Section 4
Infrastructure

Infrastructure

FIGURE 4.1 Primary Street Network

FIGURE 4.2 Internal Street Network

4.1 VEHICULAR ACCESS

Fort Ord is located between Salinas and Monterey, the region's two largest housing and employment centers. Most travel between Salinas and Monterey is routed around Fort Ord onto California Route 68 and Blanco/Reservation Road. As a result, portions of these roads currently operate near or at capacity during peak hours. Redevelopment of Fort Ord (6,500 units of housing, and 3.5 million square feet of retail/commercial space) will require improvements to roads both within and beyond its boundary. Traffic impacts resulting from the redevelopment of the former base at Fort Ord will be mitigated through the basewide FORA fee (enacted in 1997). East Garrison will contribute its fair share of the FORA fee, some of which will be utilized for traffic improvements. The FORA impact fee will contribute to improving off-site infrastructure, mitigating East Garrison's off-site traffic, and addressing infrastructure impacts.

The land use concept for East Garrison contains a framework for circulation consisting of both a Primary Street Network and an Internal Street Network (Figure 4.1 and Figure 4.2). Proposed access to the community will be provided by a new main entrance from Reservation Road just west of the existing East Garrison Gate. This entrance will lead to the Town Center. Access will also be provided from Reservation Road by reopening Watkins Gate Road and moving the upper portion of this road to the south edge of the Track Zero at East Garrison boundary. This road will provide access from the Salinas Valley to the project site and will provide access for events at Laguna Seca via Barloy Canyon Road (currently served via the old East Garrison Main Gate). Inter-Garrison Road will provide access from other portions of Fort Ord (Figure 4.3 Regional Roads and Figure 4.4 Vicinity Roads). A new road will connect Inter-Garrison Road along the western project edge to Reservation Road,

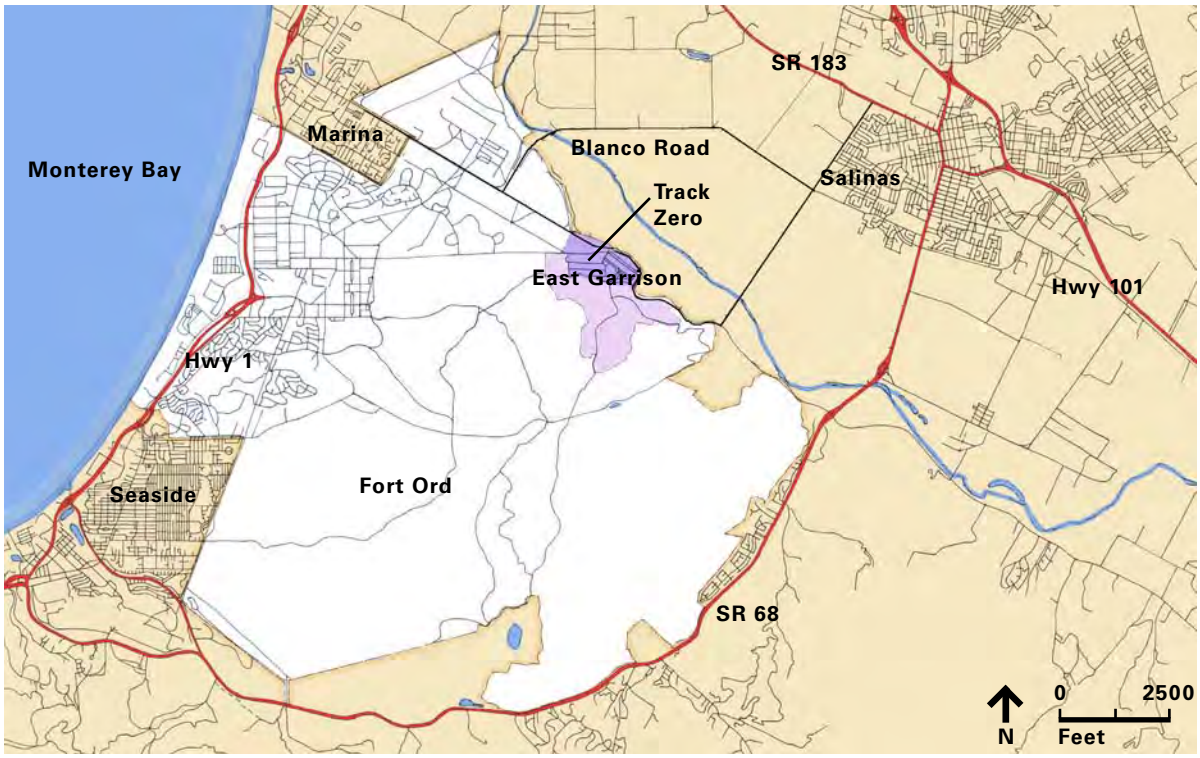

FIGURE 4.3 Regional Roads

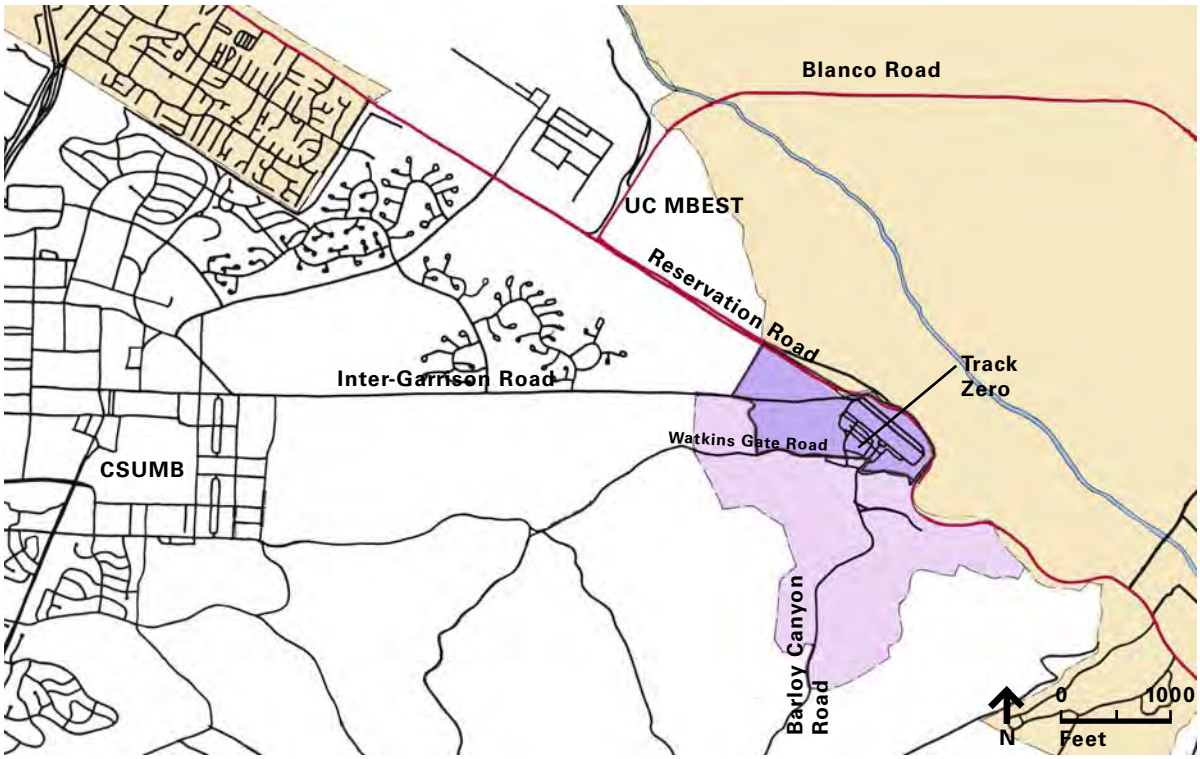

FIGURE 4.4 Vicinity Roads

as depicted in the Fort Ord Reuse Plan (This road will replace FORA's Capital Improvement Program [CIP] Project #4 and FO 6). Traffic signals are proposed for the Main entrance/Reservation Road, Inter-Garrison Road/Reservation Road, and Watkins Gate Road/ Reservation Road intersections (Figure 4.5 Public/ Private Streets).

Regional transportation improvements are provided through the Fort Ord Reuse Plan and its CIP. Each residential project in Fort Ord contributes funding to the CIP. The community will also be served by Monterey-Salinas Transit with the rerouting of existing bus routes through the community. Nearly all residences will be located within walking distance (up to ¼-mile) of a bus stop.

The only proposed public roads are those around the periphery of the project: a new Inter-Garrison Road connection to Reservation Road; West Camp Street; Watkins Gate Road between West Camp Street and Reservation Road. (Figure 4.5 Public/Private Streets).

Reservation Road will be improved to accommodate the community's traffic. The capacity of Reservation Road will increase by installing coordinated traffic signals at three locations. These signals will provide traffic controls and flow metering at the access points to East Garrison.

4.1.1 Street Network and Hierarchy

A grid pattern of different street types (Figure 4.6 Primary and Internal Street Network), each with a different character and function, will serve the transportation needs of the community. With sidewalks on all streets and bikeways on many, the streets will become the armature for the pedestrian and bicycle network as they connect the residential neighborhoods to the parks and open space within and beyond East Garrison.

All streets will have a 20-foot-wide "clear zone" designed to accommodate movement of emergency vehicles (including Fire and Sheriff vehicles). On most

FIGURE 4.5 Public/Private Streets

streets, the clear zone will be located in the roadway section. On the narrowest streets (Town Center streets, Neighborhood Street C, and Neighborhood Street D), the clear zone overlaps the sidewalk. In such instances, the sidewalk will be constructed with reinforced concrete and will be free of vertical obstructions such as trees and street furnishings.

In order to create pedestrian-friendly streets that support a compact neighborhood, most neighborhood streets will be designed for 25 mph.

Due to water limitations, only selected streets will contain irrigated landscape shoulders (verges). The Park and Open Space Framework defines those streets that connect the open spaces as landscaped, or "green," streets. These streets will contain landscaped shoulders and street trees. On all other streets, sidewalks will be located adjacent to the curb. Space between the sidewalk and private property will be landscaped with a drought-tolerant plant palette, and maintained by the Community Service District (CSD) and/or Homeowners Association (HOA).

Most of the roads, as depicted in Figure 4.6 (Primary and Internal Street Network), will be privately owned and maintained by a Community Services District. These roads will be built to the standards established by the Plan.

Figures 4.7 through 4.10 identify streets by type: entry, community, Town Center, and neighborhood.

FIGURE 4.6 Primary and Internal Street Network

FIGURE 4.7 Entry Streets

FIGURE 4.8 Community Streets

FIGURE 4.9 Town Center Streets

FIGURE 4.10 Neighborhood Streets

4.1.2 Entry Street

Designation: A

Definition

This street will be a primary entrance that will accommodate high traffic volumes entering and exiting the community from Reservation Road. Adjacent uses include live/work units. This street will have large trees in both the median and the verge to mark the entrance. On-street parking, at a minimum during the morning and afternoon peak hours, will be prohibited.

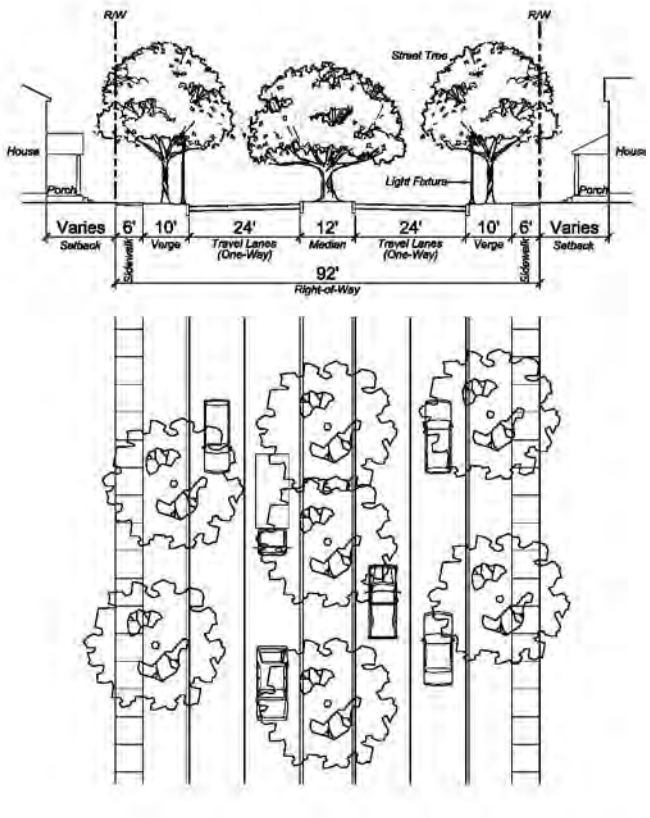

FIGURE 4.11 Section and Plan: Entry Street A

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, four lanes

PARKING Restricted

R-O-W WIDTH 92 Feet

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 6 Feet both sides

BICYCLE LANE None

VERGE 10 Feet

LANDSCAPE Continuous planting with street trees, grasses and perennials (irrigated).

FIGURE 4.12 Key Plan: Entry Street A

4.1.3 Entry Street

Designation: B

Definition

This street will be a small-scale, moderate-speed, public road providing secondary access for residential areas and Laguna Seca Raceway. Adjacent land uses include natural open space. This street will be owned and maintained by Monterey County.

Note

This street will follow the general alignment of the existing Watkins Gate Road east of Barloy Canyon Road.

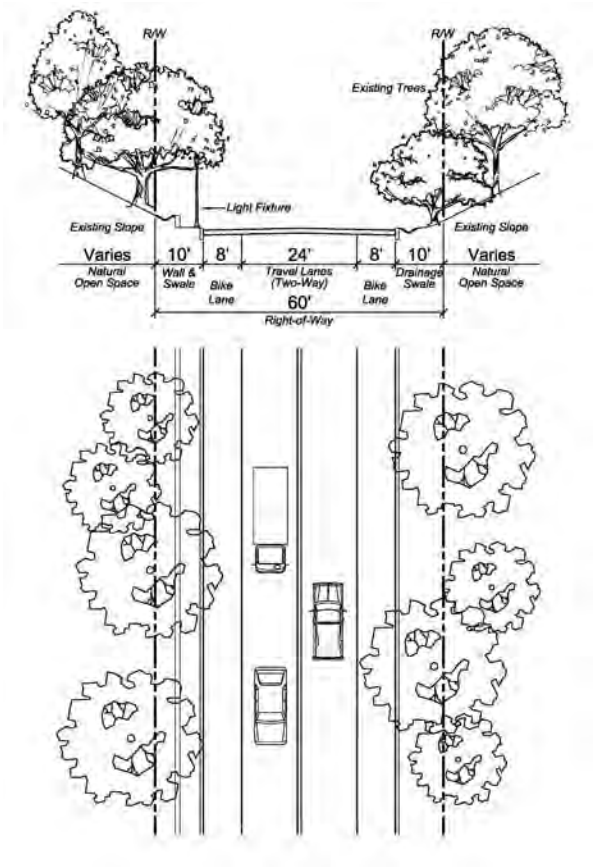

FIGURE 4.13 Section and Plan: Entry Street B

MOVEMENT Free
DESIGN SPEED 25 MPH
TRAVEL LANES Two-way, two lanes
PARKING None
R-O-W WIDTH 60 Feet
TRAVEL LANE WIDTH 12 Feet
CURB TYPE Raised
SIDEWALK WIDTH None
BICYCLE LANE Class 2 both sides
VERGE Varies
LANDSCAPE Fire resistant

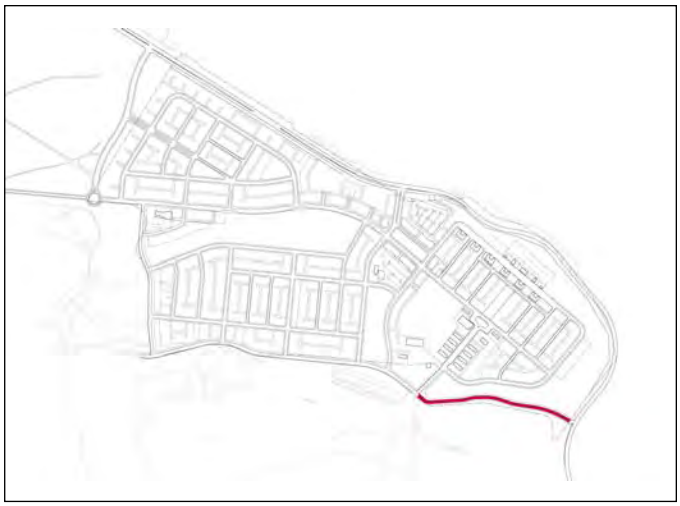

FIGURE 4.14 Key Plan: Entry Street B

4.1.4 Community Street

Designation: A1

Definition

This street will be a moderate-speed link providing access for vehicles and bicycles into the center of the community. Adjacent land uses will include single-family detached residential on one side and parks and natural open space on the other. On-street parking will be permitted on both sides of the street. Class 2 bicycle lanes in both directions will be provided along the length of the street. This street will employ several traffic-calming measures along it in order to facilitate pedestrian crossing from the neighborhood to the open space and parks.

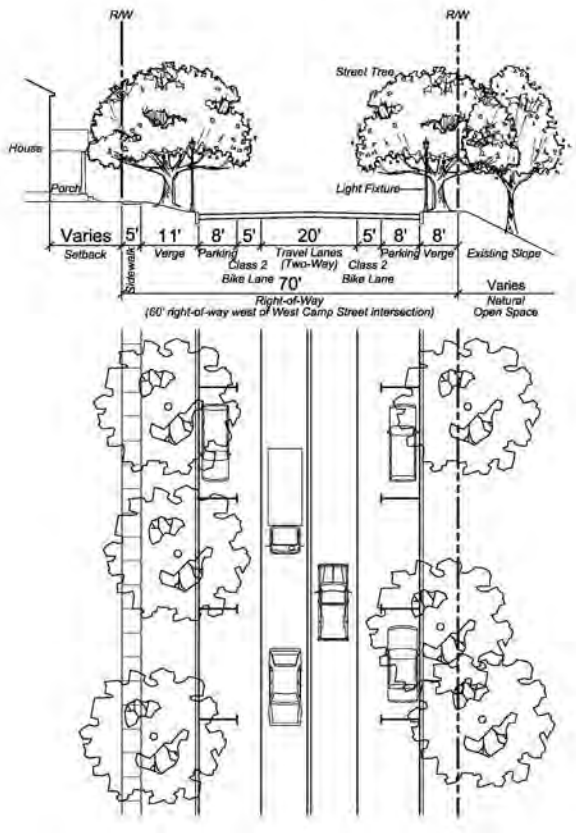

FIGURE 4.15 Section and Plan: Community Street A1

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on both sides

R-O-W WIDTH 70 Feet

TRAVEL LANE WIDTH 10 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet on residential side

BICYCLE LANE Class 2 both sides

VERGE 11 Feet at houses, 8 Feet at park

LANDSCAPE Continuous planting with street trees, grasses, perennials and groundcover (irrigated)

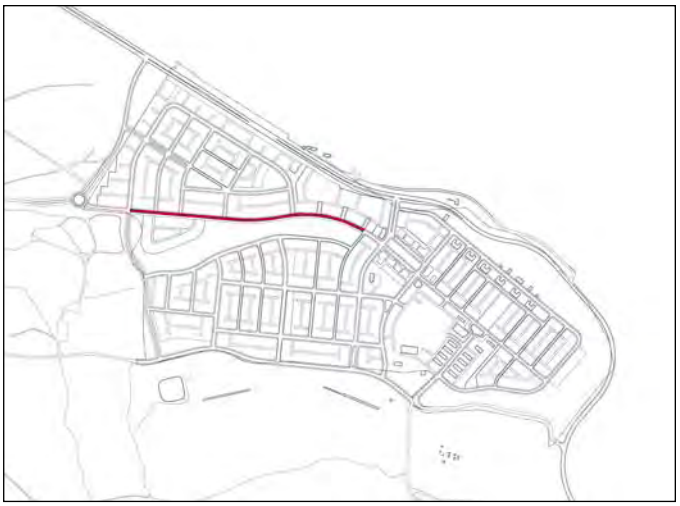

FIGURE 4.16 Key Plan: Community Street A1

4.1.5 Community Street

Designation: A2

Definition

This street will be a moderate-speed link providing access for vehicles and bicycles into the center of the community from Inter-Garrison Road. Adjacent land uses will include the Youth Camp on the south side and housing on the north side of the road. On-street parking will not be permitted. Class 2 bicycle lanes in both directions will be provided along the length of the street.

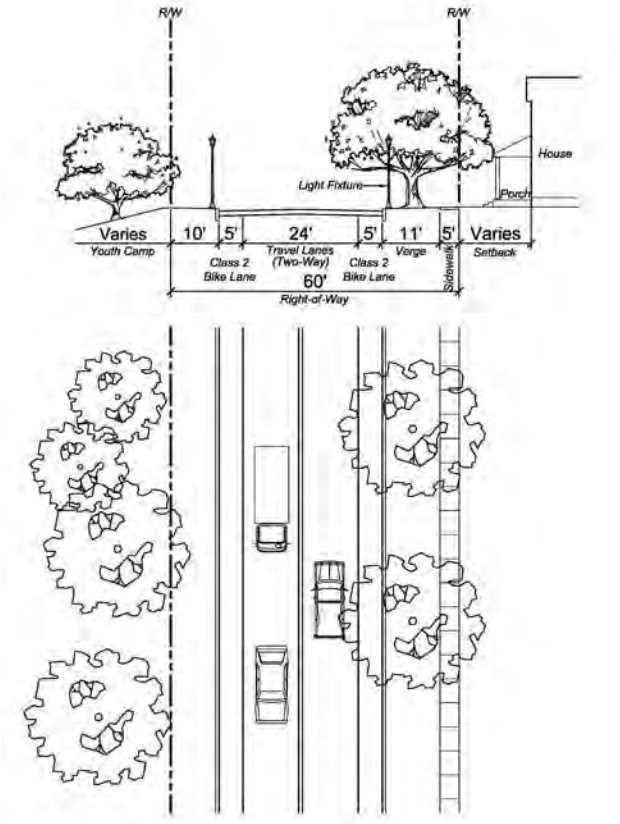

FIGURE 4.17 Section and Plan: Community Street A2

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING None

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 24 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet on residential side

BICYCLE LANE Class 2 both sides

VERGE 11 Feet at houses, 10 Feet at Youth Camp

LANDSCAPE Fire resistant

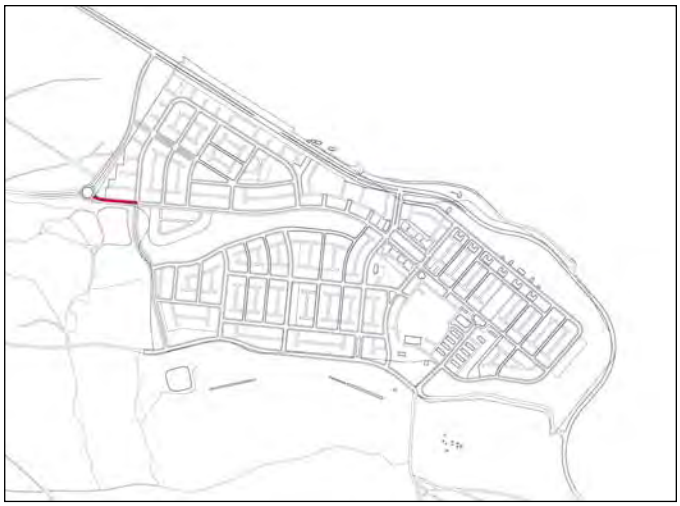

FIGURE 4.18 Key Plan: Community Street A2

4.1.6 Community Street

Designation: B

Definition

As a moderate-speed street parallel to the Monterey Bay Youth Camp, its adjacent land uses will include the Camp to the west and single-family detached homes across an open space buffer to the east. On-street parking will be prohibited. Class 2 bicycle lanes will be provided in both directions. This street will be owned and maintained by Monterey County.

Notes

This street represents the reconstruction of the existing West Camp Street. As proposed, the new street will be realigned and regraded to eliminate the existing street's dangerous, dramatic curves, unsafe intersection angles, and steep slopes.

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING None

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet on residential side

BICYCLE LANE Class 2 both sides

VERGE None

LANDSCAPE Fire-resistant ground cover (FRGC) and trees.

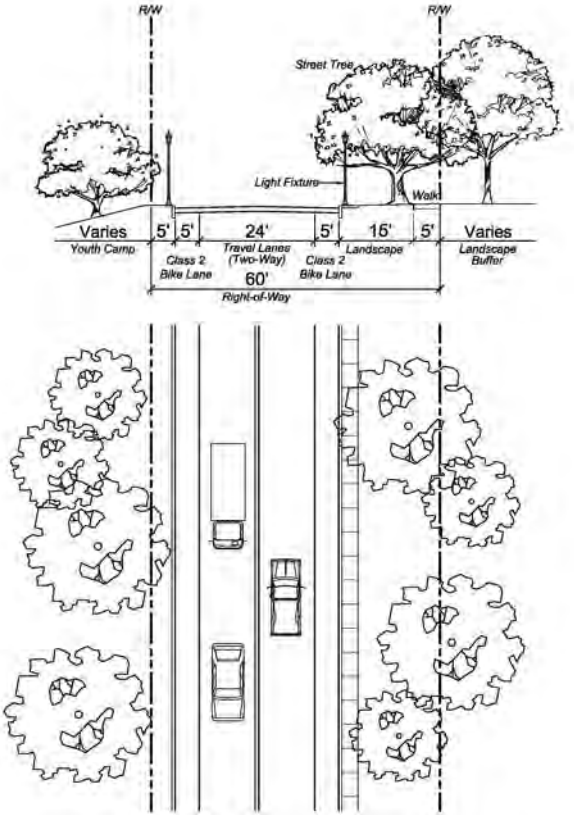

FIGURE 4.19 Section and Plan: Community Street B

FIGURE 4.20 Key Plan: Community Street B

4.1.7 Community Street

Designation: C

Definition

As a moderate-speed link, this street will provide access for vehicles and bicycles into the center of the community. Adjacent land uses will include attached and multi-family residential on both sides of the street.

Note

This street represents the reconstruction of the existing Chapel Hill Road. As proposed, the new street will be slightly realigned.

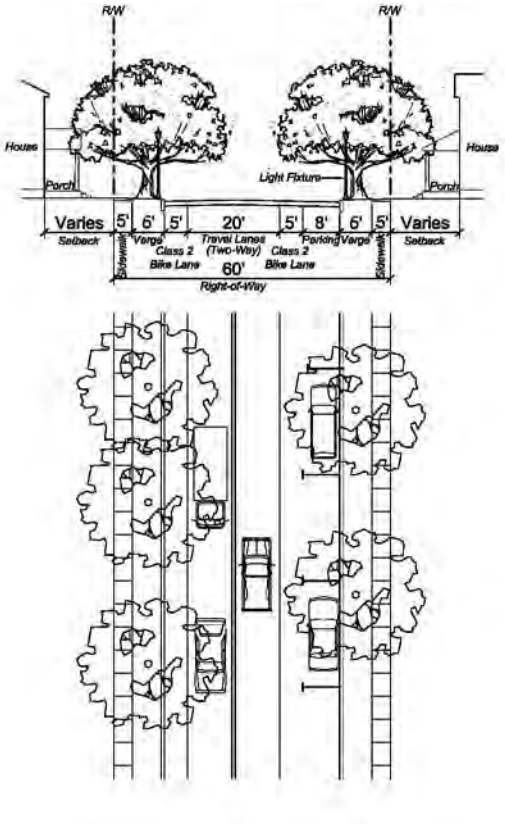

FIGURE 4.21 Section and Plan: Community Street C

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on east side

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 10 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet on both sides

BICYCLE LANE Class 2 both sides

VERGE 6 Feet

LANDSCAPE Continuous planting with street trees, grasses, perennials, and groundcover (irrigated)

FIGURE 4.22 Key Plan: Community Street C

4.1.8 Community Street

Designation: D

Definition

This street will be a moderate-speed link providing access for vehicles and bicycles along the southern edge of the community. Adjacent land uses will include single-family detached residential on one side and parks and natural open space on the other. On-street parking will be permitted on one side of the street. Class 2 bicycle lanes in both directions will be provided along the length of the street. This street will be owned and maintained by Monterey County.

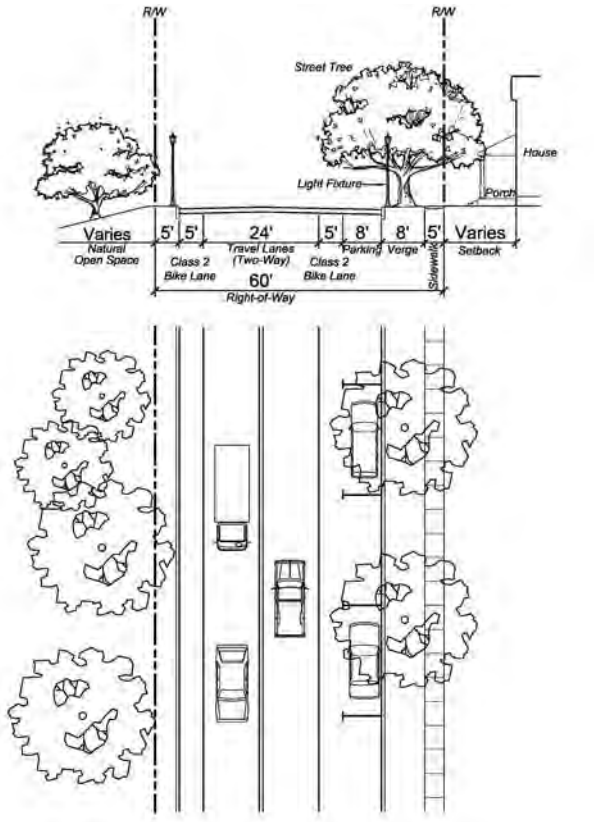

FIGURE 4.23 Section and Plan: Community Street D

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on north side

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet on residential side

BICYCLE LANE Class 2 both sides

VERGE 8 Feet at houses, 5 Feet at park

LANDSCAPE Fire-resistant ground cover (FRGC) and trees

FIGURE 4.24 Key Plan: Community Street D

4.1.9 Town Center Street

Designation: A

Definition

This Main Street is designed to encourage pedestrian and commercial activity. Adjacent land uses will include retail, office, civic, and multi-family residential units. Oversized travel lanes and on-street parking are provided to support commercial uses. Large sidewalks will be located in front of mixed-use buildings to accommodate outdoor dining and temporary retail uses. Trees in grates will provide shade without reducing the usable width for pedestrians.

Bulbouts, located at corners and mid-block, will facilitate pedestrian crossing and help slow traffic.

MOVEMENT Free

DESIGN SPEED 20 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on both sides

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 10 Feet in right-of-way in front of mixed-use buildings

BICYCLE LANE None

VERGE 8 Feet and a 2-Foot amenity strip on park side

LANDSCAPE Street trees in grates (irrigated). Lawn in the park/verge (irrigated).

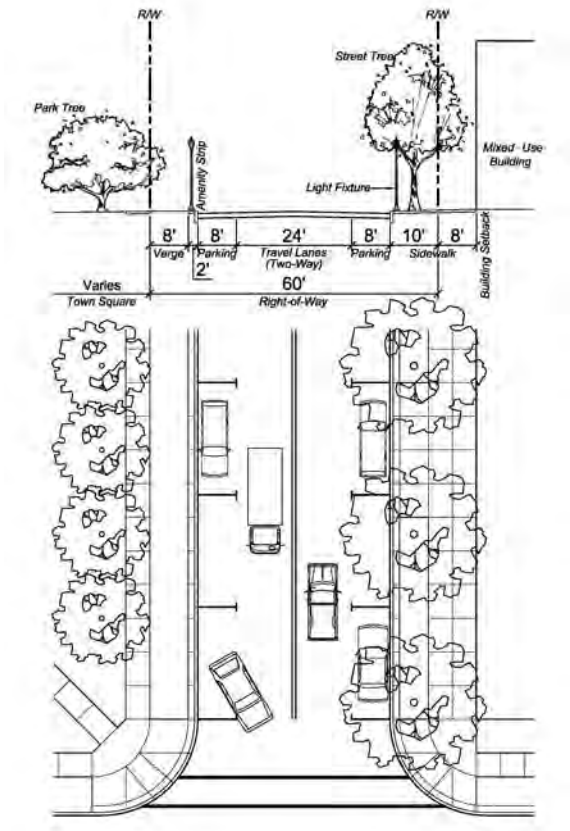

FIGURE 4.25 Section and Plan: Town Center Street A

FIGURE 4.26 Key Plan: Town Center Street A

4.1.10 Town Center Street

Designation: B

Definition

This road will be a one-way commercial street designed to encourage pedestrian and commercial activity. Adjacent land uses will include retail, office, civic, and multi-family residential. A travel lane, combined with on-street parking will support commercial uses. A large sidewalk will be located in front of mixed-use buildings to accommodate outdoor dining and temporary retail uses. Trees in grates will provide shade without reducing the usable width for pedestrians.

Note

Westbound fire access will come from the opposite side of the Town Square.

MOVEMENT Free

DESIGN SPEED 20 MPH

TRAVEL LANES One-way, one lane

PARKING Parallel one side

R-O-W WIDTH 40 Feet

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 12 Feet in right-of-way in front of mixed-use building

BICYCLE LANE None

VERGE 6 Feet and a 2-Foot amenity strip on park side

LANDSCAPE Street trees in grates (irrigated). Lawn in the park/verge (irrigated).

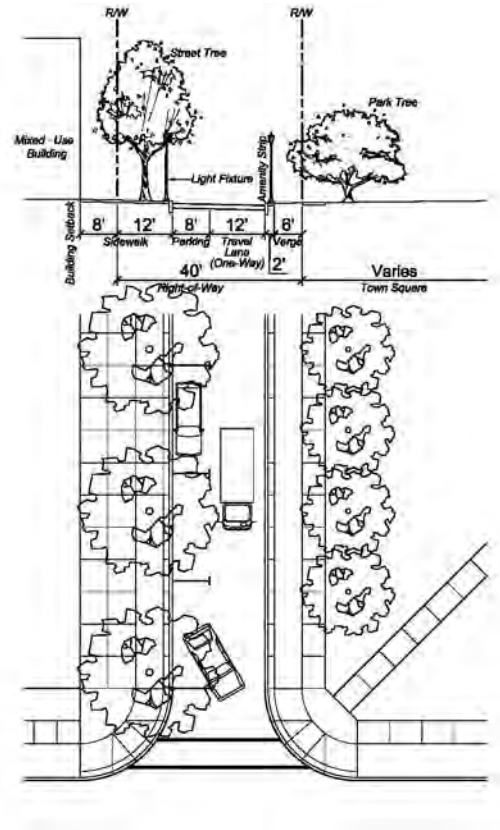

FIGURE 4.27 Section and Plan: Town Center Street B

FIGURE 4.28 Key Plan: Town Center Street B

4.1.11 Town Center Street

Designation: C

Definition

This road is a Main Street designed to encourage pedestrian and commercial activity. Adjacent land uses will include cultural uses and renovated historic buildings. Twelve-foot-wide travel lanes and on-street parking are provided to support commercial uses. Street trees will be located in curb bulbouts between parking spaces to provide shade for pedestrians and to enhance the streetscape.

Note

These streets will rebuild Sloat Street and Ord Avenue in their current alignment. Curb placements will remain as they currently exist.

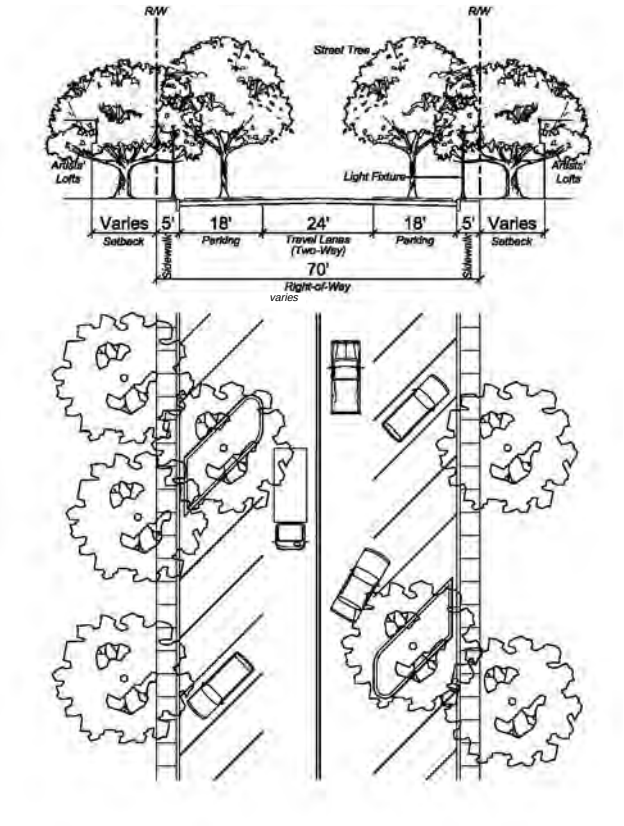

FIGURE 4.29 Section and Plan: Town Center Street C

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING 18 Feet diagonal on both sides

R-O-W WIDTH varies

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 5 Feet both sides

BICYCLE LANE None

VERGE Planters located between parking spaces

LANDSCAPE Continuous street trees in planters (irrigated).

FIGURE 4.30 Key Plan: Town Center Street C

4.1.12 Neighborhood Street

Designation: A

Definition

This street will be a moderate-speed couplet providing unique addresses for residences. Adjacent land uses include single-family detached and attached units. The landscaped area will create a park-like setting.

Note

Emergency vehicles will use both sides of the median to access either side of the street.

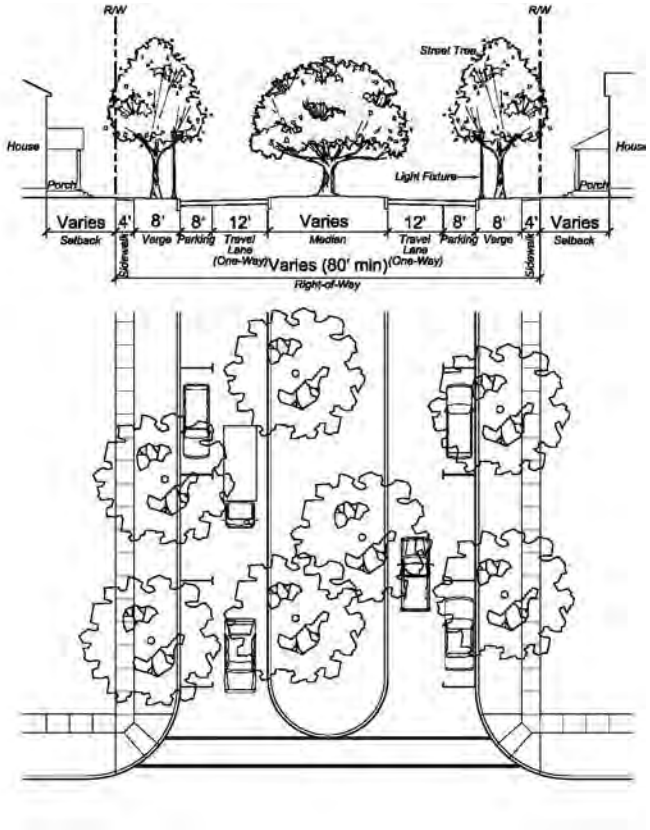

FIGURE 4.31 Section and Plan: Neighborhood Street A

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on both sides

R-O-W WIDTH Varies, 80 Feet min.

TRAVEL LANE WIDTH 12 Feet

CURB TYPE Raised

SIDEWALK WIDTH 4 Feet both sides

BICYCLE LANE None

VERGE Varies, 8 Feet minimum

LANDSCAPE Continuous planting in central median and verge strip with drought-tolerant street trees, grasses, perennials, and groundcover (irrigated).

FIGURE 4.32 Key Plan: Neighborhood Street A

4.1.13 Neighborhood Street

Designation: B1

Definition

This will be a small-scale, moderate-speed street providing access to residential areas and parks. Adjacent land uses include the full range of housing options, as well as cultural uses. These streets will be strategically located to create green connections between parks and open spaces.

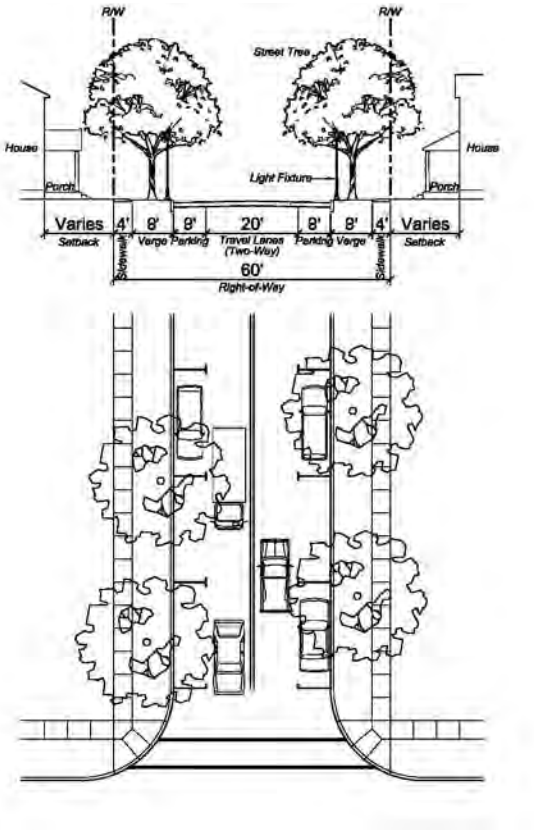

FIGURE 4.33 Section and Plan: Neighborhood Street B1

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on both sides

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 10 Feet

CURB TYPE Raised

SIDEWALK WIDTH 4 Feet both sides

BICYCLE LANE None

VERGE 8 Feet

LANDSCAPE Continuous planting with street trees, grasses, perennials, and groundcover (irrigated).

FIGURE 4.34 Key Plan: Neighborhood Street B1

4.1.14 Neighborhood Street

Designation: B2

Definition

This will be a small-scale, moderate-speed street providing access to the Arts District and neighborhoods. Adjacent land uses include townhouse and live/work units, as well as cultural uses. These streets are strategically located to create green connections between parks and open spaces. Sidewalk texture and material shall match Town Center sidewalks.

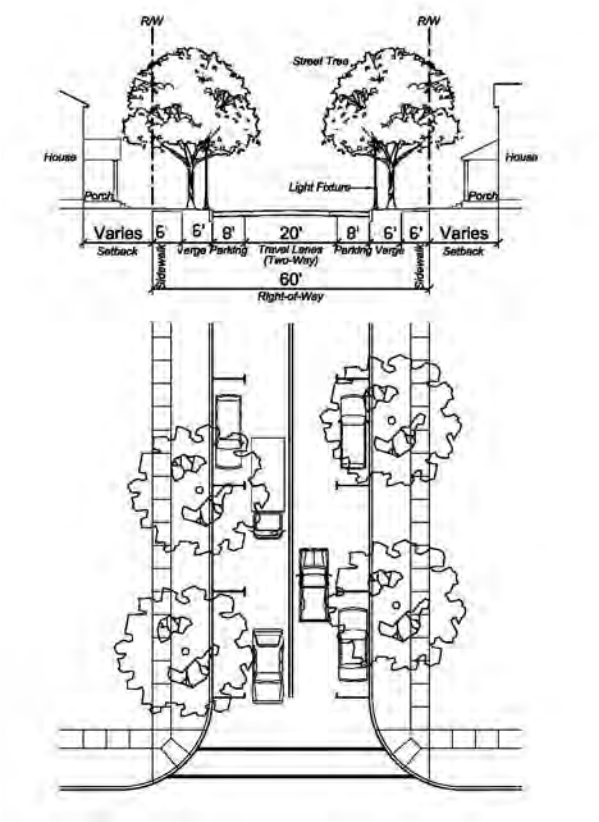

FIGURE 4.35 Section and Plan: Neighborhood Street B2

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on both sides

R-O-W WIDTH 60 Feet

TRAVEL LANE WIDTH 10 Feet

CURB TYPE Raised

SIDEWALK WIDTH 6 Feet both sides

BICYCLE LANE None

VERGE 6 Feet

LANDSCAPE Continuous planting with street trees, grasses, perennials, and groundcover (irrigated).

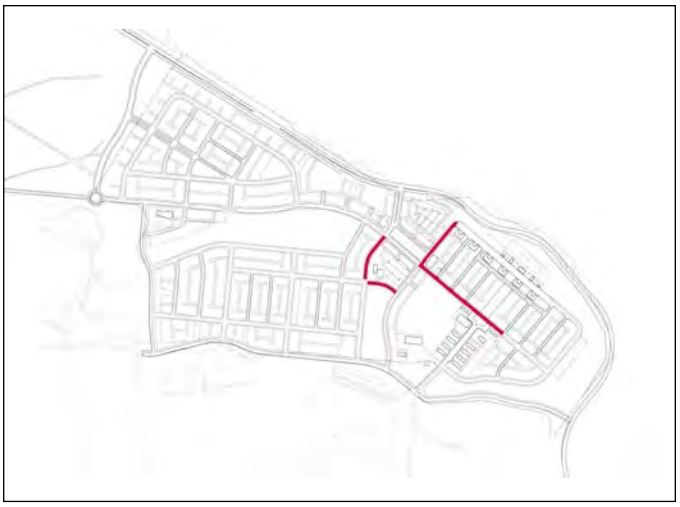

FIGURE 4.36 Key Plan: Neighborhood Street B2

4.1.15 Neighborhood Street

Designation: C

Definition

This will be a small-scale, low-speed street providing access to residential areas and parks. Adjacent land uses will include single-family detached and attached units.

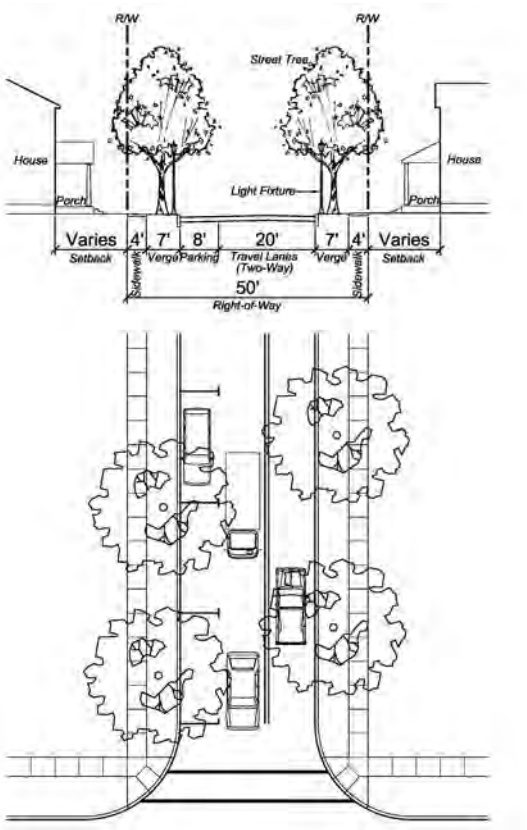

FIGURE 4.37 Section and Plan: Neighborhood Street C

MOVEMENT Free

DESIGN SPEED 25 MPH

TRAVEL LANES Two-way, two lanes

PARKING Parallel on one side

R-O-W WIDTH 50 Feet

TRAVEL LANE WIDTH 10 Feet

CURB TYPE Raised

SIDEWALK WIDTH 4 Feet both sides

BICYCLE LANE None

VERGE 7 Feet

LANDSCAPE Continuous planting with drought-tolerant street trees, grasses, perennials, and groundcover (not irrigated).

FIGURE 4.38 Key Plan: Neighborhood Street C

4.1.16 Neighborhood Street

Designation: D

Definition

This small-scale, one-way, low-speed street type will provide access to compact residential areas with minimal setbacks to units. Adjacent land uses will include narrow-lot, single-family detached and attached units. Streets typically will be only one block long. Street trees will be located in planters in the parking lane to provide shade and soften the streetscape.

Note

Fire access will utilize the 5-foot reinforced concrete sidewalk adjacent to travel lanes. This street type was developed primarily in order to preserve the historic buildings in the Phase 3 Arts District.

MOVEMENT Free

DESIGN SPEED 10 MPH

TRAVEL LANES One-way, one lane

PARKING Parallel on one side

R-O-W WIDTH 32 Feet

TRAVEL LANE WIDTH 15 Feet

CURB TYPE Rolled at 5 foot sidewalk and raised at 4 foot sidewalk

SIDEWALK WIDTH 5 Feet on one side, 4 feet on the other side

BICYCLE LANE None

VERGE None. Planters located between parking spaces.

LANDSCAPE Continuous street trees in planters (irrigated).

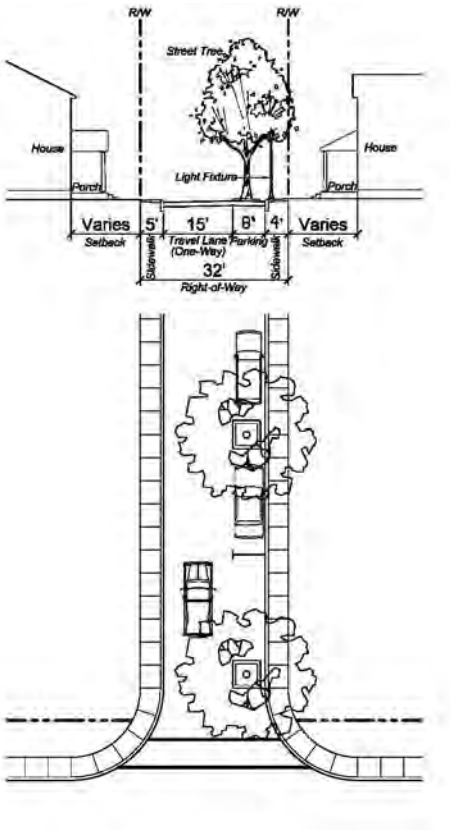

FIGURE 4.39 Section and Plan: Neighborhood Street D

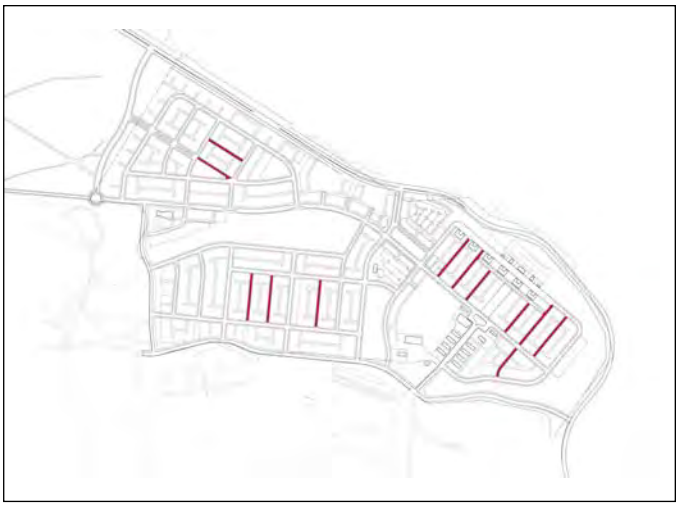

FIGURE 4.40 Key Plan: Neighborhood Street D

4.1.17 Lane

Designation: A

Definition

This street will be a narrow route providing primary access to off-street residential parking. Lanes are designed to accommodate trash collection and utilities. Lanes will be all one-way.

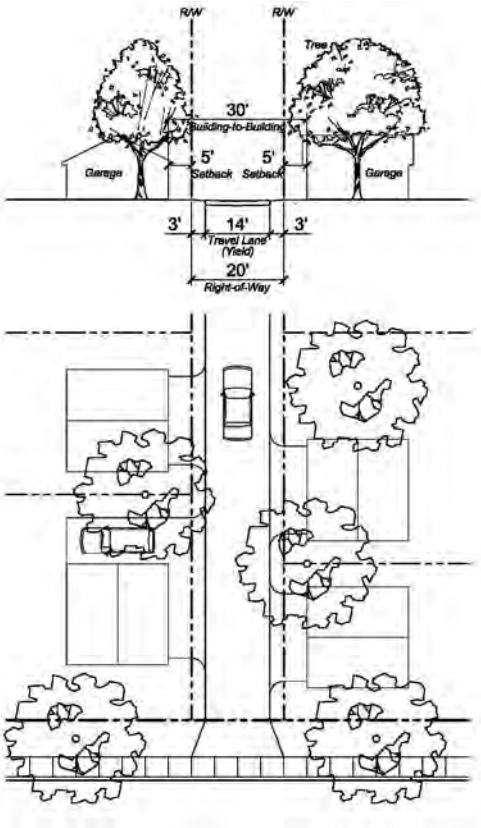

FIGURE 4.41 Section and Plan: Lane A

MOVEMENT Yield

DESIGN SPEED 10 MPH

TRAVEL LANES One-way

PARKING None

R-O-W WIDTH 20 Feet

TRAVEL LANE WIDTH 14 Feet

CURB TYPE Rolled

SIDEWALK WIDTH None

BICYCLE LANE None

VERGE 3 Feet

LANDSCAPE Continuous planting with drought-tolerant grasses, perennials, and groundcover (not irrigated). Bark mulch between planting.

FIGURE 4.42 Key Plan: Lane A

4.2 PEDESTRIAN SYSTEM PLAN

The streets, blocks, and parks of East Garrison will be designed to accommodate the needs of pedestrians and bicyclists (Figure 4.44 Pedestrian System Plan).

East Garrison will have a diverse and well-developed pedestrian circulation network. All streets in the community will have sidewalks on at least one side; most will have sidewalks on both sides. The network of sidewalks and paths will connect the three neighborhoods to each other and to the Town Center. Paths and trails along the top of the bluff and throughout the open spaces will extend the pedestrian system through the natural areas and parks.

The pedestrian network will be enhanced by traffic-calming strategies at critical locations. The traffic calming will occur where pedestrians might conflict with automobiles. For example, at locations where local streets terminate at a park, a modified T intersection will be used to slow traffic and to accommodate pedestrian access between the neighborhood and the park.

The Pedestrian Plan will implement the regional trail system (within Track Zero) as proposed in the Fort Ord Reuse Plan. The planned regional hiking trail will extend through the community along sidewalks and walking paths assuring continuity of the Inter-Garrison Trail and the Salinas Valley Trail.

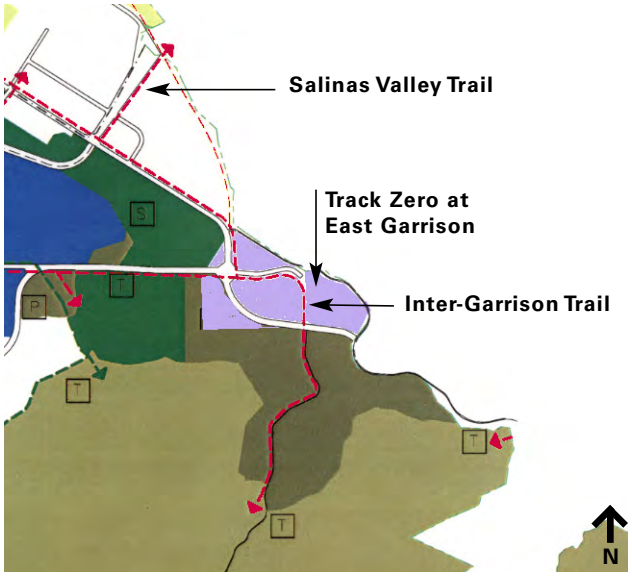

FIGURE 4.43 FORA Open Space and Recreation Plan

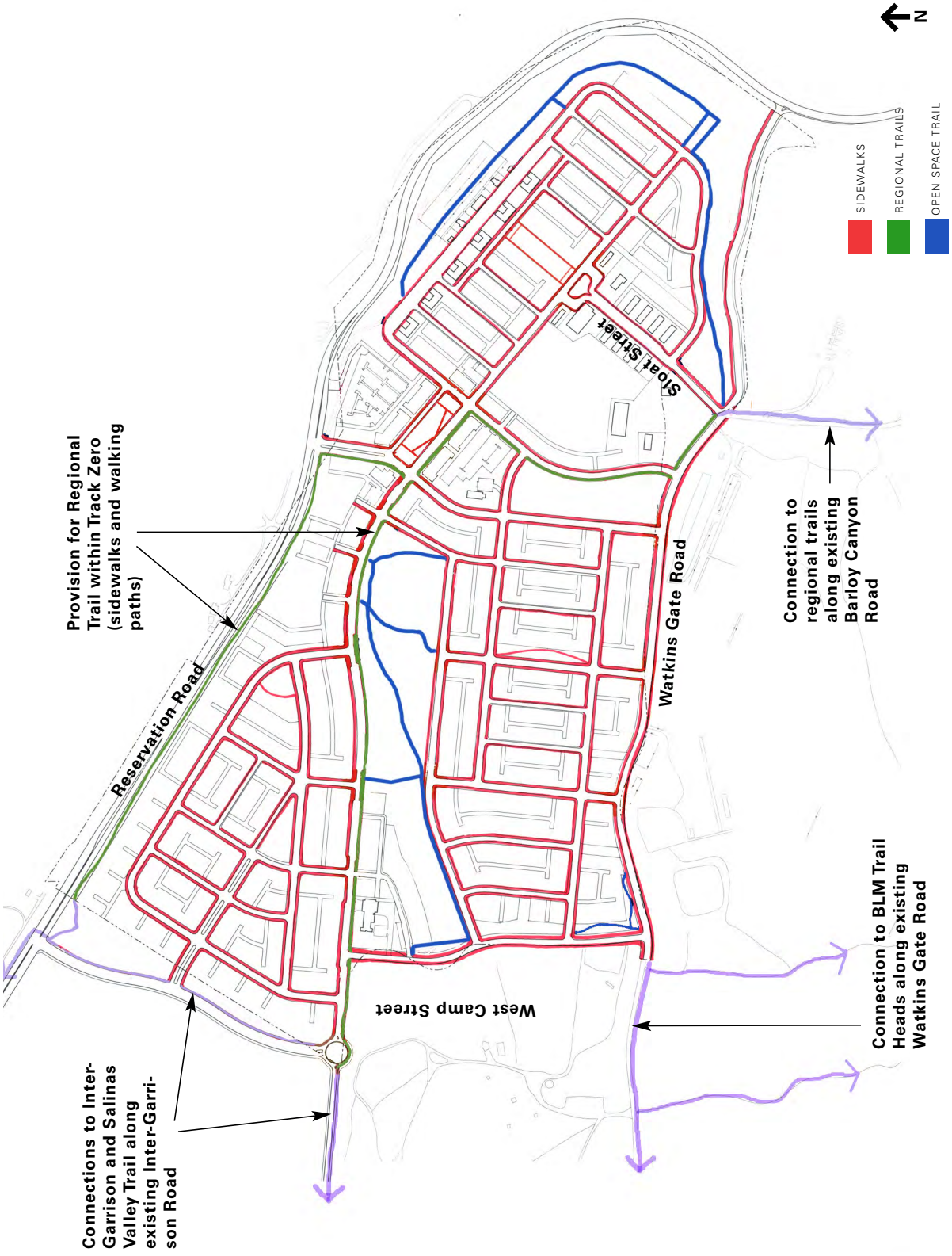

FIGURE 4.44 Pedestrian Systems Plan

4.3 BICYCLE SYSTEMS PLAN

Fort Ord, East Garrison, and the greater BLM lands are well used by bicyclists of all types and abilities. The new community at East Garrison will provide amenities in the Town Center such that it becomes a destination for bicyclists accessing the hundreds of miles of existing trails throughout Fort Ord. The Town Center will have bike racks at six locations, a planned convenience store, restaurants, and, possibly, a bicycle shop in an effort to support the bicycle community. Parking for recreational cyclists will be provided as part of the joint use Town Center parking reservoir. Public restrooms, available to cyclists, will be provided in the Community Park. A minimum of two kiosks illustrating the local and regional bike path network will be provided in the Town Center.

East Garrison will facilitate the commuter and recreational cycling routes as planned for in the Monterey General Plan and the FORA Reuse Plan (Figure 4.45 Monterey County Proposed Bikeways and Figure 4.46 Fort Ord Reuse Plan Bicycle Plan). Existing Class 2 bikeways along Inter-Garrison Road will extend both through the community (to the Town Center) and around the community (on West Camp Road and Watkins Gate Road). These facilities will accommodate commuters and visitors destined for the Town Center as well as recreational bicyclists destined for the Fort Ord trail system. Bike facilities within the Track Zero boundary will connect to existing roadways and bike facilities at Inter-Garrison Road, Watkins Gate Road, Barloy Canyon Road, and Reservation Road.

All neighborhood streets without dedicated bike lanes are designed for low volumes of slow automobile traffic (less than 25 MPH). Bicyclists will find these streets to be safe for cycling.

The Bicycle Systems Plan for Track Zero at East Garrison is shown in Figure 4.48.

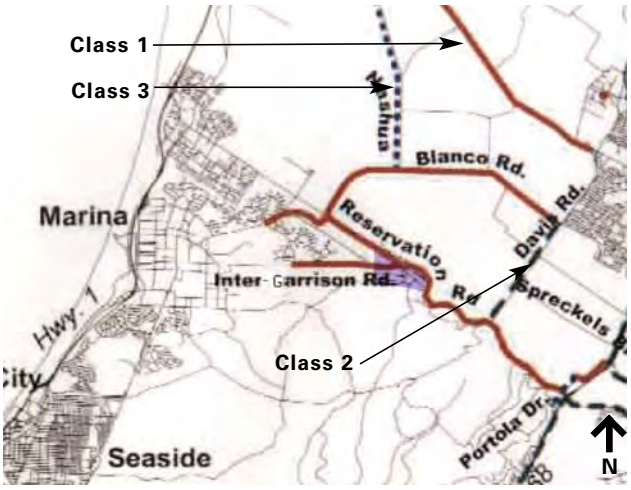

FIGURE 4.45 Monterey County Proposed Bikeways

FIGURE 4.46 Fort Ord Reuse Plan Bicycle Plan

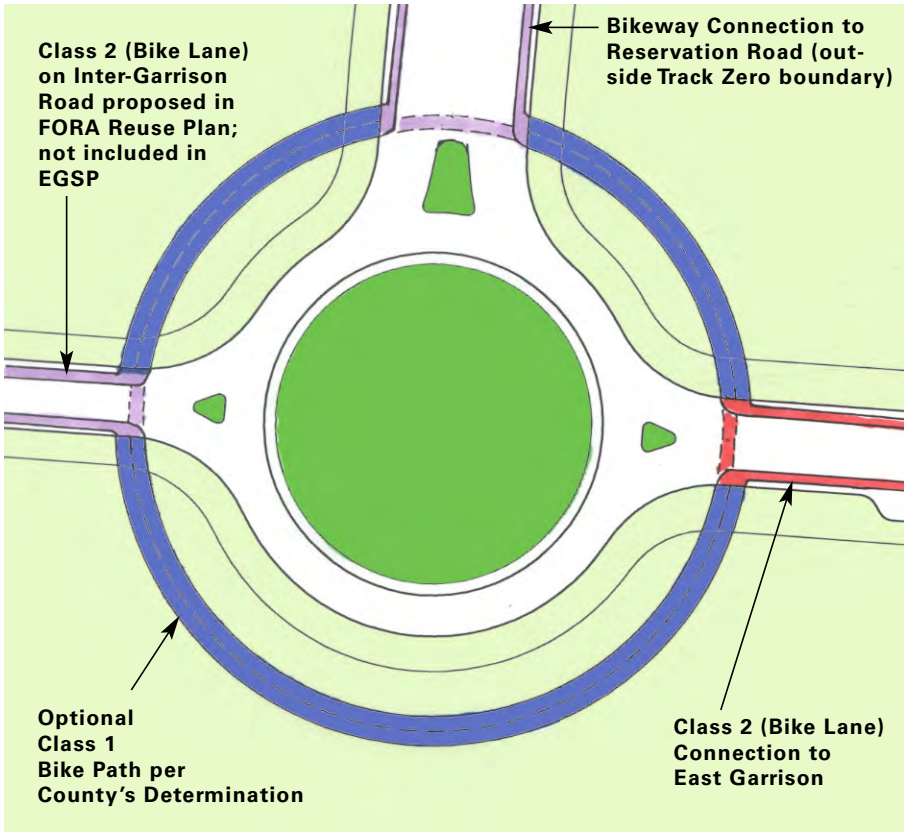

FIGURE 4.47 Traffic Circle Bike Details

NOTES

Class 1 Bikeway (Bike Path) Provides a completely separated right-of-way for the exclusive use of bicyclists and pedestrians.

Class 2 Bikeway (Bike Lane) Provides a striped lane for one-way bike travel on a street or a highway.

Class 3 Bikeway (Bike Route) Provides connections to either Class 1 or Class 2 facilities. Class 3 facilities have no special lane markings, bicycle traffic shares the roadway with motor vehicles.

All bikeways will be designed to Caltrans Standards.

Bikeways outside Track Zero boundary are not a part of this Specific Plan.

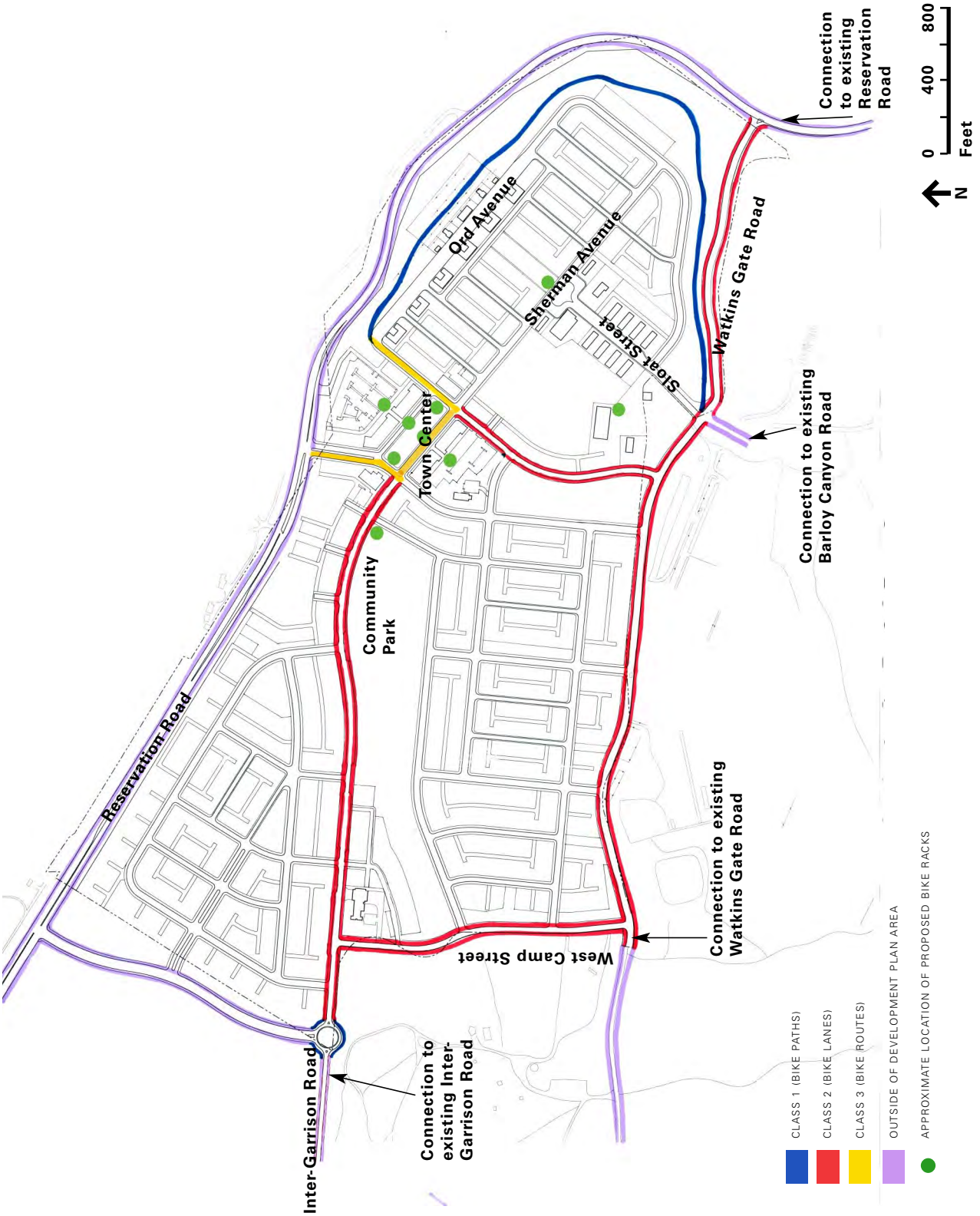

FIGURE 4.48 Bicycle Systems Plan

4.4 PUBLIC TRANSPORTATION

The community will be served by Monterey-Salinas Transit (MST) and CSUMB Shuttle. MST is studying how to serve future development in Fort Ord and will include routes that serve East Garrison in their 2004 study. It is expected that service will come to East Garrison by way of the existing Inter-Garrison Road, entering by the new East Garrison Road, Chapel Hill Road and Watkins Gate Road. Reservation Road and Davis Road will be the likely route to Salinas, once a bridge is built over the Salinas River on Davis Road. Until that time, alternative routes to and from Salinas will likely provide bus service via either Highway 68 or Blanco Road.

Several transit stops will be located throughout the community so that all residents will live within ¼-mile, or a five-minute walk, of a transit stop. The neighborhood transit stops will consist of a transit shelter and a bench. A shelter will not be necessary at the intersection of Sloat Street and Sherman Avenue. The transit stop in the Town Center will be a more substantial structure with customer amenities such as seating, route information, lighting, and water fountains. The transit stop in the Town Center will be either integrated into the overall architectural design of the Town Center or will be incorporated as a piece of public art.

In addition to the MST service, CSUMB shuttle service is proposed between East Garrison and the CSUMB campus. The Shuttle route will be along Inter-Garrison Road and the new East Garrison Road to the Town Center and the Arts District Area. From the Arts District, the shuttle will then return to CSUMB.

FIGURE 4.50 Regional Transit Map

FIGURE 4.49 Public Transportation

4.5 PARKING NETWORK

The East Garrison Development Plan calls for parking spaces to be located on-street, in designated lots, and on private properties accessed via rear lanes (Table 3.10 Parking Requirements and Figure 4.52 Parking Plan provides the distribution of these spaces).

Residential parking will be off-street, accessed by way of the proposed rear lane network. A minimum of two off-street parking spaces per house is required. Many houses will be designed to accommodate three to four cars off-street through the use of tandem parking or multi-car garages in conjunction with parking pads or parking courts. All street types include on-street visitor parking. Driveway curb cuts, characteristic in conventional development, are all but absent in the East Garrison Development Plan. Locating resident parking behind houses creates the opportunity for streets with parking on one side. These streets generally have more parking capacity than a conventional street with parking on both sides.

Neighborhood parks are typically served by on-street parking. In addition to being wrapped on three sides by on-street parking, the Community Park has two designated off-street lots. There are approximately 150 parking spaces in and adjacent to this park.

The Town Center will also be served by a series of designated lots and on-street convenience parking. Together these elements create a Town Center parking reservoir that is designed to efficiently accommodate long-, medium-, and short- term needs, as well as multi-use parking. Employees and office workers will park in designated areas behind mixed-use buildings. Shoppers and visitors will park in short-term spaces directly behind the stores and in on-street spaces marked for rapid turnover (Figure 4.51 Illustrative Town Center Parking Plan). Town Center residents will have a minimum of 1.25 designated off-street spaces per unit. Approximately 640 public parking spaces (on-street and in designated lots) will be provided in and adjacent to the Town Center to serve the 75,000 square feet of commercial uses, 11,000 square feet of public uses, and up to 40 residential units.

The 100,000 square feet of Cultural Land Uses will be served by a combination of parking adjacent to historic buildings, designated lots, and on-street parking. The main parking reservoir includes angled parking along both sides of Sloat Street and a large lot adjacent to the Battle Simulation Building (or its replacement). Approximately 350 public parking spaces (on-street and in designated lots) exist in and adjacent to the Cultural Land Use.

Event parking will be accommodated in designated lots and in on-street parking. East Garrison's design as a walking community will encourage residents to leave their cars at home and walk to events. The transportation network will encourage some visitors to ride the bus. Large events may require shuttle service from remote lots on the base, similar to the strategy used for other large regional events.

FIGURE 4.51 Illustrative Town Center Parking Plan

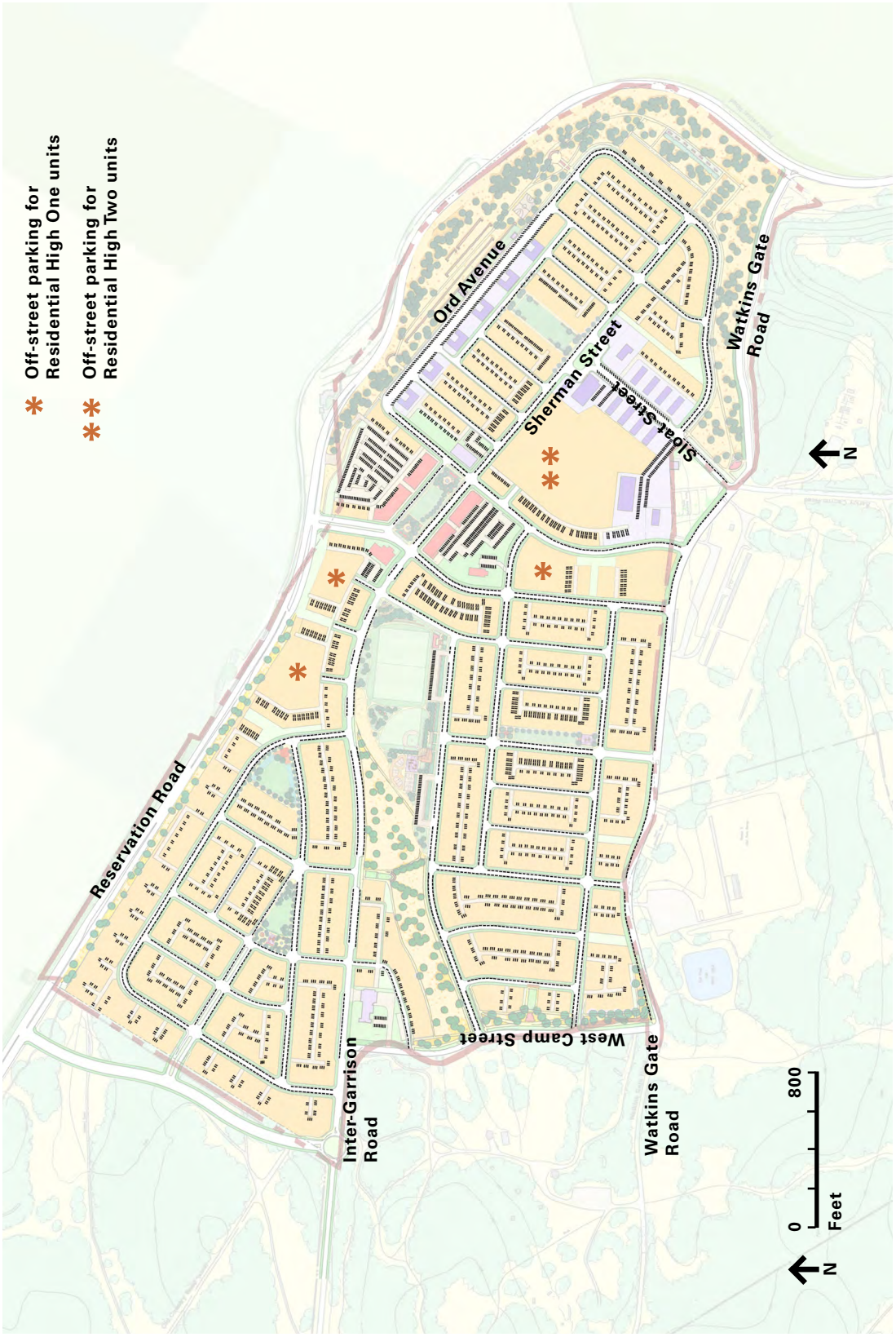

FIGURE 4.52 Illustrative Parking Plan

4.6 PARKS AND OPEN SPACE NETWORK

The Development Plan provides land for park and recreational facilities sufficient in size and topography to meet the requirements of the new community. Principal design consideration has been given to parks and open space that offer:

1. A variety of recreational opportunities for all age groups,
2. Recreational amenities within walking distance of residents' houses,
3. Integration with the local and regional trail and bike path system,
4. Coordination with all other park systems, and
5. Access to at least one proposed public street.

The required park land calculation in Table 4.1 is based on the requirements of the County Subdivision Ordinance.

The EGSP includes recreational amenities and open spaces that will contribute to both the desirability and livability of the new community. The intent of the park and public open space network is to provide a variety of spaces for family- and community-oriented recreation. The plan equitably distributes park land throughout the community so that each resident is within a five-minute (¼-mile) walk of a park. The parks will vary in size to accommodate a number of different amenities. They will also vary in character to promote distinctive place making.

The parks are designed to provide a diverse set of passive and active recreational opportunities, including walking paths, playing fields, play areas, court games, and community gathering spaces. These parks

PARK REQUIREMENT CALCULATION

	DWELLING UNITS	ACRES/ DU	PARK ACRES
Single Family	780	.009	7.04
Multiple Family	620	.0063	3.91
		Total Required	**10.95**
		Total In Plan	**12.65**

TABLE 4.1 Park Requirement Calculation

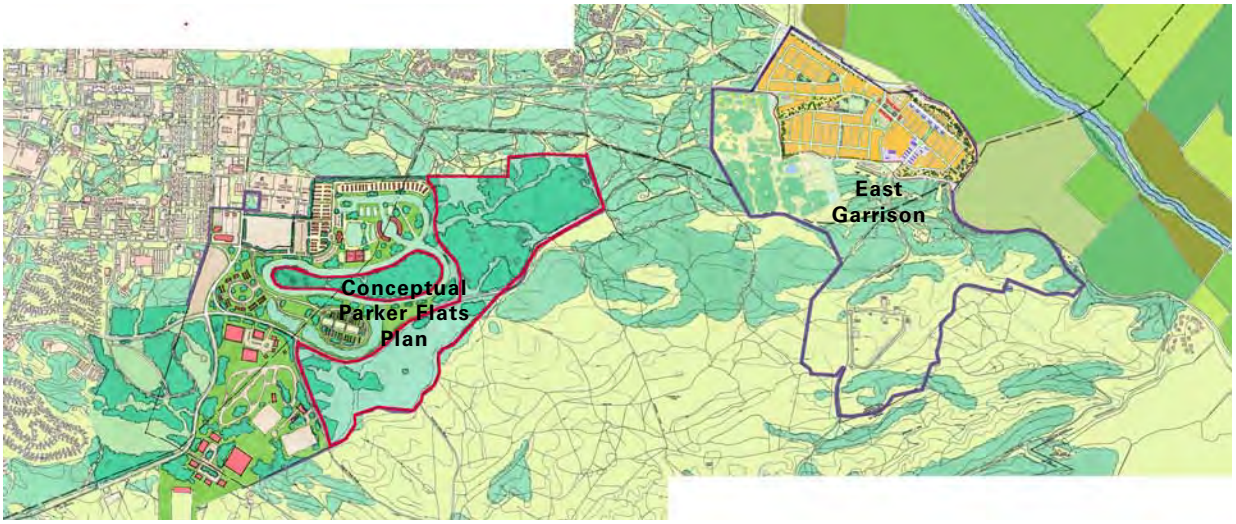

FIGURE 4.53 Illustrative Plan of East Garrison and Parker Flats (Habitat Preserve areas are outlined in red).

PARK DEVELOPMENT

PARK CATEGORY	PHASE 1 ACRES	PHASE 2 ACRES	PHASE 3 ACRES	TOWN CENTER ACRES	TOTAL ACRES
Community Park	2.00	3.00	1.68	0	6.68
Phase 1 Neighborhood Parks	1.79	0	0	0	1.79
Phase 2 Neighborhood Parks	0	0.79	0	0	0.79
West Camp Park	0	0.28	0	0	0.28
Town Square	0	0	0	1.01	1.01
Arts Park	0	0	1.10	0	1.10
Bluff Park	0	0	1.00	0	1.00
TOTAL DEVELOPED	**3.79**	**4.07**	**3.78**	**1.01**	**12.65**

QUIMBY ACT REQUIREMENTS IN ACRES

	PHASE 1	PHASE 2	PHASE 3	TOWN CENTER	TOTAL ACRES
Single-Family					
Number of Units	273	315	193	0	
Acres of Park Required	2.46	2.84	1.74	0.00	7.04
Multi-Family					
Number of Units	125	156	250	89	
Acres of Park Required	0.79	0.98	1.58	0.56	3.91
PARK ACRES REQUIRED	**3.25**	**3.82**	**3.32**	**0.56**	**10.95**

Note Quimby Act required the following park space: .009 acres/SF Unit and .0063 acres/MF Unit

COMPARISON

	PHASE 1	PHASE 2	PHASE 3	TOWN CENTER	TOTAL ACRES
Park Development	3.79	4.07	3.78	1.01	**12.65**
Quimby Act Requirement	3.25	3.82	3.32	0.56	**10.95**

TABLE 4.2 Comparison of East Garrison Park Development and Quimby Act Requirements

are in contrast to the adjacent BLM lands that will afford new residents easy access to thousands of acres of regional open space. Residents will also benefit from the visual amenity of the habitat corridor to the west and the Salinas agricultural valley to the north and east.

East Garrison's parks will be connected to houses and each other by an interconnected network of sidewalks, encouraging residents to walk. For park users who choose to drive, parking will be provided on-street. Each park is bordered by a minimum of one public street. To support sports activities, supplemental dedicated off-street parking will be provided in the community park.

The system has two major components: a series of parks and a network of open space (refer to Section 3.2 Land Use Plan).

Parks (P):
These areas are designated for both active and passive recreation uses, including play areas for sports, civic spaces, and open grass areas for informal play.

Open Space (OS):
This network includes greenways with primarily passive recreation uses and natural areas. Natural areas include transitional slopes with native plant species.

The Illustrative Parks Plan (Figure 4.54) illustrates the proposed system. Individual elements of this system include:

A Community Park: This park will be a large, active recreation park. Located at the center of the community and accessible by several primary streets, this park will contain ballfields, picnic areas, courts, and gathering spaces.

B Phase I Neighborhood Parks: These two parks will be at the heart of the Phase I neighborhood and are intended for children's play activities and informal gathering. Each park will be fully accessible from the continuous network of sidewalks and paths.

C Phase II Neighborhood Park: This linear park, located in the center of the Phase 2 Neighborhood will contain a playground, pavilion, and green for informal play.

D Town Square: This green will be a multi-use space related to the Town Center. Gardens and seating areas will provide for intimate spaces. The large crescent green will provide space for community gatherings and festivals.

E Arts Park: This green, planned for the heart of the artist community, will be a multi-purpose space for relaxing as well as for community gatherings.

F Bluff Greenway & Park: This park will preserve the steep hillsides and vegetative buffer of oak trees along the bluff overlooking the agricultural lands to the east and north. The major feature of this area will be a pedestrian promenade at the edge of the bluff providing opportunities to take advantage of spectacular views. A park with a basketball court and playground will be located along Ord Avenue.

G Slope Greenway: This park will preserve a hillside and oak groves to form a major landscape feature in the central part of the community between the neighborhoods. Landscaping will enhance the existing vegetation. Passive uses will include walking.

H Reservation Road Greenway: This landscape edge will help buffer the community from Reservation Road. This will be a traditional landscape area with the vegetation in harmony with the native species' habitats found at East Garrison.

I West Camp Greenway: This landscape edge will buffer the adjacent Youth Camp from the community and incorporate amenities such as sidewalks. This will be a transitional landscape area with the vegetation in harmony with the native species' habitats found at East Garrison. This greenway will contain a tot lot.

FIGURE 4.542 Illustrative Parks Plan

4.6.1 Community Park (A)

The Community Park will provide significant active recreational opportunities for residents and visitors to East Garrison. Its central location near the Town Center, as well as its diverse active uses, will define the heart of the new community. In terms of playfields, the park will contain one soccer field, approximately 225 feet by 360 feet, for multi-format use to accommodate a full-size field, two half-size fields or four 'microfields.' Also included is one youth baseball field with a 200-foot foul line for Little League regulation play. Other active uses will include full-court basketball, basketball hoops, a multi-purpose field, and a playground. Other recreational amenities will include a park pavilion and a picnic grove. Although the Park's boundary is included in Phase 1, park improvement will be phased in to meet the minimum open space requirements of the Subdivision Ordinance as outlined in Table 4.2.

CONCEPTUAL PROGRAM

TYPE Park

SIZE 6.7 Acres (approx.)

ACTIVE USES A Multi-format field, B Little League Baseball field, C Playground, D Basketball court, E Basketball hoops, F Concession stand with public restrooms

FEATURES Trails, G Picnic grove, Native landscape, Overlooks, Park structures, Fountain, Stormwater management, Shade trees, and Ornamental planting

FIGURE 4.56 Illustrative Plan

FIGURE 4.55 Key Plan

4.6.2 Phase 1 Neighborhood Parks (B)

Providing for family-oriented recreation within easy walking distance of residents' houses, the two parks planned for the Phase 1 neighborhood will be connected by accessible sidewalks. The central triangular park amenities include a pavilion and seating areas, a play area, and a garden. One small village green area will be for open play. The second village green is primarily irrigated meadow grasses, with non-irrigated meadow grasses adjacent to tree plantings. A perimeter walk will provide access to a series of benches.

CONCEPTUAL PROGRAM

TYPE Park

SIZE 0.8 Acres (approx.)

ACTIVE USES A Playground, B One-half basketball court

FEATURES Walks, Park structure, Seating areas, Fountain, Shade trees, Ornamental planting, Lawn areas

CONCEPTUAL PROGRAM

TYPE Park

SIZE 1.0 Acres (approx.)

ACTIVE USES None

FEATURES Walks, Seating areas, Shade trees, Ornamental planting, Lawn areas

FIGURE 4.58 Illustrative Plans

FIGURE 4.57 Key Plan

4.6.3 Phase 2 Neighborhood Park (C)

The Phase 2 Neighborhood Park will be a linear park with a large central green. At the south end, an active play area will include a playground. The north end of the park will be anchored by a pavilion. Arbors will define the edges of the park and benches.

CONCEPTUAL PROGRAM

TYPE Park

SIZE 0.9 Acres (approx.)

ACTIVE USES A Playground

FEATURES Walks, Park structures, Seating areas, Shade trees, Ornamental planting, Lawn area

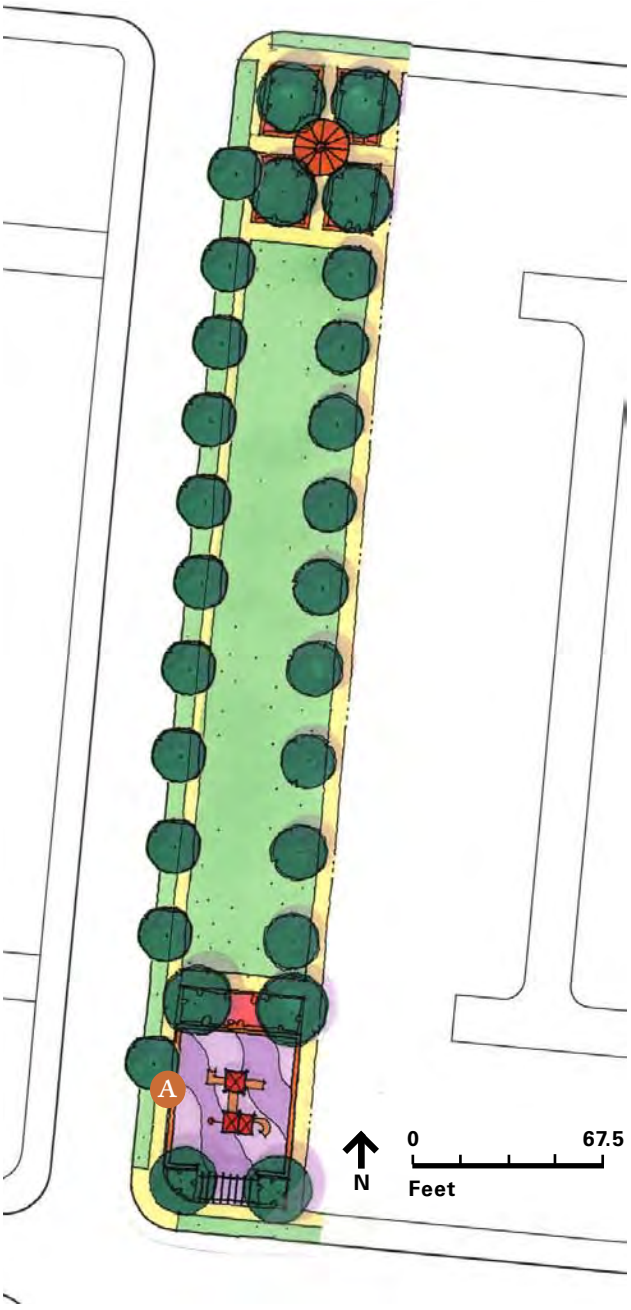

FIGURE 4.60 Illustrative Plan

FIGURE 4.59 Key Plan

4.6.4 Town Square (D)

The park at the heart of the Town Center will be developed in the image of an historic Town Square. At each end of the park, gardens will form formal spaces with fountains and monuments as focal points providing forecourts to the public building across the street. Transplanted coastal live oak groves define these spaces. A large crescent green will be at the center, fronting the pedestrian-oriented retail street. The crescent walk will be lined with an allée of trees and benches. The green will be used for relaxing, gathering, town festivals, and events.

CONCEPTUAL PROGRAM

TYPE Park

SIZE 1.0 Acre (approx.)

ACTIVE USES None

FEATURES Walks, Fountains, Shade trees, Ornamental planting, Lawn area, Seating area

FIGURE 4.62 Illustrative Plan

FIGURE 4.61 Key Plan

4.6.5 Arts Park (E)

Framed by artists' lofts, the Arts Park will be a special place for public gatherings and displays of public art. It is designed to be flexible and adaptable to accommodate the changing needs of artists. The Green will be developed as a sloping lawn with perimeter planting areas.

CONCEPTUAL PROGRAM

TYPE Park

SIZE 1.3 Acres (approx.)

ACTIVE USES None

FEATURES Seating areas, Shade trees, Ornamental planting, Lawn area, Park structures, Sculptures

FIGURE 4.64 Illustrative Plan

FIGURE 4.63 Key Plan

4.6.6 Bluff Greenway and Park (F)

This mix of natural areas (undisturbed slope) and open space will define the eastern edge of the Phase 3 area. This is approximately the same area that was used by the military as a park in the 1940s. A pedestrian promenade will be located at the edge of the bluff overlooking the rich agricultural lands to the north and east. In addition to the pedestrian promenade, a separate multi-purpose trail will be provided connecting this park to the bike path network, parks, and other open space. Other amenities will include benches, railings, and lighting. The greenway preserves the vegetative buffer of oak trees along the bluff. Additional native plantings will enhance and complement the existing vegetation.

FIGURE 4.664 Illustrative Plan

CONCEPTUAL PROGRAM

TYPE Open space

ACTIVE USES A Playground, B Basketball court (2)

FEATURES Paths, Seating areas, Overlooks, Native landscape, Pavilions Stormwater management, Basketball Court, and Tot Lot

FIGURE 4.65 Key Plan

4.6.7 Slope Greenway (G)

At the heart of the western neighborhoods will be a preserved hillside of grasslands and coastal oak groves. Paths along the northern top of the slope and also along the southern bottom of the slope will define this natural area. Other amenities in this area include lighting, benches, and an overlook.

CONCEPTUAL PROGRAM

TYPE Open space

ACTIVE USES None

FEATURES Paths, Seating areas, Native landscape, Overlook, Shade trees, and Ornamental planting

FIGURE 4.68 Illustrative Plan

FIGURE 4.67 Key Plan

4.6.8 Reservation Road Greenway (H) and West Camp Greenway and Park (I)

These continuous landscape edges will provide a buffer between the community and the adjacent neighbors and Youth Camp while incorporating pedestrian amenities such as sidewalks. Amenities will include paths, benches, rest areas, a playground, and natural landscaping to complement the native habitats and plant species adjacent to East Garrison.

CONCEPTUAL PROGRAM

TYPE Open space

ACTIVE USES A Playground, B One-half basketball court

FEATURES Paths, Benches, Rest areas, and Native landscape

FIGURE 4.70 Illustrative Plan

FIGURE 4.69 Key Plan

4.6.9 Signs, Furnishings and Landscape Palettes

The streetscapes, parks, and public open spaces of East Garrison will have a rich array of signs, furnishings and landscape elements that will provide a unified feel to the community.

FIGURE 4.72 Key Plan for Figure 4.71 (optional locations).

FIGURE 4.71 Illustrative marker for a main community entrance

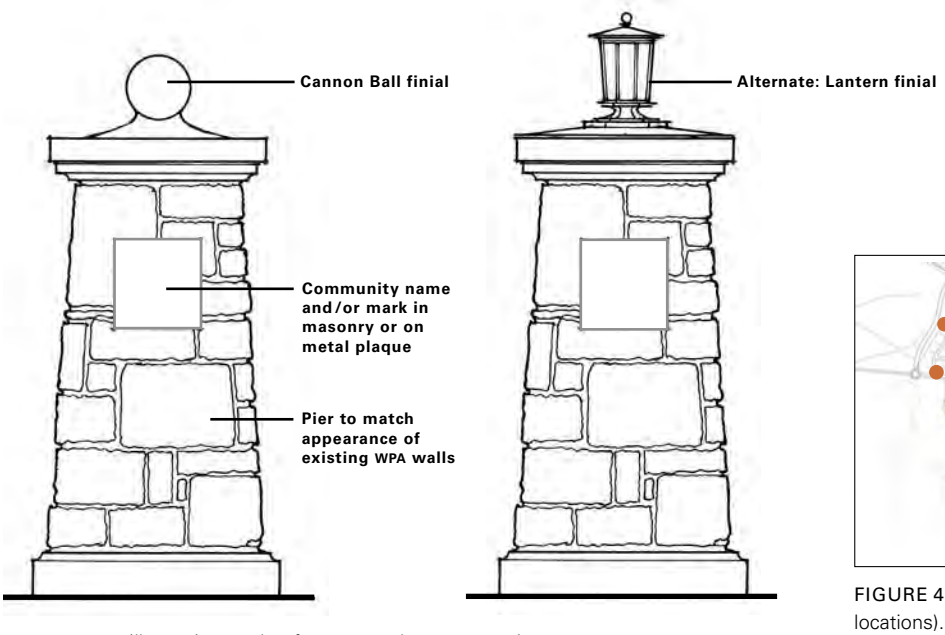

FIGURE 4.73 Illustrative marker for a secondary community entrance

FIGURE 4.74 Key Plan for Figure 4.73 (optional locations).

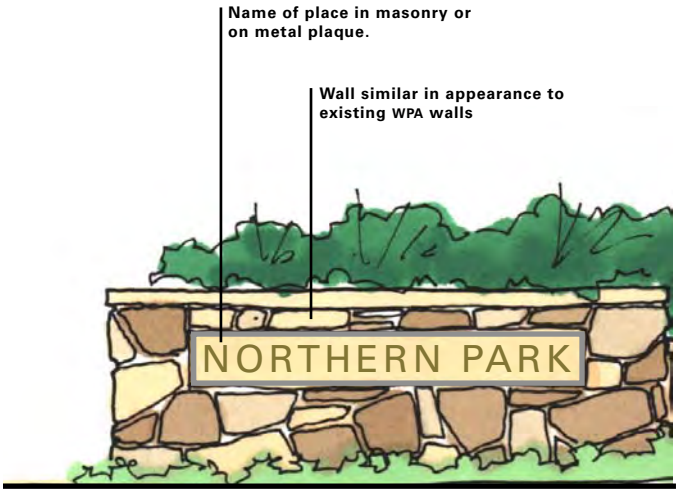

FIGURE 4.75 Illustrative marker for parks, public space and neighborhoods/districts

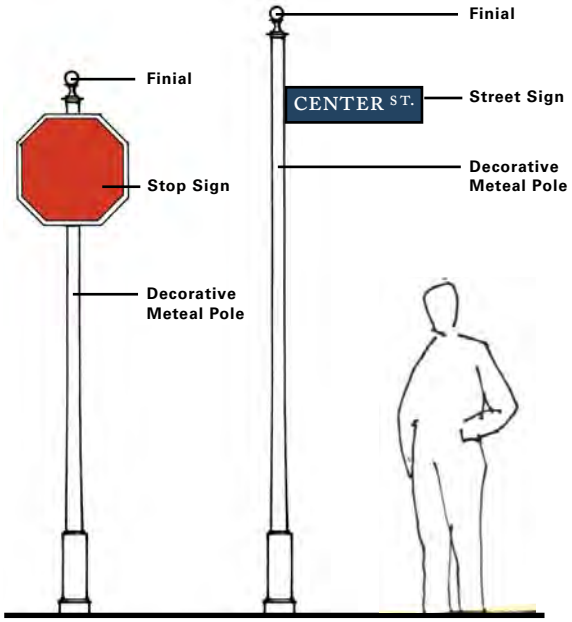

FIGURE 4.76 Decorative metal sign pole and stop sign

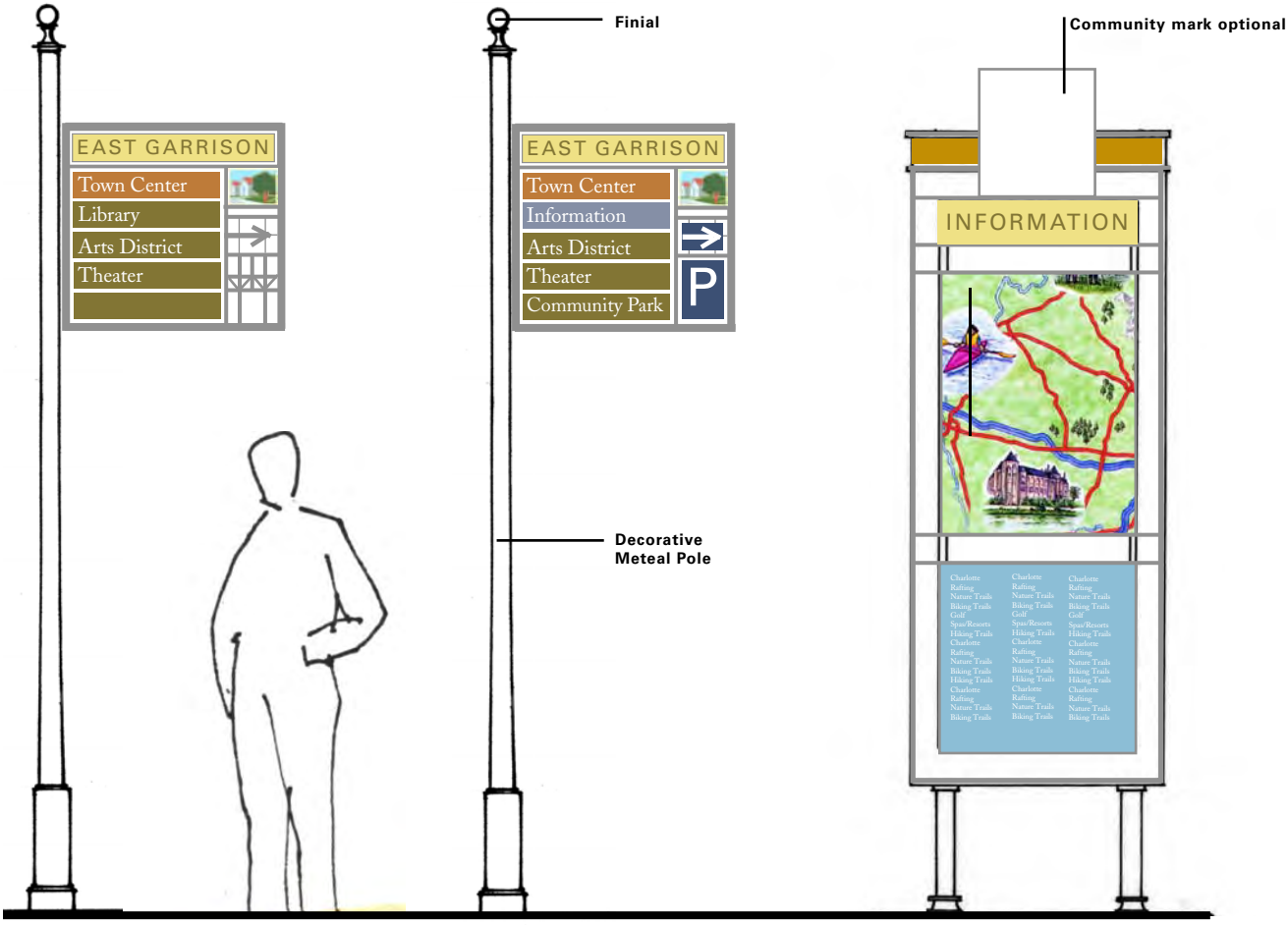

FIGURE 4.77 Illustrative signage and Wayfinding for the Town Center and Arts District

Signage and Lighting

Ornamental street lights will be traditional in character, pedestrian-scale, and mounted at 14 feet. They will be used for all streets, parks, public open spaces, trails, bike paths, parking lots, and walkways. All fixtures will be metal halide with cut-off luminaries to control light and glare. The lighting specified, although traditional in appearance, will have state-of-the-art luminaires for lighting efficiency and glare reduction. All fixtures will come with the ability to specify three types of lighting sources:

1. Standard Decorative Frosted Glass Chimneys
2. Hydroformed Polished & Anodized Reflectors/ Type 2 with Sharp Cut-off Optics
3. Refractors or Low Brightness Reflectors.

Reflectors with Cut-off Optics provide the most control for directing lighting patterns downward in either a symmetrical or asymmetrical lighting pattern on the ground with very little glare. The Low Brightness Reflectors provide bulb shields that direct light down and reduce glare, but they reduce lighting efficiency. The globes will be illuminated, but glare will be controlled with light patterns directed inward and not to adjacent properties. The post lights, specified to be mounted at a height of 14 feet, are scaled to pedestrians. This is an optimal height that balances lighting efficiency and performance while providing direct illumination of pedestrian areas for facial illumination, thereby providing a safe night-time environment.

The lighting will be evenly spaced along the street and between the street trees at a maximum of 80 feet on center. Closer spacing will be required in the Town Center and similar areas requiring more illumination. Street trees are specified to have a 7- to 8-foot clearance to street lights, giving adequate room for the proper performance of the lighting.

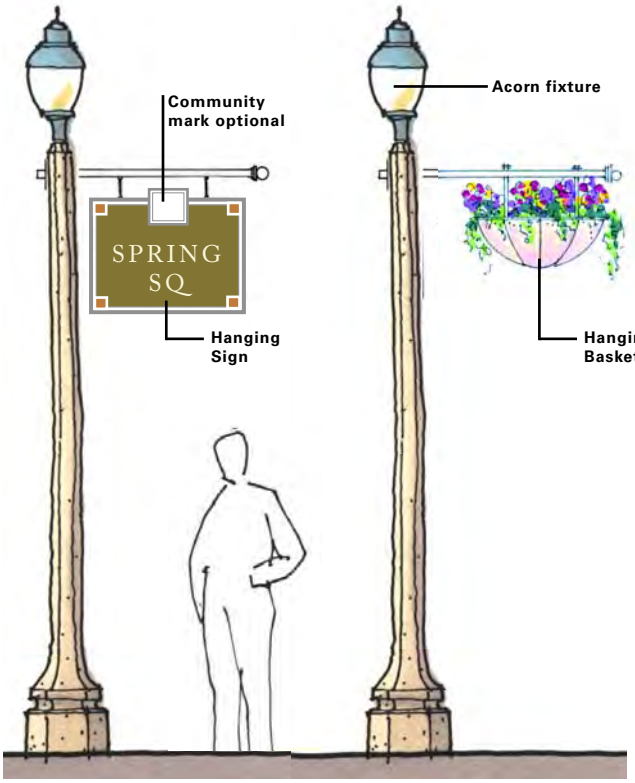

FIGURE 4.78 Illustrative lighting with signage for the Town Center

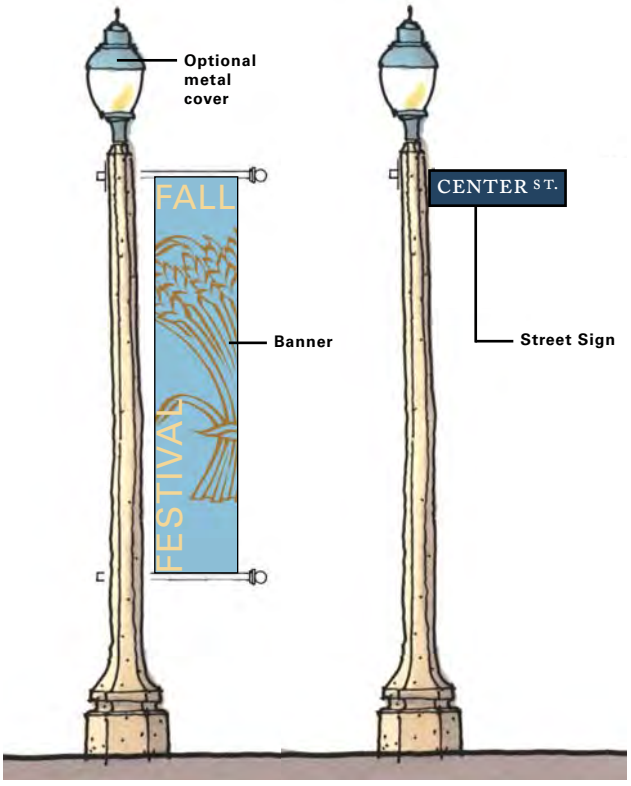

FIGURE 4.79 Illustrative lighting with banners for neighborhoods or street sign

Furnishings

Furnishings will include a simple palette of durable traditional park furnishings, including signs, trash receptacles, and benches.

In addition to the items listed above, specific streets will have grass verges with street tree plantings and groundcovers to unify the street and pedestrian network and provide for diverse street addresses. (See Table 4.3 for Recommended Trees).

FIGURE 4.80 Typical bench

FIGURE 4.81 Typical bike rack

FIGURE 4.82 Not Used

4.6.10 Streetscape Types

The streetscapes of East Garrison will vary. They will be an important part of the overall open space and pedestrian network. Some streets will include more intimate, narrow rights-of-way with the travel lanes having sidewalks at their curb edges. On these streets, landscaped front yards with regularly spaced shade and ornamental trees will provide scale and beauty (Figure 4.84 Neighborhood streets without a landscaped verge).

Other select streets will have wider street sections with planted verges between the sidewalk and curb or pathways with street trees. These verges will be planted with drought-tolerant landscape materials and will be drip irrigated. These green streets are a part of the community's open space plan as they provide main connections between parks throughout the community (Figure 4.83 Neighborhood street with an irrigated verge).

FIGURE 4.83 Neighborhood street with an irrigated verge

FIGURE 4.84 Neighborhood street without a landscaped verge

4.6.11 Materials and Imagery

Furnishings and other landscape elements in the palette have been chosen to give East Garrison a rich, unified landscape vocabulary. The quality and durability of the landscape details and site furnishings are essential to providing East Garrison with a unique sense of place.

Table 4.3 contains a list of recommended trees for the East Garrison neighborhoods. While the Plan will specify a specific tree variety for each street to give it a unique character and scale, the overall collective streetscape plantings throughout the neighborhood will have a diverse set of tree types.

In addition, each park and public open space component will have a native plant palette to complement the streetscape plantings and ensure variety and species distribution. The complete public landscape palette is listed in the Landscape Patterns section of Appendix A.

RECOMMENDED TREES

BOTANICAL NAME	COMMON NAME
NON-IRRIGATED LANDSCAPES	
Aesculus californical	California Buckeye
Quercus agrifolia	Coast Live Oak
Umbellularia californica	California Bay Laurel
IRRIGATED LANDSCAPES	
Carex tumulicola	Foothill Sedge
Festuca rubra cv.	'Molate Blue'
Leymus condensatus cv.	'Canyon Prince'
Leymus condensatus cv.	'El Capitan'
Sidalcea malvaeflora	Checkerbloom
Nassella pulchra	Purple Needlegrass

TABLE 4.3 Recommended Trees

SUCCULENTS
(Highly Fire Retardant)

BOTANICAL NAME	COMMON NAME
Aeonium species	Succulents
Agave species	Agave
Aloe species	Aloe
Carpobrotus edulis	Hottentot Fig
Crassula argentea	Jade Plant
Delosperma alba	White Trailing Ice Plant
Drosanthemum floribundum	Ice Plant
Echeveria species	Hen and Chicks
Lampranthus spectabilis	Trailing Ice Plant
Malephora crocea	Ice Plant
Portulacaria afra	Elephant's Food
Sedum species	Stonecrop, etc.

Note: Iceplant, while fire resistant due to its high moisture content, is not considered a good erosion control plant on slopes due to its heavy weight which can destabilize soil.

TABLE 4.4 Recommended Fire-Retardant Succulents

TREES

BOTANICAL NAME	COMMON NAME
Ainus rhombifolia*	White Alder
Arbutus unedo	Strawberry Tree
Ceratonia siliqua	Carob Tree
Cercis occidentalis	Western Redbud
Citrus varieties	Orange, Lemon, etc.
Ligustrum lucidum	Texas Privet
Metrosideros excelsus	New Zealand Christmas Tree
Olea europa	Olive
Plantanus racemosa	Western Sycamore
Quercus agrifolia*	Coast Live Oak

*California Native Species

TABLE 4.5 Recommended Fire-Resistant Trees

SHRUBS

BOTANICAL NAME	COMMON NAME
Atriplex semibaccata	Australian Saltbush
Buxus microphylla Japonica	Japanese Boxwood
Carissa grandiflora	Natal Plum
Ceanothus griseus horizontalis	Wild Lilac
Cistus salvifolius	Rockrose
Convolvulus cneorum	Bush Morning Glory
Coprosma kirkii	Coprosma
Escallonia species	Escallonia
Feijoa sellowiana	Pineapple Guava
Garrya species*	Silktassel
Helianthemum nummularium	Sunrose
Myoporum laetum	Myoporum
Nerium oleander	Oleander
Pittosporum species	Pittosporum
Prunus ilicifolia	Holly-Leaved Cherry
Prunus lyonii	Catalina Cherry
Punica granatum	Pomegranate
Pyracantha varieties	Pyracantha
Rhamnus alaternus	Italian Buckthorn
Rhamnus californica*	Coffeeberry
Rhus integrifolia*	Lemonadeberry
Ribes viburnifolium	Evergreen Currant
Simmondsia chinensis	Jojoba
Xylosma congestum	Xylosma

*California Native Species

TABLE 4.6 Recommended Fire-Resistant Shrubs

VINES

BOTANICAL NAME	COMMON NAME
Solanum jasminoides	Potato Vine
Tecomaria capensis	Cape Honeysuckle

TABLE 4.7 Recommended Fire-Resistant Vines

PERENNIALS

BOTANICAL NAME	COMMON NAME
Achillea tomentosa	Wooly Yarrow
Agapanthus africanus	Lily of the Nile
Artemesia caucasia	Caucasian Sagebrush
Coreopsis species	Coreopsis
Dietes vegeta	Fortnight Lily
Diplacus species	Monkeyflower
Eschscholzia californica*	California Poppy
Hemerocallis varieties	Day Lily
Kniphofia uvaria	Red Hot Poker
Iris species	Iris
Lavandula species	Lavender
Limonium perezil	Statice
Lotus scoparius	Deerweed
Lupinus species	Lupine
Pelargonium peltatum	Ivy Geranium
Penstemon varieties	Penstemon
Salvia sonomensis*	Sonoma Sage
Santolina species	Santolina
Trichostema lanatum	Wooly Blue Curis
Thymus species	Thymus
Tulbaghia violacea	Society Garlic
Zauschneria californica*	California Fuchsia

*California Native Species

TABLE 4.8 Recommended Fire-Resistant Perennials

GROUND COVERS

BOTANICAL NAME	COMMON NAME
Ajuga reptans	Carpet Bugle
Arctotheca calendula	Capeweed
Armeria species	Sea Pink
Bergenia species	Bergenia
Erigeron karvinskianus*	Santa Barbara Daisy
Fragaria chiloensis	Wild Strawberry
Gazania leucoleana	Trailing Gazania
Hypericum calycinum	St. John's Wort
Lantana montevidensis	Trailing Lantana
Liriope gigantea	Giant Turf Lily
Myoporum parvifolium	Myoporum
Oenothera berlandieri	Mexican Evening Primrose
Osteospermum fruticosum	African Daisy
Phyla nodiflora	Lippia
Scaevola Mauve Clusters	Fan Flower
Trachelospermum jasminoides	Star Jasmine
Trifolium fragiferum	O'Connors Legume
Vinca minor	Periwinkle

*California Native Species

TABLE 4.9 Recommended Fire-Resistant Ground Covers

4.7 UTILITIES

Portions of the existing systems that are adequate will be used to serve the proposed project. However, in most cases, the existing improvements are either beyond their useful life, do not meet current design standards, or are in locations incompatible with the proposed project.

4.7.1 Water Supply and Distribution

Water Supply and Demand

East Garrison is within the boundaries of the Marina Coast Water District (MCWD), which provides potable water service, and wastewater collection service to Marina and the Fort Ord area.

The Marina and Fort Ord potable water supply comes mainly from groundwater wells. Water is pumped from the Salinas Valley groundwater basin and disinfected with chlorine. Wells serving the Fort Ord Community are located on the easterly side of the former base due to saltwater intrusion into the groundwater basin from the Pacific Ocean.

There are no existing potable water augmentation facilities for irrigation needs in East Garrison. Future construction of those facilities will be determined based on the conclusions of the Regional Urban Water Augmentation Project, which is analyzing the most cost-effective development of the 2,400 acre-feet per year of Potable Water Augmentation as defined in the Fort Ord Base Reuse Plan and accompanying EIR. The potable Water Augmentation Supply will be provided by either recycled water, a seawater desalination plant or a combination of these water supply projects. The recycled water project is proposed as the Regional Urban Recycled Water Distribution Project (RUWDP) which is a joint investigation by the MCWD and the Monterey Regional Water Pollution Control Agency (MRWPCA).

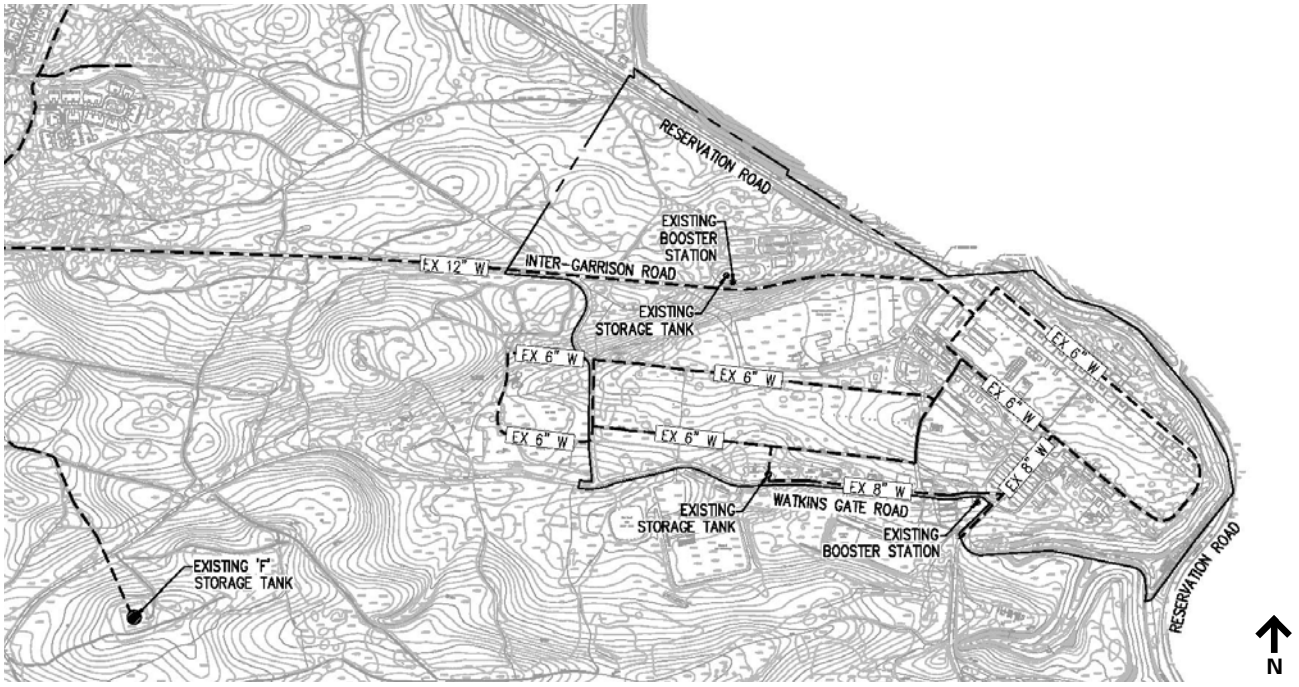

FIGURE 4.85 Existing Water Supply Facilities

The County of Monterey has reserved 470 acre-feet/year of their 560 acre-feet/year allocation from FORA for the East Garrison project. The projected water demand for East Garrison at build-out is shown in Table 4.10.

Existing Facilities

East Garrison is located in the eastern reaches of the MCWD potable water system. Potable water is currently delivered to the project site by a transmission main varying in size from 12 to 18 inches in diameter. This main is generally located in the existing Inter-Garrison Road right-of-way and connects Storage Reservoir 'F' to East Garrison. Storage Reservoir 'F' has a capacity of 2.0 million gallons (mg) and was constructed in 1990. The Reservoir is in good condition and is an operable piece of the MCWD system.

Within East Garrison, there is a system of 6 to 8 inch distribution mains, two 200,000 gallon storage reservoirs, and two booster pump stations. The East Garrison System has been shut down at Inter-Garrison Road, near the northwest corner of the project (at the Track Zero boundary), to reduce water losses that were occurring through the existing distribution mains. The existing potable water facilities within East Garrison are shown in Figure 4.85.

Proposed Facilities

New facilities must be constructed within and outside of East Garrison in order to provide potable water service and water for fire protection.

MCWD has updated their Water Master Plan. The District will construct a new four-million-gallon storage reservoir and booster pump station adjacent to existing Storage Reservoir 'F.' The remaining storage will serve future uses in the area. In addition, the District plans to construct a large water transmission main from Reservation Road to Watkins Gate Road. This main would most likely be constructed in the proposed Inter-Garrison connector road, that will be located just to the north of East Garrison, and the realigned West Camp Road that will be constructed within the East Garrison project.

Other District improvements will be required to serve East Garrison. These include: the replacement of an existing 12-inch main from Storage Reservoir 'F' to the existing Inter-Garrison Road and within that road to East Garrison with a new 16-inch main, construction of a new 14-inch main in Watkins Gate Road from Storage Reservoir 'F' to West Camp Road, and a new 12-inch main in West Camp Road between the existing Inter-Garrison Road and Watkins Gate Road.

The development within East Garrison will be served by a new potable water distribution system consisting of 6- to 12-inch diameter water mains, service connections, and appurtenances. The Regional Urban Recycled Water Distribution Project (RUWDP) by MCWD has developed preliminary engineering plans for the construction of a new recycled water distribution system that includes service to East Garrison. New recycled water distribution pipelines and appurtenances may be constructed in the existing Inter-Garrison Road. Within East Garrison, new recycled water distribution pipelines and appurtenances may need to be constructed to tie into the regional system. Uses of recycled water will be limited to non-potable use for irrigation of landscapes, medians, parks, and playgrounds. The proposed water facilities are shown in Figure 4.86.

PROJECTED WATER DEMAND

LAND USE	DWELLING UNITS (DU)	BUILDING SQUARE FOOTAGE	AREA (ACRES)	DEMAND FACTOR (ac.ft/DU)	DEMAND FACTOR (ac.ft/yr/sf)	DEMAND FACTOR (ac.ft/yr/ac)	ANNUAL DEMAND (ac.ft/yr)
Residential-Medium (Single-Family Detached)	780	—	—	0.30	—	—	234
Residential-Medium-High (Townhouse)	186	—	—	0.25	—	—	46.5
Residential-High (Apts, Art Habitat, Live/Work)	394	—	—	0.23	—	—	90.6
Residential-High (Twn Cntr Lofts, Carriage Hse)	110	—	—	0.20	—	—	22
Commercial (Office)	—	35,000	—	—	0.00020	—	7
Commercial (Retail)	—	20,000	—	—	0.00004	—	0.8
Commercial (Deli)	—	4,000	—	—	0.00027	—	1.1
Commercial (Restaurant 410 seats)	—	16,000	—	—	0.029/seat	—	11.9
Cultural/Educational	—	100,000	—	—	0.000144	—	14.4
Public Facilities/Civic	—	11,000	—	—	0.0003	—	3
Active Parks							
Landscaping	—	—	10.44	—	—	2.5	26.1
Hardscape	—	—	2.1	—	—	0	0
Other (rock, wood, chips, etc.)	—	—	.4	—	—	0	0
Landscape Parkways							
Landscaping	—	—	4.94	—	—	2.5	12.4
Hardscape	—	—	0.9	—	—	0	0
Other (rock, wood, chips, etc.)	—	—	0.3	—	—	0	0
Other Improved Open Space (Native planting/ 3 yr. Temp Irrigation)	—	—	22.37	—	—	0	0
TOTAL	**1,470**	**186,000**	**41.5**				**470**

TABLE 4.10 PROJECTED WATER DEMAND

FIGURE 4.86 Proposed Water Supply and Distribution

4.7.2 Wastewater Collection, Storage, and Treatment

Wastewater Generation

MCWD is also the wastewater service provider for East Garrison. The projected wastewater flows from East Garrison at build-out are shown in Table 4.11.

Existing Facilities

Existing wastewater facilities within East Garrison include a non-operating wastewater treatment plant, three pump stations, and wastewater collection mains primarily located in the existing streets. The pump station located adjacent to the main gate at Reservation Road was constructed recently and has a capacity of 350 gallons per minute (gpm). It, however, is not currently in service since no wastewater-producing uses exist on the site at this time. The existing wastewater facilities within East Garrison are shown in Figure 4.87.

Proposed Facilities

New facilities must be constructed at East Garrison to provide wastewater service. These will include a new collection system consisting of 8- to 12-inch diameter gravity mains, service laterals, and related appurtenances. These facilities will collect wastewater flows

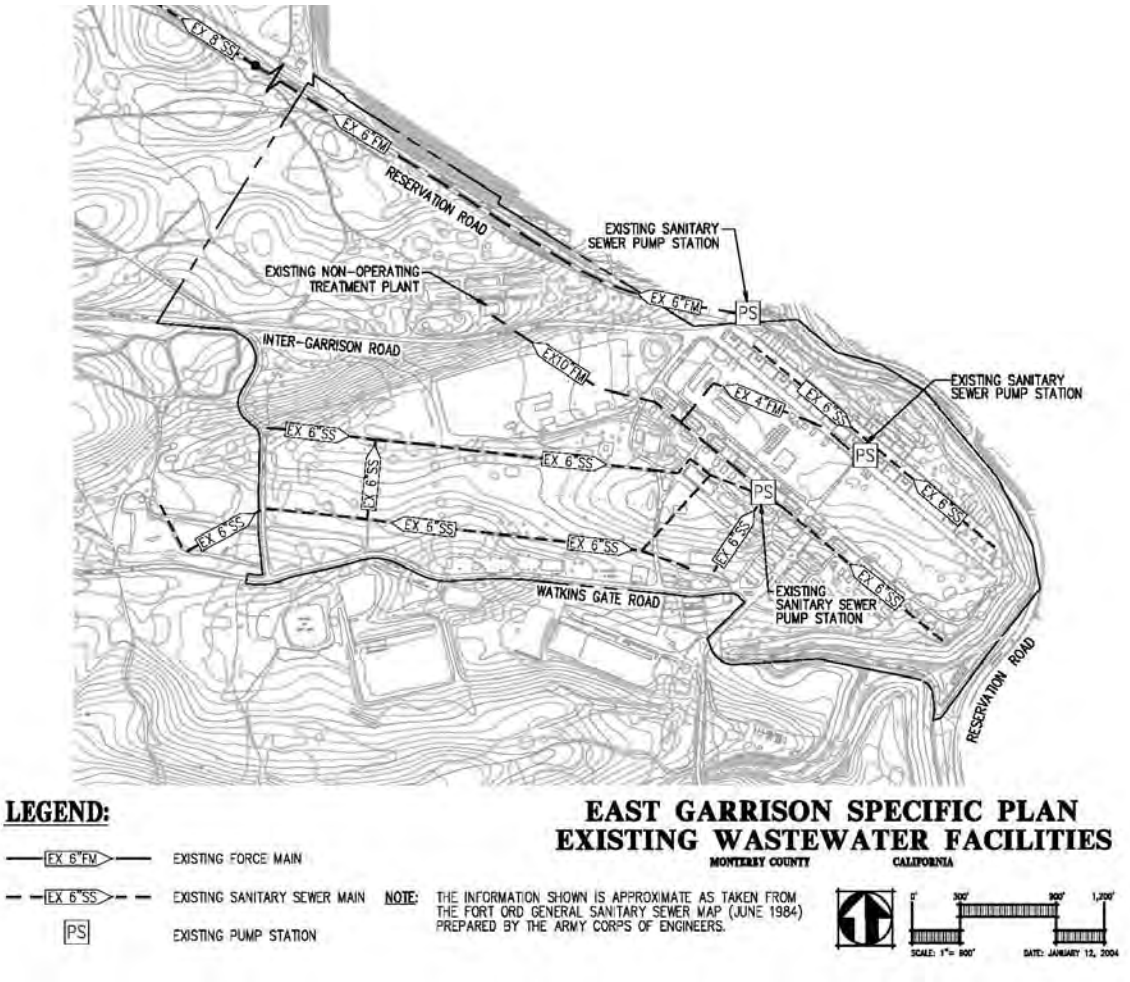

FIGURE 4.87 Existing Wastewater Facilities

and convey them to the existing pump station near Reservation Road.

The existing pump station, which has a capacity of 350 gpm, can service approximately 750 residential dwelling units in its present state, but will need to be expanded to provide additional capacity to accommodate the wastewater flows generated by the project at build-out. There is an existing 6-inch force main in Reservation Road that will carry wastewater flows from the pump station to an existing 8-inch gravity sewer approximately 880 feet northwest of East Garrison in Reservation Road. The wastewater flows from East Garrison will continue through the MCWD system to the MRWPCA Regional Wastewater Treatment Plant located on the north end of Marina. MCWD is analyzing whether any of the existing facilities in their system between the pump station and the regional treatment plant will require upgrading. The proposed wastewater collection facilities are shown in Figure 4.88.

PROJECTED WASTEWATER FLOWS

LAND USE	DWELLING UNITS (DU)	PERSONS PER DU	PERSONS	BUILDING SQ. FOOTAGE	GENERATION FACTOR (gpd/DU)	GENERATION FACTOR (gpd/SF)	AVERAGE DRY WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW* (gpd)
Residential-Medium (Single-Family Detached)	780	2.3	1,792		207		161,253	
Residential-Medium-High (Multi-Family Attached)	620	1.8	1,118		162		100,602	
Residential-High (Carriage Units)	70	1.5	105		135		9,450	
Commercial				75,000		0.27	20,250	
Cultural/Educational				100,000		0.27	27,000	
Public Facilities/Civic				11,000		0.18	1,980	
TOTAL	**1,470**		**3,015**	**186,000**			**320,535**	**737,231 (512 gpm)**

***A Peaking Factor of 2.3 was used in this analysis based on MCWD Standards.

TABLE 4.11 PROJECTED WASTEWATER FLOWS

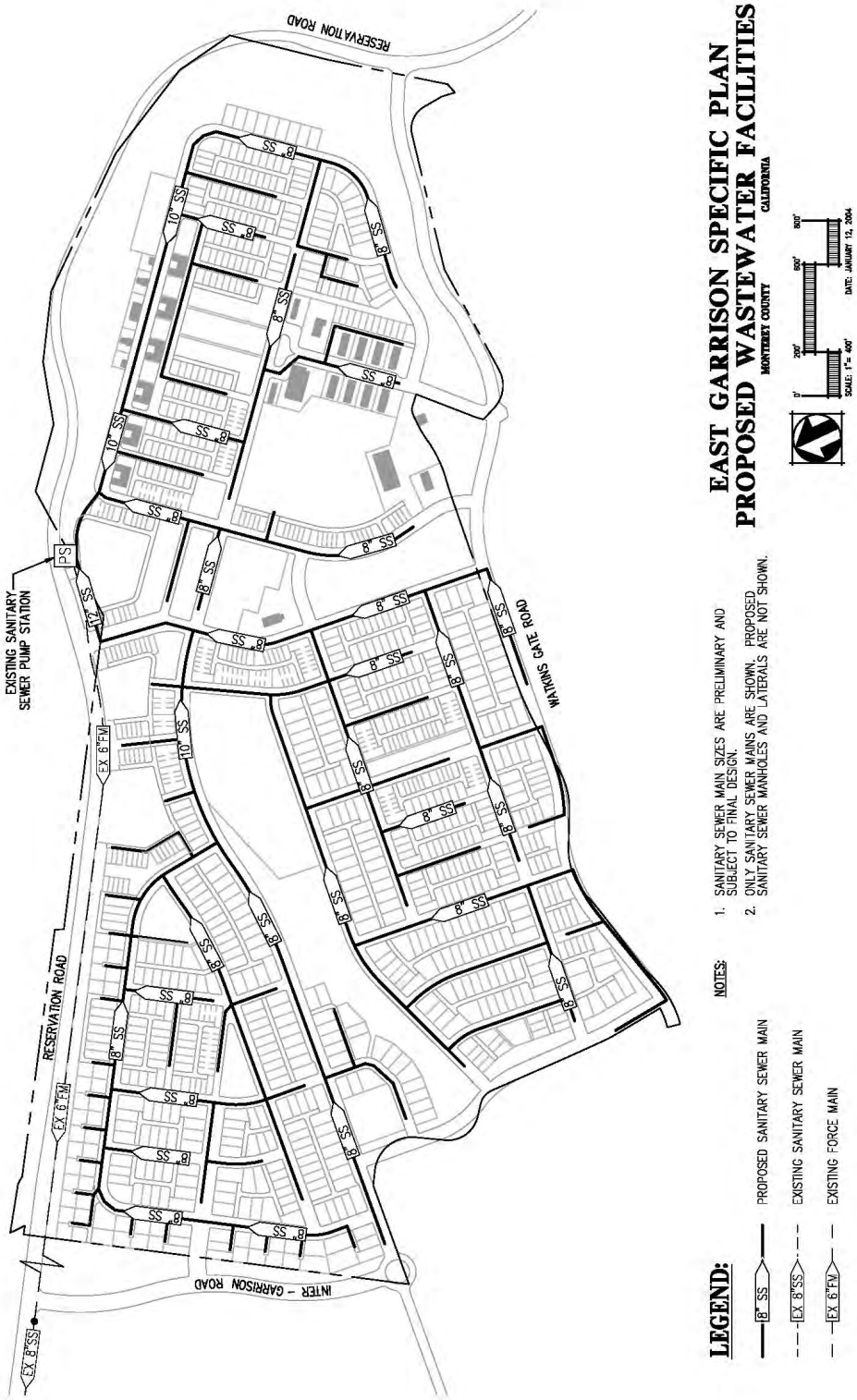

FIGURE 4.88 Wastewater Collection, Storage, and Treatment

4.7.3 Storm Drainage

Watershed Area

The project site makes up the central portion of a 400(+/-)-acre watershed that drains to the Salinas River.

The upper portion of this watershed consists of 165 acres of permanent open space, the proposed Monterey County Youth Camp, and the second phase of development at East Garrison. The lower portion of the watershed, between East Garrison and the Salinas River is currently being farmed. The watershed area and project site are shown in Figure 4.86.

Flooding

There are no known flooding or flood-prone areas within East Garrison. East Garrison is not located in a special flood hazard area as designated by the Federal Emergency Management Agency (FEMA). The Flood Insurance Rate Map (F.I.R.M.) for this area (Panel 060195 0130 D) shows East Garrison in Zone C, areas of minimal flooding. The adjacent farmland next to the Salinas River is shown in a special flood hazard area and is designated as Zone A8.

Existing Facilities

There is a fairly well developed storm drainage system in East Garrison that includes both surface and subsurface facilities. An existing culvert at West Camp Road allows upstream drainage that does not percolate into the soil to flow under the road and onto East Garrison. The existing storm drainage system includes earth and concrete ditches, concrete gutters, storm drain pipes, manholes, inlets, and two major outfall pipes. The outfall pipes, which are 24 and 30 inches in diameter, collect stormwater run-off from East Garrison and carry it down the bluff, across Reservation and Panziera Roads and into a drainage ditch that follows the westerly side of the agricultural land adjacent

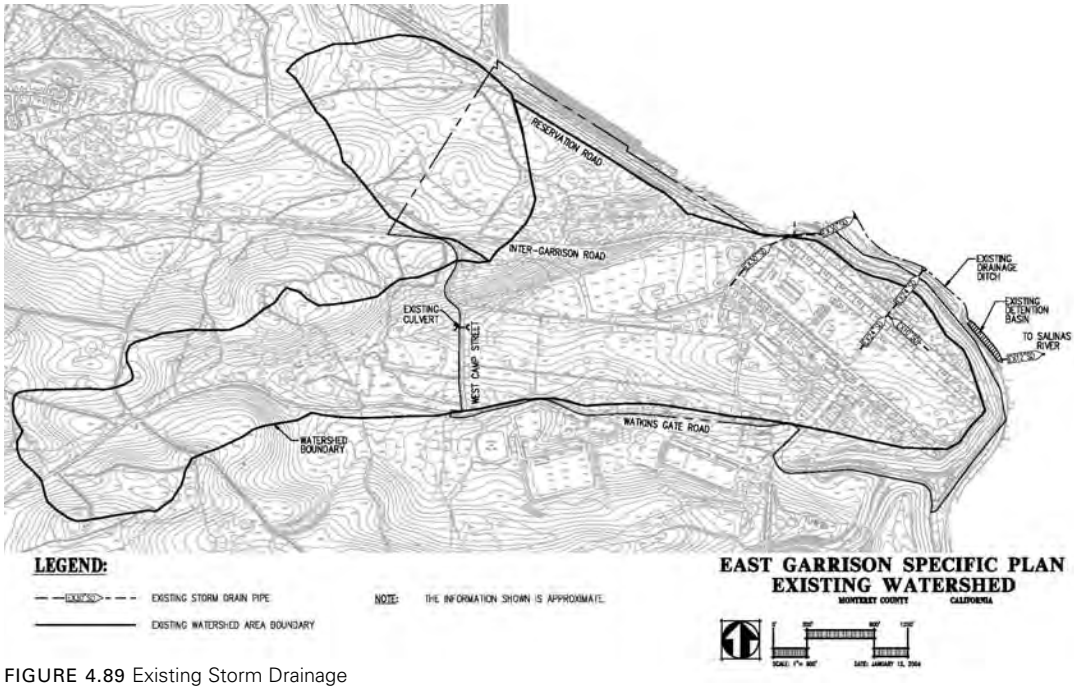

FIGURE 4.89 Existing Storm Drainage

to the Salinas River. The drainage ditch carries these flows together with any run-off from the agricultural land to an impoundment where stormwater is stored and then pumped to the river in a 12-inch diameter pipe. The existing storm drainage facilities within East Garrison are shown in Figure 4.89.

Proposed Facilities

New storm drainage facilities must be constructed to serve East Garrison. These will include conventional drainage facilities and detention/retention basins that also function as infiltration ponds.

The purpose of the conventional storm drainage facilities is to intercept stormwater flows at the project boundaries, collect it within the development, and convey it to a controlled point of discharge. These conventional facilities will include earth swales, lined ditches, concrete curbs and gutters, manholes, catch basins, and underground storm drain pipes. The use of detention/retention basins as described below will regulate peak stormwater flows so that the existing storm drain outfalls can be utilized.

The soils at Fort Ord and East Garrison contain high levels of sand. Consequently, they are fast-draining and allow for the rapid infiltration of stormwater into the ground. The redevelopment of East Garrison will increase the amount of impervious surface area which will, in turn, increase the amount of stormwater run-off.

The Monterey County Water Resources Agency (MCWRA) requires that the post-project, 100-year flow rate not exceed the pre-project, 10-year flow rate. To comply with this policy, and to not impact the downstream agricultural land and improvements, two detention basins and one retention basin will be constructed at East Garrison. The detention basins will collect and store stormwater run-off and then release it into the existing outfall pipes in accordance with the MCWRA policy. The third basin located at the north end of East Garrison will be constructed as a retention basin rather than a detention basin since there are no existing drainage facilities in this area that could be used to drain the basin. This basin is located just to the north of East Garrison, adjacent to the proposed Inter-Garrison connector road. The retention basin will collect stormwater run-off and store it until it percolates into the ground.

Best Management Practices (BMPs) for stormwater quality treatment are classified as structural and non-structural. Structural measures, that may include biofilters, wetlands, infiltration basins, or mechanical structures, are designed to remove pollutants from the stormwater. Non-structural measures such as street sweeping, public education, or hazardous substance/recycling centers are preventative measures intended to control the source of pollutants. East Garrison will include both types of BMPs.

The primary structural BMP will be the detention/retention basins. These basins will take advantage of the extremely high percolation rates of the native soils. This will promote infiltration and allow for the removal of pollutants as stormwater percolates down through the soil. Because these basins drain the entire site they will be very effective in improving the stormwater quality at East Garrison.

Non-structural BMPs to be used at East Garrison will include an ongoing street sweeping program as a part of the maintenance of the private streets, a public education package to be distributed to homeowners upon purchase of their home, and catch basins stenciled with the words "No Dumping – Drains to River."

The proposed storm drainage facilities are shown in Figure 4.90.

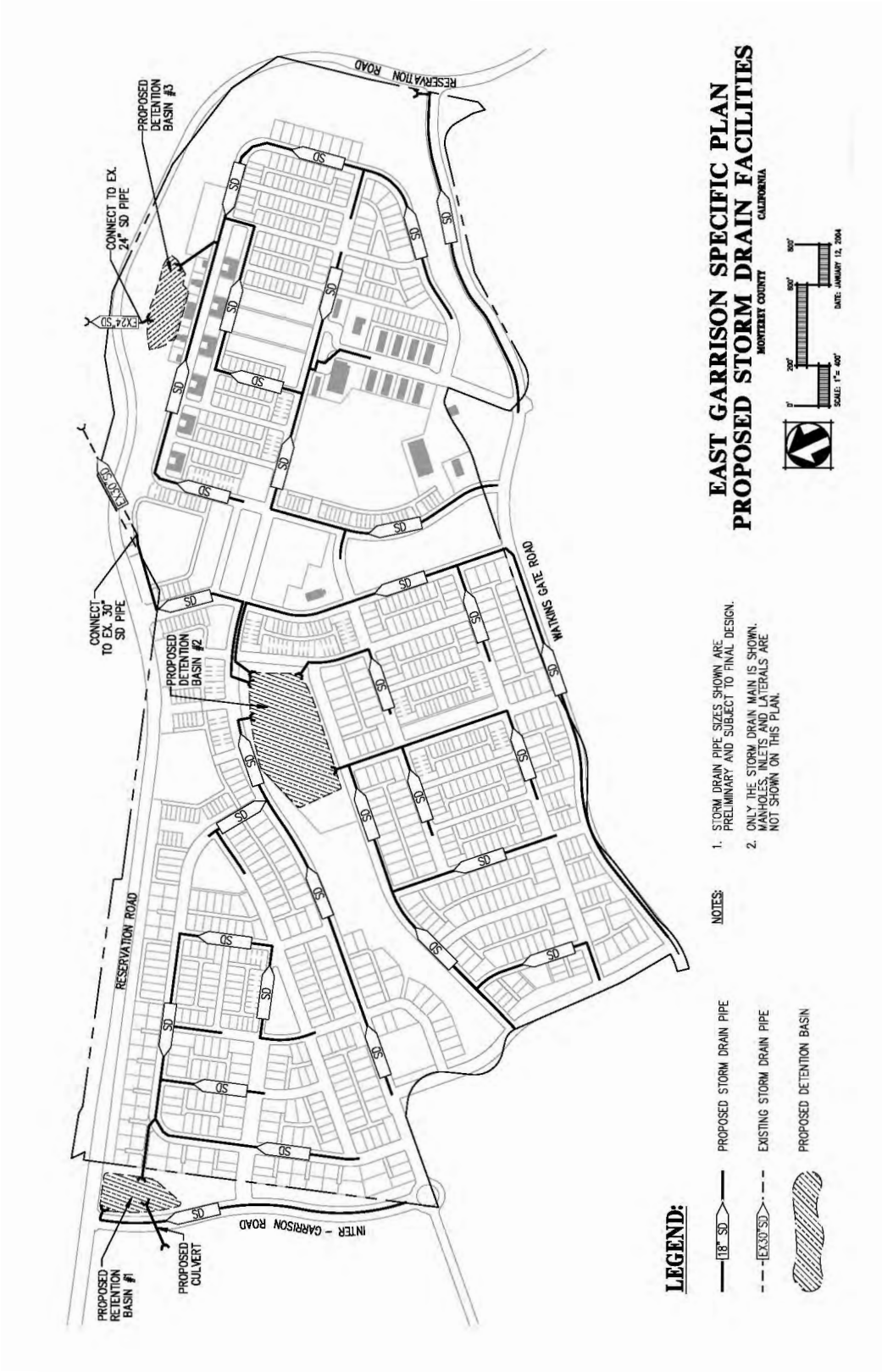

FIGURE 4.90 Proposed Storm Drainage

4.7.4 Solid Waste Collection and Disposal

The solid waste and recycling program in East Garrison will be managed by the East Garrison CSD or HOA in conjunction with Monterey County. East Garrison lies within the Monterey Regional Waste Management District and is governed by the provisions of Chapter 10.41 of the Monterey County Code. As such, all residences and businesses are required to store trash in approved containers and to have it removed weekly by either the existing franchisee (Waste Management, Inc) or another vendor approved by the Board of Supervisors.

4.7.5 Recycling

Chapter 10.41 of the Monterey County Code of Ordinances requires separation of recyclables from solid waste.

4.8 ENERGY

PG&E provides gas and electric service to Fort Ord. Their transmission facilities are well maintained and meet current California Public Utilities Commission (CPUC) and safety standards. The existing gas and electric distribution systems within East Garrison have been operated and maintained by the Army and are mostly substandard, in poor condition and/or obsolete.

4.8.1 Natural Gas

Existing Facilities

East Garrison is currently served by PG&E with a regulator and meter station located in the eastern portion of the site at the intersection of Watkins Gate Road and Sloat Street. PG&E owns and operates a 10-inch feeder main that passes southwest of East Garrison and runs easterly to Barloy Canyon Road, where it branches off to the metering station.

The U.S. Army has owned and been responsible for the maintenance of their low-pressure distribution system throughout the former base operation. The current system consists of plastic, steel, and galvanized iron gas mains ranging in sizes from ¾-inch to 14 inches in diameter. The precise condition of the mains within the East Garrison area is unknown, but since they are not cathodically protected, it is assumed that they are in poor shape and will be abandoned and replaced with new mains.

Planned Facilities

New facilities will be constructed at East Garrison to provide natural gas service. Existing PG&E operated gas mains will be extended and new distribution mains will be installed in a new joint trench adjacent to roadways. The joint trench will include natural gas, electric, telephone, and cable TV facilities. In addition, the expansion of existing gas transmission facilities outside of East Garrison may be required. The need for these improvements will be determined by PG&E.

4.8.2 Electricity

Existing Facilities

PG&E has a pole-mounted substation in East Garrison located near Reservation Road. This substation distributes power at 4.16kv. There is also a PG&E 115kv transmission line in an 80-foot-wide easement that traverses the southeast corner of East Garrison. A system of overhead wires is used to distribute electricity within East Garrison. This system, which has been operated by the Army, is in poor condition and does not meet current CPUC standards.

Planned Facilities

An electrical distribution system will be installed in a common joint trench along with gas, telephone, and cable television facilities. In addition, expansion of existing transmission facilities outside of East Garrison may be required. The need for these improvements will be determined by PG&E.

4.9 COMMUNICATIONS

4.9.1 Telephone

Existing Facilities

The Fort Ord switching station is served by SBC from its Marina and Seaside switching centers. The system consists primarily of underground cables that connect from either the Seaside or Marina switching stations. The system consists mainly of twisted copper wires. Currently, no fiber-optic cables are in place on the site. SBC owns and maintains the underground main trunk cable along Beach Range Road and provides basic telephone service, 911 emergency service, operator service, and 411 information assistance. The system is in good shape and meets all applicable industry standards.

East Garrison is served via an underground main cable line and local overhead Building 4250 on North-South Road. In general, the cable system is in poor condition and the overhead wire system does not meet CPUC or safety standards. The system is deficient due to its age and technological obsolescence and will need to be replaced or upgraded.

Planned Facilities

A fiber-optic telephone distribution system will be installed in a common joint trench along with gas, electric, and cable TV facilities. In addition, expansion and/or upgrade of existing transmission facilities outside of East Garrison may be required. The need for these improvements will be determined by SBC or an alternative telephone provider.

4.9.2 Cable Television

A cable television distribution system will be installed in a common joint trench along with gas, electric, and telephone facilities. In addition, expansion and/or upgrade may be required outside of East Garrison. The need for these improvements will be determined by the developer. The cable provider will be determined at a later date.

4.9.3 Wireless Communication

Wireless technology/facilities are permitted and the Conditions, Covenants, and Restrictions (CCR) will prescribe the regulations.

4.10 COMMUNITY SERVICES

4.10.1 Schools

As cited in the Development Agreement, Monterey County is reserving a 10-acre elementary school site adjacent to Track Zero at East Garrison, south of Watkins Gate Road, next to the Youth Camp. The future location of a high school site along Reservation Road within the City of Marina is currently being analyzed by the Monterey Peninsula Unified School District (MPUSD). The district will also be studying the locations of new elementary schools.