
TELECOMMUNICATIONS INFRASTRUCTURE—CONNECTING IN THE DIGITAL WORLD

STATUTORY REQUIREMENTS

As indicated previously, an Infrastructure Element is not statutorily required as a part of a community's General Plan but local government are permitted to adopt any other elements or address any other subjects that in the judgment of the local government relates to the physical development of the community.

CONTEXT

Businesses and residents of the University Community will expect and require the most current telecommunication available services. Over the past decades, the technology has changed dramatically. Communities have been connected with hard wire and fiber optic systems to provide access to telephone, cable television, Internet, and similar services. Wireless communication systems are the newest form of telecommunication infrastructure. These systems currently involve cellular phone service, Enhanced Specialized Mobile Radio (ESMR), Personal Communication Services (PCSs) and paging systems.

The existing telecommunications infrastructure could not be expected to adequately serve the University Community. Businesses, residents, and public uses will necessitate the construction of new facilities, whether linear systems that connect a user with a transmission or reception source (wire and fiber optic) or wireless systems (transmitters, antenna, receivers/dishes, and other). Each technology has implications regarding its compatibility and "fit" with the Community's development, landscape, and aesthetic quality. Cell towers have been the subject of debate in numerous communities. The pace of technology suggests the continuing evolution and changing physical characteristics of telecommunications for which the University Community must be prepared to adapt.

OVERVIEW

Because of the number and different types of commercial providers for wireless communication, there is the potential for numerous facilities within the University Community. Providers are prompted to increase their number of transmission sites in order to gain coverage and calling capacity, and the resulting market share. Exacerbating the problem, wireless communications require numerous

antennas to be mounted at various heights throughout the landscape. In order to site them at the necessary height, these antennas are sometimes mounted on towers, poles, and other structures, resulting in concerns about the visual impacts of these facilities. Unless designed and sited properly, telecommunication facilities, such as antennas, could negatively impact the aesthetic quality of the surrounding neighborhood. Therefore, the telecommunication policies focus on integrating the facilities into the built and natural environment to the extent possible. Similar to the provision of energy to the University Community, the policies for the provision of telecommunication facilities should be flexible in order to take advantage of future technological advances.

The University Community provides an opportunity to create a sense of interconnection within the Community and with the UC Merced campus, through policies that require the provision of a community wide digital system to connect the occupants to each other. A voice, data, and video communications network could be developed that links the residential, commercial, educational, utility, and civic uses of the University Community. The system could also link the University to the Community Plan area, thereby providing access to the educational and cultural resources of the campus. Similar to the provision of energy and telecommunications to the University Community, the policies for the provision of digital facilities should be flexible in order to take advantage of future technological advances.

GOALS, OBJECTIVES, AND POLICIES

The following section presents the goals, objectives, policies, and programs for the provision of telecommunication services to the University Community site. These goals can help ensure that reliable, cost effective, and environmentally sound systems are supplied. Pertinent policies must be considered for any development activity.

TELECOMMUNICATIONS FACILITIES THAT SUPPORT AND COMPLEMENT THE COMMUNITY

Goal

A telecommunications system that fosters the dynamic economic and social development of the University Community while lessening the impacts resulting from multiple providers.

Objective

IT 1.0

To creatively integrate the telecommunication facilities into the natural and built environment and to minimize the number of telecommunication facilities.

Policies

IT 1.1

Develop design guidelines for wireless communication systems to visually integrate the systems into the natural and built environment. *(Imp 2.5, 2.8, 3.3, 4.3)*

IT 1.2

Encourage the minimization of the number of facilities through the shared use of sites and antennas by multiple providers. *(Imp 2.5, 3.3, 4.3)*

IT 1.3

Encourage telecommunication providers to locate facilities on structures within the University Community and design the facilities to be compatible with the structure's architectural character. *(Imp 2.5, 3.3, 4.3)*

IT 1.4

Require that any freestanding towers or antenna used for telecommunications be designed at a high level of architectural quality that complements the Community's buildings and landscapes. *(Imp 2.5, 2.8, 3.3, 4.3)*

Objective

IT 2.0

To ensure objective standards for the provision of telecommunication services and require that the plan be flexible and able to take advantage of future technological advances.

Policies

IT 2.1

Establish standards and guidelines for the accommodation of communication facilities that are flexible to account for the rapidly changing nature of the industry. *(Imp 2.5, 3.3, 4.3)*

IT 2.2

Ensure the timely and proper removal of unused telecommunication facilities. *(Imp 2.7, 3.3, 5.1)*

CONNECTING THE COMMUNITY

Goal

A voice, data, and video communications network that serves the residential, commercial, educational, utility, and civic needs of the University Community that facilitates the sense of community and helps shape it by allowing occupants to electronically communicate with one another, UC Merced, University Community businesses, merchants, and civic and cultural institutions, and the world.

Objective

IT 3.0

To ensure that all Community neighborhoods and districts are connected by digital infrastructure.

Policies

IT 3.1

Install a telecommunications network that interconnects all residents with each other, the Internet, local schools, UC Merced, libraries, government, health facilities, and other institutions to provide opportunities for communication, education, cultural enrichment, recreation, information, and socialization. *(Imp 2.5, 3.3, 4.3)*

IT 3.2

Require new homes and businesses to incorporate conduits using state-of-the-art technology to provide easy telecommunications access and adequate capacity to allow for efficient retrofitting. *(Imp 2.5, 2.6)*

Objective

IT 4.0

Through the application of long-term planning and priorities to the communication and information systems, a coordinated approach can be developed for the supply of these services to the University Community and would lessen the impacts resulting from numerous providers trying to gain market share.

Policies

IT 4.1

Establish standards and guidelines for the accommodation of digital facilities that are flexible to account for the rapidly changing nature of the industry. *(Imp 2.5, 3.3, 4.3)*

IT 4.2

Ensure the timely and proper removal of unused digital facilities. *(Imp 2.7, 3.3, 5.1)*

SOLID WASTE—SOURCE REDUCTION AND RECYCLING

STATUTORY REQUIREMENTS

The purpose of this chapter is to define policies that ensure the healthy, safe, economical, and sustainable collection and disposal of solid waste. The state of California does not include solid waste collection and disposal as a mandatory element or a component of a mandatory element of a general plan. However, Government Code §65303 allows local government to adopt any other elements or address any other subjects that in the judgment of the local government relates to the physical development of the community. Once adopted, non-mandatory elements become a full-fledged part of the general plan with the same legal authority and effect as one of the mandatory elements.

CONTEXT

Solid waste from the University Community would be collected by the County and disposed of at the Highway 59 Landfill, approximately three miles from the Community. The Highway 59 Landfill has recently undergone an expansion and has a lifespan of approximately 30 years. The County is continuing to take efforts to ensure compliance with state mandated reductions in solid waste generation established in the *California Integrated Waste Management Act of 1989* (AB 939). As part of this effort, the Merced County Solid Waste Regional Agency adopted a Countywide Integrated Waste Management Plan in 1995.

OVERVIEW

A central theme in sustainable development involves the minimization of the waste stream. The following goals, objectives and policies provide guidance to ensure that the future University Community is a model of source reduction and waste minimization through the implementation of effective programs, recycling efforts, and public education. The following goals, objectives and policies are intended to reflect the goals of the Countywide Integrated Waste Management Plan and to support the County's commitment to sustainable development in the University Community.

GOALS, OBJECTIVES, AND POLICIES

Goal

An adequate and orderly system for the collection and disposal of solid waste.

Objective

ISW 1.0

To provide an adequate and orderly system for the collection services and adequate pre-collection storage facilities and disposal of solid waste to meet the demands of the University Community.

Policies

ISW 1.1

Require that adequate solid waste collection be provided for commercial, industrial, and residential uses in accordance with state law. *(Imp 2.7)*