

Preliminary Plan for Dodeoksan Astronomy Museum in Gwangmyeong-si

Gwangmyeong City has become a satellite city of Seoul that provides high-density residential services, but its cultural and economic infrastructures are relatively weak. However, its status and position in Gyeonggi province is gradually increasing due to the revitalization of the KTX metropolitan area and tourist attractions in Gwangmyeong Cave. While these tourist facilities are concentrated in the new city, south area of Gwangmyeong, Gwangmyeong-dong area, which is the old city, has a high population density and is densely populated with aging facilities, resulting in a lack of cultural and public facilities. In order to bridge the cultural gap between the East and West, and to expand the educational and cultural facilities needed for local youth and residents, we will try to build the astronomical observatory using geological features and the topography of Dodeoksan Mountain.

There are 88 domestic astronomical observatories, and we categorized into 3 types : Mountain type, water environment type and Urban type according to their locational characteristics and geological features by GIS analysis. Our target site will be the integrated type as urban type and mountain type. It is expected to revitalize the astronomical observatory as it has the nature environment and accessibility of urban features that are necessary and useful for astronomy facilities.

As a result of the survey, 75% of the respondents answered positively the necessity of astronomical observatory, and they answered that additional cultural facilities, education and learning facilities, and outdoor night activities will be needed. Therefore, we planned to be a fusion facility of astronomy facilities and Life SOC facilities such as local community facilities, small library and etc.

As a result of economic analysis on the construction of Dodeoksan Mountain Astronomical observatory, it was found that there was a positive demands for the construction, and the regional economic effect such as new job openings, secondary industrial effect, It is expected that additional value-added profitable facilities will be needed to operate the Astronomical obervatory in the future, the burden of budgeting has a great impact on local governments. Therefore, measures to improve financial independence for sustainable management should be prepared such as linking with other departments policy projects, investing public-private resources, renting facilities, and organizing sponsorships.

Keyword

Gyeonggi-Do, Energy Center, performance evaluation, Gyeonggi Energy Foundation