

Appendix B

Castellina Planning Documents



B-1 Castellina Specific Plan



CASTELLINA

SPECIFIC PLAN

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CASTELLINA
SPECIFIC PLAN

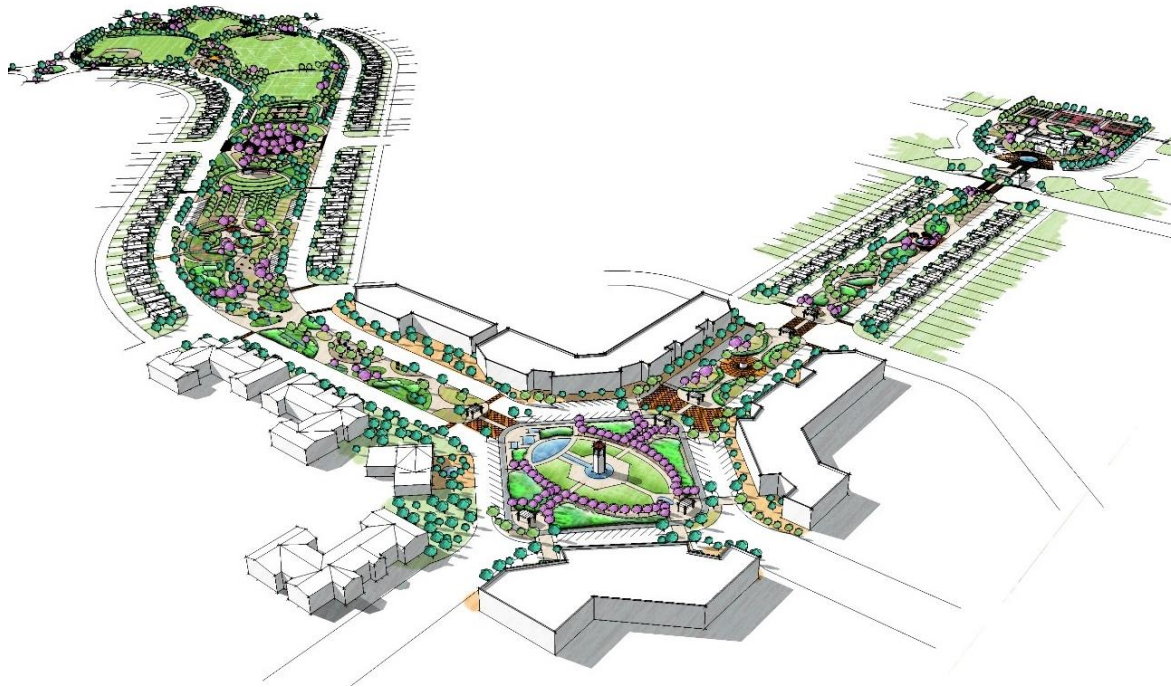
JUNE 2021

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CASTELLINA SPECIFIC PLAN Vision



Castellina is a master-planned community with neighborhoods connected by unifying design features that support strong social interaction of the residents, workers, and visitors through cultural, recreational and civic amenities, while encouraging healthy, active lifestyles.



Castellina is designed to include a diversity of residential neighborhoods, an active adult community, and a mixed-use town center, all focused around a large central park and multi-use activity corridor.

ACKNOWLEDGEMENTS

Castellina, LLC

Consultants:

Kimley-Horn and Associates, Inc., Land Planning, Civil Engineering, Landscape Architecture, Traffic/Transportation, Hydrology Design

Hardt Mason Law, Legal

Tully and Young, Water Resources

Water Works Engineers, Water and Wastewater Treatment Engineering

Provost & Pritchard, Water Resources

HMC Engineering, Hydrology Design and Engineering

O'Dell Engineering, Survey

Live Oak Associates, Biological Resources

TRC Lowney, Geology & Soils

McCloskey Consultants, Geology & Soils

Ken Schmidt and Associates, Geology & Soils

Technicon Engineering Services, Geotechnical Engineering

Sierra Valley Cultural Planning, Cultural Resources

Strategic Engineering & Science, Hazards & Hazardous Materials

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INTRODUCTION

This chapter explains the purpose and basis of this Specific Plan; organization of this Specific Plan; the project background; site opportunities and constraints; relationship to existing plans and policies; and the planning process and entitlements.

1.1. Introduction

Castellina (the Project) is a master-planned community located on approximately 792 acres about one mile north of the City of Madera in Madera County. As shown in **Figure 1-1: Regional Vicinity**, the Specific Plan Area is located approximately three miles east of Highway 99. Other cities along the Highway 99 corridor include Merced (34 miles) and Chowchilla (16 miles) to the north, and Fresno (25 miles) to the south. Yosemite is located 60 miles to the northeast via Highways 145 and 41.

Figure 1-2: Local Context shows the location of the Specific Plan Area in relation to the City of Madera and surrounding features.

The Castellina Specific Plan (the Specific Plan) calls for the development of up to 3,072 single-family and multi-family residential units, including an Active Adult Community; up to 21 acres of commercial-residential mixed-use, civic, office, and recreational uses; and approximately 132 acres of parks, play fields, trails, plazas, amenity centers, community gardens, landscape buffers, retention areas, and other open space.

The project applicant and developer is Castellina, LLC.

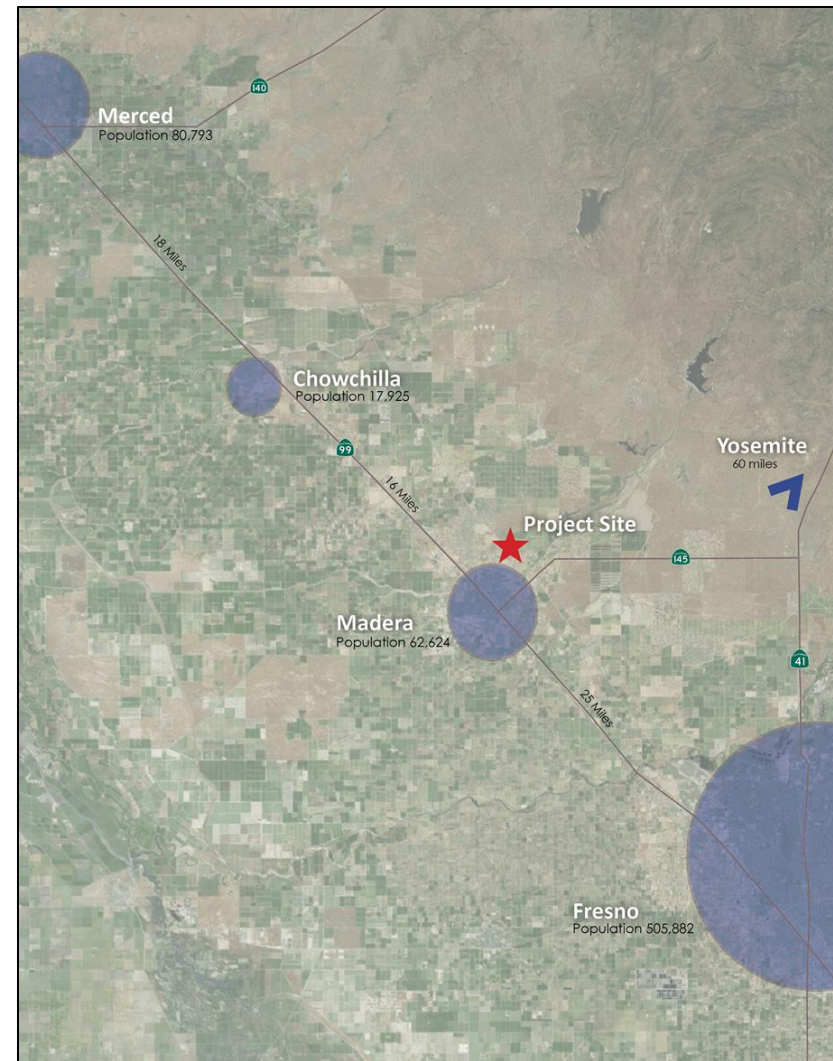


Figure 1-1: Regional Vicinity



Figure 1-2: Local Context

1.2. Specific Plan Organization

The Specific Plan is organized with the following chapters.

Chapter 1 – Introduction

This chapter explains the purpose and basis of the Specific Plan; organization of the Specific Plan; project background; site opportunities and constraints; relationship to existing plans and policies; and planning process and entitlements.

Chapter 2 – Land Use Zoning & Development Standards

This chapter describes the conceptual land use and development plan for Castellina; identifies land use policies and the land use designations unique to this Specific Plan; and includes Zoning and development standards for each land use designation to reflect land use designation definitions in the Area Plan.

Chapter 3 – Circulation & Streetscape Design

This chapter describes the circulation and streetscape design, including the roadway hierarchy and proposed mobility plans for drivers, pedestrians, bicyclists, and transit riders.

Chapter 4 – Infrastructure & Public Services

This chapter describes the plan for the construction of infrastructure, utilities, and public services for the Specific Plan Area.

Chapter 5 – Water Resource Management

This chapter discusses the overview of the Project's water conservation program to balance the use of water for the Castellina Project with existing water resources.

Chapter 6 – Administration, Implementation, & Financing

This chapter discusses the development review procedures by Madera County and other relevant permitting agencies applicable to the Specific Plan. A process for amendments to the Specific Plan is discussed, as well as analysis of the fiscal impacts of the Project on Madera County and other public services.

Appendices

Appendix A – Castellina Area Plan

An Area Plan for the Castellina project presents an overview of the Castellina plan, describes the reasoning that supports the proposed Project, and provides the framework and vision for the design of the Castellina community.

Appendix B – Site & Architectural Design Guidelines

This appendix creates design concepts and establishes design guidelines and standards for development. These guidelines address the architectural built form for the land use designations as well as general site planning guidelines related to aesthetics, functionality, mobility, parking, and signage. These design guidelines address both residential

and commercial uses and serve to promote cohesive design and community identity.

Appendix C – Landscape Design Guidelines

This appendix sets forth the landscape design guidelines and standards that apply to elements in the public realm divided between both residential and commercial uses, including the Central Park, Grand Promenade, neighborhood parks, streetscapes and other open space areas. It also includes a discussion of the landscaping principles, planting and irrigation guidelines for both public and private spaces, and provides a species list of trees, shrubs, ground covers, and other landscape plants.

1.3. Project Background

1.3.1. Project Location

As shown in [Figure 1-3: Existing Conditions](#), the Specific Plan Area is bordered by the Avenue 18 (alignment) to the north, Road 28½ to the east, the alignment of Avenue 17 to the south, Road 27 to the west, and the Burlington Northern Santa Fe (BNSF) railroad line to the southwest. The Specific Plan Area can presently be accessed via Road 27 and Road 28½.

1.3.2. Existing Conditions

The Specific Plan Area is in agricultural production and contains almond and fig orchards, plus related agricultural support facilities such as equipment storage, wells, and dirt farm roadways.

There are five wells located within the Specific Plan Area that draw groundwater from the Madera groundwater basin. Based on data provided by the property owner, approximately 2,822 acre-feet per year are pumped out of the ground water table. Factoring in percentage of water recharged into the ground water table versus estimated percentage of water actually taken in by orchards, plus evaporation, the estimated actual agricultural consumptive use is approximately 1,800 acre-feet per year (AFY) of

groundwater, equivalent to nearly 586 million gallons per year.

Like the site itself, many of the adjacent and nearby lands have been highly modified for agricultural purposes or otherwise developed as roads, individual residences, residential subdivisions, and commercial centers. Natural rangelands are located immediately north of the site.



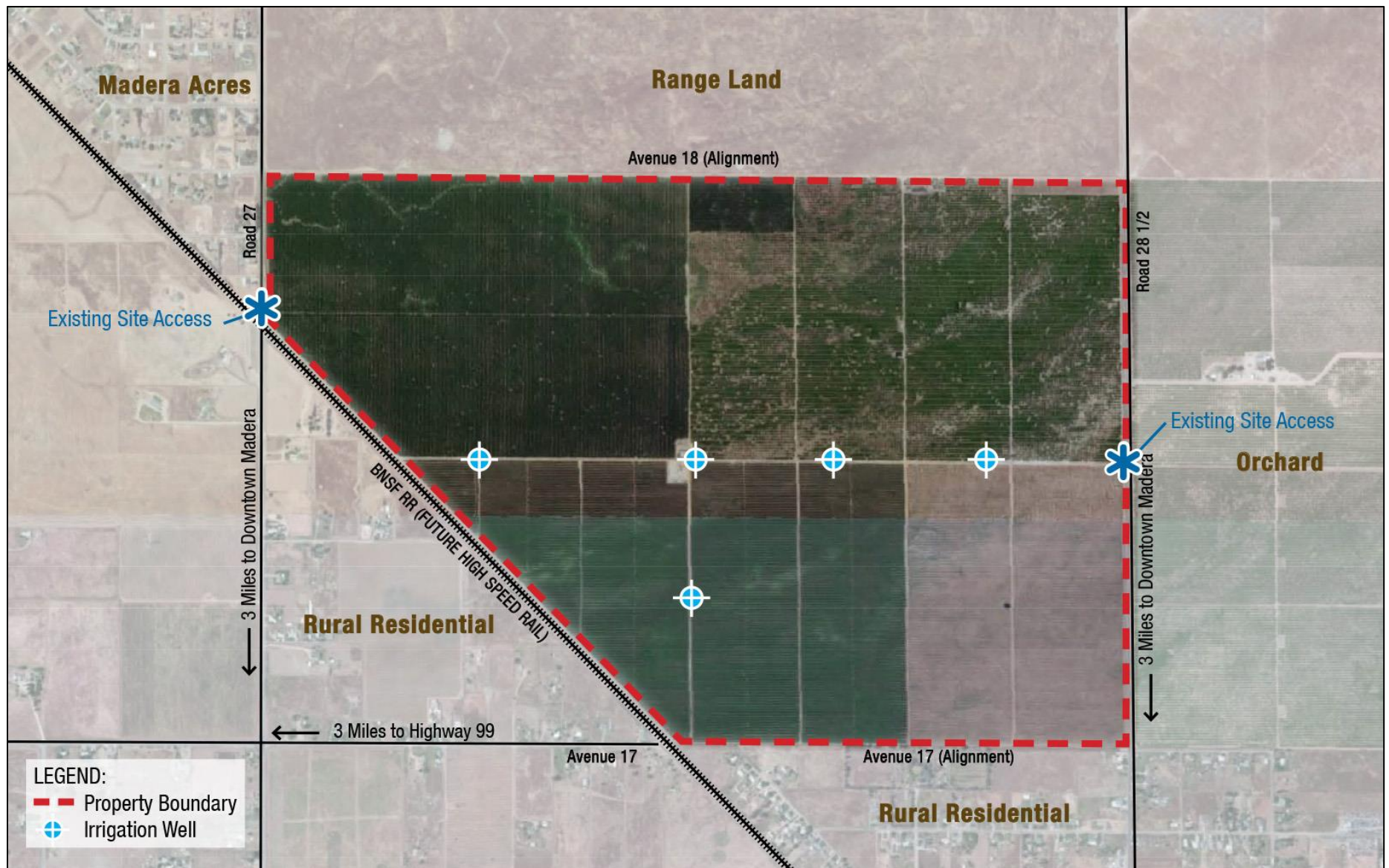


Figure 1-3: Existing Conditions

1.4. Site Opportunities and Constraints

Various site characteristics present opportunities and constraints that are important in identifying issues associated with access, internal circulation, the location of land uses, theming and character of the new community, amenities and open space systems, and infrastructure development.

1.4.1. Adjacent and Nearby Land Uses

The Specific Plan Area is surrounded primarily by rural land uses. Madera Acres is a rural residential subdivision located to the northwest of the Specific Plan Area and just south of the Madera Golf and Country Club. Lower density rural residential land uses border the west and south Specific Plan Area boundaries. North of the Specific Plan Area is unimproved range land. Property east of the Specific Plan Area is in agricultural orchard production.

1.4.2. Climate

The San Joaquin Valley has a Mediterranean climate with hot dry summers and cool winters. Average low and high temperatures range from 33°F - 48°F in January to 62°F - 99°F in July. Annually, there are an average of 105 days with highs of 90°F or higher and an average of 30 days with lows of 32°F or lower. Therefore, incorporating shade, passive solar and vegetation design will be important site, landscape, architectural, and water conservation considerations.

Annual precipitation in the general vicinity of the site is highly variable from year to year. Average annual rainfall is approximately 12 inches, 88% of which falls between November and April. These and other factors will determine the prudent selection and efficient use of landscape plant material, as well as design of stormwater conveyance, retention and recharge facilities.

1.4.3. Soils and Topography

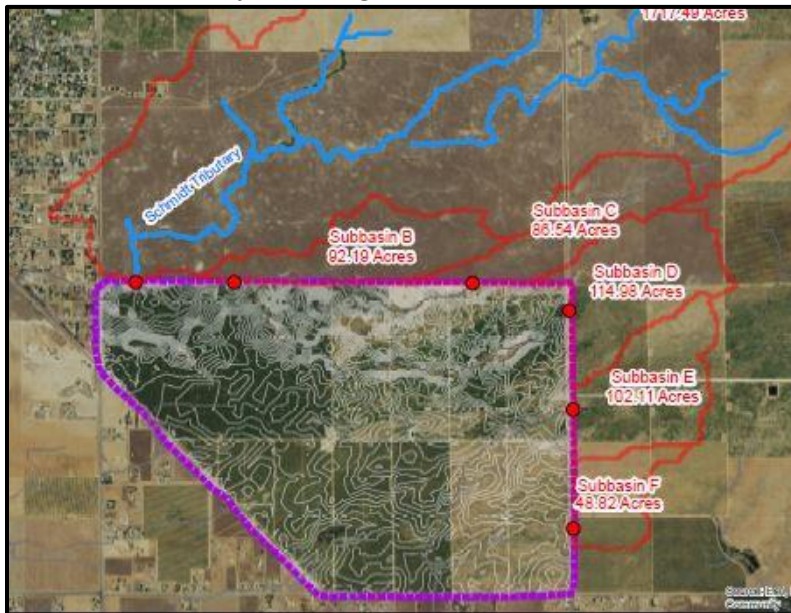
The Specific Plan Area is located in the San Joaquin Valley on gently sloping terrain that ranges in elevation from approximately 280 feet National Geodetic Vertical Datum (NGVD) to 315 feet NGVD.

Seven soil series units exist within the Specific Plan Area. Like most soils of the San Joaquin Valley, those of the Specific Plan Area consist of alluvium, primarily derived from plutonic rocks of the Sierra Nevada Mountain Range. This alluvium was carried from the Sierra to the Central Valley during the Pleistocene Era by the considerable volume of runoff generated from melting glaciers.

Understanding soils characteristics are necessary for construction purposes and to design stormwater retention systems that offer opportunities to effectively recharge the groundwater table and conserve valuable water resources on-site.

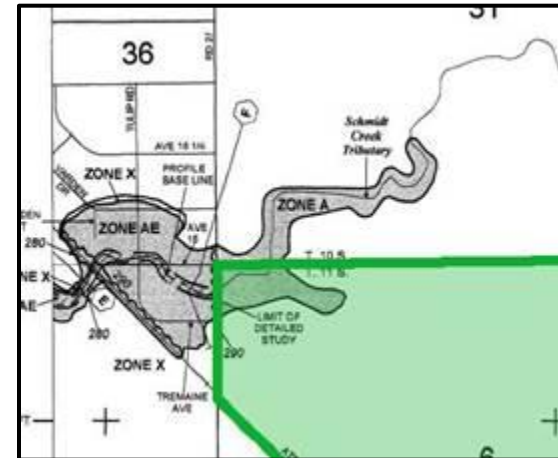
1.4.4. Schmidt Creek and the 100-Year Floodplain

The existing site contains several minor, unnamed natural drainage features. On the northern portion of the Specific Plan Area, these drainage features enter from the east and drain toward the northwestern corner of the Specific Plan Area, occasionally draining into the Schmidt Creek



Tributary. On the southern portion, these ephemeral drainage features also drain to the western edge of the Specific Plan Area, occasionally draining northward to the northwestern corner of the site and into the Schmidt Creek Tributary.

A portion of the northeast corner of the site is shown within the Flood Emergency Management Agency (FEMA) Zone A as shown on FEMA Map Panel 06039C0920E.



FEMA Flood Map

FEMA Zone A areas are areas inundated by 1% annual chance flood, for which FEMA has not determined base flood elevations (BFEs). Hydraulic modeling was performed to determine the BFE for the Zone A area within the Specific Plan Area. **Section 4.5.4 in Chapter 4: Infrastructure & Public Services** in this Specific Plan further addresses this issue. Also, **Chapter 5: Water Resource Management**, as well as the Project Water Supply Assessment (WSA) and Infrastructure Master Plan (IMP) further describe the hydrologic conditions, drainage, and water conservation program designed to manage

stormwater and to recharge and maintain the groundwater aquifer.

1.4.5. Wetlands

In January and February of 2017, an on-site wetlands study and Jurisdictional Waters of the U.S. (U.S. Army Corps of Engineers – USACE) assessment was conducted by Live Oak Associates. While the Project site once consisted of non-native grassland and wetlands, all such lands once present were converted to irrigated agriculture and ancillary infrastructure in 1978. Therefore, lands of the Project site have been in agricultural production for over 40 years. The management of these lands includes regular disking, the operation of vehicles to facilitate the application of pesticides and herbicides, the annual harvesting of fruits and nuts, and the annual pruning of



orchard trees. One short swale segment in the northwest sector of the site (see image) meets the wetland criteria, but is isolated from traditional navigable waters of the U.S. or their tributaries. Therefore, the study concluded that no

areas on-site meet the regulatory definition of waters of the U.S. In a letter dated September 9, 2019 from the Regulatory Division of the USACE, the following is stated, in part:

"The 0.56-acre of aquatic resources identified as "SW-1 and NW-1" on the above drawing are aquatic resources with no apparent interstate or foreign commerce connection. As such, these aquatic resources are not currently regulated by the U.S. Army Corps of Engineers." (identification number SPK-2017-00317)

1.4.6. Circulation and Site Access

The Specific Plan Area is accessible from Road 27 on the west and Road 28½ on the east. A railroad overcrossing by the California High Speed Rail Authority is currently under construction for Road 27. Avenue 17 terminates at the BNSF rail line on the west side. A future railroad overcrossing and extension of the current Avenue 17 to Road 28½, a portion of which is planned to be within the Specific Plan Area boundary, will provide a third point of site access from the south and is currently in the County review and approval process.

Highway 99 is located approximately three miles west of the Specific Plan Area via Avenue 17. Downtown Madera is located approximately three miles south via Road 27 or Road 28½.

These regional roadways are further discussed and shown in [Figure 3-1: Existing Regional Roadway Network](#) in [Chapter 3: Circulation & Mobility](#).

1.4.7. Rail Lines

BNSF Amtrak Rail Line

The BNSF railroad line runs along the southwest edge of the Specific Plan Area. In addition to freight service, Amtrak operates six trains daily between Oakland or Sacramento and Bakersfield. The closest station is located at 18770 Road 26, approximately one and a half miles northwest of the Specific Plan Area.





High-Speed Rail

The California High-Speed Rail Authority (CHSRA) is constructing a high-speed rail line, located adjacent to the western edge of the BNSF rail line, along the southwest side of the Specific Plan Area. The system is envisioned to run from San Francisco to the Los Angeles basin in under three hours at speeds of over 200 miles per hour. The system is planned to extend to Sacramento and San Diego, totaling 800 miles with 24 or more stations.

CHSRA has begun construction of the initial line from Merced to Bakersfield, with a Madera station planned at Avenue 12 and Santa Fe Drive, Madera County, southeast of the Project site. **Figure 1-3: High Speed Rail: Project Site to Fresno** shows the site and its relation to the alignment of the rail line from Madera to Fresno, as well as the location of the new Madera station.

As stated in **Section 1.4.6** above, plans call for the construction of roadway overpasses on Avenue 17 and Road 27. At the time of this writing, the Road 27 overpass is under construction and the Avenue 17 overpass is under County design review.



Exhibit 1-3: High Speed Rail: Project Site to Fresno

1.5. Relationship of Specific Plan to Existing Plans and Policies

The Project is in the jurisdiction of Madera County. Development applications have been submitted to the Madera County Resource Management Agency Planning Department for entitlement review, and the County will act as the lead agency in the issuance of all necessary permits and environmental (CEQA) review of the Specific Plan.

Below is a summary of the primary plans and policies for Madera County, as well as the City of Madera, given that the Project is located within the City's Urban Growth Boundary.

1.5.1. Madera County General Plan

The 1995 Madera County General Plan provides a broad framework for supporting future land use and development decisions within the County.

Prior to adoption and implementation of future entitlements, allowable uses include those specified under the Agriculture (A) and Open Space (OS) designations.

On February 24, 2014, the Madera County Board of Supervisors approved Resolution 2014-012, changing the land use designation for the Specific Plan Area from Agricultural Exclusive (AE) to New Growth Area (NGA). The NGA designation applies to areas where extensive new development is planned.

General Land Use Policies

Relevant Madera County General Plan land use policies that apply to the Specific Plan Area include:

- 1.A.1. The County shall promote the efficient use of land and natural resources.
- 1.A.2. The County shall designate sufficient land to accommodate projected population and employment growth in Madera County.
- 1.A.3. New development should be centered in existing communities and designated new growth areas.
- 1.A.4. The County shall encourage infill development and development contiguous to existing cities and unincorporated communities to minimize premature conversion of agricultural land and other open space lands.
- 1.A.6. The County shall promote patterns of development that facilitate the efficient and timely provision of infrastructure and services.
- 1.A.8. The County shall require that new rural and suburban development be designed to preserve and maintain the rural character and quality of the County.

New Growth Area Land Use Policies

The goal of New Growth Areas (NGAs) is to ensure that they are comprehensively planned and developed as well-balanced, independent communities. The following General Plan policies apply to NGAs:

- 1.B.1. The County shall require that designated new growth areas be comprehensively planned as single units rather than as individual property ownerships. Each designated new growth area shall be developed per an adopted area plan.
- 1.B.2. The County shall require that the planning and design of new growth areas carries out the following objectives:
 - a. Concentrate higher-density residential uses and appropriate support services along segments of the transportation system with good road and possible transit connections to the remainder of the region;
 - b. Support concentrations of medium and high-density residential uses and higher intensities of non-residential uses near existing or future transit stops along trunk lines of major transportation systems;
 - c. Support the development of integrated mixed-use areas by mixing residential, retail, office, open space, and public uses while

making it possible to travel by transit, bicycle, or foot, as well as by automobile; and,

- d. Provide buffers between residential and incompatible non-residential land uses.

1.5.2. Castellina Area Plan

Development under the NGA General Plan designation requires the adoption of an Area Plan, which in this case comprises the Specific Plan Area. Planning staff will use the Area Plan as a policy and land use planning guide. A specific plan implements the goals and policies of the General Plan and Area Plan, serves as an extension of the General Plan, and can be used as both a policy and a regulatory document.

The Castellina Area Plan (CAP) has been prepared concurrently with this Specific Plan and is included as [Appendix A: Castellina Area Plan](#). The CAP is consistent with the Madera County General Plan, and the Castellina Specific Plan's new Zoning Districts are in turn consistent with the Castellina Area Plan's Land Use Designations. The Castellina Specific Plan serves to implement the new Zoning Districts as set forth in this Specific Plan document. When the CAP is approved, the NGA designation will be replaced by the appropriate land use designations as identified in the CAP.

1.5.3. Madera County Zoning Code

The Madera County Zoning Code (Zoning Code) provides a countywide framework of regulations that address topics such as permitted uses, conditional uses, and development standards. The Specific Plan Area is currently within the ARE-40 zone (Agricultural Rural Exclusive – 40-acre).

The ARE-40 zone permits all kinds of agricultural uses, one single family dwelling, a dormitory or attached farm labor housing unit accommodating up to five families on parcels of 36 acres or larger, and a second single family dwelling subject to parcel size requirements and development standards.

This Specific Plan identifies new zoning and development standards which will apply to the Specific Plan Area only. These development standards address issues associated with permitted uses, development density, building heights and setbacks, and parking. The Design Guidelines will maintain consistent, high-quality standards for all land uses, including parks, open space, and landscaping. In short, the Specific Plan becomes the new zoning for the area.

1.5.4. Relationship with the City of Madera

The Specific Plan Area is located approximately one mile north of the City of Madera and is within the City's Urban Growth Boundary and General Plan Planning Area. The

Specific Plan Area is not within the City's Sphere of Influence.

Development in the Urban Growth Boundary is referenced in the City's General Plan Policy LU-10 which states:

"The Growth Boundary is considered by the City to define the physical limits of development in Madera. The City shall direct all future growth in Madera and in the unincorporated area outside the city limits to occur inside the Growth Boundary shown on the Land Use Map in this General Plan. Within the City's Planning Area, the City encourages the County to assist the City in maintaining an agricultural greenbelt around the Growth Boundary by limiting the use of land designated for agriculture on the City's General Plan Land-Use Map to agriculture."

Figure LU-2: Land Use Map of the City's General Plan, designates the Specific Plan Area as VR – Village Reserve. This category applies to lands that require additional comprehensive planning as identified in the City's Land Use Element. Specific land use designations called out in the Land Use Element are applied in conjunction with the village level planning processes.

As shown in **Figure 1-4: City of Madera General Plan Village B**, the Specific Plan Area is identified as a part of Village B - Northeast Madera per General Plan Figure LU-3

and has corresponding land use guidelines per Land Use Policy LU-35. In particular, this policy states:

"The development of Village B is affected by limited access conditions created by the lack of an existing rail line crossing at Avenue 17. To the extent that a design and funding plan to extend Avenue 17 across the rail line has not already been created, such a design and fair share funding program must be established in conjunction with village level planning and annexation proposals. An analysis of traffic conditions completed at that time will determine what actual improvements are required to accommodate proposed development, and alternatives to the construction of the ultimate rail crossing may be considered."

The CAP and this Specific Plan are compatible with the concepts set forth in the City's Land Use Element relating to the village concept. However, the City has no approving authority for this Specific Plan or the CAP.

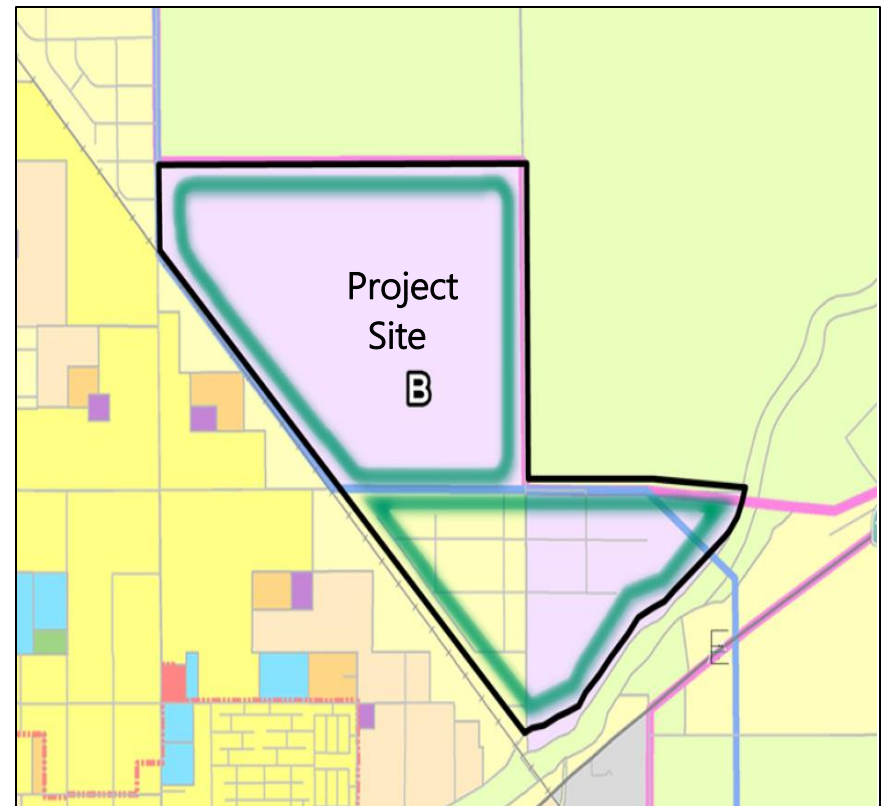


Figure 1-4: City of Madera General Plan—Village B

1.6. Planning Process and Entitlements

1.6.1. Planning Process

This Specific Plan has been prepared pursuant to the provisions of California Government Code Section 65450 through 65457, which grants local government agencies the authority to prepare specific plans for any area covered by a general plan. Identifies the required contents of a specific plan, and mandates that specific plans be consistent with the general plan within which they are included. A specific plan is a planning and regulatory tool made available to local governments by the State of California. Specific plans implement a general plan through the development of policies, programs, and regulations that provide an intermediate level of detail between general plan and individual development projects. State law stipulates that specific plans can only be adopted or amended if they are consistent with an adopted general plan.

Section 65451 states, “A specific plan shall include text and a diagram or diagrams which specify all the following in detail:

- The distribution, location, and extent of the uses, including open space, within the area covered by the plan.
- The proposed distribution, location, and extent and intensity of major components of public and private

transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

- Standards and criteria by which the development will proceed and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including regulation, programs, public works projects, and financing measures to carry out the plan.
- This Specific Plan shall include a statement of the relationship to the General Plan.”

When subsequent site-specific development proposals for the Specific Plan Area are presented to the County, planning staff will use this Specific Plan as a policy and regulatory guide. Projects will be evaluated for consistency with Specific Plan policies and for conformance with the development standards and design guidelines. In situations where policies or standards relating to a particular subject have not been provided in this Specific Plan or an approved Development Agreement, the existing policies and standards of the County’s General Plan and Municipal Code will apply.

1.6.2. Project Entitlements

County of Madera

Below is a list of the anticipated discretionary permits requiring approval by the County of Madera:

- Certification of the Castellina Final EIR
- Adoption of a General Plan Amendment
- Adoption of the Castellina Area Plan
- Adoption of the Castellina Specific Plan
- Adoption of the County Code, Zoning Text and Zoning Map Amendments
- Approval of Development Agreement
- Approval of Tentative Tract Map(s)
- Approval of Conditional Use Permit(s)
- Approval of Water Supply Assessment (WSA)
- Approval of an Infrastructure Master Plan (IMP)
- Approval of Grading Permit(s)
- Final Map(s) Approval & Recordation
- Approval of Improvement Plans
- Approval of Building Permits
- Approval of Tree Removal Permit(s)
- Approval of Well Construction Permit(s)
- Approval of Water System Design

- Approval of Recycled Water Use and Wastewater Treatment System Design

Other Applicable Agency Approvals

Other government agencies that may have some level of approval for one or more components of the Project may include, but are not limited to:

- U.S. Army Corp of Engineers
- California Bureau of Real Estate
- California Department of Fish & Wildlife
- California Department of Transportation
- California Department of Water Resources
- California Public Utilities Commission
- Madera Unified School District
- Regional Water Quality Control Board
- U.S. Fish & Wildlife Service
- San Joaquin Air Quality Control Board

See [Chapter 6: Administration, Implementation, & Financing](#) for provisions of the Project approvals and implementation process.

1.7. Statutory Requirements of a Specific Plan

This Specific Plan implements the goals and policies of the General Plan, serves as an extension of the General Plan, and can be used as both a policy and a regulatory document. The purpose of this Specific Plan is to

implement the Project vision by providing goals, policies, programs, development standards and design guidelines to direct future development within the Specific Plan Area. This Specific Plan also provides for a balance between growth and public infrastructure/services such that development within the planning area pays its fair share of infrastructure, public facility, and public service costs; and is fiscally self-supporting.

1.8. Severability

In the event that any portion or provision of this Specific Plan, including any regulation or program identified here, is held invalid or unconstitutional by a California or federal court of competent jurisdiction, such provision(s) shall be deemed separate, distinct, and independent provisions. The invalidity of such provisions shall not affect the validity of the remaining provisions of this Specific Plan, provided the overall vision and principles of the Specific Plan can be achieved.

1.9. Environmental Review

CEQA classifies a specific plan as a project which is subject to environmental review. The Castellina Specific Plan Environmental Impact Report (EIR) evaluates this Specific Plan, the proposed first phase of the Project, and related approvals as a single project. The Specific Plan Area consists of parcels that are anticipated to be further subdivided and developed over an extended period of time. The EIR analyzes environmental impacts of the

potential developments and proposes mitigation measures to reduce significant environmental impacts to a less than significant level as defined by CEQA, if feasible.

Through the program-level EIR, the County can approve future applications with limited additional environmental review. If there are changes to this Specific Plan, proposed with any phase of development, additional environmental review need only focus on areas of change.

1.10. Project Goals and Policies

Castellina is a master-planned community designed to inspire a vibrant lifestyle and healthy quality of life for individuals, families, and active adults. Agricultural and historical values of the region are reflected in its character and in the community's amenity program.

Castellina will provide a broad mix of housing, employment opportunities, local retail shopping, and recreational opportunities, brought together to create a strong sense of place and community spirit. Castellina will include an array of residential densities, types and choices for people of many income levels, age groups, and lifestyles, to encourage those who support the local economy to find comfortable housing in which to raise their families, promote their careers, or live in active adult housing as part of the fabric of the greater Madera community.

To help in furthering a healthy jobs/housing relationship in the region, land uses for employment-generating

businesses will be provided within the mixed-use Town Center, as well as educational job opportunities at the elementary school site.

The following goals and policies will be used as the basis for the development of Castellina.

1.10.1. Land Use

Goal

To create a neighborhood-oriented community, designed to encourage an active and healthy quality of life that provides a broad mix of housing, employment opportunities, local retail shopping, and recreational opportunities.

Policies

- LU-1: Plan for a community with a strong sense of character and distinctiveness. This is accomplished with a wide range of living and lifestyle choices—including parks and recreational amenities—all connected by a network of roadways and pedestrian pathways that knit the various neighborhoods together through an extensive central open space feature.
- LU-2: Provide for land uses, guidelines, and standards that dictate the efficient use, re-use, and conservation of water through site design,

architecture, technology, and open space and landscape design.

- LU-3: Create a community that can provide for the special social, recreational, and housing needs of active adults and provide opportunities for intergenerational connections, relationships, and interaction.
- LU-4: Provide opportunities for a mix of commercial and employment uses, including neighborhood retail, office and professional services, and medical services.
- LU-5: Design pedestrian-friendly neighborhoods that are compatible with various transportation choices and provide convenient access to both residential and nonresidential areas.
- LU-6: Establish neighborhoods that are inviting for residents and buffered from noise and other factors associated with agricultural practices and railroad operations, in accordance with agency requirements and good planning design.

1.10.2. Mobility

Goal

To create a transportation and circulation network designed to emphasize walkability, accommodate all

modes of transportation, minimize external vehicle trips, and address necessary off-site roadway improvements.

Policies

- M-1: Design multimodal streets that effectively circulate vehicular traffic and provide future transit connections while providing a safe, attractive, and connected pedestrian and bicycle circulation system throughout the community.
- M-2: Minimize or eliminate the need for wide streets by creating an interconnected circulation network that distributes traffic across many streets while providing the capacity necessary to accommodate the levels of traffic anticipated in the land use plan area and the surrounding area.
- M-3: Design narrow residential streets and other traffic calming devices to reduce traffic speeds and create safer, pedestrian-friendly neighborhoods.
- M-4: Plan pedestrian-oriented mixed-use areas that encourage pedestrian mobility and maintain an adequate level of parking and access for automobiles, but also encourage a *park-once* approach that minimizes the total demand for parking.

M-5: Design a circulation network that is interconnected with the existing and planned regional transportation system.

M-6: Design local neighborhood streets with the intention that homes and other buildings will front directly on community amenities.

M-7: Create a network of multi-use trails along Castellina’s open space corridors that complements the walkways along the community’s streets to encourage walking and bicycling.

1.10.3. Community Facilities and Services

Goal

To provide high-quality community facilities and services that accommodate the needs of the community and do not place an unfair burden on Madera County or the City of Madera.

Policies

CFS-1: Plan for the development of appropriate community facilities that are integrated into Castellina.

CFS-2: Plan for the inclusion of an elementary school facility that is integrated into the overall land plan and is readily accessible via non-vehicular

pathways to residential neighborhoods and parks.

- CFS-3: Plan for the development of utility services and infrastructure that will be phased in accordance with development.
- CFS-4: Establish financing mechanisms to develop and maintain the necessary infrastructure (e.g., water, sewer, storm drain, parks, open space, and roadways) to create a fiscally neutral project for Madera County.
- CFS-5: Encourage and support educational opportunities.

1.10.4. Natural and Environmental Features

Goal

To protect and conserve the natural resources of the Specific Plan Area and surrounding area including surface and groundwater supplies.

Policies

- NEF-1: Consistent with Madera County goals and sound water conservation practices, plan to comply with County water extraction and recharge policies and requirements.
- NEF-2: Minimize water waste through water conservation techniques, including: effective

management of stormwater runoff through groundwater recharge and Low Impact Development (L.I.D.); use of drought-tolerant landscaping; and use of efficient irrigation practices, such as low-water use equipment, moisture sensors, and design irrigation that prevents overspray.

- NEF-3: Maximize the potential for energy and water conservation through appropriate design including passive solar orientation, shading, and minimizing heat islands.
- NEF-4: Adopt green building practices for site and building design that focus on resource and energy efficiency. Where feasible, capture and treat irrigation and stormwater runoff through natural, landscape-based processes.
- NEF-5: Promote environmental stewardship through the inclusion of progressive energy programs and standards in construction and ongoing operation of buildings within the Specific Plan Area.
- NEF-6: Use reclaimed water for landscape irrigation in such public areas as parks, parkways, schools, and other open space areas within the community.

NEF-7: Work with federal, State, and regional agencies to address the treatment of any potential on-site environmental features.

1.10.5. Economic Vitality

Goal

To promote a long-term financially viable project that provides for expanded housing opportunities, recreational opportunities, educational opportunities, and the creation of new jobs.

Policies

- EV-1: Provide a range of housing choices that allows for a wide range of income levels and affordable lifestyles.
- EV-2: Plan for a variety of commercial uses in the Town Center that provide employment

consistent with Madera County's General Plan policies.

- EV-3: Enhance the vitality of the Town Center by encouraging uses that allow for community activities and create an attractive environment for shopping, dining, gathering, entertainment, recreation, living, and working.
- EV-4: Encourage job creation and self-employment opportunities resulting in a vital and self-sustaining community.
- EV-5: Anticipate and provide for the needs of the community's residents through the timely provision of facilities and services required for a fully serviced community in a manner that is financially self-supporting.

2

LAND USE, ZONING, & DEVELOPMENT STANDARDS

This chapter describes the conceptual land use and development plan for Castellina; identifies land use policies and the land use designations unique to this Specific Plan; and includes zoning and development standards for each land use designation to reflect land uses and descriptions in the Area Plan.

2.1. Conceptual Land Plan

This Specific Plan calls for the development of up to 3,072 single-family, multi-family and mixed-use residential units, including an Active Adult Community; approximately 21 acres of commercial mixed-use, and approximately 132 acres of parks, trails, plazas, community gardens, and other open space.

Figure 2-1: Illustrative Land Plan depicts these land uses and their associated points of access, circulation, and the overall open space system. Figure 2-2: Aerial Perspective—Looking East shows a rendering of the overall master plan at full buildout. Like other figures, illustrations, and photos in this Specific Plan, the illustrative plan and aerial perspective are meant to convey a general graphic image of what is envisioned and should not be considered a depiction of any final layouts or design, but instead as a visual illustration of design character and intent.



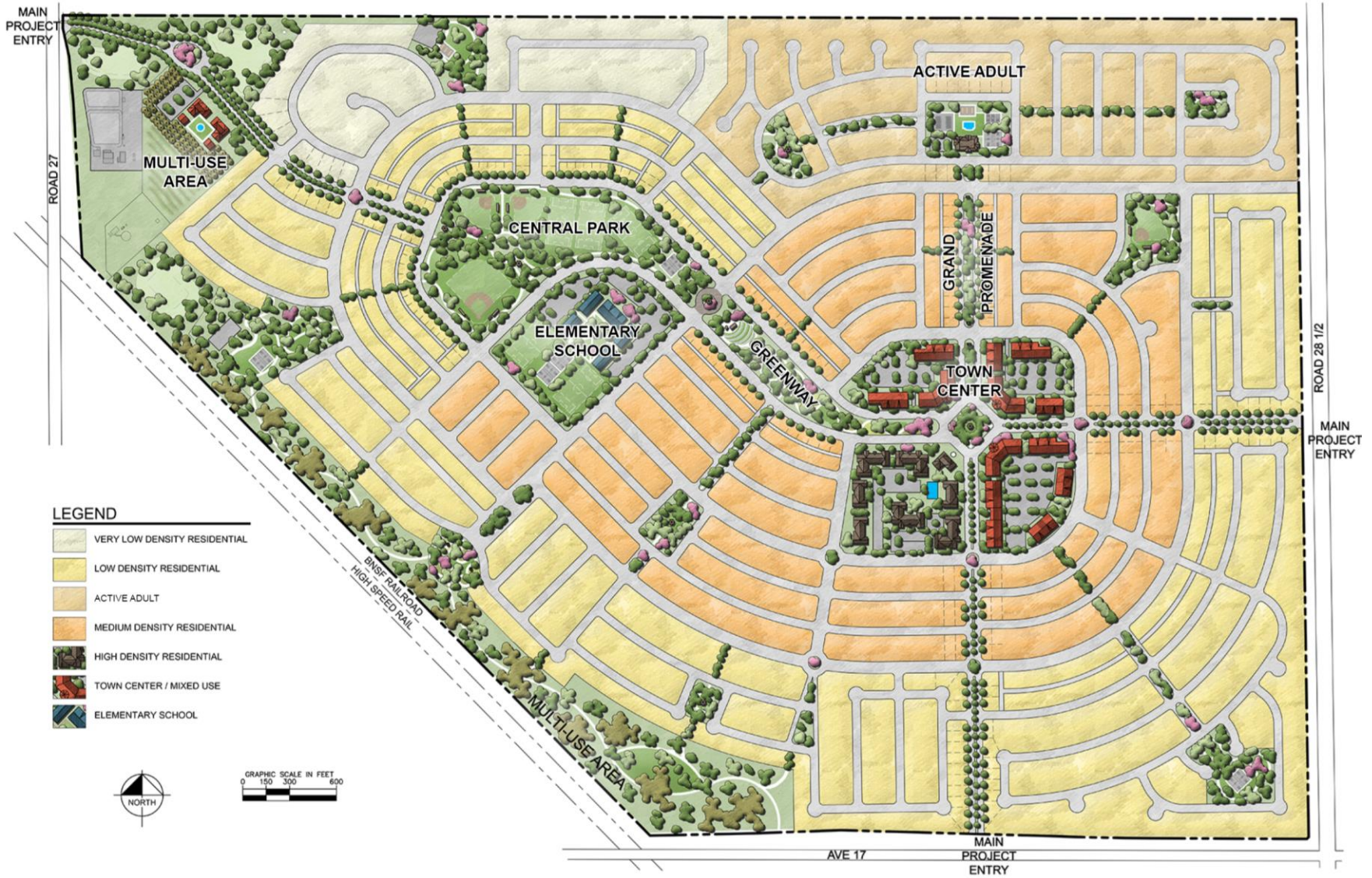


Figure 2-1: Illustrative Land Plan



Figure 2-2: Aerial Perspective—Looking East

2.1.1. Central Greenway Framework

The residential neighborhoods and commercial centers are designed around a framework of parks and recreation amenities to encourage a walkable community and active community interaction. The convenient location of public open space and parklands is an important component of a compact smart-growth community. All of the dwelling units in Castellina are located within walking distance to parks, community gardens and amenity centers. This walkable community concept will serve to:

- promote healthy lifestyles;
- reduce local vehicle traffic and greenhouse gas emission;
- minimize potential conflicts between motor vehicles and pedestrian-bicycle travel; and
- promote strong community bonds and increased neighborhood identity.

As shown in **Figure 2-3: Walking Distances to Plan Area Amenities**, the residential neighborhoods are designed such that the vast majority of residents are within a 6- to 7-minute walking distance (¼-mile) to a local neighborhood park, the Central Park, or the Village Green, providing an opportunity for active and passive recreation, as well as social interaction.

The Specific Plan promotes pedestrian circulation by providing an interconnected network of sidewalks along

internal streets and a series of connecting trails and pathways. Pedestrian connections will be provided throughout residential neighborhoods and to the Town Center, the Central Park, and other open space areas.

Sidewalks will be constructed consistent with or exceeding Madera County Building Standards. In some cases, they will be integrated with the park system as separated pathways from the edge of the roadway.

Included in the walkable approach to the Castellina circulation plan are measures that make it safer for students to walk and bike to school and encourage more walking and biking.





Figure 2-3: Walking Distances to Plan Area Amenities

2.1.2. Land Plan Elements

Central Greenway

The Castellina plan is designed around a central continuous chain of connected parklands, greenway corridors, open spaces, and amenity features that define the heart of the community. This Central Greenway is the community core element that will bring residents, employees and visitors from all parts of the Specific Plan Area together to play, exercise, interact, shop, and attend events. Landscaping in these areas will be irrigated using recycled water.

As illustrated in **Figure 2-4: Central Greenway Conceptual Illustration**, and described below, this central greenway includes four main components: a Central Park; a Town Center and Village Green; the Grand Promenade; and an Active Adult Community Center.





Figure 2-4: Central Greenway Conceptual Illustration

Central Park

The Castellina Central Greenway will be anchored by a large 31-acre, ¾-mile-long Central Park that extends from northwest to southeast through the center of the Specific Plan Area, around which major community residential land uses are organized. The west end is conceived to have, within the Central Park, features such as active recreational sports fields and courts, entry features, open play areas, bike paths, restroom(s), a tot lot, and fitness equipment.

Extending eastward will be a linear park and greenway, designed for more passive recreation. Features may include trails, passive play areas, sitting areas, covered shelters, gardens, play courts, or a dog park. At its central area, an outdoor community amphitheater or performance center may be included for small-scale concerts, outdoor movies, picnicking, theater performances, public talks, art and craft shows, sidewalk vending booths, and other similar activities. The width of this portion of the Central Park will be spacious, ranging from 100 to 300 feet.

The Central Park and greenway will be crossed only once by a roadway before meeting the Town Center, allowing pedestrian and bicycle movement with minimal auto interference.

Along the perimeter of the Central Park will be residential homes and an elementary school site, allowing eyes on the street, creating a boulevard effect with premium lot values.





Town Center and Village Green

The Town Center and Village Green will be located at the eastern end of the Central Park and will provide community-oriented mixed-uses and people-gathering activities.

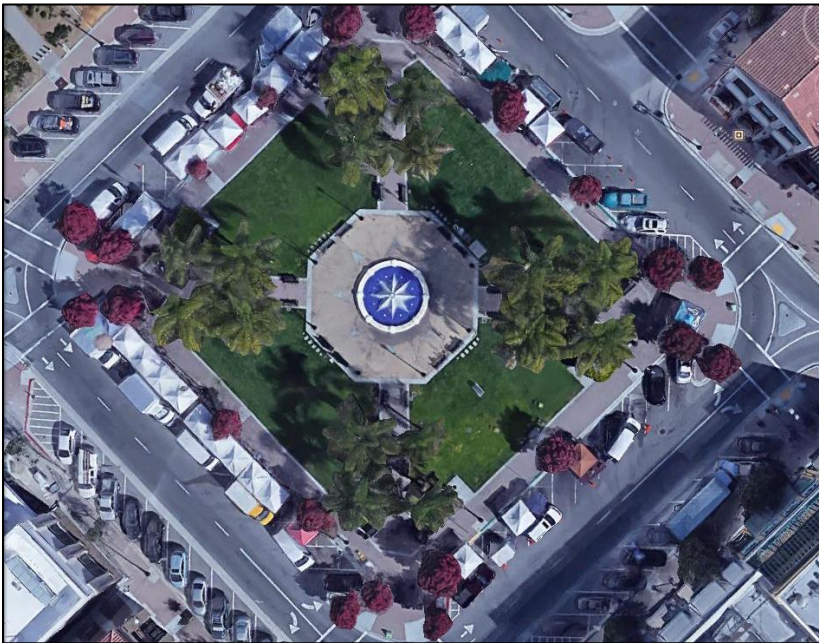
Mixed-use buildings may include civic uses such as a public safety facility, library, community center, a post office, retail shops, dining and entertainment, professional offices, and high density residential units.

The focal point of the Town Center is the Village Green, surrounded on all four sides by streets. These streets shall be permitted to be periodically closed to vehicular traffic to allow for pedestrian-only access and to accommodate community events such as a farmer’s market, craft shows, festivals, special events, and civic celebrations.

Buildings will be designed for flexible use, allowing for the reconfiguration and re-use of spaces over time. Because these commercial uses will require adequate market demand to develop, the Town Center may be constructed in phases over time. In the early phases, portions of the Town Center may be landscaped with open play areas or used as a temporary sales office and visitor parking areas.



The Village Green is a diamond-shaped park and plaza area that may include such features as a bandstand, a clock tower, landscape sculptures, gardens, benches, or a play area with an interactive fountain for children. Roadways surrounding the Village Green will be designed so they can be temporarily closed to vehicular traffic, allowing opportunities for community events such as farmer’s markets, art and craft fairs, car shows, and holiday gatherings.

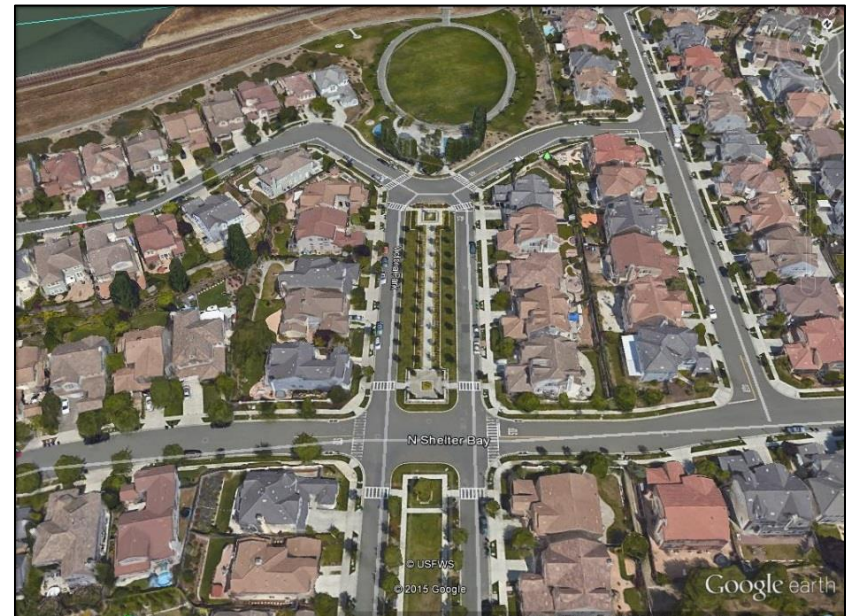


The Grand Promenade

From the Town Center and Village Green, a broad (approximately 50-foot-wide) Grand Promenade will run northward and connect neighborhoods in the northeast section of the Specific Plan Area, including an Active Adult Community.



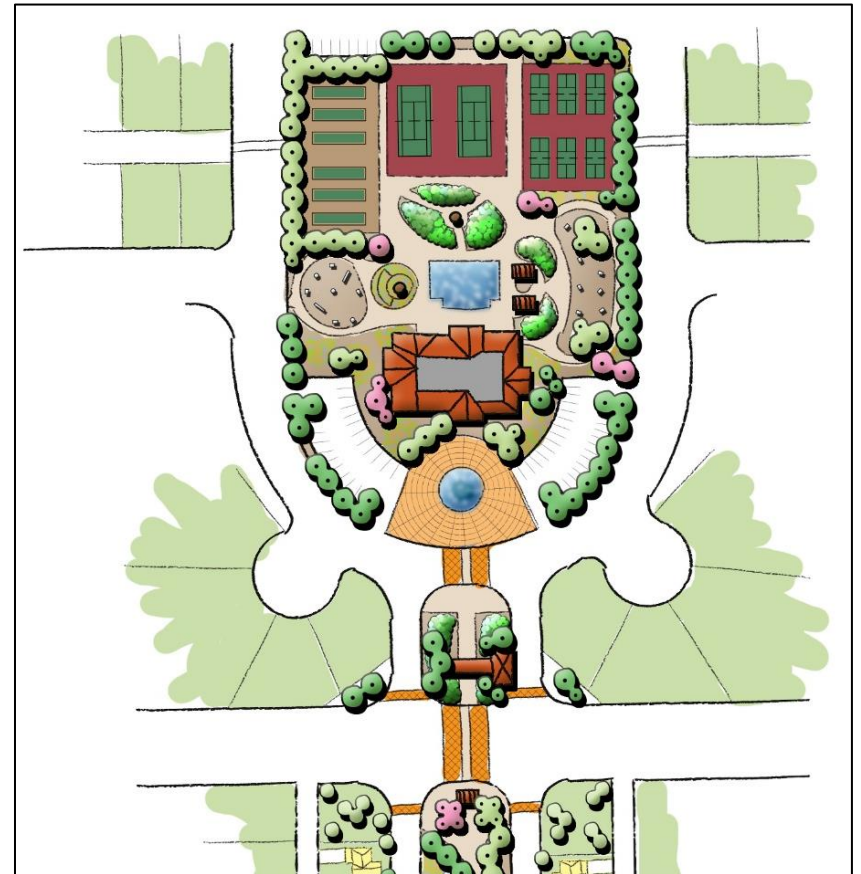
Amenities along this Grand Promenade will include a 10-foot-wide multi-use path, and such features as flower gardens, entry arbors, kiosks, shade trees and landscaping, outdoor sculptures or monuments, benches, and other landscape features. One-way roads on each side will define its boundaries and provide vehicular and bike access between the Active Adult Community and the Town Center and Village Green.



Active Adult Community Center

At the northern terminus of the Grand Promenade will be an Active Adult Community Center which will serve as a neighborhood focal point, hosting social and recreational activities for residents of the Active Adult Community and their visitors.

Indoor uses may include a multi-purpose room for community events, activity meeting rooms, a fitness center, locker rooms, and administrative spaces. Outdoor uses may include a swimming pool, tennis courts, bocce ball and pickleball courts, and an outdoor picnic and barbeque space.



Neighborhood Parks, Community Gardens, and Pocket Parks

While the Central Park will serve as the focal point for community-wide recreation and events, several neighborhood parks will be constructed throughout the Specific Plan Area, creating focal points for individual residential neighborhoods. Neighborhood parks may include either passive or active recreational facilities, including enclosed or fenced dog parks. These neighborhood parks will be linked by a landscaped pedestrian network of walks, paseos, and greenways that connect to the Central Park and to the Town Center. All of these public spaces will be irrigated using recycled water.

Additionally, one or more community gardens are proposed within the multi-use open space area adjacent to the railroad line. Individual garden plots will be available to Castellina residents, allowing them to grow their own vegetables and flowers. A portion of the existing almond and fig orchard trees may be incorporated into the community garden(s) to reinforce the historical agrarian theme.

Within each village, smaller areas of green space—pocket parks--can provide visual relief, respite, and recreation for local residents. Potential pocket parks are not shown on **Figure 2-1: Illustrative Land Plan**, but creation of new pocket parks are encouraged. These pocket parks may vary in size from one-quarter to one acre each and may be varied in their character, function, and shape.





Paseos

Paseos will be public open spaces, pedestrian and bicycle connectors, between residences, linking neighborhoods to parks, open spaces, and other community amenities. Paseos will be a minimum of 20 feet wide with landscaped pathways.

Multi-Use Open Space

A multi-use open space area (250-475 feet wide) will be located between the railroad lines and the adjacent residential homes. In some areas, this open space area will be adjacent to the neighborhood parks and community gardens described above. Among other uses, it will include:

- a wastewater treatment plant and related facilities;
- stormwater retention and drainage facilities for runoff management and groundwater recharge.

It may also accommodate a variety of uses and activities such as:

- open play areas or parks;
- trails, benches, and interpretive signage;
- community garden(s); and
- existing orchards or added vegetation and landscaping.

The northwest section of the Multi-Use Open Space adjacent to the wastewater treatment plant, will be reserved for potential special limited commercial development, as specified in **Section 2.3: Permitted Uses**. In the interim, this area will remain in open space.

Depending on the quantity of excavated material to create the stormwater and wastewater facilities, as described in **Chapter 5: Water Resource Management**, this soil may potentially be used as fill material to build a berm adjacent to the railway line, creating a sound and visual buffer.



Residential Villages and Neighborhoods

In Castellina, there will be an emphasis on low-density single family lots in the western and outer perimeter of the Specific Plan Area, with a balance of medium- and high-density housing oriented toward and around the Town Center. Large estate lots will be located in the northwestern section of the Specific Plan Area, possibly oriented around vineyards, a community garden, or some other appropriate theme.

The density of residential units will generally increase, moving from the site periphery into the denser Town Center, with its attached multi-family units, and smaller detached and attached medium density homes forming the transition from most dense to least dense housing. Within each neighborhood, a mix of housing products and lot sizes will be encouraged to create a diversity of housing choices and varied streetscapes.





The Specific Plan Area is composed of five villages, each with its own character and mix of land uses and residential densities. Each village is designed around a community common area such as a neighborhood park, school, or community garden, and linked directly to the Central Greenway via roads and pedestrian-bicycle pathways.

Each village will be organized in a modified grid roadway pattern in order to facilitate an efficient connective circulation system.

The conceptual framework of these villages is illustrated in [Figure 2-5: Village Structure](#). Please note that [Figure 2-5](#) is in no way meant to imply phasing of the Project, but rather to show logical components of the community plan.



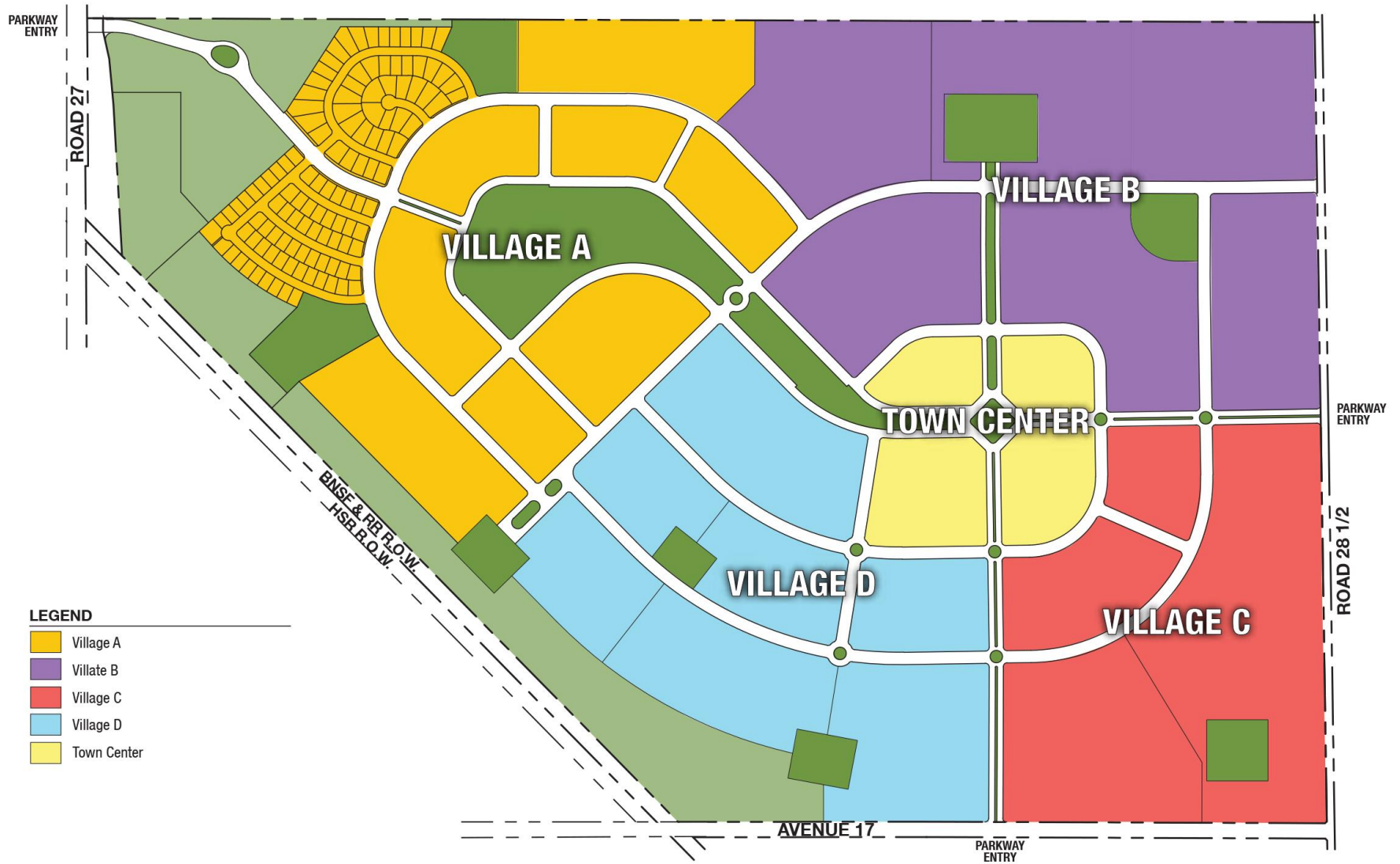


Figure 2-5: Village Structure

Active Adult Community

As part of the residential neighborhoods, an age-restricted Active Adult Community will be developed in the northeastern section of the Specific Plan Area in Village B.

The Active Adult Community will be connected to the greater Castellina community and will be designed as a model for ageless living and intergenerational lifestyles by providing:

- Choice of experiences
- Connections to others in the community
- Mobility and walkability
- Senior-focused amenities
- Convenient activity
- Security
- Stability



The Active Adult Community will be connected to the Town Center via the Grand Promenade. This connection will encourage intergenerational relationships that are purposeful, reciprocal among age groups, and responsive to evolving social and cultural trends. Seniors will benefit from being around young adults and children, just as children are more likely to progress socially and academically if they have strong connections with adults.

Entrances into the Active Adult Community will be limited and are permitted to incorporate secured access points.

Development of the Active Adult Community does not preclude future development of other active adult projects in Castellina.

Elementary School Site

The Project applicant will work with the Madera Unified School District to determine the most appropriate way to meet the educational needs of the new community. A 15-acre elementary school site has been identified within the Specific Plan Area, as shown in **Figure 2-1: Illustrative Land Plan**, **Figure 2-2: Aerial Perspective**, and in **Figure 2-5: Land Use Designations and Zoning Districts**.

The school site will be connected to the pedestrian and bicycle network to facilitate non-vehicular access throughout the Specific Plan Area.

The school site is shown as a permitted use in Medium Density residential Zoning Districts. Its current preferred location is on Parcel A8, comprising an entire block and providing convenient access on all four sides, across the street from the Central Park and Greenway.



2.2. Land Use & Zoning

This section describes the land uses and zoning that applies to each of the Land Use Designations and Zoning Districts. It also includes development standards regarding permitted uses, building height limits, parking requirements, and setbacks.

The Land Use Designations are set forth in the Castellina Area Plan ([Appendix A: Castellina Area Plan](#)). The Zoning Districts and Development Standards in this Specific Plan will be adopted by ordinance, thereby creating new Zoning Districts and Development Standards for Castellina. The Zoning District designations, along with the Development Standards and Design Guidelines set forth in this chapter, and Appendices B and C, apply to development within Castellina only and supersede the requirements of the County of Madera Zoning Ordinance, except where the Specific Plan Development Standards and Design Guidelines are silent on a subject otherwise addressed by the Zoning Ordinance.

The Castellina Specific Plan Land Uses and Zoning Districts are shown in [Figure 2-6: Land Use Designations and Zoning Districts](#) and described below. They include:

- Residential
 - Very Low Density Residential (CVLDR)
 - Low Density Residential (CLDR)
 - Medium Density Residential (CMDR)
 - High Density Residential (CHDR)
 - Active Adult Community (CAAC)

- Commercial
 - Town Center Mixed-Use (CTCMU)
 - Reserve Commercial use in northwest Multi-Use area (CPOS) (see [Section 2.2.5](#))
- Public & Quasi-Public
 - Parks and Open Space (CPOS)
 - Elementary School Site (CMDR)

Each of the land use parcel labels shown in [Figure 2-5](#) (A1, B2, C3, etc.) corresponds to a Village in [Figure 2-4: Village Structure](#) in which it is located. [Table 2-1: Land Use Summary](#) and [Table 2-2: Residential Unit Types and Densities](#) quantify the land uses. All numbers are rounded to the nearest whole number. Some amounts may vary as development plans are refined, although the overall totals are shown as maximums. Minor modifications to land uses are permitted as described in [Chapter 6: Administration, Implementation & Financing](#). The allocation of square footage space for commercial uses and number of units for residential uses in each use category may vary between Zoning Districts and construction phasing, as long as the total overall permitted quantities are not exceeded. In [Table 2-6: Permitted Uses](#), the elementary school land use, shown as permitted in the CMDR zone, is also a permitted use in the CLDR and CHDR districts, and is a conditional use in the CTCMU district.

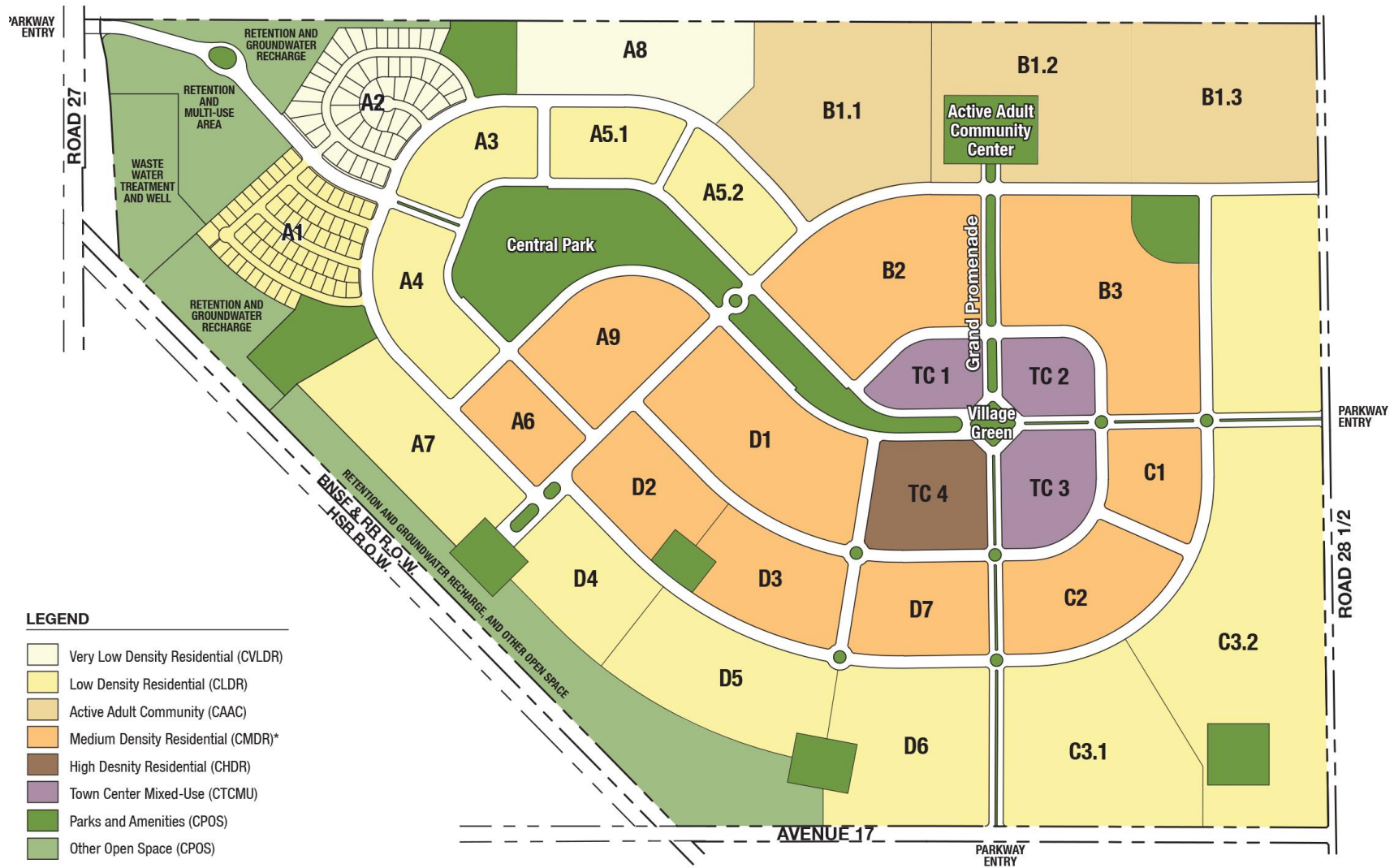


Figure 2-6: Land Use Designations and Zoning Districts

Table 2-1: Land Use Summary

Land Use District	Gross Acres	Total (du/ac or sf)
Residential		
Residential Subtotal	510	3,072 du
Commercial		
Town Center Mixed-Use ¹ (CTCMU)	21	Up to 134,000 sf. ³
Other		
Neighborhood Parks (CPOS)	20	
Community Garden (CPOS)	3	
Central Park (CPOS)	31	
Grand Promenade (CPOS)	3	
Linear Pathways (CPOS)	6	
Village Green (CPOS)	2	
Active Adult Amenity Center (CPOS)	6	
Detention, WWTP and Other Open Space, with Reserved Commercial Use (CPOS) ³	61	
<i>Parks and Open Space Subtotal (CPOS)</i>	132	
<i>Elementary School Site² (CMDR)</i>	15	
<i>Main Roads & Other Miscellaneous Areas</i>	114	
Total	792	3,072 dwelling units Up to 134,000 sf. Commercial

Notes:

1. Residential unit count is shown in Table 2-2.
2. Acreage for the 15-acre Elementary School site acreage, currently designated on Parcel A9 as an acceptable use in the Medium Density Residential zone, is not included in the Medium Density Table 2-2 below.
3. An approximately 10-acre parcel, adjacent to the WWTP, in the northwest section of the Multi-Use Area, will be reserved for potential future special commercial use. Together with the Town Center Mixed Use areas, the overall maximum for development of commercial uses shall not exceed 134,000 square feet of leaseable space.

Table 2-2: Residential Unit Types and Densities

Residential Type	Gross Acres ¹	Net Acres ²	Allowable Net Density Range (du/ac)	Target Net Density (du/ac)	Projected Dwelling Units ³
Very Low Density Residential (CVLDR)	36	30	2.0 - 4.0	3.0	90
Low Density Residential (CLDR)	230	184	4.0 - 7.0	6.0	1,104
Active Adult (CAAC)	84	67	5.0 - 7.0	6.0	402
Medium Density Residential (CMDR)	148 ⁵	114	6.0 - 15.0	9.0	1,026
High Density Residential (CHDR)	12	12	15.0 - 25.0	20.0	248
Mixed-Use (Residential Component) (CTCMU)	21	21	Up to 10.0 (10.0)	10.0	202
Totals	510 ^{4.5}	407 ^{4.5}	--	7.5 du/ac	3,072

Notes:

1. Gross acres include all land (including streets and rights-of-way) within a parcel designated for a particular residential type.
2. Net acres exclude streets and rights-of-way for Very Low, Low, and Medium Density parcels. Net and Gross acreages for High Density uses are shown as equivalent, without internal local street systems.
3. Unit counts may vary between residential categories; however, the total number of dwelling units may not exceed total shown.
4. Excludes Mixed-Use acreage to avoid duplication with Town Center Mixed Use as shown in Table 2-1.
5. This acreage does not include the 15-acre Elementary School site, currently shown on parcel A8, which is designated Medium Density, but allows Elementary School use.

2.2.1. Zoning Districts

The Zoning Map for Castellina is shown in [Figure 2-5: Land Use Designations and Zoning Districts](#).

The following Zoning District designation names, descriptions, and intents are described and are compared to corresponding County zoning districts as shown in [Table 3-2: Implementing Zoning Districts for Land Uses](#).

The “C” prefix designation for Castellina Zoning Districts identifies the Zoning District described in the Specific Plan which applies only to property within the Castellina planning area. The tables within this section set forth the permitted and conditional uses, as well as Development Standards such as lot sizes, densities, setbacks, and other restrictions. The Development Standards set forth under the Zoning Districts are mandatory, unless otherwise noted within this Specific Plan.

Table 2-3: Implementing Zoning Districts for Land Uses

Castellina Zoning Districts	Comparative County Zoning Designations						
	RESIDENTIAL & COMMERCIAL	RUS: Residential Urban, Single Family	(RX) Residential Small Lot and (RT) Residential Townhouse	(RUM) Residential Urban Multiple Family	(MCN) Mixed-Use Commercial District with (VCO) Village Core Overlay District	PUBLIC	RC-P/OS Park/Open Space
CVLDR		X					
CLDR		X					
CMDR			X				
CHDR				X			
CAAC		X					
CTCMU					X		
CPOS							X

2.2.2. Residential Zoning Districts

There are six residential Zoning Districts in the Specific Plan Area, which allows a mix of detached and attached unit types. They are described as follows:

Castellina Very Low Density Residential (CVLDR) The CVLDR Zoning District allows for detached units ranging in net density from 2.0 to 4.0 dwelling units per net acre (du/ac), with a target net density of 3.0 du/ac. Development under the Specific Plan would allow for the construction of 90 very low density dwelling units on approximately 36 acres in the northwestern corner of the Specific Plan Area.



Castellina Low Density Residential (CLDR) The CLDR Zoning District allows for detached units ranging in net density between 4.0 to 7.0 du/ac, with a target net density of 6.0 du/ac. Development under the Specific Plan would allow for the construction of 1,104 low density dwelling

units on approximately 230 acres throughout the Specific Plan Area.



Castellina Medium Density Residential (CMDR) The CMDR Zoning District allows for both detached and attached units ranging in net density between 6.0 and 15.0 du/ac, with a target net density of 10 du/ac. Development under the Specific Plan would allow for the construction of 1,026 medium density dwelling units on approximately 151 acres in the middle of the Specific Plan Area.

Land for a 15-acre elementary school site is set aside in this CMDR Zone for the Madera Unified School District.



Castellina High Density Residential (CHDR) The CHDR Zoning District allows for attached units ranging in net density between 15.0 and 25.0 du/ac, with a target net density of 22.0 du/ac. Development under the Specific Plan would allow for the construction of up to 248 high density dwelling units on approximately 12 acres in the southwestern quadrant of the Town Center.



Castellina Active Adult Community (CAAC) The CAAC Zoning District allows for detached units ranging in

net density between 5.0 to 7.0 du/ac, with a target net density of 6.0 du/ac. The Active Adult Community Zoning District would provide for the development of up to 402 age-restricted units on approximately 84 acres in the northeastern corner of the Specific Plan Area. The Active Adult Community would be connected to the Town Center and the Central Park via the Grand Promenade.

This zoning restriction does not preclude the development of other active adult projects of various types or densities in other residential districts within Castellina.

Town Center Mixed-Use (CTCMU) Residential development is allowed in the Town Center mixed-use designation, as described below ([Section 2.2.3](#) and [Table 2-4: Residential Development Standards](#)) with a target density of 10 du/ac. Mixed-Use may be defined as either vertical (mixed uses in the same building, stacked) or horizontal (mixed uses in separate buildings on the same parcel).



2.2.3. Residential Development Standards

These development standards are to be used in conjunction with [Chapter 6: Administration, Implementation, and Financing](#), [Appendix B: Site, Architecture & Design Guidelines](#), and [Appendix C: Landscape Design Guidelines](#).

Detached Residential Development Standards

Detached residential is defined as a dwelling unit that does not share a common wall and provides both front door and garage access from a residential street or common driveway.

Product types include but are not limited to:

- Single-family conventional
- Detached auto-court cluster
- Lane loaded single family or attached units

Development of detached residential units are regulated by the following standards:

- Individual lots will be accessed by a residential street, lane, or common driveway.
- All units must include an attached or detached enclosed garage with two side-by-side parking spaces. Garages shall have adequate room for at least two vehicles.

- Setbacks shall be measured from the back of sidewalk. If no sidewalk exists, setback shall be measured from the edge of the right-of-way.
- Allowed encroachments into setbacks include: porches and patios, landings, steps, bay windows, media nooks, fireplaces utility boxes, cantilevers, roof eaves, and other similar features.
- Private rear yard space or private side yards may utilize reciprocal use easements.
- Secondary dwelling units and guest houses, are permitted on lots at least 5,000 square feet.

Attached Residential Development Standards

Attached residential is defined as two or more dwelling units that share a common wall. Entries are typically oriented to common open space areas or a street.

Net densities may range from 7 to 25 du/ac. A pedestrian circulation system should link unit entrances with other uses or areas on the development site. Guest parking should be accommodated in parking areas and visually screened from common open space.

Product types include but are not limited to:

- Townhomes
- Duplexes
- Attached auto-court clusters

- Multi-family apartments or condominiums

Development of attached residential units shall be regulated in accordance with the following standards:

- Private open space may be provided in the form of patios, decks, or balconies, where appropriate.
- Common open space may be provided in the form of landscaped courtyards, plazas, commonly-accessible roof-top gardens or decks, swimming pools, or similar features and amenities.
- Pedestrian pathways will be incorporated into the site design as appropriate for safety purposes.
- Vehicular access and circulation shall be via private driveways, entry drives, parking drives, or parking courts.
- Parking may be provided within residential buildings, in surface parking areas with or without carports, parking structures, or in designated areas. Tandem parking spaces are not allowed.

Development of all residential units within the Specific Plan Area will be regulated by the standards described below and as set forth in [Table 2-4: Residential Development Standards](#) and [Table 2-6: Permitted Uses](#).

2.2.4. Elementary School

Elementary School (CMDR)

Both public and private schools are permitted within the Castellina Low Density (CLDR), Medium Density (CMDR), and High Density (CHDR) Residential Districts.

A 15-acre parcel—Parcel A9—has been designated for a proposed elementary school site.

All school buildings and facilities shall be developed in conformance with County and State standards.

Table 2-4: Residential Development Standards

Feature	Very Low-Density Residential (CVLDR)	Low-Density Residential (CLDR)	Medium-Density Residential (CMDR)	High-Density Residential (CHDR)	Town Center Mixed-Use (CTCMU)
Building height (maximum) ¹	35 ft.	35 ft.	35 ft.	45 ft.	45 ft.
Lot area (minimum square feet)	8,000 sf.	5,000 sf.	3,000 sf.	N/A	N/A
Lot depth (minimum) ²	120 ft.	90 ft.	80 ft.	N/A	N/A
Interior lot width (minimum)	70 ft.	50 ft.	35 ft.	N/A	N/A
Corner lot width(minimum)	75 ft.	55 ft.	40 ft.	N/A	N/A
Parking on-site spaces (minimum)	Two covered spaces per dwelling unit	Two covered spaces per dwelling unit	Two covered spaces per dwelling unit	Studio – 1 1 bdrm. – 1.5 2 bdrm. – 2 3 bdrm. – 2 Guest – 1/15 units	Studio – 1 1 bdrm. – 1.5 2 bdrm. – 2 3 bdrm. – 2 Guest – 1/15 units
Front setback Living space to back of sidewalk (minimum)	20 ft.	15 ft.	10 ft.	10 ft.	N/A
Side setback Interior (minimum) to adj. residential lot ³	5 ft.	5 ft.	3 ft.	10 ft. between bldgs.	N/A
Side setback Corner (minimum) ³	10 ft.	10 ft.	10 ft.	15 ft.	N/A
Rear setback (Front-loaded units) Living space to rear property line (minimum)	20 ft.	20 ft.	15 ft.	10 ft.	N/A
Porch setback	10 ft.	10 ft.	5 ft.	5 ft.	N/A

Feature	Very Low-Density Residential (CVLDR)	Low-Density Residential (CLDR)	Medium-Density Residential (CMDR)	High-Density Residential (CHDR)	Town Center Mixed-Use (CTCMU)
Garage setback Front-facing garage to back of sidewalk (minimum)	20 ft.	20 ft.	18 ft.	N/A	N/A
Garage setback To side-loaded (swing in) garage	15 ft.	15 ft.	15 ft.	N/A	N/A
Rear-loaded garage ⁵	5 ft. (apron)	5 ft. (apron)	5 ft. (apron)	5 ft. (apron)	
Accessory structures ⁶	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.
Madera County Equivalent Zoning Designation	Residential Urban, Single Family (RUS)	Residential Urban, Single Family (RUS)	Residential Small Lot (RX) and Residential Townhouse (RT)	Residential Urban Multiple Family (RUM)	MCN Mixed-Use Commercial Neighborhood District with VCO Village Core Overlay

Notes:

1. As measured from finished building pad elevation.
2. Lot depth measured from street right-of-way to rear property line or alley center line.
3. Setback is total for one side only, as measured to adjacent property line. Architectural features such as bay windows, second story porches, roof overhangs, etc., may encroach up to 24 inches into front, side, rear, and corner side setbacks, as long as a 36-inch minimum is maintained from the sidewalk and property line. Mechanical equipment (e.g. air conditioner units, etc.) is allowed to extend 3 ft. into the interior and corner side yard and rear yard setbacks.
4. Townhomes on adjacent lots with no common wall may abut each other. However, if there is a separation, it shall be a minimum of 10 ft.
5. Driveway apron length measured from face of garage to edge of alley or rear lane pavement. Garage openings must be set back a minimum of either 18 feet to accommodate additional cars in driveway, or a minimum of 5 ft. to allow adequate maneuvering area to and from the alley or rear lane. Garages set back five feet must incorporate roll-up doors.
6. Any accessory structure including carports detached from the principal structure shall be separated by a minimum of 5 ft.

2.2.5. Commercial Zoning Districts

Town Center Mixed-Use (CTCMU) The Town Center Mixed-Use Zoning District allows up to 134,000 square feet of commercial uses including retail, office, civic, and institutional. In addition, as described in [Section 2.2.2 Residential Zoning Districts](#), residential uses above or adjacent to commercial uses are allowed at a density of up to 10 units per acre. The intent is to create an active town center for the community that also serves as a community gathering place for civic events and functions.

Reserved Commercial Parcel in Multi-Use Open Space Area (CPOS) An approximately 10-acre parcel in the northwest section of the Multi-Use Open Space, adjacent to the wastewater treatment plant (see [Figure 2.6 Phase 1 Preliminary Plan, Multi-Use Area](#)), is reserved for potential special commercial development, that could include such uses as a fire station, agri-retail businesses (such as a retail plant nursery or farmers market), a small specialty shopping center, a real estate office, or a mini-storage facility. Any commercial development in this area, together with total commercial development in the CTCMU area, may not exceed 134,000 square feet of space.

2.2.6. Commercial Development Standards

Development of the Town Center shall be regulated by the commercial standards set forth in [Table 2-5: Commercial Development Standards](#) and with the following development regulations:

- Buildings fronting the Village Green are encouraged to be at least two stories in height. Architectural features incorporated into buildings or built as part of the Village Green, such as a clock tower, bay windows, a monument, or landscape sculptural feature, are permitted and may extend beyond the height limit.
- Up to 202 residential units at a maximum of 10 du/ac may be sited as horizontal or vertical mixed-use developments. See [Section 2.2.2 Residential Zoning Districts](#).
- Commercial floor area may be converted to residential use at a rate of one (1) dwelling unit for every one thousand (1000) square feet of allowable commercial floor area. For example: 100,000 square feet of mixed-use commercial use allowed may be converted to 50,000 square feet of commercial, plus 50 additional residential units on a subject site, subject to administrative approval by the County.

Table 2-5: Commercial Development Standards

Feature	Town Center Mixed-Use (CTCMU) ⁵
Lot area (minimum square feet)	6,000 sf.
Maximum Floor Area Ratio (FAR) ¹	1.25 w/residential; 0.5 w/out residential
Lot width Interior (minimum) Corner (minimum)	N/A N/A
Parking on-site spaces (minimum) ²	Per MCMC ³ 18.102.040
Mixed-Use shared parking allowance	Per MCMC ³ 18.102.068
Rear building setback	20'
Minimum building setback from parking and drive aisle	10'
Building height (maximum) ⁴	45'
Minimum distance between buildings	0'
Residential density allowance	Up to 10 du/ac.
Landscaping site (planting, plazas, walks) coverage (minimum)	15% of site area

Notes:

1. FAR is the ratio, expressed as a percentage of the total floor area of buildings allowed on a given lot compared to the total area of the lot. Each floor in a multiple story building is included as floor area in these computations. (MCMC 18.04.200).
2. Parking areas shall have a minimum of the area landscaped with shade trees, such that after 15 years of growth, at least 40% of the paved parking area is projected to be shaded.
3. MCMC — Madera County Municipal Code.
4. Additional building height may be considered for mixed-use buildings and developments subject to the approval of a Conditional Use Permit. Building height is measured from the finished building pad elevation.
5. The approximately 10-acre parcel in the northwest section of the Multi-Use Open Space Reserved Commercial Parcel (CPOS) (See Section 2.2.5) shall be subject to the same Commercial Development Standards as the CTCMU Zoning District.

2.2.7. Public & Quasi Public Zoning Districts

The location and design of parks and open spaces as well as other public and civic facilities are key organizing elements of Castellina. They are important social gathering spaces as well as centers for recreation activities, education and community functions, and aesthetic enjoyment.

Parks and Open Space (CPOS) This Zoning District allows passive and active recreation uses and natural areas including ballfields, sport courts, playgrounds, trails, public gathering spaces, and other open spaces uses such as existing and new agricultural uses, landscape buffers, and other aesthetic and functional landscape features. In addition to recreational open spaces, greenhouses, infrastructure facilities and other similar uses also included in this Zoning District may be community center buildings, utility sheds, bathrooms, and other such functional uses.

Off-leash dog parks are also permitted in this District, as long as parks are fully enclosed.

Development of Parks and Open Space (CPOS) areas will be regulated by the Madera County Code, in conjunction with [Appendix B: Site, Architecture & Design Guidelines](#), and [Appendix C: Landscape Design Guidelines](#).

Approximately 132 acres of parks and other open space will be developed in the Specific Plan Area. Specific uses will be planned and designed with the appropriate facilities to meet the recreation or functional needs of either the community-at-large for the Central Greenway, or neighborhood

residents for the neighborhood parks, community gardens, trails, paseos, and other open spaces.

An approximately 10-acre parcel in the northwest section of the Multi-Use Open Space, adjacent to the wastewater treatment plant (see Figure 2.6 Phase 1 Preliminary Plan, Multi-Use Area), is reserved for potential special commercial development, as described in [Section 2.2.5 Commercial Zoning Districts](#). This area will remain in open space, as a component of the Project entry feature until such time that development of that area may be warranted and feasible.

[Table 2-6: Permitted Uses](#), itemizes permissible commercial uses exclusive only to this area within the CPOS Zoning District.

2.2.8. Public & Quasi Public Development Standards

The following development standards will apply to all parks and open space, civic, and utilities:

- The location and width of all pedestrian pathways within open spaces shown in [Figure 2-5: Land Use Designations and Zoning Districts](#) may be realigned or revised as part of the mapping process, however, the total minimum amount of open space area required will remain unchanged.
- The locations, shapes, and facilities shown for neighborhood parks in this Specific Plan are schematic only and may be modified to conform to specific recreational needs and subdivision layouts for each particular neighborhood.

- Utilities, including proposed on-site well facilities and water tanks, the wastewater treatment plant, and associated retention and detention basins, are permitted in the Parks and Open Space district.
- The construction of civic uses and utilities, including the proposed on-site wastewater treatment plant and other facilities, shall be subject to the design guidelines as described in this Specific Plan and its appendices, and by the appropriate Federal, State and local codes and requirements.
- Structures, such as community signature towers, garden rooms, greenhouses, bathrooms, amphitheater stages, and community center buildings, are permitted in the CPOS district.
- Retention facilities and water quality areas are permitted to supplement dedicated detention and retention basins and other low-impact design (LID) features. For those located in public parks, such facilities shall not exceed 20% of the total gross park area and should be located within activity areas characterized by open spaces of grass or vegetative ground cover, such as informal turf grass play areas, depressed areas vegetated as aesthetic water features, or drainage channels designed to appear as stream courses.
- Outdoor lighting of public recreation sports facilities such as baseball, softball, and soccer fields shall be limited to

the Central Park and utilize fully shielded fixtures to minimize the emission of light into the night sky and neighboring properties. Wayfinding, parking, and other necessary navigation lighting are, however, permitted within other park areas.

- Lighting of parking lots shall utilize fully shielded fixtures and be designed to provide sufficient lighting to ensure adequate pedestrian safety. Parking lots should have safe and easily accessible drop-off and pick-up areas.
- Building heights in parks and open space may be a maximum of 35 feet. A variance in height may be allowed, pending approval by the Planning Director.
- Parking for parks or other open space, and utilities, shall be subject to the Madera County Municipal Code; however, parking for the Central Park and neighborhood parks may be provided on public roadways in lieu of or to reduce the size and configuration of parking lots within parks.

2.3. Permitted Uses

Table 2-6: Permitted Uses identifies the statutory permitting and approval requirements for each land use. Where a land use is not identified, or this Specific Plan is otherwise silent, provisions identified in the Madera County Municipal Code shall apply. Where there is uncertainty, the Director of the Planning Department has the discretion to decide on the suitability of the proposed use.

Table 2-6: Permitted Uses

Permitted and Conditional Use	Residential Districts					Commercial District	Public/Quasi Public
	CVLDR	CLDR	CAAC	CMDR CTCMU ¹⁰	CHDR	CTCMU	CPOS
Residential Uses							
Single Family Detached	P	P	P	P	--	--	--
Single Family Attached (Duet/Townhouses)	--	P	P	P	--	--	--
Two Family Dwelling (Duplex)	--	--	P	P	--	--	--
Apartment/Multiple Family Housing	--	--	C	P	P	P	--
Condominium	--	--	C	P	P	P	--
Mobile Home	--	--	--	--	--	--	--
Child Day Care Facility	--	P	C	C	C	C	--
Guest Houses ¹	P	P	P	P	P	--	--
Senior Citizen Housing Project	P	P	P	P	P	P	--
Residential Care and Support Facilities ²	--	C	P	C	C	C	--
Convalescent Home/Nursing Home	--	C	C	C	C	C	--
Temporary Tract Offices/Models ³	P	P	P	P	P	P	--
Accessory Uses and Buildings ⁴	P	P	P	P	P	P	P
Commercial and Retail Uses							
Athletic/Fitness Clubs	C	C	C	C	C	P	C
Auto Service Station, Carwash, Mini-marts	--	--	--	--	--	C	--
Commercial and Retail Services ⁵	--	--	--	--	--	P	--
Drive-in and Drive-through Food and Sales	--	--	--	--	--	C	P ¹³
Emergency Service Provider ⁶	--	--	--	--	--	C	P ¹³
Family Amusement Centers/Arcades ⁷	--	--	--	--	--	C	--
Home Occupation ⁸	P	P	P	P	P	P	--
Hotels ⁹	--	--	--	--	--	C	P ¹³
Theaters (Indoor)	--	--	--	--	--	C	--
Restaurants and Bars	--	--	--	--	--	P	P ¹³

Permitted and Conditional Use	Residential Districts					Commercial District	Public/Quasi Public
	CVLDR	CLDR	CAAC	CMDR CTCMU ¹⁰	CHDR	CTCMU	CPOS
Banks and Financial Institutions	--	--	--	--	--	P	P ¹³
Professional Offices	--	--	--	--	--	P	P ¹³
Co-Working Spaces ¹¹	--	--	--	--	C	P	P ¹³
Veterinary Clinics and Hospitals	--	--	--	--	--	C	--
Mini-Storage Facilities	--	--	--	--	--	--	C
Public/Quasi-Public Uses							
Clubs and Lodges	--	--	--	--	--	C	--
Libraries, Museums, and Galleries	--	--	C	--	--	P	--
Agri-Retail businesses(plant nursery, farmers market, tasking rooms), and other specialty commercial uses	--	--	--	--	--	P	P ¹³
Public Schools	--	C	C	C ¹⁴	C	C	C
Private Schools	--	C	C	C	C	C	C
Public Indoor and Outdoor Recreation Facilities	P	P	P	P	P	P	P ¹³
Off-leash Dog Parks ¹²	P	P	P	P	P	C	P
Public Safety and Utility Facilities	C	C	C	C	C	P	P
Religious Assembly/Churches	--	C	C	C	C	C	C ¹³
Wastewater Treatment Plan (WWTP)	--	--	--	--	--	--	P
Emergency Service Providers	--	--	C	C	C	P	P ¹³
Water Supply Wells and Water Tanks	C	C	C	C	--	C	P

P Permitted Use C Conditional Use Permit Required -- Use Not Allowed

Notes:

1. See also MC Section 18.04.235. Subsection (c) of Section 18.04.235 shall not apply within Castellina
2. See also MC Sections 18.04.436 and 18.04.438
3. Temporary tract offices, model homes, and construction materials yards allowed within tract while being developed.
4. See also MC Sections 18.04.15 and 18.04.20. Accessory Uses and Buildings also includes, but is not limited to, detached garages, greenhouses, and swimming pools.
5. See MC Section 18.040.130. All uses permitted by MC Section 18.040.130, other than a mortuary and crematorium, shall be permitted in Castellina. Additionally, the following commercial and retail uses shall be deemed similar to and permitted within Castellina: bakery, laundry (not self-service), art and antique stores, delicatessen, florist shop, interior decorating shop, picture framing shop, professional office or studio, apparel store, bicycle shop, bookstore and cafe, camera shop, candy store, drug store, furniture store, hardware store, health food store, hobby supply store, jewelry store, leather goods and luggage store, music store, paint and wallpaper store, parcel delivery service, pet and bird store, shoe repair shop, shoe store, sporting goods store, stationary store, supermarket, tailor and dressmaker, toy store.
6. See also MC Section 18.03.173.
7. Facilities which include such uses as a skating rink, bowling alley, paintball, children's playland, ten or more amusement game devices and other similar uses.
8. See also MC Section 18.04.260.
9. See also MC Section 18.04.270.
10. Refers to residential component of mixed use development.

2 | LAND USE, ZONING, & DEVELOPMENT STANDARDS

11. Co-working spaces are spaces where people assemble in a neutral location to work independently on different projects, or in groups on the same projects. A co-working space includes work areas in which several workers from different companies may share a common space, allowing cost savings and convenience through the use of common infrastructure, such as equipment, utilities, and receptionist and custodial services.
12. Dog parks are allowed with dogs off-leash, but must be enclosed. (Chap. 6.04.580 County Code)
13. The "P" or "C" in this Zoning District refers only to the approximately 10-acre Multi-Use Area in the northwest corner of the Project site, as described in Sections 2.2.5 Commercial Zoning Districts and 2.2.7 Public and Quasi-Public Zoning Districts. See also Section 2.4.4 Phase 1 Lotting Plan.
14. Exception is the already-planned 15-acre school site (see Section 2.2.4)

2.4. Phasing Plan

Development of Castellina will occur in phases depending on market demand and to assure that there is adequate infrastructure for each phase. Sequencing also coordinates the construction of facilities such that:

- applicable improvements are completed when needed so each phase of development is adequately served;
- improvements in each phase can support associated development in compliance with county policies and standards; and
- development in each phase can support the costs of the required improvements.

Each neighborhood or portion thereof will be developed as dictated by the market and economic considerations.

Any modifications, if consistent with the densities and land uses in this Specific Plan, shall not be subject to a Specific Plan Amendment. Phasing plans must demonstrate, to the satisfaction of the Madera County Public Works Director, the provision of adequate infrastructure to support each phase in accordance with this Specific Plan.

Construction may originate from the entry roads on Road 27, Road 28½, or Avenue 17.

Construction of the Town Center will likely be built in later phases when a critical mass of residents has been established. In initial phases, the Town Center may be

landscaped with open grass play areas, walkways, plazas, village identification features, or may include a temporary sales office or other temporary uses.

Development of any phase will include all public and private infrastructure associated with that phase. Each phase may include sub-phases which may require the recordation of multiple Tentative and Final Maps.

All public and private recreation facilities will be constructed commensurate with residential and commercial development needs, pursuant to terms in the Development Agreement and other entitlement provisions. This includes the Central Park, the Village Green, the Grand Promenade, neighborhood parks, and the Active Adult Community Center.

2.4.1. Phased Grading

All lots, roadways, and other improved areas within a phase shall be graded sufficiently to provide for the appropriate development. A grading borrow/stockpile area may be established in a future phase area, if necessary, to accommodate extra grading material.

It is expected that grading for the Specific Plan Area will balance cut and fill material within each phase without the need to export or import soils.

2.4.2. Roadway Phasing

Roadways shown within a phase shall be improved and constructed per the applicable road cross sections as

identified in [Chapter 3: Circulation & Mobility](#). This includes paving for sidewalks, paths, and travel lanes, landscaping, lane and crosswalk striping, traffic signals, street furnishings; and all infrastructure within the right-of-way.

Where roadways terminate at a phase boundary, appropriate barricades and signage, as approved by the Madera County Public Works Director, shall be installed to alert roadway users of the street termination. All temporary turn-arounds, if necessary, will be constructed per Madera County Code requirements.

2.4.3. Utilities Phasing

Utilities, including water, wastewater, storm drain, recycled water, telephone, cable, electricity, and gas, will be installed to serve each development phase prior to issuance of the appropriate permit. All utilities will be fully operational prior to building occupancy. Connections shall be constructed so that future phases can connect to previously installed utility infrastructure.

The provision of all infrastructure and public services are described in more detail in [Chapter 4: Infrastructure & Public Services](#).

2.4.4. Phase 1 Lotting Plan and Tentative Map

Phase 1 of the Project is planned to begin in the northwest corner of the Castellina site, taking entry access from Road 27, on the north side of the railroad tracks and roadway overpass. [Figure 2-6: Land Use Designations and Zoning Districts](#), depicts Phase 1 on its two residential parcels A1 and A2. [Figure 2-7: Phase 1 Preliminary Plan](#) illustrates the lot layout and internal roadway layout for the first residential lots based on the Project Tentative Subdivision Map application for Phase 1, containing up to 117 single family lots on approximately 96 acres, which has been submitted for review and will be approved concurrent with the approval of this Specific Plan. A neighborhood park, a main entry roadway, a project landscape entry feature, multi-use areas for stormwater retention and other purposes, wells and water tanks, and the first phase of a wastewater treatment plant, are included in Phase 1. [Figure 2-8: Context--Phase 1 Tentative Map](#) is one of the exhibits within this submittal that shows the layout and location of Phase 1 in the overall context of the Project plan. The alignment of a temporary secondary emergency access road is also shown in this exhibit.



Figure 2-7: Phase 1 Preliminary Plan

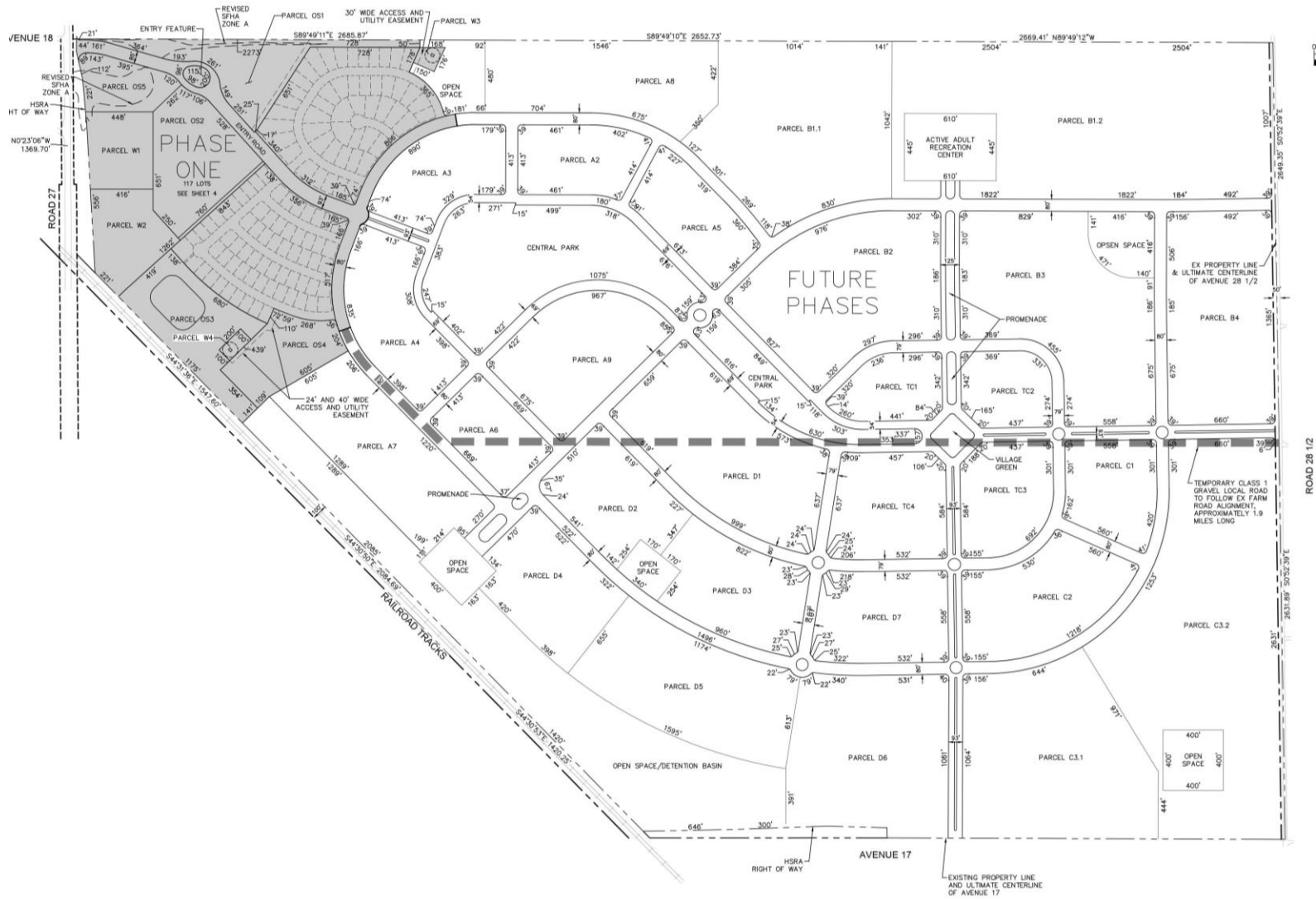


Figure 2-8: Context--Phase 1 Tentative Map

3

CIRCULATION & MOBILITY

This chapter describes the circulation and streetscape design, including the roadway hierarchy and proposed mobility plans for drivers, pedestrians, bicyclists, and transit riders.

3.1. Introduction

The circulation system within Castellina will be designed as a comprehensive network that provides both vehicular and non-vehicular mobility designed to allow the efficient and safe movement of people. Streets will be designed for multiple modes of transportation, including walking, bicycling, or driving a local use vehicle (LUV) or automobile. A network of interconnected pedestrian and bike pathways will provide connections throughout the residential neighborhoods, commercial centers, parks and other open space areas.

The following policies apply to circulation:

- Design an efficient multi-modal circulation system.
- Provide direct, convenient, and efficient automobile, pedestrian, bicycle, and local use vehicle (LUV) routes to community features and uses.
- Furnish an aesthetic environment for public circulation, while minimizing use of walls.
- Minimize impacts on regional air quality.
- Facilitate proven alternatives to automobile transportation.
- Accommodate future public transit services.
- Design a system that provides for safe routes to school within the community.
- Comply with the Americans with Disabilities Act (ADA) standards.

3.1.1. Existing Transportation Plans & Policies

Section 2 of the Transportation Element of the Madera County General Plan describes the County's transportation and circulation plans and policies. All roadways within the County are required to operate at a Level of Service (LOS) D or better as described in Policy 2.A.8. All new development projects are required to prepare a traffic impact analysis to identify potentially significant traffic impacts and mitigation to ensure an appropriate level of service.

The County annually prepares and adopts a Capital Improvement Program (CIP) that identifies transportation improvements designed to achieve adopted LOS standards based on a horizon of at least 15 years. New developments are required to make a fair share contribution to help fund these improvements through impact fees.

Regional roadways are shown in [Figure 3-1: Existing Regional Roadway Network](#). [Figure 3-1](#) also shows the location of railroad crossings and freeway interchanges. Because there are no railroad crossings on Avenues 18 and 21, all direct traffic to and from State Route 99 and the Specific Plan Area will be via Avenue 17 and Road 27. Traffic to and from downtown Madera will be via Road 27 and Road 28½. Volumes will vary depending on project phasing and future roadway improvements.

3.1.2. VMT-Reducing Mitigation Strategies

SB 743, which was signed into law in 2013, initiated an update to the CEQA (California Environmental Quality Act) Guidelines to change how lead agencies evaluate transportation impacts, with the goal of better measuring the transportation-related environmental impacts of any given project. Starting on July 1, 2020, agencies analyzing the transportation impacts of new projects must now evaluate a metric known as vehicle miles traveled (VMT) instead of levels of service (LOS). VMT measures how many actual additional miles driven a proposed project would create on California roads.

The Castellina Project plan has incorporated design elements that are aimed at reducing VMT to, from, and within the Project community. The following mitigation measures are described in more detail in other parts of this Specific Plan. The key measures are the following:

- *Proximity to High Speed Rail* (See [Section 1.4.7 Rail Lines](#)) If and when the Madera High Speed Rail (HSR) station is constructed (Avenue 12 and Santa Fe Drive), Single Occupancy VMT would be reduced due to residents using the HSR instead of a private vehicle to commute to Fresno, Sacramento and the Bay Area.
- *A Range of Housing Options and Densities, Including Affordable Housing* (See [Section 2.2 Land Use and Zoning](#)) Castellina will provide higher density, more affordable housing, with convenient access to the school, shopping, and other community services.
- *Mixed Uses* (See [Section 2.2 Land Use and Zoning](#)) Mixed Use combines two or more types of land uses into a building or set of buildings that are physically or functionally integrated. Castellina’s Town Center mixed uses are designed to promote smart growth principles.
- *Walkable and Bikeable Community* (See [Section 2.1.1 Central Greenway Framework](#) and [Section 2.1.2 Land Plan Elements](#)) Development of a robust pedestrian network and traffic calming measures within the project that encourages pedestrian and biking, instead of driving, to all parts of the community and beyond.
- *Provision of Neighborhood Electric Vehicle (NEV) Lanes* (See [Section 3.3.7 Grand Promenade](#)) A system and roadway plan for electric local use vehicles (LUVs) within portions of the project is provided.
- *Creation of Landscaped Open Space and Site Amenities* (See [Section 2.1.1 Central Greenway Framework](#))- The extensive park and amenity system encourages onsite activity and reduces off-site vehicle trips.
- *Transit Stops Within Project Area* (See [Section 3.5 Transit Service](#))—The Castellina project will work with Madera County Connection to provide at least one transit stop within the Project Area.



Figure 3-1: Existing Regional Roadway Network

3.2. Street Network and Hierarchy

Roadway circulation within the Specific Plan Area will be anchored by an inner loop road surrounding the Town Center and Village Green, and an outer loop road that will provide access to single family residential neighborhoods and their parks, the Active Adult Community, and the elementary school.

The alignment of these loop roads is intended to provide efficient connectivity, while also achieving optimal street and lot design. They, as well as the entry roads, are aligned to create strong sight lines that reinforce a boulevard character and sense of place. These sight lines will occur along the main entries, the Central Park, Town Center, and Grand Promenade.

Internal local roadways for development parcels will be laid out in modified grid or concentric patterns, encouraging through roads and providing multiple routes in and out of neighborhoods and the community as a whole.

Figure 3-2: Land Use Designations and Zoning Districts in Chapter 2 illustrates the main roadway layout, intersection locations, and locations for roundabouts. Final roadway

design and alignments will determine the ultimate locations for these elements.

The Project applicant or assigns will be responsible for the construction of the public roadways. As each phase of the Project is built out, the roads will be dedicated as public rights-of-way to be maintained by Madera County, or a public access easement will be granted to the County and an Owners Association or District will maintain the roadways. Funding for maintenance of the roadways will be provided through the establishment of a maintenance district, community facilities district (CFD), or an Owners Association. Further information on these funding mechanisms is discussed in [Chapter 6: Administration, Implementation, & Financing](#).

Figure 3-2: [Street Network & Hierarchy](#) illustrates the backbone street network and hierarchy throughout the Specific Plan Area. Cross-sections illustrating the typical roadway types are described and illustrated in [Section 3.3: Roadway Cross Sections](#).

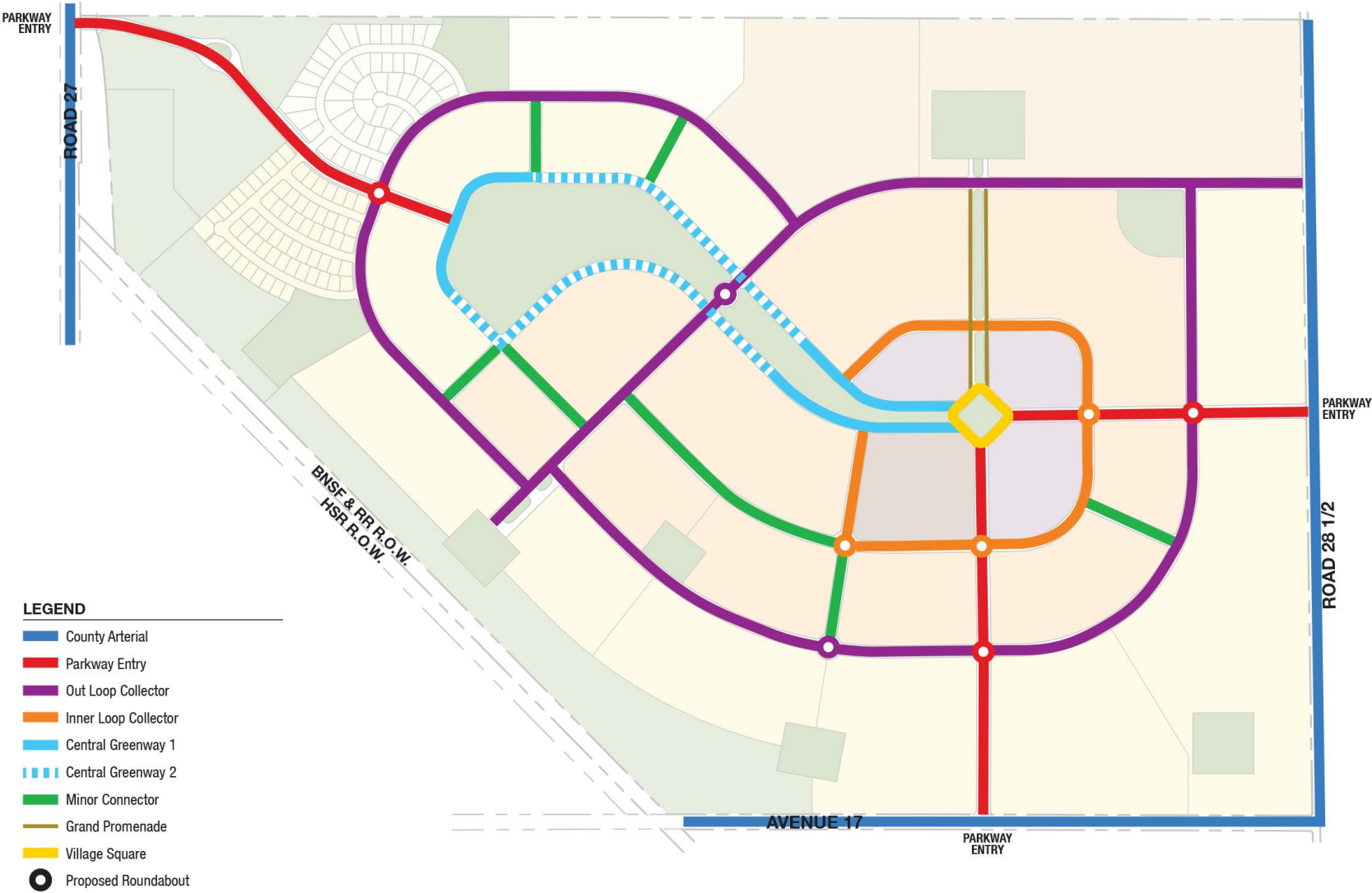


Figure 3-2: Street Network & Hierarchy

3.3. Roadway Cross-Sections

Roadway cross-sections are shown below for each of the road classifications shown in [Figure 3-2: Street Network & Hierarchy](#). Refer also to the discussion regarding streetscape design in [Appendix C: Landscape Design Guidelines](#).

3.3.1. County Main Roads

Three main roads surround the Project site: Road 28½, Avenue 17, and Road 27. Avenue 17 is identified as a future Principal Arterial and Roads 27 and 28½ are identified as Minor Arterials/Collectors in the Madera County General Plan. The County's General Plan states that these roads should be designed to provide moderate volume connections between activity centers and connections from collectors to freeways, highways and expressways. Project access from arterials should be minimized and traffic signals should typically be spaced at ¼- to ½-mile intervals.

The cross-sections shown in [Figure 3-3](#) through [Figure 3-5](#) illustrate proposed cross sections for each of the three surrounding main roadways adjacent to the Project. Ultimate improvements may include traffic signals and other intersection control systems. The timing and nature of these improvements will depend on Project buildout timing in coordination with Madera County, the City of Madera, the CHSRA, BNSF, and Caltrans.

Avenue 17

Avenue 17 is designated as a 4-lane Principal Arterial (100-foot right-of-way) by the County. At the time of this writing, Avenue 17 terminates at the railroad lines, and the Avenue 17 segment between the railroad right-of-way and Road 28½ does not exist. Construction has been authorized and designed by the CHSRA for a new two-lane Avenue 17 overpass, and plans for an overpass and extension of Avenue 17 through to Road 28½ are currently under review by the County.

The City of Madera General Plan also identifies Avenue 17 as a Principal Arterial and part of the future Madera Loop Road system.

As shown in [Figure 3-3: Avenue 17 Conceptual Arterial Section](#), Avenue 17 is planned to be constructed as a two-lane Arterial with the capacity for future expansion to a four-lane Arterial. [Figure 3-3](#) shows a 54-foot curb-to-curb cross section with a 14-foot center turn lane, and additional land on both sides, within the Castellina property, for future expansion to the full 100-foot right-of-way. In addition, a 20-foot landscape setback to the rear residential property line is also shown. On the south side of the expanded right-of-way will be ongoing agriculture on the adjacent property.

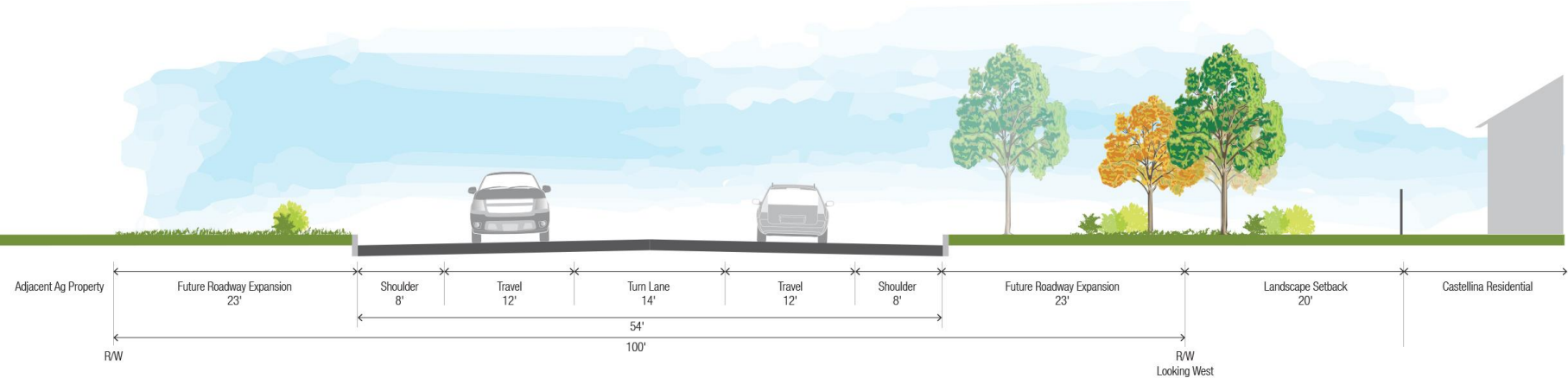
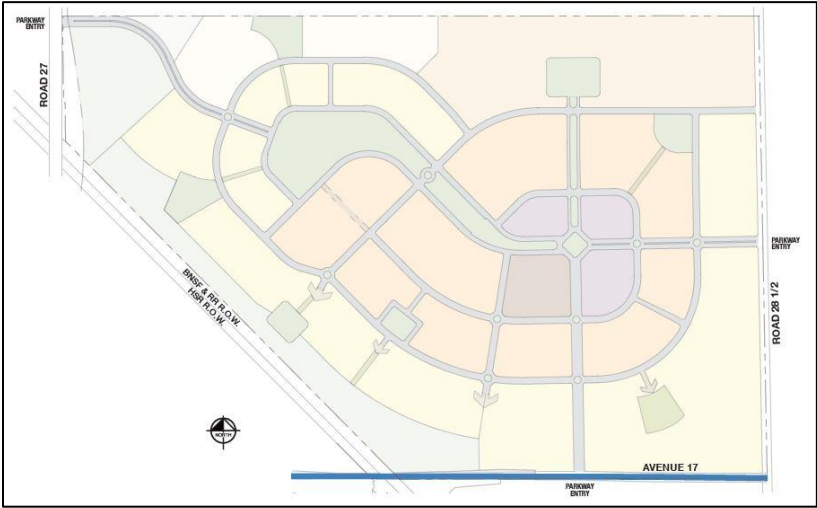


Figure 3-3: Avenue 17 Conceptual Arterial Section

Road 27

Road 27 provides direct access to downtown Madera and is classified by the County as a Minor Arterial. As mentioned in Section 1.4.6, a two-lane Road 27 railroad overpass is currently under construction by the CHSRA. The developer has dedicated land from the Castellina property for the CHSRA’s designated ultimate right-of-way. Figure 3-4: Road 27 Conceptual Arterial Section illustrates that this right-of-way varies, consistent with the CHSRA overpass plans. The typical two-lane Arterial section is shown below.

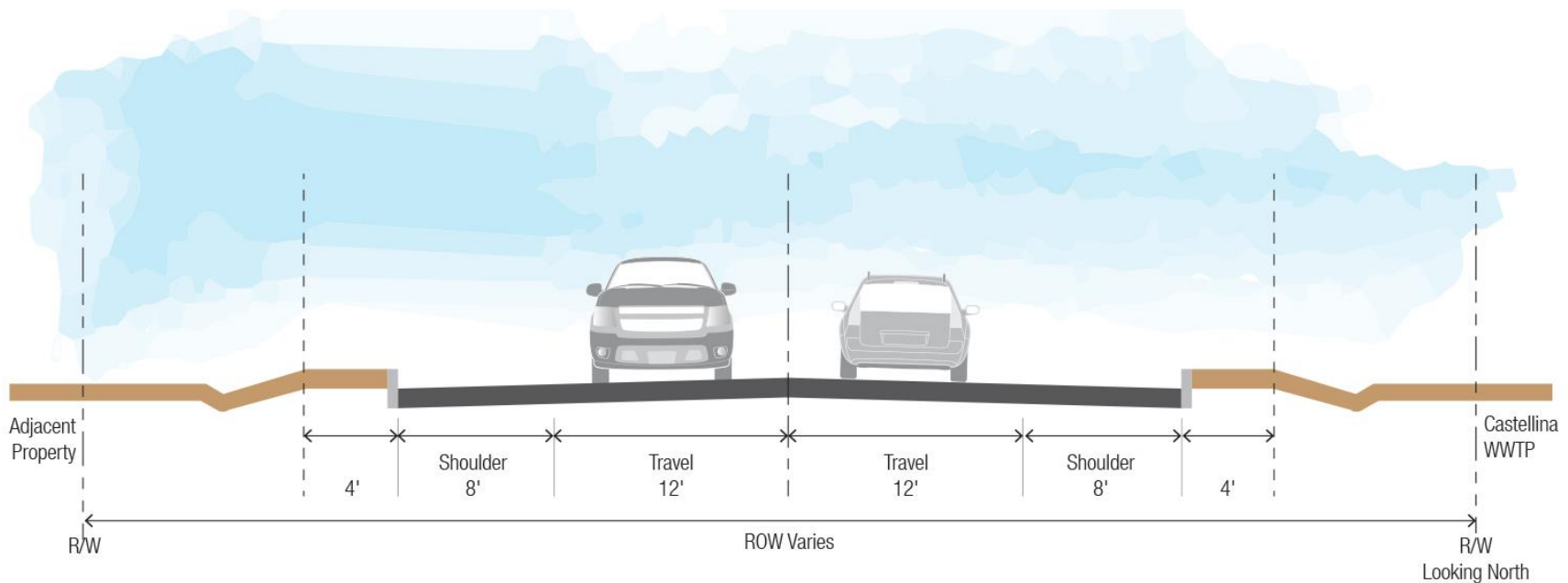
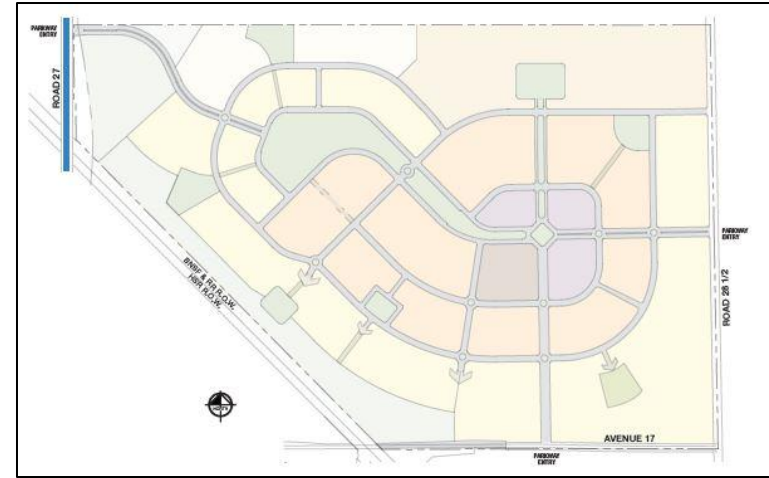


Figure 3-4: Road 27 Conceptual Arterial Section

Road 28½

Road 28½ is currently a County road with a 50-ft. right-of-way with two 12-ft. lanes, providing access to downtown Madera via Raymond Road to the south. The County General Plan shows this road is designated in the category of a Minor Arterial/Collector.

Figure 3-5: Road 28½ Conceptual County Roadway Section illustrates the proposed two-lane road section, with a 30-foot Castellina project landscaping setback on the west side and the east side of Road 28½ shown in ongoing agriculture.

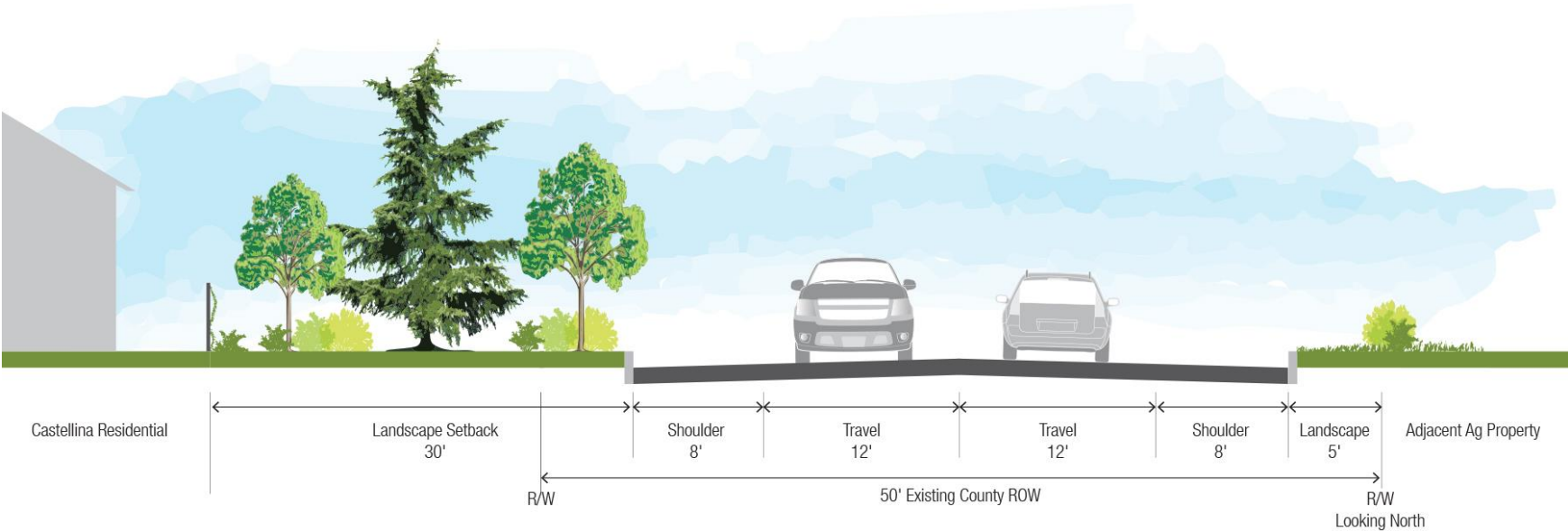
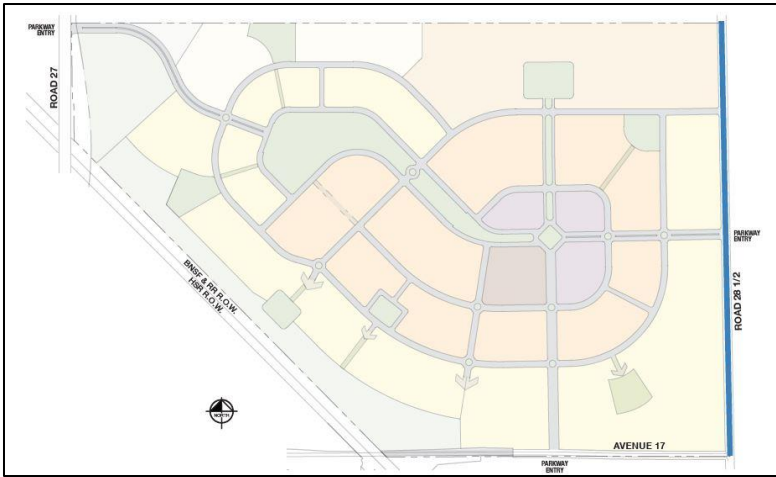


Figure 3-5: Road 28½ Conceptual County Roadway Section

3.3.2. Parkway Entries

Three Parkway Entry roads will enter the Specific Plan Area: from Avenue 17, Road 27, and Road 28½. These roadways will contain two lanes of travel in each direction, divided by a landscaped median with turn pockets where needed.

Landscaped setbacks will be provided on both sides of the roadway which, together with the landscaped median, will create a green parkway that will be visually appealing and help to maintain safe travel speeds. **Figure 3-6: Conceptual Parkway Entry Section** illustrates two cross-section conditions for Parkway Entries.

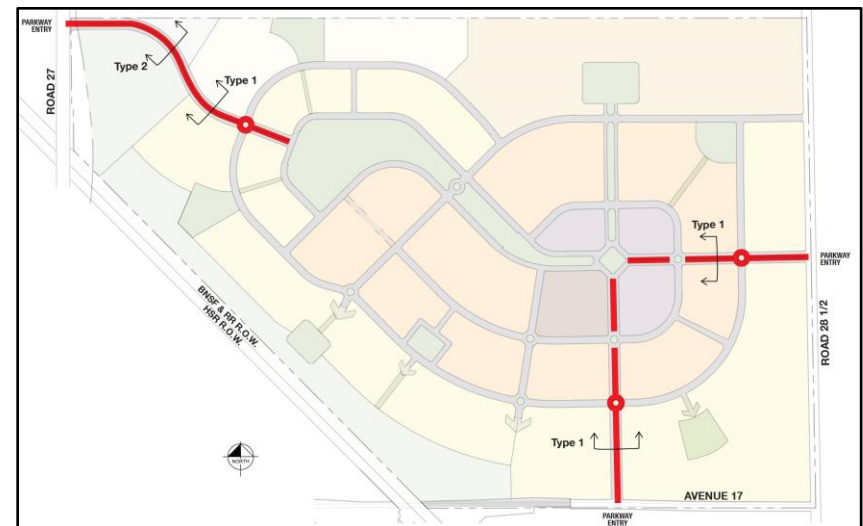
Type 1 shows the Parkway Entry condition in most cases with residential homes backing or siding onto the Parkway. On one side will be a pedestrian sidewalk; on the other side will be a separated multi-use pedestrian-bicycle trail. A wall or fence will separate the single family lots from the roadway.

Type 2 shows the the Parkway Entry condition off of Road 27 in Phase 1, in which the first segment will have an enhanced landscape buffer on its south side and the neighboring agricultural property and a retention basin on its north side. The enhanced landscape buffer on the south side may take the form of landscape berms, low decorative walls, dense plantings, retention of existing orchard trees, or any combination of these. This will set an agrarian theme and screen the wastewater treatment plant from the Parkway. On the south side will also be a separated 10-

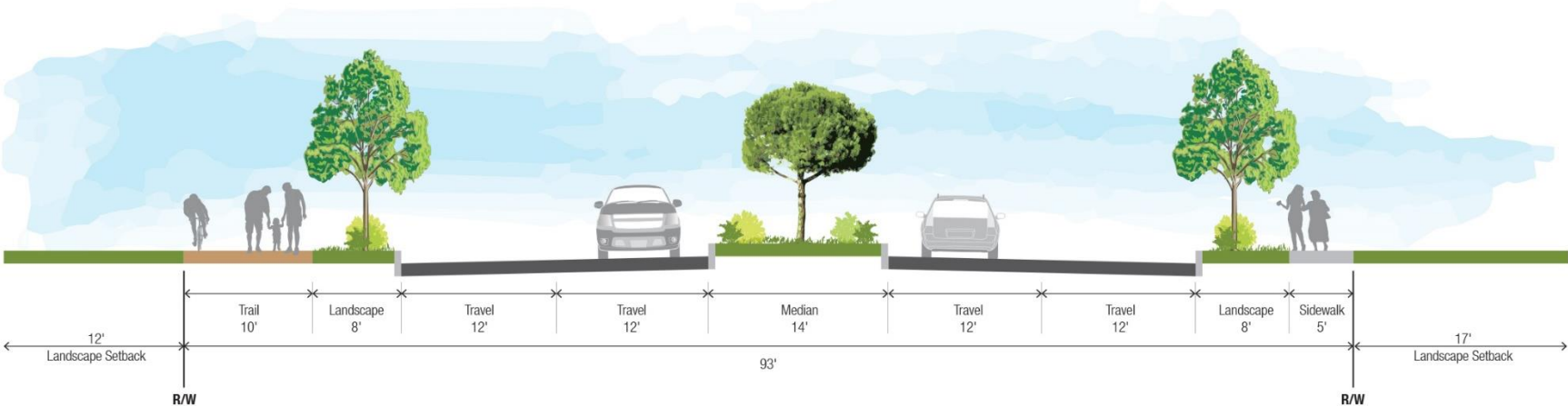
foot-wide multi-use pedestrian-bicycle trail. The north side of this Parkway Entry will have no sidewalk and will include a colonnade of theme street trees.

All Parkway Entries will contain a major entry feature with monument signage and landscaping.

The plan view graphic below indicates typical locations on the Parkway Entries in which Type I or Type II are shown in the road sections.



Parkway Entry Type 1: Residential Homes Backing or Siding Onto Parkway



Parkway Entry Type 2: First Segment of Parkway Entry off of Road 27

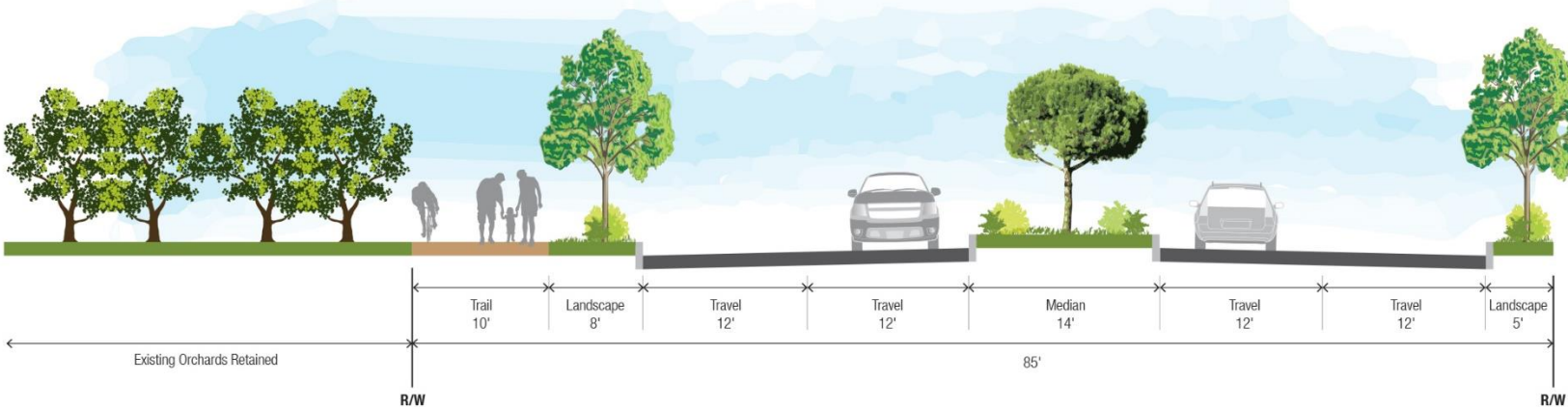


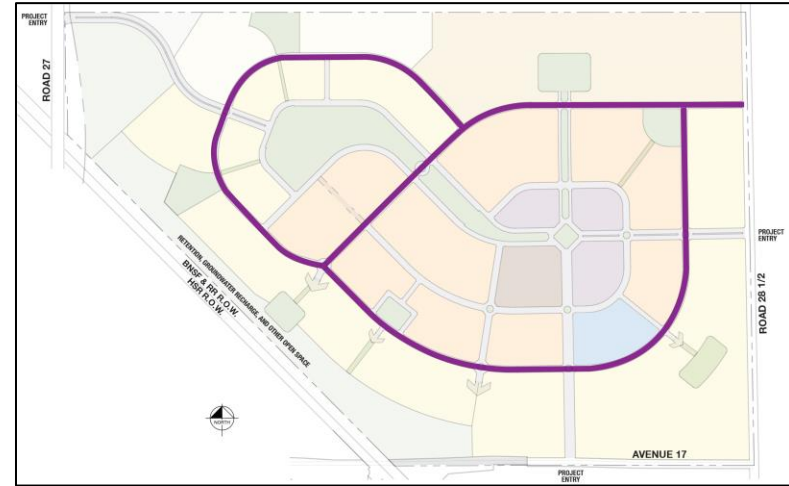
Figure 3-6: Conceptual Parkway Entry Section

3.3.3. Outer Loop Collector

The Outer Loop Collector will be the predominant backbone roadway for the Project, and it has been designed as a major vehicular, pedestrian, and bicycle connector.

This roadway will provide access to the residential neighborhoods, their parks, the Active Adult Community, and the elementary school. The curvilinear form of this roadway will reinforce a more informal feel of neighborhoods and help to maintain safe travel speeds.

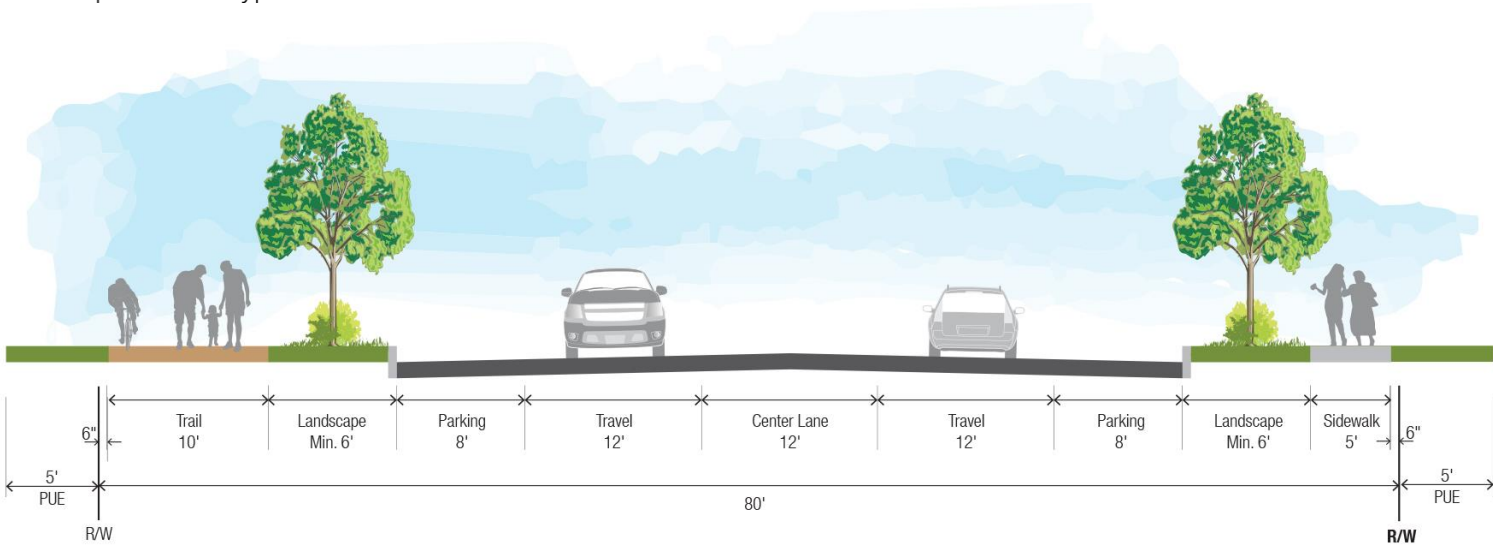
One travel lane in each direction will be divided by a center turn lane or median. The outer edge of the road will be complimented by landscaping to provide a substantial buffer separating non-vehicular users. This includes a sidewalk on one side and a Class I separated multi-use trail on the other. No direct driveway access will be allowed on the multi-use trail side.



A cross-section of the Outer Loop Collector is shown in [Figure 3-7: Conceptual Outer Loop Collector Sections](#). Two variations are shown. **Type 1: Front-on Condition** applies when the front yard of a residential unit faces the street. Lots with rear lanes may be employed in this condition.

Type 2: Back-on and Side-On Condition applies when a residential lot backs up to the Collector, in which case a wall or fence will separate the single family lots from the roadway. Under this condition, a ten-foot landscape setback beyond on the outer side of the sidewalk or multi-use trail has been added. Within this setback, a five-foot Public Utility Easement (PUE) is incorporated.

Outer Loop Collector Type 1: Front-On Condition



Outer Loop Collector Type 2: Back-On and Side-On Condition

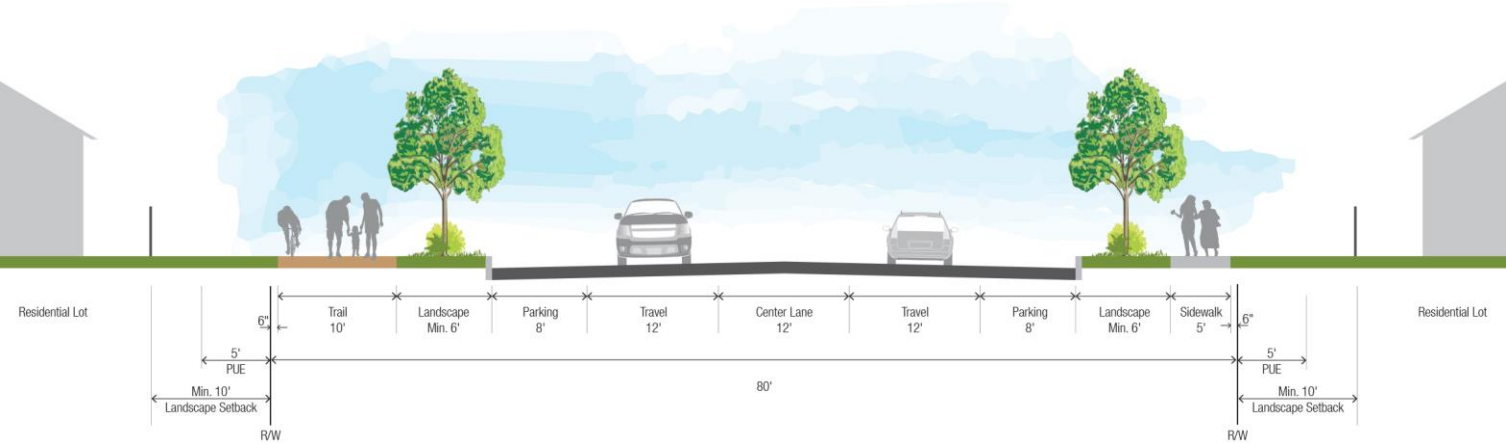
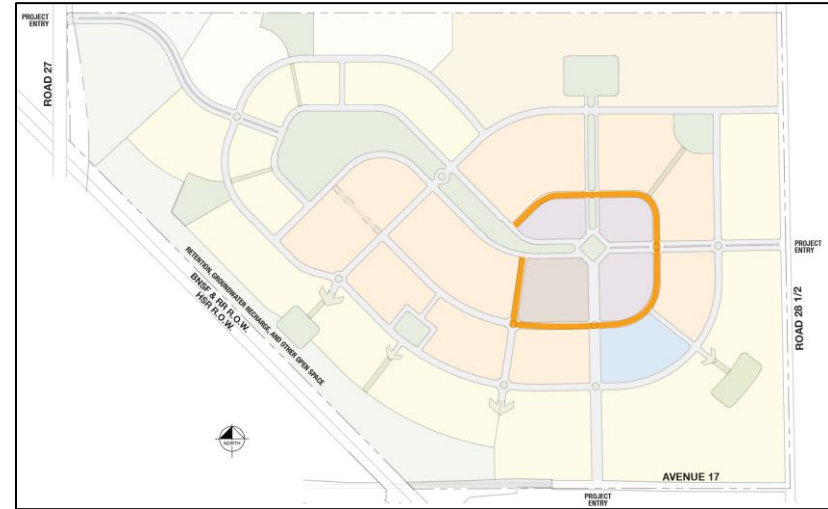


Figure 3-7: Conceptual Outer Loop Collector Sections

3.3.4. Inner Loop Collector

The Inner Loop Collector will connect the medium and high density residential and commercial neighborhoods that make up the Town Center.

This roadway will include two travel lanes, one in each direction, and parking on both sides of the street. Class II bike lanes (see [Section 3.4.1: Bikeways](#)) will be provided on both sides. Sidewalks will be provided on both sides, separated from the roadway by a landscaped parkway strip. For adjacent commercial uses, an additional minimum 10-foot landscape buffer will be required between the sidewalk and parking areas.



A cross-section for the Inner Loop Collection is shown in [Figure 3-8: Conceptual Inner Loop Collector Section](#).

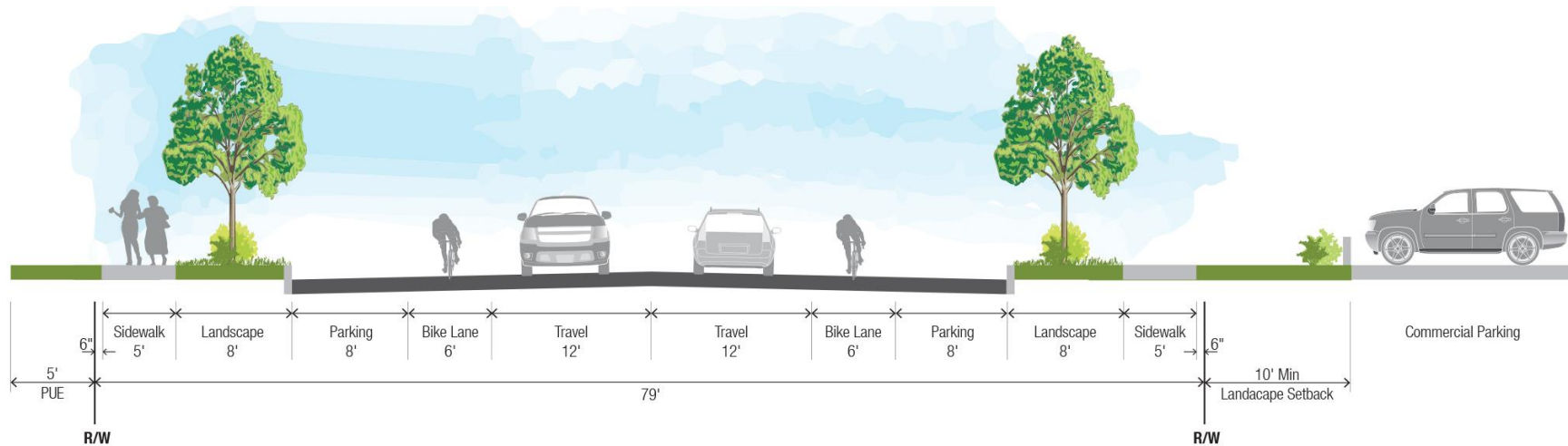


Figure 3-8: Conceptual Inner Loop Collector Section

3.3.5. Central Greenway

The Central Greenway road will define the boundary of the Central Park and will provide an aesthetically pleasing interface between the Central Park and the surrounding residential neighborhoods. Private driveway access onto this roadway is not permitted.

There are two variations of the Central Greenway. Type 1 includes one lane of travel in each direction with parallel parking on each side, adjacent to the curb. A generous buffer of landscaping will separate vehicles from a pedestrian/bicycle trail within the Central Park. The residential side of the roadway, away from the Central Park, will contain a landscaped strip and a sidewalk.

A cross-section of the Central Greenway – **Type 1** is shown in **Figure 3-9: Conceptual Central Greenway Section – Type 1**.

Type 2 also will have two travel lanes and will border the Central Park, but includes perpendicular parking on the Central Park side, thereby reducing the need to build interior parking lots. This will also create an additional buffer between travel lanes and park users.

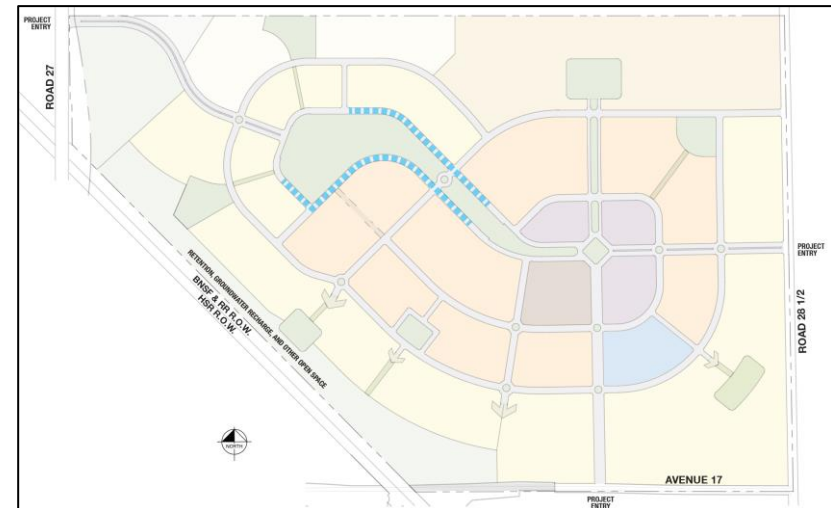
The residential side of this road, away from the Central Park, will be the same as *Type 1*.

A cross-section of the Center Greenway – **Type 2** is shown in **Figure 3-9: Conceptual Central Greenway Section – Type II**.

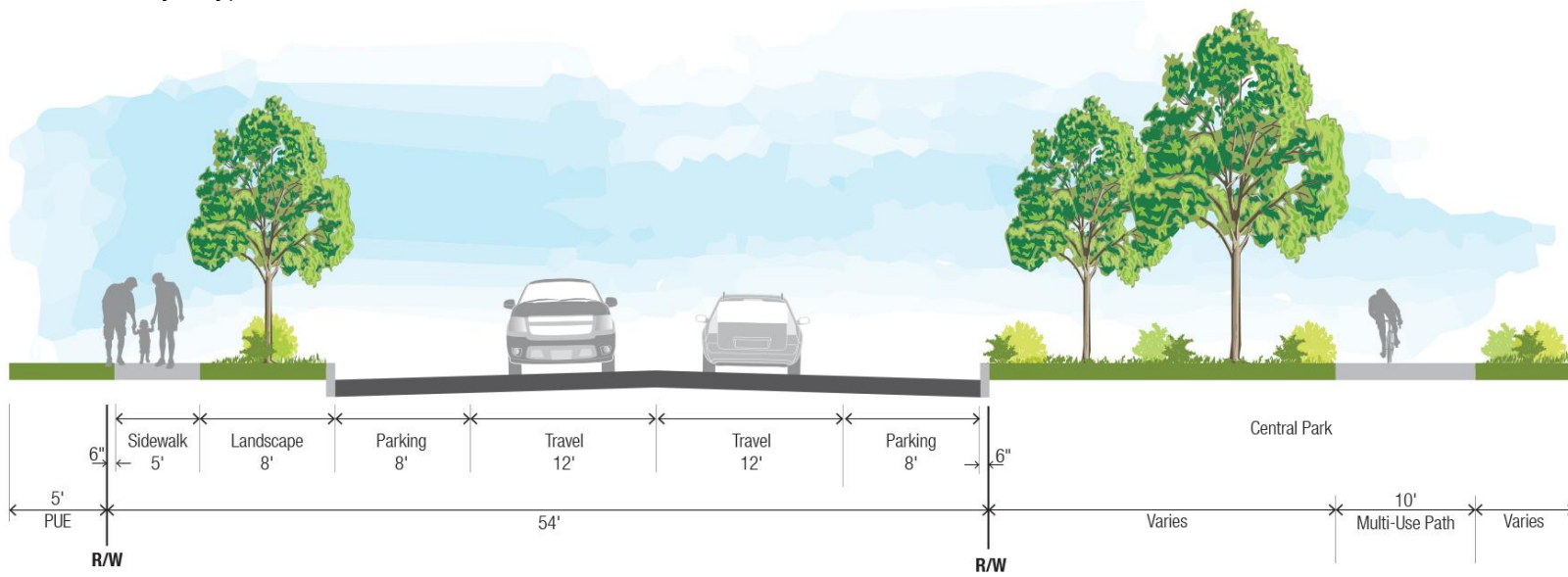
Central Greenway – Type 1



Central Greenway – Type 2



Central Greenway – Type 1



Central Greenway – Type 2

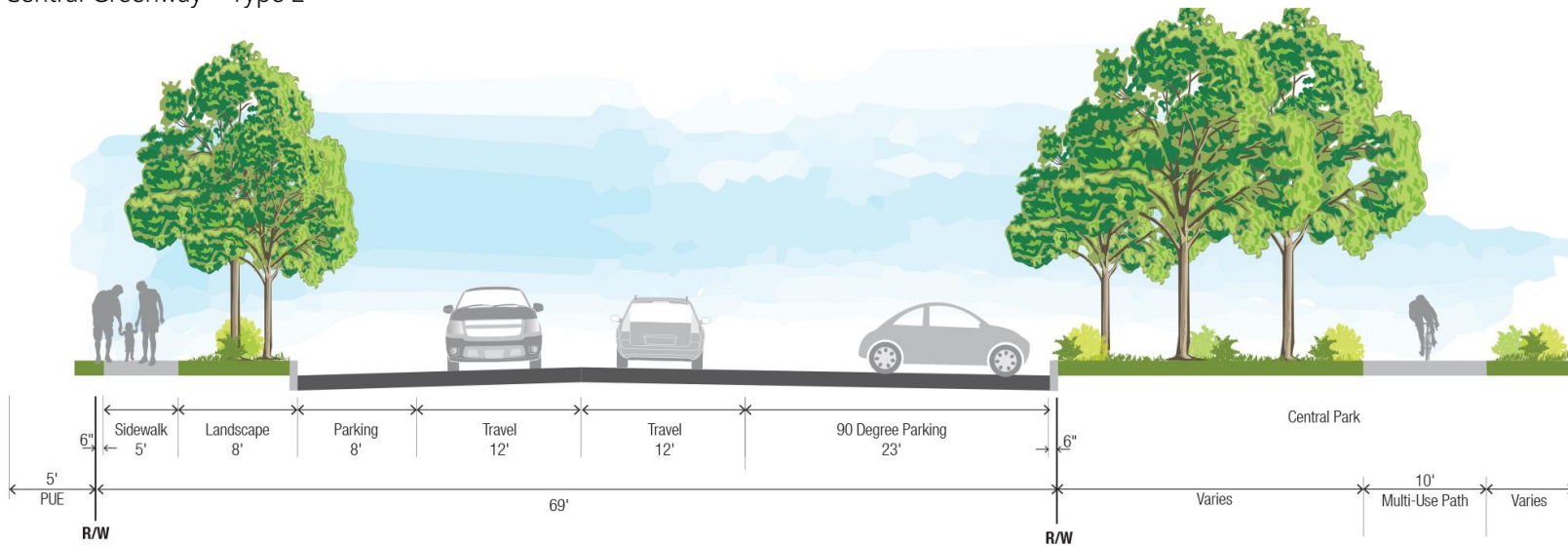


Figure 3-9: Conceptual Central Greenway Sections

3.3.6. Minor Connector

Minor Connector roadways are road segments that connect the Outer and Inner Loop Collector roadways.

These roadways contain one lane of travel in each direction with parallel parking and bike lanes on both sides. Sidewalks and landscaped edges are provided on both sides of the road.

A cross-section of the Minor Connector roadway is shown in [Figure 3-10: Conceptual Minor Connector Section](#).

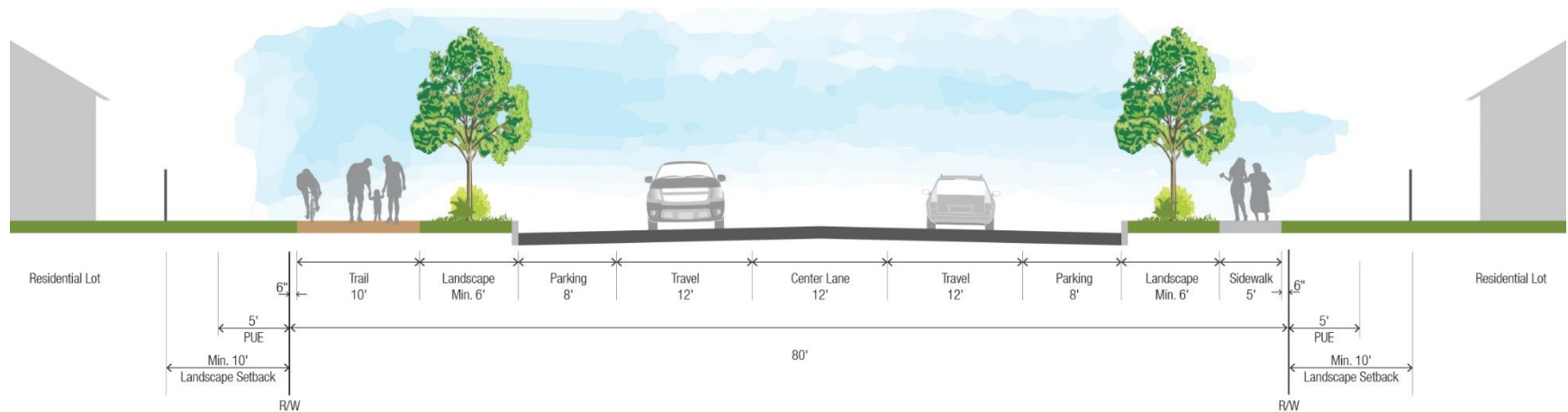
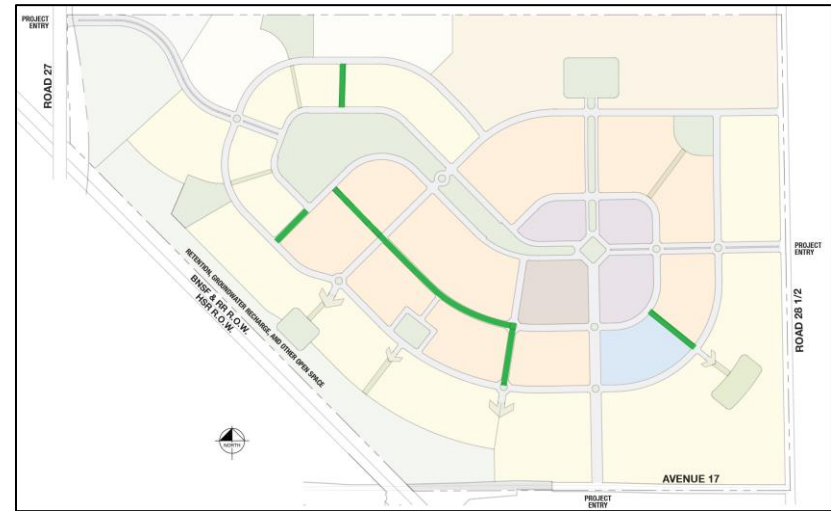


Figure 3-10: Conceptual Minor Connector Section

3.3.7. Grand Promenade

The Grand Promenade will form a visually significant and functionally important north-south axis between the Village Green and the Active Adult Community.

It will be a prominent boulevard with landscaping. A 50-60-foot linear park will extend through the middle and contain a multi-use pedestrian-bicycle path, providing a safe route of travel for residents of the Active Adult Community area and others going to and from the Town Center and Village Green.

On each side of the Grand Promenade will be a single travel lane and a Class II bike lane that will also support local use vehicles (LUV). On the outer edge of each bike lane will be a landscaped strip and a sidewalk. There will be no driveway access onto the Grand Promenade travel

lanes. Residences will instead be accessed from rear lanes at the back of lots or with side-on homes and streets. A cross-section of the Grand Promenade roadway is shown in **Figure 3-11: Conceptual Grand Promenade Section**.

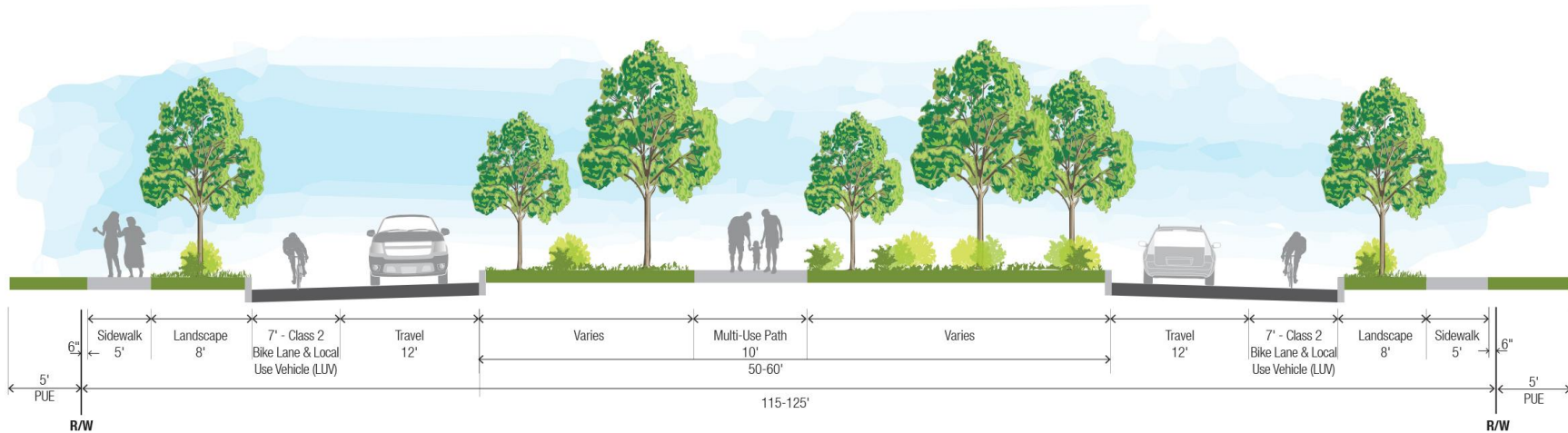


Figure 3-11: Conceptual Grand Promenade Section

3.3.8. Village Square Loop

The Village Square Loop roadway will be a diamond-shaped roadway that forms the heart of the Town Center, around the Village Green. It will be designed to be closed periodically, with temporary bollards or similar treatments for special events such as farmers markets or art shows.

This roadway will be designed with two one-way travel lanes with diagonal parking on each side. On the commercial side, a wide sidewalk will create a walkable environment and provide space for outdoor dining, benches, and other amenities. To help reinforce the Village Green character and improve bicycle safety, textured hardscape treatments, including special pavers and other enhancement features, will be constructed.

A cross-section of the Village Square loop is shown in **Figure 3-12: Conceptual Village Square Loop**.

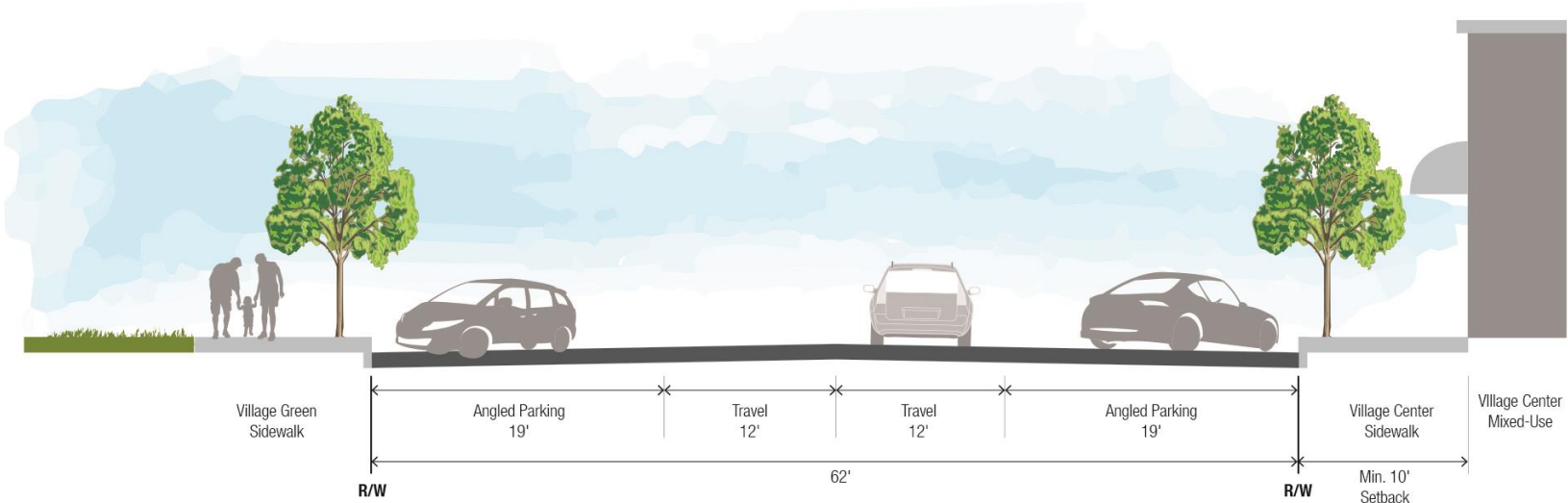
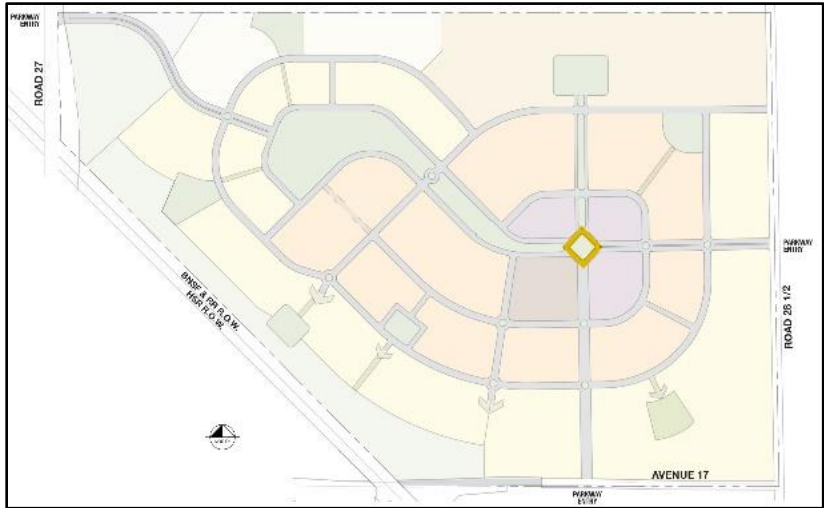


Figure 3-12: Conceptual Village Square Loop

3.3.9. Neighborhood Streets

Neighborhood Streets connect the collector roads to the neighborhoods and serve the residential homes. These streets are broken into two main types:

Neighborhood Entry Streets

Where sufficient space and roadway geometric conditions allow, enhanced Neighborhood Entry Streets may be constructed to create a sense of arrival to each neighborhood. These streets include one 18-foot shared lane of travel in each direction for vehicles and bikes and may be divided by a landscaped entry median.

Signage, either in the median or in the landscape strip, may be used to identify each neighborhood. Both sides of the roadway permit on-street parking and have a landscape strip and sidewalk.

Locations of Neighborhood Entry Streets are not shown and should be considered as each Project phase develops.

A cross-section of a typical Neighborhood Entry Street is shown in [Figure 3-13: Conceptual Neighborhood Entry Street Section – Typical](#).

Neighborhood Streets

Neighborhood Streets will be constructed in each neighborhood and will directly serve individual homes in the neighborhood.

A cross-section of a typical Neighborhood Street is shown in [Figure 3-14: Conceptual Neighborhood Street Section – Typical](#).

This roadway type is comprised of one 18-foot travel lane in each direction, including a 6-foot-wide on-street parking area, and sidewalks on both sides of the street with landscape strips.

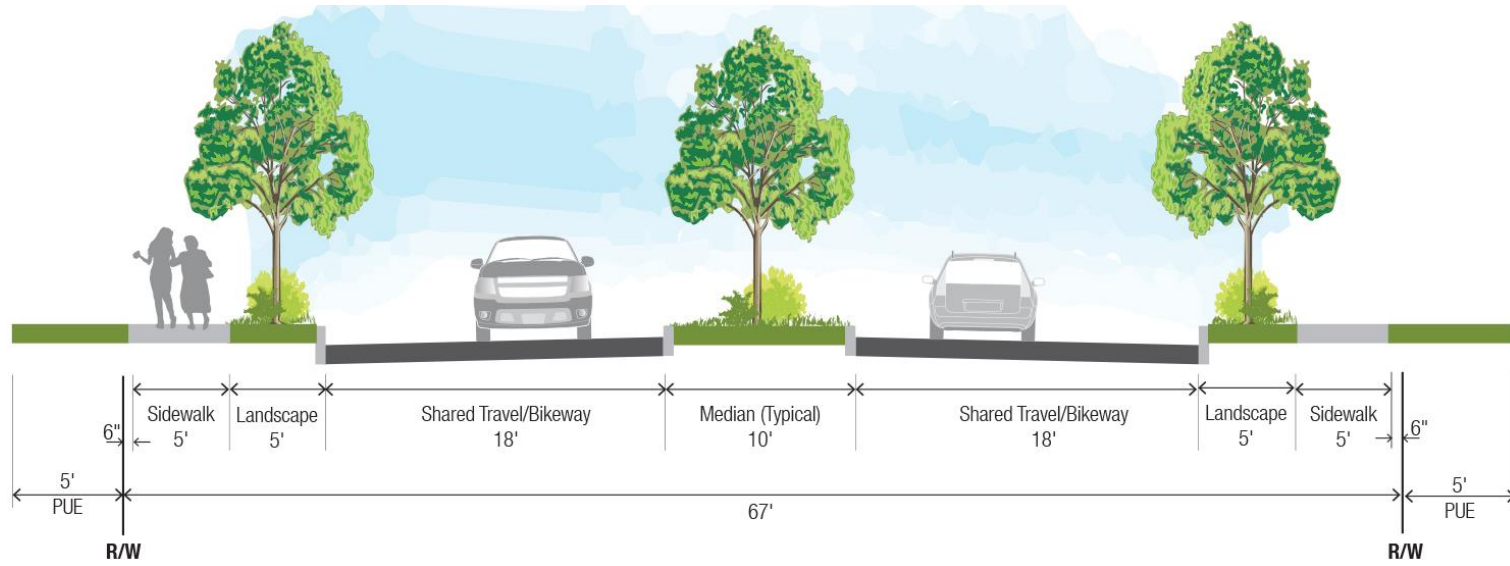


Figure 3-13: Conceptual Neighborhood Entry Street Section – Typical

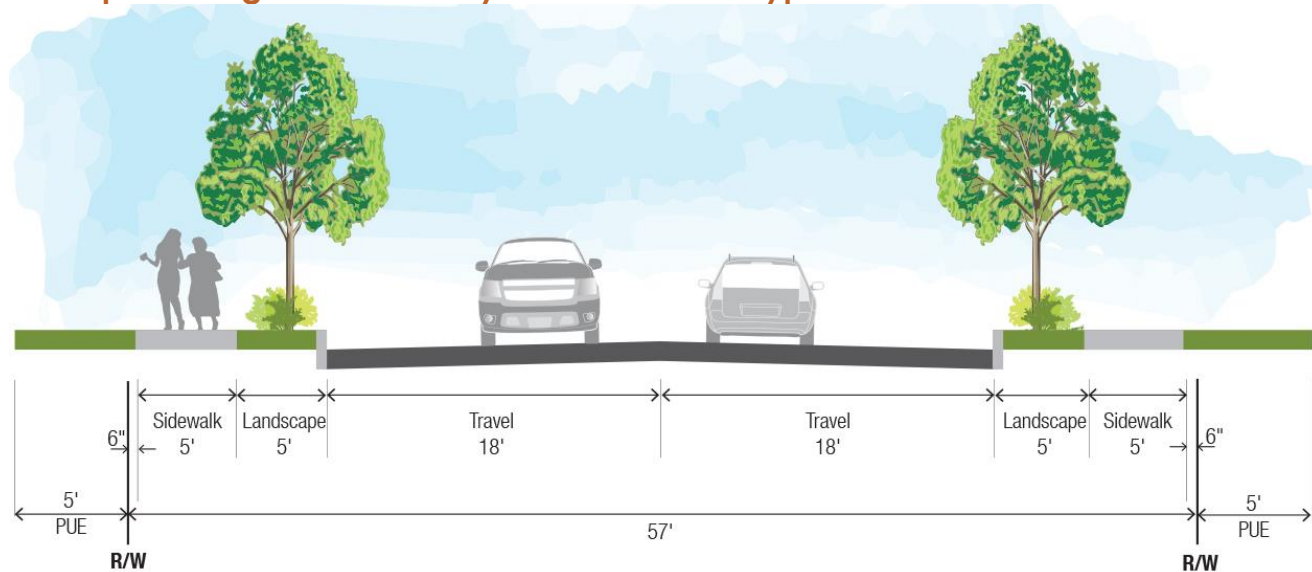


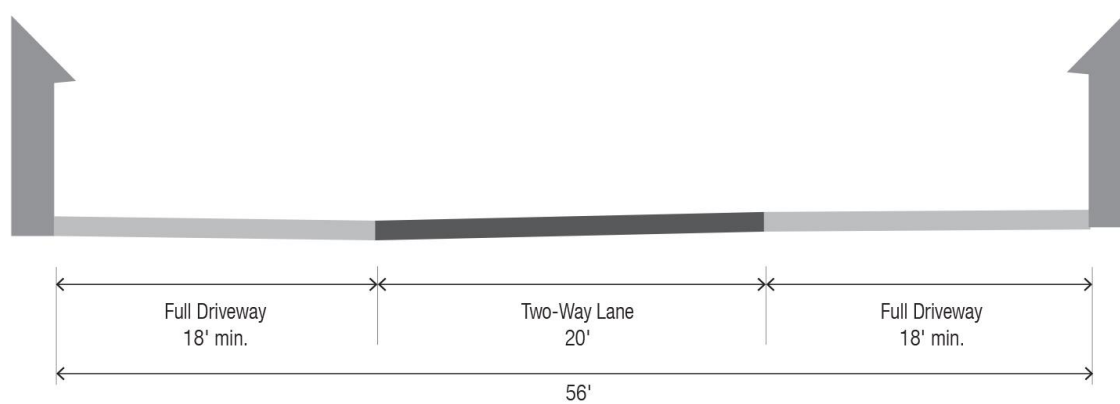
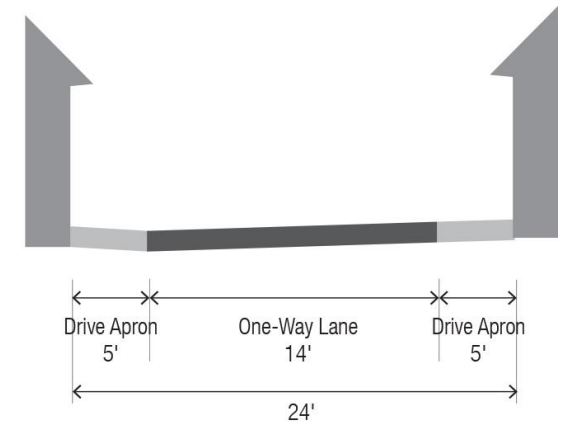
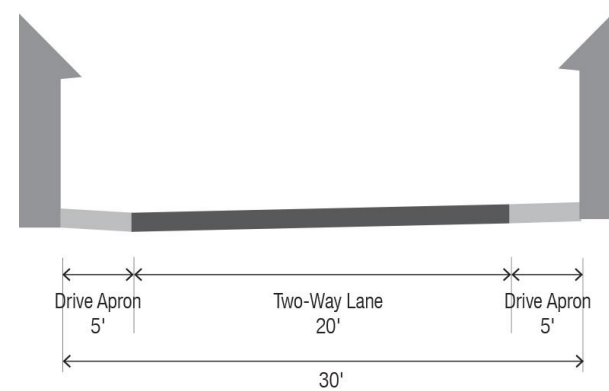
Figure 3-14: Conceptual Neighborhood Street Section (includes 6-foot parking area, both sides)

Neighborhood Rear Lanes

Neighborhood Rear Lanes will occur in residential neighborhoods where driveways are not accessed from the front of the lot. This will occur primarily for those single-family houses that front the Central Park, Grand Promenade, the Outer Loop Collector, or streets where frontage on a key community feature requires a pedestrian friendly feel.

Neighborhood Rear Lanes will be accessible from local streets, designed to extend an entire block, and may be one-way or two-way.

Three cross-sections illustrating profiles of typical Neighborhood Lane types are shown in [Figure 3-15: Conceptual Neighborhood Rear Lane Sections – Typical Configurations](#).



Figures 3-15: Conceptual Neighborhood Rear Lane Sections – Typical Configurations

3.4. Bicycle Network

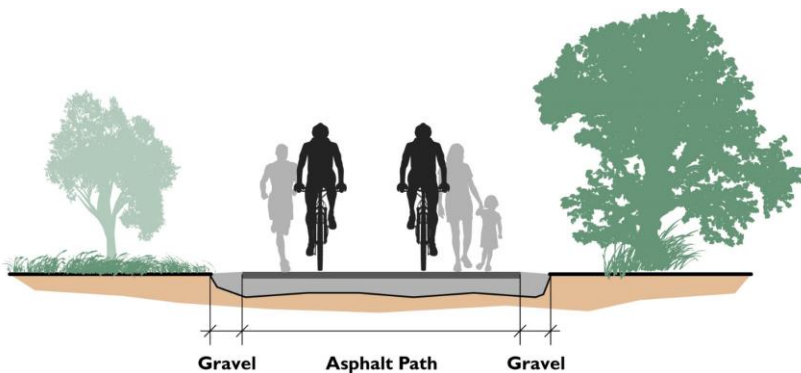
Bicycle circulation is integrated throughout the Specific Plan Area through separated off-street bike or multi-use paths, on-street bike lanes, and bike routes. Where bike lanes are not provided, bicyclists and motor vehicles would share the road.

Figure 3-16: *Bicycle Circulation Network* identifies proposed bike paths and lanes in the Specific Plan Area.

3.4.1. Bikeways

Class I Bikeways are referred to as *bike paths* and provide a pathway completely separated from streets and for the exclusive use of bicycle and pedestrian traffic, with cross-flow minimized.

Bike paths may be either paved or compacted dirt, depending on the location and function of the path, and shall be a minimum of 10 feet wide.



Class II Bikeways are referred to as *bike lanes* and provide a striped lane for one-way bike travel on a street and typically include sharrows, or lane symbols or markings, placed within the bike lane. Bike lane configurations may either be adjacent to the curb or adjacent to on-street parking, depending on their location.

Bike lanes will be a minimum of 4 feet wide.



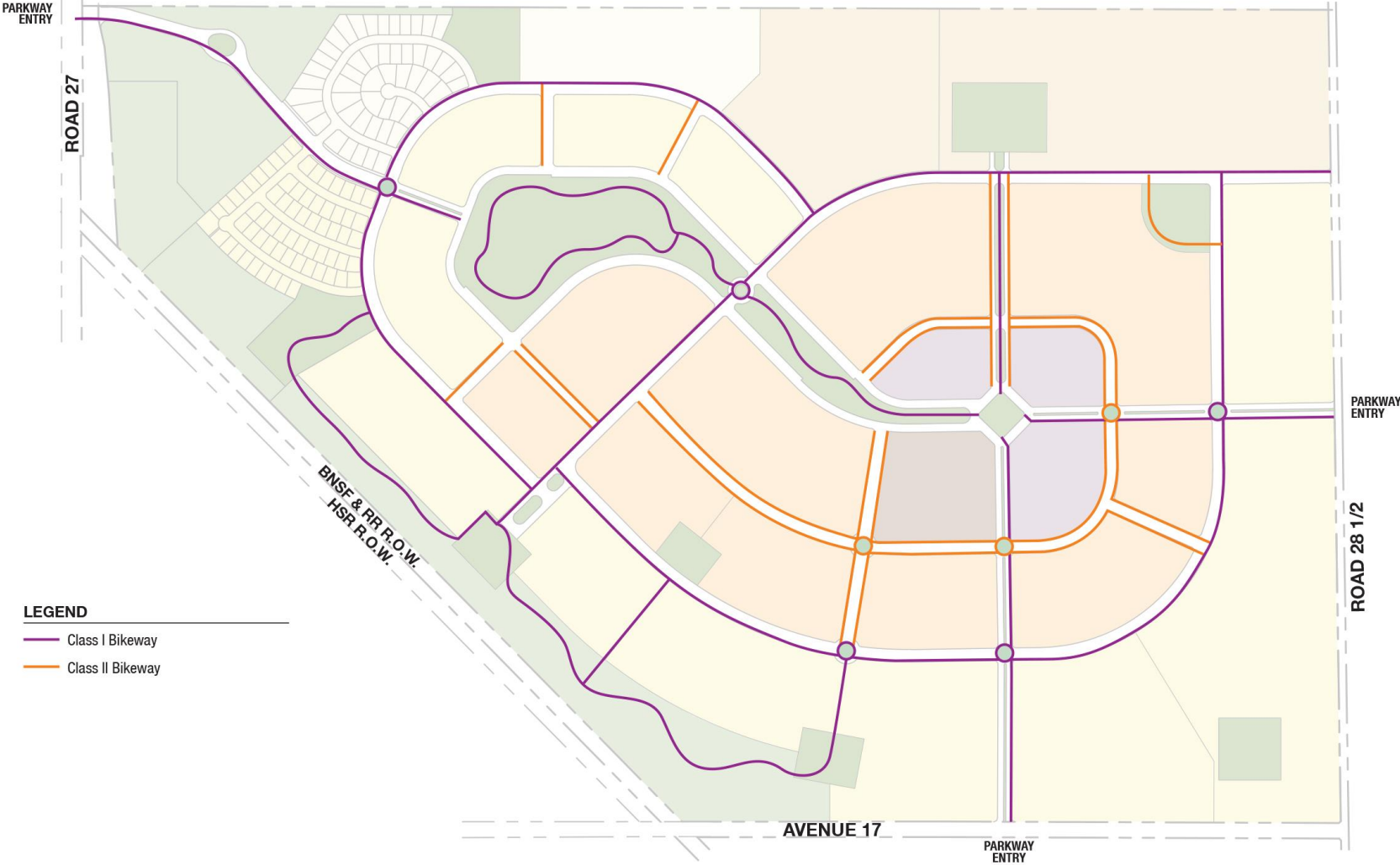


Figure 3-16: Bicycle Circulation Network

3.5. Transit Service

Transit service in Madera County is provided by Madera County Connection. It presently provides service via three routes: 1) Eastern Madera County – Madera, 2) Chowchilla – Fairmead – Madera, and 3) Eastin Arcola – Ripperdan – La Vina.

The Project applicant, in coordination with Madera County Connection, the City of Madera Transit Services, and other transit providers, will work cooperatively to identify ways to provide transit service to and from the Specific Plan Area.

At least one bus stop with a bus shelter will be provided in a convenient and accessible location in the Town Center. Interim locations may be provided in early phases until the Town Center is completed. If requested, an additional bus stop with a shelter will be provided at the Active Adult Community. The location of these bus stop(s) or shelter(s) will be identified in coordination with Madera County Connection.

Within a civic building or other appropriate location in the Town Center, a message board will be provided for the purposes of posting bus schedules, park-and-ride facility locations, and notices of availability for alternative transportation services such as the airport shuttle, neighborhood ride-share, or cell phone commercial ride share services.



4

INFRASTRUCTURE & PUBLIC SERVICES

This chapter describes the plan for the construction of infrastructure, utilities, and public services for the Specific Plan Area.

4.1. Introduction

Implementation of the Castellina Specific Plan will require the construction of public facilities and services to serve the Specific Plan Area. Services include: water, sewer, storm drainage, solid waste disposal, fire and police protection, schools. **Table 4-1: Service Providers** lists the various service providers for the Specific Plan Area.

An Infrastructure Master Plan (IMP) has been prepared under direction of Kimley-Horn and Associates, Inc., in collaboration with House Moran Consulting Engineers, Inc.; Tully & Young; and Water Works Engineers to define public infrastructure for the Castellina Specific Plan Area and provide a guide to the County for conditioning of land use entitlements for the community-wide infrastructure described within this Specific Plan and the IMP. The infrastructure serving the Project will be implemented concurrent with need and conforming to the IMP studies.

Table 4-1: Service Providers

Service	Provider
Water	Mutual water company or equivalent
Wastewater	TBD
Recycled Water	TBD
Storm Drainage	Madera County
Electric Service	Pacific Gas & Electric
Gas Service	Pacific Gas & Electric
Telecommunications-	Verizon, or others as available
Fire Protection	Madera County Fire Department
Police Protection	Madera County Sheriff's Office
Parks	Special district or equivalent
Schools	Madera Unified School District
Library	Madera County
Solid Waste Disposal	Redrock Environmental Group
Roads	Madera County

4.2. Water Supply System

4.2.1. Introduction

The water supply goal for Castellina is to provide a safe and reliable supply of potable water to the area in accordance with existing regulatory requirements. Water conservation and reclamation shall be emphasized in order to meet the water use goals. The Project will be served with a combination of potable groundwater and recycled water. Potable supplies will be delivered through a looped water system with stubs to connect with each of the proposed villages and neighborhoods. A more detailed hydraulic analysis will be prepared during subsequent detailed design phases to define pressure zones and pipe sizes for domestic and fire protection flows.

A Water Supply Assessment (WSA) has been conducted for this Project and concludes that the water supplies will be sufficient to meet the Project's water demands over a 20-year horizon. In the WSA, and in [Chapter 5: Water Resource Management](#), water supply and demand for the Specific Plan Area were analyzed, consistent with the requirements of State Water Code Section 10910 et seq, SB 610, and SB 221. The County has enacted an ordinance directed at addressing long-term groundwater sustainability in the Madera Subbasin. This ordinance, Large Scale Development Groundwater Balance, and the Project's compliance with it are also addressed in [Chapter 5: Water Resource Management](#) and in the WSA for this Project.

A copy of the Castellina Community Water and Wastewater Facility Plan is included in the Appendices within the Project's Infrastructure Master Plan (IMP).

[Appendix C: Landscape Design Guidelines](#) and [Chapter 5: Water Resource Management](#), in this Specific Plan, as well as the Project WSA and the IMP, each discuss and address these and other Project measures regarding water supply and efficiency in more detail. To limit water use, this Specific Plan's water program includes the incorporation of water-conserving measures that meet the requirements of the CALGreen Code for indoor infrastructure and go beyond the State's Model Water Efficient Landscape Ordinance (MWELO) for outdoor use and the current County of Madera water efficiency ordinance for landscaping.

4.2.2. Provision of Water Service

Madera County operates several maintenance districts and service areas that supply water throughout the unincorporated areas of the County. However, the Specific Plan Area is not within any County Service Area (CSA), irrigation district, agricultural water district, or maintenance district's jurisdiction, and does not have surface water entitlement.

The Specific Plan Area is contiguous with the Madera Valley Water Company (MVWC), which provides domestic water service to approximately 1,900 residential and 40 commercial customers to the west of the Specific Plan Area.

The overall water supply and distribution system serving the Castellina Specific Plan Area is assumed to be a new, self-contained water system. Consolidation of Castellina with the adjacent water utility was also evaluated. Preliminary discussions with MVWC indicate that up to approximately 400 connections may be served prior to the construction of any wells or storage tanks at Castellina. This could potentially be accomplished via an intertie with the MVWC's existing 16-inch water main that parallels Road 27. Under this alternative scenario, construction of wells and tanks may potentially be deferred until the Project approaches a designated number of connections. Although consolidation is a possibility, for the purposes of this Specific Plan, a stand-alone system is assumed. Regardless, the design of the wells, tanks and distribution systems would not significantly change under the consolidation alternative. A water utility would own and operate both systems.

Final determination as to what entity will be the water purveyor for the Specific Plan Area will be accomplished as a component of Project entitlement.

4.2.3. Water Demand and Supply

Total water demand is estimated to be 1,251 acre-feet per year (AFY), for both residential and non-residential, with all components of the indoor-outdoor water demand being mitigated through a Managed Aquifer Recharge (MAR) system and other water-conserving measures. These measures are more completely described in [Chapter 5: Water Resource Management, Appendix C:](#)

[Landscape Design Guidelines](#), and in the WSA. Peak hour demands, fire flow requirements, operational storage volume requirements, and distribution systems are also detailed in the IMP and WSA.

4.2.4. Water Quality

In 2017, water samples obtained from agricultural wells located on-site were tested and analyzed for the complete Title 22 drinking water constituents to determine the likely water quality of the proposed wells. The sampling results indicated that no contaminants were detected that would pose a health risk. Although groundwater treatment is not anticipated at this time, space will be provided at the site of the booster pump station and tanks to allow for water treatment if required in the future.

4.2.5. Project Preliminary Water System

The conceptual potable water system layout is shown in [Figure 4-1: Potable Water System](#).

The Project is to be supplied by domestic water from a new on-site well system. The system shall be designed to supply the full build-out maximum day demand with one well out of service.

Development of the Specific Plan Area will be designed as a looped potable water system with stubs to each neighborhood. A detailed hydraulic analysis will be prepared during subsequent design phases to define pressure zones and pipe sizes for domestic and fire flows.

The conceptual Phase 1 potable water system layout is shown in [Figure 4-2: Phase 1 Potable Water System](#). The system will be designed to supply maximum day water for the first 117 lots.

4.2.6. Regulatory Approvals and Permits

Prior to drilling new municipal wells, the Project will need to acquire permits from the County as required in the Municipal Code. The following regulatory approvals will likely be necessary:

- County Permit for Water System Design Standards;
- California Statutes Related to the Creation of a Drinking Water System;
- Well Completion Report, filed with the Department of Water Resources and Madera County Department of Environmental Health;
- Meter permit, required through the County Division of Environmental Health;
- Certification for operation of a municipal well from the California State Water Resources Control Board's Division of Drinking Water.

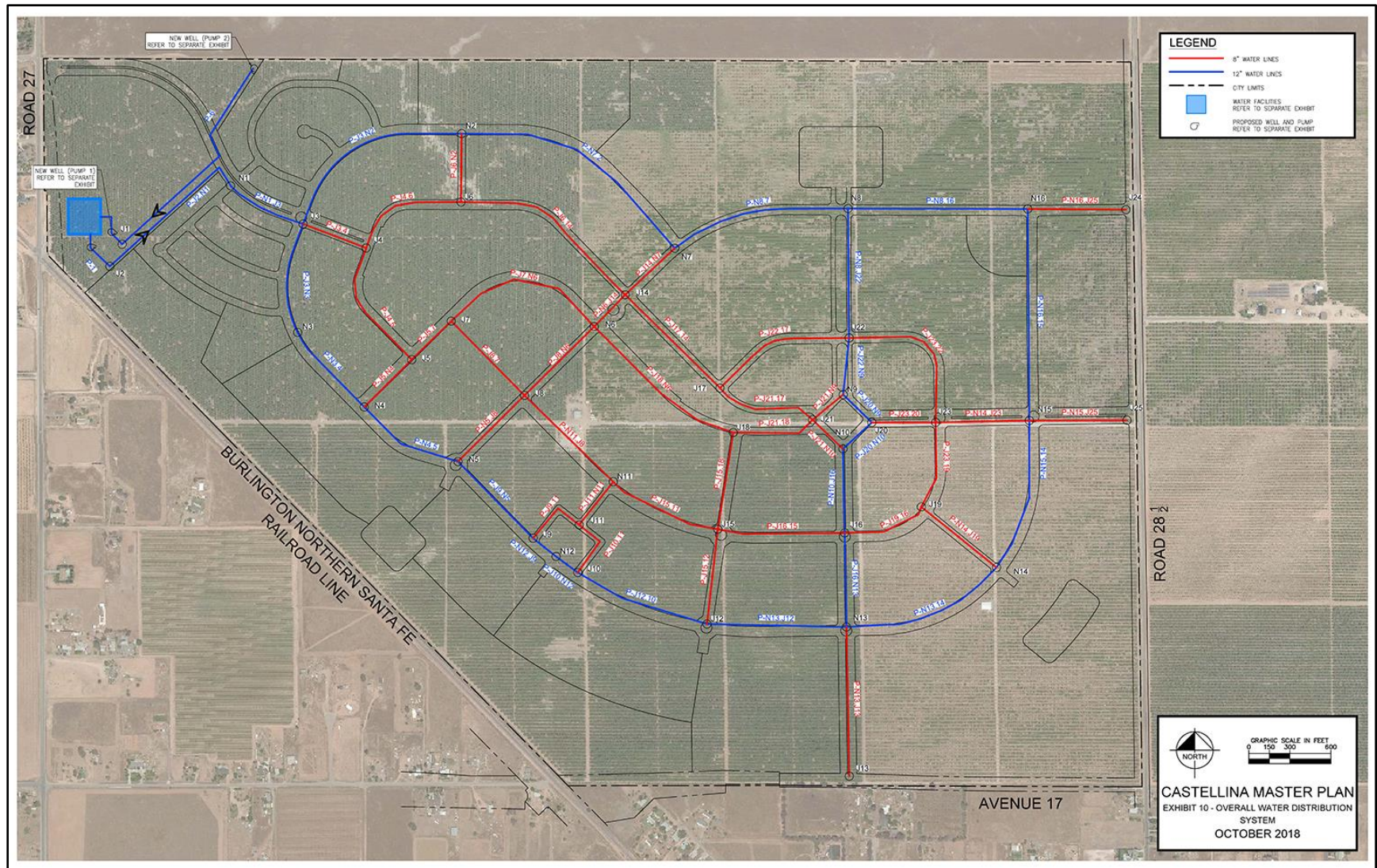


Figure 4-1: Potable Water System

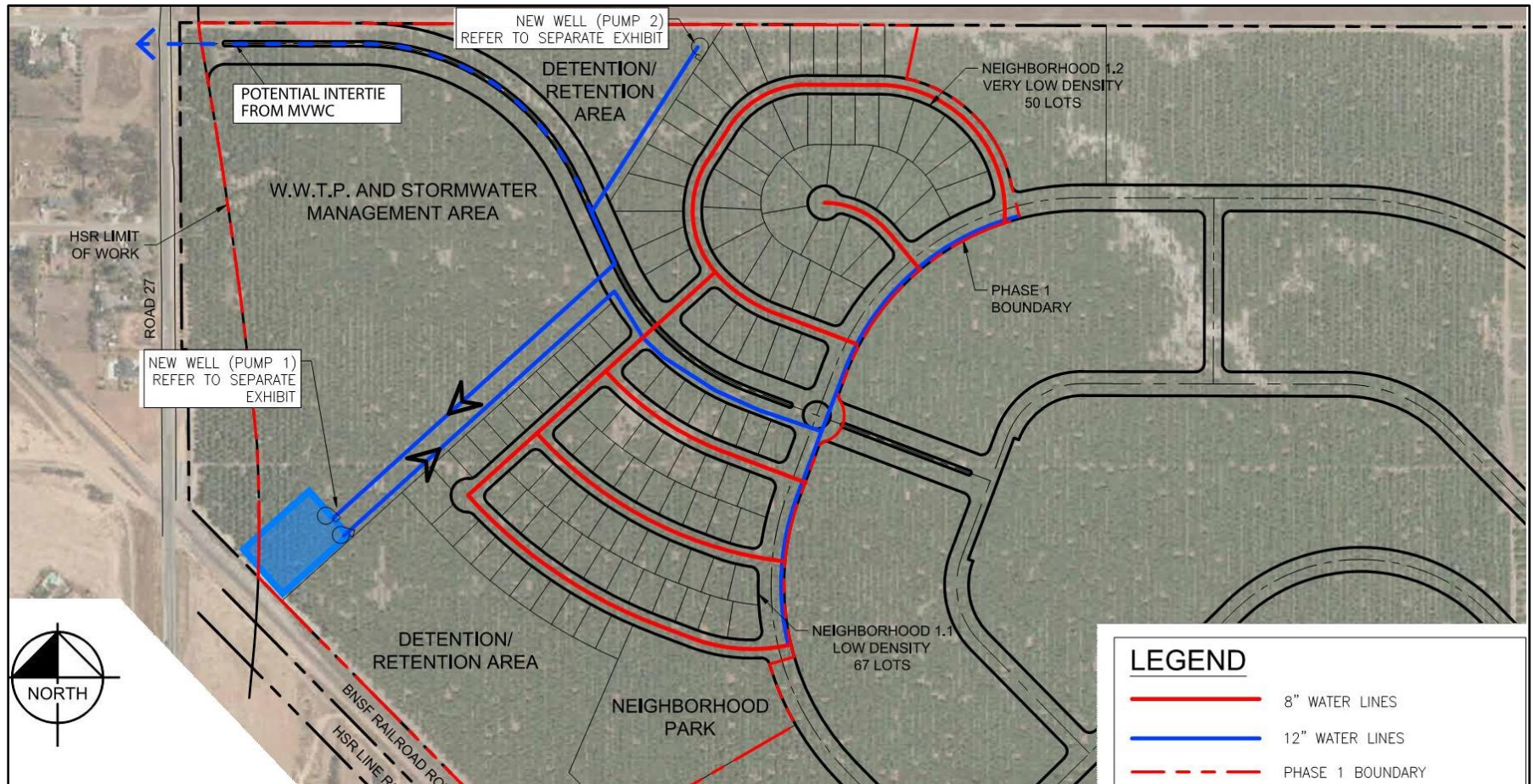


Figure 4-2: Phase 1 Potable Water System

4.3. Wastewater System

The Specific Plan Area is not near a public wastewater system or non-community wastewater system, and there is no on-site sewage disposal system. To meet wastewater treatment and disposal needs, the Project Applicant, or qualified entity, will build and operate a wastewater treatment plant (WWTP) within the Specific Plan Area.

The WWTP will include collection, treatment, disposal, and redistribution of treated reclaimed water. The preliminary sanitary sewer facilities network and WWTP, taken from the IMP, are shown in [Figure 4-3: Conceptual Wastewater System](#).

The Castellina Community Water and Wastewater Facility Plan was prepared to provide facility plans for water storage, booster pumping facilities, wastewater treatment, and reuse/disposal devices for the Castellina Project. These plans are provided in the Appendices of the Infrastructure Master Plan. Section VI of the IMP for Castellina includes an overview of Water Works' study, including wastewater generation rates for the development area and the corresponding sanitary sewer system infrastructure required to convey flows to the treatment plant. Hydraulic modeling, pipe sizing, the collection network, proposed improvements, and proposed plant siting were studied, to arrive at an optimum plan for the treatment facility. A detailed discussion of the system, including results of the

sewer system modeling, is located in Appendix D of the IMP.

4.3.1. System Facilities

Wastewater will be collected and conveyed through a gravity system of pipes, supplemented by one or more lift stations, if required, and then flow to the on-site WWTP, which will be located at a low elevation point.

A packaged membrane bioreactor (MBR) treatment system for initial and likely subsequent phases of expansion will be constructed off-site and shipped to the site, capable of accommodating approximately 1.1 million gallons per day (MGD) of peaking daily flow.

The WWTP will meet regulatory requirements and will provide aerated, filtered, and disinfected tertiary effluent recycled water for the Specific Plan Area.

The WWTP will include:

- Pumping station (as required);
- Influent screening;
- Emergency storage;
- Influent flow equalization;
- Packaged biological treatment and tertiary filtration;
- Effluent disinfection;
- Recycled water storage;

- Recycled water pumping;
- Residuals handling;
- Odor control; and
- Site piping.

Bio-solids removed during the treatment process will be transferred via truck to a local landfill or other appropriate facility for disposal.

4.3.2. Wastewater System Phasing

The WWTP may be built in two or more phases. As homes are occupied, wastewater will begin to be treated on-site at the new facility. The Phase 1 wastewater system layout from the IMP is depicted in [Figure 4-4: Phase 1 Conceptual Wastewater System](#).

4.3.3. WWTP Siting and Impact Mitigation

The wastewater network has been sized and located based on the land use plan and may be refined upon more detailed design. The new WWTP and associated facilities will be located at the northwest corner of the development,

south of the main parkway entry drive, and east of the proposed high-speed rail system overpass embankment. The WWTP will be set substantially back from the main parkway drive, and existing almond orchards may be retained in that area to screen the WWTP from the Project entry drive. These existing trees, potentially including landscape berms, walls, or other barriers along the entry road are landscape features that may be used to shield the WWTP from view.

The WWTP building will also incorporate odor minimizing features, as well as architectural features to mask the plant from visual impacts. This will include such measures as enclosing parts of the WWTP with fencing and housing the building consistent with the design guidelines as described in [Appendix B: Site and Architecture Design Guidelines](#).

[Figure 4-5: Preliminary WWTP Site Plan](#) shows a schematic layout of the plant's main on-site components.

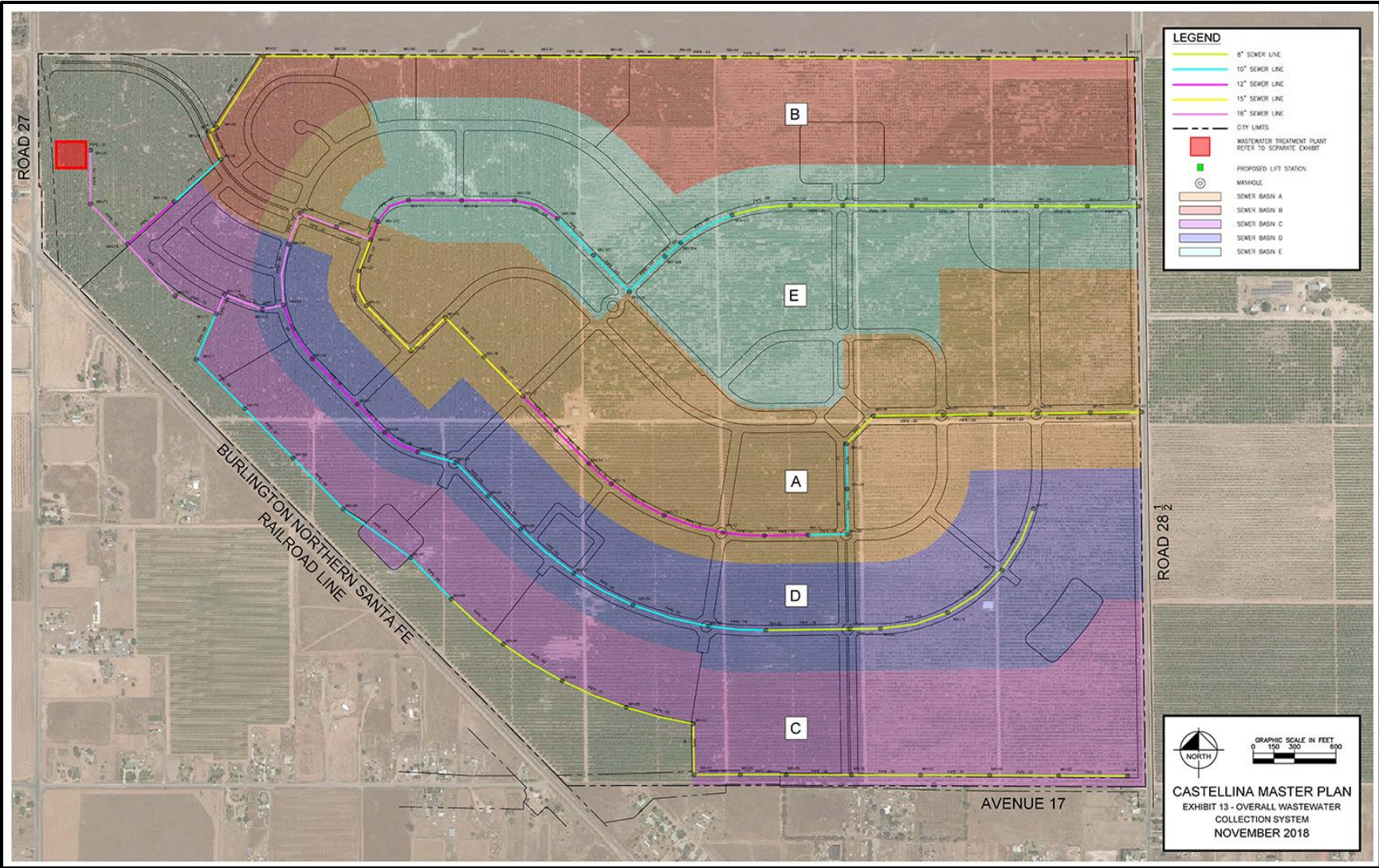


Figure 4-3: Conceptual Wastewater System

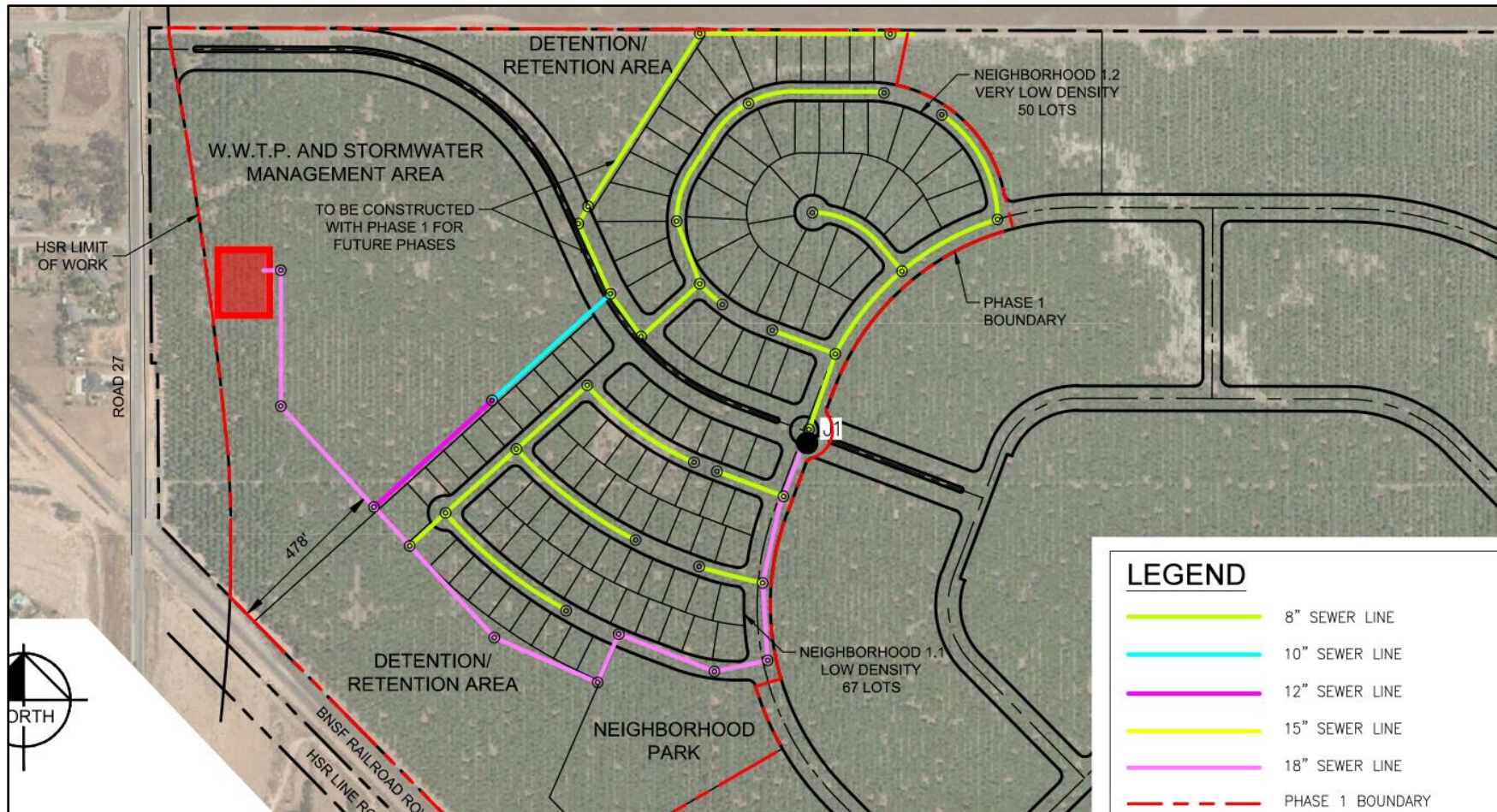


Figure 4-4: Phase 1 Conceptual Wastewater System

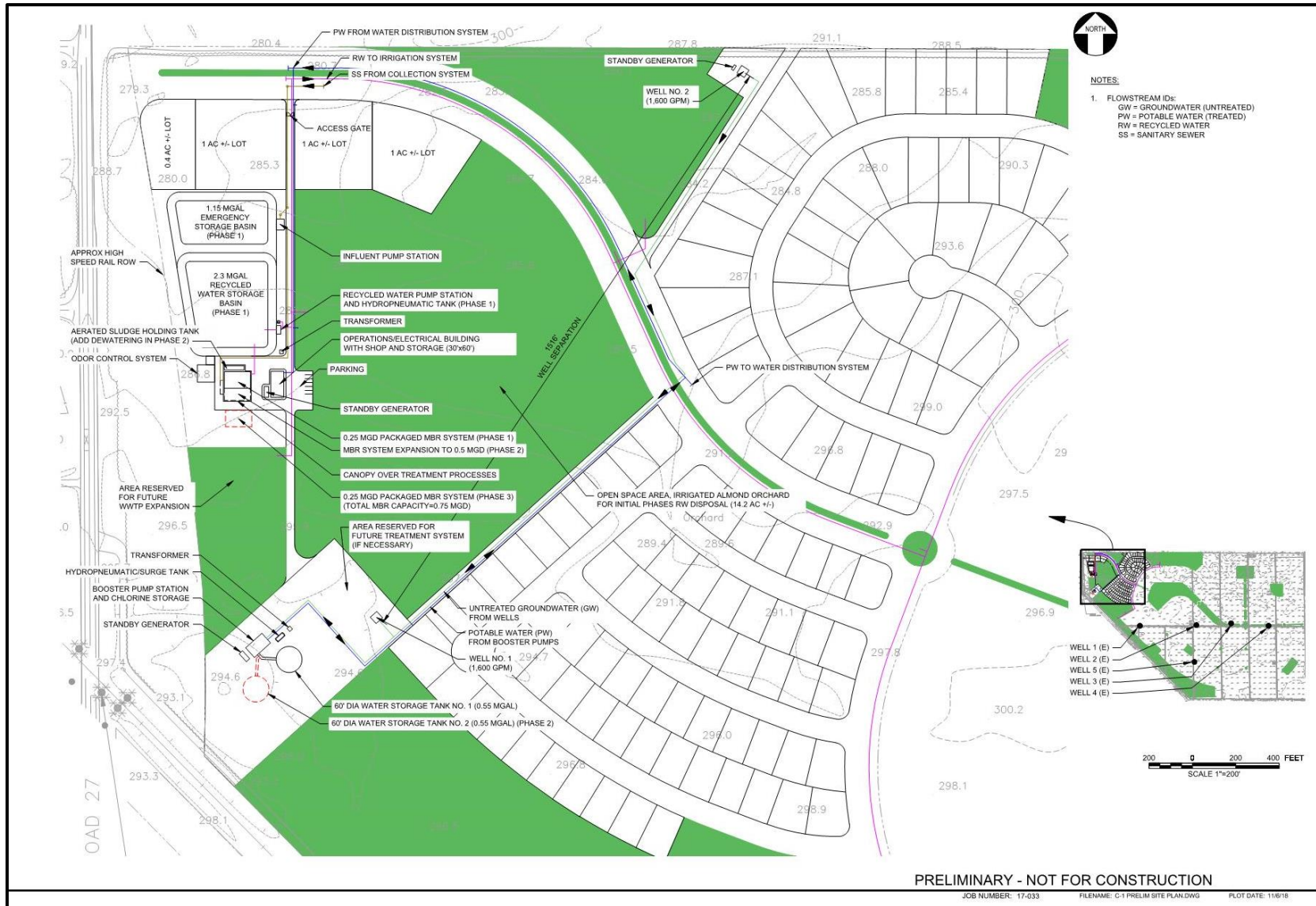


Figure 4-5: Preliminary WWTP Site Plan

4.4. Recycled Water System

The County General Plan's goals and policies require new development to install non-potable recycled water infrastructure for irrigation of landscaped areas where feasible and cost-effective.

Irrigation currently accounts for 97% of the total water use in Madera County. In accord with water conservation needs, on-site treatment of wastewater for re-use will be a critical component to the Specific Plan Area's infrastructure system. A recycled water system for the Castellina development will help meet the County's Large Scale Development Groundwater Balance ordinance as well as this Project's water conservation goals. This topic is discussed in more detail in the Project WSA, the IMP, and in [Chapter 5: Water Resource Management](#).

Recycled water demand is estimated at 266 gallons per minute (gpm) at build-out, excluding any on-site agricultural uses as phases are built out. A preliminary analysis has been completed for the recycled water system that will serve the Specific Plan Area, including the following:

- On-site recycled water production;
- Recycled water demand projections for the development area; and
- Recycled water infrastructure that delivers the projected flows to the proposed recycled water users.

The results and conclusions of the recycled water modeling are based on a backbone system serving recycled water to all public parks and irrigated common areas throughout the Specific Plan Area. It is understood that additional in-tract recycled water piping may be required within each of the development areas to serve the individual users. Appendix E of the IMP includes the Technical Memorandum further describing the recycled water system. [Figure 4-6: Proposed Recycled Water System](#), illustrates a conceptual layout for the Project pipe network.



California's Title 22 establishes requirements for treatment levels and their corresponding reuse types. Wastewater effluent will be treated to a tertiary level, allowing for unrestricted reuse in irrigation applications. The treated water will be disinfected and used throughout the development to irrigate the various landscaped common areas, including parks, natural open space areas, and landscaped roadway medians, as well as potentially some on- and off-site existing agricultural uses.

4.4.1. Recycled Water System Components

Based on the current land use plan for the development and the IMP, the recycled water system required to provide service to the area includes:

- A 2.3 MG recycled water storage basin;
- A recycled water pump station with two 200 gpm pumps;
- A future upgraded recycled water pump station with two 800 gpm pumps; and
- 8-inch recycled water mainline and 8-inch water main from the pump station.

4.4.2. Distribution

From the storage basin, the recycled water will be delivered throughout the development via a new recycled water pump station. The recycled water pump station is to be constructed adjacent to the storage basin. A hydraulic model

was developed and analyzed to determine the size of the on-site distribution system piping. [Figure 4-6: Conceptual Recycled Water System](#), illustrates the overall Project distribution plan.

4.4.3. Recycled Water System Phasing

In accord with the WSA, recycled water is planned to initially be used for construction water and non-residential outdoor irrigation. Additionally, it is anticipated that portions of the existing almond and fig orchards will be irrigated year-round within the Specific Plan Area to dispose of excess recycled water. To accomplish this, the IMP's recycled water distribution system will be tied into the existing almond and fig irrigation systems as necessary to balance irrigation needs with excess recycled water disposal requirements. As existing crops are removed to make way for homes, commercial facilities, the school, and other community uses, excess recycled water is anticipated to be conveyed off-site for agricultural irrigation of nearby farmlands. Space is reserved at the WWTP site for construction of a larger recycled water reservoir for long-term storage in the event that year-round irrigation is not feasible and recycled water must be held for extended periods. [Figure 4-7: Phase 1 Conceptual Recycled Water System](#), shows the preliminary layout for these facilities within Phase 1.

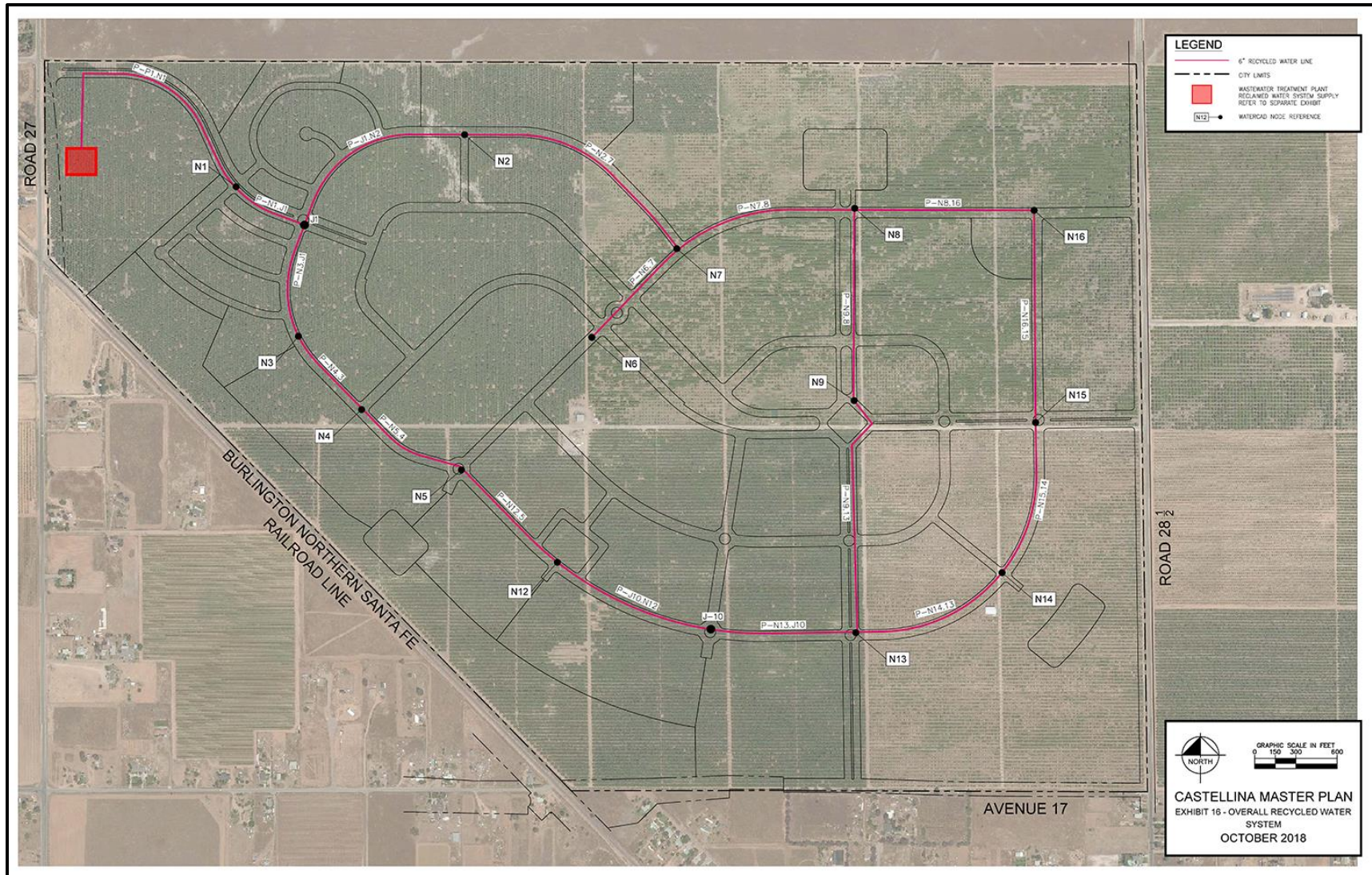


Figure 4-6: Conceptual Recycled Water System

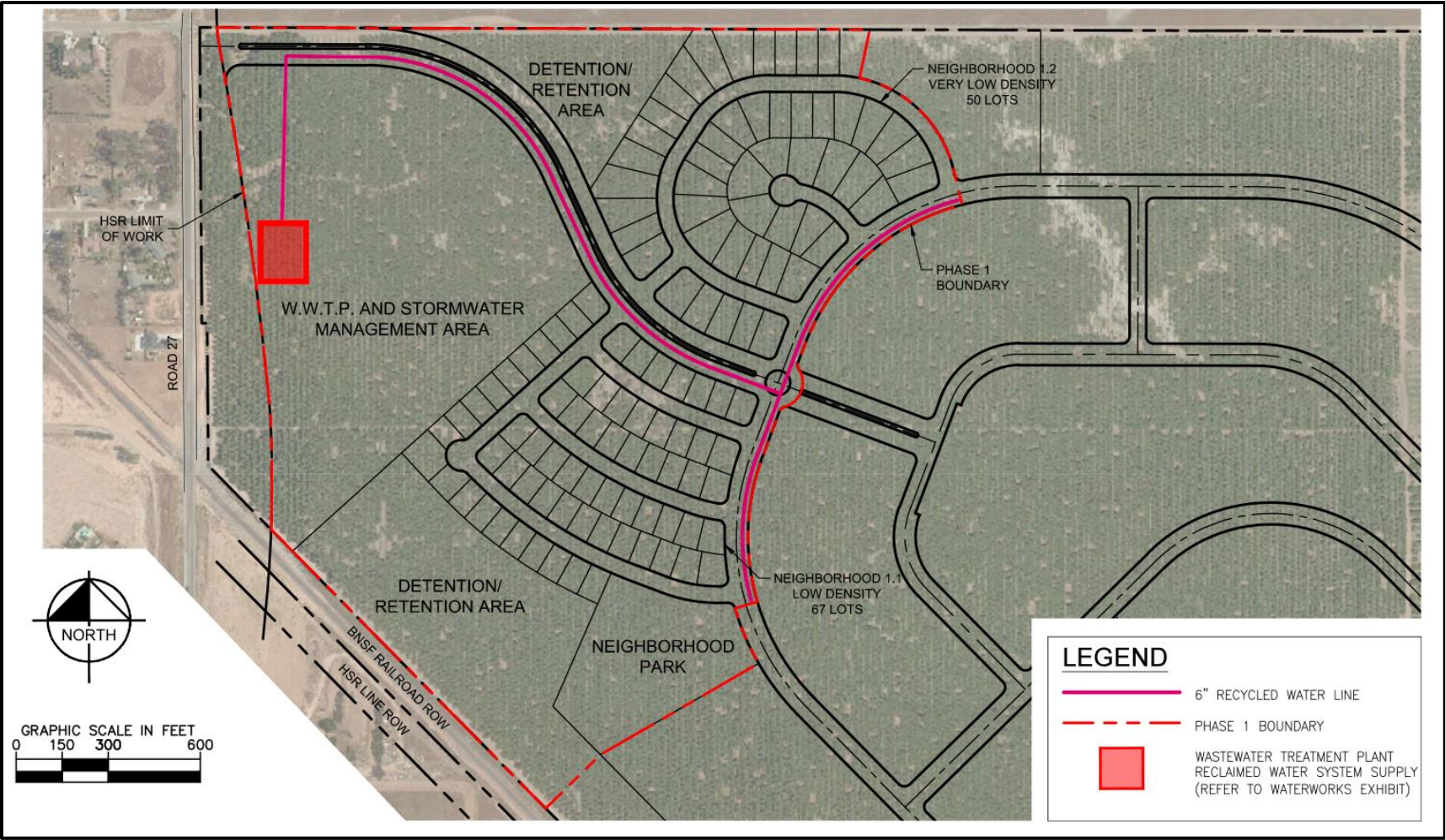


Figure 4-7: Phase 1 Conceptual Recycled Water System

4.5. Grading, Drainage & Stormwater Quality

The Specific Plan Area is gently sloped, ranging in elevation from approximately 315 feet at high points in the eastern edge to its lowest point of approximately 280 feet in the northwest corner, with other low points adjacent to the existing railroad tracks. See [Figure 4-8: Existing Topography](#).

4.5.1. Site Grading Concept

The Specific Plan Area will be graded generally following the existing topography. Preliminary mass grading and drainage plans have been created as a part of the Project's IMP grading and drainage component and as a part of the Phase 1 Tentative Map submittal. Mass grading and grading for each Project phase will be designed and implemented to balance cut and fill material, such that no phase will require import or export of material to or from the Project site. Generally, the overall site will be graded to drain from high points along the eastern edge westward, toward the open area along the BNSF railroad tracks, and then from south to north, toward the site's low area in the northwest corner. All grading will comply with the Madera County Municipal Code. All temporary borrow/stockpile areas will be treated with the appropriate stormwater control measures and visually screened, as appropriate. See [Figure 4-9: Conceptual Grading Plan](#).

With the submittal of each Tentative Map for each Project phase, more detailed grading and drainage plans will be submitted for review and approval by the County.

4.5.2. Phase 1 Grading and Drainage Plans

Please see the Tentative Map for the grading component of Phase 1 of Castellina for more detailed grading and drainage information.

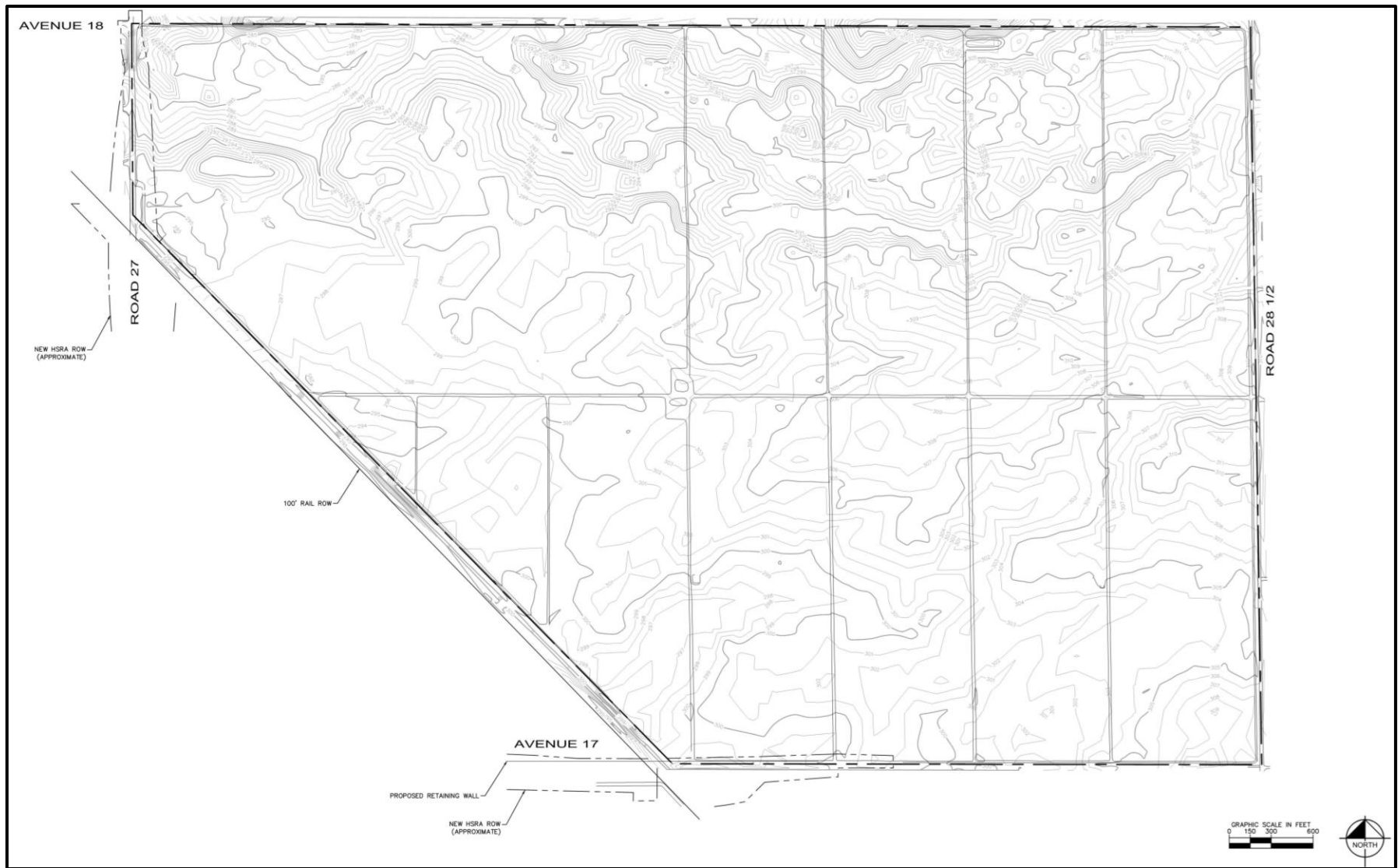


Figure 4-8: Existing Topography

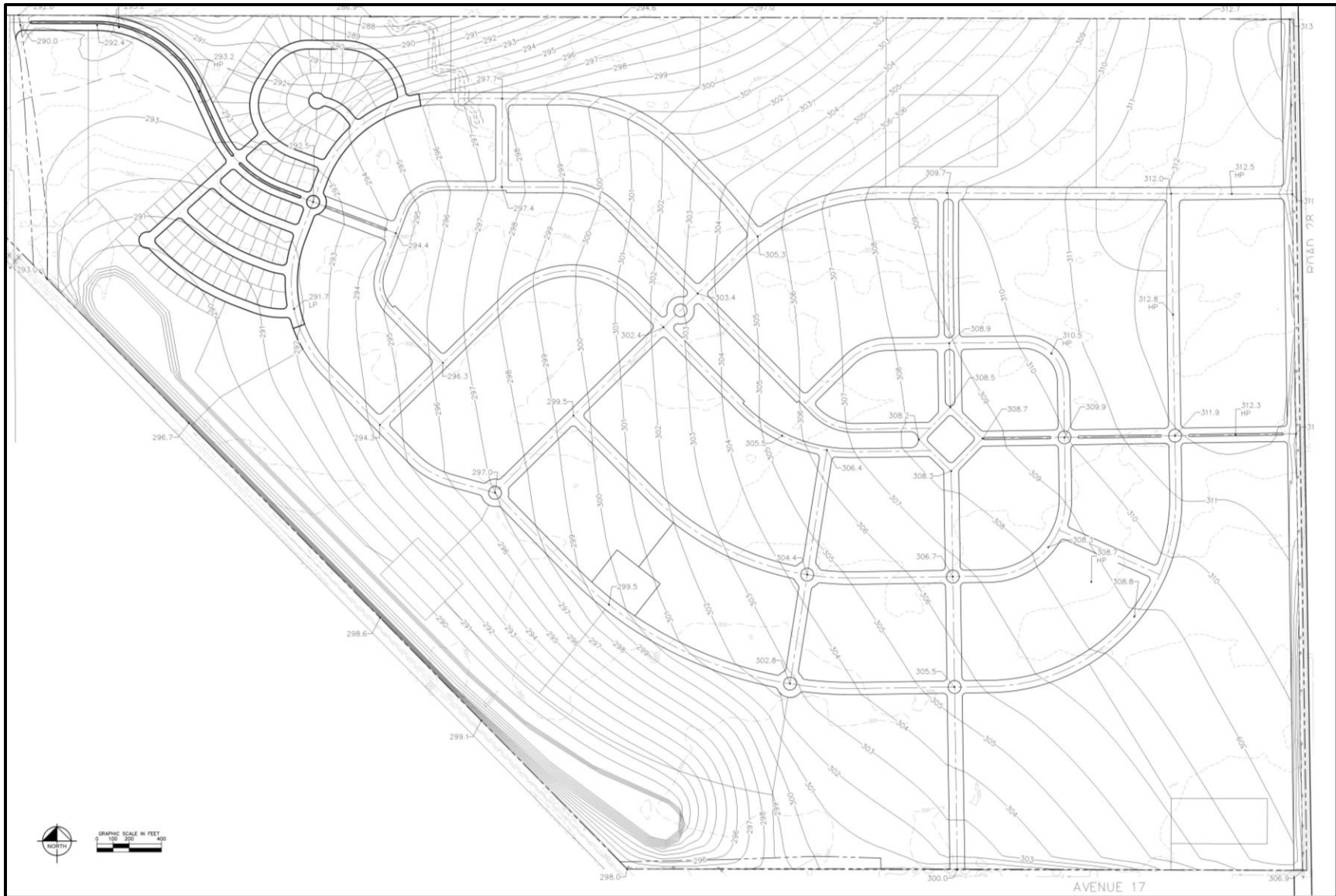


Figure 4-9: Conceptual Grading Plan

4.5.3. Existing Drainage Conditions

Castellina lies within three drainage areas, the Schmidt Creek Tributary watershed, and two localized watersheds.

During high water storm events, the Schmidt Creek Tributary drains through the northwest corner of the Specific Plan Area and borders the railroad tracks to the west, a portion of which is within a mapped Flood Emergency Management Agency (FEMA) Zone A.

Two smaller localized watersheds drain the northern and southern halves of the Specific Plan Area. The northern watershed drains to the northwest while the southern watershed drains to the south and southwest, ultimately draining towards the northwestern corner of the Specific Plan Area. A map of existing drainage patterns is provided in [Figure 4-10: Existing Drainage Patterns](#).

4.5.4. CLOMR and 100-Year Floodplain

A Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a project that would affect the hydrologic or hydraulic characteristics of a flooding source and result in modification of the floodway. Following FEMA publication

guidelines for determining base flood elevations in Special Flood Hazard Areas, hydraulic modeling studies were conducted to estimate the Base Flood Elevations (BFEs) on the Project site. The modeling to determine the BFEs was conducted using the HEC-2 hydraulic modeling system, a software program that is used for computing water surface elevations for rivers, streams, and other open channel networks. The HEC-2 model was obtained from FEMA and converted to a current elevation datum. Using the duplicated FEMA model, the BFEs in the Zone A area were determined. Based on this, building and equipment elevations will be set in accordance with the Madera County Flood Damage Prevention Ordinance. See [Figure 4-11: Castellina FEMA Map with BFE Determination](#).

Based on the BFE mapping results, the County has confirmed that a CLOMR will not be required.

Any roads crossing the floodplain must be constructed such that they do not cause more than a 1-foot rise in the existing flood zone.

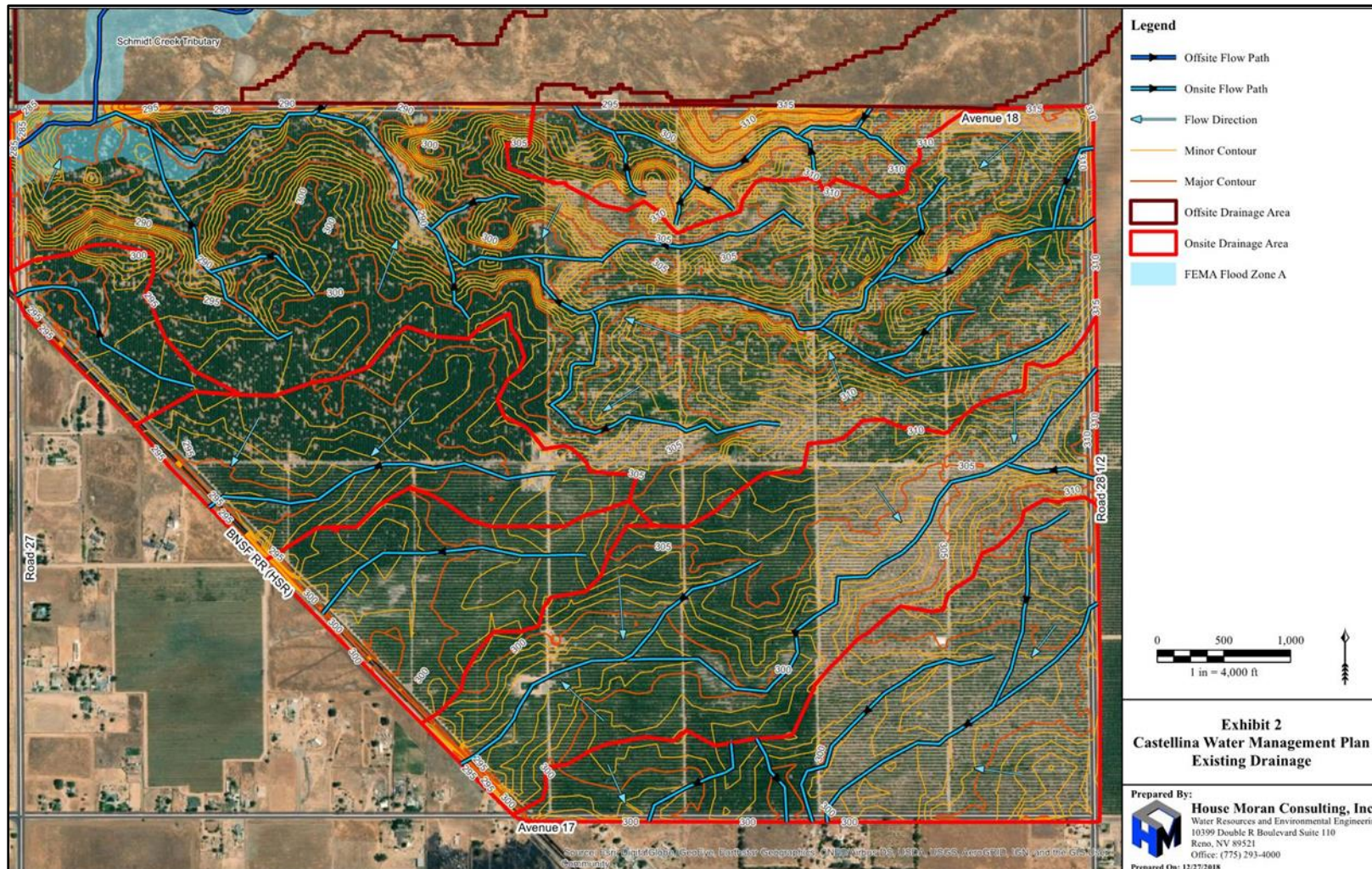


Figure 4-10: Existing Drainage Patterns

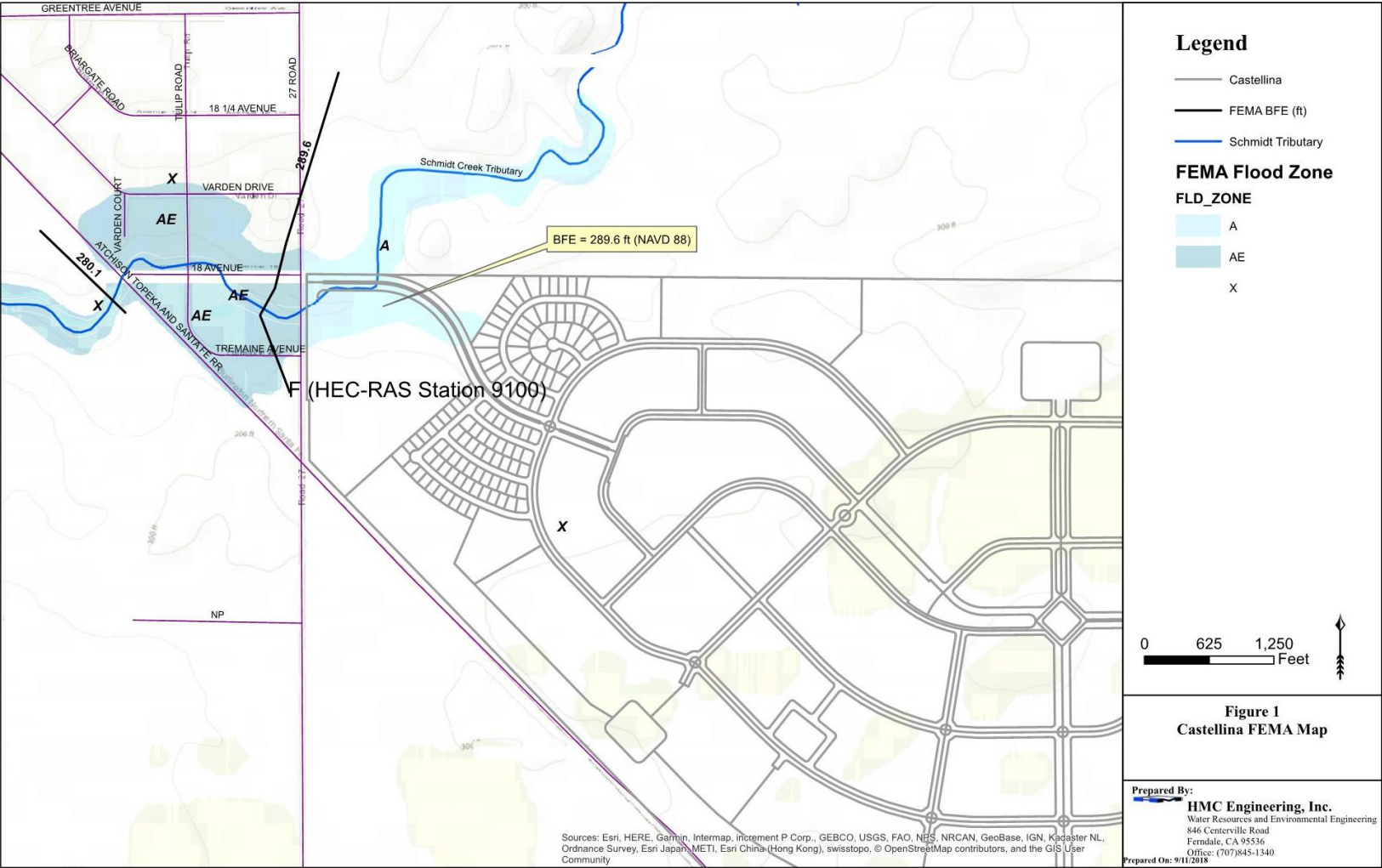


Figure 4-11: Castellina FEMA Map with BFE Determination

4.5.5. Site Drainage Concept

Concurrent with phasing of the Specific Plan development, the Project developer will be responsible for constructing the stormwater drainage system. In keeping with County water management goals, the Project will incorporate site design measures with the objective of capturing, conserving, and infiltrating stormwater runoff on-site to the maximum extent practical. This Specific Plan requires the construction of an integrated drainage and stormwater collection system to minimize peak flows and volumes to allow for infiltration to meet the County's net zero groundwater objective.

The Castellina Water Management Plan (CWMP) for the Project, submitted to the County in October 2018, is a stand-alone document to describe the master drainage concept for Castellina. In general, the purpose of the CWMP is to develop a planning level backbone stormwater master plan for the Castellina Specific Plan Area. The design objectives that have been identified for the Castellina drainage plan are the following:

- Size backbone infrastructure to pass the 25-year design storm event;
- Design a flow depth less than or equal to 0.5-feet, within the backbone street system, for the 100-year design storm;

- Size Managed Aquifer Recharge (MAR) areas to contain volumes equal to that of a 100-year runoff, and mitigate post-project peak flows to at or below pre-project peak flows;
- Design each MAR for two three-hour, single 100-year events that will drain within 72-hours; and
- Construct MARs, such that stormwater is captured and recharged into the aquifer to the extent feasible. See [Figure 4-12: Conceptual Stormwater Drainage System](#), for the overall drainage concept plan, taken from the CWMP.

The Castellina Parkway Entry roadway will cross the existing floodplain from Road 27. The road would be constructed such that it does not cause more than a 1-foot rise to the existing flood zone. This will be demonstrated on the grading plans submitted for the Project's Phase 1. Flows from Schmidt Creek Tributary will be routed along drainage channels, through a culvert under the Parkway Entry road, and into a culvert under Road 27 that is proposed as part of the High-Speed Rail overpass project.

4.5.6. Proposed Storm Drain System

Drainage collection and conveyance facilities will be designed to protect against storms of the following recurrence intervals:

- Residential development – 2 years

- Commercial and industrial development – 5 years
- Backbone System – 25 years
- Institutional development – 10 years

The drainage system will consist of a network of underground storm drain pipes and open storm drain channels as illustrated in **Figure 4-12: Conceptual Stormwater Drainage System**. The storm drain system within the Specific Plan Area will be graded to drain towards the large open space area along the railroad tracks and into infiltration retention basins created as part of the MAR program. The preliminary storm drain pipe sizing was determined during engineering studies as part of the IMP and Castellina Water Management Plan. Storm drainage will be directed through site Low Impact Development (LID) design elements, such as bioswales and bio-infiltration basins, as it enters into the drainage network. The grading and layout of the system has been designed adjacent to open space and park areas that may be used as dual-use parks or trails and infiltration-retention basins that would be used for groundwater recharge, stormwater treatment, and flood control. Sizing and specific locations of these

retention-detention areas will be based on subsequent water management engineering plans. These systems will be sufficient to contain a volume or storage equal to that produced by the 100-year runoff for two three-hour, 100-year rainfall storms and will meet the County's net groundwater balance objectives.

The Project may also consider use of deep dry-wells located within the stormwater basins or elsewhere within the Project, to facilitate recharge of stormwater.

4.5.7. Storm Drain System Phasing

As phases are developed, the storm drain collection system will be constructed to its master plan configuration, with all required inlets and ultimate pipe sizes. Interim construction of temporary retention or detention basins will be allowed, as needed. These temporary basins will be designed to provide the same level of protection as the permanent facilities, with sufficient capacity to serve the area being developed.

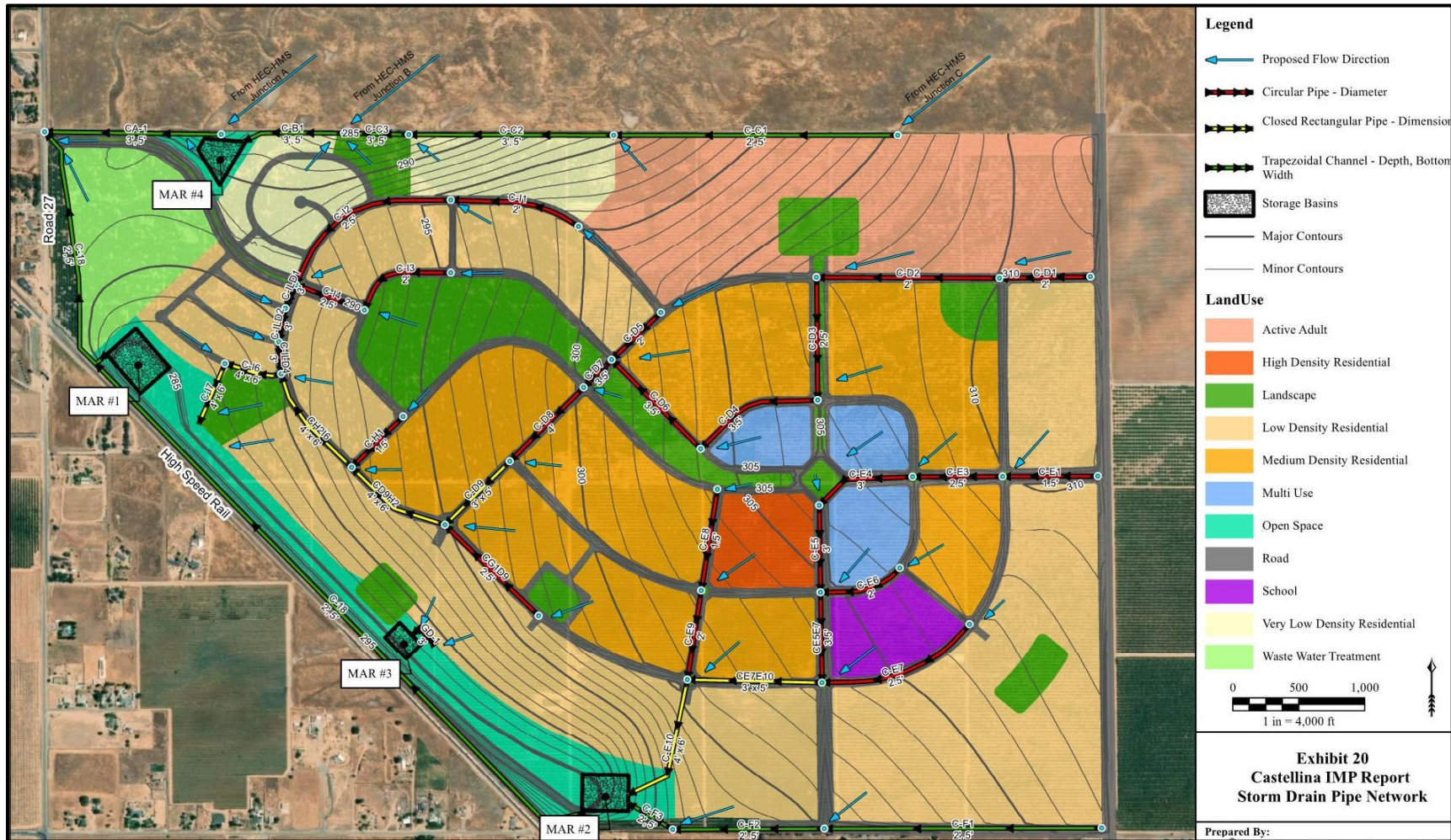


Figure 4-12: Conceptual Stormwater Drainage System

4.5.8. Stormwater Quality & Management

The Project will be designed in accordance with both the National Pollutant Discharge Elimination System (NPDES) Phase II General Permit requirements and the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, both issued by the State Water Resources Control Board (SWRCB). The SWRCB's goal is to minimize the negative impacts of urban stormwater runoff on natural open space areas.

A Project-wide water management plan (WMP) and stormwater pollution prevention plan (SWPPP) has been prepared and submitted to the County to provide the framework for stormwater treatment during the construction and post-construction phases. Each Project phase will have specific stormwater quality features integrated for the construction and post-construction conditions; ensuring water quality is maintained to agency standards throughout construction.

The SWPPP will include site design features to limit rainfall runoff, efficiently collect and retain or detain runoff, and provide water quality treatment.

As each phase of development within the Specific Plan Area is developed, a more comprehensive analysis will be completed that designates the number, location, and size of the stormwater/MAR basins on an individual basis.

In addition to meeting the criteria contained within the SWRCB Construction General Permit, the Specific Plan Area will meet the more stringent standards related to water-quality treatment control measures outlined in the California Stormwater Quality Association Stormwater Best Management Practice Handbook.

By applying this more stringent standard, the Project applicant is committed to providing more mitigation for water quality impacts than would otherwise be required by Madera County.

Water quality measures will also include the use of Best Management Practices (BMPs) and Low Impact Development (LID) measures to improve the quality and rate of stormwater runoff. The use of BMPs during construction will incorporate erosion and sediment controls. Post-construction BMPs will reduce pollutants from urban stormwater runoff and prevent the contamination of receiving waters.

LID is an approach to post-construction stormwater management that emphasizes the use of small-scale, natural, point-source drainage features integrated throughout a project area for the purpose of slowing, cleaning, and infiltrating urban runoff to improve the quality and reduce the quantity entering the storm drain system. The final selection and sizing of BMPs and LIDs during the construction and post-construction phases will consider requirements specific to the type of development, proposed

flows, and required runoff reductions needed. Some examples of LID measures include, but are not limited to:

- Disconnected and separated pavement
- Bio-retention facilities, rain gardens, and bioswales
- Tree planting
- Grass swales
- Curb cuts and vegetated filter strips
- Permeable pavements and porous pavements
- Soil amendments
- Pollution prevention and good housekeeping practices



Chapter 5: *Water Resource Management*, and the WSA propose an aggressive water management plan to balance the use of water for the Project with existing water resources, through which County objectives for groundwater use and conservation will be achieved.





4.6. Dry Utilities

Following are the main utility providers for the Project:

4.6.1. Electricity

Electrical service for the Specific Plan Area will be provided by Pacific Gas and Electric Company (PG&E). PG&E has issued a will-serve letter for the Project, and electrical connections will be addressed with each construction phase of the Project.

4.6.2. Natural Gas

PG&E will also provide natural gas service to the Project and has its nearest tie-in gas line facilities at North Lake Street and East Cleveland Avenue, in the City of Madera, a little over 2 miles south of the Castellina site.

4.6.3. Telecommunications

Telecommunications services will be provided by Verizon or other service provider(s) at the time of construction.

These utilities will be expanded to the rest of the site commensurate with each phase.

4.7. Public Services

4.7.1. Fire Protection

The Madera County Fire Department (MCFD) contracts with the California Department of Forestry and Fire Protection (CAL FIRE) to provide fire protection and emergency medical

services. The nearest station to the Specific Plan Area is Madera Acres Station #3, located at Road 26 and Avenue 18, less than a mile northwest of the Specific Plan Area.

At such time in development phasing that it may be required, land for a potential new satellite fire station will be provided within the Castellina Project site. The preliminary location is identified within the Town Center Area. The final specific location will be determined in coordination with the County Fire Department.

The MCFD will review each Tentative Map in relation to fire protection facilities. The MCFD's recommendations will address the location and spacing of fire hydrants; minimum fire flows; water system design; emergency access roads and entry systems; location of fire and fuel breaks and easements; dedication of land for fire station sites; and special provisions for land divisions in hazardous fire areas.

Implementation of this Specific Plan shall comply with the following:

- All roadways will be all-weather surfaces. Cul-de-sacs and turnouts will be designed to MCFD standards. There will be ongoing to maintain the roads to enable access for all fire vehicles to and within the project site.
- All building numbers and street signs will be lighted to County standards so that emergency vehicles, including police and ambulances, can locate addresses in the event of an emergency.

- All fire hydrants will be installed in accordance with MCFD requirements.
- Prior to approval of the Tentative Maps, the applicant will submit plans subject to the review and approval by the MCFD that illustrate the roadways and site access, and the placement of fire hydrants throughout the Specific Plan Area. Access will be constructed as part of initial grading, and fire hydrants will be installed prior to occupancy for each Project phase.
- The water system will be designed to maintain a minimum fire flow of 2,500 GPM for two hours (or greater) at 20 PSI.
- The Project applicant will prepare a fire/vegetation management plan, if required, for approval by the MCFD.

4.7.2. Police Protection

Police protection to the Specific Plan Area is provided by the Madera County Sheriff's Department (MCSD). The headquarters station is located at 2725 Falcon Drive in the City of Madera, about four miles west of the Specific Plan Area.

As part of the development review process, the Project applicant will work cooperatively with the MCSD to provide law enforcement services to the Specific Plan Area and to ensure adequate public safety. This may include design features such as street design, points of access, landscaping, fencing and park design for adequate surveillance, park and

residential design that promotes "eyes on the street," and lighting in key locations.

4.7.3. Schools

The applicant will work with the Madera Unified School District (MUSD) to determine the most appropriate way to meet the educational needs of the Specific Plan Area. As shown in [Figure 2-5: Land Use Designations and Zoning Districts](#), land for a 15-acre elementary school site is identified, surrounded by both low- and medium-density residential neighborhoods. This school site will be located within an entire block, providing convenient circulation access.

The elementary school will be designed and built by MUSD. The *Madera Unified School District and Castellina Development Agreement* will establish school facilities fees.

4.7.4. Solid Waste Management

Disposal of solid waste generated by the Project will be contracted with the local provider, under contract with the County. To assist in reducing waste, construction contractors shall provide recycling bins for glass, metals, paper, wood, plastic, green wastes, and cardboard during construction.

5

WATER RESOURCE MANAGEMENT

This chapter discusses the overview of the Project's water conservation program to balance the use of water for the Castellina Project with existing water resources.

5.1. Introduction

This chapter summarizes how the Project's water resources will be conserved and managed so as to mitigate impact to the local groundwater resources. Groundwater is proposed as the water supply source for the Project's potable water demands and for most residential outdoor demands. Outdoor water demands for parks, open space, and roadway landscaping and other public spaces will be met using recycled water.

5.1.1. Groundwater Sustainability Plan

Madera County is the Groundwater Sustainability Agency (GSA) for the portion of the County that includes the Project. In accord with California's Sustainable Groundwater Management Act, a Groundwater Sustainability Plan must be prepared and adopted prior to January 31, 2020 identifying how the GSA will sustainably manage groundwater by 2040.

In August 2017, the County adopted an ordinance directed at aiding with long-term groundwater sustainability in the Madera Subbasin. The County's ordinance added a chapter to the County Code, entitled Large Scale Development Groundwater Balance. The County's strategy is to assure that new developments do not impact existing or planned future uses and directs urban development projects of a certain size to demonstrate a groundwater balance as defined in the ordinance. This ordinance directs a large development, such as the Project, to "...quantify, tabulate and calculate a Groundwater Balance..." (Madera County Code 13.110.050) and, "[p]rior to the issuance of entitlements for a Large Scale

Development, the applicant for such entitlements shall demonstrate to the satisfaction of the County a Groundwater Balance for the development..." (Madera County Code 13.110.060).

The Project will implement a Managed Aquifer Recharge (MAR) program, a Recycled Water Management program, and other water conservation measures to meet the County's water supply sustainability requirements in accordance with Chapter 3.110 of the County Code and the anticipated Groundwater Sustainability Plan for the Madera County Groundwater Sustainability Agency.

The Project MAR program is designed to recharge the groundwater aquifer system for beneficial uses to help sustain or improve groundwater levels. The Recycled Water Management program will help conserve groundwater, reduce irrigation costs, and provide on-site irrigation water for public landscape areas.

5.1.2. Water Supply Assessment (WSA)

The County's groundwater balance methodology states that a project is determined to meet the balance requirements if the following equation is satisfied:

$$\text{Project Demand} - \text{Recharge Credits} < \text{Sustainable Yield}$$

The Water Supply Assessment for this Project demonstrates that the Project's water use and management plan satisfies the County's ordinance requirement that the Project's projected groundwater balance value will not exceed the

Sustainable Yield value established by the County. As of the drafting of this Specific Plan, the County has yet to adopt the GSP with a defined Sustainable Yield. However, the Project WSA is using the County's stated likely value for purposes of groundwater balance calculations. The County is expected to establish the official Sustainable Yield value in mid-2021.

The groundwater balance for the Project is primarily achieved by augmenting groundwater resources through effective capture and managed recharge of stormwater, using recycled water to meet public landscaping needs, minimizing new demands through water conservation measures, and providing recycled water to off-site agricultural users to alleviate their dependence on groundwater.

5.2. Groundwater Supply Characteristics

5.2.1. Existing Groundwater Sub-basin

The Specific Plan Area is within the San Joaquin Valley Groundwater Basin. This area of the Central Valley is largely agricultural, with a significant groundwater sub-basin that has been used historically for irrigation and, to a much lesser degree, for municipal demands in the City of Madera,

surrounding communities, and for individual domestic uses scattered throughout the Valley.

As shown in [Figure 5-1: Groundwater Sub-basin Map](#), the Project is within the Madera sub-basin (Basin No. 5-22.06), as defined by the California Department of Water Resources (DWR). The sub-basin covers an area of 614 square miles and is located entirely within Madera County. The extent of this sub-basin and its connection with adjacent sub-basins has been assessed by the DWR.

5.2.2 Groundwater Elevations

DWR-generated groundwater elevation contours of the Project site and the surrounding area, shown in [Figure 5-2: Groundwater Elevations and Well Sites](#), indicate that groundwater elevations range from 20 feet above mean sea level (msl), in the southeastern portion of the proposed Project, to near mean sea level in the northwestern portion of the Project.

The 2015 groundwater measurements by DWR were reported to be approximately 287 to 292 feet below ground surface. The elevation contours suggest that groundwater in the Specific Plan Area flows towards the northwest, away from the Fresno River.

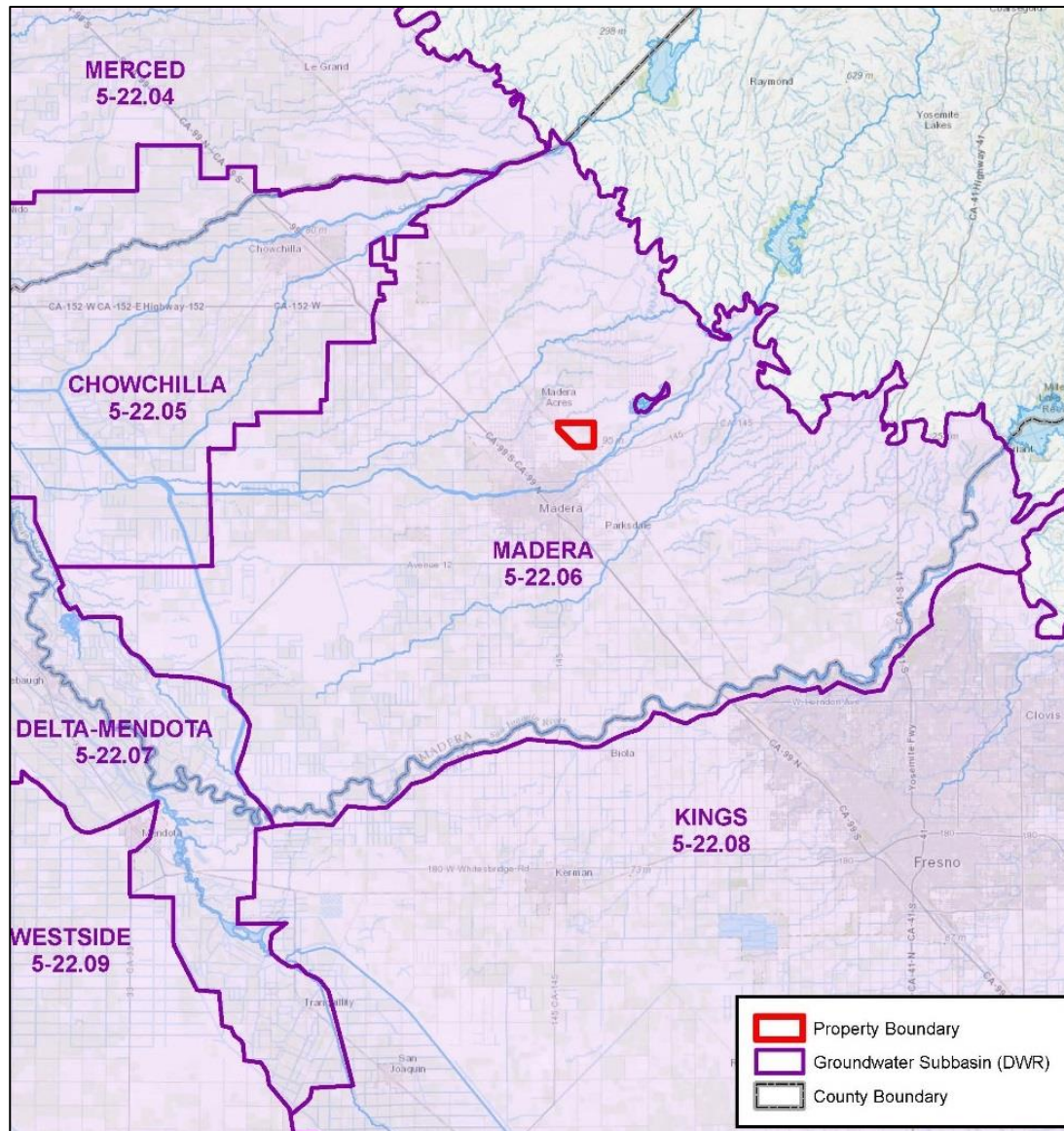


Figure 5-1: Groundwater Sub-basin Map

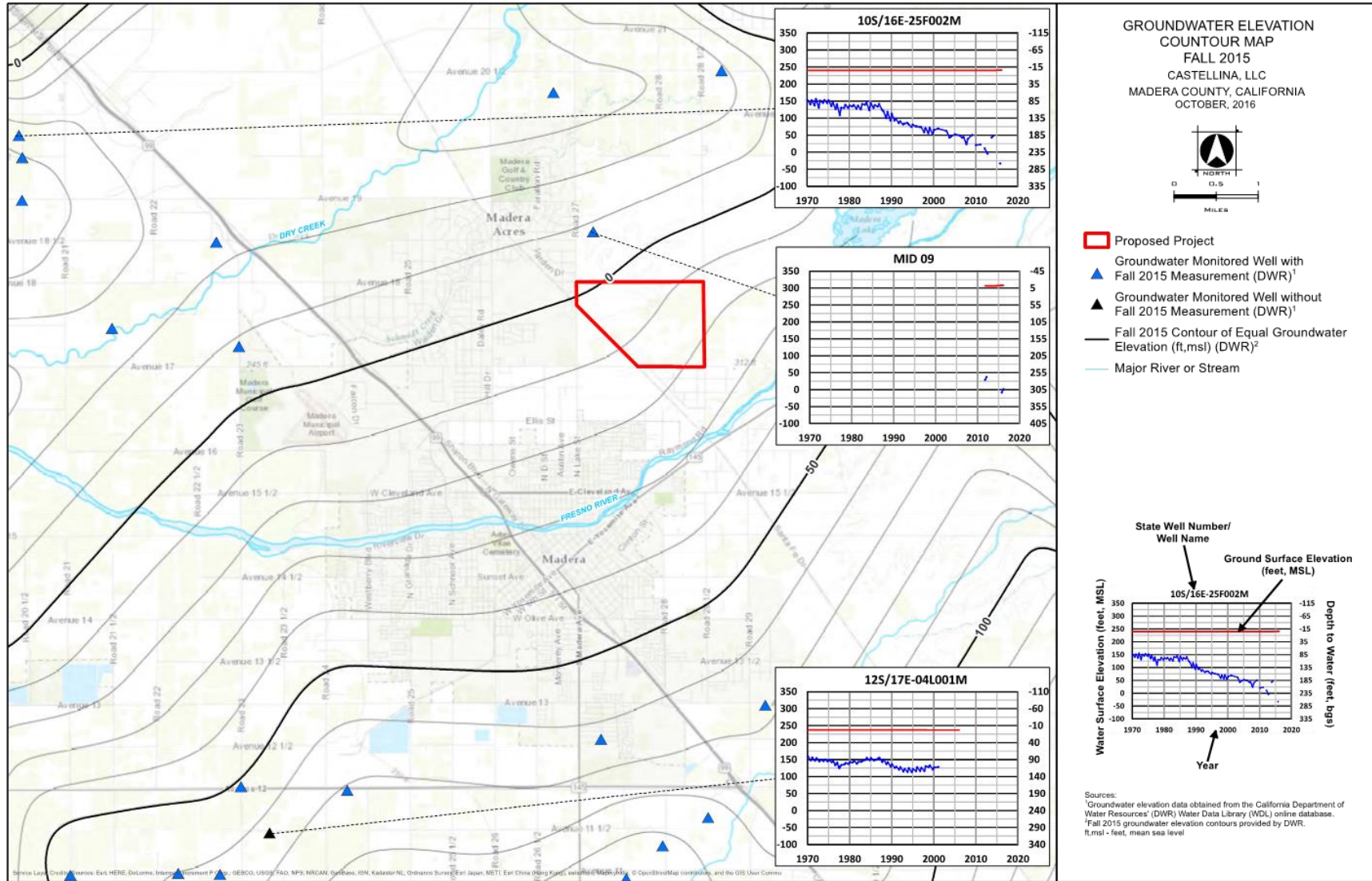


Figure 5-2: Groundwater Elevations and Well Sites

5.3. Geology and Soils Characteristics

The shallow surface soils of the Project site consist of silty sand and clayey sand, underlain by layers of various other types of silty and clayey sand. Layers of hardpan exist at depths ranging from 1.5 to 7 feet below the Project site surface, some of which are cemented.

Hardpan is largely responsible for low infiltration rates and poor aquifer recharge in much of eastern Madera County. However, the Specific Plan Area has the advantage of historic deep soil ripping to improve root zone drainage for the existing orchard, which helps increase the direct infiltration of precipitation and excess applied irrigation water. For groundwater recharge to operate effectively, there needs to be sufficient unsaturated material in the underlying sediments to accommodate the additional water. Managed Aquifer Recharge facilities are to be located and designed strategically to penetrate the hardpan layer to facilitate planned recharge of the groundwater basin.

5.4. Water Demand

The proposed Project's water demand will be met by groundwater and recycled water, with the recycled water generated from the treated wastewater flow produced from the Project's indoor residential and non-residential uses – originally served by the groundwater. Thus, the Project will recycle originally extracted groundwater to assure efficient use of this strained local resource.

It is important to recognize that the lands proposed for the Castellina development have been actively under irrigation of an orchard, using groundwater, for over 40 years. Currently, there are five wells located within the Specific Plan Area that draw groundwater from the sub-basin. Based on data provided by the property owners and industry-accepted water use estimates, the existing agricultural operations consumptively use approximately 1,800 acre-feet per year (AFY), or 586 million gallons per year, of groundwater. Converting the current use to residential and commercial purposes, combined with implementation of the Project's water management program, will substantially reduce the property's current consumptive use of groundwater.

Upon completion of the Project buildout, the potable demands are conservatively estimated at about 1000 acre-feet of water annually, excluding considerations of non-revenue water (distribution system leaks, water from potentially un-metered uses such as fire protection, hydrant flushing, and unauthorized connections, or inaccuracies in meter readings). When non-revenue water is included, potable demands are estimated to be about 1,100 acre-feet annually. Demands met with non-potable supplies (recycled water), such as irrigation of public open spaces and streetscapes, are estimated to be 130 acre-feet annually, with approximately 14 acre-feet of additional non-revenue water. Combined, the Project's overall estimated water demand is about 1,250 acre-feet annually.

5.5. Water Management Program

The Project will implement a water management program which augments groundwater resources through effective capture and managed recharge of stormwater, uses recycled water to meet public landscaping needs, and minimizes new demands through water conservation measures.

5.5.1. Managed Aquifer Recharge

The MAR program is intended to recharge the groundwater basin to achieve, at minimum, a net sustainable groundwater use. MAR facilities are designed to intentionally introduce water into the groundwater aquifer system, as shown in *Figure 5-3: Managed Aquifer Recharge Illustration*. The Project WSA details how the MAR program helps meet desired sustainability objectives.

This managed process allows for the controlled release of water into the groundwater system. Different from detention basins, which provide temporary storage of stormwater, infiltration retention basins are designed to promote water percolation into the subsurface for groundwater recharge. The infiltration retention basins will be designed to penetrate the hardpan layer and may be combined with dry wells. The

infiltration structures will be designed in size and number as appropriate to accommodate flood protection, but also as necessary to meet MAR operational requirements.

Key sources of water for the Project's MAR program include:

- on-site drainage;
- off-site diffused stormwater; and
- flood protection water.

In addition to the Project MAR, irrigation water and precipitation will naturally infiltrate into the subsurface, providing a cumulative groundwater recharge effect.

The stormwater management focus is on collecting on-site diffused stormwater from Local Water Sheds A and B, illustrated in *Figure 5-4: Primary Watersheds*. Additionally, off-site diffused stormwater that flows onto the Project site from these two watersheds will be captured and recharged into the groundwater system via drainage and conveyance facilities and be directed to infiltration retention basins, dry wells, bio-filtration areas, or other facilities for groundwater recharge.

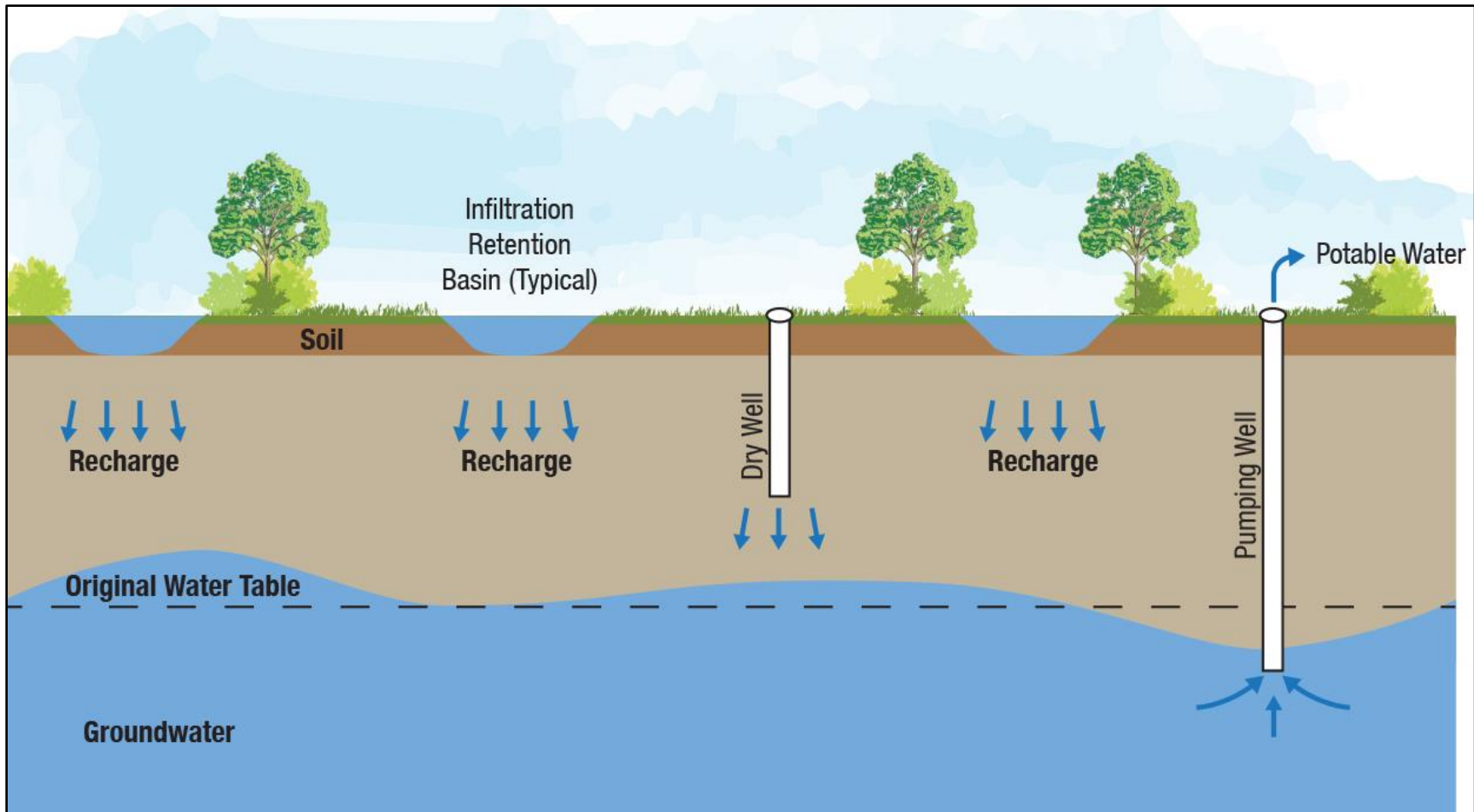


Figure 5-3: Managed Aquifer Recharge Illustration

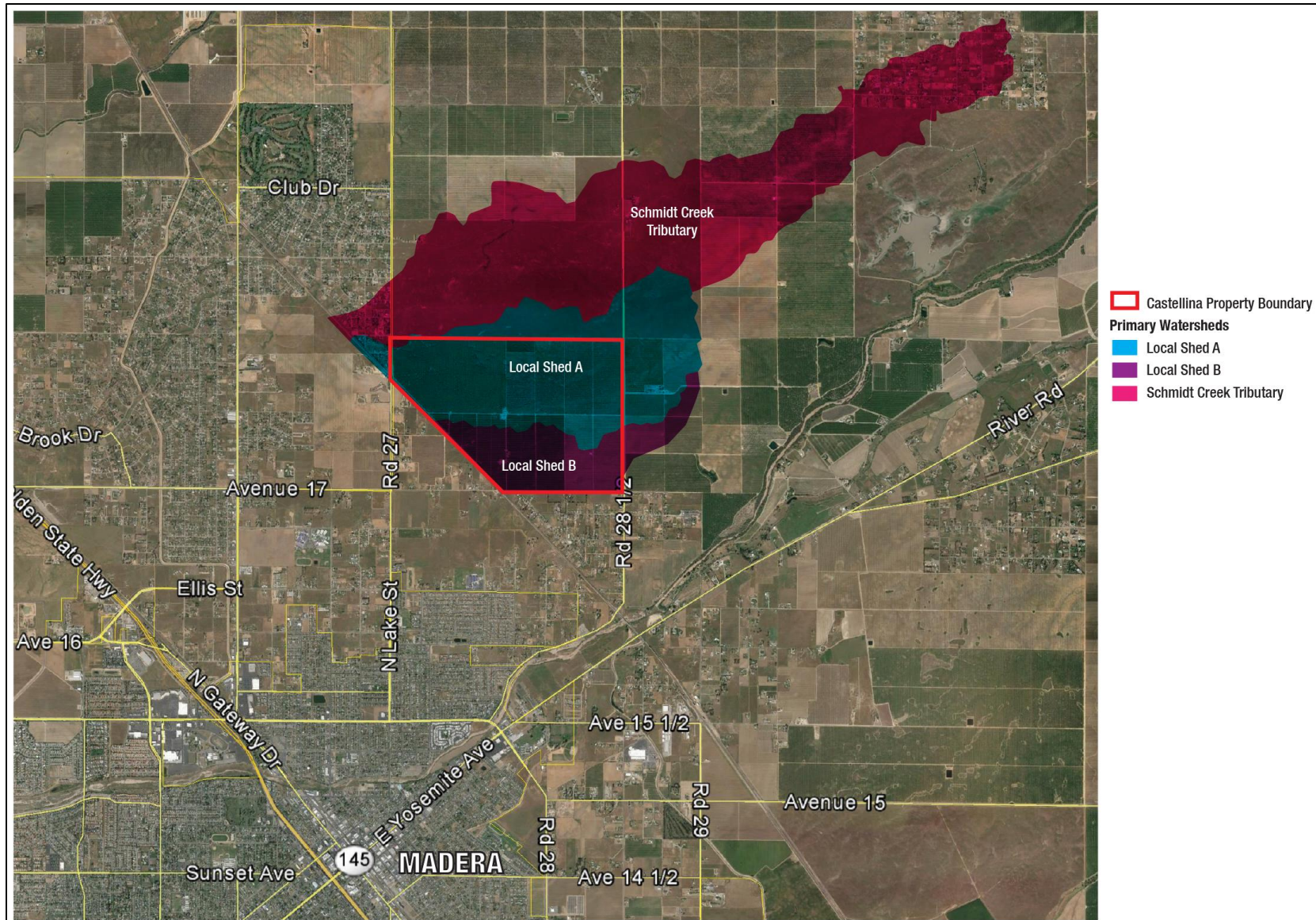


Figure 5-4: Primary Watersheds

5.5.2. Recycled Water Management

Wastewater from indoor residential and non-residential uses will be directed to an on-site wastewater treatment plant (WWTP) for treatment and reuse. Wastewater effluent from the WWTP will be treated to a tertiary level and used as non-potable recycled water for public landscaped areas throughout the Project, including parks, retention areas and other informal open space areas, as well as landscaped public areas such as streetscapes and commercial landscaping. This recycled water will be stored in unlined wet-weather ponds and pumped into a non-potable irrigation distribution system to serve the non-residential landscape.

There will also be excess recycled water available beyond the Project's on-site non-residential water needs. This excess recycled water may be directed to off-site agricultural uses to be used in-lieu of existing groundwater use.

The Project intends to maximize the beneficial use of recycled water in order to minimize use of potable groundwater for irrigation wherever technically and economically practical. This approach will help conserve groundwater, reduce irrigation costs, and provide on-site irrigation water.

5.5.3. Water Conservation Measures

As part of the water conservation program and in response to the region's potential future dry climate conditions and declining groundwater levels, the Project will employ a number of water conservation measures to achieve the highest level of conservation. These measures include:

- Implementation of low impact development (LID) measures to micro-manage storm runoff and recharge the groundwater table, such as retention, bio-swales, rain gardens, point source capture, permeable paving, and other similar devices;
- Incorporating the design and use of low water, drought-tolerant plant materials that conform to DWR Water Use Classification of Landscape Species (WUCOLS). This includes the predominant use of plant species that WUCOLS classifies as low or very low in water demand. This is covered in [Appendix C—Landscape Guidelines](#);
- Requirement for water-conserving irrigation systems and equipment including: emitters, moisture sensors, hydro-zoning of irrigation system for water conservation, and irrigation targeted to water needs;
- Recycling of wastewater;
- Standards for irrigation methods and water budgets that follow Maximum Applied Water Allowance (MAWA), in accordance with the State's Model Water Efficient Landscape Ordinance (MWEL0);

- Use of recycled water for landscape irrigation in parks, parkways, and other open space areas;
- Use of low-flow fixtures for faucets and toilets;
- Limits on the use of turf that exceed compliance with MWELo, together with use of turf species and ground covers classified by WUCOLS as low or very low;
- Inclusion of site design standards and shade planting to avoid creation of heat islands that promote water evaporation and excess water usage;
- Limitations on use of aesthetic and recreational water features;
- Requirements for architectural and green building systems for water conservation.
- Recycled water will no longer be permanently lost to the wastewater disposal system, but is made available to replace otherwise potable groundwater use.
- Groundwater recharge will reduce local groundwater overdraft and will help reduce the potential for ground subsidence.

This water conservation program will result in the following benefits to the Madera groundwater sub-basin:

- Recycled water resources will be made locally available for irrigation direct to the Project for temporary existing on-site agriculture, and potentially to other properties in the area.
- Stormwater runoff will be redirected to MAR facilities to provide both groundwater recharge and local flood protection.
- Minimization of consumptive uses, such as MWELo compliant landscaping and other indoor conservation measures, will conserve water resources.

6

ADMINISTRATION, IMPLEMENTATION, & FINANCING

This chapter discusses the development review procedures by Madera County and other relevant permitting agencies applicable to the Specific Plan. A process for amendments to the Specific Plan is discussed, as well as analysis of the fiscal impacts of the Project on Madera County and other public services.

6.1. Administration and Entitlements

The California Government Code (Title 7, Division 1, Chapter 3, Article 8, Sections 65450 through 65457) grants authority to local jurisdictions to adopt specific plans for purposes of implementing the goals and policies of their general plans. As with general plans, the respective planning commission must hold a public hearing before they can recommend the adoption of a specific plan.

The Madera County's Planning Director shall be responsible for administrative interpretation of this Specific Plan and administrative enforcement of the Project in accordance with the provisions of this Specific Plan, the State of California Government Code, the Subdivision Map Act, and the Madera County General Plan and Code of Ordinances (County Code). The Planning Commission may review any administrative interpretation, subject to appeal to the Board of Supervisors.

This Specific Plan establishes a set of regulations, standards, guidelines, and processes for the proposed development, and shall constitute the zoning for development within the Specific Plan Area. To the extent any standard or other provision in this Specific plan conflicts with the County Code, including the Zoning Ordinance, the standard or other provision set forth in this Specific Plan and the Development Agreement(s) (DA) shall control. Concurrent with the adoption of this Specific Plan, certain provisions of the County Code will be amended to include language recognizing the existence of this Specific Plan and providing

exceptions from certain code requirements in areas addressed by this Specific Plan. Unless expressly modified herein, the provisions of the County Code shall remain in full force and effect and shall continue to apply to the Specific Plan Area.

6.1.1 Initial County Entitlements

Initial entitlements required for development of the Specific Plan Area include the following actions to be taken by the Madera County Board of Supervisors:

EIR Certification: Certification of the Castellina Specific Plan Environmental Impact Report (EIR), including findings that identify significant environmental impacts of the Project and mitigation measures that must be implemented as part of the Project, which will be reflected in the Mitigation Monitoring and Reporting Program (MMRP) and imposed as conditions of approval on subsequent discretionary approvals. This action will be adopted by resolution.

General Plan Amendments: Amendment of the Madera County General Plan to: (1) change the General Plan map to show the Specific Plan Area as Castellina Specific Plan; and (2) make other specific conforming amendments to the General Plan to ensure consistency between the General Plan and this Specific Plan (collectively, the

General Plan amendments). These actions will be adopted by resolution.

Area Plan Approval: Approval of the Castellina Area Plan. This action will be adopted by resolution.

Specific Plan Approval: Approval of the Castellina Specific Plan. This action will be adopted by resolution.

Specific Plan Zoning Districts and Development Standards Approval: Approval of the Castellina Specific Plan Zoning Districts and Development Standards. This action will be adopted by ordinance.

Development Agreement Approval: Approval of the Castellina DA. The action will be accepted by resolution.

County Code and Zoning Map Amendments: Amendment of the County Code to: (1) change the text to reflect the new zoning designation of Castellina Specific Plan (SP); (2) change the County's zoning map to show the Specific Plan Area as zoned (SP); and (3) other specific conforming amendments to the County Code, including without limitation, the Zoning Ordinance (Title 18), Subdivision Ordinance (Title 17), and Land Use and Environmental Impact Ordinance (Title 16) to ensure consistency between the County Code and this Specific Plan. These actions will be adopted by ordinance.

Tentative Map(s): Approval of Tentative Map(s). The action will be adopted by resolution.

Development of the Project shall be governed by the County Code and General Plan in effect at the time the Project application is deemed complete. Development of the Project shall be in substantial conformance with the Area Plan and this Specific Plan, and specific requirements that may be included in the DA or other conditions imposed upon Project approval.

6.1.2 Subsequent County Entitlements and Substantial Compliance

Following the County Board of Supervisors actions on the initial entitlements, subsequent entitlement steps must occur to implement this Specific Plan, including, without limitation, other tentative and final subdivision maps, conditional use permits, design review, building permits, grading permits, and approval of subdivision improvement agreements. The map review and approval process and the design review process are described in the following sections.

The County shall not issue any entitlement, permit, or approval in connection with development within the Specific Plan Area unless that entitlement, permit, or approval is in substantial conformance with all applicable aspects of this Specific Plan.

6.1.3 Development Agreement

A development agreement (DA) is a contract between a local government and a developer. A development

agreement provides developers with assurances that the land use entitlements for a project will not be changed in the future, and specifies public sector commitments to financing, phasing and other elements of Project implementation.

Castellina LLC and the County will enter into a development agreement concurrent with approval of this Specific Plan.

6.1.4 Subdivision Map Approvals

Development of the Specific Plan Area will require multiple subdivisions of the land, as governed by the Subdivision Map Act (Gov't Code §§ 66410 et seq.) and the County's Subdivision Ordinance.

An individual applicant proposing to develop any portion of the Specific Plan Area shall comply with the Subdivision Map Act, the County's Subdivision Ordinance, and all applicable aspects of this Specific Plan. The County shall approve all applications for subdivision of the Specific Plan Area in a timely manner.

Large Lot Tentative Map

The large lot tentative map is a basic tool for implementation of a specific plan. The large lot tentative map creates the individual development neighborhoods, parcels, and other large lots. A large lot tentative map may be processed concurrently with a specific plan. The large lots are for financing purposes, therefore the requirement for dedications and improvements will not be a condition of the large lot tentative map. Those large lots will be further

subdivided into lots upon which the proposed uses will be developed. This further subdivision will occur through the tentative subdivision map process. At the applicant's discretion, the large lot tentative map may be combined with the first tentative subdivision map. Separate parcel maps (which will not propose any improvements) may also be filed to facilitate financing.

Tentative Subdivision Maps

Tentative subdivision maps shall be in substantial compliance with the Specific Plan. [Chapter 2: Land Use, Zoning, & Development Standards](#) identifies the proposed location and acreage, land uses, and anticipated density of each land use type within the Specific Plan Area. Adjustments to these may include, but are not limited to, the following:

- The boundaries of any large lot may be modified administratively with approval by the Planning Director without the need to modify this Specific Plan.
- The anticipated acreage and location of any non-residential uses may be modified administratively with approval by the Planning Director without the need to modify this Specific Plan.
- The number of residential units shown in any land use parcel in this Specific Plan may be modified administratively with approval by the Planning Director without the need to modify this Specific Plan, as long as the density is consistent with the designated land use and the overall Project unit count is not exceeded.

The Planning Commission shall approve all applications for tentative subdivision maps for development of any portion of the Project if the Planning Commission concludes that the tentative subdivision map is consistent with the Specific Plan, the Subdivision Map Act, and the County's Subdivision Ordinance.

In approving a tentative subdivision map, the Planning Commission may impose any conditions of approval in accordance with applicable state and local law, this Specific Plan, and the DA. A tentative subdivision map application may be processed and considered concurrently with a conditional use permit or design review application (see Section 17.20.055: Review by the Subdivision Committee) for land that is the subject of the requested map.

Final Maps

Applications for one or more final maps for all or a portion of a tentative subdivision map area shall be filed in accordance with the Subdivision Map Act and the County's Subdivision Ordinance.

The County shall approve, in a timely manner, all final map applications that substantially conform to the underlying tentative subdivision map. The total number of residential units shown on a final map may vary by up to two percent (2%) of the units shown on the tentative subdivision map, with fractions of units rounded up to whole units, and still be in substantial conformance with the tentative subdivision

map, provided the total number of units does not exceed that shown in [Table 2-1: Land Use Summary](#).

6.1.5 Design Review

Prior to issuance of a building permit, all residential and commercial development plans shall be reviewed by the County for consistency with this Specific Plan. Design review may occur concurrently with the processing of other applications. The Planning Director shall approve an application for design review for development of a permitted use of any portion of the Specific Plan Area if the application is consistent with this Specific Plan and the County Code.

If the Planning Director concludes that the application is not consistent with this Specific Plan or the County Code, the Planning Director must make specific findings of inconsistency. Appeals shall be made to the Planning Commission.

6.1.6 Conditional Use Permit

To develop any uses listed as conditional use permits (CUP) in [Table 2-5: Permitted Uses](#), the applicant shall submit an application for a conditional use permit in accordance with the requirements set forth in the County Code as modified or supplemented by this Specific Plan.

The Planning Commission shall approve an application for a conditional use permit for development of any conditionally

permitted uses if it concludes that the application is consistent with this Specific Plan and the County Code.

6.1.7 Minor Modifications

A subsequent entitlement, such as a tentative subdivision map or conditional use permit, may be found to be in substantial conformance with this Specific Plan, even if the entitlement is inconsistent with this Specific Plan if the Planning Director finds that the change set forth in the proposed entitlement constitutes a minor modification. A minor modification may be processed if determined by the Planning Director to be in substantial conformance with:

- the planning principles and overall intent of the Specific Plan;
- the DA;
- the Madera General Plan; and
- the Castellina Specific Plan Environmental Impact Report.

Examples of minor modifications might include, but are not limited, to:

- minor changes in roadway, bicycle, and/or trail alignments;
- minor lot line adjustments;
- changes to landscaping design and materials, providing they are consistent with the principles of this Specific Plan;
- changes to the design guidelines that are consistent with the spirit and intent of the Specific Plan;

- addition of new or updated information that does not substantially change this Specific Plan or result in new or intensified environmental impacts not previously analyzed;
- minor changes in building location, design, or floor area ratio;
- a shift in location or shape of a park or open space;
- modifications that do not involve a change of use, density or intensity of development beyond the provisions of this Specific Plan as applicable;
- adjustments to land use area boundaries within the locations of facilities and street alignments established by this Specific Plan;
- modifications to architectural building color, fencing, lighting, signage, parking or driveway location or entry monumentation which are consistent with the intent, vision, and character of the Specific Plan and General Plan;
- transfer of dwelling units between density categories, provided such transfers continue to be in conformance with the Specific Plan provisions regarding land use density standards and do not create conditions where the maximum permissible dwelling-unit count is exceeded except as specifically provided for in this Specific Plan;
- the addition of new development regulations to accommodate future housing types not currently contemplated in the Specific Plan but which are

consistent with the intent, vision and character of the Specific Plan.

In the event and to the extent the Planning Director makes written findings to the effect that the requested change constitutes a minor modification, the subsequent entitlement shall not be deemed an amendment to this Specific Plan and may be approved administratively.

Furthermore, as described in the DA, the applicant (and subsequent owners) retain the right to apportion uses, intensities and densities in each area identified in the Specific Plan between themselves and any subsequent owners, upon the sale, transfer or assignment of any portion of the property to accommodate adjustments that may occur as more detailed plans are developed. Any such apportionments shall be considered a minor modification to the Project which may be approved administratively and do not require amendment to the DA or this Specific Plan.

6.1.8 Specific Plan Amendment Process

Amendments to the Specific Plan may be made from time to time upon application by the applicant or by request from the County.

A finding that a subsequent entitlement reflects a minor modification to this Specific Plan is distinct from a request to amend the Specific Plan. A request for a Specific Plan amendment shall be processed in accordance with California Government Code requirements for specific plans and shall require approval by the County Board of Supervisors.

6.1.9 Mitigation Monitoring

The California Environmental Quality Act (CEQA) requires all State and local agencies to establish reporting and monitoring programs for projects approved by a public agency whenever approval involves adoption of either a mitigated negative declaration or specified environmental findings related to environmental impact reports.

The Specific Plan mitigation monitoring and reporting program (MMRP) is intended to satisfy the requirements of CEQA as they relate to the Final EIR for the Project. This monitoring program is to be used by County staff and the Project applicant in ensuring compliance with adopted mitigation measures during Project implementation.

Monitoring and documenting the implementation of the Specific Plan MMRP will be coordinated by County staff.

6.1.10 Cultural Resources Survey Policies

All areas slated for development or other ground-disturbing activities are subject to a Phase I project-specific cultural resources inventory prior to County approval of individual project plans. These studies must be carried out by a qualified archaeologist, meeting the Secretary of the Interior's Standards for professional archaeology. This inventory will include:

- A cultural resources records search;
- A Sacred Lands File search by the California Native American heritage Commission

- A pedestrian cultural resources survey if necessary;
- Recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms.

If significant cultural resources are found during the survey, these resources shall be evaluated for eligibility for listing in the State Register of Historical Resources, and treatment of the resources implemented per CEQA Guidelines Section 15126.4(b)(3).

California *AB52 and Tribal Cultural Resources in CEQA* is an advisory from the Governor's Office of Planning and Research (OPR), whose purpose is to provide guidance to lead agencies regarding requirements for consultation with California Native American tribes and consideration of tribal cultural resources, explaining the substantive and procedural requirements that went into effect in 2015.

During construction, if prehistoric or historic-period subsurface cultural resources are discovered, activity in the vicinity of the find shall stop and a qualified archaeologist will be contacted to assess the find according to CEQA Guidelines Section 15064.5. If significant, the find will receive appropriate avoidance measures or mitigation according to CEQA Guidelines Section 15126.4(b)(3). If demonstrated that resources cannot be avoided, additional measures will be developed with the County, according to CEQA Guidelines section 15126.4(b)(3)(C).

For all areas slated for development or other ground disturbing activities in the Specific Plan Area which contain structures 45 years old or older, these shall be subject to a historic built environment survey and be potentially evaluated by a qualified historian or architectural historian for their significance, prior to the County's approval of the project-level plans. If potentially significant resources are found during the survey, demolition or substantial alteration of resources identified shall be avoided. If avoidance is deemed infeasible, the County shall prepare a treatment plan to include, but not be limited to, photo documentation and public interpretation of the resource.

6.2 Project Financing

6.2.1 Background

Information relative to Project financing is required to be included in the Specific Plan as part of the California Government Code (Section 65451). The following sections outline the Project's basic approach to financing methods and strategies.

6.2.2 Financing Plan

The Project shall be developed in a financially self-sufficient manner using revenue sources, including those described below. As described in **Chapter 2: Land Use, Zoning, & Development Standards**, the Project is planned to be developed in phases. In approving a tentative subdivision map for any phase of the Project, the applicant shall demonstrate the availability of adequate financing to ensure

that all infrastructure, public services, facilities, and amenities needed to serve the uses and structures covered by the requested map will be completed prior to occupancy of any structure on any lot described in the map and will remain operational as needed throughout the life of the Project.

Installed infrastructure improvements will include elements that are used by the public at large, as well as those which will be for use by residents of various neighborhoods within the Project. The type of improvements and other factors will determine which parties will bear the responsibility for maintenance of the applicable improvements.

Sources of Revenue

It is anticipated that a significant portion of initial improvements will be constructed with private funding. The applicant and developer expect to use public financing in conjunction with private sources to implement the Project. Before a final subdivision map is approved, it will be necessary to secure the county's approval of whatever financing mechanism is used. Both the improvements themselves and the maintenance obligations are included in this provision.

Build-out of the Project is estimated to take fifteen years or more. It is not possible or advisable to project what financing tool may be utilized several years in the future. Some factors that may affect the practicality of public financing mechanisms might include (1) prevailing interest rates at time of financing, (2) changes in the State law, or (3)

the ability of the public agency to issue bonds. The following are potential sources of revenue and may be available to be used as part of Project construction and ongoing operation and maintenance of certain improvements:

Taxes

Property taxes (ad valorem), sales taxes, and other such direct mechanisms are direct means of helping to support implementation of development projects.

County Impact Fees

Development impact and processing fees will be collected by the County for the benefit of the Specific Plan Area. These fees will be used to cover the cost to the County in processing applications for development of the Project and may be used for public infrastructure within the Specific Plan Area.

Special Assessment Districts

Special Assessment Districts are a method of long-term financing of public infrastructure and facilities, based on a formula for allocating benefit among properties within the district and placed on each property within the district. Bonds are issued and sold to finance the costs of construction and repaid over time from the assessments placed on the properties. Collected assessments are used to repay the bonds that have been recorded as a lien against each property in the district.

Castellina Impact Fees

Through a Development Agreement, the County and Project applicant will reach an agreement whereby the County may collect additional impact fees to be used by the applicant for construction of public infrastructure and improvements within the Specific Plan Area.

Land-Secured Debt Financing

Secured debt is debt backed or secured by collateral to reduce the risk associated with lending, using the land as collateral for the secured loan.

Development Exactions

Development exactions are dedications of land or improvements, or fees that are levied on development to provide for the construction of certain capital facilities.

User Charges

User charges are fees that are collected by the County or public utilities to fund the construction and maintenance of certain public facilities, such as wastewater lines and phone/cable lines.

Public Financing Districts

The County, with the assistance of the developer, can form land-secured debt financing districts which provide funding for the construction and/or maintenance of certain improvements or services within an identified area. The property benefitting from the improvement or service is encumbered by the district and must pay an annual fee to

pay for the improvement or service. Examples of land secured debt financing which might be used by the County to assist with development of the Project include user charges, service fees, and bonds.

Utility Districts

Districts that provide sewer, solid waste disposal, water, electricity, or communications may create their own financing and earn revenues from the operation of the facilities. The Project applicant may also, with jurisdictional approval, create their own district for such facilities as an on-site sewer treatment plant. In these cases, the applicant may seek the availability of the right to bond for the created utility. Also, development impact fees may be levied at time of hook-up to the utility as a one-time charge, using these revenues to maintain, improve, or expand the facilities.

Homeowners Assessments

Funds used for maintenance of certain improvements within the community are collected through individual homeowners associations.

Reimbursements

Collected through agreements for reimbursement from other property owners directly benefiting from infrastructure or improvements constructed by the developer.

Community Services District

Used to finance services and facilities such as traffic and circulation, street lighting, law enforcement, facility

maintenance, and fire protection. The area or district benefiting from the infrastructure improvements takes on the payment obligations.

Landscape and Lighting Districts

Involves the creation of assessment districts that serve to finance the installation and maintenance of lighting landscaping, and other special structural features. Fees are put on properties within the district that benefit from the improvements.

Geologic Hazard Abatement District

With a Geologic Hazard Abatement District (GHAD), the community taxes itself to take care of operation and maintenance related to potential site geologic, hydrologic, or biotic issues within the community. These taxed necessities may relate to prevention, mitigation, hazard abatement, or other maintenance. A GHAD is formed by the County Board of Supervisors, after which it becomes an independent state-level entity. Assessments must be proportional to benefits received and collected from property owners for ongoing services.

Construction of Backbone Improvements

All backbone improvements, such as roadways, utilities, parks, amenity centers, shall be constructed with private financing, land-secured debt financing, or applicable development impact fees.

The applicant and developer(s) may enter into an internal, private cost sharing agreement specifying terms of financing

for construction of improvements, establishment of rights-of-way and any easements for improvements, and establishment of the basis and terms for cost sharing and reimbursement among owners.

Construction of In-Tract Improvements

Portions of the Specific Plan Area may be sold to other developers/builders to develop specific aspects or portions of the Specific Plan Area. All infrastructure, services, facilities, and amenities shall be the responsibility of the purchasing developer or builder for that particular portion as determined through the tentative map process. It is anticipated that these would be constructed with private financing.

B-2 Castellina Area Plan



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APPENDICES



CASTELLINA

APPENDIX A

CASTELLINA AREA PLAN



CASTELLINA

— AREA PLAN —

CASTELLINA AREA PLAN

Vision



Castellina is a master-planned community with neighborhoods connected by design features that support conservation of resources, strong social interaction with cultural, recreational and civic amenities, promoting community activities and active lifestyles.

Castellina is designed to include a diversity of residential neighborhoods, an Active Adult community, and a mixed-use town center, focused around a large central park and multi-use activity corridor.



1

INTRODUCTION



CASTELLINA

1.1 Area Plan Introduction

This document describes the plan for a community called Castellina (the Project). It has been prepared to facilitate a concurrent Specific Plan application by Castellina, LLC, in Madera County, and presents the reasoning and concept that supports the proposed Project. The plan should be viewed as a declaration of intent. It is through this plan that the vision for future use and development of the Project Area will be introduced.

Castellina is a master-planned community located on approximately 792 acres about one mile north of the City of Madera in Madera County (the Project Area). As shown in [Figure 1-1: Regional Vicinity](#), the Project Area is located approximately three miles east of Highway 99.

The Castellina Area Plan (CAP) calls for the development of up to 3,072 single-family and multi-family residential units, including an Active Adult Community; up to 21 acres of commercial-residential mixed-use, civic, office, and retail uses; and approximately 132 acres of parks, play fields, trails, plazas, amenity centers, community gardens, landscape buffers, retention areas, and other open space.

Accompanying documents to this Area Plan include a Specific Plan, an Environmental Impact Report (EIR), an Infrastructure Master Plan (IMP), a Water Supply Assessment (WSA), and a Water Management Plan (WMP), among other supporting documents.

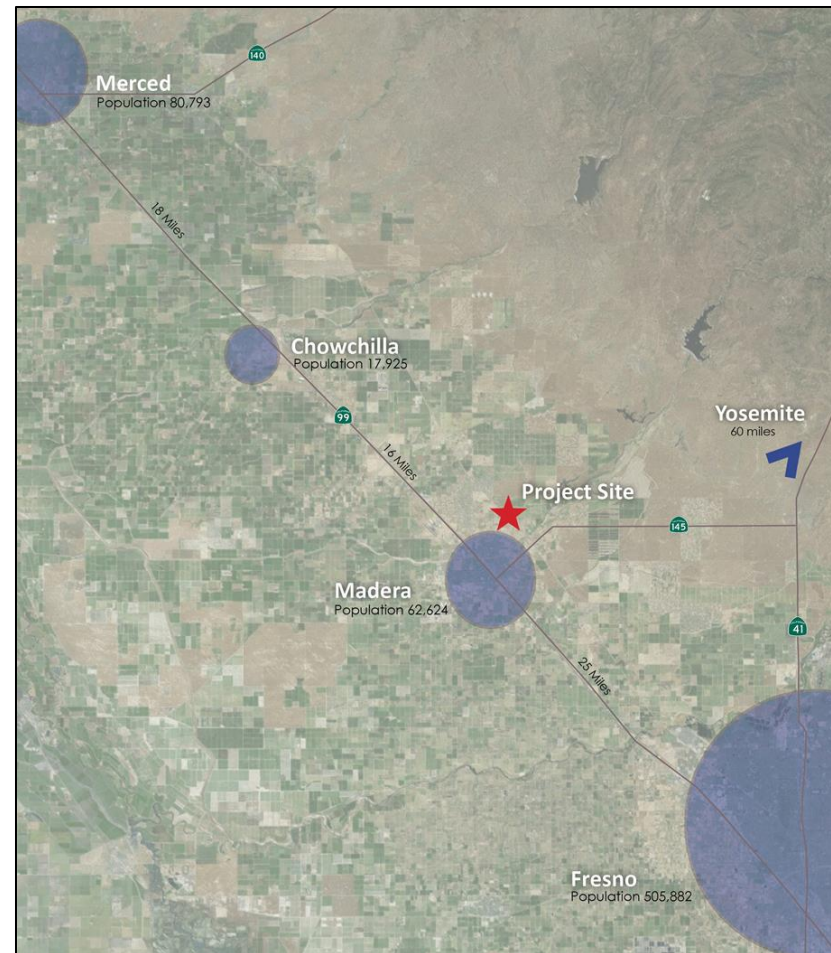


Figure 1-1: Regional Vicinity

1.2 Relationship of the Area Plan to Existing County Plans and Policies

The Project is in the jurisdiction of Madera County. Development applications have been submitted to the

Madera County Resource Management Agency Planning Department for entitlement review, and the County will act as the lead agency in the review of the Area Plan. Area Plans are authorized under California Government Code Sections 65301 and 65303 as community plans within the unincorporated planning area of Madera County.

Following is a summary of the primary plans and policies for Madera County.

Madera County General Plan

The 1995 Madera County General Plan (General Plan) provides a broad framework for supporting future land use and development decisions within the County.

On February 24, 2014, the Madera County Board of Supervisors approved Resolution 2014-012, changing the Land Use Designation for the Project Area from Agricultural Exclusive (AE) to New Growth Area (NGA). The NGA designation applies to areas where extensive new development is planned. The goal of New Growth Areas (NGAs) is to ensure that they are comprehensively planned and developed as well-balanced, independent communities.

At the present time, allowable uses include those specified under the County Agriculture (A) and Open Space (OS) designations.

The General Plan states "*Area plans, adopted in the same manner as the countywide General Plan, provide a more detailed focus on specific geographic areas within the unincorporated county. The goals and policies contained in the area plans supplement and elaborate upon, but do not supersede, the goals and policies of the Policy Document.*" Within the definition of a New Growth Area the General Plan states "*All development under this designation shall be approved pursuant to an adopted area plan. As these area plans are approved, the New Growth Area designation shall be replaced by other land use designations.*"

Madera County Zoning Code

The Madera County Zoning Code (Zoning Code) provides a countywide framework of regulations that address topics such as permitted uses, conditional uses, and development standards. The Project site is currently within the ARE-40 zone (Agricultural Rural Exclusive – 40-acre).

The ARE-40 zone permits all kinds of agricultural uses, one single family dwelling, a dormitory or attached farm labor housing unit accommodating up to five families on parcels of 36 acres or larger, and a second single family dwelling, subject to parcel size requirements and development standards.

Castellina Specific Plan

The Castellina Specific Plan (CSP) has been prepared in conjunction with this Area Plan. The Specific Plan is

consistent with the General Plan and with this CAP. The CSP includes new Zoning Districts and Design Guidelines that will maintain consistent high-quality standards for all development land uses as well as parks, open space, and landscaping. In short, the Specific Plan will constitute the new zoning for the Project Area.

1.3 Planning Process and Entitlements

Planning Process

Development under the NGA designation requires, among other approvals, the adoption of an Area Plan. This Area Plan has been prepared pursuant to the provisions for New Growth Areas to address the goals and policies of the General Plan; it can be used as both a land use policy and guiding document. When this CAP is approved, the NGA designation will be replaced by the appropriate Land Use Designations as identified in the CAP.

The Specific Plan for the Castellina Project is submitted concurrently to the County, and County staff will use this Area Plan as a policy and land use planning guide. Future individual projects will be evaluated for consistency with the Land Use Designations from this CAP and for conformance with the Zoning Districts, Development Standards and Design Guidelines from the CSP.

Project Entitlements

County of Madera

Below is a list of the anticipated discretionary permits requiring approval by the County of Madera:

- General Plan Amendment;
- Certification of the Castellina Specific Plan EIR;
- Approval of the Castellina Area Plan;
- Approval of the Castellina Specific Plan;
- Adoption of the Castellina Specific Plan Zoning Districts and Development Standards;
- Amendment of the County Zoning Code;
- Approval of the Castellina Development Agreement;
- Approval of Tentative Tract Map(s);
- Approval of Conditional Use Permit(s);
- Approval of Water Supply Assessment (WSA);
- Approval of an Infrastructure Master Plan (IMP), including Stormwater Management Plan (WMP)
- Approval of Grading Permit(s);
- Final Map(s) Approval & Recordation;
- Approval of Improvement Plans;
- Approval of Building Permits;
- Approval of Well Construction Permit(s);
- Approval of Water System Design;

- Approval of Recycled Water Use and Wastewater Treatment System.

Other Applicable Agency Approvals

Other government agencies that may have some level of approval for one or more components of the Project include, but are not limited to:

- U.S. Army Corp of Engineers;
- California Bureau of Real Estate;
- California Department of Fish & Wildlife;
- California Department of Transportation;
- California Department of Water Resources;
- California Public Utilities Commission;
- Madera Unified School District;
- Regional Water Quality Control Board;
- U.S. Fish & Wildlife Service; and
- San Joaquin Air Quality Control Board.

See the Specific Plan Chapter 6: Administration, Implementation, & Financing for provisions of Project approvals and implementation process.

The Project is also located within the City of Madera's Urban Growth Boundary; no approvals, however, are necessary from the City of Madera.

1.4 Project Background

Project Location

As shown in **Figure 1-2: Existing Conditions**, the Project Area is bordered by the Avenue 18 (alignment only) to the north, Road 28½ to the east, the alignment of Avenue 17 to the south, Road 27 to the west, and the Burlington Northern Santa Fe (BNSF) railroad line to the southwest.

Existing Conditions

The Area Plan property is in agricultural production and contains almond and fig orchards, as well as related agricultural support facilities.

Like the site itself, many of the surrounding lands have been highly modified for agricultural purposes, or otherwise developed as roads, individual residences, residential subdivisions, and commercial centers.

There are five wells located within the Project Area that draw groundwater from the Madera groundwater basin. Approximately 2,822 acre-feet per year are pumped out of the ground water table. The estimated current agricultural consumptive use is approximately 1,800 acre-feet per year (AFY) of groundwater, equivalent to nearly 586 million gallons per year.

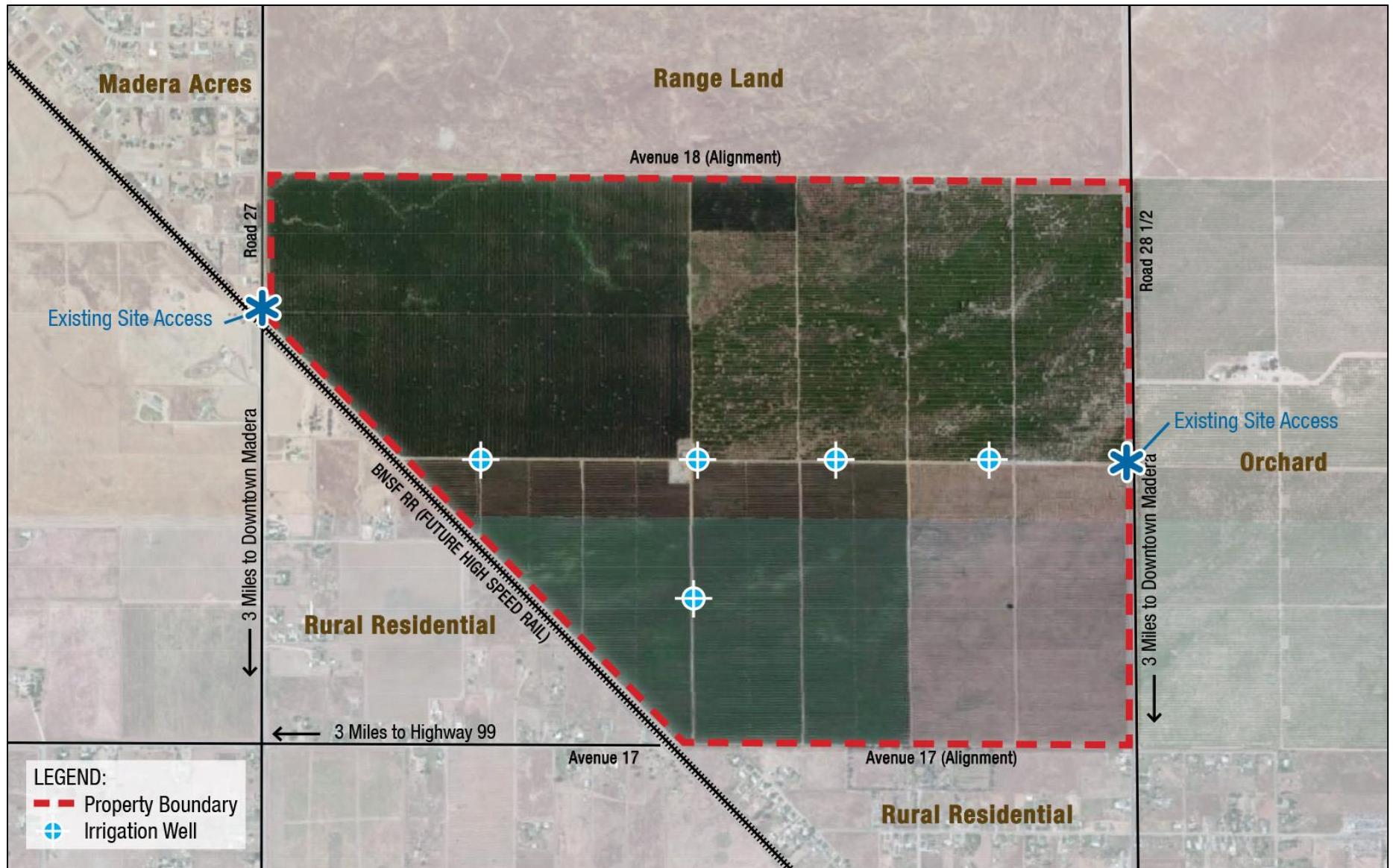


Figure 1-2: Existing Conditions

1.5 Site Opportunities and Constraints

Adjacent and Nearby Land Uses

The Project Area is surrounded primarily by rural land uses. Madera Acres is a rural residential subdivision located to the northwest of the Project Area and just south of the Madera Golf and Country Club. Lower density rural residential land uses border the west and south Project Area boundaries. North of the Project Area is unimproved range land. Property east of the Project Area is in agricultural orchard production.

Soils and Topography

The Project Area is located in the San Joaquin Valley on gently sloping terrain that ranges in elevation from approximately 280 feet National Geodetic Vertical Datum (NGVD) in the east to 315 feet NGVD in the northwest.

Seven soil series units exist on the Project Area. The nature and quality of the characteristics of these soils is necessary to understand stormwater retention and recharge of the site's groundwater table.

Schmidt Creek and the 100-Year Floodplain

The site contains several minor, unnamed natural drainage features. On the northern portion of the Project Area, these drainage features enter from the east toward the northwestern corner of the Project Area. During storm events, stormwater flows through the drainage features

onto the project area and exit eventually toward the Schmidt Creek Tributary.

A small portion of the northwest corner of the site is shown within the Federal Emergency Management Agency's (FEMA) Zone A Flood Map, a 100-year floodplain, as designated by the U.S. Army Corps of Engineers (1% annual chance of flooding).

Chapter 4: Infrastructure, of the CSP, as well as the Water Supply Assessment (WSA) and Infrastructure Master Plan (IMP), further describe the hydrologic conditions, drainage, and water conservation program designed to manage stormwater and to recharge and maintain the groundwater aquifer.

Wetlands

In January and February of 2017, an on-site wetlands study and Jurisdictional Waters of the U.S. (U.S. Army Corps of Engineers – USACE) assessment was conducted by Live Oak Associates. A swale segment in the northwest area of the site was claimed as jurisdictional by the USACE. In a letter dated September 9, 2019 from the Regulatory Division of the USACOE, the following is stated, in part: *"The 0.56-acre of aquatic resources identified as "SW-1 and NW-1" on the above drawing are aquatic resources with no apparent interstate or foreign commerce connection. As such, these aquatic resources are not currently regulated by the U.S. Army Corps of Engineers." (identification number SPK-2017-00317).*

Existing Site Access

The Area Plan site is accessible from Road 27 on the west and Road 28½ on the east.

Regional roadways are discussed and shown in the Specific Plan, Chapter 3: Circulation and Mobility.

Rail Lines

BNSF Amtrak Rail Line

The Burlington Northern Santa Fe (BNSF) railroad line runs along the southwest edge of the Project Area. The closest station is located at 18770 Road 26, approximately 1.5 miles northwest of the Area Plan property in Madera County.

High-Speed Rail

The California High-Speed Rail Authority (CHSRA) is constructing a high-speed rail line, located adjacent to the western edge of the BNSF rail line, along the southwest side of the Project Area. CHSRA has begun construction of the initial line from Merced to Bakersfield, with a station planned at Avenue 12 and Santa Fe Drive, southeast of the Project Site.

A railroad overcrossing by the California High Speed Rail Authority is currently being completed for Road 27. Plans for a railroad overcrossing and extension of Avenue 17, a portion of which is within the Project Area, are currently in County design review.

1.6 Project Goals and Policies

Castellina is a master-planned community designed to encourage an active and healthy quality of life. The Project's many amenity features will inspire a vibrant lifestyle for individuals, families, and active adults.

The following goals have been used as the basis for the development of the Castellina Area Plan and the Castellina Specific Plan. Specific policies that are associated with these goals are outlined in the CSP.

Land Use

Goal

To create a neighborhood-oriented community, designed to encourage an active and healthy quality of life that provides a balance of housing, employment opportunities, local retail shopping, and recreational opportunities.

Mobility

Goal

To create a connective transportation and circulation network designed to accommodate all modes of transportation, and to minimize external vehicle trips.

Community Facilities and Services

Goal

To provide community facilities and services that accommodate the needs of the community and do not place an unfair burden on the County of Madera

Natural and Environmental Features

Goal

To protect and conserve the natural resources of the Project Area and surrounding area including surface and groundwater supplies.

Economic Vitality

Goal

To promote a long-term financially viable Project that provides for long-term housing opportunities, recreational opportunities, educational opportunities, and the creation of new jobs.

2

LAND USE PLAN



CASTELLINA

2.1 Conceptual Land Plan

This Area Plan calls for the development of up to 3,072 single-family, multi-family and mixed-use residential units, including an active adult community; approximately 21 acres of commercial mixed-use; and approximately 132 acres of parks, trails, plazas, community gardens, and other

open space. **Figure 2-1: Illustrative Land Plan** depicts these land uses, the general circulation system, points of access, and the overall open space system. Conceptual layouts of sample residential density types are shown on selected parcels.

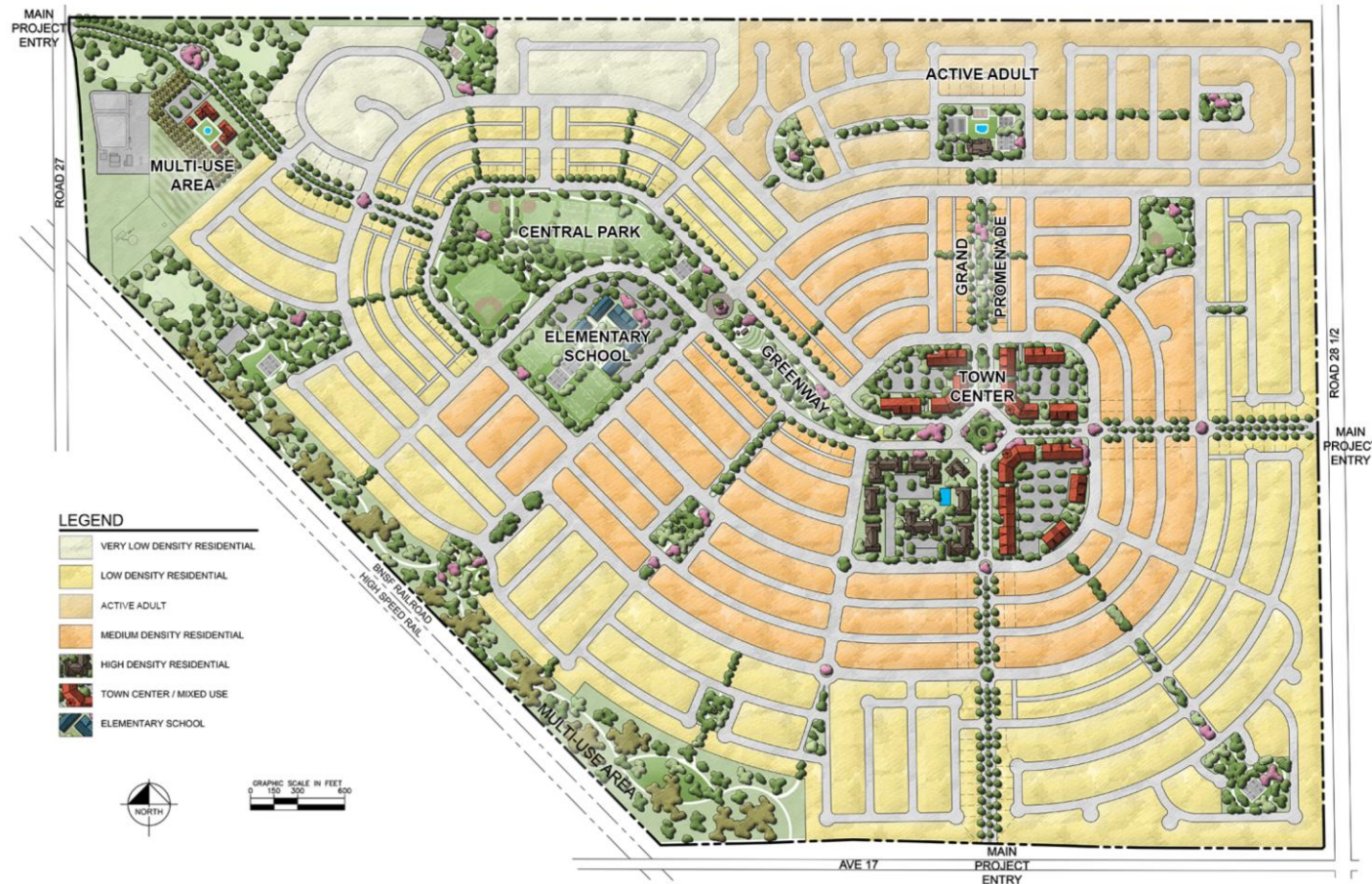


Figure 2-1: Illustrative Land Plan

2.2 Villages and Neighborhoods

The conceptual framework of the Area Plan villages is illustrated in [Figure 2-2: Village Structure](#). Each of the land use parcel numbers shown in [Figure 2-5: Land Use Plan](#) (A1, B2, C3, etc.) corresponds to the Village from [Figure 2-2: Village Structure](#) in which it is located.

Please note that this figure is not meant to imply phasing of the Project, but rather a logical breakdown of the community plan. Each village will be organized within a modified grid roadway pattern, with a highly connective system of internal collectors and local streets linking neighborhoods together.

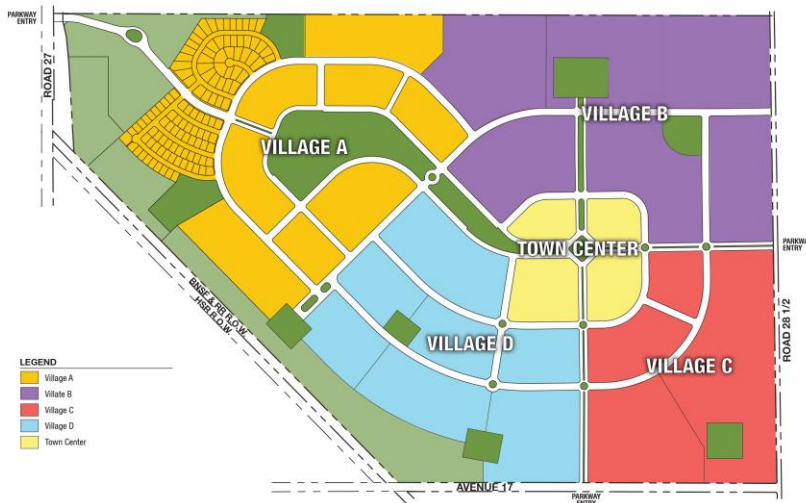


Figure 2-2: Village Structure

Conceptual Open Space Framework

The Castellina residential neighborhoods are designed around a framework of parks and recreation amenities to encourage walkable neighborhoods and active community interaction. The convenient location of public open space and parklands is a foundational component of the Castellina concept. All of the dwelling units in Castellina are located within walking distance to parks, community gardens, and amenity centers.

Pedestrian connections will be provided throughout residential neighborhoods and into the Town Center, the Central Greenway, neighborhood parks, and other open space or community areas. Following are descriptions of the various components of the Castellina parks and open space system.

Central Greenway Concept

The Castellina land plan is designed around a central continuous greenway corridor and chain of connected parklands, open spaces, and amenity features that define the heart of the Castellina community.

This community-wide system of amenities, called the Central Greenway, is composed of four main sections: 1) a large Central Park; 2) a Town Center and Village Green; 3) the Grand Promenade; and 4) an Active Adult Community Center. [Figures 2-3: Illustrative Greenway Sketch](#) and [2-4: Conceptual Central Greenway](#), illustrate the Central Greenway and these four main components.



Figure 2-3: Illustrative Greenway Sketch



Figure 2-4: Conceptual Central Greenway

Central Park

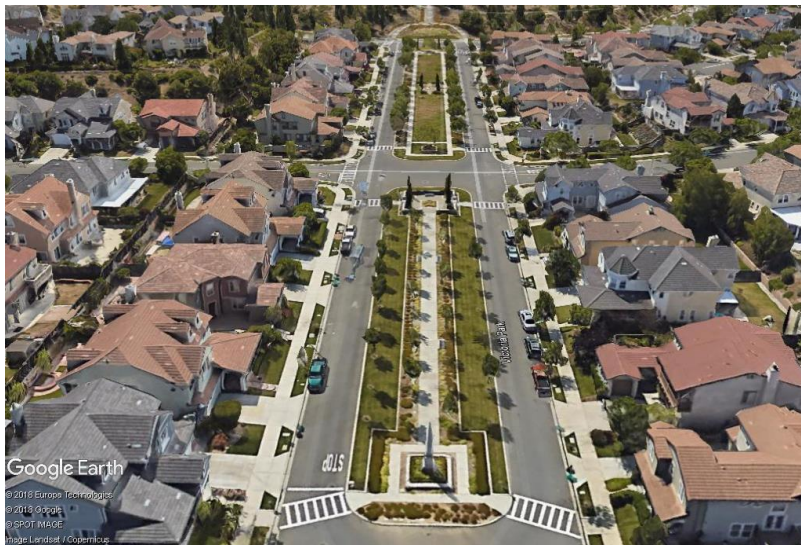
Castellina’s Central Greenway will be anchored by a large, 31-acre, ¾-mile-long Central Park that extends from northwest to southeast through the center of the Project Area and around which major community land uses are organized.

Village Green

The Town Center and Village Green will be located at the eastern end of the Central Park and will provide community-oriented mixed-uses and people-gathering activities.

The Grand Promenade

From the Town Center and Village Green, a broad (50- to 60-foot-wide) median and central pedestrian corridor will run north-south and connect neighborhoods in the



northeast section of the Area Plan site, including an Active Adult Community, to the Village Green.



Active Adult Community Center

At the northern terminus of the Grand Promenade will be an Active Adult Community Center that will serve as a neighborhood focal point, hosting social and recreational activities for residents of the Active Adult Community and their visitors.

Neighborhood Parks and Community Gardens

While the Central Greenway will serve as the focal point for community-wide recreation and events, several neighborhood parks will be constructed throughout the Project community, creating focal points for the residential neighborhoods.

Additionally, one or more community gardens are proposed in the Multi-Use Open Space area near the railroad or in other locations within the Project Area. Individual garden plots will be available to residents allowing them to grow their own vegetables and flowers.

Multi-Use Open Space

A multi-use open space area buffer (250-475 feet wide) will be located between the railroad line and the adjacent residential homes. It will include:

- A wastewater treatment plant and related facilities;
- Stormwater retention and drainage facilities for runoff management and groundwater recharge; and
- A buffer area between residents and the railway.

It may also include a variety of other recreational uses and activities:

- Open play areas;
- Trails, benches, and interpretive signage;
- Community garden(s); and
- Preserved almond or fig orchard tree remnants.



Land Use Designations

This section outlines the Land Use Designations, acreages, and layout for the Castellina development plan. These designations are shown in **Figure 2-5: Land Use Plan** and are outlined below.

Residential

- Very Low Density Residential (CVLDR)
- Low Density Residential (CLDR)
- Active Adult Community (CAAC)
- Medium Density Residential (CMDR)
- High Density Residential (CHDR)

Commercial

- Town Center Mixed-Use (CTCMU)

Public & Quasi-Public

- Parks and Open Space (CPOS)

Table 2-1: Land Use Summary and **Table 2-2: Residential Types and Densities** quantify the land uses shown on the Land Use Plan. Some densities and acreages, number of units, and square footages, may vary as development plans are refined; the overall totals are maximums. The allocation of square footage space for commercial uses and number of units for residential uses in each category may vary between land use parcels, as long as the total overall permitted quantities are not exceeded.

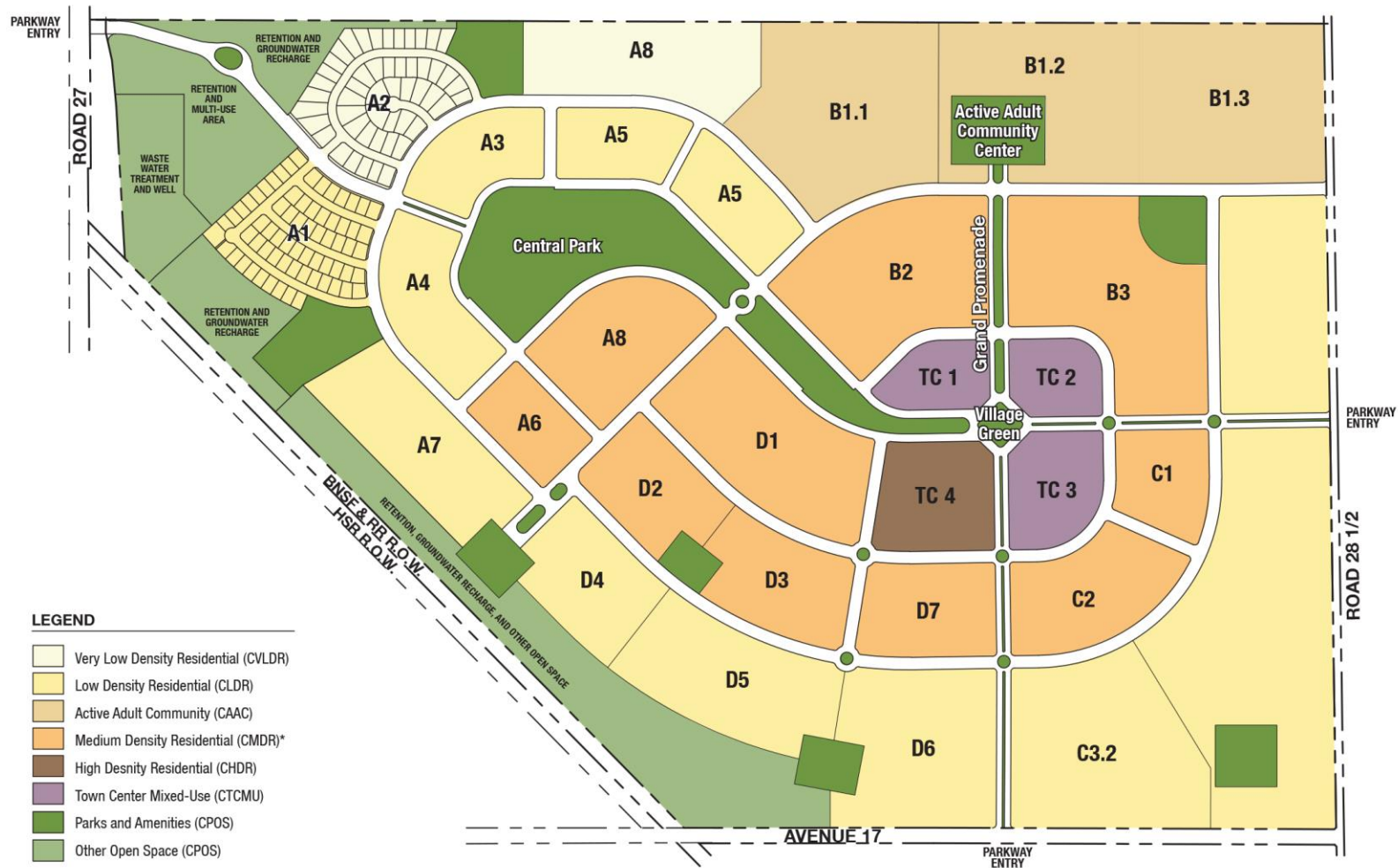


Figure 2-5: Land Use Plan

Table 2-1: Land Use Summary

Land Use Designation	Gross Acres	Total (du/ac or sf)
Residential		
<i>Residential Subtotal</i>	510	3,072 du
Commercial		
<i>Town Center Mixed-Use¹ (CTCMU) Subtotal</i>	21	Up to 134,000 sf. ³
Parks and Open Space		
Neighborhood Parks (CPOS)	20	
Community Garden (CPOS)	3	
Central Park (CPOS)	31	
Grand Promenade (CPOS)	3	
Linear Pathways (CPOS)	6	
Village Green (CPOS)	2	
Active Adult Amenity Center (CPOS)	6	
Detention, WWTP and Other Open Space (CPOS) ³	61	
<i>Parks and Open Space Subtotal (CPOS)</i>	132	
<i>Elementary School Site² (CMDR)</i>	15	
<i>Major Roads & Other Miscellaneous Areas</i>	114	
Total	792	3,072 dwelling units Up to 134,000 sf. Commercial

Notes:

- (1) Residential unit count is shown in Table 2-2.
- (2) The Elementary School site acreage, shown in Parcel C2 as an acceptable use in the Medium Density Residential land use, is not included in the Medium Density acres Table 2-2 below.
- (3) An approximately 10-acre parcel, adjacent to the WWTP, in the northwest section of the Multi-Use Area, will be reserved for potential future commercial use. Together with the Town Center Mixed-Use areas, the overall maximum for development of commercial uses shall not exceed 134,000 square feet.

Table 2-2: Residential Types and Densities

Residential Type	Gross Acres ¹	Net Acres ²	Allowable Net Density Range (du/ac)	Target Net Density (du/ac)	Maximum Dwelling Units ³
Very Low Density Residential (CVLDR)	36	30	2.0 - 4.0	3.0	90
Low Density Residential (CLDR)	230	184	5.0 - 7.0	6.0	1104
Active Adult Community (CAAC)	84	67	5.0 - 7.0	6.0	402
Medium Density Residential (CMDR)	148 ⁵	114	6.0 - 15.0	9.0	1026
High Density Residential (CHDR)	12	12	15.0 - 25.0	20.0	248
Town Center Mixed-Use (Residential Component) (CTCMU)	21	21	Up to 10.0 (10.0)	10.0	202
Totals	510 ^{4,5}	407 ^{4,5}	--	7.5 du/ac	3072

Notes:

- (1) Gross acres include all land (including streets and rights-of-way) within a parcel designated for a particular residential type.
- (2) Net acres exclude streets and rights-of-way for Very Low, Low, and Medium Density parcels. "Net" and "Gross" acreages for High Density uses are shown as equivalent, without internal local street systems.
- (3) Unit counts may vary between residential categories; however, the total number of dwelling units may not exceed total shown.
- (4) Excludes Mixed-Use acreage to avoid duplication with Town Center Mixed-Use1 (CTCMU) acreage, as shown in Table 2-1, above.
- (5) This acreage does not include the 15-acre Elementary School site, which is designated within a Medium Density parcel.

Land Use Designation Descriptions

Residential Uses

There are six residential land use designations in the Castellina Area Plan, which allow a mix of detached and attached unit types. Following is an overview of each residential land use. Please note that unit counts may vary between residential categories; however, the total number of dwelling units may not exceed the overall unit total shown.

Castellina Very Low Density Residential (CVLDR):

The CVLDR Land Use Designation allows for detached units ranging in net density from 2.0 to 4.0 dwelling units per net acre (du/ac), with a target net density of 3.0 du/ac. Development under the Area Plan would allow for the construction of 90 dwelling units on approximately 36 acres in the northwestern corner of the Project Area.

Castellina Low Density Residential (CLDR):

The CLDR Land Use Designation allows for detached units ranging in net density between 5.0 to 7.0 du/ac, with a target net density of 6.0 du/ac. Development under the Area Plan would allow for the construction of 1,104 dwelling units on approximately 230 acres throughout the Project Area.

Castellina Medium Density Residential (CMDR):

The CMDR Land Use Designation allows for both detached and attached units ranging in net density between 6.0 and

15.0 du/ac, with a target net density of 10 du/ac.

Development under the Area Plan would allow for the construction of 1,026 dwelling units on approximately 151 acres in the middle of the Project Area.

A 15-acre elementary school site has been identified within the Area Plan on Parcel A8, as shown in [Figure 2-5: Land Use Plan](#). The school site is shown as a permitted use in a Medium Density residential parcel and will likely comprise an entire block, providing convenient access on all four sides.

Castellina High Density Residential (CHDR):

The CHDR Land Use Designation allows for attached units ranging in net density between 15.0 and 25.0 du/ac, with a target net density of 22.0 du/ac. Development under the Area Plan would allow for the construction of up to 248 dwelling units on approximately 12 acres in the southwestern quadrant of the Town Center Area.

Castellina Active Adult Community (CAAC):

The CAAC Land Use Designation allows for detached units ranging in net density between 5.0 to 7.0 du/ac, with a target net density of 6.0 du/ac. The Active Adult Community Land Use Designation would provide for the development of up to 402 age-restricted units on approximately 84 acres in the northeastern corner of the Project Area. It is noted here that the designation of this land use does not preclude the development of other

active adult projects of various types on other residential land use parcels within Castellina.

Town Center Mixed-Use (CTCMU) Residential:

Residential development is allowed in the Town Center Mixed-Use designation, with a target density of 10 du/ac. Mixed-Use may be defined as either vertical (mixed uses in the same building, stacked) or horizontal (mixed uses in separate buildings on the same parcel).

Commercial Uses

Town Center Mixed-Use (CTCMU) Commercial:

The Town Center Mixed-Use commercial component allows up to 134,000 square feet of commercial uses including retail, office, civic, and institutional. The intent is to create an active town center for the community that serves as a live-work environment that is also a gathering place for civic events and community functions.

An approximately 10-acre parcel in the northwest corner of the Project Area, adjacent to the wastewater treatment plant, and part of the Multi-Use Area shown on [Figure 2-5: Land Use Plan](#), is reserved for potential commercial development that could include such uses as a fire station, agri-retail businesses (such as a plant nursery or farmer's market), a small specialty shopping center, a real estate office, or a mini-storage facility. Any commercial development in this area, combined with the total commercial development in the CTCMU area, must not exceed 134,000 square feet of total space.

Open Space Uses

Parks and Open Space (CPOS):

This Land Use Designation allows for approximately 132 acres of parks, promenades, natural open space, the Active Adult Community Center, community gardens, drainage facilities, and the wastewater treatment plant.

CAP Land Use and County Designations

The Area Plan Land Use Designations shown in [Figure 2-5: Land Use Plan](#) are consistent with the Castellina Specific Plan, which is intended to implement the new Zoning Districts for Castellina.

The Area Plan Land Use Designations, names, descriptions, and intents described in this section are matched to corresponding County Land Use Designations in [Table 2-3: Land Use Designations Comparison](#).

The "C" prefix designation for the Castellina project identifies the land use described in the Area Plan which applies only to property within the Castellina planning area. Permitted and conditional uses within these designations are set forth in the Specific Plan, as well as Development Standards, such as lot sizes, densities, setbacks, and other restrictions.

2.3 Project Sequencing

Development of Castellina will occur in phases depending on market demand and with assurance that there is adequate infrastructure for each phase. Sequencing also coordinates the construction of facilities such that:

- applicable improvements are completed when needed so each phase of development is adequately served;
- improvements in each phase can support associated development in compliance with County policies and standards; and
- development in each phase can support the costs of the required improvements.

Construction may start from the entry roads off of Road 27, Road 28½, or Avenue 17.

All public and private recreation facilities will be constructed commensurate with residential and commercial development needs, pursuant to terms in the Specific Plan, Development Agreement and other entitlement provisions.

Table 2-3: Land Use Designations Comparison

Area Plan Land Use Designation	Madera County Equivalent Designations						
	RESIDENTIAL & COMMERCIAL	(RUS) Residential Urban, Single Family	(RX) Residential Small Lot and (RT) Residential Townhouse	(RUM) Residential Urban Multiple Family	(MCN) Mixed-Use Commercial District with (VCO) Village Core Overlay District	PUBLIC	RC-P/OS Park/Open Space
CVLDR		X					
CLDR		X					
CMDR			X				
CHDR				X			
CAAC		X					
CTCMU					X		
CPOS							X

3

CIRCULATION & MOBILITY



CASTELLINA

3.1 Introduction

The circulation system within Castellina will be designed as a comprehensive network that provides both vehicular and non-vehicular mobility designed to allow the efficient and safe movement of people. Streets will be designed for multiple modes of transportation, including walking, bicycling, or driving a local use vehicle (LUV) or automobile. A network of interconnected pedestrian and bike pathways will provide connections throughout the residential neighborhoods, commercial centers, parks, and open space areas.

The following principles apply to Castellina circulation plan:

- Design an efficient multi-modal circulation system.
- Provide direct, convenient, and efficient automobile, pedestrian, bicycle, and local use vehicle routes to all areas of the project.
- Furnish an aesthetic environment for public circulation, while minimizing use of walls.
- Minimize impacts on regional air quality.
- Facilitate alternatives to automobile transportation.
- Accommodate future public transit services.
- Design a system that provides for safe routes to school within the community.
- Comply with the Americans with Disabilities Act (ADA) standards.

3.2 Street Network and Hierarchy

Roadway circulation within the Project Area is anchored by an inner loop road surrounding the Town Center and Village Green, and an outer loop road that provides access to single family residential neighborhoods and their parks, the Active Adult Community, and the elementary school site.

Internal local roadways for development parcels will be laid out in modified grid or concentric patterns, encouraging connecting roads and providing multiple routes in and out of neighborhoods and the community as a whole.

As each phase of the Project is built out, the roads will be designated as public rights-of-way maintained by Madera County, an owners association, or service district.

Figure 3-1: Street Network & Hierarchy illustrates the backbone street network and hierarchy throughout the Project Area.

Please refer to the Castellina Specific Plan for individual cross sections for each of the street types, including external arterial streets and internal Project main streets.

3.3 County Main Roads

Three main roads surround the Project site: Road 28½, Avenue 17, and Road 27. Avenue 17 is identified as a future Principal Arterial, and Roads 27 and 28½ are identified as Minor Arterials/Collectors in the Madera County General

Plan. The County's General Plan states that these roads should be designed to provide connections between activity centers and connections from collectors to freeways, highways and expressways.

A two-lane Road 27 railroad overpass is currently under construction by the High-Speed Rail Authority. The

developer has dedicated land from the Project Area for that road's designated ultimate right-of-way.

The High Speed Rail Authority also plans for an Avenue 17 overpass and extension through to Road 28½. These plans are currently under review by the County.

Ultimate improvements may include future widenings, traffic signals and other intersection control systems.

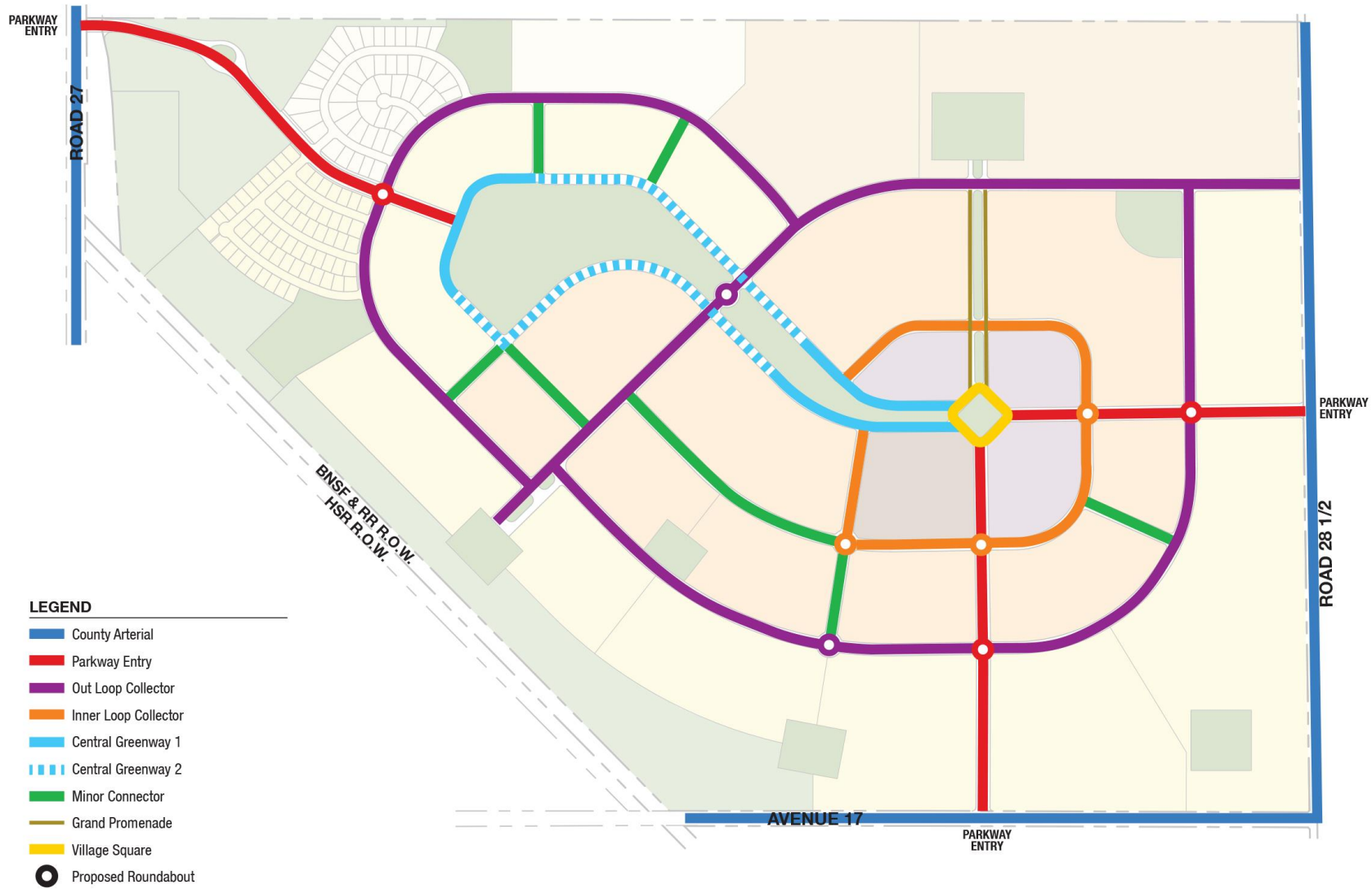


Figure 3-1: Street Network & Hierarchy

3.4 Bicycle Network

Bicycle circulation is integrated throughout the Project Area through separated off-street bikeways (multi-use paths), on-street bike lanes, and bike routes. Where bike lanes are not provided, such as along neighborhood streets, bicyclists and vehicles would share the road.

Figure 3-2: Bicycle Circulation Network identifies proposed bike paths and bike lanes in the Project Area.



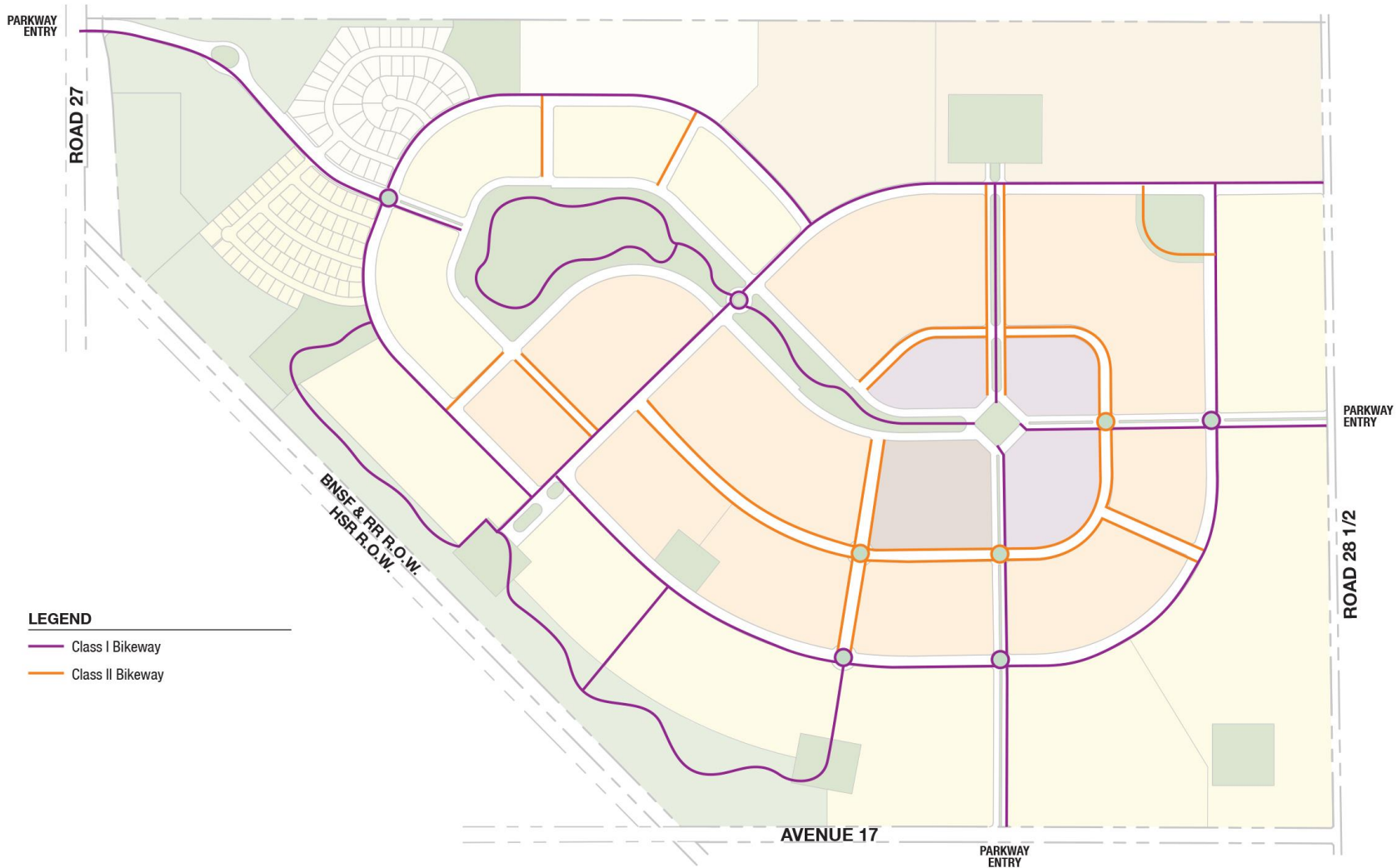


Figure 3-2: Bicycle Circulation Network

3.5 Transit Service

Transit service in Madera County is provided by Madera County Connection. It presently provides service via three routes: 1) Eastern Madera County – Madera, 2) Chowchilla – Fairmead – Madera, and 3) Eastin Arcola – Ripperdan – La Vina.

At least one bus stop with a bus shelter will be provided in a convenient and accessible location in the Town Center or other appropriate location. If requested, an additional bus stop with a shelter will be provided at the Active Adult Center. The location of these bus stop(s) or shelter(s) will be identified with the appropriate agencies as needed.



4

WATER CONSERVATION, INFRASTRUCTURE, & PUBLIC UTILITIES



CASTELLINA

4.1 Introduction

Implementation of the Castellina Area Plan will require the construction of public facilities and services to serve the Project Area. Services include: water, sewer, storm drainage, solid waste disposal, fire and police protection, and schools. **Table 4-1: Service Providers** lists the various service providers for the Project Area.

Table 4-1: Service Providers

Service	Provider
Water	Mutual water company or equivalent
Wastewater	TBD
Recycled Water	TBD
Storm Drainage	Madera County
Electric Service	Pacific Gas & Electric
Gas Service	Pacific Gas & Electric
Telecommunications	Verizon, or others as available
Fire Protection	Madera County Fire Department
Police Protection	Madera County Sheriff's Office
Parks	Special district or equivalent
Schools	Madera Unified School District
Library	Madera County
Solid Waste Disposal	Redrock Environmental Group
Roads	Madera County

4.2 Water Sustainability Program Overview

Madera County is the Groundwater Sustainability Agency (GSA) for the portion of the County that includes the Project. In August 2017, the County adopted an ordinance directed at aiding with long-term groundwater sustainability in the Madera Subbasin. The County's ordinance added a new chapter to the County Code, the Large Scale Development Groundwater Balance. The County's strategy for assuring that new developments do not impact existing or planned future uses directs urban development projects of a certain size to demonstrate a groundwater balance as defined in the ordinance.

The Project will implement a Managed Aquifer Recharge (MAR) program, a Recycled Water program, and water conservation measures to meet the County's water supply sustainability requirements in accordance with the Madera Regional Groundwater Management Plan (2014) and the County Code's Large Scale Development Groundwater Balance. The Recycled Water Management program will help conserve groundwater, reduce irrigation costs, and provide on-site recycled irrigation water for public landscape areas. Implementation of the water conservation measures will aid in meeting the County's goal of achieving a groundwater balance for large developments.

A Water Supply Assessment (WSA) has been prepared for the Project and demonstrates that the water supplies will be sufficient to meet the Project's water demands over a 20-year horizon. The Project's water use and management plan satisfies the County's ordinance requirement that projected groundwater balance value does not exceed the Sustainable Yield value established by the County.

The groundwater balance is primarily achieved by augmenting groundwater resources through effective capture and managed recharge of stormwater, using recycled water to meet public landscaping needs, and minimizing new demands through water conservation measures.

Water Demand

The proposed Project's water demand will be met by groundwater and recycled water, with the recycled water generated from the treated wastewater flow produced from the Project's indoor residential and non-residential uses, originally served by the groundwater.

Upon completion of the Project buildout, the Project's overall water demand is estimated at about 1,250 acre-feet annually. It has been estimated that the existing agricultural operations consumptively use approximately 1,800 acre-feet, or 586 million gallons, per year of groundwater. Converting the current agricultural use to residential and commercial purposes, combined with

implementation of the Project's water management program, will substantially reduce the property's current consumptive use of groundwater.

4.3 Water Management Program

Managed Aquifer Recharge (MAR) Program

The MAR program is intended to recharge the groundwater basin to achieve a net sustainable groundwater use. MAR facilities are designed to intentionally introduce water into the groundwater aquifer system, as shown in [Figure 4-1: Managed Aquifer Recharge Illustration](#). The Project WSA details how the MAR program helps meet desired sustainability objectives. This managed process allows for the controlled release of water into the groundwater system.

Key sources of water for the Project's MAR program include:

- on-site drainage;
- off-site diffused stormwater; and
- flood protection water.

The stormwater management focus is on collecting diffused stormwater from two local watersheds. Diffused stormwater that flows onto the Project site from these two watersheds will be captured and recharged into the

groundwater system via drainage and conveyance facilities and be directed to infiltration retention basins, dry wells, bio-filtration areas, or other facilities for groundwater recharge

Recycled Water Management Program

Wastewater effluent from the WWTP will be treated to a tertiary level and used as non-potable recycled water for public landscaped areas throughout the Project.

To the extent necessary, any quantity of excess recycled water would be directed to off-site agricultural or other uses to be used in-lieu of existing groundwater sources.

The Project intends to maximize the beneficial use of recycled water in order to minimize use of fresh water for irrigation wherever technically and economically practical. This approach will help conserve groundwater, reduce irrigation costs, and provide on-site irrigation water.

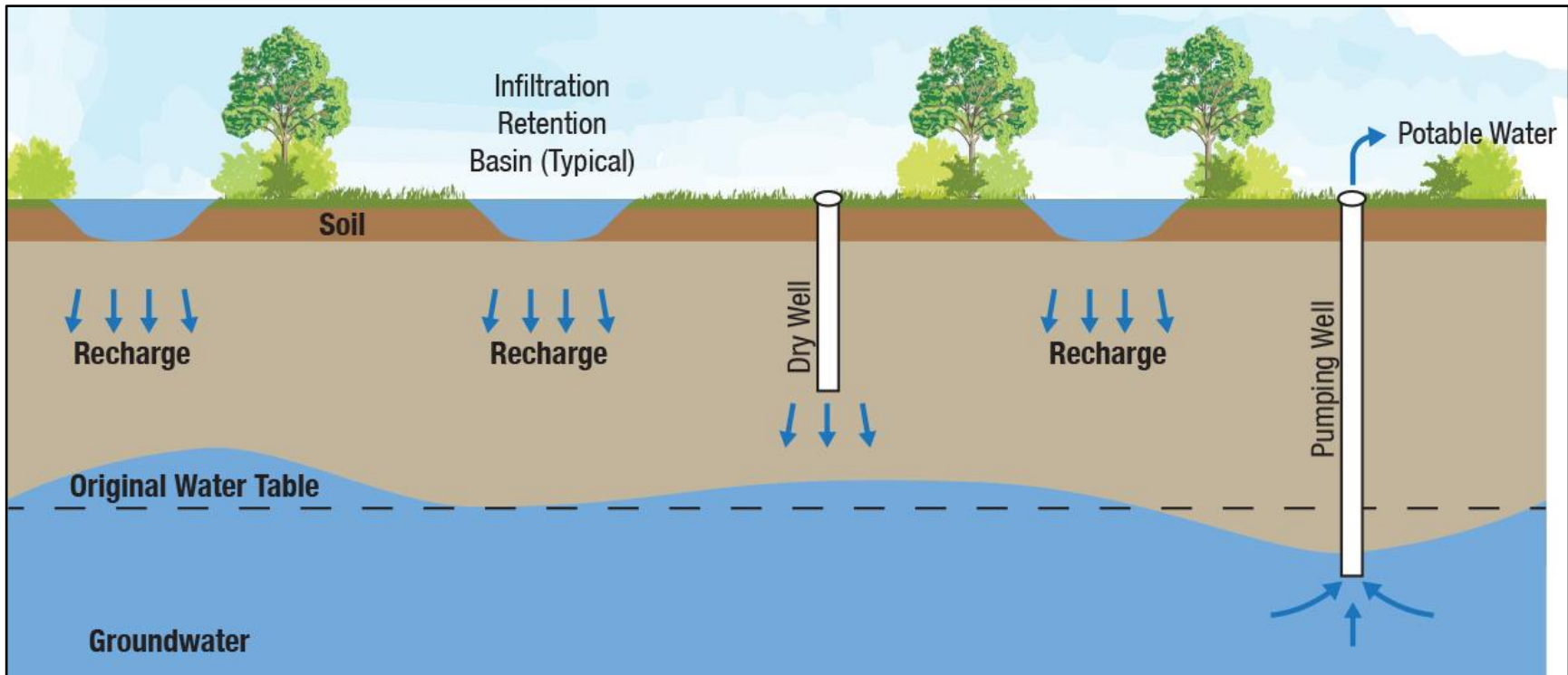


Figure 4-1 Managed Aquifer Recharge Illustration

Water Conservation Measures

As part of the water conservation program the Project will employ a number of water conservation measures in addition to recycling wastewater. These measures include:

- Implementation of low impact development (LID) measures to micro-manage storm runoff and recharge the groundwater table, such as retention, bio-swales, rain gardens, point source capture, and permeable paving;
- Incorporating the design and use of low water, drought-tolerant plant materials;
- Requirement for water-conserving irrigation systems and equipment;
- Standards for irrigation methods and water budgets in accordance with the State's Model Water Efficient Landscape Ordinance (MWELO);
- Limits on the use of turf;
- Site design standards and planting for shade to avoid evaporation and excess water usage;
- Limitations on use of aesthetic and recreational water features; and
- Requirements for architectural and green building systems for water conservation.

This water conservation program will result in the following benefits to the Madera groundwater sub-basin:

- Recycled water resources will be made locally available for irrigation;
- Stormwater runoff will be redirected to MAR facilities to provide both groundwater recharge and local flood protection;
- Consumptive use will be minimized;
- Recycled water will no longer be permanently lost to the wastewater disposal system, but will replace otherwise potable groundwater use; and
- Groundwater recharge will reduce local groundwater overdraft and will help reduce the potential for ground subsidence.

4.4 Water Supply System

The Castellina Community Water and Wastewater Facility Plan was developed for the Castellina project, a copy of which is included in the Project's Infrastructure Master Plan (IMP). The Project will be served with a combination of potable groundwater and recycled water.

Appendix C: Landscape Design Guidelines and Chapter 5: Water Resource Management of the Specific Plan, as well as the WSA and the IMP, discuss and address Project measures regarding water supply and conservation in more detail.

Provision of Water Service

Development of the Project Area will be designed as a looped potable water system with stubs to each of the neighborhoods. A detailed hydraulic analysis will be prepared during subsequent design phases to define pressure zones and pipe sizes for domestic and fire flows.

The Project Area is not within any County Service Area (CSA), irrigation district, agricultural water district, or maintenance district's jurisdiction, and does not have surface water entitlement.

The Area Plan is contiguous with the Madera Valley Water Company (MVWC), which provides domestic water service to residential commercial customers to the west of the Project Area. The determination as to which entity will be the water purveyor for the Project Area will be determined as a component of Project entitlement. The Project applicant will be responsible for building the water supply system within the Project Area. Upon construction of the Project, ownership and operation of all water utility systems will be transferred to MVWC or another qualified water purveyor. The water purveyor will be responsible for the continued operation and maintenance of these utility systems.

Water Quality

In 2017, water samples obtained from agricultural wells located on-site were tested and analyzed for the complete Title 22 drinking water constituents. The sampling results indicated that no contaminants were detected that would pose a health risk.

4.5 Wastewater System

The Project Area is not near a public wastewater system or non-community wastewater system, and there is no on-site sewage disposal system. To meet wastewater treatment and disposal needs, the Project Applicant, or a qualified entity, will build and operate a wastewater treatment plant (WWTP) within the Project Area.

The Castellina Community Water and Wastewater Facility Plan was prepared to provide facility plans for water storage, booster pumping facilities, wastewater treatment, and reuse/disposal devices for the Project. Section VI of the IMP for Castellina includes a description of the plan, including wastewater generation rates for the Project Area and the corresponding sanitary sewer system infrastructure required to convey flows to the treatment plant.

Wastewater System Facilities

Wastewater will be collected and conveyed through a gravity system of pipes, supplemented by one or more lift stations, if required, and then will flow to the on-site

WWTP, which will be located at a low elevation area on the site in the northwest corner of the Project Area.

A packaged membrane bioreactor (MBR) treatment system for initial and subsequent phases of expansion will be capable of accommodating approximately 1.1 million gallons per day (MGD) of peaking daily flow.

The WWTP will meet regulatory requirements and will provide aerated, filtered, and disinfected tertiary effluent recycled water for the Project Area.

WWTP Siting and Impact Mitigation

The preliminary wastewater network has been sized and located in the northwest corner of the Project Area (see [Figure 2-5: Land Use Plan](#)). The WWTP will be set substantially back from the main parkway drive, and landscape features such as berming or dense planting will be used along the Parkway Entry to shield the WWTP from view.

The Castellina Community Water and Wastewater Facility Plan includes a schematic diagram of the plant's main on-site components.

4.6 Recycled Water System

A recycled water system for the Castellina development will help meet the County's Large Scale Development Groundwater Balance ordinance as well as the Project's

water conservation goals by providing treated water for irrigation of public landscaped areas and other nearby uses. This topic is discussed in detail in the Project WSA, the IMP, and in Chapter 4 of the CSP.

Distribution

From the WWTP storage basin, recycled water will be delivered throughout the development via a new recycled water pump station and a backbone pipe system serving recycled water to public parks and other irrigated common areas throughout the Project Area.

Recycled Water System Phasing

Recycled water is planned to initially be used for construction water and non-residential outdoor irrigation. Along with irrigation of initial common area landscaping for the Project, portions of existing almond and fig orchards may be irrigated year-round within the Project Area to dispose of additional recycled water. As existing crops are removed to make way for ongoing development, excess recycled may also be conveyed off-site for agricultural irrigation of nearby farmlands.

4.7 Grading, Drainage & Stormwater Quality

Site Grading Concept

The Project site will be graded generally following the existing topography. Preliminary mass grading and drainage plans have been created as a part of the Project's IMP grading and drainage component and as a part of the

Phase 1 Tentative Map submittal. The preliminary mass grading concepts are also addressed in Chapter 4 of the Specific Plan.

Mass grading, and grading for each Project phase, will be designed to balance cut and fill material, such that no phase will require import or export of graded material to or from the Project Area. Generally, the overall site will be graded to drain from high points along the eastern edge to the west, toward the open area along the railroad tracks, and then from south to north, toward the site's lowest area in the northwest corner.

Existing Drainage Conditions

Castellina lies within three drainage basins: the Schmidt Creek Tributary watershed and two localized watersheds. A portion of the Schmidt Creek Tributary is within a mapped Flood Emergency Management Agency (FEMA) Zone A, as described in Section 1.4.4 of this Area Plan.

CLOMR and 100-Year Floodplain

Following FEMA publication guidelines for determining base flood elevations (BFEs) in Special Flood Hazard Areas, hydraulic modeling studies were conducted to estimate the Base Flood Elevations (BFEs) on the Project site. Using the FEMA model, the BFEs in the Zone A area were determined.

Based on the BFE mapping results, the County has confirmed that a CLOMR will not be required for the CAP or the CSP.

Proposed Storm Drain System

Drainage collection and conveyance facilities will be designed to protect against storms of the following recurrence intervals:

- Residential development – 2 years
- Commercial and industrial development – 5 years
- Institutional development – 10 years

Sizing and specific locations of retention-detention basins will be based on subsequent water management engineering plans. These systems will be sufficient to contain a volume or storage equal to that produced by the 100-year runoff for two three-hour 100-year rainfall storms and will meet the County's net groundwater balance objectives.

The preliminary storm drain pipe sizing was determined as part of the IMP and Castellina Water Management Plan. These and subsequent detailed storm management design will be based on the design storm events. Storm drainage will also be directed through use of site Low Impact Development (LID) design elements, as described below. The preliminary storm drain network has been sized and

located as shown in the IMP and the CSP and may be refined based on more detailed design.

Stormwater Quality & Management

The Project will be designed in accordance with both the NPDES Phase II General Permit and the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities also issued by the SWRCB.

A water management plan (WMP) and stormwater pollution prevention plan (SWPPP) have been prepared to provide the framework for stormwater treatment during the construction and post-construction phases.

The Project will employ Low Impact Development (LID) as an approach to post-construction stormwater management that emphasizes the use of small-scale, natural, point-source drainage features integrated throughout a plan area for the purpose of slowing, cleaning, and infiltrating urban runoff to improve the quality and reduce the quantity entering the storm drain system.

4.8 Dry Utilities

Electricity

Electrical service for the Project Area will be supplied by Pacific Gas and Electric Company (PG&E). A will-serve letter has already been received from PG&E.

Natural Gas

PG&E will provide natural gas service to the Project and has facilities close to the proposed Project Area.

Telecommunications

Telecommunications services will be provided by Verizon, AT&T, or other service provider(s) at the time of construction. These utilities will be expanded to the rest of the site commensurate with each phase.

4.9 Public Services

Fire Protection

The Madera County Fire Department (MCFD) contracts with the California Department of Forestry and Fire Protection (CAL FIRE) to provide fire protection and emergency medical services.

The Project applicant will work with MCFD to see that fire protection service impacts will be mitigated. The MCFD will review any tentative subdivision map in relation to fire protection facilities. The Project applicant will prepare a fire/vegetation management plan, if required, for approval by the MCFD.

Police Protection

Police protection to the Project Area is provided by the Madera County Sheriff's Department (MCSD). The headquarters station is located at 2725 Falcon Drive in the City of Madera, about four miles south of the Project Area.

Schools

The applicant will work with the Madera Unified School District (MUSD) to determine the most appropriate way to meet the educational needs of the area residents. As described in Chapter 2 of this Area Plan and shown in [Figure 2-5: Land Use Plan](#) and [Table 2-1: Land Use Summary](#), land for a 15-acre elementary school site has been identified, surrounded by both low and medium density residential neighborhoods, located in Parcel A8, adjacent to the large Central Park.

Solid Waste Management

Disposal of solid waste generated by the Project will be contracted with the local provider, under contract with the County. To assist in reducing waste, construction contractors shall provide recycling bins for glass, metals, paper, wood, plastic.

5

ADMINISTRATIVE GUIDELINES



CASTELLINA

5.1 Administration and Entitlements

This Area Plan constitutes one in a series of steps in securing County approval of development within the Area Plan boundaries. While consistent with the Madera County General Plan, this Area Plan becomes the basis for reviewing subsequent land uses, tract maps, specific plans and other site specific entitlement requests.

Madera County's Planning Director shall be responsible for administrative interpretation of this Area Plan and administrative enforcement of the Project in accordance with the provisions of this Area Plan, the State of California Government Code, and the Madera County General Plan and Code of Ordinances (County Code). The Planning Commission may review any administrative interpretation, subject to appeal to the Board of Supervisors.

To the extent any standard or other provision in this Area Plan conflicts with the Madera General Plan, the provisions set forth in this Area Plan, the CSP, and the Development Agreement, shall control. Unless expressly modified herein, the provisions of the County General Plan shall remain in full force and effect and shall continue to apply to the Project Area.

Initial County Entitlements

Initial entitlements required for development of the Project Area include the following actions to be taken by the Madera County Board of Supervisors:

- EIR Certification;
- General Plan Amendment;
- Area Plan Approval;
- Specific Plan Approval;
- Development Agreement (DA) Approval;
- County Code and Zoning Map Amendments;
- Rezoning of the Project Area Plan; and
- Tentative Map(s).

The Castellina Specific Plan provides systematic implementation of this Area Plan and will function as the zoning document for the Castellina community, providing zoning districts, development standards, and design guidelines for the new development.

Development of the Project shall be governed by the County Code and General Plan in effect at the time the Project application is approved.

Minor Modifications

A subsequent entitlement (e.g., tentative map or conditional use permit) may be found to be in substantial conformance with this Area Plan even if the entitlement is inconsistent with this Area Plan and the Specific Plan, if the Planning Director finds that the change in the proposed entitlement constitutes a “minor modification.” A minor modification may be processed if determined by the Planning Director to be in substantial conformance with:

- the planning principles and overall intent of the Area Plan and Specific Plan;
- the Development Agreement;
- the Madera County General Plan; and
- the Castellina Specific Plan Environmental Impact Report.

In the event and to the extent the Planning Director makes written findings to the effect that the requested change constitutes a minor modification, the subsequent entitlement may be approved administratively.

5.2 Area Plan Amendments

This Area Plan may be amended as necessary in the same manner as a General Plan Amendment request. Each amendment shall include all sections or portions of the Area Plan that are affected by the change. Such an amendment shall not require a concurrent General Plan Amendment unless it is determined by the Planning

Commission that the proposed amendment would substantively affect the General Plan goals, policies or programs.

5.3 Project Financing

Financing Plan

The Project shall be developed in a financially self-sufficient manner using revenue sources, including those described below. As described in [Chapter 2: Land Use Plan](#), the Project is planned to be developed in phases. In approving a tentative map for any portion or phase of the Project, the applicant or responsible agency (as applicable) shall demonstrate the availability of adequate financing to ensure that all infrastructure, public services, facilities, and amenities needed to serve the uses and structures covered by the requested map will be completed prior to occupancy of any structure on any lot described in the map and will remain operational as needed throughout the life of the Project.

Sources of Revenue

The applicant and developer expect to use public financing in conjunction with private sources to implement the Project.

Build-out of the Project is estimated to take fifteen years or more. The following are potential sources of revenue and may be available to be used as part of Project construction

and ongoing operation and maintenance of certain improvements:

- Taxes
- County Impact Fees
- Special Assessment Districts
- Land-Secured Debt Financing
- Castellina Impact Fees
- County Impact Fees
- Development Extractions (dedication of land, improvements, or fees levied on development)
- User Charges
- Public Financing Districts
- Utility Districts
- Homeowners Assessments
- Reimbursements (other property owners benefiting from improvements on the Project)
- Community Services District (CSD)
- Landscape and Lighting Districts
- Geologic Hazard Abatement District (GHAD)

B-3 Castellina Design Guidelines



APPENDIX B

SITE & ARCHITECTURE DESIGN GUIDELINES

1.1 Section Overview

This appendix explains design concepts and establishes the site and architecture design guidelines for development within Castellina. These guidelines address the architectural built form for the land use designations as well as general site layout and design guidelines related to functionality, mobility, parking, and signage.

These site and architecture design guidelines describe and illustrate building designs, concepts, and features that will promote high-quality development. They should be used in conjunction with the development standards described in [Chapter 2: Land Use & Development Standards](#) in the Castellina Specific Plan. Graphics and photographic images are included as visual references and should not be interpreted as design proposals. Creative design approaches are encouraged.

The terms *shall*, *should*, and *may* are used within the design guidelines. The term *shall* is used to denote a design standard where compliance is required. The term *should* is used to denote a guideline that is recommended, but not required in all circumstances. The term *may* is used to denote a design treatment that is allowed, optional, or left to the designer to determine.



These site and architecture guidelines serve the following functions:

- To establish criteria for site design, architecture, streetscape design, parking design, lighting, and other distinguishing features that define the community.
- To provide developers, builders, planners, architects, and property owners with guidelines and recommendations, to aid in maintaining the high level of design unity, while still allowing for a degree of individual expression and flexibility.
- To create and enhance neighborhood identity and facilitate the creation of a vibrant, livable, and memorable community that residents and merchants will see as a thriving place to live and do business.
- To encourage sustainable design solutions that reduce energy consumption, use water efficiently, and minimize waste.
- To encourage and be a catalyst for the development of a wide range of housing options and opportunities for both builders and future home buyers.
- To promote mobility within the community while reducing greenhouse gas emissions, encouraging

healthier lifestyles, and providing opportunities for social interaction.

- To create building designs that result in efficient use of space, materials, and resources while maintaining a high level of design integrity and authentic architectural style.

1.2 Circulation Site Design

Roadway Circulation

Street Orientation

Streets shall be oriented and aligned with strong sightlines toward parks, plazas, main buildings, main landscape features, and distant views. The alignment should create a sense of spaciousness and discovery and aid in orientation and wayfinding.



Modified Grid Patterns

The primary backbone circulation for Castellina has been designed to encourage connectivity of both neighborhood and collector roads, creating multiple routes into and out of the respective neighborhoods.

Entry Roads

Entrance roads from off-site arterial roads will have a minimum 200-foot-long segment, or throat, before the first intersection (as measured from the center of the intersection to the nearest edge of the arterial right-of-way).



Entry roads should be aligned such that they create dramatic sightlines and views into Project amenities and special features.

Frontages Along Central Park, Grand Promenade, Village Green, and Neighborhood Parks

Buildings shall front onto major community amenities, such as the Central Park, Grand Promenade, Village Green, and Neighborhood Parks. These buildings should be especially well articulated and designed to present an overall feeling of quality and character around these community features.



No private driveways will be allowed access onto the roads adjacent to the Central Park and Grand Promenade. Fronting buildings instead should be accessed via rear drive lanes, alleys, or rear parking areas.



Block Lengths

Block lengths may vary within neighborhoods, but may, with limited exceptions, be no more than 600-800 feet in length, to create a fine-grained street pattern with multiple access routes. Exceptions may be due to individual site layout geometries, unusual building types, or other unforeseen site design constraints.

Cul-De-Sacs

To facilitate vehicular connectivity and provision of multiple routes in and out of neighborhoods, the design of local

residential roadway systems should include a limited number of cul-de-sacs, except in areas where site geometrics or other factors justify these features, such as a cul-de-sac backing onto an open space or park.

Pedestrian/Bicycle Access & Circulation

Castellina has been conceived and designed around the concept of an efficient and convenient pedestrian and bicycle circulation network.

To the extent feasible, the following guidelines shall be incorporated into the design and development of each neighborhood:

- The backbone roadway network provides bicycle/pedestrian pathways connecting all parts of the Castellina Project site. Detailed subdivision design should seek to include pathways to connect people to Plan Area features and amenities, such as parks, the Village Green, or the local school.
- Pedestrian paths should incorporate foot lighting where feasible and appropriate.
- Gathering spaces should be located where high levels of pedestrian or bicycle activity are anticipated, such as near parks or commercial plazas and other uses that encourage outdoor activity.

- Clear, direct, and efficient pedestrian connections between commercial and residential areas are strongly encouraged.
- Pedestrian crossings at arterials, collectors, major loop roads, roads at parks, the Grand Promenade, the Village Green, or amenity centers will be enhanced with striping, special paving, bollards, bulb-outs, signage, or other design features that notify motorists of potential increased pedestrian presence.



- When parking is provided behind buildings, pedestrian plazas or walkways should connect to rear parking areas.
- Bicycle racks shall be provided within the Town Center, the Central Park, neighborhood parks, the Adult Activity Center, and other public and quasi-public areas. They should be highly visible, tamper

resistant, and anchored to the ground to discourage theft. They should be placed between the sidewalk and building entrance or within a designated area of a gathering space or parking lot, and located adjacent to bikeways in appropriate locations.



Neighborhood Focal Points

Neighborhood focal points, such as the elementary school, the Central Park, neighborhood parks, the Grand Promenade, and the Village Green, will be the organizing elements around which neighborhoods will be designed. These features have been located to be within ¼-mile from any point within the Plan Area. Additional smaller pocket parks are encouraged, at the discretion of the builder or developer, and paseos, walkways, trails, and other

neighborhood pedestrian connectors should be laid out to provide direct access to community features.



1.3 Residential Site Design

Single Family Detached and Duplexes

The objective of this section is to encourage innovative and diverse residential streetscapes that facilitate interaction between residents. It also addresses the relationship of private residential property to the street and community.

Within each neighborhood, a variation of densities, housing products and lot sizes should be considered to create a diversity of housing opportunities and varied streetscapes.

To the extent feasible, the following guidelines shall be incorporated into the design and development of neighborhoods.



Site Design

- Alteration of the placement and juxtaposition of residential units on the lot is encouraged to create visual diversity and avoid monotony.
- On larger lots, where siting flexibility is possible, optimum solar orientation of buildings for winter heat gain and summer heat reduction is encouraged.



Building Form, Style, and Orientation

- Alteration of the massing, and composition of residential units is encouraged to create visual diversity and avoid monotony.
- Architectural styles that are diverse may be chosen for the various neighborhoods. Using a combination of compatible forms within each architectural genre can create a street scene and neighborhood character that is visually appealing, but should avoid the use of visually clashing styles.
- In medium-density areas, alternative housing types, such as single-family patio homes, bungalows, townhomes, row-houses, auto court clusters, and small-scale apartments that incorporate compact

density and provide diversity of housing opportunities, are encouraged.

- Houses backing onto entry or collector streets should be articulated with materials and relief to provide visual interest and graceful lines from the streetscape, and avoid the flat, unattractive appearance of plain building walls with uninteresting or little fenestration.
- No single-family residential development shall back onto the Central Park, Grand Promenade, or any neighborhood park.



- Residential development adjacent to parks and open space should maintain visual access.
- The living areas of residential units should be sited and oriented close to the street to create an inviting streetscape that promotes pedestrian activity.



- A mix of lot widths and front setbacks within the block should be considered to promote a variety of yard sizes, landscape patterns, and architectural footprints, as well as a more interesting streetscape. Every five adjacent lots should contain at least two homes of varying front setbacks at a depth differing by no less than three feet.
- Residential buildings should incorporate varied height and roof lines facing the streetscape.

- When plotting the same floor plan immediately adjacent to and/or across the street from one another, a different elevation style should be used. Exterior color schemes should be varied for adjacent units with the same elevation style.
- Ground-mounted mechanical equipment should be located behind privacy walls/fences, inside utility cabinets, and/or behind landscaping to screen from the public view. These include, but are not limited to, power transformers/sectors, electrical equipment, backflow preventers, antennas, large satellite dishes, and HVAC (heating, ventilation, and air conditioning) equipment. There shall be no roof-mounted air conditioning units.



Corner Lots

Neighborhood quality will be enhanced by including a home plan specifically designed for a corner lot condition.



The following design guidelines should be considered for corner lots:

- Corner lot layout design should include an element that helps enhance the side facade, such as a wraparound porch, pop-out gable element, or bay windows.
- Alternatively, residential development should include design for optional use on corner lots. Significant architectural elements, to encompass an interior space, are encouraged.

- *Duplexes* are two-unit residential buildings with a shared common wall or ceiling, and *half-plexes* are one-half of an attached residence. Both housing styles on corner lots in single family neighborhoods are encouraged.



Materials and Colors

- A variety of high-quality, durable colors, textures, and tones should be utilized to create interesting and attractive building designs and avoid monotony.
- Materials that withstand local environmental conditions such as extreme heat and wind should be utilized.
- Artificial materials should be avoided in favor of natural materials. Materials such as cement board siding, artificial stone, and vinyl fencing should be as close in appearance to their natural material as possible.
- Each residential unit should have one or two complimentary main colors and up to three complimentary accent colors.
- To avoid the appearance of false facades, materials and colors used on the front facade should be wrapped along the side facade to an inside plane or to an appropriate transition point several feet beyond the front elevation.
- Decorative elements should be used to break up the plane of the facade and create visual interest. These include such features as shutters, exposed rafter ends, columns, decorative grille work, decorative stucco, clay pipe vents, and decorative ceramic tile.

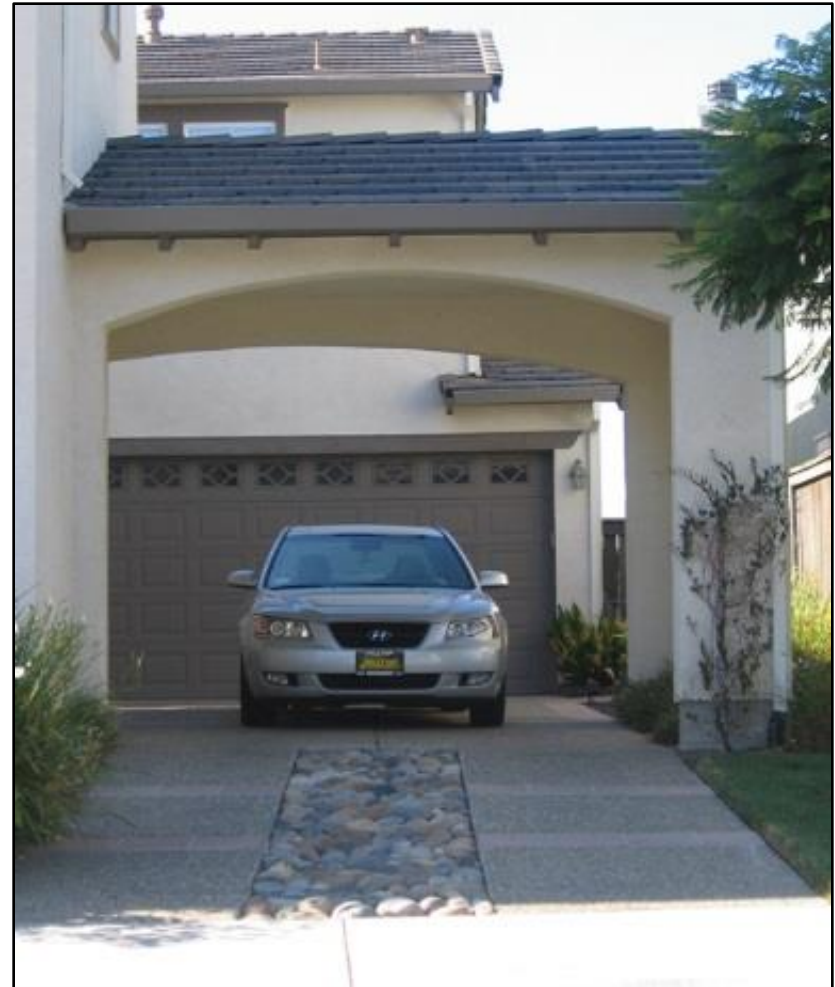


Garages and Driveways

- To maintain the residential facade as the main visual element on the streetscape, garages on front-loaded lots should be de-emphasized and recessed at least five (5) feet behind the street-facing living area facade of the residence.
- Garages may be attached or detached to match the conditions of the site and the style of the home.
- Garages located next to garages and living space next to living space should be considered, where practical, to undulate the street pattern and create ample space for on-street parking.
- Garage placement should be varied within neighborhood plot plans and floor plans.



- Garage door patterns and colors should be varied between adjacent units.
- Optional treatments such as porte cocheres, gates, or trellises that are forward of the garage are encouraged.
- For rear-lane-accessed homes, a minimum of five (5) feet in length is required for the apron from the face of garage.
- Porous or decorative paving for driveways or rear-loaded driveway aprons is encouraged.
- In the interest of Low Impact Development (LID) for stormwater recharge, driveways should consider the following design techniques:
 - Use of permeable pavers or porous concrete;
 - A Hollywood-style or ribbon driveway with a center area of turfblock, pavers, or rock that facilitates better drainage on the lot;
 - Concrete driveway that includes a trench drain.



Windows and Doors

- Windows should be proportional to the facade and reflect the architectural style and character of the building.
- Window size and shape should provide a balanced relationship with the surrounding roof and walls.
- Accent shutters are encouraged and should be proportional to the window opening to appear functional in a manner that doesn't look tacked on or artificial.
- Windows should enhance, not dominate, the overall architectural character. Large unbroken expanses of glazing should be avoided.
- Providing at least one major window that looks out onto the street is strongly encouraged.
- Windows that are certified as energy efficient are required.
- Operable windows are strongly encouraged to provide natural ventilation and to enhance the indoor-outdoor relationship.
- Accent entry doors, arched windows and doorways, shutters, pot shelves and window boxes, and accent trim are encouraged.
- Upper story windows that are visible from streets or open spaces should be designed with window trims

- and grids that match the front elevations of the structure.



Roofs

- Varied plate and ridge heights are encouraged to create offsets in the ridgeline to better define roof forms and building massing. Flat roofs are prohibited.
- Roof colors should be neutral earth tones, except for architectural styles that require gray shades.
- Roof materials should be concrete, clay, cement, tile, composition shingle, or other fire resistant materials. Roof colors and materials that meet or exceed energy efficiency requirements shall be used to reduce the heat island effect.
- Rooftop solar panels, solar films, solar water heaters, small-scale wind turbines, and other similar features may be used to generate energy and are strongly encouraged. Other roof-mounted mechanical equipment should be avoided on single family dwelling units



Porches and Balconies

- Porches may be used as single story elements at the street elevation and are encouraged, if architectural style warrants this architectural element.
- Porches should be a minimum of five (5) feet in depth. Larger depths are encouraged.
- At corner lots, wraparound porches are encouraged.
- Second story balconies should be a minimum of 5 feet in depth and are encouraged.



Multi-Family Residential

Multi-family residential units include garden apartments, multi-story apartments, stacked flats, condominiums and mixed use units above retail. They will be located in the Town Center, and adjacent to the Grand Promenade and Central Park.

The following guidelines should be considered during design and development of each neighborhood:

Site Design

- Building layouts should maintain easily identifiable geometric configurations and form. Free-form or organic layouts of buildings are discouraged.
- Townhomes, or row homes, side-by-side attached residences, should have a minimum of three attached units.
- Buildings should be placed along the street or at corners, with parking in the rear, to help liven the public street, provide eyes on the street for safety, and avoid a parking-dominated streetscape.
- Courtyards, patios, outdoor play areas, and other open space features are strongly encouraged.



Building Form, Style, and Orientation

- Massing and form should incorporate visually heavier elements at the building's base and lighter elements in the upper areas.
- Designs should include features typically associated with single-family houses to provide interest and variety as well as a visual environment of an intimate neighborhood scale. These include doors, windows, and balconies that are sized and designed to fit the human-scale.
- Large monolithic building forms should be avoided by incorporating a variety of colors, textures, and materials. Changes in roof plane, recesses in the facade, varied building setbacks, distinguishing chimneys or elevators, and other architectural techniques should be used to give the buildings interest and avoid the adverse effect of long, unchanging facades. Building lengths should generally not exceed 200 feet.
- Balconies facing the street on above-grade units are encouraged. Entry porches are encouraged at the ground level.



Roofs

- Flat roofs shall be accompanied by cornices, trim or other accent features.



- Attached townhouse roofs shall be treated as single family homes, in which varied plate and ridge heights are encouraged and flat roofs are prohibited.

Circulation and Parking

- Buildings should allow for efficient vehicular and pedestrian circulation and be oriented to maintain open vistas and sightlines to landscape features, monuments, distant views, iconic community buildings, and the like.
- Wherever possible, parking and garages should not front the street and instead be accessed from the rear.
- Parking should be screened from the street by residential buildings or landscaping.

- Carport banks should not be longer than 100 feet, and no more than six detached garage structures or two carport structures may be located adjacent to each other end-to-end without a landscape or other break, such as a road or pathway.



1.4 Residential Architectural Styles

Madera County has a rich legacy of mining, lumbering, and agriculture that have fostered a variety of traditional architectural styles. In many Central Valley communities, architectural styles such as Spanish, bungalow, cottage, farmhouse, Monterey, mission, traditional, and craftsman, were imported and adapted to address the local needs.

The exterior character of the residences and other buildings in Castellina will draw from both the historical references of traditional neighborhood design, the agricultural surroundings, and the architectural influences of Madera County and the Central Valley.

Following are architectural genres and styles that should be considered for development. This list of genres is not exhaustive, and other genres may be considered, so long as they support the project objectives and are designed consistent with the overall intent of these guidelines.

The architectural genres described below are:

- Farmhouse
- Italianate/Tuscan
- Craftsman/Bungalow
- California Ranch
- Spanish
- Monterey
- Cottage

Farmhouse



The farmhouse was a functional home before it was an architectural style. The design of the farmhouse was initially influenced strictly by function and geography, traced to Colonial styles from New England and later the Mid-West. The farmhouse was always unpretentious, straightforward, and functional, shaped by the needs of the farmers, the local climate and the materials available.

In fact, it is a hybrid of architectural styles that were blended to produce these practical houses that would shelter farmers and their families and serve as a functional center to farm life.

The farmhouse style is characterized by straightforward, functional design. Typical elements include a simple, rectangular floor plan; one-and-a-half or two stories; side gable end roofs; dormer windows; welcoming, large wrapping front porches with a variety of wood columns



and railings; formal rooms in front, separated by walls and doors from family rooms in back; dominant fireplaces; and large windows.

Roof ornamentation is a characteristic detail, including cupulas, weathervanes, and dovecotes.



Finishes and Details

- Additive building volumes give the home an appearance that it was built over time.
- One- and two-story volumes and rooflines are commonly used in combination.
- Roof types include gabled and shed roof forms with moderate roof overhangs.
- Substantial chimney elements appear to be a natural extension of the ground plan.
- Board-and-batten or horizontal siding is common, often combined with brick or stucco.



Italianate/Tuscan



The Italianate/Tuscan style is inspired by the informality of the rural farmhouse and settlement buildings typical in traditional villages in Tuscany. This style began as part of the picturesque movement, a shift away from formal architecture. These structures often include traditional square towers and were created with indigenous materials and colors to blend with the surroundings. Landscape is seen as an extension of the living space, so courtyards and gardens were common features.



Italianate/Tuscan is characterized by low-pitch irregular roof lines which may be punctuated by a tower or campanile. The style is eclectic, with decorative brackets that articulate the eaves, along with its shallow pitched roof. Exterior walls are stucco with stone or adobe accents, often on the front entry.

Finishes and Details

- Projecting eaves supported by corbels
- Imposing cornice structures
- Pedimented windows and doors
- Tall first-floor windows
- Loggias
- Balconies with wrought-iron railings, or Renaissance balustrading
- Balustrades concealing the roof-scape
- Tower features
- Angled bay windows
- Glazed doors
- Roofs
 - Low-pitched or flat roofs; roof is frequently hipped
 - Cupolas



Craftsman/Bungalow



The Craftsman/Bungalow architectural style has influences from the English Arts and Crafts movement of the late 19th century and was stylized by California architects such as the Greene brothers in Pasadena and Bernard Maybeck in Berkeley. Craftsman combines hip and gable roof forms with wide, livable porches and broad overhanging eaves.

Built-in elements define this style with details such as windows and porches treated as furniture. The horizontal nature is often emphasized by exposed rafter tails and knee braces below broad overhanging eaves and rustic texture building materials. Together, these treatments create a natural, warm, and livable home with artful and creative character. Variations and divergences in expression are common, especially between the Northern and Southern California influences.

In Northern California, the craftsman/bungalow style spun out of bungalows that were the production home of the era. This unique look exhibited hand crafted quality, which is how the style got its craftsman name.



Finishes and Details

- Broad porch elements with expressive structural components usually placed symmetrically
- Expressive, structural elements such as rafters, brackets, and columns
- A mixture of materials such as stone, stucco, and siding
- Simple roof lines with wide projecting gables
- Entry and surrounding stoop covered and contained by a roof or porch covering
- Variety of column and beam detailing at porches
- Roofs
 - Roof dormers
 - Shallow pitched roofs with deep overhangs
 - Predominantly low-pitched gabled roofs, with the occasional shipped or shed roof
 - Flat concrete tile or architectural asphalt shingle



Early Californian and California Ranch



The California Ranch architectural style is generally noted for a long, close-to-the-ground profile, and minimal use of exterior and interior decoration. Ranch combines modernist ideas and styles with the American Western period working ranches to create casual, informal living style.

First built in the 1920s, California Ranch was popular with the post-war middle class from the 1940s to 1970s. While they are traditionally single-story homes, there are two-story variations.



Common features include simple and open floor plans, attached garages, large windows and sliding glass doors that open to a patio, large overhang eaves, vaulted ceilings with exposed beams, cross- or side-gabled and hip roofs, and simple, rustic trim. They often incorporate board and batten siding, dovecotes, large eaves, and extensive porches.

Finishes and Details

- Wood, stucco, or plaster exterior walls
- Stone, brick, or other accent materials especially along the front of the house or near entrance
- Trim around front and visible windows
- Grid patterned windows
- Accent shutters and dormer windows
- Front porch or patio
- Gale or hip roofs



Spanish Colonial



The Spanish style takes its cues from the early Spanish missions, with additional Latin American details and elements. The style became popular after the 1915 Panama-California Exposition.

The use of tile roofs, smooth stucco walls, heavily textured wooden doors, and highly articulated ornamental ironwork create strong contrasts of materials and textures. Plans can be designed around a courtyard with a simple articulated front facade. Other design treatments may include scalloped windows and balconies with elaborate grillwork; decorative tiles around doorways and windows; and a bell tower.



Finishes and Details

- Stucco exterior walls with smooth to light sand finishes
- Wood posts and stucco columns
- Chimneys of sculptured stucco
- Round arches
- Decorative columns and trim
- Stucco profiles at eaves and windowsill trims
- Ornate black wrought iron or metal railings, gates, grilles, or fences
- Shutters as occasional accent
- Wrought iron balconies
- Deep recessed openings
- Covered patios and porches
- Detailing primarily at openings
- Stucco or tile decorative gable end vents
- Projected window and door balconies open or roofed
- Round or square columns at one- and two-story porches
- Roofs
 - Low-pitched roofs with minimal or no overhang
 - Gable ends with tight rakes
 - Gable end roof vents with clay pipe or decorative stucco grilles
 - Gables and hip roofs
 - Shallow sloped, concrete "S" tile roofs in varied colors (red clay is preferred)



Monterey



With influences from both the Spanish and New England Colonial homes, the Monterey style utilizes stucco or masonry walls with "S" or flat concrete shake roofs. They often exhibit many elements of Spanish homes, including simple building form and mass, rusticated corbels (structural elements jutting from the wall), head trim, posts and balconies (if used), and gable roof forms.



Monterey style buildings often have porches and second floor balconies or verandas; however, these are not essential. Successful adaptations of this style focus on careful massing, simple details, and the use of wood to accent doors, windows, and balconies.

Finishes and Details

- Stucco as the predominant finish with brick and siding used as accent materials
- Second-story balconies
- Use of brick veneer as a base for the elevation
- Shutter accents at doors and windows with wood or stucco trim
- Enhanced front door
- Roofs
 - Flat or "S" concrete or terra cotta tile
 - Gable, typically low-pitched (3.5:12 to 4:12 pitch)
 - Tight rake and extended eaves with exposed rafter tails



Cottage



Cottage is a picturesque style that has evolved from the medieval Tudor and Norman domestic architectural styles and became popular after the adoption of stone and brick veneer techniques.

Overall shapes and forms include variation of one and two story asymmetrical facades. Most recognizable and distinct features of this style are the stucco and wood or half-timber accents in the gable end.



Roof pitches are often steeper than traditional homes, and are comprised of gables, hips and half-hip roof forms.

Finishes and Details

- Stucco, brick, or stone exterior material combinations
- Large, simple roof planes
- Simple detailing
- Chimneys detailed with stucco and stone or brick veneer below, with decorative chimney cap
- The entry and surrounding raised stoop covered and contained by a porch or roof covering
- Garage doors that incorporate panels
- Roofs
 - Gable, hip, and Dutch gable roof forms
 - Rooflines that extend below the top edge of a window
 - Shallow overhangs
 - Steep pitch with wide gables and dormers
 - Slate stone appearance
 - Tight eaves



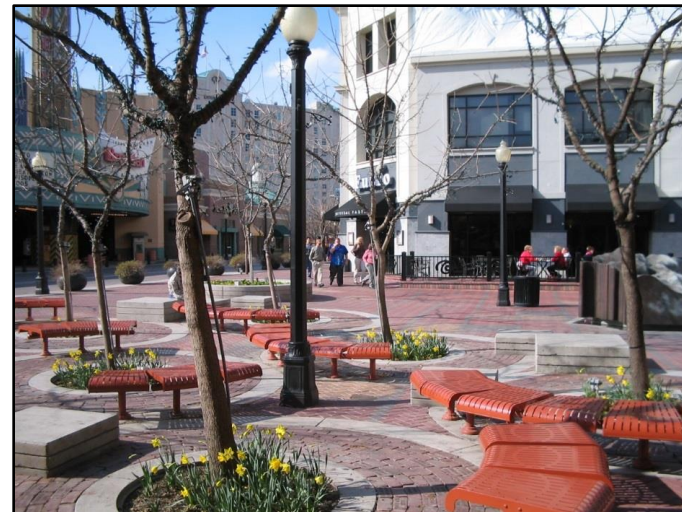
1.5 Commercial Design

Streetscape and Circulation

- Buildings, roadways, and paths should be oriented around the Village Green, the primary gathering feature for the Town Center Area.
- Sidewalks adjacent to buildings fronting the Village Green shall be a minimum of 15 feet wide. Mid-block vehicular access is prohibited. (see [Section 2.1.2 Land Plan Elements](#), *Central Greenway and Community Core*, of the Specific Plan)
- The streetscape and intersections around the Village Green shall use a variety of materials and surface treatments that reinforce a cohesive and inviting pedestrian-friendly atmosphere.
- Street furniture and amenities should be incorporated throughout the Town Center, particularly on streets fronting the Village Green. These include but are not limited to: decorative light posts, planter boxes, canopy shade trees, benches, trash receptacles, newspaper racks, bicycle parking, drinking fountains, signs, and a community information kiosk.



- A transit stop with a shaded structure shall be conveniently located within the Town Center and close to the Village Green, if requested by a transit agency.
- Commercial areas should be designed with careful attention to pedestrian safety and access.
- Parking lots should be located behind buildings with convenient pedestrian access to the front of the buildings.
- The streets fronting the Village Green should be designed to be easily closed to temporarily expand the public realm and function as special gathering areas during community events.
- Well designed, human scale pedestrian corridors and spaces shall be included in the design of all commercial areas to accommodate and encourage pedestrian activity.



Town Center and Village Green Commercial

- The Village Green should provide convenient pedestrian access and circulation from other areas of the community, comfortable seating areas protected from the sun, and other pedestrian amenities, such as a small grandstand or band shell, large canopy shade trees, public art, umbrellas, or a special feature for children such as an interactive play fountain.
- The Village Green should incorporate both hardscape and planted landscaping that is designed to facilitate space for community interaction and events such as art shows, farmers markets, concerts.
- The Village Green should incorporate shaded and conveniently accessible bike parking facilities.



Building Form, Theme, and Style

A consistent architectural theme should be used throughout each commercial center to create a sense of continuity between the buildings. This may be achieved by using common design elements such as building shapes, door and window casings, massing, and architectural details applied consistently throughout the development. Related elements, such as trellises, planters, light standards, windows, and doors should also adopt detailing that is compatible with the selected architectural theme.

- Buildings should be oriented consistent with the urban character of the Town Center.
- The design of sides and rear of buildings should complement the front facade with similar architectural elements, materials, and colors, but may be more casual, and more utilitarian in nature. Blank walls are strongly discouraged.
- Building facades, particularly those that front a public street or space should be articulated and avoid the creation of blank walls or glass curtain walls. Appropriate methods of articulation include, but are not limited to:
 - Increasing openings;
 - Creating a defined building cap and roofline;
 - Creating a defined base for the building;
 - Adding depth and detail to the cornice or roof parapet; and

- Recessing storefronts and windows into the facade to create depth and cast shadow patterns.

- Buildings should be oriented for maximum visibility from streets to attract potential customers and support long-term viability.
- Massing elements, such as tower features or bay windows, are strongly encouraged to anchor corners or entries.



- Architecture and site design should respond to the climate by providing indoor-outdoor transitional spaces. These may include porches, patios, verandas, deep overhangs, canopies, awnings, and trellises.

Colors and Materials

- Colors and materials should be used to complement the building architecture and provide distinct character.
- Building materials should reflect the style and character of the buildings and be consistent with historical influences commonly seen in California. The materials should be high quality, long lasting, and low maintenance. Use of stucco, wood, stone, and iron is encouraged.
- Thicker walls, ledges, or sills, and textured materials such as stone, masonry, or textured concrete all may be used to enhance the building's definition and form.
- Roofing materials that are generally acceptable include metal standing seam, asphalt shingles, concrete tile, ceramic tile, and slate or slate-like materials. Roofing materials shall be of high quality and durable to maximize the life-cycle of the roof.



Windows and Entries

- Window size and proportions should be appropriate to the individual building styles and uses. Window forms and shapes may vary from building to building to subtly reflect the built-over-time appearance.
- Buildings should maintain a minimum 60 percent clear/transparent glazing along the primary store frontage up to eight feet above grade. Dark tinted or reflective glass should be avoided.
- Primary building entrances should be designed as features of the front facade.
- Entries should be enhanced with additional elements to create a pedestrian scale, including massing variation and changes in materials, color, and roof form.
- Service entrances should be located behind or on the side of buildings and designed to be visually unobtrusive.



Roofs

- Roof materials should be compatible with the overall style and character of the building facade.
- Roof forms should be used to identify and articulate different buildings and distinguish different tenants within a larger building complex. They may include flat roofs, pitched and hipped roofs, and other distinctive roof shapes and forms and should be compatible with other roof forms in the surrounding area.
- Pedestrian areas may be enhanced by shed and gabled roof elements that extend into the pedestrian realm as arcades to provide cover and shade.
- Dormer elements, roof overhangs with brackets, stepped or shaped parapets, and other similar features are encouraged to provide an added layer of detail, shadow, and variety to roof forms. Use of contrived or fake mansard roof elements to screen roof top equipment should be avoided.
- Roof heights should be varied to create visual interest and avoid monotony.
- Flat roofs shall be accompanied by a cornice, trim, or other accent features.



Equipment, Screening, and Refuse

- Ground-mounted mechanical equipment shall be located behind privacy walls or fences, inside utility cabinets, or behind landscaping to screen from streets, walkways, parking lots, parks, and common areas. Items to be screened include, but are not limited to, power transformers, electrical equipment, backflow preventers, antennas, large satellite dishes, HVAC equipment, and other similar mechanical equipment and utilities.
- Refuse collection and storage facilities should be generally located away from public areas or screened from public view. Refuse container enclosures shall be designed with similar architectural treatments and colors as the adjacent buildings.
- The location and hours of loading and unloading areas should be designed to minimize noise impacts on adjacent uses.
- Storage, service, and loading areas shall be adequately screened and located away from public and common areas to avoid disruption of on- and off-site traffic flow.
- Roof-mounted mechanical equipment (excluding solar panels, solar films, and small-scale wind turbines) shall be screened from view.



Restaurants

Restaurants should be designed to create or take advantage of public gathering spaces throughout commercial centers. Outdoor seating areas that include tables, chairs, umbrellas, potted plants, trellises and other design features are strongly encouraged. Outdoor seating areas should be located so that they are visible to the public whenever possible.

Building design should always reflect the overall architectural theme of the shopping center and includes franchise or chain restaurants.

Service areas and utilities shall be fully screened with walls, fences, landscaping or other forms that are compatible with the primary building colors and materials.



1.6 Signage

Signage regulations in the Madera County Municipal Code shall apply, unless otherwise addressed in these guidelines. In the event of conflict between the Municipal Code and the following guidelines, these guidelines shall prevail.

General Signage Guidelines

- Signs should be oriented to the pedestrian, even if also designed for vehicles.
- Lettering styles should be proportioned, simple, and easy to read.
- No portion of the sign, including support materials, should project above the cornice, parapet, or roof eave, unless it is integral to the building architecture, such as a theater marquee.
- Signs should not cover windows, architectural elements, or architectural details.
- A master sign program shall be required for buildings with more than three tenants or sites with more than one building excluding accessory structures. This program will require that each tenant sign has an appropriate and compatible size, location, shape, orientation, and scale.

Sign Material and Color

- Sign materials should complement the overall architectural character of buildings on the property and be constructed using high quality materials, be durable, weatherproof, and treated or painted so that they will not discolor, rust, fade, crack, or corrode.
- Sign colors should complement the colors of adjacent buildings on the site.



Sign Lighting

- Appropriate types of illumination include:
 - External lighting that is directed on the sign face or provided from an on- or off-site light pole.
 - Backlighting of individually mounted letters and sign symbols.
 - Internal illumination of box signs that illuminate just the letters, logos, or symbols of the sign, but not the sign background. Internally illuminated box signs that illuminate the entire sign (letters, symbols, logos, and background) are discouraged.
- Sign lighting level should not overpower the facade or nearby signs. The light source shall be angled toward the sign and should be shielded from pedestrian view.
- LED or other low energy use lighting sources should be used for sign lighting.



Awning and Marquee Signs

Awning and marquee signs are signs that are attached to an awning or marquee above an entry or window. These signs are generally used along building facades that are adjacent to a sidewalk or walkway.

- Signs should only be placed on the front face of awnings, but may be placed on any face of marquees.
- Replaceable valances are encouraged to avoid the need to replace awnings or paint out previous tenant signs when a new tenant moves in.



Directional and Wayfinding Signs

Directional signs are small freestanding signs that provide direction to pedestrians and vehicles.

- Directional signs are encouraged along internal driveways and pedestrian walkways, and where there are multiple businesses, buildings, or functions (e.g., to direct service trucks to loading areas and customers to parking areas).
- Directional signage should be simple and include a directional arrow and the name of the area or business.
- Directional signs may be illuminated by external lighting fixtures or with internal lighting.
- All traffic and pedestrian safety signs are to comply with the Madera County sign ordinance.



Wall Signs

Wall signs are vehicle- and pedestrian-oriented signs that are mounted flat on the facade of a building.

- Wall signs should not project more than 12 inches from the facade and should not exceed 24 inches in height.
- Building facades may be designed with specific areas dedicated for wall signs such as the panels above storefronts, on the transom, or flanking doorways. The location, placement, and size of wall signs should create a consistent pattern of signs on the facade.
- Wall signs should be positioned within architectural features such as the panels above storefronts, on the transom, or flanking doorways.



Projecting Signs

Projecting signs are double-sided signs that project perpendicular to the building facade and hang from a mounted wall brace on the facade or from a roof overhang, such as an arcade. Projecting signs are primarily oriented towards pedestrians.

- Wall-mounted projecting signs should not extend more than 3 feet from the facade. Signs hanging from a roof overhang should generally be centered with the overhang. The total sign area should not exceed 9 square feet.
- A minimum vertical clearance of 8 feet, as measured from the bottom of the lowest part of the sign to the adjacent ground surface, shall be maintained.
- Projecting signs should generally be located near entrances, and below second floor windows. No portion of the sign should extend above the roof line.
- Projecting signs may be illuminated by external lighting fixtures.



Window Signs

Window signs are signs located in a storefront of a business and are oriented toward the adjacent sidewalk or walkway.

- Window signs should not occupy more than 25 % of the window.
- Permanent window signs should be created with permanent, fade-resistant paint, decals, gold-leaf, or etching.
- The location, size, and shape of window signs should add to a storefront display, not detract from views into the business.
- Window signs may be illuminated from external light sources or from lighting within the storefront.



Gateways and Entrances

Each residential neighborhood should have at least one theme entry gateway with supporting landscape elements that serve as landmarks to identify the neighborhood. See Monument Signs below for more information.

Monument Signs

Monument signs are signs that are located within the front setback, generally between the sidewalk and building, and are attached to a freestanding structure supported by one or more uprights, braces, columns, poles, or other similar structural components placed on or into the ground.

- Monument signs near vehicular entrances should be oriented to be readily visible by motorists.
- Monument signs should not cause line-of-sight issues with driveways or intersections.
- Monument signs should be scaled for use by pedestrians and drivers, allowing visibility and avoiding blocking views for safety at intersections.
- Landscaping, especially evergreen flowering plants, is encouraged around the base of the monument sign to highlight and define the base while screening support structures.
- Monument signs should be constructed of high-quality, durable materials. Materials, finishes, and colors should complement the style and character of the adjacent building or the neighborhood.

- Internal illumination is discouraged on monument signs. Illumination from external lighting fixtures or back-lighting behind individually mounded letters and symbols is encouraged.



1.7 Lighting

Consistent with streetscape furnishings, lighting within the Plan Area will express the envisioned aesthetic and community character. Lighting design will help differentiate between land uses, highlight public and pedestrian-scaled spaces, provide continuity and aesthetic appeal along corridors, and encourage pedestrian and vehicular efficiency. Lighting along multi-use paths, walkways, and other areas used by pedestrians and bicyclists should be provided.

Lighting shall use high efficiency technologies, dark-sky cutoffs, strategic orientation to avoid spillover into adjacent properties and open space areas, and appropriate shielding or recesses to minimize glare and reflections.

The following guidelines should be considered during design and development of each neighborhood:

- The scale, materials, colors, and design detail of light posts and fixtures should reflect the character of the Plan Area.
- Lighting colors and style for streets and public spaces shall be consistent throughout the Plan Area.
- Light posts should be appropriately scaled to pedestrians near sidewalks and other areas of pedestrian circulation. Extremely tall light posts and

fixtures should be avoided. Bollard lighting is encouraged to illuminate walkways.

- Energy-efficient, low-voltage lighting is encouraged.
- Exterior lighting should be unobtrusive and not cause glare or spillover into neighboring properties.
- Lighting fixtures should direct illumination downward to minimize light pollution impacts. Up-lighting, spot-lighting, and decorative color lighting may be used for prominent buildings and features.



- Where security lighting is required, it should be hooded, recessed, or located in such a manner to only illuminate the intended area.



1.8 Green Building

This Specific Plan is intended to promote green building practices to improve the overall quality of life for residents and to encourage innovative and sustainable design and construction techniques that reduce negative environmental impacts and promote positive environmental impacts.

The following green building practices will be incorporated into new developments to the extent feasible:

- A stormwater pollution prevention plan (SWPPP), must include environmentally responsible practices such as concrete washout stations, erosion control straw wattles and silt fences, and drain inlet filtration devices.
- Concrete roof tile waste, drywall waste, and wood framing waste material will be diverted and recycled off-site.
- Oriented strand board (OSB) will be used for framing shear panels and roof sheathing instead of plywood. OSB fiber is grown in sustainable forests and tree farms, reducing the demand for old growth timber and sustaining forests. OSB uses nearly 90% of the log, with the remaining 10% being used to fuel mills.
- Engineered wood products (EWP) will be used for certain beams/headers.
- Engineered roof trusses will be used to reduce wood fiber use.
- Radiant barrier roof sheathing will be offered as an option to improve energy performance where not offered as a standard.
- Medium-density fiberboard (MDF) will be used, made from the waste of other wood products, and will be specified for doors, trim, baseboard, and shelving.
- Energy Star® bath fans will be included with each home.
- Gas ranges will be included with each home along with dryers engineered for gas use.
- Bath exhaust fans will include humidistat technology that turns fans on and off based on amount of humidity detected in the room.
- Dimmer switches in strategic locations will be used to reduce energy use.
- High efficiency toilets (HET), with a maximum of 1.28 gallons per flush, will be incorporated.
- Facilities will include water efficient kitchen and bathroom fixtures.
- Cross-linked polyethylene (PEX) or chlorinated polyvinyl chloride (CPVC) plumbing system will be used to conserve water and energy by reducing the

amount of time it takes for hot water to arrive at a fixture.

- Solar panels will be offered as an option.
- Drip irrigation methods that conserve water must be consistent with existing regulations.
- Hydro-zoning will be required of irrigation systems to conserve water.
- Formaldehyde-free insulation wood trim products will be required.
- Low Volatile Organic Compound water-based paints are encouraged.
- 13 SEER (seasonal energy efficiency ratio) and 11 EER (energy efficiency rating) high efficiency air conditioners standards will be followed.
- 80% annual fuel utilization efficiency (AFUE) furnaces will be standard, with option for 90% or higher.
- Polyethylene terephthalate (PET) carpet made from recycled plastic bottles.
- Hardwood flooring options consist of engineered wood products to reduce use of wood fiber from mature old growth trees.



APPENDIX C

**LANDSCAPE DESIGN
GUIDELINES**

1.1 Introduction

This appendix describes the landscape design guidelines for Castellina that apply to the public realm including the Central Park, Grand Promenade, neighborhood parks, streetscapes, and open space areas. It also includes a discussion of the landscaping principles and planting guidelines for both public and private yards and spaces, as well as a species list of trees, shrubs, ground covers, and other landscape plants.

1.2 Landscaping Goals and Objectives

Landscaping will be designed to reflect the environment and character of the region. Landscaping will achieve a visual balance between informal open space and more formal landscape features, including street trees, entries, and parks.

The following general goals and objectives will guide landscaping in the Plan area:

- Design landscape features consistent with the character and historical context of the region.
- Employ water conservation measures through use of drought-tolerant plant material and water-conserving irrigation systems and practices.
- Use landscaping to create aesthetic distinction and character in the Plan Area, particularly around key features and amenities.
- Incorporate Low Impact Development (LID) principles when designing storm drainage, water infiltration, and groundwater recharge features.
- Use sustainable landscape principles to reduce energy consumption and greenhouse gas emissions and to increase shade and transpiration.

Water and Energy Efficient Landscaping

These Landscape Design Guidelines will implement the water and energy efficient landscape measures to promote the objectives of the County of Madera to increase water conservation efforts to promote adequate water supply and reliability to its residents, businesses, and visitors.

Landscape plans (planting, irrigation, energy efficiency, and lighting) for this project shall be consistent with Madera County water conservation measures and the landscape guidelines shown in California Assembly Bill 1881.

Water-Conserving Irrigation Program

Irrigation methods and water budgets shall reference the State and County water conservation policies and protocol for maximum applied water allowance (MAWA) and estimated total water use (ETWU), together with guidelines from Assembly Bill 1881, to create a framework for landscape water conservation. Irrigation designs and practices shall employ low-flow, water-efficient spray heads and emitters wherever practical, and shall use temporary, removable irrigation equipment in areas, such as drainage

swales, detention areas, and natural buffers, where natural plantings may be weaned off of irrigation once established.

Irrigation design will include the following, as applicable:

- Irrigation shall be designed to prevent runoff or overspray onto non-targeted areas.
- Head-to-head coverage may be required unless otherwise directed by the manufacturer's specifications.
- Slopes greater than 15 percent shall be irrigated with point source or other low-volume irrigation technology.
- Weather-based, self-adjusting (evapotranspiration-based) irrigation controllers with rain sensors are encouraged.
- Sprinkler heads, rotors, and other emission devices on one valve shall have matched precipitation rates.
- Check valves shall be used to prevent low-head drainage.
- A dedicated irrigation meter or sub-meter, whenever feasible, should be employed.
- Irrigation design shall use pressure regulation and booster pumps so that the irrigation system operates at the manufacturer's recommended optimal pressure.

Reclaimed Water Use

Reclaimed irrigation water will constitute a significant element in the public landscape irrigation program, using recycled non-potable treated water for the majority of designated landscape areas. Landscape plans should be designed to use recycled water. See [Chapter 4: Infrastructure & Public Services](#) and [Chapter 5: Water Resource Management](#) for additional information about the recycled water program.

1.3 Landscape Master Plan Requirements

As a component of the final subdivision map for each phase, the applicant shall prepare a landscape master plan for that phase to be submitted to Madera County for approval. Each landscape master plan shall govern the landscape portion of development and shall be consistent with these landscape guidelines. The landscape master plan may also function as a preliminary landscape plan prior to the production of landscape construction documents. The landscape master plans shall include:

- Layout and nominal dimensioning of paved, landscape structural features, patios, walkways, recreational courts, swimming pools, planting area borders, and other landscape elements;
- Plant list of primary, secondary, and accent trees;
- Plant list of shrubs and ground covers;
- Preliminary planting layout plan;

- Preliminary irrigation plan;
- Preliminary landscape lighting plan;
- Landscape furniture and preliminary placement plan;
- Preliminary fencing and wall design and layout;
- Project entry features/structures;
- Amenity area gazebos, arbors, monuments, towers, or other such structures;
- Recreational area play structures;
- Preliminary project signage program – community wayfinding and landscape signage; and
- A water conservation budget that conforms to Madera County water conservation goals and State policies, including calculations to demonstrate the MAWA and ETWU guidelines to create a framework for landscape water conservation, according to state standards.

1.4 Plant Material Selection and Design

Plant materials should refer to Assembly Bill 1881 standards and use the Department of Water Resources (DWR) *Water Use Classification of Landscape Species (WUCOLS)* guide, emphasize both native and adaptive species of trees, shrubs, and ground cover to the extent practical.

The following guidelines shall, to the extent feasible, be incorporated into the design and development of each landscape project:

- Plants classified as low to very low water demand, as well as hardiness, functionality, and aesthetics, should be criteria for plant selection.
- High water use plants are discouraged. Where their use is justified or necessary, such as wet weather storm drainage swales, detention areas, and street trees, they should not be mixed with low water use plants. In accordance with state standards for residential projects, coverage of medium or high water use plants may not exceed 25% of the total landscape area.
- Plants should be used appropriately based upon their adaptability to the climate, soils, and topographical conditions.
- Invasive plants (as identified in the WUCOLS planting guide or in other County or State horticultural documents) are prohibited.
- Where trees are planted adjacent to paving, consideration shall be given to selection of species with non-invasive surface roots. Provisions shall be made to install root guards or equivalent devices to protect paving, where applicable.

- Prior to planting, site soil testing should be performed to determine fertilizer needs and soil amendments necessary for optimum chemical content and soil texture.

Lawn and Turf Areas

Lawn and turf areas are necessary for certain active recreational and sports activity purposes, but use of turf areas in other applications should be limited, due to their high water use requirements.

Selection of special turf and grass varieties should be considered, based on function and need requirements for the area to be planted, water-efficiency characteristics of the choices, and cost factors. Fescue, Bermuda, St. Augustine, Zoysia, and Buffalo grass should be considered for heavy use areas.

Where appropriate, consideration should also be given to the use of artificial turf.

For turf in individual residential yards, use of turf in front, side and rear yards shall be limited to an aggregate area no greater than 25% of the total planted area within the property.

Turf shall not be planted in the following conditions:

- Slopes exceeding 10 percent.
- Planting strip less than four feet wide.

- Street medians, traffic islands, planter strips, bulb-outs or other areas where foot traffic is not expected.

Minimum Planting Sizes

The following are required for landscape designs:

- Street trees: minimum 24-inch box. Other trees shall be a minimum 15 gallon size. Bioretention areas and natural areas may use smaller container sizes as appropriate.
- Shrubs: minimum 2-gallon size, though 5-gallon is preferred. Plan Area entries, Adult Amenity Center, Central Park and neighborhood parks shall use a minimum 5-gallon size.
- Groundcover: minimum 1-gallon size, spaced to attain full coverage within 5 years. Flats of groundcover may be used if 1-gallon plant size would be impractical or not available.



1.5 Streetscape Planting and Landscape Design

Street Trees

Street trees convey scale, character, design quality, shading, and atmosphere to a street environment. They help define the hierarchy of streets and a sense of place that orient the visitor/resident. They also provide a sense of quality and aesthetics to each of the neighborhoods.

To the extent feasible, the following guidelines shall be incorporated into the design of street trees:

General

- Trees should be a dominant visual element of the streetscape.
- Street trees shall be chosen for qualities of durability, easy maintenance, drought tolerance, color, texture, size, shading capacity, and for their non-invasive root systems.
- The height (at maturing), breadth, and spacing of the tree species should be proportional to the size of the roadway and area to be planted.
- Streetscape design should reflect the hierarchy of the street type, whether larger collector street types or neighborhood street types, helping create identity for these corridors.
- While drought tolerance is necessary for plant selection throughout the Castellina project, it is also

desireable for streetscapes to be planted for shade and rapid growth to the extent practical. For this reason, use of street trees with higher water demand on streetscapes is permissible, but drought tolerance when established is desireable.

- Chosen trees shall be consistent with the planting palette described in [Table 4-1: Plant Palette](#).

Parkway Entries and Collectors

- Trees along collector and parkway entry streets should be broad deciduous or tall evergreen species, to act as shading and distinctive elements along these major corridors.
- The primary trees along collector streets may be planted in repeating clusters or linear colonnades, as they will form the main tree theme for these streets. Whichever system is used—colonnades or repeating clusters—it should remain consistent throughout within each collector street system. Accents of smaller flowering or fall color trees may be mixed in between primary trees.
- Entry and collector street trees in a colonnade pattern shall be spaced a minimum of 35-feet on center.

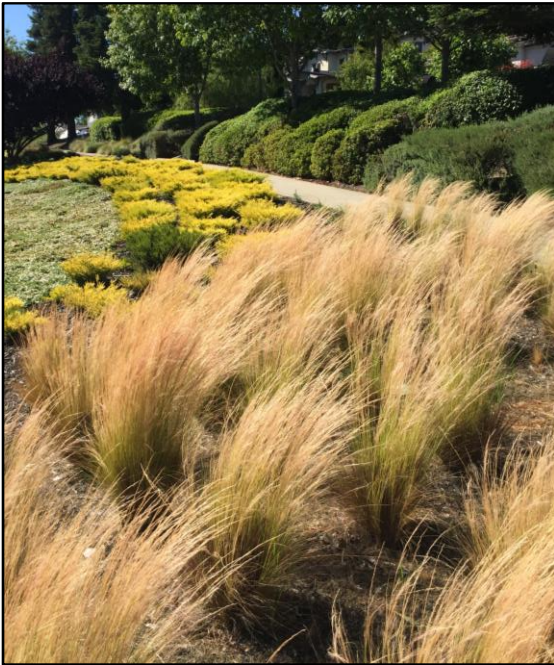
Neighborhood Street Trees

- Trees along neighborhood streets should be broad deciduous or broad evergreen varieties that create shade and have distinctive flowers or fall color.
- Neighborhood street trees should be planted in a regular linear fashion, set back from the curb far enough to accommodate ultimate growth.
- All neighborhood trees shall be spaced a minimum of 30-feet on center. All neighborhood streets shall contain a minimum of one street tree per lot.
- Each neighborhood street shall display the same consistent tree species along the entire length of the block, but should vary from block to block.



Street Shrubs and Ground Cover

- Street shrubs and ground covers shall be consistent with the planting palette described in [Table 4-1: Plant Palette](#).
- Groundcovers may be planted in portions of landscape parkway strips and medians. Low-foot traffic areas should use hardy, drought-tolerant groundcover species and paving.
- A combination of specialty pavers or concrete with plantings may be used in planter strips to break up the pattern and add visual interest.



Roundabout Planters

Special landscaping shall be designed in roundabout planters. Distinctive large trees, monument features, landscape statuary, sculpture, plantings or specialty paving should be used to enhance these areas. The center of roundabout planters at major key intersections should contain a strong visual element such as a specimen tree.

- Roundabouts shall include some degree of landscape plantings.
- Taller features should be placed at or near the center of roundabouts to facilitate adequate sight distance.



Streetscape Specialty Paving

Using a variety of paving materials helps define a space and provide safety for pedestrians and traffic calming of vehicles. Intersections, crosswalks, edges of roundabouts, and certain sidewalk locations can be enhanced with the use of different paving materials such as stamped and colored concrete, stamped and colored asphalt, or brick and other special paver types.

Entry Monumentation

Entry monumentation may include vertical columns, raised planters, landscape art, decorative masonry walls, entry signage, and other features that create a distinctive visual feature signifying a sense of arrival. They should be placed at key locations to define a visual entrance into a particular community feature, such as a park, residential neighborhood, or village.

- Specimen quality trees, chosen for unique characteristics or shapes should be used. Designers should consider the use of a signature specimen tree species as an identifier.
- Design and location of landscape elements shall be placed to avoid interference with vehicular sight lines.
- All entry monumentation shall include some degree of landscape plantings for enhancement.

Primary Entries

Primarily entries are found at the three roadway access points to the plan area, from Avenue 17 and from Roads 27 and 28½. Each should be designed to provide a strong sense of arrival into the Castellina community, and all three should be consistent with each other in aesthetics and theming.



- Castellina identification signage or thematic logos/emblems shall be incorporated into primary entry features, including pilasters, low walls, entry arches, landscape sculptural art, pedestrian gateways, or other landscape structural elements.
- Groupings of evergreen and deciduous flowering trees should be used to highlight each primary

entry, and large signature specimen trees should be used in these entry statements.

- All primary entries shall be identified with enhanced landscaping, enhanced paving, and a community theme monument, wall sign, or other major entry feature.
- Each primary entry should be designed to accentuate the dramatic sightlines to (1) the Central Park in the west entry, (2) the Village Green in the south entry, and (3) the Village Green in the east entry.



Secondary Entries

Secondary entries are provided at major transition locations to introduce and define major community elements such as the Active Adult Community, the Community Park, a residential village, the Grand

Promenade, or the Town Center. Entry features at these gateways should complement the other landscape and be compatible in material and form with primary entries, tailored to the theme of that respective neighborhood.



Project/Subdivision Entries

Intended to provide an entrance into individual residential neighborhoods within a village, these features are less prominent, but nevertheless bring attention to a neighborhood identification. Entry features may be unique to each neighborhood, but should be in character with the aesthetic styles established for the overall Castellina community. These entries shall have the following characteristics:

- These are generally located at the neighborhood entry street or in the entrance median or at the primary access point from a collector street.
- Entries may incorporate a thematic wall or other structural features such as raised planters, pilasters, or vegetative signage.
- Entry features shall not impact site distance requirements for automobiles.
- The number, height, and size of all signs shall be consistent with the requirements of the County's Sign Ordinance, unless otherwise specified in these Architectural and Landscape Design Guidelines.



Streetscape Furnishings

Street furnishings, including benches, trash and recycle receptacles, and other rest stop facilities should be located at strategic points where the Town Center, Central Park, Grand Promenade, neighborhood parks and the Multi-Use Open Space areas interface with streets and walkways. These special streetscape nodes can also be located along pathways and sidewalks as a convenient rest stop.

To the extent feasible, the following guidelines shall be incorporated into the design and development of each special neighborhood area:

- Street furnishings and other public place furnishings are to be made of low-maintenance materials.
- Benches should be of a single consistent style within a special landscaped area and be permanently mounted in high-use public areas.
- Metal components of street furnishings shall not be exposed such that they become harmful in high temperatures.



- The design of furnishings should match or complement the design of surrounding elements including other furnishings, walls, fences, and building architecture.



- Placement of artwork such as sculptures, murals, water elements, carvings, frescoes, mosaics, and kinetic art is encouraged. Design of artwork should incorporate materials sufficiently durable to withstand vandalism and existing weather conditions while not requiring excessive maintenance.



Parking Lot Design

- To help reduce heat island effects, surface parking areas should be planted with 15-gallon trees or larger, at a minimum ratio of one tree for every five parking spaces.
- Trees should be planted in landscape planter areas with minimum interior dimensions of 5 feet (inside of curb to inside of curb) and protected by curbs.



- Features to enhance the parking area such as bollards or tree guards may also be incorporated into the site but are not mandatory. A landscape planter should be included at the end of each parking isle, wherever practical.
- Large, broadleaf deciduous trees should be used in parking areas to provide shade in the summer and sun in the winter. Large-scale evergreen trees are

also appropriate in locations where year-round foliage is desirable as a screen.

- Shrubs selected for use adjacent to automobiles should be resistant to exhaust, radiator fluids, and the reflected heat of asphalt surfaces. In parking areas, shrubs should be massed in groups, be water conserving and durable, and require low maintenance.

1.6 Park and Open Space Landscape Design

Chapter 2 of the Castellina Specific Plan provides descriptions of the various parks and open spaces. This section addresses basic landscape guidelines for these areas.

Central Park

The Central Park will traverse the center of the Castellina community and will consist of such features as play fields, play courts, walking trails, community gathering and event features, visual landscape features, garden sitting areas, and other recreational facilities. The Central Park facilities will be designed to create compatibility with each other and meet the recreational and functional needs of the surrounding neighborhood. Choice of these elements shall be made in coordination with the County Parks Department and prior to the time in which each park element is to be phased with development.

The larger western area of the Central Park will contain a variety of active recreation uses—baseball fields, soccer and football fields, basketball and tennis courts, and informal open play areas. This area should include accent landscape treatment around the edges of the fields and courts, including pathways, trees, shrubs and ground cover to define these recreational areas.

Recreational play areas should be complemented with bio-retention for stormwater collection and recharge to the extent feasible. Landscape features may include such elements as the creation of a meandering dry creek bed designed to capture runoff water and provide an aesthetic theme.

The far western edge of the Central Park should include a signature identification and entry gateway feature that is aligned with the Parkway Entry road off of Road 27.



The Village Green and Commercial Areas

The Village Green is located at the heart of the Castellina community and is the primary focal point where roads, pathways, sightlines, and community buildings converge. It should be designed with distinctive geometries and vertical landscape elements that orient the visitor and provide an obvious identification of the community's heart.



In the mixed-use retail, office and multifamily residential areas around the Village Green, such elements as special paving, colorful garden plantings, landscape sculptures or structural shade features, recycled water play features, and specimen trees should be considered in designing for this important community area. The aim should be to create a plaza-like environment that encourages gathering of people.

- Trees should be regular in form, and exhibit blooming seasonal flowers, in keeping with the urban character of the area.
- Hardscape trees shall be planted in grates or raised planters along the broadened sidewalk to reinforce the plaza-like effect and encourage outdoor seating and gathering areas.

- The mixed use area and Village Green should be designed with a balanced combination of planters, special paving, outdoor furniture, and landscape structural elements such as arbors, a clock tower, bandstand, landscape sculpture, arbors, entry arches, kiosks, or a fountain element.

The Grand Promenade

The Grand Promenade is the principal connector for pedestrian, bicycle, automobiles, and local use vehicles (LUVs) from the Active Adult Community to the Town Center. It also defines a strong north-south linear park and green corridor between two key features of the community: the Village Green and the Active Adult Amenity Center. As such, landscape design should be oriented to emphasize strong sightlines, with entry gateways or arbor features at both ends of the Grand Promenade and textured street crossings between blocks.



A pedestrian path, a minimum of 10 feet wide, connecting the two ends, shall incorporate such features as sitting areas, courtyards with outdoor furniture, kiosks, fountains, landscape sculptures, or outdoor art at key intervals to create special interest and encourage a slowed pace. Connecting pedestrian paths for access for pedestrians along the promenade will be provided, where appropriate.



Planting will be mixed with hardscape areas and gathering areas, with screening trees at the edges to create a visual separation between vehicles and pedestrians. Plantings will be drought-tolerant, but may include some minor accents of low-water turf varieties as needed for interest and human activity.

Neighborhood Parks

Neighborhood parks will serve as public focal points to the individual neighborhoods that surround them. They will contribute to the identity of each neighborhood while providing space for respite and neighborhood gatherings and functions.

Landscape designs for these parks should contain strong theme elements that highlight their central location in the neighborhood and give the surrounding neighborhoods an identifiable sense of place. These focal elements should include large specimen trees and structural features such as gazebos, neighborhood barbecues, picnic tables, barbecue pits, monuments, play structures, bermed play hillocks, dog parks, and shade structures.



Neighborhood parks will be mostly passive and informal in character, except that active recreation features such as sport courts, tot lots, picnic and sitting areas may also be

incorporated. Park furniture, such as benches, trash facilities, drinking fountains, and walkways should be selected to blend with the neighborhood theme.



Limited portions of neighborhood parks may also be designed to partially fulfill a stormwater control function. Detention areas, bio-swales, and other natural drainage features may be incorporated as natural basins and swales. They should display creativity, innovation, and good aesthetic principles to make them accessible for use by residents.

Consideration also should be given to preserving a remnant of the existing almond or fig trees within the neighborhood parks as a design component of an agricultural theme.

Community Gardens

The Plan Area will include at least one 3-acre community garden, located within the multi-use open space area on the southwest side of the Plan Area, near the railroad. Community gardens will offer small vegetable gardening plots made available to residents for growing vegetables, fruit, herbs, and flowers for use in the community or private homes.



While not mandatory, other community gardens may also be designed as elements within the neighborhood parks.

Garden plots with a water source, a covered potting/tool shed, sitting areas, raised planter areas, and paths should be planned and laid out in such a way to invite participation and learning in this setting.

Pocket Parks

Private pocket parks (typically one-half acre or less) may be developed, at the discretion of the builder/developer, in neighborhoods to serve the recreational, aesthetic, and social needs of the nearby residents.

Program elements may include such features as a group picnic area, community garden, sitting areas, open turf for informal play, horseshoe pits, half-court basketball, or barbeque facilities. In some cases, pocket parks may be created as special landscape features on remnant land that may be unusable for residential lots or other development, or as rest nodes along pathways or walkways.

1.7 Multi-Use Open Space Area

The Multi-Use Open Space Area that extends along the southwestern project edge adjacent to the rail lines is envisioned to potentially function as:

- A broad open space buffer area, separating the rail lines and new homes;
- an area for detention, groundwater recharge, and stormwater control;
- a linear open space that will serve as a pedestrian and bicycle connection and visual buffer for the residential units along the southwestern project boundary;

- a potential area for community gardens and urban agriculture; and
- an agricultural buffer of retained almond orchards, screening views from the railway and enhancing the rural historical theme of the region .

The incorporation of native or adaptive water-tolerant trees, shrubs, and grasses will improve water quality and help create a pleasing landscape as a visual buffer from the rail line. Temporary removable irrigation may be necessary to initially establish natural landscaping in these areas. These areas may be hydroseeded or hand planted.



1.8 Neighborhood Drainage Basins and Bio-retention

Low Impact Development (LID)



Landscape plans shall support the principles of LID for storm drainage, runoff infiltration, and groundwater recharge by incorporating such measures as (1) using landscape design techniques and materials that infiltrate, filter, store, evaporate, and detain runoff as close to its source as feasible, and (2) capturing stormwater through small, cost-effective landscape features located at the site level. LID features may be designed in natural open space, streetscapes, parking lots, sidewalks, parks, hardscape areas, and medians.

Design of these areas shall integrate appropriate landscape features to balance stormwater management with proposed land uses to accomplish the following purposes:

- Similarity with other ecologies compatible with the region.
- Use of native and adaptive plant materials that do not interfere with stormwater facilities.
- Design of planting aesthetics that will provide a natural and visually pleasing appearance and that will be seen as a project amenity.
- Use of plants and hydroseed mixes for bio-retention facilities, selected for hardiness and tolerance to flooding as well as dry periods.
- Grouping of plants within the retention/detention facilities into hydrozones based on similar water usage.
- Use of areas along parkway greenbelts for bio-swale drainage conveyances.

Strategic Climate Control

Strategic climate control can be accomplished by use of strategic shading techniques, plant selection, location and use of deciduous trees to reduce solar heat gain in the summer and maximize passive solar warming in winter months. Careful and strategic planting and use of landscape structures for shading are encouraged around buildings and other project areas to either create south

and west-facing shade during hot seasons or allow sunlight during cool seasons. These measures can result in natural saving of energy through site design and prudent landscape planning.

Walls and Fencing

Walls and fences throughout Castellina will provide screening between properties and land uses; help define the edges of arterial and major collector streetscapes; provide barriers to protect certain areas; and provide privacy and security for private property.

Wherever feasible and practical, there will be limited use of separator walls, except where needed for sound attenuation or traffic factors, or where desired for entry features. The material and designs for the walls and fencing will vary throughout the Plan Area, depending on each location's specific needs.

The following guidelines should be considered when constructing walls and fencing.

- Fences and walls used throughout the specific plan area should be constructed using high-quality materials that are consistent with the aesthetic of adjacent architecture and landscape themes.
- Perimeter and street-adjacent walls and fences should be constructed of attractive, durable, and low-maintenance materials, including, but not

limited to, precast concrete with textured or stone finishes, wood, wrought iron, tubular steel, wood, or other as appropriate.

- Fences and walls along streets should include three levels of landscaping—groundcover, shrubs, and trees.
- Residential rear and side yard fences and walls shall not exceed 6 feet in height, except as required for sound attenuation. Residential fences may be constructed of wood, masonry, vinyl, tubular steel, or other acceptable materials that are consistent with project quality and theme.
- Front yard walls and fences located within the setback area shall not exceed 3 feet in height (3½ feet for courtyards). Front yard low walls and fences shall be constructed using high-quality materials and may vary for visual interest but shall be complementary and retain a harmonious overall aesthetic with the neighboring homes.
- Long, uninterrupted walls and fences shall be avoided along streets and adjacencies with parks, trails, and other common spaces.

Masonry Walls

Masonry walls should be used to provide sound attenuation, screening, privacy, and decorative effect. Masonry walls must have a high-quality design and

incorporate decorative pilasters or columns at regular intervals and a cap along the top.



The following specific design requirements pertain to masonry walls:

- Masonry walls along public streets should not block views to open space corridors and should not obstruct underground or above-ground electric, telephone, cable, water, or sewer services or equipment.
- Minimum masonry wall height along arterial streets shall be 6 feet. Higher walls may be necessary based

on site specific noise analysis and County requirements.



- Opportunities for wall openings should be incorporated to facilitate pedestrian access and connectivity in key locations.
- Wall materials shall have a textured face such as cast patterns, split-faced, stone, or stucco-finished on the side facing the street or public view, in keeping with architectural style and materials.
- Variations in wall designs are acceptable. However, continuity and repeating rhythm in materials should be incorporated where variations occur.
- The wall face should include relief such as jogs and alcoves to avoid straight, flat monotony along the face.

- Masonry walls may include metal see-through fencing atop the walls to provide a more open feeling as necessary.
- Pilasters should be constructed of materials complementary to the masonry wall.

Combination wall/fencing may be used where a solid structural barrier is warranted, but views outward and/or inward are desired to soften the streetscape and provide a more open landscape character to the property or street scene. Oftentimes, this style fencing can be used for side streets, collector roads, public area dividers, or other places where semi-transparency is appropriate.

Wood Fencing

Fencing may be used to provide lot definition, aesthetics, screening, and/or privacy between properties.

The following guidelines should be considered:

- Solid wood fences, if painted or stained, should be an earth tone color to be unobtrusive.
- Chain link fences are prohibited except for temporary uses and for security around construction sites.
- Fencing may be used between open space areas and at the rear and side property line of residential lots.

- Where pedestrian connectivity between land uses is desired, breaks are encouraged to improve access.
- There are four types of fencing that may be used: standard wood fences, enhanced wood fences, low residential front yard fencing, and open fencing, (used to provide a nearly transparent barrier at developed edges adjacent to open space areas.



Standard



Enhanced



Open



Low Front Yard

1.9 Plant Palette Matrix

Plant palettes (species list) are shown below in [Table C-1: Plant Palette Matrix](#) for trees, shrubs and groundcover, vines, grasses and special conditions. Included also are recommended locations and conditions in which each plant type is best used.

To the greatest extent practical, plant palettes for individual projects should use plants within this matrix, or else specify alternate plants that exhibit similar environmental, functional and aesthetic characteristics as the plants in the matrix.

Table C-1a: Plant Palette – Trees

(1) Water Demand: H=High M=Moderate L=Low VL=Very Low

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
Arbutus unedo	Strawberry tree	L	X	X		X	X	X	X	X	X		
Arbutus 'Marina'	Marina arbutus	L		X	X	X		X		X	X		
Prunus dulcis (existing onsite)	Almond tree (existing orchard)	L				X		X				X	
Ficus carica 2015 (existing onsite)	Fig tree (existing orchard)	M				X		X				X	
Acacia baileyana	Bailey's acacia	L											
Acer palmatum	Japanese maple	M		X	X	X	X	X	X	X	X		
Acer macrophyllum	big leaf maple	M											X
Aesculus californica	California buckeye	VL											X
Albizia julibrissin	Floss silk tree	L		X	X	X	X	X	X	X	X		
Alnus cordata	Italian alder	M	X	X				X		X			X
Brachychiton populaneus	Austrlian bottle tree	L				X		X				X	X
Callistemon viminalis	Bottle Brush	L		X		X			X	X	X		

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Calocedrus decurrens</i>	Incense cedar	M				X					X	X	X
<i>Casaurina</i> sp.	Casaurina tree	L										X	X
<i>Cinnamomum camphora</i>	Camphor tree	M	X		X		X	X	X				
<i>Cedrus deodara</i>	Deodar Cedar	L	X		X	X	X	X	X		X	X	
<i>Celtis occidentalis</i>	Hackberry Tree	L		X		X	X	X			X		
<i>Cercis occidentalis</i>	Western Redbud	VL		X	X	X	X	X	X	X	X	X	X
<i>Ceratonia siliqua</i>	Carob Tree	L	X			X		X		X	X		
<i>Chilopsis linearis</i>	Desert Willow	VL				X					X	X	X
<i>Cinnamomum camphora</i>	Camphor Tree	M	X		X		X	X					
<i>Citrus</i> x 'Valencia'	Orange Tree	M								X			
<i>Citrus</i> x 'Improved Meyer'	Lemon Tree	M								X			
<i>Cotinus coggygria</i>	Smoke Tree	L		X		X				X		X	X
<i>Eryobotrya japonica</i>	Bronze Loquat	L		X					X	X	X		
<i>Eucalyptus nicholii</i>	Peppermint Eucalyptus	L									X	X	X

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Eucalyptus sideroxylon</i>	Rose Iron Bark Eucalyptus	L	X		X	X		X			X	X	
<i>Fraxinus velutina</i> 'Modesto'	Modesto Ash	M	X					X	X	X	X		
<i>Fraxinus oxycarpa</i> 'Raywood'	Raywood Ash	M	X						X	X	X		
<i>Fremontodendron</i> spp.	Flannel Bush	VL										X	X
<i>Geijera parvifolia</i>	Australian Willow	M		X		X		X	X	X	X		
<i>Grevillea robusta</i>	Silk Oak	L	X			X			X				
<i>Ginkgo biloba</i>	Ginkgo Tree	M	X			X	X	X	X	X	X		
<i>Gleditsia triacanthos</i>	Honey Locust	L	X	X	X	X	X	X		X	X		
<i>Juniperus occidentalis</i>	Western Juniper	L							X	X	X	X	
<i>Koelreuteria paniculata</i>	Goldenrain Tree	M	X	X		X	X	X	X	X	X		
<i>Lagerstroemia indica</i>	Crepe Myrtle	L		X	X	X	X	X	X	X	X		
<i>Laurus nobilis</i>	Sweet Bay	L								X	X	X	X
<i>Leptospermum laevigatum</i>	Australian Tea Tree	L			X	X	X	X	X	X	X		
<i>Maytenus boaria</i>	Mayten Tree	M		X			X	X		X	X		

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
Magnolia soulangeana	Saucer Magnolia	M		X			X	X		X	X		
Melaleuca linarifolia	Flax Leaf Paper Bark	L		X	X	X		X	X	X	X		
Nyssa sylvatica	Black Tupelo Tree	M	X		X	X	X	X	X	X	X		
Olea Europaea (fruitless varieties)	Olive Tree	VL	X	X	X	X	X	X	X	X	X		
Phoenix canariensis	Canary Island Date Palm	L	X		X	X	X	X			X		
Pinus Coulteri	Coulter Pine	L				X			X	X		X	
Pinus halepensis	Aleppo Pine	L										X	X
Pinus pinea	Italian Stone Pine	L	X			X		X	X	X	X		
Pistacia chinensis	Chinese Pistache	L	X	X	X	X	X	X	X	X	X		
Pittosporum undulatum	Victorian Box	L	X		X	X	X	X	X	X		X	
Platanus racemosa	California Sycamore	M										X	X
Platanus acerifolia 'Bloodgood'	London Plane Tree	M	X	X		X	X	X		X	X		
Populus nigra	Black Poplar	M											X
Populus fremontii	Fremont Cottonwood	M											X

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Prunus calleryana</i> sp.	Callery Pear	M	X	X						X			
<i>Prunus cerasifera</i>	Flowering Plum	L	X	X		X	X	X	X	X	X		
<i>Quercus agrifolia</i>	Live Oak	VL			X	X	X			X		X	X
<i>Quercus coccinea</i>	Scarlet Oak	M	X		X	X	X	X		X	X		
<i>Quercus suber</i>	Cork Oak	L	X		X	X	X	X		X	X		
<i>Quercus ilex</i>	Holly Oak	L	X		X	X	X	X		X	X		
<i>Quercus lobata</i>	Valley Oak	L			X	X						X	X
<i>Rhus lancea</i>	African Sumac	L		X			X		X	X	X		
<i>Robina pseudoacacia</i>	Black Locust	L								X		X	X
<i>Salix laevigata</i> (2)	Red Willow	H											X
<i>Salix lasiolepis</i> (2)	Arroyo Willow	H											X
<i>Sambucus mexicana</i>	Mexican Elderberry	L											X
<i>Sequoiadendron giganteum</i>	Giant Sequoia	M			X	X	X					X	X
<i>Sophora japonica</i>	Japanese Pogoda Tree	M	X		X	X	X	X	X	X	X		

Scientific Botanical Name	Common Name	Water Demand (1)	Principal Streetscape Trees	Streetscape Accent Trees	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential Yards	Town center	Open Screening or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Ulmus parvifolia</i> 'True Green'	Chinese Elm	M	X					X		X	X		
<i>Umbularia californica</i>	California Bay Tree	M								X		X	X
<i>Washingtonia filifera</i>	Desert Fan Palm	L	X	X	X		X			X	X		

Table C-1b: Plant Palette – Shrubs

Scientific Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Shrub	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Open Space or Buffer Areas	Detention, Bio Swales, Natural Areas
Hedgerows/Screens/Tall Shrubs												
<i>Cotinus coggygria</i> 'Royal Purple'	Purple Smoke Tree	L		X	X		X	X	X	X	X	X
<i>Arbutus unedo</i>	Strawberry Tree	L							X	X	X	X
<i>Arctostaphylos</i> spp.	Manzanita	VL							X			
<i>Aesculus californica</i>	California Buckeye	VL									X	X
<i>Acacia baileyana</i>	Bailey's Cacia	L		X	X		X		X	X	X	X
<i>Callistemon citrinus</i>	Bottle Brush	L				X		X	X	X	X	X
<i>Ceanothus</i> sp.	California Wild Lilac	VL		X	X		X	X	X	X	X	X
<i>Chaenomeles</i> cvs.	Flowering Quince	L									X	X
<i>Cotoneaster</i> spp.	Cotoneaster	L	X	X	X		X	X	X	X	X	X
<i>Carpenteria californica</i>	bush anemone	L									X	X
<i>Dodonea viscosa</i>	Hop Seed Bush	L			X		X				X	X
<i>Heteromeles arbutifolia</i>	California Toyon	VL		X	X		X	X	X		X	X
<i>Laurus nobilis</i>	Sweet Bay	L			X	X	X	X	X	X	X	
<i>Phormium tenax</i>	Flax	L		X	X			X	X		X	X

Scientific Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Shrub	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Open Space or Buffer Areas	Detention, Bio Swales, Natural Areas
Xylosma congestum	Shiny Xylosma	L	X		X			X			X	X
Ligustrum lucidum	Glossy Privet	L			X	X	X	X	X	X		
Elaeagnus x ebbingei	Silverberry	L			X		X		X	X	X	X
Ramnus californica	Coffeeberry	L			X		X		X	X	X	X
Myrica californica	Pacific Wax Myrtle	L			X	X	X	X	X	X		
Nerium oleander	Oleander	L			X		X	X	X	X	X	X
Prunus lyonii	Catalina Cherry	L	X	X	X		X	X	X	X		
Berberis darwinii	Darwin Barberry	L			X			X	X		X	X
Viburnum tinus 'Robustum'	Laurustinus	M	X		X			X	X		X	X
Rhus integrifolia	lemonade Berry	L	X		X		X	X	X		X	X
Raphiolepis x 'Majestic Beauty'	Indian Hawthorne	M	X	X	X	X	X	X	X	X		
Feijoa sellowiana	Pineapple Guava	L			X		X	X			X	X
Escallonia 'Fradesii'	Frades Escallonia	VL	X		X	X	X	X	X	X		
Medium Shrubs												
Afrocarpus (Podocarpus) gracilior	Fern Pine	M				X		X		X		
Agave americana	Century Plant	L		X			X	X	X	X		

Scientific Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Shrub	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Open Space or Buffer Areas	Detention, Bio Swales, Natural Areas
Loropetalum chinese 'Daybreaks Flame'	Bronze Fringe Flower	L	X	X	X			X	X		X	X
Artemisia spp.	Sage	VL	X	X	X		X	X	X	X	X	X
Echium candicans	Pride of Madeira	L			X	X	X	X	X	X	X	
Euryops pectinatus	Euryops Daisy	L	X	X	X	X	X	X	X	X		
Cotoneaster spp.	Cotoneaster	L	X	X	X		X	X	X	X	X	X
Grevillia noelii	Noel's Grevillia	L	X	X	X	X	X	X	X	X		
Juniperus spp.	Juniper	L	X	X			X	X	X	X		
Hakea suaveolens	Sweet Hakea	L			X		X	X	X	X	X	
Myrtus communis	Myrtle	L			X		X	X	X	X		
Nandina domestica	Heavenly Bamboo	L	X		X	X		X	X		X	X
Opuntia spp	Prickly Pear/Cholla	VL							X		X	
Leucophyllum frutescens	Texas Ranger	L			X		X	X	X	X	X	X
Lantana camara	Lantana	L	X		X	X		X	X		X	X
Sarcococca sp.	Sweet Sarcococca	L			X			X	X		X	X
Berberis thunbergii 'Atropupurea'	Red-Leaf Japanese Barberry	L	X	X			X	X	X		X	X
Punica granatum 'Nana'	Dwarf Pomegranate	L						X	X			

Scientific Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Shrub	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Open Space or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Pittosporum tobira</i> 'Variegata'	Variegated Mock Orange	L	X		X			X	X		X	X
<i>Raphiolepis indica</i>	Indian Hawthorne	L			X			X	X		X	X
<i>Teucrium fruticans</i>	Bush Germander	L			X	X	X	X	X	X		
<i>Achillea</i> spp.	Yarrow	L		X	X			X	X	X	X	X
<i>Yucca</i> spp.	Yucca	L		X					X	X		
<i>Cistus</i> spp.	Rockrose	L	X	X	X			X	X		X	X
Low shrubs, Massings												
<i>Lantana montevidensis</i>	Trailing Lantana	L	X		X			X	X		X	X
<i>Acanthus mollis</i>	Bear's Breech	M	X				X	X	X	X		
<i>Ephedra viridis</i>	Mormon Tea	VL							X		X	X
<i>Westringia</i> spp.	Coast Rosemary	L	X		X			X	X		X	X
<i>Cotoneaster</i> spp.	Cotoneaster	L	X	X	X		X	X	X	X	X	
<i>Lavandula</i> (cultivars)	Lavendar	L	X	X	X	X	X	X	X			
<i>Nandina domestica</i> 'Firepower'	Dward Nandina	L			X				X			
<i>Gaura lindheimeri</i>	Gaura	M	X		X				X		X	X
<i>Salvia leucantha</i>	Mexican Sage	L	X		X				X		X	X

Scientific Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Shrub	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Open Space or Buffer Areas	Detention, Bio Swales, Natural Areas
<i>Oenothera speciosa</i>	Mexican Evening Primrose	L							X	X	X	
<i>Lobelia laxiflor</i>	Mexican Bush Lobelia	L						X	X		X	X
<i>Echium fatuosum</i>	Pride of Madeira	L	X	X	X			X	X		X	X
<i>Myoporum parvifolium</i>	Myoporum	L			X	X	X	X	X	X		
<i>Rosmarinus spp.</i>	Rosemary	L	X	X	X	X	X	X	X	X		
<i>Rosa californica</i>	California Wild Rose	L		X	X	X	X	X	X	X		
<i>Rosa rugosa</i>	Ramanas Rose	M		X	X	X	X	X	X	X		
<i>Plumbago auriculata</i>	Cape Plumbago	L	X	X	X				X	X	X	X
<i>Rosa rugosa</i>	Beach Rose	L	X	X	X		X		X		X	X
<i>Rosa californica</i>	California Wild Rose	L	X	X	X		X	X	X			
<i>Calluna vulgaris</i>	Scotch Heather	M	X		X		X	X			X	X
<i>Grevillia noelii</i>	Noel's Grevillia	L	X					X	X		X	X
<i>Teucrium lucidrys</i>	Germander	L			X		X		X			
<i>Coleonema pulchrum</i>	Pink Breath of Heaven	M	X		X			X	X		X	X
<i>Dietses bicolor</i>	African Butterfly Iris	L	X		X			X	X		X	X

Clumping Shrubs													
Dietes bicolor	Fortnight Lily	L			X	X			X	X			
Lavandula steuchas 'otto quast'	Spanish Lavender	L			X	X		X	X	X			
Hemerocallis hybrids Yellow & Cranberry	Evergreen Daylilies	M	X		X	X		X	X	X			
Agapanthus africanus	Lily-of-the-Nile	M	X		X			X	X	X			

Notes:

(1) Water Demand: H=High M=Moderate L=Low VL=Very Low

Table C-1c: Plant Palette – Ground Cover, Vines, Grasses and Special Conditions

Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Ground Cover/Vine	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Detention, Bio Swales, Natural Areas
Ground Covers											
<i>Artosaphylos uva-ursi</i> - 'P.R'	Pt. Reyes Bearberry	L	X	X	X	X		X	X	X	X
<i>Cotoneaster dammeri</i> 'Lowfast'	Lowfast Cotoneaster	L	X	X	X	X			X	X	X
<i>Rosmarinus officinalis</i> 'T.B.'	Creeping Rosemary	L	X	X	X	X		X	X	X	X
<i>Acacia redolens</i> 'Desert Carpet'	Dwarf Prostrate Acacia	L	X		X	X		X	X		X
<i>Baccharis pilularis</i> 'Twin Peaks'	Coyote Brush	L	X	X	X	X		X	X	X	X
<i>Cotoneaster dammeri</i> 'Lowfast'	Lowfast Cotoneaster	L		X	X	X			X		X
<i>Ceanothus griseus</i> horizontails	Carmel Creeper	VL	X	X	X	X		X	X	X	X
<i>Berberis</i> spp.	Barberry	L		X	X		X		X	X	
<i>Sedum</i> spp.	Sedum	L		X			X	X	X	X	
<i>Myrica californica</i>	California Wax Myrtle	L			X	X		X	X		X
<i>Euonumus fortunei</i> 'Colorata'	Winter Creeper	M			X				X		X
Vines											
<i>Parthenocissus tricuspidata</i>	Boston Ivy	M			X	X			X		X
<i>Hedera helix</i>	English Ivy	M			X	X			X		X
<i>Gelsemium sempervirens</i>	Carolina Jessamine	L	X	X			X	X	X		
<i>Macfadyena unguis-cati</i>	Cat's Claw	L	X							X	X

Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Ground Cover/Vine	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Detention, Bio Swales, Natural Areas
Clumping Grasses											
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	L	X		X		X		X		
<i>Stipa</i> spp.	Feather Grass	L	X		X		X	X	X		X
<i>Calamagrostis</i> spp.	Reed Grass	L	X		X		X	X	X		X
<i>Juncus</i> spp. (2)	Rush	H							X		X
<i>Nolina microcarpa</i>	Bear Grass	VL					X		X		
<i>Festuca</i> (sp. & cultivars)	Green and Blue Fescues	L	X		X		X	X	X		X
<i>Nassella</i> spp.	Needlegrass	VL							X		
<i>Festuca glauca</i>	Blue Fescue	L			X			X	X		
<i>Ephedria viridis</i>	Mormon Tea	L							X		X
<i>Teucrium x lucidrys</i>	Wall Germander	L			X	X		X			X
Swales, Detention, and Riparian Areas											
<i>Artemisia douglasii</i>	Mugwort	H									X
<i>Carex</i> spp.	Sedge	H									X
<i>Calystegia subacaulis</i>	Hill Morning Glory	H									X
<i>Epilobium ciliatum</i>	Woodland Sedge	H									X
<i>Baccharis douglassii</i>	Douglas' Iris	H									X
<i>Baccharis viminea</i>	Mulefat	H									X

Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Ground Cover/Vine	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Detention, Bio Swales, Natural Areas
Chondropetalum	Cape Reed	H									X
Iris douglasiana	Douglas' Iris	H									X
Juncus balticus	Baltic Rush	H									X
Juncus effusus	Spreading Rush	H									X
Lonicera hispidula	Honeysuckle	H									X
Lupinus bicolor	Lindley's Annual Lupine	H									X
Marah fabaceous	Wild Cucumber	H									X
Miscanthus spp.	Eulalia	H									X
Mimulus aurantiacus	Sticky Monkey Flower	H									X
Mimulus guttatus	Seep-Spring Monkey Flower	H									X
Ranunculus californicus	California Buttercup	H									X
Rosa californica	Wild Rose	H									X
Ribes menziesii	Gooseberry	H									X
Ribes speciosum	Fuschia-flowered Gooseberry	H									X
Salix lasiolepis (2)	Red Willow	H									X
Scrophularia californica	California Bee Plant	H									X
Sporobolus spp.	Sacaton	H									X

Botanical Name	Common Name	Water Demand (1)	Streetscape Accent Ground Cover/Vine	Entry Areas	Central Park and Neighborhood Parks	Village Green	Grand Promenade	Active Adult Amenity Center	Residential yards	Commercial and Business Park Areas	Detention, Bio Swales, Natural Areas
<i>Sisyrinchium bellum</i>	Blue-eyed Grass	H									X
<i>Symphoricarpos albus</i>	Snowberry	H									X

Notes:

(1) Water Demand: H=High M=Moderate L=Low VL=Very Low



B-4 Tentative Subdivision Map

ASSESSOR'S PARCEL NUMBER

PARCEL NO 1: 031-221-001
 PARCEL NO 2: 031-222-001

PROJECT TEAM

DEVELOPER

CASTELLINA, LLC
 175 E. MAIN AVE #110
 MORGAN HILL, CA 95037
 (408)782-1669

CIVIL

MARK FALGOUT
 KIMLEY-HORN AND ASSOCIATES, INC.
 4637 CHABOT DRIVE, SUITE 300
 PLEASANTON, CA 94588
 925.965.7701
 MARK.FALGOUT@KIMLEY-HORN.COM

OWNER

MR. & MRS. HERMAN
 17035 ROAD 26, STE D
 MADERA, CA 93638
 (559)661-8253

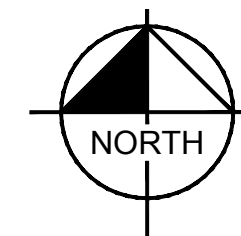
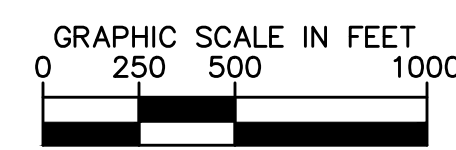
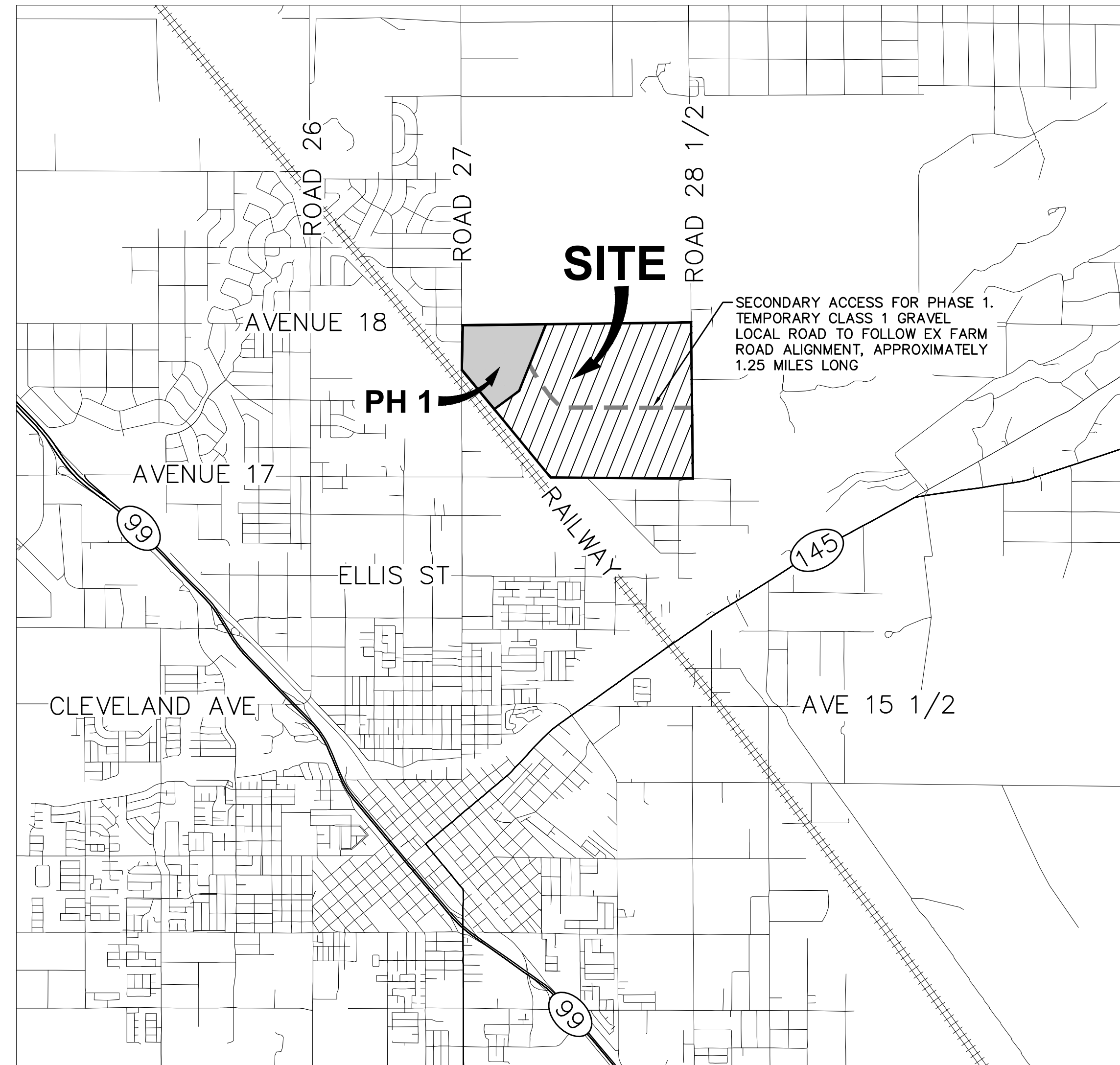
LANDSCAPE/PLANNING

SANDY VANCE,
 KIMLEY-HORN AND ASSOCIATES, INC.
 1300 CLAY ST.
 OAKLAND, CA 94612
 510.625.0712
 SANDY.VANCE@KIMLEY-HORN.COM

GENERAL NOTES

- GROSS PROPERTY: 791.8 ACRES
 - PHASE 1 - 117 LOTS 27.3 ACRES
 - PARCEL A2 8.5 ACRES
 - PARCEL A3 9.7 ACRES
 - PARCEL A4 12.2 ACRES
 - PARCEL A5 9.3 ACRES
 - PARCEL A6 7.6 ACRES
 - PARCEL A7 19.2 ACRES
 - PARCEL A8 8.5 ACRES
 - PARCEL A9 15.8 ACRES
 - PARCEL B1.1 30.8 ACRES
 - PARCEL B1.2 53.5 ACRES
 - PARCEL B2 25.8 ACRES
 - PARCEL B3 29.6 ACRES
 - PARCEL B4 22.9 ACRES
 - PARCEL C1 8.9 ACRES
 - PARCEL C2 15.0 ACRES
 - PARCEL C3.1 30.7 ACRES
 - PARCEL C3.2 51.4 ACRES
 - PARCEL D1 23.8 ACRES
 - PARCEL D2 11.6 ACRES
 - PARCEL D3 13.3 ACRES
 - PARCEL D4 13.7 ACRES
 - PARCEL D5 21.4 ACRES
 - PARCEL D6 25.0 ACRES
 - PARCEL D7 12.2 ACRES
 - PARCEL OS1 8.3 ACRES
 - PARCEL OS2 10.2 ACRES
 - PARCEL OS3 9.9 ACRES
 - PARCEL OS4 6.6 ACRES
 - PARCEL OS5 4.4 ACRES
 - PARCEL TC1 6.5 ACRES
 - PARCEL TC2 6.6 ACRES
 - PARCEL TC3 9.7 ACRES
 - PARCEL TC4 12.1 ACRES
 - OPEN SPACE 16.7 ACRES
 - OPEN SPACE/ DETENTION BASIN 37.4 ACRES
 - CENTRAL PARK 30.8 ACRES
 - ENTRY FEATURE 0.5 ACRES
 - VILLAGE GREEN 1.1 ACRES
 - ACTIVE ADULT RECREATION CENTER 6.2 ACRES
 - BACKBONE STREETS 105.6 ACRES
 - PARCEL W1 WASTEWATER FACILITIES 5.1 ACRES
 - PARCEL W2 FUTURE INFRASTRUCTURE FACILITIES 6.4 ACRES
 - PARCEL W3 WATER FACILITIES 0.5 ACRES
 - PARCEL W4 WATER FACILITIES 0.5 ACRES
- TOTAL UNITS: 117 LOTS, 28 PARCELS TO BE SUBDIVIDED IN THE FUTURE BY SEPARATE TENTATIVE MAP.
 - EX GENERAL PLAN: NGA (NEW GROWTH AREA)
 - EX ZONING: ARE-40 (AGRICULTURAL RURAL EXCLUSIVE)
 - PROPOSED ZONING: PER CASTELLINA SPECIFIC PLAN
 - UTILITIES
 - SEWER: TBD
 - WATER: TBD
 - STORM DRAIN: MADERA COUNTY
 - ELECTRIC: PACIFIC GAS & ELECTRIC COMPANY
 - TELEPHONE: VERIZON OR OTHERS AS AVAILABLE
 - FIRE PROTECTION: MADERA COUNTY FIRE DEPARTMENT
 - SCHOOL DISTRICT: MADERA UNIFIED SCHOOL DISTRICT
 - THE APPLICANT WILL FILE MULTIPLE FINAL MAPS.
 - FINAL MAP WILL DEDICATE UTILITY AND ACCESS EASEMENTS TO INTERNAL LOTS.
 - THE MAJORITY OF THE SITE IS IN FLOOD ZONE X PER FEMA MAP 6039C0920E. ALL BUILDING IMPROVEMENTS ARE IN FLOOD ZONE X. THE NORTHWEST CORNER OF THE SITE IS LOCATED IN SPECIAL FLOOD HAZARD AREA (SFHA) A. DUE TO THE PROJECT THE BASE FLOOD ELEVATION WILL INCREASE 0.8 FEET FROM 281.6 FT TO 282.4 FT.
 - UTILITY ACCESS EASEMENTS TO INCLUDE PAE, PUE, WLE, SSE, AND SDE.
 - LAND FOR A 15- ACRE ELEMENTARY SCHOOL SITE TO BE SET ASIDE WITHIN THE CMDR ZONE DESIGNATION FOR THE MADERA UNIFIED SCHOOL DISTRICT.
 - THE FINAL LOCATIONS AND DESIGNS OF THE NEIGHBORHOOD PARKS MAY BE MODIFIED WITH FUTURE TENTATIVE MAP SUBMITTALS.

TENTATIVE SUBDIVISION MAP FOR CASTELLINA IN MADERA COUNTY, CALIFORNIA



BASIS OF BEARINGS

THE BEARING OF N00°52'39"W BETWEEN MONUMENTS M16 AND M17, AS SHOWN ON THAT CERTAIN RECORD OF SURVEY, FILED FOR RECORD IN BOOK 23, PAGE 45, MADERA COUNTY RECORDS, WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

PROJECT BENCHMARK

THE VERTICAL DATUM FOR THE SURVEY IS NAVD 88 AS DEFINED BY THE CALIFORNIA SPATIAL REFERENCE CENTER, EPOCH DATE 2011.00. THE ELEVATIONS FOR THIS SURVEY ARE ESTABLISHED FROM A NETWORK ADJUSTMENT HOLDING COORDINATES FOR COORS STATION P307. (ELEVATION = 270.681 FEET)

SITE BENCHMARK

2-1/2" BRONZE DISK IN 8" CONCRETE PIER STAMPED "HIGH SPEED RAIL AUTH: 2012 - CONTROL PT. S167" LOCATED JUST OFF THE PAVEMENT ON THE EAST SIDE OF ROAD 27 AT THE INTERSECTION OF AVENUE 18. (ELEVATION = 288.03 FEET)

LEGAL DESCRIPTION

ALL THAT PORTION OF SECTION 5, TOWNSHIP 11 SOUTH, RANGE 18 EAST, MOUNT DIABLO BASE AND MERIDIAN, LYING WEST OF RAYMOND ROAD, BEING ALSO KNOWN AS ROAD 28 1/2 AND ALL THAT PORTION OF SECTION 6, TOWNSHIP 11 SOUTH, RANGE 18 EAST, MOUNT DIABLO BASE AND MERIDIAN, LYING NORTH AND EAST OF THE ATCHISON TOPEKA AND SANTA FE RAILROAD RIGHT-OF-WAY.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA IN GRANT DEED RECORDED JUNE 9, 2017 AS DOCUMENT NO. 2017-014864 AND DOCUMENT NO. 2017-014865, OF OFFICIAL RECORDS OF MADERA COUNTY.

TOPOGRAPHY NOTE

THE TOPOGRAPHY SHOWN WAS FLOWN BY AERIAL PHOTOMAPPING SERVICES ON MAY 01, 2015, USING THE PROJECT BENCHMARK FOR VERTICAL CONTROL

SHEET INDEX	
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6	PHASE 1 UTILITY PLAN
7	TYPICAL EROSION & SEDIMENT CONTROL METHODS

ABBREVIATIONS

BW	BOTTOM OF WALL
CNTR	CENTER
EG	EXISTING GROUND
ESMT	EASTMENT
FG	FINISHED GROUND
FF	FINISHED FLOOR
FM	FORCE MAIN
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
LS	LANDSCAPE
MH	MANHOLE
PRK	PARKING
PAE	PUBLIC ACCESS EASEMENT
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT OF WAY
RW	RECYCLED WATER
SD	STORMDRAIN
SDE	STORM DRAIN EASEMENT
SS	SANITARY SEWER
SSE	SANITARY SEWER EASEMENT
STBK	SETBACK
SW	SIDEWALK
TRAP	TRAPEZOIDAL
TRVL	TRAVEL
TW	TOP OF WALL
UW	UNTREATED WATER
W	WATER
WLE	WATER LINE EASEMENT

LEGEND

---	BOUNDARY LINE
- - - - -	EASEMENT
---	STREET CENTERLINE
---	PROPOSED ROW
---	PROPOSED PROPERTY LINE
---	PROPOSED CURB
---	PROPOSED SW/TRAIL
---	PROPOSED RETAINING WALL
---	PROPOSED FLOWLINE
---	PROPOSED GRADE BREAK
---	PROPOSED HEADWALL
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	EX SITE FEATURE
---	EX FENCE
---	EX FLOW LINE
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	SANITARY SEWER
---	STORM DRAIN
---	DOMESTIC WATER
---	RECYCLED WATER
---	UNTREATED WATER
---	FIRE HYDRANT

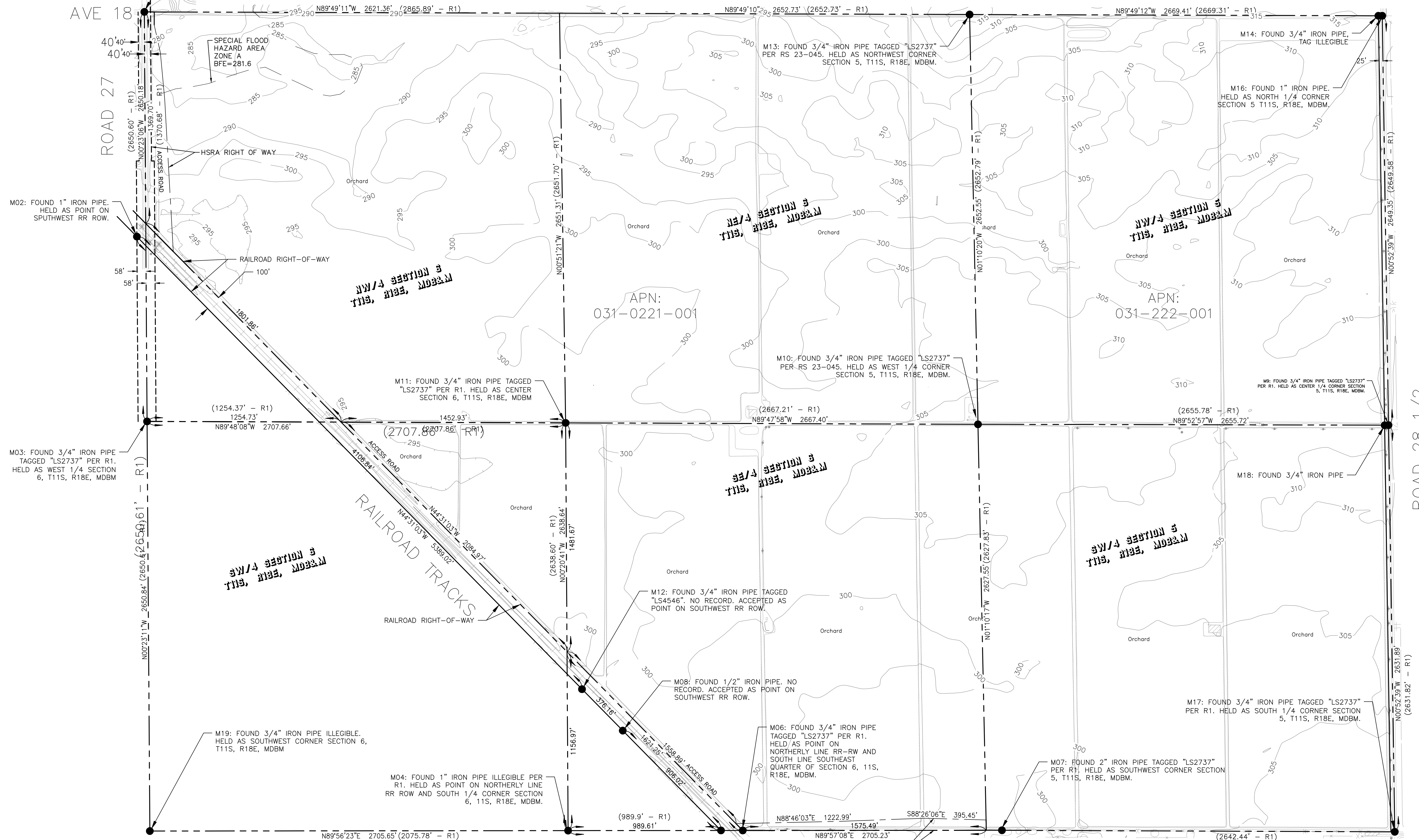
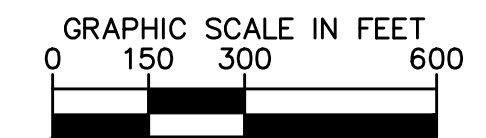
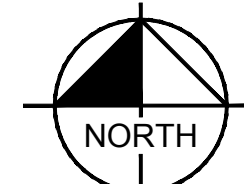
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197846000	06/01/2020	AS SHOWN	MF	IJ/B	SV

TENTATIVE MAP
 PREPARED FOR
 CASTELLINA

COVER SHEET

COUNTY OF MADERA



SURVEYOR NOTE

BOUNDARY PER RECORD OF SURVEY BY O'DELL
ENGINEERING DATED DECEMBER 31, 2015
VOLUME 62 OF MAPS, AT PAGES 118 THROUGH 119
UPDATED 03.24.2020

NO.	REVISIONS	DATE	BY

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KHA PROJECT 197846000	DATE 06/01/2020	SCALE AS SHOWN	DESIGNED BY MF	DRAWN BY MUB	CHECKED BY SV
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**TENTATIVE MAP
PREPARED FOR
CASTELLINA**

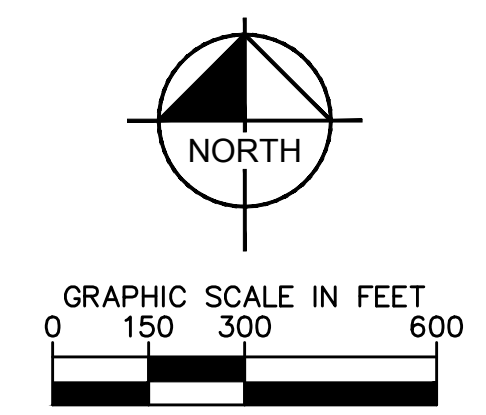
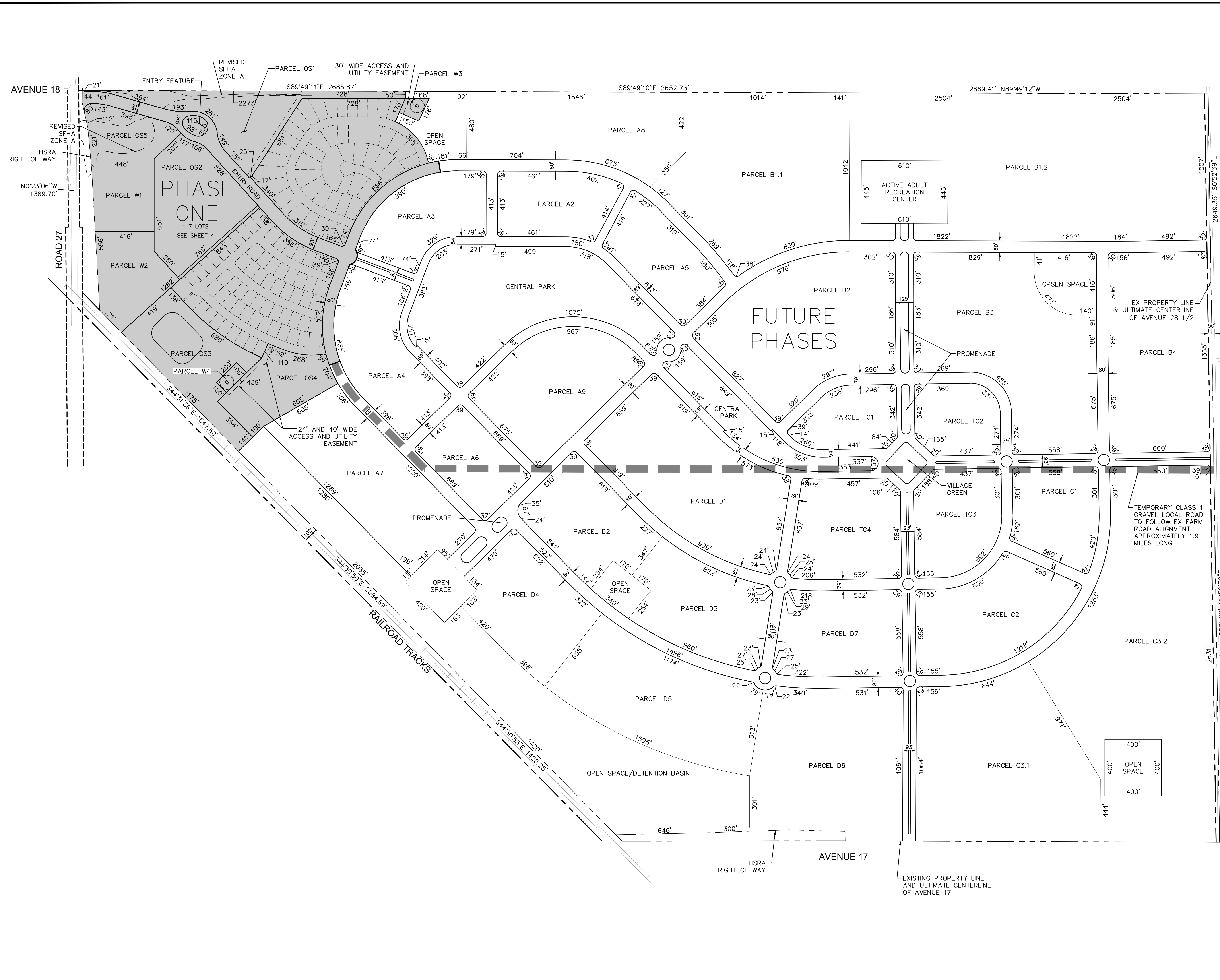
COUNTY OF MADERA

**EXISTING
CONDITIONS**

SHEET NUMBER
2 OF 7

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Plotted By: Brennan, Kaitlin - Sheet Set: CASTA - TM - Layout: 3 FUTURE PHASES - June 02, 2020 08:20:57am C:\Users\kcofflin\Documents\Desktop\Castellina\CAD\3 FUTURE PHASES.dwg



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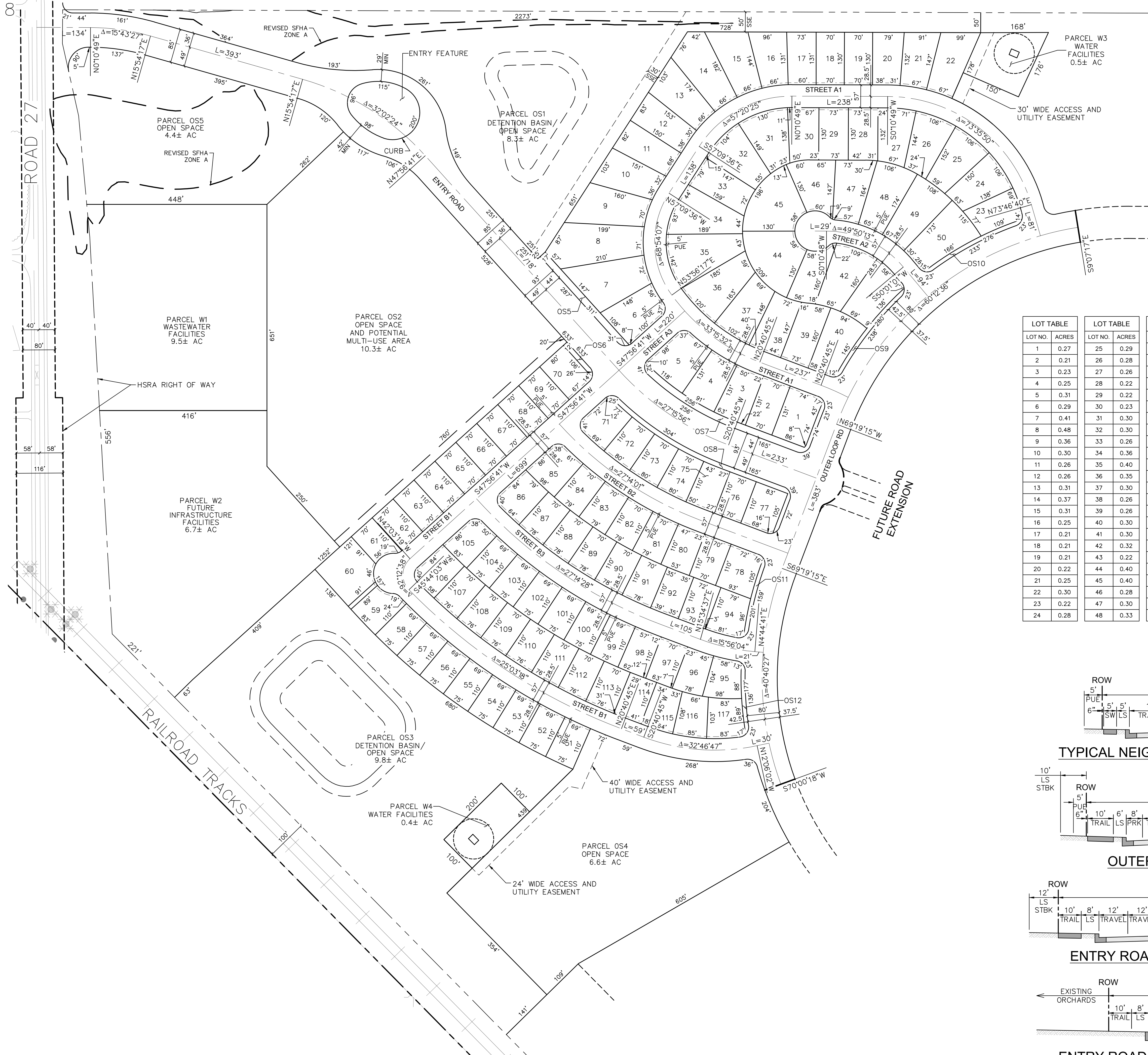
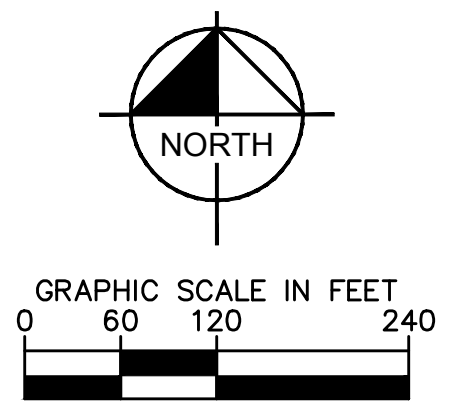
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TENTATIVE MAP
 PREPARED FOR
 CASTELLINA
 COUNTY OF MADERA

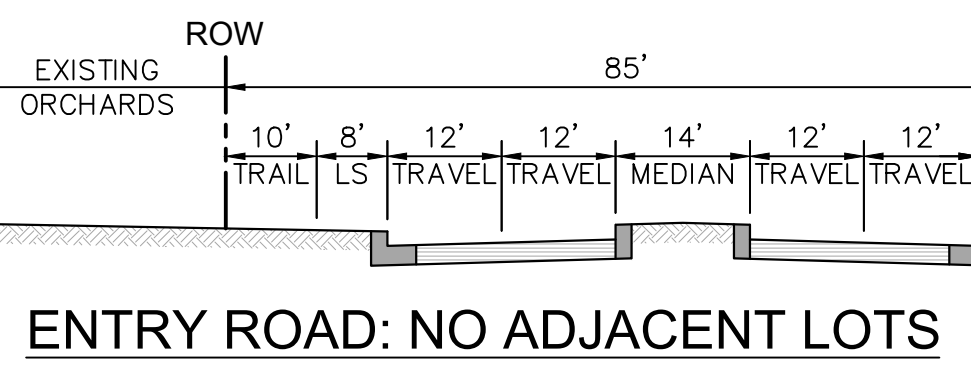
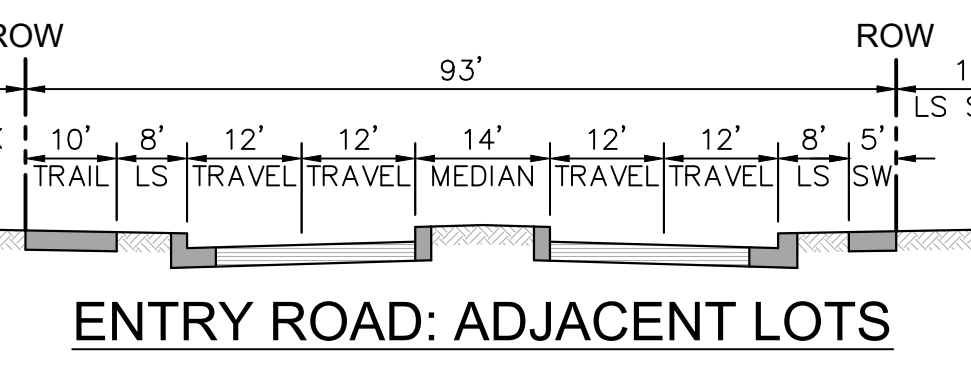
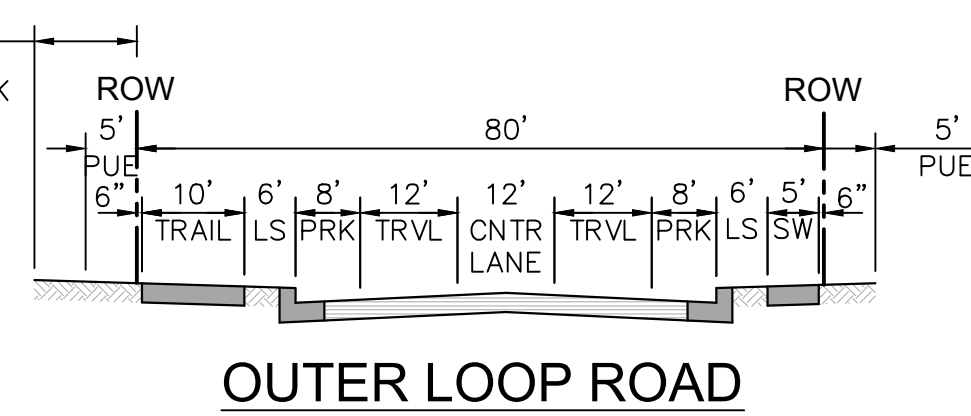
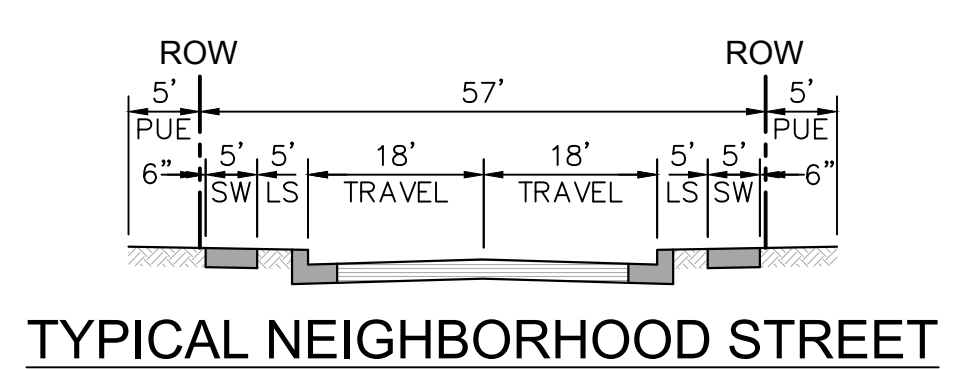
FUTURE PHASES

AVE 18

ROAD 27



LOT NO.	ACRES	LOT NO.	ACRES	LOT NO.	ACRES	LOT NO.	ACRES	LOT NO.	ACRES
1	0.27	25	0.29	49	0.35	73	0.19	97	0.18
2	0.21	26	0.28	50	0.36	74	0.19	98	0.18
3	0.23	27	0.26	51	0.18	75	0.18	99	0.18
4	0.25	28	0.22	52	0.18	76	0.18	100	0.18
5	0.31	29	0.22	53	0.18	77	0.21	101	0.18
6	0.29	30	0.23	54	0.18	78	0.22	102	0.18
7	0.41	31	0.30	55	0.18	79	0.18	103	0.18
8	0.48	32	0.30	56	0.18	80	0.18	104	0.18
9	0.36	33	0.26	57	0.18	81	0.19	105	0.19
10	0.30	34	0.36	58	0.18	82	0.19	106	0.20
11	0.26	35	0.40	59	0.20	83	0.19	107	0.19
12	0.26	36	0.35	60	0.33	84	0.19	108	0.19
13	0.31	37	0.30	61	0.15	85	0.23	109	0.19
14	0.37	38	0.26	62	0.18	86	0.21	110	0.19
15	0.31	39	0.26	63	0.18	87	0.19	111	0.19
16	0.25	40	0.30	64	0.18	88	0.19	112	0.19
17	0.21	41	0.30	65	0.18	89	0.19	113	0.19
18	0.21	42	0.32	66	0.18	90	0.19	114	0.18
19	0.21	43	0.22	67	0.18	91	0.19	115	0.19
20	0.22	44	0.40	68	0.18	92	0.18	116	0.18
21	0.25	45	0.40	69	0.18	93	0.18	117	0.20
22	0.30	46	0.28	70	0.20	94	0.21		
23	0.22	47	0.30	71	0.22	95	0.19		
24	0.28	48	0.33	72	0.19	96	0.18		



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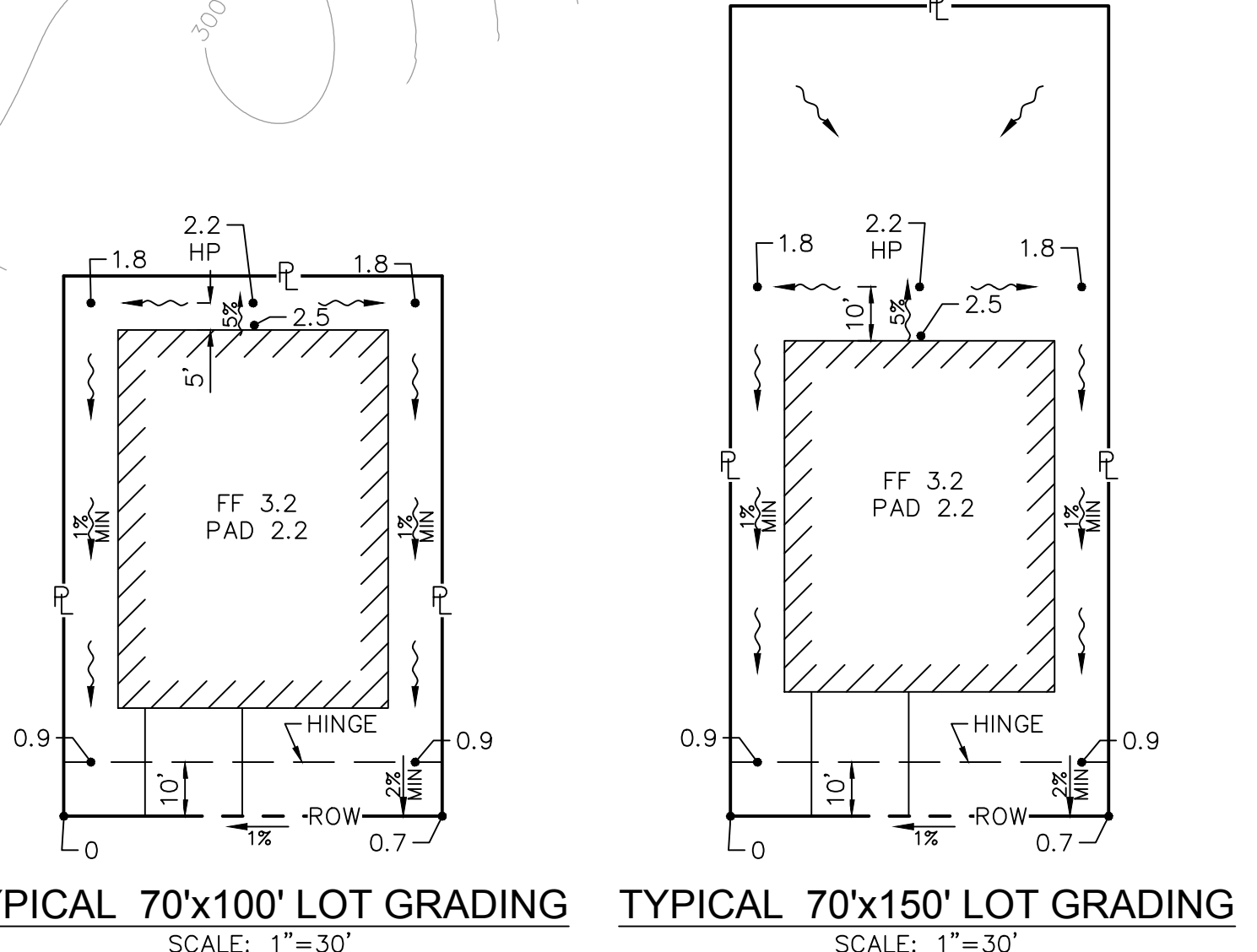
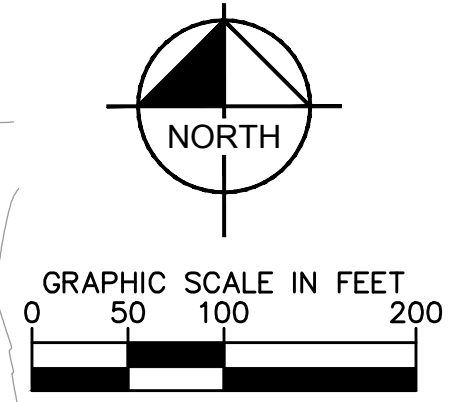
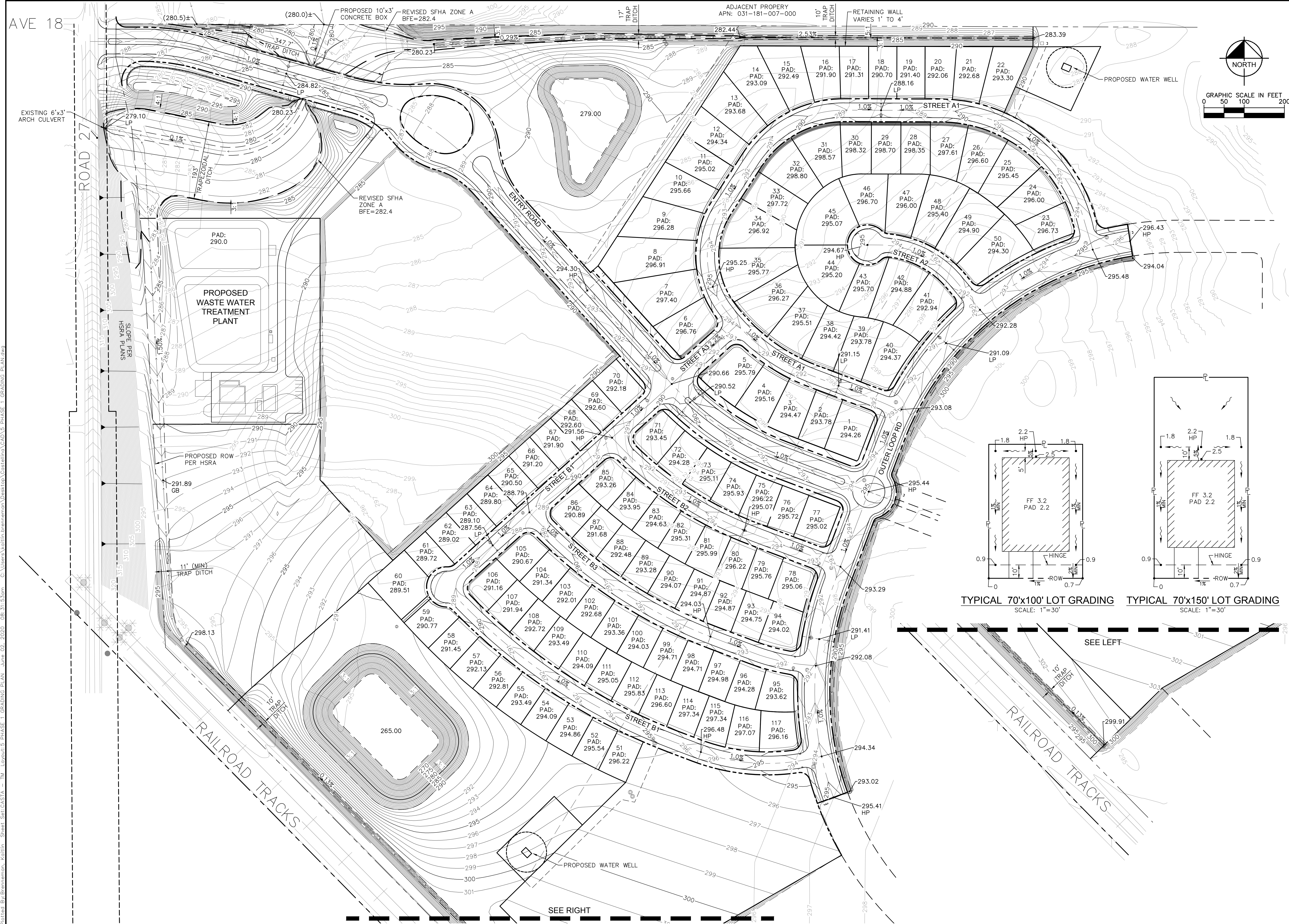
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TENTATIVE MAP
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 COUNTY OF MADERA

PHASE 1
 TENTATIVE MAP

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SY	CA	SY	CA	SY	CA

TENTATIVE MAP
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PHASE 1 GRADING
PLAN
 SHEET NUMBER
5 OF **7**

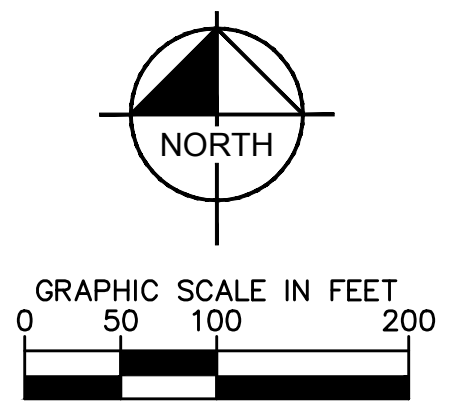
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AVE 18

ROAD 27

RAILROAD TRACKS

RAILROAD TRACKS



30' WIDE ACCESS AND UTILITY EASEMENT

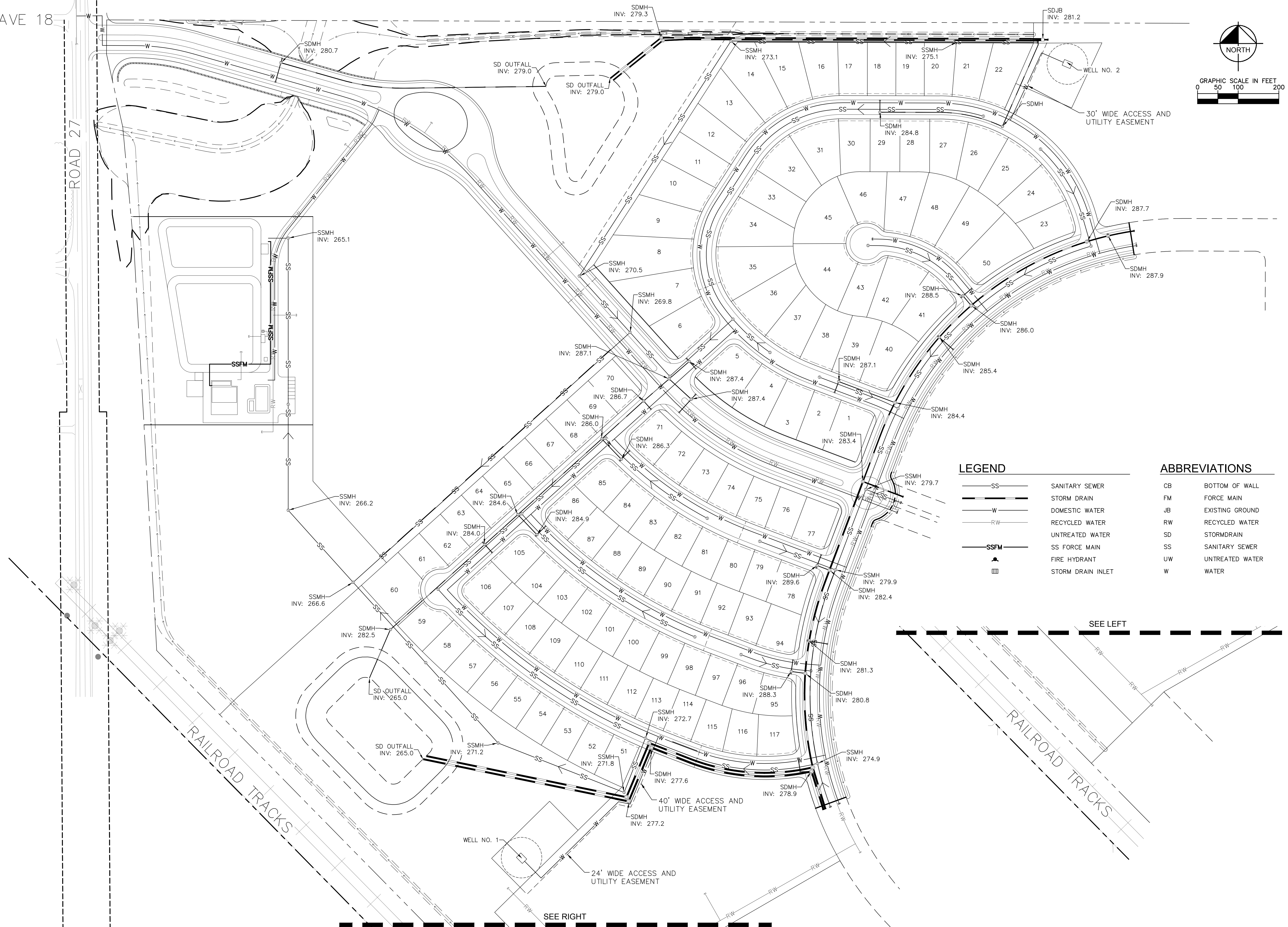
40' WIDE ACCESS AND UTILITY EASEMENT

24' WIDE ACCESS AND UTILITY EASEMENT

SEE RIGHT

SEE LEFT

Plotted By: Brennen, Kottlin Sheet: CASTA - TM Layout: 6 PHASE 1 UTILITY PLAN June 02, 2020 08:32:49pm C:\Users\kottlin.brennen\Desktop\Castellina_CAD\6 PHASE 1 UTILITY PLAN.dwg



LEGEND

- SS SANITARY SEWER
- SD STORM DRAIN
- W DOMESTIC WATER
- RW RECYCLED WATER
- UNTREATED WATER
- SSFM SS FORCE MAIN
- Fire Hydrant
- Storm Drain Inlet

ABBREVIATIONS

- CB BOTTOM OF WALL
- FM FORCE MAIN
- JB EXISTING GROUND
- RW RECYCLED WATER
- SD STORMDRAIN
- SS SANITARY SEWER
- UW UNTREATED WATER
- W WATER

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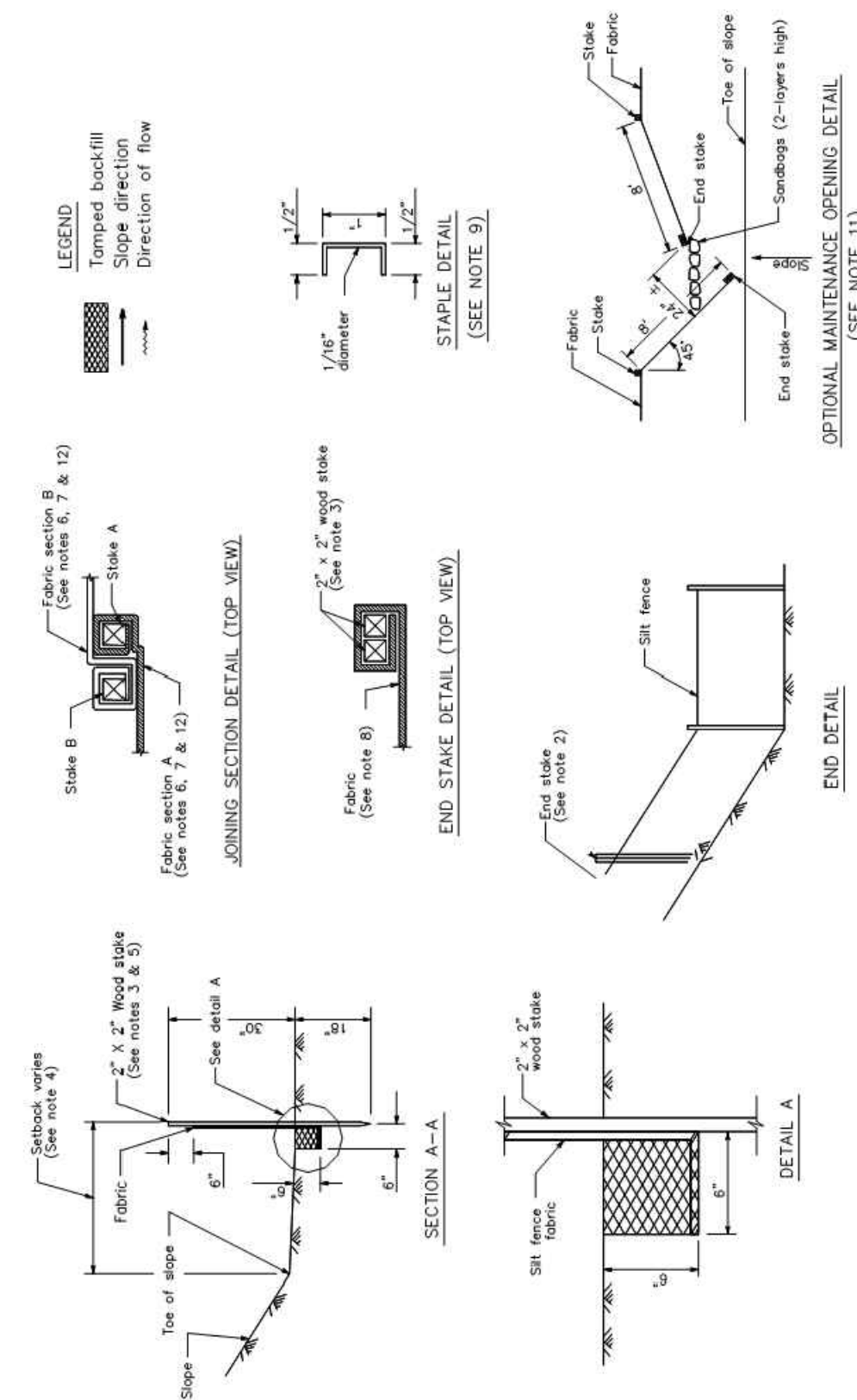
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TENTATIVE MAP
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 COUNTY OF MADERA

PHASE 1 UTILITY
 PLAN

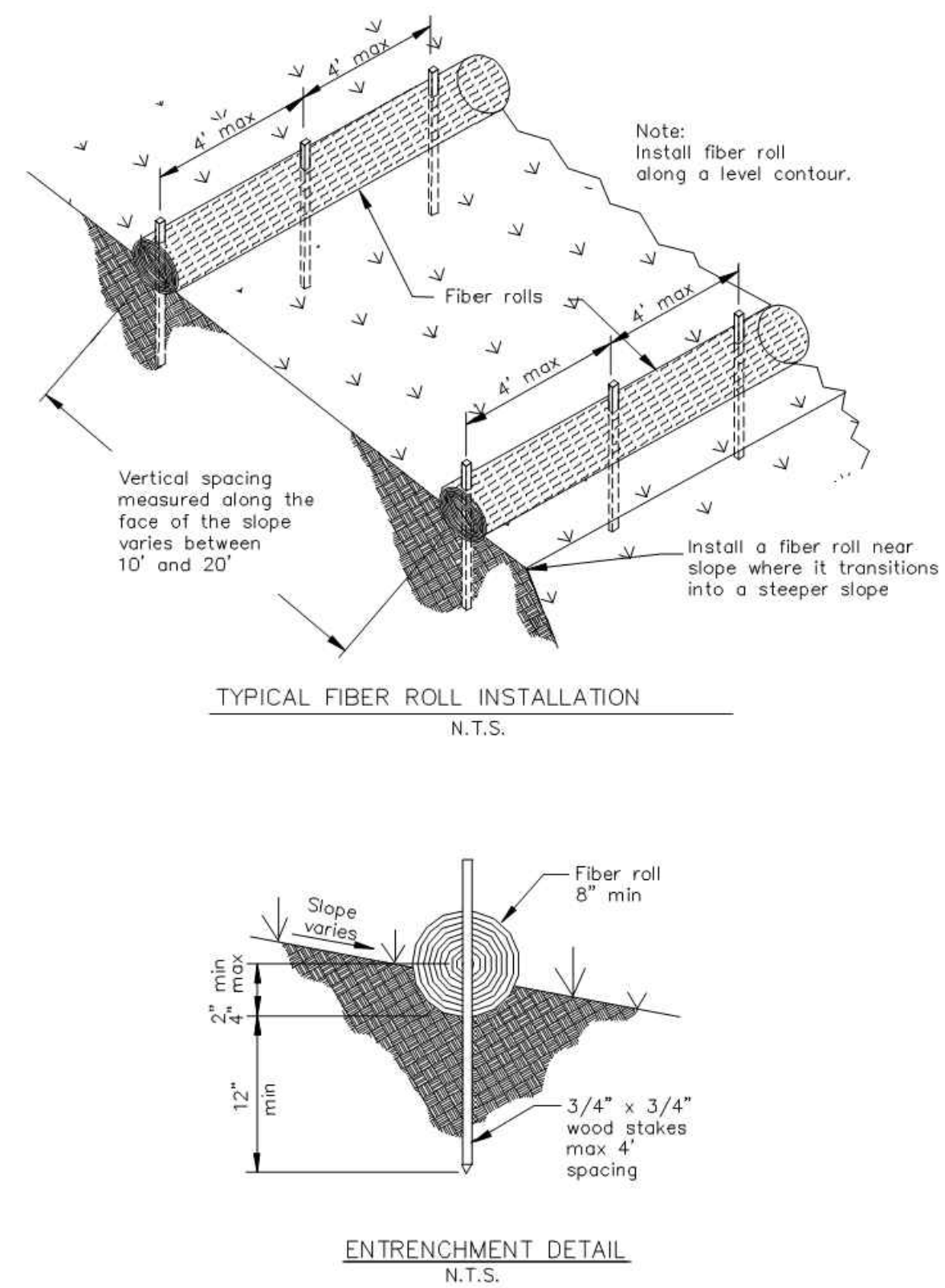
Silt Fence

SE-1



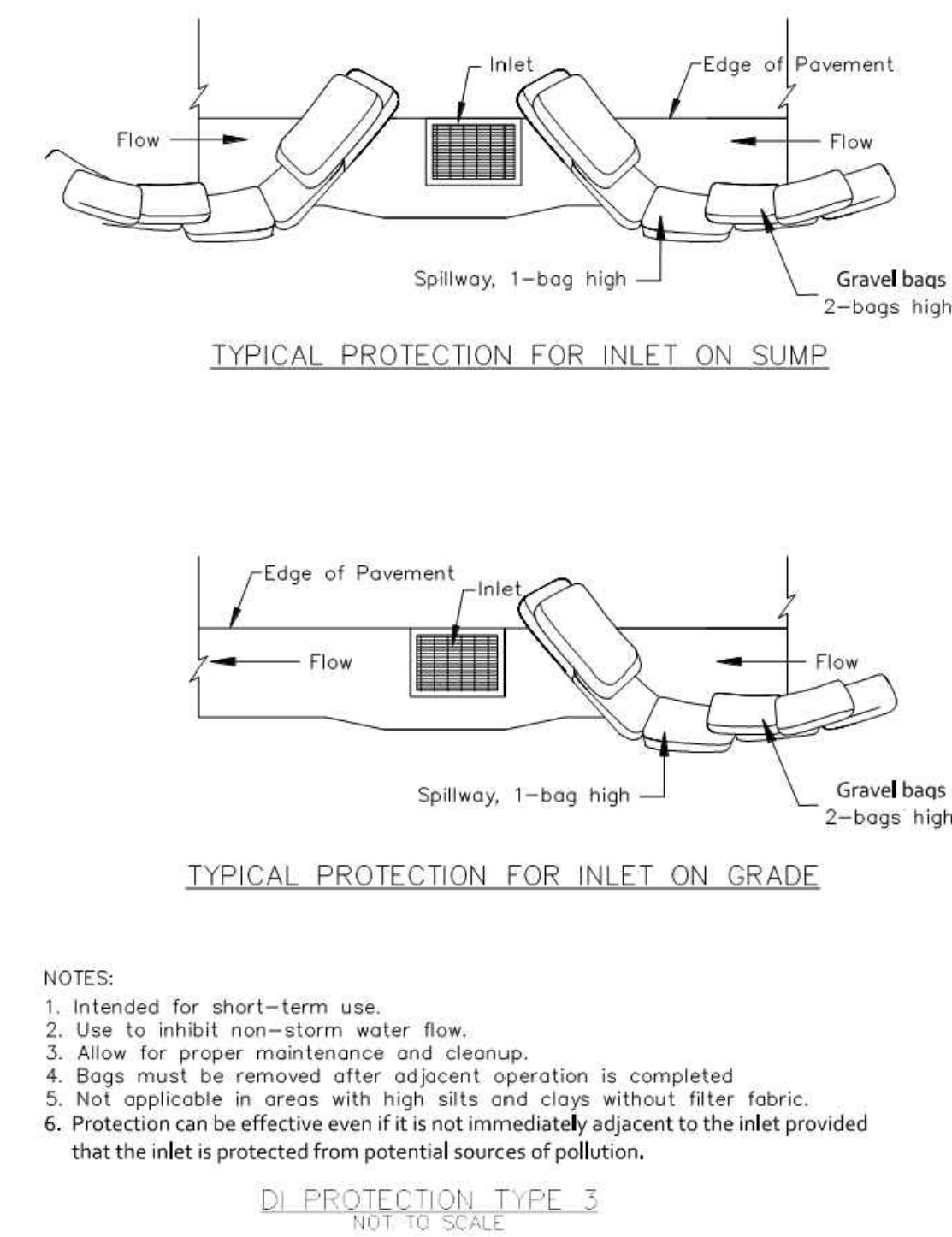
Fiber Rolls

SE-5

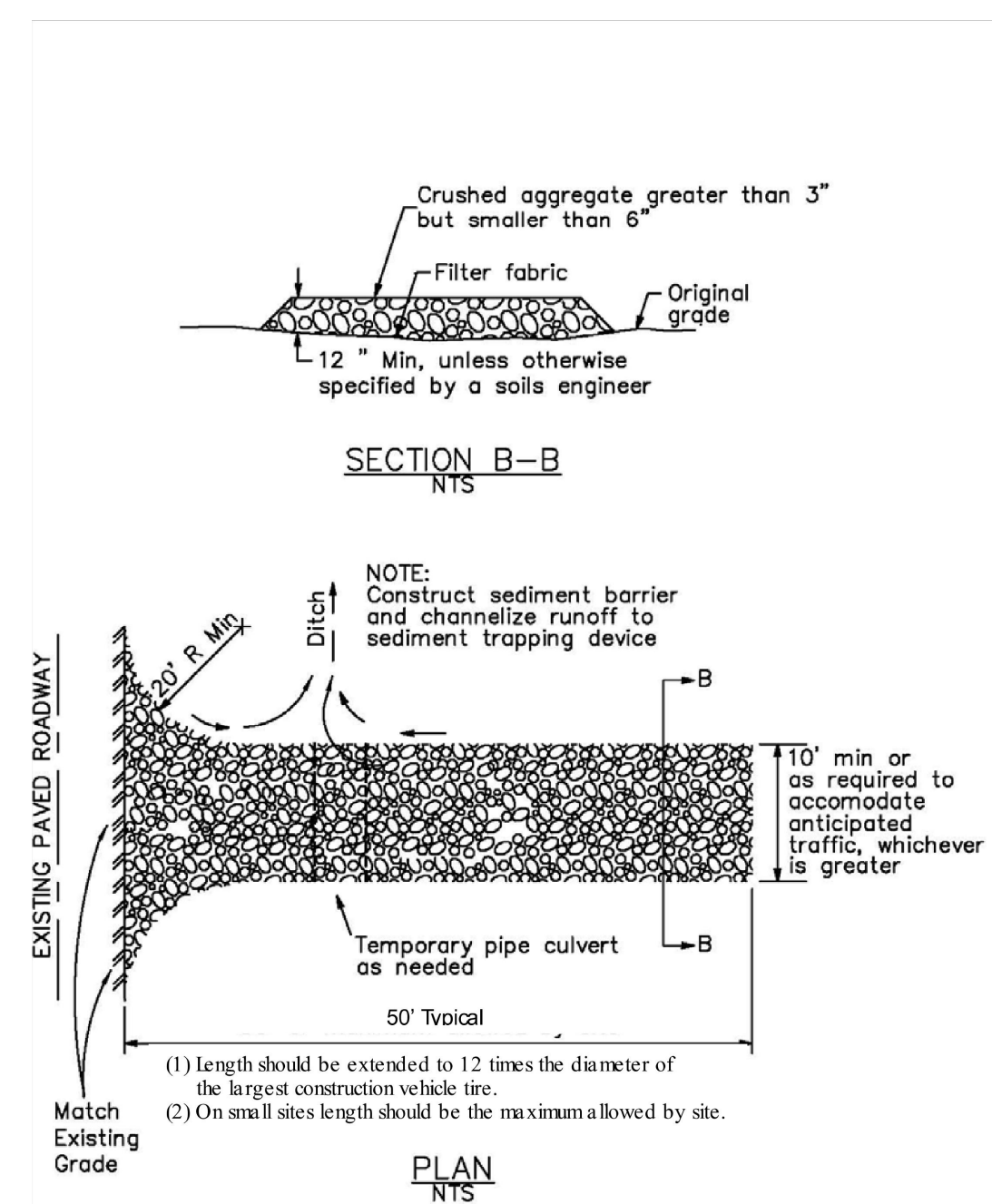


Storm Drain Inlet Protection

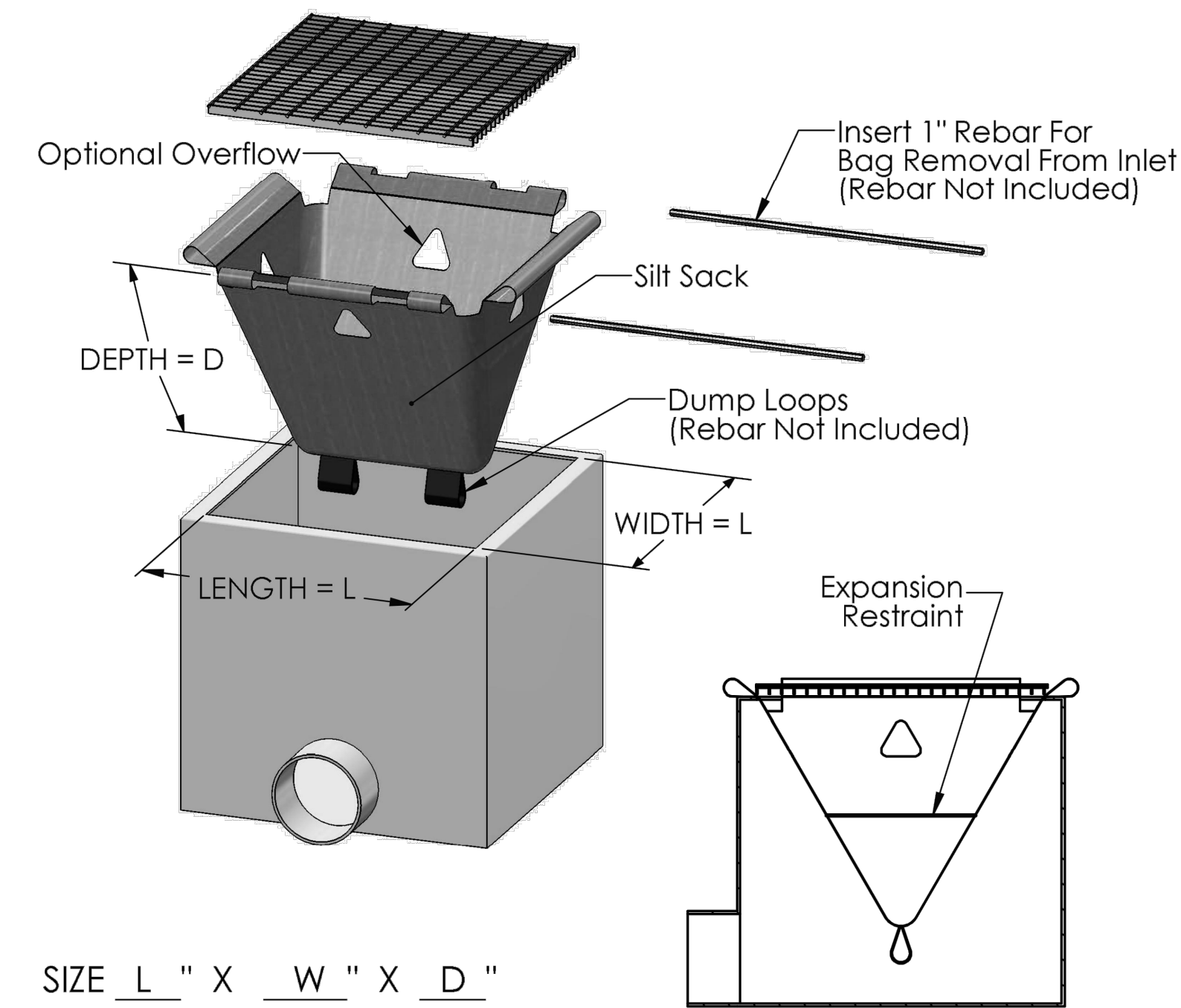
SE-10



Stabilized Construction Entrance/Exit TC-1



Silt Sack - Type A



TENTATIVE MAP
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TYPICAL EROSION &
SEDIMENT CONTROL
METHODS

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