

DESIGNING FUNCTIONAL PLANNING SOLUTIONS FOR HOTELS OF FAMILY TYPE IN UKRAINE

Chemakina O. V., Kuzmin A. O.

INTRODUCTION

The hotel industry is one of the components of the tourism industry in Ukraine¹. It is the hotel enterprises that perform one of the most important functions in the service of tourists²: they provide them with modern housing and necessary services^{3,4,5}.

Today, the social institution of the family in Ukraine needs to take urgent measures to strengthen and development⁶. The experience of the world community convincingly proves that the institutional problems of the family are more effectively resolved with the help of a specially organized system of state policy regarding the family, women, children and young people⁷.

The solution of problems in this area should be based on legislative support for creating favorable conditions for the development of the family.

¹ Kuzmin O., Pozdniakov S., Kiiko V., Akimova L. Development of quality management systems in the hotel-restaurant business. Transformational processes the development of economic systems in conditions of globalization: scientific bases, mechanisms, prospects: collective monograph ; edited by M. Bezpartochnyi, in 2 Vol ISMA University. Riga: "Landmark" SIA, 2018. Vol. 1. P. 221–232.

² Екзархова Я.Д., Кузьмін О.В. Інновації на підприємствах готельного господарства. *Наукова творчість молоді в індустрії гостинності* : матеріали 2 всеукр. наук.-практ. конф. студ., аспірант., та молод. вчен., м. Донецьк, 15–16 листопада 2012 р. Донецьк, 2012. С. 270–271.

³ Макалендра Д.А., Білоусов Д.Ю., Лівар О.В., Кузьмін О.В. Розвиток готельної індустрії в Україні. *Наукові праці Національного університету харчових технологій*. 2016. т. 22, № 4. С. 61–75.

⁴ Макалендра Д.А., Мамон Б.В., Кузьмін О.В. Тенденції розвитку готелів ділового призначення в Україні. *Проблеми управління і економіки підприємств в сучасних умовах*: матеріали XII міжнарод. наук.-практ. конф., присвяченої 85-річчю від дня народження д.е.н., проф. Чепурнова І.А., м. Київ, 26–27 травня 2016 р. Київ, 2016. С. 27–29.

⁵ Кількісна оцінка якості готельного продукту: монографія / В.Г. Топольник та ін.; за ред. В.Г. Топольник. Донецьк: ДонНУЕТ, 2013. 207 с.

⁶ Соловьєва А.В. Семья как фактор профессионального самоопределения молодежи. *Научные исследования в образовании*, 2008. № 5. С. 58–60.

⁷ Торохтий В.С. Психологическое здоровье семьи и пути его изучения долголетие. *Вестник психосоциальной и коррекционно-реабилитационной работы*, 1996. № 3. С. 36–44.

The family must effectively perform reproductive, educational, economic, social functions. At the same time, the constitutional principle of equal rights for women and men should be observed. A policy on youth employment should be implemented. You also need to take into account the prevention of child and youth crime, drug addiction, alcoholism, child neglect, and the prevention of social orphanhood^{8, 9, 10}

In order to improve the living standards of the population and harmonize the processes of its re-establishment, a strategy should be developed for the demographic development of Ukraine. The strategy should be built on the basis of the revival of the spirituality of the Ukrainian nation and national traditions. At the same time, the strategy should be based on the renewal of family values, ensuring the moral health of the family, upbringing conscious fatherhood and preventing social orphanhood.

Today, the family keeps family traditions as one of the main ways of educating and continuing themselves⁸. Family traditions bring together all the relatives in the family^{9, 10}. Family traditions do not allow children to move away from their parents and mutual misunderstanding in the family⁸. One of the elements of family traditions is family vacation, which involves a family living in a hotel¹¹.

Therefore, the appearance on the Ukrainian market of hotels that position themselves with family vacations is very important. The aim of the work is to justify the design of a family hotel. To achieve this goal it is necessary to perform several tasks: modeling the infrastructure of the hotel complex; design of functional planning decisions of the hotel and its individual elements; evaluation of the prospects of designing a family-type hotel.

⁸ Ким Т.К. Воспитательный потенциал семьи. *Педагогика, психология и медико-биологические проблемы физического воспитания и спорта*, 2008. № 11. С. 95–98.

⁹ Торохтий В.С. Психологическое здоровье семьи и пути его изучения долготлетие. *Вестник психосоциальной и коррекционно-реабилитационной работы*, 1996. № 3. С. 36–44.

¹⁰ Соловьёва А.В. Семья как фактор профессионального самоопределения молодежи. *Научные исследования в образовании*, 2008. № 5. С. 58–60.

¹¹ Кузьмін О.В., Єсяян Л.А. Передумови ефективного відпочинку та оздоровлення населення України. *Практика і перспективи розвитку еногастрономічного туризму: світовий досвід для України*. міжнар. наук.-практ. конф., м. Київ, 24 вересня 2015 р. Київ, 2015. С. 156–157.

The object of the study is the production and economic activities of the hotel industry in market conditions on the example of a family-type hotel. The subject of the study is a family hotel category 2* with a capacity of 250 seats.

The information base of the research is represented by legislative and regulatory acts of Ukraine and the WTO; data from the State Statistics Committee of Ukraine; statistical, informational, analytical, regulatory and methodological materials of the State Tourism Administration of Ukraine.

1. Designing functional planning solutions for hotels

Modern hotel of medium capacity and high level of comfort is a complex object. The hotel includes a significant number of rooms for various functional purposes^{12, 13, 14, 15, 16, 17, 18}. For the effective planning¹⁹ of the organization of hotel rooms they are grouped according to functional features^{20, 21, 22}. This allows you to organize between the rooms a clear

¹² Кількісна оцінка якості готельного продукту : монографія / В.Г. Топольник та ін.; за ред. В.Г. Топольник. Донецьк: ДонНУЕТ, 2013. 207 с.

¹³ Kuzmin O., Chernenko D., Symonova O., Velychko V. Development of elements of the quality management system of the reception and accommodation service in the hotel. *Міжнародний науковий журнал «Інтернаука»*. 2018. т. 1, № 3 (43). С. 20–24.

¹⁴ Kuzmin O., Levkun K., Riznyk A. Qualimetric assessment of diets. *Ukrainian Food Journal*. 2017. Vol. 6, Issue 1. P. 46–60.

¹⁵ Кузьмін О.В., Кійко В.В., Акімова Л.М., Бондарчук С.М. Обладнання закладів ресторанного господарства. Оцінка технічного рівня: навч. посіб. Херсон : Олді-плюс, 2018. 276 с.

¹⁶ Кузьмін О.В. Інженерне обладнання будівель: навч. посіб. з грифом МОНУ. Донецьк: ДонНУЕТ, 2014. 248 с.

¹⁷ Попович К., Кузьмін О. Розробка системи управління якістю служби Housekeeping. *Наукові здобутки молоді – вирішенню проблем харчування людства у XXI столітті*: матеріали 83 міжнар. наук. конф. молод. учен., аспірант. і студ., м. Київ, 5–6 квітня 2017 р. Київ, 2017. Ч.3. С. 268.

¹⁸ Кузьмін О.В., Попович К.В., Вознюк О.В., Лінчевська А.А. Розробка елементів системи управління якістю служби Housekeeping у готельному господарстві. *Наукові праці Національного університету харчових технологій*. 2017. Т. 23, №4. С. 61–67.

¹⁹ Поздняков С.В., Кузьмін О.В., Кійко В.В., Акімова Л.М. Інжиніринг систем внутрішньоуправлінської інформації підприємств та об'єднань : монографія. Херсон: Олді-плюс, 2018. 348 с.

²⁰ ДБН В.2.2–20:2008. Будинки і споруди. Готелі [Чинний від 2009–04–01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

²¹ ДБН В.2.2–9–99. Громадські будинки та споруди. Основні положення. [Чинний від 2000–01–01]. Київ: Держбуд України, 1999. 54 с.

technological relationship. It meets sanitary and fire requirements²³ and contributes to the convenience of operating the hotel, as well as increasing the level of comfort. When this occurs, the distribution of hotel space to functional groups (Fig. 1):

- a group of reception and lobby areas;
- a group of residential premises;
- premises of restaurant facilities;
- premises of consumer services and trade;
- premises for cultural and leisure purposes;
- premises and separate facilities for physical and recreational purposes;
- a group of administrative premises;
- a group of business, utility and engineering premises.

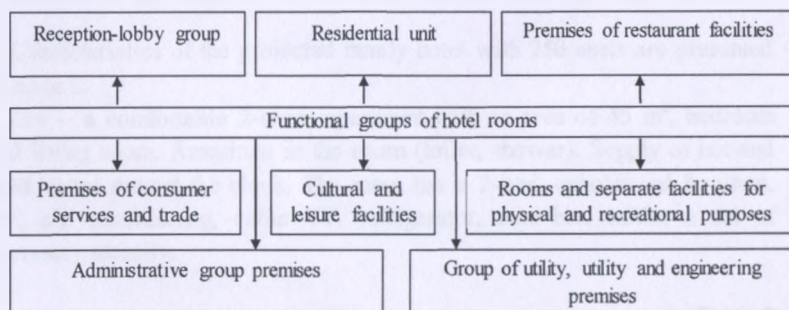


Fig. 1. Functional groups of hotel premises

Administrative and business premises provide space and conditions for managing a hotel enterprise. They provide the organization of the main technological process, engineering and technical and economic functioning of the premises. This group of premises consists of the administrative

²² ДБН В.2.2-15-2005. Жилые здания. Основные положения. [Дата введения 2006-01-01]. Киев: Государственный комитет Украины по строительству и архитектуре. 2005. 36 с.

²³ ДБН В.1.1-7-2002. Пожежна безпека об'єктів будівництва. [Дата введення 2003-05-01]. Київ: Держбуд України, 2003. 42 с.

premises of the lobby and communications, which are included in its structure^{24, 25}.

The group of public spaces provides space and conditions for the technological process of creating and organizing the consumption of a hotel product. This group of premises includes common areas, catering, trade, sports, recreational, business, entertainment, mass cultural and other functional places.

Engineering and utility rooms provide space and working conditions, food, life of the hotel staff. This group of premises ensures the functioning of engineering and technical systems of a hotel and restaurant establishment and comfortable living conditions in a hotel establishment. When this occurs, the storage of consumable resources, inventory, things. The group of engineering and utility rooms include premises for service personnel, workshops, storerooms, underwear premises and others.

The group of residential premises provides space and conditions for the provision of basic services – accommodation and meals. Residential premises are represented by rooms of different categories. Living quarters are functionally connected with household spaces.

Residential premises make up more than 50% of the total volume of the building, which are living rooms – rooms, as well as ancillary and service premises that are associated with them (Fig. 2).

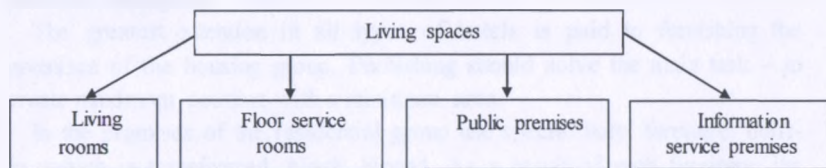


Fig. 2. The structure of the premises of the hotel housing group

Characteristics of the hotel room category 2 * are listed in table 1.

²⁴ ДСТУ 4268:2003. Послуги туристичні. Засоби розміщення. Загальні вимоги. [Чинний від 2004–07–01]. Вид. офіс. Київ: Держспоживстандарт України, 2004. 12 с.

²⁵ ДСТУ 4269:2003. Послуги туристичні. Класифікація готелів. [Чинний від 2004–07–01]. Вид. офіс. Київ: Держспоживстандарт України, 2004. 14 с.

Table 1

Characteristics of the hotel room category 2*²⁶

Name of numbers	Number Options			Weight, % of numbers of each type	Types of bathrooms	
	Number of rooms	Number of seats	Living space, m ² , no less		Basic, not less than, m ²	Additional, not less than, m ²
Lux ¹⁾	2 and more	1 (2)	30	no more than 5	3,0	2,2
Number I category	1	1 (2)	9 (12)		3,0	–
Number II category	1	2	12	not less than 25	2,2	–
Number III category	1	3	16	not less than 50	2,2	–

Note: ¹⁾ is designed with a living room of at least 16 m².

Characteristics of the projected family hotel with 250 seats are presented in table 2.

Lux – a comfortable 2-room apartment with an area of 45 m², bedroom and living room. Amenities in the room (toilet, shower). Supply of hot and cold water around the clock. The room has a 2-bed, upholstered furniture, TV, air conditioning, cable TV, refrigerator, mini-bar, kettle, a set of necessary utensils.

Table 2

Characteristics of a family hotel, category 2*, 250 seats

Name of numbers	Number of rooms	Number of rooms	Weight, % of rooms	Number of seats	Total number of places	Area of one room, m ²	Total area of rooms, m ²
Lux	1	2	2	1	2	6*6=36	72
	2	1	1	2	2	7,5*6=45	45
Number I category	1	5	5,2	1	5	6*4,5=27	135
	1	1	1	2	2	6*6=36	36
Number II	1	25	25,8	2	50	6*4=24	600

²⁶ ДБН В.2.2-20:2008. Будинки і споруди. Готелі [Чинний від 2009-04-01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

category							
Number III category	1	63	65	3	189	6*4=24	1512
Σ		97	100		250		2400

Number 1 category – a single room of 27 m², amenities in the room (toilet, shower). Supply of hot and cold water around the clock. The room has a TV, air conditioning, cable TV, refrigerator, mini-bar, a set of necessary utensils.

Number 2 category – a double room of 24 m², amenities in the room (toilet, shower). Supply of hot and cold water around the clock. The room has a bed, desk, bedside tables, TV, air conditioning, cable TV, refrigerator, a set of necessary utensils.

Number 3 category – a triple area of 24 m², amenities in the room (toilet, shower). Supply of hot and cold water around the clock. The room has three beds, bedside tables, TV, air conditioning, cable TV, refrigerator, a set of necessary utensils.

The rooms are multifunctional guest rooms. In the guest room can satisfy their needs in a dream. The room is a place of rest, meals, personal hygiene. Depending on the type of room, the guest can receive guests, as well as work. One of the important functions of the room is the storage of guest's personal belongings.

The greatest attention in all types of hotels is paid to furnishing the premises of the housing group. Furnishing should solve the main task – to create maximum comfort with a minimum area.

In the premises of the residential group use special hotel furniture: built-in, which is transformed, block, hinged. As a result of such furniture, the area under the furniture is reduced, and the number of objects is facilitated by cleaning the rooms and their aesthetic perception.

Requirements for the design of hotel rooms category 2* in accordance with the DBN V.2.2–20:2008²⁷ are presented in table 3.

²⁷ ДБН В.2.2–20:2008. Будинки і споруди. Готелі [Чинний від 2009–04–01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

Table 3

Requirements for the design of hotel rooms category 2*²⁷

Name of the indicator	Matching Room Types			
	Lux	Number 1 categori es	Number 2 categori es	Number 3 categori es
1. Number of rooms				
1.1. One living room		+	+	+
1.2. Two or more living rooms – bedroom, living room or office	+			
2. Sanitary equipment rooms				
2.1. Wash basin, bath or shower, toilet	+	+		
2.2. Washbasin and toilet, and so on			+	+
3. Equipped rooms with built-in furniture and inventory				
3.1. Wardrobe, built-in wardrobe or niche for clothes with shelves and hangers	+	+		
3.2. Wardrobe with shelves, hanger and hangers		+	+	+
4 Telephone communication				
4.1 City telephone	+		+	
4.2 Telephone in the bathroom rooms	+			
5. Electrical equipment numbers				
5.1 Lighting:				
5.1.1 General room lighting from the ceiling (wall) lamp	+	+	+	+
5.1.2 A lamp near each bed	+	+	+	+
5.1.3 Light above the sink	+	+	+	+
5.1.4 Light switch at the entrance to the room and near the head of the bed	+	+	+	+
5.1.5 Hair dryer for drying hair in the bathroom	+			
5.2 Electrical outlets:				
5.2.1 Sockets with an indication of at least two voltages per room	+	+	+	+
5.2.2 sockets in the bathroom	+	+	+	+

All rooms of the hotel have natural lighting in accordance with the requirements of DBN V.2.2-20:2008²⁸. Insolation time is not limited. The rooms are oriented towards the horizon 190–270°, with sun-blinds on the windows.

The height of housing premises (according to DBN V.2.2-9-99²⁹, DBN V.2.2-15-2005³⁰, DBN V.1.1-7-2002³¹) is 2,6 m², the hotel will have 6 floors, on the 5th floor there will be space for floor maintenance.

When designing the hotel, we selected the traditional and most mass corridor scheme.

In multi-storey hotels of medium and large capacity, a planning scheme with two parallel or circular corridors is used. With such a plan, the space along the light front of the building is fully given to accommodate residential rooms and an escape route. All utility and communication rooms are placed between the corridors in an unlit space with natural light. This technique helps to reduce the radii of service, increasing the compactness of the plan and the width of the body. In turn, this increases the resistance of a multi-storey building, reduces heat loss and operating costs.

Requirements for the design of horizontal communications of a group of residential premises: staircase and elevator halls, corridors (according to DBN V.2.2-9-99²⁹, DBN V.2.2-15-2005³⁰, DBN V.1.1-7-2002³¹). The width of the corridor is calculated taking into account that two people could pass each other with suitcases in their hands. Yes, the width of the corridor will be at least 2,2 m, as the doors of the rooms will open into a common corridor.

The main vertical communications in the hotel are the stairs and elevators. Three elevators and a mine of engineering equipment are combined into one group, which makes it possible to effectively use vertical transport and shorten the waiting time. Elevators are located close to the main staircase,

²⁸ ДБН В.2.2-20:2008. Будинки і споруди. Готелі [Чинний від 2009-04-01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

²⁹ ДБН В.2.2-9-99. Громадські будинки та споруди. Основні положення. [Чинний від 2000-01-01]. Київ: Держбуд України, 1999. 54 с.

³⁰ ДБН В.2.2-15-2005. Жилые здания. Основные положения. [Дата введення 2006-01-01]. Киев: Государственный комитет Украины по строительству и архитектуре. 2005. 36 с.

³¹ ДБН В.1.1-7-2002. Пожежна безпека об'єктів будівництва. [Дата введення 2003-05-01]. Київ: Держбуд України, 2003. 42 с.

providing a good overview and convenient approach to them from the main entrance to the hotel, as well as from the reception desk. Loading elevators is organized directly from the lobby.

The group of reception and vestibule rooms performs the functions of receiving, arranging and accommodating customers. This group of premises performs luggage storage, settlements with residing customers, issuing certificates for the hotel. In addition, there are services for ordering tickets for air and rail transport, calling a taxi, renting (renting) cars, sometimes ordering and booking rooms in hotels in other cities – countries, performing postal and telegraph services, and cash transactions.

The group of reception and lobby areas includes (table 4): the lobby, reception and check-in desk, booking desk, office and fax point, rooms of staff on duty. In addition, this group includes an office sanitary-hygienic unit, a room for the administrator on duty, a safe deposit box, a Swiss room and a porter room, a luggage room, security rooms, and messenger rooms. This block of premises includes a post office, a telephone long-distance telephone communication point, bank branches, a currency exchange office, a service bureau, a cloakroom, a porter's room, a luggage hall, an inventory pantry and a first-aid post.

The lobby is a multifunctional room. It is the main entrance to the hotel, where the reception and registration of clients, calculations with the living clients. Through the lobby on the vertical communications – stairs and elevators – living and visitors to the hotel fall on the residential floors. Sometimes they pass through the lobby to a restaurant business enterprise (restaurant, cafe, bar), to a conference room, and the like. Often the lobby is used for meetings and leisure.

The main premises of the reception-vestibule group are located around the lobby or near it. They can be placed along one, two or three sides of the lobby.

In all cases, the placement of the premises should be such as to minimize the movement of customers and staff in the lobby.

The reception and registration desk is the workplace of the hotel staff engaged in the reception and decoration of guests. For the convenience of filling out documents, chairs and tables are placed near the reception desk.

Behind the counter bureau provide for small rooms where have cabinets for documents, safes for securities and the like.

Table 4

The list of names and areas of the group of reception and lobby rooms of the hotel category 2 * with a capacity of 250 seats for the DBN V.2.2-20: 2008³²

The name of a room	The area of the hotel, m ² , not less	Note
Lobby	210	
Reception and Registration Office	10	At the lobby
Booking office	8	At the lobby
Point of operative and facsimile	6	At the booking or reception desk
Rooms of staff on duty	8	1-2 rooms
Service sanitary unit	6	Bathroom, showers, personal care room
Room duty administrator	8	
Safe	8	At the rooms of staff on duty or bank branches
Swiss and porters room	6	Near the main entrance
Luggage storage	12	
Security room	8*2	Multiple rooms allowed
Messenger room	8	
Post office	12	
Telephone call center intercity communication	8	
Bank branch, currency exchange office		Allowed to place in the office with a corresponding reduction in space
Service Bureau		Communication with business center is allowed.
Wardrobe		At the rate of service up to 10% of residents and guests
Room porter		When using the system "Porter"
Luggage lobby	At the rate of 0,1 m ² per	Recommended for serving organized streams.

³² ДБН В.2.2-20:2008. Будинки і споруди. Готелі [Чинний від 2009-04-01] Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

	guest, but not less than 12 m ²	
Room for luggage carts	Based on 3 m ² per 100 people living in a hotel, but not less than 3 m ²	In the absence of the baggage lobby and baggage handlers
Pantry inventory	Based on 3 m ² per 100 m ² of the lobby, but not less than 3 m ²	Equipped with sink and ladder
First-aid post	14	
Bathroom (separate for women and men) with sinks in sluices	For every 100 seats at least: for women – two toilets, for men – one toilet, one urinal	

Usually in the lobby organize a special area for relaxation and waiting, which is placed outside the main traffic flows, where they have furniture for recreation.

The liaison office and bank department are usually located in the lobby itself or in an isolated room conveniently connected with the lobby.

Luggage storage is used for storing hand luggage and will be equipped with racks.

The hotel at the lobby provides room for porters and baggage handlers, as well as premises for the temporary storage of luggage, which is delivered to the hotel when clients move.

2. Designing functional planning solutions for restaurants

The presence of a large number of functions associated with cooking, its implementation and catering, restaurant facilities have functional zoning of premises (Fig. 3). This involves the allocation of individual groups of premises and their relationship, which should ensure: the threading of the process; minimum length of technological, transport and human flows in order to create the most favorable conditions for consumers and workers. At

the same time, occupational health and hygiene rules and regulations must be observed.

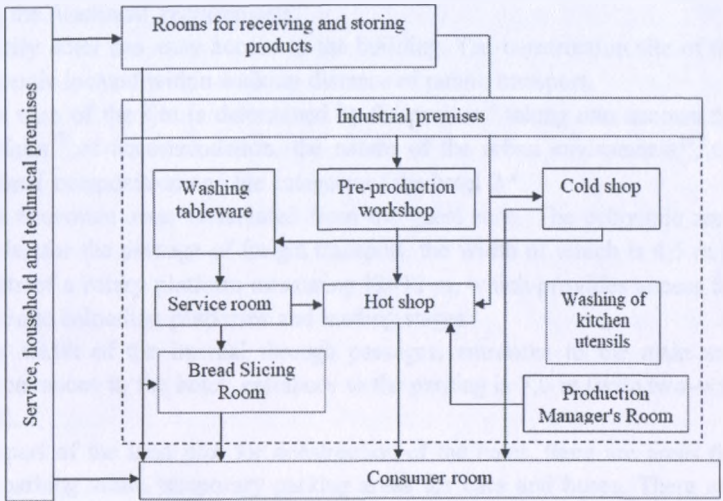


Fig. 3. Scheme of the functional relationship of the premises of restaurants in the hotel

All rooms that are part of the restaurant facilities at the hotel, depending on the functional purpose are divided into groups. These include a group of premises for receiving and storing raw materials and semi-finished products; production facility group; a group of premises for consumers; administrative and technical groups. The composition and area of the restaurant with 200 seats are presented in table 5.

Table 5

The composition and area of the restaurant with 200 seats³³

The name of a room	Area, m ²
For visitors	
Vestibule (including wardrobe and bathroom)	90
Avant hall	24
Hall in the restaurant with waiter service	320
Room for waiters	16
Production	
Hot shop	42
Cold shop	36
Bread Slicing Room	14
Pre-production workshop	32
Production Manager's Room	16
Washing tableware	30
Service set	16
Washing kitchenware	14
Distributor	40
Warehouse	
Cooled storage chambers:	
meat, fish and vegetable semi-finished products	22
dairy, fat and gastronomy	22
fruits, berries, drinks and vegetables	18
Dry goods pantry	20
Wine-Vodka Storeroom	12
Pantry inventory	10
Boot	30
Administrative and domestic	
Director's office	16
Accounting	12
Staff room	12
Wardrobe for staff	20
Wardrobe for waiters	16
Linen	12
Showers, toilets and rooms (cabins) for women's personal hygiene	8
In total at the restaurant with waiter service:	920

³³ ДБН В.2.2-20:2008. Будинки і споруди. Готелі [Чинний від 2009-04-01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

3. Engineering and construction solutions for hotel design

Planning the organization of a land plot for construction³⁴ provides a rational organization of service and the corresponding comfort to guests, meets the functional requirements³⁵.

Family hotel has easy access to the building. The construction site of the complex is located within walking distance of public transport.

The area of the site is determined by the project³⁶ taking into account the conditions³⁷ of accommodation, the nature of the urban environment³⁸, the functional composition and the category of the hotel 2 *.

The economic zone is isolated from the guest zone. The economic zone provides for the passage of freight transport, the width of which is 4,5 m. It consists of a rotary platform measuring 12×12 m, which provides access for vehicles to unloading platforms and landing stages.

The width of the internal through passages, entrances to the main and other entrances to the hotel, entrances to the parking is 7,0 m (with two-way traffic).

As part of the land plot for construction of the hotel, there are areas for kids, parking areas, temporary parking areas for cars and buses. There are also ordered areas in front of the entrances to the premises of public and residential purposes (at the rate of not less than 0,2 m² per inhabitant – 50 m² for 250 hours).

When designing buildings and structures, sanitary requirements³⁹ are taken into account. Residential rooms provide natural light and insolation.

³⁴ Чемакіна О.В., Кравченко О.В. Принципи архітектурно-планувальної організації відкритих міських просторів з порушеними територіями. *Архітектура. Будівництво. Дизайн*. тези доп. II міжнар. наук.-практ. конгресу (м. Київ, 15–18 березня 2016 р.). Київ, 2016. С. 19–20.

³⁵ Chemakina O.V., Lysiuk I.A. Theoretical modeling as a research method of a relaxation center at the airport. *Safety in Aviation and Space Technologies*: the sixth world congress aviation in the XXI-st century (Kyiv, 23–25 september 2014). Kyiv, 2014. Vol. 3. P. 10.21–10.25.

³⁶ Чемакіна О.В., Агеєва Г.М. Інженерний благоустрій населених міст: навч. посіб. Київ: НАУ. 2017. 168 с.

³⁷ Радюк А.Я., Чемакіна О.В. Особливості формування громадського простору. *Архітектура та екологія*: матеріали V міжнар. наук.-практ. конф. м. Київ, 29–30 жовтня 2013 р. Київ. 2013. С. 61–64.

³⁸ Чемакіна О.В., Бармашина Л.М. Теоретичні та методичні основи архітектури і містобудування: навч.-метод. посіб. Київ: НАУ. 2006. 153 с.

The orientation of warehouses and main production premises to the northern part of the horizon, shopping areas – to the southern part⁴⁰.

Functional requirements include the creation of optimal conditions for the operation of the building and the maintenance of tourists⁴¹.

Space-planning decisions (table 6). The building is a six-story semi-frame type with bearing external walls and internal precast concrete frame.

Table 6

Output for project development

The name of indicators	Enterprise indicators
Business name	Family hotel
Characteristics of the enterprise	hotel – 250 seats; 97 rooms; restaurant – 200 places; pizzeria – 30 places; lobby bar – 20 seats.
Type of construction	Capital
Capital class	II class
Constructive scheme	Incomplete frame
Number of floors	6 floors
Floor height	2,6 m

On the ground floor there is a reception and vestibule group of premises, a group of consumer services and trade enterprises, administration and operating services, a restaurant with utility rooms.

On the 2–6 floors there is a group of residential premises: 2 rooms Lux single; 1 suite double room; 5 rooms of 1 category of single; 1 number 1 category double; 25 rooms 2 categories of double; 63 rooms 3 categories of triple.

This enterprise is designed as a publicly accessible enterprise, because the entrance to the enterprise is located on the front side of the building. For communication between the floors there are 2 stairs. The main staircase is for consumers and service is for workers. The staircase feature is a two-

³⁹ Вступ до будівельної справи: навч. посіб. / В.М. Першаков та ін.; за заг. ред. В.М. Першакова. Київ: НАУ, 2016. 122 с.

⁴⁰ Архітектурне проектування: навч. посіб. / О.В. Чемакіна та ін. Київ: НАУ, 2016. 300 с.

⁴¹ Кількісна оцінка якості готельного продукту: монографія / В.Г. Топольник та ін.; за ред. В.Г. Топольник. Донецьк: ДонНУЕТ, 2013. 207 с.

march ladder enclosed in stairwells (march width 1200 mm). For transportation of goods between floors, a freight elevator (elevator) with a carrying capacity of 500 kg is foreseen.

Corridors and aisles are designed with a width of at least 1,3 m. The location of the doors and their number is definitely from the conditions of convenience directions of different rooms. All doors are hinged, with orientation towards the exit. The width of the entrance doors is determined from the calculation of 1,2 m per 100 consumers, therefore for 250 consumers – 3 m.

Structural elements of the house. The main constructive calculations in the design of the hotel – a grid of columns (3+6)*6, the column spacing is 3 meters, and 6 meters.

Foundations. Under the external bearing walls, strip foundations of concrete blocks of 600x600x2400 mm are foreseen. Blocks are enclosed on reinforced foundation pillow blocks of 300x1200x2400 mm in size. The depth of laying the bottom of the foundation is 1200 mm from the soil surface, that is, below the freezing depth of 760 mm. Under the columns adopted prefabricated reinforced concrete foundations type of glass, a typical series of II-04.

Columns. Columns – reinforced concrete, rectangular section with the size of 300x300 mm, two-console, two floors high of a typical II-04 series.

Crossbars. Adopted precast concrete bolts typical series II-04. The arrangement of crossbars is transverse.

Walls. The external bearing walls are made of red facing bricks for jointing. The thickness of the walls is determined by the resistance of heat transfer and strength and is 510 mm. The internal walls are not bearing the thickness of 380 mm. Partitions made of bricks with a thickness of 120 mm.

Overlap. Intermediate floors precast reinforced concrete ribbed. For floors, flat hollow-core slabs with a bearing capacity of up to 1000 kg/m² are used. Plates of the type PTK according to the II-04 series with the size of 220x150x6000 mm are mounted on the flanges of the crossbars. Floors are laid on the floors, the coverage of which depends on the purpose of the premises.

Windows, doors. In the trading rooms using metal weaving with sophisticated glazing. The distance from the floor to the window sill is 0,8–0,9 m. In the windows of all rooms transom are provided.

External doors open to the exit. The doors of the storage, loading and production premises are projected to be less than 1,0 m wide. The doors of the cooling chambers are 0,9 m.

Roof. The building has a flat combined coating, with internal drainage of rain and melt water. Coating composition: vapor barrier, expanded clay coarse grained, cement screed, euroroofing material are laid on the reinforced concrete floor.

In the parapet there are holes for roof ventilation. On the ridge every 4–5 m install exhaust ventilation shafts. Such a roof device provides a constant mode of insulation, which dries.

Suggestions for design. Surface treatment of internal space meets the requirements of hygiene, individuality, durability, efficiency, ease of use, aesthetics.

In the interiors of the hotel rooms created a comfortable, aesthetically complete atmosphere. The widest range of individual materials, both new (based on polymers) and traditional ones, has been applied. The walls were painted with emulsion, enamel, oil paints, wall coverings with designer wallpapers.

Laminated parquet, ceramic tiles and linoleum are used for the floor.

Processing of the ceiling is made using a false ceiling of PVC film on two levels, which reduces the noise of the rooms.

The interior of the rooms is made in a classic style. In this style, selected chairs, tables and all the furniture. The covering on beds and curtains is made of fabrics in one color range with a pattern. The walls are decorated with paintings of the city.

In the production premises, hygiene and durability are of primary importance.

The color is adapted to the orientation of the premises. In the premises oriented to the south side, as a rule, cold tones predominate; northern orientation – warm colors.

In the premises of long-term stay (production facilities, halls of enterprises of restaurant industry) are mostly reserved color scheme. In the lobbies, corridors, and halls, the color processing is more intense than in the halls.

CONCLUSIONS

In this paper, a study was conducted to substantiate the feasibility and prospects of designing hotels of family type in Ukraine.

In the work modeling infrastructure of the hotel complex is carried out. The design of functional planning solutions of the hotel and its individual elements was carried out. In the work, conclusions are made on the prospects of the construction of family-type hotels.

SUMMARY

Today, the family keeps family traditions as one of the main ways of educating and continuing themselves. Family traditions bring together all the relatives in the family. Family traditions do not allow children to move away from their parents and mutual misunderstanding in the family. One of the elements of family traditions is family vacation, which involves a family living in a hotel.

Therefore, the appearance on the Ukrainian market of hotels that position themselves with family vacations is very important. The aim of the work is to justify the design of a family hotel. To achieve this goal it is necessary to perform several tasks: modeling the infrastructure of the hotel complex; design of functional planning decisions of the hotel and its individual elements; evaluation of the prospects of designing a family-type hotel.

The object of the study is the production and economic activities of the hotel industry in market conditions on the example of a family-type hotel. The subject of the study is a family hotel category 2 * with a capacity of 250 seats.

REFERENCES

1. Chemakina O.V., Lysiuk I.A. Theoretical modeling as a research method of a relaxation center at the airport. *Safety in Aviation and Space Technologies*:

the sixth world congress aviation in the XXI-st century (Kyiv, 23–25 september 2014). Kyiv, 2014. Vol. 3. P. 10.21–10.25.

2. Kuzmin O., Pozdniakov S., Kiiko V., Akimova L. Development of quality management systems in the hotel-restaurant business. *Transformational processes the development of economic systems in conditions of globalization: scientific bases, mechanisms, prospects*: collective monograph; edited by M. Bezpartochnyi, in 2 Vol. ISMA University. Riga: «Landmark» SIA, 2018. Vol. 1. P. 221–232.

3. Kuzmin O., Levkun K., Riznyk A. Qualimetric assessment of diets. *Ukrainian Food Journal*. 2017. Vol. 6, Issue 1. P. 46–60.

4. Kuzmin O., Chernenko D., Symonova O., Velychko V. Development of elements of the quality management system of the reception and accommodation service in the hotel. *Міжнародний науковий журнал «Інтернаука»*. 2018. т. 1, № 3 (43). С. 20–24.

5. Архітектурне проектування : навч. посіб. / О.В. Чемакіна та ін. Київ: НАУ. 2016. 300 с.

6. Вступ до будівельної справи : навч. посіб. / В.М. Першаков та ін.; за заг. ред. В.М. Першакова. Київ: НАУ, 2016. 122 с.

7. ДБН В.2.2–20:2008. Будинки і споруди. Готелі. [Чинний від 2009–04–01]. Київ: Міністерство регіонального розвитку та будівництва України, 2009. 54 с.

8. ДБН В.2.2–9–99. Громадські будинки та споруди. Основні положення. [Чинний від 2000–01–01]. Київ: Держбуд України, 1999. 54 с.

9. ДБН В.2.2–15–2005. Жилые здания. Основные положения. [Дата введенья 2006–01–01]. Киев: Государственный комитет Украины по строительству и архитектуре. 2005. 36 с.

10. ДБН В.1.1–7–2002. Пожежна безпека об'єктів будівництва. [Дата введенья 2003–05–01]. Київ: Держбуд України, 2003. 42 с.

11. ДСТУ 4268:2003. Послуги туристичні. Засоби розміщення. Загальні вимоги. [Чинний від 2004–07–01]. Вид. офіц. Київ: Держспоживстандарт України, 2004. 12 с.

12. ДСТУ 4269:2003. Послуги туристичні. Класифікація готелів. [Чинний від 2004–07–01]. Вид. офіц. Київ: Держспоживстандарт України, 2004. 14 с.

13. Екзархова Я.Д., Кузьмін О.В. Інновації на підприємствах готельного господарства. *Наукова творчість молоді в індустрії гостинності* : матеріали 2 всеукр. наук.-практ. конф. студ., аспірант., та

молод. вчен., м. Донецьк, 15–16 листопада 2012 р. Донецьк, 2012. С. 270–271.

14. Кількісна оцінка якості готельного продукту: монографія / В.Г. Топольник та ін.; за ред. В.Г. Топольник. Донецьк: ДонНУЕТ, 2013. 207 с.

15. Ким Т.К. Воспитательный потенциал семьи. *Педагогика, психология и медико-биологические проблемы физического воспитания и спорта*, 2008. № 11. С. 95–98.

16. Кузьмін О.В. Інженерне обладнання будівель : навч. посіб. з грифом МОНУ. Донецьк: ДонНУЕТ, 2014. 248 с.

17. Кузьмін О.В., Кійко В.В., Акімова Л.М., Бондарчук С.М. Обладнання закладів ресторанного господарства. Оцінка технічного рівня: навч. посіб. Херсон: Олді-плюс, 2018. 276 с.

18. Кузьмін О.В., Попович К.В., Вознюк О.В., Лінчевська А.А. Розробка елементів системи управління якістю служби Housekeeping у готельному господарстві. *Наукові праці Національного університету харчових технологій*. 2017. т. 23, №4. С. 61–67.

19. Кузьмін О.В., Єсаян Л.А. Передумови ефективного відпочинку та оздоровлення населення України. *Практика і перспективи розвитку еногастрономічного туризму : світовий досвід для України: міжнар. наук.-практ. конф., м. Київ, 24 вересня 2015 р. Київ, 2015. С. 156–157.*

20. Макалендра Д.А., Мамон Б.В., Кузьмін О.В. Тенденції розвитку готелів ділового призначення в Україні. *Проблеми управління і економіки підприємств в сучасних умовах: матеріали XII міжнарод. наук.-практ. конф., присвяченої 85-річчю від дня народження д.е.н., проф. Чепурнова І.А., м. Київ, 26–27 травня 2016 р. Київ, 2016. С. 27–29.*

21. Макалендра Д.А., Білоусов Д.Ю., Лівар О.В., Кузьмін О.В. Розвиток готельної індустрії в Україні. *Наукові праці Національного університету харчових технологій*. 2016. т. 22, №4. С. 61–75.

22. Поздняков С.В., Кузьмін О.В., Кійко В.В., Акімова Л.М. Інжиніринг систем внутрішньоуправлінської інформації підприємств та об'єднань: монографія. Херсон: Олді-плюс, 2018. 348 с.

23. Попович К., Кузьмін О. Розробка системи управління якістю служби Housekeeping. *Наукові здобутки молоді – вирішенню проблем харчування людства у XXI столітті: матеріали 83 міжнар. наук. конф. молод. учен., аспірант. і студ., м. Київ, 5–6 квітня 2017 р. Київ, 2017. Ч. 3. С. 268.*

24. Радюк А.Я., Чемакіна О.В. Особливості формування громадського простору. *Архітектура та екологія* : матеріали V міжнар. наук.-практ. конф. м. Київ, 29–30 жовтня 2013 р. Київ. 2013. С. 61–64.

25. Соловьєва А.В. Семья как фактор профессионального самоопределения молодёжи. *Научные исследования в образовании*, 2008. № 5. С. 58–60.

26. Торохтий В.С. Психологическое здоровье семьи и пути его изучения долголетие. *Вестник психосоциальной и коррекционно-реабилитационной работы*, 1996. № 3. С. 36–44.

27. Чемакіна О.В., Агеєва Г.М. Інженерний благоустрій населених міст: навч. посіб. Київ: НАУ. 2017. 168 с.

28. Чемакіна О.В., Бармашина Л.М. Теоретичні та методичні основи архітектури і містобудування: навч.-метод. посіб. Київ: НАУ. 2006. 153 с.

29. Чемакіна О.В., Кравченко О.В. Принципи архітектурно-планувальної організації відкритих міських просторів з порушеними територіями. *Архітектура. Будівництво. Дизайн* : тези доп. II міжнар. наук.-практ. конгресу (м. Київ, 15–18 березня 2016 р.). Київ, 2016. С. 19–20.

Information about authors:

Chemakina O. V.,

PhD in Architecture, Associate professor,
Director of Academic and Research Institute of Airports,
National Aviation University
1, Kosmonavta Komarova Prosp., Kyiv, 03058, Ukraine

Kuzmin A. O.,

Student of Academic and Research Institute of Airports,
National Aviation University
1, Kosmonavta Komarova Prosp., Kyiv, 03058, Ukraine