

Section III Specific Plan Elements

This chapter presents the land use plan, implementing policies, and development criteria that articulate a vision for the ultimate build-out of the Kiernan Business Park as a high quality business and industrial center. This chapter, in conformance with Section 65451 (a) (1) of the California Government Code, establishes the general distribution and extent of land uses within the Plan area.

A. Land Use Designations

Policy LU-3: Development shall be required to be consistent with Figure III-1, the Land Use Plan Diagram, which is hereby adopted into this Specific Plan. All subsequent development shall conform to these designated land uses.

The Specific Plan defines seven land use designations for the Plan area: Business Park (BP), Office (O), Regional Commercial (RC), Medical Campus (MC), Mixed Use (MU), Mixed Use 2 (MU2) and Medium High Density Residential (MHDR). Figure III-1, Land Use Plan Diagram, delineates the location and extent of the land use designations in the Plan area. The intent of this Plan is to provide adequate land for both office-oriented, employment-intensive uses and light-industrial uses, and to provide a buffer of non-nuisance uses adjacent to residential areas. Non-nuisance uses are defined as those that are typically occurring between 8:00am and 6:00pm and do not generate excessive noise or light glare; or a street; or a landscaped buffer that includes a pedestrian trail and screening landscape elements including trees and berms.

This Plan establishes land use designations for the Plan area that modify existing zones defined in the City of Modesto Zoning Ordinance. The purpose of each land use designation and its allowable uses are described below. Development standards, which establish minimum requirements for development activities are contained in the Development Standards chapter of this document.

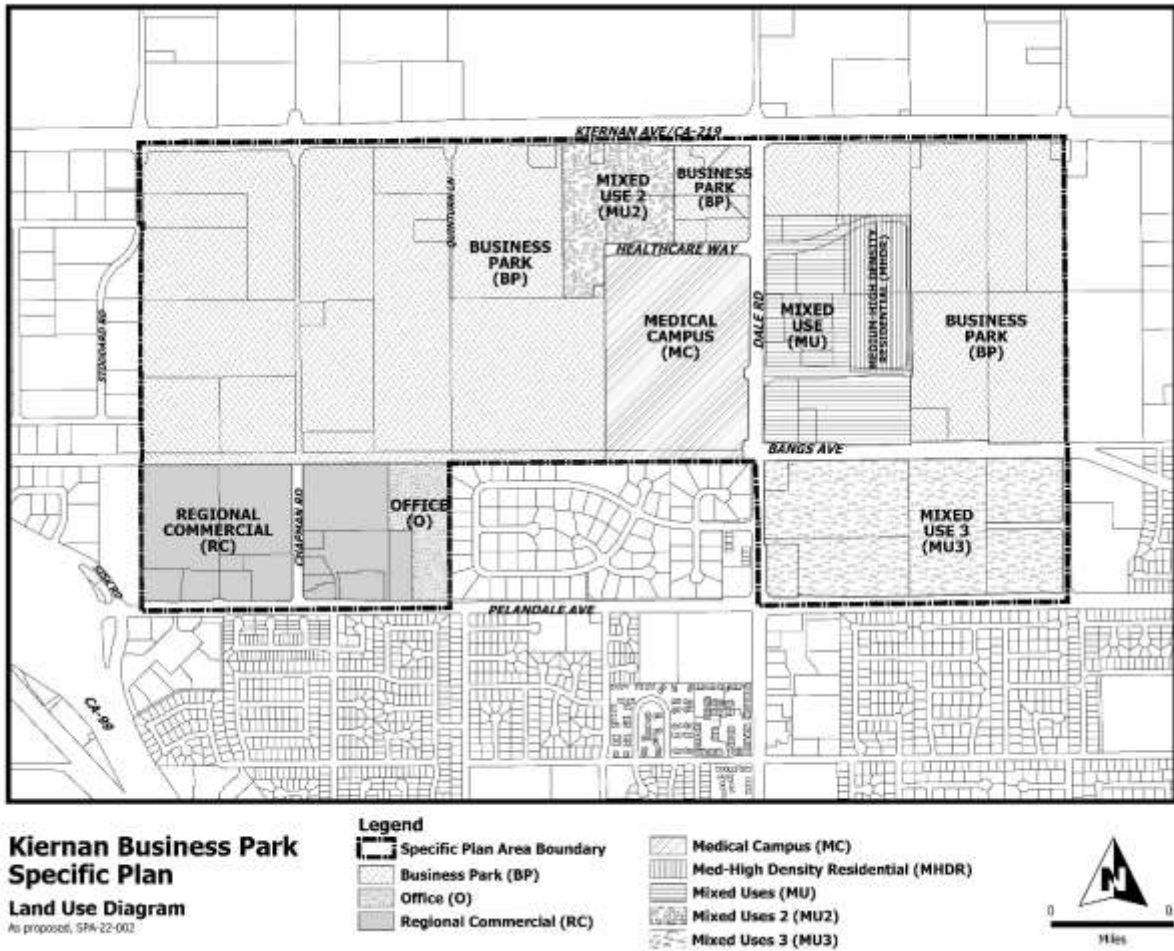


Figure III-1: Land Use Plan Diagram

The Land Use Summary of Kiernan Business Park is summarized below in Table III-1.

Development Area	Approximate Gross Acres	Maximum Density Allowed(sf)¹	Dwelling Unit Max
Business Park Area (BP)			
Phase I	97.0	1,689,380 sf	n/a
Phase II	250.0	4,110,244 sf	n/a
Subtotal	347.0	5,799,624 sf	n/a
Office Area (O)			
Phase I	12.0	171,852 sf	n/a
Phase II	0		n/a
Subtotal	12.0	171,852 sf	n/a
Regional Commercial Area (RC)			
Phase I	60.0	996,315 sf	n/a
Phase II	0		n/a
Subtotal	60.0	996.315 sf	n/a
Medical Campus (MC)			
Phase I	49.0	1,425,000 sf	n/a
Phase II	0		n/a
Subtotal	49.0	1,425,000 sf	n/a
Medium High Density Residential (MHDR) Area			
Phase I	16.0	400,000gsf ² .	262 units ³
Phase II	0	0	0
Subtotal	16.0	400,000gsf.	262 units
Table III-1: Kiernan Business Park - Maximum Buildout Land Use Scenario Summary for Phase I (area east of Dale Road) and Phase II (area west of Dale Road) Table III-1 (Continued from Page 3)			

¹ Source: City of Modesto Initial Study Environmental Checklist, June 2007 and A.C. Martin Partners Inc., 2006

² Gross square footage does not include garage area.

³ Since senior housing generates only 51% of the trips of conventional multi-family housing, up to 500 dwelling units of senior housing may be allowed in lieu of or in combination with conventional multi-family housing, as long as the equivalent number of dwelling units does not exceed 262 units.

Development Area	Approximate Gross Acres	Maximum Density Allowed(sf)¹	Dwelling Unit Max
Mixed Use (MU) Area			
Phase I	40.0	400,000 gsf	n/a
(Hotel and Hospitality)		170,000 gsf	
(Residential)		113,000 gsf ²	113
Phase II	0	0	0
Subtotal	40.0	683,000 gsf	113 units
Mixed Use 2 (MU2) Area³ Phase II			
BP Scenario Maximums	23.0	Included in Business Park Area (BP) Phase II above	n/a
MHDR Scenario Maximums	23.0	550,000 gsf (MHDR)	550 units
Subtotal	23.0	550,000 gsf (if MHDR)	550 units (if MHDR)
Mixed Use 3 (MU3) Area⁴ Phase I			
MU Scenario Maximums	67.0	Included in Mixed Use Area (MU) Phase I above	
MHDR Scenario Maximums	67.0	15 du/ac min 16 du/ac max	1012 units (if MHDR)
Subtotal	67.0		1012
Total	614.0		1937⁵ units

Table III-1: Kiernan Business Park - Maximum Buildout Land Use Scenario Summary for Phase I (area east of Dale Road) and Phase II (area west of Dale Road)

¹ Source: City of Modesto Initial Study Environmental Checklist, June 2007 and A.C. Martin Partners Inc., 2006

² Residential GSF in the Mixed Use (MU) Area does not include support square footage for areas such as corridors, lobbies, janitorial spaces, and any common areas such as a TV lounge of business center.

³ MU2 can develop as either BP or MHDR, or a combination, so maximums show in each scenario are not cumulative and should not be counted as such in subtotals or totals.

⁴ MU3 can develop as either MU or MHDR, or a combination, to a minimum density of 15 units per acre and a maximum density of 16 units per acre.

⁵ Dwelling Unit Maximum of 1937 if MU2 develops at 550 units and MU3 develops at 1012 units.

B. Permitted and Conditional Land Uses

Permitted uses are permitted as a matter of right in the KBPSP, subject to development review for compliance with the development standards and other requirements of this Specific Plan. Permitted uses are encouraged in the Business Park. Conditional Uses are conditionally permitted uses permitted as a matter of discretion, and require approval by the City pursuant to Title 10 of City of Modesto Municipal Code. Detailed definitions of the uses are also provided on the following pages.

1. Business Park (BP) Area Permitted Uses

Policy LU-4: All development in the Business Park (BP) Area, as shown in Figure III-1 and designated Business Park, shall be required to conform with the uses listed below.

The Business Park (BP) designation is intended to accommodate the development of modern, employment-intensive office and non-nuisance light industrial space. The principal development and employment generating uses allowed within this designation are characterized by research, product development, professional office, limited manufacturing and distribution and business services intended to support the immediate area. Development within this district should support the creation of a campus-like environment for office, light production, or warehouse uses in high quality single- or multiple-occupant buildings.

a. Allowable Uses. The land uses allowed in the Business Park (BP) Area shall be as follows:

- Light manufacturing uses, as defined in Section 10-2.151 of the Zoning Code, such as the manufacture of electronic machinery, photographic and optical goods, furniture, apparel, fabricated plastic and rubber products.
- Research and development uses such as laboratories, printing and publishing, and records processing centers.
- Offices, both medical and non-medical.
- Medical uses such as clinics and rehab facilities.
- Wholesale and retail sale of goods produced on the premises.
- Business services, personal services.

- Ancillary small-scale retail and service uses intended to provide services to employees working in the business park, such as sandwich shop, dry cleaners and child day care.

Permitted uses shall include any other uses which the Community and Economic Development Director may determine to be compatible with and of the same general character as the uses mentioned above. In exercising discretion under this part, the Community and Economic Development Director shall be guided by the principle that the Kiernan Business Park is intended to facilitate the development of office/industrial park complexes distinguishable in appearance and purpose from typical office/industrial areas, that the uses will not adversely impact the permitted uses and adjacent residential areas, or generate traffic in excess of the amount predicted in the Kiernan Business Park EIR.

b. Conditional Uses: The following uses are permitted subject to approval of a conditional use permit in accordance with Section 10-9.701 et. Seq.:

- Churches
- For properties with frontage on Dale Road, retail uses, restaurants, and personal service uses with a maximum of 50% of floor area or 5,000 square feet per building, whichever is less. The per-building floor area cannot be combined for properties with multiple buildings. Drive through windows may be considered for restaurants, coffee shops or similar uses. Ancillary small-scale retail and personal service uses provided below in Subsection C are not applicable with this type of conditional use permit.

The following findings shall be made with a conditional use permit approval:

- 1) The proposed project does not undermine the purpose and intent of the BP designation
- 2) The proposed project will integrate with the BP designation design expectation for a campus like environment and high quality buildings
- 3) The proposed project will be compatible with surrounding uses

c. Ancillary Uses. An ancillary use is a use which is subordinate to the primary use on the premises. The primary use is an Allowable use described above. The following ancillary uses are allowed in the Business Park area:

- Ancillary wholesale and retail sale of goods produced (manufactured, assembled, fabricated, or processed) or distributed on the premises. The showroom for ancillary retail sale of goods produced on the premises shall not exceed 20% of floor area for a maximum of 10,000 square feet per building, whichever is less. The per-building floor area cannot be combined for properties with multiple buildings.
- Ancillary small-scale retail and personal service uses intended to provide services to employees working in the business park, such as sandwich shop, coffee shop, dry cleaner, uniform supplies, beauty salon, barber, fitness center, postal center, and child day care. These ancillary uses shall not exceed 20% of floor area for a maximum of 2,000 square feet per building, whichever is less. The per-building floor area cannot be combined for properties with multiple buildings.

2. Office (O) Area Permitted Uses

Policy LU-5: Require all development in the Office Area, as shown in Figure III-1 and designated Office, to conform with the uses and regulations of the Professional Office (P-O) Zone (Sec. 10-3.101 et seq. of the Modesto Municipal Code), except where otherwise noted below or in Section E, Development Criteria.

- a. The Office (O) designation provides for business and professional offices, institutions and related services, in areas adjacent to related activity centers. The designation is intended to support nonresidential uses of a less intensive nature than allowed in commercial zones adjacent to residential areas. Compatibility is ensured through development standards, which are noncommercial in nature.
- b. Allowable Uses. The land uses allowed in the Office (O) Area shall be all permitted and conditional uses in the Professional Office (P-O) Zone, with the exception that no residential uses shall be allowed. Examples of allowed uses include:

- Business offices, such as real estate, insurance, and stock broker
- Medical and dental offices.
- Professional offices such as accountants, attorneys, architects and engineers.

3. **Regional Commercial (RC) Area Permitted Uses**

Policy LU-6: All development in the Regional Commercial (RC) Area, as shown in figure III-1, designated Regional Commercial (RC), shall be required to conform with the uses and regulations of the Highway Commercial (C-3) Zone (Sec. 10-3.101 et seq. of the Modesto Municipal Code), except where otherwise noted below or in Section E, Development Criteria.

The Regional Commercial (RC) designation is intended to accommodate limited retail uses that are generally dependent on a regional rather than a local population for their support.

- a. Allowable Uses. The land uses allowed in the Regional Commercial (RC) Area shall be all permitted and conditional uses in the Highway Commercial (C-3) Zone, except where noted below. Examples include:
- Department stores
 - Volume discount department stores
 - Home Improvement, hardware stores (not stores devoted exclusively to lumber or any other building material)
 - Automobile dealers
- b. Modifications to Allowable Uses
1. No residential uses are allowed in the Regional Commercial (RC) Area.
 2. No radio/TV transmitters are allowed in the Regional Commercial (RC) Area.

4. Medical Campus (MC) Area Permitted Uses

- a. Allowable Uses. The land uses allowed in the Medical Campus (MC) Area include businesses related to medical and health services shall be allowed, such as hospital, medical office buildings, service buildings, parking structures, and ancillary uses.

5. Medium High Density Residential (MHDR) Area Permitted Uses

- a. Allowable Uses. The land uses allowed in the Medium High Density Residential (MHDR) shall be all permitted and conditional uses in the Medium-High Density Residential (R-3) Zone (Sec. 10-3.101 et seq. of the Modesto Municipal Code, including townhomes, condominiums, garden apartments, conventional apartments with a density between 15-24 dwelling units per acre. Senior housing is also permitted, at densities of up to 40 dwelling units per acre. Senior housing is also permitted, at densities of up to 40 dwelling units per acre.

6. Mixed Use (MU) Area Permitted Uses

- a. Allowable Uses. The land uses allowed in the Mixed Use (MU) Area shall be all permitted and conditional uses of the General Commercial (C-2) Zone, except where noted below. Examples include:
- Retail uses
 - Restaurants
 - Offices, both medical and non-medical
 - Multiple family dwellings
 - Hotels/motels
- b. Conditional Uses: The following uses of the C-2 Zone are permitted subject to approval of a conditional use permit in accordance with Section 10-9.701 et. Seq.:
- Bar, nightclub
 - Vehicle Related Services if required by Section 10-3.222
 - Light vehicle rental and sales
 - Large recycling facility
 - Kennel
 - Homeless shelter and emergency shelter

7. Mixed Use 2 (MU2) Area Permitted Uses

- a. Allowable Uses. The land uses allowed in the Mixed Use 2 (MU2) Area shall be those uses allowable in the Business Park (BP) Area or the Medium High Density Residential (MHDR) Area of the Specific Plan. MHDR uses shall be at a minimum density of 15 dwelling units per acre.
- b. Conditional Uses. The land uses permitted in the Mixed Use 2 (MU2) Area subject to approval of a Conditional Use Permit in accordance with Section 10-9.701 et seq. shall be those conditional uses permitted in the Business Park (BP) Area of the Specific Plan.
- c. Ancillary Uses. The ancillary uses allowed in the Mixed Use 2 (MU2) Area shall be those allowed in the Business Park (BP) Area of the Specific Plan.

8. Mixed Use 3 (MU3) Area Permitted Uses

- a. Allowable uses. The land uses allowed in the Mixed Use 3 (MU3) Area shall be those uses allowable in the Mixed Use (MU) Area or the Medium High Density Residential (MHDR) Area of the Specific Plan. MHDR uses shall be at a minimum density of 15 dwelling units per acre, and a maximum density of 16 dwelling units per acre.
- b. Conditional Uses. The land uses permitted in the Mixed Use 3 (MU3) Area subject to approval of a Conditional Use Permit in accordance with Section 10-9.701 et seq. shall be those conditional uses permitted in the Mixed Use (MU) Area of the Specific Plan.

C. Affordable Housing Strategy

The City of Modesto has adopted the "City of Modesto Housing Element". This document has two main purposes:

- 1. To provide an assessment of both current and future housing needs and constraints in meeting those needs; and
- 2. To provide strategy that establishes housing goals, policies, and programs.

Through the review of this document, it has been determined that affordable housing, while encouraged, is not required within the KBPSP Area, pursuant to Modesto General Plan Housing Element.

D. Circulation Plan

This section provides for the development of a roadway system and transportation facilities capable of supporting the anticipated growth in the Kiernan Business Park Specific Plan area. The Specific Plan's circulation goal is stated below.

1. Specific Plan Circulation Goal

Provide a safe, efficient transportation system for the Kiernan Business Park that serves a variety of users at an acceptable level of service.

2. Modesto General Plan Goals and Policies

This chapter of the Kiernan Business Park Specific Plan is consistent with the stated goals and policies of the City of Modesto General Plan including applicable overall transportation and access goals listed on Table III-2.

3. Relevant General Plan Goals and Policies

Table III-2: City of Modesto General Plan Transportation and Access Goals

<ul style="list-style-type: none">• Prior to the adoption of each Comprehensive Plan, a "Comprehensive Traffic Study" shall be prepared, to the satisfaction of the Public Works Director, and be included in a Focused EIR for each respective Comprehensive Plan. <p>The Comprehensive Traffic Study shall include the following components:</p> <p>(a) Sufficient analysis and mitigation measures to ensure that the level of Service "D" standard is maintained on all Comprehensive Plan area roadways and intersections require study and impact assessment shall be made by the Public Works Director.</p> <p>(a) If the identified mitigation measures cannot feasibly achieve the traffic performance standard for internal and external roadways in the opinion of the Public Works Director, then the Comprehensive Traffic Study shall include appropriate measures to update the General Plan Traffic Analysis and findings for all subsequent Comprehensive Plans, and for development within the Baseline Developed Area and Redevelopment Area. (Section B, p V-10)</p>
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- Data from the General Plan Traffic Analysis, described in the Traffic Appendix of the Master EIR, shall be utilized to evaluate the effectiveness of the Policies presented above. (Section B, p. V-11)
- Newly developing areas should provide a street pattern capable of accommodating transit service on a one-half mile grid. (Section I, p. V-27)
- The City shall strive to safeguard options for future transit and mass transportation development, such as the Union Pacific railroad right-of-way. (Section I, V-27)

4. Planned Area Wide Circulation

As part of development included in the City of Modesto General Plan, the surrounding and internal transportation network for the Specific Plan Area would be expanded and modernized. Under ultimate build-out of the City's General Plan (estimated at the year 2025), both Kiernan Avenue and Pelandale Avenue (east of Dale Road) would be improved to six-lane expressways. In addition, Chapman Road would be extended to the south to intersect with Pelandale Avenue and improved to a four-lane arterial, and Dale Road would be improved to a six lane principal arterial within the Specific Plan area.

Figure III-2, Circulation Plan Diagram, shows the proposed roadway system in the Specific Plan area. This roadway system was designed using the City of Modesto's Transportation Model and in coordination with City of Modesto planning and public work staff.

As development occurs, modifications to the minor collector street layouts may be made without the need for a Specific Plan Amendment.

The proposed site circulation plan consists of the following elements: pedestrian, bicycle, non-motorized, public transportation, and truck and automobile circulation.

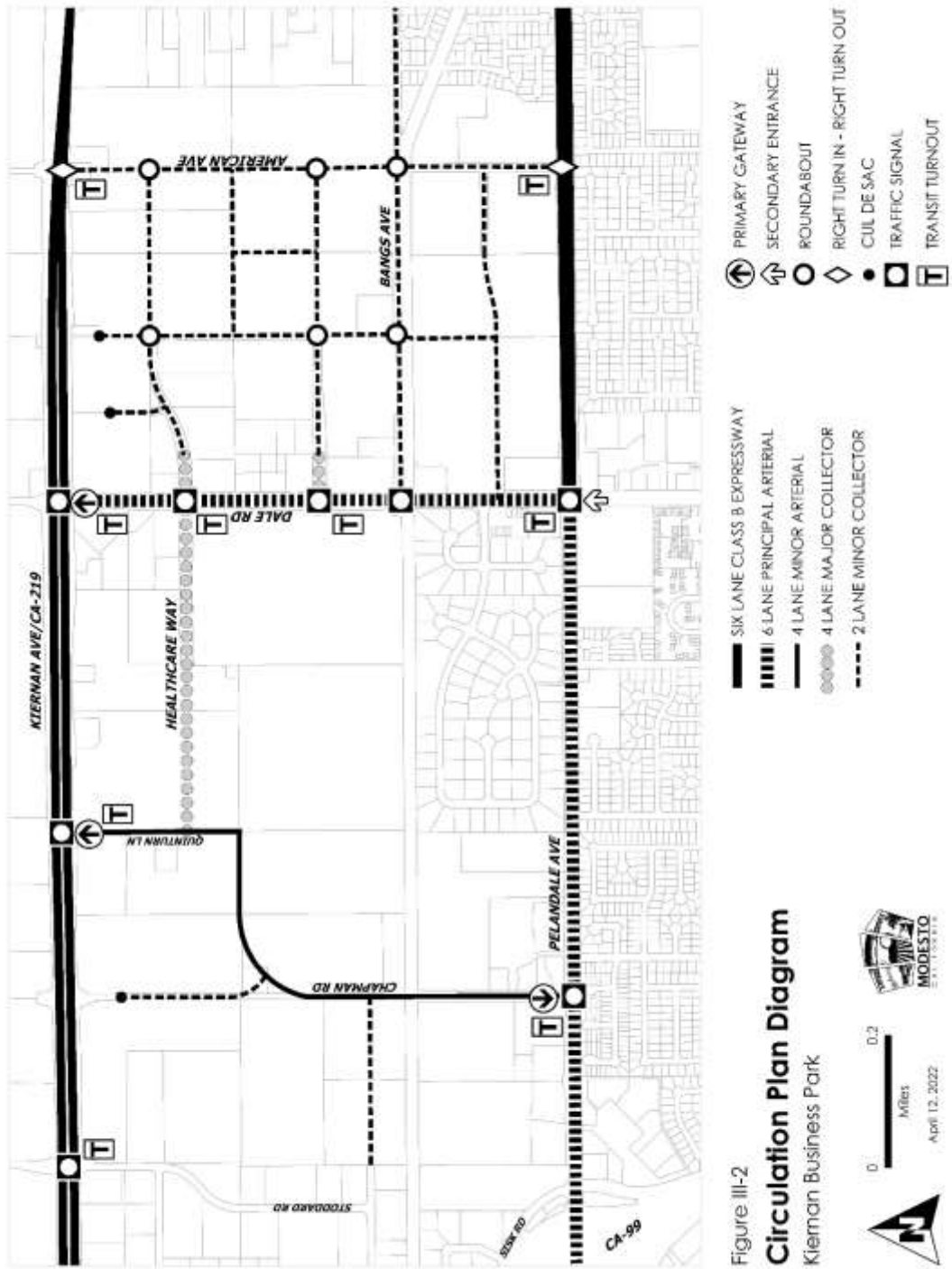


Figure III-2: Circulation Plan Diagram

5. Pedestrian, Bicycle and Non-motorized Circulation

Policy C-1: Develop Class I Bike Paths along Pelandale and Dale and along the north side of MID Lateral No. 6 (See Figure III-4) and Class II Bike Lanes on minor arterial and collector streets. All subsequent development shall conform to these planned bike facilities.

Policy C-2: Provide for development of a bicycle system that will provide a safe and convenient means of transportation for bicyclists that encourages commuting by bicycle.

Policy C-3: Future development shall provide for bicycle parking and related facilities such as lockers and showers, in accordance with Bicycle Master Plan.

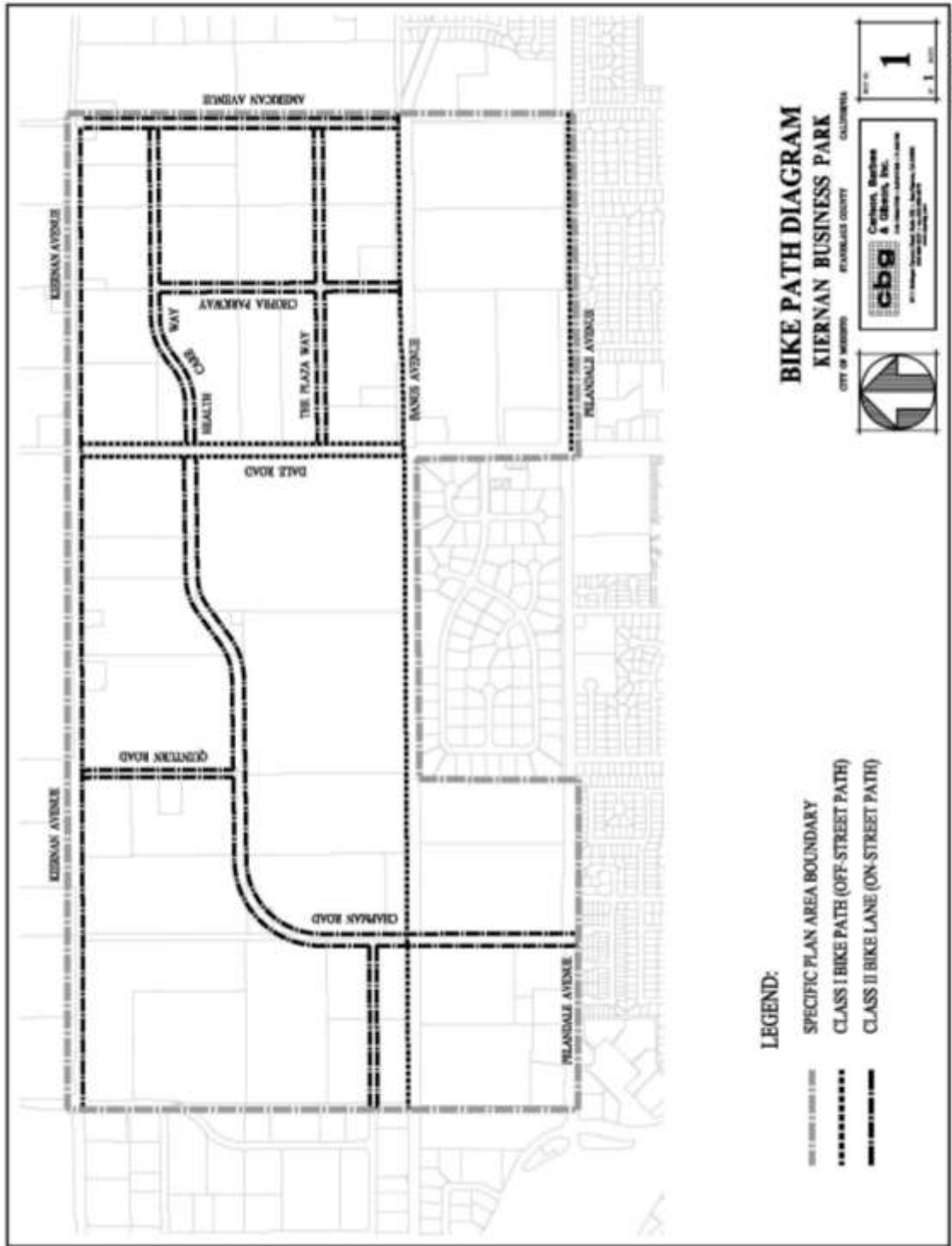


Figure III-3: Bike Path Diagram

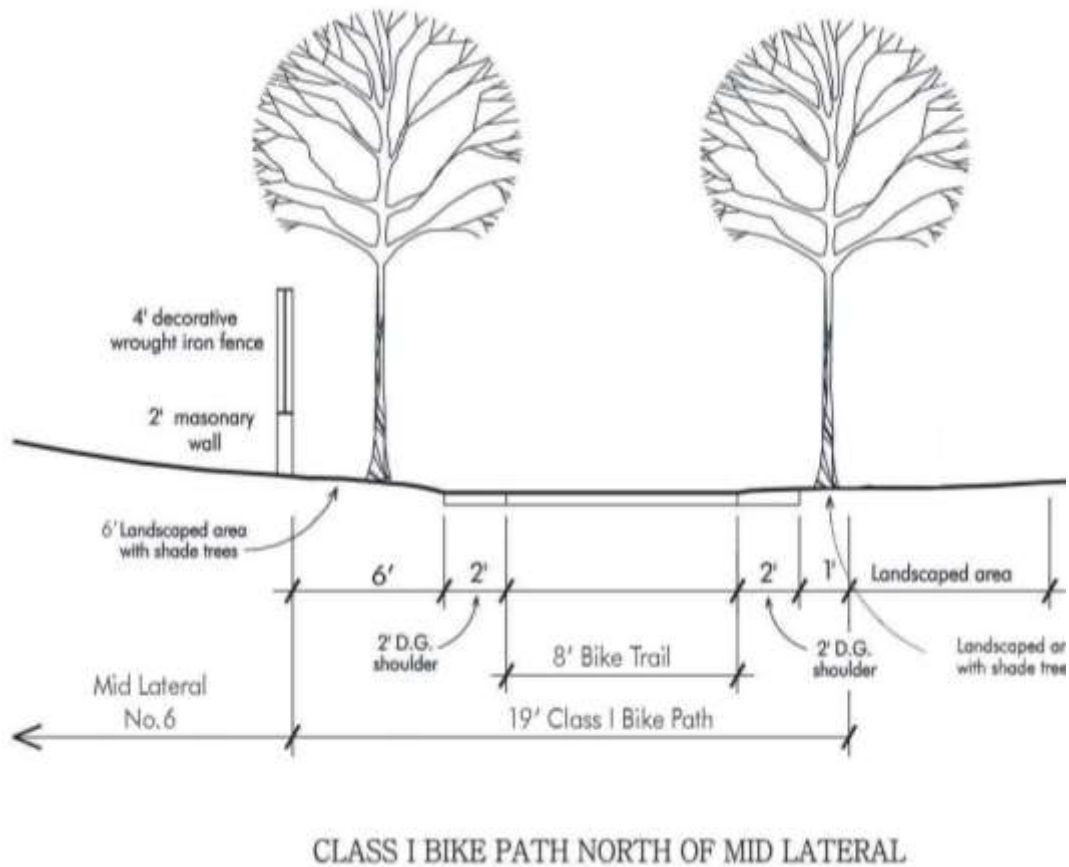


Figure III-4: Class I Bike Path North of MID Lateral Canal

6. Public Transportation

All streets shown on the Circulation Plan Diagram can accommodate bus routes and the landscape improvements can include locations for bus turnouts. Potential locations and design of turnouts are shown on the Circulation Plan Diagram and indicated with "T" (see Figure III-2). Bus turnouts have been provided along the Kiernan and Pelandale expressways, where bus routes are proposed. Additionally, bus stops shall be provided within the Kiernan Business Park if a decision is made to extend bus service on to streets within the Kiernan Business Park. The Circulation Plan diagram shows potential bus turnouts along Dale Road (see Figure III-2). Extension of bus service, in conjunction with continuous bike paths and the creation of a pedestrian

friendly environment, encourages energy efficiency and conservation by decreasing reliance on the automobile for transportation.

The Transit Manager will have the opportunity to review the draft street improvement plans and specify locations for bus turnouts. The Developer would then include the required bus turnouts in the final street improvement plans.

9. Truck and Automobile Circulation

Policy C-4: Roadways shall be developed according to Figure III-2, Circulation Plan Diagram that is hereby adopted into this Specific Plan. All subsequent development shall conform to this diagram.

In order to plan for the future travel demand in the Kiernan Business Park, traffic forecasts were generated for build-out of the Specific Plan land uses as shown on the Land Use Plan Diagram (Figure III-1). The traffic forecasts used the City of Modesto traffic model, which incorporates planned development in the vicinity of the Kiernan Business Park as identified in the Modesto General Plan.

Figure III-2, Circulation Plan Diagram shows the proposed road classifications, internal street layout, and transit turnout locations for the Kiernan Business Park. Four roadway facility types are included within the Specific Plan area: six-lane principal arterials, four-lane minor arterials, four-lane major collectors, and two-lane minor collectors. In addition to these facility types, the Specific Plan area is bounded on the north and south by six-lane expressways.

Access to the Kiernan Business Park would be made primarily from Chapman Road/Quinturn Lane and Dale Road, which are four-lane and six-lane, signalized, north-south arterials that intersect with the planned Kiernan and Pelandale expressways. Chapman Road will be realigned north of M.I.D. Lateral No. 6 to curve to the east and connect to Quinturn Lane. Quinturn Lane will connect to Kiernan Avenue at a new signalized intersection. Roundabouts are planned at seven locations (see Figure III-2). Three arterial intersections serve as gateways: Kiernan Avenue at Quinturn Lane, Pelandale Avenue at Chapman Road, and Kiernan Avenue at Dale Road. Because of their functions as gateways, Chapman/Quinturn

and Dale Roads have been planned with generous median and sidewalk landscaping.

Internal access to parcels within the Specific Plan area will be provided from planned east-west, two-and-four-lane collector streets. The new collectors have been planned with generous landscape areas. The Bangs Avenue segment from Dale Road to American Avenue is planned as a two-lane minor collector. Two two-lane, minor collectors also provide internal access. These include an extension of Bangs Avenue from Landmark Business Park to Chapman Road and an extension of American Avenue from Kiernan Avenue to Pelandale Avenue. In addition, the remaining portion of Chapman Road north of the realignment will be designated a minor collector and the current connection to Kiernan Avenue will be replaced by a cul-de-sac bulb.

The Specific Plan circulation system provides access to most parcels via minor collector streets. Most of the collectors provide east-west connections to north-south arterials, Chapman Road/Quinturn Lane and Dale Road. A north-south connection between the Kiernan Avenue and Pelandale Avenue expressways is provided via the American Avenue extension east of Dale Road. This connection would provide right-turn-in/right-turn-out access only, as shown on the Circulation Plan Diagram.

As development occurs, modifications to the minor collector street layouts may be made without the need for a Specific Plan Amendment.

In order to allow some flexibility in the types of uses and sizes of various parcels, local streets have not been included in the Specific Plan network, but are assumed to be part of future development. Local streets will be designed as part of the tentative subdivision map application.

Policy C-5: The City shall promote the improvement and development of Kiernan Avenue and Pelandale Avenue and their connection to Highway 99 to accommodate future development in the Kiernan Business Park area.

Policy C-6: Property owners shall be required, through the discretionary permit process, to provide necessary right-of-way for Kiernan Avenue expressway and Pelandale Avenue expressway.

Policy C-7: Direct Collector Street, local street or driveway connections to expressways will be allowed only under the following criteria:

- a. For connections to Kiernan Avenue and Pelandale Avenue east of Dale Road (Class B Expressway):
 1. No driveway connections are permitted
 2. Only collector street connections with right-turn-in/right-turn-out treatment are allowed at a minimum spacing of one-half mile.
- b. For connections to Pelandale Avenue west of Dale Road (Principal Arterial):
 1. Driveway connections with right-turn-in/right-turn-out treatment are allowed at a minimum spacing of 350 feet.
 2. Local and collector street connections are allowed with permitted right-turns in, right-turns out and left-turns in (when left turn pockets are provided in the median) and a minimum spacing of one-quarter mile.

Policy C-8: The City shall promote the development of local road circulation facilities that connect to collector and arterial streets shown in the Circulation Plan Diagram to adequately serve the planned land uses in the Kiernan Business Park.

Policy C-9: Concurrent with the submittal of each Tentative Map (Chapter 4 of the Modesto Municipal Code), each Conditional Use Permit (Section 10-2.250 et seq.), and/or any other 'development' as defined by Section 66418.1 of the State Government Code, applicants shall provide a commitment to construct the necessary and feasible street and intersection improvements to meet the following standards. A Site Access Study as described in Chapter V of the Modesto General Plan may be used as the method for providing this analysis.

All access to the existing street network shall be through the dedication of right-of-way and improvement of public streets, consistent with the standards contained in the Specific Plan and/or Section 7-1.701 (Street Dedication and Improvements) of the Modesto Municipal Code.

All necessary and feasible street improvements shall be constructed to ensure that the street segments and intersections presented in Table IV-A-11 (in Section IV-A (III) (B) of the Final EIR) meet the following standards:

1. Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis (Appendix II-A of the General Plan Master EIR) to operate at LOS "D" or better in the year 2025 shall not cause conditions to be worse than LOS "D" at any time prior to the year 2025.
2. Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis to operate at LOS "E" in the year 2025 shall not cause conditions on those facilities to exceed LOS "E" at any time prior to year 2025.
3. Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis to operate at LOS "F" shall not cause further substantial degradation of conditions. Further substantial degradation shall be defined as an increase in the peak hour volume/capacity (V/C) ratio of 0.05 or greater for roadway segments or intersections whose V/C ratio is estimated to be 1.00 or higher in year 2025 by the traffic model. In making these determinations, this list of transportation facility improvements presented in Table IV-A-12 (in Section IV-A (III) (B) of the Final Focused EIR) shall be consulted, and the improvements needed to meet the above standards shall be drawn from this list. Table IV-A-9 (in Section IV-A(II)(C) of the Final Focused EIR) provides a preliminary basis for determining the degree to which development enabled under the Kiernan Business Park and Carver-Bangs Specific Plans could contribute to funding for the required intersection improvements.

A more refined method could be developed at the time a Mello-Roos District is established.

8. Public Streets

Policy C-10: All roadways shall be developed in accordance with the sections shown in Figure III-5 through III-8 Cross Sections, which are hereby adopted into this Specific Plan. All subsequent development shall conform to these street sections.

Policy C-11: Public and private road design shall be required to follow all road standards of this Specific Plan and the Modesto General Plan.

a. Street Sections

Typical street sections for the various facility types (with the exception of Kiernan Avenue) are shown in Figures III-5 through III-8. The street sections have the following characteristics:

- Street sections include generous landscaped areas both in the medians of arterials and the edges of arterials and collectors;
- Arterial street sections include service/bike lanes to reduce congestion associated with vehicle breakdowns and other incidents and to promote bicycle commuting;
- On-street parking will not be provided on arterial or collector streets, but can be included on local streets at the discretion of the City during the subdivision review process; and
- Sidewalks are provided within road right-of-way to encourage pedestrian

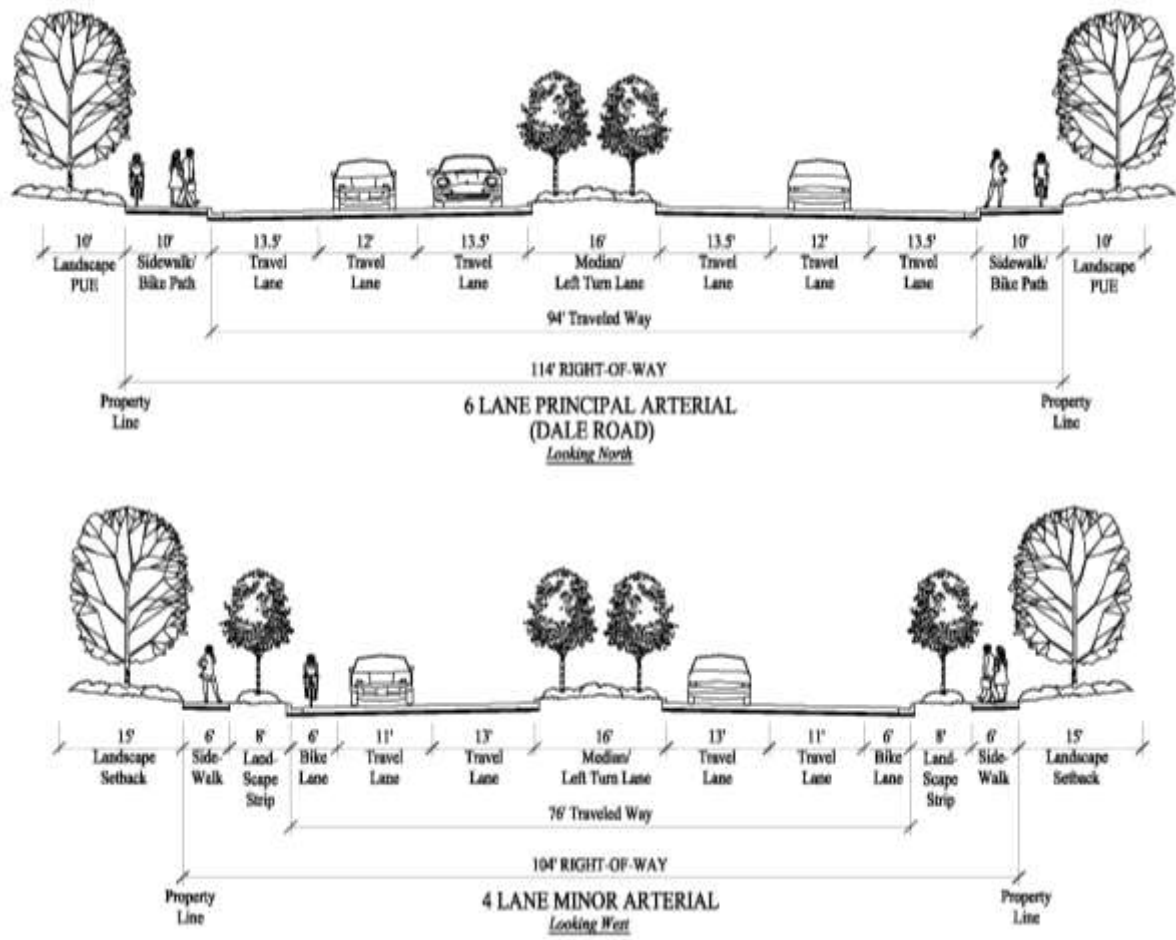


Figure III-5: 6 Lane Principal Arterial Street Section and 4 Lane Minor Arterial Street Section

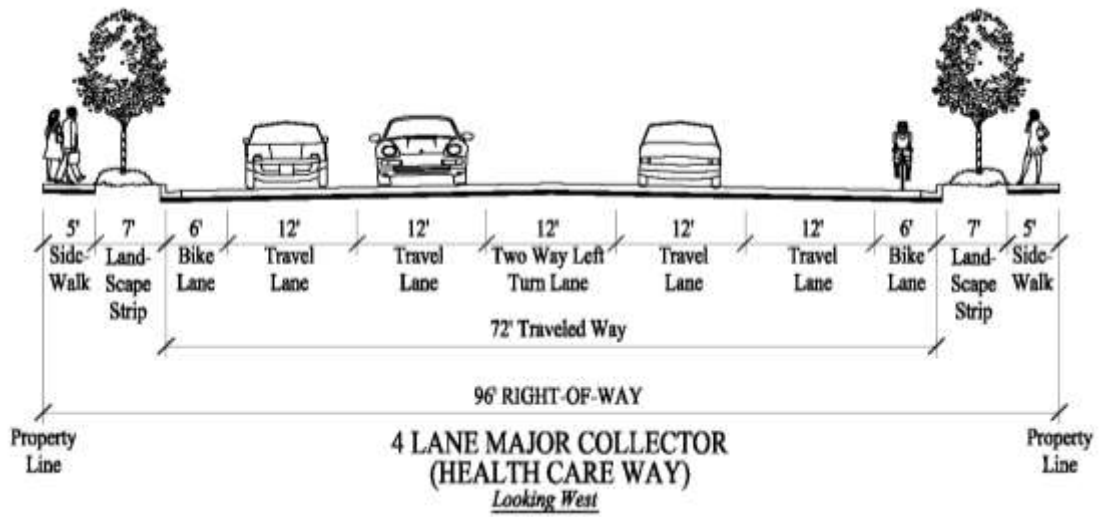


Figure III-6: 4 Lane Major Collector Street Section

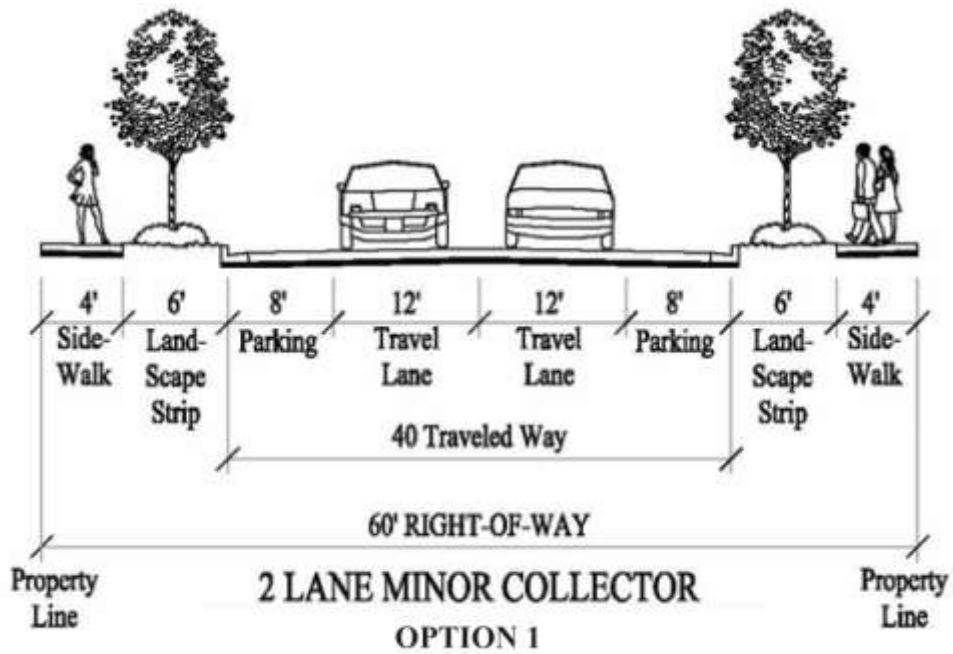


Figure III-7: 2 Lane Minor Collector Section Option 1

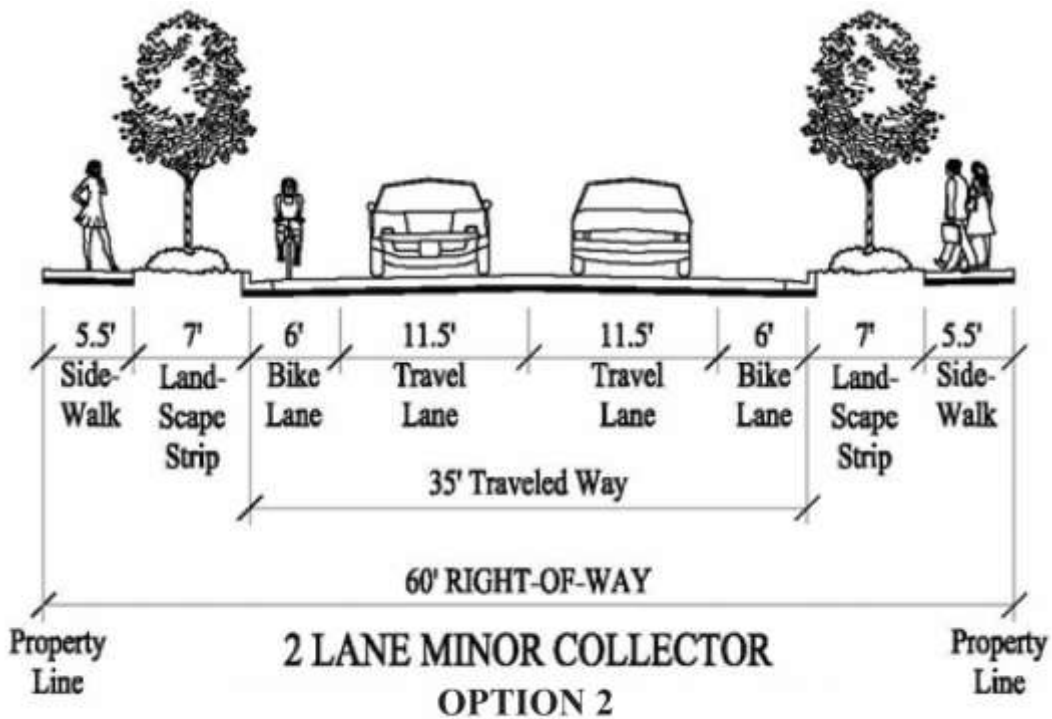


Figure III-8: 2 Lane Minor Collector Section Option 2

b. Primary Gateways

The Kiernan Business Park shall have primary gateways at the following intersections:

- Pelandale Avenue with Chapman Road
- Kiernan Avenue with Quinturn Lane, and
- Kiernan Avenue with Dale Road.

Buildings at these entry points shall be oriented toward and reinforce the gateway concept. These building will be highly visible and set the tone for future development in the Business Park.

At these three distinct points, consistent design elements and landscape treatment shall be used to articulate the gateway and boundary of Kiernan Business Park, as presented in the adopted "Kiernan Business Park Gateway Concept Feature Context Plan Report". The Kiernan/Quinturn and Pelandale/Chapman Gateways shall be framed by Business Park uses to reinforce the Park's identify and capitalize on location associations with the established Landmark Business Center. The Kiernan/Dale Gateways should be framed by and in proximity to Industrial type uses. This gateway, through its design, location and surrounding land uses, will accommodate the bulk of heavy truck traffic. Each gateway shall be emphasized with planting, special paving treatment and signing. The gateways are indicated on the Circulation Plan Diagram (see Figure III-2).

These gateways will be constructed and maintained through the establishment of a Mello-Roos Community Facility District over the Plan area.

9. Off-Site Improvements

a. Streetscape Plan

The streetscape design is of great importance to the establishment of the design and character of the Kiernan Business Park. The concept shall include the establishment of an overall image and visual order to the business park and the provision of tree-shaded corridors for pedestrians.

E. Public Facilities Concept Plan

This chapter describes the development of the basic wastewater collection, water supply, and storm drainage infrastructure needed to support anticipated growth in the area bounded by Kiernan, Dale, Bangs and American Avenues. Improvements will be designed and constructed in accordance with the associated master plans, capacity studies and to current City standards. The Specific Plan's public facilities goal is stated below:

1. Specific Plan Public Facilities Goal

Provide public facilities and infrastructure in the Kiernan Business Park Specific Plan in an orderly manner consistent with the needs of planned development in the Kiernan Business Park Specific Plan and applicable City standards.

2. Modesto General Plan Policies

This chapter of the Kiernan Business Park Specific Plan is consistent with the stated goals and policies of the City of Modesto General Plan including applicable overall infrastructure and public facility policies, as shown on Table III-3.

Following are the agencies and organizations, which were providing services to the project area at the time the Specific Plan was originally adopted. Subsequent changes in service responsibilities may occur without affecting the validity of the Specific Plan. The City intends that adequate service will be provided to the project area, irrespective of the organization providing that service.

Table III-3: City of Modesto Infrastructure and Public Facilities Policies

- Each Comprehensive Planning District shall address the need to provide sanitary sewer service, using the Sanitary Sewer presented in Chapter V. (Section D, p. III-13)
- The exact boundaries of each Comprehensive Planning District may be shifted somewhat, as Comprehensive Plans are processed. However, any proposed boundary shifts shall address all public facility and public service requirements of the Planned Urbanizing Area, as specified in Chapter V. (Section D, p. III-13)
- The City of Modesto will require each new development project to be served with public sanitary sewers. (Section D, p. V-15)

- The City of Modesto shall require each new development are to be served with positive storm drainage systems. A positive storm drainage system may be comprised of catch basins, pipe lines, channels, recharge/detention basins and pumping facilities which discharge storm water to surface waters of the state. The positive storm drainage facilities shall consider the requirements presented in Table 9-1, of the Final Master Environmental Impact Report (Section E, p. V-17)
- The City of Modesto shall require positive storm drainage facilities in the Planned Urbanizing Area to accomplish storm water recharge to groundwater of 80 percent of the average annual run off. Recharges shall be typically accomplished at recharge/detention basis, designed to be in compliance with applicable federal and state water quality regulations for both groundwater and surface water. (Section E, p. V-17)
- New areas shall be designed so that run off in excess of groundwater recharge in Policy 3.c shall be discharged to waters of the state in a manner not exceeding the undeveloped storm hydrograph. (Section E, p. V-17)
- The City of Modesto will coordinate land development proposals with the expansion of wastewater facilities.
- The City of Modesto should strive to ensure that fire stations, apparatus, equipment and personnel are in place concurrent with construction in the Planned Urbanizing Area. (Section K, p. V-29)
- Future fire station sites and facilities should be closely coordinated with existing and planned public parks, libraries, and other activity centers, and in order to encourage maximum efficiency of public facilities. (Section K, p. V-29)
- The City of Modesto should strive to provide adequate Fire Department facilities through achievement of the following facilities and standards:
 - (a) The City of Modesto should maintain an emergency response system capable of achieving the following in 95 percent of all cases.
 - (1) The first fire emergency response units arrive within 6 minutes of dispatch.
 - (2) A full alarm assignment arrives within 10 minutes of dispatch.
 - (3) A second alarm assignment arrives within 15 minutes of dispatch.
 - (b) The City should maintain staffing levels adequate to achieve an Insurance Service Office (ISO) rating of Class 2. (Section K, p. V-32)
- In conjunction with the processing of a Comprehensive Plan within the Planned Urbanizing Area, the City shall consult with the firms responsible for solid waste disposal to confirm that

adequate capacity exists for solid waste that would be generated by that project. (Section L, p. V-32)

- New development shall comply with the minimum fire-flow rates, as presented in Appendix III-A of the Uniform Fire Code. The Fire Chief is allowed by the Uniform Fire Code to alter any published standards. (Section D, p. VI-4)

3. Wastewater Collection, Treatment and Disposal

Policy PF-1: All infrastructure and public facilities shall be constructed in accordance with the City of Modesto's Wastewater Collection and Disposal Master Plan and Figure III-10: Proposed Sanitary Sewer System Facilities, which is hereby adopted as part of this Specific Plan.

Policy PF-2: The City shall require all development to be connected to the public sanitary sewer system.

Policy PF-3: The City shall require all downstream sanitary sewer improvements to be constructed and sized consistent with the City of Modesto's Wastewater Collection and Disposal Master Plan.

Policy PF-4: The City shall require all sanitary sewer mains to be within public street right-of-ways. Branch lines, where appropriate, may be within public easements, within private driveways and roadways, as approved by the City.

Policy PF-5: The City shall require each sanitary sewer line to be constructed prior to paving the street under which it is to be located.

The City is in the process of implementing the Domestic Wastewater Near Term Capacity Study and Wastewater Master Plan Improvements which will then have the capacity to serve the property in the Plan area as development occurs. As identified in the City of Modesto's 2007 Final Wastewater Treatment Master Plan Update, several projects are proposed for the wastewater treatment plant facilities in order to correct existing discharge and treatment deficiencies, and to also build sufficient capacity needed to accommodate increased growth in the city.

As indicated in the Technical Memorandum prepared by Carollo Engineers titled "Kiernan Business Park Wastewater Capacity Study" (June 2007), the proposed

Project will utilize 12-inch diameter and 10-inch diameter sanitary sewer lines throughout the business park for service. The existing sewer trunk lines located within Dale Road and Bangs Avenue were designed consistent with the prior Specific Plan's zoning and will be utilized by the project.

Proposed sanitary sewer facilities are shown in Figure III-10 for Kiernan Business Park East and South. As shown in Figure III-10, connections to the existing sanitary sewer system will be made to the existing 30-inch diameter pipeline located in Dale Road and to the existing 30-inch diameter pipeline located in Bangs Avenue.

In the event right-of-way or legal access to extend sewer lines is not available, alternative methods for sewer extensions may be considered on either a temporary or permanent basis.

Sanitary sewer lines to service the Kiernan Business Park can be installed as development occurs. All on site branch lines for development will be sized in accordance with the City of Modesto's current design standards and criteria.

Improvements will be built in accordance with the Facilities Master Plan (FMP) and funded through an Infrastructure Financing Plan (IFP).

4. Water System

Policy PF-6: The City shall require all new development to be served by a public water system.

Policy PF-7: The City shall require all water lines to be constructed and sized according to current City Standards (and subsequent updates).

Policy PF-8: The City shall require all water lines to be within the public street right-of-way, or if appropriate and approved by the City, in public easements within private driveways or roadways.

Policy PF-9: The City shall require each water line to be completed before the street under which it is to be located is paved.

The City of Modesto is the sole provider of municipal and industrial water service to the Specific Plan area.

The City's water supply sources include groundwater from the Stanislaus/Tuolumne and Turlock groundwater sub-basins and treated surface water from the Modesto Irrigation District (MID). Modesto Irrigation District (MID) and the City of Modesto (City) are currently moving forward on the Modesto Regional Water Treatment Plant Phase Two expansion and the city's water distribution project. Phase Two is intended to double the capacity of the MID's water treatment plant. Along with this expansion, the City will build new storage tanks and pipelines to deliver the needed water supply to the community. Construction of the Phase Two expansion is expected to be completed December 2008.

The City's water distribution generally consists of a network of 12-inch lines on half-mile increments and 10-inch lines on quarter mile increments with local 8-inch distribution lines.

A new well and distribution system will be constructed to serve the Kiernan Business Park.

A Water Supply Assessment prepared by West Yost Associates in April 2007 determined the City of Modesto's existing and future water supplies are sufficient to meet the City's existing and projected future water demands, including those future demands associated with the proposed project. As indicated in the Technical Memorandum prepared by West Yost Associates titled "Evaluation of the Kiernan Business Park East Project's Hydraulic Impacts on the City's Existing Water System" (June 4, 2007), Project specific improvements will consist of 12-inch diameter and 10-inch diameter water distribution pipelines throughout the Kiernan Business Park. As shown in Figure III-9, connections to the existing domestic water system for Kiernan Business Park East and Kiernan Business Park South will be made to the proposed 12-inch diameter pipeline in Bangs Avenue. Water lines to serve the Kiernan Business Park can be installed as development occurs.

In the event right-of-way or legal access to extend water lines is not available, alternative methods for water extensions may be considered on either a temporary or permanent basis.

In addition to these Project specific water improvements, localize system improvements and system-wide water improvements will be conducted by the City of Modesto as indicated in the Technical Memorandum.

All improvements will be built in accordance with the Facilities Master Plan (FMP) and funded through an Infrastructure Financing Plan (IFP). Refer to Section VIII Implementation.

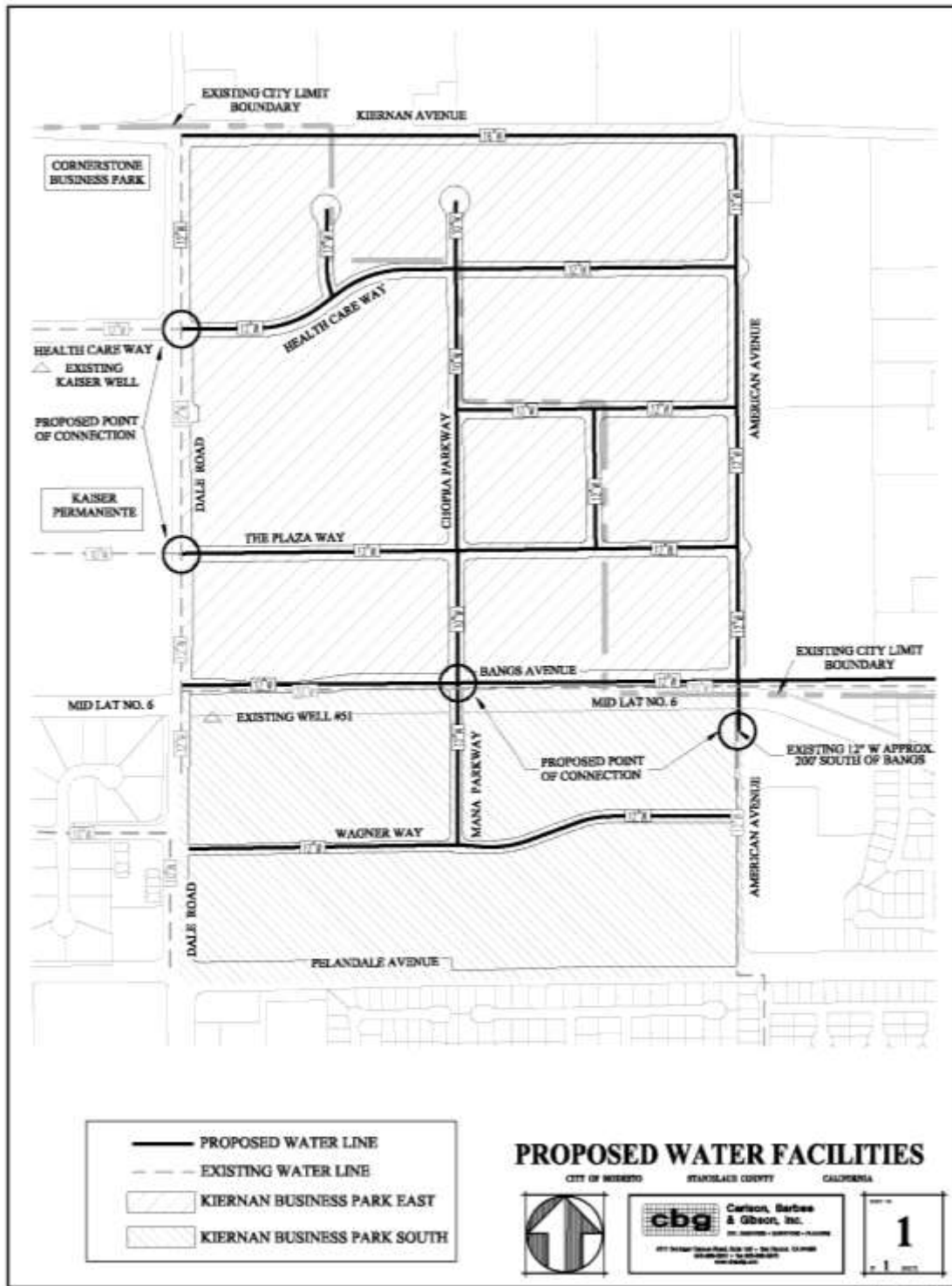


Figure III-9: Proposed Water Facilities

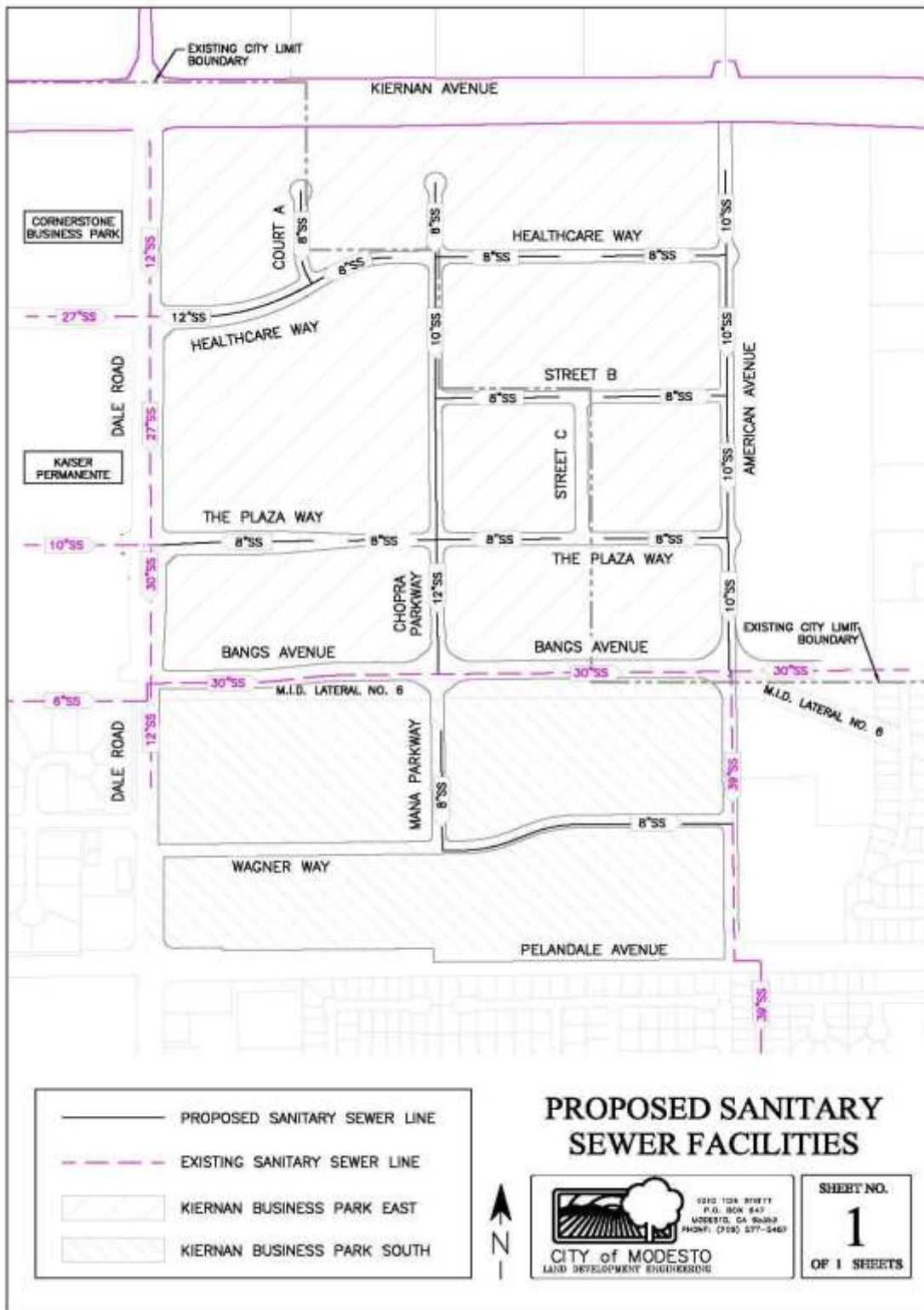


Figure III-10: Proposed Sanitary Sewer Facilities

5. Drainage and Storm Water Quality

Policy PF-10: The City shall require all storm drainage facilities for the Kiernan Business Park to be designed and constructed in accordance with adopted Facilities Master Plans including amendments and/or approved improvement plans.

Policy PF-11: Storm drainage for individual properties in the Kiernan Business Park should be contained on-site unless off-site facilities (basins) are approved by the City. Treatment and storage facilities shall be constructed in accordance with City standards.

Policy PF-12: Storm drainage for public streets in the Kiernan Business Park shall be handled through a combination of vegetative swales and underground storage/percolation facilities, or optionally through dedicated basins, if approved by the City.

Policy PF-13: Storm drainage facilities (public and private) in the Kiernan Business Park shall provide stormwater quality treatment in accordance with City standards and the City's NPDES permit requirements, and shall utilize low-impact development strategies.

Policy PF-14: Discharge into the Modesto Irrigation District (MID) Canal shall meet MID's requirements for timing, flow rate and quality.

Policy PF-15: All public storm drain lines shall be within public street right-of-ways or, if appropriate and approved by the City, in public easements within private driveways or roadways.

Policy PF-16: Any storm retention basin and pumping facilities shall have direct access from public right-of-ways.

Policy PF-17: Any storm retention basin shall be designed to meet all functional and aesthetic criteria in accordance with the City of Modesto Design Standards for Dual Use Flood Control / Recreation Facilities.

All improvements will be built in accordance with the Facilities Master Plan (FMP) and funded through an Infrastructure Financing Plan (IFP). Refer to Section VIII Implementation.

There are four general land uses that are addressed in the following guidelines, including buildings, roads (public and private), parking areas and open space. The general guidelines are as follows:

a. General Guidelines for Water Quality

The following criteria apply to all applications of the low-impact drainage facilities. The most important goals are to have facilities that have a long and useful life and can be maintained with reasonable effort, while protecting public health and safety.

Infiltration has long been an important component of Modesto's drainage facilities. The most significant criticism of infiltration or French drains has been the tendency to clog with fine particles and debris over time. With this issue in mind, the proposed facilities will be designed to reduce or slow the process of clogging and to make maintenance easier so that the facilities can continue to operate as designed. Specific design considerations include:

- Grading: Each development design should be configured and planned so that proposed infiltration areas are not subject to construction loading that could create excessive deep compaction and adversely impact infiltration capacity. Equipment travel roads and staging areas should be outside of, or designed to protect the proposed infiltration areas.

- Pre Treatment: The concept is to provide the initial treatment of run-off using surface methods and settlement basins, rather than a filtration unit. Generally, a landscaped swale over pervious sandy loam or suitable native material will be used to collect debris, grit and coarse sediment. Where necessary, appropriate City approved proprietary treatment devices (filtration / vaults

/ etc.) can also be utilized. The City maintains a list of approved proprietary devices. Generally, the following facilities would be used for each land type defined below:

- Structures: Roof drains would be directed to nearby green swales that contain specific permeable materials where surface discharge is possible. For rain water leaders that are hard lined, a settlement basin or a filtration device capable of removing fine sediments should be used prior to discharge into the infiltration bed.
- Private Roads: Run-off directed to green swales parallel to each side of the roads or to other appropriate treatment control devices to limit urban runoff pollution.
- Public Roads: Run-off should be directed to vegetative swales and or other City-approved treatment device, where it will be treated prior to storage and infiltration via horizontal drains.
- Parking Lots: Run-off will be directed to rainfall gardens, green medians or green swales adjacent to the parking areas, or to other appropriate treatment control devices to limit urban rainfall pollution.
- Green Areas: Graded so that rainfall in excess of infiltration would be collected to small depressions or swales.
- Landscape Maintenance: A strong maintenance program for the landscaped areas will provide not only an attractive setting; it will help maintain the infiltration of the surface facilities. Landscape maintenance program shall incorporate Integrated Pest Management (IPM) principles to prevent migration of chemicals, nutrients and other pollutants of concern to the subsurface infiltration basins, and ultimately, to groundwater.
- Construction: Installation of infiltration facilities in the City right of way shall be

performed by, or supervised by, an experienced contractor. Sediment problems are often greatest during construction. Extra effort should be applied to this area so that there are no or minimal impacts to the drainage facilities during construction and immediately after until the landscaping is established.

- **Infiltration Capacity:** The design for both the surface infiltration and deep infiltration will require advance testing to determine actual in-situ infiltration rates. Infiltration facilities will be sized to have adequate storage that will facilitate infiltration. A factor of safety of between 2 and 4 will be applied to infiltration rates for each facility based on the amount of hard pan encountered during testing. A factor of safety of 2 would be applied if minimal hard pan was evident and a factor of 4 applied if hard pan is prevalent.
- **Emergency Release:** All parking lots and roadways should be graded to provide overland release should drainage facilities be inundated by an event exceeding the design guidelines. Underground infiltration beds should be interconnected to allow balanced infiltration.

b. Building Guidelines for Water Quality

Specific design guidelines will be available based on established City criteria. Facilities would include graded green/landscaped swales which will collect run-off from roof drains where surface discharge is acceptable. The swales need to be hydraulically separate from the structures. Swales are to be landscaped over pervious soil. Run-off will leach through the surface soil into pervious infiltration basins sized and configured as needed. Building gutters should be designed to prevent leaves from entering and clogging the storm system. In areas of pedestrian traffic, roof drains will need to discharge underground to infiltration basins. Roof runoff from medical facilities with laboratories and restaurants shall not be discharged directly to the subsurface infiltration facilities. Such runoff must be treated prior to discharge. Based on the outcome

of the Technical Study, these systems should incorporate a settlement basin or a proprietary treatment device capable of removing any pollutants of concern prior to entering the infiltration basins. Specific design criteria will include: computation of rooftop/run-off areas; sizing of swale including infiltration capacity/surface area; storage basin sizing and infiltration surface area; filtration and maintenance; and, consideration of overflow. See Figure III-11.

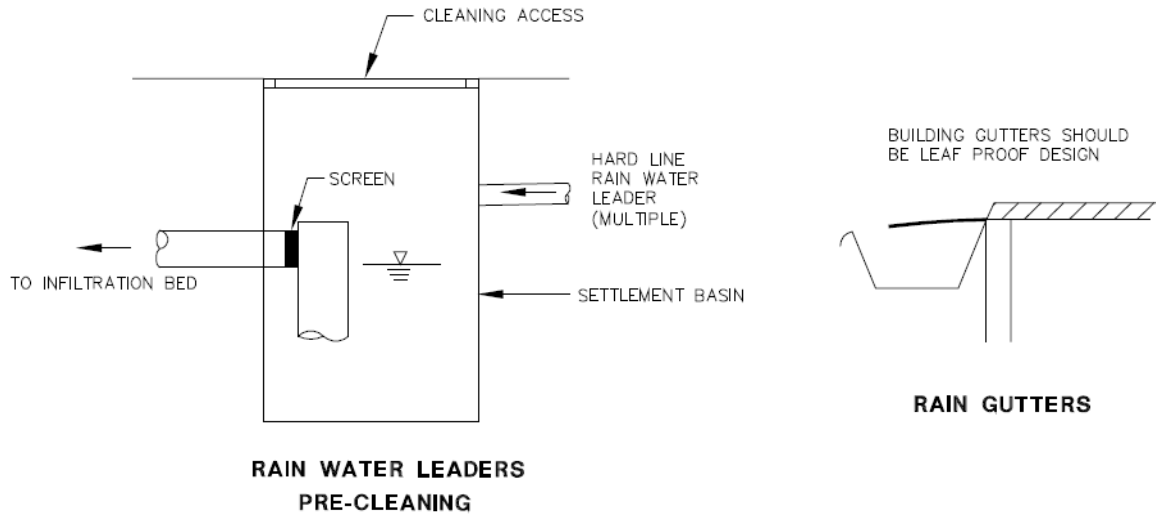
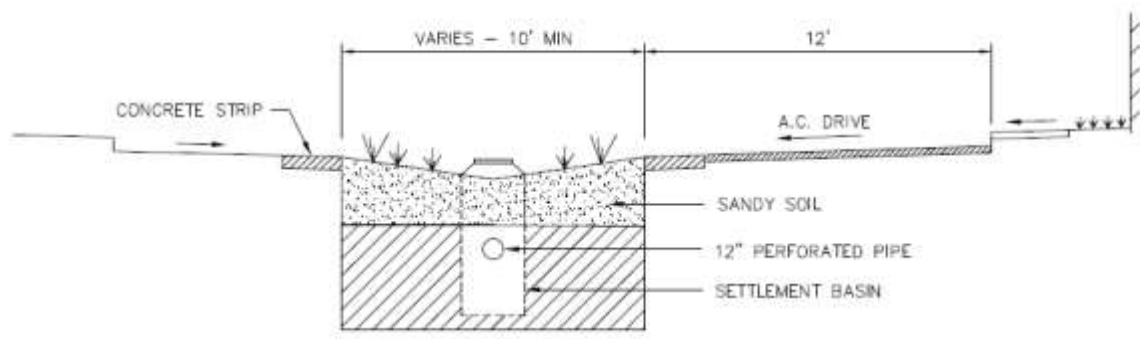


Figure III-11: Rain Water Leaders Pre-Cleaning and Rain Gutters



**MULTI-FAMILY/BUSINESS PARK
GRASSY SWALE**

Figure III-12: Multi-Family Residential / Business Park Grassy Swale

c. Private Street Guidelines for Water Quality

Private streets will utilize storm water quality treatment control measures found in the City of Modesto Guidance Manual for New Development Stormwater Quality Control Measures, January 2001 to limit the amount of runoff pollution. Treatment control measures may include, but are not limited to:

- Vegetated swales
- Vegetated filter strips
- Media sand filters – Austin, D.C. Underground, and Delaware
- Infiltration – basins, trenches, and porous paving blocks
- Detention/Retention basins
- Mechanical separators
- Media Infiltration structures/units
- Proprietary treatment devices (filtration / vaults / etc.)

d. Public Street Guidelines for Water Quality

Water along the public streets will be routed to vegetative swales behind the curbs and/or other City-approved treatment devices for cleansing prior to discharge into the underground aquifer via infiltration trenches.

e. Parking Area Guidelines for Water Quality

The actual design of the numerous parking areas may include alternatives, but generally the design will include landscaped collection areas adjacent to the parking areas or within medians. Typical of all the facilities, surface treatment will be first over collection swales and then to infiltration beds. Porous paving may also be considered.

f. Landscape Area Guidelines for Water Quality

With suitable soils, the landscape areas are expected to be capable of infiltration of design storms. Depressions will be provided to allow for short term surface storage. These green areas are

expected to also collect runoff from adjacent impervious areas. See Figures III-14 and III-15.

g. Dual-use Flood Control / Recreational Area

Open Space may be designed as a Dual-use Flood Control/Recreational area in accordance with the criteria for public open space and the Design Standards for Dual-Use Flood Control/Recreational Facility. See figure III-15.



Figure III-13: Photograph of Biological swale



Figure III-14: Photograph of Parking Lot Inlet

6. Utilities

Public services and utility service providers for the Plan area are listed as follows:

Fire: City of Modesto

Police: City of Modesto

Electricity: Modesto Irrigation District (MID)
All electric facilities within the project site will be provided MID and installed in accordance as required. All proposed electric facilities within the project site will be installed underground and/or within surface mounted structures. Overhead electric facilities are not recommended within the project site.

Gas: Pacific, Gas & Electric (P.G. & E.)
All gas facilities within the project site will be provided by P.G. &E. and installed in accordance as required.

Telephone: AT&T
All telephone facilities within the project site will be provided by AT&T and installed in accordance as required.

7. Public Open Space

Policy PF-18: All Open Space shall be developed in accordance with the minimum ratio of 300 sf per dwelling unit and be useable and appropriately designed to the context and architecture of the adjacent residential development.

Policy PF-19: All Open Space intended to service as part of the flood control system shall be designed pursuant to the Design Standards for Dual-Use Flood Control/Recreational Facility (adopted by the City Council December 12, 2000).

Residential Units shall be provided a minimum of 300 sf of common public open space per unit. Public open space is defined as open space available to the residents for recreational uses, and can be comprised of any combination of pedestrian plazas, linear parks, pocket parks, walking trails and other recreational areas.

Common open space landscape design must be approved by a designated representative of the Parks, Recreation, and Neighborhoods Department.

The requirement set forth for common open space provided for the residential units will not alleviate the requirements for CFF and/or CFD fees for park development and maintenance. All current park fees will remain in effect.

Open Space may be designed as a Dual-use Flood Control/Recreational area in accordance with the criteria for public open space and the Design Standards for Dual-Use Flood Control/Recreational Facility. See Figure III-16

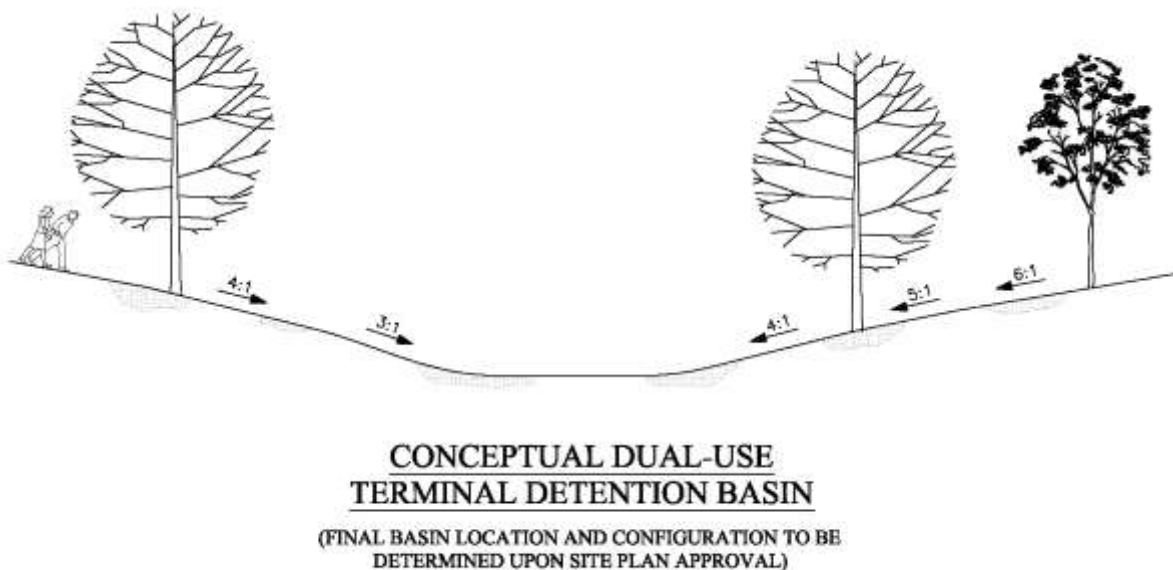


Figure III-15: Conceptual Dual-Use Terminal Detention Basin

The Specific Plan lies within the Morrow Park Planning Area. The City of Modesto Urban Area General Plan

adopted August 15, 1995, item G.3.g and G.3.h, requiring a neighborhood park in the Morrow Park Planning Area.

Due to the nature of the uses within the KBPSP, the neighborhood park would be more appropriately located to the East of the KBPSP and central to the Morrow Park Planning Area.

8. Police Protection

Per the Modesto General Plan, the Modesto Police Department is committed to maintaining "an adequate personnel level" in order to "organize patrol areas and provide investigative responses to achieve a comfortable and safe community climate" in the Kiernan Business Park. The Modesto Police Department acknowledges that a growing population and increased traffic volumes due to new residential and business areas will increase the demand for police services.

9. Fire Protection

Per the Modesto General Plan, the Modesto Fire Department is committed to "provide efficient and effective fire and life safety protection to the community."

In order to achieve this, per the Modesto General Plan, the Modesto Fire Department should strive to "ensure that fire stations, apparatus, equipment, and personnel are in place concurrent with construction in the Planned Urbanizing Area" as well as "maintain equipment, staffing, and facilities to provide Emergency First Response Level Emergency Medical services."

The City of Modesto Fire Department will provide fire protection for the Kiernan Business Park. The primary response with a three person engine company and a four person truck company will be from Fire Station #11, approximately one mile east of the Kiernan Business Park at Carver and Pelandale (located at 4226 Carver Rd.). Secondary response will be from Fire Station #6 located one mile south at Hahn and Standiford (2700 Standiford Avenue).