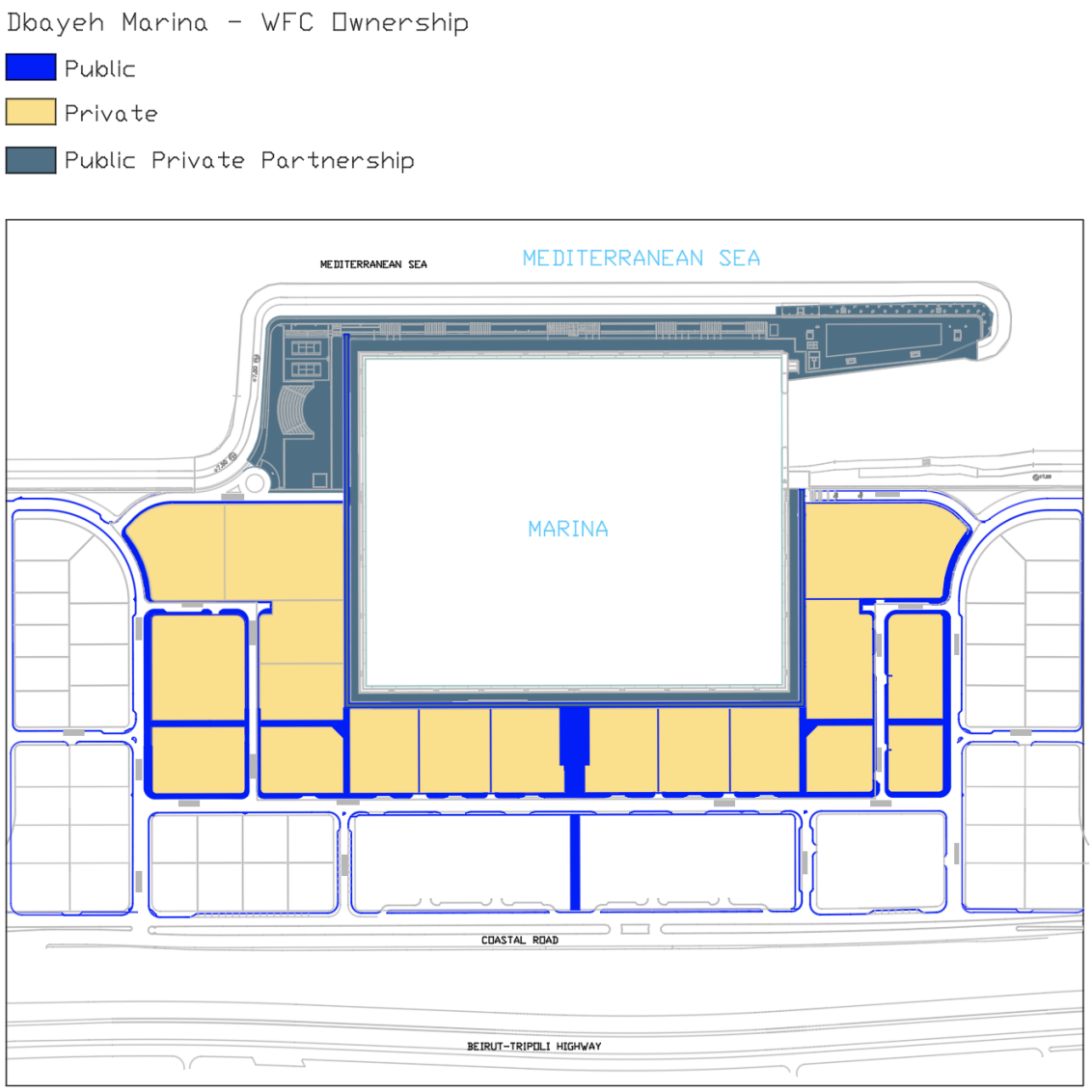


Figure 46 WFC ownership dimension map

Figure 46 illustrates how blurring the boundaries and adopting a striated organization of functions altered the reading of WFC public private interface and strengthened the fluidity between the two realms, consequently enhancing the WFC publicness.

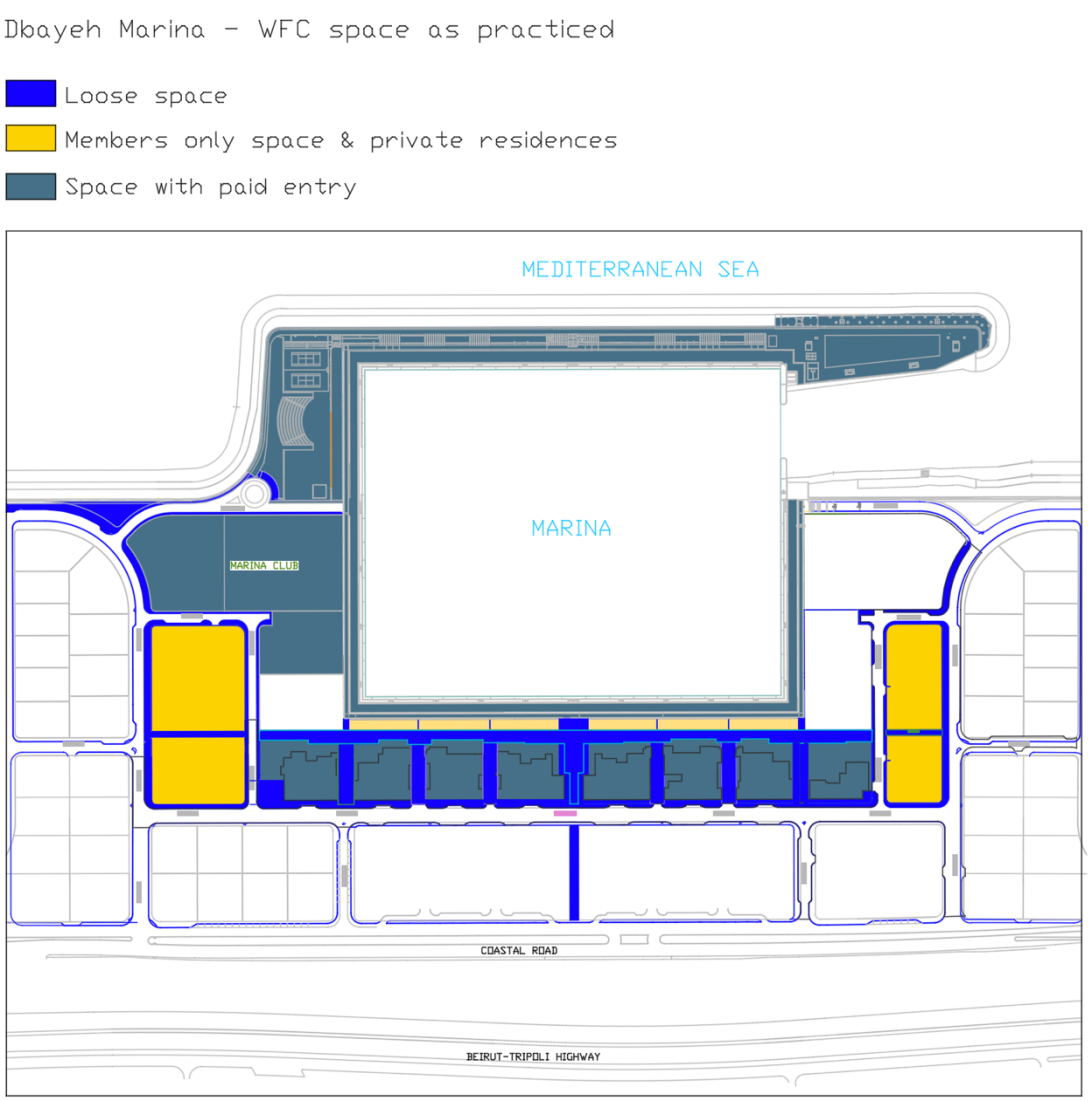


Figure 47 WFC function dimension - space as practiced - source author (2023)

2. WFC Control (Rating 2.57)

Control affects public inclusion: the more control, the less inclusivity. The concessionaire's decision to close the Dbayeh marina quayside to the public presented the main challenge to the Waterfront City project. This level of exclusivity, enacted in the interest of the master developer to increase land prices and berthing fees, negatively impacted the overall publicness of the marina. Despite efforts from the joint venture management to maximize loose space interaction between WFC GF destination and marina level, the disconnection of the development from the quayside worked against the developers' intentions to increase accessibility. Moreover, the split-level configuration, reinforced by decree 7510 Street Wall Control G1 and G2, the building regulations stipulated on WFC plots (refer to physical configuration section), buffered and detached the marina from surrounding private plots. This control by level split left the WFC promenade with views over the exclusive marina, but kept it physically disconnected. The presence of guard tasked to filter the flow of visitors, formally and informally, across the loose open spaces monitoring offensive behaviors and limiting the risk of vandalism enhanced the publicness of the promenade by improving security, while the highly controlled entry to the marina through a guarded fence, checking the eligibility of users to access marina quayside, with visible CCTV cameras at main access points and around the loose spaces is deemed less public.

The striated configuration at public private interfaces with different levels of access controls between realms is illustrated in the figure below. The figure graphically represents how the design approach of WFC promenade attempts to bridge the of zones affecting the overall publicness rating of the project. This segregation by assigned uses is considered a form of control whereby the marina is surrounded by private residential

usages that limit the opportunity for a higher degree of accessibility. Whereas accessibility to WFC promenade is accentuated by publicly accessed zones increasing the opportunity of free uses and interaction.

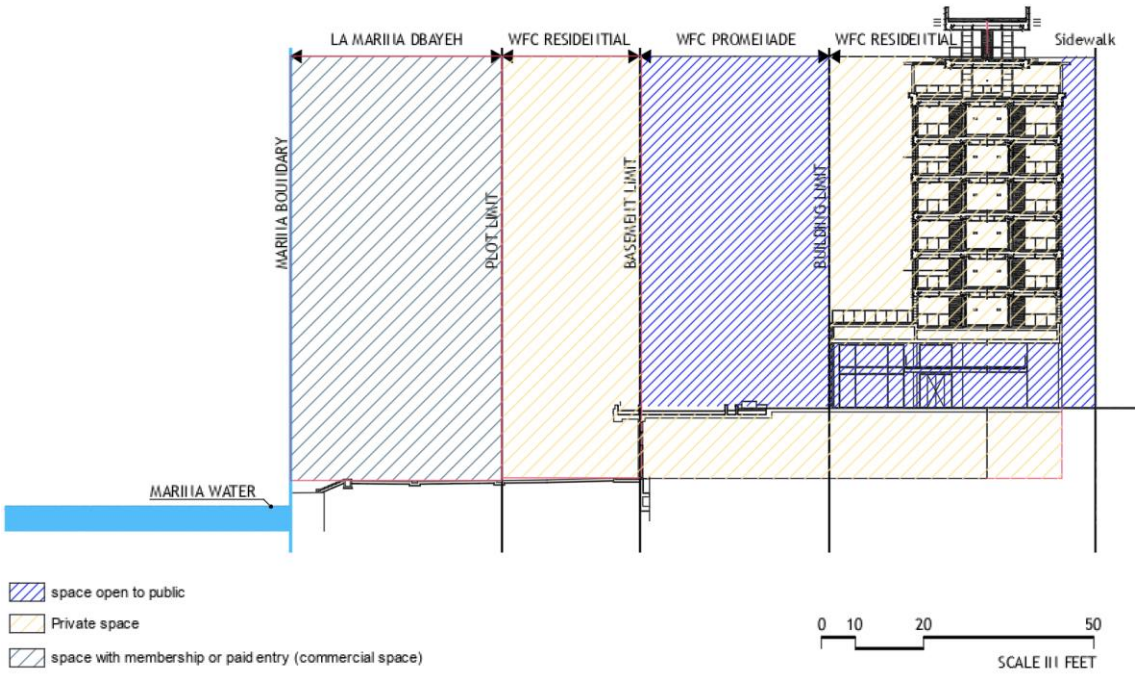


Figure 48 WFC east west section illustrating segragated functions - source Author (2023)

The matrix below illustrates the control dimension indicators rating per zone, control dimension score 2.57. on the publicness scale

Table 18 ZB control matrix - source author (2023)

Control dimension												
Dbayeh Marina Waterfront City	**Star Model for Publicness**											
Study Area Components	WFC Private Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 loose space extending	Open space at Promenade Central Piazza	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	Parking (underground on private plot annexed to Promenade visitors)	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units terraces &	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units☆	Marina boardwalk (for marina users and members only)	Amenities (serving marina users only and members only)	Marina Parking (surface serving marina users only)	WFC plot 189, 190 and 191 (Yacht Cub & Residences for owners & members only)	**Marina total study area (Without water body)**
Area per component	9.890	1.525	1.315	5.000	3.685	20.213	20.172	10.000	28.500	3.150	15.104	**118.554**
Area Percentage from total	8,34%	1,29%	1,11%	4,22%	3,11%	17,05%	17,02%	8,43%	24,04%	2,66%	12,74%	**100%**
Indicator 1	**Purpose of control**											
Purpose of Control characteristics per area	Safe place/ Nice police - Private guards for property/users security - Informally monitor offensive behaviors and limit the risk of vandalism. Informally they are assigned the control of the admission of certain groups of people belonging to a specific race/gender/nationality				Management control to secure the interest of the operation			Exclusivity barrier -Guarded gate for members only				**Grade 1**
Purpose of Control grade per area	3	3	3	3	2	2	2	1	1	1	1	
	0,25	0,04	0,03	0,13	0,06	0,34	0,34	0,08	0,24	0,03	0,13	**1,67**
Indicator 2	**Control ordinance**											
Control Ordinance characteristics per area	Site specific rules & regulations enacted to preserve the quality standards and sustainability of the venue							Rules enacted in the best interest of members and users and to the				**Grade 2**
Control Ordinance grade per area	4	4	4	4	4	4	4	1	1	1	1	
	0,33	0,05	0,04	0,17	0,12	0,68	0,68	0,08	0,24	0,03	0,13	2,56
Indicator 3	**Control Presence**											
Control Presence characteristics per area	Subtle covert control	Subtle covert control	Subtle covert control	Subtle covert control	Subtle covert control	Subtle covert control	Subtle covert control	Gated entrance	Gated entrance	Gated entrance	Gated entrance	**Grade 3**
Control Presence grade per area	4	4	4	4	4	4	4	2	2	2	2	
	0,33	0,05	0,04	0,17	0,12	0,68	0,68	0,17	0,48	0,05	0,25	3,04
Indicator 4	**Control Technology**											
Control Technology characteristics per area	Some CCTV cameras evident											**Grade 4**
Control Technology grade per area	3	3	3	3	3	3	3	3	3	3	3	
	0,25	0,04	0,03	0,13	0,09	0,51	0,51	0,25	0,72	0,08	0,38	3,00
											Control Rating (indicators grade average)	**2,57**

3. WFC Civility (Rating 3.16)

Macro managed and well-kept, WFC open spaces are cared for by a third-party facility management company. The overall physical maintenance and cleaning regime is covered during operating hours. The physical provision of facilities, such as roads and infrastructure, is maintained by the municipality which failed at times to support the needs of the marina, especially in the finishing and maintenance of the public realm. To cover those gaps, enhance the public realm, and to commeasure with WFC high end development, the JV took over the infrastructure and public realm upgrades from the municipality. The works offered by the JV included sewage, traffic signs, sidewalk finishes, landscaping, park rehabilitation, and road signs. WFC civility was heightened by the provision of urban furniture signage, wayfinding, and lighting across the venue. An art strategy was envisioned for the whole WFC open spaces yet is still pending execution. Moreover, the design of phase 1 retail and F&B GF units accounted for a dedicated technical floor, above the GF level. Service areas, storages, refrigerated garbage rooms, parking, and guard houses were also included in the design. This level of civility enhanced the publicness of the marina and rendered WFC open spaces accessible, safe, and enjoyable.

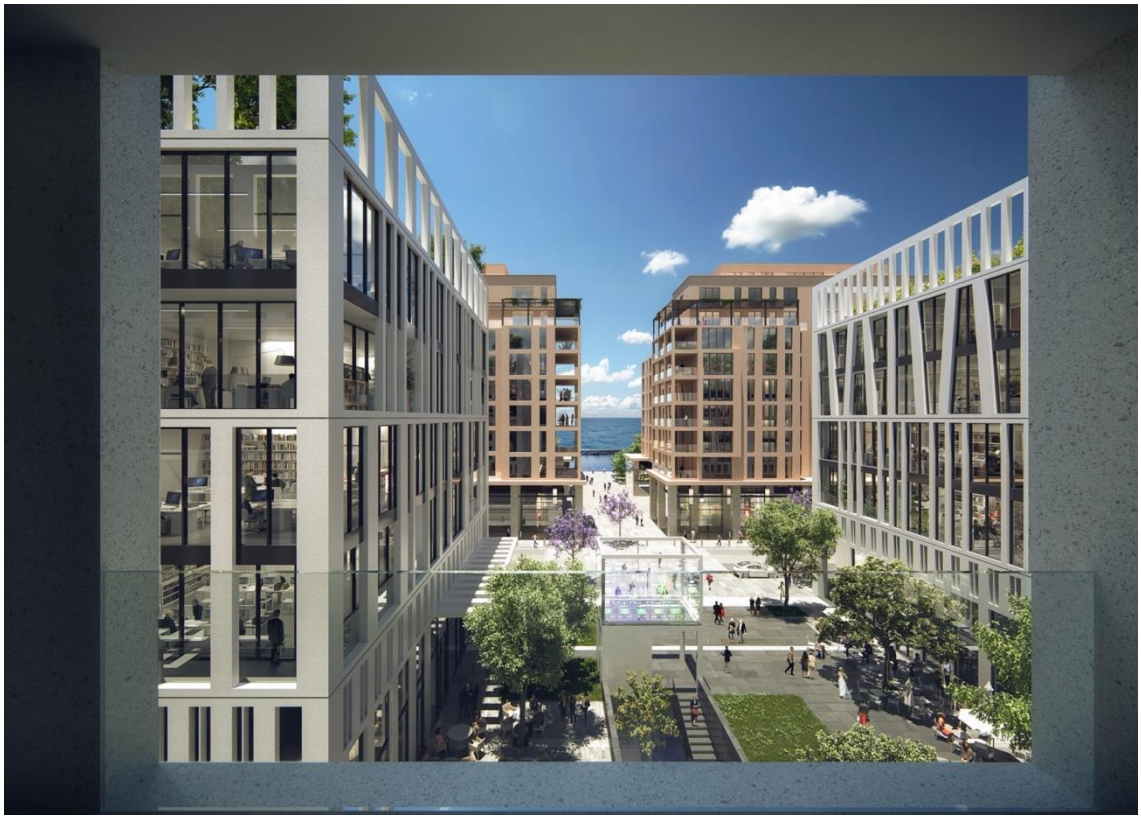


Figure 49 WFC Piazza design source - WFC report

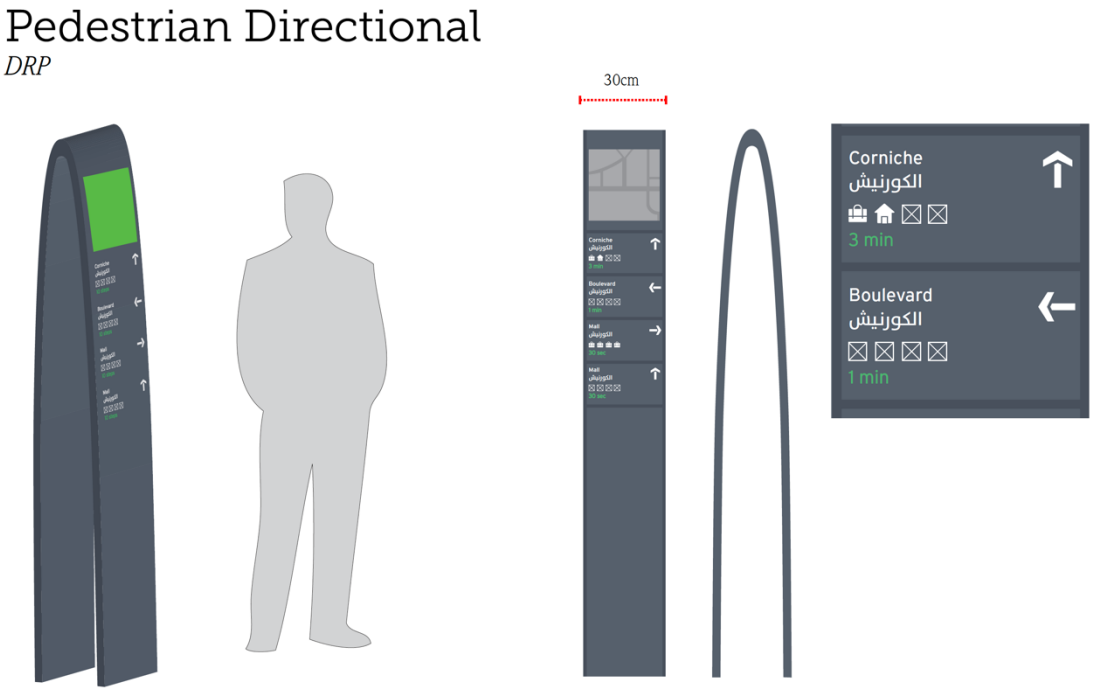


Figure 50 WFC pedestrian directional sign source - WFC report

Table 19 WFC civility matrix - source author (2023)

Civility dimension	Star Model for Publicness												
Study Area Components	WFC Private Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 loose space extending promenade	Parking (underground on private plot annexed to Promenade visitors)	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units terraces & loose space open to Promenade users	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units*	WFC plot 189, 190 and 191 (Yacht Club & Residences for owners & members only)	Marina boardwalk (for marina users and users only and members only)	Amenities (serving marina users only and members only)	Marina Parking (surface serving marina users only)	Open space at Promenade Central Piazza	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	**Marina total study area (Without water body)**	
Area per component	9.890	3.685	20.213	20.172	15.104	10.000	28.500	3.150	1.525	1.315	5.000	**118.554**	
Area Percentage from total	8,34%	3,11%	17,05%	17,02%	12,74%	8,43%	24,04%	2,66%	1,29%	1,11%	4,22%	**100%**	
Indicator 1	**Physical maintenance & cleansing regime**												
Physical maintenance & cleansing characteristics per area	Well kept & Cared-for by by a third party facility management				managed by concessionaire	Well kept & Cared-for by Concessionaire - to be handed to municipality when concessionaire agreement expires							
Physical maintenance & cleansing grade per area	4	4	4	4	3	3	3	3	3	3	3	**Grade 1**	
	0,33	0,12	0,68	0,68	0,38	0,25	0,72	0,08	0,04	0,03	0,13	**3,46**	
Indicator 2	**Physical provision of facilities**												
Physical provision of facilities characteristics per area	WFC management providing efficient, long term facilities that support operational needs					Concessionaire providing structure for efficient, long term facilities that support operational needs.			Managed by municipality				
Physical provision of facilities grade per area	3	3	3	3	3	3	3	3	1	1	1	**Grade 2**	
	0,25	0,09	0,51	0,51	0,38	0,25	0,72	0,08	0,01	0,01	0,04	**2,87**	
Civility Rating (indicators grade average)												**3,16**	

4. WFC Physical Configuration (Rating 2.31)

The Dbayeh marina masterplan's physical configuration affected WFC publicness. The main design challenge centered around Dbayeh landfill objective to increase the density along seafront developments for higher land profitability. Moreover, the large and tall buildings surrounding the marina limited from where it can be seen. To assess the publicness of the WFC design, the thesis starts by analyzing Dar al Handasah's masterplan objectives developed based on Ricardo Bofill's initial concept of view corridors[33].

The macro (from without) and micro (from within) design approaches adopted by the masterplan are analyzed in this section based on the three studied levels: (1) general masterplan strategies, (2) sector or urban block character, and (3) the plot building regulation and design.

a. Dbayeh Masterplan Strategies

In the following section we analyze Dbayeh masterplan urban planning strategies to understand how general conditions and guidelines impacted the publicness of the Waterfront City. The analysis focuses on the overall physical configuration of the Dbayeh landfill and assesses the overarching design strategies and how they affect accessibility, connectedness, and a high level of service.

- View corridors – vistas: As stated above, the main masterplan objective constituted the main challenge of the landfill, how to ensure sea and marina views across the entire landfill, while, at the same time, maximizing built up

[33] Refer to 1995 Littoral Nord Masterplan report

area. The concept presented by Bofill proposed the view corridor strategy with east-west vistas framing the views to the sea.

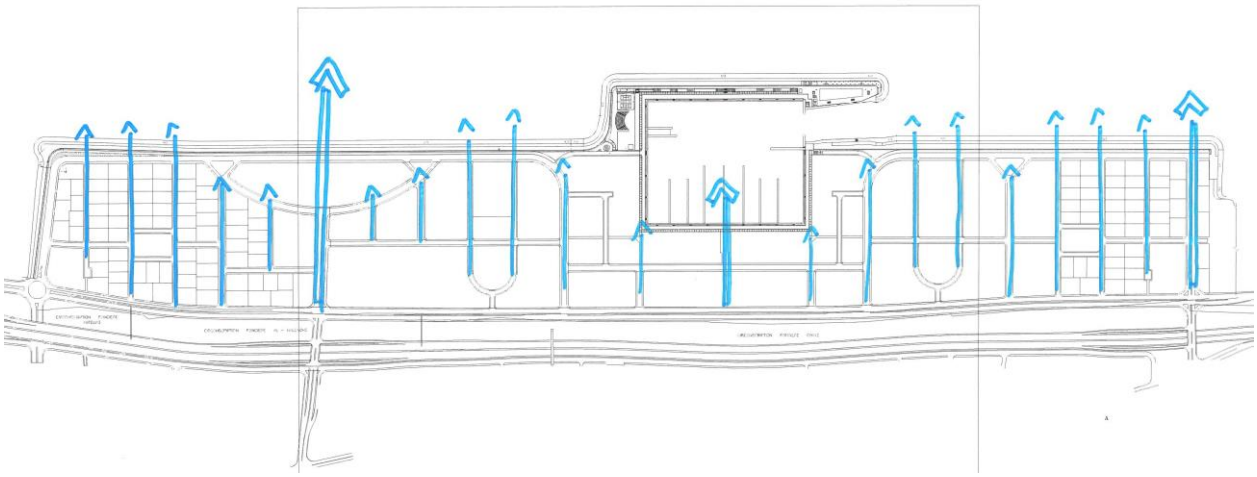
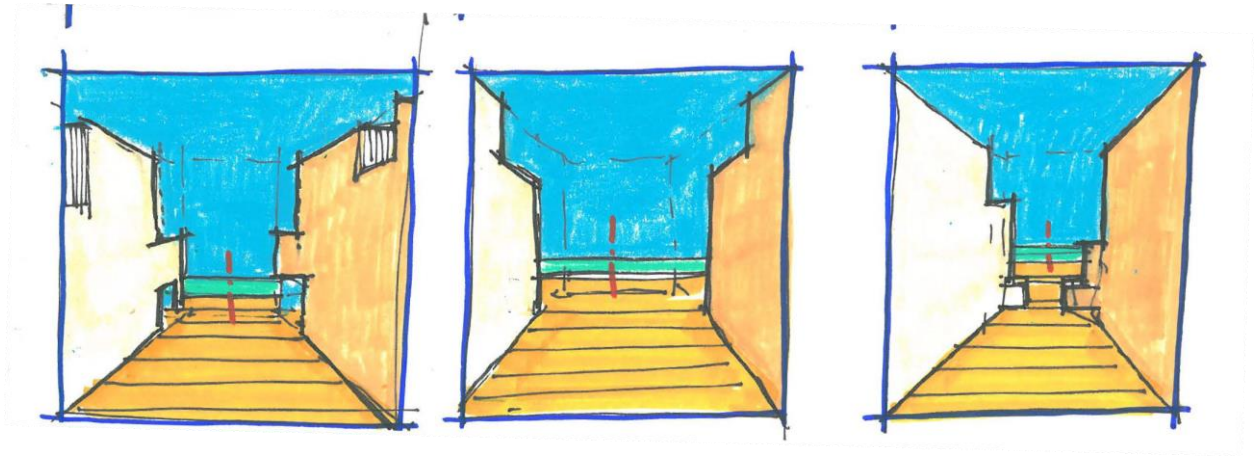


Figure 51 View corridors plan sketches by TUP - WFC landscape consultant-source WFC report

The masterplan design by Dar Al Handasah implemented Bofill's view corridors strategy across the 5 sectors of masterplan. The view corridors concept was designed along east-west axis, and integrated within the circulation, landscape, and urban design strategies.



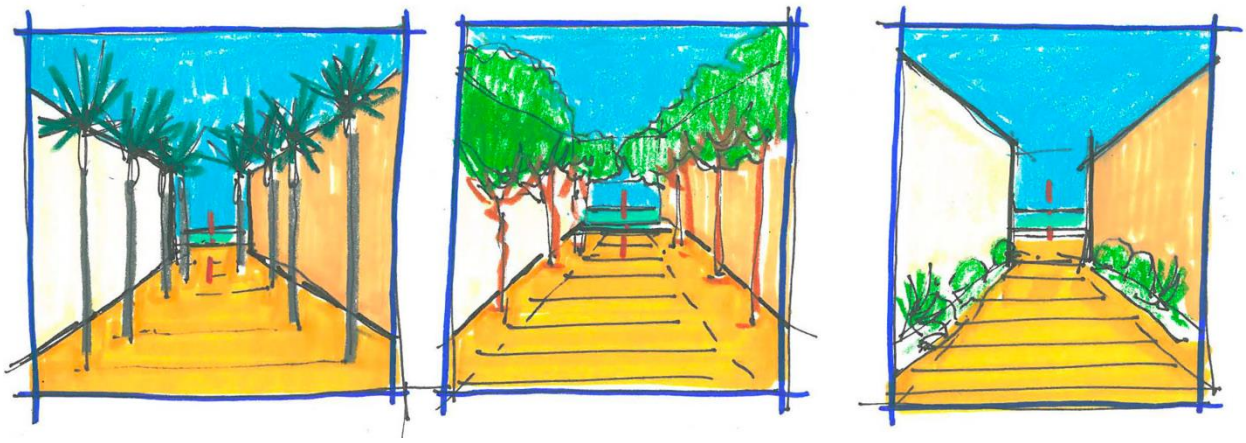


Figure 52 View corridors sketches by TUP - WFC landscape consultant-source WFC report

View corridors secured by ‘built to lines’ with gradually increasing building setbacks on the east-west axis lead to the sea. Building facades, rows of trees and urban furniture on both side of the roads draw the receding street walls forming the view corridors with enhanced visual accessibility to the sea. Given that the views are framed and not continuous, the visual permeability, a major indicator of the physical configuration dimension is rated lower than ZB.

- Open Space Strategy: The open space strategy is designed around the marina,

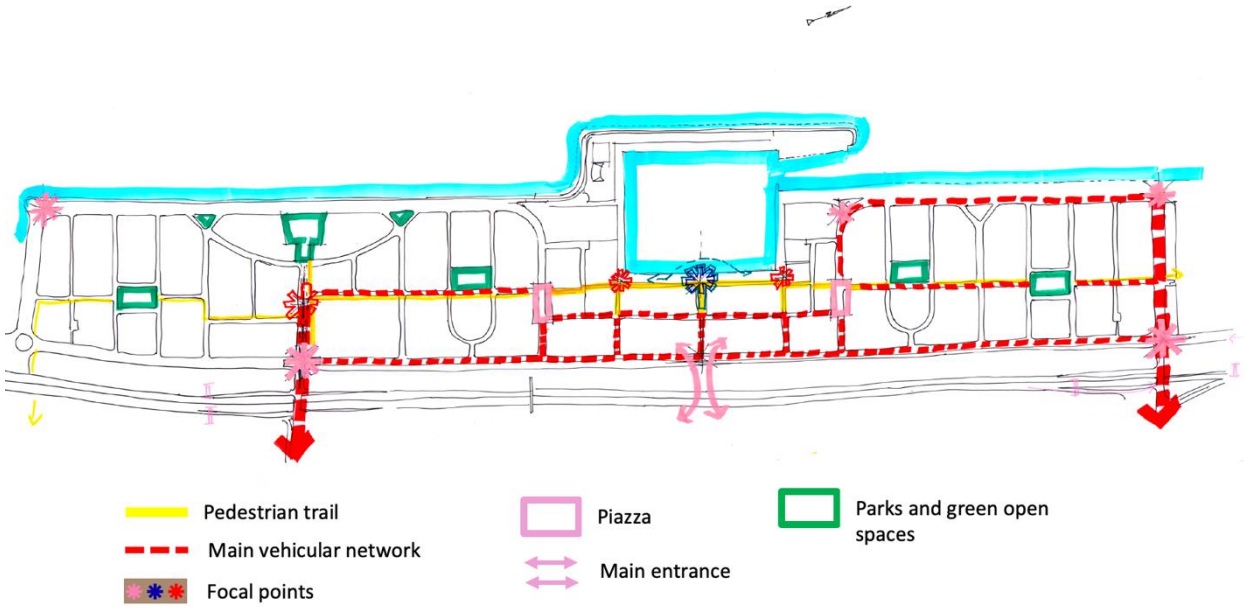


Figure 53 Open space strategy sketches by TUP - WFC landscape consultant-source WFC report

the main open space within the landfill and centrally located in the masterplan. A succession of open spaces formed by pedestrian trails connected to piazzas, parks, and sidewalks leading to the WFC linear promenade, enhancing the pedestrian connectedness of this development. This promenade overlooks the marina, without being physically accessible. To boost the loose space area and make it more fluid and accessible, the design approach opted to consolidate public and private easements and loose spaces together forming a long stretch extending the corniche. The WFC promenade at the base of private residential buildings is sandwiched between the marina to the west and the street to the east where it merges with the street colonnaded alley and extends the sidewalk. From the street, the public private interface blurred boundaries and invisible thresholds enhance the promenade accessibility. Inclusivity thus increases

publicness. (See figure 46 ownership diagram and figure 47 Spaces fused by design).

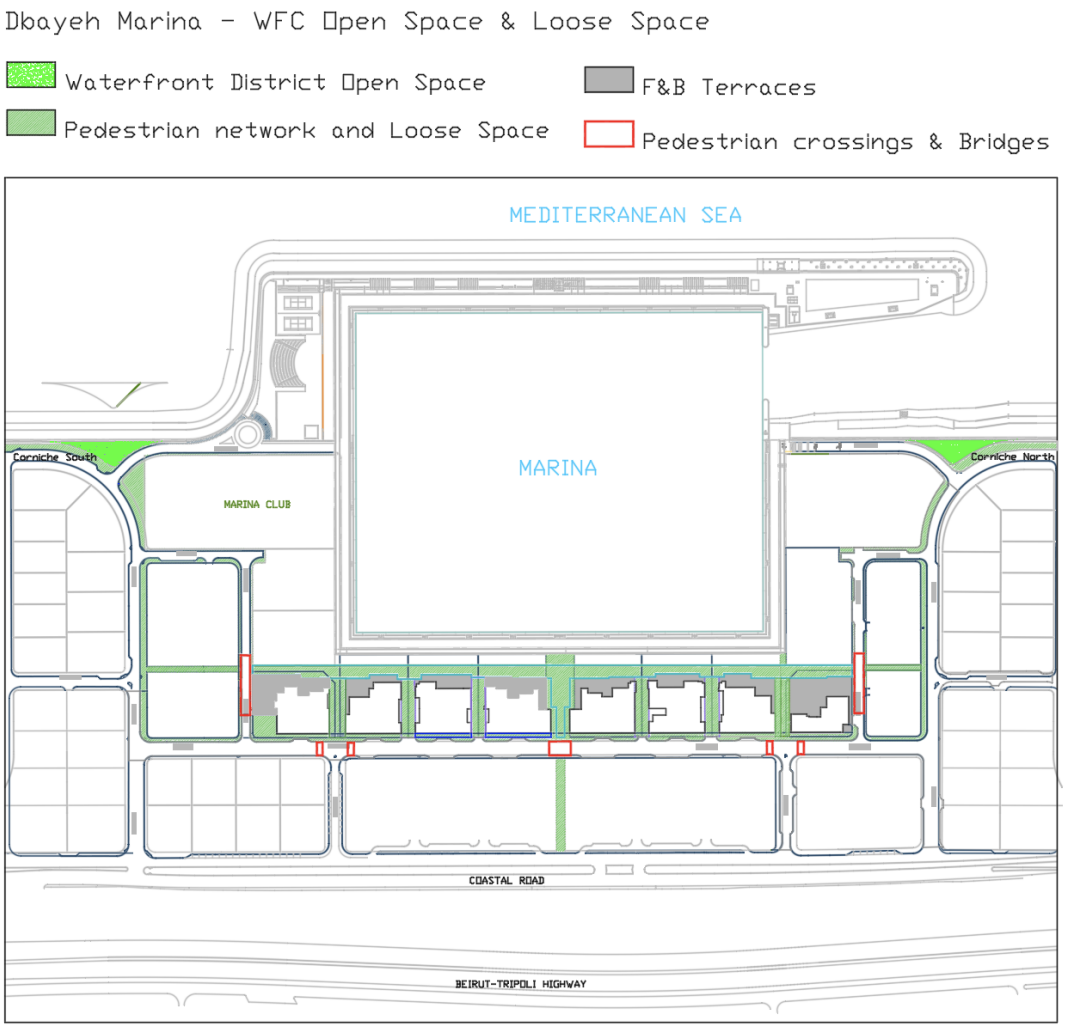


Figure 54 WFC open space and loose space - Source: Author (2023)

WFC marina development is central to the entire landfill. Yet, the fact that the marina's connectedness is developed only for the pedestrian level while the vehicular access remains a challenge and reduces its publicness.

- Circulation strategy: The landfill is organized around a grid of primary, secondary, and tertiary streets. The network is planned with the marina at the

center. However, this grid has two main weaknesses: (1) the main access to the landfill is secured through two flyovers from the Beirut-Tripoli Highway, located at the south and north of the marina. A third secondary access is through the coastal road to the east. At peak hours, the access roads are congested, creating a bottle neck around the approach. (2) the access to the marina is through one gated entrance at the end of southern corniche.

Figure 55 Aerial view illustrating landfill and marina access points - Source: WFC report

Moreover, the pedestrian accessibility from that same highway is not facilitated and public transportation routes do not cover the landfill grid. Connectedness to the greater context is therefore limited to the car, creating a parking challenge as well. From within, the access to the marina is challenged by the concessionaire's decision to restrict the marina access.

Figure 56 WFC aerial view – source NG website

To enhance access and connectedness, SETS, WFC traffic consultant, proposed a mitigation plan for the traffic conditions at the gateways, a plan for potential public transport system, guidelines for locating parking facilities in WFC, and most importantly street elevated crossings and traffic calming devises to facilitate and ensure a safe pedestrian flow.[34]

[34] Refer to SETS traffic report

- Parking Strategy: Public parking provision across the masterplan is reduced to on-street parking, while the provision of private parking is regulated - per land use - based on building law - decree No. 1791 dated 29/10/1992. The marina's linear surface parking is restricted to the marina users. The WFC linear promenade has a limited parking provision, incorporated within the building basements and computed based on the decree allocation for commercial units, leading to a shortage in parking areas dedicated to WFC development. This shortage is operationally covered by the management of underground parking spaces located under Business Park (3 basement floors) through a time-sharing schedule.

- Land use strategy: To create value, the decree highlighted the importance of varying the permitted activities around the marina. Permitted land uses include hospitality, touristic functions, entertainment, retail, and high-end housing. Additionally, water sports and marina amenities are mandated to support the marina activities. WFC capitalized on the GF land uses to consolidate the F&B and retail strip at the base of phase 1 buildings overlooking the marina.

b. <u>The Sector Guidelines</u>

At sector level, special conditions set the character of each urban block respectively. Sector A surrounds Sector M (the Marina) from three sides and houses Waterfront City phase 1 promenade overlooking the marina.

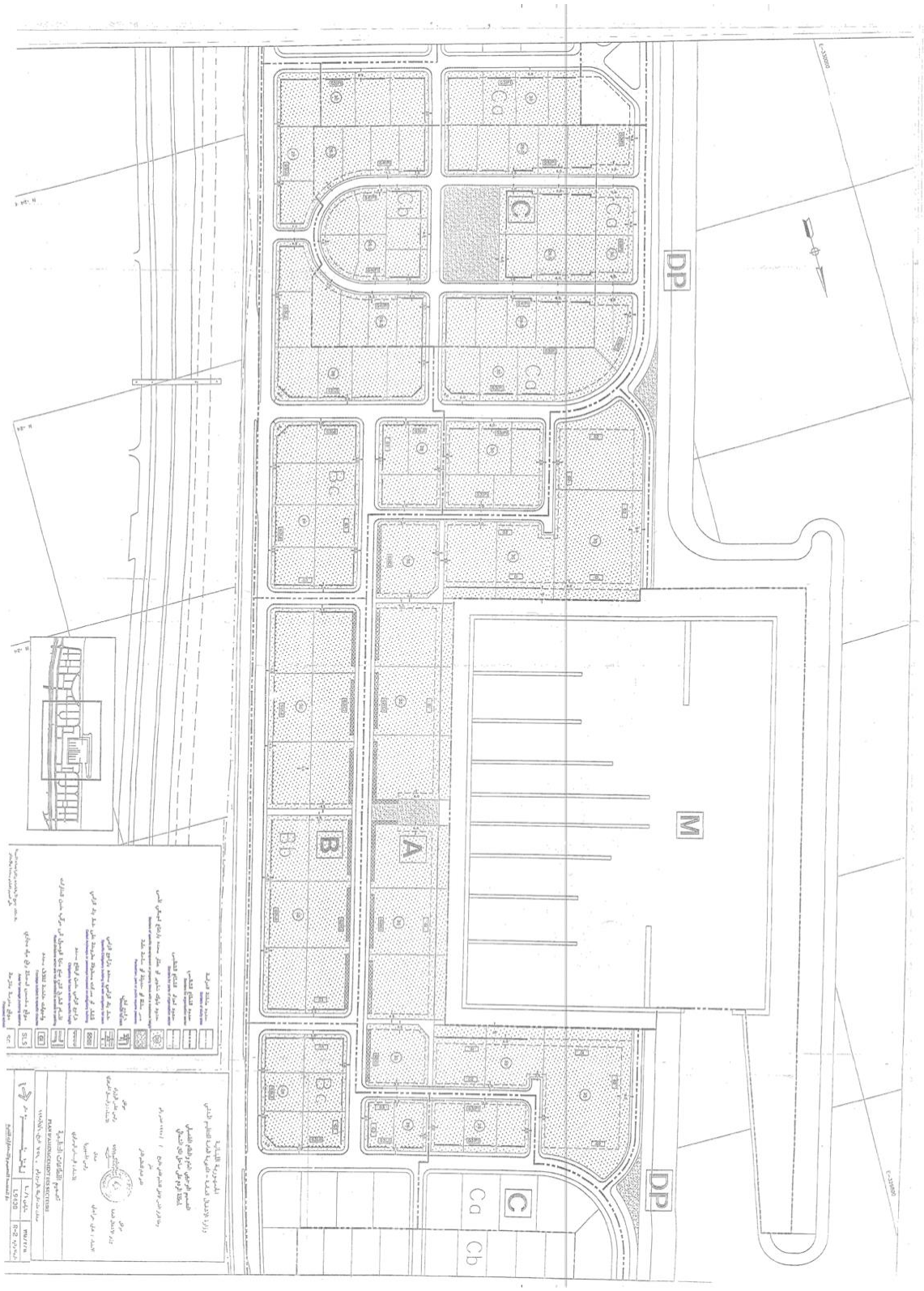


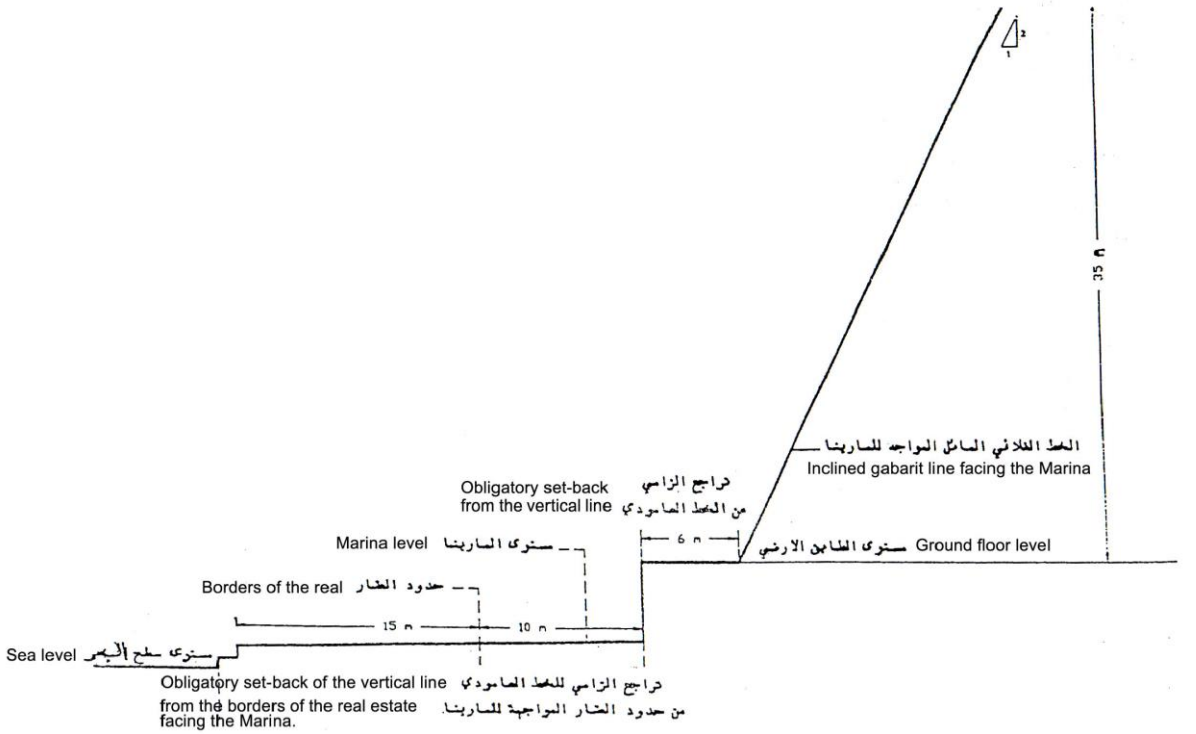
Figure 57 Dbayeh lanfill regulatory plan - source decree 7510

The main guidelines impacting the publicness of the marina are analyzed along with the design approach intended to mitigate the impacts on WFC promenade.

- SWC strategy SWC G1 mandated to buildings facing the marina, and SWC G2 (c) mandated to building in sectors A & B. (Refer to SWC figures 58)

SWC (G1): Addresses the level split between the marina quayside and the rear road level. The line controlling the facades of buildings facing the Marina is organised in two parts:

  - The vertical line is subject to an obligatory 10 meters set-back from water edge; it controls the façade of the building basements facing the Marina and ends at the ground floor/street level. The resulting public loose space houses the quayside boardwalk and linear parking; the tree strip buffers the private plot from parking.
  - The inclined line at 1/2 degree (horizontal/vertical) starts from the ground floor level with an obligatory horizontal set-back of 6 meters from the end of the vertical line. This is where WFC Promenade overlooking the marina is incorporated within the set back and GF terraces of WFC private plots.



Drawing No. 1
Gabarit Lines of Facades Identified as G1

رسم رقم ـ ١
الخطوط الغلافية للواجهات المعرفة بـ G1

Decree Number 7510 February 2006 مرسوم رقم 7510

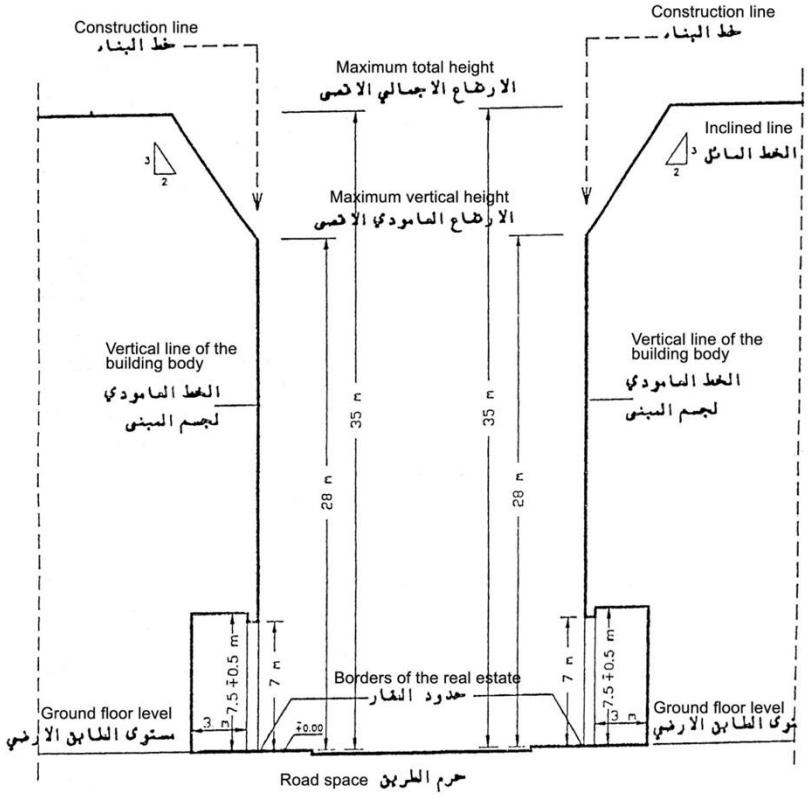
Figure 58 SWC G1 - source decree 7510

Figure 59 Promenade photo illustrating G1 - WFC website

The treatment of the marina edge allowed for visual permeability from WFC promenade to the marina, while maintaining the exclusivity of the marina quayside.

SWC (G2c) Links the promenade GF F&B units overlooking the marina to the rear road GF retail strip through the colonnaded covered path mandated on both edge of the road (see drawing No. 6). The width of the covered path is defined at 3 meters, the net height is 7.5 meters. (Refer to SWC figure)

Sector A Sector B



Drawing No. 3

Gabarit Lines of facades Identified as G2 (C)

رسم رقم ـ ٣

الخطوط الغلافية للواجهات المعرفة بـ G2 (C)

Figure 60 SWC G2c - source decree 7510

Requiring special architectural character marked by covered colonnaded passages on both sides of the service road between sector A and the sector part Bb. Ensuring pedestrian continuity and link between the buildings of sector – A (WFC promenade) and buildings in sector B part Bb (Business Park) via the covered colonnaded pedestrian passages which are networked with sidewalk, easements, open spaces and piazzas planned to form one semi-public/private entity.

Leisure and entertainment GF land uses assigned for private plots in sectors to building GF levels. These activities (restaurants, coffee shops and commercial) are connected to the pedestrian network.

Figure 61 Image illustrating SWC G2c pedestrian continuity - Source WFC website

- Architecture & massing strategy with distinguished architectural language for buildings in sectors A & B, and maximizing sea and Marina views. (Decree 7510)

- Built to line edge: With up to 60% coverage is mandated to delineate the vistas along the east-west view corridors, ensuring the marina and sea views at intervals.
- Height controls: allowed building height is 35 m from to the adjacent road level for Sector A plots surrounding the marina. This height is maintained in Sector B. The 35m façade wall buffers the waterfront development from the rest of the landfill, reducing its visibility and connectedness.
- Coverage and density: The allowed FAR is set to 2 with 40% SEF. In the case of the buildings surrounding the marina, the 40% loose space on ground level extend the open spaces/easements mandated on the same strip to form an extension of the public realm in sector A. The high density around the marina as well as the building heights hindered the visibility to the sea. WFC design approach opted to incorporate loose space, at the GF of building in phase 1 to enhance the GF visual permeability of open spaces around the marina. To dilute the density and vertical wall effect, the design emphasized horizontality, capitalizing on the building colonnaded alleyways networking them with easements and setbacks. This approach created a permeable base networked with pedestrian alleyways facilitating the approach to the marina promenade and extending the sidewalk to the promenade loose spaces. The main challenge of this horizontal permeability lied in the lack of physical connection to the marina.

Figure 62 WFC Promenade overlooking the marina - Source WFC website

Figure 63 WFC image illustrating high density - Source WFC website

Decree 7510 did not consider special conditions to the area around the marina; however the JV proposed enhancement to the public realm to commeasure with the high end

residential and commercial at WFC promenade overlooking the marina. To that end, a material palette and special landscape treatment were selected and implemented by the JV to the public and private loose space around the study area

- The Plot Urban Guidelines represent the define the architecture character of the project ranging from building typology, height, setbacks, built to line and coverage. The following plot by plot description explain the impact of the guidelines on WFC publicness.
  - Public plot 13969 is the 10m wide non-interrupted Quayside. It is the marina public pedestrian passage mandated along the marina edge. As planned, this passage is connected to the corniche at both ends, however, the concessionaire has restricted entry to public allowing it to marina members only. A linear row of trees at the edge of the private plot buffers the marina from the surrounding activities and runs parallel to the parking strip. this parking facility remains exclusive to marina members following the decision by the concessionaire. The iconic pool and sports courts annexed to the gym are also privately managed by the operator/concessionaire and are exclusive to members only.
  - Public plot DP 1285, the main central open space is mandated on both marina and street levels. it cuts through sectors A & B and opens the marina east west views across the landfill. It is intended as the link between the two levels of Sector A whereby a vertical connection -public staircase- is mandated to be erected from road level to marina level. Public toilets are also mandated in this open space to service the marina visitors. The tiling continuity along public and private loose spaces create a seamless open space and easements. Material finish

along the sidewalks of the rear road is also continued into the colonnaded retail strip blurring the boundaries between public & private.

Figure 64 WFC image illustrating the main piazza loose space - source LEFT website

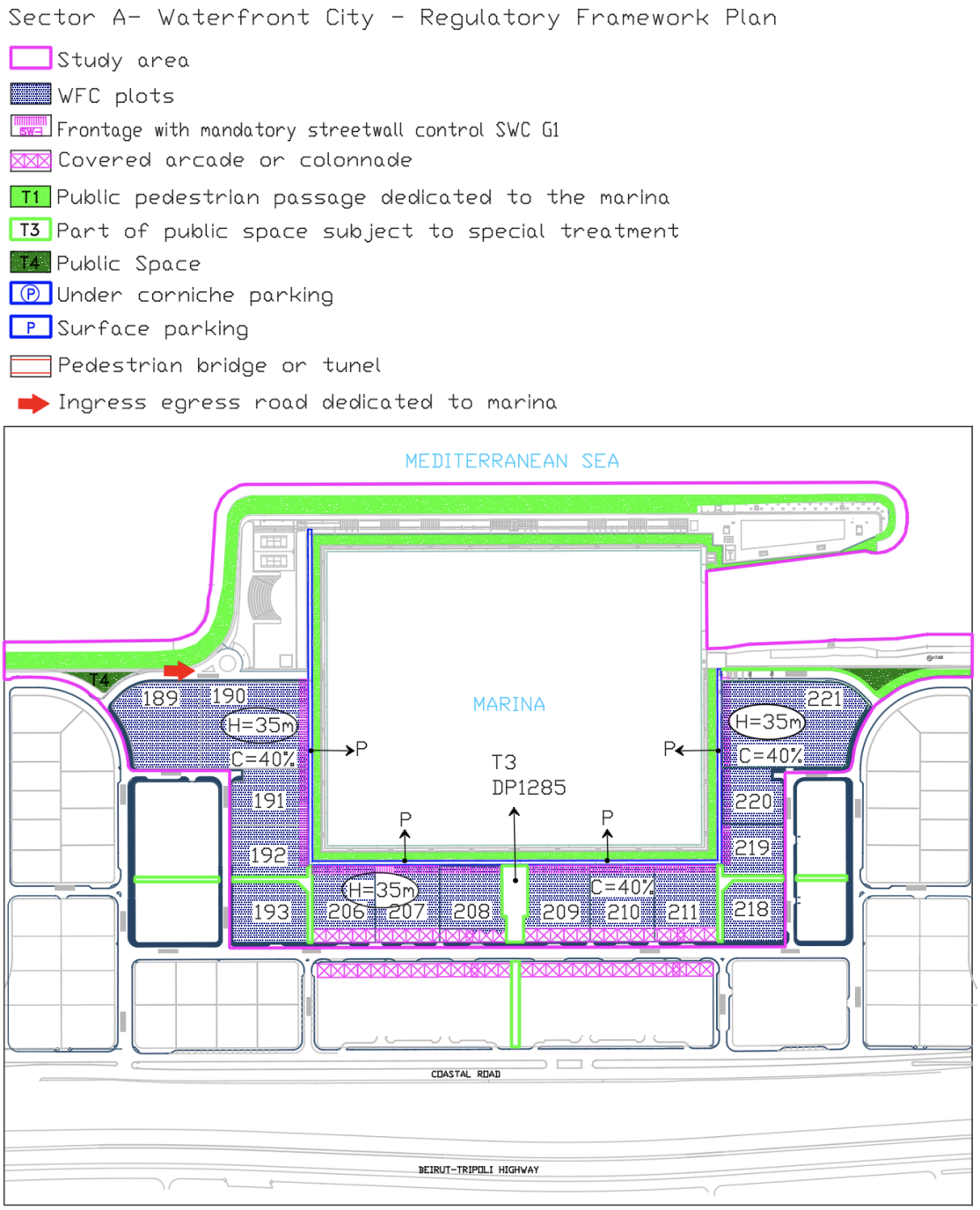


Figure 65 WFC regulatory framework plan - source author (2023)

The matrix below maps the evolution of the controls on the marina plots:

Table 20 Matrix mapping the evolution of Dbayeh marina guidelines - source author (2023)

Planning Regulation Comparative Matrix -Neoliberal Approaches to Development Controls							
Controls	**Maritime Property Law**	**decree 7510/95**			**Execution Special Requirements & Exceptions**		
Plot #	**Plot adjacent to maritime property**	**Plots 189, 190, 191, 192, 193, 206, 207, 208, 209, 210, 211, 218, 219, 220, 221**	**Plot 1285**	**Plot 13969**	**Plots 189, 190, 191, 192, 193, 206, 207, 208, 209, 210, 211, 218, 219, 220, 221**	**Plot 1285**	**Plot 13969**
Zone	9	A	DP (Domaine Publique)	M (Marina)	A	DP	M
Property type	Public beach	Private (newly created parcel) reclaimed area	Public open space	Public Private (Build Operate Transfer)	Private with GF Promenade open to public	Public open space continuous with private	Marina Restricted to members
Permitted Land Use	Industrial, hospitality, tourism	Marina Services–Hotels–Entertaining – Commercial–Offices –Restaurants–Housing	Parks, public gardens and squares	Marina	Marina Services–Hotels–Entertaining – Commercial–Offices –Restaurants–Housing	Parks, public gardens and squares	Marina
FAR	N/A	2,00	N/A	N/A	2	N/A	N/A
SEF %	N/A	40%	N/A	N/A	40% (community between Promenade open spoace and F&B terraces on upper floor-segregation between ~~restaurant & private terraces on lower~~	N/A	N/A
Pedestrian Passagae	not interrupted	6 m not interrupted Promenade on upper level	15 m not interrupted	15 m not interrupted	6 m not interrupted Promenade on upper level	15 m not interrupted	15 m not interrupted
Set back	30m from water body	31 m from water body (15 from water to plot limit, 10m from plot limit and 6m from vertical line)	N/A	N/A	6m setback from vertical line open to public & dedicated to form a Ptromenade at upper level	N/A	N/A
# of floors	N/A	10	N/A	N/A	10	N/A	N/A
Maximum Height	N/A	35m	N/A	N/A	35m	N/A	N/A
GF Land Use	Public beach	Mixed use (split in two levels)	Open space including amenities (stairs access to upper level & Public Toilet)	Public Marina boardwalk & amenities (including surface parking)	Upper level commercial (Retail & F&B) and Lower level Residential (loft & front yard typology)	Stairs access to sea level & Public Toilet not implemented	Public Marina, acess & parking however restricted to members
Upper Floor Land Use	N/A	Residential	Open space including amenities (stairs access to sea level & Public Toilet)	N/A	Residential	Stairs access to upper level & Public Toilet not executed	N/A
Parking	TBD	As per article 13 (Garage Obligation) of the Applied Decree of the Building Law (Decree No. 1791 dated 29/10/1992).	N/A	Surface parking	Parking strategy to accomodate for decree requirement and the need created by the commercial destination	N/A	Use restricted to members
SWC	N/A	G1 & G2(c)	N/A	none	G1 & G2(c)	N/A	Parking design lined with tree rows forming a buffer/barrier between Marina and surrounding plots -
Architecture Typology	N/A	As per design brief	Distinctive finishing/flooring	Marina design	As per design brief	Continuity of tailored finishes upper level & lower level	Marina design

Table 21 WFC physical configuration matrix - source author (2023)

Physical Configuration Dimension	Dbayeh Marina Waterfront City												
	Star Model for Publicness												
Study Area Components	WFC Private Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 loose space extending promenade	Parking (underground on private plot annexed to Promenade visitors)	Open space at Central Piazza Promenade	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units terraces & loose space open	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units☆	Marina boardwalk (for marina users and members only)	Amenities (serving marina users only and members only)	Marina Parking (surface serving marina users only)	WFC plot 189, 190 and 191 (Yacht Club & Residences for owners & members only)	**Total Study Area**	
Area per component	9.890	3.685	1.525	1.315	5.000	20.213	20.172	10.000	28.500	3.150	15.104	**118.554**	
Area Percentage from total	8,34%	3,11%	1,29%	1,11%	4,22%	17,05%	17,02%	8,43%	24,04%	2,66%	12,74%	**100%**	
Indicator 1	**Centrality & Connectedness**												
Centrality & Connectedness characteristics per area	**Macro level:** Landfill area is poorly located within the overall movement network and is only connected to surrounding urban fabric via two vehicular bridges. **Micro level:** within the landfill, WFC upper level marina promenade is adequately connected to pedestrian flow through public easements							Poorly connected with one gated vehicular and pedestrian access from the southern corniche.					
Centrality & Connectedness grade per area	3	3	3	3	3	3	3	2	2	2	2	**Grade 1**	
	0,25	0,09	0,04	0,03	0,13	0,51	0,51	0,17	0,48	0,05	0,25	**2,52**	
Indicator 2	**Visual Permeability**												
Visual Permeability characteristics per area	**Macro level:** 'Poor visual permeability to the marina through intra- building vistas. **Micro level:** Marina and WFC promenade have an uninterrupted visual relation.												
Visual Permeability grade per area	2	2	2	2	2	2	2	2	2	2	2	**Grade 2**	
	0,17	0,06	0,03	0,02	0,08	0,34	0,34	0,17	0,48	0,05	0,25	**2,00**	
Indicator 3	**Threshold & Gateways**												
Threshold & Gateways characteristics per	**Macro leve:** 'Threshold and gateways are strongly defined by building wals. **Micro level:** 'Blurred Boundaries & Multi-Point							Physical gates/checkpoints controlling acccess to			Fenced edge		
Threshold & Gateways grade per area	3	3	3	3	3	3	3	2	2	2	1	**Grade 3**	
	0,25	0,09	0,04	0,03	0,13	0,51	0,51	0,17	0,48	0,05	0,13	**2,39**	
Physical Configuration Rating (indicators grade average)												**2,31**	

5. Animation (Rating 2.52)

Animation, the second design-oriented dimensions of publicness according to Varna and Tiesdell Star Model, rated the second lowest score in the star model assessment after physical configuration. This is mainly due to the disconnection between marina level activity and WFC GF active edges in addition to the residential uses stipulated around it. To date, WFC F&B strip remains inactive and therefore the assessment is based on the analysis of the components included in the design and which are instrumental to the flow of the animation based on the Star Model indicator with the assumption that the strip is active. The Star Model indicators that were considered in the assessment center around potential for passive engagement, for active engagement and for discovery & display.

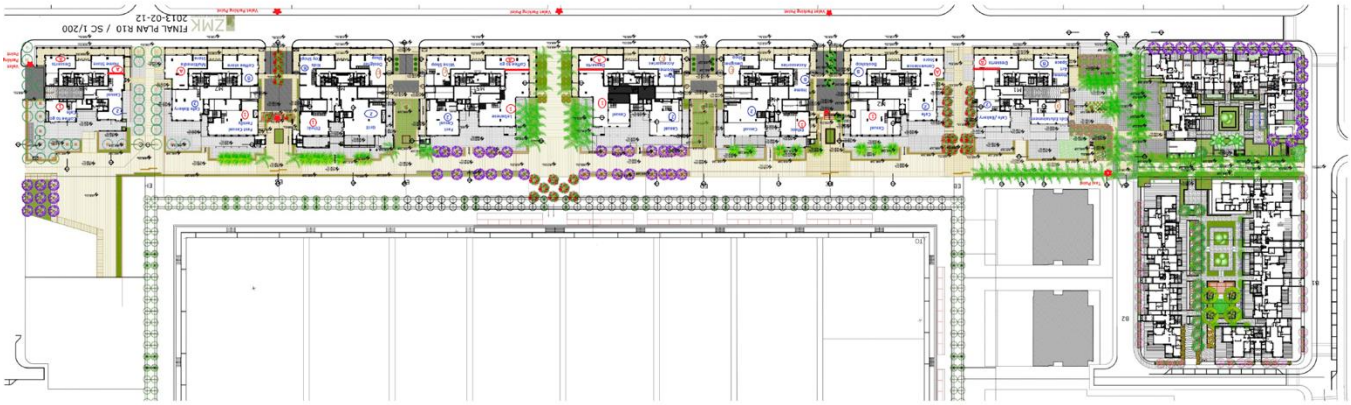


Figure 66 WFC Promenade active F&B and retail frontage at GF level

The matrix below illustrates the

Animation Dimension

Dbayeh Marina Waterfront City	Star Model for Publicness											
Study Area Components	WFC Private Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 loose space extending promenade	Parking (underground on private plot annexed to Promenade visitors)	Open space at Promenade Central Piazza	Between plots Easement on Promenade	Public easements Sidewalk/ crossing extending the Promenade	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units☆	WFC Plots 206, 207, 208, 209, 210, 211, 218, 219, 220, 221 Commercial units terraces & loose space open	Marina boardwalk (for marina users and members only)	Amenities (serving marina users only and members only)	Marina Parking (surface serving marina users only)	WFC plot 189, 190 and 191 (Yacht Cub & Residences for owners & members only)	**Marina total study area (Without water body)**
Area per component	9.890	3.685	1.525	1.315	5.000	20.172	20.213	10.000	28.500	3.150	15.104	**118.554**
Area Percentage from total	8,34%	3,11%	1,29%	1,11%	4,22%	17,02%	17,05%	8,43%	24,04%	2,66%	12,74%	**100%**
Indicator 1	**Opprtunities/ potential for passive engagement**											
Passive Engagement characteristics per area	Some opportunities (and reasons) fo people watching; varied formal and informal seating opportunities , well located to observe activity within the space (i.e. the life of the space) and/or views from the space.							Seating opportunities for members only				**Grade 1**
Passive Engagement grade per area	3	3	3	3	3	3	3	2	2	2	2	
	0,25	0,09	0,04	0,03	0,13	0,51	0,51	0,17	0,48	0,05	0,25	**2,52**
Indicator 2	**Opprtunities/ potential for active engagement**											
Active Engagement characteristics per area	High density/proportion of active frontages (active edge); limited to promenade balcony strip							Low density active frontage				**Grade 2**
Active Engagement grade per area	3	3	3	3	3	3	3	2	2	2	2	
	0,25	0,09	0,04	0,03	0,13	0,51	0,51	0,17	0,48	0,05	0,25	**2,52**
Indicator 3	**Opportunities for discovery & display**											
Discovery & Display characteristics per area	'Loose' space, limited to in between buildings and promenade balcony—adaptable, un-restricted spaces, used for a variety of functions, ad hoc as well as planned.							Controlled marina activity and limited in terms of types				**Grade 3**
Discovery & Displaygrade per area	3	3	3	3	3	3	3	2	2	2	2	
	0,25	0,09	0,04	0,03	0,13	0,51	0,51	0,17	0,48	0,05	0,25	**2,52**
											Animation Rating (indicators grade average)	**2,52**

Table 22 WFC animation publicness assessment matrix – source author (2023)

C. WFC Star Model (Overall Rating 2.62)

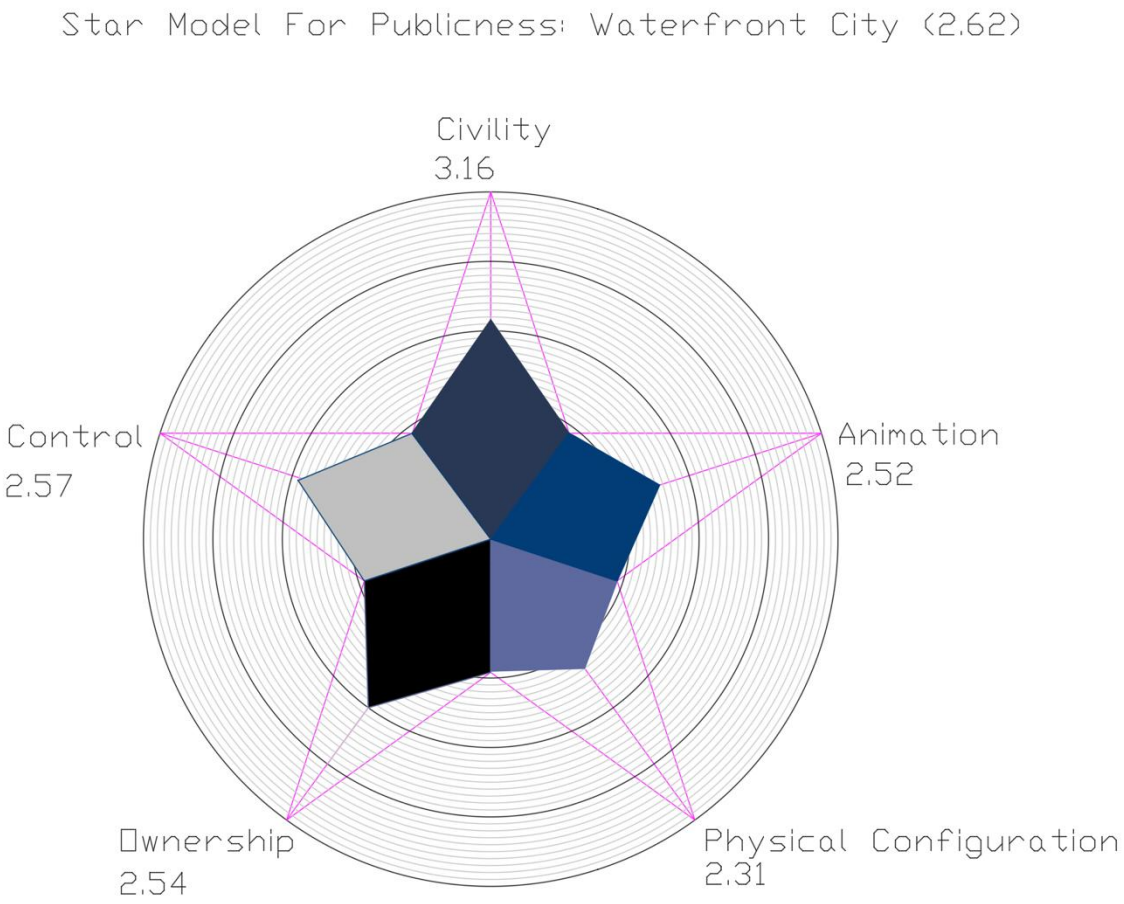


Figure 67 WFC Star Model - source author (2023)

The Dbayeh Marina Waterfront City star model combines the ratings of the five meta-dimensions to obtain the final rating of the case study. With a total rating of 2.62, the star reflects a 'medium' level of publicness, when placed on the Varna and Tiedsdell scale, with the highest scores achieved for civility (3.16), followed by ownership (2.54), control (2.57) while the two design-oriented dimensions of publicness animation (2.52) and physical configuration (2.39) are rated the lowest. Consequently, WFC publicness star is small (Figure 67). According to this star shape, the design failed to deliver

visibility and enhance the accessibility of the venue. However, the comprehensive management of the development, led by a third party entity, added to the high level of civility by maintaining a clean and tidy environment with a welcoming, and high level of maintenance. This approach by management would potentially promote a good practice of space by enhancing appeal and encouraging users' active engagement in the open spaces it offers, however the pool of users will remain limited as long as entrances are filtered and access restricted and constrained. The overall development implemented a high degree of control over its most exclusive functions, namely the marina, club and pool area are reserved for members only, with gated entries and fences surrounding the site rendering the main open space, the marina, poorly connected to the venue as well as the surrounding urban fabric. Focused on entry points, visible controls such as guard houses and CCTV filtered entry of public thus reduce the publicness of the overall operation. Despite being privately owned in majority, the medium value of the ownership dimension is due to the hinged design of the edges, blurred boundaries, especially along WFC private plots, thus improving connectivity, creating public walkways, and ensuring a relatively continuous accessibility. In terms of macro design, the pedestrian crossings connecting WFC venue with the surrounding business activity boosted the pedestrian flow and enlivened the area[35]. (Refer to Open space and networks maps). The venue animation and active frontages have the potential to house varied uses and attract a wide range of users in active and passive modes. The continuity of sidewalks into WFC open spaces and easements enhanced the accessibility to the WFC promenade overlooking the marina creating loose spaces with uninterrupted views to the sea. The fact that this extension of public is not connected to the marina

[35] [35] interview with Bashir Moujais

quayside has weakened the publicness of the venue. The medium degree of publicness measured at WFC Marina is firstly because of its limited physical accessibility and secondly due to the high density around it blocking its visual accessibility. To address these issues, the top-down corporate decision to close the marina to public must be revised, the design approach must be geared towards enhancing WFC connectedness to the water level and modifying the residential uses at marina level to increase active frontages around the marina.

Table 23 WFC publicness rating breakdown - source author (2023)

Star Model	**Dbayeh Marina Development**	
Meta Dimension	**Indicator**	**Rating**
Ownership	Ownership Public- Semi public - Private Juxtaposition	1,97
	Function Segregated Functions	3,12
	Ownership rating	**2,54**
Control	Purpose of control Exclusive place	1,67
	Control ordinance Regulated Usage	2,56
	Control présence Visible Control	3,04
	Control technology Evident CCTV	3,00
	Control rating	**2,57**
Civility	Physical maintenance & cleansing regime Micro Managed Well Kept & Cared-For	3,46
	Physical provision of facilities Upgraded Infrastructure	2,87
	Civility rating	3,16
Physical	Centrality and connectedness Island Configuration	2,52
	Visual permeability Obstructed Visual Permeability	2,00
	Thresholds & gateways Defined Boundaries & Partial Filtration	2,39
	Physical Configuration rating	2,31
Animation	Opprtunities/ potential for passive engagement Partial Acess to Relaxing Space	2,52
	Opprtunities/ potential for active engagement Partial Active Inner Edges	2,52
	Opportunities for discovery & display Controlled partially accessible'Loose Space'	2,52
	Animation rating	2,52
	Dbayeh Marina Development Total Rating	**2,62**

CHAPTER 5

COMPARISON, CONCLUSION AND RECOMMENDATION

A. Comparing the Star Models of the Two Marina

Having evaluated each of the marinas separately, the concluding chapter will bring together the two cases comparatively. As seen in the two stars below, the marinas' public functions demonstrate substantial differences along the three domains of civility, animation and physical configuration that are much stronger for Zaituna Bay, reflecting hence its more public characteristics. Conversely, both marinas display a relatively similar shape for ownership and control, which stem from the semi-private ownership of the company and the exclusive nature of the projects that target a well-off clientele. This is reflected in the observed practices in the two sites where users' practices in ZB spread over a larger section of the project and were more intensive.

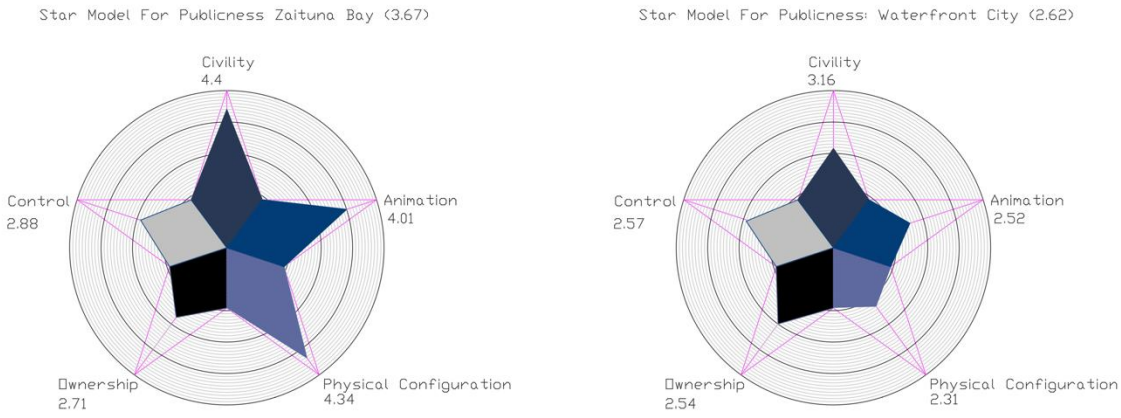


Figure 68 The Star Diagrams for the publicness of the two case studies - source author (2023)

Looking further in the details, we find that two main factors explain the difference:

1. Design through both the components of physical configuration and animation
2. Management through its civility

B. Comparing impacts of design and management on the two marinas

In the following, the thesis outlines the design and management impacts on both marinas, pointing to the Star Model most diverging benchmarks, physical configuration and animation, the two design-oriented dimensions, and civility which represents the managerial aspect of the assessment.

1. Design impacts

a. Centrality and connectedness operate at two levels both city-wide (or macro) and within the project elements (micro), in both cases favoring publicness in ZB.

At the city level, we find that the Beirut marina is centrally located, well integrated with the Corniche, sidewalks, and the projected large urban park that all constitute well-used public spaces in the city, which are visually and physically connected to the surrounding urban grid. The designed accessibility scheme facilitates the flow of users, whether pedestrian or vehicular. Pedestrian access is facilitated by the proximity to the adjacent corniche running -along the full length of the development for both vehicular and pedestrian levels. Vehicular access is also facilitated by the proximity of streets and the widespread availability of parking, both on street and under corniche parking options.

Figure 69 ZB centrality

Conversely, the island configuration of the marina in Dbayeh, the limited visibility in view corridors, and the filtered access all generate public barriers rendering the Dbayeh landfill connectedness limited for vehicular as well as pedestrian flow. This configuration constrains the public access and hence reduces the publicness score of the marina.

Figure 70 Dbayeh landfill bird's eye view s

At the micro level, the design of the Beirut marina is spatially integrated to the open pedestrian walkway within ZB development. This spatial continuity highly benefits the public dimension of the marina. For WFC, the pedestrian connectedness is enhanced by the open space and pedestrian network organizations around the marina. However, few access points are designed along the way.

b. Visual Permeability

The low density of ZB project strengthens the visual permeability to the marina from the corniche and beyond. Indeed, heights on ZB Plot 1455 are restricted to the adjacent corniche level. Heights are up to 4 floors above corniche level on plot 1456 as well as on the St George plots, but the location of these developments on the edges limits their negative effects. Conversely, the Dbayeh marina WFC sector A is characterized by its high density, the highest across the landfill. With 35m maximum height, the buildings around the marina obstruct

the visual permeability to the sea. View corridors ensure partial framed views to the marina. Only at the level of WFC promenade that the visual permeability is uninterrupted. However, this strip is physically discontinued from the marina activity with no direct access designed.

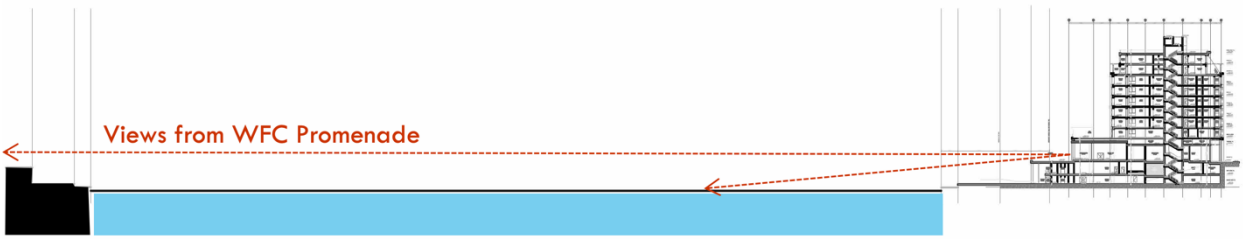


Figure 71 WFC Promenade visibility - source author (2023)

c. Blurred boundaries characterize ZB public private interface

To hide the thresholds and make them invisible, the designer opted for continuity in finishes between the public and private outdoor spaces. Private open spaces are not distinguished from the surrounding public realm to extend the corniche's sidewalk section. Entries are subtlety incorporated within the blurred public-private interface. In contrast, WFC boundaries are more visible with building street wall controls rising 35m high, delineating the public and private interfaces. Nevertheless, in its 2010 version, WFC Promenade design capitalized on the open spaces, sidewalks, and easements around the marina area to create a permeable strip that extends the north and south corniche into WFC Promenade overlooking the marina.

d. Striated Geometry

Public-private Fusion Along the Interface

ZB design benefited from the striated organization of public and private plots. Sandwiched between two public pedestrian promenades, the ZB design fused realms at the interface introducing a semi-public space in between. With seamless boundaries and high permeability the semi-public interface offered many opportunities for qualitative engagements, and strongly contributed to the publicness and accessibility of the marina development.

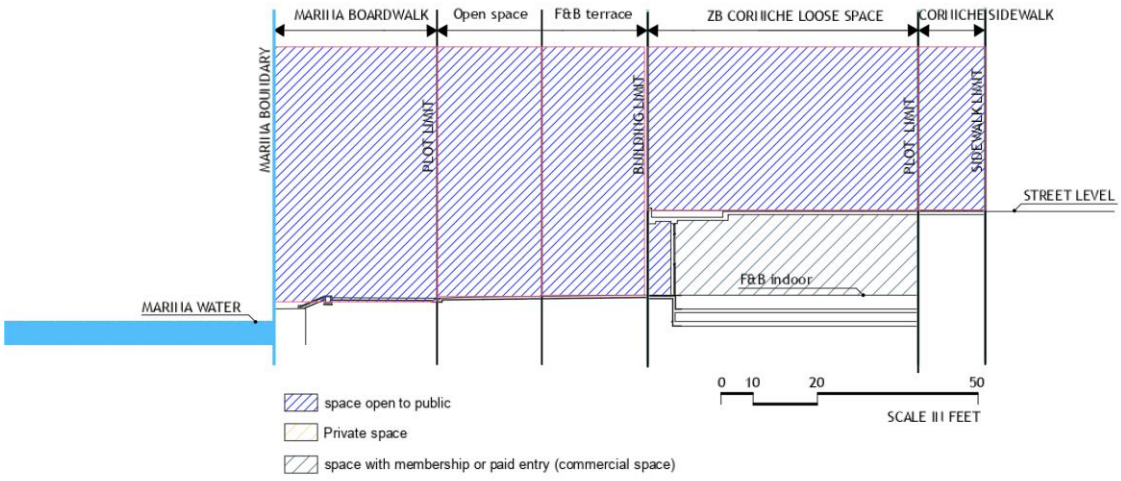


Figure 72 ZB Striated layout with continuity of functions between open spaces - source author 2023)

In contrast, the marina in Dbayeh is isolated from its surrounding due to the concessionaire's decision to adopt a member's only policy. This decision segregated the design of the functions within the striated organization of the marina, limiting the animation of the venue to WFC promenade at street level. (refer to figure 73: section)

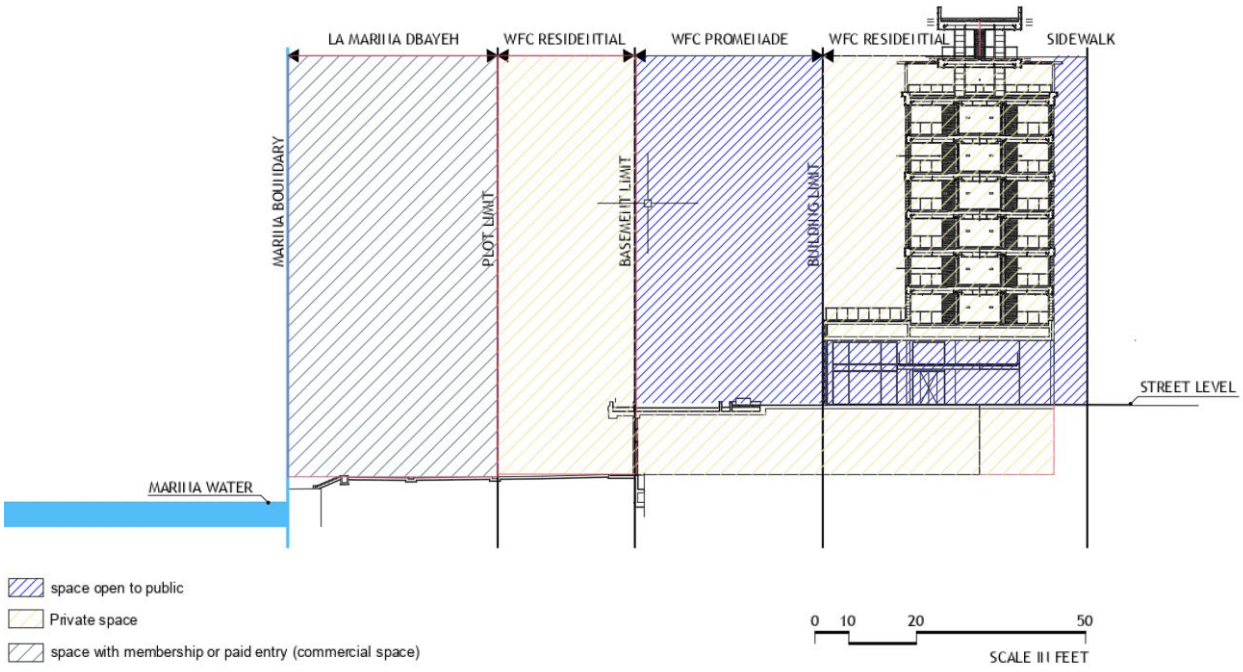


Figure 73 WFC Striated organization of functions with segregation between realms - source author (2023)

2. Management impacts

BWD joint management decision to open the Beirut marina to the public ensured the feasibility of the ZB private development around the marina.

a. The management's decision to open the marina to the public granted ZB a great advantage to enhance its footfall, while in Dbayeh, the management's decision to control the marina's entry to members-only affected the potential of active frontages around it.

b. The centrality in management heightened the civility dimension by controlling and organizing the operation and maintenance of both public and private facilities, balancing the needs of different users. In contrast, in Dbayeh, the management of the marina is independent from the management of WFC Promenade. The two operations run in parallel. This parallelism disconnects

both places operationally and spatially. The two spaces are designed as two separate entities and don't share users. Marina activities remain exclusive to members only, while the promenade that overlooks it is open to the public. This managerial schism decreased the publicness of both operations.

C. Conclusion

Publicness of the marina is best assessed by users voting it public with their feet (Watson 2006). ZB's active frontages are stamped by people's enthusiasm to visit. WFC users, on the other hand, does not manifest the same appetite. The key success of the ZB design in promoting both public and private interests lies in:

a. Aligning the design objectives with the masterplan vision of reconstituting the marina as an accessibleopen space networked with the public realm and open to the public.
b. Capitalizing on the central location, strong visibility, high connectedness and consistent level of services, the design bridged the gap between the inclusive corniche and the exclusive marina, blurring boundaries and connecting realms.[36]
c. Engaging the users - formally or informally, actively, or passively –in comfortable and relaxing spaces, with multiple opportunities by relaxing the control without compromising the quality of the environment, and
d. Securing a competitive advantage to the business operation by capitalizing on the private-public partnership to create value and maximize footfall.

[36] Zaituna Bay: A Public Space - https://www.naharnet.com/stories/en/189856

D. Recommendations

The thesis finds the following recommendations to be critical for cities invested in protecting the public functions of marinas and preventing their enclosure.

a. The policy approach: the thesis finds that beyond internal factors measured by the Star Model (e.g., management and design), the planning framework doesn't protect the public qualifications. The thesis strongly recommends that policy frameworks, which in some cases are outdated and in many other cases not enforced, be updated particularly in coastal policies and master plans. To ensure social, environmental, and economic sustainability of coastal developments, policy makers and planners ought to learn from neighboring Mediterranean marina policy frameworks namely the French Loi Littoral which safeguards the environment and ensures that residents opinions as well as counter propositions are considered. Also, coastal and marina developments ought to abide by international policies namely the Barcelona Convention and Protocols, specifically the dumping protocol, to achieve sustainable development of coastal zones with positive effects on standard of living and ecosystem health.

b. The design approach presents an important opportunity for marinas to be open to the public. This recommendation points to the importance of multiple design decisions at several levels, namely:

1. At the macro level:

- Integrate the project in continuation of already widely used public space(s) in the city to direct its best use to a public function.

- Stipulate height controls and low density to maintain physical and visual accessibility at the public private interface.

2. At micro level:

- Adopt a physical configuration of the project with multiple connections and open visual access.
- Extend the public realm by merging spaces at the public and private interface, enlarging adjacent sidewalks and forming places for people to gather.

c. The management configuration plays a major role in ensuring long term sustainability of the public nature of space by regulating the public access as follows:

1. At the macro level, planners should pay close attention to the long-term effects of the regulatory framework to protect the public nature of the development. As a privately held open space, there is always a danger that a long-term decision would close the development, particularly if the design allows it. Consequently, it is recommended that:

- That legal barriers to closure are secured by institutionalizing the processes of decision making in the project to consistently include public actors.
- Ensure that privately owned spaces around the marina are always accessible by public, by regulating their uses to eliminate the risk of developers' monopoly.

2. At the micro level:

- A one stop shop facility provision and management structure should be assigned to care for the maintenance and cleaning of the space providing punctually and consistently the basic needs of the operation.

In closing, the thesis aimed at contributing to the optimization of economic and social benefits of waterfront developments by setting a new definition of public benefit based on a new economy, new approach and new needs (Carmona, M. 2010). The thesis recommendations through management styles, design guidelines and policy approaches aspire to develop win-win, public private partnership in waterfront marina developments.

REFERENCES

Bogaert, K. (2018). *Globalized Authoritarianism: Megaprojects, Slums, and Class Relations in Urban Morocco.* Minneapolis: University of Minnesota Press.

Boland, P., Bronte, J., & Muir, J. 2017. *On the waterfront: neoliberal urbanism and the politics of public benefit.* Cities, 61, 117-127.

Carmona, M. (2015) *Re-Theorising contemporary public space: A new narrative and a new normative.* Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 8 (4) (2015), pp. 373-405

Carmona, M. (2021). *The "public-isation" of private space – towards a charter of public space rights and responsibilities*- UCL, Bartlett School of Planning, London, United Kingdom of Great Britain, and Northern Ireland

Carr, S., Francis, M., Rivlin, L. G. & Stone, A. M. (1992) *Public Space* (Cambridge: Cambridge University Press).

De Magalhães (2010), *Public space and the contracting-out of publicness: A framework for analysis.* Journal of Urban Design 15(4): 559-574.

Gavin, A. (2015) Remaking Beirut

Hamukoma, N. and Doyle N and Muzenda, A. (2018). *Rabat and Salé – Bridging the Gap.* the Brenthurst Foundation.

Hindi, N. (2021) *Converging Space And Memory At Beirut's New Waterfront Public Space.* Research Gate

Kohn, M. (2004). *Brave New Neighborhoods: The Privatization of Public Space* (p.11). Routledge New York And London.
file:///Users/user/Downloads/9780203495117_previewpdf.pdf

Leclercq, E. & Pojani, D. (2023) Public space privatisation: are users concerned? tandfonline.com/doi/full/10.1080/17549175.2021.1933572

Makdisi, S. 1997. *Laying Claim to Beirut: Urban Narrative and Spatial Identity in the Age of Solidere.* The University of Chicago Press Journals

Miossec, A (1992) *The Project for the Port Saint-Hilaire Marina: A Litmus Test for the French Legislation on the Environment*. Journal of coastal research, Lauderdale, Fort Lauderale, Florida ISSN 0749-0208

Németh, J. (2012). *Controlling the Commons: How Public Is Public Space?* Sage Urban Affairs Review XX(X) 1– 25

Németh, J. & Schmidt, S. (2010) *How public is public space? Modelling publicness and measuring management in public and private spaces, Environment & Planning: Planning & Design, forthcoming.*

Németh, J. & Schmidt, S. (2010). *Space, Place and the City: Emerging Research on Public Space Design and Planning* Journal of Urban Design, Vol. 15. No. 4, 453–457

Németh, J. & Stephen, (2011). *The privatization of public space: modeling and measuring publicness*

Leenders, R. (2004) *CHAPTER 5 Nobody Having too Much to Answer for: Laissez-Faire, Networks, and Postwar Reconstruction in Lebanon* - S. Heydemann (ed.), Networks of Privilege in the Middle East: The Politics of Economic Reform Revisited

Lessig, L. (2001). The future of ideas: The fate of the commons in a connected world. New York: Random House.

Li et al, (2022). *Defining the ideal public space: A perspective from the publicness.* Journal of Urban Management Volume 11, Issue 4, December 2022, Pages 479-487
Sorkin, M. (1992) Variations on a theme park : the new American city and the end of public space 1948-2020. https://bsu.alma.exlibrisgroup.com/discovery/fulldisplay?vid=01BSU_INST:Services&docid=alma991012224469704551&lang=en&context=SP&virtualBrowse=true

Tiesdell, S. & Oc, T. (1998) Beyond fortress and panoptic cities—towards a safer urban public realm, Environment & Planning B: Planning & Design, 25, pp. 639–655.

Varna, G. (2014) Measuring Public Space: The Star Model

Varna, G. & Tiesdell, S. (2010). *Assessing the Publicness of Public Space: The Star Model of Publicness.* Journal of Urban Design Volume 15, 2010 - Issue 4: The Production of PublicSpace. Researchgate publication

Varna, G. Damiano, C. (2013). *Making the publicness of public spaces visible: from Space Syntax to the Star Model of Public Space.* EAEA- (Track 1) Visualizing Sustainability: making the invisible visible .

Van Melik, R., I. van Aalst, and J. van Weesp. (2007). "Fear and Fantasy in the Public Domain: The Development of Secured and Themed Urban Space." Journal of Urban Design 12 (1): 25–41. doi:10.1080/13574800601071170.

Verdeil, E. (2017) Des déchets aux remblais: imaginaire aménageur, corruption et dérèglements métaboliques à Beyrouth https://shs.hal.science/halshs-01574721/

Watson, S. (2006). City Publics: The (Dis)enchantments of Urban Encounters. London: Routledge.

Wilson, J. Q. & Kelling, G. L. (1982) The police and neighbourhood safety, Atlantic Monthly, March, pp. 29–38.

Worpole, K. (2007). The social value of public spaces. Research project commissioned under the Joseph Rowntree Foundation's Public Spaces Programme.