

# The Little Review of Urban Planning of Thai Nguyen Province 1996-2020

Nhu Thi Lan Huong<sup>1</sup>, Han Thi Thuy Hang<sup>2,\*</sup>

<sup>1,2</sup>Faculty of Civil and Environment - Thai Nguyen University of Technology, Vietnam  
Corresponding Author: Han Thi Thuy Hang

Date of Submission: 15-12-2021

Revised: 28-12-2021

Date of Acceptance: 31-12-2021

**ABSTRACT:** Thai Nguyen is a first-class urban city of Vietnam in Thai Nguyen province, the 10th most populous city in the country, and the 3rd largest city in the North of Vietnam after Hanoi and Hai Phong. At the same time, it is the center of the midlands and mountains of the North of the country. In the future, Thai Nguyen will become a modern urban on par with major cities in the country and the region, the problem of construction development and especially underground works and high-rise buildings is inevitable. In this article, the author will analyze some key features of urban development in Thai Nguyen province in the period 1996-2020.

**KEYWORDS:** Urban, Thai Nguyen Province, Urban planning.

## I. INTRODUCTION

Thai Nguyen city has a long history of development, has changed its boundary many times, and has made many adjustments to the general planning (excluding local adjustments). In 1996, Thai Nguyen city was approved the general planning project, which was determined as a grade III urban center directly under the province. In 2002, it was upgraded to a grade II urban area. In 2005, the first adjusted master plan of Thai Nguyen city was prepared and approved, with the criteria of spatial orientation to 2020. In August 2012, Thai Nguyen province advocated adjusting the general planning of Thai Nguyen city for the second time. To improve the position of the city in integration, play an important urban role of the whole country,

attractive to the region, as well as solve the problems of existing urban areas, it is necessary to pay attention to the work of urban planning. synchronous construction plan.

## II. STATUS OF THE DEVELOPMENT OF URBAN AREAS IN THAI NGUYEN PROVINCE

The preparation of urban infrastructure has not been synchronized. Some old urban areas are densely populated, affecting infrastructure and protecting the ecological environment. In the past time, the planning to build several new residential areas and resettlement areas has not been reasonable. It has affected the general development of the city.

Currently, the surface land fund of the central area of Thai Nguyen city is in an almost exhausted state. Green spaces, public spaces with the need for modern civilization, and urban beauty are demanding the development that must be directed towards the ability to take advantage of parallel development in both height and depth. In particular, the issue of depth-development of urban underground space in Thai Nguyen is happening very new, inadequate, lacking planning and regulatory framework. Thai Nguyen will build underground works for traffic, water supply and drainage, commerce, services, and car parking. From the incidents that happened with big cities like Hanoi and Ho Chi Minh City, Thai Nguyen also needs to find its orientation.



Figure 1. Current status of the city center



Figure 2. Danko urban area planning in Thai Nguyen province

### III. CONCLUSION

Challenges for the construction industry in Thai Nguyen have also been raised, which is the problem of construction planning and the quality of construction works. The formation of high-rise buildings is the trend that the city is aiming for. However, how much to develop high-rise buildings to match the development needs and ensure the infrastructure of the city, so far there is no specific plan. It is necessary to prepare for the survey to have specific statistics on traffic density and infrastructure conditions in central street areas. This is the basis for evaluating whether the construction of high-rise buildings in that location is suitable for geology and infrastructure conditions.

### ACKNOWLEDGMENT

This work was supported by the Thai Nguyen University of Technology

### REFERENCES

- [1]. Thai Nguyen Construction Consulting Company, 2012, Construction geological survey reports.
- [2]. Department of Geology of Vietnam, 1996, Map of geology and minerals at 1:50,000 scale, Hanoi newspaper group, Vietnam Geological Department Publishing House, Hanoi.
- [3]. Cao Dinh Trieu, 1998, Zoning of Vietnam's territorial structure based on gravity and magnetic fields, Scientific Publishing House, Hanoi
- [4]. Duong Diep Thuy, Pham Quang Hung (2012), "Correlation between the base index and some physical parameters of cohesive soil in some areas of Hanoi", Journal of Construction Science and Technology 2012.
- [5]. Dinh Van Toan, 2004, Research and assessment of landslide hazards in the Northern mountainous region, Vietnam Institute of Science and Technology. Dr. Le Thanh Bon ; Pedology; Agricultural publisher; 2004.
- [6]. Phan Tu Huong, 2015, Geology of underground works, a construction publishing house.
- [7]. Thai Nguyen Construction Quality Accreditation Center, 2011, Construction site geological survey reports
- [8]. Nguyen Quang Phich, The problem of surveying and exploration in the construction of underground works in the city to reduce geological hazards, Journal of

Mining Science and Technology, No. 14(4-2006), P. 82-85.