

POTENTIAL DEMONSTRATION PROJECT: Large Shopping Mall Area

Project Type: Large Commercial Site Retrofit

Project Approach: Full-Integration

Site Design Strategies Used: Efficient site design, balanced parking, surface stormwater conveyance, added tree canopy, and alternative transportation

Stormwater Facility Strategies Used: Vegetated swales, stormwater planters, stormwater curb extensions, and rain gardens

The aerial photo in Figure 6-31 illustrates a typical large parking lot in San Mateo County immediately adjacent to El Camino Real. One can see in the photo the vast amounts of pavement with only a small percentage of the parking spaces being occupied.

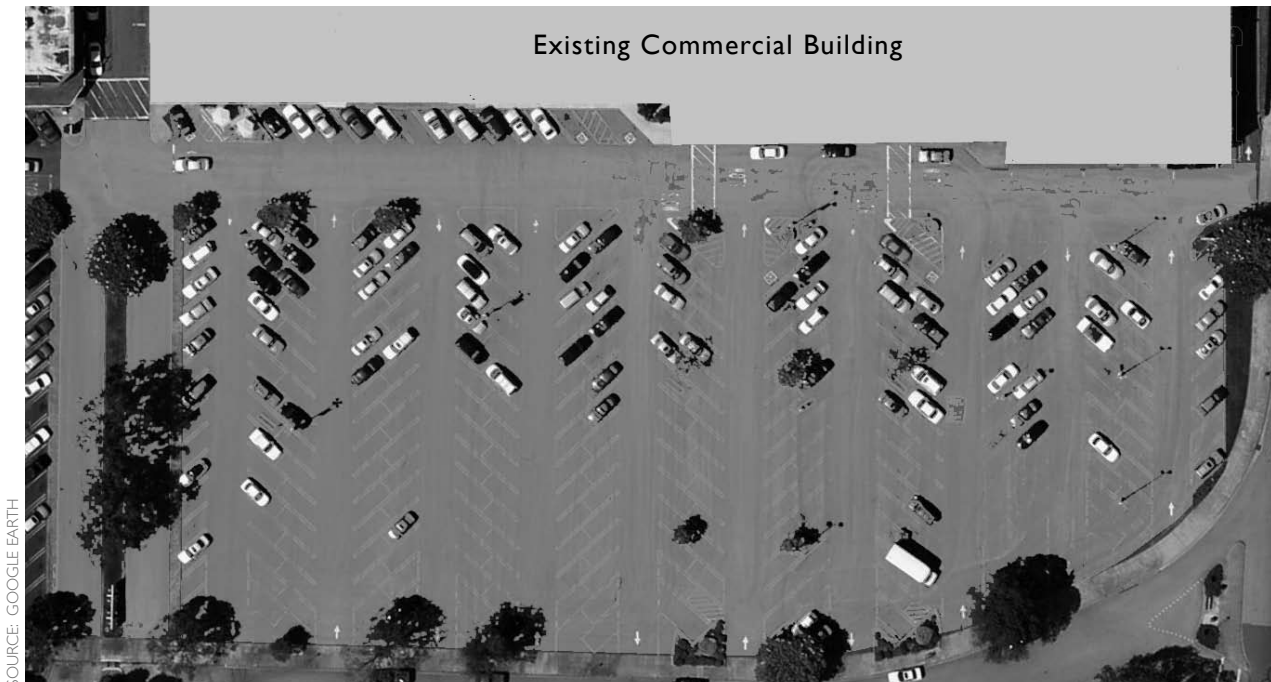
The plan on the opposite page illustrates how a commercial site like the one shown can be reorganized with a more efficient site design and retrofitted for various stormwater facilities. This plan now incorporates vegetated swales, stormwater planters, rain gardens, stormwater curb extensions, new trees, better pedestrian circulation, and the potential for additional retail buildings along the street frontage. Parking stalls measure 9 feet x 15 feet from the back of the stall to the front of the wheelstop/curb, and travel aisles are 22 feet wide. This conceptual design provides plenty of available parking and depicts the same amount of parked cars as shown in Figure 6-32.

Though the new conceptual design is not a planned demonstration project, the site does actually exist in San Mateo County and gives perspective of larger-scale opportunities.



SOURCE: NEVUE NGAN ASSOCIATES

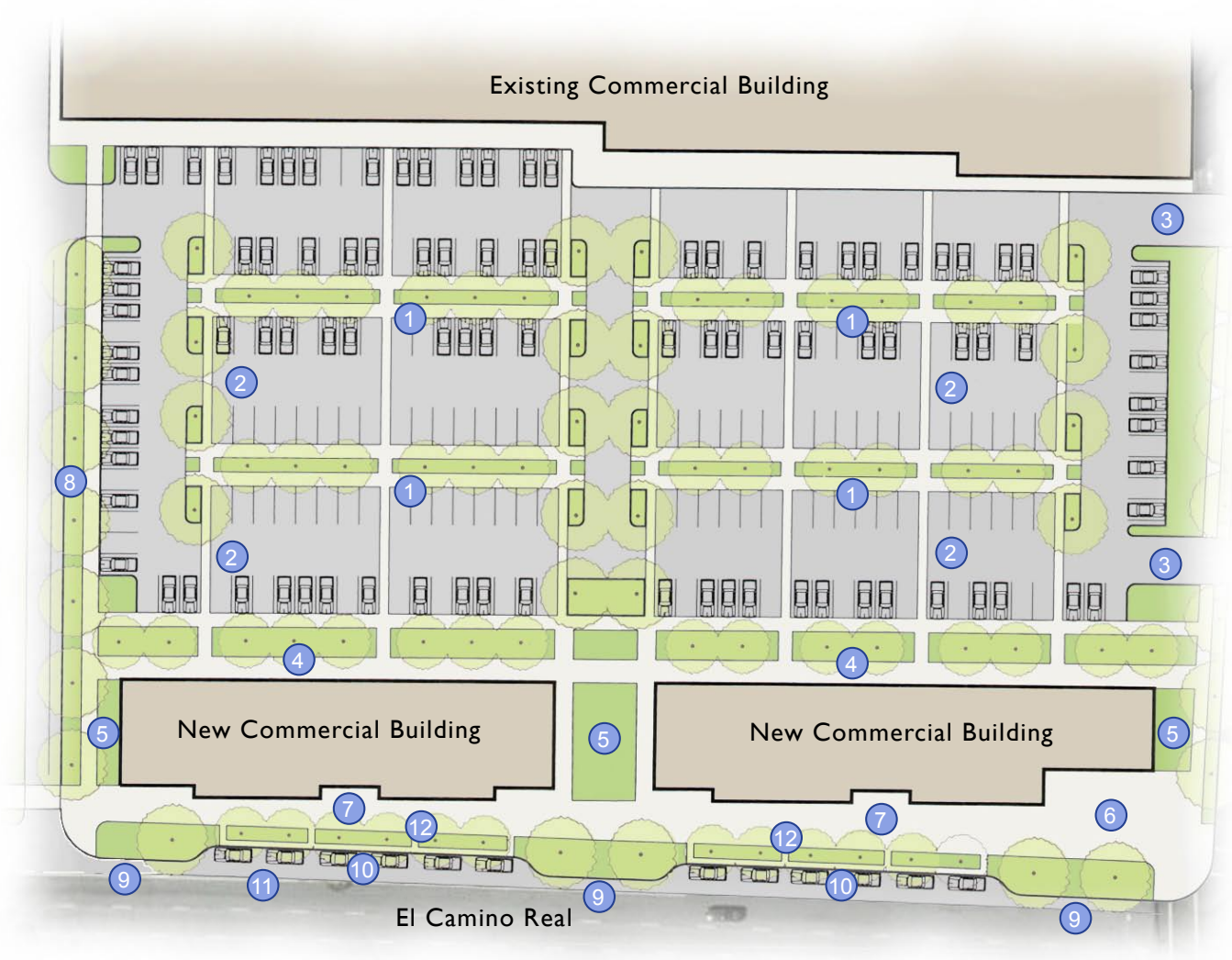
Figure 6-31: This parking lot, like many, has little or no landscaping for shade or stormwater management.



SOURCE: GOOGLE EARTH

Figure 6-32: An aerial view of a typical large shopping mall parking lot in San Mateo County.

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Key Design Elements

- 1 New stormwater planter/vegetated swale systems with enhanced pedestrian circulation
- 2 Defined pedestrian walkways throughout parking lot
- 3 Secondary parking lot entrances
- 4 Stormwater swales capture runoff from both the parking areas and building rooftops
- 5 Rain gardens for building runoff
- 6 Plaza space in front of new retail building
- 7 Comfortable sidewalk zone along El Camino Real
- 8 Vegetated swale captures drainage from parking lot and primary entrance road
- 9 Stormwater curb extensions capture runoff from El Camino Real
- 10 On-street parking in front of new retail
- 11 Bike lane
- 12 Stormwater planters can either capture runoff from El Camino Real or adjacent retail buildings