Section XI

GROWTH MANAGEMENT ELEMENT

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INTRODUCTION

The City of Clayton

Clayton is situated in Central Contra Costa County southeast of the City of Concord. The City is bounded on the west by the City of Concord. Clayton's northern boundary is also defined by the City of Concord and by ridge lines separating Clayton from unincorporated portions of Contra Costa County. To the east, Clayton is separated from unincorporated areas by ridge lines and by the legal line of the City Limits itself. Clayton is defined on the south by the boundary of Mt. Diablo State Park.

The U.S. Census Bureau estimated that Clayton had a population of 10,897 in 2010, and according to the Association of Bay Area Governments (ABAG) projections, the population will increase to 12,600 by 2030 with an average annual growth rate of 0.7%. According to the U.S. Census Bureau, Clayton's housing stock in 2010 consisted of 4,086 total housing units. While Clayton's housing stock increased between 1990 and 2010 (based on Census counts), the composition of the housing stock remained generally unchanged. The U.S. Census documents that Clayton's population was 79.3% white in 2010, compared to 87.9% in 2000. Clayton is a primarily owner-occupied community with few multi-family units in the City. Clayton's housing units had a 2009 median sales price of $417,000.

Major traffic corridors within the Clayton area include Clayton Road which is the main access into the City from the west and Oakhurst Drive and Pine Hollow Road which are also significant access routes to the west. Marsh Creek Road terminates at Clayton Road and is the main access into the City from the east. To the west of the City is Ygnacio Valley Road/Kirker Pass Road corridor which is a main north/south road in the area which runs southwest to Walnut Creek and northeast to Pittsburg.

Purpose and Authority

The purpose of the Growth Management Element to the Clayton General Plan is to establish goals, standards, and policies for traffic services, public facilities and services, and general growth management. By adopting and implementing this Element, Clayton intends to establish a comprehensive, long-range program which will match the demands for multi-modal transportation facilities and services generated by new development with plans, capital improvement programs and development mitigation programs. In addition, Clayton intends to promote compact urban development patterns and restrict the extension of infrastructure into areas where urban development is not planned.

A Growth Management Element is adopted pursuant to Section 65303 of the California Government Code. This code section states "the general plan may include any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the City." The Growth Management Element is also consistent with the requirements of the Measure J Growth Management Program, approved by the Contra Costa County voters in 2004, effective April 1, 2009.

The Measure J Growth Management Program requires each local jurisdiction to meet the six following requirements:

- Adopt Development Mitigation Program;
- Address Housing Options;
- Participate in an Ongoing Cooperative, Multi-Jurisdictional Planning Process;
- Adopt an Urban Limit Line (ULL);
- Develop a Five-Year Capital Improvement Program; and
- Adopt a Transportation System Management (TSM) Ordinance or Resolution; and

Measure J is a 2004 voter-approved, 25-year extension of the previous Measure C Contra Costa Transportation Improvement and Growth Management Program initially approved by voters in 1988. The Growth Management component is intended to assure that future residential, business, and commercial growth pays for the facilities required to meet the demands resulting from that growth. Compliance with the Growth Management Program is linked to receipt of Local Street Maintenance and Improvement Funds and Transportation for Livable Community Funds from the Transportation Authority.

Measure J eliminates the previous Measure C requirements for local performance standards and Level of Service (LOS) standards for non-regional routes; however, the City of Clayton will carry forward the LOS standards for non-regional routes, and performance standards for fire, police, parks, sanitary, water, and flood control as each could continue to play a decisive role in assessing the impacts of proposed new development. Measure J also adds the requirement for adoption of a voter-approved ULL.

Organization

This Growth Management Element is organized into six sections: INTRODUCTION, TRAFFIC SERVICES, PUBLIC FACILITIES and SERVICES, GENERAL GROWTH MANAGEMENT, and BACKGROUND INFORMATION and ANALYSIS. The INTRODUCTION provides a broad overview of the City; the purpose of the Element; the relationship to other Elements of the General Plan; and finally, defines key terms. The TRAFFIC SERVICES section establishes traffic goals and standards, and proposes traffic policies and implementation measures. The PUBLIC FACILITIES and SERVICES section addresses the areas of police, parks, fire protection, sanitary sewer, water supply, and flood control. Goals and standards regarding these areas are presented, and policies and implementation measures are proposed. The GENERAL GROWTH MANAGEMENT section addresses additional goals and standards as well as policies and implementation measures regarding such areas as housing options, adoption of an Urban Limit Line, and a City-wide Capital Improvement Program. The BACKGROUND INFORMATION and ANALYSIS section addresses the areas of traffic, police, parks, fire protection, sanitary sewer, water supply, flood control services, and general growth management such as housing options.

Relation to Other Elements of the General Plan

Each Element of Clayton's General Plan, including the Growth Management Element, must be internally consistent as well as consistent with each other. In other words, data, goals, policies and maps and diagrams should not conflict with each other, rather they must be compatible and mutually supportive. The Elements of Clayton's General Plan overlap and intertwine. The Growth Management Element's traffic service information relates to the Circulation Element. For example, the Circulation Element's goal includes the statement to "assure adequate traffic capacity on major thoroughfares." This statement is addressed in the Growth Management Element's LOS standards and development mitigation implementation actions. Also, Objective 8 of the Circulation Element calls for cooperation with Concord and the County. This objective is implemented, in part, by the Growth Management Element's implementation policy regarding multi-jurisdictional transportation planning.

The Growth Management Element's public facilities and services information relates to the Community Facilities Element. The Community Facilities Element has several policies which address sanitary sewer, water supply, flood control, fire protection, and parks. These topics are directly addressed in the Growth Management Element. In addition, inter-relationships between other Elements and the Growth Management Element exist. The Housing Element has an implementation measure (1C) which raises the issue of development review for infrastructure. This issue is also addressed in the implementation policies of the public facilities and services section of the Growth Management Element. The Community Design Element contains a policy (4b) seeking to minimize traffic congestion at intersections; the Open Space and Conservation Element includes an objective (2) and policies relating to parks; the Safety Element has objectives and policies concerning flood hazards and fire protection (8-11); all these topics are also addressed in the Growth Management Element. Finally, the Land Use Element guides the physical representation of the standards and policies of the Growth Management Element.

Definitions:

Basic Route. All local roads not designated as Routes of Regional Significance; Level of Service Standards apply to all signalized intersections on Basic Routes.

Findings of Special Circumstances. Findings made by the Contra Costa Transportation Authority, following a request by a City, that override the requirement to amend the General Plan, Zoning Ordinance, Capital Improvement Plan or other relevant plan or policy, when a basic route (non-regional route) does not meet its adopted standard.

LOS. Level of Service, a standard comparing traffic volume to capacity at intersections (v/c), in terms of percent. LOS runs from A to F, with A having the lowest volume to capacity (no congestion, free flowing conditions).

Regional Route Action Plan. Plans for Regional Routes which are developed by local jurisdictions in cooperation as a Regional Transportation Planning Committee. Plans include:

1. Overall policy goals established by the Transportation Authority.
2. Traffic service objectives.
3. Actions to be implemented by participating jurisdictions.

Route of Regional Significance (also Regional Routes). Road designated by the Contra Costa Transportation Authority, consistent with procedures described in the: "Implementation Guide: Traffic Level of Service Standards and Programs for Routes of Regional Significance." These roads are subject to objectives and programs in adopted Action Plans.

TRAFFIC SERVICES

Due to its geographic location, most of the residents of Clayton rely on the automobile for transportation. Clayton's system of streets is the major component of the City's transportation system. This system reflects a large investment in and commitment to the automobile. The use of the automobile for single occupant trips must, however, be reduced. Clayton's residents need to increase the use of alternate modes of transportation, such as public transit, car/van pools, bicycling, walking, etc.

Goals

1. Promote the development of a street system that minimizes adverse impacts on the environment and surrounding land uses.
2. Design a street system that while accommodating urban development is consistent with orderly growth.
3. Promote more efficient, less environmentally harmful modes of transportation (transit, car/van pools, bicycling, walking, etc.) and consider non-capacity increasing solutions to decrease dependence on the automobile (transit information, flex-schedules, preferential treatment for high occupancy vehicles, etc.)
4. Assure that new residential, business, and commercial growth pays for the facilities required to meet the demands resulting from that growth.

Performance Standards

1. **Routes of Regional Significance:** The City of Clayton, in cooperation with the TRANSPAC Regional Transportation Planning Committee, has acknowledged designated Routes of Regional Significance for the Central Contra Costa County area. These designated Routes are shown on Figure 1. A Route of Regional Significance does not exist within Clayton's City Limits. However, immediately to the west of the City, the Ygnacio Valley Road/Kirker Pass Road corridor is a designated Route of Regional Significance.

2. **Reporting Intersection Traffic Level of Service (LOS) Standards**: There are eight signalized intersections within Clayton. Four of these intersections are key in determining whether or not the City's basic route system is operating efficiently and meeting Level of Service standards. These four reporting intersections along with their related Level of Service standards are as follows:

Intersection	Adjacent Land Use	Poorest Acceptable LOS
Clayton Rd/Washington Blvd.	Urban	LOS high D
Clayton Rd/Mitchell Canyon Rd.	Suburban	LOS low D
Marsh Creek Rd./Regency Drive	Suburban	LOS low D
Oakhurst Dr./Eagle Peak Ave. (south)	Suburban	LOS low D

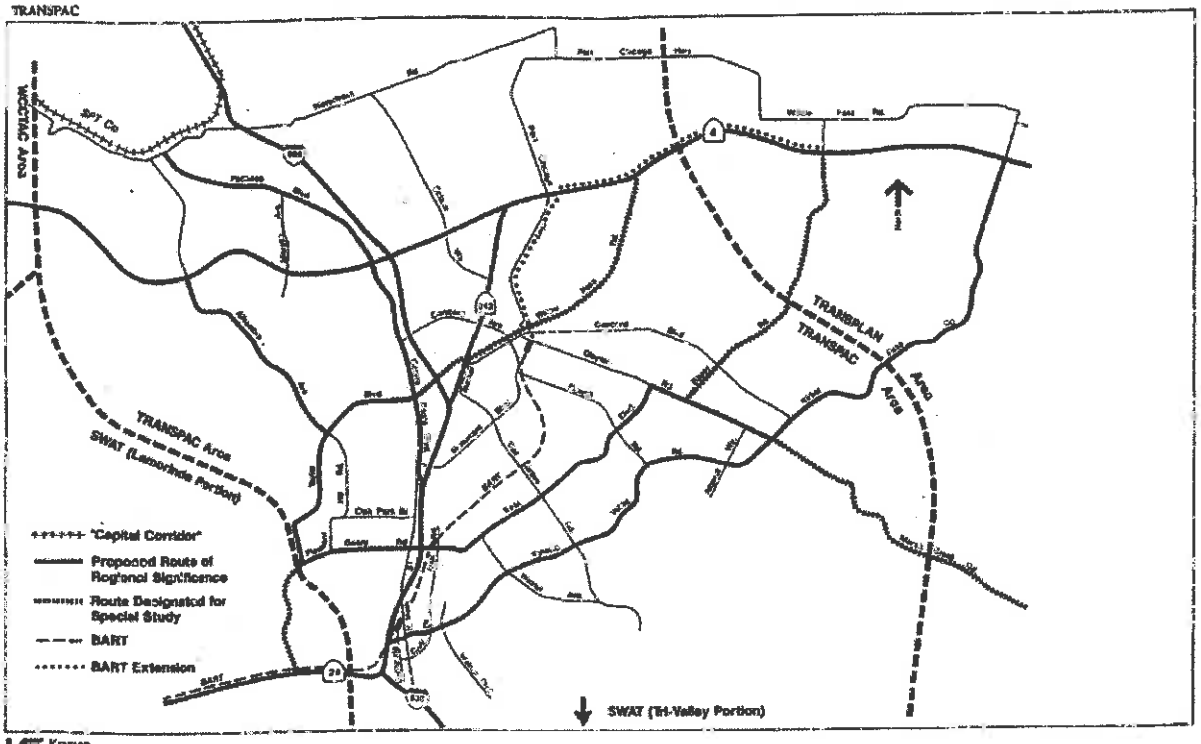

FIGURE 1 ROUTES OF REGIONAL SIGNIFICANCE

Objective 1
Development Mitigation: The City shall adopt and maintain a development mitigation program to ensure that new growth pays its fair share of the costs associated with that growth.

Policies/Implementation Measures

1a Clayton will continue to implement its adopted development fees to require developers to pay the costs necessary to mitigate the impacts of their development on the local street system.

1b Clayton will participate in TRANSPAC's regional development mitigation program and establish fees, exactions, assessments, or other mitigation measures to fund regional or subregional transportation improvements needed to mitigate the impacts of planned development on the regional transportation system.

1c Clayton will periodically review the existing adopted development fees to determine if the fees accurately reflect the needed traffic mitigation associated with development.

1d As part of the development review process for projects estimated to generate over 100 peak-hour vehicle trips, Clayton will require the developer/applicant to provide the City with a traffic impact study consistent with the Technical Guidelines published by the Contra Costa Transportation Authority.

1e Development projects expected to generate over 100 peak-hour vehicle trips in the peak direction will not be approved by the City unless a finding of consistency can be made with the Reporting Intersection Traffic Level of Service Standards.

1f The City will not use Local Street Improvement and Maintenance funds allocated to Clayton, pursuant to Measure J by the Contra Costa Transportation Authority, to replace developer funding for transportation projects determined to be required for growth to comply with standards.

Objective 2

Multi-Jurisdictional Transportation Planning: The City shall participate in an on-going multi-jurisdictional planning process with other jurisdictions and agencies, the RTPC, and the Contra Costa Transportation Authority to create a balanced, safe, and efficient transportation system and to manage the impacts of growth.

Policies/Implementation Measures

2a Clayton has and will continue to participate in multi-jurisdictional transportation planning by participating in the activities of the TRANSPAC Regional Transportation Planning Committee including the development of a Regional Route Action Plan and cooperating in planning for intersections subject to Findings of Special Circumstances.

2b Clayton will participate in the Contra Costa Transportation Authority's conflict resolution process, as needed, to resolve transportation related disputes.

2c Clayton will report its progress regarding the Growth Management Program to the Contra Costa Transportation Authority by submitting a compliance checklist and maintaining other necessary information.

2d Clayton will assist the Contra Costa Transportation Authority in maintaining its travel demand modeling system by providing information on proposed transportation improvements, including those adopted as part of the City's Capital Improvement Program, planned and approved development within the City, and long-range plans relative to ABAG's projections for household and jobs within the City.

Objective 3

Transportation Systems Management (TSM): To promote maximum efficiency in the existing transportation system and to further the transportation goals of the Contra Costa Transportation Authority's Measure J Growth Management Program, Contra Costa's Congestion Management Program, and the Bay Area Clean Air Plan; to reflect an ongoing commitment to TSM efforts, in

order to achieve traffic congestion management and air quality goals; and to comply with applicable state and federal laws.

Policies/Implementation Measures

3a As part of its program to ensure the continuation of a proactive TSM program effort, aimed at reducing vehicle trips, vehicle emissions, and traffic congestion in the most efficient and cost-effective manner, the City will continue to implement its Transportation Demand Management Ordinance.

3b The City will require design features that facilitate pedestrian access, bicycle use, ride sharing, and transit use to be incorporated within subdivision and development proposals, as appropriate. Design features may include bus turnouts and shelters, park and ride lots, preferential parking for car/van pools, and effective pedestrian, equestrian, and bicycle access features.

3c The City will require that all developments (residential as well as non-residential) generating more than 100 peak hour trips, implement a TSM information program. The program shall seek to provide information to residents and employers on RIDES and other ride matching agencies, transit schedules, bicycle facilities, and locations of nearby Park and Ride lots.

Objective 4

Achieving LOS Standards: The City shall maintain and improve traffic operations compliant with LOS standards.

Policies/Implementation Measures

4a In the event that any of Clayton's four reporting intersections identified above fail to meet its LOS standard, Clayton will consider amendments to the General Plan, Zoning Ordinance, Capital Improvement Program and/or other relevant plans and policies in order to attain the standard.

4b Capital projects necessary to maintain and improve traffic operations to comply with LOS standards will be included in Clayton's 5-year Capital Improvement Program.

Objective 5

Environmentally Sensitive Transportation Routes: The City shall limit improvements to Marsh Creek Road in order to maintain the significance of the environmental resources present.

Policies/Implementation Measures

5a Marsh Creek Road shall not be widened beyond the existing 2 lanes east of Pine Lane due to the significant environmental resources present. Marsh Creek Road may be improved by measures including but not limited to: repaving, improved shoulders, turn lanes, and acceleration/deceleration lanes.

PUBLIC FACILITIES AND SERVICES

City growth and development is dependent upon a complicated network of public facilities and services. Each type of service has a unique set of constraints and must adapt to growth differently. The City of Clayton provides police and park services and with the advice of the Contra Costa Flood Control and Water Conservation District, flood control and drainage services. Fire protection, sanitary sewer, and water supply are not provided by the City, but by special purpose districts. These special purpose districts are: the Contra Costa County Fire Protection District for fire prevention, fire suppression, and first responder emergency medical services; the Central Contra Costa Sanitation District and City of Concord for the treatment and transport, respectively, of sewage; and the Contra Costa Water District for water supply services. The Contra Costa County Flood Control and Water Conservation District does provide recommendations to the City but such advice is only upon the request of the City.

Goals

1. Provide police protection to the public and its property through effective law enforcement and the incorporation of crime prevention features into new development.
2. Develop and maintain a system of active open spaces and trails along creek channels and within developed parks as well as the maintenance of passive open spaces along hillsides as a means of preserving the rural character of the City.
3. Incorporate fire safety precautions in existing developed areas and in planning for new development.
4. Provide for an efficient sanitary sewer collection system and for an efficient water distribution system to serve existing development (allowing for the eventual connection of non-sewer areas) and in the planning for new development.
5. Protect the community from the risk of flood damage.
6. Assure that new residential, business, and commercial growth pays for the facilities required to meet the demands resulting from that growth.

Performance Standards

1. **Police:** Capital facilities should be provided at a level sufficient to maintain a 5 minute response time for 90% of all emergency calls for police assistance.

2. **Parks:** Standards for active open spaces within Clayton are as follows:

Developed Parks (athletic fields, picnic areas, tot lots, etc.)	3 Acres per 1,000
Maintained Open Spaces (greenbelt and trails, etc.)	7 Acres per 1,000
Total Active Open Spaces	10 Acres per 1,000

3. **Fire Protection:** Ideally, all development should be within 1.5 miles or a 3 minute response time from a fire station. All development shall satisfy current adopted Fire Code requirements and, at a minimum, all development (including residential) more than 1.5 miles or 3 minutes from a fire station shall provide built-in fire protection system (e.g.,

fire sprinklers). All development adjacent to open space areas shall provide Class "A" fire retardant roof coverings.

4. **Sanitary Sewer:** All development shall comply with the standards of the Central Contra Costa Sanitary District and the City of Concord for sanitary sewer treatment and collection, respectively. Septic systems shall be allowed in transitional areas on large lots subject to the approval of Contra Costa County Health Services Department.

5. **Water:** All development shall comply with the standards of the Contra Costa Water District.

6. **Flood Control:** All development shall provide protection from the 100-year flood event as determined by the Federal Emergency Management Agency and as amended by more current information and studies. This protection shall also include the downstream effects of development on adjacent jurisdictions.

Objective 1
Development Mitigation: The City shall adopt and maintain a development mitigation program to ensure that new growth pays its fair share of the costs associated with that growth.

Policies/Implementation Measures

1a The City will continue to implement its adopted development fees to require developers to pay the costs necessary to mitigate the impacts of development on public facilities and services.

1b The City will review the existing adopted development fees and adopt additional development fees, as necessary, to insure that new growth is paying its fair share of the costs associated with the provision of facilities for police, parks, fire protection, sanitary sewer, water and flood control.

1c All new development shall contribute to or participate in the improvement of the police, parks, fire protection, sanitary sewer, water and flood control systems in proportion to the demand generated by the project occupants and users.

Objective 2
Achieving Performance Standards: The City shall maintain the public facilities and services performance standards.

Policies/Implementation Measures

2a Clayton will approve development projects only after making findings that: (1) after participation in the adopted development mitigation programs, performance standards will be maintained; or (2) project-specific mitigation measures will be required of the project to insure maintenance of standards.

2b Capital projects necessary to maintain and improve public facilities and services to comply with the performance standards will be included in Clayton's 5-year CIP.

2c Clayton will monitor and periodically review the adopted performance standards to determine if they accurately reflect the desires of the City.

GENERAL GROWTH MANAGEMENT

Goals

1. Support cooperative land use planning in Contra Costa County.
2. Support land use patterns consistent with the General Plans of local jurisdictions.
3. Support infill and redevelopment in existing urban and brownfield areas.

Objective 1

Address Housing Options: The City shall demonstrate reasonable progress in providing housing opportunities for all income levels and meeting housing goals.

Policies/Implementation Measures

1a The City will prepare a biennial report on the implementation of actions outlined in the Housing Element of its General Plan to the Contra Costa Transportation Authority in order to demonstrate reasonable progress in providing housing opportunities for all income levels. The report will demonstrate reasonable progress by one of the following:

- A comparison of the number of housing units approved, constructed, or occupied within Clayton over the preceding five years with the number of unites needed on average each year to meet the housing objectives established in the Housing Element;
- Illustrating how the City has adequately planned to meet the existing and projected housing needs through the adoption of land use plans and regulatory systems which provide opportunities for, and do not unduly constrain, housing development; or
- Illustrating how the City's General Plan and zoning regulations facilitate the improvement and development of sufficient housing to meet the objectives established in the Housing Element.

1b The City will consider the impacts all new developments would have on the local, regional, and county-wide transportation system, including the level of transportation capacity that can reasonable be provided.

1c The City will incorporate policies and standards into the development approval process that support the accommodation of transit, bicycle, and pedestrian access for new developments.

Objective 2

Adopt an Urban Limit Line (ULL): Clayton shall adopt an ULL (MAC-ULL, County ULL, or a Local Voter ULL as defined in the Principles of Agreement to the Measure J GMP) that has been approved by the majority of the voters within the City.

Policies/Implementation Measures

2a Clayton will implement and comply with the voter-approved ULL (adopted by the City in November 2007). Urban development will be restricted to within the line, subject to the policies and standards of the Land Use Element of the General Plan. Amendments to the City's ULL could only be made by first amending the County ULL, using adopted County procedures, and then adopting the amended ULL. Amendments to the City's ULL could also be made by adopting an entirely new voter-approved Local ULL. Any proposed amendments to the established ULL would need to be processed in accordance with applicable City of Clayton, Contra Costa County, and Contra Costa Local Agency Formation Commission (LAFCO) procedures.

Objective 3

Develop a Five-Year Capital Improvement Program (CIP): The City shall prepare and maintain annually or biennially a CIP that outlines the capital projects needed to implement the goals, policies, and programs of this General Plan for a minimum of the next five years. The CIP shall include approved projects and an analysis of the costs of the proposed projects as well as a financial plan for providing the improvements.

Policies/Implementation Measures

3a Capital projects sponsored by Clayton and necessary to maintain standards and improve traffic operations will be included in the 5-Year CIP. Funding sources for the capital projects as well as project phasing will be generally identified in the CIP.

BACKGROUND INFORMATION AND ANALYSIS

Traffic

The City of Clayton's Neighborhood Traffic Management Program (NTMP) was adopted on July 15, 2003. The program is a method of putting into practice some of the goals and direction of the City Council. Such goals include: implementation of a circulation system that will preserve the atmosphere and unity of the area and will ensure adequate traffic capacity on roads; providing for safe and efficient vehicular movement; minimizing the intrusion of through traffic on residential streets; implementation of physical and operational improvements to improve roadway and intersection capacity; and providing a safe environment for pedestrian movement. The program focuses on education and providing neighborhoods with tools for documentation and resolution of traffic problems.

Clayton is not located along a major highway or Interstate. Instead, major traffic is carried via Kirker Pass Road and Clayton Road/Marsh Creek Road. These two roads provide access to Interstate 680 and State Route 24 through Concord. The City jurisdiction includes 20.6 center-lane miles of paved streets, 14 consisting of arterials (both major and minor), collectors, and local streets. Most arterials provide northwest to southeast movement, with the exception of Kirker Pass Road, which runs southwest to northeast. Collectors run north-south and provide access to neighborhoods. Clayton experiences heavy commuter traffic originating from outside of the City.

All intersections within the City currently operate at a level of service (LOS) A, according to the City Engineer. Future development in the Marsh Creek Road Specific Plan area may cause an

LOS decline at one or two intersections within the City to LOS C. The City's minimum intersection LOS is LOS D for arterial streets. Although Measure J does not require minimum LOS thresholds, the City of Clayton General Plan still maintains this requirement.

Public transportation is provided by the Central Contra Costa Transit Authority, which offers bus and paratransit service. The General Plan shows 19 bus stops within the City, primarily along the arterials. Clayton would like to see a Bay Area Rapid Transit (BART) shuttle serve the City, and would also like to explore creating a formally improved Park and Ride facility within the City. An underutilized public Park and Ride lot does exist at the southeastern portion of the intersection of Clayton Road and Peacock Creek Drive.

The City has conducted a pavement survey to determine expected life remaining in its dedicated roadways. The condition of roads is based on a PCI—a numerical index used to indicate the condition of a roadway, which is widely used in transportation and civil engineering. The PCI looks at the overall conditions of the roadways, including engineering design, base and paving thickness, crown and drainage, and wear and aging condition. The pavement survey allows the City to plan repairs or perform preventive maintenance to extend the service life of the roadways. The PCI shows that, overall, the existing roadways receive an index rating of 77. The 77 PCI rating shows that the City of Clayton's roadways are in good condition; the City's PCI ratings typically rank in the top five best in the County.

Maintenance Department

The Maintenance Department has five full-time employees and uses seasonal part-time employees to help maintain the City streets, sidewalks, and storm drains. The Department maintains 1,000 streetlights, over 1,000 street signs, and 84 miles of streets and markings.

Police

The City's Police Department has personnel of 14; eleven are sworn officers, including the Chief. Approximately 980 citizens per sworn officer exist. In addition, the Department has Police Explorers, two paid Police Service Aides, Volunteers in Police Services, and one Reserve Officer. The Department has a neighborhood watch program, a vacation watch program, and an active CERT (Citizen Emergency Response Training) program. Clayton contracts with the City of Concord for dispatch and jail booking services.

According to the U.S. Federal Bureau of Investigation crime statistics for 2009, Clayton had seven violent crimes and 179 property crimes, with a rate of 1,711 crimes per 100,000 population. Crime rates are affected by a number of factors and reflect a city's population, concentration of youth, degree of urbanization, cultural and educational characteristics, geographic location, and modes of transportation, among others. Therefore, crime rates are a good measure of changed conditions within a city over time but should not be considered as a direct evaluation of the adequacy of police services between cities.

In 2010, the Department had 7,350 calls for service, self-initiated and via dispatch. The Department had 7,793 calls for service in 2007, and 6,430 calls for service in 2008, and 5,529 calls for service in 2009. Concord's new dispatch system, in addition to providing digital computerized dispatch services, could also provide useful information for the police manager, such as a system-generated management report that details response times. The report is broken

out into three areas: response times to priority one calls for service (serious issues), response times to category two and three crimes, or non-emergency calls for service. Priority one calls are emergency crimes or incidents that require an immediate response by an officer. Due to the small area of the City, response times to Code 3 emergencies are short. The latest report indicates that Clayton officers have an average response time of 3 minutes, 34 seconds for all priority one calls. A response time under 5 minutes for emergency calls is considered an excellent response. Clayton officers have an average response time of 5 minutes, 26 seconds to non-emergency calls for service.

Parks and Open Space

Clayton is rich in park and open space resources. The City is located at the base of the north slope of Mt. Diablo. Mt. Diablo State Park, which forms much of the southern City boundary, includes approximately 18,000 acres. To the northeast of the City is the Black Diamond Mines Regional Preserve operated by the East Bay Regional Park District (EBRPD). This Preserve encompasses about 3,500 acres of rugged hill land generally covered with grasses. Within the City Limits, approximately 530 acres of the hillside area of the Oakhurst Country Club are preserved as passive open space. Finally, the 160-acre Oakhurst Golf Course is an open space resource in and of itself.

Clayton has seven parks (Clayton Community, Lydia Lane, North Valley, Equestrian Staging, Dog, Westwood, and The Grove) and over 500 acres of open space. Clayton's largest park is the 20-acre Clayton Community and Sportsfield Complex, at the intersection of Marsh Creek Road and Regency Drive, which provides three combination baseball/soccer fields, a fourth soccer field, and a community gym (under joint use with the Mount Diablo School District). Other amenities of the Clayton Community and Sportsfield Complex include sports-related facilities (parking, restrooms, and concessions) and active play areas (picnic areas, play structures, tot lots). The City's Maintenance Department performs regular maintenance at the City's parks and extensive open space and trail system. Consequently, the City's parks and open space areas, including trails, are well-maintained. The City's seven parks comprise more than 25 acres of improved land, with connecting trail systems. Additionally, the City's extensive trail system offers over 20 miles of improved trails that connect most neighborhoods directly to open space areas. Major trails within the City include the Mitchell Creek Trail, the Mt. Diablo Creek Trail, the Cardinet Trail, and the Donner Creek Trail. The trails generally are improved with decomposed rock or asphalt, and feature rest benches and trail markers. Finally, Planned Development residential areas offer additional recreational opportunities, including swimming pools, barbeque areas, sport courts, and lawn areas. Collectively, the City of Clayton is in general conformance with its standards for parks and open space.

Fire Protection

The Contra Costa County Fire Protection District provides fire protection, suppression, and emergency medical services to the City of Clayton. The Contra Costa County Fire Protection District staff comprises 406 personnel, including 344 uniformed personnel, with 12 battalion chiefs and approximately 62 civilian personnel. Each three-person fire-fighting crew includes a paramedic. In addition to fire protection, suppression and emergency medical services, overall capabilities and resources of the Fire District include vehicle extraction ("jaws of life"), trench rescue, water rescue, high-angle rescue, building collapse, confined space rescue, fire and arson investigation, code enforcement, building plan review, and public education, such as Community

Emergency Response Training. The Contra Costa County Fire Protection District participates in a Cooperative Interagency Agreement with other local and regional fire departments and agencies.

The District has 30 fire stations. Fire Station 11 services the City of Clayton, which is located at the intersection of Clayton Road and Oakhurst Drive, within the Clayton Town Center, near a neighborhood of single-family homes and open space. Three shifts of three personnel are assigned to the station, which is equipped with one Type I engine and one Type III engine. The station provides services which include fire prevention, fire fighting, emergency medical aid, as well as public information related to these topics.

The National Fire Protection Association (NFPA) 1710 Standard establishes a goal of a five-minute response time from the time of dispatch to arrival on the scene, whenever possible. Currently, Contra Costa County Fire Protection District also has a goal of five minutes to be on-scene or less for all calls for service. The Fire District requires all development to conform to the National Fire Code which includes: provisions for access road width, slope and strength; fire suppression system design; water supply; and structural design and materials.

In addition to urban fire control issues, wildfire is a concern in the Clayton areas where non-native plant materials, steep slopes, high winds and other conditions make fire fighting challenging and increases the risks of fast-spreading wild land fires. The California Department of Forestry and Fire Prevention has jurisdiction throughout the State. Their primary responsibility is to prevent and fight wild land fires. The Sunshine Forest station, with two engines, is located approximately 6 miles east of the City on Marsh Creek Road. The station is staffed year-round, with primary emphasis during the burn period from March to October. State Responsibility Areas currently cover approximately 200,000 acres in eastern Contra Costa County, including Mt. Diablo State Park. Fire prevention measures include requiring full compliance with Public Resources Code sections 4290 and 4291, which specify firebreaks, chimney screens, debris clearing and controlled burns. (Controlled burns are becoming less common due to their regional air quality impacts). The Forestry Department has the full backing of the resources of the State, including ground and aerial equipment and personnel in cases where local fire fighting capabilities are inadequate. The Forestry Department is funded through the State, and local impact fees are not collected.

The Mt. Diablo State Park General Plan calls for fire breaks around the perimeter of the Park and within the Park to form 'compartments' for fire containment. Typical fire breaks are 20 to 30 foot wide strips along the edge of a developed area, such as mowed, disked or plowed land. Single-loaded streets, which are residential streets with houses on only one side, can also serve as fire breaks. Fuel modification is another measure used to control possible wildfires by minimizing the amount of fast burning plant materials. The State Park does not consider grazing an adequate means of fuel modification, due to the irregular areas covered and intervals of herd movement, the types of vegetation encouraged as feed, impacts on soils and habitat, and nuisance associated with proximity to developed areas. However, the East Bay Regional Park District has implemented effective fire control programs using grazing on lands under its jurisdiction. In regard to landscaping, native grasses and shrubs are generally more effective for wildfire safety than are exotic annuals, due to natives' relatively low production of biomass which serves as fuel for fires.

Sanitary Sewer
The City of Concord provides the maintenance and operations of the sewage collection and conveyance services for the City of Clayton's sewer main lines (42 miles). The wastewater from Clayton is conveyed by gravity flow through the Concord system to the Concord Sewage Pump Station, and ultimately to the Central Contra Costa Sanitary District (CCCSD) system. CCCSD provides treatment and disposal services for Clayton's effluent.

Collection
Although the collection lines are actually owned by the City of Clayton, the City of Concord Public Works Department operates and maintains Clayton's public sanitary sewer collection system. The City of Concord's wastewater collection system consists of approximately 383 miles gravity pipeline and one pumping station. Approximately 80 percent of the sewage flows by gravity to the Concord Sewage Pump Station that has four pumps and a capacity of 48 million gallons per day (mgd). The average daily dry weather flow is 10.6 mgd, with a peak wet weather flow of 23 mgd. Approximately 50 percent of Concord's sewer collection system is comprised of 6-inch diameter pipes. Current standards require all new sewer mains to be at least 8-inches in diameter. Concord transports Clayton's sewage to the CCCSD treatment plant located northeast of the Highway 4/I-680 interchange in Martinez.

Because the City of Clayton has sewer mains available to all properties and deficiencies are not anticipated upon full build out, a City-wide "Master Plan" does not exist. However, in 2008, a sanitary sewer study and master plan was prepared for the properties east of the City Limits, within the City's Sphere of Influence (SOI) and which were anticipated to be annexed at some time in the foreseeable future. The study, entitled the "Marsh Creek Road Specific Plan Area Sanitary Sewer Master Plan," found that portions of the trunk line would be surcharged (over free flow capacity) upon anticipated build-out of the study area. The impacted portion of the trunk line is the stretch along Donner Creek, just south of Marsh Creek Road. The Master Plan includes cost estimates, proposed sequencing of mitigations, and proposed financing for the mitigation work upon annexation and development in the Area.

Due to disagreements between the City of Clayton and the City of Concord regarding design flow criteria, the report was not presented to or approved by the City Council. The disagreement has been resolved (Dec. 2009) and the City of Concord has accepted the design flow criteria used in the Master Plan. Due to the failing economy, all of the anticipated projects within the study area have ground to a halt and further work has not been undertaken to complete and adopt the Master Plan.

Treatment and Disposal
Public sanitary sewer treatment for the City of Clayton is provided by the CCCSD. Sewage is conveyed through gravity sewer lines and pumping stations to the District's treatment plant located at the intersection of Highway 4 and I-680. The majority of the treated effluent is discharged to Suisun Bay, but with the remainder, the District produces approximately 1.5 mgd of tertiary treated recycled water used for landscape irrigation, industrial process cooling, or other recycled water uses.

CCCSD's wastewater treatment plant provides secondary level treatment for an average dry weather flow of approximately 45 mgd of domestic, commercial, and industrial wastewater; the

plant has a permitted capacity of 54 mgd. The plant's maximum capacity of 54 mgd is projected to accommodate build out until the year 2040. The District's infrastructure is in good condition, and the need to renovate or replace aging infrastructure is addressed through the District's CIP.

Water

Water service (i.e., supply, treatment, storage, and distribution) is provided to Clayton by a special district, the Contra Costa Water District (CCWD). The District's water system infrastructure includes untreated water conveyance and reservoirs, and water treatment and conveyance facilities. The District has a catastrophic supply interruption plan and an Emergency Operations Plan.

CCWD's primary source of water supply is the United States Bureau of Reclamation's (USBR) Central Valley Project (CVP). Water is diverted from the Delta and conveyed through the 48-mile Contra Costa Canal. CCWD has four untreated water storage reservoirs, including the 100,000 acre foot (af) Los Vaqueros Reservoir in southeastern Contra Costa County. CCWD is currently increasing the size of its Los Vaqueros Reservoir on Kellogg Creek, in the eastern foothills of Mount Diablo, from 100,000 af to 160,000 af. Construction is expected to be complete by 2012. Water distributed by CCWD in the Clayton area is treated at the CCWD's 75 mgd Bollman Water Treatment Plant north of Concord, on Highway 4. The plant has sufficient capacity for current levels of demand within the service area. CCWD officials report that the Bollman treatment plant, in present configuration, could be expanded to a maximum capacity of 95 mgd.

Current water conditions within the State are unprecedented, with historic dry year conditions and environmental issues within the Bay-Delta system that may impact how the Delta is managed in the future. Dry year conditions reduce Delta outflow causing poorer water quality in the Delta. This requires additional releases from Los Vaqueros to ensure water quality for CCWD deliveries. Ultimately this condition may affect how CCWD manages its water supplies for the long-term, and the District's wholesale customers would be subject to those terms and conditions. Increasingly stringent drinking water regulations and pressures on the Delta that trend in the direction of worsening Delta water quality will continue to be a challenge in the future. CCWD has plans and projects in planning stages, such as the Alternative Intake Project, to overcome these water quality challenges. The District intends to continue to advocate at regional, state, and federal levels for policies and programs that improve Delta water quality such as guaranteed fresh water flows into and through the Delta.

CCWD's Future Water Supply Study (2002), 2005 Urban Water Management Plan, Treated Water Master Plan Update (2002), and other master planning documents provide guidance on infrastructure needs. The District's infrastructure and facilities are generally in good condition. The District has a ten-year CIP that includes projects for both the untreated water system and treated water system to ensure that the District's water supply and services meet Board adopted criteria for water quality and reliability, among others. CCWD also has ongoing programs to evaluate and develop other water resources, such as water transfers, conservation, desalination, and expanding the use of recycled water. CCWD has planned for projected growth within its treated and untreated water service areas to ensure that water supplies remain reliable.

Provision of Additional Water Capacity

If development occurs east of the City of Clayton, additional water supply and distribution facilities are likely to be required, including reservoirs, pumping stations and distribution lines. The CCWD designs all water system expansions, prepares the construction plans, supplies the materials, and supervises construction, at the developer's expense. Installation is generally the responsibility of a developer. Upon completion, the new pipelines and appurtenances become CCWD property.

Additional Reservoirs

The volume of additional storage reservoir capacity needed is determined by fire flow requirements, as dictated by the Contra Costa County Fire Protection District, the maximum day water demand within the immediate service area, and an emergency storage allocation. Each component is described in further detail below:

Fire District design criteria call for a 1,000 gallon per minute (gpm) flow from any one fire hydrant for a duration of 2 hours, which equals 120,000 gallons of storage. Because the eastern area of the City is located more than five minutes from the Fire Station 11, all homes are required to have sprinkler systems supplied by a one-inch water meter.

- CCWD estimates maximum day water use equals two times the average day demand of 700 gallons per single-family home. 700 gpd is used by the District for design purposes, even though the number is far higher than the actual usage currently being experienced.

  Reservoir storage must be provided for 25 percent of the maximum day demand:

  2 x 700 gpd x 25 percent = 350 gallons per home.

- Emergency storage capacity must provide water in the event of a main break or other system failure. The capacity is equal to 1.5 times the average day demand of 700 gallons per single-family home, or 1,050 gallons per home.

- Total storage requirement for either a new or expanded reservoir is calculated from the three numbers above:

  Storage = [(120,000 gallons fire storage) + (350+1,050) gallons x number of homes served]

  Or

  Storage = 120,000 gallons + [(1,400 galllons per home) x (number of homes)]

  CCWD uses $1.50 per gallon to estimate the total cost of small reservoir construction, which must be fully funded by developers. For larger reservoirs, the unit cost per gallon is somewhat lower.

Additional Pumping Stations

A pumping station must be installed to supply each new pressure zone. Existing stations can often be used to fill multiple reservoirs, at more than one location, but only if the zone's

topography supports a widespread distribution system. CCWD estimates the total cost of a new pumping station with 350 gpm pumps to be approximately $350,000.

Additional Distribution Lines
Distribution system upgrades and expansions must be constructed within each new pressure zone to provide the capacity needed to deliver water to new developments. Both on-site (within a proposed development) and off-site improvements must be funded and installed by the developer. In many cases, excess flow capacity must be designed into off-site water mains to allow for future development of neighboring areas within the same pressure zone. The District will only reimburse a developer who installs these facilities for the additional cost of the pipe materials (i.e., for the difference between an eight- inch and twelve-inch diameter pipe). The District estimates that the design and construction of new water mains costs between $80 and $100 per lineal foot, depending on the size, which includes all pipe, valves, and fittings, complete and in place. Fire hydrants costs approximately $3,000 each.

Distribution mains must be sized to carry fire flow plus peak hour demand flow for the services expected to be on each line. For between 50 and 100 homes, CCWD estimates peak hour demand as three times the maximum day, or six times the average day:

6 x 700 gpd = 4,200 gpd per home

4,200 gpd per home = 2.92 gallons per minute per home

Total flow requirement = 1,000 gpm + (2.92 x number of homes)

The District permits a maximum fire flow velocity in delivery mains of 12 feet per second (fps), which is used to size each main based on the total flow as calculated above.

Wherever possible, CCWD encourages developers to install looped water systems, so that water can always reach each fire hydrant from two directions. Looped water systems provide back-up capability in the event of a main failure, as well as splits the required 1,000 gpm fire flow capacity between two sections of pipe on either side of the hydrant, which lowers the maximum design flow that must be carried within each line.

Hydropneumatic Pressure Systems
In areas only marginally higher than adjacent developed pressure zones, CCWD sometimes approves the installation of small, hydropneumatic pressure systems including a pumping station, two service pumps, one fire pump, and a pneumatic storage tank to supply a maximum of 100 homes or equivalent 5/8-inch services. Hydropneumatic pressure systems draw water from the storage tank in the next lower pressure zone and increase the pressure for delivery at a higher elevation. However, the maximum fixture elevation that can be served by such a system cannot be higher than ten feet below the operating level of the lower zone's storage tank.

Alternative Water Supplies
Private wells currently supply many of the homes east of Clayton with drinking water. County Environmental Health Department officials report that this area is generally not a good location

for wells. Clayey soils have caused a number of reported well failures in the past. Due to the conditions, extensive development is not likely to be supported by local groundwater resources.

Flood Control

The principal stream running through Clayton is Mt. Diablo Creek, which originates on the steep north slopes of Mt. Diablo. Mt. Diablo Creek drains a watershed of approximately 30 square miles and flows northerly and westerly through the cities of Clayton and Concord, the Concord Naval Weapons Station and eventually empties into Suisun Bay. In the City of Clayton, Mt. Diablo Creek is joined by Donner and Mitchell creeks, both of which originate on the slopes of Mt. Diablo and by Peacock Creek, which flows from the Keller Ridge.

Flooding has occurred from Mt. Diablo Creek in the Town Center area of Clayton and in the flood plain between Clayton Road and Kirker Pass Road. The major floods affecting this area occurred in 1938, 1952, 1955 and 1963. The 1955 and 1963 floods both were estimated as 25-year floods. Despite these occurrences, Mt. Diablo Creek is not considered a creek with a high flood history. Part of the reason for this is due to the long flood plain between Mt. Diablo slopes and the City Limits that serves to slow down velocity and delay peak flows. However, during a 100-year storm, severe flooding could be expected.

The original FEMA study and flood mapping occurred in 1979. After many years of expressing concerns regarding the basic assumptions of the flood study, FEMA prepared a new study beginning in 2001 and issued updated flood maps in 2006. The flood maps were then updated to a digital format and reissued with an effective date of June 16, 2009.

The updated flood maps incorporate new rainfall and stream gauge data as well as updated FEMA rules regarding flood protection, provided by raised berms or dikes. The FEMA rules state that in order to be considered as providing adequate flood protection, berms must be: (1) three feet higher than the anticipated flood elevation (formerly one foot); and (2) maintained perpetually by some legal entity.

The latest mapping indicates areas of potential flooding from a 100-year storm that are 100 to 200 feet wide within the City, as well as upstream in portions of the eastern area between Pine Lane to Russellmann Road. However, the FEMA rules regarding berms has virtually eliminated flood protection for houses along portions of Mt. Diablo Creek north of Clayton Road. This rule change has placed an additional approximate 200 homes within the 100-year floodplain. Flood zones for the 100-year storm are more extensive downstream of Kirker Pass Road and in the City of Concord. FEMA flood zones in the area are shown in Figure 2.

Housing Options

The Housing Element of this General Plan, recently updated in April 2010, is in compliance with State law, has been adopted by the City of Clayton, and certified by the State Department of Housing and Community Development (HCD). City goals for housing include supporting and participating in the development of extremely low-, very low-, low-, and moderate-income housing to meet Clayton's fair share housing allocation and the Clayton's Redevelopment Agency (RDA) housing requirements.

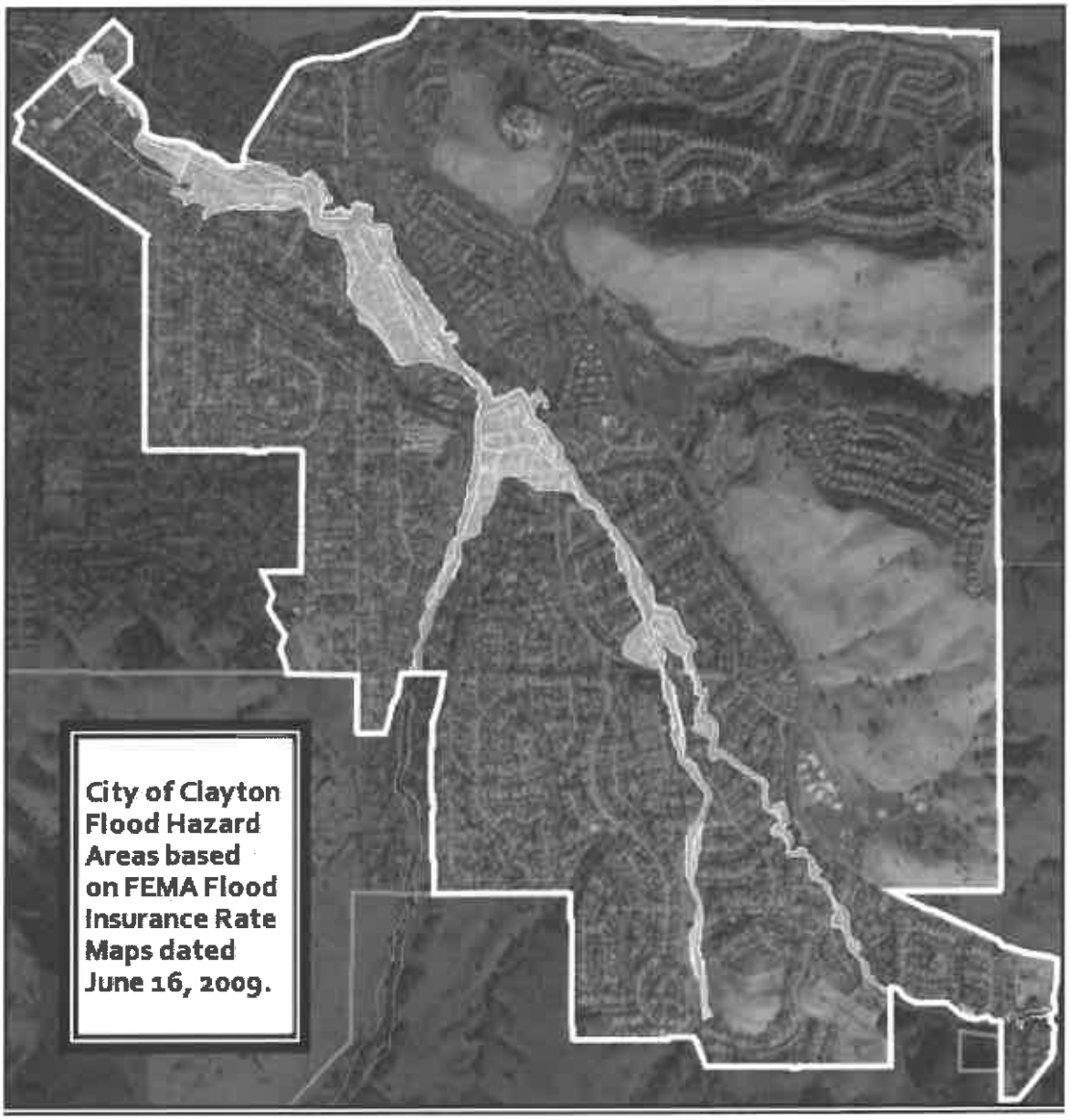
City of Clayton
Flood Hazard
Areas based
on FEMA Flood
Insurance Rate
Maps dated
June 16, 2009.

FIGURE 2

In addition, the City shall continue to implement City housing programs, which ensure that low- and moderate-income units remain available to qualified applicants upon sale of units, and work with the Association of Bay Area Governments (ABAG) on their FOCUS program implementation, which is a regional development and conservation strategy that promotes a more compact land use pattern for the Bay Area.

Clayton is a primarily owner-occupied community. Few multi-family units exist within the City, which contributes to a very low proportion of renter-occupied households. Affordable housing projects in the City include Kirker Court Apartments, a portion of the homes within the Stranahan single-family residential subdivision, and the Diamond Terrace senior housing development. The Kirker Court Apartments, a project for persons with disabilities managed by Eden Housing, currently provide 20 units to extremely low-income households at a rental rate based on 30 percent of monthly household income. The Stranahan residential subdivision was built in 1995 and consisted of 54 single-family detached homes. Eighteen of the homes were sold at a level affordable to moderate-income households. Since the initial sale, three of the eighteen homes have been repurchased by the RDA and resold to low-income households, and an additional six of the houses have been repurchased by the RDA and resold to moderate-income households. Diamond Terrace, an assisted living project for seniors, was completed in 2003 and provides 65 units for very low-income seniors, 10 units for low-income seniors, and 10 units for moderate-income seniors.

The City has a shortfall of land available to extremely low-, very low-, and low-income households. According to ABAG allocations, the City needs enough land to accommodate an additional 50 affordable housing units. To address this shortfall, the City proposes to create a new multiple family high density residential General Plan designation and Zoning District, which will have an allowable density of 20 units per acre. Due to an increase in allowable densities, potential affordable housing sites within the City would increase capacity adequate for the 50-unit shortfall identified and the total 84-unit ABAG allocation in the lower–income categories. In addition, Implementation Measure I.2.1 of the Housing Element commits the City to the development of a written Affordable Housing Plan requirement, which would mandate developers of residential projects of two or more units to draft an Affordable Housing Plan. The Affordable Housing Plan is intended to ensure that new developments include a certain percentage of affordable housing units.

Clayton currently utilizes local, state, and federal funds to implement the City's housing strategy. Because of the high cost of new construction, more than one source of public funds is required to construct an affordable housing development. For example, The Kirker Court Apartments were made affordable through a combination of U.S. Department of Housing and Urban Development (HUD) funding programs, Community Development Block Grant (CDBG) funding, and Clayton RDA) funding sources. The City does not act as a developer in the production of affordable units, but relies upon the private sector to develop new units with the assistance of various funding sources.

The Clayton RDA is the primary source of housing funds for the City's housing programs. The RDA receives tax increment revenue from real property taxes collected each year. The Agency provided the Diamond Terrace project with funding assistance for development as well as annual

supplemental rental income until 2014 (the Diamond Terrace project also received a low-income tax credit allocation). According to the RDA's Five-Year Implementation Plan (2008-2013), the RDA plans to provide seed money for the development of 15 affordable rental units and allocate funds toward affordable home ownership development through the remainder of the Implementation Plan period. In addition, RDA funding is expected to be used for the preservation of existing affordable housing units and affordability restrictions throughout the City. Funds provided by the RDA for affordable rental development and affordable home ownership development would include 55-year deed restrictions and 45-year deed restrictions, respectively.

The Clayton Community Development Department administers the CDBG and the HUD HOME funding programs, as available. All projects funded with HOME funds must be targeted to very low- and low-income households and must have permanent matching funds from non-federal resources equal to 25 percent of the requested funds. In addition, the County Board of Supervisors has established a priority for the allocation of HOME and CDBG funds to projects that include a portion of the units affordable to extremely low-income households (incomes at or below 30 percent of the area median income). Another available housing funding program is the HUD Section 8 Voucher Program, which provides rental assistance administered by the Housing Authority of Contra Costa County. As of August 2001, only one Clayton household was receiving rental assistance from the Section 8 program. Due to the limited number of rental housing units currently within the City and the relatively higher land costs, the possibility of Section 8 participants finding units to rent in Clayton is unlikely.

Urban Limit Line

Contra Costa County voters approved the current Contra Costa County ULL in 2006. The county-wide ULL was adopted by the Clayton City Council in November 2007. The ULL generally follows the boundaries of the City Limits, with the exception of the southeast corner of the City, which extends beyond the City Limits into the Sphere of Influence (SOI) (See Figure 3). However, the ULL is not contiguous with the SOI; instead, some land within the SOI lies outside of the ULL.

Capital Improvement Program (CIP)

Clayton's Engineering Department is responsible for developing the CIP, which includes the following: coordination with the City Manager; evaluation and prioritization of Capital Improvement Projects; procurement of funds; right-of-way and land acquisition; administration of the public bidding process; and supervision of the design and construction inspection for all private development and improvements thereto.

The Clayton City Council adopted the 2010/11 to 2014/15 CIP on June 29, 2010. The CIP includes proposed funding sources and expenditures categorized by year and scheduled projects. The City has continued, and will continue, to complete several significant capital improvement projects that enhanced and maintained the public's investment in its infrastructures and overall quality of life.

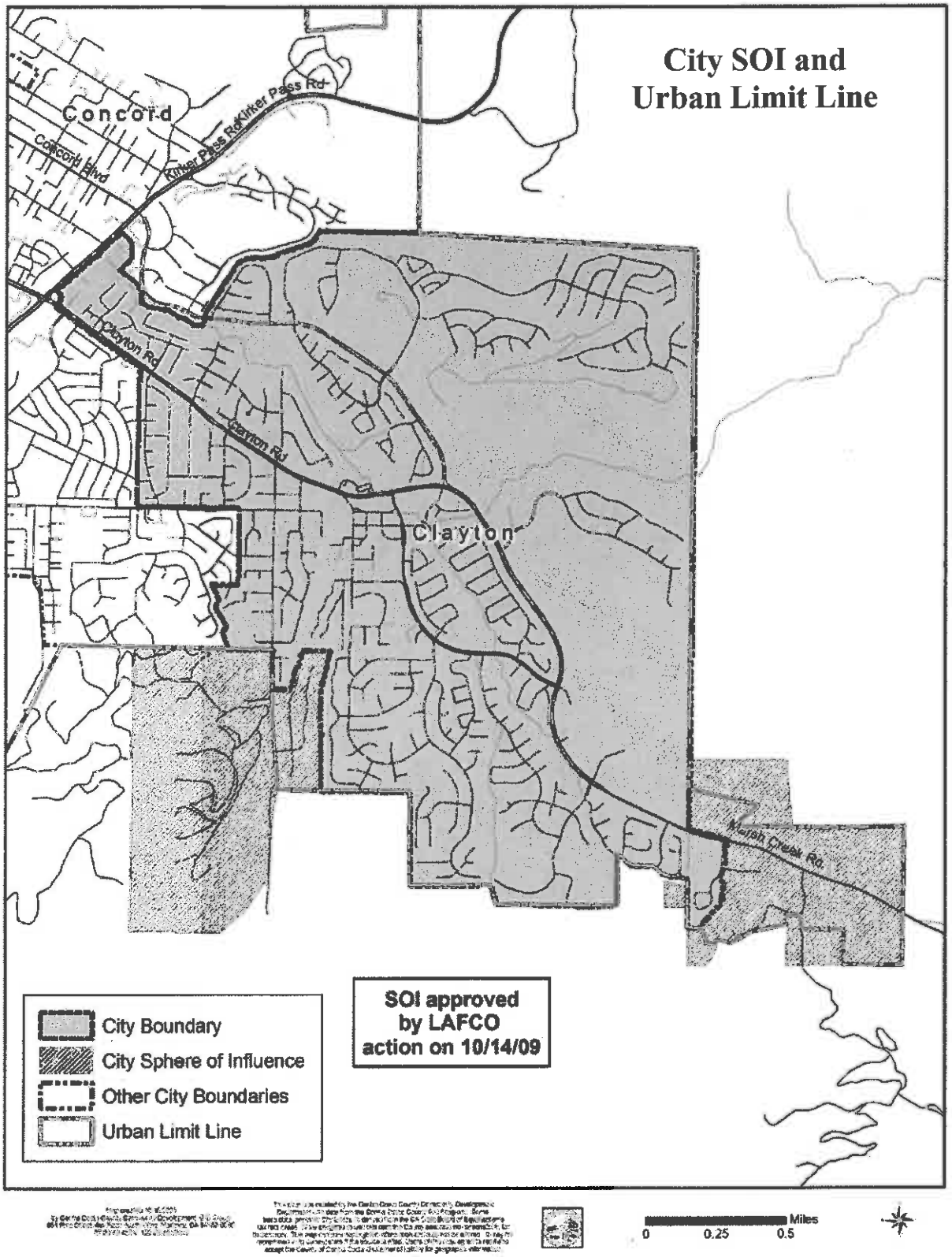
City SOI and
Urban Limit Line
Concord
Concord Blvd
Kirker Pass Rd
Kirker Pass Rd
Clayton Rd
Clayton Rd
Clayton
Marsh Creek Rd
City Boundary
City Sphere of Influence
Other City Boundaries
Urban Limit Line
SOI approved
by LAFCO
action on 10/14/09
Miles
0
0.25
0.5

FIGURE 3