

# The relationship between the architecture of podium and the space in front of the High-rise building on the tourist street Tran Phu - Nha Trang

Mối quan hệ giữa kiến trúc khối đế với không gian trước công trình cao tầng trên trục đường du lịch Trần Phú - Nha Trang

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## ABSTRACT

This study aims to identify the relationship between the podium and the ways of using space in front of high-rise buildings on the coastal street Tran Phu, Nha Trang City. To achieve the above goal, the authors focused on analysing the architectural morphology of the podium and the space in front of the building, combined with comparing the types of podiums. The results provide an essential understanding of the impact of podium design on the organisation of space in front of the building in the context of a developing coastal tourist city like Nha Trang. Therefore, it would give architects an overall view when designing HRBs on tourist streets. It helps propose regulations in the design of high-rise buildings towards a sustainable tourism landscape environment.

**Keywords:** Podium; High-rise building; form of space use; front of the building; Nha Trang.

## TÓM TẮT

Mục tiêu của nghiên cứu này nhằm nhận dạng mối quan hệ giữa mặt đứng khối đế và hình thức sử dụng không gian trước công trình cao tầng tại trục đường du lịch ven biển Trần Phú, Nha Trang. Để đạt được mục tiêu trên, các tác giả tập trung phân tích hình thái kiến trúc khối đế và không gian trước công trình, kết hợp so sánh, đối chiếu các loại hình khối đế. Kết quả cung cấp sự hiểu biết quan trọng về tác động của thiết kế khối đế đối với việc tổ chức không gian trước công trình trong điều kiện một đô thị du lịch ven biển đang phát triển như Nha Trang. Từ đó, giúp các kiến trúc sư có cái nhìn tổng thể khi thiết kế công trình cao tầng trong mối liên hệ với tuyến phố du lịch. Đồng thời giúp cho việc đề xuất các quy định trong thiết kế nhà cao tầng hướng đến một môi trường cảnh quan du lịch phát triển bền vững.

**Từ khóa:** Khối đế; không gian trước nhà cao tầng; trục đường du lịch; Nha Trang.

## 1. INTRODUCE

The podium of a high-rise building (HRBP) is understood as the base of a building that protrudes above the ground, and a building block can be placed on it (Wikipedia - Podium). It is the part visible from the roads, is within the standard field of vision, and attracts the eye of the observer (Louis Sullivan, 1896). Depending on the depth of the open space in front of the building, this part of the building is usually between five to six stories high. Their facades, in the urban context, are an essential determination of the quality of the streetscape. It attaches the building to the urban fabric, defining the vertical profile of the street. At the same time, accommodate the building's public-facing uses. It significantly impacts the scale and shape of the street (Al-Kodmany, 2013), (Canterbury Department of

Planning and Environment, 2015). Human activities in the space from the podium down are part of urban life (Jans, 2010). When the function of a high-rise building (HRB) is a hotel, the podium is a public space. If the building is multi-functional, the podium, besides the public function, can flexibly combine other functions with open spaces (Toronto City Council, 2013), (Ho, 1999), (Tran, 2013), (Trinh et al., 2010), (Al-Kodmany, 2017).

A podium is also a place where people gather, with an organisation and structure that meets the requirements for large spaces such as lobby, large meeting room, restaurant, reception, gallery, etc (Toronto City Council, 2013), (Tran, 2013), (Nguyen, 2018), so usually the podium is higher than the upper floors of the building (Al-Kodmany, 2013), (Al-Kodmany, 2017). At the same

time, in completing the facade of the podium, architectural components and media facilities are utilised to create an impression, such as a canopy, ramp, advertising boards, LED boards, etc (Robert Venturi et al., 1977). Therefore, they contribute to the aesthetics of the street, allowing pedestrians to evaluate the aesthetics of HRBs at first glance.

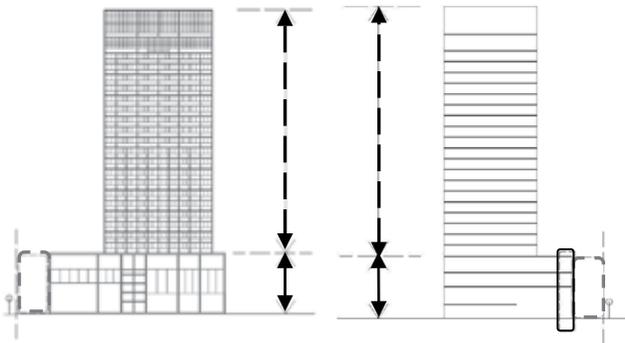


Figure 1. Elevation

Figure 2. Section

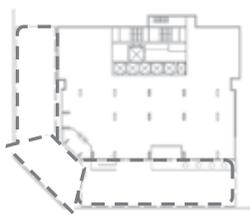


Figure 3. Ground plan

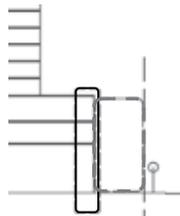
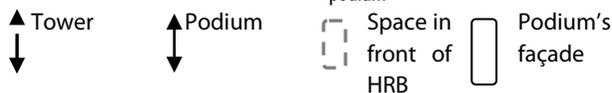


Figure 4. Space in front HRB and podium



HRBP and the space in front of HRB. Source: Author

The architectural design and sensory characteristics of the first thirty meters of the podium (the building height along the street tends to be the best - Watson et al., 2003) of any HRB must respond to human scale (Amos Rapoport, 1977), (Alexander Christopher et al., 1987) (Al-Kodmany, 2020). A podium assists humans in perceiving visual complexity (Cork City Council, 2008), (Leung et al., 2017). Demonstrating skilful architectural facade treatments can be appreciated by viewers at the street level (Al-Kodmany, 2013), (Al-Kodmany, 2020), (Timothy M. Rohan, 2014), (Tran, 2013), (William Pedersen, 1988), (Ta, 2011). (Al-Kodmany, 2017) argues that the podium also creates an image, reflects the local environment, and enhances the impact of HRBs in creating a place. Podiums also encourage pedestrians because they help stimulate people to socialise (Jans, 2010). (Al-Kodmany, 2013) said that the podium can enhance the interaction between the city and HRBs. In addition, the podium must be in harmony with the tower, respecting the proportions and layout of the environment, context and neighbouring buildings (height, colour, etc.), especially historical monuments (Al-Kodmany, 2020). The podium also transitions the scale between pedestrians and high-rise buildings (Toronto City Council, 2013), (Düsseldorf City planning office, 2018). (Guy Nordenson, 2003) argues that careful consideration of the height and volume of large-scale HRBs helps promote placemaking by attracting interstitial spaces that weaken elements

that connect the building and the surrounding context rather than being abrupt boundaries.

#### Specific studies by foreign authors

Several foreign authors have mentioned specific research related to the HRBPs. (Zhou et al., 2019) provide a podium typology approach to measure the social impact of HRBs' ground conditions, including public spaces, podiums and interfaces between buildings and streets in the commercial centres of the three areas, Lujiazui - Shanghai, Hong Kong and Marina Bay - Singapore, and this provides images about the social impact of public spaces in the podium areas of HRBs. From there, it proposes design rules for HRBs towards a more human-friendly urban living environment. (Caroline Stalker, 2015) mentions the contribution of HRBs green areas to public spaces through the podium in areas with subtropical climate conditions. (Antony Wood, 2008) proposed public spaces for HRB aesthetics. Recreational and open public spaces (flexible, landscaped, large or small) must be included in HRBs, instead of emphasising maximum financial return per square meter floor area. Such spaces have been proven to improve the quality of internal environments, impacting worker productivity, resident satisfaction, and more. (this will bring indirect financial returns and develop a sense of community). (Al Kodmany et al., 2022), (Jonathan D. Solomon, 2012), (Leung et al., 2017) refers to the provision of amenities of shopping centres and public benefits connected to the traffic system through the podium with a typical case in Hong Kong. Besides, the HRBs privatisation and the organisation of large-scale podium spaces include shopping centres with various stores and restaurants to attract tourists and shoppers from different regions. It also creates barriers and separation in access and walking habits of Hong Kong people, reducing the quality of public spaces due to the privatisation mentioned above. (Guy Marriage, 2019) mentions the attraction and value of spaces in front of HRBs. Maximising space through flexible designs for retail spaces on the ground floors. (Ysebrant et al., 2008) proposed providing narrow retail spaces at the podium to increase the number of stores and the variety of goods and services. At the same time, designs should avoid creating significant gaps between stores to ensure spatial continuity, turning the street into a cohesive outdoor space. In his research (Firley et al., 2011) suggested the relationship between tall buildings and the city with the important thing being how the building is placed in the town...the relationship between inside and outside. The building should be handled in a way that encourages people to enjoy the spaces on the ground floor. In the same view, (Whyte, 1980) emphasises "A good integral space should not be blocked off by bland walls, it should be visible from the street; the street and its surroundings should be highly visible from it; and between the two, physically and psychologically, the connections should be easy and inviting."

#### Research by domestic authors

In Vietnam, the authors (Trinh et al., 2010) (Tran, 2010) (Ngo, 2014) only briefly mentioned the podium in the overall HRB. More specifically, (Tran, 2013) and (Nguyen, 2018) mentioned geometric shapes and volumes of the HRBPs. Accordingly, the podium is the same size, expanding or shrinking the area compared to the typical floor. In short, there are no detailed and specific studies on the HRBPs. In particular, the relationship between the podium and the space in front of the building dramatically impacts the landscape of the tourist street from a close-up perspective of the building.

#### Case study in Nha Trang

In Vietnam's coastal tourist cities, HRBs along coastal streets play an essential role in creating urban landscapes and tourist streetscape. Tran Phu Street in Nha Trang is a coastal tourist street

with many HRBs serving tourism and resort purposes that have been rapidly developed from 1996 to the present. The inside and outside spaces of the HRBP are used by the investor in different ways and purposes, serving the needs of the hotels. It leads to the emergence of a relationship between the architectural spatial organisation of the podium facade and the use of space in front of the facade. However, the development of HRBs here has not been strictly managed. The coastal area in the city centre does not have enough detailed planning or architectural management regulations. Specifically, the facade of the HRBPs is altered from the original design by attaching the structures to the podium indirectly or directly. The spaces in front of the facades of HRBs are occupied and expanded to build other businesses and services or serve as pick-up and drop-off areas combined with pedestrian sidewalk areas for parking. Therefore, in addition to affecting the building aesthetics, it also limits the circulation of pedestrians on the street, hinders visual access to the building of pedestrians and causes traffic congestion (Khanh, 2018), (Nguyen, 2019), (Traffic Magazine, 2019). It makes the appearance of HRBs and the landscape of Tran Phu coastal tourist street not worthy of a famous coastal tourist city like Nha Trang.

Expand space with new architectural blocks attached to the building



**Figure 5.** Expanding the space of the HRBP with a leaf hut. Source: Author



**Figure 6.** Organising to expand the front space to make the bar obscure the view at the intersection. Source: Author

Expand space with lightweight structures attached to the HRBP



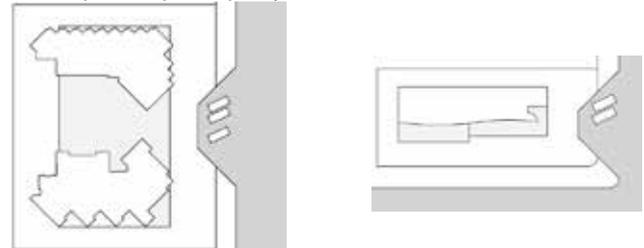
**Figure 7.** Expanding the canopy with the support structure "disguised" with a logo and a high platform that prevents visibility and communication between the building and the street space. Source: Author



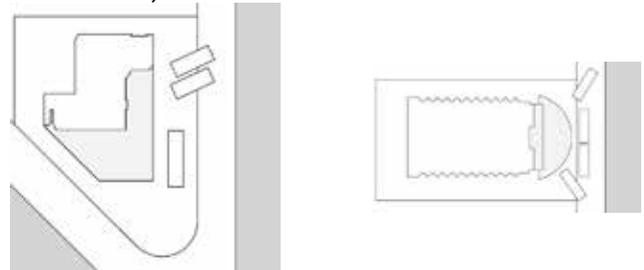
**Figure 8.** Expanding the cafe space with a light canopy structure attached to the front of the building. Source: Author

After synthesising and evaluating the above domestic and foreign research documents, the authors found that studies on HRBPs are considered from different angles. In addition to approaching HRBPs from an architectural, social, commercial and ecological perspective, the problem is to come from the perspective of the landscape, where it is necessary to recognise the unique nuances. The characteristics and relationship between the podium and the space in front of HRBs still have many research gaps. The authors realise that the architectural and aesthetic values of HRBPs, contributing to the landscape in coastal cities, need to be thoroughly analysed and researched in the context and perspective of the urban landscape. From there, it completes the

picture of HRB architecture in coastal cities. To improve the image of HRBs, especially the podium area and the space in front of the building facade, the research question is raised: The relationship between the podium and the space in front of the building façade? What are HRBs in Nha Trang coastal area like? How similar or different are they? How do they impact the aesthetics of HRBs and the landscape of tourist streets? How to improve and enhance the value of buildings and streetscapes through the above relationship? The authors used the method of analysing the architectural morphology of the podium combined with the spatial organisation in front of the facades of sixteen typical HRBs located in the central area (the section from the old airport entrance to Tran Phu Bridge) on Tran Phu street. Create comparison tables to contrast the relationship between types of podiums and ways of using space in front of the HRB. The results show that only 3/16 (18.75%) podiums are simple hotel buildings (no other service business activities in front of the podium); 13/16 (81.25%) podiums are combined with business services for tourism through the construction of additional components (fixed or flexible, temporary) according to the needs of tourism service development. Therefore, HRBPs on the street have a certain level of uniformity in expanding space outward. At the same time, it creates diversity in architectural forms and different ways of using space in front of the building. From the above analysis, we can see the degree of connection between HRBPs and the space in front of the facade through the interaction and expansion of the podium space. Besides bringing diversity to the use of space in front of the podium, it also dramatically impacts the landscape and urban environment. At the same time, the study provides recommendations on policies and regulations to improve the landscape and spatial quality of this coastal tourist street.



**Figure 9&10.** Use (carve out) the pedestrian sidewalk area to combine with the space in front of HRBs for parking. Source: The image was accurately redrawn by Author based on satellite image (Google earth) taken in July 2016. Currently, hotels have returned the sidewalks to the city.



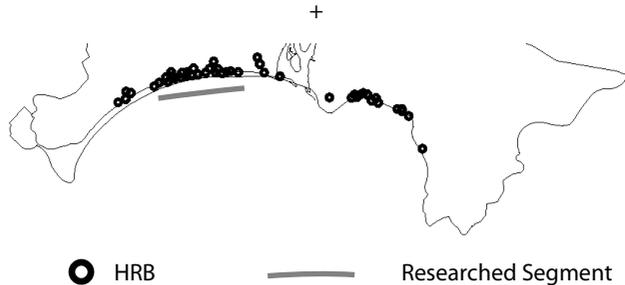
**Figure 11&12.** Use the pedestrian sidewalk area to combine with the space in front of HRBs for parking. Source: The image was accurately redrawn by Author based on satellite image (Google earth) taken in July 2016.

## 2. DATA AND RESEARCH METHOD

### 2.1. Data

The area selected for research is the central coastal section of Nha Trang City from the intersection of Tran Phu Street with the old Nha Trang airport entrance to Tran Phu Bridge in Loc Tho and Xuong Huan wards. There are sixteen HRBs on this stretch of road.

This section was chosen for the following reasons: (i) This is the earliest HRB development area in Nha Trang and has the typical characteristics of a coastal tourist street. (ii) HRBs are built on large plots of land and are managed by Vietnam Building Code Regional and Urban planning and Rural residential planning 01:2008. (iii) HRBs are built with a minimum setback of 8.5 meters compared to the "red - line boundary" of Tran Phu Street (People's Committee of Khanh Hoa Province, 2011). (iv) Tourism service activities are primarily exploited in front of the HRBP.

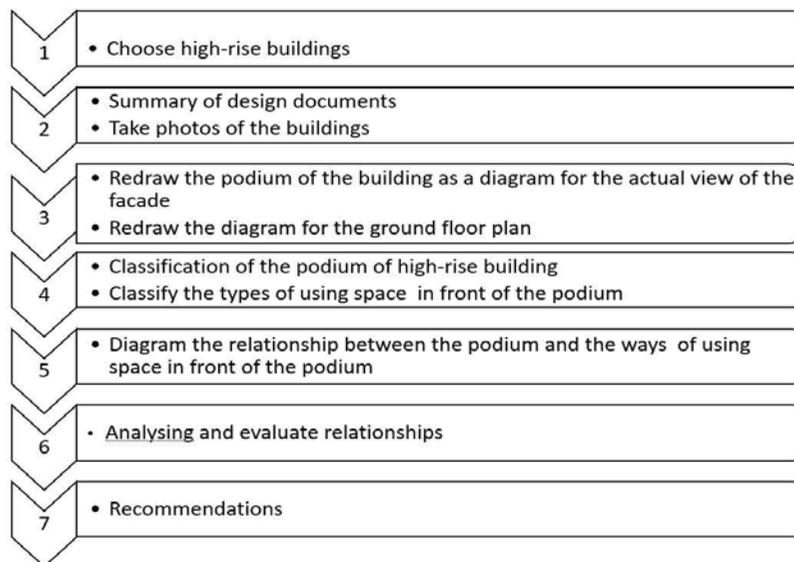


**Figure 13.** Distribution of HRBs along the coast of Nha Trang and researched segment. Source: Emporis-building.map

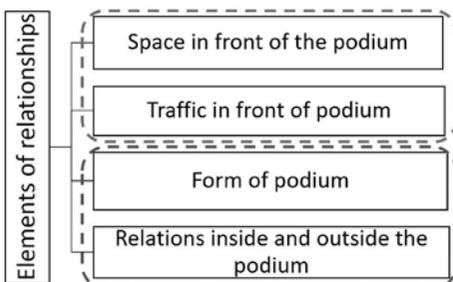
### 2.2. Research method

In addition to synthesising theories, fieldwork methods and long-term scientific observations from 2010 to 2019, the authors approached the podium by analysing the morphology of the podium facade and the space in front of the building. Combine making comparison and contrast diagrams. All sixteen HRBs mentioned above are considered from plan, elevation and section. To facilitate visualisation and analysis, we took photos of the podium of sixteen HRBs with a Canon ISUX 8x lens camera at the same height as the human eye (1.6 meters) and the same distance of 35 meters (the distance that can be felt covers the entire HRBPs), then the images of this HRBP are accurately drawn on AutoCad 2019 graphics software and processed in Photoshop software to delineate clearly between the covering panels and structures on the facade. These images are stripped of secondary elements (which do not directly affect the review and evaluation) to identify the architectural features of the HRBP clearly and easy for classifying them. Combined with actual images of the building to visualise and analyse the use of space in front of the podium.

#### Research framework and elements of the relationship



**Figure 14.** Research framework



**Figure 15.** Elements of the relationship

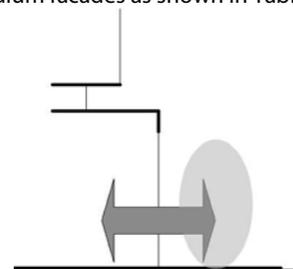
## 3. RESULT

### 3.1. Type of HRBP's facade

Through analysing and synthesising the facades of the HRBPs, the authors realised that the architectural form of the façade, as well as the spatial organisation at HRBPs on Tran Phu Street, allows an uninterrupted connection between inside and outside to

accommodate the needs of tourist services, attract tourists as well as access from within the building to the street and sea landscape.

Analysing the plan, elevation and cross-section of the HRBPs along with evaluation criteria, including the yard in front of the building, the surrounding traffic, the form of the podium and the relationship inside and outside of the HRBP, the authors identified several types of podium facades as shown in Table 1.



**Figure 16.** The relationship between inside and outside of the building at the podium through the "open" feature. Source: Author

Table 1. Types of HRBPs (on the ground floor) along the coast of Nha Trang

Type of podium	KD 1 - HRBP has a large transparent glass panel separating the inside and outside spaces, with little elevation change between the inside and outside of the building. There are corner façades.		KD 2 - HRBP has a large transparent glass panel separating the inside and outside spaces. There are many elevation changes between the inside and outside of the building. There are corner façades.		KD 3 - HRBP has a large transparent glass panel (or buffer spaces) separating the inside and outside spaces and has one main facade.		KD 4 - The space division between the inside and outside of the building lies deep inside. A large lobby is created by extending a large block or a canopy.	
Section - Plan Groundfloor								
Building's name	Nha Trang Center 1, Vinpearl Beach front, Muong Thanh Khanh Hoa, Comodo, A&B Saigon Square		Nha Trang Star City, Nha Trang Lodge, Yasaka Saigon Nha Trang, The Light		Novotel, The Costa,		Havana, Sunrise, Muong Thanh Luxury, Sheraton	

- Classified Type KD 1 with detailed forms according to Table 2.

Table 2. HRBPs along the coast of Nha Trang belong to Type KD 1

KD 1-A (Citadines)	KD 1-B (Vinpearl Beachfront)	KD 1-C (Nha Trang Center 1)	KD 1-D (Muong Thanh Khanh Hoa)
Divide compartments with vertical	Curtainwall	Window in wall frame - (WJWF)	Divide compartments vertically. The compartments on the ground floor are used for shop houses

- Classified Type KD 2 with detailed forms according to Table 3.

Table 3. HRBPs along the coast of Nha Trang belong to Type KD 2

KD 2-A (The Light, Yasaka Saigon Nha Trang)	KD 2-B (Nha Trang Lodge)	KD 2-C (Nha Trang Star City)	

- The proportion of solid panels on the facade is high. An additional permanent structure is attached to the building to serve the purpose of tourism services	- Large curtainwall with atrium inside, height difference between inside and outside the building. Limiting the accessibility and friendliness of the building	- Large curtainwall. Organise tourism services (cafe, bar), using flexible structures (sunshades). Elevation transitions limit separation
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- Classified Type KD 3&4 with detailed forms according to Table 4 and 5

Table 4. HRBPs along the coast of Nha Trang belong to Type KD 3

Table 5. HRBPs along the coast of Nha Trang belong to Type KD 4

KD 3-A (Novotel)	KD 3-B (The Costa)	KD 4-A (Muong Thanh Luxury)	KD 4-B (Havana)
- Curtain wall with large glass panels for exploiting views overlooking the sea	- The space on the upper floor exploits the sea view, WIWF on the ground floor for shop house purposes	- There is no elevation difference between ground floor and front yard	- There is elevation difference between ground floor and public sidewalk

**3. 2. Typical ways of using space in front of the HRBP**

Table 6. Typical forms of using space in Front of the HRBP along the coast of Nha Trang

		Way 1		Way 2		Way 3	
		- Entrance lobby, Drop off and pick up space		- Tourism service business space (cafe, bar) - Entrance to the shopping centre		- Entrance to the shophouse	
Ground plan in front of the podium							
Cross section (area in front of HRBP)							
	Durability structure		LED, advertising panel		Entrance lobby		Entrance to the shophouse
	Flexible structure		The canopy is added to the HRBP		Drop off and pick up way		

From studying the forms of using space in front of the facade of high-rise buildings, the main issues can be listed:

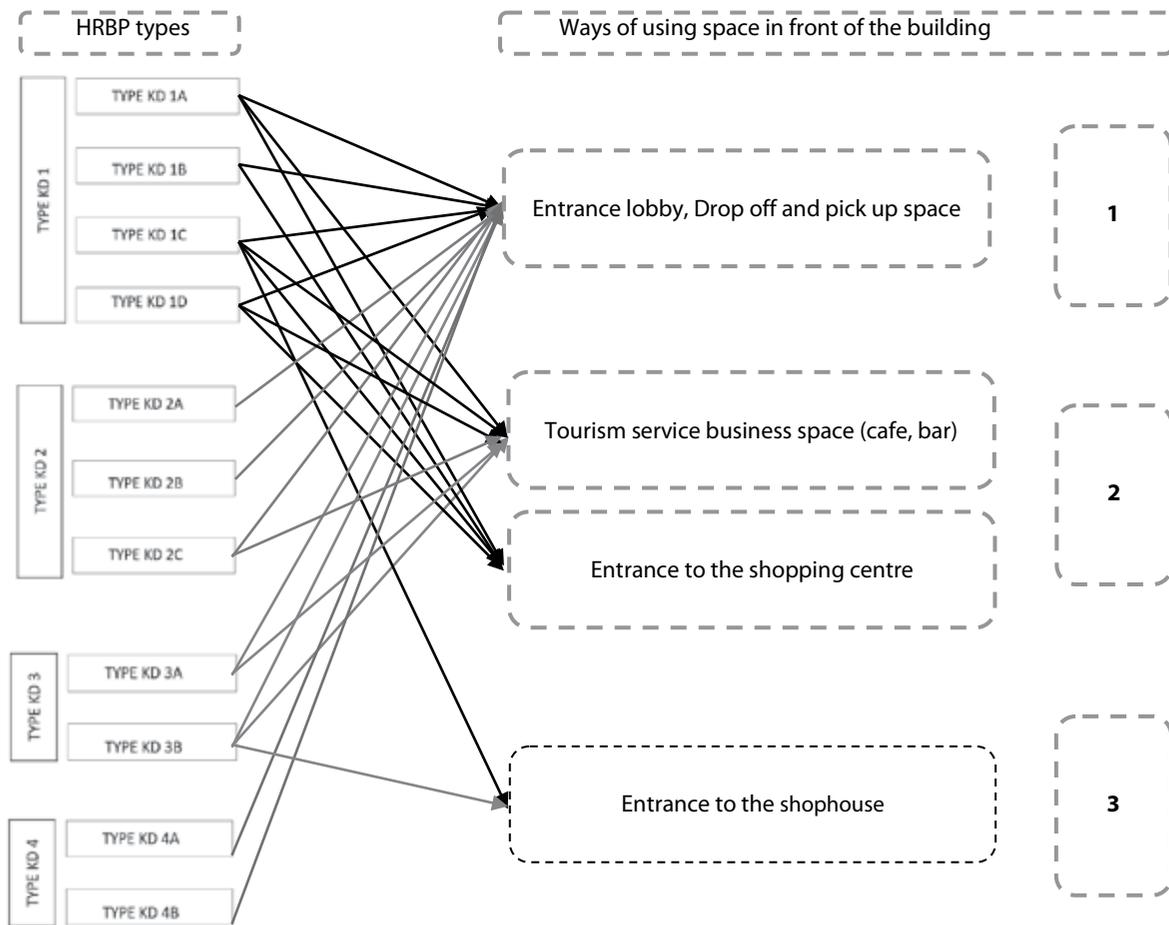
- Using the space in front of the facade to organise tourism business activities by expanding the roof and attached structures such as advertising boards, LED screens on the upper floors of the podium, etc.; Fixed structures (separate or attached to the base) and flexible structures.

- Flexible conversion of functions between indoor and outdoor spaces to suit service conditions, time of day and weather conditions of the year.

- Combine public sidewalks with the space in front of the hotel as a car parking lot for guests.

**3. 3. The relationship between HRBP and the used space in front of the building.**

Synthesising the types of podium facades and ways of using space in front of HRBs, the authors created a diagram showing the relationship between the types of HRBP facades (4 typical types) and ways of using space in front of the building (3 forms) according to Table 7.



The above diagram shows that Type KD 1 is associated with all three ways of using space in front of HRBP. With a convenient location at the intersections with Tran Phu Street, the buildings have ample space in front of them, accessing both sides of the road. Suitable for organising service spaces to serve tourist needs. At type KD 2, most of the buildings were built in the first phase (from 1996 to 2006). The architectural form still has a large wall at the podium. The building has a significant difference in elevation between inside and outside, limiting the connection and communication between the space inside and outside the building. This is also the type of HRBP that has the most space expansion in front of podium.



**Figure 17.** The Light Hotel.  
Source: (nhatranghottour.com)



**Figure 18.** Yasaka Saigon Nha Trang Hotel.  
Source: Author

Type KD 3 shows the relationship between the podium and using the space in front of HRBP through tourism service spaces. As for the KD4 type, the unique location of the podium has only one frontage, so its purpose is only the entrance to the building lobby. In Type 3B (The Costa Hotel and Sunrise Nha Trang Hotel), the space in front of the facade is only used to contact commercial items and tourism services. The main entrance and guest pick-up and drop-off areas are moved entirely to the back of the building.



**Figure 19.** The Costa Hotel Nha Trang. Source: Author

In short, the demand for services is very diverse on the coastal tourist route, leading to various ways of using the space in front of the HRBPs. They create an attraction for tourists, are a catalytic factor, and promote the spatial values in front of the facade of the HRBPs. Activities in the podium front area are part of the life of tourist streets and HRBs. It links the building and the street together.



**Figure 20.** Sunrise Nha Trang Hotel. Source: Author

In terms of form, most HRBPs are "open". The spaces inside the podium are often large atriums serving the purposes of a reception hall or commercial centre, creating uniformity on the street when viewed from the tourist street. This architectural feature of the podium's façade is recognised when many HRBs are gathered on the entire street. Besides, there is diversity in the organisation of the podium's form, shown on the upper floors, through shapes and architectural language.



**Figure 21&22.** The uniformity on the HRBP comes from using space in front of the building. Source: Author

In addition, when we compare the architectural form of the facade between a simple HRBP (only the entrance to the building) and the facade of the HRBP (combined with other tourist services). It appears that the façade of the HRBP (only the entrance to the building) has a large canopy with rows of columns to protect from rain and sun. In contrast, the façade of the HRBP (combined with other tourist services) is often attached with flexible structures.



**Figure 23.** Facades of High-rise buildings on Tran Phu street



○ HRBP (only the entrance to the building - Muong Thanh)



○ HRBP (combined with other tourist services - Nha Trang Center 1)

#### 4. DISCUSSION

The rapid expansion of tourism in Nha Trang has led to HRBs development for accommodation and relaxation, forming podiums with specific characteristics and contributing to creating connections between the inside and outside spaces of the building. The ground floor of hotel buildings tends to expand by utilising sizeable transparent glass panels. Temporary (flexible) or permanent structures are built in front of the ground floor to accommodate tourism services. The upper floors of the podium show many different designs, but the majority are open. The organised space in front of this building comes from actual development needs. However, besides the benefits achieved by the building, there are still barriers separating the space in front of the building that need to be considered to create harmony between the HRB and the street space. Therefore, some recommendations are given, including:

(i) Policy allowing the removal of height restrictions in exchange for adding open space in front of the building through setbacks, which brings opportunities for residents and tourists to access open spaces and green areas on the coastal tourism axis.

(ii) Provide a rain and sun protection roof for the lobby entrance and a sun-shading system for the podium facade because most buildings face the East (sea). These roofs can also serve as a rain shelter and an outdoor circulation route for residents and visitors.

(iii) For large plots of land, it is possible to organise a pick-up and drop-off area on either side or behind the building, reserving space in front of the building for tourist service activities. At intersections on the route, avoid constructing fixed or flexible structures next to the podium because it obscures the view of traffic.

(iv) Service spaces should be planned and designed flexibly following the architecture of the HRBP, contributing to the creation of a tourist street landscape. In addition to ensuring visibility, flexible structures attached directly or indirectly to the podium must be designed as a buffer to transition the scale of pedestrians in front of the building to the HRBP.

(v) Avoid designing the ground floor level of the podium to be much higher than the front yard of the building to enhance communication inside and outside the building. The podium façade is in harmony with the proportion of pedestrians to create a domestic feeling and make the building a part of urban life.

(vi) Placing retail frontages along coastal tourist streets allows visitors to shop, dine, relax or linger. These activities enliven the public area, showing signs of convenience and bustle, and support the local economy. A well-maintained, mixed-use, walkable environment stimulates pedestrians' senses, encouraging them to walk, stay longer and linger. Therefore, attractive front-of-building spaces will encourage people to return to the area.

(vii) Manage podium architecture across the entire street to link high-rise building podiums together through:

- Unify the yard's elevation in front of high-rise buildings to facilitate smooth traffic and easy access.

- Unify the podium's height limits and the canopy's underside. At the same time, it ensures fire prevention requirements for high-rise buildings.

- Manage the use of colours and materials on the podium through harmonious articulation with the rhythm of the dynamic tourist street context.

## 5. CONCLUSION

The results fill the gap of previous research on HRBs, which focused mainly on the shaft but ignored the podium. In particular, visitors directly contact the building through the podium at the tourist streetscape. Through a specific situation at Tran Phu Street, Nha Trang, the study offers a new approach for architects and urban designers when designing HRBs. They need to consider the need for services and public space expansion before the projects and their impacts on the building aesthetics and streetscape. In addition to managing regulations that must be implemented, design direction is necessary from the early stages to avoid designs that inappropriately expand the space in front of the podium. This study provides the practical basis for high-rise building design in tourist cities. At the same time, it contributes to completing the panorama of high-rise buildings in these places.

### Limitations and future research directions:

This research only focuses on one specific project. we will develop on a larger scale by connecting podiums on lots and streets to the surrounding environment. In future research, the authors will consider the network connecting these podiums to create attractiveness in tourism development. It helps convince developers, hotel owners and management agencies to have an overview of the quality of building podiums across the street.

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