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LIFE CYCLE MANAGEMENT OF CONSTRUCTION FACILITIES

DEVELOPMENT OF TOOLS OF URBAN PLANNING DEPARTMENT

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The article deals with urban planning management from the standpoint of territorial planning and urban planning organization. In accordance with the goals of urban planning management, factors are proposed with the designation of priority areas. The indicators for assessing the capacity of the territory in the development of tools for urban planning management are proposed. A scheme for the mutual placement of urban areas has been developed

Keywords: urban planning, urban planning management, territorial planning, urban planning organization, territory capacity, dominant object

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TECHNOLOGY AND ORGANIZATION OF CONSTRUCTION

THERMAL AND HYDRODYNAMIC STUDIES OF A MODIFIED PLATE HEAT EXCHANGER

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A method of intensifying the heat exchange process in a plate heat exchanger is considered by using original plates with spherical recesses located on the sites between adjacent corrugations in a staggered manner and having different diameters according to a linear law. To confirm the increase in the efficiency of the heat exchange process, thermal and hydrodynamic studies of the heat exchanger with modified plates were performed

Keywords: plate heat exchanger, spherical recesses, heat exchange intensification, heat transfer coefficient.

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DETERMINATION OF RELIABILITY OF TRANSPORT FACILITIES WITH AMBIGUITY OF THEIR DIAGNOSTICS

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The article discusses methods of inspection of the structure of transport structures in order to predict structural defects. The main disadvantages of various diagnostic methods in determining their reliability are identified. Solutions to eliminate deficiencies by introducing acoustic measurements correlated with measurements of radio frequency methods and expressed in the relationship between acoustic and elastic parameters are presented.

Keywords: highways, diagnostics of transport structures, shock diagnostic methods, vibrometry

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HIGHLY DEFORMATIVE MATERIALS OF CEMENT CONCRETE COATING JOINTS AND THEIR RHEOLOGY

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The article deals with the problem of weakening the bearing properties of the artificial base of structural elements of transport structures under the influence of operational loads. The results of modeling and subsequent calculation of the mechanical properties of the sealing material are presented.

Keywords: highways, transport structures, sealing material, monolithic reinforced concrete, tape sealer

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URBAN PLANNING, PLANNING OF RURAL SETTLEMENTS

SUNNY CITY – ARCADAG

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The article obtained systematized, scientifically substantiated gross, technical, economic and environmental energy resource potentials from the introduction and use of solar energy technologies. The technical, economic, environmental priorities of power plants were assessed in terms of energy efficiency, fuel economy, environmental impact per square meter from conversion into heat and electricity in the city of Arkadag. Empirical formulas have been obtained for the introduction of solar energy technological facilities and the preparation of design estimates

Keywords. Solar energy, resource potential, green technology, energy efficiency, Arkadag city, Turkmenistan

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ENVIRONMENTAL SAFETY OF CONSTRUCTION AND URBAN ECONOMY

IMPROVING THE ENVIRONMENTAL SAFETY OF HEAT ENERGY PRODUCTION SOURCES IN AN URBAN ENVIRONMENT

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Currently, an urgent task is to increase the environmental friendliness of thermal energy generation processes, especially in an urban environment. The article discusses the issues of environmental protection. An innovative design of the chimney nozzle is proposed, which implements the process of cleaning flue gases from nitrogen oxides, sulfur oxides and carbon oxides in the adsorption nozzle of the chimney nozzle. As an adsorbent, the authors propose to use an effective, cheap and affordable adsorbent - pellets of slag pumice (granular blast furnace slag).

Keywords: thermal power plants, atmosphere, purification, utilization, flue gases, nitrogen oxides, carbon oxides, sulfur oxides, harmful components, ecology, adsorbent, granular blast furnace slag, efficiency, urban environment.

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SYSTEM ANALYSIS, MANAGEMENT AND INFORMATION PROCESSING (IN CONSTRUCTION AND ARCHITECTURE)

THE USE OF GIS SYSTEMS AS A DECISION-MAKING TOOL FOR THE PLACEMENT OF URBAN DEVELOPMENT OBJECTS

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This article discusses the method of solving one of the complex and difficult-toformalize multi-criteria tasks when placing objects in an urban environment - the rationale for decision-making. It is advisable to use scientific methods of system analysis and decision theory. Due to the large amount of open and accessible information for analysis and the active development of geoinformation systems, it has become

possible to use this data to solve various urban planning tasks in terms of justifying the placement of objects of any purpose (from residential to industrial) and organizing information support for the process.

Keywords: objects of urban planning, system analysis, justification of decision-making, GIS systems, information processing

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