



CH2M HILL SPAIN

Telecommunication
Design and Infrastructure
Services

Client
Vodafone

Location
Multiple Locations throughout Spain

Mobile Network Migration to UMTS Spain

Mobile operating companies in Spain committed to provide commercial UMTS service in 2002. To meet that objective, Vodafone constructed 1,200 locations by the end of 2002. During this phase, 60% of the locations were constructed in existing GSM locations, and the remaining 40% needed new construction.

Vodafone based its migration plans on a steady cell site construction of between 800 and 1,000 locations per year. To assist them with this program, CH2M HILL provided cell site design permit and construction management, as-built plans, improvements to safety during maintenance, and technical assistance. CH2M HILL expedited processes with the public authorities (e.g., town halls, health and safety organizations) to expedite project delivery.

To address the required greater bandwidth requirements necessary for UMTS services, Vodafone constructed a new fibre infrastructure, which allows for greater capacity than the traditional microwave links. For this effort Vodafone contracted CH2M HILL to conduct field surveys, permitting, fibre and trench design, trench construction management, and supervision of fibre installation and fusing among the existing UMTS sites.

In Valencia, CH2M HILL managed the construction of two 10-km-long fiber rings, using existing infrastructure from other operating companies and from ducts available inside the drains. CH2M HILL also managed the fiber design and construction for Vodafone in other cities including as Alicante and Murcia.