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FORMATION STREAMS CONTINUOUS DEVELOPMENT FRONTS WORKS OF THE COMPLEX TOWN-PLANNING POWER RECONSTRUCTION

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"After the victory in Ukraine, the process of rebuilding and restoring the housing and social infrastructure of communities will begin, which should be based on a comprehensive approach. In particular, we must take care not only of the restoration of objects that were destroyed or damaged as a result of the war, but also of the outdated housing stock, which has long since exhausted its operational resource. The adoption of a new draft law on the complex reconstruction of outdated housing will allow local self-government bodies to start planning the renewal of the housing stock in communities in the context of comprehensive post-war reconstruction," noted Nataliya Kozlovska [1].

This draft law was developed and supported by the Government last year, and the Verkhovna Rada approved it in the first reading in September of this year. Therefore, during the preparation for the second reading, it is necessary to change the emphasis in the document related to the reconstruction of housing destroyed or damaged as a result of hostilities.

In particular, document [1]:

– introduces an algorithm for making a decision on the reconstruction of outdated housing;

– provides for the reconstruction of not only multi-apartment buildings, but also existing objects of social and transport infrastructure, which are located within the boundaries of the quarter, which is subject to reconstruction;

– improves the compensation procedure for owners of outdated housing;

– provides for various options for resettlement of residents of the quarter during reconstruction;

– determines measures for the reconstruction of a block or microdistrict: reconstruction of apartment buildings, in particular modernization, with or without the removal of residents or the demolition of an apartment building;

– expands the list of sources of financing reconstruction projects.

Therefore, the reconstruction of residential facilities will be carried out according to the new building regulations, which provide for aspects of energy efficiency, accessibility, creation of the necessary infrastructure conditions, etc. In the future, this will significantly reduce housing maintenance costs.

As one of perspective forms of integration various complexes act in town-planning structure; in the course of formation of plans of social and economic development of large cities even more often there is a situation when for increase of efficiency used financial, material and a manpower concentration of efforts, but also new progressive forms of the organization of building manufacture – corporate, scientific and technical is necessary not simply, power efficiency [2…4].

Any complex works can be executed various methods with different terms of the beginnings and the terminations works, with different character use resources and development private fronts of works and according to technical and economic indicators different in size. Basically methods calculation the organization works are defined taking into account the restrictions imposed on communication between works.

The line method the organization works is formed by means of spatial division the general front works into private front works and parallel performance into them polytypic private streams works.

Line methods the organization works can be calculated in the different ways, therefore they have received names of methods calculation the organization works. We will consider a method of continuous development fronts works (M-CDF).

For calculation formation streams on method M-CDF we will consider the line organization of works presented by matrix durations and the schedule internal painting and decorating, at reconstruction of buildings of historical building Odessa under standards power efficiency.

On four building objects, defined as private fronts of works, are carried out four kinds of works in rigid technological sequence (A→B→C→D) on each object: plaster works (index A), priming works (index B), underpaint putty works (index C) and works on colouring (index

D). The sequence development private fronts works also is fixed by the following sequence: 1→2→3→4.

Each kind of work is carried out by constant cast which pass to the following object only after the full termination work on previous object. If the given complex works was carried out by a consecutive method its minimum duration would be equal to the sum of durations of all works entering into a given complex:

$$T = 7 + 9 + 6 + 8 + 2 + 3 + 2 + 3 + 13 + 17+$$
$$+ 11 + 15 + 5 + 8 + 4 + 6 = 119 \text{ days.}$$

For the line organization works at performance any work on any object performance two obligatory conditions is required:

1) the termination the given kind of work a resource on previous object (resource readiness of executors);

2) the termination a previous kind of work on the given object (technological readiness private front of work).

At formation of schedules works the primary goal consists in calculation terms manufacture works or, otherwise, terms the beginnings and the terminations works.

For the given stream as restriction is entered maintenance continuous development each private front of work (a zero stretching face-to-face communications), and as criterion function - the greatest possible rapprochement adjacent fronts works.

For a conclusion of the basic settlement formulas the size carrying the name of the period expansion which defines a difference between the beginning the subsequent work on private front I and the beginning of previous work on the same front - Tpj, j+1 is entered into consideration. Clearly, that the work first in a technological order is not preceded by any other work and, hence, its beginning is accepted by the zero. Thus, having defined the beginning the first work and the corresponding period of expansion the second work, it is possible to calculate the beginning its manufacture on private front I etc. (on an induction) before definition the beginning last kind of work.

Having calculated the beginning of last work taking into account restriction on a continuity performance of works, it is possible to define the general duration of all complex works under the formula (1):

$$T = \sum_{j=1}^{n-1} T_{j,j+1}^p + \sum_{i=1}^{m} t_{n,i}$$

,

(1)

Where $Tp_{j, j+1}$ - the period expansion the subsequent front of work concerning previous; *m* - the general number kinds of works (a current serial index, *i*); *n* - the general number fronts of works (a current serial index, *j*); $t_{n,i}$ - duration *i* works on last private front.

For definition of values the period expansion the subsequent fronts of works we will take advantage a condition (2) at which prior to the beginning any simple work, work the same kind previous on front should be executed:

$$T_{j,j+1}^{p} = \max_{i=1,m} \sum_{k=1}^{i} \left(t_{j,k} - t_{j+1,k-1} \right), \qquad (2)$$

Where $t_{j+1,0}$ - the operation time a zero kind equal to zero.

It is offered to create in the city Odessa "the Corporate scientific and technical complex town-planning power reconstruction "CSTC T-PPR", as the innovative organizational structure using in practice the saved up scientific and technical potential for reconstruction buildings historical building of Odessa under standards power efficiency.

Formation of streams (in the matrix form) on a method of continuous development of fronts of works (M-CDF), as line method calculation the planned schedule performance internal painting and decorating of the Corporate scientific and technical complex town-planning power reconstruction "CSTC T-PPR" is executed. The considered method calculation a building stream effectively to apply in need delivery in operation building objects in limiting deadlines.

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БАЗОВІ ЕЛЕМЕНТИ МОДЕЛІ АНТИКРИЗОВОГО УПРАВЛІННЯ ПІДПРИЄМСТВОМ

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Порушення виробничих зв'язків, розрив ланцюгів постачання сировини, втрата ринків збуту готової продукції та інші причини, що виникли в умовах сьогодення, приводять підприємства до економічної кризи. На жаль, невід'ємним атрибутом сучасності є суттєве зростання традиційних та поява якісно нових викликів та загроз, що визначають кризовий стан підприємств і вимагають адекватного реагування за допомогою антикризового управління.

З огляду на це є необхідність в ефективному антикризовому управлінні діяльністю підприємства з метою запобігання та усунення фінансових загроз та ризиків, швидкого виходу із криз для мінімізації негативних наслідків.

Виявлення симптомів та ознак кризових явищ з часом має стати основою антикризового управління будь-якого підприємства.

Антикризове управління це системна робота, розрахована на тривалий період. І вона значною мірою пов'язана із управлінням змінами. Щоб отримати бажаний результат у заплановані терміни, необхідно використовувати модель антикризового управління.

Розвиток адаптованої моделі антикризового управління підприємств із урахуванням світового досвіду диктує необхідність формування збалансованої системи формулювання управлінських рішень, диференційованих залежно від стадії кризи: запобігання – нівелювання - вихід [1]. Протидіючі, адаптивні та наступальні важелі та інструменти повинні бути додані до цих етапів, які можуть не лише запобігти і подолати кризу, але також перетворять його на додаткові можливості та посткризові результати.