SATBAYEV UNIVERSITY	**NON-PROFIT JOINT-STOCK COMPANY "KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K.I. SATBAYEV"**	
QMS Level 2 Document	Documented Procedure Revision №4 From «17» 12_2025y.	DP KazNRTU 603

INFRASTRUCTURE MANAGEMENT

DP KazNRTU 603

Almaty 2025

PREFACE

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4 IMPLEMENTED uperseding the previous revision№2 from 26.09.2022 year

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INFRASTRUCTURE MANAGEMENT

Documented Procedure № 603

1 General Provisions

1.1 This procedure, "Infrastructure Management," has been developed to ensure and maintain the operational condition of the University's facilities, as well as to create the necessary infrastructure that allows achieving the proper quality of educational and other core and auxiliary processes at the Non-profit Joint Stock Company "Kazakh National Research Technical University named after K.I. Satbayev" (hereinafter – the University).

1.2 The requirements of this procedure apply to the University's material and technical base and technical means (TM), including:

– educational buildings, dormitories, administrative buildings, and premises;

– engineering systems of buildings and facilities (electricity, heating and water supply, wastewater disposal, elevator systems);

– furniture and inventory;

– vehicles, machinery, tools, and equipment;

– communication and telecommunication systems;

1.3 All work under this procedure is supervised by the Vice-Rector for Science and Corporate Development, the Director of the Construction Department (CD), and the Director of Service Maintenance (SM), or by their deputies upon assignment.

1.4 This procedure is mandatory for implementation by all structural units, officials, and employees of the Construction Department (CD) and the Service Maintenance Department (SM).

1.5 This procedure is an internal regulatory document of the University and shall not be disclosed to external parties, except to auditors of certification bodies during management system audits, as well as to consumer-partners (upon their request) with the permission of the University's management.

2 Normative References

The activities of the Construction Department (CD) and the Service Maintenance Department (SM) are regulated by the following normative documents:

– The Constitution of the Republic of Kazakhstan dated August 30, 1995;

– Law of the Republic of Kazakhstan "On Education" dated July 27, 2007, No. 319-III ЗРК;

– Law of the Republic of Kazakhstan "On Combating Corruption" dated November 18, 2015, No. 410-V ЗРК;

– Law of the Republic of Kazakhstan “On State Property” dated March 1, 2011, No. 413-IV;

– Law of the Republic of Kazakhstan “On Joint Stock Companies” dated May 13, 2003, No. 415-II;

– Law of the Republic of Kazakhstan “On Non-Commercial Organizations” dated January 16, 2001, No. 142-II;

– International standards of the ISO 9001 series and ISO/МЭК 17025;

– the fundamentals of economics, labor legislation, occupational health and safety rules and regulations, safety engineering, sanitary regulations, and fire safety standards and requirements;

– Anti-Corruption Strategy of the Republic of Kazakhstan for 2015–2025;

– Anti-Corruption Standard for Ensuring Transparency and Openness in Organizations, approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan dated May 4, 2020;

– Charter of the Non-profit Joint Stock Company “Kazakh National Research Technical University named after K.I. Satbayev”;

– Resolutions and Orders of the Cabinet of Ministers of the Republic of Kazakhstan;

– Quality Policy of the Non-profit Joint Stock Company KazNRTU named after K.I. Satbayev;

– Qualification Directory of Positions for Managers, Specialists, and Other Employees, approved by the Order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated December 30, 2020, No. 553;

– Uniform norms for material consumption in the administrative and economic sector;

– Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK “On Public Health and the Healthcare System”

– Orders and directives of the Board Chairman Rector of KazNRTU named after K.I. Satbayev.

3 Planning of Infrastructure Management and Maintenance Activities

3.1 For managing and maintaining the infrastructure in working condition, the Construction Department (CD) and the Service Maintenance Department (SM) develop current and long-term development plans. The plans are prepared based on:

– requests received from the University’s structural units for carrying out current and major repairs;

– reports from the annual inspection of the University’s buildings, engineering equipment, and networks;

– received directives and current requirements from state authorities, higher-level organizations, and governmental supervisory bodies;

– decisions of the University's governing bodies (Rectorate, Academic Council of the University) regarding the implementation of construction and repair works for the development of the material and technical base.

3.2 The Construction Department (CD) and the Service Maintenance Department (SM) develop and prepare planned projects for the acquisition or lease of technical means (hereinafter – TM) and submit them for consideration to the University's management. If necessary, the following are additionally performed:

– calculations of the efficiency of acquiring or leasing technical means (TM);

– proposals for the selection of technical means (TM) and their subsequent use;

– studies of suppliers regarding transportation, installation and commissioning, and personnel training;

– reports for meetings.

3.3 Successful management of the University's infrastructure is ensured by the following units of the Directorate of Facilities (DC): the Engineering and Construction Service, the Training and Production Workshop, the Directorate of Facility Operations (SM), the Operations Service, and the Technical Service.

3.4 The University management reviews draft plans for the procurement or leasing of motor vehicles, taking into account:

– the University's financial capacity;

– the University's goals and policies;

– information on the existing vehicles;

– technical specifications;

– occupational safety and environmental requirements;

– cost-effectiveness assessments of purchasing or leasing vehicles, as well as other technical information.

3.5 Based on the results of the review of the vehicle acquisition plans, the plan is either approved or returned for revision taking into account the management's comments.

4 Planning of Vehicle Maintenance and Repair Work

4.1 To maintain the University's infrastructure, activities for the scheduled maintenance and repair of vehicles are developed and carried out.

4.2 The development of plans for vehicle maintenance and repair activities is carried out by the DC and SM services (engineering systems that provide buildings and facilities with heating and water supply, electricity, furniture and equipment, uninterrupted internet, and telephone communication).

4.3 In developing the plans, the DC and SM are guided by:

– the vehicle's registration data regarding operation, maintenance, and preventive repairs;

– the type and frequency of required maintenance and preventive repairs planned preventive measures;

– the availability of the University's production facilities, specialists, or other internal resources for vehicle repair;

– the capabilities and distance of service providers for vehicle maintenance;

– the requirements of government authorities for vehicles;

– government regulations and schedules for mandatory vehicle inspections;

– government requirements in the areas of safety, occupational health, fire protection, and environmental protection;

– the warranty obligations of vehicle suppliers for their repair;

– records of vehicle resource usage in appropriate units (engine hours, mileage, number of cycles, etc.);

– data from the commission on the inspection of the vehicles' technical condition;

– information on the stock of spare parts and consumables for vehicles;

– the need for vehicle decommissioning due to the end of service life, irreparability, or obsolescence;

– the need for consumables and spare parts;

– the need for the procurement of service contracts, and so on.

4.4 Before being approved, vehicle maintenance and repair plans are thoroughly reviewed by the University management and, if necessary, revised.

5 Maintenance and Preventive Work for Infrastructure Support

5.1 To carry out maintenance and preventive work for the University's infrastructure, a schedule for inspections is prepared (Form KazNRTU 603-01), and inspections of the technical and sanitary condition of buildings, facilities, and engineering networks are conducted within the established deadlines. Daily rounds and inspections are performed to identify malfunctions and violations. The technical condition of buildings, facilities, and engineering networks is monitored for compliance with technical and sanitary requirements. Based on the inspections, defect reports are prepared (Form KazNRTU 603-02) and a log of inspection results for the technical condition of buildings, facilities, and engineering networks is maintained (Form KazNRTU 603-03).

5.2 The maintenance of sanitary and hygienic conditions inside the academic buildings and on the adjacent University grounds is carried out by the Transport and Operations Department of the SM. Each academic building is assigned a superintendent and a team of service personnel (janitors and cleaners).

5.2.1 The superintendent of the academic building organizes the full range of tasks to maintain the adjacent and assigned grounds using the available janitorial staff; inside the academic buildings, cleaners ensure the maintenance of sanitary and hygienic conditions in accordance with the sanitary norms and rules of the SET of the Republic of Kazakhstan.

5.2.2 The University concludes service contracts with municipal services and external organizations to ensure the removal of solid household waste, disinfection, pest control, dry cleaning, exterior window washing at significant heights, and similar services.

5.3 Repair Work for Routine or Major Overhauls. The Engineering and Construction Service (ECS) of the DC prepares a defect report (Form KazNRTU 603-02), based on which an estimate and a schedule for the planned repair are developed (Form KazNRTU 603-04). If outsourcing is used, a procedure is carried out to select a contractor (the contracting organization is determined). The selection of contracting organizations is conducted in the prescribed manner in accordance with the current regulations.

– The ECS of the DC supervises the obtaining of permits and approvals from municipal services for new construction projects;

– The ECS of the DC oversees construction and participates in the commissioning of new facilities.

5.3.1 The handover and acceptance of repaired facilities and premises are carried out by the acceptance commission of the DC and SM. Before the handover, an order (directive) is issued by the Chairman of the Board – Rector to establish the acceptance commission. The commission's findings are documented in a report in the form prescribed by the construction norms and regulations of the Republic of Kazakhstan.

5.4 The supply of electricity, thermal energy, and cold water is carried out according to the List of Approved Suppliers and following the established procedure.

5.4.1 The Engineering and Construction Service (ECS) of the DC ensures:

The Department compiles lists of employees subject to training within the framework of the Safety Assurance Action Plan (Form KazNRTU 603-09).

– reliable and safe operation of electrical installations;

– development and implementation of measures for electricity conservation;

– organization and timely execution of planned preventive maintenance (PPM) and preventive testing of electrical installations;

– introduction of new equipment and technologies in the electrical sector to ensure more reliable, economical, and safe operation of electrical installations;

– metering and technical accounting of electricity consumption;

– compliance with directives from the Electrical Supervision Authority;

– timely submission of required reports to the energy supply company;

– participation in obtaining technical conditions for connecting facilities to the city's engineering networks, obtaining all construction permits, coordinating with municipal engineering services, and technical supervision of construction progress;

– connection of new equipment to the power supply, including three-phase power;

– maintenance of high-voltage lines.

5.4.2 The Deputy Director – Chief Power Engineer supervises the reliable and safe operation of elevators and the elevator system. The repair and maintenance of the elevator system are carried out by a contractor, selected in accordance with the established procedure and current regulations.

5.4.3 In the event of an accident in electrical installations (e.g., in substations, cable lines, etc.), the Chief Power Engineer notifies the higher management by phone, coordinates in writing with the dispatcher of the local electrical network (RES) if necessary, and then disconnects the electrical installation until the accident is fully resolved. Reconnection of electricity in certain cases is carried out based on the RES's approval.

5.4.4 To ensure the uninterrupted supply of thermal energy and cold water, the University enters into agreements with the respective suppliers for the provision of these services. For the maintenance of the University's thermal system, a duty schedule for the technical personnel of the Engineering and Construction Service (ECS) of the DC is prepared for the heating season (Form KazNTU 603-05). The technical personnel are on duty around the clock. In the event of an emergency in the engineering networks, the Chief Mechanic immediately notifies the higher management and the relevant city services and shuts off the water and heat supply. Additionally, once a year, a plan of measures to prevent emergencies on the university campus is carried out (Form KazNITU 603-08).

5.4.5 The Chief Mechanic of the Engineering and Construction Service (ECS) of the DC prepares and coordinates with the energy supplying organization the technical documentation for the installation of heat metering devices. Every four years, the metering device undergoes a State verification, and a Verification Report is issued. Additionally, once a year, a hydro-pneumatic flushing of the heating system pipelines is conducted, and a Heating System Flushing Report is prepared. The supply of thermal energy is carried out only if the verification and flushing reports are available.

5.4.6 The Chief Mechanic of the Engineering and Construction Service (ECS) of the DC ensures the proper condition of the water supply and sewage networks and equipment under the University's balance. Additionally, once a year, a contract is concluded for the supply of water and the disposal of wastewater. Plumbers carry out an inspection of the distribution unit and the entire pipeline twice a year. Monthly, the representative of the organization supplying cold water, together with the responsible person from the Chief Mechanic's Department, reads the water meters for processing and billing purposes.

5.5 Monthly, the Chief Power Engineer and the Chief Mechanic organize the accounting of electricity and thermal energy consumption. Together with representatives of the energy supplying organization, meter readings are taken across the University. The collected readings are then processed into total electricity and thermal energy consumption (in kWh per year) and submitted to the billing department of the energy supplying organization, which issues the invoice for payment.

Training and Production Workshop of the DC:

– ensures the fulfillment of orders for the production of furniture and products made of metal and wood;

– monitors the quality of the products manufactured and the services provided;

– prepares cost estimates for planned products and services;

– develops measures to improve training and production activities;

– manufactures furniture for educational and production purposes, including furniture for dormitories, academic, and administrative units of the University;

– conducts practical classes and technological (production) training for students;

– participates in ongoing repair and construction work.

5.6 The Technical Service of the SM ensures uninterrupted communication within the University buildings.

5.6.1 The Technical Service organizes the processing of requests for the allocation of telephone numbers, repair, relocation, installation of subscriber lines, and the commissioning or decommissioning of telephones. It also monitors expenses for long-distance, international, and mobile communication. Requests from structural units for repairs are recorded in the Request Log maintained by the service (Form KazNRTU 603-06).

5.6.2 The Technical Service shall perform the following functions:

– receiving requests for the allocation of telephone numbers, repair, relocation, and installation of subscriber lines;

– installation and decommissioning of telephone devices;

– monitoring expenses for long-distance, international, and mobile communications;

– registration of requests in the *Request Log* (Form KazNRTU 603-06);

– organizing the efficient operation of the university's telephone communication system;

– interaction with the City Communication Center "Almatytelecom" and JSC "Almatytranstlecom" regarding the provision of communication services;

– participation in the development of plans for the development, reconstruction, and technical modernization of the communication system, SCS (structured cabling system), and OPS (security and fire alarm system);

– participation in tenders and preparation of technical documentation for communication services, solid waste removal, removal of construction and other debris, maintenance of the fire alarm system, and pest control/disinfestation services;

– participation in testing and commissioning of new equipment;

– jointly with the Department of Finance and Accounting — analysis of communication service expenses and control of their efficient use;

– monitoring the condition of the automatic security and fire alarm system (APS) in academic buildings and dormitories;

- receiving requests for the repair of SCS lines, communication equipment, and APS;
- organizing operation and repair works for communication systems, SCS, and APS;
- control over the rational use of equipment, lines, and APS devices;
- preparation of requests and cost estimates for the purchase of equipment, materials, and spare parts (Form KazNRTU 603-07);
- submission of requests for the replacement of lighting fixtures inside the buildings and for outdoor lighting;
- minor electrical installation works;
- minor routine repairs of premises and infrastructure;
- touch-up painting of walls, restoration of individual sections and finishing elements;
- repair and replacement of locks and door hardware;
- repair and maintenance of furniture;
- installation and fastening of paintings, boards, signs, shelves and other wall-mounted elements;
- assembly and disassembly of wooden and combined structures;
- moving furniture between buildings and within facilities;
- relocation of various inventory items, equipment, and materials upon requests from departments;
- organization and control of the cleaning of the university territory;
- organization of the removal of solid household waste (SHW);
- organization of the removal of construction debris generated during works;
- quality control of sanitary condition works of the territory;
- conducting disinsection and deratization activities in academic buildings, dormitories, and on the university territory;
- monitoring the timeliness and quality of their implementation.

5.7 Transportation Services. The Transport and Operations Department (passengerand cargo vehicles) maintains and provides transportation for:

- students and University staff;
- cargo and material assets between academic buildings;
- delivery of newly acquired materials and equipment;
- removal of waste, scrap metal, and paper for recycling.

It also arranges trips for specialists conducting career guidance activities, services catering facilities (University canteens and cafés), and other tasks necessary for the maintenance of University buildings and utilities, in accordance with submitted requests.

5.7.1 The vehicles are located on the University premises, and their operation is carried out in accordance with applicable regulations. The Transport and Operations Department is managed by the Head of the Department, who oversees a team of drivers.

5.8 In the event of any violations, the specialists of the services must inform their service heads, who then prepare an official memorandum addressed to the Director of the DC or the Director of the SM, specifying the malfunction and listing the materials required for the repair.

5.9 Based on the officially approved memorandum, a defect report is prepared by type of work, along with the cost estimate documentation, for submission to the Public Procurement Sector for further processing and acquisition (Form KazNRTU 603-02).

5.10 To assess the technical condition of equipment, a commission is established, which prepares a defect report (Form KazNRTU 603-02). Based on this report, services for repair or the necessary materials and services are procured.

5.11 The Director of the DC and SM, along with their deputies, oversee and control the repair process in the respective areas.

5.12 To register requests from departments for repair and maintenance, the DF and DFO departments and services maintain a Request Registration Log (Form KazNRTU 603-06).

6 Vehicle condition inspection and corrective actions

6.1 Depending on the importance and area of use of the vehicles, inspections are carried out to examine and assess their technical condition.

6.2 Inspections are carried out by the following parties:

– government supervisory bodies for safety and occupational health, SES, and others;

– University employees responsible for occupational safety and health;

internal auditors in accordance with DP KazNRTU 801 and other authorized personnel.

6.3 Based on the results of the inspection, the following actions may be taken:

– directives issued;

– entries have been made in the occupational health and safety logs, as well as in the technical documentation of the equipment.

– nonconformities have been registered (DP KazNIU 801-04).

6.4 Employees of the DC and SM organize the development and implementation of corrective actions to eliminate the identified nonconformities (DP KazNRTU 801-06). After the nonconformity is eliminated, a follow-up inspection is carried out.

7 Risks in infrastructure management operations

7.1 During the management of the University’s infrastructure, risks may arise that require actions to eliminate them and prevent their occurrence.

Name and description of the risk	Causes of the risk	Con sequences of the risk	Measures for preventing/reducing the risk	Supporting documents
Risk of cancellation or delayed execution of routine maintenance in premises, classrooms, and dormitories	Delayed allocation of funds for the maintenance of premises, classrooms, and dormitories, as well as late procurement of construction materials	Inability to carry out maintenance of premises and classrooms within the planned timeframe, leading to disruption of classes and student move-ins to dormitories	Increased capital investment in the University's infrastructure and adjustment of the maintenance schedule	Work completion certificates, maintenance schedule
Risk of emergency situations occurring in engineering networks and equipment	Obsolete engineering networks and equipment at the University, both technically and functionally, and a shortage of qualified specialists in this area	Occurrence of accidents and malfunctions, interruption of heating supply, power outages, and pipe bursts	Annual monitoring of equipment condition, timely maintenance, and increased capital investment in the renewal of engineering networks	Work completion certificates, installation certificates, defect reports, and analysis of the condition of engineering networks
Outdated landscaping of the territory (greenery, curbs, paving/asphalting)	Delayed execution of landscaping and maintenance works	Appearance of the territory not meeting modern standards	1. Annual landscaping and asphalting of the territory 2. For 2025, plans include soil renewal, raising curbs, additional landscaping, asphalting, and construction of recreational areas with installation of small architectural forms	Work plan for 2025, work completion certificates
Risk of vehicle breakdowns and delayed procurement of fuel and lubricants (F&L)	Delayed allocation of funds for vehicle maintenance and for arranging mandatory liability insurance for vehicle owners	Inability to ensure uninterrupted vehicle operations and delayed fulfillment of transportation requests	Timely budgeting and coordinated handling of transportation requests, along with regular maintenance of vehicles	Vehicle maintenance schedule and memos for transportation requests
High expenses for utilities	Use of outdated technologies in engineering systems	Inefficient use of budget funds	1. Replacement of fluorescent lamps with energy-saving LED fixtures 2. Procurement of touchless faucets with aerators 3. Use of energy-saving technologies during routine maintenance and the construction of new facilities	Work completion certificates, capital repair plan

8 Analysis. Evaluation. Improvement

8.1 The Directors of DC and SM, together with the Vice-Rector for Science and Corporate Development carry out an analysis of goal achievement and the process. The results of the process are recorded in the following forms:

– Schedule of inspections;

– Logbook of inspection results for the technical condition of buildings, structures, and engineering networks;

– Planned maintenance schedule;

– List of equipment;

– Duty roster of technical personnel for the heating season;

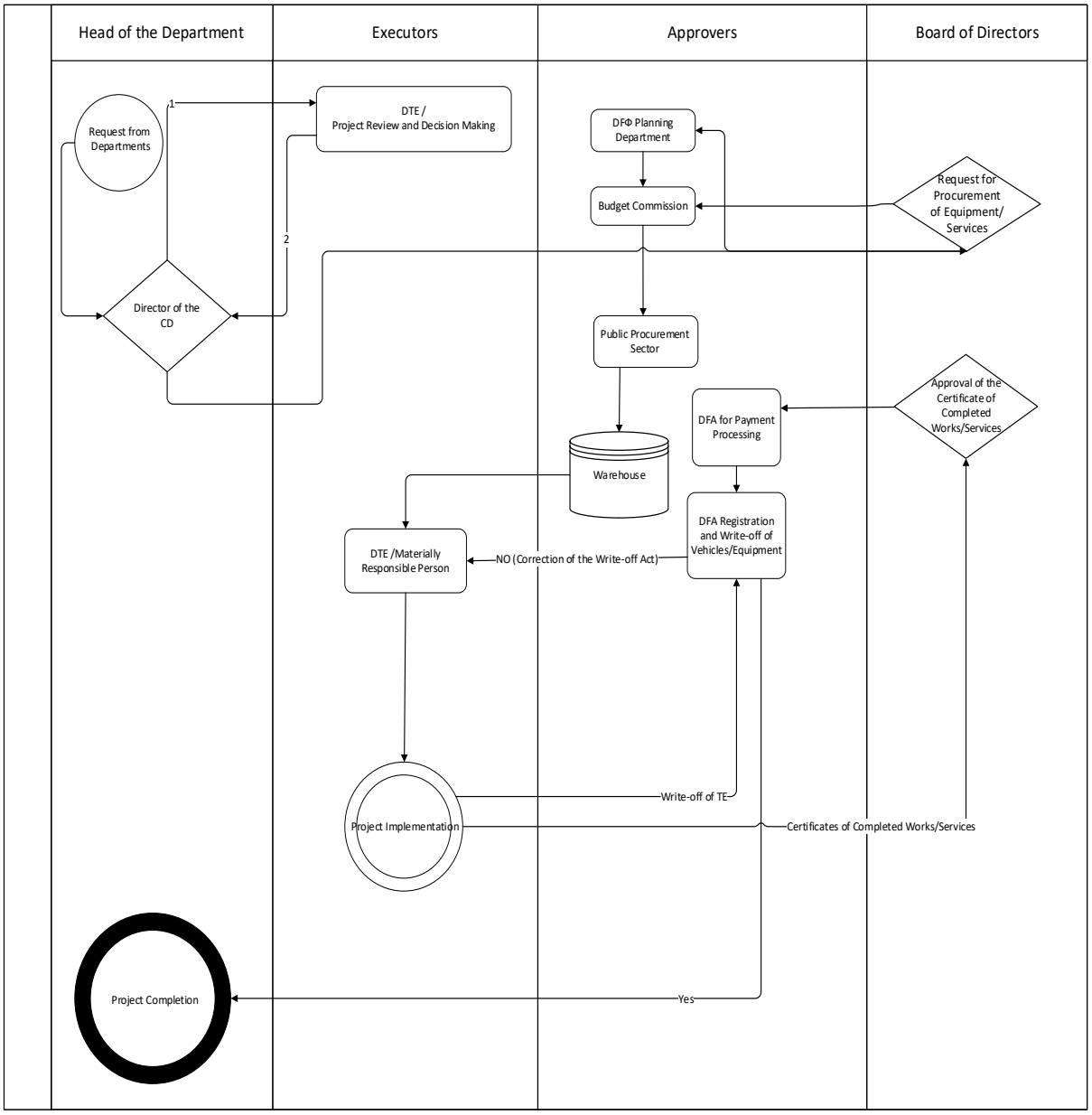
– Action plan for preventing emergencies and disasters on the University grounds;

– Request registration log;

8.1.2 The Directors of DC and SM oversee the proper management (completion) and storage of records. The heads of DC and SM departments are responsible for maintaining (completing) and storing the forms.

8.2 Based on the analysis results, corrective and preventive actions, as well as improvement proposals, are developed.

8.3 The analysis of the results of corrective and preventive actions, as well as improvement measures, serves as the basis for modifying (reviewing) the process objectives and developing an improvement plan.


Head of the Department
Executors
Approvers
Board of Directors
Request from Departments
1
DTE / Project Review and Decision Making
DFΦ Planning Department
Budget Commission
Request for Procurement of Equipment/ Services
2
Director of the CD
Public Procurement Sector
Approval of the Certificate of Completed Works/Services
DFA for Payment Processing
Warehouse
DFA Registration and Write-off of Vehicles/Equipment
DTE /Materially Responsible Person
NO (Correction of the Write-off Act)
Write-off of TE
Project Implementation
Certificates of Completed Works/Services
Project Completion
Yes

DP 603 Forms

№	Code	Names of the forms
1	F KazNRTU 603-01	Plan for Conducting Control Inspections
2	F KazNRTU 603-02	Defect Report
3	F KazNRTU 603-03	Log of TISS Results Registration
4	F KazNRTU 603-04	Scheduled Maintenance Plan
5	F KazNRTU 603-05	Duty Roster of Technical Staff for the Heating Season
6	F KazNRTU 603-06	Service Request Log
7	F KazNRTU 603-07	List of Equipment
8	F KazNRTU 603-08	Plan of measures for the Prevention of Accidents and Disasters on the University Campus
9	F KazNRTU 603-09	Safety Measures Plan

Change Registration Sheet _____

Document designation

Change serial number	Section and clause of the document	Type of change (replace, cancel, add)	Notice number and date	Change implemented by	
				Date	Last name and initials, signature, position