

# Chapter 4: Infrastructure, Utilities, and Public Services

## 4-1: Infrastructure

### 4-1.a: Grading Approach

The Mediterra Plan respects the natural topography of the land and confines the development to the flatter areas of the property while preserving the steeper terrain for open space and agricultural and equestrian use. This approach minimizes the environmental impacts and the mass grading quantity with relatively shallow cuts and fills. The grading concept of the development area is designed to follow the land's natural contours. This concept is shown on Tentative Tract Map 18893, depicting the conceptual pad elevations, street grades, and transitional slopes. The final grading plan shall be designed to balance the grading quantities on-site and minimize import or export of soil.

### 4-1.b: Water

Domestic water service is provided by the East Valley Water District (EVWD). The local distribution system for the Mediterra Development will be provided through developer funded construction of the local facilities, subject to EVWD approval, inspection, and acceptance. An existing 24-inch water main is located along the frontage of the Mediterra Plan and will be the point of connection for domestic water. All local streets are anticipated to have an extension of the water system with minimum 8-inch main lines to provide adequate domestic service, landscape irrigation, and fire flow. Exhibit 4-1 shows the existing water lines and the extension of main lines within the Mediterra Plan to serve the new community.

### 4-1.c: Sewer

EVWD is the local agency providing sewer service for the plan area. Currently, off-site treatment and disposal of effluents is the responsibility of the City of San Bernardino, operating through a joint services agreement with EVWD. EVWD recently



completed an update to the Sewer Master Plan and has identified ways to increase capacity in the sewer system for the whole community. The point of connection will be to the existing main line in Greenspot Road along the frontage of Mediterra. The local collection system within the Mediterra Plan is expected to be composed mainly of 8-inch lines and manholes. The internal system will be provided by developer-funded construction, subject to EVWD approval, inspection, and acceptance. Exhibit 4-1 shows the existing and the new extensions of sewer lines within the Mediterra Plan to serve the new community.

## **4-1.d: Storm Drainage and Water Quality Management**

### **4-1.d1: Drainage**

Historically, the majority of the property under the Mediterra Plan drains to the southwest. The Plan has been designed to substantially follow that pattern and drain to existing facilities sized for the needed capacities. Tentative Tract Map 18893 contains details of the drainage pattern and facilities anticipated for the Mediterra development. There are mainly two types of storm water drainage facilities and patterns for the Mediterra Plan. One pattern is for containment of drainage from the natural hillside, and one for drainage from the development area.

The hills to the north of the Mediterra development areas will be preserved in their natural condition. Drainage from these hills will be contained in a mostly open drainage channel designed to capture the direct runoff from the hills. This facility is located at the north side of the paved section of the North Fork Trail, immediately at the bottom of the rising natural slopes. The facilities are designed for 100-year storm events and for debris flows. The drainage from the hillside does not require treatment for Water Quality purposes; for that, the drainage facilities take the discharged storm water directly to existing drainage facilities along Greenspot Road which eventually discharge at the Plunge Creek to the west.

The drainage from the development areas requires treatment of storm water for 2-year storm events. As such a local storm drain system will be constructed within the development areas to contain the storm water discharge from these areas. The whole system leads to a Water Quality Management Plan Basin (“WQMP Basin”) located at the downstream end of the community to the south side of Greenspot Road. All drainage facilities are detailed on Tentative Tract Map 18893 and on Exhibit 4-1.

### **4-1.d2: Water Quality Management Plan**



A Conceptual Water Quality Management Plan (C-WQMP) has been submitted to the City of Highland and conceptually approved in conformance with the “Technical Guidance Document for Water Quality Management Plans” of the Santa Ana Regional Water Quality Board. The plan shows the method for treatment of surface runoff from development areas as well as plans for WQMP Basin location. The final WQMP Basin will be sized on the basis of the latest Water Quality Board criteria, infiltration tests by the soils engineer, and in accordance with the City of Highland standards. Best Management Practices will also follow the procedures described by the San Bernardino County Stormwater Program’s WQMP Technical Guidelines. The WQMP Basin will be maintained by HOA, LMD or maintenance CFD subject to the approval of the City of Highland. The location of the WQMP Basin is shown on Exhibit 4-1 and detailed on Tentative Tract Map 18893.

#### **4-1.d3: Storm Water Pollution Prevention Plan**

Temporary treatment of storm water discharge during construction will be addressed with a Storm Water Pollution Prevention Plan (SWPPP) and will be submitted to the City of Highland for approval. The SWPPP will contain the required elements of General Construction Permit No. CAS 000002 (Order No. 99-08-DWQ) issued by the State Water Resources Control Board. The purpose and objective of the SWPPP is to:

- Identify all pollutant sources including sources of sediment that may affect the quality of storm water discharges associated with construction activity from the construction site, and identify non-storm water discharges;
- Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction, and;
- Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).

The preparation of the SWPPP is based on the principles of BMPs and not numeric effluent limitations to control and abate the discharge of pollutants into receiving waters. The BMPs will be maintained by the project developer during the construction phase of this project.



## 4-2: Utilities

### 4-2.a: Electricity

Southern California Edison (SCE) provides electrical service to the City of Highland. The nearest services are provided to the existing community immediately to the west of Mediterra, the two existing residences within the plan area, the San Bernardino Valley Municipal Water District facilities along Greenspot Road, and to the recently completed EVWD headquarters on the south side of Greenspot Road. Service to the Mediterra Plan will be provided at a point of connection to the existing facilities and will be extended throughout the Plan area. SCE also maintains the overhead power lines that traverse the Plan area and which will be maintained in their existing condition and location. Exhibit 4-1 shows the existing electrical point-of-connection and the main extension to serve the new community.

### 4-2.b: Natural Gas

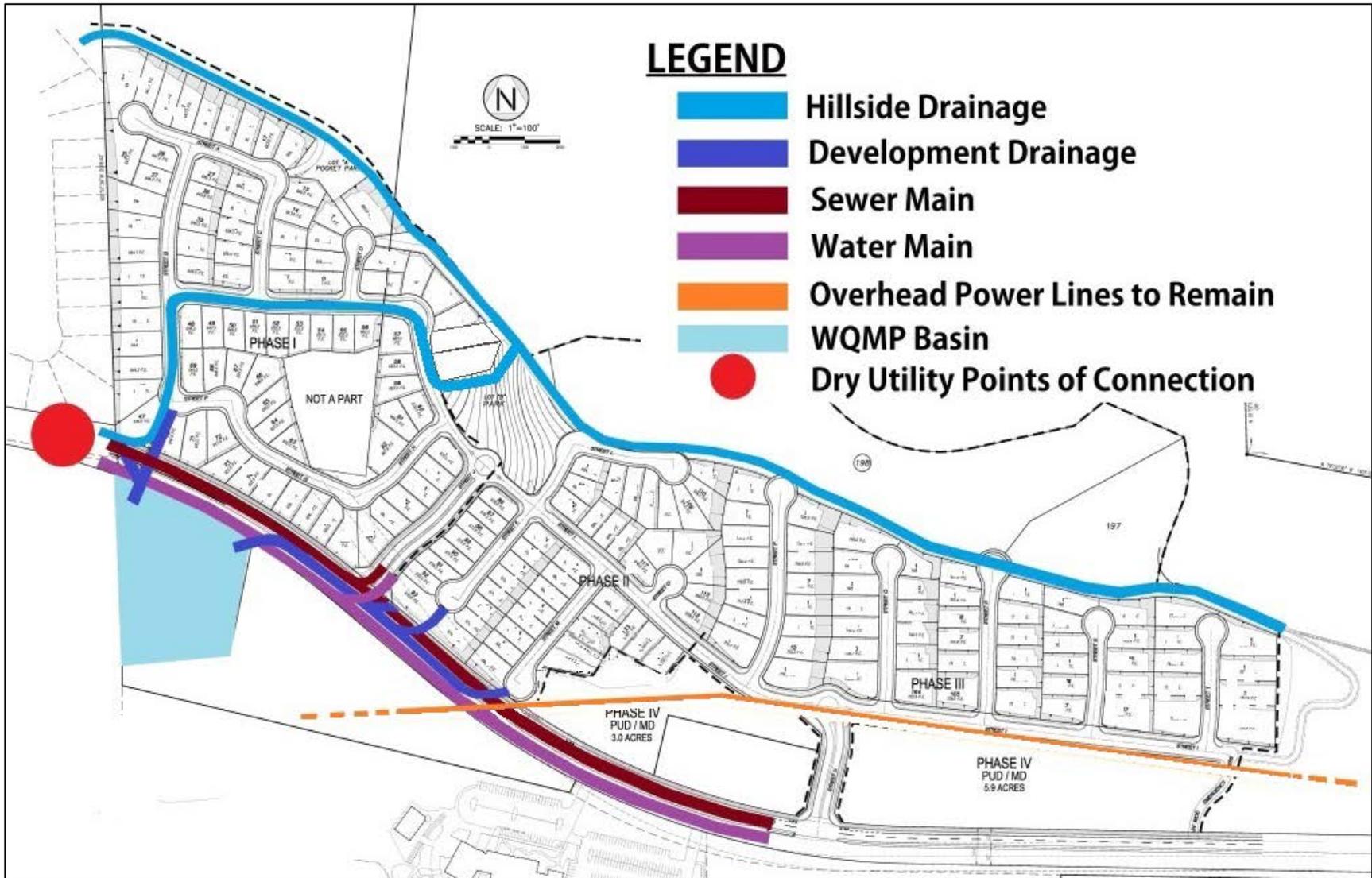
Southern California Gas Company provides natural gas service to the City of Highland. A four-inch medium pressure gas line exists along the south side of Greenspot Road with adequate pressure and capacity to serve the Mediterra project. The main line extends easterly to Santa Ana Canyon Road, providing service to different existing users with possible extension to the east end of the City of Highland. Exhibit 4-1 shows the existing gas point of connection extension to serve the new community.

### 4-2.c: Cable TV, Telephone, and Internet Services

Time Warner Cable, AT&T, and Verizon California, Inc., provide several services to this area including telephone, Cable TV, and internet services. Existence of infrastructure and capacity for all of these services within close proximity of the Mediterra development has been confirmed with the service providers. Exhibit 4-1 shows the existing points of connection to serve the new community.



# Exhibit 4-1: Infrastructure and Utilities



## 4-3: Phasing of Improvements

The Mediterra improvements will be completed per the standards and requirements of the City of Highland and other applicable public agencies. Phasing of improvements is necessary for providing adequate infrastructure and services including safety measures and emergency response to the community. Phasing is also important for the financial feasibility of the project and for reduction of the up-front capital expenditures and for flexibility relative to market demand. The phasing sequence, particularly for phases 3 and 4 as described below, may be reversed as long as all of the needed infrastructure improvements and public safety measures are implemented subject to the approval of the City of Highland.

### 4-3.a: Phase 1

Phase 1 of the Mediterra Plan includes PA 1, the closest portion of the project to existing improvements and utilities to serve the development. Mediterra Parkway will be the main point of access from Greenspot Road. All local streets as well as the emergency vehicle access at the westerly edge of the community and all wet and dry utilities within the limits of PA 1 shall be completed with this phase. All of Greenspot Road north side frontage to PA 1, from the existing improvements to the west of Mediterra to the east edge of Mediterra Parkway along with the raised median shall be completed with Phase 1. The portion of the North Fork Trail that falls within the limits of PA 1 shall be completed with this phase.

The WQMP basin shall be completed with Phase 1. Pine Park shall be completed with PA 1.



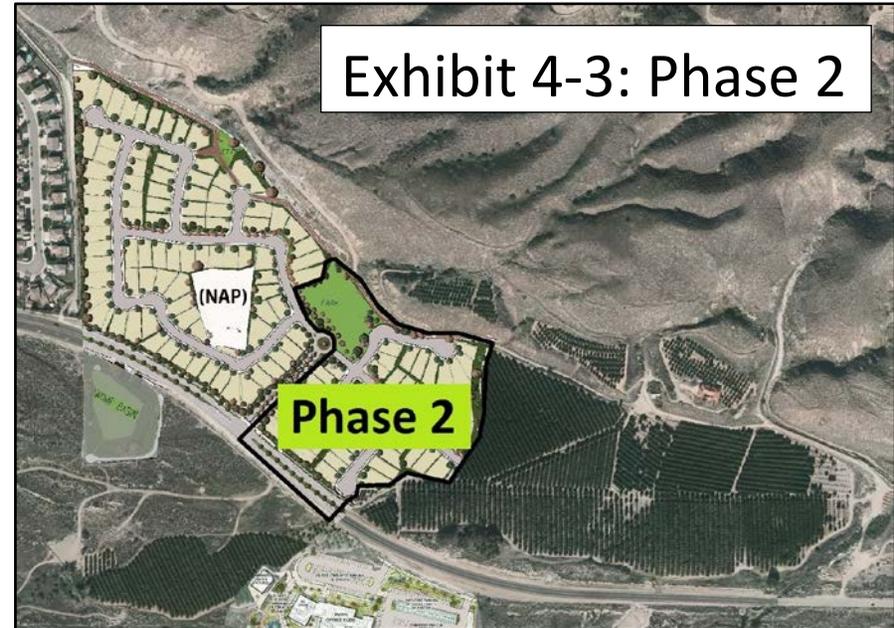
### 4-3.b: Phase 2

Phase 2 of the Mediterra Plan includes PA 2 and is the extension of utilities, road system, and other improvements completed in Phase 1. For this phase the length of Avenida Ramblas within the limits of the phase shall be completed, along with all other local streets and dry and wet utilities and other improvements within this phase. All of Greenspot Road north side frontage to PA 2 along with the raised median shall be completed with Phase 2. The portion of the North Fork Trail that falls within the limits of PA 2 shall be completed with this phase.

The public facilities at the Mediterra Park as described in Section 8-3.a1: Mediterra Park Components shall be completed with this phase.

### 4-3.c: Phase 3

Phase 3 of the Mediterra Plan may occur at PA 3 and is the extension of utilities, road system, and other improvements completed in Phases 1 and 2. For this phase the length of Avenida Ramblas within the limits of PA 3 shall be completed, along with all other local streets and dry and wet utilities and other improvements. The north side portion of Greenspot Road between the previously completed improvements and the easterly edge of Terraneo Parkway which front the Mediterra Plan area along with the raised median shall be completed with this phase. The portion of the North Fork Trail that falls within the limits of PA 3 shall be completed with this



phase. Phase 3 may occur at PA 4 as described in Section 4-3.d subject to the approval of the City of Highland.

#### 4-3.d: Phase 4

Phase 4 of the Mediterra Plan may occur at PA 4 and relies on improvements completed in all prior phases of the plan. The frontage of PA 4 with Avenida Ramblas shall be fully completed along with all improvements within the limits of PA 4. If Terraneo Parkway is not previously completed then it should be fully improved with this phase. The north side portion of Greenspot Road between the previously completed improvements and the easterly edge of the Plan area which front the Mediterra Plan area along with the raised median shall be completed with this phase. All local streets within the limits of PA 4, including all utilities and other improvements shall be completed with this phase. Phase 3 may occur at PA 4 as described in Section 4-3.c subject to the approval of the City of Highland.

The private recreation center at the Mediterra Park described in **Section 8-3.a2: Community Recreation Area** shall be completed with this phase.



## 4-4: Financing of Improvements

The financing of capital improvements for the Mediterra Community will be mainly from private sources, providing timely funding and completion of public facilities including streets, wet and dry utilities, parks, and other necessary improvements. Certain regional infrastructure improvements are funded and constructed by the City of Highland or other regional agencies; new developments contribute their fair share to such regional improvements.

Typical sources of funding mechanisms for capital improvements include:

- Development Impact Fees.
- Community Facility Districts (CFD) or similar financing.
- Conventional subdivision financing from private sources.
- Project-specific mitigation fees.

The Mediterra development will contribute to the construction of infrastructure improvements with one or more of the above funding mechanisms. The development will pay Development Impact Fees, fund and build certain improvements like the parks and trails and streets, and pay a per-lot traffic mitigation fee specific to the development. The challenge of producing conventional financing for the construction of infrastructure needs from private funding sources is an increasingly significant hurdle for residential developments. With that, subject to coordination with the City of Highland or other governmental agencies, a Community Facilities District will be formed to provide funding for some of the development improvements or for the payment of fees. The East Highlands area has several projects with funding from such sources, covering physical improvements, Development Impact Fees, or other qualified development costs.

The developer will seek full or partial credits against the corresponding components of the Development Impact Fees for qualified facilities and improvements to be constructed by the development which otherwise are provided by the City of Highland or other agencies.



## 4-5: Maintenance of Improvements

The Mediterra Plan creates neighborhood and pocket parks, and other landscape areas, open spaces, and improvements. Some of these improvements may be maintained by a City-administered LMD, PMD, maintenance CFD, a Homeowners Association (HOA), or a combination thereof subject to approval by the City of Highland. The maintenance of such areas by LMD, PMD, CFD, or HOA is justified by their function and access to the Mediterra residents or to the general public, their aesthetic value to the community, or their limited access for maintenance by individual homeowners. Examples of such areas include:

- Greenspot Road median and parkways.
- Mediterra Parkway and Terraneo Parkway medians and parkways.
- Paseo Ramblas along Avenida Ramblas Street.
- Water Quality Management Plan basin.
- The North Fork Multi-Use trail.
- Slopes contiguous to the existing community along the west edge of Mediterra and other select slopes.
- The Mediterra Park and Pocket Park.

Landscape areas, slopes, parkways, and limits between private and public areas are better defined in the process of final engineering of the development. As the final tract engineering defines such areas, the maintenance responsibility will be assigned subject to approval by the City of Highland.

Planning Area 4 is designated as PUD / Medium Density, where a homeowner association would be created to assume the maintenance of the interior common areas and private streets, if any, of this neighborhood.



## **4-6: Public Services**

### **4-6.a: Medical Services**

Primary ambulance service within the East Highlands area is provided by the American Medical Response Ambulance Service.

### **4-6.b: Solid Waste**

Collection of refuse and other solid waste in the City of Highland is provided by privately owned disposal companies approved by the City of Highland. The current solid waste disposal provider servicing the portion of the City located south of Base Line is Cal Disposal. The collection route will be expanded to include the Mediterra community for this service.

### **4-6.c: Police Service**

Local law enforcement service in Highland is provided by the San Bernardino County Sheriff's Department under a contract with the City of Highland. At the time building permits are secured, the Mediterra Development will pay Development Impact Fees per City of Highland ordinance.

### **4-6.d: Fire Protection and Emergency Services**

Highland is currently protected by crews and equipment from CAL FIRE. The nearest fire station is located on Base Line near Weaver Street, about two miles northwest of Mediterra. The first line of defense in fire protection is prevention, and to this end, the Mediterra plan incorporates design and site planning that minimize exposure of the adjacent residential neighborhoods to the natural hillside areas and lessen the burden of fire protection services. Additionally, the plan incorporates access points for Fire apparatus and personnel to the North Fork Trail along the areas of interface with the open space natural slopes. At the time building permits are secured, the Mediterra Development will pay Development Impact Fees per City of Highland ordinance.

### **4-6.e: Libraries**



The most recent and closest library is the Sam J. Racadio Library and Environmental Learning Center, located at 7863 Central Avenue, about two and one-half miles west of Mediterra. The Sam J. Racadio Library is a state of the art facility and was completed in 2005. The developers of the Mediterra plan will pay the Library component of the City's Development Impact Fee as required by City ordinance.

## 4-6.f: Schools

Mediterra is within the attendance boundary of the Redlands Unified School District (RUSD). The school district is responsible for providing complete educational services and facilities for local students. These educational services are for kindergarten through grade twelve. The school district collects fees per dwelling unit at the time building permits are secured for purposes of financing school facilities.

Following are the existing public schools that are assigned to serve the Mediterra Community:

Mentone Elementary School (grades K-5)

Location: Mentone, Northeast corner of Mentone Blvd and Crafton Ave., Redlands

Distance: Approximately 6 miles from Mediterra

Beattie Middle School (grades 6-8)

Location: Between Boulder Avenue and Orange street, south of Eucalyptus Avenue, Highland

Distance: Three and one half miles from Mediterra

Redlands East Valley High School (grades 9-12)

Location: 31000 East Colton Avenue, Redlands

Distance: Five miles southeast of Mediterra

