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# Planning Principles of Permanent Outdoor Advertising (POA) in Arterial and Collector Road Corridors in Denpasar City, Bali, Indonesia

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## Abstract

Permanent Outdoor Advertising (POA) is one of the media for providing public space information to impact the viewer with words, with or without photographs. That details to the public on programs, goods, lifestyles, dreams, and values. Advertising is an important and very important tool in economic and business terms because it is direct communication with the audience. POA also generates the image and visual quality of public spaces as an urban physical feature in terms of urban planning. A important location for information dissemination is the high speed of motion in arterial and collector roads. The POA is something that draws attention and can enhance the region's picture. Advertisers, however, frequently disregard the detrimental impact of RRLs on the physical condition of urban space for the sole purpose of offering economic benefits. In Denpasar, POA is divided into 1) electronic billboards and 2) billboards, and POA typology can be divided into a) independent structure (free-standing POA) centered on technological installation; b) related to another structure (attached POA). The main issues of POA implementation in Denpasar City are: 1) security, 2) beauty/aesthetic, and 3) legibility are the key issues of the POA implementation in Denpasar City. These questions emerged from several aspects, namely: 1) land use; 2) structure and construction; 3) placement; 4) form, scale, and quantity; 5) orientation; 6) lighting; 7) material. The planning principles of the POA in Denpasar should be evaluated on the basis of contextual problems and the arterial and collector roads surrounding them. The POA identification is carried out in Denpasar City on twenty-nine main roads, including all three arterial roads, and on twenty-six collector roads. Two functions representing both arterial and collector roads in Denpasar were chosen for the study position on the main road with primary arterial function, collector-one, and collector. Post-occupancy evaluation (POE) was the research approach used in this study with a qualitative analysis methodology that observes and analyzes the POA conditions that occurred on selected roads in Denpasar Area, which are used as a basis for structuring the principles and aspects of POA planning.

**Keywords:** Permanent Outdoor Advertising, Principle, Main issues, Planning, Road Corridor

## 1. Introduction

In the book *Urban Design Process*, Shirvani (1986) mentioned that permanent outdoor advertising (POA) is one of eight principal elements of designing an urban space, with the form of city marker element (signage). The advertisement is also usually called an ad or advertising with commercial or social (non-commercial) use. An advertisement is a form of promotion to the public to influence observers by writing or words with or without images regarding service, product, lifestyle image, dreams, and new values to the society Follis, John and Hammer (1979). From the business side, advertisement is an essential aspect without neglecting the quality of the environment (Moughtin 2007; Arvidsson 2007; Harvey and Aultman-Hall 2015). Meanwhile, in terms of urban planning, Carr (1992) and Krier (1979) said that advertisement as signage is an object placed in public spaces that can also form a city orientation and identity, making it easier to identify a city. In comprehensive urban planning, urban design has a special meaning related to the human sensory responses toward the town's physical environment: visual appearance, esthetical quality, and spatial character (Faga 2019; Mitchell and Staeheli 2009; Woolley and Space 2004). The method of urban spatial elements must be sensitive and support the city's visual aspect by increasing the esthetical rate (Ogden 1984, Gibsons 1992, Sutte 1993, Branch 1996).

As an example of a form of signage element, POA cannot be separated from the physical and non-physical development of a city. According to Jenkins (1996), the placement of POA tends to be in the open city spaces, which are considered strategic to make the message being conveyed easier to the society, for example, strategic places at the side of the road (road corridor). Furthermore, Jenkins (1996) also said that POA is a media that provides information and has an essential function in urban space. Commercially, POA has an economic value that could increase local revenue (LR) through advertising services tax. An advertisement planning approach tends to rely on a financial system. Advertisement could also harm urban space physically and visually if the implementation is not organized based on the right main issues and urban planning elements (Amin 2008; Ewing and Handy 2009; Francis et al. 2012; Ng et al. 2015). This study analyzes a POA's performance on the corridor of arterial and collector roads in Denpasar City. By reviewing the typological characteristic, potential, and problems of POA, it could be classified into main issues (issue of a concern) and planning elements (scope of cases) to formulate the planning principal of implementing advertisements in Denpasar City.

## 2. Research Methods

This study is an evaluative study with a Post Occupancy Evaluation (POE) method and a quantitative analysis technique (Pickett, Cadenasso, and McGrath 2013; Moughtin 2007; Dumbaugh 2005; Cuesta et al. 2007). The analysis aims to identify typologies, potentials, and existing problems, as well as formulate main issues and design elements of POA planning in Denpasar City road corridors. The methods used in collecting the data are primary and secondary surveys. Preliminary data through surveys and field observations. Secondary data through agency data, literature, and regulations regarding advertisement (see *Figure 1*).

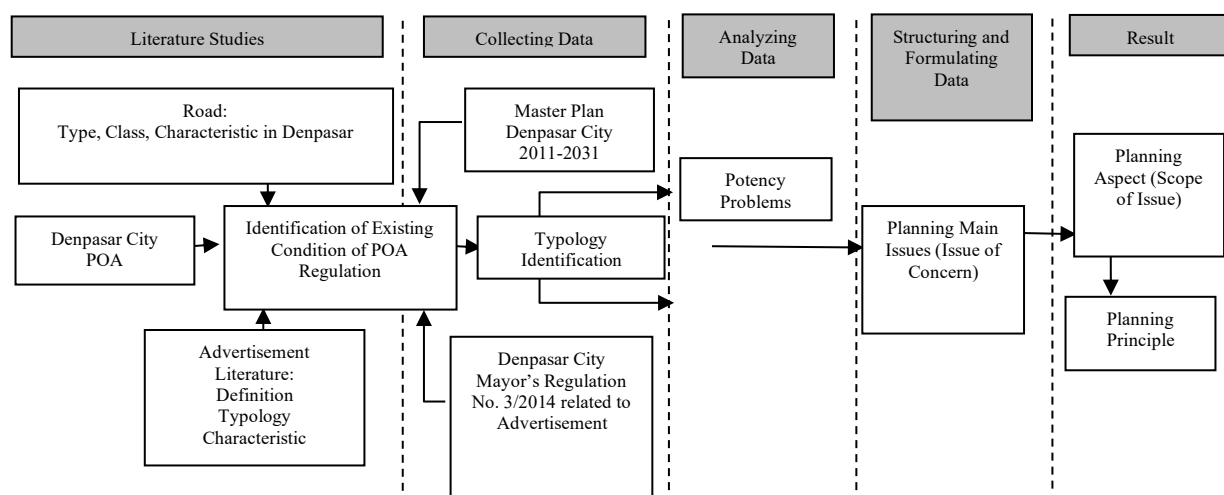


Figure 1. Research Stages

The identification of POA operational was carried out on 29 roads in Denpasar City. The survey location was chosen on the protocol road with primary arterial, collector-1, and collector-2. The streets in the survey area have represented all types of land use. The typology of the POA that has been analyzed could be more diverse and represent the advertisement population sample. The identification process is to get information on the planning conditions, including potential and problems, analysis of problems, types/kinds of permanent advertisement, location, placement, shape, and size. The information will then be collected on the sample of arterial and collector roads that have been selected. From the analysis of the problem that is being elaborated with the implementation regulation of advertisement and urban planning in Denpasar, it then could be classified into planning main issues (issue of concern) and planning element (scope of matter), in order to formulate the principals of POA planning in Denpasar City.

### 3. Results and Discussion

In the theory of classifying advertisement based on the material, POA is the independent structure/foundation, put into the ground, mounted/supported on a permanent structure (building). Billboard is one of the examples of permanent advertisement. The opposite of permanent advertising is a temporary or incidental advertisement. An advertisement is used at a specific or limited time, for instance, at an event/show (Vich, Marquet, and Miralles-Guasch 2019; Harvey and Aultman-Hall 2015; Kurniawati 2012; Shafaghat et al. 2016; Hong and Jeon 2013; Ewing et al. 2016). This type of advertisement media could quickly move or dismantle and is not made from expensive materials, such as banners and billboards (Kelly and Gary, 1989). POA could be classified based on several aspects, which are as shown in *Table 1*.

Table 1. Permanent Advertising Classification

Aspects	Advertising Types
Message Content	a. Commercial; b. Non-commercial
Properties of Delivery	a. Direct; b. In-direct
Material Type	a. Billboard (Board-based Advertisement); b. Electronic (Videotron / LED)
Technical Installation	a. Independent Structure (Free Standing) b. Attached on The Roof Structure (Roof-Signs) c. Lean on The Wall Surface (Wall-Signs)
Structure Type	1. Independent Structure; a. Pole Structure (Pole-Signs) b. Foundation Stand (Ground-Signs) 2. Attached Structure a. Roof-Signs b. Walls-Signs c. Projected-Signs

Source: Kelly and Gary (1989)

According to Russel and Verrill (1986), the physical planning condition of the environment (landscape) is becoming an essential factor in analyzing the characteristics of the POA. Landscape conditions are the typology of the road corridors and the land use along the road corridors. Typology of road corridors is related to the class, the road's function, the width of the road, building boundary lines, vehicle speed, and the road volume carrying capacity. It provides different opportunities for each road's function in accommodating the advertisement media's characteristics and typology. Advertising media must pay attention to the designation of the land where the advertisement is installed (Yin 2017; Miles 2005; Ng et al. 2015; Ewing and Handy 2009; Amin 2008)

There are restrictions in implementing the POA for specific land functions; this is applied because it concerns the suitability of the POA's substance with the public surround it. For example, in a government land use, the essence of an advertisement media that is allowed is the one that contains non-commercial, social, or public

information (Wiryasa and Dwijendra 2017; Widiastuti, Paturusi, and Dwijendra 2017; Acwin Dwijendra and Putu Sueca 2019; Dwijendra 2020b).

POA is a media that is used to convey information/appeal to the public, so the placement is tied to advertisement space, which is a space along the road, both road's space or private space at the side of the road that could visually be accessed by the public (Dwijendra 2020a; Nurjani and Dwijendra 2020; Yogantari and Dwijendra 2020; Mahendra, et al. 2019). The advertisement placement goal is to attract viewers' attention to increase the legibility of the messages. Another important thing is to effectuate the costs of the installation of an advertising media. In placing advertisement at a specific location point, some factors should be considered wisely. According to Verrill and Russel, the critical factor that should be considered before choosing the POA's location is the traffic volume.

However, traffic volume is not the only factor in determining the strategic level of placing a POA; other factors are (Russell and Verrill, 1986): 1) clear visibility; a distance where the first and last advertisement location could be seen entirely by the motorist; 2) traffic type and travel speed; the slower the journey, the better; 3) the point of view of placing the advertisement; 4) allocation of land around the advertisement; 5) size and physical shape of an advertisement, 6) price; the comparison value with other regions and the result of negotiation with the owner (see *Table 2, 3, 4, 5, 6, 7 and Figure 3*).

Table 2. Issue of Concern and Scope of Issue of POA Planning Principle on Literature Studies

Source	Planning Element (Scope of Issue)	Main Issues (Issue of Concern)
Thomas Russel & Glenn Verril, 1986	<ul style="list-style-type: none"> <li>• Traffic volume</li> <li>• Traffic type, Size, Land use</li> <li>• Advertisement clearance</li> <li>• Distance between advertisement</li> <li>• Speed, Point of view</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Safety</li> <li>• Beauty/Aesthetic</li> </ul>
Suute M., Donald T, 1994	<ul style="list-style-type: none"> <li>• Land use</li> <li>• Structure</li> <li>• Point of view</li> <li>• Traffic type</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Safety</li> <li>• Beauty/Aesthetic</li> </ul>
Kelly, Eric Damain, Russo, Garry J, 1989	<ul style="list-style-type: none"> <li>• Land use</li> <li>• Height</li> <li>• Placement location</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Safety</li> <li>• Beauty/Aesthetic</li> </ul>
Natalivan, 1997	<ul style="list-style-type: none"> <li>• Point of view</li> <li>• Traffic type</li> <li>• Land use</li> <li>• Placement location</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Safety</li> <li>• Beauty/Aesthetic</li> </ul>
Studi Pemanfaatan dan Pengelolaan Reklame, Depdagri, 1992	<ul style="list-style-type: none"> <li>• Land use</li> <li>• Height</li> <li>• Number of citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Beauty/Aesthetic</li> </ul>
Daniel L, Mandelker, William R.E	<ul style="list-style-type: none"> <li>• Traffic type</li> <li>• Land use</li> <li>• Number of citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Legibility/Efficiency to convey information</li> <li>• Beauty/Aesthetic</li> <li>• Safety</li> </ul>

Source: Various Sources, 2019

Advertisement planning in Denpasar City regulated in Denpasar's Mayor regulation No.3 of 2014, concerning

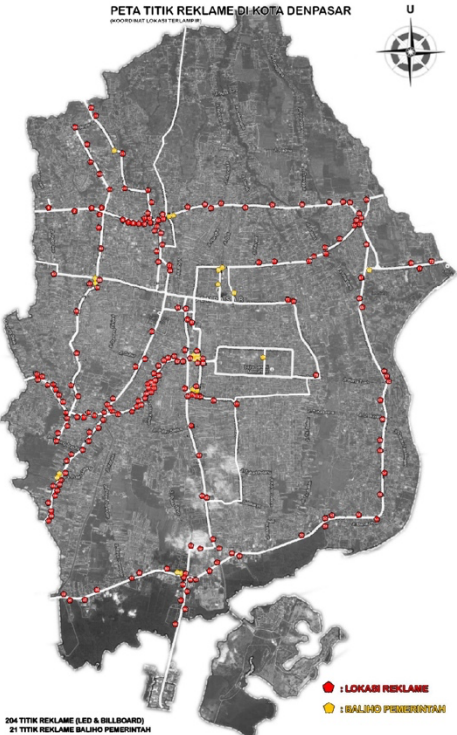
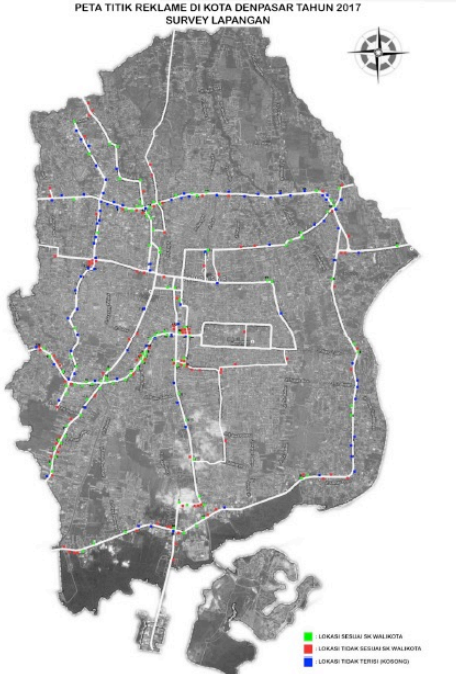
the Implementation of Advertisements in the City of Denpasar. The location for POA has been determined in Mayor's Decree No. 188.45/568/2014; it said that there were 204 total location points of POA with a larger size of 8 m<sup>2</sup> with the free-standing type/attached to the billboard and Videotron type buildings (Perkim Kota Denpasar, 2014). The locations of the advertisement spread across 29 protocol road spaces in Denpasar City (Dharmayanty, et al. 2019; Wiriantari et al. 2020). Several new elements of Denpasar's POA planning in the Mayor's regulation are shown in *Table 3*.

**Table 3.** The Planning Elements of POA in Denpasar Based on The Mayor's Regulation

Planning Elements	Things Regulated
Principal	Fulfilling the requirements for the beauty, personality, and the culture of the nation, must not conflict with religious, norms, decency, order, security, morality, health, and must be in accordance with the city plan
Advertising Distribution Pattern	Placed at the point that has been determined in Mayor's Decree No. 188.45/568/2014, there are 204 POA points.
Placement Position	Plot and stick to building (Not allowed to place in the city green area and road space)
Design	<p><b>Size</b></p> <ul style="list-style-type: none"> <li>Type of advertisement with the total size are of the advertisement plane is more than 8 m<sup>2</sup></li> <li>High limit and the height of advertisement</li> </ul> <p><b>Construction</b></p> <ul style="list-style-type: none"> <li>Single pole</li> <li>Double pole</li> <li>Ground-Signs</li> <li>Attaching is an advertisement means whose construction is attached to a part of the building using additional construction that is integrated with the construction of the building</li> </ul> <p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>Do not use blinding lights (flashing) and / or dazzling materials.</li> <li>Use polite and correct Indonesian language</li> </ul>
Advertisement Type	POA: LED/Videotron, Billboard
Maintanance	<p>Supervision of the implementation of advertisements and the installation of physical identities on advertisements</p> <p>Procedure for changing advertisement material</p> <p>Sanctions for the organizers if they violate the rules</p>

Source: Mayor's Regulation No. 3 of 2014

Table 4. The Result of Existing POA Location in Denpasar

Map of Permanent POA Distribution in Denpasar City	Map of The Effectivity Of Designated POA Location in Mayor's Regulation 3/2014
	
The total of 222 Permanent POA, namely 10 LED screens and 212 Billboards	The total of 222 Permanent POA, 114 filled points (55%) and 90 unfilled location points

Source: Analysis, 2019

Based on the surveys and field observations that are compared to the Mayor's Regulation No. 4/2014, it could be concluded that the condition of permanent POA in Denpasar City on 29 roads are: 1) From the total of 222 permanent POAs that already stand, there are 114 permanent POAs that do not stand on the designated points based on the Mayor's Regulation; and 2) There are 90 unfilled/unused advertisement points (45%). Based on the results of the advertisement location observation and analysis, it could be concluded that some of the causes of unfilled advertisement points that are designated in the Mayor's Regulation are as follows: 1) the advertisements are blocked by particular objects, including trees, buildings, and electric poles; 2) the locations are not potential, the point of view is not optimal, and the audiences is minimal; 3) minimum audiences because of the minimum traffic volume; 4) it is technically impossible for the advertisement construction to be carried out, for example, fail to obtain consent or fail to negotiate with the landowners.

Table 5. Permanent POA Density Compares to Daily Traffic Density in Denpasar

No.	Road Name	Length (Km)	Width (Meter)	Function	DTA (Sump/Hour)	ADS Amount	Mayor's Regulation	
							Filled	Unfilled
1.	Cokroaminoto (North)	2,52	10	AP	44,757	10	6	1
2.	Cokroaminoto (South)	2	10	K1	41,665	5	4	1
3.	Gajah Mada	0,73	14	K1	37,105	1	0	0
4.	Setiabudi	0,8	9,5	K1	30,913	1	1	1
5.	Wahidin And Sutoyo	0,75	11,5	K1	24,979	2	2	1
6.	Hasanudin – Udayana - Sutoyo	1,03	7	K1	31,768	3	3	1
7.	South Imam Bonjol (Sp. Teuku Umar – Tuban)	4,6	7	K1	45,67	20	11	2
8.	North Imam Bonjol (Denpasar – Sp. Teuku Umar)	5,5	7	K1	37,886	5	3	1
9.	Sesetan – Diponogoro (Sp. Pesanggaran – Denpasar)	6,82	8	K1	26,886	18	9	4
10.	Surapati – Hayam Wuruk – Hangtuh – Danau Beratan (Denpasar – Sanur)	6,31	10	K1	22,666	2	2	2
11.	Veteran – Patimura – Wr. Supratman (Denpasar – Toh Pati)	5,17	7	K2	25,636	11	8	5
12.	Kapten Agung – Pb. Sudirman (Denpasar – Pb. Sudirman)	3,02	8	K2	36,725	12	4	1
13.	Kamboja – Melatii	1,4	1,3	K2	-	2	0	0
14.	By Pass Ngurah Rai – By Pass Ida Bagus Mantra 9sp. Tohpati – Sp. Sanur)	4,05	14	AP	44,257	10	4	4
15.	By Pass Ngurah Rai 9sp. Sanur – Sp. Pesanggaran)	8,47	14	AP	28,286	15	7	10
16.	By Pass Ngurah Rai (Sp. Pesanggaran – Dam Suwung)	3,75	14	AP	45,163	12	4	3
17.	West Teuku Umar	3,2	11	K2	32,961	15	8	4
18.	Teuku Umar – Dewi Sartika	3,2	11	K2	47,182	24	17	4
19.	Tjok. Agung Tresna – Puputan Niti Mandala Renon	6,31	7	K2	32,624	1	0	0
20.	Achmad Yani	4,91	6	K2	19,241	3	0	0
21.	East Gatot Subroto	5,95	10	AP	49,719	14	9	15



22.	West Gatot Subroto	3,7	10	AS	42,224	8	4	8
23.	Buluh Indah – Kargo	4,52	7	K2	31,018	5	3	11
24.	Gunung Agung – Gunung Sanghyang	4,6	7	K2	28,603	8	0	1
25.	Pelabuhan Benoa (Tol Acces)	1,05	11	AP	28,921	2	0	0
26.	Waturenggong – Yeh Aya – Pakerisan	3,02	6	K2	-	7	0	0
27.	Mahendradata	4,52	11	K1	-	6	5	10
<b>TOTAL</b>						<b>222</b>	<b>114</b>	<b>90</b>

Source: Analysis, 2019

Table 6. POA Density Hierarchy Based on Roads in Denpasar City

No	Road/Street Name	Dominant Land Use	Road Length	Number or POA	DTA (Smp/Hour)	Function	Advertisement Density (Num/Road)
1	Teuku Umar Street – Dewi Sartika Street	Trade and Service	3,2	24	47,182	Collector-2	7,5
2	Teuku Umar Barat Street	Trade and Service	3,2	15	32,961	Collector -2	4,68
3	South Imam Bonjol Street	Trade and Service	4,6	20	45,67	Collector -1	4,3
4	Kapten Agung Street–PB. Sudirman Street	Education (University & School)	3,0	12	36,725	Collector -2	3,97
5	North Cokroaminoto Street	Trade and Service	2,52	10	44,757	Primary Arterial	3,96

Source: Analysis, 2019



Figure 2. The problems of POA implementation in Denpasar City

Source: Laskara, 2019

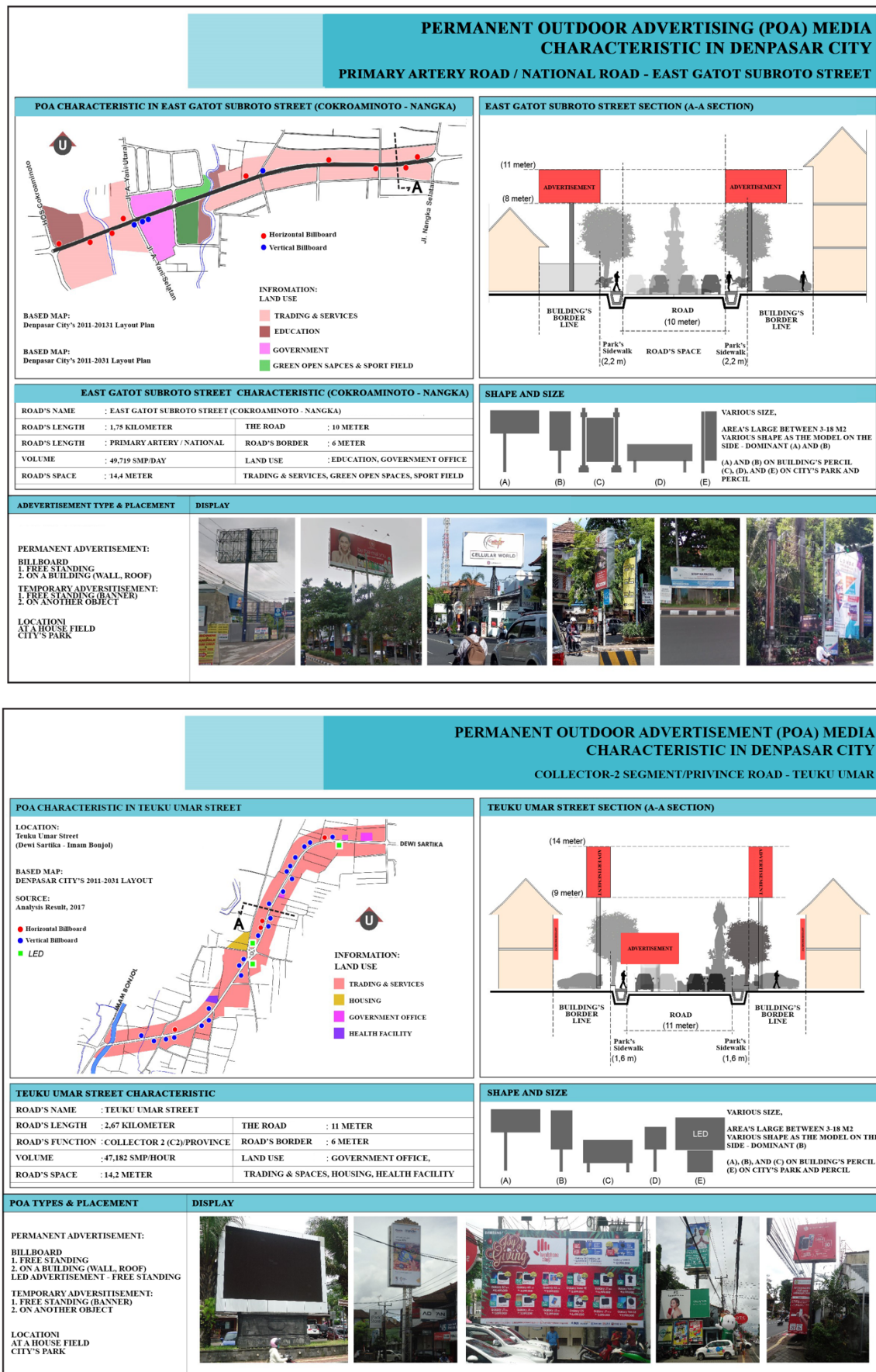




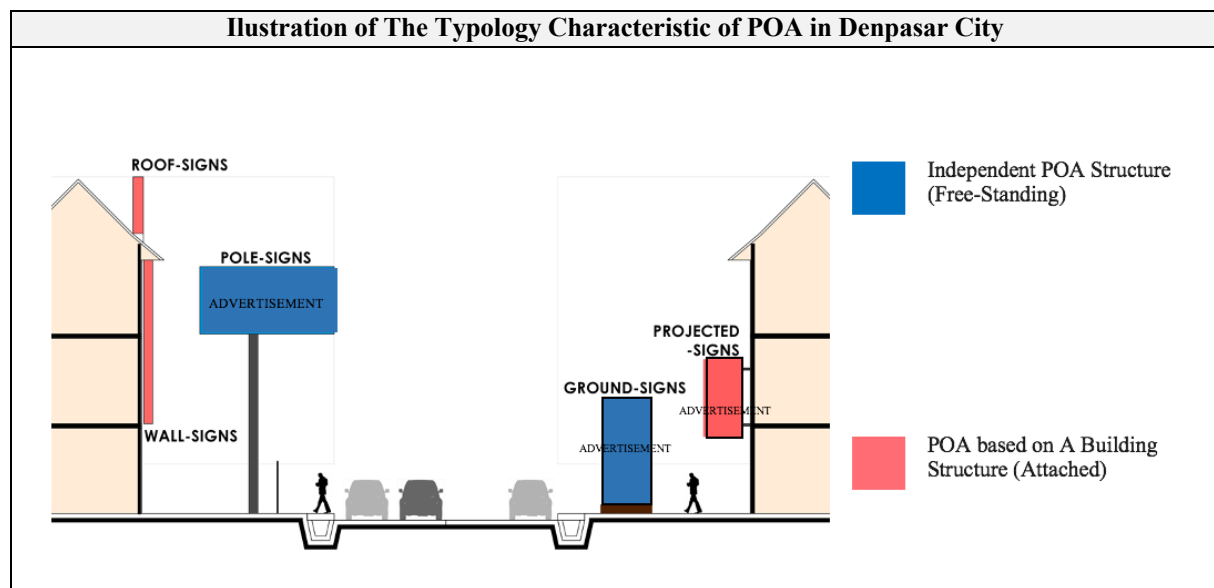


Figure 3. The Characteristic of POA on The Arterial and Collector Roads in Denpasar City

Source: Laskara, 2019

Table 7. Typology Characteristic of POA in Denpasar City

POA Typology in Denpasar City: Based on The Technical Installation	
Independent Structure (Free-Standing)	Rest on Building /Other Object (Attached)
<p><b>Ground Signs:</b></p> <p>Support structure in the form of a retaining wall foundation or resting on the ground. The height position of the ground-signs advertisement area is than 3 meters calculated from the floor/ground surface where it stands.</p> 	<p><b>Roof Signs:</b></p> <p>The support structure rests on the roof structure of the building. The location of the advertisement area is parallel to the elevation of the roof plane, in a position parallel to the roof.</p> 
<p><b>Pole Signs:</b></p> <p>The supporting structure of the advertisement is a pole.</p> 	<p><b>Wall-Signs &amp; Projected Signs:</b></p> <p>The support structure rests on the wall structure of the building, with the position of the advertisement and the position of the advertisement plane perpendicular to the wall plane.</p> 



Source: Laskara, 2019

Some of the potentials of the implementation of advertisements in Denpasar City are: 1) a well-organized POA could form an image of road and corridor area; 2) strengthening the theme of the site by aligning the content with the land use or area activities; 3) giving a festive atmosphere to a particular area or action, from sparkling

LED lights, projection advertisements, and waving banners; 4) increasing the absorption and the delivery of information to the public; 5) increasing the physical and visual appeal of the innovative POA; 6) digitally managing and collecting POA data supports the concept of Smart City in Denpasar City. And the transparency of advertisement information to the public with a digitizing system. 7) Process simplification and supervision system (monitoring and evaluating) with the digitation method and an online course. 8) As the capital city of Bali Province and the high of listener number, Denpasar City has the potential and opportunity to utilize advertisements as one of the primary sources of regional income.

On the other hand, some of the main problems faced in implementing advertisements in Denpasar City are as follows: 1) POA structures that have been damaged but are still in use. Damage caused by age and weather, such as corrosion/rusting and loose plate panels due to wind; 2) the POA is not placed at the determined location in the Mayor's regulation, besides that there are some standing POA in areas that are not permitted, such as on pedestrian ways (sidewalks) and the green regions; 3) POA does not have a Balinese nuance, and that which is placed in a building is not adapted to the shape and to the architecture of the building, for example the entire building façade is covered by advertisement media; 4) placement of advertisement media that is too close so that its protecting each other; 5) there is no uniformity in size and orientation for each types of advertisement in one road segment, so that it cause irregularity; 6) in intensive trade areas and services, the number of advertisement media seems to be more dominant than the regional architecture, this results a decreasing visual quality; 7) there are advertisements that do not use lighting, making them ineffective at night; 8) the advertisement content is not in line with the functions/area activities. From the results of the typological observation and mapping, the classification of POA based on the type of material could divide into 2 (two) types, namely: 1) electronic advertisement, for example, Videotron (LED); 2) board-based advertisement, such as billboard, ground-signs, pole-signs, and others.

#### **4. Conclusion: *The Planning Principal of POA in Denpasar City, Indonesia***

The POA's growth must regulate with clear guidelines and planning principles that are easy to understand. The normative regulation has been carried out in the Mayor's Regulation of Denpasar City No. 3 of 2014, related to the Implementation of Advertisement in Denpasar City; however, it is based on the previous evaluation section, problems still found in the field. Illegal advertisement is one of the causes of the decrease in the area's quality and image and road corridors. Some promotions do not suit the rules that have been set at this time. From the problems and distractions that have already been found, it is then analyzed and formulated to find the issue of concern and scope of the subject or the planning aspect. Based on the derivative results of the problems encountered in the field, the following *Table 8* describes the analysis of disturbances and their classification.

Based on the review of table 6 above, the main issues (issues of concern) of the POA planning principles in Denpasar City are: 1) Safety is the most crucial factor because the implementation of the POA is not allowed to cause losses, victims, or disturbances to the activity perpetrators and the surrounding environment; 2) Aesthetic, POA becomes an element that could support the visual character and beautify the city, either directly or indirectly; 3) Legibility, must be able to be listened to and well-read in a still (static) or moving situation, in this case for pedestrians and motorists. Some elements (scope of issues) of the POA planning, as well as matters that are regulated, are as follows:

- a. Land use, the zoning of advertisement, for example, zone without advertising (white zone), limited zone (yellow zone), and general location (green area); this is related to the function of the surrounding land use.
- b. Structure and construction, the planning of standards for the support structure and advertisement materials' strength, consider the loads, wind gusts, earthquakes, and lightning/fire.
- c. Placement, the planning of sequence in certain areas and road functions that are harmonious with environmental characteristics and land use functions. An arrangement that does not threaten safety, easy to read, and supports its environment's beauty.
- d. Shape, size, and number, the advertisement's size are according to the zone, environmental characteristics, and function (road width and building boundaries). Effective and efficient geometric shapes to convey information. Regulating and limiting the number of POAs in each road section to control POA density.
- e. Orientation, the planning of the angle and direction of the advertisement so that they are more effective in

conveying information.

- f. Lighting, the lighting planning based on zones, characteristics, and functions of the surrounding environment. It is ensuring the safety, beauty, and effectiveness in conveying information.

Content, it must be clear that it is easy to accept, read, or see while passing (walking or driving), the language and the image displayed are suit with the prevailing norms and does not take sides or corner anyone.

Table 8. Distribution Analysis and Classification

No.	Distribution Type	Distribution Classification (Issue of Concern)	Element (Scope of Issue)
1	The structure of the advertisement is damaged, for example corroded iron/steel material, the steel plate panels are release due to win gusts, the frame is rusted.	Safety	Structure and Construction
2	All or part of the advertisement are is on the pedestrian way with low clearances, thus disturbing pedestrian safety.	Safety	Placement
3	The size is too wide on the road, there is a high risk of long-distance visual obstruction of the motorists. Size is not proportional to road width/class, dominates the visual.	Safety Aesthetical	Placement Size
4	POA is placed not in a non-standing location, not standing at a point/location determined by the Mayor's Regulation. POA stands in the areas that do not go down from the city green areas.	Aesthetical	Land Use
5	Placement of advertisement media that is too close and covers each other. There are advertisements covering vital public objects.	Aesthetical Legibility	Placement
6	The advertisement media placed in the building is not adapted to the shape and architecture od the building, a vital function of the building, so that the entire building facade is covered by the advertisement media. This results the decreasing of visual quality and emergency aspects.	Aesthetical Safety	Shape Size Placement
7	POA as a visual element in public spaces does not apply physical features with Balinese characteristics.	Aesthetical	Shape
8	The shape and orientation of the POAs are not uniform in one road segment, resulting chaos and disorder.	Aesthetical	Shape Orientasi Number
9	Advertisement does not use lighting, so they are ineffective at night. There is a video Tron with a very high lighting brightness at the intersection area, very dangerous for motorists.	Safety Legibility	Lighting
10	A total of 45% of the advertisement locations are empty (not filled), there are POAs standing outside the designated area.	Aesthetical	Land Use Placement
11	There are advertisements that do not suit the land use causing the advertisement market to be targeted inappropriately, for example commercial advertisements in education and government areas.	Legibility	Land Use Message/Content

Source: Analysis, 2019

With those main issues and arrangement elements, Denpasar City POA's goals and principles could be formulated as the *Table 9*.

Table 9. The Planning Principles of POA in Denpasar City

	<b>Safety</b>	<b>Aesthetical</b>	<b>Legibility</b>
<b>Land Use</b>	Advertisement is not allowed to be installed in special vital zones, namely airports, which have the potential to cover certain points of view.	Implementation of the POA zoning, namely the White Zone (free from advertisement); special/restricted zone; common zone.	The zoning of the advertisements is adjusted to the surrounding audiences, so that the message is conveyed.
<b>Structure and Construction</b>	Safe for audiences, namely pedestrians, motorists, and the surrounding environment. Appropriate structure and supervision of the reliability of structures and construction regularly and periodically, supervised by competent experts.	Structure and construction are considered as aesthetic elements. Adapted to environmental conditions and placement.	The structure part must not cover the plane and the reading angle of the audiences.
<b>Placements</b>	Safe for pedestrians, motorists, and the environment. All or part of the POA is not placed in the movement zone space for pedestrians, vehicles and motorists.	Implement a set-back of parcel boundaries, and the structure or part of the advertisement does not stand up to piracy. Does not cover vital city objects, such as landmarks or city information boards.	Not obstructed by building objects or trees.
<b>Shape, Size, and Number</b>	Simple geometric shape that does not cause distraction while driving/riding.	Simple geometric shapes; The size of the POA area is proportional with the width/function of the road and the building boundaries. Ornaments/Balinese forms on the POA sections. Limitation on the area of the advertisements attached to the face of the building.	The size of the field adapts the environmental landscape and the width of the road body.
<b>Orientation</b>	-	In one road, the advertisement area has the uniformity of orientation.	Establish a good reading angle for audiences, namely motorists and pedestrians.
<b>Lighting</b>	The brightness of the LED advertisement/videotron light is stable, without flickering and no flash (no flash/no dim), so it does not dazzle the motorists and pedestrians.	According to the land use, only white-yellowish colors are allowed around office functions, airports, and hospitals. In other functions, various colors are allowed.	Sufficient and stable lighting.



	Safety	Aesthetical	Legibility
Content	Do not use instruments/sounds/sounds that are shocking/too loud.	Applying aesthetic principles.	Using written media, images, and objects that are proportional to the POA field.

Source: Analysis, 2019

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