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## SmartCode

— Miami and other cities, USA  
2002-

Sustainable community development with transition of zoning approach

### Key Issue

In the United States, urban areas were traditionally developed in accordance with land use regulations of use-based zoning (known as Euclidean zoning) which focuses on the type of use that is allowed on the land, but is silent on the form or character of the building. Urban areas were structured assuming the use of cars, with office, commercial, residential and other functions separated from each other, resulting in living environments that are not necessarily convenient or friendly to residents. When similar issues came to the surface in the city of Miami, the Mayor of Miami, hired DPZ, who, along with other planners and professionals were pioneering and new urbanism and form-based coding. Miami 21 fuses the SmartCode, a type of form based code, focused on the Transect, of which limited introduction has been commenced. "Miami 21" completely revised the conventional zoning system, with the aim to create comfortable and sustainable urban districts that are friendly to pedestrians.

### Project Approach

Zoning that regulates urban development shifts from land use based zoning to form-based zoning

Conventional zoning based on the land use generally separated uses excessively and at times, disallowed any combination of multiple uses. For example, no commercial facilities were permitted in office zones. According to SmartCode, zoning is based on the future desirable forms of buildings, and a combination of different uses would be allowed if necessary. In addition, SmartCode divides the area between the suburb and the central district into six zones. Since it takes their respective environmental characteristics into consideration, SmartCode is designed to be applicable to the entire area in various cities.

Transition to the new code by approaching a range of entities

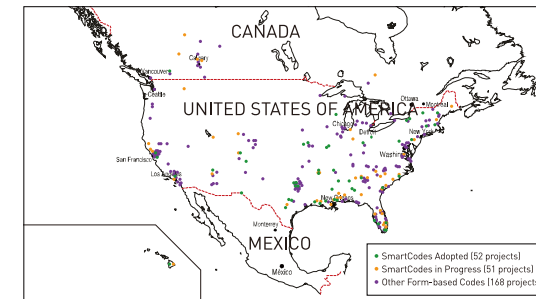
The shift to SmartCode may be somewhat similar to the act of introducing a new language to the world of urban planning, and it was not easy to gain understanding from developers, municipal government officials, local residents and other people concerned. In terms of Miami 21, the ideal future vision and necessary codes were developed by organizing workshops and events for the parties concerned, and undertaking detailed analyses on the existing land use regulations.

Securing simplicity and flexibility

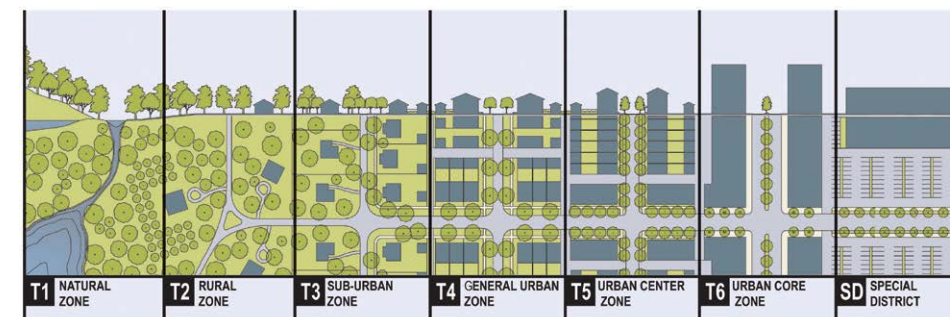
During the shift to Smart Code, a public benefit program was also introduced, which included the introduction of a system to partially ease restrictions on height, floor area ratio and other aspects on the condition that facilities serving public interests such as affordable housing and public green spaces are provided. Not only did this lead to the consolidation of +400 regulations into less than 50, but it also provided developers with a certain degree of flexibility while retaining the visions of the individual districts.



An illustrative example of urban district transformation through the application of SmartCode  
Source: Steve Price from Urban Advantage



Application of SmartCode is spreading across the US.  
Source: Place Makers  
(<http://www.placemakers.com/>)  
Created by the MURC on the basis of data on the webpage



The relationships between buildings, streets and open spaces are determined in a physical design that is developed in consideration of the social characteristics of each individually categorized zone called "Transect Zone\*8", which is then made into rules in the form of a code and suchlike. Copyright: DPZ CoDesign  
Source: Smart Code Version 9.2 (DPZ Co Design)

## To the Next Phase

Centered around the US and including Central and South America and the Middle East, around 728 cities have adopted, or are in the process of of using the SmartCode or similar form-based codes. As SmartCode is a highly applicable framework that can be customized according to the characteristics of the application area, it is anticipated to be introduced in Asia and elsewhere in the future.

