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CADASTRAL WORKS TO UPDATE TECHNICAL INFORMATION IN THE LAND REGISTER AND APARTMENT BUILDINGS WITH THE DESTINATION SOCIAL HOUSES

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Abstract: The building that is the subject of cadastral works is located in the city of Deta, 1 Mai street, number 32 A, Timiș County, is the property of the City of Deta - public domain and represents land with intended industrial buildings. Through the project of "Rehabilitation, consolidation, building arrangement" and change destination in Social Housing, the constructions were converted into social housing, project based on the building authorization issued by Deta City Hall. The cadastral works are carried out in two stages: Stage 1 : Update Of Technical Information - Cadastral work carried out on integrated cadastre and land register workflow. It consists in drawing up the graphic form of the building, land and constructions with registration in the integrated cadastre and land register system, based on the documents provided by the owner and the topographic survey carried out in the field. For the cadastral work, a topographic survey was carried out using G.P.S. equipment, Stonex S9 II with precision in RTK (Real Time Kinematic) mode and the Stonex R60 Total Station by routing combined with erasures. Data processing of the G.P.S. measurements was carried out with the Stonex SurvCE 2.54 and TopoLT program. Since the standard deviation of the newly determined points fell within the maximum admissible tolerance, the situation plans were computerized and edited on magnetic media and on paper, operations performed in the AutoCAD LT 2010 program together with the TopoLT auxiliary program. Stage 2: Apartment Of Buildings - Cadastral work carried out on the interrupted flow of cadastre and land register: It consists in: a) technical reception (cadastre operations); b) registration of the apartment in the land register (land register operations). For this stage, measurements were carried out inside the building, the component of each I.U. (Individual Unit) proposed to be created according to the project of "Rehabilitation, consolidation, building arrangement" and change of destination in Social Housing the useful area of each room of the building was determined, then the useful area / I.U. (Individual Unit), the general undivided common parts - p.c.i. (undivided common parts) and the corresponding % / I.U. (Individual Unit), were identified, as well as the related land share. A Survey Plan with the initial situation and a Survey Plan for each UI (Individual Unit - apartment) was drawn up. The apartment proposal can be found in the Collective Sheet.

• Introduction

Location: The building that is the object of the cadastral works is located in Deta City, 32 A 1 Mai Street, Timiș County, and is the property of Deta City - public domain and represents land with industrial buildings.

The city of Deta is a small administrative, economic and cultural center located in the western part of our country, between Timisoara and the border with Serbia (<https://www.detatm.ro/despre-orasul-deta/asezare-geografica/>) Through the project of "Rehabilitation, consolidation, construction arrangement" and change of destination in Social Housing, this work aims to create individual units (apartments) registered in the land book, made available to disadvantaged people by the local public administration of Deta City through construction lease contracts for social housing. The old buildings were rehabilitated and transformed into social housing through the project carried out based on the building permit no. 20/10.09.2021 issued by Deta City Hall.

Topo-cadastral identification represents the performance of location operations and measurements in the field, superimposed on the database of the Office of Cadastre and Real Estate Publicity Timis, using plans and sketches existing in the database of the Office of Cadastre and Real Estate Publicity at the date of the cadastral works.

• Material and method

The topographic equipment used to carry out the cadastral works is G.P.S. Stonex S9 II (Figure 1) and the Stonex R60 Total Station (Figure 2), namely, a topographic survey was carried out using the G.P.S. Stonex S9 II equipment with RTK (Real Time Kinematic) precision and the Stonex R60 Total Station by combined travel with deletion. For the measurements inside the apartments, the Electrooptical telemetry was used to measure distances.



Figure 1. Total Station Stonex R60



Figure 2. G.P.S. Stonex S9 II

The processing of the data resulting from the measurements made with G.P.S. was carried out with the help of the Stonex SurvCE 2.54 and TopoLT programs. Since the standard deviation of the new determined points was within the maximum permissible tolerance, the situation plans were computerized drafted and edited on magnetic and paper support, operations performed in the AutoCAD LT 2017 program together with the TopoLT auxiliary program.

• Results and discussions

The building that is the subject of the cadastral work represents land with constructions C2, C3, C4, C5, C6, C7 which through the project "Rehabilitation, consolidation, construction arrangement" and change of destination in Social Housing were consolidated, arranged and rehabilitated in 2024.

The cadastral works are carried out in two stages, namely:

1.The first stage - is the stage of Updating Technical Information in the land book

This cadastral work (Șmuleac et al., 2017, 2019) is carried out on an integrated flow of cadastre and land book and consists of drawing up the graphic form of the building, land and buildings, with the registration in the integrated system of cadastre and land book, based on the documents made available by the owner and the topographic survey carried out in the field.

•The initial situation in the land book, the building represents construction yards within the built-up area with the buildings: C2 - Carpentry workshop, C3 - Warehouse, C4 - Mechanical workshop, C5 - Office, C6 - Boiler room and C7 - Workshop.

•The current situation on the ground - through the project of "Rehabilitation, consolidation, arrangement of building C2, C3, C4, C5, C6, C7" and change of destination in Social Housing based on the Building Permit no. 20/10/09.2021 and the drawings annexed to the Building Permit (Casian et al., 2019).

The constructions C2, C3, C4, C5, C6, C7 were consolidated, arranged and rehabilitated in 2024 and have the following description:

-C6-Building (P) - Social Housing with covered terrace - former C6 buildings, consolidated, rearranged and transformed (Figure 3);

-C7-Building (P) - Social Housing with covered terrace - former C7 constructions, consolidated, rearranged and transformed (Figure 4);

-C8-Building (P) - Social Housing - the former buildings C2 and C3 rehabilitated, consolidated, rearranged and transformed into a single building, renamed C8 (Figure 5);

-C9-Building (P) - Social Housing with covered terrace - the former buildings C4 and C5 rehabilitated, consolidated, rearranged and transformed into a single building, renamed C9(Figure 6).



Figure 3. C6 - Social Housing



Figure 4. C7 - Social Housing



Figure 5. C8 - Social Housing



Figure 6. C9 - Social Housing

2.The second stage - is the stage of Apartment Building

At this stage, the cadastral work is carried out on an interrupted flow of cadastre and land book and consists of:

a)technical reception (cadastre operations)

b)registration in the land book of the apartment (land book operations)

The apartment documentation was made based on the measurements inside the buildings, the plans aimed at not changing according to the Building Permit and based on the owner's agreement on the number of individual units resulting from the apartment expressed by:

•Certificate no. 8570/20.08.2024 issued by the Deta City Hall - apartment agreement

The buildings that are subject to the apartment are:

-C8 – Building (P) Social Housing – registered in CF 400425, – C8 DETA composed of 6 Apartments – 6 I.U. (Individual Units).

-C9 - Building (P) Social Housing with covered terrace registered in CF 400425 - C9 DETA composed of 3 Apartments - 3 I.U. (Individual Units).

The Survey Plan was drawn up with the initial situation and the Survey Plan for each UI (individual unit - apartment). Result after flattening

The apartment proposal can be found in the Collective Sheet.

The technical documentation has been prepared for the purpose of submission to the OCPI (Office of Cadastre and Real Estate Advertising Timis) for the reception of the apartment

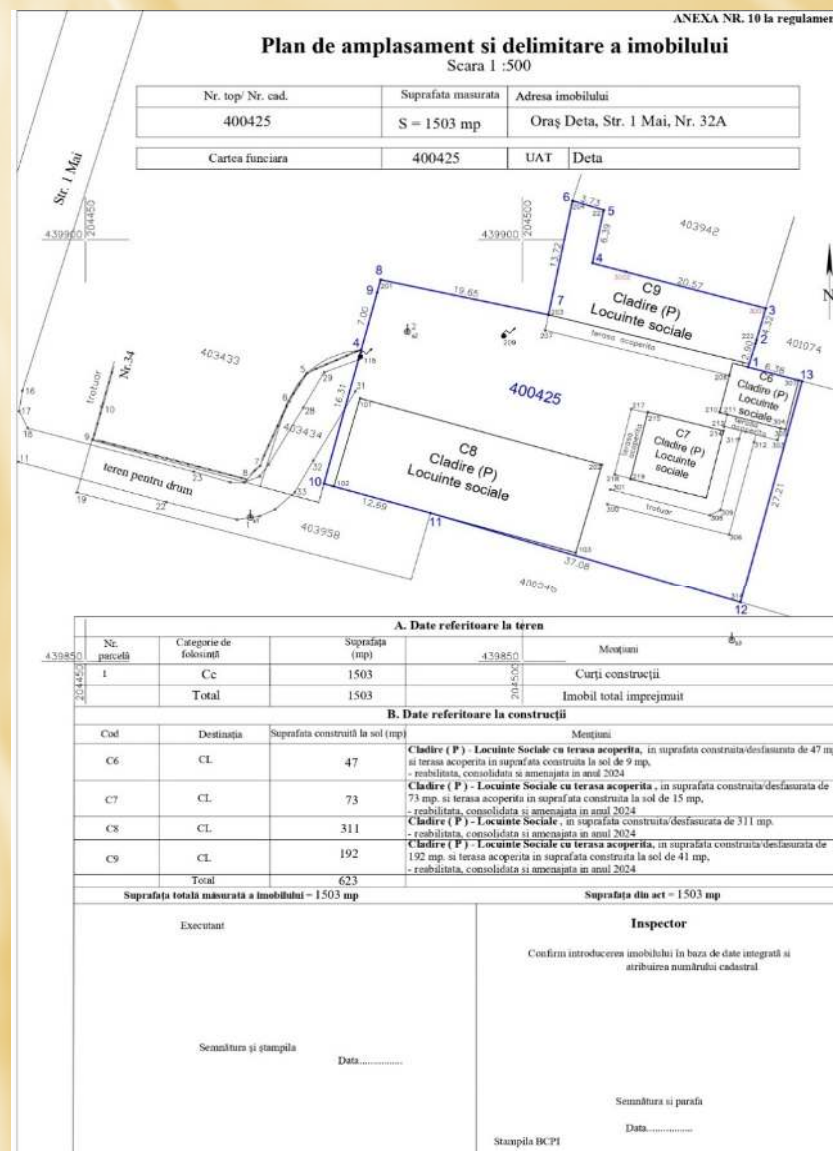


Figure 7. Location and delimitation plan of the building

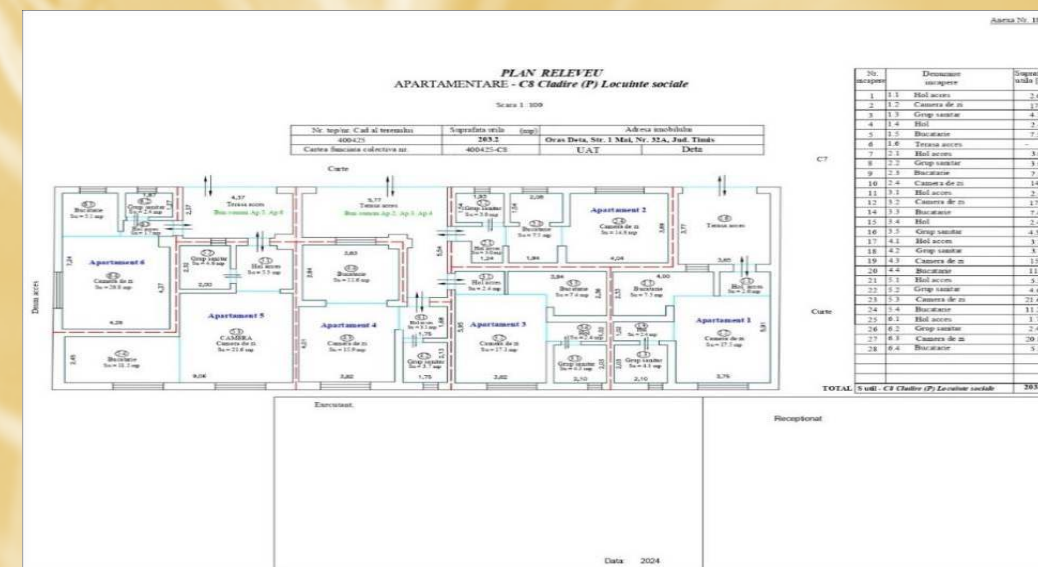


Figure 9. C8 Survey Plan

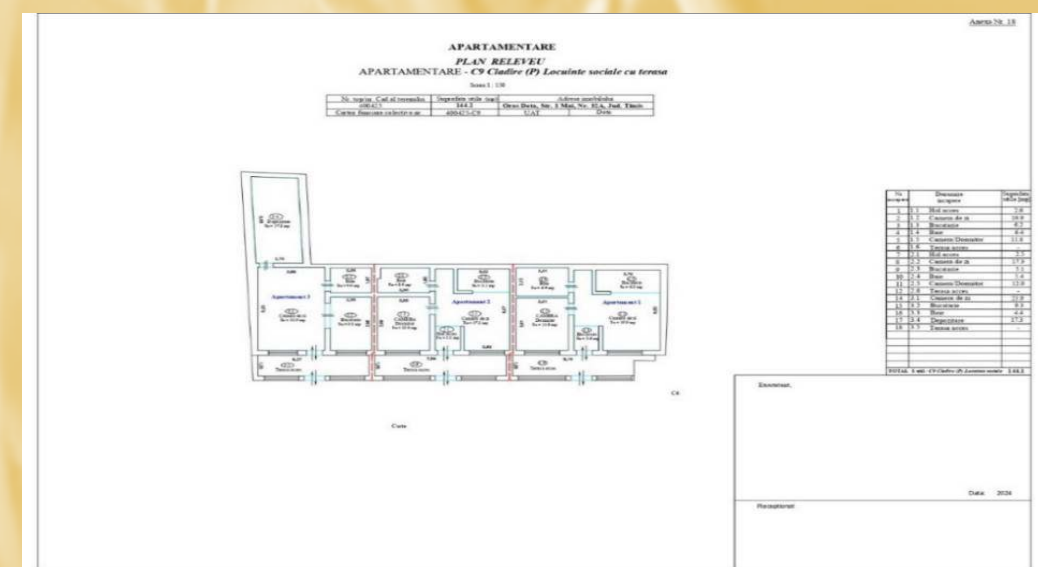


Figure 10. C9 Survey Plan

• Conclusions

Through the cadastral works presented, the proposed purpose for which these documentations were prepared was achieved, resulting in the effect registered in the land book, apartments for Social Housing registered in individual land books U.I. (Individual Unit) for each apartment and collective land book for land with constructions.