



SPECIFIC PLAN

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FINAL

Eastern Dublin Specific Plan



January 7, 1994

Updated to April 21, 2020

CITY OF DUBLIN
CALIFORNIA

Wallace Roberts & Todd

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Table of Contents

TABLES	VI
FIGURES	VII
1.0 INTRODUCTION.....	1
1.1 PREFACE	1
1.2 LEGAL CONTEXT	1
1.2.1 AUTHORITY TO PREPARE	1
1.2.2 RELATIONSHIP TO GENERAL PLAN	2
1.2.3 ENVIRONMENTAL REVIEW.....	2
1.3 BACKGROUND AND PLANNING PROCESS	3
1.4 ORGANIZATION OF THE SPECIFIC PLAN.....	4
2.0 PLANNING AREA DESCRIPTION	6
2.1 LOCATION.....	6
2.2 SITE CHARACTERISTICS.....	6
2.3 OWNERSHIP PATTERNS	8
2.4 SURROUNDING USES	8
2.5 SUBREGIONAL CONTEXT	9
3.0 SUMMARY	15
3.1 THE EASTERN DUBLIN SPECIFIC PLAN	15
3.2 THE SPECIFIC PLAN CONCEPT	15
3.3 LAND USE	16
3.3.1 LAND USE MAP	16
3.3.2 LAND USE GOALS AND POLICIES	16
3.3.3 LAND USE CATEGORIES	17
3.3.4 PLANNING SUBAREAS	18
3.4 TRAFFIC AND CIRCULATION	18
3.4.1 STREETS AND HIGHWAYS.....	19
3.4.2 PUBLIC TRANSIT	19
3.4.3 PEDESTRIAN CIRCULATION.....	19
3.4.4 BICYCLE CIRCULATION	19
3.4.5 PARKING	20
3.4.6 TRANSPORTATION SYSTEMS MANAGEMENT (TSM)	20
3.5 RESOURCE MANAGEMENT.....	20
3.5.1 OPEN SPACE.....	20
3.5.2 RESOURCE PROTECTION	21
3.5.3 CONSERVATION AND PUBLIC SAFETY.....	21
3.6 COMMUNITY DESIGN	21
3.7 COMMUNITY SERVICES AND FACILITIES	23
3.7.1 SCHOOLS.....	23
3.7.2 POLICE PROTECTION	23
3.7.3 FIRE PROTECTION.....	23
3.7.4 SOLID WASTE.....	23

3.7.5	OTHER COMMUNITY SERVICES AND FACILITIES	24
3.8	WATER, WASTEWATER AND STORM DRAINAGE.....	24
3.8.1	WATER SUPPLY AND FACILITIES	24
3.8.2	WASTEWATER	24
3.8.3	STORM DRAINAGE.....	25
3.9	FINANCING.....	25
3.9.1	SOURCES OF FINANCING	25
3.9.2	FINANCING GOALS AND POLICIES.....	25
3.9.3	IMPLEMENTATION.....	25
3.10	IMPLEMENTATION.....	26
3.10.1	KEY IMPLEMENTING ACTIONS.....	26
3.10.2	OTHER IMPLEMENTING ACTIONS.....	26
3.10.3	ADMINISTRATION OF THE SPECIFIC PLAN.....	26
3.10.4	SPECIFIC PLAN CONSISTENCY.....	26
3.10.5	OTHER IMPLEMENTATION AND ADMINISTRATION ISSUES.....	27
4.0	LAND USE	29
4.1	PURPOSE	29
4.2	LAND USE MAP	29
4.3	THE LAND USE CONCEPT	30
4.3.1	AN OPPORTUNITY AND CHALLENGE.....	30
4.3.2	A BALANCED MIXED USE COMMUNITY.....	32
4.4	RESIDENTIAL LAND USE.....	34
4.4.1	LOCATION AND DIVERSITY.....	34
4.4.2	AFFORDABILITY.....	36
4.5	COMMERCIAL LAND USE	37
4.5.1	LOCATION	38
4.5.2	CHARACTER.....	38
4.6	EMPLOYMENT.....	40
4.6.1	LOCATION AND DIVERSITY.....	40
4.6.2	DEVELOPMENT CHARACTER.....	41
4.6.3	JOBS/HOUSING BALANCE.....	41
4.7	RECREATION	44
4.8	LAND USE CATEGORIES.....	45
4.8.1	RESIDENTIAL	46
4.8.2	COMMERCIAL.....	47
4.8.3	PUBLIC AND SEMI-PUBLIC FACILITIES.....	49
4.8.4	PARKS AND OPEN SPACE.....	49
4.9	PLANNING SUBAREAS	51
4.9.1	TASSAJARA GATEWAY.....	51
4.9.2	TOWN CENTER COMMERCIAL.....	52
4.9.3	TOWN CENTER RESIDENTIAL	54
4.9.4	FALLON GATEWAY.....	55
4.9.5	VILLAGE CENTERS.....	56
4.9.6	FOOTHILL RESIDENTIAL	58
4.9.7	HACIENDA GATEWAY.....	60
4.9.8	COUNTY CENTER	61

4.9.9	TRANSIT VILLAGE CENTER.....	61
4.9.10	GRAFTON PLAZA.....	62
5.0	TRAFFIC AND CIRCULATION	66
5.1	INTRODUCTION	66
5.1.1	EXISTING ROADS.....	67
5.1.2	PLANNED ROAD IMPROVEMENTS	69
5.1.3	EXISTING TRANSIT.....	70
5.1.4	FUTURE TRANSIT	70
5.2	STREETS AND HIGHWAYS	70
5.2.1	GENERAL CONSIDERATIONS	70
5.2.2	NORTH-SOUTH CIRCULATION	71
5.2.3	EAST-WEST CIRCULATION.....	72
5.2.4	(Intentionally Blank)	73
5.2.5	LEVEL OF SERVICE.....	73
5.2.6	STREET CLASSIFICATIONS	73
5.2.7	ARTERIAL STREETS.....	74
5.2.8	CLASS I COLLECTOR STREETS.....	74
5.2.9	CLASS II COLLECTOR STREETS	75
5.2.10	RESIDENTIAL COLLECTOR STREETS.....	75
5.2.11	LOCAL RESIDENTIAL STREETS	76
5.2.12	FREEWAY AND INTERCHANGE IMPROVEMENTS	76
5.3	PUBLIC TRANSIT.....	79
5.3.1	LOCAL TRANSIT SERVICE.....	80
5.3.2	REGIONAL TRANSIT CONNECTIONS.....	80
5.3.3	TRANSIT STOPS.....	80
5.4	PEDESTRIAN CIRCULATION	81
5.4.1	STREAM CORRIDOR TRAILS.....	81
5.4.2	TOWN CENTER AND VILLAGE CENTERS.....	82
5.5	BICYCLE CIRCULATION	83
5.5.1	BICYCLE ROUTES.....	83
5.5.2	BICYCLE PARKING REQUIREMENTS	83
5.6	PARKING.....	84
5.6.1	PARKING REQUIREMENTS.....	84
5.6.2	STREET PARKING.....	84
5.7	TRANSPORTATION SYSTEMS MANAGEMENT	85
5.7.1	TRANSPORTATION SYSTEMS MANAGEMENT PROGRAM.....	85
5.7.2	PARK-AND-RIDE LOTS	86
6.0	RESOURCE MANAGEMENT	93
6.1	INTENT	93
6.2	OPEN SPACE.....	93
6.2.1	OPEN SPACE NETWORK	94
6.2.2	OPEN SPACE ACCESS.....	94
6.2.3	OWNERSHIP AND MAINTENANCE	95
6.2.4	PRIVATE DEVELOPMENT AREAS	96
6.3	NATURAL RESOURCE PROTECTION	97

6.3.1	STREAM CORRIDORS AND WETLANDS	98
6.3.2	BIOLOGICAL RESOURCES.....	101
6.3.3	CULTURAL RESOURCES.....	106
6.3.4	VISUAL RESOURCES	108
6.4	CONSERVATION AND PUBLIC SAFETY.....	113
6.4.1	GEOLOGY, SOILS, AND GRADING	113
6.4.2	NOISE	114
7.0	COMMUNITY DESIGN.....	119
7.1	TOWN CENTER.....	119
7.1.1	TOWN CENTER COMMERCIAL.....	119
7.1.2	TOWN CENTER RESIDENTIAL	129
7.2	VILLAGE CENTERS.....	135
7.2.1	OVERALL VILLAGE CENTER DESIGN GUIDELINES	136
7.2.2	TASSAJARA VILLAGE	138
7.2.3	FALLON VILLAGE CENTER	141
7.3	FOOTHILL RESIDENTIAL.....	144
7.4	GATEWAY SUBAREAS	149
7.4.1	OVERALL GATEWAY DESIGN GUIDELINES	149
7.4.2	TASSAJARA GATEWAY.....	150
7.4.3	FALLON GATEWAY.....	151
7.4.4	HACIENDA GATEWAY	151
7.5	CIRCULATION SYSTEM.....	154
7.5.1	PEDESTRIAN/BIKE PATHS	154
7.5.2	STREETS	154
7.6	TRANSIT VILLAGE CENTER.....	170
8.0	COMMUNITY SERVICES AND FACILITIES	175
8.1	SCHOOLS	175
8.1.1	SCHOOL SITES	175
8.1.2	FINANCING SCHOOL IMPROVEMENTS	176
8.2	POLICE PROTECTION	177
8.2.1	PERSONNEL AND FACILITIES.....	177
8.3	FIRE PROTECTION.....	178
8.3.1	SERVICE STANDARDS	178
8.3.2	WILDLAND FIRE HAZARD.....	179
8.4	SOLID WASTE.....	180
8.4.1	WASTE DISPOSAL	181
8.5	OTHER COMMUNITY SERVICES AND FACILITIES	182
8.5.1	ELECTRICITY, NATURAL GAS, AND TELEPHONE SERVICE	182
8.5.2	POSTAL SERVICE.....	182
8.5.3	LIBRARY	183
9.0	WATER, WASTEWATER AND STORM DRAINAGE.....	184
9.1	DOMESTIC WATER SYSTEM.....	184
9.1.1	REQUIRED WATER DISTRIBUTION SYSTEM	185
9.1.2	DSRSD EXPANSION.....	185

9.2	WASTEWATER.....	188
9.2.1	REQUIRED WASTEWATER FACILITIES.....	188
9.2.2	DSRSD EXPANSION.....	189
9.2.3	RECYCLED WATER	189
9.2.4	EXPANSION OF DISPOSAL FACILITIES	190
9.2.5	UPDATED WASTEWATER TREATMENT AND DISPOSAL	191
9.3	STORM DRAINAGE.....	191
9.3.1	ALTERATIONS OF EXISTING DRAINAGE PATTERNS	192
9.3.2	WATER QUALITY	193
10.0	FINANCING.....	204
10.1	INTRODUCTION	204
10.2	FINANCING CONSIDERATIONS.....	204
10.3	SOURCES OF FINANCING	205
10.3.1	CAPITAL IMPROVEMENTS	205
10.3.2	ONGOING COSTS.....	209
10.4	FINANCING GOALS AND POLICIES	210
10.5	CAPITAL FINANCING SOURCES AND BURDEN ON LAND USES.....	212
11.0	IMPLEMENTATION	221
11.1	SUMMARY: SPECIFIC PLAN IMPLEMENTATION PROGRAM.....	221
11.2	KEY IMPLEMENTING ACTIONS OF SPECIFIC PLAN.....	222
11.2.1	EIR CERTIFICATION	222
11.2.2	CEQA FINDINGS.....	222
11.2.3	GENERAL PLAN AMENDMENTS.....	222
11.2.4	ADOPTION OF THE SPECIFIC PLAN.....	222
11.2.5	PREZONING.....	223
11.2.6	ANNEXATION.....	223
11.2.7	DISTRICT PLANNED DEVELOPMENT PLANS	224
11.2.8	TENTATIVE MAP	224
11.2.9	SITE DEVELOPMENT REVIEW (SDR)/DESIGN REVIEW.....	224
11.2.10	PUBLIC IMPROVEMENT PLANS.....	224
11.2.11	FINAL MAP.....	225
11.2.12	PARK IMPROVEMENT PLANS	225
11.2.13	FINANCING PLANS	225
11.2.14	RESPONSIBILITIES FOR KEY IMPLEMENTING ACTIONS	225
11.3	OTHER IMPLEMENTING ACTIONS.....	226
11.3.1	DEVELOPMENT AGREEMENTS	226
11.3.2	AREA OF BENEFIT ORDINANCE	227
11.3.3	ANALYSIS OF FINANCING TECHNIQUES	227
11.3.4	MARKS-ROOS BOND POOLING.....	228
11.3.5	CITYWIDE BUILDER IMPACT FEE SYSTEM	228
11.3.6	RESPONSIBILITIES FOR OTHER IMPLEMENTING ACTIONS.....	228
11.4	ADMINISTRATION OF THE SPECIFIC PLAN.....	228
11.4.1	RESPONSIBILITIES FOR ADMINISTRATION OF THE SPECIFIC PLAN.....	228
11.4.2	TYPICAL DEVELOPMENT REVIEW PROCESS.....	229
11.4.3	SPECIFIC PLAN CONSISTENCY.....	230

11.4.4	<i>SPECIFIC PLAN AMENDMENT</i>	230
11.4.5	<i>ENVIRONMENTAL REVIEW</i>	230
11.4.6	<i>CONDITIONS, COVENANTS, & RESTRICTIONS</i>	231
11.4.7	<i>PHASE I ENVIRONMENTAL SITE ASSESSMENTS</i>	231

APPENDICES

1.	Report Preparers	A-1-1
2.	Anticipated Land Uses by Designation	A-2-1
3.	Land Use Summary by Planning Subarea	A-3-1
4.	Land Use Summary by Land Owner	A-4-1
5.	Summary of Goals, Policies, and Action Programs	A-5-1
6.	Background Documentation for Sewer, Water, and Storm Drainage	A-6-1
7.	Fiscal Analysis	A-7-1

TABLES

4.1	Eastern Dublin Specific Plan Land Use Summary	31
4.2	Eastern Dublin Specific Plan Population and Employment Summary	43
4.3	City of Dublin Projected Jobs/Housing Balance	44
4.4	Tassajara Gateway Subarea Development Potential	51
4.5	Town Center – Commercial Subarea Development Potential	53
4.6	Town Center – Residential Subarea Development Potential	54
4.7	Fallon Gateway – Subarea Development Potential	55
4.8	Tassajara Village Center Subarea Development Potential	57
4.9	Fallon Village Center Subarea Development Potential	57
4.10	Foothill Residential Subarea Development Potential	59
4.11	Hacienda Gateway Subarea Development Potential	60
4.12	County Center Subarea Development Potential	61
4.13	Transit Village Center	62
4.14	Grafton Plaza	63
9.1	Water Service Matrix of Implementation Responsibilities	195
9.2	Waste Water Service Matrix of Implementation Responsibilities	197
9.3	Storm Drainage Matrix of Implementation Responsibilities	199
10.1	Major Capital Improvements Costs and Sources of Funding	215
10.2	Infrastructure Phasing Program	216
10.3	Analysis of Bonding Capacity	218
10.4	Mello-Roos or Assessment District Cost Allocations, by Land Use	220
11.1	Recommended Rezoning for Land Use Designations	223
11.2	Responsibilities for Key Implementing Actions	225
11.3	Responsibilities for Other Implementing Actions	228

FIGURES

2.1	Regional Location	11
2.2	Local Context	12
2.3	Specific Plan Area	13
2.4	Ownership Patterns	14
4.1	Land Use Map	64
4.2	Planning Subareas	65
5.1	Road System	87
5.1b	East Dublin Existing and 2010 Projected Traffic Volumes	88
5.2	Transit System	89
5.2b	East Dublin Transit Map	90
5.3	Pedestrian and Bicycle System	91
5.3b	East Dublin Bicycle Circulation System	92
6.1	Open Space Framework	116
6.2	Environmental Resources	117
6.3	Environmental Constraints	118
7.1A	Illustrative Concept for Town Center Commercial Subarea	124
7.1.1A	Town Center Concept Plan	125
7.2-7	Design Guidelines	126
7.8-11	Design Guidelines	127
7.12-15	Design Guidelines	128
7.16-21	Design Guidelines	133
7.22-26	Design Guidelines	134
7.27	Design Guidelines	139
7.28	Tassajara Village Concept: Illustrative	140
7.29	Fallon Village Concept: Illustrative	143
7.29A	Fallon Village Concept Plan – Modified	144
7.30-34	Design Guidelines	148
7.35-37	Design Guidelines	153
7.38-39	Streetscape Cross-sections	162
7.40-41	Streetscape Cross-sections	163
7.42-43	Streetscape Cross-sections	164
7.44	Streetscape Cross-sections	165
7.45	Streetscape Cross-sections	166
7.46-48	Streetscape Cross-sections	167
7.49-51	Streetscape Cross-sections	168
7.52-54	Streetscape Cross-sections	169
7.55-56	Streetscape Cross-sections	174
9.1	Conceptual Backbone Water Distribution System	200
9.2	Conceptual Backbone Wastewater Collection System	201
9.3	Conceptual Backbone Recycled Water Distribution System	202
9.4	Conceptual Backbone Storm Drainage Facilities	203



1.0 INTRODUCTION

1.1 PREFACE

The Eastern Dublin Specific Plan represents a five year effort to develop a planning framework for the future growth and development of approximately 3,300 acres in the largely unincorporated area that lies east of Camp Parks. Since 1993, approval of subsequent amendments, such as the addition of the Dublin Transit Center and portions of Fallon Village, have increased the size of the Specific Plan area. The Plan, which has been developed with a thorough analysis of environmental conditions and extensive input from city decision makers, landowners, and the community at large, provides a comprehensive land use program for the planning area long with goals and policies to guide future public and private actions relating to the area's development. In addition, the Plan includes detailed information on necessary infrastructure improvements and costs, and a strategy for insuring the Plan's implementation. The Plan is the mechanism that will insure that development proposed for the planning area will be coordinated and occur in an orderly manner.

1.2 LEGAL CONTEXT

1.2.1 AUTHORITY TO PREPARE

A specific plan is a planning and regulatory tool made available to local governments by the State of California. By law, specific plans are intended to implement a city or county's general plan through the development of policies, programs and regulations which provide an intermediate level of detail between the general plan and individual development projects. As vehicles for the implementation of the goals and policies of a community's general plan, State law stipulates that specific plans can only be adopted or amended if they are consistent with the jurisdiction's adopted general plan.

The authority to prepare and adopt specific plans and the requirements for its contents are set forth in the California Government Code, Sections 65450 and 65457. The law requires that a specific plan include text and diagrams specifying:

- the distribution, location, and intensity of land uses, including open space, within the plan area;
- the distribution, location, and capacity of infrastructure, including transportation, water, storm drainage, solid waste, and energy systems;
- design standards and criteria for development and use of natural resources; and

- an implementation program, including capital improvements plans, regulation and financing strategies.

1.2.2 RELATIONSHIP TO GENERAL PLAN

This Specific Plan provides a framework to guide future land use and development decisions in eastern Dublin. The Plan serves as an extension of the General Plan, and can be used as both a policy and a regulatory document. When private development proposals for the planning area are brought before the City, the planning staff will use the specific plan as a guide for project review. Projects will be evaluated for consistency with the intent of plan policies and for conformance with development standards and design guidelines. For projects within the Eastern Dublin Specific Plan area, policies and standards in the Specific Plan will take precedence over more general policies and standards applied throughout the rest of the city. In situations where policies or standards relating to a particular subject have not been provided in the Specific Plan, the existing policies and standards of the City's General Plan and Zoning Ordinance will continue to apply.

1.2.3 ENVIRONMENTAL REVIEW

The East Dublin Specific Plan constitutes a project under the California Environmental Quality Act (CEQA). To meet CEQA requirements, a program Environmental Impact Report (EIR) has been prepared to assess the potential direct and indirect environmental effects associated with buildout of the area. Although the environmental analysis is included in a separate document, it is important to note that the environmental review process has been an integral component of the planning process from the very beginning to ensure the Plan's sensitivity to critical environmental concerns. To keep the Specific Plan as concise as possible, much of the environmental data has not been included in the plan document, or additional information relating to the environmental foundation of the Plan, refer to the East Dublin Specific Plan General Plan Amendment Studies: Environmental Setting (Wallace Roberts & Todd, November 29, 1988); the Draft Environmental Impact Report (August 28, 1992); and the Final Environmental Impact Report (December 21, 1992). Copies of the reports are available for review at the City of Dublin Planning Department.

The EIR addresses the development of the eastern Dublin planning area as a single project, although the area includes many different landowners and development is expected to occur in increments over many years. The program EIR enables the City to comprehensively evaluate the cumulative impacts of the Specific Plan and consider broad policy alternatives and area wide mitigation measures prior to the adoption of the Specific Plan. The program EIR will also expedite the processing of future projects that are consistent with the Plan. If, when considering subsequent development proposals, it is determined that the proposed development will not result in new effects or require additional mitigation, the City can approve the project without an additional

environmental document. Or, if there are changes from the Plan, the additional environmental review need focus only on those areas of change.

1.3 BACKGROUND AND PLANNING PROCESS

The Eastern Dublin Specific Plan process was initiated by the City of Dublin in late 1987 in response to proposals for development of the Dublin Ranch property within the City's extended planning area. The City Council decided that prior to acting on the applications of various property owners in the eastern Dublin area, a comprehensive General Plan Amendment and Specific Plan program should be undertaken to evaluate land use options for the area and their implications for the City's growth. In 1988, the City contracted with a multi-disciplinary team of planners, designers, engineers, economists, and environmental specialists to conduct the necessary technical studies and prepare the required planning and environmental documents.

A comprehensive General Plan Amendment for the eastern Dublin area has been undertaken simultaneously with the preparation of the Specific Plan to ensure consistency between the two documents. The City's 1985 General Plan anticipates future growth in the eastern Dublin area, but does not set forth clear direction on its character. In fact, the General Plan acknowledges that an amendment or amendments will be necessary to accommodate future development proposals. In order to ensure that planning for the Specific Plan area is consistent with the City's ultimate development, the General Plan Amendment area extends beyond the Specific Plan area to include the area to the east. The 2005 Fallon Village amendment extended the Specific Plan area easterly so that it is now co-terminus with most of the Eastern Dublin General Plan area boundary.

Development of the Eastern Dublin Specific Plan involved a process of data collation, environmental analysis, alternatives development and evaluation, and plan development. After initial data collection and technical studies were completed, a background report was prepared which summarized existing environmental conditions in the planning area vicinity and identified related constraints and opportunities which could affect development within the planning area. The report also provided recommendations for minimizing environmental impacts through project planning and design (Refer to *East Dublin Specific Plan/General Plan Amendment Studies: Environmental Setting*, Wallace, Roberts & Todd, November 29, 1988.)

Based on the information provided by this analysis, the planning consultant formulated five alternative plans, each illustrating different densities and distribution of uses. An abbreviated comparative assessment was conducted on the five alternatives to determine the relative impacts of each land use scenario and identify a preferred land use alternative. City Council members, Planning Commission members, City staff, planning area landowners, and citizens participated in the review of the five alternatives

in a series of meetings. Input from these meetings served as the basis for selecting the preferred land use scenario for eastern Dublin.

Once the preferred alternative was identified, a series of public workshops were held before joint sessions of the Planning Commission and City Council to review and refine the land use plan. Input from these workshops was used to determine the preferred mix of land uses; identify appropriate locations and intensities for development; identify appropriate open space and park areas; and determine the general character of the future eastern Dublin community.

An Environmental Impact Report was prepared on the Draft Specific Plan and General Plan Amendment and released August 28, 1992. The Draft EIR, along with the General Plan Amendment and Specific Plan, were subject to public review and a number of public hearings before the Planning Commission and the City Council. The City Council certified the EIR and approved the Eastern Dublin General Plan Amendment and Specific Plan on May 10, 1995.

1.4 ORGANIZATION OF THE SPECIFIC PLAN

The Specific Plan is organized to provide a clear understanding of the Plan's components and the rationale behind its policy recommendations, design concepts, and implementation measures. The first three chapters are primarily descriptive, summarizing the Plan, the planning context, and the existing setting. The policies, standards, guidelines, and implementation measures which will regulate future development are presented in subsequent chapters. The organization of the chapters generally corresponds to categories established by City and State General Plan guidelines.

Chapters in the Specific Plan are summarized below:

- 1.0 Introduction - establishes the broad purpose of the Specific Plan; describes the legislative authority under which specific plans exist; summarizes the general conditions and sequence of events leading up to the Plan's preparation; and outlines the organization of the Plan.
- 2.0 Planning Area Description - describes the location and general character of the planning area and vicinity, and identifies ownership patterns and key environmental factors that influenced the Plan's form and policies.
- 3.0 Summary - provides an overview of the Plan's goals, policies and implementation measures; the development potential of the area; and the infrastructure and service requirements of the Plan.

- 4.0 Land Use - identifies land use goals and policies and describes the land use patterns and associated development concepts.
- 5.0 Traffic and Circulation - describes the circulation network and identifies the components and design standards required to accommodate efficient access and movement of vehicles, pedestrians, and bicycles in and around the planning area.
- 6.0 Resource Management - describes the area's natural resources, including vegetation, wildlife, streams, and visual and cultural resources, and identifies policies and open space strategies recommended to protect the area's resources and the public's enjoyment of them.
- 7.0 Community Design - sets forth design concepts and policies, and translates them into advisory guidelines for buildings, streets, open space, siting, grading, landscaping, and other physical features.
- 8.0 Community Services and Facilities - locates and characterizes public facilities and services anticipated for eastern Dublin, including schools, police and fire protection, and other services, and sets forth related policies.
- 9.0 Water, Wastewater and Storm Drainage - describes infrastructure improvements and costs necessary to provide adequate sewer, water, and storm drainage to proposed development in the area, and identifies service agency policies and plans.
- 10.0 Financing - estimates the major infrastructure costs associated with the Specific Plan area, and shows how these costs could be financed.
- 11.0 Implementation - describes City actions required to implement the Plan, and identifies development approval procedures, capital improvements and costs, financing programs, and development phasing recommendations.

PLANNING AREA DESCRIPTION



2.0 PLANNING AREA DESCRIPTION

2.1 LOCATION

As shown in the regional map in Figure 2.1, the planning area is located in northern Alameda County approximately 35 miles east of San Francisco. Located on the eastern edge of the City of Dublin, the planning area is situated near the center of the Tri-Valley region, which includes the communities of Dublin, San Ramon, Pleasanton, and Livermore, and portions of both Alameda County and Contra Costa County. Interstate highways 580 and 680 provide regional access to the planning area. I-580, which borders the planning area on the south, runs east/west linking the area to the San Francisco Bay Area to the west and to Livermore and the Central Valley to the east. Interstate 680, which is located west of the planning area, runs north-south, providing connections north to Walnut Creek and Sacramento and south to Fremont and San Jose. Interstate 580 interchanges serving the planning area are located at Tassajara/Hopyard Road, Hacienda Drive, and Fallon/E1 Charro Road.

The planning area originally consisted of approximately 3,300 acres. By 2005, it had expanded to include the Dublin Transit Center and portions of Fallon Village. The aerial photograph in Figure 2.2 shows the limits of the planning area and its relationship to the surrounding environs. Interstate 580 (I-580) forms the boundary to the south; the Alameda/ Contra Costa County line defines the boundary to the north, and the eastern border of Parks Reserve Forces Training Area (RFTA) property marks the westernmost extent of the planning area. The eastern edge of the planning area follows a stepped alignment beginning east of Croak Road near I-580, and then stepping westward until it meets the County line at Tassajara Road.

2.2 SITE CHARACTERISTICS

The aerial photograph in Figure 2.3 shows major planning area features. Topographically, the planning area consists of two distinct areas: flat valley bottom lands and foothill lands. The southwestern portion of the planning area consists of relatively flat plains. The northeastern portion of the planning area lies within a section of the Coast Ranges, named the Tassajara Hills, which extend from Livermore to San Ramon, culminating at Mount Diablo northwest of the site. The foothill portion of the planning area consists of a series of ridgelines, trending generally north-south, and separated by steep-sided valleys with seasonally active stream channels. From the valley bottom lands along I-580 the land rises gently to form a set of rounded, low lying hills

that rise about 150 feet above the valley floor. The hills become steeper and taller to the north and east, rising to an elevation of 900 feet in the northeastern corner of the planning area. The lowest elevation, which occurs in the southwest corner of the planning area, is about 350 feet.

The planning area is comprised primarily of open grasslands with few trees. Tassajara Creek, located along the west side of the planning area, is the only major perennial stream in the planning area. The stream channel supports substantial areas of willow-oak riparian habitat along its northern reach. The planning area also includes a number of springs, seeps, and other isolated wetland areas, some of which also support small stands of trees and riparian vegetation. In addition, isolated stands of eucalyptus and other non-native trees mark the locations of scattered homesteads in the area where trees were planted for windbreaks and shade.

Historically, since the first homesteaders arrived in the 1850s, planning area landowners have taken advantage of the grass-land conditions on the hills and valley flatlands to graze cattle and sheep, and to cultivate forage crops such as wheat, barley, and oats. The predominant land use in the planning area continues to be agricultural, consisting of cattle grazing and dry fanning of grain and hay crops. Scattered single-family dwellings and agricultural outbuildings dot the rural roads which access the area. Some newer rural residential development is located along Tassajara Road. The largest area of development in the planning area consists of the abandoned Santa Rita Rehabilitation Center and the abandoned Naval Hospital located in the southwestern portion of the site west of Tassajara Road. This area is owned by the County of Alameda and both facilities are now vacant and projected for demolition and redevelopment.

The majority of the existing roads in the planning area are north/south corridors providing access into the area from the I-580 freeway. Tassajara Road is the principal north/south roadway, being the only road in the planning area providing through access north to Contra Costa County. The other north/south roads end within the interior of the planning area and generally do not connect to each other. Arnold Road, which forms the western boundary of the planning area, provides north/south access into the County property. Construction has recently been completed on a new freeway interchange that extends Hacienda Drive north into the planning area from Pleasanton. Fallon and Croak Roads, located in the eastern portion of the planning area, both dead ends in private ranch properties.

An east/west frontage road along I-580 extends from the western boundary of the planning area to Tassajara Road. Recently an extension of Dublin Boulevard was completed from Dougherty Road to Hacienda Drive. The next segment, from Hacienda to Tassajara Road, is scheduled for completion in summer 1993. There are no east/west roads extending east from Croak Road toward Livermore. The only other east/west road

of note is Gleason Drive, which provides access across the County's property into the new Santa Rita Rehabilitation Center.

2.3 OWNERSHIP PATTERNS

Ownership patterns in the planning area as shown in Figure 2.4. There are 49 recorded parcels in the planning area which are owned by 33 different landowners. Since 1993, approval of subsequent amendments, such as the addition of the Dublin Transit Center and portions of Fallon Village, as well as the subdivision of land has increased the number of parcels and landowners. Landowners' names and size of holdings are listed in Figure 2.4. Ownership holdings range in size from 0.4 acres to 1,251 acres. The acreage of two small properties, the EBJ Properties (1.1 acres) and Pleasanton Ranch Investment parcels (0.4 acres), was included on maps and in tables with the Chen property prior to 2005. Figure 2.4 illustrates only the original parcels prior to their being subdivided.

2.4 SURROUNDING USES

Uses and major features surrounding the planning area are shown in Figure 2.3. The planning area is surrounded primarily by open space, grazing and agricultural lands. To the west of the planning area is Parks Reserve Forces Training Area, which consists of an approximately 2,884-acre federal training facility for reserve army forces. Roughly three quarters (2,249 acres) of Parks RFTA is in open space which is used for field maneuvers and weapons ranges. The remaining 635 acres are either vacant or developed for barracks, administration and storage facilities. Other land uses to the west of the planning area include the Federal Correctional Institute, a low-security federal prison; the new Alameda County (i.e., Santa Rita) Rehabilitation Center; and a 25-acre easement adjacent to Tassajara Creek which has been granted to the East Bay Regional Parks District. The parkland is currently unimproved except for a parking area.

In Contra Costa County to the north of the planning area, the land is predominantly in open space consisting of hilly, grass-covered grazing land. A small amount of rural residential development is located along Tassajara Road. The area east of the Specific Plan Area is unincorporated land within Alameda County. This area also consists of rural open space with limited agricultural and rural residential uses and very hilly terrain. As part of the Specific Plan process, the City has undertaken a General Plan Amendment, which includes this unincorporated area.

Interstate 580 parallels the planning area's southern boundary. Grade separations, substantial corridor width, and limited freeway over crossings restrict visual and physical access to land uses in Livermore and Pleasanton to the south. Major land uses south of I-580 include the Livermore Airport, the Las Positas golf course, and the Livermore Airway Business Park. South of the Fallon Road interchange land uses include agriculture and sand and gravel mining in Livermore and Alameda County. To

the west, in Pleasanton, land uses include a residential development with commercial uses located south and west of the Tassajara Road interchange. To the west of this area and south of the Alameda County land is the predominantly office-oriented Hacienda Business Park.

2.5 SUBREGIONAL CONTEXT

The subregional context for the planning area is shown in Figure 2.1. The planning area is located within the Livermore-Amador Valley which is a part of the Tri-Valley area, a fast growing sub-region of the nine-county Bay Area. The two major freeways and four cities within the Tri-Valley area are important components of the planning area's regional context.

The Tri-Valley area is dependent on two highway corridors for primary access: I-580 which bisects the Livermore-Amador Valley and runs east-west and I-680 which bisects the San Ramon Valley and runs north-south. The City of Dublin is located at the intersection of these two highways, which provides for excellent regional access.

I-580 provides access for the planning area and Dublin to and from cities in Alameda County and the San Joaquin Valley, and I-680 connects the Tri-Valley to Santa Clara Valley to the south and Contra Costa County to the north. Bay Area Rapid Transit (BART) has plans to build a new station along I-580 just east of the planning area. The station, which is scheduled for completion in 1995, will connect Dublin to the regional transit network, providing an alternative to the freeway system.

The City of Dublin incorporated as a city on February 1, 1982. Currently, the incorporated City is almost completely built out with the exception of a recently annexed arm to the west. The dominant land use in the City is single-family residential.

The downtown area, which straddles I-680, contains approximately 2.5 million square feet of building area and has historically been an important retail center for the Tri-Valley. Its location at the junction of I-680 and I-580 contributes to the regional importance of downtown Dublin.

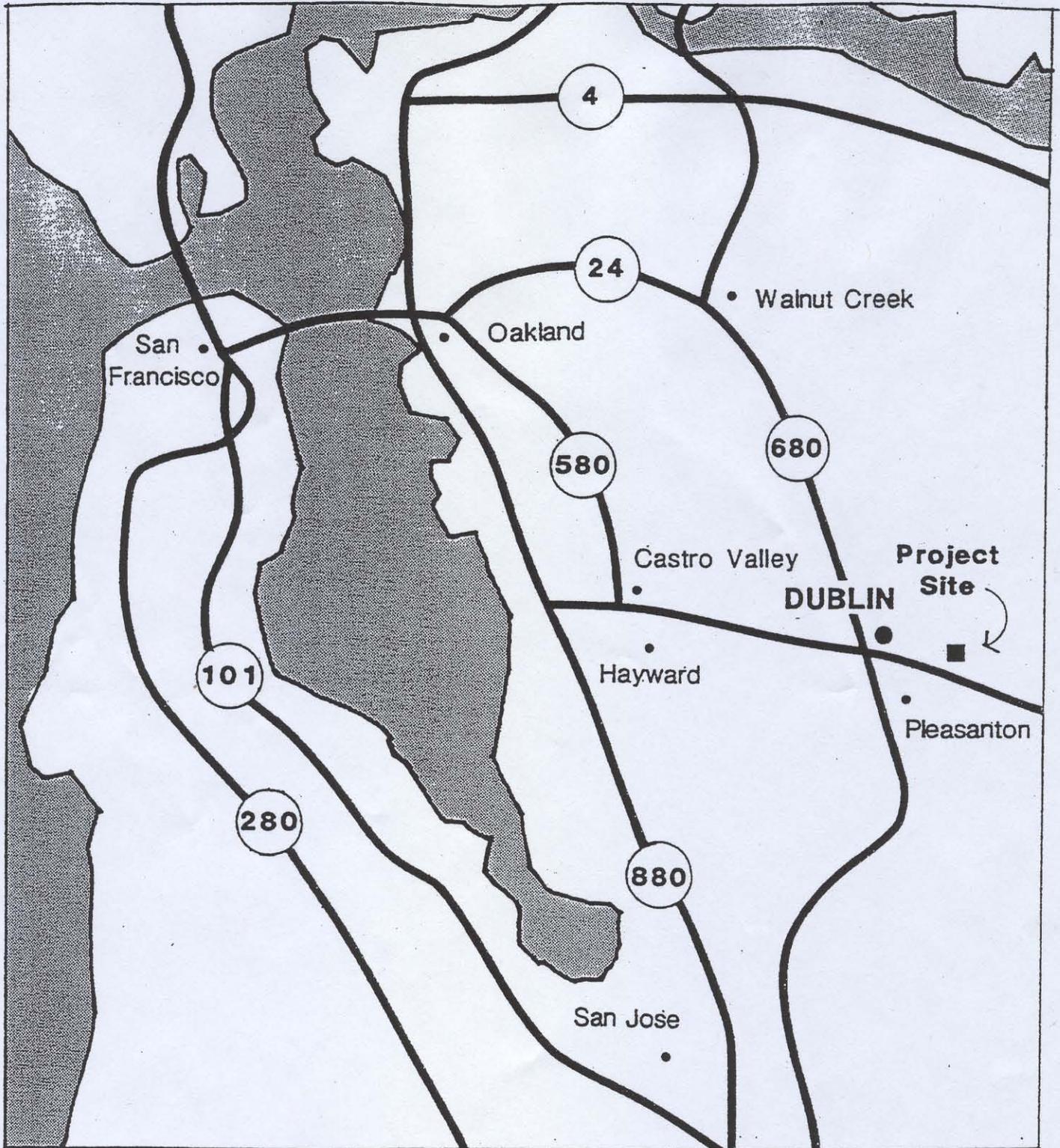
The San Ramon Valley has an important sub-regional influence on the planning area. The City of San Ramon is Dublin's closest neighbor to the north, and San Ramon's rapid commercial expansion as well as that of the I-680 corridor will influence development of the planning area. San Ramon, with a population of 35,700 (Association of Bay Area Governments, 1990), has grown rapidly as a residential and employment center since the Bishop Ranch Business Park was developed in the early 1980s. A large amount of office and retail space has also been built or is under construction along Crow Canyon Boulevard. Substantial residential development is also being planned for the Dougherty Valley area east of San Ramon and northwest of the planning area, and for the Tassajara Valley area just north of the planning area.

The City of Pleasanton is located directly south of Dublin at the I-580 and I-680 interchange. Pleasanton has become a regional job center by virtue of business parks locating there to take advantage of the excellent regional transportation access, the proximity to suburban employees, and the availability of large tracts of land. Hacienda Business Park directly south of the planning area is the largest of the projects with a possible buildout of over 11 million square feet of office space. Stoneridge Mall, the Tri-Valley's only regional mall, is also located in Pleasanton, just west of I-680.

The main portion of the City of Livermore is located south of I-580 at the eastern edge of the Livermore-Amador Valley. Some portions of Livermore are north of I-580 including the Triad Industrial Park, which is located east of the planning area at the Airway Boulevard interchange. Although Livermore has cultivated a small town rural atmosphere in the past, the City has been growing and planning for additional growth. Recently constructed light industrial parks and multi-family housing complexes near the municipal airport are indications of coming changes.

The City has also been working on the North Livermore General Plan Amendment which calls for substantial development and expansion of the area north of the freeway. The North Livermore General Plan Amendment planning area includes the Doolan Canyon area, which is also included in the Eastern Dublin General Plan Amendment area. Alameda County LAFCO will need to determine if the Doolan Canyon area will be incorporated into the Sphere of Influence of either city, or whether it will remain outside the spheres of both.¹ Lawrence Livermore Laboratory, located east of downtown Livermore, continues to be the largest employment center for Livermore.

¹ The Doolan Canyon area is currently not in the jurisdiction of either city, although both Dublin and Livermore have expressed an interest in amending their Spheres of Influence to include it. Alameda County LAFCO has indicated that it wants to review the two cities' plans for the area before it will make a decision on who will have jurisdiction over the area.



EASTERN DUBLIN Specific Plan

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Figure 2.1

Regional Location



Figure 2.2

Local Context

Legend

-  County Boundary
-  Specific Plan Area

Revisions: October 2005

Expanded Specific Plan boundary to include Croak, Fallon Enterprises, Braddock & Logan properties of Fallon Village and Transit Center. Updated aerial.

Aerial flown: March 2003

EASTERN DUBLIN Specific Plan

Revised October 2005

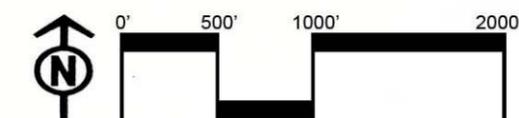
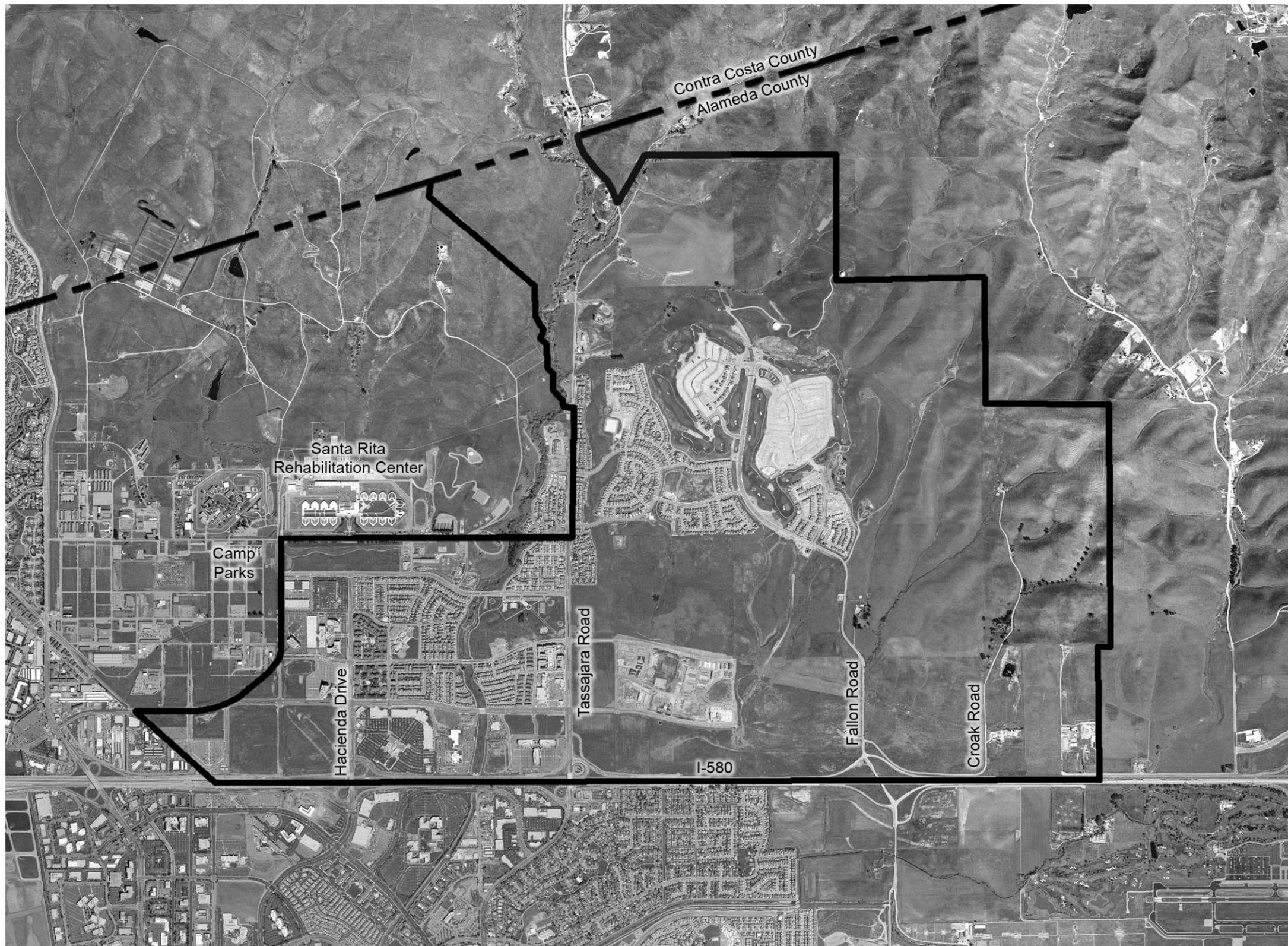


Figure 2.3

Specific Plan Area

Legend

-  County Boundary
-  Specific Plan Area



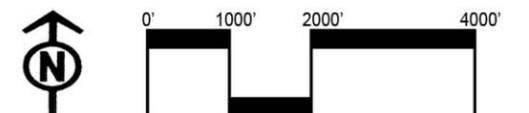
Revisions: October 2005

Expanded Specific Plan boundary to include Croak, Fallon Enterprises, Braddock & Logan properties of Fallon Village and Transit Center. Updated aerial.

Aerial flown: March 2003

EASTERN DUBLIN Specific Plan

Revised October 2005



Revisions: October 2005

Fallon Village land uses modified per PA04-040.
 Croak, Braddock & Logan and Fallon Enterprises
 properties added to Specific Plan area.
 Transit Center properties added to Specific Plan area.
 The EBJ Partners & Pleasanton Ranch Investments
 parcels have been delineated separate from the Chen
 parcel (Fallon Village).

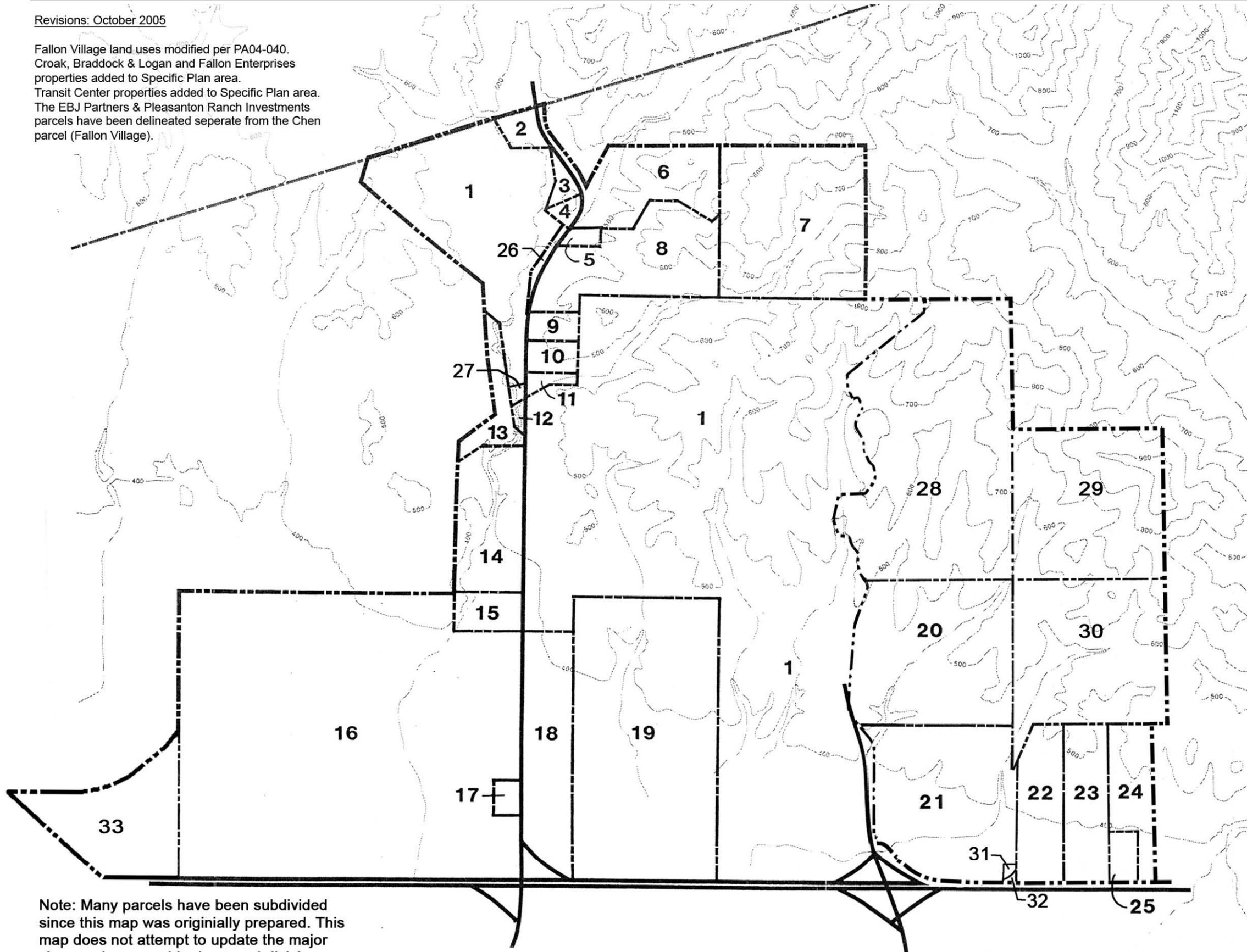


Figure 2.4

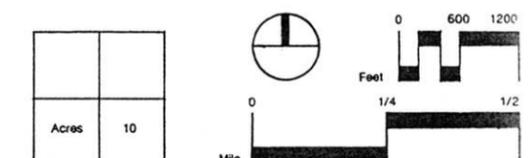
Ownership Patterns

Legend

OWNER	ACREAGE
1 Chang Su-O-Lin	1251.0
2 Tipper	12.5
3 Vargas	5.0
4 Fredrich	7.93
5 Haight	2.10
6 Mission Peak Homes	67.83
7 Lin	160.0
8 Silvera	91.0
9 Neilson	10.0
10 Zimmer	10.0
11 Kobold	3.75
12 Gygi	1.0
13 East Bay Regional Park District	27.2
14 Koller	71.56
15 Casterson	19.19
16 County of Alameda	685.6
17 United States of America	4.17
18 Dublin Land Company	80.14
19 Lin	304.2
20 Jordan	189.7
21 Chen	140.1
22 Anderson	50.3
23 Righetti	49.6
24 Branaugh	40.2
25 Monte Vista	9.3
26 Bragg	1.6
27 Sperflage	3.2
28 Fallon Enterprises	313.1
29 Braddock and Logan	159.7
30 Croak	165.5
31 EBJ Partners	1.1
32 Pleasanton Ranch Invest	0.4
33 County of Alameda	90.7
Total	4027±

EASTERN DUBLIN Specific Plan

Revised: October 2005

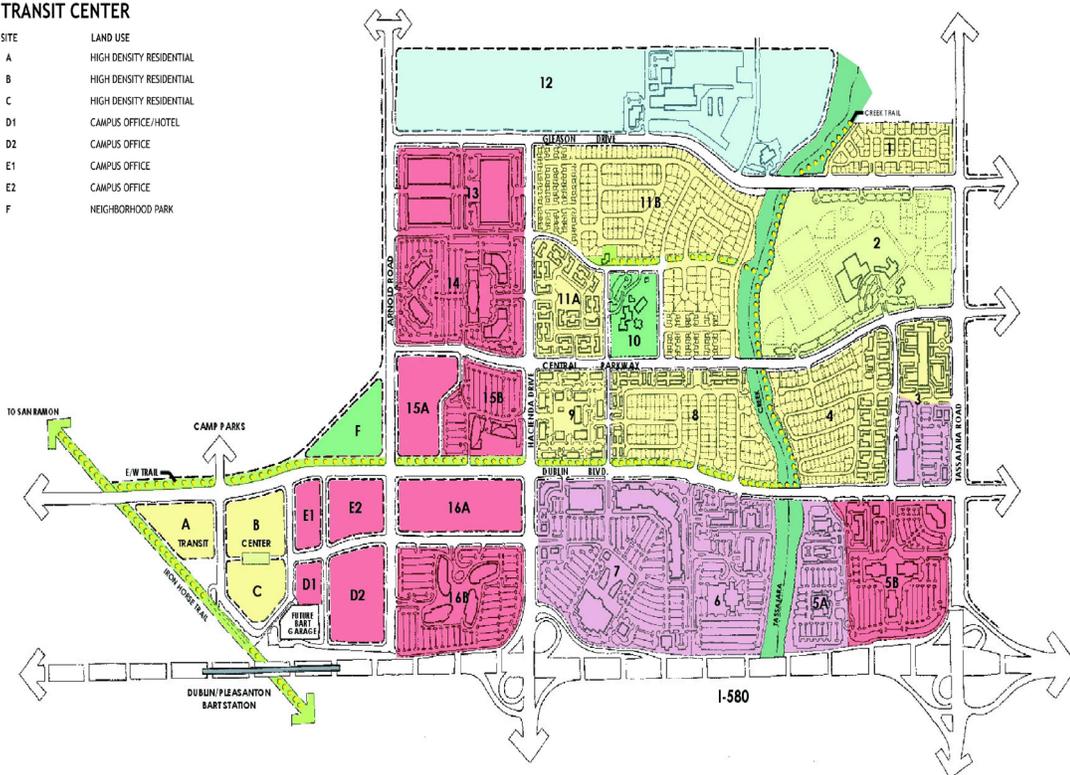


Note: Many parcels have been subdivided since this map was originally prepared. This map does not attempt to update the major changes in ownership due to subdivision

SUMMARY

TRANSIT CENTER

SITE	LAND USE
A	HIGH DENSITY RESIDENTIAL
B	HIGH DENSITY RESIDENTIAL
C	HIGH DENSITY RESIDENTIAL
D1	CAMPUS OFFICE/HOTEL
D2	CAMPUS OFFICE
E1	CAMPUS OFFICE
E2	CAMPUS OFFICE
F	NEIGHBORHOOD PARK



3.0 SUMMARY

3.1 THE EASTERN DUBLIN SPECIFIC PLAN

The Specific Plan is part of a comprehensive planning strategy for eastern Dublin. Representing a five-year effort that involved extensive collection and analysis of data and formulation of alternatives, it proposes a planning framework for approximately 3,300 acres located on unincorporated land east of Camp Parks Reserve Forces Training Area (RFTA) in Alameda County. Since 1993, approval of subsequent amendments, such as the addition of the Dublin Transit Center and portions of Fallon Village, has increased the size of the Specific Plan area.

The Specific Plan is a planning and regulatory tool used to implement the general land use policies of the General Plan. It will be used by local leaders and the public to guide future land use and development decisions for the eastern Dublin area.

3.2 THE SPECIFIC PLAN CONCEPT

The Specific Plan concept for eastern Dublin calls for a mixed-used community that will be a vital, self-sustaining urban environment where people can live, work, play, and interact in a manner that fosters a strong sense of community. The Plan balances employment generating and residential uses in order to provide area residents the opportunity to live near where they work. Employment generating land uses in eastern Dublin include retail, service, office, governmental, research and development, and light industrial. Residential designations range from rural residential to high-density multi-family. Higher density housing has been located in the flatter areas where there are fewer environmental and development constraints, and in and around the commercial centers where the concentration of population will contribute to the social and economic vitality of the area.

The Plan also provides for a full complement of commercial activities, regional office and retail located near the freeway interchanges, local-serving neighborhood shopping areas, and community serving commercial centers. The more community oriented commercial centers are envisioned as pedestrian- and transit-oriented mixed-use concentrations which include retail, service, office, and residential uses, and are carefully integrated with surrounding residential neighborhoods. Open space is an important component of the land use concept, giving form and character to the urban development pattern. The open space concept envisions a community ringed by undeveloped ridgelines, with urban and open space areas linked through a system of open space corridors along enhanced stream corridors. The circulation concept calls for

an integrated, multi-modal system that reduces potential traffic impacts by providing area residents with choices for a preferred mode of transportation.

3.3 LAND USE

The Land Use chapter of the Specific Plan consists of four sections: a discussion of the land use map; land use goals, policies and action programs; a definition of the land use categories; and a description of the nine planning subareas and associated development. As in a General Plan, the Land Use chapter is regarded as the "core" of the Specific Plan (to which all other elements of the Plan are related). The chapter presents the physical pattern of land use of the Specific Plan and establishes the policy and implementation mechanisms to achieve the Plan's goals.

3.3.1 LAND USE MAP

The Land Use Map (Figure 4.1) illustrates the physical pattern of development. Table 4.1 provides acreage breakdowns for the mapped land use categories.

3.3.2 LAND USE GOALS AND POLICIES

The residential land use goals and policies encourage diversity in housing options to meet the needs of a diverse population, and the creation of neighborhoods with character and identity. Ensuring the provision of affordable housing throughout eastern Dublin is emphasized as an important community goal.

The commercial land use goals and policies establish a hierarchy of commercial districts intended to have different characters and are geared toward different markets. The Plan promotes the development of commercial centers which are integrated with surrounding uses, rather than continuous linear "strips". Concentrations of neighborhood-serving uses along transit corridors encourage pedestrian activity and a reduction in vehicle trips.

The Plan establishes a strong and diversified employment base to help balance the housing development that is proposed in Dublin. Approximately 800 acres are designated for employment-generating uses, ranging from relatively land extensive (i.e., low intensity) uses such as light industry to mixed-use commercial districts and higher intensity office uses near the BART station. This acreage has expanded through the Dublin Transit Center amendment and the Fallon Village amendment that changed land use designations from Future Study Area to General Commercial/Campus Office and Industrial Park for portions of Fallon Village. High-intensity office and other employment-generating uses are located adjacent to freeways and transit facilities. Large-scale projects at freeway inter-changes will be designed as "gateways" into the Specific Plan area.

The recreation section provides for recreational opportunities that contribute to eastern Dublin's balanced and healthy living environment. Rural residential, open space and parkland uses preserve the natural environment for scenic and passive recreational enjoyment while developed parks are planned for active recreation and sport uses. Accessibility throughout the Specific Plan area is promoted through a system of pedestrian and bicycle paths.

3.3.3 LAND USE CATEGORIES

RESIDENTIAL

The Residential land use category has six classifications: High Density (HDR), Medium-High Density (MHDR), Medium Density (MDR), Single Family (SF), Estate Residential (ER) and Rural Residential/Agricultural (RRA). Taken together, the Specific Plan projects a total of 12,496 housing units at "buildout" (i.e., full development of the Specific Plan.) Approximately 58% of the new housing units will be single family in character; however, to encourage affordability, many will be smaller units on smaller lots.

The Plan allows some low and medium density residential uses within the Livermore Airport Protection Area (APA) if, at the time of rezoning, the residential designations are not inconsistent with the APA. If, at the time of rezoning, the residential designations are inconsistent with the APA, the residential designations will convert to 'Future Study Area' with an underlying agricultural designation.

COMMERCIAL

The Specific Plan establishes three classifications for Commercial land uses: General Commercial (GC), Neighborhood Commercial (NC), and Campus Office (CO). Through the Fallon Village amendment in 2005, the Mixed Use (MU), and General Commercial/Campus Office (GC/CO) designations used in the General Plan Primary Planning Area were established in the Specific Plan area. Through the Grafton Plaza amending in 2010, the Mixed Use 2/Campus Office (MU2/CO) flex designation was established in the Specific Plan area. At buildout, the Specific Plan originally accommodated approximately 10.8 million square feet of new commercial space. Since 1993, subsequent amendments, such as the addition of the Dublin Transit Center and portions of Fallon Village to the planning area, have increased the total commercial square footage.

Note: There are several areas indicated on the land use map that could develop as either general commercial or campus office uses. This flexibility has been provided in these key areas to respond to changing market conditions that may occur in the future. The shift from either campus office or general commercial (the underlying land use designation) to general commercial or campus office would only be permitted if the established traffic levels of service are not exceeded. Appropriate traffic studies may need to be conducted in order for the City to make the proper determination regarding traffic levels of service.

PUBLIC AND SEMI-PUBLIC FACILITIES

The Public and Semi-Public Facilities land use category has three classifications: Public/Semi-Public (P/SP), Semi-Public, and Schools. Governmental and institutional uses will be permitted along with semi-public facilities. The Schools classification identifies sites for public and private schools (see Public and Semi-Public Facilities section).

PARKS AND OPEN SPACE

The Parks and Open Space category has five classifications. Four of these designate different types of developed park facilities: City Park, Community Park, Neighborhood Park and Neighborhood Square. The Specific Plan provides 241 acres of parkland for seventeen new parks (1 City Park, 2 Community Parks, 7 Neighborhood Parks, and 7 Neighborhood Squares). The Open Space classification includes 399 acres to preserve stream corridors and hillsides in an undeveloped natural state. The 2005 Fallon Village amendment increased the open space acreage.

INDUSTRIAL PARK

The Industrial Park land use category is used to permit a variety of minimum impact industrial activities such as manufacturing, processing, assembly and fabrication. Wholesale and "heavy" commercial uses, will be permitted as well. The Specific Plan provides potential for 1.37 million square feet of Industrial Park development.

3.3.4 PLANNING SUBAREAS

The land use plan divides the Specific Plan area into ten subareas. Each subarea is defined by a distinct pattern of development and range of land uses. Together, the subareas provide for a broad range of development options within the Specific Plan area. At the same time, the purpose of the subareas is to create unique districts, each with its own activities and identity. Advisory urban design guidelines for the subareas are suggested in Chapter 7, Community Design.

3.4 TRAFFIC AND CIRCULATION

The Specific Plan features a comprehensive multi-modal transportation and circulation system. While accommodating both regional and local automobile traffic, the Plan is designed to reduce reliance on the single-occupant vehicle. Land use patterns and intensities are designed to encourage the use of alternative modes of transportation, including walking, cycling, bus, ride sharing, light rail, and BART. The intent is to achieve important environmental benefits, such as reduced air and noise pollution, and increased energy conservation, through the reduction in the number and length of daily vehicle trips associated with new development.

3.4.1 STREETS AND HIGHWAYS

The street system has been developed to provide a highly interconnected pattern of streets that accommodates the movement of vehicles while enhancing opportunities for pedestrian and bicycle circulation.

The major north-south roads proposed are Hacienda Drive, Tassajara Drive and Fallon Road. Fallon Road will merge with Tassajara Road and become a through route into Contra Costa County.

The major east-west roads are Dublin Boulevard, providing a connection to central Dublin and North Canyons Parkway in Livermore; and Gleason Road, and Central Parkway which will accommodate predominantly local trips.

3.4.2 PUBLIC TRANSIT

Public transit opportunities will be maximized for eastern Dublin residents. Local transit service is to be provided to all land use areas with connections to regional transit, such as BART. The Plan designates the east-west corridor midway between Dublin Boulevard and Gleason Drive as a "transit spine". This corridor, which extends across the width of the planning area, will link the Town Center to the future East Dublin BART station and downtown Dublin. The transit spine (It is also planned to construct "Main Street" is in a north-south orientation through for the Town Center to run between Dublin Boulevard and Central Parkway). and Residential and Commercial employment uses have been concentrated along "Main Street" is the corridor to encourage transit use for local and regional travel. "Main Street" also lies within easy walking distance of over half the residences in eastern Dublin. Advisory design guidelines which encourage transit use are proposed for bus shelters and transit stops.

3.4.3 PEDESTRIAN CIRCULATION

The plan lays out an extensive system of trails to facilitate pedestrian movement within the planning area. These trails are located in open space corridors along Tassajara Creek and the other intermittent stream channels, in order to reduce the potential for pedestrian conflict with vehicular traffic. In developed areas, advisory street standards have been suggested with the comfort and safety of both the automobile and pedestrian in mind. Development proposals for residential and commercial areas shall include a detailed pedestrian circulation plan. In the Town Center and Village Centers, sidewalks will be designed to promote an active and vital street life.

3.4.4 BICYCLE CIRCULATION

The Specific Plan calls for the development of a safe, continuous, comfortable and convenient bicycle circulation system. The key components of the system will be bicycle routes and support facilities consistent with the Dublin Bicycle and Pedestrian Master Plan.

3.4.5 PARKING

Adequate parking standards are an important component of the circulation system, but the Plan discourages excessive amounts of parking because it encourages daily vehicle trips. One of the benefits of providing convenient transit and developing mixed-use developments is that the area devoted to parking can be reduced. Parking lots in mixed-use developments can perform a double function: providing parking for workers by day and for residents at night. Street parking is also encouraged, and provides the extra benefit of activating street life.

3.4.6 TRANSPORTATION SYSTEMS MANAGEMENT (TSM)

As part of the overall traffic management effort, the Specific Plan requires that large businesses (50+ employees) prepare TSM programs. TSM programs typically include a range of strategies to encourage workers to share rides and use public transit. As a further inducement to reduce daily vehicle trips, the Specific Plan proposes the construction of Park-and-Ride lots where drivers can meet to arrange carpools.

3.5 RESOURCE MANAGEMENT

The Specific Plan is designed to protect and preserve the site's principal natural and cultural features. The Plan addresses these resources based on their value as open space, their sensitivity as a scarce or irreplaceable resource, and their relation to public safety.

3.5.1 OPEN SPACE

Open space is one of the planning area's most significant assets. In the Specific Plan, open space lands are designated within two land use categories: Parks and Open Space, and Rural Residential/Agricultural (as shown on Figure 6.1). Among the natural features protected are visually sensitive ridgelines, steep slopes (30%+), streams and sensitive habitat areas. The Plan calls for approximately one third of the planning area to be preserved in some form of open space. The largest portion of open space area, roughly 600 acres, is located in the northeast portion of the planning area and is designated for rural residential/agricultural uses. The open space concept also calls for preservation and enhancement of the area's stream corridors (Tassajara Creek and four intermittent stream corridors) as linear open space corridors. These corridors will serve multiple functions as drainage ways, riparian habitats, aesthetic resources, and areas for passive recreation. The Plan emphasizes long-term maintenance programs for open space lands and discourages fragmentation of parcels. Additional Parks and Open space and Rural Residential/Agriculture lands were designated as part of the 2005 Fallon Village amendment.

3.5.2 RESOURCE PROTECTION

The Specific Plan identifies four distinct resources (hydrologic, biological, cultural and visual) which are key determinants of the planning arm's natural and visual character. In general, the Specific Plan guides development away from areas which have high resource value. Consistent with City policy, ridgeland areas visible from major travel corridors are protected from development. Preservation, maintenance and restoration are emphasized for wetlands, creeks and biologically-sensitive habitat. The topographic character of the planning area is protected through measures that encourage site planning that is sensitive to existing hill forms and avoids extensive grading. The Plan also identifies several known historic and archaeological resources in the area and encourages creative ways of preserving and incorporating them into future development.

3.5.3 CONSERVATION AND PUBLIC SAFETY

The major safety concerns associated with natural conditions in the planning area are those resulting from slope instability and flooding, with damage from landslides representing the primary issue. The hilly portion of the planning area is characterized by numerous landslides and areas of potential slope instability. Engineering and grading can resolve the development constraints created by the smaller and shallower slides and areas of instability. Those areas with the highest landslide potential and the least possibility of cost effective remediation have been maintained as open space or designated for very low-density rural residential uses to minimize adverse impacts. Development in hillside areas is carefully regulated under the Plan to insure that hazardous hillside conditions are avoided or remedied. Safety concerns related to flooding are addressed in Chapter 9, Sewer, Water and Storm Drainage.

3.6 COMMUNITY DESIGN

Community design will play an important role in establishing the character and image for eastern Dublin and promoting the quality of life envisioned by the Specific Plan. Particular emphasis is given in the guidelines to ensuring that: the mix of land uses creates a coherent and harmonious urban environment; the public streetscape is designed to provide a safe, attractive, and invigorating pedestrian environment; and important views and features of the natural environment are preserved.

It should be noted, however that the design guidelines are advisory only. The City may consider equivalent or superior methods that achieve the objectives of the Specific Plan. The guidelines are intended to be used by developers and planning staff, in conjunction with the City's Zoning Ordinance, to formulate and approve plans that meet the objectives for quality development envisioned by this Specific Plan.

Design guidelines are recommended for each of the nine planning subareas. For each subarea guidelines address the types, siting, and height of buildings, entries, parking,

transit, pedestrian/bicycle circulation, open space and public facilities, and any special considerations.

The land use plan is structured around the Town Center. Conceived as the social and cultural hub of eastern Dublin, the Town Center is composed of a commercial core and two residential neighborhoods. In the commercial area, the goal is to establish the character of a town center, with a walkable system of streets well-defined by buildings and a lively, interesting shopping street catering to pedestrians, transit users and others. The guidelines for the Town Center-Residential neighborhoods which flank the commercial "downtown" are intended to accommodate a range of housing options in a well-integrated and attractive setting. Guidelines emphasize the relation of buildings to the street and a neighborhood square, and the creation of a pedestrian friendly street environment.

The two Village Centers, Fallon Village and Tassajara Village, provide a focus for residential development in the outlying foothill areas. The villages combine residential and commercial land uses at an intimate scale. Guidelines for the Village Centers are geared toward creating compact, well-defined urban districts with a unique sense of place, and establishing a lively street environment with a mix of land uses. Although the East Dublin Specific Plan envisions a social and mixed use core at the Tassajara Village Center, existing topographical and environmental conditions limit the viability of this plan concept. Therefore, the Tassajara Village Center as originally envisioned is infeasible.

The Foothill Residential areas surrounding the Village Centers are comprised of low and medium density single family homes within a hilly topography. The focus of the design guidelines is to promote sensitive siting and clustering of units and grading of streets and lots to minimize disruption of the hillside environment and achieve a sense of contained development set within natural open space.

Along the I-580 corridor, three Gateways (Tassajara, Fallon and Hacienda) will convey a high-quality impression ("image") of eastern Dublin to travelers. Design standards focus on creating a gateway effect with buildings at major intersections; ensuring compatibility between commercial and adjacent land uses; avoiding large expanses of unsightly parking; and maintaining an attractive image for the community from the freeway.

The guidelines for the Circulation System (pedestrian and bike paths, and streets, and Transit Spine) focus on creating community and subarea identity; encouraging pedestrian use; and protecting sensitive natural and visual resources. Streets in eastern Dublin will accommodate pedestrian, bicycle and automobile-users with adequate ROW for vehicle flow and appropriate landscaped setbacks.

3.7 COMMUNITY SERVICES AND FACILITIES

The Specific Plan will require substantial augmentation of important community services and facilities. Planning for community services is informed by three general objectives: 1) the provision of community services will proceed concurrently with development; 2) development will not lead to an overburdening of existing services or municipal finances; and 3) current service standards will be maintained or improved.

3.7.1 SCHOOLS

Nine new schools (6 elementary; 2 intermediate; 1 senior high) are provided by the Specific Plan. Updated Dublin Unified School District studies indicate that the student population would be less than was projected in 1993. The Demographic Study and Facilities Plan (2004) stated that fewer schools would be necessary to serve the planning area in 2005. Most of the planning area originally lay outside the Dublin Unified School District. Questions regarding which jurisdiction should serve the planning area should be resolved through cooperative efforts of the Dublin Unified and Livermore Joint Unified school districts. As of 2005, all lands within the General Plan area have been transferred from the Livermore Joint Unified School District to the Dublin Unified School District.

3.7.2 POLICE PROTECTION

An increase in personnel, facilities and a reorganization of the "beat" (patrol) system are foreseen for the Dublin Police Department by the Specific Plan. Development of the Specific Plan area will be coordinated with Police Department planning. Police Department safety recommendations will be incorporated into project design standards.

3.7.3 FIRE PROTECTION

Fire protection services were originally provided by the Dougherty Regional Fire Authority (DRFA). Since 1997, The City of Dublin has contracted with the Alameda county Fire Department for fire protection, not the DRFA. Maintenance of service standards, particularly response times, and minimizing the risk of wildland fires are the focus of Fire Protection policies. At buildout, the planning area is projected to need two new fully manned and equipped fire stations.

3.7.4 SOLID WASTE

Landfill capacity and collection services are available for eastern Dublin. Plan policies focus on measures to reduce solid waste generation from the community and increase community use of recycling and composting programs. The Specific Plan calls for the composting of organic material from the City's public parks and open spaces.

3.7.5 OTHER COMMUNITY SERVICES AND FACILITIES

This section addresses provision of other important public utilities including gas, electricity and telephone, as well as postal and library service. The Plan suggests that siting public facilities such as a new post office or library in the Town Center will increase activity and contribute to the identity of eastern Dublin's commercial core area.

3.8 WATER, WASTEWATER AND STORM DRAINAGE

3.8.1 WATER SUPPLY AND FACILITIES

Water service to the Eastern Dublin Specific Plan area will be provided by the Dublin San Ramon Services District (DSRSD), the local water retailer. The DSRSD will obtain its water supply from Zone 7 (Alameda County Flood Control and Water Conservation District, the Tri-Valley's wholesale water agency. It should be noted that DSRSD recently constructed a well jointly with the City of Pleasanton and has undertaken a Water Resources Acquisition Study. The goal of the Water Resources Acquisition study is to acquire and/or develop new water resources for all the District's Advanced Planning areas, should Zone 7 not be capable of supplying wholesale water to the entire developable area.

Development of the Specific Plan area will require the expansion of the DSRSD boundaries and facilities to ensure adequate water supplies. Measures to conserve and augment water supplies such as water conservation, water reclamation and new reservoir storage are identified in the Plan.

3.8.2 WASTEWATER

Wastewater service to the Specific Plan area will be provided by the Dublin San Ramon Services District. Development in the Specific Plan area will require the construction of collection facilities and additional treatment and disposal facilities. The additional treatment and disposal capacity can be achieved via the facilities proposed by the members of the Tri-Valley wastewater Authority (TWA). These measures may include pumping sewage north to the Central Contra Costa Sanitary District (CCGSD) via their trunk sewer for treatment at the plant. The facilities will be augmented by increased water reclamation and reuse within the Specific Plan area and the existing service area.

As of 2005, the Dublin San Ramon Services District has recently completed a sewage treatment plan expansion to treat up to 17.0 mgd, with a planned future expansion to 20.8 mgd as treatment for buildout flows. Disposal of treated wastewater is provided by the LAVWMA (the agency that replaced TWA) export pipeline expansion project completed in the summer of 2005. The project improved a 16-mile export pipeline that discharges treated sewage to the East Bay Dischargers Authority and on to the Bay.

3.8.3 STORM DRAINAGE

The Specific Plan area lies within Zone 7 of the Alameda County Flood Control and Water Conservation District. Flood hazards are confined to Tassajara Creek and adjacent parcels. Channel improvements to increase flow capacity will be coordinated with permitting agencies. Alameda County is currently conducting studies on how to mitigate the worst of the flooding problems near I-580.

3.9 FINANCING

Chapter 10 of the Specific Plan identifies how the major infrastructure costs of development could be financed. The financial analysis indicates that the proposed development would not present a financial drain to the City. After initial shortfalls in the early years (see Fiscal Cash Flow Table in Appendix 6), it is expected that development in eastern Dublin will provide more in revenues than is required for public expenditures.

3.9.1 SOURCES OF FINANCING

It is City policy that no General Fund monies may be used to provide infrastructure for new development. The Specific Plan identifies the following sources of financing: developers, Mello-Roos Community Facilities District, Marks-Roos Bond Pooling, special assessment districts, impact fees, and AB 2926 School Impact fees. The ongoing cost of providing services could also be provided through the Mello Roos District, or from some combination of other sources such as Dublin's General Fund, landscaping and lighting districts, and homeowners' association assessments.

3.9.2 FINANCING GOALS AND POLICIES

The Specific Plan states that new development should pay the full cost of infrastructure needed to serve the area and should fund the costs of mitigating adverse impacts to the City's existing infrastructure and services. The financing plan should provide for reimbursements from other areas benefiting from costs that Specific Plan owners are required to advance and should fairly allocate costs among land uses.

3.9.3 IMPLEMENTATION

Various actions are specified to carry out the financing policies of the Specific Plan, including adoption of development agreements, area of benefit ordinances, creation of a special assessment or Mello-Roos District, establishment of a landscaping and lighting district and geologic hazards abatement district, evaluation of Marks-Roos bond pooling, reviewing the need for a builder impact fee system, and coordinating efforts with the school district and CalTrans on public improvements.

3.10 IMPLEMENTATION

Chapter 11 of the Specific Plan identifies the sequence of procedural and administrative steps to be followed to implement this Plan.

3.10.1 KEY IMPLEMENTING ACTIONS

- EIR Certification
- Adoption of CEQA Findings
- Amendment of the General Plan
- Adoption of the Specific Plan
- Rezoning
- Conclude Property Tax Exchange with the County
- Annexation of the Specific Plan area to the City of Dublin
- Preparation of a Plan for Services
- Annexation of Specific Plan area into DSRSD
- Preparation of Subarea Planned Development Plans
- Filing of Tentative Maps
- Site Development Review/Design Review
- Preparation of Public Improvement Plans
- Filing of Final Map
- Preparation of Park Improvement Plan
- Preparation of Financing Plans

3.10.2 OTHER IMPLEMENTING ACTIONS

In addition to the procedural steps given above, the following actions will assist in implementing the Specific Plan.

- Entering into Development Agreements
- Adoption of Area of Benefit Ordinance
- Analysis of Financing Techniques
- Analysis of Feasibility of Marks-Roos Bond Pooling
- Analysis of Feasibility of Citywide Builder Impact Fee System

3.10.3 ADMINISTRATION OF THE SPECIFIC PLAN

Responsibility for administering the Specific Plan will be a joint effort of the City of Dublin and any developer who is party to a Development Agreement with the City. The City will review and approve projects in the Planning Area.

3.10.4 SPECIFIC PLAN CONSISTENCY

Once the Specific Plan is adopted, a finding of consistency is needed for each subsequent entitlement or public improvement consistent with the Specific Plan. If necessary,

amendments to the Specific Plan may be requested by a developer or property owner, and may be initiated by the City in accordance with City procedures.

3.10.5 OTHER IMPLEMENTATION AND ADMINISTRATION ISSUES

Supplemental environmental review beyond the program EIR prepared for the Specific Plan may be required if it is determined that a project introduces changes to the Plan that are not covered in the Specific Plan EIR.

The Specific Plan requires the use of Conditions, Covenants and Restrictions (CC and R's) to maintain landscape, open space areas and the improvements of each development project.

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4.0 LAND USE

4.1 PURPOSE

This chapter of the Specific Plan sets forth specific land use goals, policies, and standards applicable to eastern Dublin. It also identifies the future distribution, location, and intensity of land uses within the plan area. More detailed information on the circulation system are contained in Chapter 5, additional information relating to open space and resource management is included in Chapter 6, and details of public facilities is included in Chapter 9.

Acres for each of the land use types and potential buildout of the planning area are contained in Table 4.1. Based on a conservative estimate, buildout of the planning area would generate approximately 32,023 new residents, 13,913 new dwelling units, and 29,424 jobs (see Tables 4.2 and 4.3).

The chapter consists of four sections:

- Discussion of the land use map;
- Land use goals and policies;
- Definition of land use categories; and
- Description of the eleven planning subareas and associated development potential of each.

4.2 LAND USE MAP

The Land Use Map (Figure 4.1 at the end of this chapter) illustrates the physical pattern of development permitted in the Specific Plan area, and Table 4.1 provides the acreage breakdown for each Specific Plan land use category. The map is an expression of certain key themes that are the foundation of the plan, including:

- Responsiveness to biological, geotechnical and other environmental constraints;
- Recognition of City, landowner and citizen goals and objectives;
- Provision of a broad range of housing and employment opportunities; and

- Establishment of a development character which compliments the existing City of Dublin and the natural setting of the site.

Due to the scale of the map, the location of road alignments and land use boundaries in Figure 4.1 are approximate. This generalized depiction of the planning area will require some flexibility when interpreting the plan. Minor adjustments to road alignments and boundaries may be necessary when individual applications for development are submitted (Refer to Chapter 11, Implementation, for further discussion of such adjustments). The Land Use Map by itself does not govern future development in eastern Dublin, but must be used in conjunction with plan goals and policies.

4.3 THE LAND USE CONCEPT

4.3.1 AN OPPORTUNITY AND CHALLENGE

The future development of eastern Dublin represents both an opportunity and a challenge. An area more than twice the size of the existing city with the potential to more than double the current population, eastern Dublin requires careful planning to ensure the development of healthy, high quality community that relates well to its setting and the existing city. With a community of this size, it is essential that all aspects of community life be incorporated so that the planning area can be as self-sufficient and self-sustaining as possible, and not be a drain on the rest of the city or adjoining communities.

The plan for eastern Dublin is a response to a complex set of economic, physical, social, and environmental variables. However, four factors played a key role in formulating the land use concept set forth in the Eastern Dublin Specific Plan:

- 1) The increasing rush-hour congestion on area freeways and increasing air pollution from vehicular emissions necessitates a plan that will reduce the number and length of vehicular trips associated with the development of an area the size of eastern Dublin.
- 2) The predominantly natural, open space character of the area requires a development pattern that is well-integrated with existing natural systems to minimize impact on the area's environmental resources and its natural character.

TABLE 4.1			
EASTERN DUBLIN SPECIFIC PLAN			
LAND USE SUMMARY			
(Amendment Reso# 66-03, 47-04, 223-05, 58-07, 37-08, 210-08, 176-09, 76-10, 55-12, 92-12, 210-12, 198-13, 159-14, 101-15, 165-15, 151-16)			
Land Use Description	LAND AREA	DENSITY	YIELD
COMMERCIAL/INDUSTRIAL			
General Commercial	356.8 acres	.25-.35 FAR	4.122 MSF
General Commercial/Campus Office	87.02 acres	.28 FAR	1.054 MSF
Industrial Park*	61.3 acres	.25-.28 FAR	.747 MSF
Neighborhood Commercial	57.89 acres	.30-.35 FAR	.812 MSF
Mixed Use	0 acres	.30-1.0 FAR	.005 MSF
Mixed Use 2/Campus Office****	25.33	.45 FAR	.497 MSF
Campus Office	94.28 acres	.35-.75 FAR	1.840 MSF
Medical Campus	42.88 acres	.25-.80 FAR	.950 MSF
Medical Campus/Commercial	15.85 acres	.25-.60 FAR	.250 MSF
Subtotal	752.05 acres		10.277 MSF
RESIDENTIAL			
High Density	58.74 acres	35 du/ac	2,056 du
Medium High Density	156.61 acres	20 du/ac	3,132 du
Medium Density**	492.71 acres (1)	10 du/ac	4,744 du
Single Family***	947.25 acres	4 du/ac	3,789 du (3)
Estate Residential	30.4 acres	0.13 du/ac	4 du
Rural Residential/Agric.	539.55 acres	.01 du/ac	5 du
Mixed Use	0 acres	15du/ac	115 du
Subtotal	2,225.26 acres		13,950 du
PUBLIC/SEMI-PUBLIC			
Public/Semi-Public	96.8 acres	.24 FAR	.973 MSF
Semi-Public	8.6 acres	.25 FAR	.114 MSF
Subtotal	105.4 acres		1.087 MSF
SCHOOLS			
Elementary School	55.8 acres (2)		5 schools
Junior High School	21.3 acres		1 school
Subtotal	77.1 acres		
PARKS AND OPEN SPACE			
City Park	56.3 acres		1 park
Community Park	93.3 acres		3 parks
Neighborhood Park	50.9 acres		7 parks
Neighborhood Square	16.7 acres		6 parks
Natural Community Park	10.4 acres		1 park
Subtotal	227.6 acres		18 parks
Open Space	684.06 acres		
TOTAL LAND AREA	4,071.47 acres		

*The .28 FAR for Industrial Park refers to the Industrial Park areas in Fallon Village.

**50% of the units within the Medium Density land use designation on the Croak and Jordan properties shall have private, flat yards.

*** The Eastern Dublin Specific Plan originally considered 68 units on the Dublin Ranch North (Redgewick) property. The land use designation was amended to allow development of 4 units. This change results in 64 excess single family units than what was analyzed in the 1993 Eastern Dublin Environmental Impact Report.

****The Mixed Use 2/Campus Office land use designation allows for either a mixed use project with residential land uses comprising up to 50% of the project's development area (248,259 square feet) or an all Campus Office project (with no residential uses) with up to 496,519 square feet of development. Table 4.1 has been amended to reflect a Campus Office project. If the project is developed as a mixed-use project with residential uses, the table shall be amended at that time to reflect that.

1. Public/Semi-Public approved as underlying land use (PLPA 2010-00068). Specific development of 105 units determined at Stage 2 Development Plan (Ord 9-15).
2. Medium Density Residential approved as underlying land use on Subarea 1 of Jordan Ranch (PLPA 2010-00068). Up to 100 units possible as determined at Stage 2 Development Plan.
2. The Moller Property has 381 maximum allowable single-family density units per the Environmental Document.

3) The absence of an existing development character on which to build and the area's distance from the heart of the existing city make it important for the plan to establish a unique image and identity for the new community and a high quality of life for future residents.

4) The post-Proposition 13 dilemma facing most communities, i.e., limited resources and rising costs for services necessitate a balance of land uses within the planning area that ensures economic viability and fiscal stability.

4.3.2 A BALANCED MIXED USE COMMUNITY

In response to these factors, the land use concept calls for the development of a vital, self-sustaining urban environment where people can live, work, play, and interact in a manner that fosters a strong sense of community. The Plan includes a broad range of residential, employment, retail, service, and recreation uses.

Residential and employment uses have been balanced to provide the opportunity for future residents to live and work within the community. Land use patterns have been structured to place employment, services and shopping areas within a short distance of future residents, and all uses have been carefully integrated with each other to create a more vital, and socially active community. A major tenet of the Plan is that if people have the opportunity to live, work, shop and play within their own community, the potential for reducing vehicular travel and improving social interaction and community pride increases substantially.

Employment-generating land uses in eastern Dublin include retail, service, office, governmental, research and development, and light industrial. Residential designations range from rural residential/agriculture (one unit/100 acres) to high density multi-family (25 units/acre and above). Higher density housing has been

located in the flatter areas of the planning area where there are fewer environmental and development constraints, and in and around the commercial centers where the concentration of population will contribute to the social and economic vitality of the area. Lower densities have been established in the foothill areas where topography and visual quality concerns present more constraints. These residential locations are in keeping with current general plan policy for residential uses in the extended planning area.

The Plan also provides for a full complement of commercial activities. Regional office and retail uses are located near the freeway interchanges for convenient access. Local-serving neighborhood shopping areas and community-serving commercial centers have been strategically located throughout the planning area to provide residents and employees the opportunity to obtain routine goods and services without long vehicle trips. The more community oriented commercial centers are envisioned as pedestrian- and transit-oriented mixed-use concentrations which include retail, service, office, and residential uses, and are carefully integrated with surrounding residential neighborhoods.

Open space is a major component of the land use concept, giving form and character to the urban development pattern. The Plan's open space system has been guided by the concept expressed in the General Plan of Dublin as a community ringed by hills. Open space areas generally consist of developed parklands, open space corridors along major drainage ways, and environmentally and aesthetically sensitive foothill areas designed for open space or rural residential development (one unit/100 acres). The open space concept calls for urban and open space areas to be linked through the preservation and enhancement of major drainage ways as trail corridors.

GOAL: To establish an attractive and vital community that provides a balanced and fully integrated range of residential, commercial, employment, recreational, and social opportunities.

Policy 4.1: Maintain a reasonable balance in residential and employment-generating land uses by adhering to the distribution of land uses depicted in Figure 4-1, Land Use Map.

ACTION PROGRAM: Balanced Mixed-Use Community

Program 4A: Require applicants to demonstrate that proposed developments are in conformance with the Eastern Dublin Specific Plan policies and land use program. Any deviation must establish how the plan's overall intent to create a balanced and integrated community is preserved. Deviations may require a

specific plan amendment. Such a decision would be made by the Planning Manager.

4.4 RESIDENTIAL LAND USE

Throughout its history, Dublin has shown a commitment to providing housing within the community and maintaining a balance between its workforce and its residential population. This commitment will extend to future development in eastern Dublin. Given the diversity of the Bay Area workforce, a wide variety of housing types will be necessary, including custom homes, production single-family homes, townhomes, and apartments.

GOAL: To provide a diversity of housing opportunities that meets the social, economic and physical needs of future residents.

4.4.1 LOCATION AND DIVERSITY

The Eastern Dublin Specific Plan designates 1,692 acres with a wide range of residential classifications and densities, resulting in development potential for approximately 12,356 dwelling units. Approximately 55 percent of the units will be single family (densities of 0.01 to 10 du/ac). Higher densities are generally located in the flatter, less constrained portions of the site, while lower densities are designated for those areas with steep slopes or other environmental constraints. Due to subsequent amendments since the Specific Plan was adopted in 1993, the number and types of residential units may have changed.

Current statistics indicate that fewer and fewer households match the description of the traditional family. With this change comes a change in housing needs. In addition to the traditional single family detached house, the housing in eastern Dublin needs to reflect the diversity represented by households comprised of single-parent families, the elderly, extended nuclear families, first-time buyers, "empty-nesters", and households with two working members. Upscale versions of smaller units, attached units, and "in-town" units should be provided for those who wish an alternative to the traditional suburban home, as well as for those who are unable to afford the larger unit and lot.

Policy 4-2: Encourage higher density residential development withal convenient walking distance of shopping areas, employment centers, transit stations/stops, and other community facilities.

Policy 4-3: Permit residential development as an upper story use throughout the commercial areas in the Town and Village Centers.

- Policy 4-4:** Permit residential development in areas designated for campus office uses if it: 1) meets a specific housing need in the community, 2) reduces daily vehicle trips; 3) is designed to foster pedestrian access to employment and shopping areas; 4) creates an attractive neighborhood environment; and 5) does not comprise more than 50% of the developed area.
- Policy 4-5:** Concentrate residential development in the less environmentally constrained portions of the plan area, and encourage cluster development as a method of reducing or avoiding impact to constrained or environmentally sensitive areas. Also consider the use of Transfer of Development Rights (TDR's) in areas designated as Rural Residential/Agriculture or Open Space.
- Policy 4-6:** Encourage innovative approaches to site planning, unit design, and construction to create housing products for all segments of the community including single-parent families, the elderly, extended nuclear families, first-time buyers, "empty-nesters," and non-auto households.
- Policy 4-7:** Before the construction of any residential units in Subarea C, by any developer, within 400 feet of Gleason Drive, the Alameda County Sheriff's firearms ranges shall be relocated or reconstructed by that developer for appropriate sound and public safety mitigation to the satisfaction of the Sheriff. Reimbursement for costs associated with said relocation or reconstruction will be considered by the City when adjacent affected properties are developed.
Any developer seeking building permits on any residential dwelling unit north of Central Parkway in Subarea C, shall fence the Sheriff's firearms ranges to the satisfaction of the Sheriff for public safety purposes prior to the issuance of building permits.

ACTION PROGRAM: LOCATION AND DIVERSITY

Program 4B: The City shall revise its zoning regulations to reflect Specific Plan land use designations and policies. Zoning regulations for development in eastern Dublin will be based on the City's current zoning ordinance, with those revisions necessary to implement the policies and standards set forth in this Specific Plan. Where feasible, changes in the zoning regulations should be made applicable citywide. However, if regulations for eastern Dublin would be inappropriate in the rest of the City, the new regulations should be written to specifically address development in eastern Dublin. Regulations requiring revisions will include those relating to permitted land uses, inclusion of residential uses in commercial areas, encouragement of mixed use projects,

provision for second units, and site development and design standards (refer to Community Design, Chapter 7).

Program 4C: Place a Planned Development (PD) District overlay zone on the entire planning area. The PD District overlay would require all projects above a certain size (to be determined by staff) to submit to a Planned Development review process. This will help ensure that policies and underlying intent of the Eastern Dublin Specific Plan are implemented, including: the creation of compatible mixed-use development; creation of an attractive, efficient and safe environment; encouragement of innovative development solutions; efficient use of land and the preservation of significant open space areas and natural and topographic landscape features with minimum alteration of natural land forms; development of an environment that encourages social interaction and the use of common open areas for neighborhood or community activities and other amenities; and creation of an environment that decreases community dependence on the private automobile.

Program 4D: Explore the use of development agreements with applicants for major developments, to ensure that infrastructure improvements, public utilities, and other amenities are provided consistent with Specific Plan policies, and as needed by planning area development.

Program 4E: Review each development application for consistency with the Livermore Airport Protection Area. The Specific Plan currently allows some low and medium density residential uses within the APA. If, at the time of rezoning, the residential designations are inconsistent with the APA, the residential designations will convert to 'Future Study Area' with an underlying rural/residential agricultural designation.

4.4.2 AFFORDABILITY

Housing affordability is a critical issue in the Bay Area region and the Tri-Valley area. Eastern Dublin provides an excellent opportunity to plan in advance how the City can meet the affordable housing goals set forth in the City's Housing Element. If eastern Dublin is going to maintain a sense of community pride and character, it is important that affordable housing not be segregated in special areas or projects, but be integrated with market rate housing both geographically and within individual projects. While it is not practical to provide affordable housing on large lots because of the cost of land, it is important that affordable single-family detached housing be made available.

Policy 4-8: Encourage the development of affordable housing throughout eastern Dublin, and avoid the concentration of such housing in any one area.

Policy 4-9: Ensure that projects developed in the plan area provide affordable housing in accordance with the City's Housing Element, the Inclusionary Housing Ordinance, the Density Bonus Ordinance, and the Rental Availability Ordinance.

Policy 4-10: Affordable housing in eastern Dublin shall include both ownership and rental units and a mix of single family and multi-family units.

Policy 4-11: Developers shall include affordable housing units within their developments pursuant to City housing ordinances.

ACTION PROGRAM: AFFORDABILITY

Program 4F: Develop an inclusionary housing program which requires a minimum percentage of all approved units to be affordable to very low, low, and moderate-income households.

Program 4G: Explore the possibility of establishing an in-lieu fee to support the development of below-market-rate housing.

Program 4H: Develop a monitoring program that will track residential growth in Dublin in terms of unit type and price categories. Such a program will provide City decision-makers with data necessary to make informed decisions relating to City housing goals and new development.

Program 4I: Develop a specific numeric goal for percentage of affordable units in eastern Dublin which should be ownership units, as opposed to rental units.

4.5 COMMERCIAL LAND USE

A development area with the size and projected population of eastern Dublin will require a substantial commercial component in order to meet the business, retail and service needs of the community and to generate tax dollars necessary to support on going City services to the area. The commercial areas will play a significant role in structuring area development patterns and in contributing to the character and identity of the community. Commercial centers are intended to provide basic services to the community, as well as be important public activity centers which accommodate and enhance the public life of the community.

GOAL: To create a well-defined hierarchy of neighborhood, community, and regional commercial areas, that serves the shopping, entertainment and service needs of Dublin and the surrounding area.

4.5.1 LOCATION

Regional serving retail and office commercial uses, which are more auto-oriented because of their large market area, have been located primarily south of Dublin Boulevard adjacent to the freeway and major interchanges. These locations provide excellent automobile access and high visibility.

Policy 4-12: Concentrate regionally-oriented commercial uses south of Dublin Boulevard and near freeway interchanges where convenient vehicular access will limit traffic impacts on the rest of eastern Dublin.

Note: There are several areas indicated on the land use map that could develop as either general commercial or campus office uses. This flexibility has been provided in these key areas to respond to changing market conditions that may occur in the future. The shift from either campus office or general commercial (the underlying land use designation) to general commercial or campus office would only be permitted if the established traffic levels of service are not exceeded. Appropriate traffic studies may need to be conducted in order for the City to make the proper determination regarding traffic levels of service.

Community-oriented commercial development is planned for three mixed-use commercial centers, each of which is centrally located to a residential area. These centers are: the Town Center (along Tassajara Road between Dublin Boulevard and Gleason Drive and along "Main Street" between Dublin Boulevard and just north of Central Parkway); and the Village Centers (located at the north and south ends of Fallon Road). The Town Center will be the commercial hub for eastern Dublin, but will also attract people from the entire city and surrounding areas. The Village Centers are intended to be local serving, primarily comprised of retail uses and small offices.

Policy 4-13: Locate community-oriented commercial development in the "Town Center" within walking distance or a short ride from most residents, and conveniently served by transit.

Policy 4-14: Encourage the development of neighbor-hood serving retail and service uses in the "Village Centers" in order to reduce daily vehicle trips, and contribute to the identity and character of the outlying residential areas.

4.5.2 CHARACTER

The Plan encourages the development of commercial centers, rather than the continuous linear alignment of commercial uses along major thoroughfares. Concentrating commercial uses in a specific area contributes to the creation of pedestrian friendly centers that can also be easily served by transit. All three

commercial centers are envisioned to be pedestrian- and transit- oriented mixed-use concentrations which include retail, service, office, and residential uses. Development guidelines for the commercial centers (see Chapter 7, Community Design) encourage more innovative site planning, building and streetscape design that enhance the retail environment and lessen the physical and visual dominance of the automobile on the commercial landscape.

The Plan supports the concept of mixed-use development in these areas as a means of reducing auto traffic, efficiently using developable land, and creating a vital retail environment. Mixed-use development does not just refer to an assemblage of diverse uses, but refers to a mix of compatible and complementary uses that work together to provide mutual benefits. By locating stores, services, and employment uses in close proximity to residential areas and maintaining a pedestrian and transit orientation within the commercial centers, the Specific Plan promotes increased pedestrian activity and reduced dependence on the automobile.

Policy 4-15: Establish the Town Center commercial area as a vital and visually distinctive central business district and major focus of community life in Dublin.

Policy 4-16: Concentrate pedestrian-oriented commercial uses along "Main Street" and at key transit transfer points.

Policy 4-17: Avoid dispersion of commercial uses along major collectors and arterials in a linear (i.e., "strip") development pattern that is oriented solely to vehicular traffic.

Policy 4-18: Encourage the creation of a pedestrian-oriented shopping environment in the Town and Village Centers, while still accommodating the safe movement of vehicular traffic.

Policy 4-19: Encourage mixed-use development in the commercial areas of the Town and Village Centers that contributes to the social, cultural, and economic vitality of the commercial districts.

ACTION PROGRAM: COMMERCIAL LAND USE

PROGRAM 4J: Develop Commercial Mixed-Use zoning that will accommodate a mix of retail, office, service and residential uses in the Neighborhood and General Commercial designated areas of eastern Dublin. This zoning should be generally based on the City's C-1 zoning district, with Specific Plan policy recommendations incorporated to ensure desired land use and development character. Commercial Mixed-Use zoning should base permitted land uses on the

compatibility of their traffic generation characteristics (i.e., avoid the inclusion of just high traffic generating uses or uses that all have the same peak hour characteristics), their compatibility with a pedestrian and transit-oriented commercial environment, and their compatibility with other uses.

PROGRAM 4J (a): Limit land uses on the west side of Tassajara Road between Dublin Boulevard and Central Parkway to Neighborhood Commercial uses, to assist in ensuring that uses in the Town Center-Commercial development are economically viable.

4.6 EMPLOYMENT

GOAL: To provide a stable and economically sound employment base for the City of Dublin, which is diverse in character and responsive to the needs of the community.

4.6.1 LOCATION AND DIVERSITY

Land uses in the employment-generating category include retail, service, office, governmental, research and development, and light industrial. Major employment centers have been located on the west side of the planning area, in close proximity to the future BART station to encourage the use of regional transit, and near I-580 and Dublin Boulevard where freeway access is convenient for employment uses, and noise conditions are less than ideal for residential uses. Public uses have been designated for the County property north of Gleason Drive and immediately south of the Santa Rita Jail. This area will accommodate existing uses such as the California Highway Patrol facility and the Sheriff's training facility and other future governmental uses. Together with the adjoining Industrial Park area, these uses will provide a buffer between the jail facility and residential uses to the south.

Policy 4-20: Encourage employment-generating uses, which provide a broad range of job types and wage/salary scales.

Policy 4-21: Maintain enough Industrial Park land to accommodate the city's long-term needs for land-extensive, low-capital improvement type uses.

Policy 4-22: Encourage high-intensity office and other employment-generating uses near the future BART station, and at freeway interchanges where the development can take advantage of convenient access, and the high visibility will make a distinctive, high quality statement at these important entry points into eastern Dublin.

4.6.2 DEVELOPMENT CHARACTER

Employment centers are major generators of daily vehicle trips, not only to and from work, but also side trips for daily needs. A major tenet of the plan is that employment centers should be integrated with the public transit systems and with other uses in order to minimize the number and length of work-related automobile trips. For this reason, the plan designates the area adjacent to the proposed BART station as a major, high intensity employment center. Similarly, the plan encourages the integration of employment uses with other types of uses as a means of reducing daily vehicle trips. By including ancillary uses such as restaurants and convenience retail employees can meet some of their daily needs without having to use a car to make side trips. Also, by placing housing near employment centers, the opportunity is provided for people to live and work in close proximity.

Policy 4-23: Encourage the creation of more vital working environments that integrate different land uses into a compatible whole whose active life does not terminate at the end of business hours.

Policy 4-24: Require all employment-related development to provide convenient and attractive pedestrian, bicycle, and transit-related facilities to encourage alternate modes of commuting to and from work.

Policy 4-25: Permit mixed-use projects in designated employment areas outside the Town and Village centers, as long as the projects are consistent with the intent of the Specific Plan and do not result in adverse environmental or service impacts. Such projects can be either "vertically" mixed (e.g., office or residential over retail), or "horizontally" mixed (uses separated into different buildings).

Policy 4-26: Provide support services adjacent to or near employment centers, including food service, limited retail services, child care facilities, and open space/recreation amenities.

4.6.3 JOBS/HOUSING BALANCE

The Tri-Valley area, like the Bay Area in general, faces an ongoing struggle to provide enough housing to accommodate the constantly growing workforce in the region. The absence of adequate and affordable housing has resulted in a workforce that commutes longer and longer distances. More and more frequently people who work in the Bay Area must reside in communities as far away as Tracy and Modesto in order to find suitable housing. The resulting commute patterns have detrimental side effects on the entire population in the form of increased traffic congestion on major freeways such as

I-580 and I-680, reduced air quality and decreased quality of life. As more and more employment is planned for the Tri-Valley area, it is critical that housing be provided to offset the new demand.

In an effort to avoid impacts that can arise from an imbalance between jobs and housing, the Eastern Dublin Specific Plan establishes a mix of residential and employment-generating uses that will maintain a reasonable balance between job and housing opportunities within the City of Dublin. Table 4.3 shows the existing jobs/housing balance in the City and the projected long term balance.

In addition to attempting to balance jobs and housing, the Plan also establishes a broad range of employment and housing opportunities in an effort to ensure a match between the earning power of eastern Dublin employees and housing costs in eastern Dublin.

Policy 4-27: Maintain sufficient land for housing in reasonable relationship to jobs (employment generating uses) in the eastern Dublin area.

Policy 4-28: Discourage amendments to the Specific Plan that would increase the employment generating potential within the planning area, without balancing it with an equivalent increase in housing potential.

ACTION PROGRAM: EMPLOYMENT

Program 4K: Develop a monitoring program that will track employment-generating uses developed in the planning area in terms of the numbers, type, and salary levels of employees. Project applicants can supply this information as part of their development application. This information, along with data relating to housing, can provide the basis for understanding the ongoing relationship between the jobs/housing balance and proposed development.

**TABLE 4.2
EASTERN DUBLIN SPECIFIC PLAN
POPULATION AND EMPLOYMENT SUMMARY**

(Amended Per Resolution No. 47-04, 223-05, 58-07, 37-08, 176-09, 76-10, 55-12, 92-12, 210-12, 198-13, 159-14, 165-15, 151-16)

Land Use Designation	Development	Sq Ft/Employees	Persons/du	Population
Commercial				
Industrial Park	.747 MSF	590		1,266
General Commercial/Campus Office*	1.054 MSF	385		2,738
General Commercial	4.122 MSF	510		8,082
Neighborhood Commercial	.812 MSF	490		1,657
Mixed Use**	0 MSF	490		0
Mixed Use 2/Campus Office****	.497 MSF	260		1,910
Campus Office	1.840 MSF	260		7,077
Medical Campus	.950	260		3,654
Medical Campus/Commercial	.250	510		490
Public/Semi Public	1.012 MSF	590		1,715
Semi-Public	0.94 MSF	590		159
TOTAL:	12.224 MSF			28,748
Residential				
High Density	2,056		2.0	4,112
Medium High Density	3,132		2.0	6,264
Medium Density	4,749		2.0	9,498
Single Family***(1)	3,789		3.2	12,125
Estate Residential	4		3.2	13
Mixed Use**	0		2.0	0
Rural Residential/Agric.	5		3.2	16
TOTAL:	13,735			32,028

*The Sq Ft/Employees figure utilized for General Commercial/Campus Office is the average of the figures used for General Commercial and Campus Office uses.

**Includes Mixed Use units (6.4 acres and 96 du) within Fallon Village Center. 83,635 square feet of commercial and 96 units are anticipated on the mixed use sites (total). The FAR for Mixed Use is the maximum area for all development (i.e. total of residential and commercial) on designated sites.

*** The Eastern Dublin Specific Plan originally considered 68 units on the Dublin Ranch North (Redgewick) property. The land use designation was amended to allow development of 4 units. This change results in 64 excess single family units than what was analyzed in the 1993 Eastern Dublin Environmental Impact Report.

**** The Mixed Use 2/Campus Office land use designation allows for either a mixed use project with residential land uses comprising up to 50% of the project's development area (248,259 square feet) or an all Campus Office project (with no residential uses) with up to 496,519 square feet of development. At this point it is assumed that the project will be a Campus Office project, if the project is developed as a mixed-use project with residential uses, Table 4.3 shall be amended at that time to reflect the increase in residential units and the decrease in jobs.

1 The 2012 Moller Property SEIR analyzed up at 381 single-family units.

<p align="center">TABLE 4.3 CITY OF DUBLIN PROJECTED JOBS/HOUSING BALANCE (Amended Per Resolution No. 223-05, 58-07, 37-08, 76-10, 55-12, 92-12, 210-12, 198-13, 159-14)</p>					
PLANNING AREA	Dwelling Units	Jobs	Employed Residents*	Balance**	Ratio***
Existing City of Dublin****	7,100	12,210	11,502	-708	1.06:1.0
Eastern Dublin Specific Plan Area	13,806*****	28,748	22,366	-6,646	1.29:1.0
TOTAL:	20,906	40,958	33,868	-7,354	1.21:1.0*****

*Projections assume a ratio of 1.62 employed residents per household based on ABAG's Projections '90.
 **The "balance" refers to the number of employed residents in relation to the number of jobs (i.e., a positive number means there are more employed residents than jobs).
 ***Ratio of jobs to employed residents
 ****Taken from ABAG's Projections '90.
 *****Underlying Medium Density Residential on Jordan school site not shown (PLPA 2010-00068). Up to 100 units possible and determined at PD Stage 2 Development Plan.
 *****With the addition of commercial space with the Fallon Village Project, the jobs housing balance would increase by .08.

Program 4L: Revise current zoning regulations to permit residential uses in Campus Office designated areas when it can be shown that such development is consistent with the intent of the Specific Plan and does not result in adverse environmental or service impacts.

4.7 RECREATION

Goal: To develop a comprehensive, integrated park and recreational open space system designed to meet the diverse needs of the City of Dublin.

Providing for the recreation needs of the eastern Dublin community is as important to establishing and maintaining a high quality of life as are the residential, commercial and employment policies set forth in this plan. Recreation is essential to the development of a balanced, healthy living environment. Providing recreational facilities and opportunities within eastern Dublin will enhance the character and image of the area and enhance the quality of life for future residents. The Plan designates a broad range of open space and park areas that will provide for the full spectrum of recreational activities from intense active sports to passive open space enjoyment (Refer to Chapter 6, Resource Management for more detailed discussion of open space resources). Altogether the Plan provides for over 1,000 acres of open space or parkland. Roughly 410 acres of that area is designated for rural residential/agriculture uses and will serve primarily as visual open space. Approximately 240 acres have been designated for developed parkland. The distribution and types of park facilities planned for eastern

Dublin are based on projected buildout calculations, but also on park standards and projections of need developed for the City's Parks and Recreation Master Plan. In addition to the active parkland and rural residential areas, another 406 acres have been designated for open space. Much of this area consists of open space corridors along planning area drainage ways. The Plan calls for these corridors to be developed with trails that will accommodate pedestrian and bicycle access throughout the planning area. Trail corridors and bike lanes will be located along streets, creeks and ridge tops. A pleasant and convenient trail system will provide fuller enjoyment of the planning area's natural and scenic features, and reduce reliance on the automobile for movement throughout the area.

Policy 4-29: Ensure that park development in eastern Dublin is consistent with the standards and phasing recommended in the City of Dublin's Recreation and Parks Master Plan, and provides a full range of recreational activities from intense active sports to passive open space enjoyment.

Policy 4-30: Ensure, as part of the approval process, that each new development provides its fair share of planned open space, parklands, and trail corridors, as shown on Figure 4.1.

Policy 4-31: Establish a convenient, multi-use, all-weather network of trails, including bike lanes, to link planning area parks, recreation facilities, schools, employment centers and major open space areas to each other and to the surrounding community.

Program 4M: Develop a Parks Implementation Plan for eastern Dublin that identifies: the preferred phasing of land dedication and improvements; facilities priorities and their location; and City responsibility for design and construction of parks.

Program 4N: Calculate and assess in-lieu park fees based on the City's parkland dedication ordinance. Credit toward parkland dedication requirements will only be given for areas which meet the City's standards and policies for park and recreation land. The amount of credit allowed may vary depending upon the physical features of the land offered for dedication.

Program 4O: Require developers to dedicate public access easements along ridge tops and stream corridors, where necessary to accommodate the development of trails and staging areas.

Program 4P: The City shall work with East Bay Regional Parks District regarding the provision of staging areas in the Specific Plan area.

4.8 LAND USE CATEGORIES

This section describes each of the land use classifications used in the Land Use Map in Figure 4.1. Chapter 6 on Resource Management and the Open Space Framework Map

(Figure 6.1) provide supplementary information on open space uses. Appendix 2 includes more detailed description of the specific land uses that are considered appropriate for each Specific Plan land use designation. Table 4.1 summarizes land use acreages in the planning area by the designations described below.

4.8.1 RESIDENTIAL

Rural Residential/Agriculture (.01 units per gross residential acre). Accommodates agricultural activities and other open space uses, such as range and watershed management, consistent with the site conditions and plan policies. This classification includes privately held lands, as well as public ownerships not otherwise designated in the plan for Parks and Open Space, or Public/Semi-Public uses. Assumed household size is 3.2 persons per unit.

Estate Residential (0.01 – 0.8 units per gross residential acre). Typically ranchettes and estate homes are within this density. Assumes household size is 3.2 persons per unit.

Single Family (0.9 to 6.0 units per gross residential acre). Accommodates the majority plan for Parks and Open Space, or Public/Semi-Public uses. Assumed household size is 3.2 persons per unit.

Medium Density (6.1 to 14.0 units per gross residential acre). Provides for a mix of single family detached and attached units and multi-family units. The density range allows for detached, zero-lot line, duplex, townhouse, and garden apartment development. It is intended that within areas with this designation, that dwelling unit types and densities would be varied to accommodate a range of housing needs. Assumed household size is 2.0 persons per unit.

Medium High Density (14.1 to 25.0 units per gross residential acre). Provides for apartment, condominium, and townhouse development. Projects at the upper end of this range may require some under-structure parking and may need three or more stories in order to meet zoning ordinance open space requirements. Assumed household size is 2.0 persons per unit.

High Density (25.1 or more units per gross residential acre). Provides for apartment and condominium development in the Town Center. Development at these densities must meet the majority of their parking requirements with under-structure parking. With careful design, densities of up to 100 units per acre can be achieved without exceeding four stories. Assumed household size is 2.0 persons per unit.

Note: The Plan allows some low and medium density residential uses within the Livermore APA, at the time of rezoning, the residential designations are inconsistent with the APA, and the residential designations will convert to 'Future Study Area' with an underlying rural residential/agriculture destination.

The 'Future Study Area' designation is an indication of the City of Dublin's interest in the area and the need for additional studies of environmental constraints, future land

uses, infra-structure, and other issues. No land use determinations would be made in this designation until more information is available to determine the most suitable type of development or preservation for the area.

4.8.2 COMMERCIAL

General Commercial (.20 to .60 Floor Area Ratio). Accommodates a range of regional- and community-serving retail, service, and office uses. Mixed use projects incorporating retail, service, and/or office uses are encouraged, with residential uses also allowed as part of the mix when location and design ensure compatibility.

Note: There is one area indicated on the amended land use map, located on the southwest quadrant of Area H of Dublin Ranch that could develop as either general commercial or campus office uses. This flexibility has been provided in this area to respond to changing market conditions that may occur in the future. The shift from general commercial (the underlying land use designation) to campus office would be permitted if the established traffic levels of service are not exceeded. Appropriate traffic studies may need to be conducted in order for the City to make the proper determination regarding traffic levels of service. The development of either general commercial or campus office uses will be established at the Stage 2 Planned Development application process.

Neighborhood Commercial (.25 to .60 Floor Area Ratio). Provides for the creation of community- and neighborhood- oriented commercial centers that serve the retail, service, and entertainment needs of eastern Dublin. Mixed-use projects incorporating combinations of commercial, service, office, and/ or residential uses are strongly encouraged.

Campus Office (.25 to .80 Floor Area Ratio). Provides an attractive, campus-like setting for office and other non-retail commercial uses that do not generate nuisances related to emissions, noise, odors, or outdoor storage and operations. Ancillary uses which provide support services to businesses and employees are permitted. Under special circumstances (e.g., where a mixed-use development would decrease potential traffic generation and/or contribute to greater social interaction and more vital live/work environment), residential uses may be permitted as part of a master planned mixed use development. In such developments, the residential component would not be permitted to occupy more than 50% of the developed area. A floor area ratio of up to 1.2 may be granted at the discretion of the City Council for the 37-acre parcel adjacent to the eastern Dublin BART station in the southwest quadrant of Hacienda Drive and Dublin Boulevard. A 5-acre hotel site is anticipated within this 37-acre parcel. The precise location of the hotel site will be established through the planned development application process.

Note: There are several areas indicated on the land use map that could develop as either general commercial or campus office uses. This flexibility has been provided in these key

areas to respond to changing market conditions that may occur in the future. The shift from campus office (the underlying land use designation) to general commercial would only be permitted if the established traffic levels of service are not exceeded.

Appropriate traffic studies may need to be conducted in order for the City to make the proper determination regarding traffic levels of service.

General Commercial/Campus Office (GC/CO)(.20 to .80 Floor Area Ratio). Provides flexibility in permitting a range of regional and community-serving retail and office uses. Mixed use projects incorporating retail, service and office uses are encouraged.

Medical Campus (MC)(.25 to .80 Floor Area Ratio). This designation is intended to provide an attractive, campus-like setting for medical offices, hospitals, and other non-retail commercial uses that do not generate nuisances related to emissions, noise, odors, or glare. Anticipated uses include, but are not limited to, a comprehensive range of outpatient primary and specialty care services, professional and administrative offices, hospital/medical centers (including full service hospitals/medical centers with 24 hour operations, and related central utility plant), skilled nursing, assisted living, licensed care, and associated parking structures and/or facilities. Structured parking square footage is included in the FAR calculation.

Medical Campus/Commercial (MC/C)(.25 to .60 Floor Area Ratio). This designation accommodates a range of commercial uses including regional- and community-serving retail uses, professional and administrative offices, hotel, entertainment, limited automotive sales, and eating and drinking establishments.

Mixed Use (MU)(.30 to 1.0 Floor Area Ratio). Provides for the combination of medium to medium high density residential housing and at least one non-residential use, such as office or retail. Office or retail uses could include uses such as stores, restaurants, business and professional offices, and entertainment facilities. The floor area ratio is for the combined commercial and residential uses.

Mixed Use 2/Campus Office (MU2/CO) (.45 Floor Area Ratio). This designation provides for a mix of uses including residential, live-work and shopkeeper units, and non-residential uses such as office, retail, restaurants, hotel and entertainment facilities or Campus Office uses consistent with the Campus Office land use designation. This floor area ratio applies to both development options (Mixed Use 2 and Campus Office) and is for the combined commercial and residential uses, if residential uses are incorporated, or for commercial uses if commercial is used exclusively. The residential component shall not exceed 50% of the developments square footage. Gas stations are not permitted.

Industrial Park (Maximum .35 Floor Area Ratio). Accommodates a wide variety of minimum-impact, light industrial uses, provided these activities do not produce offensive levels of noise, dust, glare, or odor. Residential uses are not permitted within this designation. There are no minimum FAR requirements for the Industrial Park

designation. Higher FARs may be approved at the discretion of the City Council if proposed uses meet one or more of the following criteria:

- Unique project characteristics which result in reduced impacts relative to other uses in the same area (e.g., lower traffic generation);
- Unique project building requirements (e.g., warehouse uses that have large land coverage requirements but low employment densities);
- Extraordinary benefits to the City.

4.8.3 PUBLIC AND SEMI-PUBLIC FACILITIES

Public/Semi-Public Facilities (Maximum .50 Floor Area Ratio). Provides for the development of governmental or institutional type uses. The designation generally applies to parcels of land owned by a public entity or governmental agency. Sites designated as Public/Semi Public are not restricted to public uses and can be approved for joint development (i.e. a private development on a publicly owned parcel of land or a public/semi-public facility built on a privately owned parcel).

Semi-Public (SP) (Maximum .50 FAR). Provides for quasi-public uses, such as child care centers, youth centers, senior centers, special needs program facilities, religious institutions, clubhouses, community centers, community theaters, hospitals, and other facilities that provide cultural, educational or other similar services and benefit the community. A Semi-Public facility may be used for more than one such use.

School (No Floor Area Ratio requirements). Provides for the future development of public or private educational facilities. The Plan identifies locations for three types of schools: elementary school, junior high school, and high school. Based on State standards, the plan provides 10-acre minimum sites for elementary schools, 20-acre minimum sites for junior high schools, and 50-acre minimum sites for the high school. School sites are generally level or have fairly gentle slopes. For safety reasons, elementary and junior high schools have been located away from major arterials, and wherever possible adjacent to an open space corridor. The high school site has been located adjacent to a major collector street to facilitate vehicular access.

4.8.4 PARKS AND OPEN SPACE

City Park. Provides a major destination park site to serve the diverse needs of the entire City, with facilities that maximize the recreational and leisure experience of all citizens. Open space and facilities will accommodate a range of activities including: active and passive recreation, formal sports, community events and social/cultural gatherings. The 56-acre City Park site is located on the west side of the planning area to be more central to the entire Dublin community, and adjacent to major collector streets and Central Parkway the transit spine to facilitate access and provide a high degree of public visibility. The creek side trail along Tassajara Creek will link the park to surrounding residential areas and to other city destinations.

Community Park. Provides for development of parks to serve primarily the eastern portion of the City. Two Community Parks, ranging from 45-80 acres, are designated in the Plan. Both are located on major arterials and collector roads to facilitate vehicular access. Trails and open space corridors will connect the parks to surrounding residential areas, schools, and other city destinations. Each of the parks has also been located in highly visible sites with interesting natural or visual characteristics. In addition to elements typically included in Neighborhood Parks, Community Parks are large enough to include large natural and landscaped areas and facilities for larger groups and organized sports activities.

An approximately 60-acre Sports Park will be located immediately northwest of the Fallon Road/Central Parkway intersection. It will be devoted mainly to active sports facilities such as baseball and soccer fields and tennis and basketball courts. A recreation center and gymnasium is also planned for this park. It is intended to be a park that will serve the entire City of Dublin.

Neighborhood Park. Provides for development of parks that serve the recreation needs of a specific neighborhood or cluster of residential units. These parks are at least 5-7 acres in size, are centrally located to the homes they serve, and have frontage on a minimum of two streets. Park sites are generally level to accommodate active recreation, in most instances, the Neighborhood Parks are located adjacent to an open space corridor to facilitate safe pedestrian movement within the community.

Neighborhood Square. Provides for development of smaller park facilities in the more urban areas of the community where higher residential densities limit the amount of private yard space. The Neighborhood Square is intended to serve the residential area within a radius of a few blocks. Sites for the Neighborhood Squares are flat, generally about 2 acres in size, and have a more urban character than the other parks. Surrounding uses will all front on streets adjoining the square. These parks are intended less for active recreation than other parks, and more for providing an outdoor space where residents can rest and socialize.

Nature Park. Natural Community Parks of varying size offer a variety of passive recreational opportunities that attract a range of age groups of people looking for a more serene park experience as further described in the Parks and Recreation Master Plan. Natural Community Parks should feature areas that are primarily un-programmed and more natural in appearance, often including features that have historically existed on site, such as hills, creek or wetland features, or man-made structures such as bridges or small buildings. Examples of uses include trails, sitting areas, wildlife viewing area and natural interpretive areas with signage.

Open Space. Protects areas with important and/or sensitive resources and areas with natural hazards from development. Open Space lands include: areas dedicated to the City as open space; areas with slopes predominantly over 30%; stream and drainage way protection corridors; woodlands; visually-sensitive ridgelines; and grazing lands

(See Chapter 6, Resource Management, for additional discussion of open space resources). Open space lands can be either publicly or privately owned. Areas designated in the Plan as Rural Residential will provide a significant portion of the planning area's open space because of the constraints to development (i.e., visual sensitivity, geotechnical restrictions, and habitat concerns).

In general, open space lands are to be preserved with minimal development. Privately held agricultural land can be used for agricultural production and grazing. Structures related to these agricultural activities will be permitted. In sensitive resource areas and areas set aside to protect public health and safety, uses will be limited to passive recreation (i.e., walking, hiking, etc.). Development in these areas will be limited to trail improvements.

4.9 PLANNING SUBAREAS

The planning area is divided into eleven (11) planning subareas as illustrated in Figure 4.2. The subareas define areas that share similar uses and are distinguished from one another by differences in development character. The location, land use concept, and development program for each of the subareas is described below. Development projections for each subarea do not represent maximum development potential, but assume lower, more realistic, development potential based on historical evidence of similar development in other communities. Although the East Dublin Specific Plan envisions a social and mixed use core at the Tassajara Village Center, existing topographical and environmental conditions limit the viability of this plan concept. Therefore, the Tassajara Village Center as originally envisioned is infeasible.

Advisory development guidelines and standards for each subarea are included in the chapter on Community Design (Chapter 7). Table 4.1, in the beginning of this chapter, provides a land use summary by Specific Plan land use designation. Appendix 3 at the back of this document provides a land use summary by planning subarea.

4.9.1 TASSAJARA GATEWAY

The Tassajara Gateway subarea is situated at the Tassajara Road interchange with I-580 and includes the areas on either side of Tassajara Road between the freeway and Dublin Boulevard (see Figure 4.2)

LAND USE CONCEPT

The land use concept for the Tassajara Gateway encourages the development of uses that will benefit from their location at the intersection of the area's two major east-west travel corridors (I-580 and Dublin Boulevard) with the major north-south corridor (Tassajara Road). The area is favored for uses that depend on the location's high visibility and convenient vehicular access for their success. Typically, such uses can be expected to have²

² Note: Text inadvertently omitted in the original document.

TABLE 4.4 TASSAJARA GATEWAY SUBAREA DEVELOPMENT POTENTIAL (Amended Per Resolution No. 76-10, 151-16)			
Designation	Acres	Density	Development Potential
General Commercial	52.7	.25 FAR	.574 msf
General Commercial/Campus Office	10.5	.28 FAR	.128 msf
Campus Office	33.28	.35 FAR	.507msf
Medical Campus/Commercial	15.85	.36 FAR	.250 msf
Open Space	6.9	-----	-----
Semi Public	----	----	0
TOTAL	121.96	-----	1.459 msf

Because of the area's high visibility, land uses within the subarea should also present a high profile, quality image that establishes a positive impression on the thousands of travelers who will pass through this area daily. Emphasis should be placed on developing attractive, high quality development, which will contribute to the creation of a distinctive "gateway" image at the Tassajara Road entrance to eastern Dublin. Uses which fit these criteria might include activities such as hotels, campus office, conference center, restaurants, and quality regional retail.

4.9.2 TOWN CENTER COMMERCIAL

LOCATION

The Town Center - Commercial subarea located adjacent and perpendicular to Tassajara Road. consists of two linear is a T-shaped areas located adjacent and perpendicular to Tassajara Road and "Main Street". The subarea extends north south along Tassajara Road from Dublin Boulevard to just north of Gleason Drive and north-south along "Main Street" from Dublin Boulevard to just north of Gleason Drive and north-south along "Main Street" from Dublin Boulevard to just north of Central Parkway. . Midway between these two roadways the subarea extends approximately 3/4 mile eastward along a street designated as the transit spine (See Figure 4.1).

LAND USE CONCEPT

As indicated by its name, this subarea represents the commercial core for eastern Dublin. The area is intended to be a high density, pedestrian-oriented commercial, civic, and entertainment center for Dublin and the surrounding communities. The subarea

consists of two distinct parts: the General Commercial area and the Neighborhood Commercial area.

The General Commercial area, which extends along Tassajara Road, is intended to include uses with a broader market area and a greater orientation to the motoring public, including a full range of regional and community retail, service, office, and restaurant uses. Ideally, a major community shopping center, with supermarket, drug store, hardware store, liquor store, and other supporting retail and service uses would be located in this area.

The Neighborhood Commercial area, which extends along both sides of “Main Street” the transit spine, is intended as a more pedestrian-oriented service, retail, commercial and entertainment center serving the daily needs of the residential neighborhoods surrounding it and the more intermittent shopping, entertainment, and service needs of the larger community. The land use emphasis focuses on convenience commercial such as corner grocery, drug store, and dry cleaners for local residents, and specialty retail uses such as food and clothing boutiques, florists, bookstores, stationers, antique shops, beauty salons, bars, cafes and restaurants for the larger community.

Mixed use development is strongly encouraged in both the General and Neighborhood Commercial areas, particularly retail and service uses on the ground level with office and/or residential uses above.

The subarea has an area west of the mid-point of “Main Street” which is designated for Public/Semi Public uses. The intent is that these areas be developed with some combination of community-serving uses that will provide a public focus at the heart of the Town Center. Such uses might include a performing arts center, library, community center, post office or some other community facility. It is anticipated that the uses in this area the Town Center would adjoin a public plaza that could accommodate public ceremonies, events, and less formal gatherings within the Town Center.

TABLE 4.5 TOWN CENTER -- COMMERCIAL SUBAREA DEVELOPMENT POTENTIAL (Amended Per Resolution No. 47-04)			
Designation	Acres	Density	Development Potential
General Commercial	65.4	.35 FAR	.997 msf
Neighborhood Commercial	31.7	.35 FAR	.483 msf
Public/Semi-Public	3.9*	.25 FAR	.043 msf
Semi-Public	--	--	0 msf
TOTAL	101.0	---	1.565 msf

4.9.3 TOWN CENTER RESIDENTIAL

LOCATION

The Town Center--Residential subarea is generally located in the area bounded by Dublin Boulevard on the south, Fallon Road on the east, Gleason Drive on the north and Hacienda Drive on the west. The residential subarea is divided in two by the Town Center--Commercial subarea (see Figure 4.1).

LAND USE CONCEPT

A community park and open space area occupy a large area in the eastern portion of the subarea. The emphasis of the Community Park will be on the development of active sports facilities that will serve the entire Dublin community. The open space area consists of the western portion of a small ridge of foothills that roughly parallel the freeway. These rounded hills are a significant visual element within the landscape, and have been preserved as open space for private recreational uses (i.e., hiking). A City Park is designated for the 56-acre area between Tassajara Road and Tassajara Creek. This park is intended to accommodate a range of recreation and leisure uses, with less emphasis on active sports fields and more emphasis on community facilities and landscaped open space.

TABLE 4.6 TOWN CENTER-- RESIDENTIAL SUBAREA DEVELOPMENT POTENTIAL			
Designation	Acres	Density	Development Potential
High Density	33.6	35 du/ac	908 du
Medium High Density	44.9	20 du/ac	852 du
Medium Density	189.0	10 du/ac	1,949 du
Single Family	89.2	4 du/ac	399 du
Subtotal	356.7	---	4,108 du
Open Space	49.8	---	
City Park	56.3	---	1 park
Community Park	80.6	---	1 park
Neighborhood Park	11.6	---	2 parks
Neighborhood Square	7.5	---	5 parks
Nature Park	10.4	---	1 park
Semi-Public	---	---	0 msf
Subtotal	216.2	---	
Elementary School	31.1	---	3 schools
TOTAL	604	---	4,108 dwelling units 10 parks 3 elementary schools

It should be noted that some residential areas within this subarea lie within the Livermore Airport Protection Area (APA). If, at the time of rezoning, the residential designations are inconsistent with the APA, the residential designations will convert to 'Future Study Area' with an underlying rural residential/agriculture designation. The Future Study Area designation indicates the City's long term interest in the area and the need for additional studies to determine the most appropriate use for these lands.

4.9.4 FALLON GATEWAY

LOCATION

This subarea is located at the Fallon Road interchange with I-580, and occupies the areas east and west of Fallon Road between Dublin Boulevard and the freeway, and extending north to the Airport Protection Area boundary. The subarea also extends north to include the northeast and northwest quadrants of the intersection of Fallon Road and Dublin Boulevard (see Figure 4.2). In 2006, the Fallon Village amendment expanded the Fallon Gateway Subarea to the west and north to encompass the entire Chen property (as the Dublin Boulevard alignment had shifted north) except for the areas designated as Community Park and Medium High Density Residential. Also, the EBJ Partners, Pleasanton Ranch Investments parcels and the areas of the Anderson, Righetti and Branaugh properties within the Livermore Airport Protection Area (formerly the Industrial subarea) were added to the Fallon Gateway Subarea.

LAND USE CONCEPT

The land use concept for the Fallon Gateway encourages the development of General Commercial and Campus Office uses that will benefit from the visibility and easy access provided by their location near I-580, Dublin Boulevard, and Fallon Road. Given the sub area's eastern location away from downtown Dublin and the Town Center in eastern Dublin, it is anticipated that the General Commercial areas will accommodate retail uses that are less suited for the commercial core areas either because they require larger land areas, better freeway access, and/or different development standards. Uses in this category include that segment of the retail market that typically deals with high sales volumes and/or bulky or big-ticket items; has relatively low-overhead; draws from a regional market area; and is highly auto-oriented. Examples of such uses include discount centers, promotional centers, outlet stores, home improvement centers, auto dealerships, nurseries, and similar uses. The subarea should not include uses that would directly compete with and/or decrease the vitality of the commercial areas in the Town Center or Downtown Dublin.

Table 4.7 FALLON GATEWAY SUBAREA DEVELOPMENT POTENTIAL¹			
Designation	Acres	Density	Development Potential
General Commercial	121.2	.25 FAR	1,319,868
General Commercial/Campus Office	72.7	.28 FAR	886,708
Medical Campus	42.88	.51 FAR	950,000
Industrial Park	61.3	.28 FAR	747,664
TOTAL	298.08		3,904,240

¹In 2006, the Fallon Village amendment expanded the Fallon Gateway Subarea to the west and north to encompass the entire Chen property (as the Dublin Blvd. alignment had shifted north) except for the areas designated as Community Park and Medium High Density Residential. Additionally, the EBJ Partners and Pleasanton Ranch Investments parcels and the areas of the Anderson, Righetti and Branaugh properties within the Livermore Airport Protection Area (formerly the Industrial subarea) were added to the Fallon Gateway Subarea. See Figure 4.2.

Medical Campus 42.88 .51 FAR .950 msf

4.9.5 VILLAGE CENTERS

LOCATION

The plan area includes two (2) Village Center subareas: Fallon Village and Tassajara Village. The Fallon Village Center is situated at the intersection of Fallon Road and the transit spine. The Tassajara Village Center is located at the intersection of Tassajara Road and Fallon Road.

The Fallon Village Center is located at the intersection of Fallon Road and the transit spine. In 2005, the Fallon Village amendment changed the location of the Village Center due to habitat conservation concerns. The approximately 94-acre Village Center is centered on Central Parkway, east of Fallon Road, near the intersection of the realigned Central Parkway and Croak Road. The area extends north and east to encompass the Medium Density Residential lands on the Croak and Jordan properties.

LAND USE CONCEPT

The focus of each Village Center is a 6-12 acre commercial area that will accommodate a mix of retail and service uses. The land use pattern within the Village Centers is intended to provide a higher density, socially active, pedestrian-oriented zone, which functions both physically and symbolically as a center for the outlying residential areas. Each Village Center has been located near a major intersection to accommodate convenient vehicular access from the surrounding area and to provide commercial tenants with good visibility from the roadway. By situating convenience shopping and services closer to where people live, the Village Centers are seen as a way to reduce daily vehicle miles traveled by local residents. In order to further reduce vehicular

access from the surrounding area and to provide commercial tenants with good visibility from the roadway. By situating convenience shopping and services closer to where people live, the Village Centers are seen as a way to reduce daily vehicle miles traveled by local residents. In order to further reduce vehicle trips, the Village Centers. In order to further reduce vehicle trips, the Village Centers include higher density housing within convenient walking distance of the commercial core and preserve open space corridors into the core that will facilitate pedestrian and bicycle access from the surrounding areas.

The focus of each Village Center is an 8-12 acre commercial area which will accommodate a mix of retail and service uses. The emphasis in the commercial areas is to provide convenience goods and services for the surrounding residential neighborhoods. Typical commercial uses will include grocery stores, gas stations, dry cleaners, drug and hardware stores, restaurants, video rentals, shoe repair, bank branch offices, and other such uses. Office uses should also be oriented toward neighborhood service, and will include uses such as real estate brokers, accountants, insurance brokers, and professional offices.

In addition to the retail and offices uses, the commercial core area in each Village Center will include a range of public facilities, including a centrally-located neighborhood park and an elementary school, plus other public facilities such as a community center or fire station, as appropriate. The commercial areas in each center are surrounded by a concentration of higher density housing.

TABLE 4.8 TASSAJARA VILLAGE CENTER SUBAREA DEVELOPMENT POTENTIAL (Amended Per Resolution No. 159-14)			
Designation	Acres	Density	DEVELOPMENT POTENTIAL
Neighborhood Commercial	11.31	.30 FAR	.148 msf
Medium High Density Residential	19.65	20 du/ac	393 du
Medium Density Residential	30.86	10 du/ac	308 du
Single Family Residential	17.6	4 du/ac	70 du
Residential Subtotal	77.3	--	771 du
Open Space	2.0	--	--
Park/Open Space Subtotal	2.0	--	2 parks
Semi-Public	--		0 msf
TOTAL	79.3		.148 msf commercial 771 du 2 parks 1 elementary school

**TABLE 4.9
FALLON VILLAGE CENTER
SUBAREA DEVELOPMENT POTENTIAL
(Amended Per Resolution No. 92-12 and 165-15)**

Designation	Acres	Density	Development Potential
Medium Density Residential	38.43 ¹	10 du/ac	384 du
Medium High Density Residential	13.33	20 du/ac	267 du
Residential Subtotal	51.76	--	651 du
Neighborhood Square	2.0	--	1 park
Community Park	13.5	--	1 park
Open Space	3.6	--	--
Park/Open Space Subtotal	19.1	--	1 community park 1 neighborhood square
Public/Semi-Public	3.7	--	--
Semi-Public	4.5	--	--
Total	79.06	--	651 du

¹ Underlying Medium Density Residential on Jordan school site now shown (PLPA 2010-00068). Up to 105 units possible and determined at Stage 2 Development Plan.

Note: The prior Junior High School land use designation has been changed to Medium-High Density Residential

4.9.6 FOOTHILL RESIDENTIAL

LOCATION

The Foothill Residential subarea includes most of the Specific Plan area north and east of the Town Center (The only areas not included are the two Village Centers, see Figure 4.1).

LAND USE CONCEPT

Uses in the Foothill Residential Subarea will be predominantly residential. Housing in the subarea is predominantly single family in the lower density ranges. Through the

2005 Fallon Village amendment medium density residential uses will also be permitted. Other uses in the subarea include schools (a high school, junior high school, and an elementary school) and parks (a community park and four neighborhood parks). Amendments and subdivisions since 1993 have changed the number of community and neighborhood parks and neighborhood squares. The Dublin Unified School District determined in its 2004 Demographic Study and Facilities Plan that fewer schools would be necessary to serve the planning area after 2004, so the number of schools in the Subarea has been reduced. Unlike the other subareas, which are characterized by relatively level topography, the Foothill subarea consists primarily of hilly topography ranging from relatively gentle slopes to steep hillsides. In general, the steeper portions of the subarea are designated for lower densities. Steep slopes (over 30%) and visible

ridgeland areas are considered unsuitable for development. These constrained areas are designated for either rural residential uses or open space.

The intent is to preserve the ridgeland and higher elevations within the subarea as open space, and then integrate the development with the natural setting to preserve a sense of development within a natural open space context. Existing creeks and drainage corridors will be preserved and enhanced with natural vegetation to extend open space corridors down into the development areas, creating a sense of interconnectedness between the built and natural environments.

It should be noted that some residential areas within this subarea lie within the Livermore Airport Protection Area (APA).

If at the time of rezoning, the residential designations are inconsistent with the APA, the residential designations will convert to 'Future Study Area' with an underlying rural residential /agriculture designation. The Future Study Area designation indicates the City's long term interest in the area and the need for additional studies to determine the most appropriate use for these lands.

TABLE 4.10			
FOOTHILL RESIDENTIAL			
SUBAREA DEVELOPMENT POTENTIAL			
<small>(Amended Per Resolution No. 58-07, 37-08, 176-09, 76-10, 55-12, 210-12)</small>			
Designation	Acres	Density	DEV. POTENTIAL
Medium-High Density Residential	27.1	20 du/ac	542 du
Medium Density Residential	218	10 du/ac	2,180 du
Single Family Residential*	868.7	4 du/ac	3,475 du (1)
Estate Residential	30.4	0.13	4 du
Rural Residential	536.9	.01 du/ac	5 du
Residential Subtotal	1,681.1	--	6,206 du
Open Space	607.5	--	--
Regional Park	11.7		1 park
Neighborhood Park	39.3	--	4 parks
Neighborhood Square	6.4	--	2 squares
Park/Open Space Subtotal	664.9	--	7 parks
Elementary School	22.7	--	3 schools
Junior High School	1.4	--	1 school
High School	55.3	--	1 school
School Subtotal	79.4	--	5 schools
Public/Semi-Public	7.2	0.24 FAR	--
Semi-Public	5.3	0.24 FAR	
Total	2,437.9	--	6,206 du 7 parks 5 schools

* The Eastern Dublin Specific Plan originally considered 68 units on the Dublin Ranch North (Redgewick) property. The land use designation was amended to allow development of 4 units. This change results in 64 excess single family units than what was analyzed in the 1993 Eastern Dublin Environmental Impact Report.

1 The Moller Property has 381 maximum allowable single-family density units per the SEIR.

Note: The following changes and additions affected the acreages and development potential and are the reason that figures from the original version of the Plan are changed:

Per its 2004 Demographic Study and Facilities Plan, the Dublin Unified School District determined that the projected student population for the District would be serviced by Dublin High School and Valley Continuation High School, thus eliminating the need for a high school in the Eastern Dublin Specific Plan area. The High School use has been eliminated from this chart. The Braddock and Logan, Croak, and Fallon Enterprises parcels were added to the subarea in the 2005 Fallon Village amendment.

4.9.7 HACIENDA GATEWAY

LOCATION

The Hacienda Gateway subarea includes the southwest corner of the planning area around the Hacienda Drive interchange with I-580 and the Hacienda Drive/Dublin Boulevard intersection (see Figure 4.1).

LAND USE CONCEPT

The land use concept for the Hacienda Gateway subarea encourages the development of uses that will benefit from the subarea's location at two major vehicular gateways to eastern Dublin (Hacienda Drive/I-580 interchange and Dublin Boulevard) and adjacent to the future East Dublin BART station immediately to the west of the site. The subarea includes employment-generating uses along the west side of Hacienda Drive that will contribute ridership and a work destination in support of the future regional transit connection. General Commercial uses are designated along the east and west side of Hacienda Drive, to take advantage of the high visibility and convenient vehicular access from I-580, Hacienda Drive, and Dublin Boulevard.

TABLE 4.11 HACIENDA GATEWAY SUBAREA DEVELOPMENT POTENTIAL (Amended Per Resolution 47-04, 198-13)			
Designation	Acres	Density	DEVELOPMENT POTENTIAL
General Commercial	85.8	.21 FAR	.800 MSF
General Commercial	27.54	.38 FAR	.454 MSF
General Commercial/Campus Office	14.32	.27 FAR	.167 MSF
Neighborhood Commercial	0.0	.30 FAR	--
Campus Office	50.68	.37 FAR	.817 MSF
Campus Office	19.0	.50 FAR	.420 MSF
Campus Office	30.2	0.85 FAR	1.119 MSF
Subtotal	227.54		3.777 MSF
Medium High Density Residential	16.2	20 du/ac	324 du
Residential Subtotal	16.2		324 du
Semi-Public	--	--	0 MSF
Total	243.74		3.777 MSF 324 du

Because of the area's high visibility, land uses within the subarea should also present a high profile, quality image that establishes a positive impression on the thousands of travelers who will pass through the area daily. In the area near the freeway, emphasis should be placed on developing attractive, high quality development, which will contribute to the creation of a distinctive "gateway" image at the Hacienda Drive entrance to eastern Dublin. Uses, which fit these criteria, might include activities such as hotels, corporate offices, restaurants, and quality regional retail.

4.9.8 COUNTY CENTER

LOCATION

The County Center subarea is located in the strip of land located west of Tassajara Creek, north of the Town Center--Residential subarea, and south of the Santa Rita Rehabilitation Center (see Figure 4.1).

LAND USE CONCEPT

The light industrial and governmental uses designated for the County Center subarea are intended to accommodate existing uses in the area and provide a compatible land use between the Santa Rita Jail to the north and residential uses proposed to the south. The Public/Semi-Public designated area north of Gleason Drive is intended to accommodate a variety of government- related uses, including existing uses such as the California Highway Patrol regional headquarters, the Alameda County Sheriff's training academy, and the Public Works Department fueling station and corporation yard, and such potential uses as an Agriculture Commission office, a Tri-Valley Animal Shelter, a multi-use County Training Center, and a possible Court House complex. The Industrial Park area south of Gleason Drive is designated for typical light industrial uses (see land use concept for the Industrial Park subarea).

TABLE 4.12 COUNTY CENTER SUBAREA DEVELOPMENT POTENTIAL			
Designation	Acres	Density	Development Potential
Public/Semi Public	88.5	.25 FAR	.964 MSF
Semi-Public	--	--	0 MSF
TOTAL	88.5	--	.964 MSF

4.9.9 TRANSIT VILLAGE CENTER

LOCATION

The Transit Village Center subarea comprises the southwestern most corner of the planning area, directly adjacent to the East Dublin/Pleasanton BART station, in the area north of I-580, west of Arnold Road, south of Camp Parks and east of the planned Iron Horse Trail alignment.

LAND USE CONCEPT

The Transit Village Center subarea is intended to maximize the transit opportunities presented by the BART station and the associated bus hub by creating a vibrant, pedestrian-friendly and high density mix of office, residential and retail uses all within easy walking distance of the BART station. Densities within the subarea are the highest planned for the various land areas within the Specific Plan, with residential densities averaging 50 units to the acre, and office densities over 1.0 FAR. To accommodate these densities, office buildings of up to 10 stories will be permitted, helping to make the BART station area a visual focal point for the entire Tri-Valley area.

Parking will be primarily accommodated by garages, including a new BART parking garage to replace much of the existing surface parking lots.

Because of the area’s high visibility, architectural elements within the subarea should present a high profile, quality image. To encourage transit use, design standards in the subarea should encourage high levels of pedestrian use by creating short street blocks, permitting reduced parking standards, encouraging minimal building setbacks, and designing relatively narrow street sections, with wide, tree-canopied sidewalks and on-street parking. Ancillary retail and service uses that offer convenient goods and services to subarea residents, employees and commuters are encouraged as a ground-floor use for residential and office uses along Iron Horse Parkway to add vitality to the street.

<p align="center">TABLE 4.13 TRANSIT VILLAGE CENTER SUBAREA DEVELOPMENT POTENTIAL (Amended Per Resolution No. 159-14, 101-15)</p>			
Designation	Acres (gr.)	Density	Development Potential
Campus Office	38.3	1.2 FAR	2 MSF
High Density Residential	28.64	48 du per acre	1,500 units
Medium-High Density Residential	2.86	14.1-25.0 du per acre	
Neighborhood Park	3.5	--	--
Public/Semi Public	8.65	--	--
TOTAL	81.95	--	--

4.9.10 GRAFTON PLAZA

LOCATION

The Grafton Plaza subarea is located between Dublin Boulevard and Interstate 580 and east of Grafton Street. (Refer to Figure 4.1)

LAND USE CONCEPT

The Grafton Plaza subarea is intended to provide a vibrant Mixed Use and urban village or Campus Office project that is pedestrian friendly, human scaled, and creates an active environment permitting an opportunity for residents to live, work, and play in a place currently not provided for in the area. This subarea builds off the adjacent Promenade and Grafton Station retail projects and adjacent medium-high and high density residential communities to establish a residential, commercial, and hospitality destination.

The subarea will allow a maximum of 496,519 square feet of development (0.45 FAR), and the residential use, if utilized as part of a mixed use development, shall not exceed 50% of the project square footage. No residential is permitted under the Campus Office development option. Usable and attractive open space areas will be incorporated into the project to provide unique public spaces.

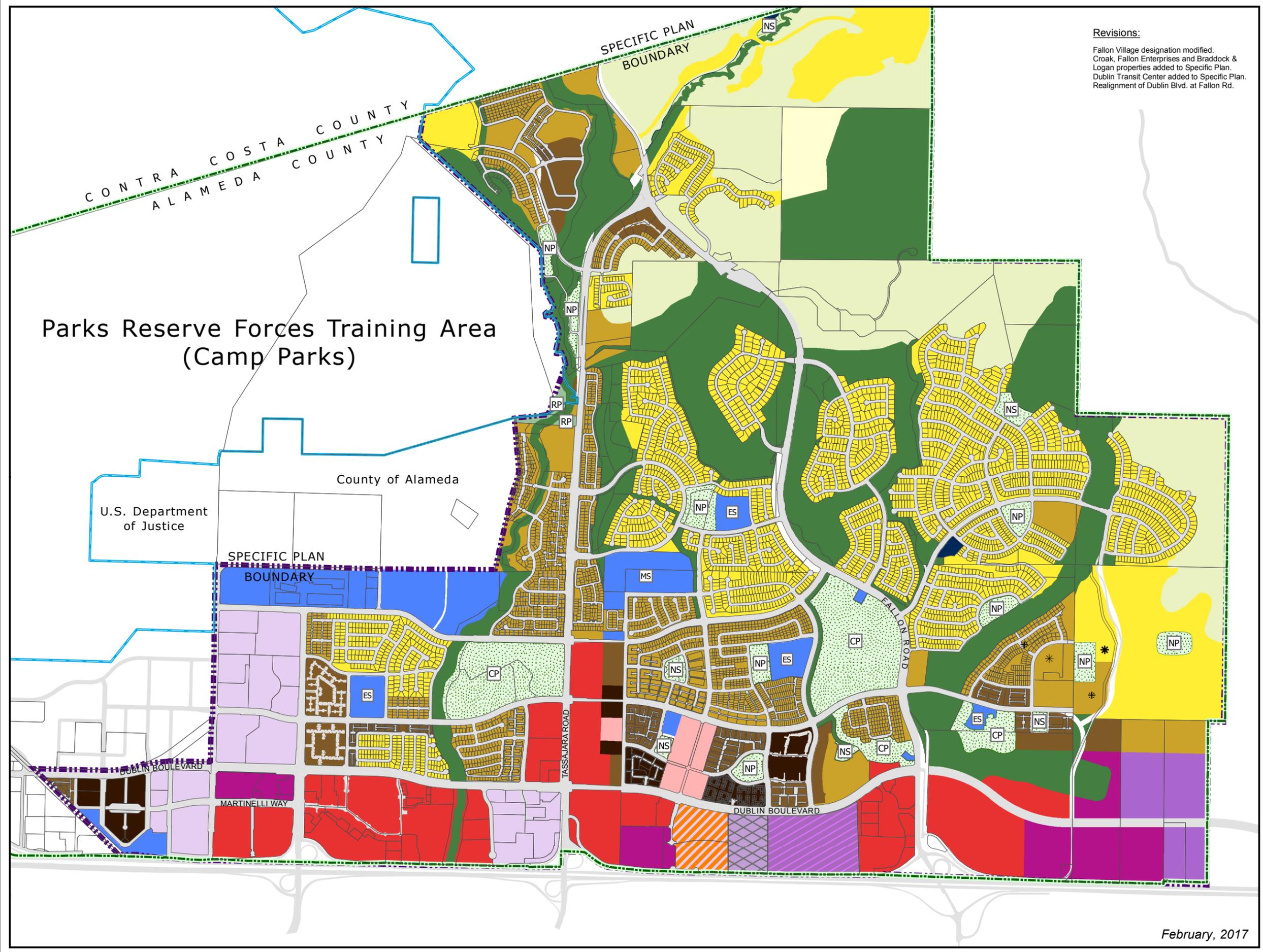
The architecture and landscape character will be governed by design guidelines and standards to ensure an attractive and cohesive project and establish a framework that encourages public activity, human scale, and high quality design and materials.

TABLE 4.14 GRAFTON PLAZA SUBAREA DEVELOPMENT POTENTIAL			
Designation	Gross Acres	Density	Development Potential
Mixed Use 2 with residential uses (Option 1)	25.33	0.45	248,259 s.f. max. for +/-235 Residential Units/248,260 minimum s.f. non-residential uses. Total project not to exceed 496,519 sf.
Campus Office with no residential uses (Option 2)	25.33	0.45	Campus Office 496,519 s.f. non-residential uses



Figure 4.1
Land Use Map

Revisions:
Fallon Village designation modified.
Croak, Fallon Enterprises and Braddock &
Logan properties added to Specific Plan.
Dublin Transit Center added to Specific Plan.
Realignment of Dublin Blvd. at Fallon Rd.



Parks Reserve Forces Training Area
(Camp Parks)

East Dublin Specific Plan

- Camp Parks RFTA
- City of Dublin

Specific Plan LU

Public/Semi-Public

- Regional Park
- Parks/ Public Recreation
- Open Space
- Public/Semi-Public; PL
- Semi-Public

Commercial/Industrial

- General Commercial
- Retail/Office
- General Commercial/Campus Office
- Mixed Use
- Mixed Use 2/Commercial Office
- Neighborhood Commercial
- Campus Office
- Industrial Park
- Business Park/Industrial
- Medical Campus
- Medical Campus / Commercial

Residential

- Estate Residential (0.01 - 0.8 du/ac)
- Rural Residential/Agriculture (0.01 du/ac)
- Single Family (0.9 - 6.0 du/ac)
- Medium Density (6.1 - 14.0 du/ac)
- Med-Hi Density (14.1 - 25.0 du/ac)
- High Density (25.0 + du/ac)

- CP Community Park
- NS Neighborhood Square
- NP Neighborhood Park
- RP Regional Park
- ES Elementary School
- MS Middle School
- HS High School

- * Underlying Land Use: Public / Semi-Public (ORDINANCE 09-15) (RESOLUTION 166-15)
- * The location of the Semi-public site on the Croak and Chen properties of Fallon Village will be determined at the time of PD-2 approval.
- ‡ 50% of the units within the Medium Density land use designation on the Croak and Jordan properties shall have private, flat yards.

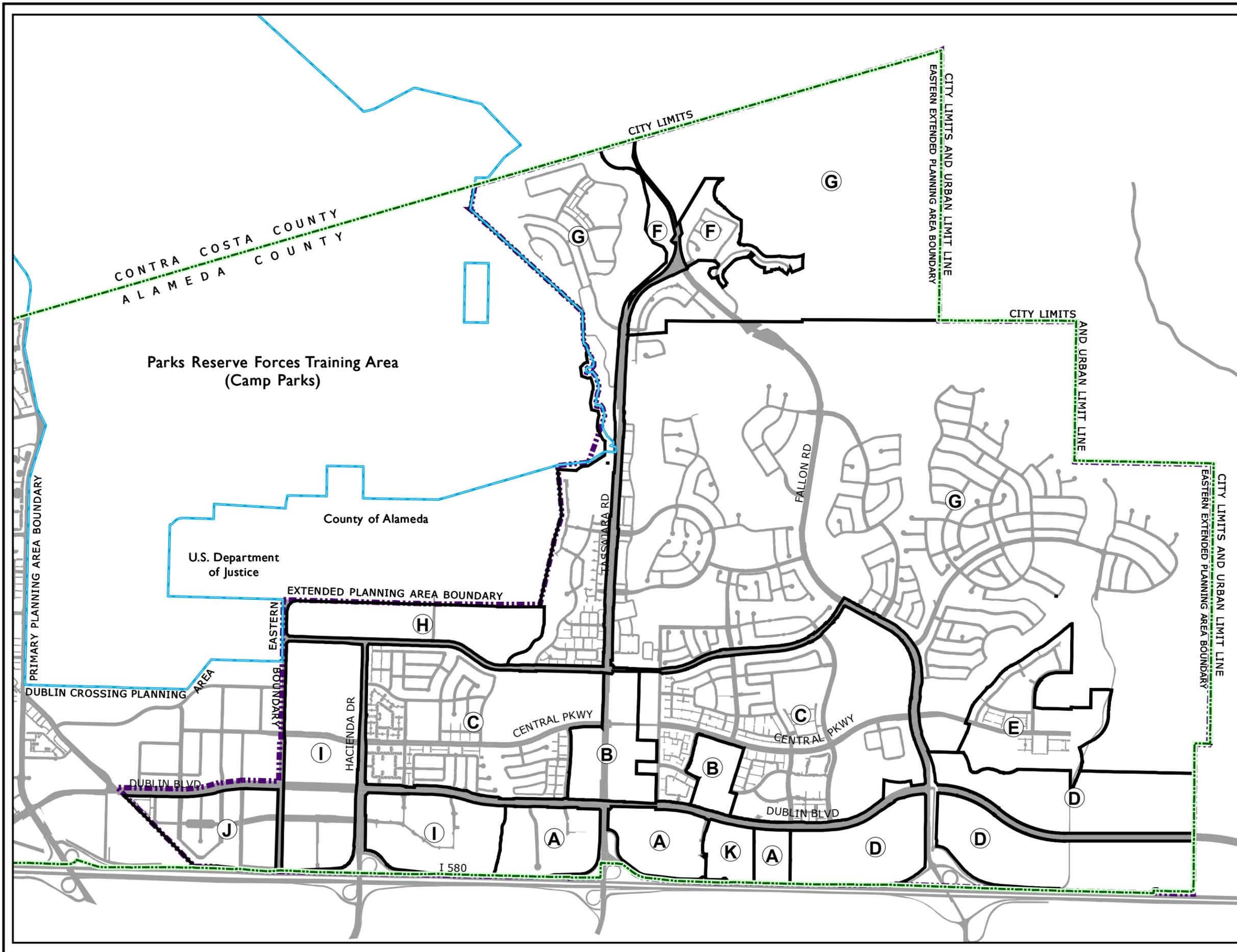
NOTE: The internal system of local streets shown in this figure is illustrative only.

0 500 1,000 2,000 3,000 Feet

0 0.125 0.25 0.5 Miles



Figure 4.2
Planning Subareas



- A Tassajara Gateway
- B Town Center - Commercial
- C Town Center - Residential
- D Fallon Gateway
- E Fallon Village Center
- F Tassajara Village Center
- G Foothill Residential
- H County Center
- I Hacienda Gateway
- J Transit Center
- K Grafton Plaza

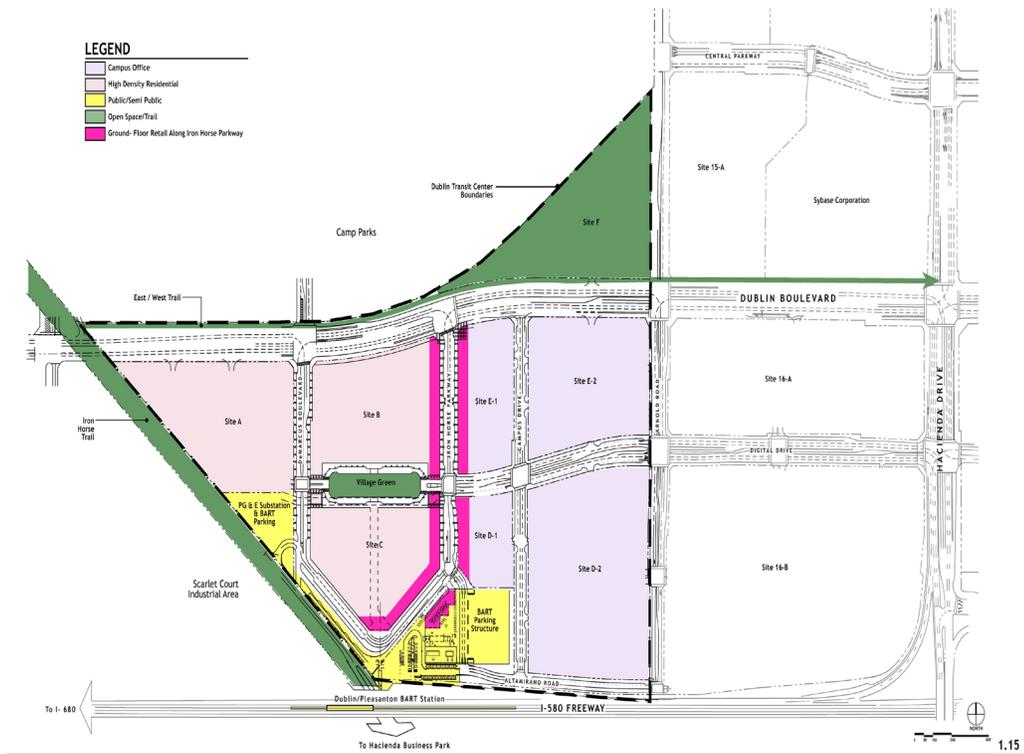
- Planning Subareas
- East Dublin Specific Plan
- Camp Parks RFTA
- City of Dublin
- Streets

May 2003
Revised: June 2015

NOTE: The internal system of local streets shown in this figure is illustrative only.

0 1,500 3,000 Feet

0 0.25 0.5 Miles



5.0 TRAFFIC AND CIRCULATION

5.1 INTRODUCTION

The transportation and circulation systems for Eastern Dublin are designed to provide convenient access to and mobility within the Specific Plan area. The plan provides for an integrated, multi-modal circulation system that reduces potential traffic impacts by providing area residents with a high degree of choice in selecting a preferred mode of transportation. While ensuring that vehicular circulation is convenient and efficient, the plan puts a strong emphasis on accommodating alternative modes of transportation, including walking, bicycles, transit and ridesharing. These alternative modes of transportation will not only relieve future traffic congestion, but can also help to minimize air pollution, reduce noise pollution, and conserve energy.

GOAL: To provide a circulation system for eastern Dublin that is convenient and efficient, and encourages the use of alternative modes of transportation as a means of improving community character and reducing environmental impacts.

In addition to standard transportation measures, the Specific Plan also includes several measures that are only indirectly related to transportation, to encourage the development of a less automobile-dependent community. On the macro scale, the Plan attempts to maintain a citywide balance between employment and housing to reduce the need for long commutes. In addition, the Plan encourages the development of housing for all income levels to provide a match between available housing and the buying power of local employees. On the micro scale, commercial centers have been strategically located near residential concentrations to reduce the length and number of vehicle trips needed for daily shopping and services.

Higher density housing has been integrated into commercial areas. Mixed-use developments are encouraged as a means of stimulating pedestrian activity. Higher intensity development is also designated near the proposed Eastern Dublin BART station and to support transit use. An extensive trail system has been designed to encourage walking and cycling. On the micro scale, advisory development and design guidelines included in the plan promote pedestrian-friendly streetscapes that provide a safe and comfortable environment for the pedestrian.

Policy 5-1: Encourage higher intensity development near transit corridors.

Policy 5-2: Require all development to provide a balanced orientation toward pedestrian, bicycle, and automobile circulation.

5.1.1 EXISTING ROADS

The Specific Plan area is served by one major freeway and several local routes which are primarily rural in character.

INTERSTATE 580

Interstate 580 (I-580) is an eight-lane freeway which runs east-west along the south side of the planning area. I-580 connects with Interstate 680 (I-680) in Dublin, and continues west through Dublin Canyon to serve western Alameda County, and San Francisco. To the east, I-580 connects to Livermore, Tracy and I-5 in the Central Valley. Interchanges in the planning area vicinity include Dougherty Road/Hopyard Road, Hacienda Drive, Tassajara Road/Santa Rita Road, Fallon Road/El Charro Road, and Airway Boulevard. Between I-680 and Tassajara Road, recent improvement projects have added a fifth auxiliary lane in each direction to serve traffic entering and exiting the freeway.

The peak traffic directions are westbound in the morning and eastbound in the evening. Traffic flows are heavy in the peak directions during peak periods, but congestion in the planning area is not significant enough to cause delays. There is significant peak period congestion west of Dougherty Road and at the interchange between I-580 and I-680.

DOUGHERTY ROAD

Dougherty Road is a two-lane rural road over most of its length. Dougherty Road has six lanes between I-580 and Dublin Boulevard. Portions of Dougherty Road have been widened to four lanes adjacent to new development between Dublin Boulevard and the Alameda/Contra Costa county line.

DUBLIN BOULEVARD

Dublin Boulevard is a major east-west arterial in the City of Dublin. Dublin Boulevard is extended to Fallon Road. Dublin Boulevard is a six-lane facility from San Ramon Road to Tassajara Road and from Tassajara Road to Fallon Road it is currently a five to six lane facility.

HACIENDA DRIVE

Hacienda Drive is an arterial road which provides access to the Hacienda Business Park in Pleasanton. Hacienda Drive connects to a recently completed interchange on I-580.

TASSAJARA ROAD

Tassajara Road is a major north-south arterial in the City of Dublin. Tassajara Road is a two-lane undivided arterial between the Alameda - Contra Costa County line to North Dublin Ranch Drive and from North Dublin Ranch Drive to I-580 it is currently a four to five lane facility.

SANTA RITA ROAD

Santa Rita Road is a six-lane divided urban arterial from the I-580 interchange south to Valley Avenue. It serves the eastern side of Hacienda Business Park. South of Valley Avenue, Santa Rita Road continues as a four-lane street to Main Street in downtown Pleasanton.

FALLON AND CROAK ROADS

Fallon Road and Croak Road are two-lane local rural roads which dead end north of I-580. They each provide local access only to several properties, and traffic volumes are very small.

DOOLAN ROAD

Doolan Road is a two-lane local rural road which provides access to several ranches and residences. About two miles north of I-580, Doolan Road turns into a single-lane road for a half mile before ending at a gate.

EL CHARRO ROAD

El Charro Road is a private two-lane road which serves the quarries between Pleasanton and Livermore. Multi-axle trucks traveling to and from the quarries account for about 60 percent of the traffic on El Charro Road and at the Fallon Road/El Charro Road freeway interchange.

AIRWAY BOULEVARD

Airway Boulevard is a two-lane road which serves the Livermore Municipal Airport and the Las Positas golf course on the south side of I-580. A series of local arterial streets connect Airway Boulevard with northwest Livermore. On the north side of the Airway Boulevard freeway interchange, Airway Boulevard connects to Doolan Road and North Canyons Parkway.

NORTH CANYONS PARKWAY

North Canyons Parkway is a four-lane, east-west arterial which serves the Triad Business Park and connects to Collier Canyon Road.

COLLIER CANYON ROAD

Collier Canyon Road is a two-lane rural road which connects to North Canyons Parkway and continues north to a junction with Highland Road. Collier Canyon Road provides access to the Las Positas College.

5.1.2 PLANNED ROAD IMPROVEMENTS

Improvement projects have been proposed for freeways, freeway interchanges and local roads in the eastern Dublin area. The most important of these are the Dublin Boulevard extension, planned improvements to the I-580/I-680 interchange, the proposed widening of I-680 and local street improvements related to development in North Livermore.

The City of Dublin has completed an extension of Dublin Boulevard east of Dougherty Road to Fallon Road. This extension provides three lanes in each direction, except for a short segment between Tassajara Road and Brannigan Street. The Dublin General Plan also designates a future four-lane Scarlett Drive parallel to Iron Horse Trail, connecting Dougherty Road north of Dublin Boulevard with the Dublin Boulevard east of Dougherty Road.

The current I-580/I-680 interchange project includes construction of a flyover from southbound I-680 to eastbound I-580. The improvement will help to reduce congestion on one of the key bottlenecks in the Tri-Valley area. Construction is expected to begin in 1998 with work completed in 2001. Partial funding for this improvement will come from Alameda County's Measure "B" sales tax initiative, with the remainder to be made up from other sources.

CalTrans is currently studying further improvements to the I-580/I-680 interchange. These proposed improvements could replace all of the existing loop ramps with direct flyover ramps. The proposed improvements would improve freeway and ramp operations. The CalTrans study is providing local access freeway ramps on I-680 in Dublin south of Dublin Boulevard. This interchange will provide a southbound on-ramp and off-ramp, and a northbound on-ramp. The northbound off-ramp will be provided at a later date.

An improvement project has been constructed for I-680 which adds one extra high occupancy vehicle (HOV) lane in each direction in the median, to provide four total

lanes in each direction between I-580 and State Route 24 in Walnut Creek. A soundwall has been constructed along the freeway.

The Alameda County Measure B sales tax provides partial funding for completion of State Route 84 as a four-lane highway between I-680 and I-580, with construction of a new interchange on I-580 between Airway Boulevard and Portola Avenue.

5.1.3 EXISTING TRANSIT

There are currently no transit lines which directly serve the planning area. The Dublin, Pleasanton and Livermore areas are served by local bus service and BART express bus service.

The Livermore/Amador Valley Transit Authority (LAVTA) provides local bus transit service in Dublin, Pleasanton and Livermore, as well as unincorporated areas of Alameda County. In the vicinity of eastern Dublin, there are local bus routes on Dougherty Road between Amador Valley Road and I-580, and local bus service to the Fairlands Drive area of Pleasanton, just south of I-580 and east of Santa Rita Road.

The Bay Area Rapid Transit District (BART) provides express bus service connecting Dublin with BART stations in San Leandro, Hayward and Walnut Creek. These lines pass by the eastern Dublin planning area on I-580, but currently make no stops between Dougherty Road and Portola Avenue.

5.1.4 FUTURE TRANSIT

The BART Board of Directors has adopted a policy for the proposed extension of BART rail service to Dublin and Pleasanton. Current BART policy builds a BART extension to three new stations, one in Castro Valley, a West Dublin/Pleasanton station in the median of I-580 between Foothill Boulevard and I-680, and an east Dublin/Pleasanton station in the I-580 median between Dougherty Road and Hacienda Drive. Two of the stations, including the Castro Valley station and one of the easterly Dublin/Pleasanton stations, have been constructed using BART and/or other public and private financing.

The third station on the extension (the other Dublin/Pleasanton station) can be constructed only upon the commitment of funding that is unrelated to the funding levels in the Metropolitan Transportation Commission (MTC) New Rail Starts and Extension Program.

5.2 STREETS AND HIGHWAYS

5.2.1 GENERAL CONSIDERATIONS

The road system is designed to maximize the free flow of traffic by creating a highly interconnected system that accommodates the movement of vehicles while enhancing

opportunities for pedestrian and bicycle circulation (Figure 5.1). The system is characterized by four major north-south and three east-west streets to accommodate local traffic as well as a certain amount of regional traffic which can be expected to pass through the area. (Note: Consult precise roadway alignment plans for additional roadway information.)

5.2.2 NORTH-SOUTH CIRCULATION

The major north-south streets will be Arnold Drive, Hacienda Drive, Tassajara Road and Fallon Road, coinciding with existing planning area roadways and interchanges.

Arnold Drive will facilitate access to Dublin Boulevard for residents and employees along the western boundary of the planning area. Arnold Drive is planned as a four-lane road which extends from the northern City boundary to Dublin Boulevard.

Arnold Drive will be a north south road that will connect the BART station to north of Gleason. Arnold Road will be limited access, which will serve local as well as through traffic. The minimum right-of-way shall be 104 feet. Additional right-of-way will be needed for turn lanes.

Hacienda Drive will also facilitate access to residential and commercial areas in the western portion of the planning area, and extends from the freeway to Gleason Drive. The minimum right-of-way south of Dublin Boulevard shall be 152 feet. From Dublin Boulevard to Central Parkway the minimum right-of-way shall be 128 feet. The right-of-way from Central Parkway to Gleason shall be 104 feet. Additional right-of-way will be needed for transitions and additional turn lanes.

Tassajara Road will be the major north-south road through Tassajara Village Center, Foothill Residential, Tassajara Gateway and Town Center carrying substantial traffic from both the planning area and beyond into the retail core. Tassajara Road will meet the northern portion of Tassajara Road and Fallon Road at an intersection. The plan concentrates residential and employment users along Tassajara Road to encourage transit use for local and regional travel. The minimum right of way from I-580 to Dublin Boulevard shall be 152 feet. North of Dublin Boulevard to North Dublin Ranch Drive the minimum right-of-way shall be 128 feet, and North Dublin Ranch Drive to the Alameda-Contra Costa County limit line varies between 108 feet to 110 feet. Additional right-of-way will be needed for transitions and additional turn lanes.

Fallon Road will be extended north to connect with Tassajara Road in the northwest corner of the planning area. Fallon Road will be a limited-access parkway which will serve local traffic as well as through traffic between I-580 and Contra Costa County. The alignment of Tassajara Road as it runs south from Contra Costa County will flow directly into Fallon Road to encourage this movement. The plan concentrates residential and employment users along Fallon Road to encourage transit use for local and regional

travel. The minimum right-of-way from I-580 to Central Parkway shall be 152 feet. North of Central Parkway the minimum right-of-way shall be 128 feet. The minimum right-of-way on Fallon Road south of Tassajara Road shall be 104 feet. Additional right-of-way will be needed for transitions and additional turn lanes.

Arnold Drive will be a north south road that will connect the Bart station to Gleason. Arnold Drive will be limited access which will serve local as well as through traffic.

5.2.3 EAST-WEST CIRCULATION

Three east-west streets are designated in the plan to provide convenient movement across the planning area to the major north-south corridors.

The southernmost corridor, located approximately a quarter of a mile north of the freeway, is Dublin Boulevard, providing the principal vehicular connection between eastern Dublin and the western Dublin community. Dublin Boulevard is also a major transit route which connects residential and employment users along Dublin Boulevard to BART. Projected to ultimately be a four-lane to six-lane roadway, Dublin Boulevard would ultimately connect with North Canyons Parkway in Livermore to provide a reliever route paralleling the freeway. The segment between Croak Road and North Canyons Parkway will be a four-lane roadway. The minimum right-of-way shall be 136 feet. Dublin Boulevard right-of-way shall be widened to 154 feet minimum from Tassajara Creek to the Iron Horse Trail to accommodate a bicycle trail along the north side of the street.

Gleason Road, located approximately a half mile north of and parallel to the Dublin Boulevard extension, will be widened to a four-lane arterial road along its current alignment. The corridor would primarily serve the more densely developed southern portion of the planning area, and would extend from Arnold Road to Fallon Road on the east. It is anticipated that this road will carry predominantly local vehicle trips. The minimum right-of-way shall be 104 feet. Additional right-of-way will be needed for transitions and additional turn lanes.

The Plan calls for a third major east-west corridor, Central Parkway, situated between the Dublin Boulevard and Gleason Road extensions. It will provide two through lanes in each direction. Amendments since 1993 have provided for a reduced number of lanes for and a realignment of Central Parkway so that the street provides two through lanes west of Fallon road and provides one through lane in each direction east of Fallon Road. Central Parkway will extend across the width of the planning area. The minimum right-of-way shall be 106 feet west of Fallon Road; the right-of-way shall be 88 feet east of Fallon Road per the 2005 Fallon Village amendments. It is also planned to construct "Main Street" (two lanes) in a north-south orientation through the future Eastern Dublin Town Center (running between Dublin Boulevard and Central Parkway). The "Main Street" minimum right-of-way shall be 64 feet which includes 12 foot private sidewalks

on both sides with 4' public utility easements behind the curb face for street lights, fire hydrants, etc.

The Plan concentrates residential and employment uses along this road, Gleason Road and Dublin Boulevard to encourage transit use for local and regional travel. In addition to the Town Center commercial core, Villages, Gateways, Industrial Park, the sports park, the high school, junior high school and several elementary schools are all located on these three east-west roadways. A quarter mile represents about a five-minute walk and is the normally accepted planning standard for what most people find a comfortable and convenient walking distance.

5.2.4 (Intentionally Blank)

5.2.5 LEVEL OF SERVICE

Streets and intersections are evaluated in terms of "level of service" (LOS), which is a measure of driving conditions and vehicle delay. Levels of service range from A (best) to F (poorest). Levels of service A, B and C indicates satisfactory conditions where traffic can move freely. Level of service D describes conditions where delay is more noticeable, typical of a busy urban or suburban area during peak periods. Level of service E indicates conditions where traffic volumes are at or close to capacity, resulting in significant delays and average travel speeds which are one-third the uncongested speeds or lower. Level of service F characterizes conditions where traffic demand exceeds available capacity, with very slow speeds (stop-and-go) and long delays (over a minute) and queuing at signalized intersections.

Level of Service D is generally used as the standard for planning new or upgraded transportation facilities in developed areas. This LOS represents tolerable peak period delays for motorists, where drivers occasionally have to wait through more than one red light.

Policy 5-3: Plan development in eastern Dublin to maintain Level of Service D or better as the average intersection level of service at all intersections within the Specific Plan area during AM, PM and midday peak periods. The average intersection level of service is defined as the hourly average.

5.2.6 STREET CLASSIFICATIONS

A hierarchy of streets shall be developed within the specific plan area to accommodate the various levels of vehicular and pedestrian traffic, as well as to provide amenities in the form of landscaping, sidewalks, bicycle lanes or trails, and lighting. The street hierarchy shall recognize the specific function of streets within the different districts of the specific plan. Where possible, streets shall be designed to meet special circumstances or conditions in order to create a particular community character or identity, to enhance commercial and retail activity or to protect sensitive natural resources.

The vehicle circulation plan includes six basic classes of roads, including arterial streets, major collector streets, collector streets, local residential streets, and industrial roads. Each of these classifications serves a different function for vehicle circulation in the Specific Plan area, and each classification is associated with a set of design standards. In addition, there will be several specialized street types in the Village Centers which will facilitate improved pedestrian access and on-street parking for fronting retail uses. Specialized street designs all require approval of the Director of Public Works/City Engineer.

GOAL: To establish a vehicle circulation system which provides sufficient capacity for projected traffic and allows convenient access to land uses, while maintaining a neighborhood scale to the residential street system.

5.2.7 ARTERIAL STREETS

The arterial streets in East Dublin are designed to carry very high traffic volumes with a minimum of interference from connecting traffic. The major arterial streets include Dublin Boulevard, as well as Hacienda Drive, Tassajara Road and Fallon Road. In general, these streets will provide six through lanes, with up to eight through lanes for short street sections connecting directly to a freeway interchange. Dublin Boulevard between Croak Road and North Canyons Parkway in Livermore will be a four-lane roadway. Tassajara Road between the Alameda-Contra Costa County limit line and North Dublin Ranch Drive will be a four-lane roadway. Access to arterials will be permitted only at signalized intersections with arterial or collector streets, or at selected controlled locations with the approval of the Director of Public Works.

Policy 5-4: Provide four, six and eight lane arterial streets to carry major community and sub-regional traffic through the Specific Plan area.

5.2.8 CLASS I COLLECTOR STREETS

Class I collector streets serve primarily to circulate localized traffic and to distribute traffic to and from arterials. Class I collectors are designed to accommodate four lanes of traffic (plus a center turn lane); however, they carry lower traffic volumes at slower speeds than arterials, and they have a continuous left-turn lane separating the two directions of traffic flow. For intersections of Class I collectors with arterials, additional right-turn lanes shall be provided on the Class I collector at a minimum; additional left-turn lanes shall be provided as determined by the Public Works Director/City Engineer. Typically, signalized intersections shall be spaced no closer than 750 feet. No direct vehicular or non-vehicular access from residential homes is allowed. An additional 10 feet of paved width and right-of-way shall be provided for bus turnouts as determined by the Public Works Director/City Engineer. If on-street parking is to be permitted on roadways that are part of the bicycle circulation system, an additional 10 feet of paved width and right-of-way shall be provided.

Medians shall be striped in special cases if no abutting property access is allowed (minimum of one-quarter mile or one block); the width of the striped median can be reduced with approval of the Public Works Director/City Engineer.

Left-turns into driveways within 200 feet of an intersection limit line shall be prohibited by a raised median.

Policy 5-5: Provide four lane Class I collectors to move traffic quickly and efficiently within the planning area.

5.2.9 CLASS II COLLECTOR STREETS

Class II collector streets with two-way center turn lanes serve primarily to circulate localized traffic and to distribute traffic to and from arterials and collector streets. They are designed to accommodate two lanes of traffic (plus a center turn lane); however, they carry lower traffic volumes at slower speeds than Class I collector streets. This type of facility provides access to properties and circulation to residential neighborhoods. Minimum distance between intersections shall be 350 feet. Deviation from this minimum distance requirement may be approved by the Public Works Director/City Engineer only if it can be demonstrated that left turn demands do not create an adverse traffic condition.

Access to and from Class II collector streets from abutting properties shall be permitted at locations approved by the Public Works Director/City Engineer. No direct vehicular or non-vehicular access from residential homes is allowed. Parking on this facility shall typically be allowed. However, parking at critical locations may be denied as deemed appropriate by the Public Works Director/City Engineer for maintaining safe conditions. If a bike lane is provided and parking is retained, an additional 10 feet of paved width and right-of-way will be required to allow for a 10-foot widening of the roadway cross section. An additional 10 feet of paved width and right-of-way shall be provided for bus turnouts as determined by the Public Works Director/City Engineer. Class II collector streets can be designed with a 40-foot curb-to-curb width with a design ADT of 15,000 if the street has no direct access between intersections.

Policy 5-6: Provide two lane Class II collector streets to provide access to commercial and industrial areas, and to residential neighborhoods.

5.2.10 RESIDENTIAL COLLECTOR STREETS

Residential collector streets provide connections between local access streets and the streets which provide for through vehicle movements. Residential collector streets are intended to provide access into residential neighborhoods or between sections of the neighborhoods, but not to pass through the neighborhoods. Direct access may be provided to uses such as schools and parks, but direct residential frontage shall be discouraged.

Policy 5-7: Provide residential collector streets to provide access into residential neighborhoods and to connect local residential streets with arterial streets.

5.2.11 LOCAL RESIDENTIAL STREETS

Local residential streets are designed to provide direct access to resident's properties and to maintain a high quality residential environment. The streets are kept short and discontinuous to discourage through traffic and high speeds. Pavement widths are minimized, both to discourage high speeds and to enhance the residential character. Adequate right-of-way is provided on each side of the street pavement for sidewalks and landscaping.

Neighborhood traffic control measures can help reduce speeds and through traffic volumes on local residential streets. Traffic control measures could include local narrowing of streets at intersections, or properly designed dividers or traffic circles. Stop signs are generally not effective at reducing speeds, except in the immediate vicinity of the sign. Lowering speed limits is only effective with intensive enforcement.

Policy 5-8: Provide local residential neighborhood streets which use the street alignment, short street length, strategic narrowing of lanes and appropriate neighborhood traffic control measures to discourage through traffic and high speeds.

5.2.12 FREEWAY AND INTERCHANGE IMPROVEMENTS

Improvements to the I-580 freeway and the interchange at Fallon Road will be required to accommodate traffic to and from eastern Dublin as well as other regional traffic. The I-580 freeway should be widened to provide a fifth auxiliary lane in each direction between Tassajara Road and Fallon Road, similar to the widening which has been completed west of Tassajara Road. The Fallon Road/El Charro Road interchange will need to be expanded to a partial cloverleaf design with a six-lane freeway overcrossing, similar to the Hacienda Drive interchange. In addition, the design of the Fallon Road interchange must incorporate provisions for quarry trucks as indicated in the City of Pleasanton's Stoneridge Drive Specific Plan.

Policy 5-9: Construct auxiliary lanes on both directions of I-580, extending from the Tassajara Road/Santa Rita Road interchange to the Fallon Road/El Charro Road interchange. Construct a partial cloverleaf interchange on I-580 at Fallon Road/El Charro Road, including a six-lane overcrossing, two-lane off ramps, and truck bypass lanes for truck movements from northbound El Charro to eastbound or westbound I-580.

ACTION PROGRAM - Streets and Highways

- **Program 5A:** Detailed development plans submitted to the City shall include the standards noted below. Localized exceptions for special conditions may be approved by the Director of Public Works/City Engineer in keeping with City procedures.

Note: Please consult the Dublin General Plan for additional standards regarding streets and roadway design, and Chapter 7 - Community Design, Eastern Dublin Specific Plan, for additional information, text and diagrams, regarding required roadway landscaping.

Arterial Streets:

- Right of Way width: 4-lane Arterials –104’
 6-lane Arterials – 128’
 8-lane Arterials – 152’
- Minimum design speed - 55 miles per hour
- Design ADT: 4-lane Arterials – 30,000
 6-lane Arterials – 50,000
 8-lane Arterials – 70,000
 - *Minimum curb-to-curb width: 80 feet for 4 lane, 104 feet minimum for 6 lanes and 128 feet minimum for 8 lanes.*
 - *Maximum grade: 7 percent*
 - *Minimum curve radius - 1,200 feet with 4 percent super elevation to 2,000 feet with no super elevation.*
 - *Minimum distance between street centerline to centerline intersections: 750 feet*
 - *Sidewalks shall be 6’ wide in Industrial areas, 8’ wide in commercial or heavy use areas*
 - *A 10’ wide Public Service and Landscaping easement shall be provided on each side of the right-of-way*
 - *No direct residential frontage.*
 - *On-street parking is prohibited with the exception of emergency parking.*
 - *Provide two left-turn bays and one right-turn bay at all intersections with major arterial and arterial streets.*
 - *Full access to major arterial streets will occur only at signalized intersections. Right-turn only access may be considered at a minimum separation of 300 feet from other access points or intersections.*

Collector Streets

CLASS 1

- *Minimum design speed: 45 miles per hour*
- *Curb-to-curb width: 76 feet (92 feet right-of-way)*
- *Maximum grade: 8 percent (maximum grade up to 12 percent may be allowed under special*
- *Minimum curve radius: 1,100 feet with no super elevation*

- *Direct residential frontage only as approved by Public Works Director/City Engineer.*
- *Minimum distance between street intersections 350 feet;*
- *Minimum distance between signalized street intersections: 750 feet (centerline to centerline)*
- *Minimum curb-to-curb width: 102 feet (126 feet for eight-lane sections) including a 14-foot wide, raised median*
- *Sidewalks shall be 6' wide in Industrial areas, 8' wide in Commercial or heavy use areas*
- *A 10' wide Public Service and Landscaping easement shall be provided on each side of the right-of-way*
- *Additional 10' of paved roadway is required where on-street parking is provided along bike routes*
- *Additional roadway/right of way may be required for bus turnouts*

CLASS II

- *Minimum design speed: 30 miles per hour*
- *Curb-to-curb width: 52' (68' right-of-way)*
- *Grade: 8 percent (maximum grade up to 12 percent may be allowed under special conditions and approved by Public Works Director/City Engineer)*
- *Minimum curve radius: 450 feet with no superelevation*
- *Minimum distance between street intersections: 350 feet*
- *Direct residential frontage only as approved by Public Works Director/City Engineer.*
- *Minimum distance between street intersections 350 feet;*
- *Minimum distance between signalized street intersections: 750 feet (centerline to centerline)*
- *Sidewalks shall be 6' wide in Industrial areas, 8' wide in commercial or heavy use areas*
- *A 10' wide Public Service and Landscaping easement shall be provided on each side of the right-of-way*
- *Additional 10' of paved roadway is required where on-street parking is provided along bike routes*
- *Additional roadway/right of way may be required for bus turnouts*

Residential Streets

LOCAL RESIDENTIAL:

- *Minimum design speed 25 miles per hour*
- *Curb-to-curb width: 36' (32' with parking on one side).*
- *Right-of-way: 46' or 56' with separated sidewalks (45' with parking on one side).*
- *Maximum grade: 12 percent (maximum grade up to 15 percent may be allowed under special conditions and approved by the Public Works Director/City Engineer).*
- *Minimum curve radius: 200' width no superelevation.*
- *Maximum length of cul-de-sac streets: 600 feet, serving no more than 25 dwelling units.*
- *Local residential streets may not intersect arterial streets.*
- *Terminate junctions of local residential streets at three-way Intersections where possible.*
- *Minimum distance between street intersections: 150 feet*
- *Sidewalks shall be 5' wide*
- *A 5' wide Public Service and Landscaping easement shall be provided on each side of the right-of-way*

RESIDENTIAL COLLECTOR

- *Minimum design speed 30 mile per hour*
- *Curb-to-curb width – 40 feet (34' with parking on one side)*
- *Right-of-way: 56' (47' with parking on one side)*
- *Maximum grade: 12 percent (maximum grade up to 15 percent may be allowed under special conditions and approved by Public Works Director/City Engineer)*
- *Sidewalks shall be 5' wide*
- *A 5' wide Public Service landscaping easement shall be provided on each side of the right-of-way*
- *Average grade over 1000' segment shall not exceed 10%*

Cul-de-sacs

- *Minimum design speed 25 miles per hour*
- *Curb-to-curb width – 34 feet (32' with parking on one side)*
- *Right-of-way: 46' or 56' with separated sidewalks (46' with monolithic sidewalks, 45' with parking on one side)*
- *Maximum grade: 12 percent (maximum grade up to 15 percent may be allowed under special conditions and approved by Public Works Director/City Engineer)*
- *Minimum curve radius: 200 feet width, no superelevation*
- *Minimum distance between street intersections: 150 feet*
- *Maximum length: 600 feet*
- *Minimum turnaround curb radius: 40 feet*
- *Sidewalks shall be 5' wide*
- *A 5' wide Public Service and landscaping easement shall be provided on each side of the right-of-way*

Industrial Roads:

- *Minimum design speed: 30 miles per hour*
- *Curb-to-curb width: 52 feet*
- *Right-of-way: 68 feet*
- *Minimum turnaround curb radius: 50 feet*
- *Maximum grade: 7 percent*
- *Minimum curve radius: 450 feet with no superelevation*
- *Minimum distance between street intersections 300 feet; Minimum distance between signalized street intersections: 750 feet (centerline to centerline)*
- *Sidewalks shall be 6' wide in Industrial areas, 8' wide in Commercial or heavy use areas*
- *A 10' wide Public Service and Landscaping easement shall be provided on each side of the right-of-way*

5.3 PUBLIC TRANSIT

The transit system for Eastern Dublin will provide service to all land use areas in the Specific Plan area (Figure 5.2). The major roadways service will connect the commercial, industrial, residential, and office areas; directly to regional transit opportunities at the eastern Dublin/Pleasanton BART station. It is anticipated that transit service along Dublin Boulevard will carry commuters to and from major employment centers along the freeway and to BART. Transit service will also extend west of the BART station to tie

Eastern Dublin into the existing areas of Dublin, and to the south to provide service between Eastern Dublin and Pleasanton.

GOAL: To maximize opportunities for travel by public transit.

5.3.1 LOCAL TRANSIT SERVICE

The Livermore Amador Valley Transit Authority (LAVTA) provides local bus transit service in Dublin, Pleasanton, Livermore and adjacent incorporated areas of Alameda County. Local transit service will be extended to Eastern Dublin in consultation with LAVTA.

Policy 5-10: Provide transit service within one-quarter mile of 95 percent of the population in the Specific Plan area in accordance with LAVTA service standards.

Policy 5-11: Provide transit service, at a minimum frequency of one bus every 30 minutes during peak hours, to 90 percent of employment centers with 100 or more employees in accordance with LAVTA service standards.

5.3.2 REGIONAL TRANSIT CONNECTIONS

The Bay Area Rapid Transit District (BART) has constructed the Dublin-Pleasanton extension to a station located just west of the Specific Plan area. The Eastern Dublin/Pleasanton BART station will be a focal point for local transit services and will provide regional transit connections to western Alameda County, San Francisco, and the rest of the Bay Area.

Policy 5-12: BART service to the eastern Dublin/Pleasanton station orients local transit service to provide transit connections between the BART station and all portions of the Specific Plan area.

5.3.3 TRANSIT STOPS

The use of transit service can be encouraged by the provision of bus pullouts, transit shelters, pedestrian paths and other amenities.

Policy 5-13: Establish design guidelines for residential and commercial development so that there are clear and safe pedestrian paths between building entrances and transit service stops.

Policy 5-14: Provide transit shelters at major limit stops and bus pullouts on major collector, arterial and major arterial streets.

ACTION PROGRAM – Public Transit

- **Program 5B:** The City shall require review and approval of the following as condition of project approval for applicable projects in Eastern Dublin:
 - Public transit route and phasing plan, to be prepared in consultation with LAVTA.
 - Bus turnouts and transit shelters, in consultation with LAVTA.
 - Pedestrian paths between transit stops and building entrances.

5.4 PEDESTRIAN CIRCULATION

The Eastern Dublin Specific Plan provides for a network of pedestrian sidewalks and trails

(Figure 5-3). Pedestrian paths will connect residential areas with major activity centers such as schools, parks, and retail centers, as well as providing passive recreational opportunities. Direct pedestrian access will be provided from residential neighborhoods west of Tassajara Creek to park and school sites east of Tassajara Creek.

GOAL: To provide a safe and convenient pedestrian circulation system in eastern Dublin, designed for functional and recreational needs.

5.4.1 STREAM CORRIDOR TRAILS

The plan provides for a comprehensive system of pedestrian/bicycle trails within planning area stream corridors (see Figure 6.1). The trail along Tassajara Creek is intended to eventually become part of the larger East Bay Regional Park District's (EBRPD) regional trail network. A regional staging area will be provided on EBRPD land along the west side of Tassajara Road to provide trailhead access for local residents. This regional staging area would be likely to include facilities such as drinking water, restrooms, telephones, and parking areas for passenger vehicles and horse trailers. Pedestrian trails will also be developed within other stream corridors in the planning area.

Policy 5-15: Provide a north-south trail along Tassajara Creek, and trails along other stream corridors as shown on the Pedestrian and Bicycle System map.

5.4.2 TOWN CENTER AND VILLAGE CENTERS

The neighborhood commercial areas in the Town Center and Village Centers are to be developed as an attractive pedestrian environment. Features will include wide sidewalks with amenities such as seating, outdoor cafe and retail uses, public art and street trees. The Community Design section of the Specific Plan (see Chapter 8) contains guidelines for pedestrian provisions along individual street sections.

Policy 5-16: Provide sidewalks and other streetscape amenities in the Town Center and Village Center areas in conformance with the Specific Plan design guidelines.

ACTION PROGRAM: PEDESTRIAN CIRCULATION

- **Program 5C:** The City shall require development applicants in eastern Dublin to submit a detailed pedestrian circulation plan for review and approval by the City. This plan shall include the following components as deemed applicable under this Specific Plan by the Director of Public Works/City Engineer. Any proposed improvements other than the City of Dublin Standard Plans must be approved by the Director of Public Works/City Engineer.

Tassajara Creek Trail: Trail construction materials and methods shall conform to The East Bay Regional Park District standards for trail construction. The trail shall be constructed for minimum visual impact. There should be a buffer with an approximate minimum width of 100 feet between the top of bank and nearby development.

Staging Area and Trailhead: A staging area for the Tassajara Creek trail shall be provided in eastern Dublin, with parking, signs and trash containers as designated by the East Bay Regional Parks District in consultation with the City of Dublin. The location of the staging area shall be based on convenience for visitors from outside eastern Dublin, with minimal disruption of local neighborhoods. Local trailheads shall be primarily designed for use by residents of eastern Dublin. Local trailheads shall be provided with appropriate signs and trash containers.

Sidewalk: Street improvement plans for eastern Dublin shall include sidewalks on both sides of the street except where the following conditions occur:

- ◆ *On single-loaded residential streets, sidewalk may be allowed on one side only, with the approval of the Director of Public Works/City Engineer.*

5.5 BICYCLE CIRCULATION

The Eastern Dublin Specific Plan provides for a network of bicycle routes (Figure 5-3b). Class I Shared-Use Paths, Class II Bicycle Lanes and Class III Bicycle Routes as well as bicycle support facilities will be provided throughout the Specific Plan area consistent with the Dublin Bicycle and Pedestrian Master Plan. The Master Plan includes the Eastern Dublin Specific Plan area and provides policies, network plans, prioritized project lists, support programs and best practice design guidelines for bicycling and walking in Dublin. Readers should refer to the Dublin Bicycle and Pedestrian Master Plan for additional information regarding existing and proposed bicycle routes and support facilities.

GOAL: To provide opportunities for safe, continuous, comfortable and convenient bikeways in eastern Dublin.

5.5.1 BICYCLE ROUTES

A Class I Bikeway is a shared-use path that provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow minimized.

A Class II Bikeway is further divided into Class IIA and Class IIB. Class IIA Bikeways are bicycle lanes that are striped for dedicated, one-way bike travel on a roadway. Class IIB Bikeways are buffered bicycle lanes which are modified on-street bicycle lanes with vehicle and/or parking-side striped buffers for additional comfort and safety on higher speed or volume roadways.

A Class III Bikeway is a bicycle route that is shared with pedestrian or motor vehicle traffic. A Class IIIA Bikeway includes with sharrows within the roadway to designate shared-use travel with motor vehicle traffic.

Policy 5-17: Establish a bicycle circulation system which helps to serve the need for non-motorized transportation and recreation in eastern Dublin that is consistent with the Dublin Bicycle and Pedestrian Master Plan.

5.5.2 BICYCLE PARKING REQUIREMENTS

In order to encourage the use of bicycles, safe and convenient bicycle parking areas are needed. Satisfactory bicycle parking is particularly needed at schools and recreation areas such as the Sports Park, major transit stops and commercial centers.

Policy 5-18: Provide convenient and secure bicycle parking and support facilities at key destinations in eastern Dublin, such as schools, recreation areas, transit stops and commercial centers.

ACTION PROGRAM: Bicycle Circulation

- **Program 5D:** The City shall require development projects in eastern Dublin to include provisions for bicycle parking, circulation and support facilities consistent with the Dublin Bicycle and Pedestrian Master Plan.

5.6 PARKING

Convenient and adequate parking is an important component of the traffic and circulation system. However, large expanses of parking can have adverse environmental effects, including visual concerns, increased stormwater runoff, and summer heat buildup. In dense urban areas, stations on the parking supply can also help to induce greater use of alternative travel modes such as ridesharing and transit.

GOAL: To provide adequate, but not excessive amounts of parking.

5.6.1 PARKING REQUIREMENTS

Various opportunities are available for reducing conventional parking requirements. In mixed use areas, commercial and office workers can use parking areas during the day, while residents can use the parking at night. Convenient public transit also can reduce the need for using private vehicles, and thus the demand for parking.

Policy 5-19: Parking requirements in eastern Dublin shall be kept to a minimum consistent with actual parking needs. Allowance shall be made for shared parking in mixed-use areas. Parking requirements may be reduced wherever it can be demonstrated that use of alternative transportation will reduce parking demand.

5.6.2 STREET PARKING

Parking is encouraged on all streets except for the most heavily traveled arterial roads or where environmental constraints warrant protection. Street side parking increases street activity, slows traffic and aids in developing a pedestrian environment where walking is desired.

Policy 5-20: Encourage on-street parking on residential collector and local residential streets. Allow on-street parking on lower volume arterial streets within commercial areas.

ACTION PROGRAM: Parking

- **Program 5E:** Adopt parking standards for eastern Dublin. Subject to the approval of the Planning Manager or Zoning Administrator, and Director of Public Works/City Engineer, allowance may be made for reduced parking requirements where effective alternative transportation is available, or for shared parking in mixed-use areas.
- **Program 5F:** Revise the City's existing zoning ordinance as needed to allow flexible parking standards in Eastern Dublin.

5.7 TRANSPORTATION SYSTEMS MANAGEMENT

A program of transportation systems management measures can help to reduce impacts related to transportation activity. Impacts related to transportation can include increased congestion on streets and freeways, degradation of air quality due to automobile pollutants, energy consumption, use of land for automobile-related activities, and aesthetic impacts of transportation infrastructure.

The Specific Plan includes features which encourage the use of alternative modes of travel. The Plan includes a mix of land uses including housing, employment, retail and recreational uses, which help to maximize the potential for trips to be made within the local area. Portions of the planning area, particularly the Town Center, provide for these mixed uses in close proximity to each other, which increases the likelihood that trips can be made by walking or by bicycle. Local transit service will be provided within the Specific Plan area with direct connections to regional transit services such as BART. The Plan also provides a full network of pedestrian and bicycle paths.

Measures such as transportation systems management (TSM) programs or the provision of park-and-ride lots can provide additional information and incentives which help to reduce automobile use. Also the use of fiber optics or other "work at home" methods is encouraged to reduce daily commuting to work.

GOAL: To minimize the transportation-related impacts of development in eastern Dublin.

5.7.1 TRANSPORTATION SYSTEMS MANAGEMENT PROGRAM

Transportation Systems Management (TSM) programs are most effective at major employment sites. A TSM Program would include strategies such as on-site distribution of transit information and passes, provision of shuttle services to BART stations, participation in regional ridesharing services, preferential parking for vanpools and carpools, and flexible or staggered work hours.

Policy 5-21: Require all non-residential projects with 50 or more employees to participate in a Transportation Systems Management (TSM) program.

5.7.2 PARK-AND-RIDE LOTS

Park-and-ride lots can provide a convenient location for drivers to meet for ridesharing. If transit service is provided to the lots, they can also provide parking for automobile access to the transit lines. Park-and-ride lots should be located adjacent to freeway interchanges and preferably along the route which most drivers take to work in the morning. In the eastern Dublin area, the park-and-ride lots should be located on the west side of Hacienda Drive, Tassajara Road and Fallon Road, as close to I-580 as possible. The lots should also be clearly visible and well lit to promote security.

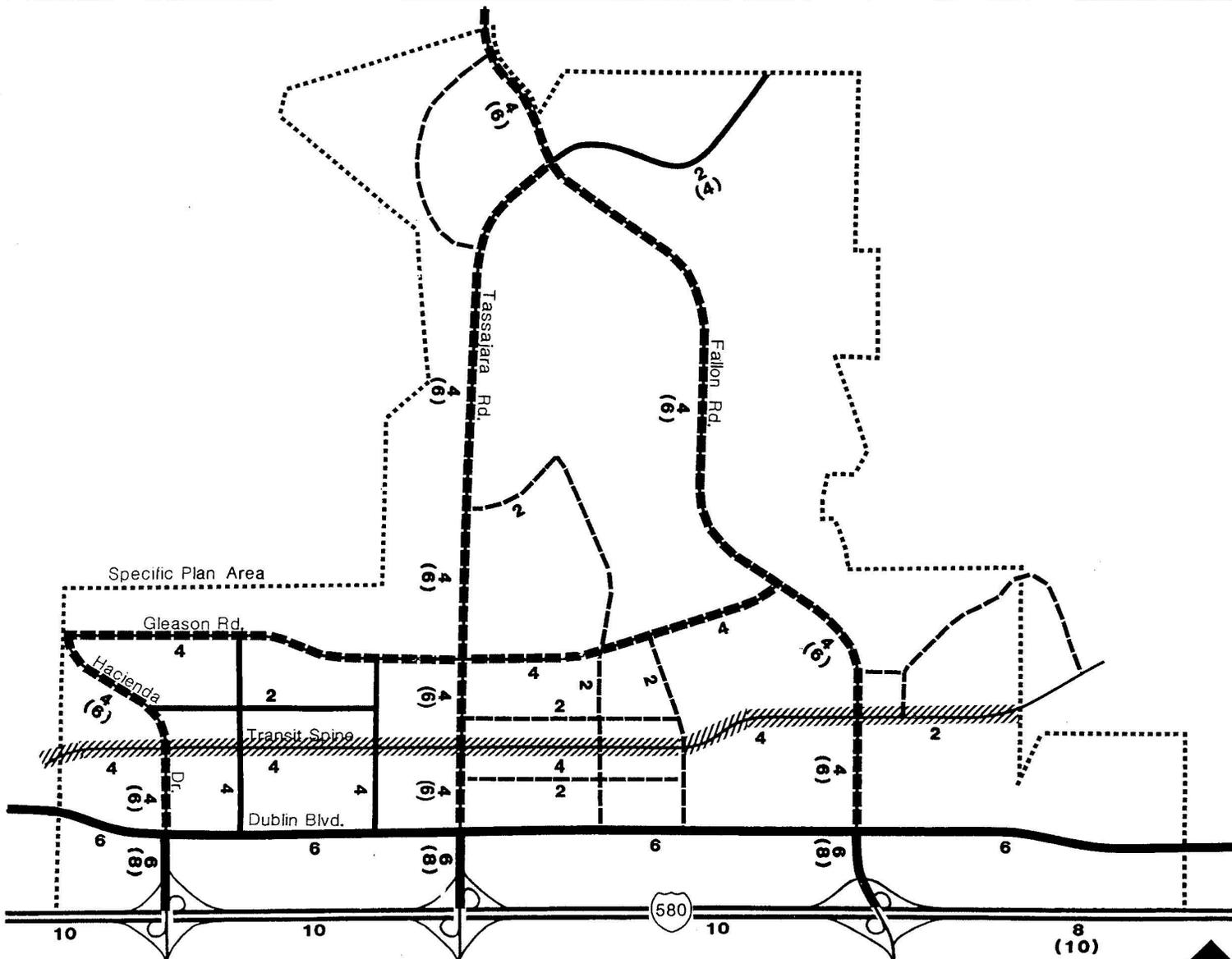
Policy 5-22: Establish park-and-ride lots, adjacent to the freeway interchanges at Hacienda Drive, Tassajara Road and Fallon Road, to facilitate ridesharing by eastern Dublin residents.

ACTION PROGRAM: Transportation Systems Management

- **Program 5G:** The City shall establish a citywide Transportation System Management (TSM) program. The program would require employers with 50 or more employees to prepare a TSM program for submittal to the City.
- **Program 5H:** Work with developers at the freeway interchanges to provide a minimum of 200 park-and-ride spaces between I-580 and Dublin Boulevard or as mutually agreed between the City of Dublin and developers. The parking lots will provide a minimum of 100 parking spaces each and will include lighting and landscaping. Specific park-and-ride sites shall be identified and approved by the City of Dublin at the time land use entitlements are granted for fifty (50) percent of the acreage included in the Hacienda Gateway, County Center and Town Center Residential Planning Subareas. Construction of the park-and-ride facilities shall be completed at the time land use entitlements are granted for seventy-five (75) percent of acreage for the same Planning Subareas.

Note: References in this Circulation Element were added to clarify these standards and to correlate with the standards contained in the previously adopted Dublin General Plan. Please consult the Dublin General Plan and Zoning Ordinance for additional information regarding roadway standards.

Figure 5.1
Road System



- Collector
- Major Collector
- Arterial
- Major Arterial
- ▨ Transit Street Area
- 4 Number of Through Lanes
- (6) Number of Lanes for Right-of-Way Preservation

**EASTERN DUBLIN
Specific Plan**

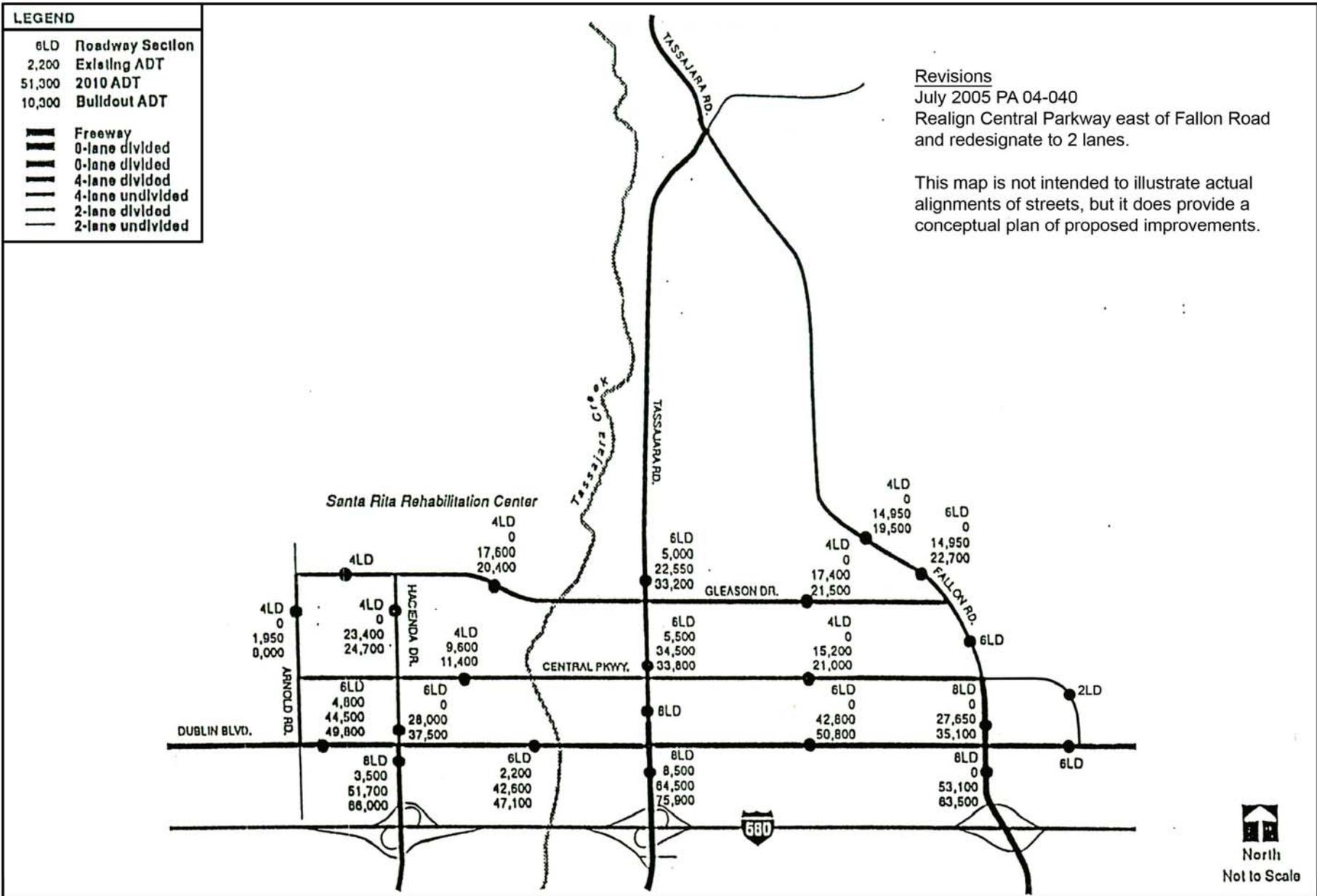
Wallace Roberts & Todd

Urban and Environmental Planners
121 Second Street, 7th Floor
San Francisco, CA 94105
(415) 541-0830



NOTE: Roadway lane requirements amended in June 17, 1997 update. See Figure 5.1b.

SOURCE: DKS Associates



Dublin General Plan
 East Dublin Existing and 2010 Projected Traffic Volumes—
 2010 and Beyond Network

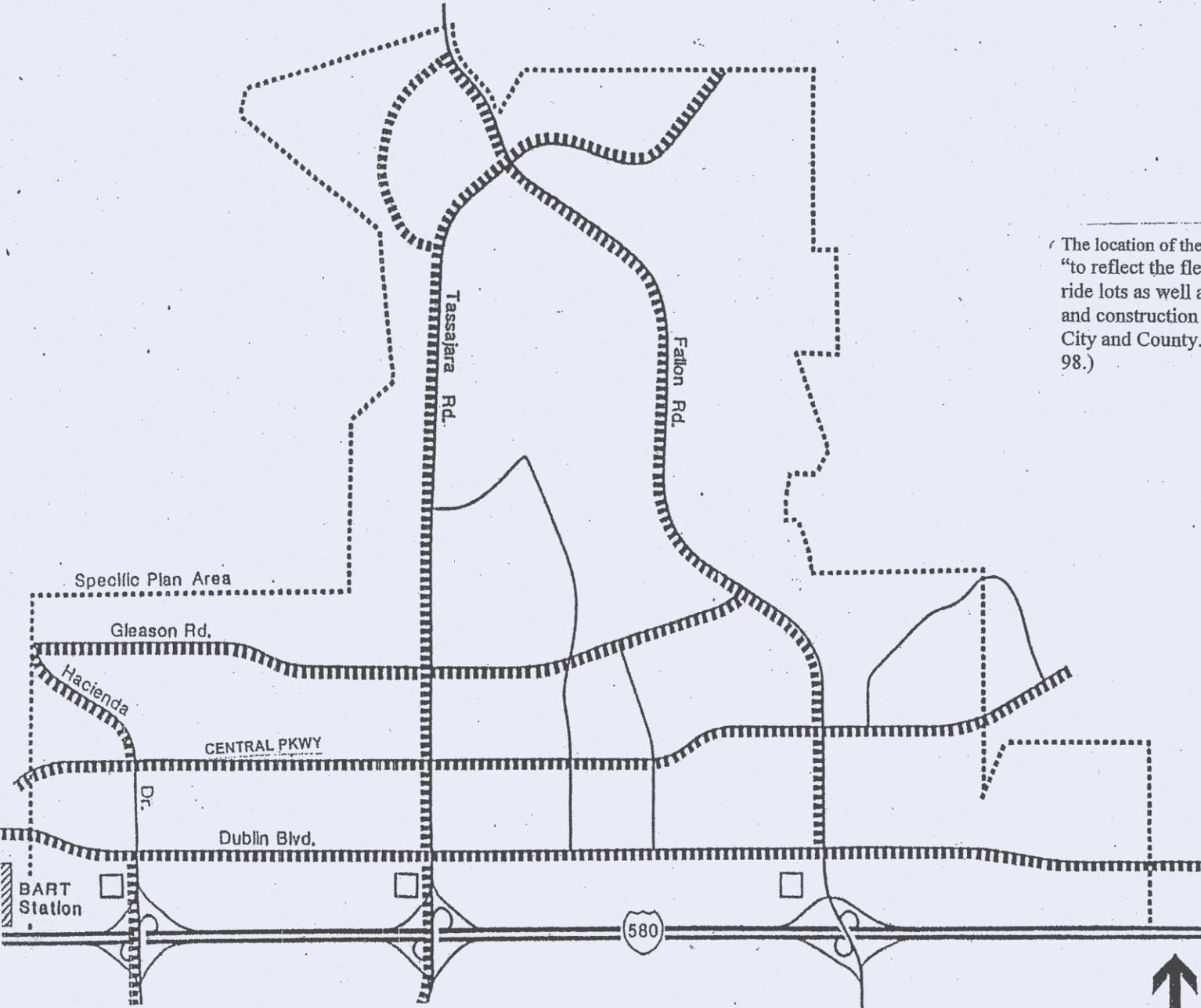
Figure
 5-1b



Figure 5.2
Transit System

- ▬▬▬▬▬ Potential Bus Service
- Potential Park-and-Ride Lot

The location of the park and ride lots were amended in 1998 "to reflect the flexibility of site locations for park and ride lots as well as any specific targets for planning and construction of facilities as negotiated between the City and County." (City Council Resolution No. 127-98.)



NOTE: Transit System amended in June 17, 1997 update. See Figure 5.2 b.

EASTERN DUBLIN Specific Plan

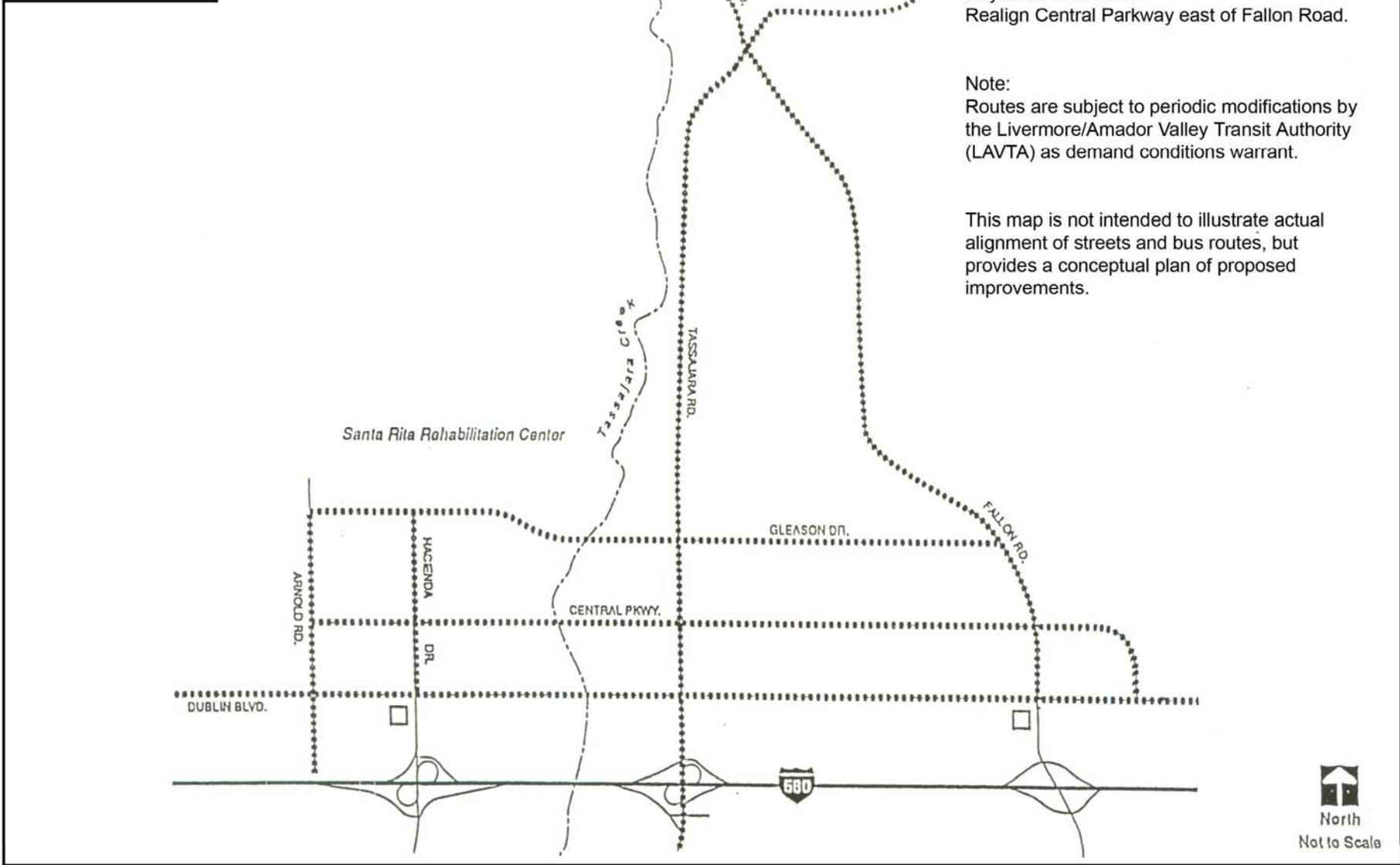
Wallace Roberts & Todd

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San Francisco, CA 94105
(415) 541-0830



SOURCE: DKS Associates

LEGEND	
.....	Bus Route
□	Park-and-Ride Lot



Revisions

July 2005 PA 04-040
 Realign Central Parkway east of Fallon Road.

Note:

Routes are subject to periodic modifications by the Livermore/Amador Valley Transit Authority (LAVTA) as demand conditions warrant.

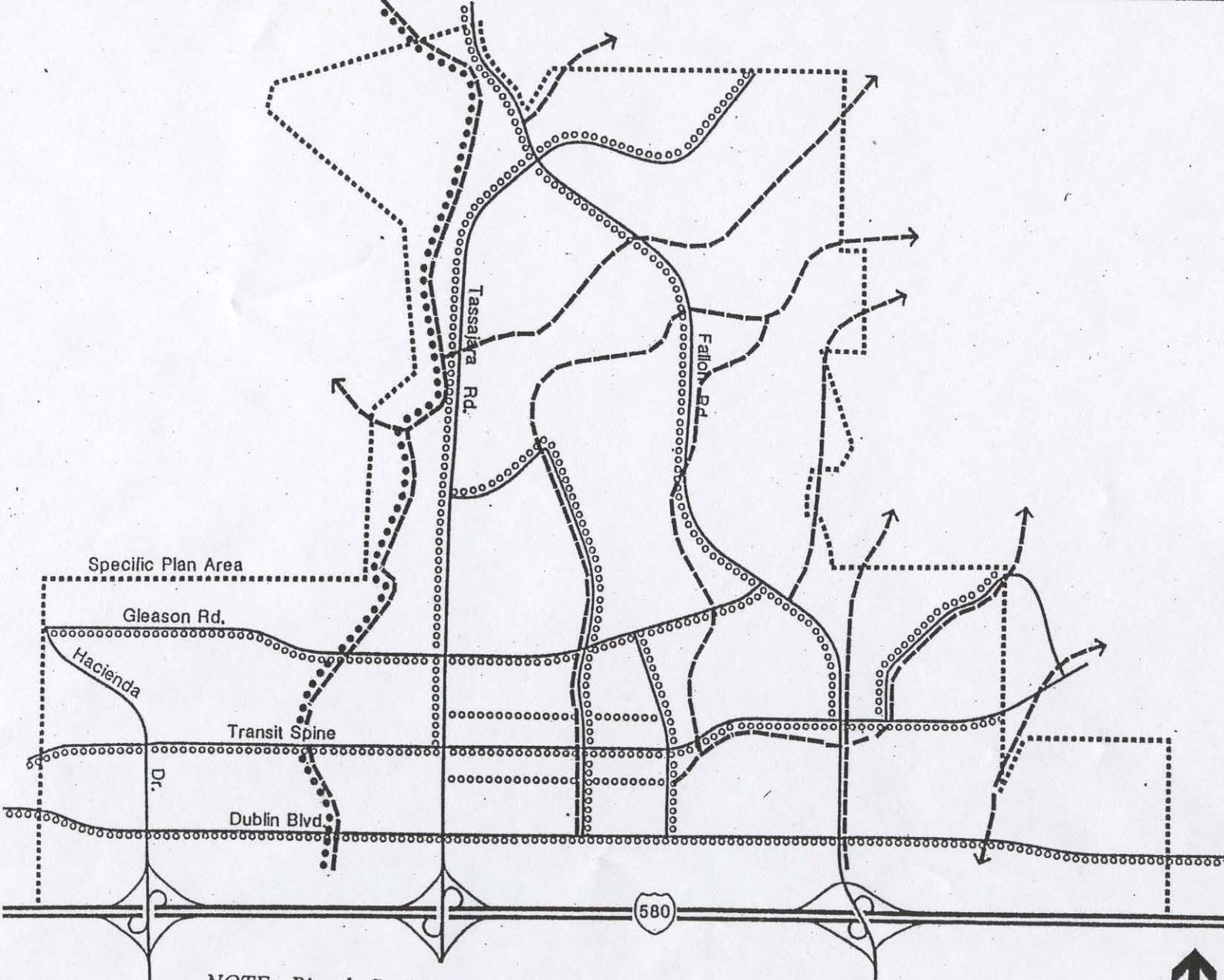
This map is not intended to illustrate actual alignment of streets and bus routes, but provides a conceptual plan of proposed improvements.

City of Dublin
 East Dublin Transit Map

Figure
 5-2b



Figure 5.3
Pedestrian and
Bicycle System



NOTE: Bicycle System amended in June 17, 1997 update. See Figure 5.3 b.



EASTERN DUBLIN Specific Plan

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San Francisco, CA 94105
(415) 541-0830

SOURCE: DKS Associates



Figure 5-3b
East Dublin
Bicycle Circulation
System

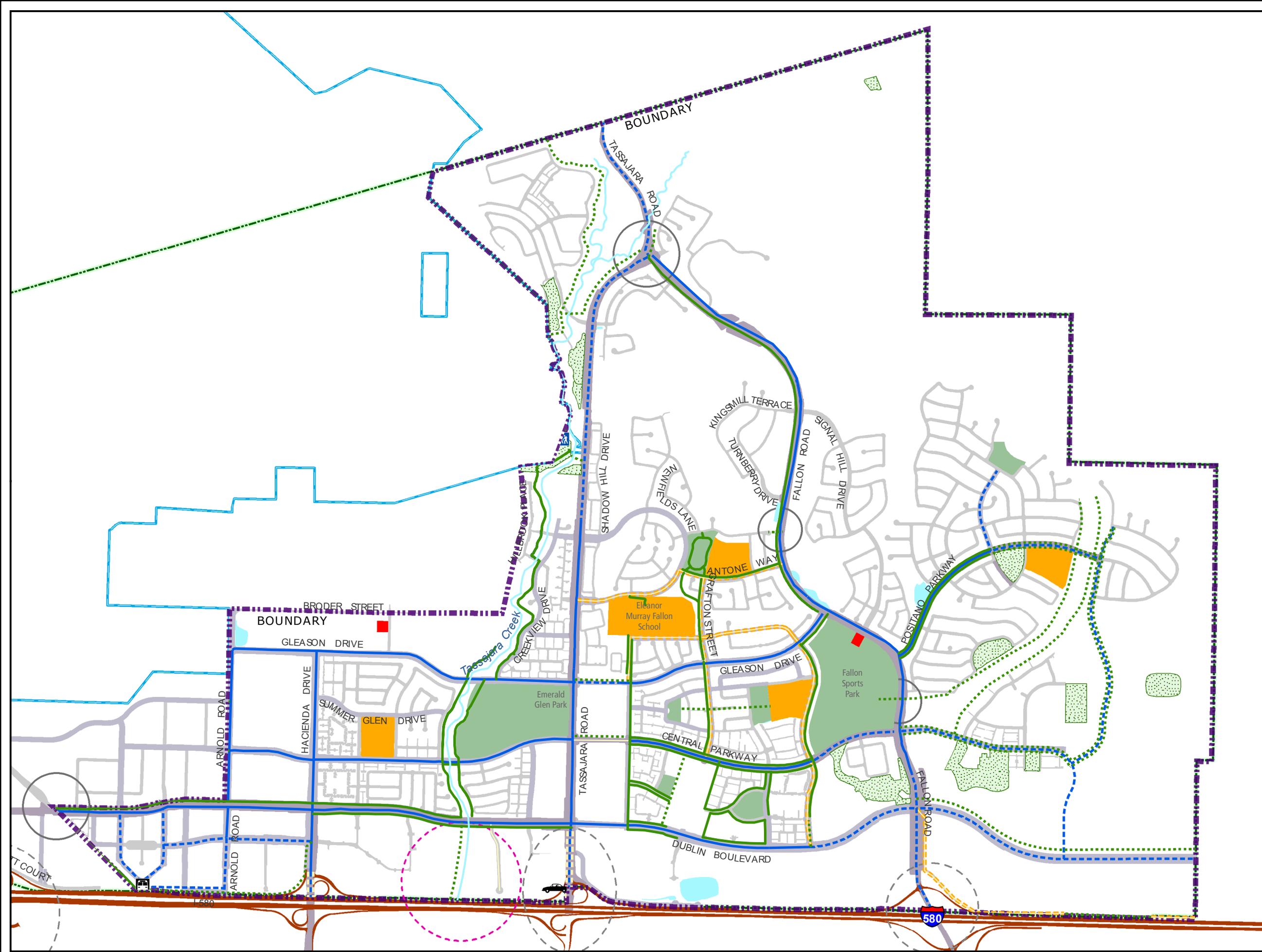
- Class I, Existing, Shared Use Path
- - - Class I, Proposed, Shared Use Path
- Class II, Existing, Bicycle Lanes
- - - Class II, Proposed, Bicycle Lanes
- Class IIA, Proposed, Bicycle Lanes (One-Side)
- - - Class IIB, Proposed, Buffered Bicycle Lanes
- - - Class IIB, Proposed, Buffered Bicycle Lanes (Existing Class 2A)
- Class III, Existing, Bicycle Route
- - - Class IIIA, Proposed, Bicycle Route with Sharrows
- Recreation
- - - Proposed Recreation
- Proposed Rest Area
- Proposed Trailhead
- Proposed BART Station
- Existing BART Station
- Existing Park and Ride
- Existing Transit Hub *Transfer Station for BART, Wheels, County Connection*
- Intersection Improvement / Connection Study Area
- Freeway Bicycle Crossing Study Area
- Regional Trail Crossing Study Area
- BART Line
- Public School
- School Parks
- Facilities
- City Owned Open Space
- Citywide Park
- Regional Park
- Fire Station
- East Dublin Specific Plan
- Camp Parks RFTA
- City of Dublin

June 2015

NOTE: The internal system of local streets shown in this figure is illustrative only.

0 500 1,000 2,000 3,000
Feet

0 0.125 0.25 0.5
Miles



Chapter

6

RESOURCE MANAGEMENT



6.0 RESOURCE MANAGEMENT

6.1 INTENT

The Plan seeks to preserve and manage the planning area's natural resources and open space lands for the long term benefit of planning area residents, the Dublin community, visitors, and the environment itself. Resources to be protected include vegetation; wildlife; creeks, drainageways and wetlands; scenic features; and archaeological and historic features.

A well-planned and effective resource management program not only protects sensitive natural resources, it also preserves open space which enhances community character and contributes to land and housing values in the area. Similarly, management of natural resources can create important visual and recreational assets which improve the quality of life for area residents and generate community pride.

GOAL: To foster an environmentally sound community whose built form respects and enhances the natural systems found within the Planning Area.

6.2 OPEN SPACE

Open space refers to land which is either designated as Open Space with the intention that it remain undeveloped, or is designated as Rural Residential/Agriculture with the intention that it maintain its potential for agriculture with very limited development. Open space areas can be in either public or private ownership. Generally, the parks and trail system represent the publicly owned and active components of the open space system. The remaining open space area, which has been set aside primarily to protect important resources, can be either publicly or privately-owned, and comprises the passive use component of the system. Resources that are protected under the Plan include sensitive habitat areas, streams and wetlands, visually sensitive ridgeland, and areas that are undevelopable due to excessive slopes or unstable geology.

Figure 6.2 shows the location of sensitive resources within the planning area.

Open space areas in eastern Dublin fall into three general categories based on their role or function in the Plan:

- Open space for the preservation of natural resources including, but not limited to, habitat areas required for the preservation of plant and animal species, and creeks, ponds and drainageways.
- Open space for public health and safety, including but not limited to, areas which require special management or regulation because of hazardous or special conditions such as unstable soil and slope areas and flood plains.
- Open space for outdoor recreation, including but not limited to, the City, Community, and Neighborhood park areas, stormwater detention basins, areas with significant scenic, historic, or cultural value, and corridors which serve as links between recreation and open space areas, including drainage corridors, visual corridors, and pedestrian, bicycle, and equestrian trail corridors.

Together the individual components of the open space system create a comprehensive, interconnected open space framework for development within eastern Dublin. Figure 6.1 illustrates the Plan's comprehensive open space framework for eastern Dublin.

GOAL: To establish an integrated open space system to preserve scenic qualities, protect environmental resources, enhance recreation opportunities, and ensure public health and safety.

6.2.1 OPEN SPACE NETWORK

In order to provide the greatest benefit in terms of scenic, recreational, and habitat value, it is important that open space areas be contiguous and form an interconnected network that facilitates the movement of wildlife and people with minimum conflict with development. It is also important that the area be of sufficient size to maintain scenic and habitat values.

Policy 6-1: Establish a continuous open space network that integrates large natural open space areas, stream corridors, and developed parks and recreation areas.

Policy 6-2: Locate development so that large, continuous open space areas/corridors are preserved. Avoid creating open space islands. Encourage single loaded streets in areas adjacent to open space, rural residential, and agricultural lands.

6.2.2 OPEN SPACE ACCESS

To insure the full enjoyment of open space areas by the community, it is important that convenient public access be provided. This access includes both physical and visual access. Physical access is not appropriate for all open space areas. For instance, the public will not be encouraged to enter sensitive habitat areas or geologically unstable areas. These areas will serve primarily as visual open space. Rural Residential/Agriculture areas that remain in private ownership will also serve primarily

as visual open space, except where public easements are obtained specifically to permit access (e.g., for public trails).

Policy 6-3: Provide convenient access from developed areas to designated open space areas and trails. Emphasize pedestrian connections between developed and natural areas.

Policy 6-4: Preserve views of designated open space areas.

Policy 6-5: Ensure adequate access to open space areas for maintenance and management purposes.

6.2.3 OWNERSHIP AND MAINTENANCE

Open space in the planning area will include areas in both public and private ownership. Much of the open space within the planning area is designated Rural Residential/Agriculture, primarily for the purpose of resource protection and public safety. The limited development potential of these Rural Residential areas (one unit per 100 acres) will result in large areas remaining undeveloped or used for agricultural purposes.

From the standpoint of resource protection, it is preferable that undeveloped Rural Residential lands be assembled into a contiguous whole that can be managed and maintained by an agency with experience in open space management such as the East Bay Regional Park District (EBRPD). The land could be dedicated to an agency or remain under private ownership, and management responsibilities contracted to an outside agency or deeded in a conservation easement to an organization with experience managing open space for natural resource protection.

From the standpoint of resource protection, it is preferable that undeveloped Rural Residential lands be assembled into a contiguous whole that can then be managed and maintained by an agency with experience in open space management such as the East Bay Regional Park District (EBRPD). The land could be dedicated to an agency or remain under private ownership, and management responsibilities contracted to an outside agency. Other options for management and maintenance of open space include:

- The land could be acquired and maintained by the City, of Dublin. Or, the City could acquire the land, but contract with another agency (e.g., EBRPD) to do the management/maintenance.
- A new open space district could be established, similar to the one formed in Walnut Creek. The district could serve just Dublin open space lands, as in Walnut Creek, or could be established for several adjacent cities such as San Ramon and Pleasanton.
- The homeowner's association for each major development area could assume ownership and responsibility of management/maintenance.

- A Geologic Hazard Abatement District (GHAD) could be established to be responsible for management/maintenance.

Policy 6-6: Establish a mechanism for ownership, management and maintenance of open space areas in eastern Dublin, prior to final map approvals.

Policy 6-7: All Rural Residential/Agriculture (RR/A) areas shall be kept primarily undeveloped. If possible, allowable development in these areas should be transferred to other residential development areas and the future use of the land restricted to open space uses. If development does occur within RR designated areas, it should be located in the least visible portion of the development site and situated to preserve the area's value as open space and wildlife habitat.

6.2.4 PRIVATE DEVELOPMENT AREAS

Pockets of open space that occur within development areas because of their unsuitability for development (e.g., steep slopes) should remain in private Ownership. If properly landscaped and maintained, these areas can make a positive contribution to the character of the development by providing visual open space and buffers between homes. Depending on size and location, management and maintenance responsibilities for these areas can either belong to adjacent landowners, or become the common responsibility of a homeowners association.

Policy 6-8: Designate undeveloped areas within individual developments as private open space, with management and maintenance responsibilities resting with the individual landowners or homeowners association.

ACTION PROGRAM: OPEN SPACE

- **Program 6A:** The City of Dublin shall require review and approval of the following elements as part of the application for proposed developments in eastern Dublin:

Clear and detailed identification of all potential open space areas, including: areas with slopes over 30%, areas with unstable slopes, visually sensitive ridgelands, stream corridors, sensitive habitat areas, trail corridors, and park areas.

Clear and detailed description of the purpose and/or function of open space areas and their relationship to other open space areas beyond the development, the proposed treatment (i.e., restoration, revegetation, etc.) of these areas; proposed maintenance and emergency access provisions; the proposed

ownership of open space areas; and the responsibility for their management and maintenance.

Negotiated agreements with any public agencies that are going to acquire, manage, and/or maintain open space as a result of the project, or when private entities will be responsible for open space management and maintenance, a detailed set of codes, covenants, and restrictions (i.e., CC&R's) that set forth maintenance and management standards and responsibilities.

Review of open space plans by the City police and fire departments and other applicable agencies (e.g., Department of Fish and Game, Zone 7, etc.) to ensure compatibility with their standards and practices.

- **Program 6B:** The City should explore options for ownership and management of areas set aside as open space. Depending on the purpose of the open space, ownership of these areas by public agencies, such as the East Bay Regional Park District, is usually preferred. In particular, the City should encourage East Bay Regional Park District to accept ownership of the Tassajara Creek open space corridor. The City should also work with the Park District to develop guidelines for management and uses in recreational open space areas. If the purpose of the open space is natural resource protection, agencies or organizations with experience in such preserves, would be preferred.
- **Program 6C:** Require open space lands that occur within development projects to be restricted to permanent open space, with binding agreements established with the City to permanently protect such areas.
- **Program 6D:** Determine the appropriate funding mechanism(s) (e.g., a landscape assessment district, real estate transfer tax, etc.) for on-going maintenance of open space areas.

6.3 NATURAL RESOURCE PROTECTION

The planning area's natural resources have been a key determinant in establishing the overall character and organization of the Plan. Guided by City General Plan policies to protect habitat areas and drainage ways; to preserve ridgelines and slopes over 30% in open space; and to protect the quality of views, the Specific Plan calls for approximately one third of the planning area to be preserved in some form of open space.

The largest concentration of open space, roughly 600 acres in the original Specific Plan, is located in the northeast portion of the planning area and is designated primarily for agriculture and limited rural residential land uses. This area of open space has been increased through the 2005 Fallon Village amendment. This area consists primarily of

hilly terrain that includes steep and geotechnically unstable slopes, visually prominent ridgelines, and sensitive habitat areas that constrain its developability. Preservation of these hillside areas is considered an important element in maintaining a measure of the area's natural character as the planning area develops. The intent of the Plan is that this rural open space would be permanently preserved as a visual and natural resource area with little or no additional development allowed. Figure 6.3 illustrates the relationship between the land use plan and areas with sensitive biotic, geotechnical, hydrologic, and visual elements.

GOAL: To maintain and enhance the planning area's natural resources.

6.3.1 STREAM CORRIDORS AND WETLANDS

Eastern Dublin is characterized by a number of hydrologic features, including a creek, mud several intermittent streams, springs, seeps, and impoundments (see Figure 6.2). The presence of these features in a generally do' environment has significant value to plant and wildlife species, and can play an important role in establishing the character of the future community. These hydrologic features support a variety of habitat types, including: a narrow band of mixed riparian forest type vegetation along the upper reaches of Tassajara Creek north of Gleason Drive; a dense, thicket-like growth of Arroyo Willow Riparian Woodland along Fallon Road; and several small freshwater marsh areas adjacent to drainages in Tassajara Creek and Fallon Road. In addition to these stream-related riparian areas, other smaller wetland areas associated with seeps, springs, man-made stock ponds, and seasonal vernal pools are important for the sensitive plant and wildlife species they often contain. Because of their importance to sensitive species, wetlands and other riparian areas are regulated by the State and Federal government. All planning area streams, naturally incised channels, and wetlands areas are subject to Corps of Engineers (COE) jurisdiction under Section 404 of the Clean Water Act. Proposed filling of any wetlands area will require review and approval by the COE. (Under Section 404, wetlands are defined as "areas that are periodically or permanently inundated by surface or groundwater and support vegetation adapted for life in saturated soil.") The California Department of Fish and Game (DFG) also has jurisdiction over streambeds in the planning area (i.e., "Waters of the State"), and requires notification, review, and potentially a permit for proposed alterations to any stream- bed.

Although there is significant riparian vegetation along the northern reach of Tassajara Creek, all of the watercourses have been degraded to some extent by grazing, tilling and other agricultural and urban practices. Because of these past practices, the majority of the intermittent streams in the planning area consist of incised, natural drainageways that contain very little emergent vegetation. From a jurisdictional standpoint, however, these watercourses are similar to the more valuable riparian and emergent wetland habitats in that they can not be filled without first obtaining the appropriate permits and agreements from both the COE (Section 404 permits) and the DFG (Stream Alteration

Permits). Under the Plan, watercourses are to be preserved in open space corridors, and enhancement and stabilization will be required to restore these areas' natural values. The restoration of planning area watercourses is intended to enhance the streams' natural functions as drainage channels, habitat areas, and wildlife corridors, in addition to providing aesthetic and recreational resources for the proposed eastern Dublin community.

- Policy 6-9:** Natural stream corridors, ponds, springs, seeps, and wetland areas, as shown in Figure 6.2, shall be preserved wherever possible. Prior to submittal of development applications, the appropriate agencies such as the California Department of Fish and Game and the Army Corps of Engineers must be consulted to determine whether they have jurisdiction over the watercourse or wetland area.
- Policy 6-10:** Riparian and wetland areas shall be incorporated into greenbelt and open space areas as a means of preserving their hydrologic and habitat value. Unavoidable loss of riparian habitat due to development should be replaced with similar habitat on a 3:1 in kind basis. Loss of wetlands must be mitigated consistent with the COE's current policy.
- Policy 6-11:** All stream corridors, as shown in Figure 6.2, shall be managed to encourage revegetation with native plant species to enhance their natural appearance and improve habitat values. Active revegetation must be implemented by a professional revegetation/restoration specialist. Habitat management should be overseen by restoration ecologist.
- Policy 6-12:** Maintain natural open stream channels to carry storm runoff wherever feasible, rather than replacing with underground storm drainage systems. When extra capacity is necessary, retention basins are preferable to channelization, if the channelization would disturb riparian habitat. When channelization is necessary, the channel should be designed and constructed to accommodate both the projected flows and the growth of riparian vegetation, and to have more natural-appearing contours. Flood control maintenance practices will be designed and performed to be responsive to public safety while preserving the unique riparian community. Maintenance agreements (memoranda of understanding) between the City and responsible agencies will address, but not be limited to, site access, criteria for determining the need for maintenance (i.e. assessment and monitoring), and the timing and frequency of actual maintenance practices.

The Plan calls for urban and open space areas in eastern Dublin to be linked through the incorporation of planning area watercourses into a comprehensive linear corridor

system. The planning area includes one major creek, Tassajara Creek, and a number of unnamed, intermittent streams that drain the area in a south-southwesterly direction. The Plan designates these watercourses as linear open space corridors that link community activity centers, residential areas, and open space.

Stream corridors are proposed to have pedestrian/bicycle trails developed within them that will accommodate the movement of pedestrians, bicyclists, and equestrians throughout the planning area with minimal conflict from vehicular traffic. It is intended that wherever feasible, planning area trails will connect into adjoining regional trail systems proposed by ERBPD and the Livermore Area Recreation and Park District (LARPD). To the extent possible, the Plan has located schools and parks adjacent to a stream corridor to take advantage of the stream corridors' aesthetic benefits and to facilitate pedestrian-and bicycle movement to and from school and park facilities.

Policy 6-13: Establish a stream corridor system (see Figure 6.1), which provides multi-purpose open space corridors capable of accommodating wildlife all pedestrian circulation. In order to facilitate the use of these corridors by both humans and wildlife, human activities (e.g., trails) should be limited to one side of the stream.

Policy 6-14: Enhance public enjoyment and visibility of stream corridors by avoiding, or minimizing, development that backs directly onto the stream corridor, and ensure safe public access to stream corridors by providing frequent access points within each development area.

ACTION PROGRAM: Stream Corridors and Wetlands

- **Program 6E:** The City shall require all project applicants to submit a multi-parameter wetlands delineation, and plans for proposed alteration to any watercourse to appropriate agencies in accordance with formally adopted regulations of those agencies. Applicants will be required to submit these agencies' determinations, any required permits, and approved mitigation plans as part of the final development plan submittal.
- **Program 6F:** The City should work with Zone 7 and the Department of Fish and Game to develop a comprehensive stream corridor restoration program that identifies a detailed set of criteria for grading, stabilization and revegetation of planning area stream channels. The program would provide guidelines for plant species, planting densities, and long-term maintenance requirements and responsibilities. Such a program will facilitate development approvals and insure a consistent standard for stream channel improvement throughout the planning area. The program should identify the procedures to be followed by applicants for development, permits to be obtained, and improvement and revegetation

practices to be implemented. The program should be reviewed by East Bay Regional Park District.

- **Program 6G:** The City should require dedication of land and improvements (i.e., trails, revegetation, etc.) along both sides of stream corridors (as shown in Figure 6.1 and 6.2) as a condition of subdivision approval. The width of dedicated corridors will be established in consultation with the regulatory authority since these may vary with specific sites (The California Department of Fish and Game typically recommends a minimum buffer of 100 feet on each side).
- **Program 6H:** The City should enact and enforce an erosion and sedimentation control ordinance establishing performance standards to ensure maintenance of water quality and protection of stream channels. The ordinance should regulate grading and development activities adjacent to streams and wetland areas, and require revegetation of all ground disturbances immediately after construction to reduce erosion potential. Until such an ordinance is in place, the City shall require project applicants to provide a detailed erosion and sedimentation control plan as part of the project submittal.
- **Program 6I:** The City should negotiate with Zone 7 the level of flood control improvements required to meet district standards and rights-of-my requirements and maintenance responsibilities.
- **Program 6J:** The City should establish a landscape maintenance district or other equivalent mechanism to cover the long-term costs of maintaining public facilities
(i.e., trails, benches, etc.) along the stream corridors.

6.3.2 BIOLOGICAL RESOURCES

Eastern Dublin contains a range of vegetation/habitat types, including non-native grasslands; alkali grasslands; northern riparian forest; arroyo willow riparian woodland; freshwater marsh; springs, seeps, and water impoundments; and developed and/or disturbed areas. The Biological Assessment prepared as background for the Eastern Dublin Specific Plan includes more detailed information about biological conditions in the area, including lists of species found in the area. A copy of the Biological Assessment is available for review at the City of Dublin Planning Department. Figure 6.2 shows the location of the various habitat types within the planning area.

GOAL: To protect and enhance existing biological resources in eastern Dublin.

Previously developed and previously cultivated annual grasslands occupy the majority of the planning area. Because of their history of disturbance, these areas generally have few if any remaining native plant species associated with them, and have low habitat

value. Annual grassland is by far the next most dominant habitat type. However, this habitat is generally degraded by overgrazing and now consists of primarily introduced annuals and perennials, and few native species. This habitat, which has been displaced by agricultural activities and current development in the lower elevations and flat plain areas, is now found primarily on the sides and ridge tops of the area's rolling hills.

BOTANICALLY SENSITIVE HABITAT AREAS

Three botanically sensitive habitats occur within the planning area: northern riparian forest, arroyo willow woodland, and freshwater marsh. These habitats are recognized as rare and declining in the state by the California Department of Fish and Game Natural Heritage Program. These habitats are of great biotic significance in terms of wildlife habitat and as potential habitat for rare and endangered species.

Northern Riparian Forest. A narrow band of mixed riparian forest type vegetation occurs along the upper reaches of Tassajara Creek north of the Santa Rita property. Plant species in this habitat include several species of oak, California bay, cottonwood, willow, California sycamore and buckeye, elderberry and blackberry. In terms of its uniqueness, scarcity, contrast with surrounding habitats, and the distinctive food, cover, and water resources that it provides, the riparian woodland is probably the most valuable habitat in the planning area. Wildlife species in this habitat are more numerous and diverse than in any other habitat type in the planning area.

Arroyo Willow Riparian Woodland. This habitat is characterized by a dense, homogenous, thicket-like growth of arroyo willow (*Salix lasiolepis*) along a narrow drainage running north/south and across lower Fallon Road. Associated with the stand of arroyo willows is an open understory of ruderal herbs, predominantly poison hemlock. Although the northeast portion of this area has been degraded by grazing, it still represents valuable habitat for riparian species.

Freshwater Marsh. Several small freshwater marsh areas occur adjacent to drainages in Tassajara Creek and Fallon Road. The saturated and flooded soils characteristic of these areas support a dense, green growth of Baltic rush (*Juncus balticus*), curly dock (*Rumex crispus*), common monkey flower (*Mimulus guttatus*), and tule (*Scirpus* spp.).

Policy 6-15: Avoid development and potentially destructive activities in areas with high-value habitat including:

- **northern riparian forest**
- **arroyo willow riparian woodland**
- **freshwater marsh**

Exceptions may only be granted where an owner's reasonable beneficial use of the land cannot be otherwise provided.

Policy 6-16: To ensure long-term protection, high-value habitat areas either should be dedicated as public open space or restricted from potentially harmful development and activities with deed restrictions and design standards.

RARE AND ENDANGERED SPECIES

No rare or endangered plant species have been identified in the planning area. Since the completion of the initial Specific Plan, further biological studies have indicated the presence of two special-status plants, Congdon's tarplant (*Centromadia parryi* ssp. *Congdonii*) and the San Joaquin spearscale (*Atriplex joaquiniana*) within the planning area. A number of special-status wildlife species (i.e., species that are listed or proposed as threatened or endangered, or are otherwise of conservation concern due to declining populations or threats to current populations) are known to occur in the planning area or the immediate vicinity, including the red-legged frog (federally listed as threatened), California tiger salamander (federally listed as threatened), western pond turtle, golden eagle, northern harrier, burrowing owl, and others. Figures 6.2 and 6.3 show many of the locations where such species have been observed in the planning area. Most of the northern portion of the planning area also represents suitable foraging habitat for the federally endangered San Joaquin kit fox. To date, however, no definitive confirmation of kit fox presence in the planning area has been found. Since the initial 1993 Specific Plan, the red-legged frog has been listed as a threatened species. Another threatened species, the California Tiger Salamander, has also been found within the area of the Specific Plan.

Policy 6-17: Impacts to sensitive wildlife species that occur in the planning area will be avoided wherever possible. Mitigation programs will be required as necessary to reduce or eliminate impacts on special status species.

WILDLIFE CORRIDORS AND FORAGING AREAS

If the planning area is to successfully preserve its wildlife habitat value, it will be imperative that contiguous open space areas be preserved at several locations within the area, and be connected by wildlife corridors. Isolated habitat areas that are not connected to other natural habitat areas by functional wildlife corridors will soon be deserted by wildlife and cease to have any significant habitat value. If wildlife corridors are too narrow, wildlife will not use them because of their proximity to human activity.

The Plan preserves and enhances the most critical of the habitat areas within the planning area. Streams and other water features are to be included in open space areas, and enhancement programs to revegetate and re-establish stream corridors will be

undertaken to improve the habitat value of these currently degraded resources. In addition, a large area in the northeastern part of the planning area has been retained as rural residential/open space to ensure adequate forage area for the golden eagles that inhabit the area.

Policy 6-18: Development in the planning area will be designed to maintain contiguous areas of natural open space interconnected by functional wildlife corridors that permit the free movement of wildlife throughout the open space areas. As a means of preserving wildlife corridors, duster development is generally preferable to an even low-density sprawl over an entire area.

Policy 6-19: Where roadways divide open space areas, underpasses or other means of access shall be provided to facilitate the movement of wildlife without barriers.

Policy 6-20: Maintain a natural open space zone (i.e., no development) around the golden eagle nest located in the northeast corner of the planning area (see Figure 6.3 for the designated setback). Exceptions to this setback Mil have to be approved by the U.S. Fish and Wildlife Service (USFWS), based on field examinations of the site to determine what constitutes "harassment" of the eagles at this particular location. Construction within this protection zone will not be allowed unless it is determined that the eagles have ceased to use the nest site for two consecutive years as verified by the USFWS.

REVEGETATION AND RESTORATION OF HABITAT

Most of the habitat areas in the planning area have been degraded to some degree by past human activities, especially agriculture-related activities. The addition of substantial urban development will further reduce habitat value in the area unless steps are taken during development to enhance and upgrade the quality of the remaining habitat areas.

Policy 6-21: Direct disturbance or removal of trees or native vegetation cover should be minimized and should be restricted to those areas actually designated for the construction of improvements.

Policy 6-22: All areas of disturbance should be revegetated as quickly as possible to prevent erosion. Native trees (.preferably those species already on site), shrubs, herbs, and grasses should be used for revegetation of areas to remain as natural open space. The introduction of non-native plant species should be avoided.

Specific physical characteristics of proposed revegetation areas will be determined to evaluate the long term feasibility of the proposed mitigation and to identify potential conflicts at the site. Characteristics would include but not be limited to ground and flow hydrology, geomorphology, soils, aspect, terrain, and land uses. Plants used for revegetation will be native to the Tri-Valley area.

Policy 6-23: Vegetation enhancement/management plans should be prepared for all open space areas (whether held publicly or privately) with the intent to enhance the biologic potential of the area as wildlife habitat. The focus of such plans will be to reintroduce native species in order to increase the vegetative cover and plant diversity.

ACTION PROGRAM: BIOLOGICAL RESOURCES

- **Program 6K:** The City of Dublin shall establish and maintain a liaison with resource management agencies (i.e., California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers) for the purpose of monitoring compliance with specific plan policies. These agencies should be consulted and involved throughout the planning and development process of individual properties in order to avoid violations of state and federal regulations and ensure that specific issues and concerns are recognized and addressed.
- **Program 6L:** The City shall require development applicants to conduct a pre-construction survey within 60 days prior to habitat modification (clearing construction and road site, etc.) to verify the presence or absence of sensitive species, especially the San Joaquin kit fox, nesting raptors, the red-legged frog, western pond turtles, the California tiger salamander, and other species of special concern.
- **Program 6M:** The City shall require placement of all transmission lines underground to avoid the potential for raptor electrocutions. If undergrounding is not feasible in all areas, the following design specifications will be implemented:
 - a) For Main Power Poles (Non-riser): Energized wires should be placed a safe distance apart (60 inches for crossarm configuration/55 inches for armless configuration). For crossarm (two outer wires) or by placing the center wire on a tag pole extension. Where adequate (safe) separation of conductors and potential conductors can not be attained, an alternative is to install conductor insulation (i.e. PVC tubing) ending a minimum of 3 feet on either side of the pole-top insulator.

b) For Riser Poles: All exposed energized conductors, including jumper wires, lightning arresters, and pot heads should be insulated. Pot heads can be insulated by covering them with wildlife protective boots. In addition, when feasible the use of cut-outs on riser poles should be avoided. If this is not possible, either use non-conductive (fiberglass) crossarms or install perch guards that prevent birds from landing on the crossarms (Olendorf et al. 1981).

c) For Three Wire Configurations (not applicable to common neutral configurations). In order to prevent the circuit to ground being completed by a bird touching the ground wire and an energized wire simultaneously, place 4 inch gaps along the ground wires near energized conductors. Lightning will spark over these gaps, but day-to-day safety of birds is ensured.

d) The use of grounded steel crossarm braces should be avoided. As a general rule, the less grounded metal that is placed near conductors, the less hazard for electrocution.

- **Program 6N:** The use of rodenticides and herbicides within the project area should be restricted to avoid impacts on wildlife. The City shall require any poisoning programs to be done in cooperation with and under supervision of the Alameda County Department of Agriculture. Herbicides should be used only selectively within the project area, should be carefully applied in accordance with the manufacture's instructions, and used only for control of non-native pest plant species.
- **Program 6O:** The City will require a detailed revegetation/restoration plan to be developed for all disturbed areas that m to remain undeveloped. The Plan will be developed by a qualified revegetation specialist, and should incorporate stockpiling of native topsoils as appropriate, for later reapplication to cut slopes, shoulders, and pads.

6.3.3 CULTURAL RESOURCES

Archival research and field reconnaissance conducted as part of the eastern Dublin planning process, indicates that a number of prehistoric sites or suspected locations of prehistoric sites, and a number of historic structures exist within the planning area. Details of this survey are included in the Environmental Setting background report, which is available from the Planning Department. The Plan recommends preservation of archaeological and historic resources whenever feasible. The preservation and enhancement of these resources can contribute to the creation of a unique sense of place in eastern Dublin by acknowledging the area's history.

GOAL: To preserve Dublin's historic structures and cultural resources.

ARCHAEOLOGICAL RESOURCES

Research indicates that the planning area has been inhabited off and on for up to 2,000 years. For the aboriginal population of the area, the planning area probably served primarily as an area for seed gathering, acorn harvesting, and for hunting forays. The area was probably not the location for main habitation sites. Archaeological sites have been identified which appear to have been seasonal task-specific sites where tasks such as the seasonal milling of seeds occurred. All identified prehistoric locations must be considered to have some level of archaeological significance until it has been demonstrated otherwise. Additional research will be needed to evaluate these sites before any approvals for development are granted.

Policy 6-24: The presence and significance of archaeological or historic resources will be determined, and necessary mitigation programs formulated, prior to development approvals for any of the sites identified in the cultural resource survey prepared for this plan.

Policy 6-25: The discovery of historic or prehistoric remains during grading and construction will result in the cessation of such activities until the significance and extent of those remains can be ascertained by a certified archaeologist.

HISTORICAL RESOURCES

In more recent times, from the Mexican period to the present, the majority of the planning area has been used for cattle grazing and dry farming. Numerous homesteads and farm complexes remain or have been recorded from this period. Of the dozen historic site locations that have been identified, some are in-use structures or fanning complexes and others are the remains of structures which have been used historically. The significance of these various sites remains to be determined.

Policy 6-26: All properties with historic resources which may be impacted by future development shall be subjected to in-depth archival research to determine the significance of the resource prior to any alteration.

Historic structures and locations where historic events have taken place can often be preserved through project re-design. Structures which are not lived in can often be rehabilitated and used for purposes compatible with new development. Historic structures and locations of historic events can be incorporated into open space or parks without detracting from their ultimate value.

Policy 6-27: Where the disruption of historic resources is unavoidable, encourage the adaptive re-use or restoration of historic structures (such as the old school

house, several barns, and Victorian residences currently in the area) whenever feasible.

ACTION PROGRAM: Cultural Resources

- **Program 6P:** The City of Dublin shall require the following actions as part of the application process for development within eastern Dublin:

Site Sensitivity: Based on the first stage cultural resource survey of the area conducted as background for the Plan, the City will make a determination of whether the subject site has been identified as having prehistoric or historic resources potentially located on it.

Research: For those sites with potential resources, a second level of detailed research and field reconnaissance will be required to determine the level of archaeological or historical significance. This research will be the responsibility of the development applicant, and be conducted by a qualified archaeologist. The research will be consistent with the guidelines for prehistoric and historic resources provided in the cultural resources survey prepared for eastern Dublin.

Mitigation: For those sites that contain significant resources, a mitigation plan must be developed which is consistent with the policies in this Specific Plan and current CEQA guidelines concerning cultural resources.

6.3.4 VISUAL RESOURCES

The foothills of eastern Dublin provide a dramatic visual backdrop for the Livermore-Amador Valley and the future community in eastern Dublin. A common complaint leveled against typical suburban development is that it tends to diminish, rather than enhance, the uniqueness and individual identity of local communities. The hillsides of eastern Dublin afford an excellent opportunity to establish a strong visual identity for the new community and define an eastern and northern boundary for Dublin. For this reason, retaining the natural character of the foothill landforms and preserving the sense of openness that currently characterizes the area are important objectives of the Plan. In addition, the open and relatively spare character of the planning area landscape makes each stand of trees or each stream or body of water a significant visual element. For this reason the Plan also seeks to preserve those few other landscape features that distinguish the planning area, specifically the creeks, drainage ways, and existing tree stands.

GOAL: To establish a visually distinctive community which preserves the character of the natural landscape by protecting key visual elements and maintaining views from major travel corridors and public spaces.

Policy 6-28: Preserve the natural open beauty of the hills and other important visual resources, such as creeks and major stands of vegetation.

RIDGELINES AND RIDGELANDS

The Plan preserves a largely open and undeveloped area in the northern and eastern portions of the planning area that responds to the natural landscape and incorporates some of the area's most critical visual features, particularly ridgelines and hillfaces. The barren rolling hills that comprise a major portion of the planning area are the most distinctive of the area's visual features. These smooth hills are distinguished by their rounded forms and the seasonal grasslands which vary in color from lush green in the winter to golden brown in the summer.

The most prominent ridgeline in the area actually lies just outside the planning area. This ridge, which wraps around the north and east sides of the planning area plays a significant role in the scenic character of the planning area in that it provides a visual backdrop for the lower foothills located in the planning area. With average elevations close to 900 feet this ridgeline forms the horizon line from most viewpoints to the south.

Within the planning area, two parallel ridgelines, with elevations ranging from 600 to 800 feet, extend across the northern portion of the planning area in an east-west direction. The west and south facing slopes of the southernmost ridge are highly visible from I-580 and Tassajara Road, and from points within the planning area actually form the horizon line. The second, parallel ridge located to the north, is also highly visible from Tassajara Road, but is screened from views from I-580. Both of these ridges are spurs of the larger ridge located just east and north of the planning area.

In the southeastern portion of the planning area, a narrow band of low-lying hills has been designated for open space. This band of hills, while much lower in elevation than the ridgelines to the north, forms a distinctive visual feature which will serve as both a natural visual backdrop to proposed development along the freeway and as a buffer screening development to the north from freeway views and noise. It is intended that the face of these foreground hills remain undisturbed (fronting I-580). However, the backside can be developed, as long as it is consistent with all Specific Plan policies. In particular, no development shall extend above the natural ridgeline of these low-lying hills.

Figure 6.3 delineates those ridgelines and ridgeland areas which are considered to be visually sensitive to future development. "Visually sensitive ridgelines" are defined as those ridgelines which form the horizon (i.e., skyline) when viewed from one or more existing scenic corridors. "Visually sensitive ridgeland areas" include those areas in which two-story development (i.e., 30-foot building height) would obstruct or extend above the ridgeline as seen from existing scenic corridors.

As shown in Figure 6.3, the ridgelines have been divided into two categories: those on which no or minimal development should occur and those on which development can occur with certain restrictions. The main ridge along the north and east sides of the planning area is designated for no or minimal development. It forms the backbone of the General Plan's open space system for eastern Dublin, and, as the visual background, contributes to the perception of eastern Dublin as a community ringed by natural open space. The lower spur ridges within the planning area can be developed, consistent with Specific Plan land use designations, as long as they meet certain requirements, including that development will not obscure or appear to extend above the major ridgeline to the north; that development is not silhouetted against the horizon when viewed from City- and County- designated scenic routes; and that grading for such development does not visually scar sensitive ridgelines or hillfaces.

SCENIC CORRIDORS

I-580 and Tassajara Road are currently designated as scenic corridors by Alameda County. It is anticipated that these two corridors, plus the proposed Fallon Road corridor, will also be designated as scenic corridors by the City. The principal element contributing to the scenic character of these corridors is the sweeping panorama of the foothills and the rural landscape. Development of eastern Dublin will significantly alter the existing rural landscape character, particularly in the foreground areas adjacent to these corridors. Therefore, if the area's visual quality is to be preserved, it is critical that views of major ridgelines be maintained from the scenic corridors.

In addition to preserving views of the hills, it is imperative that high-quality, attractive development occur along these corridors if Dublin is going to create a positive impression for the millions of travelers who will pass by or through the area annually.

Policy 6-29: Development is not permitted on the main ridgeline that borders the planning area to the north and east, but may be permitted on the foreground hills and ridgelines. Minor interruptions of views of the main ridgeline by individual building masses may be permissible in limited circumstances where all other remedies have been exhausted.

Policy 6-30: Structures built near designated scenic corridors shall be located so that views of the back- drop ridge (identified in Figure 6.3 as "visually sensitive ridgelines - no development") are generally maintained when viewed from the scenic corridors.

Policy 6-31: High quality design and visual character will be required for all development visible from designated scenic corridors.

HILLSIDE DEVELOPMENT

In hilly, but developable, areas the Plan places restrictions on hillside development to preserve the natural character of the hills. Hillside development and grading, if not properly regulated, will severely compromise the visual quality of the planning area, as well as contribute to slope stability and safety concerns. With this in mind, the Plan designates the majority of the development for the flatter portions of the area and in areas with limited visibility from other developed areas and major travel corridors.

- Policy 6-32: Visual impacts of extensive grading shall be reduced by sensitive engineering design, by using gradual transitions from graded areas to natural slopes and by revegetation.**
- Policy 6-33: Site grading and access roads shall maintain the natural appearance of the upper ridgeland or foreground hills within the viewshed of travellers along I-580, Tassajara Road, and the future extension of Fallon Road. Streets should be aligned to follow the natural contours of the hillsides. Straight, linear rows of streets across the face of hillsides shall be avoided.**
- Policy 6-34: Alterations of existing natural contours shall be minimized. Grading shall maintain the natural topographic contours as much as possible. Grading beyond actual development areas shall be for remedial purposes only.**
- Policy 6-35: Extensive areas of flat grading are not appropriate in hillside areas, and should be avoided. Building pads should be graded individually or stepped, wherever possible. Structures and roadways should be designed in response to the topographical and geotechnical conditions.**
- Policy 6-36: Building design shall conform to the natural land form as much as possible. Techniques such as multi-level foundations, rooflines which complement the surrounding slopes and topography, and variations in vertical massing to avoid a monotonous or linear appearance should be used. In areas of steep topography, structures should be sited near the street to minimize required grading.**
- Policy 6-37: Graded slopes shall be re-contoured to resemble existing landforms in the immediate area. Cut and graded slopes shall be revegetated with native vegetation suitable to hillside environments.**

Policy 6-38: The height of cut and fill slopes shall be minimized to the greatest degree possible. Grades for cut and fill slopes should be 3:1 or less whenever feasible.

See policies in Section 6.4.1 for additional policies relating to grading.

TASSAJARA CREEK AND OTHER INTERMITTENT STREAMS

In addition to the foothills, the key visual elements in the planning area are Tassajara Creek and the intermittent streams that flow through the area. Tassajara Creek is by far the most distinctive of these features. Along the northern portion of the creek, where it has been less disturbed by development and agricultural activities, the eroded banks of the stream channel and the riparian vegetation and stands of oak trees along it, provide a pleasing visual contrast to the surrounding landscape. Grazing and other agricultural activities have degraded the visual quality of the other streams in the area, however, the isolated stands of vegetation associated with them still sets them apart as distinctive visual features.

Policy 6-39: Tassajara Creek and other stream corridors, as shown on Figure 4.1, are visual features that have special scenic value for the planning area. The visual character of these corridors should be protected from unnecessary alteration or disturbance, and adjoining development should be sited to maintain visual access to the stream corridors.

ACTION PROGRAM: VISUAL RESOURCES

- **Program 6Q:** The City should officially adopt Tassajara Road, I-580, and Fallon Road as designated scenic corridors; adopt a set of scenic corridor policies; and establish review procedures and standards for projects within the scenic corridor viewshed.
- **Program 6R:** The City should require projects with potential impacts on scenic corridors to submit detailed visual analysis with development project applications. Applicants will be required to submit graphic simulations and/or sections drawn from affected travel corridors through the parcel in question, representing, typical views of the parcel from these scenic routes. The graphic depiction of the location and massing of the structure and associated landscaping can then be used to adjust the project design to minimize the visual impact.
- **Program 6S:** Establish technique(s) for implementing the long term preservation of visually significant portions of hillsides. Options to consider include: density transfers (through the Planned Unit Development process) and homeowner association maintenance; private ownership with public maintenance supported

by assessments on homeowners; or dedication of land to a public agency, such as the East Bay Regional Parks District or the City of Dublin, with maintenance being the responsibility of the agency holding title to the land.

6.4 CONSERVATION AND PUBLIC SAFETY

The principal planning area issue relating to public safety is the potential for damage resulting from landslides. The hilly portion of the planning area is characterized by numerous landslides and areas of potential slope instability. Engineering and grading can resolve the development constraints created by the smaller and shallower slides and areas of instability'. Those areas with the highest landslide potential and the least possibility of cost effective remediation have been maintained as open space. Development in hillside areas is carefully regulated under the Plan to insure that hazardous hillside conditions are avoided or remedied. Other safety concerns in the planning area are related to flooding potential at the south end of Tassajara Creek (see Chapter 10) and freeway noise along I-580. Regulation of site design will be adequate to ensure the public health, safety and welfare in these areas.

GOAL: To create a land use pattern that ensures public health, safety and welfare.

6.4.1 GEOLOGY, SOILS, AND GRADING

SLOPE STABILITY

There are numerous landslides and areas of potential slope instability in the planning area, particularly in the hilly north- eastern portion, and the potential for damage to future development improvements is high unless mitigated. Although the Plan has designated the most critical areas of instability as Rural Residential/Agriculture, many areas proposed for development will still require mitigation to avoid impacts from unstable slopes and soils. Siting to avoid unstable areas is one option, but there are also a variety of other methods to repair or stabilize unstable areas that can be implemented. Because of the range of conditions which exist in the planning area, site-specific observations will be required to evaluate the potential for impacts related to landslides, debris flows, bedrock slumping, soil creep, and other forms of instability.

Policy 6-40: No structure shall be located on slopes of between 20 to 30%, where this location is downslope of colluvium or dormant landslides on slopes over 30%, unless detailed feasibility and design-level geotechnical investigations indicate that development can be safely undertaken and/or mitigation measures can be implemented which will reduce impacts to a level of insignificance.

Policy 6-41: No structure shall be located on slopes of 10-30%, where underlain by highly expansive soils, areas of unconsolidated fill, or within 100' of incised stream channels, unless detailed feasibility and design-level geotechnical investigations are undertaken and required engineered design mitigations performed.

Policy 6-42: Development is generally not permitted in areas with slopes of 30 percent or greater. Limited grading and repair of landslides will be permitted in areas with slopes of 30 percent or more when:

- the area involved is less than 3 acres in size; is less than 20% of a larger developable area; and is surrounded by topography which is predominantly less than 30 percent; and it is necessary to create effective buildable areas or access to areas with slopes predominantly less than 30 percent; and
- it is necessary to create effective buildable areas or access to areas with slopes predominantly less than 30 percent.

EROSION

Active erosion occurs locally throughout the planning area, particularly in areas with steep slopes, disturbed and unconsolidated soils, and in drainage channels. Erosion and sedimentation can be accelerated as a result of grading and other construction activities and as the result of the alteration of the rate, volume, and pattern of runoff by new development. In order to avoid future problems relating to erosion and sedimentation, the plan requires each development follow appropriate grading procedures and implement the necessary design and maintenance to avoid adverse impacts.

Policy 6-43: New development shall be designed to provide effective control of soil erosion as a result of construction activities and the alteration of site drainage characteristics.

6.4.2 NOISE

Noise levels in the planning area were evaluated in a field survey conducted as part of the background research. That survey indicated that the major noise source in eastern Dublin is traffic along Interstate 580 (I-580). The 60 dB contour for noise levels, the maximum level considered normally acceptable for residential uses and other uses that are noise sensitive, extends as much as 2,000 feet north of the freeway.

For this reason, the Plan has generally located residential uses away from the freeway. However, uses such as hotels and retail development that are located near the freeway will be concerned about establishing environments that are not unpleasant due to ambient noise levels.

Development along the freeway will be required to meet the City's requirements for noise mitigation as set forth in the City's Noise Element, and consistent with the requirements of Title 24, Part 2 of the California Administrative Code.

Policy 6-44: Require development along the I-580 frontage to provide adequate mitigation to conform to the State Land Use Compatibility Standards for noise and policies and standards in the City of Dublin's Noise Element.

Revisions: October 2005

Fallon Village land uses modified per PA04-040. Croak, Braddock & Logan and Fallon Enterprises properties added to Specific Plan area. The EBJ Partners & Pleasanton Ranch Investments parcels have been delineated separate from the Chen parcel (Fallon Village). Dublin Blvd. realignment at Fallon Rd.

Revisions: October 2009

Revised Dublin Ranch North/DSRSD parcels

Revisions: December 18, 2012

Revised Moller Property

Revisions October 2015

Resolution 165-15

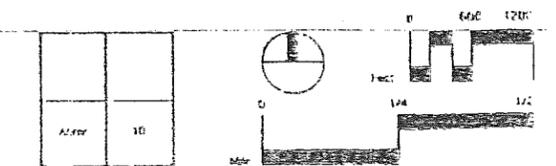
Figure 6.1

Open Space Framework

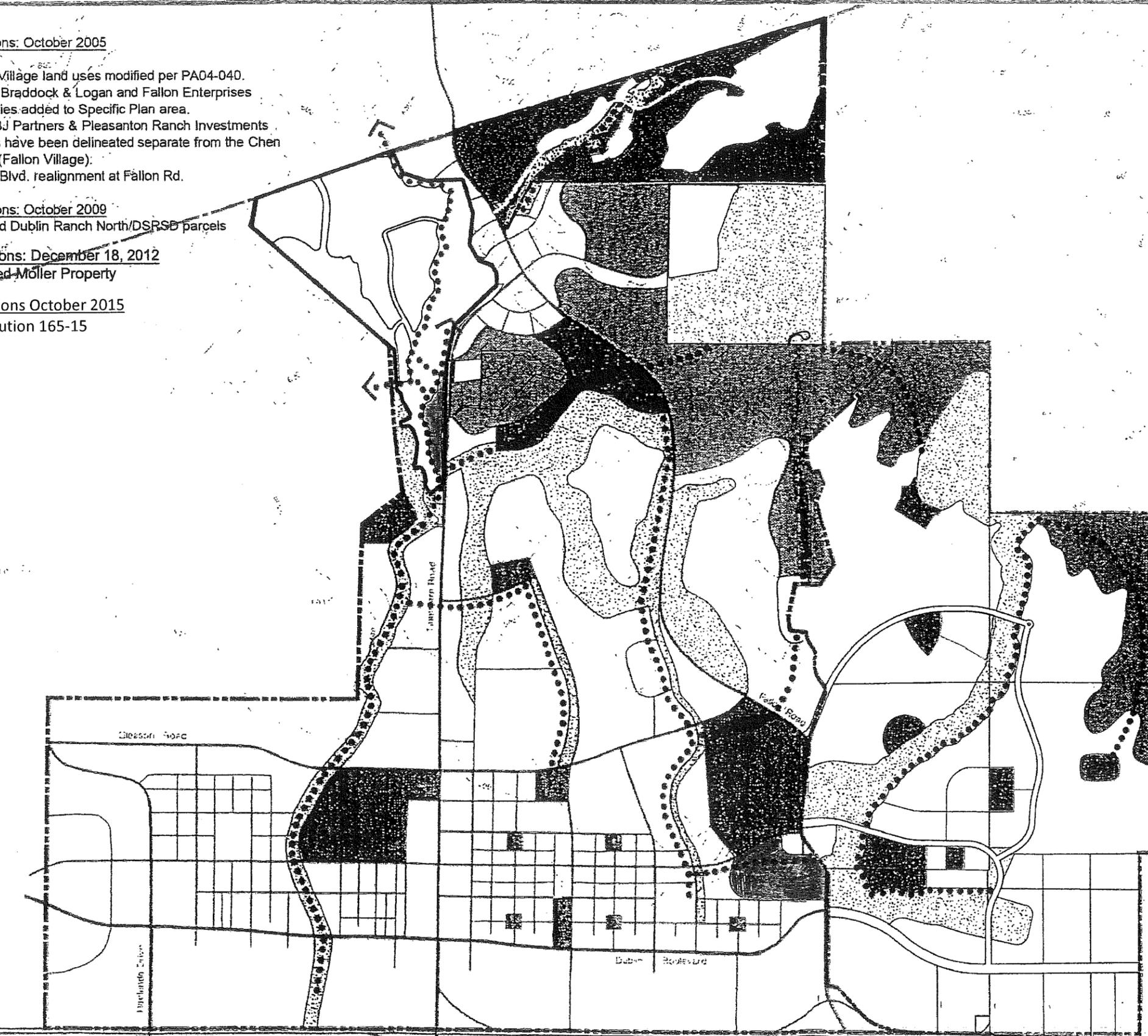
Legend

-  Parks
-  Open Space
-  Rural Residential
-  Trails

EASTERN DUBLIN Specific Plan



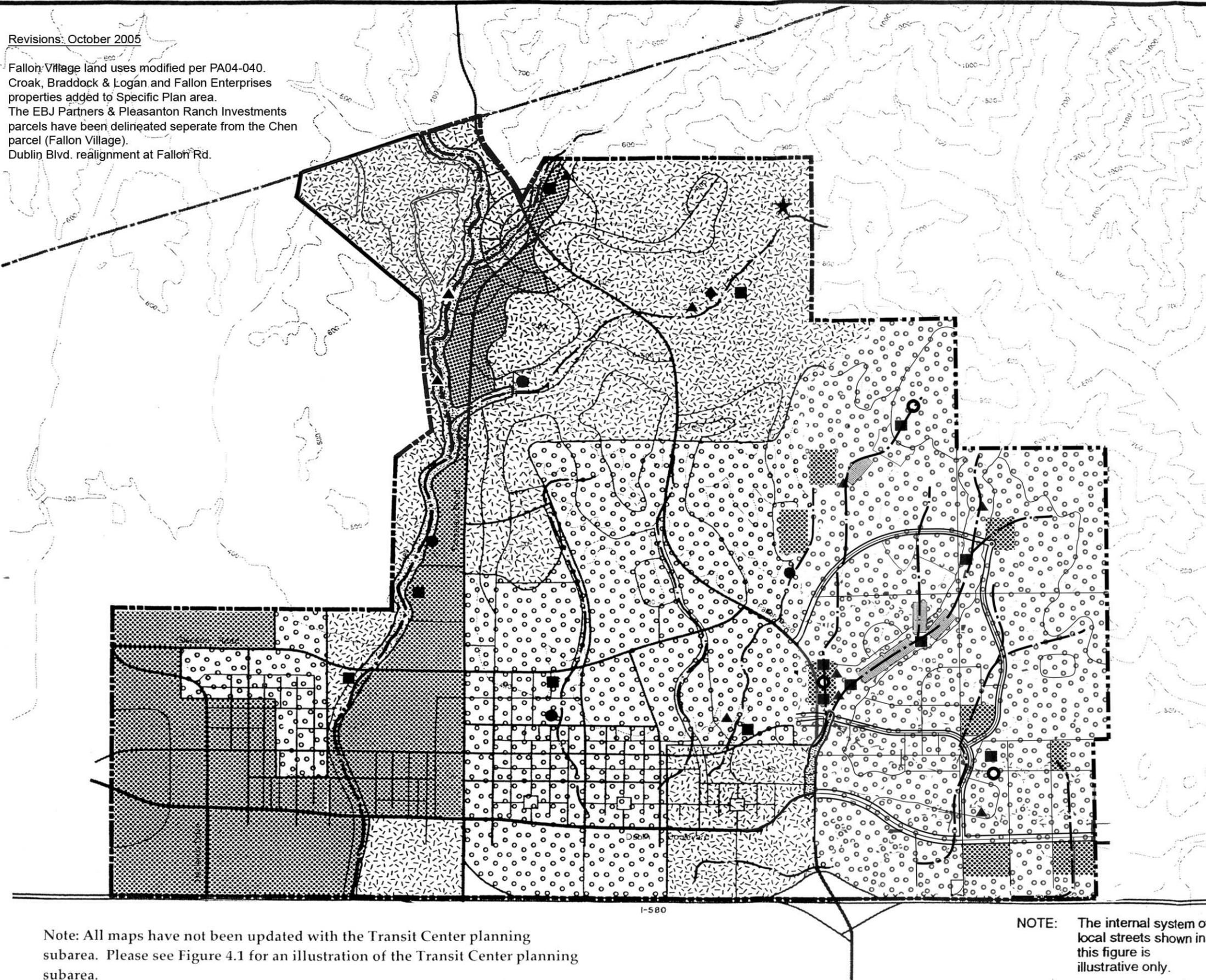
NOTE: The internal system of local streets shown in this figure is illustrative only.



Note: All maps have not been updated with the Transit Center planning subarea. Please see Figure 4.1 for an illustration of the Transit Center planning subarea.

Revisions: October 2005

Fallon Village land uses modified per PA04-040.
 Croak, Braddock & Logan and Fallon Enterprises
 properties added to Specific Plan area.
 The EBJ Partners & Pleasanton Ranch Investments
 parcels have been delineated separate from the Chen
 parcel (Fallon Village).
 Dublin Blvd. realignment at Fallon Rd.



Note: All maps have not been updated with the Transit Center planning subarea. Please see Figure 4.1 for an illustration of the Transit Center planning subarea.

NOTE: The internal system of local streets shown in this figure is illustrative only.

Figure 6.2

Environmental Resources

Legend

-  Tassajara Creek
-  Intermittent Streams
-  Spring, Seep or Impoundment
-  Golden Eagle
-  Potential Kit Fox Dens
-  Red Legged Frog Location
-  Red-Tailed Hawk or other Raptor Nest
-  Tiger Salamander
-  Northern Riparian Woodland
-  Arroyo Willow Riparian Woodland
-  Alkalai Grassland
-  Introduced Annual Grassland
-  Cultivated
-  Developed

EASTERN DUBLIN Specific Plan

Revised: October 2005



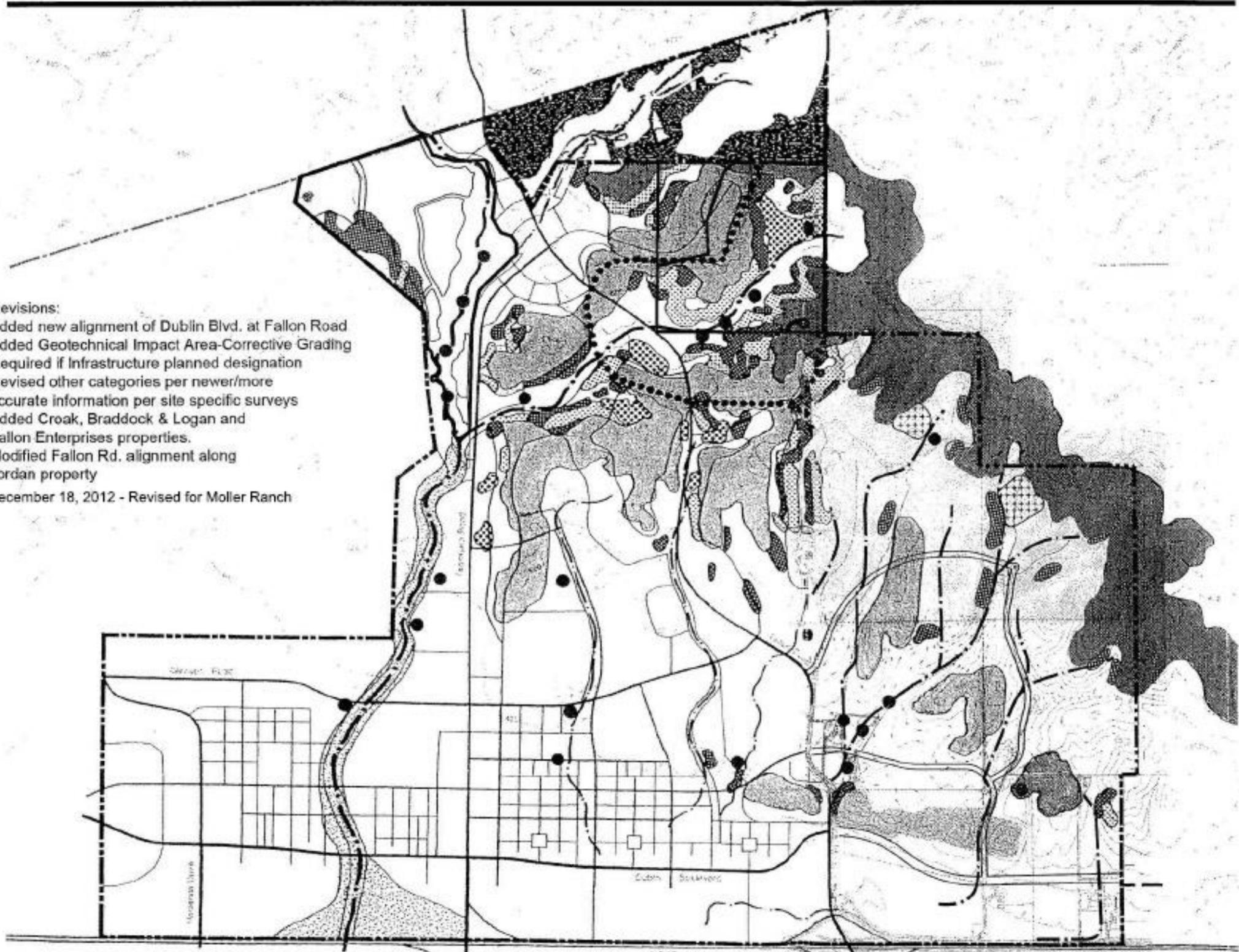
Figure 6.3

Environmental Constraints

Legend

-  Geotechnical Avoidance Areas
-  Geotechnical Avoidance Areas - Infrastructure Feasible
-  Geotechnical Impact Area - Corrective Grading required if infrastructure planned
-  Slopes over 30%
-  100-year Flood Plain
-  Tassajara Creek
-  Intermittent Streams
-  Sensitive Habitat Area
-  Golden Eagle Protection Zone
-  Visually Sensitive Ridgeland - No Development
-  Visually Sensitive Ridgeland - Restricted Development

Revisions:
 Added new alignment of Dublin Blvd. at Fallon Road
 Added Geotechnical Impact Area-Corrective Grading Required if Infrastructure planned designation
 Revised other categories per newer/more accurate information per site specific surveys
 Added Croak, Braddock & Logan and Fallon Enterprises properties.
 Modified Fallon Rd. alignment along Jordan property
 December 18, 2012 - Revised for Moller Ranch

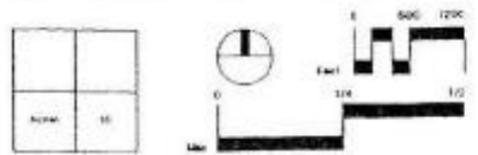


Note: All maps have not been updated with the Transit Center planning subarea. Please see Figure 4.1 for an illustration of the Transit Center planning subarea.

NOTE: The internal system of local streets shown in this figure is illustrative only.

EASTERN DUBLIN Specific Plan

Revised: October 2005





7.0 COMMUNITY DESIGN

The intent of the Specific Plan is to provide the structure and overall vision needed to provide for the development of a physically coordinated and cohesive community in eastern Dublin. This chapter provides development and design guidelines necessary to create an attractive, well-ordered pattern of development that features pedestrian-scaled streets, thoughtfully designed buildings, and carefully integrated community facilities and public open space. The objective is to provide a design framework within which developers and designers can express their creativity on their individual projects without compromising the community character as a whole. The guidelines are organized by planning subarea in order to communicate the differences in design character envisioned within the planning area. The subarea guidelines are followed by design guidelines for circulation system improvements. Refer to Figure 4.2 for the location of the different planning subareas.

The guidelines in this chapter are advisory only. The City may consider equivalent or superior methods that achieve the objectives of the Specific Plan. The guidelines are intended to be used by developers and planning staff, in conjunction with the City's Zoning Ordinance, to formulate and approve plans that meet the objectives for quality development envisioned by this Specific Plan.

7.1 TOWN CENTER

The Town Center will be the focus for the eastern Dublin community. Commercial services will range from supermarkets, drugstores, restaurants and office complexes serving the entire community to small shops and service businesses serving nearby neighborhood residents. Surrounding the commercial core and within walking distance of it are residential neighborhoods offering a full range of housing choices. The guiding design concepts for the Town Center are: to develop a compact, imageable town form, and to minimize reliance on the auto by creating a pedestrian-friendly environment with access to transit, services, parks and schools. Figure 7.1 shows a plan drawing of how this concept might look if developed.

7.1.1 TOWN CENTER COMMERCIAL

The Town Center Commercial subarea will be the social and cultural hub of the eastern Dublin community. The image of this area, where residents shop, eat, play and do business each day, will be a major source of community identity. The emphasis of the guidelines for the Town Center Commercial subarea is on establishing the character of a town center, with a walkable system of streets well-defined by buildings and a lively, interesting shopping street catering to pedestrians, transit users and others.

FORM

Development should be compact, and unified by a simple, clear street network which disperses traffic to low volumes and encourages pedestrian movement in all directions.

- Develop a street system in the Town Center Commercial area that provides at least one parallel street south of Central Parkway to serve as the main street for the Town Center.
- In order to preserve the pedestrian scale at the commercial area, cross streets to Main Street should be spaced no more than 500 feet apart.

BUILDING SITING

As in the traditional "Main Street", buildings should form a continuous edge that gives definition and scale to the street.

- Site buildings to orient toward Tassajara Road and "Main Street," with secondary orientation toward side streets into the residential area (see Figure 7.2).
- Setbacks:
 - No building setbacks beyond the front setback line along "Main Street" (i.e., buildings should be built to and parallel with the front setback line except to provide for outdoor dining areas and entry plazas). (See Figure 7.3).
 - 10-150 foot setback from Tassajara Road for shopping center buildings
 - 10 foot minimum and 85-foot maximum setback from Tassajara Road right-of-way for all other buildings (see Figure 7.4).
 - No side yard setbacks required.

BUILDING HEIGHT

Taller buildings can be effectively used to give a sense of enclosure and human scale to the streets.

- Permit buildings up to 6 stories high to be developed in the Community Commercial area along Tassajara Road. The tallest buildings should be located at the corners of Tassajara Road and Central Parkway to create a "gateway" to the Town Center. If single-story buildings are developed in this area, they should incorporate a variety of roof forms and heights (see Figure 7.5).
- Permit building heights of up to 3 stories (40-foot maximum) in the Neighborhood Commercial area along Central Parkway. Maintain 20-foot minimum facade heights in the Town Center. Single-story retail buildings built to a 2-story height will be considered, but should not be the norm (see Figure 7.6).

BUILDING TYPES

Mixed-use buildings and complexes are strongly encouraged in the Town Center. The mixture of office and residential uses with retail contributes to a downtown that is active not only on weekdays, but during evenings and weekends as well.

- Encourage upper-story office space above retail in the Community Commercial area.
- Encourage upper-story residential units and office space above retail ground floors in the Neighborhood Commercial area.
- Incorporate balconies and upper story windows that open on buildings that front on “Main Street.”

BUILDING ENTRIES

Building entries should be located to encourage pedestrian activity on the major shopping streets.

- Locate major building entries in the Community Commercial area so they front on Tassajara Road. Provide additional pedestrian entries facing the adjacent residential area, aligned with the ends of local east-west side streets. Pedestrians should not be forced to cut through parking lots to reach shops and offices (see Figure 7.7).
- Locate shop, office and upper-floor residential entries in the Neighborhood Commercial area so they front on Main Street. Entries should be spaced at intervals of no more than 50 feet (see Figure 7.8).
- Permit larger retail stores (greater than 30,000 s.f.) to have their primary entrance from an off-street parking lot. However, at least one entry must be provided from the main pedestrian street (i.e., “Main Street.” See Figure 7.9).

PARKING

Parking areas should not disrupt the continuity of storefronts or discourage pedestrian access.

- Reduce off-street parking requirements for commercial uses within 1/4 mile of Main Street by up to 15 percent.
- Provide on-street parking on all primary streets in the Town Center (see Figure 7.10).
- Locate public parking lots behind commercial buildings, away from the main, pedestrian-oriented street in the Neighborhood Commercial area. (see Figure 7.10).

- Provide pedestrian passageways (“paseos”) between commercial buildings from parking areas to the street. Paseos should have natural light and display windows and/or store entries along their length (see Figure 7.10).
- Divide large parking lots into several smaller parts through siting of internal circulation corridors, landscaped medians, and buildings (see Figure 7.11).
- Plant parking lots with shade trees in a pattern and number that can be reasonably expected to shade 50 percent of the lot surface ten years after planting and 75 percent at maturity (see Figure 7.12).
- Use low hedges, shrub masses, walls and landscaped berms to screen parking lots from street views, as well as to give a defined edge to the lot.
- Do not allow off-street parking lots to take up more than one-half of the street frontage along arterial streets and parkways, or one-third of the frontage along “Main Street.” Avoid domination of the Tassajara Road frontage by parking. Encourage larger projects to incorporate structured parking.

TRANSIT

Central Parkway is to be designed to favor transit movement and convenience for transit users.

- Provide bus stops with signs (maps, schedules, etc.), shelters, and other amenities (waste receptacles, telephones, bicycle storage, etc.) at two-block intervals along Central Parkway.
- Provide distinctively designed transit shelters to contribute to the image and identify of the community, as well as the comfort of the transit user.

PEDESTRIAN CIRCULATION

Major commercial streets such as Tassajara Road and Central Parkway should have a lively, attractive and stimulating pedestrian environment.

- Develop wide sidewalks along Main Street to accommodate pedestrian circulation, window shopping, outdoor merchandising and cafes. These pedestrian-oriented sidewalks should wrap around corners of north-south streets intersecting the Main Street for a distance of one block (see Figure 7.13).
- Encourage development of sidewalk cafes and indoor/outdoor restaurants with retractable storefronts along Main Street (see Figure 7.13).
- Design ground floor building facades fronting on Main Street to be at least 60% transparent window surface (see Figure 7.14).
- Encourage use of colorful awnings and pedestrian-level store signage along facades (see Figure 7.14).

OPEN SPACE AND PUBLIC FACILITIES

Public buildings and parks should be designed as civic monuments and gathering places for the community.

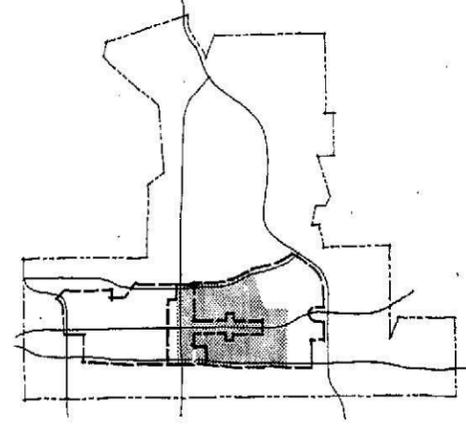
- Reserve two sites at the midpoint of Main Street for civic/public buildings such as a library, post office, senior center, meeting hall or theater.
- Set back public buildings on the two designated sites to create public plazas on Main Street. Areas around the public buildings should have a formal landscape character incorporating gardens, fountains, public art or bandshell/amphitheater (see Figure 7.15).

SPECIAL CONSIDERATIONS

- Place signage on building faces, rather than on freestanding monuments or poles. The size and location of signs along Main Street should be geared toward pedestrians and transit-riders, rather than the automobile.
- Screen loading docks and service areas from public view.

Figure 7.1A
Town Center
Concept Plan
 (Illustrative only)

NOTE: This figure illustrates one possible interpretation of the street and development pattern that could result from implementation of the Specific Plan community design guidelines. However, a grid system of streets is not the only acceptable means of providing an efficient and pedestrian friendly circulation system. The Concept plan in this figure is illustrative only and is not intended to restrict, in any way, development patterns that are consistent with the objectives of this Specific Plan.

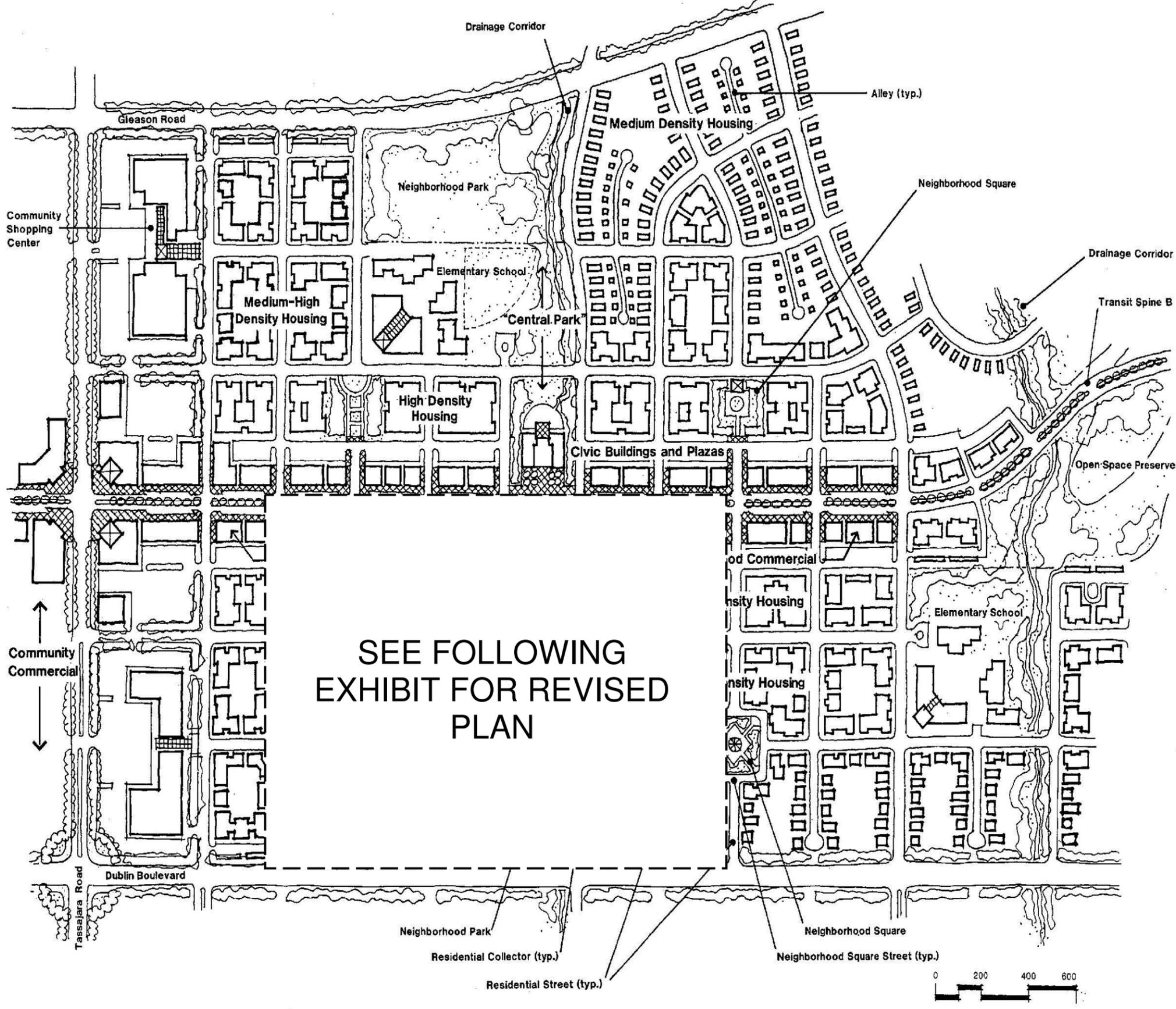


Key Plan

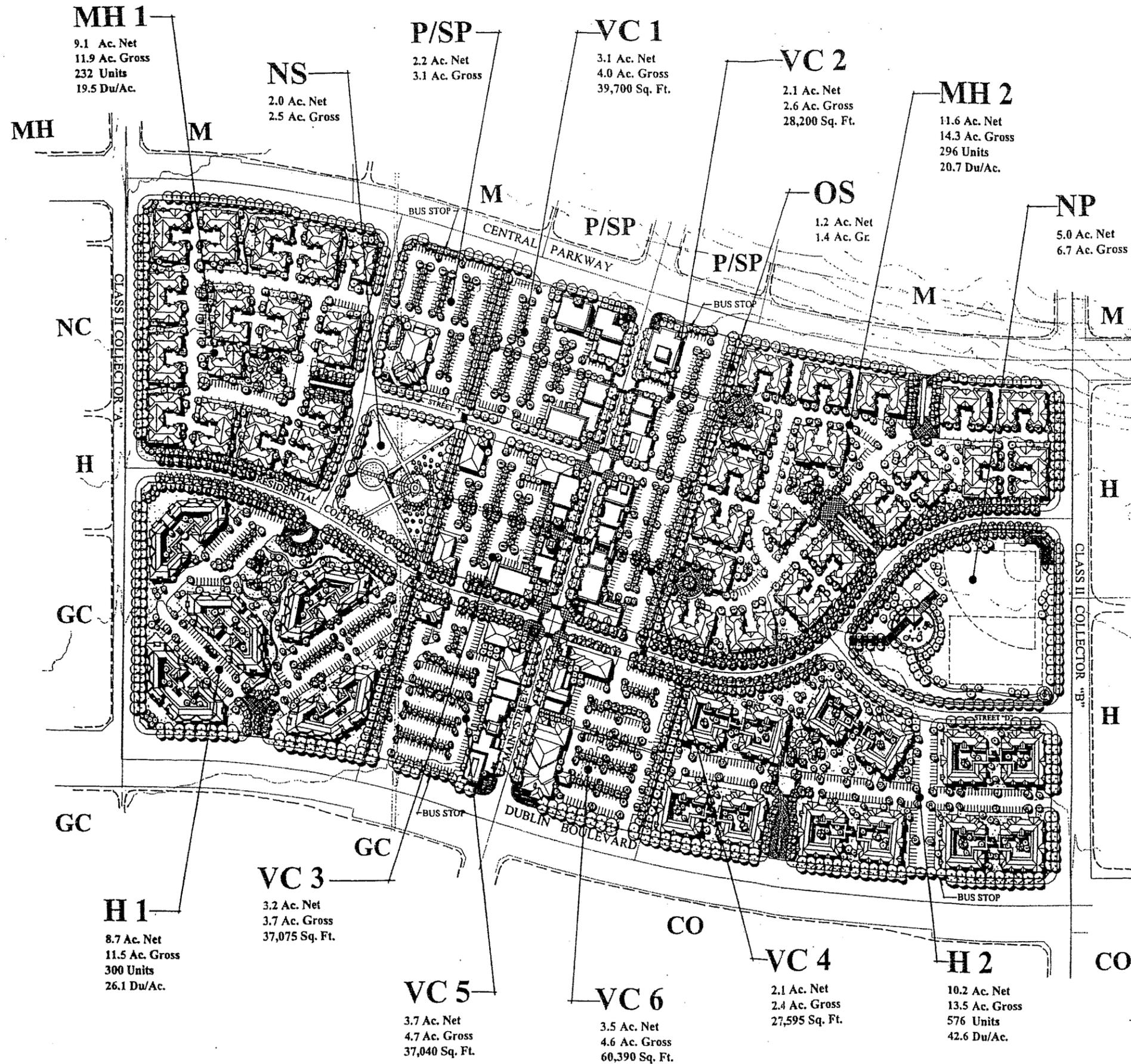
EASTERN DUBLIN
Specific Plan

Wallace Roberts & Todd

Urban and Environmental Planners
 121 Second Street, 7th Floor
 San Francisco, CA 94105
 (415) 541-0830



Eastern Dublin Specific Plan
 Figure 7.1.1A
 Town Center Concept Plan



DUBLIN RANCH AREAS F, G, & H

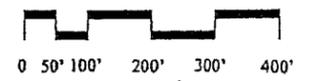
GENERAL PLAN/ EASTERN DUBLIN
 SPECIFIC PLAN AMENDMENT

Dublin, California

November, 1999



North



MacKay & Soms - Engineering & Planning

William Hezmalhalch Architects, Inc.
 Architecture and Planning

NUVIS - Landscape Architecture

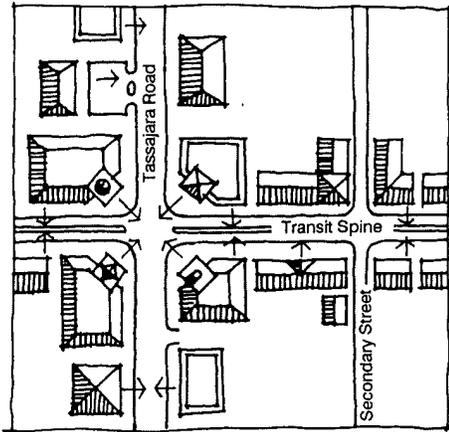


Figure 7.2
Orient buildings toward Tassajara road and the transit spine.

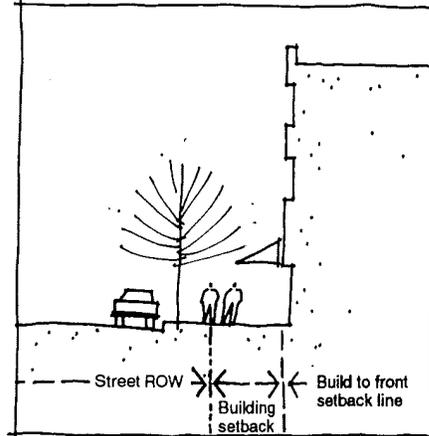


Figure 7.3
Build up to the front setback line along the transit spine.

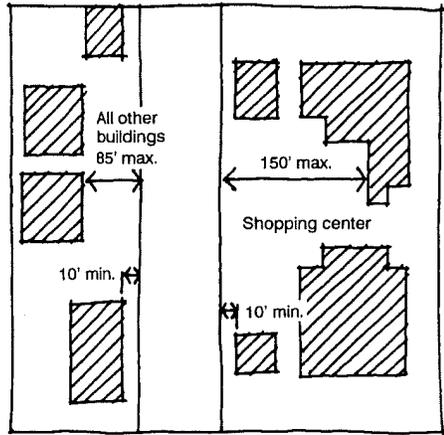


Figure 7.4
Setbacks from Tassajara Road.

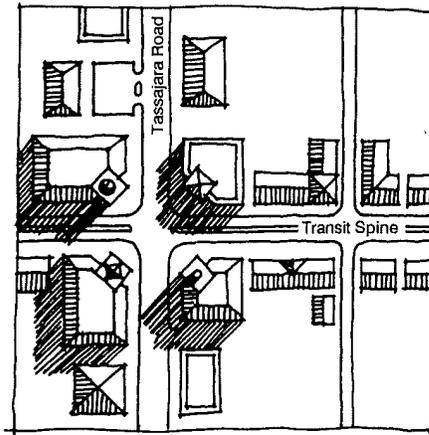


Figure 7.5
Site tallest buildings to form a gateway at Tassajara and the transit spine.

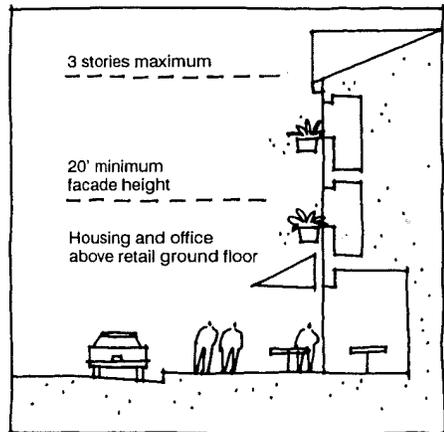


Figure 7.6
Neighborhood Commercial building heights.

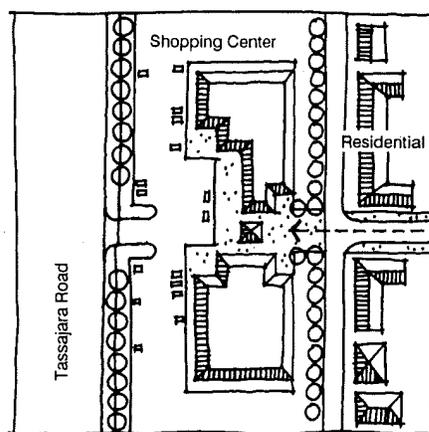


Figure 7.7
Provide pedestrian-friendly neighborhood entries to the shopping center.

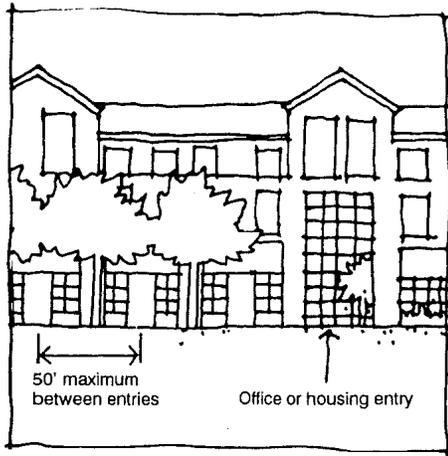


Figure 7.8
Generally, locate entries to upper floor offices and housing on the transit spine.

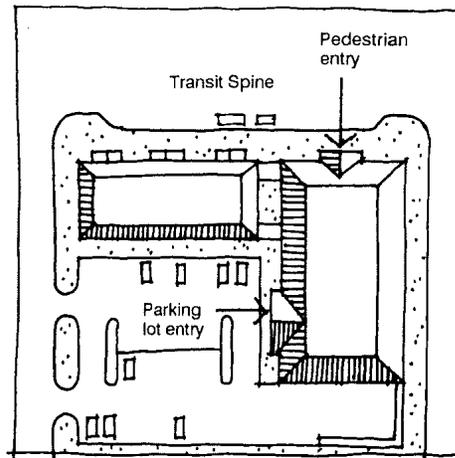


Figure 7.9
Provide both street and parking lot entries for large retail buildings. Space retail entries no more than 50 feet apart.

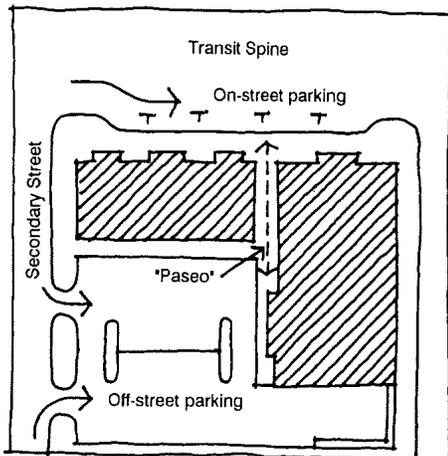


Figure 7.10
Neighborhood Commercial parking.

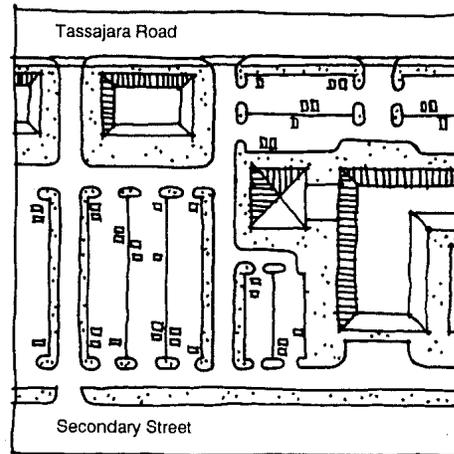


Figure 7.11
Divide large parking lots into smaller parts.

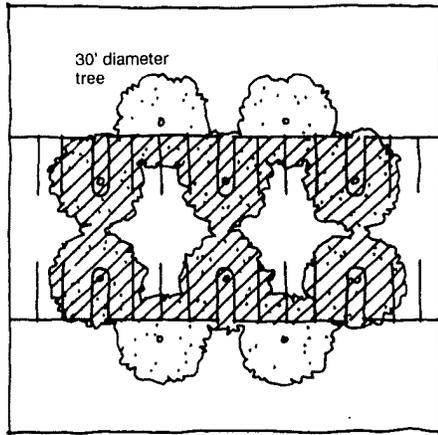


Figure 7.12
Plant trees to shade 50% of the parking lot in ten years.

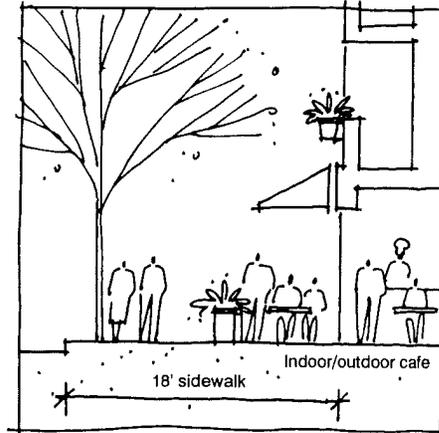


Figure 7.13
Develop wide sidewalks along the transit spine.
Encourage sidewalk cafes and retail displays.

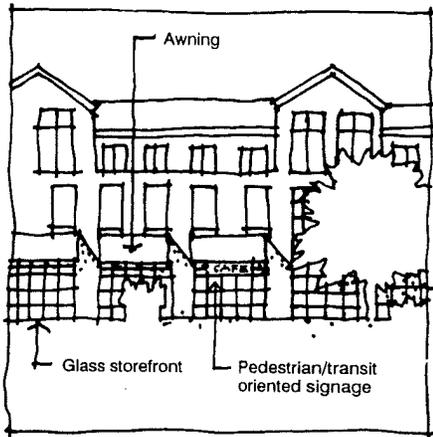


Figure 7.14
Neighborhood Commercial storefronts.

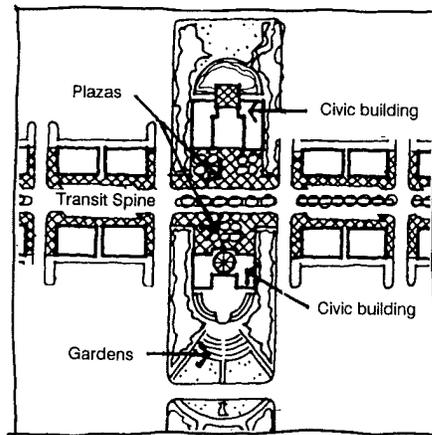


Figure 7.15
Develop plazas and gardens surrounding public buildings along the transit spine.

7.1.2 TOWN CENTER RESIDENTIAL

The Town Center Residential subarea is a relatively urban homing district of apartments, duplexes, townhouses and small-lot single family homes, all within a quarter mile of Main Street. The Town Center Commercial core is within easy walking distance of mint Town Center Residential neighborhoods. The design guidelines encourage residential development to occur in a series of pedestrian-oriented neighborhoods, where parks and pedestrian areas become the focus of public activity and neighborhood identity.

FORM

Provide a highly interconnected pattern of streets that accommodate the movement of vehicles while enhancing opportunities for pedestrian and bicycle circulation.

BUILDING SITING

Buildings should be built with a setback that is close to the sidewalk to create a well-defined and more intimate street space. Internally oriental units may be acceptable as long as buildings do not back onto the street.

- Setbacks:
 - Provide a landscaped setback of 10 to 20 feet from street ROW
 - Side yard setbacks are not required (see Figure 7.16)
 - Provide adequate setbacks for high and medium-high density residential buildings along Gleason and Dublin Boulevard to buffer them from arterial traffic noise. Setbacks can be used to accommodate parking areas (see Figure 7.17).
 - Orient buildings and access to local collector streets or frontage roads rather than fronting onto high volume arterials.

BUILDING HEIGHT

Buildings should be of a height to enclose the street space, giving it a more intimate scale.

- Maximum building heights:
 - High density area: 4 stories
 - Medium-high density area: 3 stories
 - Medium and low density areas: 2 stories

BUILDING TYPES

Buildings should generally be designed to maintain a consistent character in terms of the scale and relation to the street. Although areas are differentiated by their density designations, developers are encouraged to meet these requirements with a variety of building types (i.e., single-family, multi-family, attached, detached, etc.). The following are examples of the most likely building prototypes to be developed within specific density ranges.

- High density area: Apartments/condominiums with one level of parking under the building. The parking level should be depressed at least half a level below grade to reduce the height of the building (see Figure 7.18).
- Medium-high density area: Apartment, townhouse, multiplex with detached surface parking. Parking lots and carports should be grouped in interior courts surrounded by residential buildings (see Figure 7.19).
- Medium density area: Townhouse, multiplex with garages attached to individual units. Alleys can be used to provide access to garages (see Figure 7.20).
- Single family area: Duplex, zero lot line single family house, small-lot single family house. In addition, one ancillary unit (granny flat) per duplex or single family house is allowed where lots are at least 50 feet wide. Ancillary units may be incorporated into the main house or into a detached garage (see Figure 7.21).

ENTRIES

Entries to residential projects should be designed to promote sidewalk activity and social interchange between neighbors.

- Generally, provide ground floor units with individual entries off the street, incorporating porches and stoops. Encourage provision of stairways from upper floor units to the street (see Figure 7.22).
- Site major building entries and lobbies so that they are visible and accessible from the street, not just parking areas (see Figure 7.23).
- Generally, design units with balconies and windows affording views of the street, to create the security of "eyes on the street" (see Figure 7.24).

PARKING

- Residential parking garages should not dominate the residential street frontage.
- Reduce the site area needed for off-street parking by allowing curbside parking space around the project perimeter to count toward the project's parking requirements.
- Encourage development of mid-block alleys to access parking areas and garages. Minimize the width and number of driveway curb cuts onto the residential street (see Figure 7.25).

- Setback garages, carports and parking areas beyond the front setback for the main residence (see Figure 7.25).
- Depress parking structures so that there is never more than half a level of garage above grade along the street frontage (see Figure 7.26).

AUTO CIRCULATION

The street system should provide a highly interconnected pattern that accommodates the movement of vehicles while enhancing opportunities for pedestrian and bicycle circulation.

- Establish a hierarchy of neighborhood streets by alternating between primarily pedestrian-oriented residential streets and residential collector streets. The pedestrian orientation of the streets can be enhanced by slowing or interrupting through traffic at intervals with neighborhood squares, T-intersection, and street closures.
- Prohibit driveways and alleys from residential projects entering onto arterial streets.

PEDESTRIAN/BICYCLE CIRCULATION

The sidewalks along the neighborhood streets should provide an active, friendly pedestrian environment connecting residences to neighborhood parks, squares and the larger open space system.

- Connect pedestrian paths in open space areas, school sites and public parks to the sidewalk system along public streets.
- Connect pedestrian walkways in campus office and retail developments to pedestrian-oriented streets, via spotlighted crosswalks across major arterials.

OPEN SPACE AND PUBLIC FACILITIES

Parks of different types should be dispersed through the dense residential neighborhoods, giving all residents nearby open space for informal meeting, socializing and passive play.

- Site a string of public places (two neighborhood parks, an elementary school and two public building plazas) in a north-south direction through the Town Center, incorporating the existing drainage channel from the foothills. This "Central Park" may include formal gardens, ponds, amphitheater or bandshell, as well as community buildings (see Figure 7.1).
- Dedicate "neighborhood squares" at the intersection of neighborhood pedestrian-oriented streets at approximately 4-block intervals (refer to Section 4.8.4 and

- Appendix 2 for a discussion of character and uses of neighborhood squares, also see Figure 4.1).
- Design schools and public buildings as neighborhood landmarks and sources of identity, for example by siting buildings to terminate streets, adding towers and extra height.
 - Provide sites for infant/preschool child care facilities meeting state standards in the Town Center Residential area. Parcel sizes and locations will be negotiated by the developer and the City, but facilities should be sited near neighborhood parks or elementary schools and within two blocks of Main Street.

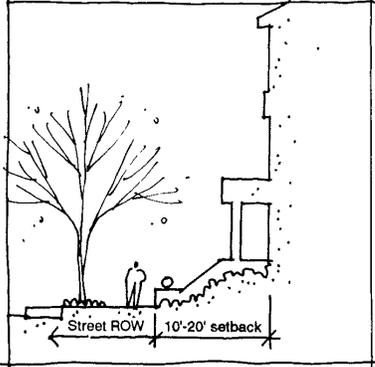


Figure 7.16
Provide a 10-20' landscaped setback for Town Center and Village Center residential buildings.

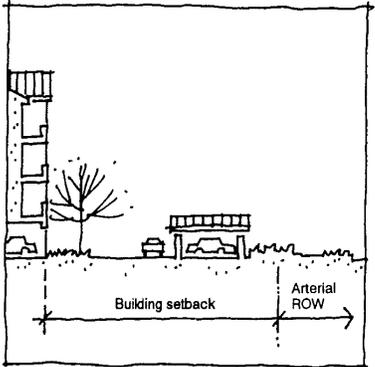


Figure 7.17
Set back high and medium-high density residential buildings from arterials to protect residents from undesirable traffic noise.

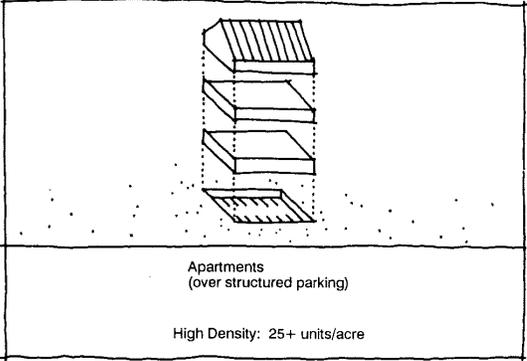


Figure 7.18
Typical high-density area building types.

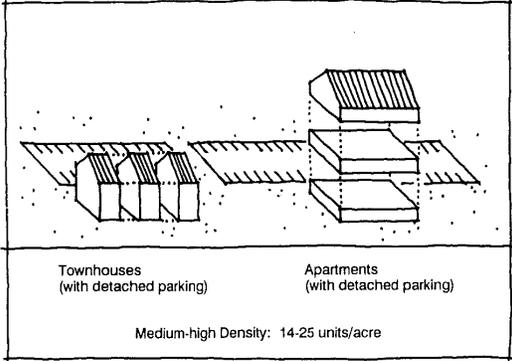


Figure 7.19
Typical medium-high density area building types.

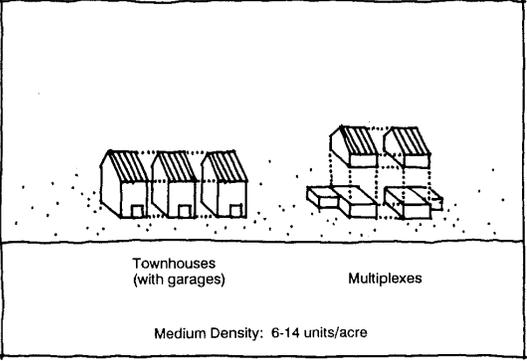


Figure 7.20
Typical medium-density area building types.

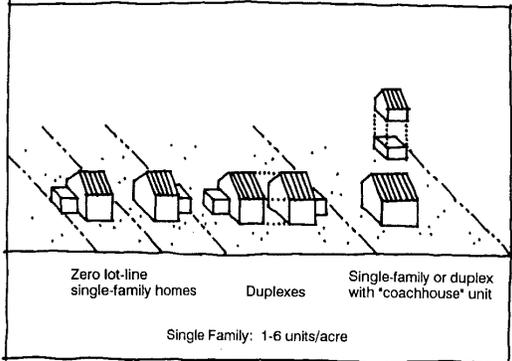


Figure 7.21
Typical single-family area building types.

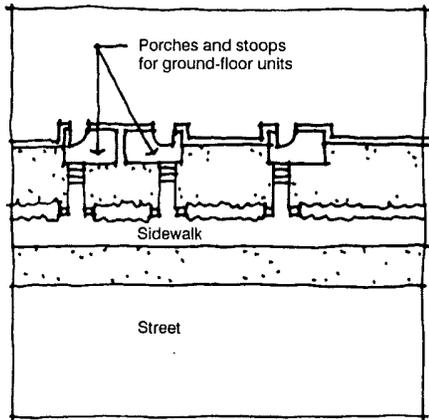


Figure 7.22
Generally, provide ground-floor units with individual entries from the street.

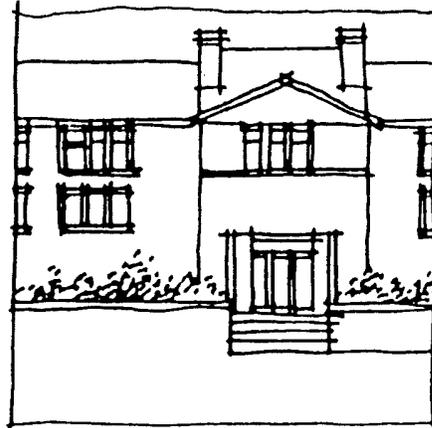


Figure 7.23
Orient main building entries and lobbies to the street, as well as to parking.

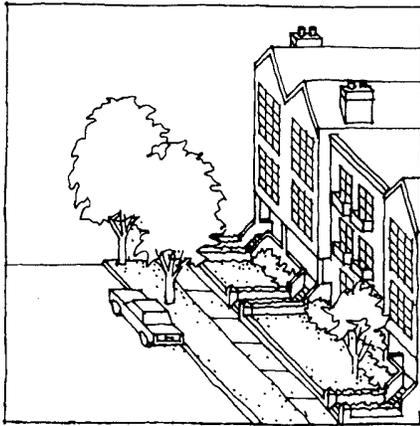


Figure 7.24
Generally, design residential buildings with porches, windows and balconies overlooking the street.

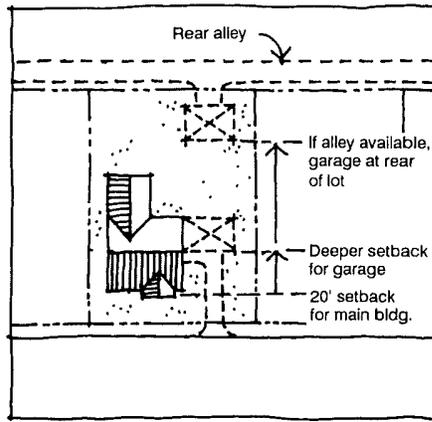


Figure 7.25
Site garages behind the setback for the main residence. Encourage use of alleys for garage access.

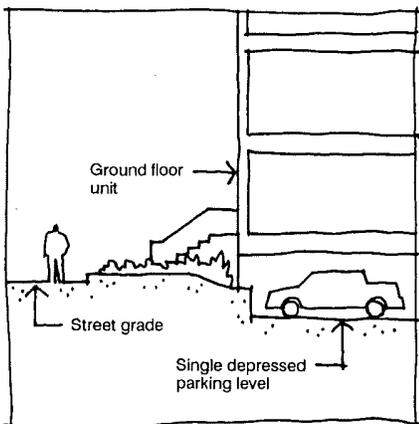


Figure 7.26
Depress structured parking at least half a level below street grade.

7.2 VILLAGE CENTERS

As the focus for the outlying foothill residential areas, Fallon Village and Tassajara Village offer a mix of auto and pedestrian oriented commercial services, higher density housing, park space, public facilities and schools. The Village Centers combine commercial and residential elements of the Town Center at a more intimate scale, creating an environment that is, as the name implies, more "village-like" in character than the more urban town center.

The goals of the Village Center guidelines are: to maintain each center's unique sense of place; to create compact, well-defined commercial districts to serve hillside area residents; to encourage a lively pedestrian environment with a mix of land uses; and to make services, parks and natural areas accessible by foot and transit.

Many guidelines for residential development in the Village Centers are the same as those for the Town Center Residential and are incorporated by reference.

In 2005, the City Council approved a Village Policy Statement. The Policy Statement states that villages should have the following characteristics:

1. A village location should be compatible with the local environment including surrounding land usage and topography. It should respect constraints, roadways and environmental conditions;
2. A village should have a mixture of housing types, densities, and affordability and should support a range of age and income groups;
3. Activity nodes (commercial area, community facilities and public/private facilities) should be easily accessible;
4. Trails, pedestrian walkways and street linkages should be established to bring the parts and elements of the village together.
5. Street and pedestrian linkages should link to transportation spines and including buses and transit services;
6. The village should have a strong "edge" defining the boundaries. This could include major streets, architectural or landscape areas;
7. Village size should reflect development that promotes pedestrian walkability, permits a sufficient mixture of residential and public/private uses and convenient commercial area;
8. Specific identity should be fostered for the village area (special signage, unique design elements, public plazas, etc.).

7.2.1 OVERALL VILLAGE CENTER DESIGN GUIDELINES

FORM

Although each Village Center is unique in its setting and should respect distinctive local natural features and/or historic buildings, the form of the Village Centers should be similar in the grouping of open space, schools and mixed-use village commercial development at the center, surrounded by higher density housing.

- Develop Village Centers in a pattern focused on a central open space, or village green. Decrease the intensity of development with distance from the center, with commercial buildings and medium-high density housing nearest the center, decreasing to medium density housing at the edges.
- Site Village Centers immediately adjacent to the intersection of two major streets, at least one of which carries a public transit line.
- Define at least one edge of the village green with a shopping street lined with ground floor retail uses.

BUILDING SITING

Village Center commercial areas must present two "faces" - an image and identity along fast-moving streets, as well as a pedestrian friendly edge to the shopping street and village green.

- Permit commercial buildings at the edges of the Village Center to be freestanding structures fronting on the major street for good visibility from passing vehicular traffic.
- Setback: 0' on the "main street" in Fallon Village Center.
- Setback: 10-foot minimum, 85-foot maximum.
- Site commercial buildings fronting on the shopping street at the ROW line.
- Setback: No setback.
- Provide a 5-foot minimum and 15-foot maximum landscaped setback for residential buildings.

BUILDING HEIGHT

- Require Village Center commercial buildings to be predominantly 2 stories in height. One-story retail buildings must have a minimum facade height of 20 feet. Maximum height is 3 stories. A taller building or one with tall vertical elements fronting on the village green is encouraged as a landmark and focus for the Village Center (see Figure 7.27).
- Residential building heights: maximum 3 stories.

BUILDING TYPES

- Mixed use buildings are strongly encouraged. Develop upper story residential units above retail/office ground floors in the Village Center commercial area (see Figure 7.27).
- Residential building types: See Town Center Residential, 7. 12.

ENTRIES

Building entries should be located to facilitate pedestrian movement to and from the sidewalks of the shopping streets.

- Orient primary ground floor entries to commercial buildings to the village green and shopping streets, not to interior blocks or parking lots. Secondary entrances from interior blocks or parking lots are permitted.
- Larger, freestanding commercial buildings on arterial streets may have primary entrances off parking lots but must have at least one on-street entrance (see Figure 7.9).
- Residential building entries: See Town Center Residential, Section 7.1.2.

PARKING

- Locate parking lots behind buildings which front on the shopping street and village green. Provide pedestrian passageways through and between buildings from parking to the street (see Town Center Commercial).
- Landscape parking lots with shade trees in a pattern and number that can be reasonably expected to shade 50 percent of the lot surface ten years after planting, and 75 percent at maturity (see Figure 7.12).
- Use low hedges, shrub masses and walls to screen parking lots from street views, as well as to give a defined edge to the lot.

TRANSIT

- Locate a transit stop on the shopping street across from the village green.
- Provide transit shelters with the same design character as used on major streets, but adapted as necessary to be architecturally compatible with each Village Center.

PEDESTRIAN/BICYCLE CIRCULATION

See Town Center Commercial, Section 7.12.

OPEN SPACE AND PUBLIC FACILITIES

Village Centers should include community gathering areas where people can obtain public services, and participate in formal and informal recreation.

- Provide a central public space, or village green, in each Village Center. The village green should be approximately 3 acres in size.
- Design village greens to have an informal landscape character. Planting beds, turf and trees should predominate over pavement. Where possible, incorporate a water feature such as a fountain, pond or stream as a focal element.
- Provide at least one school site of at least 10 acres in each Village Center. Locate school sites immediately adjacent to the village green or neighborhood park to allow school and park to share recreation facilities. Siting of schools at parks also places the schools within walking distance of services, concentrations of homes and transit lines.
- In each Village Center, provide a site adjacent to the school, park or commercial center for an infant/preschool child care facility meeting state standards.

7.2.2 TASSAJARA VILLAGE

Tassajara Village is sited at the junction of Tassajara Road and Fallon Parkway, next to Tassajara Creek in a semi-circular valley bounded by gently sloping hills. A historic schoolhouse stands on the plain between the creek and Tassajara Road. Specific design guidelines for Tassajara village are intended to ensure that village development respects the local setting; and maintains a strong sense of place. An illustration of a development concept for Tassajara Village is shown in Figure 7.28. This figure is for illustrative purposes only.

FORM

- Organize Tassajara Village around concentric rings of semi-circular streets that mirror the curve of the residential neighborhood and creek and hills to the west and connect Tassajara Road to Fallen Parkway.
- Locate the village commercial area and village green in the wedge formed between Tassajara Creek, Tassajara Road and Fallen Parkway.
- Organize the residential neighborhood outside the village commercial area around a system of streets radiating out from the core.

ENTRIES

- Provide a gateway entry feature on the north and south sides of Tassajara Road at the intersection with Fallon Parkway. Commercial buildings on the north and residential buildings on the south should reinforce the gateway effect by setting back at the corner and through building articulation.

- Connect the village residential neighborhood west of Tassajara Creek to the village commercial area with a special entry street.
- Provide a landscaped median on Tassajara Road within the Village.

OPEN SPACE AND PUBLIC FACILITIES

- Incorporate Tassajara Creek as a natural backdrop to the commercial area, giving the Village a distinctive image. Minimize channelization and culverting of Tassajara Creek to the greatest extent possible.
- Do not front structures directly on the creek open space. Provide streets along both sides of the creek open space through most of the village.
- Develop a portion of the creek open space as a neighborhood park.
- Incorporate the historic schoolhouse into the village green as a focus and identifying feature of Tassajara Village.

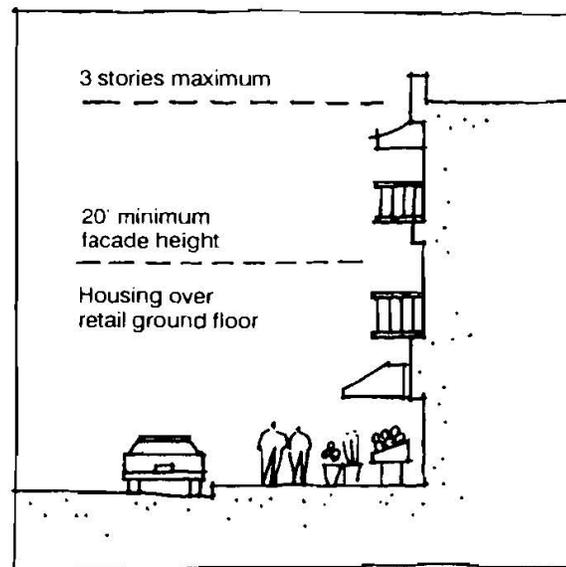
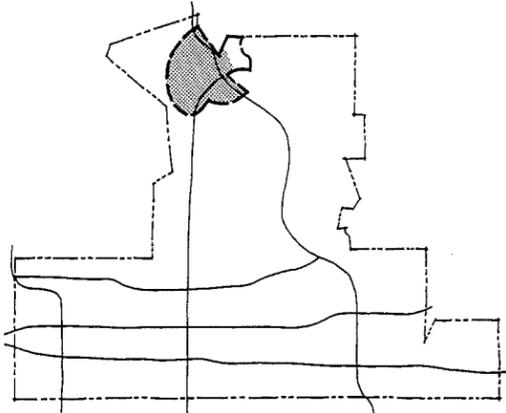
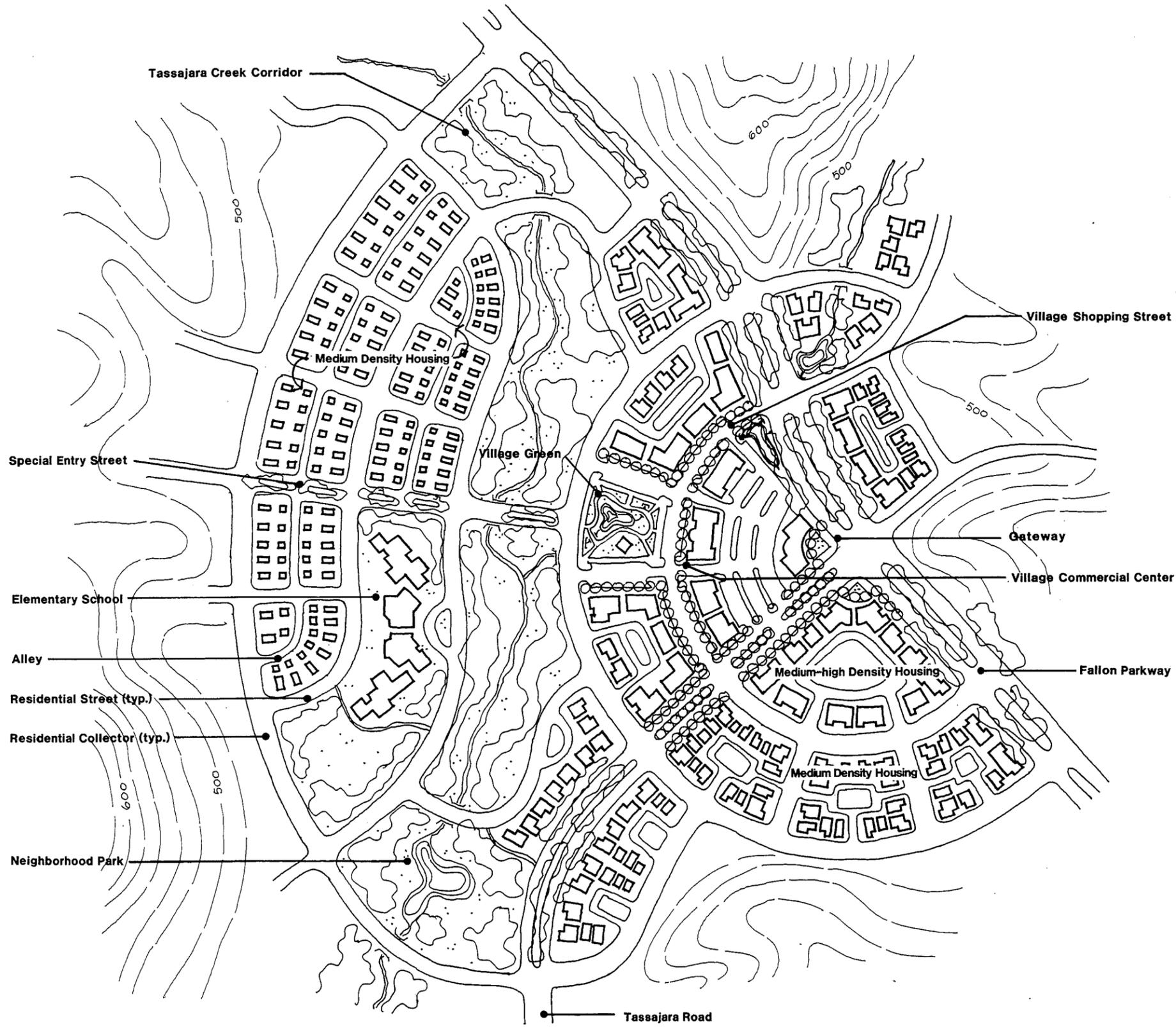


Figure 7.27
Village Center commercial building heights.

Figure 7.28

Tassajara Village Concept Plan

(Illustrative only)



Key Plan

EASTERN DUBLIN Specific Plan

Wallace Roberts & Todd

Urban and Environmental Planners
121 Second Street, 7th Floor
San Francisco, CA 94105
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7.2.3 FALLON VILLAGE CENTER

Fallon Village was originally sited at the base of the foothills at the intersection of Central Parkway and Fallon Road. Per a subsequent amendment in 2005, land uses, use locations, roads and neighborhood layout were changed for the Fallon Village Center. Fallon Village Center became concentrated around Central Parkway between Croak and Fallon Roads. The neighborhood commercial area was redesignated to Mixed Use and moved to the vicinity of the Central Parkway and Croak Road T-intersection. Originally, neighborhood streets were laid out in a pattern of concentric rings intersected by radial streets. Per the subsequent amendment the street pattern was changed to a grid pattern. The grid pattern was chosen to provide easy and convenient pedestrian access while preserving biological resources in the open space corridor suggested by the Resource Management Plan accepted by the City. The gateway should be located in the vicinity of the Croak Road-Central Parkway intersection. The valley where the neighborhood commercial district was located originally is to be protected as open space. The village center will be accessed by most residents via Croak Road. Pedestrian and bicycle trails to the village center will be placed along the open space corridor. It is separated from the Town Center and partially hidden by a string of hills preserved as open space. The following are specific guidelines for Fallon Village development. Per a subsequent amendment in 2005, some of these guidelines are obsolete. Refer to this paragraph for the current design. An illustration of a development concept for Fallon Village is shown in Figure 7.29, and updated in Figure 7.29 – Modified.

FORM

- Organize Fallon Village in a pattern created by concentric rings of streets cut through by streets radiating out of the village commercial area.
- Locate the village commercial area in the northeast quadrant of the intersection of Fallon Parkway and Central Parkway.

ENTRIES

- Provide a gateway entry feature created by a landscape area and corner building at the northeast corner of Fallon Road and “Main Street”, and at either end of the shopping street where it intersects Fallon and “Main Street.”
- Connect the village commercial area to the residential neighborhood in the narrow valley trending northeast with a special entry road on axis with the village green.

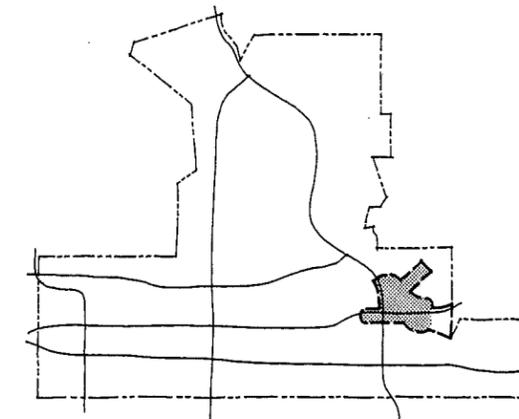
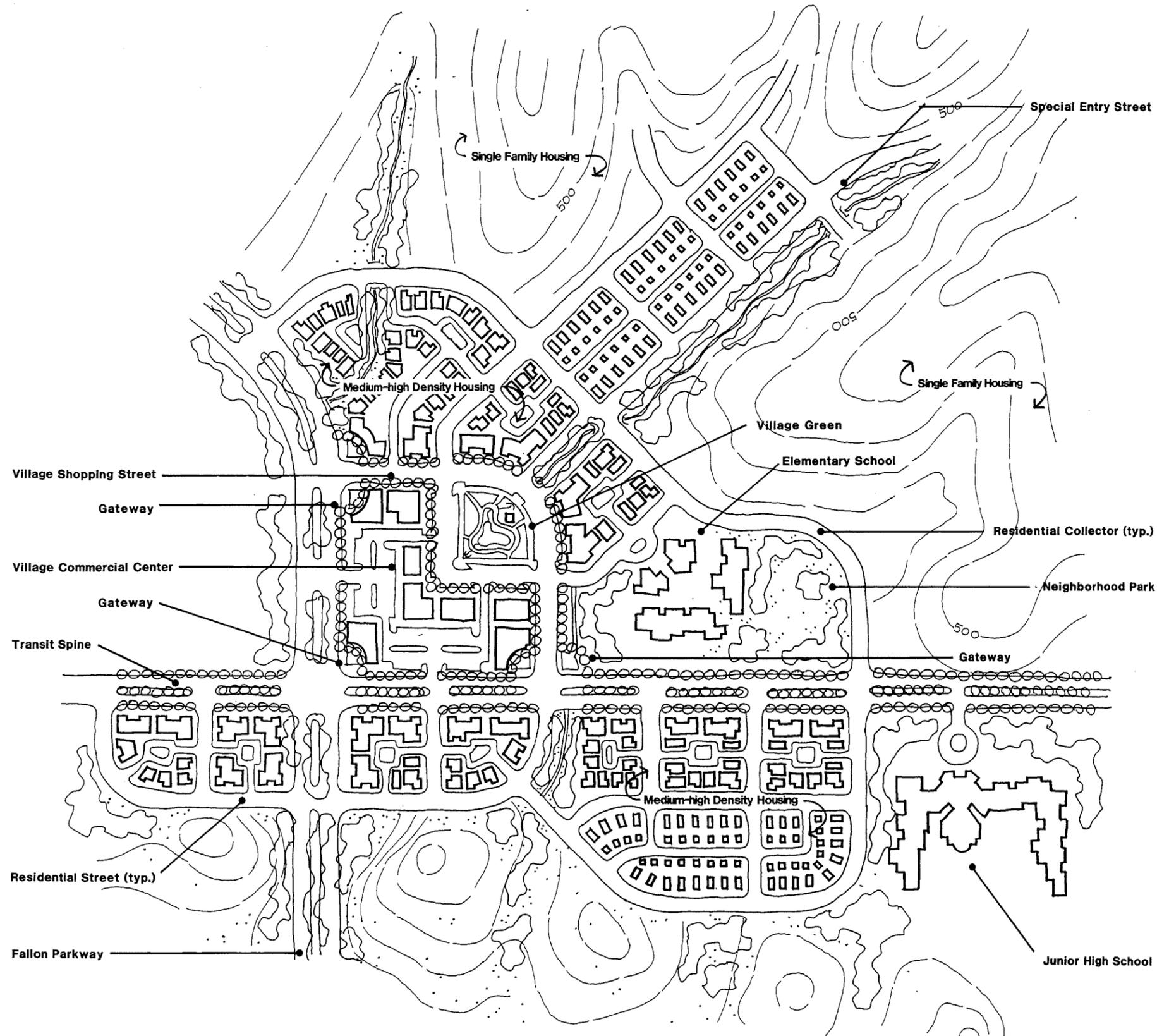
OPEN SPACE AND PUBLIC FACILITIES

- Maintain the drainage swale flowing into the village commercial center from the valley to the northeast by incorporating it into an open space corridor bordering the special entry street. The village commercial center was moved to the east, as the open space corridor has been expanded through the 2005 Fallon Village amendment.
- Site buildings on the junior high school site to avoid grading of the string of hills in the open space preserve to the south. Site buildings in the village neighborhood south of Main Street so that they are not visible from areas south of the open space preserve which fronts I-580. Through the 2005 Fallon Village amendment, the Junior High School was eliminated and buildings south of Central Parkway should be sited so that they are not visible from areas south of the open space preserve on the knolls south of Fallon Village Center.

Figure 7.29

Fallon Village Concept Plan

(Illustrative only)



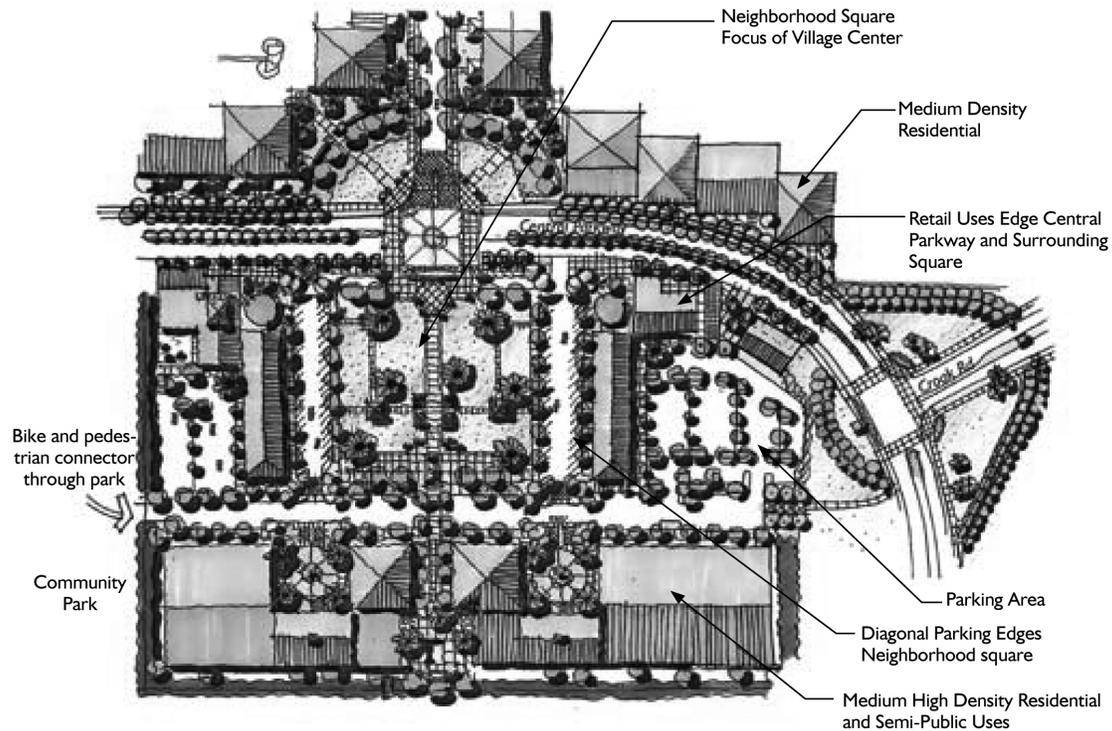
Key Plan

EASTERN DUBLIN Specific Plan

Wallace Roberts & Todd

Urban and Environmental Planners
121 Second Street, 7th Floor
San Francisco, CA 94105
(415) 541-0830

Figure 7.29.A Fallon Village Concept Plan - Modified



7.3 FOOTHILL RESIDENTIAL

Outlying areas of low, medium and medium-high density housing comprise the Foothill Residential subarea. This subarea should be perceived as a transition between the open space of the ridgelines and the dense Town Center at the base of hills. The focus of the guidelines is to promote sensitive siting to minimize disruption of the hillside environment and achieve a sense of development set within natural open space.

FORM

- Generally, locate streets and building sites to conform to the natural topography, minimizing areas of major grading, to the extent practicable.
- Maintain the existing pattern of natural drainages as shown on Figures 4.1 and 6.2. Through the 2005 Fallon Village amendment, the drainages in Fallon Village were modified. Instead of preserving two narrow corridors through the site, the main drainage through the site was preserved in a wider corridor.
- Lay out development in a pattern that is consistent with and complementary to adjacent projects. Link individual developments to each other by a framework of continuous streets and open space system that discourages insular, "gated" communities.

BUILDING SITING

- Cluster development to reduce necessary grading and preserve open space continuity (see Figure 7.30).
- Site buildings on the downslope side of streets, where feasible, so the main mass of the building is below street level, allowing views over roofs from the street (see Figure 7.31).
- Refer to Stage 1 and Stage 2 Development Plans for Fallon Village projects for modified criteria.
- Refer to Stage 1 and Stage 2 Development Plans for the Moller Ranch Property project for modified criteria.

SETBACKS

- 20 feet minimum from street ROW line. In steep areas where lots are wider than 80 feet and curbside parking is permitted, front yard setbacks may be reduced to 10 feet or as approved by the Community Development Director.
- 5 feet minimum from side property lines for single-family detached housing, except in zero-lot line developments or as approved by the Community Development Director.
- 20 feet minimum from rear property line. No rear yard setback is required if there is no residence adjacent to the rear property line or as approved by the Community Development Director.
- Refer to Stage 1 and Stage 2 Development Plans for Fallon Village projects for modified criteria.
- Refer to Stage 1 and Stage 2 Development Plans for the Moller Ranch Property project for modified criteria.

GRADING

- Regrade disturbed portions of the site outside of the building pad to form a smooth transition between the graded pad and the undisturbed topography, mimicking the natural landform.
- Where feasible, terrace steep slopes; avoid high retaining walls. Plant spilling plants at the top of retaining walls and vines at the base to soften edges and blend walls into the landscape.
- See additional policies related to grading in Sections 6.3 and 6.4.

BUILDING TYPES

- Encourage stepped foundations

PARKING

- Vary siting of garages on lots to avoid lining streets with garage doors.
- Allow curbside parking to satisfy some off-street parking requirements on steep sites where lots are at least 80 feet wide, and reduce setbacks for garages to 10 feet. This will allow the building pad to be closer to the street and minimize grading.

AUTO CIRCULATION

- Except where extremely constrained by topography, develop loop streets to provide two means of egress from developments.
- Develop streets to the minimum width necessary to accommodate anticipated traffic volumes and fire and emergency vehicles.

PEDESTRIAN/BICYCLE CIRCULATION

- Connect local hillside streets to trails in hillside open space and drainage corridors which lead into the Town Center.

OPEN SPACE AND PUBLIC FACILITIES

- Minimize crossings of hillside open space and drainage corridors by local streets. Provide undercrossings for wildlife where major wildlife corridors are interrupted.
- Provide a minimum building setback of 25 feet from the edge of drainage corridors as shown on Figures 4.1 and 6.2 (see Figure 7.33) or as approved by the Community Development Director.
- Avoid lining open space corridors with private yard fences. Use walls or fences less than 4 feet high, slopes, berms, and vegetation masses to separate public open space from private yards. The 2005 Fallon Village amendments increased the width of some of the original open space corridors. Due to this increased width, the visual effects of private yard fences would be diminished and such fences may be erected along wider open space corridors.
- Open/view fencing or open/view fence/wall combinations are permitted per the 2005 Fallon Village amendment.

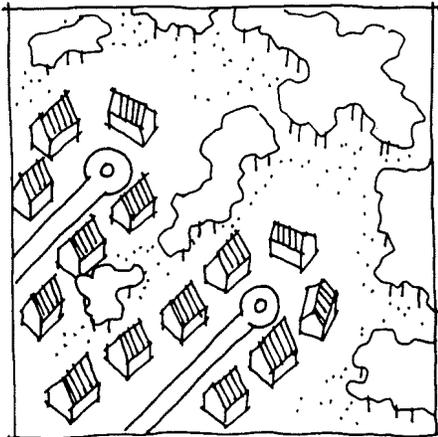


Figure 7.30
Cluster development to reduce grading and preserve open space continuity.

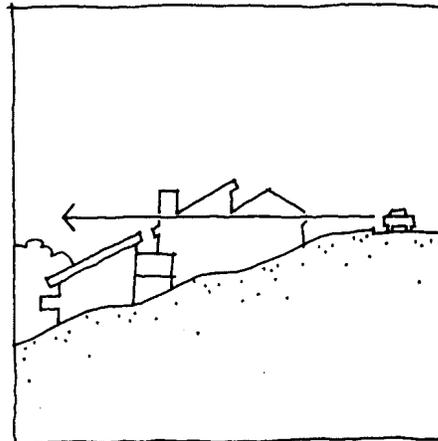


Figure 7.31
Where feasible, site the mass of downslope buildings below street level to maintain views.

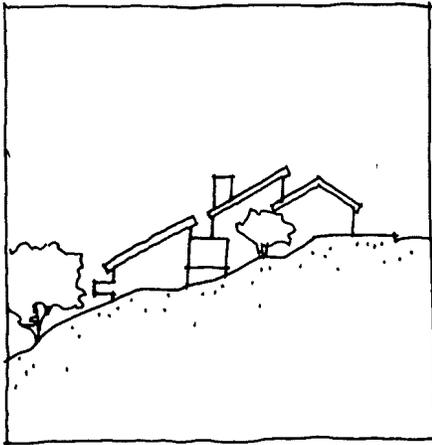


Figure 7.32
Use stepped, split level buildings to conform to steep slopes.

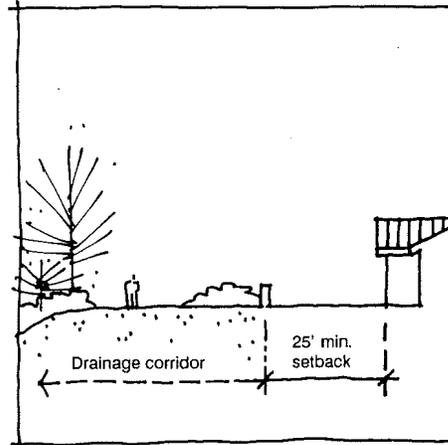


Figure 7.33
Set back buildings 25' from the edge of drainage corridors.

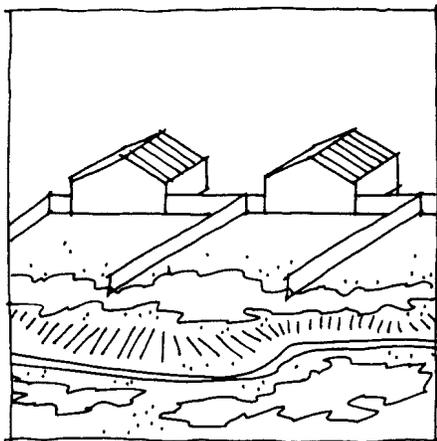


Figure 7.34
Use slopes, plant masses and low fences or walls to separate open space corridors from private yards.

7.4 GATEWAY SUBAREAS

The Tassajara, Fallon and Hacienda Gateway subareas will convey an image of eastern Dublin to the thousands of travellers who pass the community each day along 1-580. In addition, offices and businesses in the gateway subareas will be daily destinations for eastern Dublin workers. Key design goals for the Gateway Subarea are: to create a gateway effect with buildings at major intersections; to minimize impact of large parking areas on views from streets; to maintain an attractive image for the community from the freeway; and to develop both internal connections and linkages to the Town Center for autos, bikes and pedestrians.

7.4.1 OVERALL GATEWAY DESIGN GUIDELINES

BUILDING SITING

Although large-scale retail and office developments may be located in the gateway subareas because of their easy freeway access and high visibility, these developments should also relate to the rest of the eastern Dublin community.

- Orient buildings to major arterial streets within eastern Dublin to enhance the gateway experience. Do not site buildings directly adjacent to the freeway ROW, where they are oriented primarily toward passing freeway traffic, turn their backs on community streets and block views from the freeway to the hills (see Figure 7.35).

BUILDING HEIGHT

- Buildings should increase in height with distance from the freeway, with lowest buildings nearest the freeway ROW and tallest buildings near the intersection of Dublin Boulevard and the major north-south arterial (see Figure 7.35).

PARKING

Although development in the gateway subarea may rely on convenient auto access, parking should not dominate the view from roads.

- Divide parking lots into smaller units, and site buildings to screen views of parking from major thoroughfares (see Figure 7.11).
- Landscape parking lots with one tree per 4 - 6 parking stalls.

AUTO CIRCULATION

- Provide a system of internal roads to minimize the number of driveways onto Dublin Boulevard, Tassajara Road, Fallon Road and Hacienda Parkway. Where

possible (particularly south of Dublin Boulevard), arrange streets in a north-south and east-west pattern to tie in with collector streets in the residential area (see Figure 7.36). Encourage use of shared driveways (see Figure 7.37).

PEDESTRIAN/BICYCLE CIRCULATION

- Provide a system of comfortable, safe and convenient walking routes throughout the gateway subareas to provide east-west connections between campus office, general commercial and industrial areas, and north-south connections between the gateway areas and the Town Center. Install crosswalks at signalized intersections on Dublin Boulevard to insure safe pedestrian crossings (see Figure 7.36).
- Provide bicycle parking and support facilities in accordance with the Dublin Bicycle and Pedestrian Master Plan.

EDGES

- Buffer the edge of the freeway ROW with dense informal planting of deciduous trees.
- Provide broad landscaped setbacks along major arterials (see section 7.5)

7.4.2 TASSAJARA GATEWAY

The emphasis of design guidelines specific to the Tassajara Gateway subarea is on creating a "gateway" into eastern Dublin through siting and design of the high-profile commercial uses (hotel, conference center, campus office, restaurant) recommended for this area.

BUILDING SITING

- Create a gateway effect along Tassajara Road by siting buildings between 10-75 feet from street ROW lines at the intersection of Tassajara Road and Dublin Boulevard.

BUILDING HEIGHT

Taller buildings should be used to reinforce the gateway effect at the intersection leading into the community.

- Allow buildings up to 6 stories in height at the intersection of Tassajara Road and Dublin Boulevard.
- Articulate building corners around the intersection, for example by stepping up in height, adding towers or varying roof form.

7.4.3 FALLON GATEWAY

The guidelines specific to Fallon Gateway are intended to ensure that the design of the large-scale, auto-oriented regional commercial development anticipated in this area (for example, auto mall or promotional center) is visually and functionally compatible with adjacent community-oriented commercial and residential areas.

BUILDING SITING

- Site buildings or built elements (freestanding towers, monuments, architectural walls) within 75 feet of the street ROW lines at the intersection of Fallon Road and Dublin Boulevard, to function as gateway markers.
- Set back commercial buildings a minimum of 100 feet from residential areas.

BUILDING HEIGHT

The large-scale commercial uses expected in this subarea are expected to be housed in primarily one-story buildings, which must be carefully articulated to avoid a warehouse appearance.

- Use varied roof forms and parapets of varying heights to break down the scale and add visual interest to commercial buildings.

7.4.4 HACIENDA GATEWAY

Hacienda Gateway, like Tassajara Gateway, will be a major community entry characterized by high-profile office campus and commercial uses. However, it is also similar to the Town Center in its focus on transit and mixture of higher density residential and community shopping uses. Design guidelines specific to Hacienda Gateway emphasize pedestrian access between transit, housing, commercial services and workplaces.

BUILDING SITING

- Site buildings to front on Hacienda Parkway, Dublin Boulevard and Central Parkway.
- Site buildings within 75 feet of street ROW lines at the intersection of Hacienda Parkway and Dublin Boulevard to create a gateway effect.

BUILDING HEIGHT

- Allow buildings up to 6 stories in height at the corner of Hacienda Parkway and Dublin Boulevard.
- Articulate buildings to emphasize the intersection, for example by stepping up in height, adding towers or varying roof form.

PARKING

- Use the siting of structures to break up parking areas into smaller scale units. Provide multiple entries to buildings so parking is not all on the perimeter or all internal to the development.

PEDESTRIAN/BICYCLE CIRCULATION

- Align pedestrian/bike paths and pedestrian-oriented neighborhood streets to provide direct routes to the BART station.
- Provide crosswalks at signalized intersections on Hacienda Parkway to connect the Hacienda Center community shopping center to offices and residences around the BART station.
- Provide crosswalks at signalized intersections on Hacienda Center community shopping center to offices and residences around the Bart station.

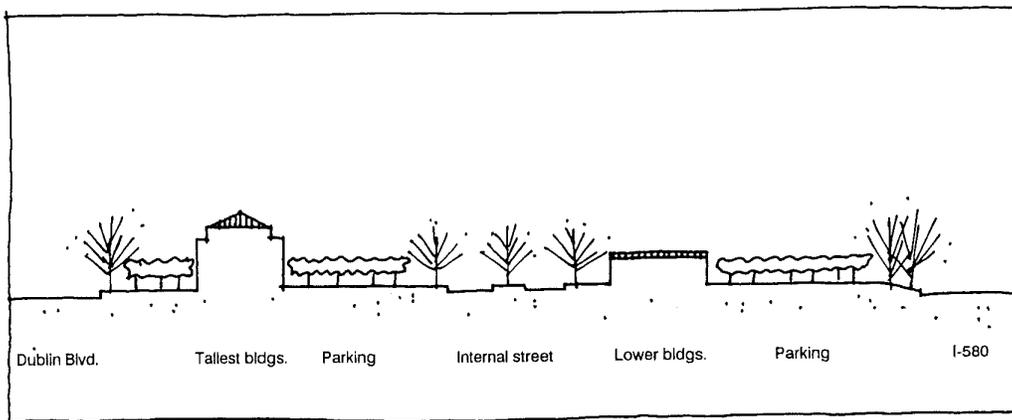


Figure 7.35
Orient buildings to Dublin Blvd. and internal streets, not the freeway. Site tallest buildings along Dublin Blvd.

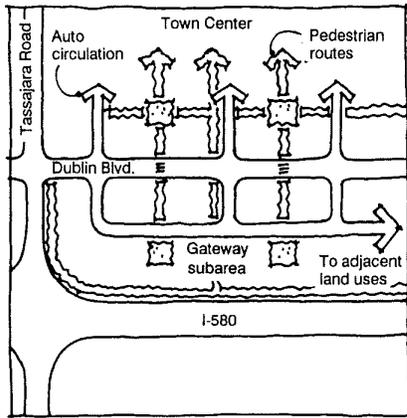


Figure 7.36
Link pedestrian and auto routes in gateway areas to the Town Center and commercial areas.

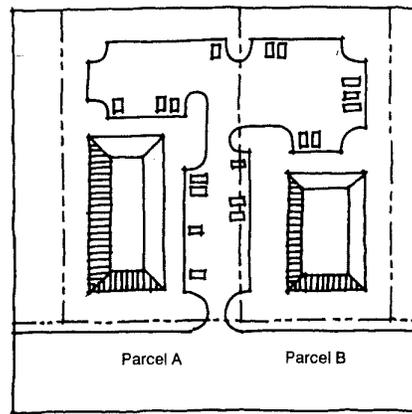


Figure 7.37
Encourage development of shared driveways.

7.5 CIRCULATION SYSTEM

7.5.1 PEDESTRIAN/BIKE PATHS

The design and location of bicycle and pedestrian routes, support facilities and bicycle parking is critical for encouraging alternative transportation choices. The following guidelines and those contained in the Dublin Bicycle and Pedestrian Master Plan support a reduced dependency on the automobile and promote alternative transportation choices that are convenient, comfortable and accessible for all users.

SITING

- Locate primary pedestrian/bike paths to be along streets or visible from streets, unless the path is specifically intended to take users out of developed surroundings to experience stream, hillside and natural area environments. Avoid routing public paths where surveillance and maintenance would be difficult, in particular between residential rear yards.

DESIGN

- Combine pedestrian and bike trails in natural areas into a single 12' paved path. Separate bike trails in natural areas are to be 8' wide.
- Develop pedestrian paths that parallel streets that are straight or only gently curved. Avoid highly meandering paths unless dictated by the topography or natural features.
- Make sidewalks continuous across alley entrances and garage driveways.
- Widen sidewalks into parking lanes at intersections of key pedestrian-oriented streets, to provide narrower and safer pedestrian crossings.

BICYCLE PARKING

- Provide bike racks and/or lockers at transit stops, shopping areas, workplaces and public parks. Bike parking areas may be shared among nearby uses, bus should be centrally located, easily accessible to building entries and visible from streets or parking lots.

7.5.2 STREETS

The design of streets in eastern Dublin reflects the specific functions of the streets in the community overall and the various subareas. Streets are designed where possible to create community or district identity, enhance commercial activity, encourage pedestrian use and protect sensitive natural and visual resources.

PARKWAYS AND ARTERIAL STREETS

Parkways and arterials form the backbone of the circulation system. For this part of the system to be efficient and smooth-flowing, through traffic must not be slowed by local traffic. As a result, arterials and parkways are located at the edges of the Town Center and Village Centers.

FALLON ROAD

- No on-street parking.
- All intersections signalized
- 10' landscaped setback outside ROW

IN THE FOOTHILL RESIDENTIAL AREA AND OPEN SPACE PRESERVE SOUTH OF FALLON VILLAGE

- Wide, variable width median to allow grade difference between northbound and southbound lanes in steep areas.
- Informal, native landscaping to blend with natural environment.
- 10' minimum setback from curblines to ROW line may include pedestrian/bike trail along one side. (See Figure 7.38)

IN VILLAGE CENTERS AND FALLON GATEWAY

- Northbound and southbound lanes at same grade.
- 38' median (24' for future lanes) with large canopy trees.
- 20' from curblines to ROW line includes canopy tree and sidewalk or pedestrian/bike path. (See Figure 7.39)

TASSAJARA ROAD

- No on-street parking.
- Signalized intersections based on current and projected traffic flows and CalTrans Traffic Signal Warrant Standards.

FROM SOUTH OF GLEASON ROAD TO 1-580

- 14' median with large canopy tree.
- 20' from curblines to ROW line includes canopy tree and secondary tree, sidewalk or pedestrian/bike path. Sidewalk may be widened and secondary tree eliminated where buildings are built at the 10' set back line. (See Figure 7.40)

FROM GLEASON ROAD TO TASSAJARA VILLAGE

- Six lane arterial street
- 38' landscaped median, with 24' for future lanes.

- 20' from curblineline to ROW line includes large canopy tree and 8 foot sidewalk or bike/pedestrian path.
- 10' landscaped setback outside ROW.

FROM NORTH DUBLIN RANCH DRIVE TO THE ALAMEDA-CONTRA COSTA COUNTY LIMIT LINE

- Four lane arterial street
- 16' landscaped median
- 10' landscaped setback outside ROW
- 10' to 20' from curblineline to ROW line includes canopy tree and secondary tree and 6' to 10' sidewalk or bike/pedestrian path. Sidewalk may be widened and the secondary tree eliminated where buildings are built at the 10' set back line.

DUBLIN BOULEVARD

- Four to Six lane arterial street
- No on-street parking.
- 16' Landscaped median.
- 20' from curblineline to ROW line includes 2 large canopy trees and 8' sidewalk or pedestrian/bike path.
- 10' landscaped setback outside ROW.

GLEASON ROAD

- Four lane arterial street
- No on-street parking.
- 14' landscaped median.
- 12' from curblineline to ROW line includes large canopy tree and sidewalk.
- 10' landscaped setback outside ROW.

CENTRAL PARKWAY

Hacienda Gateway:

- Two lane (future four lane arterial street)
- Within the public right-of-way (ROW) 10' to 12' sidewalk between curblineline and ROW line.
- Regularly spaced street trees in wells with grates. No planting strips.
- 8' parallel parking aisle on each side of street.
- 10' setback from ROW for buildings in commercial areas. The setback area should be used for pedestrian circulation, window shopping, outdoor merchandising, outdoor cafes and restaurants, and similar pedestrian- oriented activities. The City may allow the 10' sidewalk to be used for the above listed

activities by means or a special encroachment permit, if the applicant provides an 8' pedestrian way within the 10' setback.

- 12' travel lanes.
- 30' landscaped median (16' for future lanes)
- "Bulb" sidewalks into parking lane at intersections and pedestrian crossings and in selected mid-block areas, to allow for landscaping and pedestrian amenities with the approval of the Director of Public Works/City Engineer.
- No building setbacks beyond the front setback line, except to provide for outdoor dining areas and entry patios/plazas.
- Street amenities program - see Town Center Commercial guidelines.

WEST OF THE TOWN CENTER (SAME AS ABOVE WITH FOLLOWING EXCEPTIONS)

- Four lane arterial street
- 8' parallel parking.
- 4' bike lane
- 15' landscaped setback from ROW for residential buildings.
- 10' from curblineline to ROW line includes 5' sidewalk and regularly spaced street trees in 5' planting strip next to curb.

EAST OF FALLON ROAD

- Two lane Class II collector (88' wide Right-of-way)
- Eight foot parallel parking lane
- Ten foot landscape setback outside of right-of-way

MAIN STREET

- Within the public right-of-way (ROW), 5' landscape and 10' sidewalk between curblineline and ROW line.
- Regularly spaced street trees in wells with grates. No planting strips.
- 8' parallel parking aisle on each side of street.
- 10' setback from ROW for buildings. The setback area should be used for pedestrian circulation, window shopping, outdoor merchandising, outdoor cafes and restaurants, and similar pedestrian-oriented activities. The City may allow the 10' sidewalk to be used for the above listed activities by means or a special encroachment permit, if the applicant provides an 8' pedestrian way within the 10' setback.
- 12' travel lanes.
- "Bulb" sidewalks into parking lane at intersections and pedestrian crossings and in selected mid-block areas, to allow for landscaping and pedestrian amenities with the approval of the Director of Public Works/City Engineer.
- No building setbacks beyond the front setback line, except to provide for outdoor dining areas and entry patios/plazas.
- Street amenities program - see Town Center Commercial guidelines.

LOCAL STREETS

Village Shopping Street

As the center of village commercial activity, the Village Shopping Street is developed to facilitate pedestrian use.

- Develop a program of street amenities based on that of the Town Center/"Main Street", but customized to identify each village.
- No setbacks from ROW for buildings.

FRONTING ON THE VILLAGE GREEN:

- 16' lanes.
- 18' sidewalk between curbside and ROW line allows cafes, outdoor merchandising, transit shelters and street furniture.
- Regularly spaced street trees in tree wells with grates. Small planting areas in lieu of or in addition to grates are permitted in Fallon Village per a 2005 Fallon Village amendment.
- On-street parallel parking (8 feet) both sides of street. Diagonal parking is encouraged in Fallon Village per 2005 Fallon Village amendment.

LEADING TO BUT NOT FRONTING ON THE VILLAGE GREEN:

- 15' sidewalk between curblines and ROW line includes street trees in wells.
- 8' parallel parking.

RESIDENTIAL COLLECTOR:

The Residential Collector accommodates higher volumes of traffic than the standard Residential Street because it functions as more of a through route, tying together neighborhoods.

- 8' parallel parking on both sides. At Fallon Village, the residential collector is bordered on one side by a natural drainage swale. No parking is provided on the swale side of the street.
- 12' lanes.
- 16' from curblines to right-of-way line includes 6' sidewalk 10' planting strip with regularly spaced street trees.
- 10' landscape easement outside right-of-way.

RESIDENTIAL STREET

The Residential Street is the standard "pedestrian- oriented" local street in residential areas.

- 5' from curb line to ROW line includes 5' monolithic sidewalk.
 - 36' curb-to-curb which allows two-way travel and parallel parking on both sides.
 - 10' from curblines to ROW line includes 5' sidewalk and 5' planting strip with canopy trees.
 - 15' landscaped setback outside ROW
- NEIGHBORHOOD SQUARE STREET
 - One-way loop around neighborhood squares in Town Center.
 - 36' curb-to-curb which allows one-way travel and parallel parking on both sides.
 - 6' sidewalk between curblines and ROW line.
 - 15' landscaped setback outside ROW to be planted with regularly spaced street trees.

NEIGHBORHOOD SQUARE STREET

- One-way loop around neighborhood squares in Town Center, except in Fallon Village Center, where the street shall be a two-way loop per 2005 amendment.
- 62' curb-to-curb which allows two-way travel and diagonal parking on both sides
- 8' sidewalk and 4' planter strip between curblines and ROW line on building side of street
- 15' landscaped setback outside JROW to be planted with regularly spaced street trees. The additional landscape setback is not necessary in the Fallon Village Center per 2005 amendment. Street trees will be placed, regularly-spaced, in the right-of-way.

ALLEYS

Alleys should be provided for access to residential parking areas in the Town Center and Village Centers.

- Site alleys only between rear property lines.
- 10' lanes.
- Set back buildings and garages 5' from the alley ROW line. Landscape setbacks, except in front of garages or loading docks where pavement may be widened to allow for passing vehicles and turning movements.

HILLSIDE RESIDENTIAL COLLECTOR

In the Foothill Residential sub-area, residential street sections, subject to approval of the Director of Public Works, may be modified in recognition of the need to reduce the

extent of grading for roadway and building pads and the overall lower residential densities.

- 36' curb-to-curb with parking on both sides.
- 10' easement with 5' sidewalk on each side.
- 20' front yard setback outside ROW. Setback may be reduced to 10' where lots are wider than 80', if all required parking for a development can be accommodated on street and in garages.

Hillside Residential Street

In areas where steep slopes limit development to one side of the roadway, street widths may be further reduced to limit the amount of grading subject to approval of the Director of Public Works. (Same as Hillside Residential Collector with the following exceptions).

- 32' curb-to-curb with parking on one side (and houses on one side only).

Village Special Entry Streets

- Special entry streets are designated in the village centers to connect residential neighborhoods with the village green and commercial core.

IN TASSAJARA VILLAGE:

- 28' median accommodates natural drainage swale. Plant informally with native riparian vegetation. Includes adequate setbacks for a sidewalk or trail.
- 12' lanes.
- 8' curbside parking.
- 12' from curblines to ROW line includes 6' planting strip with regularly spaced canopy trees and 6' sidewalk.
- 15' landscaped setback for residential buildings.
- 14' median planted informally with canopy trees.

ACTION PROGRAM: COMMUNITY DESIGN

- **Program 7A:** Design Review. The City shall establish Design Review procedures and assign review responsibilities for projects proposed in eastern Dublin. The content of the Design Review will be based on the design guidelines and development standards contained in this Specific Plan and any guidelines which the City has established for the City as a whole. In general, it is recommended that the process include at least three steps: Conceptual Design Review, Site Plan Review, and Building Design review. The City has the option of conducting this review with planning staff and Planning Commission, or augmenting their review with a Design Review Board or a qualified design professional.

- **Program 7B: Design Submittals.** Development applicants will be required to submit, at a minimum, the following materials for review. The City may require other information to be submitted based on the specific issues involved with each project. The basic submittal will include:
 - Existing Condition Map(s) including relevant information such as slope, vegetation, soils/geology, infrastructure, etc.
 - Design Concepts including maps/illustrations of concepts for building form, landscape, circulation, and grading and drainage.
 - Site Plans (Preliminary and Final) including site plans, grading plans, landscape plans (planting, hardscape, and amenities), lighting plan, and drainage plans.
 - Building Design including perspective sketches/ renderings, exterior building elevations, building cross- sections, floor plans, building materials and color board, and signage design.
 - Special Concerns including visual simulations, re- vegetation plans, stream channel improvements plans, and site models.

- **Program 7C: Master Streetscape Plan.** The City shall require the development of a Master Streetscape Plan for the Town Center Commercial area to ensure the concepts set forth in the Specific Plan are translated into detailed design standards that will be applied to all projects in the sub-area. The Master Streetscape Plan shall include the following elements:
 - Street Tree Planting Plan including tree species, spacing, and tree well treatment.
 - Paving Standards including types of materials to be used and their location.
 - Lighting Standards including the design criteria for size, placement, and materials for signs within the commercial district.
 - Amenities Standards including criteria for selecting and setting street furniture (e.g., public telephones, newspaper stands, benches, bicycle racks, trash receptacles, public art, seasonal decorations, etc.)

- **Program 7D: Public Parking Lots.** The City should work with developers in the Town Center to encourage joint development of public parking lots and garages by area merchants and the City.

- **Program 7E: Community Events.** The City should encourage local merchants to participate in programming and marketing of special events in public areas, such as open air markets, weekend or lunch time concerts and seasonal celebrations.

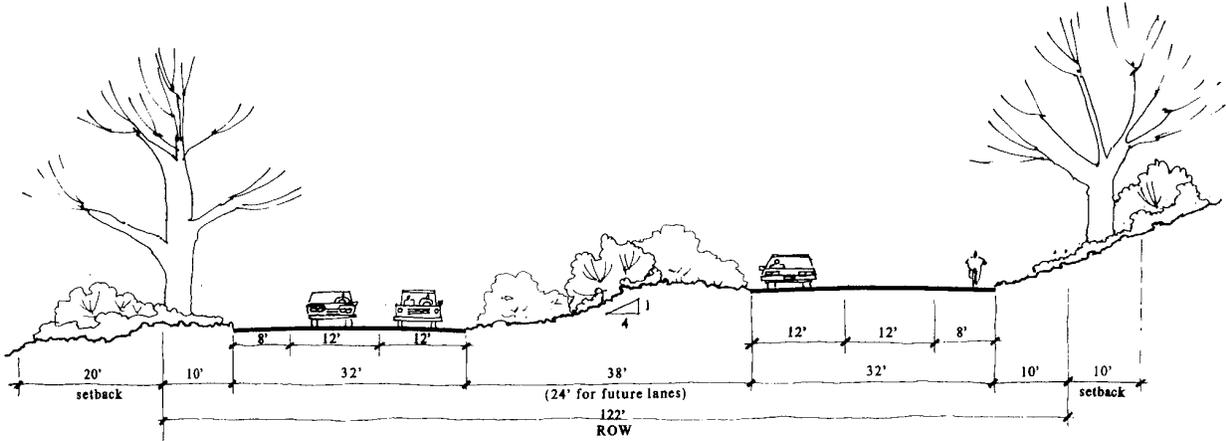


Figure 7.38

Fallon Parkway
In Foothill Residential and Open Space Areas

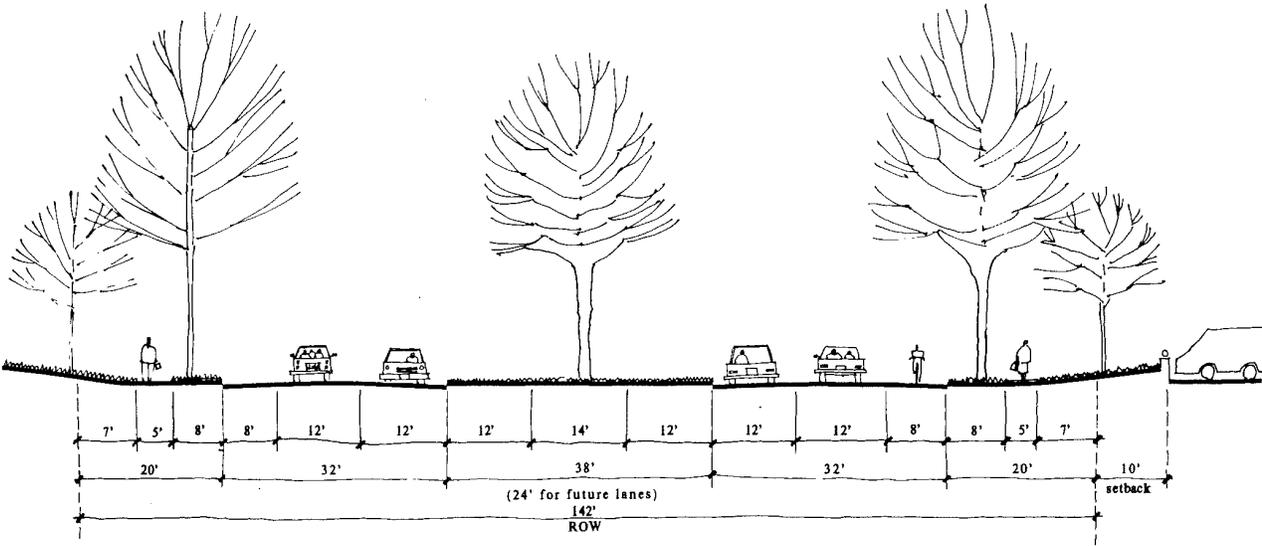


Figure 7.39

Fallon Parkway
In Village Centers and Fallon Gateway

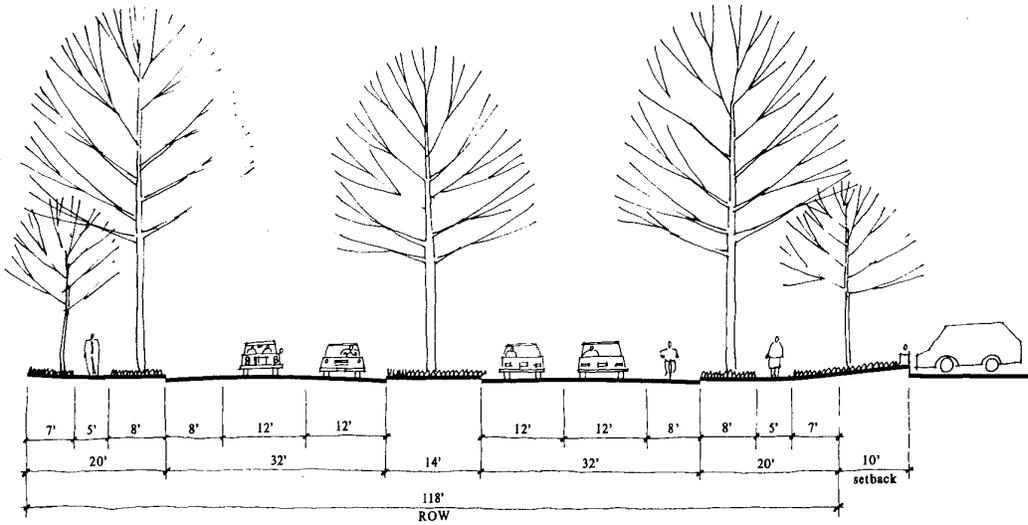


Figure 7.40

Tassajara Road
Tassajara Village and south of Gleason Road

Tassajara Road
South of Gleason Road
Second 8' planting strip may be eliminated to widen sidewalk if office or retail buildings are located on the property line.

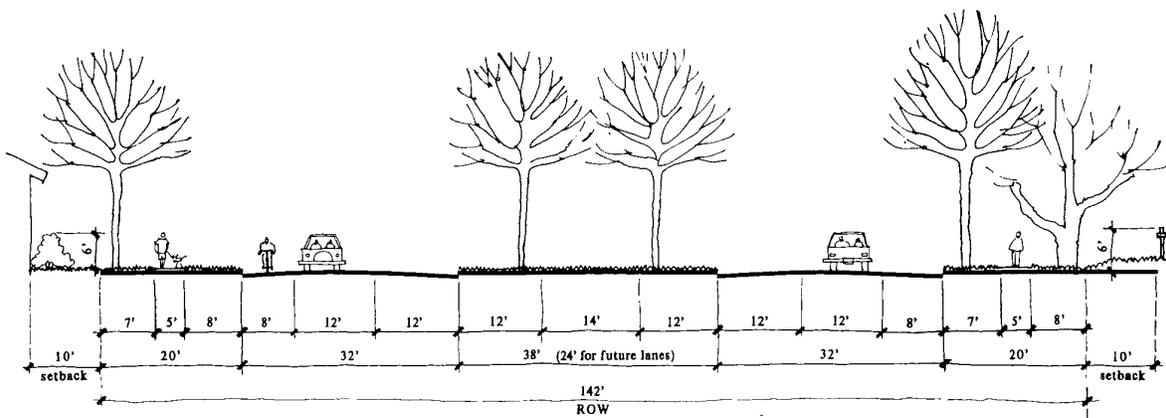
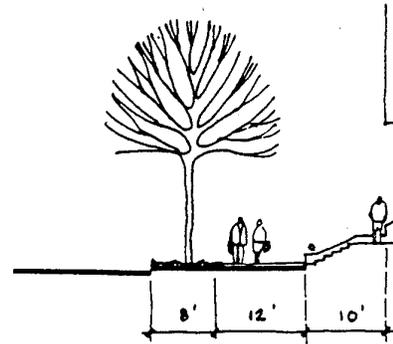


Figure 7.41

Tassajara Road
From Gleason Road to Tassajara Village

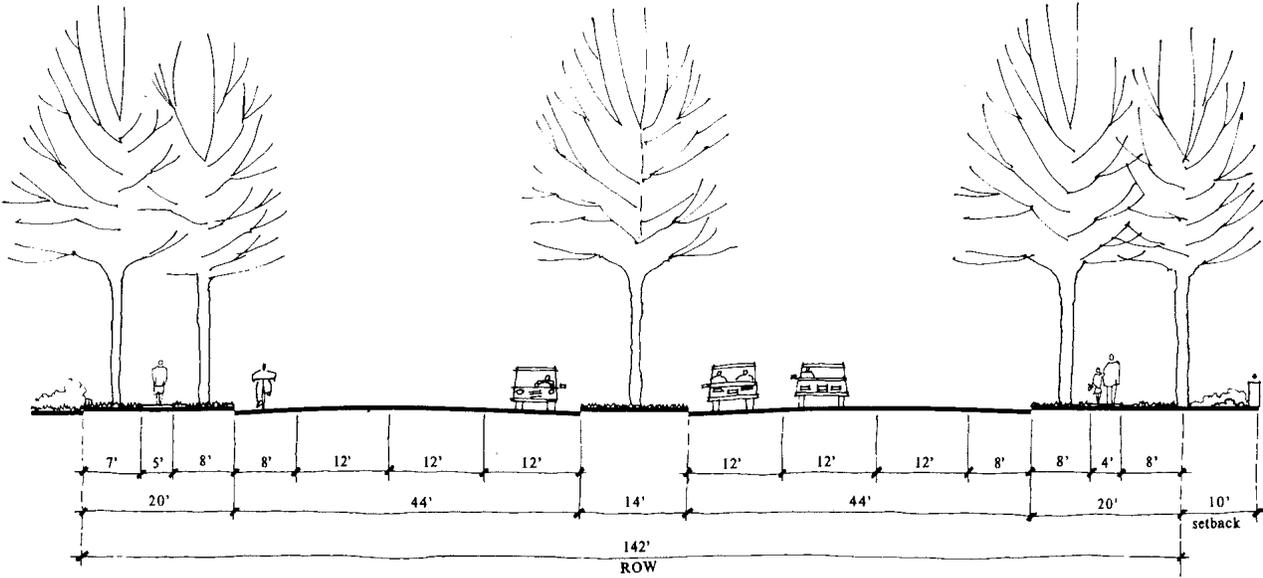


Figure 7.42

Dublin Boulevard

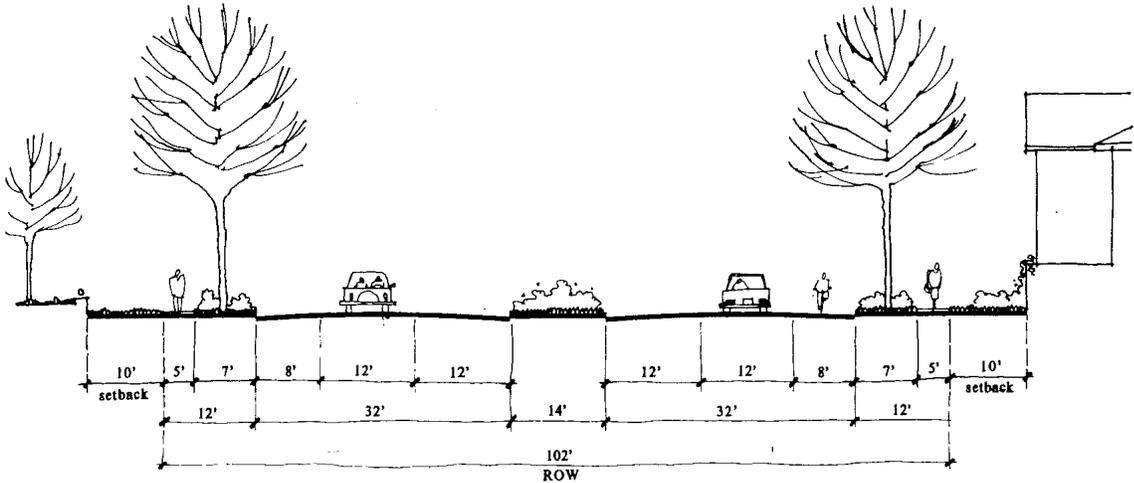
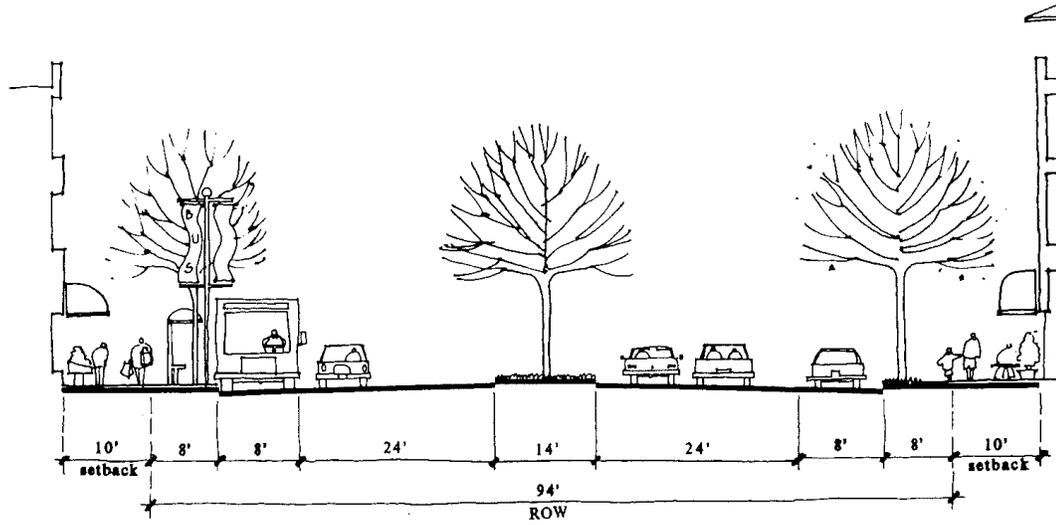
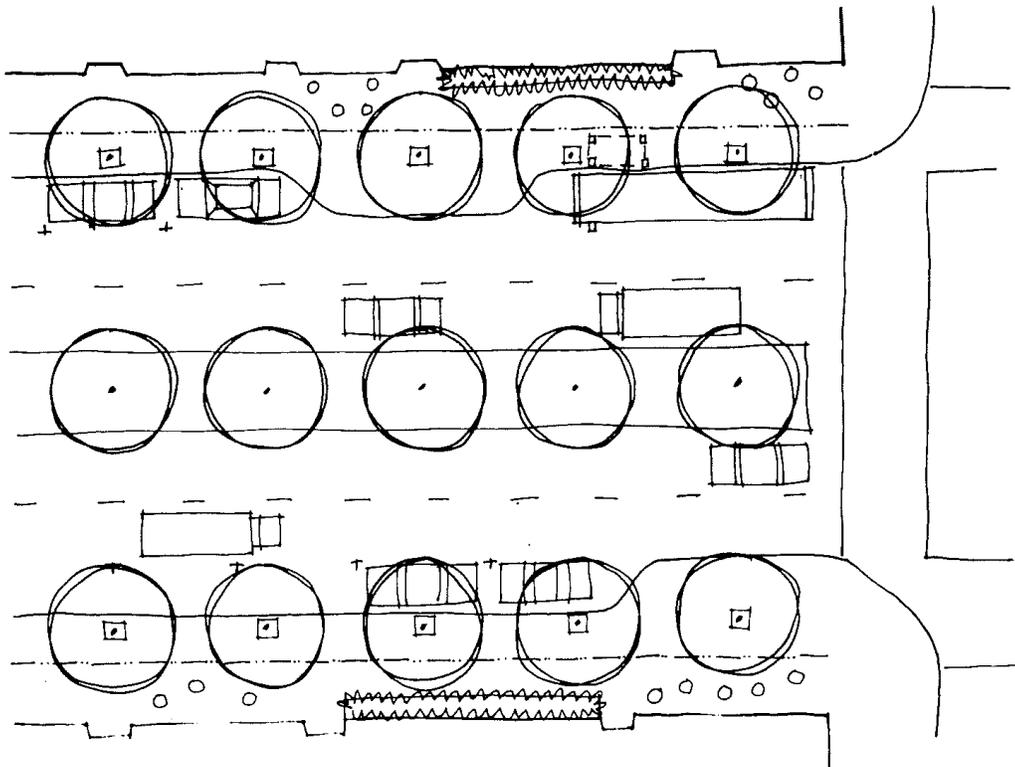


Figure 7.43

Gleason Road



Section



Plan

Figure 7.44

Transit Spine
Town Center and Hacienda Gateway

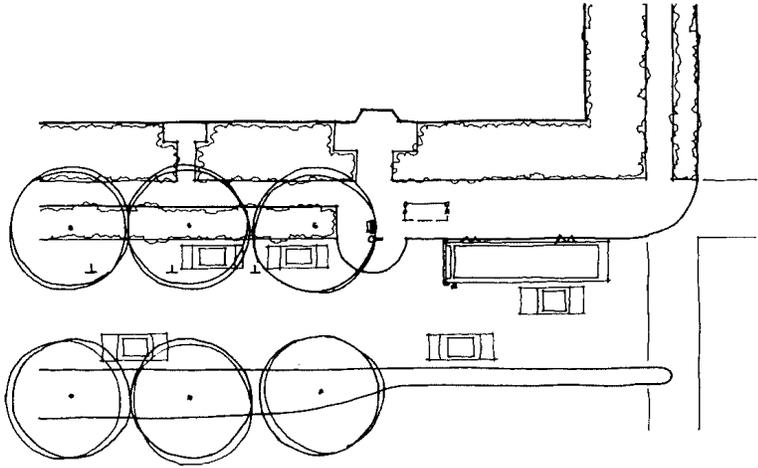
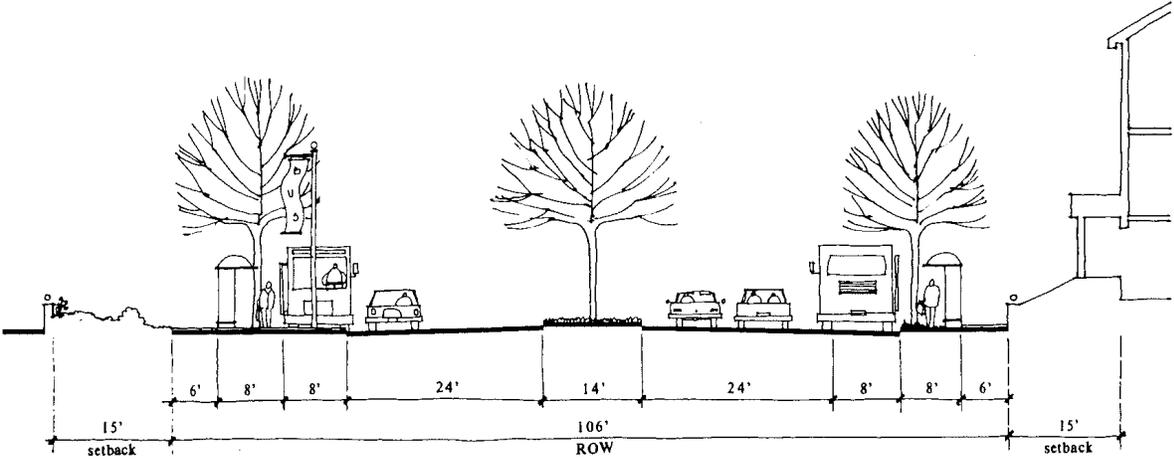


Figure 7.45
Transit Spine
East of the Town Center and west of Tassajara Road

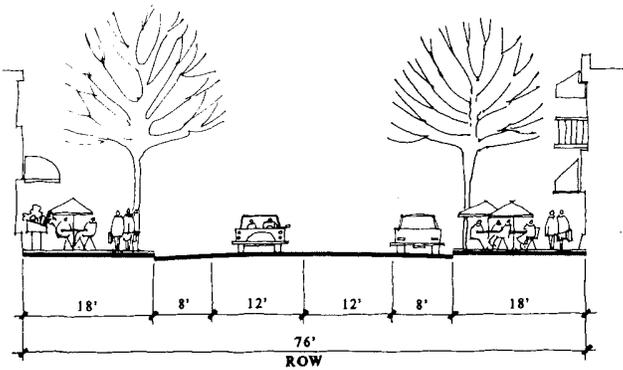


Figure 7.46
Village Shopping Street
Fronting on Village Green

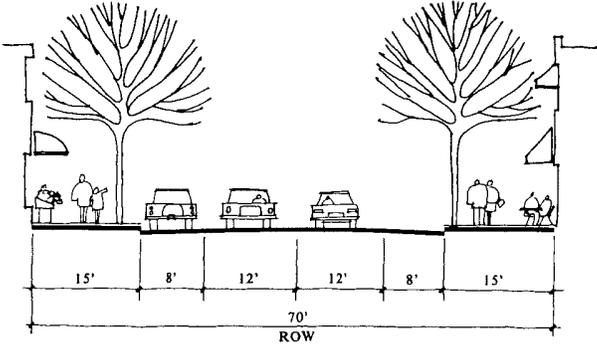


Figure 7.47
Village Shopping Street
Leading to the Village Green

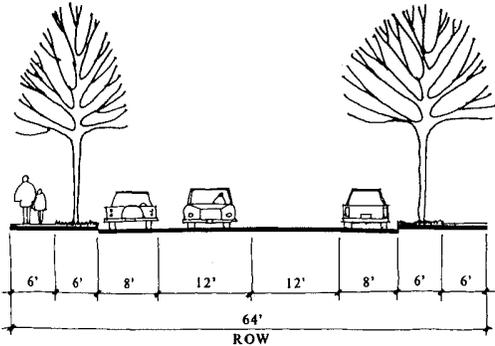


Figure 7.48
Residential Collector

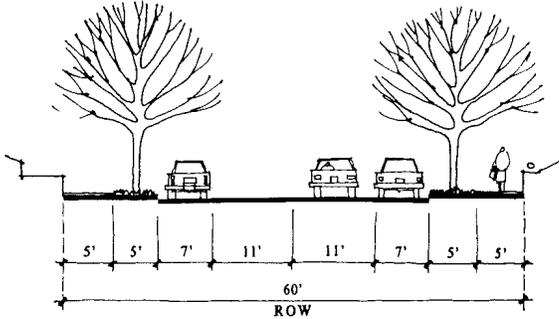


Figure 7.49
Residential Street

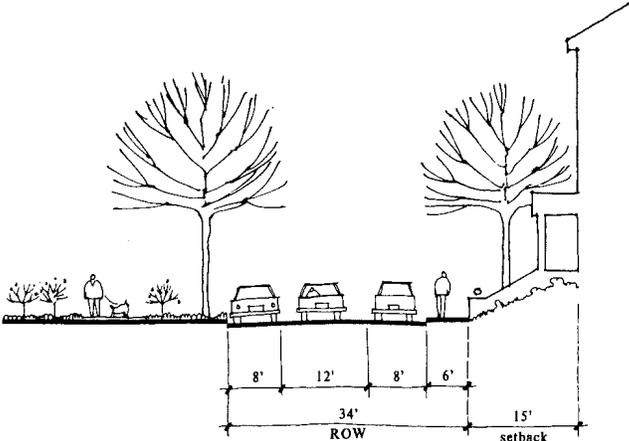


Figure 7.50
Neighborhood Square Street

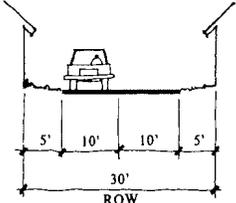


Figure 7.51
Alley

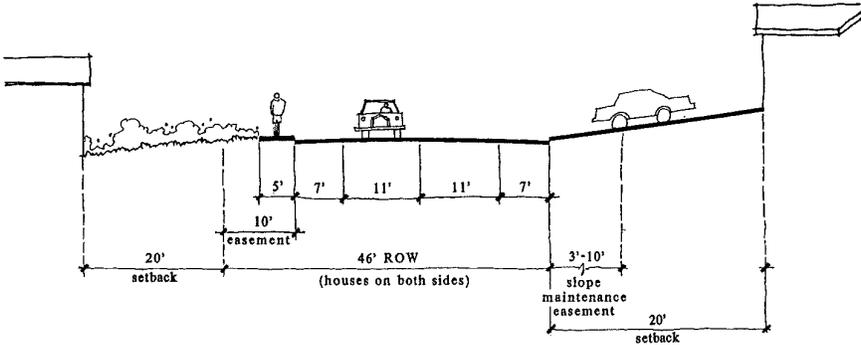


Figure 7.52
Hillside Residential Collector

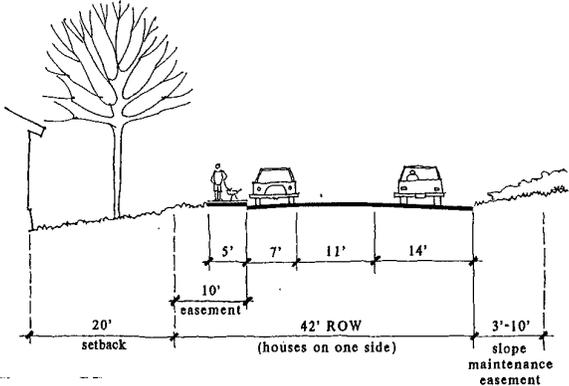


Figure 7.53
Hillside Residential Street

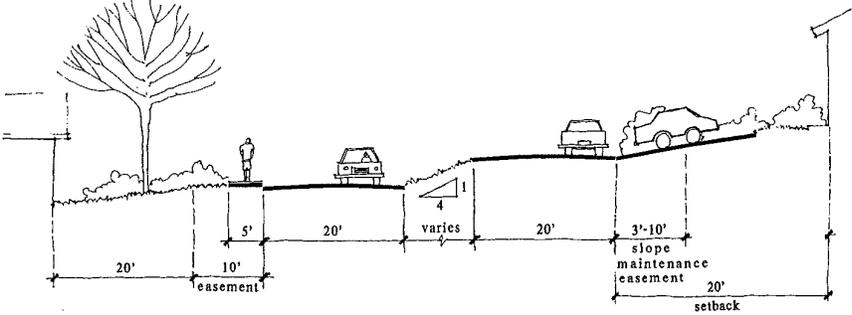


Figure 7.54
Split Hillside Residential Street

7.6 TRANSIT VILLAGE CENTER

The guiding design concept for the Transit Village Center subarea is to maximize use of regional transit opportunities and minimize reliance on the auto by creating a vibrant, high-density, compact, pedestrian-friendly environment that serves the daily needs of subarea residents, employees and commuters. As a regional transit hub and geographic center of the Livermore/Amador Valley, the subarea should provide a visual focal point for the surrounding area.

FORM

Development should be urban and compact, with a highly interconnected pattern of streets that accommodates the movement of vehicles while enhancing opportunities for pedestrian and bicycle circulation.

BUILDING SITING

Buildings should be located adjacent to the sidewalks, with no or minimal setbacks from the sidewalk, and should be oriented toward the street to create a well-defined, pedestrian-scaled and more intimate street space. Where possible, building massing should be broken up so that there are opportunities for pedestrian movement between larger street blocks and to create visual interest.

Ancillary retail and service uses, such as restaurants, cafes, and banks should be encouraged as a ground-floor use along and near Iron Horse Parkway. Due to high levels of traffic noise from I-580 and, to a lesser extent, Dublin Boulevard, buildings adjacent to these roads should be sited and designed to act as noise shields for the rest of the subarea. It is especially important to shield open spaces and gathering places by placing buildings between these use areas and the freeway.

Building setbacks from the sidewalk/street right-of-way along Iron Horse Parkway are discouraged. Building setbacks from the sidewalk along Digital Drive, DeMarcus Boulevard, Arnold Road, and Campus Drive should be minimized so that buildings relate to the adjacent street.

Landscape setbacks for parking garages and along Arnold, Campus and Dublin Boulevard are permitted.

Public utility easements should be located within the street or sidewalk area to limit the need for building setbacks.

Sideyard setbacks are not required.

Residential and commercial development may be set back from Dublin Boulevard due to the high volume of traffic on the street.

BUILDING HEIGHT

Buildings should be of a height to enclose the street space, giving it a more intimate scale. In general, buildings adjacent to I-580 and closer to the BART station should be higher to emphasize that the Transit Center is a major regional focal point and to maximize densities as close to the station as possible.

- Maximum building heights:
- High Density Residential: 5 stories over parking
- Campus Office: 8 stories adjacent to Dublin Boulevard
- 10 stories adjacent to Digital Drive and I-580

BUILDING TYPES

Mixed-use buildings are strongly encouraged, especially along Iron Horse Parkway. Both residential and office buildings along this street should accommodate ground-floor ancillary retail and service uses that provide convenient goods and services to employees, residents, and BART commuters. A hotel, or mixed-use hotel/office development on Site D-1 should be considered that would provide ground-floor service uses and could share parking facilities with the adjacent BART garage.

Residential and commercial architecture should be varied in form and style to provide visual interest and to avoid long, monotonous facades along pedestrian-oriented streets.

ENTRIES

Building entries should be sited to promote sidewalk activity and to maximize pedestrian use of adjacent streets.

- Locate ground-floor retail and service uses so that they front on Iron Horse Parkway and are clustered so that long stretches of “dead” street frontage are avoided. Encourage uses, such as cafes, that can “spill out” onto the adjacent sidewalks. Design sidewalks of sufficient width to provide for outdoor seating.
- Site major building entries and lobbies so that they are visible and accessible from the street, not just parking areas.
- Design residential units with balconies and windows affording views of the street to create the security of “eyes on the street”.

PARKING

Parking standards should be reduced as much as possible to encourage the use of public transit. Most parking should be provided in garages and located so that street frontages are not dominated by it.

Permit 1.5 parking spaces per unit for residential uses, and 3 parking spaces per 1,000 square feet for office uses. Recognize shared parking with these uses and BART, as well as on-street parking to accommodate most of the parking needed for ancillary retail and service uses. Utilize parking studies from other transit-oriented developments to encourage developments with lower parking ratios.

Reduce the site area needed for off-street parking by allowing curbside parking space around the project perimeter to count toward the project's parking requirements. Establish a means of discouraging BART patrons from utilizing on-street and nearby residential and office parking by enforcing on-street parking limitations and providing secure parking garages.

Encourage the use of parking garages and minimize on-site surface parking. Locate and design garages so that they do not distract from the pedestrian experience by "wrapping" residential units around them, fronting them with retail uses, or other means.

Encourage shared-use of residential and office parking facilities with ground-floor retail and service users to provide adequate parking to encourage retail development along Iron Horse Parkway.

Encourage shared-use of BART garage parking with hotel/conference/evening entertainment venues, as well as other public/semi-public uses.

CIRCULATION

The internal street system should be designed so that it accommodates the movement of vehicles, at relatively slow speeds and reasonably high levels of congestion, while enhancing the pedestrian experience.

Utilize street and intersection standards that minimize the width of streets (curb-to-curb), and the distance between intersections. Limit corner radii to reduce the distance pedestrians must travel to cross intersections.

Develop wide sidewalks along Iron Horse Parkway to accommodate pedestrian circulation, window shopping, outdoor merchandising and cafes. Encourage the

development of sidewalk cafes and indoor/outdoor restaurants as ground-floor uses that can “spill out” onto the sidewalk along this street.

Provide wide sidewalks, pedestrian-scale lighting, seating and other amenities on all Transit Center streets to encourage and accommodate pedestrian circulation from the office blocks to the retail area and to BART.

Create a logical, well-marked bicycle lane system that provides access to the BART station, the Iron Horse Trail, the East-West Trail located along the north side of Dublin Boulevard, and development within the subarea.

OPEN SPACE AND PUBLIC FACILITIES

Because of the relatively small size of the subarea and the desire to maximize densities within the subarea to encourage transit use, large public open space areas south of Dublin Boulevard are discouraged. Instead, a series of public and/or private plazas, greens, and corridors should be developed south of Dublin Boulevard that provide recreational amenities and social gathering spots for residents, workers and commuters. A pedestrian and bike trail system should provide safe and convenient access to nearby parks and schools within Eastern Dublin.

Provide a central “Village Green” for the residential area that provides a common meeting and gathering place for area residents that is shielded from freeway noise and wind by intervening buildings. Connect the Village Green to the BART station via pedestrian corridors through adjacent residential development.

Provide pedestrian corridors and open plazas within large office developments to break up building masses and to provide convenient walking access to all parts of the subarea and adjacent areas.

Create a small public “square”, through building placement and landscaping, near the entrance to the East Dublin/Pleasanton BART station that can serve as a meeting or gathering place. Utilize water or other features to reduce the negative impact of freeway noise.

Create small plazas in appropriate locations along Digital Drive and Iron Horse Parkway that provide opportunities for public art and for informal gatherings. Provide a new neighborhood park north of Dublin Boulevard that maintains or enhances the overall park acreage-to-population ratio within the City of Dublin with the inclusion of the new Transit Center residential neighborhood.

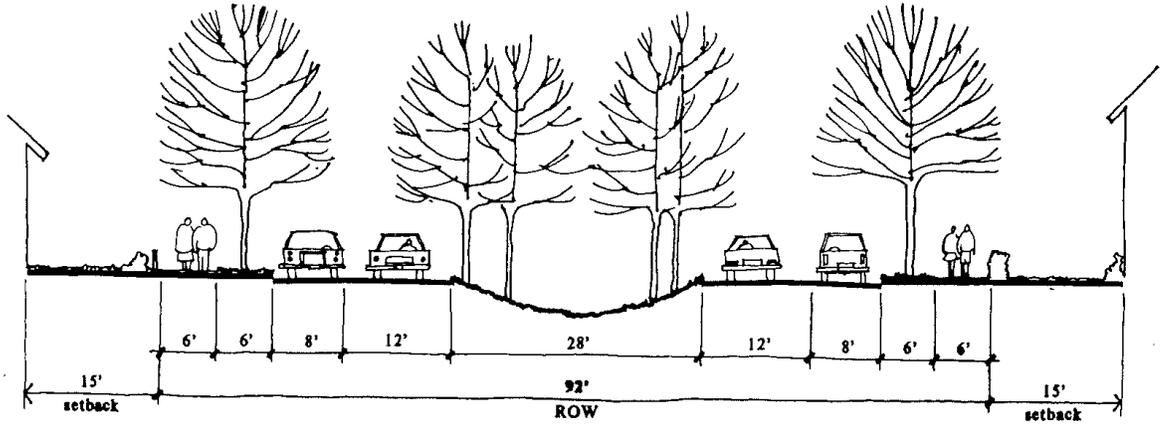


Figure 7.55

**Village Special Entry Street
Fallon Village**

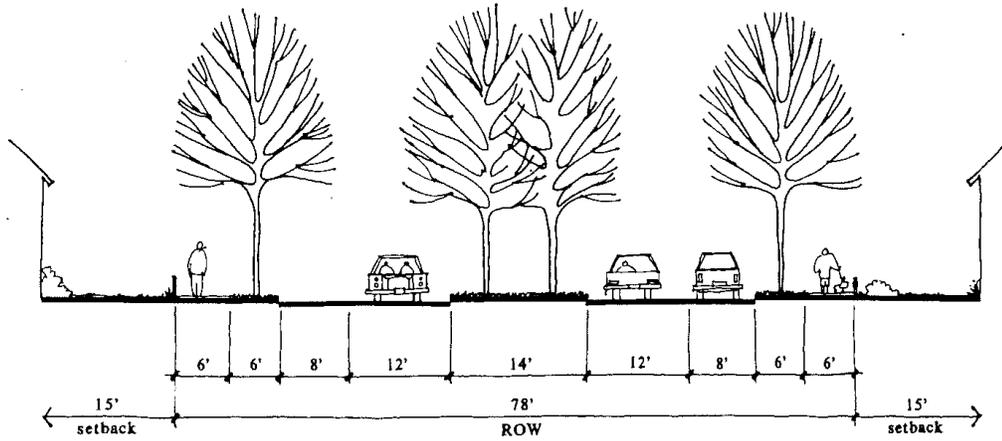


Figure 7.56

**Village Special Entry Street
Tassajara Village**

Chapter

8

COMMUNITY SERVICES & FACILITIES



8.0 COMMUNITY SERVICES AND FACILITIES

8.1 SCHOOLS

The planning area currently is within the jurisdiction of two school districts. The area east of Tassajara Road is within the jurisdiction of the Livermore Joint Unified School District, while the area west of Tassajara Road is served by the Dublin Unified School District. While Livermore's School District is legally obliged to serve the planning area, it is uncertain at this time which school district(s) will serve the new development in eastern Dublin. There is strong sentiment within Dublin, including the Superintendent of the Dublin Unified School District and its Board of Trustees, that the school district that serves the area should be coterminous with the community with which it is identified in order to facilitate the financing of future services and infrastructure and be more responsive to community concerns. School service to the planning area will need to be negotiated by the two school districts. As of 2005, all lands within the City's General Plan area have been transferred from the Livermore Joint Unified School District to the Dublin Unified School District.

GOAL: To provide school facilities adequate to meet the community's need for quality education.

8.1.1 SCHOOL SITES

Development of eastern Dublin will generate substantial new demand for schools. Neither school district would be able to accommodate projected demand in existing schools. Both would be required to build elementary and junior high schools. The Dublin School District would be able to accommodate a substantial number of high school students at Dublin High School. All of eastern Dublin's high school students would be accommodated by the Dublin School District per the School District Facilities Master Plan. Based on these factors, the plan identifies locations for six new elementary schools, two junior high schools, and one high school (It has been assumed in these projections that Dublin High School would accommodate a portion of the students generated by development of eastern Dublin). Per the 2004 Facilities Master Plan, there will be five new elementary schools, one junior high school and no high school in the planning area. A number of factors have been considered when designating the school sites shown in Figure 4.1, including: the student generation potential of each area, the developability of each site, integration with the surrounding neighborhood, and student safety in relation to automobile traffic. The location and demand for the easternmost elementary and junior high schools is predicated in part on the possibility of

development of the eastern-most portion of the Eastern Dublin General Plan area, which includes Doolan Canyon and is currently designated as a "Future Study Area". Ultimately, the need for these schools will depend on the actual demand generated by development within the Specific Plan area and LAFCO's determination on the eastward extent of Dublin's Sphere of Influence (Most of the area east of the Specific Plan area is outside the City's current Sphere of Influence).

Policy 8-1: Reserve school sites designated in the Specific Plan Land Use Map (Figure 4.1) to accommodate the future development of schools in eastern Dublin.

Policy 8-2: Promote a consolidated development pattern that supports the logical development of planning area schools, and, in consultation with the appropriate school district(s), ensure that adequate classroom space is available in coordination with occupancy of new homes.

8.1.2 FINANCING SCHOOL IMPROVEMENTS

The acquisition of new school sites and the construction of new school facilities can be a burden for school districts given the limited availability of funding on the State and local levels. The City can facilitate the development of needed facilities by ensuring that designated school sites are set aside during the development approval process and by requiring developers to pay in-lieu fees or provide school-related capital improvements.

Policy 8-3: Ensure that adequate school facilities are available prior to development in eastern Dublin, to the extent permitted by law.

ACTION PROGRAM: Schools

- **Program 8A:** Work with the Dublin Unified School District and the Livermore Joint Unified School District to resolve the jurisdictional issue regarding which district(s) should serve the eastern Dublin planning area. Determine the service district arrangement that best serves the needs of planning area students and minimizes the fiscal burden of the service providers.
- **Program 8B:** Work with appropriate school district(s) to ensure that the development of new facilities is provided for through the dedication of school sites and/or the payment of development fees by developers, or any other means permitted by law.
- **Program 8C:** Encourage the school district(s) to use best effort to qualify for and obtain state funding assistance for construction of new schools. In addition, work with the district(s) to establish appropriate funding mechanisms, such as a Mello

Roos Community Facilities District, development impact fees, or a general obligation bond measure, to fund new school development in eastern Dublin.

8.2 POLICE PROTECTION

Currently, police service for the planning area is provided by the Alameda County Sheriff's Department and the California Highway Patrol. Once the planning area is annexed and development begins, police service responsibilities will transfer to the Dublin Police Department. The Dublin Police Department, which operates out of its central station in the Dublin Civic Center, currently has an average response time of approximately 5 minutes.

The City's police department is a division of the County's sheriff's department and is funded by the City via a contractual agreement between the City of Dublin and the County of Alameda. The City of Dublin owns the police department's facilities and equipment, but the police department personnel are employed by the County sheriff's department. The City's police department is a full service operation with the exception of dispatch, which is provided through the County sheriff's department dispatch office in San Leandro.

GOAL: Provide adequate police services to the eastern Dublin planning area to ensure the health, safety and welfare of existing and future residents, workers, and visitors.

8.2.1 PERSONNEL AND FACILITIES

Development of eastern Dublin will substantially expand the current service area, requiring the addition of personnel, equipment, and the establishment of new geographical beat(s) assignments. The large size of the area, the hilly terrain, and the potential for diverse and scattered development during the early phases of development may require a higher ratio of patrol cars and manpower to population in order to maintain current service levels. At current police-to-population ratio, 1.2 officers/ 1,000 population, the Specific Plan area could ultimately require 44 additional officers.

Policy 8-4: Provide additional personnel and facilities and revise "beats" as needed in order to establish and maintain City standards for police protection service in eastern Dublin.

ACTION PROGRAM: Police Services

- **Program 8D:** Coordinate with the City Police Department regarding the timing of annexation and proposed development, so that the Department can adequately plan for the necessary expansion of services to the area.

- **Program 8E:** Incorporate into the requirements of project approval Police Department recommendations on project design that affects traffic safety and crime prevention.

8.3 FIRE PROTECTION

At the present time, fire protection services are provided to the unincorporated planning area by the Alameda County Fire Patrol of the Alameda County Sheriff's Department and by the California Division of Forestry. The Dougherty Regional Fire Authority (DRFA) is the service provider for the County-owned land within the incorporated area. The grass-covered slopes of the planning area east of Tassajara Road, most of which are not easily accessible, currently present a high fire hazard. With annexation and development of the planning area, the DRFA would become responsible for fire services to the area. Under a current mutual aid agreement, the DRFA can receive fire fighting assistance from other cities in the area and Camp Parks which has the closest fire station to the planning area. The Dougherty Regional Fire Authority originally provided fire protection. Fire protection is provided to the planning area by the Alameda County Fire Department which contracts with Dublin to provide this service for the entire City. Two permanent fire stations (one on Madigan Avenue north of Gleason and the other on Fallon Road at Bent Tree Drive, both completed in 2003) have been constructed in eastern Dublin within the last two years and the entire planning area is not adequately covered for fire protection purposes.

8.3.1 SERVICE STANDARDS

Development of eastern Dublin will increase demand for fire protection services. The closest DRFA station is Fire Station #1 on Donahue Drive, across from the public library in Dublin. The station, which has a one and one-half mile response zone and response times of approximately 5 minutes, could not maintain current standards for response times and level of service given its distance from the planning area. DRFA currently has a state Insurance Services Office (ISO) rating of three. The ISO rating is a measure of risk to assess liability for insurance purposes. The fire authority maintains this low rating by responding to calls for service within five minutes and strategically locating fire stations within one and one-half miles from developed areas. The five minute response time and the 1.5 mile zone are criteria which would need to be met in order to preserve the low risk rating, unless special provisions are required for new construction outside this limit.

GOAL: To ensure that fire protection services in eastern Dublin are consistent with standards maintained in the rest of the city.

Due to the level of development planned for the area and the high potential fire hazard in the area, DRFA projects that two new fully-equipped stations will need to be located in the planning area to provide adequate service (i.e., a 5-minute response time) at buildout. DRFA has indicated that the first of these stations will be located west of

Tassajara Road in the vicinity of Gleason Drive, and the second would be generally located east of Fallon Road near Fallon Village.

Policy 8-5: Time the construction of new facilities to coincide with new service demand in order to avoid periods of reduced service efficiency. The first station will be sited and construction completed prior to completion of initial development in the planning area.

8.3.2 WILDLAND FIRE HAZARD

The grasslands in the planning area's foothills represent a fire hazard because of the flammability of the dry summer grasses and the difficulty of access. As development of the planning area occurs, and more people are in and around these areas, the chance of fire will increase whether due to vandalism or carelessness. This increased fire hazard, and the threat it represents to life and property, can be counteracted through appropriate design measures, such as the use of noncombustible roof materials in residential development and fire resistant landscaping, and through appropriate maintenance procedures, and improved emergency access to open space areas.

The city of Dublin now contracts with the Alameda County Fire Department for fire protection, not the DRFA.

Policy 8-6: Require all new development adjacent to open space or rural residential areas to be designed to minimize the potential for impacts related to wildland fires. At a minimum, design measures will include: provision of emergency vehicle access from subdivisions to open space areas; use of fire resistive landscape materials as a buffer between developed and open space areas; use of non-combustible roofing materials; and long-term maintenance programs for the urban/open space interface.

ACTION PROGRAM: Fire Protection

- **Program 8F:** Establish appropriate funding mechanisms (e.g., Mello Roos District, developer financing with reimbursement agreements, etc.) to cover up-front costs of capital improvements (i.e., fire stations and related facilities and equipment).
- **Program 8G:** Coordinate with DRFA to identify and acquire specific sites for new fire stations. The westernmost site must be assured prior to the approval of the first development plans in eastern Dublin. Timing for acquisition of the second site will be determined by DRFA. Specific landowners that maybe affected by the requirements for a fire station site are the County of Alameda for the first station, and either Jordan or TMI for the second station.

- **Program 8H:** Based on approval by the City, incorporate applicable DRFA recommendations on project design relating to access, water pressure, fire safety and prevention into the requirements for development approval. Require that the following DP, FA design standards are incorporated where appropriate:
 - Use of non-combustible roof materials in all new construction.
 - Available capacity of 1,000 GPM at 20 PSI fire flow from project fire hydrants on public water mains. For groupings of one-family and small two-family dwellings not exceeding two stories in height, the fire flow requirements are a minimum of 1,000 GPM. Fire flow requirements for all other buildings will be calculated based on building size, type of construction, and location.
 - A buffer zone along the backs of homes which are contiguous with the wildland area. This buffer zone is to be landscaped with irrigated (wet banding) or equivalent fire-resistive vegetation or otherwise maintained.
 - Automatic fire alarm systems and sprinklers in all non-residential structures for human use.
 - Compliance with DRFA and City minimum road widths, maximum street slopes, parking recommendations, and secondary access road requirements.
 - Require residential structures outside the DRFA's established response time and zone to include fire alarm systems and sprinklers.
- **Program 8I:** Ensure, as a requirement of project approval, that an assessment district, homeowners association, or some other mechanism is in place that will provide regular long-term maintenance of the urban/open space interface.
- **Program 8J:** Integrate fire trails and fire breaks into the open space trail system. Meet fire district standards for access roads in these areas while minimizing environmental impacts.

8.4 SOLID WASTE

Coordination of solid waste management activities in Alameda County is the joint responsibility of the County's Waste Management Authority and local jurisdictions. The City of Dublin currently contracts with a private company for residential and commercial garbage collection within the city limits. This disposal service company does not foresee any problems in providing garbage collection service to the planning area once it is developed.³

³ The City's current franchise for garbage collection and disposal expires in April, 1996. Therefore, the provider of solid waste disposal services through buildout of eastern Dublin could be a different entity from the current contractor.

GOAL: To reduce the total flow of waste to landfill by promoting waste reduction, source separation, curbside collection, and other recycling alternatives to landfilling.

8.4.1 WASTE DISPOSAL

Finding suitable sites and capacity for disposing of solid wastes has become a major issue throughout the country as urban communities face increasing amounts of waste material that must be disposed of annually. While Alameda County has adequate long-term disposal capacity planned⁴, State law requires the City to implement measures that will limit the rate at which that capacity is utilized. State law mandates solid waste reductions of 25% by 1995 and 50% by 2000. A large percentage of the waste material that is typically placed in landfills is recyclable. In Dublin, as in other cities, much of this waste is comprised of organic material, such as garden clippings. An equally large proportion consists of materials such as glass, paper, and metal that can be easily recycled. Through the recycling of organic and man-made materials the total amount of solid waste that needs to be disposed of in landfills can be greatly reduced, saving not only land but also energy and natural resources. The Alameda County Waste Management Authority (ACWMA) is currently exploring the possibility of locating regional facilities to sort and process compostables. It is likely that one facility would be located in the Tri-Valley area.

Policy 8-7: Support ACWMA efforts to develop alternative disposal facilities for organic waste in the Tri-Valley area, particularly for composting and reuse of organic material.

Policy 8-8: Encourage the separation of recyclable materials from the general waste stream by supporting the development of a recycling collection system and facilities.

ACTION PROGRAM: SOLID WASTE

- **Program 8K:** Prepare a solid waste management plan for eastern Dublin which includes the following:
 - A requirement for the City to compost all organic wastes resulting from the ongoing maintenance of public parks and open space.
 - Extension of Dublin's curbside collection program for recyclable materials.
 - Specific areas designated for the collection of recyclable materials in multi-family and commercial areas, with coordination as needed for pick-up.

⁴ The City of Dublin's Source reduction recycling Element (adopted 3/23/92), which outlines how the City will address reducing the amount of waste placed in the landfill, only identifies 8 years of remaining capacity which has the necessary permits. The "planned" capacity cannot be counted under State SRRE regulations as being available.

- Support for re-use of composted materials in landscaped areas of all new development.

8.5 OTHER COMMUNITY SERVICES AND FACILITIES

Other service and facility issues include provision of electricity and natural gas, telephone service, postal service, library services, and other community facilities.

GOAL: To provide a full complement of community services and facilities as needed in eastern Dublin.

8.5.1 ELECTRICITY, NATURAL GAS, AND TELEPHONE SERVICE

The Pacific Gas and Electric Company (PG&E) provides electric and natural gas service to the San Francisco Bay region. Currently, PG&E has major electrical services to the old Santa Rita facility, and minor lines to existing homes. To service the area, a distribution system will have to be constructed with the overall service upgraded to a three-phase, 21 kilovolt (kv) line. Currently there is no natural gas service to the area, with the exception of the Santa Rita facility. A PG&E gas pipeline parallels I-580 to the south, crossing I-580 at Tassajara Road and proceeding west along the north side of the freeway. A regulator station exists at the north side of this I-580 crossing, and will be the connection point for the gas distribution system. PG&E has indicated that it has available power and gas to supply the area as planned.

Pacific Bell will provide telephone service to the planning area. Telephone service is currently available in the planning area, but the distribution system will need to be expanded to service the planned development.

Policy 8-9: Coordinate with Pacific Gas and Electric and Pacific Bell in planning and scheduling future facilities which will serve eastern Dublin.

8.5.2 POSTAL SERVICE

An area with the size and population of eastern Dublin at buildout will require the addition of a post office as a place to mail packages and purchase stamps, and as a collection center. A specific site has not been identified in the plan for a post office, but the Public/Semi-Public designated area in the heart of the Town Center - Commercial area is considered a possible site. A post office in this location could serve as an important civic symbol that contributes to the character of the Town Center.

Policy 8-10: Encourage and support the efforts of the U.S. Postal Service to establish a post office within the eastern Dublin Town Center.

8.5.3 LIBRARY

The planning area is served by the Alameda County Library system. The City of Dublin's branch library is the major reference center in the Tri-Valley area and the second largest branch library in the County system. It is open seven days a week, and provides special programs for children and senior citizens, as well as a bookmobile service which travels to community centers and outlying areas. The Dublin library is a free access service funded by property tax collection within the county, with supplemental funding from the City of Dublin. The Dublin Library Corporation owns the building in which the library is housed. At the time that the bonds which financed the building are paid off, the ownership of the building will revert to the County.

The eastern Dublin population will require the addition of at least one library. As with the post office, no specific site has been selected for a library, but the Public/Semi-Public designated area in the Town Center is considered an excellent location. A central library for eastern Dublin in this location would significantly contribute to the vitality and character of the Town Center as well as being centrally located. Another possible location would be in the City Park west of Tassajara Road, depending on the overall programming of the park.

Policy 8-11: Encourage and support the efforts of the Alameda County Library System to establish a library(ies) and associated services for eastern Dublin as determined to be appropriate given the size and population of the planning area.

ACTION PROGRAM: Other Community Services and Facilities

- **Program 8L:** Require project applicants to provide documentation that electric, gas, and telephone service can be provided to all new development.
- **Program 8M:** Coordinate with the U.S. Postal Service to identify facility needs and site criteria for a new post office in eastern Dublin, and direct the land owner/developer of the Public/Semi-Public designated area in the Town Center to explore the potential for a post office in this location.
- **Program 8N:** Coordinate with Alameda County to provide library services to eastern Dublin, including the following options:
 - A new branch library
 - Bookmobile service in eastern Dublin
 - Possible assessment of fees to fund new branch library

Chapter

9

WATER, WASTEWATER & STORM DRAINAGE



9.0 WATER, WASTEWATER AND STORM DRAINAGE

This Chapter includes policies and action programs for water supply, wastewater and storm drainage for eastern Dublin. A more detailed description of existing facilities and planned facility improvements is included in Appendix 6.

9.1 DOMESTIC WATER SYSTEM

Only a small portion of the Eastern Dublin Specific Plan area is currently served by domestic water agencies. The County of Alameda has a connection to the Valley's water wholesale agency, Zone 7 of the Alameda County Flood Control District (Zone 7), for the County's old Santa Rita Jail facility and the nearby Santa Rita Rehabilitation Center (outside of the Specific Plan area).

The Eastern Dublin Specific Plan area lies within an area that is planned to be served by the local water retailer, the Dublin San Ramon Services District (DSRSD). Currently, the DSRSD service boundary is the same as the City Limits of the City of Dublin which extends as far east as Tassajara Road. However, DSRSD now provides water service only as far east as Dougherty Road. To obtain service, the Specific Plan area lands east of Tassajara Road will have to be annexed to DSRSD.

DSRSD obtains all of its water supplies from Zone 7, which wholesales treated local surface water, local groundwater and imported water to various valley water agencies. Another potential water source is recycled water, which will likely be required by DSRSD for eastern Dublin, in accordance with its recent Recycled Water Policy. Also, DSRSD is jointly constructing a groundwater well with Pleasanton. This will allow DSRSD to utilize its share of independent quota water (210 mg/yr) within its service area. It should be noted that in addition to the Alameda County water supply connection to Zone 7, the United States of America has a direct water supply connection to Zone 7 for the Camp Parks (outside the Specific Plan area). DSRSD would be the logical agency to ultimately combine all the water services into one system. This would not, however, include service to Camp Parks. Figure 9.1 presents a conceptual backbone water distribution system for eastern Dublin.

Goal: To provide an adequate water system for the Eastern Dublin Specific Plan area.

9.1.1 REQUIRED WATER DISTRIBUTION SYSTEM

Initially, DSRSD will need to develop water supply connections in the western portion of the Specific Plan area from one or some combination of the following sources: 1) new western 24-inch turnout from the Zone 7 Cross Valley Pipeline; 2) new connection to DSRSD's existing Pressure Zone 1; 3) new connection to the existing Alameda County Zone 7 turnout; 4) new connection to the existing Camp Parks Zone 7 turnouts; 5) new connection to the City of Pleasanton water system through joint use of the proposed Tassajara Reservoir, currently planned by DSRSD and City of Pleasanton; and 6) a new 24-inch diameter recycled water main from the DSRSD Wastewater Treatment Plant. Construction of the most appropriate combination of the above water supply sources will be determined as development proceeds in the western portion of the Specific Plan area. As the eastern portion of the Specific Plan area develops, a second 24-inch Zone 7 turnout will be constructed, which will ultimately provide service for the balance of the General Plan area.

DSRSD will probably phase construction of the pressure zones in the Specific Plan area as development allows. Initially, pressure Zone 1E facilities would be constructed which would service much of the southern portion of the Specific Plan area that is below ground elevation 390 feet. Pressure Zone 1E would have a mixture of residential, commercial and industrial land uses. As development proceeds in the higher elevations, Pressure Zones 2E and 3E facilities would be constructed. Pressure Zone 2E would serve developments between elevations 390 feet and 520 feet and Pressure Zone SE would serve developments between elevations 520 feet and 740 feet. Both Pressure Zone 2E and SE serve primarily residential areas. See Figure 9.1 for the location of these pressure zones. The new distribution system for the three pressure zones will require new water mains, pumping facilities and storage tanks.

Policy 9-1: Provide an adequate water supply system and related improvements and storage facilities for all new development in the Eastern Dublin Specific Plan area.

9.1.2 DSRSD EXPANSION

DSRSD is planning to expand its current boundaries and facilities to provide water service to the Eastern Dublin Specific Plan area. DSRSD receives its entire potable water supply from Zone 7. Recently, DSRSD has instituted limited wastewater recycling for irrigation within its service boundaries (irrigation of freeway landscaping with reclaimed wastewater). DSRSD is advocating water reclamation and reuse in the Eastern Dublin Specific Plan area as part of its total water supply picture.

In February 1992, the District adopted Resolution 5-92 which is the Water Supply Policy. This Resolution established the District's policy on securing additional water supplies for existing and future customers. The Resolution states that it is the District's policy to 1) first meet the needs of existing customers; 2) pursue additional water supplies to meet the needs of new developments; 3) seek sources other than Zone 7; and 4) ensure

equitable funding of new water supplies by the beneficiaries. DSRSD is also undertaking a Water Resources Acquisition Study, the goal of which is to acquire or develop new water resources to both stabilize the existing water supply and to provide long term firm deliveries to new areas. To date, DSRSD has tentatively examined a number of potential water suppliers and has targeted three potential sources for consideration.

Zone 7, as water wholesaler to DSRSD, has projected that at current water consumption rates and with current available supplies, they have enough water supply to meet demand for the next 9 to 14 years, assuming a nominal 2 percent to 3 percent growth rate. In order to meet demands in the future, Zone 7 is investigating other sources of water including water marketing, recycled water and additional storage, as well as increased water conservation.

Policy 9-2: Coordinate with DSRSD to expand its service boundaries to encompass the entire Eastern Dublin Specific Plan area. Expansion of the DSRSD water system into eastern Dublin should be coordinated with the Zone 7 wholesale water delivery system. The City should support DSRSD's and Zone 7's policies, capital improvement programs and water management plans as they relate to the Eastern Dublin Specific Plan area.

ACTION PROGRAM: Domestic Water Supply

- **Program 9A:** Water Conservation. Require the following as conditions of project approval in eastern Dublin:
 - Use of water-conserving devices such as low-flow shower heads, faucets, and toilets.
 - Support implementation of the DSRSD Water Use Reduction Plan and implementation of Best Management Practices (BMPs) for water conservation.
 - Require all developments to meet the BMPs of the Memorandum of Understanding Regarding Urban Water Conservation in California, of which DSRD is a signatory.
 - Water efficient irrigation system within public rights-of-way, median islands, public parks, recreation areas and golf course areas (see Program 9B on Water Reclamation).
 - Drought resistant plant palettes within public right-of-way, median islands, public parks, recreation areas and golf course areas:
 - Ensure that highly invasive plant species that could out-compete native species and threaten wildlife habitat are not used in these areas. Species which should be prohibited include, but are not limited to: Acacia, Algerian Ivy, Bamboo, Mattress Vine, Black Locust, Blue Gum Eucalyptus, Castor Bean, Cotoneaster, English Ivy, French Broom, Fountain Grass, Giant Reed,

German Ivy, Gorse, Ice Plant, Pampas Grass, Periwinkle, Pyracantha, Scotch Broom, Spanish Broom, Tamarisk, Tree of Heaven, and Tree Tobacco.

- Water efficient irrigation and landscaping systems for residential, commercial, institutional, and industrial areas in accordance with AB325.
 - Adoption of water efficient landscape ordinance by the City of Dublin that will apply to eastern Dublin development.
 - Encourage the use of recycled water during construction for compaction and dust control.
- **Program 9B: Water Reclamation.** Require the following as conditions of project approval in eastern Dublin:
 - Implementation of DSRSD and Zone 7 findings and recommendations on uses of recycled water to augment existing water supplies.
 - Construction of a recycled water distribution system in Eastern Dublin as well as necessary offsite facilities to support recycled water use. Construction of such a recycled water system will require approval of the use of recycled water for landscape irrigation by DSRSD, Zone 7 and the San Francisco Bay Area Regional Water Quality Control Board.
 - **Program 9C: Water System Master Plan.** Request DSRSD to update its water system master plan computer model reflecting the proposed Specific Plan land uses and verifying the conceptual backbone water distribution system presented on Figure 9.1. Consistent with DSRSD's current policy, it is assumed that proposed development within the project area will be responsible for the costs of preparing a design level wastewater collection system master plan computer model.
 - **Program 9D: Combining of Water Systems.** Encourage Alameda County to combine its Zone 7 turnouts and water system into the DSRSD system.
 - **Program 9E: DSRSD Standards.** Require that design and construction of all water and recycled water system facility improvements be in accordance with DSRSD policies, standards, and master plans.
 - **Program 9F: Consistency with Resource Management Policies.** Require the siting of water system infrastructure to be consistent with the Resource Management Policies of this plan.
 - **Program 9G: Implementation Responsibilities.** Require the Developer obtain proper approvals; refer to attached Table 9.1, Water Service Matrix of Implementation Responsibilities.

- **Program 9H:** DSRSD Service. Require a "will-serve" letter from DSRSD prior to grading permit approval.

9.2 WASTEWATER

The majority of the lands within the Specific Plan area are not currently served by a wastewater collection system. Most existing facilities within the Specific Plan area are on septic systems. Currently, DSRSD only treats sewage from Parks Reserve Force Training and the Santa Rita properties. The collection systems are owned by Parks Reserve Force Training and Alameda County, respectively.

DSRSD does plan to provide wastewater service collection, treatment and disposal for the Specific Plan area. Currently, the DSRSD wastewater service boundary extends east from the City of Dublin to Tassajara Road, and only includes that portion of the Specific Plan area that is west of Tassajara Road. Specific Plan area lands east of Tassajara Road will have to be annexed to DSRSD.

DSRSD owns and operates a collection system and a wastewater treatment plant located in the City of Pleasanton.

DSRSD currently exports its treated wastewater for disposal to the San Francisco Bay.

DSRSD is a member of two existing joint power agencies in the Valley: the Livermore Amador Valley Water Management Agency (LAVWMA) and the Tri-Valley Wastewater Authority (TWA). LAVWMA currently owns and operates wastewater export facilities that pump DSRSD's treated wastewater to the East Bay Dischargers Authority (EBDA) disposal system which discharges the treated wastewater to the San Francisco Bay. TWA is the agency that is planning construction of additional export facilities for disposal of wastewater beyond the capacity of the LAVWMA system. Currently TWA has no facilities. Figure 9.2 presents a conceptual backbone wastewater collection system for eastern Dublin. TWA has been dissolved and LAVWMA has assumed TWA's former responsibilities.

Goal: To provide adequate wastewater collection, treatment and disposal for the Eastern Dublin Specific Plan area.

9.2.1 REQUIRED WASTEWATER FACILITIES

In order to provide wastewater service to eastern Dublin, collection, wastewater storage, treatment and disposal facilities will have to be constructed. The critical element of wastewater service will be construction of disposal facilities. The current LAVWMA export disposal facilities are projected to be exceeded in 1996 or later. At the present time, TWA has developed a preferred alternative for additional wastewater disposal capacity which would involve pumping untreated wastewater from eastern Dublin and

other areas to a Central Contra Costa Sanitary District (CCCSD) trunk sewer, with final treatment and disposal through CCCSD facilities. A Draft Subsequent Environmental Impact Report (SEIR) was released in January 1992 on the project, which outlines the preferred alternative.

Policy 9-3: Provide for public wastewater collection, treatment and disposal for all new development in the Eastern Dublin Specific Plan area.

9.2.2 DSRSD EXPANSION

DSRSD is planning to expand its current boundaries and facilities to provide wastewater service to the Eastern Dublin Specific Plan area. Only the portion of eastern Dublin that is currently within DSRSD (i.e., lands west of Tassajara Road) is within the LAVWMA service area. Once lands in the Specific Plan are annexed into DSRSD, they will also become part of the LAVWMA service area. The entire Eastern Dublin Specific Plan area is within the proposed TWA service area.

Policy 9-4: Coordinate with DSRSD to expand its service boundaries to encompass the entire Eastern Dublin Specific Plan area. Also, coordinate with the District regarding the possible need for a wastewater storage facility in eastern Dublin. The expansion of the DSRSD wastewater system should be coordinated with proposed TWA wastewater facilities. The City should also support the wastewater management efforts of IAVWMA and TWA as it relates to the Eastern Dublin Specific Plan area.

9.2.3 RECYCLED WATER

DSRSD has proposed a recycled water system for eastern Dublin, with reclaimed water used primarily for landscape irrigation. An update of the DSRSD proposed recycled water system has been made using current proposed land uses. This conceptual backbone recycled water distribution system is presented on Figure 9.3.

DSRSD is also advocating recycled water use in the Valley through the participation in a Zone 7 study on water reclamation (Livermore-Amador Valley Water Recycling Study, May 1992, Brown and Caldwell). DSRSD staff has stated that the Specific Plan area would be an ideal location to plan for recycled water through landscape irrigation. This would require construction of a recycled water distribution system and storage facilities in the Specific Plan area and construction of improvements to the existing wastewater treatment plant to meet reuse requirements. Also, due to problems with the potential for excessive salt loading to the groundwater basin, Zone 7 may require desalination facilities such as reverse osmosis.

Policy 9-5: Coordinate with DSRSD to expand its recycled water service boundary to encompass the entire Eastern Dublin Specific Plan area. Require recycled water use or landscape irrigation in accordance with DSRSD's Recycled Water Policy.

9.2.4 EXPANSION OF DISPOSAL FACILITIES

As it was noted above, disposal of wastewater is the critical element to wastewater service. Disposal of wastewater can be achieved primarily through the completion of the TWA preferred alternative for wastewater disposal, potentially combined with some level of water reclamation and reuse.

Policy 9-6: Ensure wastewater treatment and disposal facilities are available to meet the needs of future development in eastern Dublin. The City should support DSRSD's and TWA's wastewater management plans as they relate to the Eastern Dublin Specific Plan area.

ACTION PROGRAM: WASTEWATER

- **Program 9I:** Export Pipeline. Support TWA in its current efforts to explore the feasibility of a new wastewater export pipeline system, which would serve eastern Dublin.
- **Program 9J:** Wastewater Collection System Master Plan. Request DSRSD to update its wastewater collection system master plan computer model reflecting the proposed Specific Plan area land uses to verify the conceptual proposed backbone wastewater collection system presented on Figure 9.2. Consistent with DSRSD's current policy, it is assumed that proposed development within the project area will be responsible for the costs of preparing a design level wastewater collection system master plan computer model.
- **Program 9K:** Recycled Water Distribution System. Require development within the Project to fund a recycled water distribution system computer model reflecting the proposed Specific Plan land uses and verify the conceptual backbone recycled water distribution system presented on Figure 9.3.
- **Program 9L:** Recycled Water and Reuse. Support the efforts of the Tri- Valley Water Recycling Task Force Study, DSRSD and Zone 7 to encourage recycled water and reuse for landscape irrigation within the Eastern Dublin Specific Plan area.
- **Program 9M:** Design Level Wastewater Investigation. Require eastern Dublin applicants to prepare (in coordination with DSRSD) a detailed wastewater capacity investigation to supplement the information in the Specific Plan, which reflects the phased development approach matched against the allocation of sewer permits. Such an investigation shall include, at a minimum, a thorough estimate of planned land uses at the site and estimated wastewater flows to be generated at the site. Base the estimation of the wastewater flows for sewer permits on the DSRSD approved wastewater flow factors.

- **Program 9N:** DSRSD Service. Require eastern Dublin applicants to obtain a "will serve" letter from DSRSD prior to grading permit approval.
- **Program 9O:** Coordination with DSRSD Policies, Standards and Master Plans. Require design and construction of all wastewater systems to be in accordance with DSRSD service policies, procedures, design and construction standards and master plans.
- **Program 9P:** Onsite Wastewater Treatment. In conjunction with DSRSD, discourage onsite wastewater treatment systems such as package plants and septic systems in accordance with the policies of the San Francisco Bay' Regional Water Quality Control Board.
- **Program 9Q:** Connection to Public Sewers. Require all developments in the Specific Plan be connected to public sewers. Exceptions to this requirement, will only be allowed on a case by case basis, upon receipt of written approval from Alameda County Environmental Health Department and DSRSD.
- **Program 9R:** Implementation Responsibilities. Require developers obtain proper approvals; refer to attached Table 9.2, Wastewater Service Matrix of Implementation Responsibilities.
- **Program 9S:** Consistency with Resource Management Policies. Require the siting of wastewater system infrastructure to be consistent with the Resource Management policies of this plan.

9.2.5 UPDATED WASTEWATER TREATMENT AND DISPOSAL

As of 2005, the Dublin San Ramon Services District has recently completed a sewage treatment plant expansion to treat up to 17.0 mgd, with a planned future expansion to 20.8 mgd as treatment for buildout flows. Disposal of treated wastewater is provided by the LAVWMA (the agency that replaced TWA) export pipeline expansion project completed in the Summer of 2005. The project improved a 16-mile export pipeline that discharges treated sewage to the East Bay Dischargers Authority and on to the Bay.

9.3 STORM DRAINAGE

The Eastern Dublin Specific Plan area lies within Zone 7 of the Alameda County Flood Control and Water Conservation District.

Currently, drainage from the Specific Plan area flows in a southern direction and leaves the area through two drainage courses: 1) Tassajara Creek, designated Line K by Zone 7; and 2) Zone 7 designated Line G-3, which is a culvert under I-580 about 2,000 feet east of Tassajara Road. Tassajara Creek drains to the Arroyo Mocho which drains to the Arroyo de la Laguna. Alameda Creek receives the flows from the Arroyo de la Laguna, and

flows in a westerly direction through Niles Canyon, until it ultimately discharges to the San Francisco Bay.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps indicate that flooding during a 100-year storm will occur primarily along Tassajara Creek. The flooded areas are: 1) an approximately 200-footwidth along over half the length of Tassajara Creek through the Specific Plan area; and 2) a wide area just north of where Tassajara Creek flows under I-580, covering portions of the old Santa Rita jail facilities. The main reason for flooding along Tassajara Creek is inadequate culvert flow capacity where the creek crosses I-580. Currently, Alameda County is studying the flooding problems at these culverts.

Zone 7 has determined major channels in the Specific Plan area it wants to see improved. These improvements are based in part on channel improvements Zone 7 has identified in the Specific Plan area. Conceptual storm drainage improvements are shown on Figure 9.4. These improvements will probably be funded and constructed by individual developers. Zone 7 has designated certain channels as Specific Drainage Area (SDA) 7-1 channels and other channels as Project 1 Channels. SDA 7-1 channels are part of a program where drainage fees are paid to Zone 7 by developers for residential and non-residential development within SDA 7-1 areas, and the developer becomes eligible for SDA 7-1 reimbursements from Zone 7 provided the developer enters into an agreement with Zone 7 before any work is done. Project 1 Channels are non-SDA 7-1 channels, and thus do not have any reimbursement programs.

Goal: To provide adequate storm drainage facilities for the Eastern Dublin Specific Plan area.

9.3.1 ALTERATIONS OF EXISTING DRAINAGE PATTERNS

As development occurs in the Specific Plan area, more impervious surfaces will be created due to paved streets and building development. This will increase runoff to the creeks in the area. Improvement to creek channels in the Specific Plan area will be required by Zone 7. Basically, Zone 7 requires that the hydraulic capacity of the channel be sufficient to carry the 100-year design flow with one-foot of freeboard at the ultimate upstream development. (One-foot of freeboard during a 100-year flood means that one foot should be the minimum distance between the water surface in the creek and the top of the creek bank during a 100-year flood.) Already flooding occurs along Tassajara Creek during storms of lesser intensity. Thus with development, it is inevitable that significant channel improvements will be required along Tassajara Creek as well as other creeks.

Policy 9-7: Require drainage facilities that will minimize any increased potential for erosion or flooding.

Policy 9-8: Require channel improvements consist of natural creek bottoms and side slopes with natural vegetation where possible to meet Policy 9-7 above. (See also Policy 7-11.)

9.3.2 WATER QUALITY

A potential impact to storm water quality is non-point sources of water pollution. Non-point sources of water pollution are defined as sources which are diffuse and/or not subject to regulation under the Federal National Pollution Discharge Elimination System (NPDES) Program. The potential non-point sources in the Specific Plan area which could cause degradation of receiving water quality are: 1) urban runoff; 2) non-storm water discharges to storm drains; 3) subsurface drainage; and 4) construction site runoff (erosion and sedimentation).

Water quality constituents in urban runoff that can cause impairment to beneficial uses of receiving waters include: pesticides, petroleum distillates, nutrients, sediments, synthetic organics, coliform bacteria, trace elements, and metals. Non-storm water discharges to storm drains can occur from industrial and commercial sites with improper plumbing and housekeeping practices and also from public dumping of household chemicals and waste automotive oils and fluids. Construction site runoff primarily contributes sediments and turbidity to receiving waters.

Policy 9-9: Plan facilities and select management practices in the Eastern Dublin Specific Plan area that protect and enhance water quality.

ACTION PROGRAM: STORM DRAINAGE

- **Program 9T:** Storm Drainage Master Plan. Require a Master Drainage Plan be prepared for each development application prior to development approval. The plan shall include:
 - Hydrologic studies of entire related upstream watersheds.
 - Phase approaches and system modeling.
 - Documentation of existing conditions.
 - Design-level analysis of the impacts of proposed development on the existing creek channels and watershed areas.
 - Detailed analysis of effects of development on water quality of surface runoff, consistent with applicable standards.
 - Detailed drainage design plans for each phase of the proposed project.
 - Design features to minimize runoff flows within existing creeks/channels in order to alleviate potential erosion impacts and maintain riparian vegetation.

- **Program 9U:** Flood Control. Require development in the Planning Area to provide facilities to alleviate potential downstream flooding due to project development. These facilities shall include:
 - Retention/detention facilities as appropriate to control peak runoff discharge rates.
 - Energy dissipaters at discharge locations to prevent channel erosion, as per Zone 7 guidelines. Energy dissipaters should be designed to minimize adverse effects on biological resources and the ritual environment; in particular, widespread use of rip-rap should be avoided.
- **Program 9V:** Coordination with Other Agencies. Coordinate modifications or enhancements to creeks or the abutting riparian areas with the required permitting agencies as necessary. (California Department of Fish and Game and/or U.S. Army Corps of Engineers.)
- **Program 9W:** Implementation Responsibilities. Require the Developer obtain proper approvals; refer to attached Table 9.3, Storm Drainage Matrix of Implementation Responsibilities.
- **Program 9X:** Consistency with Resource Management Policies. Require the siting of storm drainage infrastructure to be consistent with the Resource Management policies of this plan.

TABLE 9.1
WATER SERVICE

MATRIX OF IMPLEMENTATION RESPONSIBILITIES

ITEM	CITY OF DUBLIN	DSRSD	ZONE 7	DEVELOPER
PHASING	<p>Reviews overall development plans and phasing from Developer.</p> <ul style="list-style-type: none"> - Refers Developer to DSRSD for review of proposed water facility system element phasing. - Provides regular input to DSRSD and Zone 7 on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current District facilities and planned facility elements of Developers plans. - Review phasing of water facility elements of Developer plans. - Develops phasing of improvements to major water distribution facilities. 	<ul style="list-style-type: none"> - Develops long-term water supply sources for wholesale distribution. - Develops phasing of new facilities based on consultation with Valley agencies, including DSRSD and City of Dublin. 	<ul style="list-style-type: none"> - Consults with DSRSD on current and planned DSRSD water facilities. - Enters into planning phase agreements with DSRSD to cover computer modeling and other related planning costs. - Prepares phasing plan for wastewater facilities in conjunction with submittal of development plans for review by Dublin and DSRSD. - Secure permits in conjunction with DSRSD for recycled water.
FUNDING	<ul style="list-style-type: none"> - Not responsible for water system improvements and funding. - DSRSD is responsible agency for funding major capital facilities. 	<ul style="list-style-type: none"> - Does not provide funding for Developer constructed water distribution systems. - Does provide periodic funding of certain major capital facilities (major water lines, major pump stations, storage reservoirs) primarily through connection fees. - Other potential sources of funding include selling of bonds, a change in the connection fee rate, a change in the replacement allowance, and a possible treated water rate surcharge. 	<ul style="list-style-type: none"> - Funding mechanism yet to be determined. May be prorated through agency capacity in TWA. DSRSD would probably fund from sewer permit revenues or assessment districts. 	<ul style="list-style-type: none"> - Pays connection fee to DSRSD at time of development plan review. - Pays connection fee to Zone 7 prior to issuance of a building or use permit to then obtain meter installation by DSRSD. - Funds construction of internal water distribution system in development.

<p>CONSTRUCTION</p>	<ul style="list-style-type: none"> - Issues building permit upon favorable review of Developer plans by DSRSD. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed water facilities within Development. - Issues waterline construction permits to Developers following satisfactory review and approval of development plans. - Charges plan checking, connection, inspection and other related miscellaneous fees to developer at review of Developer plans. - Inspects construction of Developer-installed water distribution systems. - Installs water meters upon completion of development and Developer payment of connection fee to Zone 7. - Constructs certain major system-wide infrastructure, improvements, i.e. major water lines, major pump stations, and reservoirs. 	<ul style="list-style-type: none"> - Construct long-term wastewater disposal facilities. 	<ul style="list-style-type: none"> - Upon payment of DSRSD connection fees, issuance of DSRSD waterline construction permit, and issuance of building permit, constructs water distribution system within development in accordance with DSRSD design standards, exclusive of major infrastructure to be constructed by DSRSD. - Request DSRSD to install water meter for completed project after payment of Zone 7 connection fees. - Turnover constructed water collection system to DSRSD.
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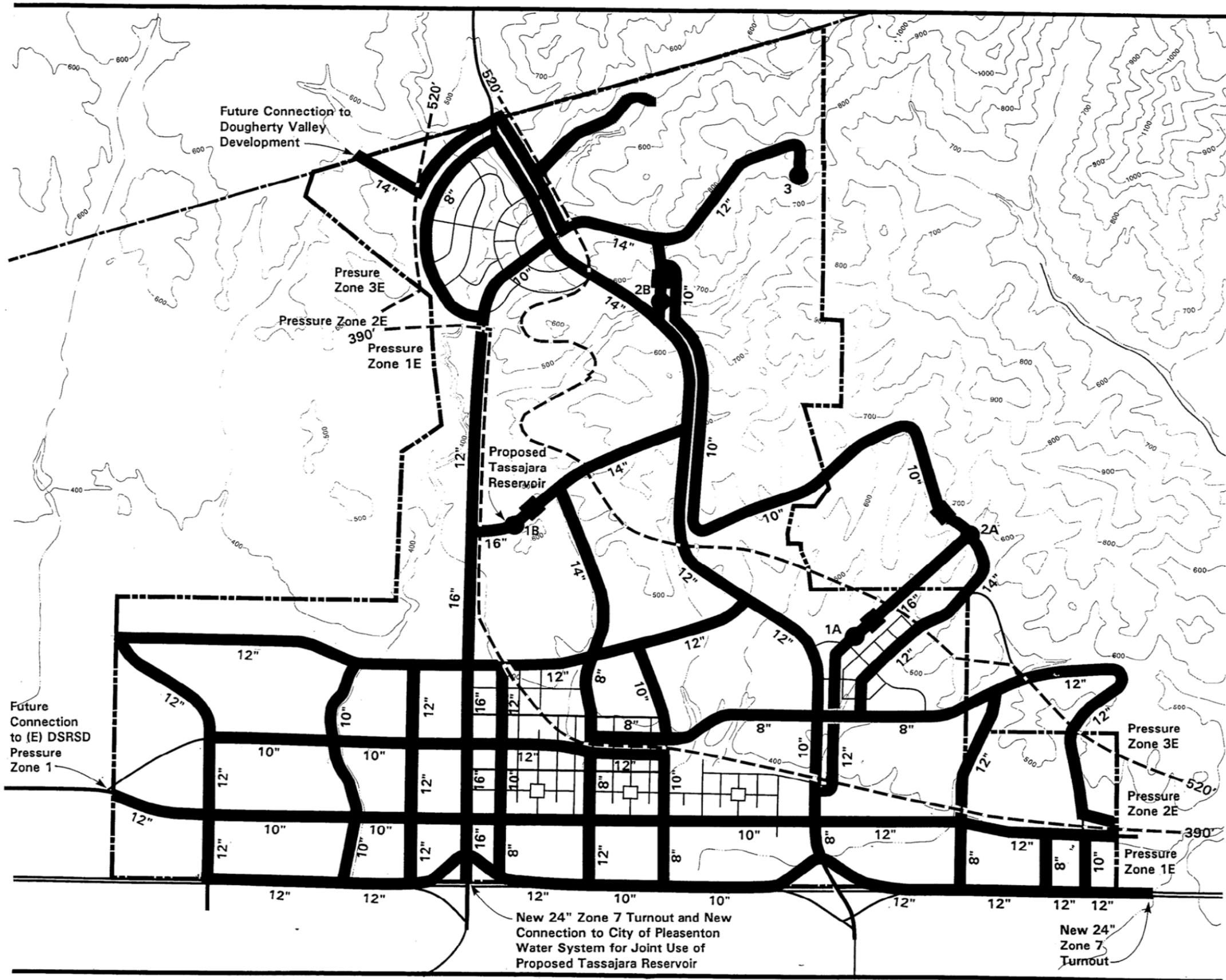
TABLE 9.2
WASTEWATER SERVICE
MATRIX OF IMPLEMENTATION RESPONSIBILITIES

ITEM	CITY OF DUBLIN	DSRSD	ZONE 7	DEVELOPER
PHASING	<ul style="list-style-type: none"> - Reviews overall development plans and phasing from Developer. - Refers Developer to DSRSD for review of proposed wastewater facility system element phasing. - Provides regular input to DSRSD and TWA on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current District facilities, availability of sewer permits, and planned facility elements of Developers plans. - Reviews phasing of wastewater facility elements of Developer plans. - Develops phasing of improvements to major trunk sewers and wastewater treatment plant. 	<ul style="list-style-type: none"> - Develops long-term wastewater disposal facilities. - Develops phasing of new facilities based on consultation with Valley agencies, including DSRSD, Alameda County and City of Dublin. 	<ul style="list-style-type: none"> - Consult with DSRSD on current and planned DSRSD facilities and availability of sewer facilities. - Enters into planning phase agreements with DSRSD to cover computer modeling and other related planning costs. - Prepare phasing plan for wastewater facilities in conjunction with submittal of development plans for review by Dublin and DSRSD.
FUNDING	<ul style="list-style-type: none"> - Not responsible for wastewater system improvements and funding. - DSRSD is responsible agency for funding major capital facilities. 	<ul style="list-style-type: none"> - Does not provide funding for Developer constructed wastewater facilities. - Does provide periodic funding for certain major system-wide capital facilities (major trunk sewers, major pump stations, treatment plant improvements, disposal facility improvements) through the sale of sewer permits to Developer, and/or formation of assessment districts. - Other potential sources of funding include selling of bonds, special assessment districts, change in the connection fee rate, change in the replacement allowance, and a possible treated water rate surcharge. 	<ul style="list-style-type: none"> - Funding mechanism yet to be determined. May be prorated through agency capacity in TWA. DSRSD would probably fund from sewer permit revenues or assessment districts. 	<ul style="list-style-type: none"> - Purchase sewer permits to cover cost of DSRSD constructed facilities (major trunk sewers, treatment plant improvements, and disposal facility improvements). - Fund construction of internal wastewater collection system in development.

<p>CONSTRUCTION</p>	<ul style="list-style-type: none"> - Issues building permit upon favorable review of Developer plans and issuance of sewer permit to Developer by DSRSD. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed sewers within Development. - Issues sewer line construction permits to Developers following satisfactory review and approval of development plans. - Sells sewer permit to Developer based on favorable review of Developer plans, presentation of evidence of recordation of a Final Subdivision Map, and availability of sewer permits. - Inspects construction of Developer-installed sewer line distribution/collection systems. - Constructs major infrastructure, (i.e. major trunk sewers, major pump stations, treatment plant improvements, and reclamation facilities. 	<ul style="list-style-type: none"> - Construct long-term wastewater disposal facilities. 	<ul style="list-style-type: none"> - Upon issuance of DSRSD sewer line construction permit and building permit, construct wastewater collection system within development in accordance with DSRSD design standards, exclusive of major infrastructure to be constructed by DSRSD. - Turnover constructed water collection system to DSRSD.
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TABLE 9.3
STORM DRAINAGE
MATRIX OF IMPLEMENTATION RESPONSIBILITIES

ITEM	CITY OF DUBLIN	ZONE 7	DEVELOPER
PHASING	<ul style="list-style-type: none"> - Develops phasing for local storm drainage improvements within the City. - Reviews overall development plan and phasing from Developer. - Provides regular input to Zone 7 on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current Zone 7 facilities and planned facility improvements. - Reviews phasing of Developer constructed channels and culverts. - Develops phasing for major channel and culvert improvements within Zone 7 boundaries. 	<ul style="list-style-type: none"> - Consults with City of Dublin and Zone 7 on current and planned facilities. - Prepares phasing plan for storm drainage facilities in conjunction with submittal of development plans for review by City of Dublin and Zone 7.
FUNDING	<ul style="list-style-type: none"> - Does not provide funds for Developer constructed storm drainage facilities. - Collects appropriate fees for review of development plans that include hydrology map, hydraulic and hydrologic calculations and for City inspection. 	<ul style="list-style-type: none"> - Does not provide funds for Developer-constructed storm drainage improvements. - Funds inspection costs of Developer-constructed improvements and certain channel and culvert improvements through collection of drainage fees from Developers. - Issues SDA 7-1 reimbursements to Developers for Developers improvements to SDA 7-1 designated creeks. 	<ul style="list-style-type: none"> - Pays Zone 7 drainage fees. - Pays appropriate City of Dublin fees for review of development plans that include hydrology map, hydraulic and hydrologic calculations hydrology map, and hydraulic calculations and for City inspection. - Funds construction of required storm drainage facility improvements. - Eligible for SDA 7-1 reimbursements from Zone 7 for Developer improvements to an SDA 7-1 designated creek
CONSTRUCTION	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed local storm drain facilities. - Provides inspection of Developer-constructed local storm drainage facilities. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed channel and culvert improvements. - Provides inspection of Developer-constructed channel and culvert improvements. 	<ul style="list-style-type: none"> - Upon issuance of building permit and payment of appropriate City of Dublin and Zone 7 fees, constructs storm drainage facilities in accordance with City of Dublin and Zone 7 design standards. - Turnover constructed local storm drains to City of Dublin and constructed channels and culverts to Zone 7.



Conceptual Backbone Water Distribution System

Figure 9.1

Legend:

- 16" Waterline with Diameter
- 1A Reservoir with Number
- Pump Station
- Approximate Pressure Zone Boundary
- Specific Plan Boundary

Note:

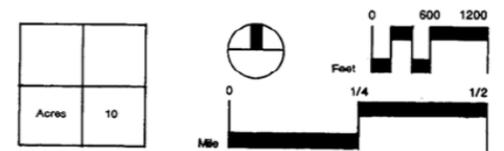
This conceptual water distribution system is based upon a recent DSRSD proposed water distribution system, with modifications to reflect current Eastern Dublin specific plan land uses. The system shown does not assume the use of recycled water. If a recycled water system is implemented some of the pipe sizes may be larger than needed. It should be emphasized that the modifications made herein to DSRSD's recent proposed water distribution system have been made using "Engineering Judgment", and have not been analyzed using a computer model. It is recommended that a computer model analysis be performed prior to design and construction of the conceptual system.

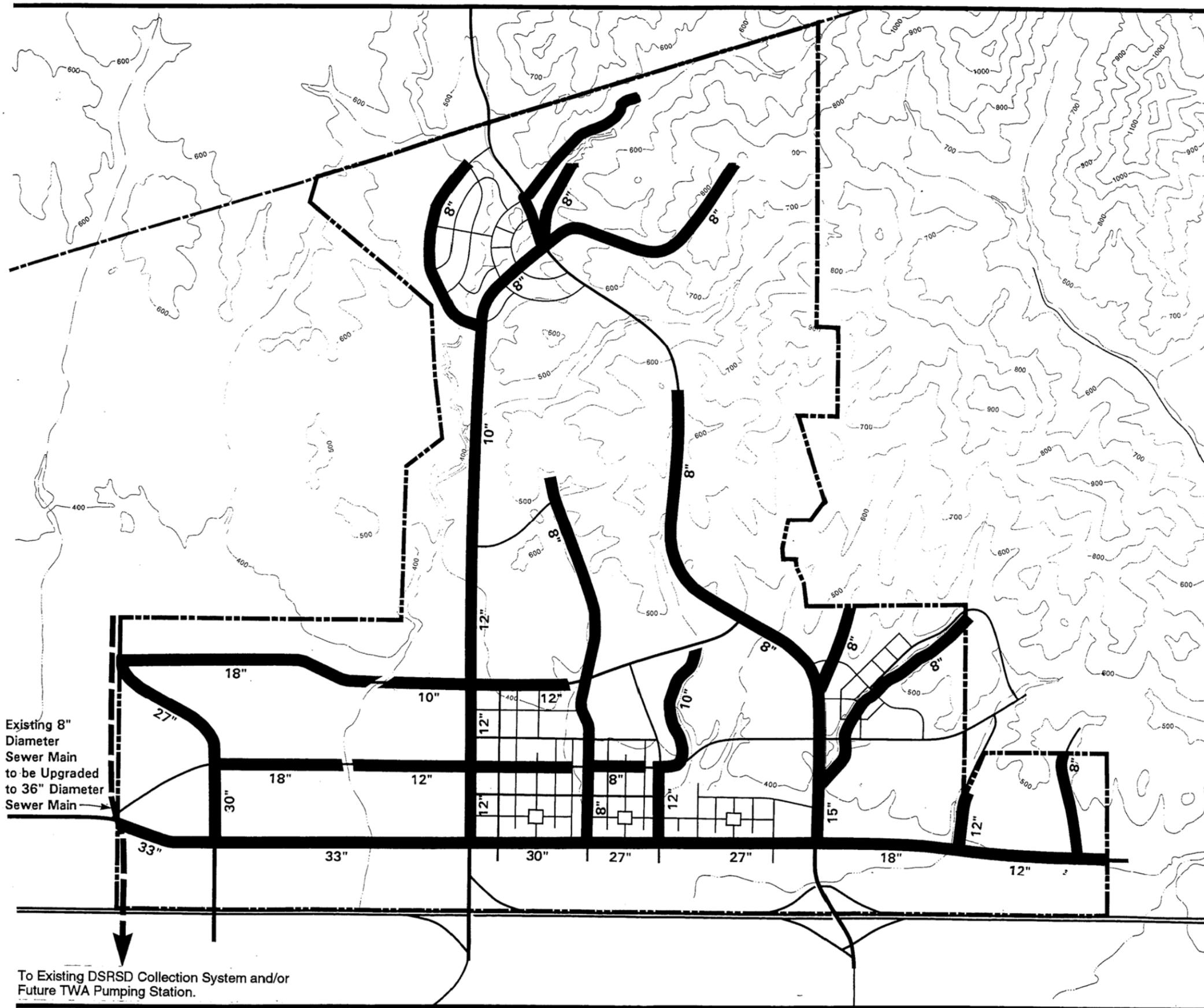
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Existing 8" Diameter Sewer Main to be Upgraded to 36" Diameter Sewer Main

To Existing DSRSD Collection System and/or Future TWA Pumping Station.

Conceptual Backbone Wastewater Collection System

Figure 9.2

Legend:

- Sewer Line with Diameter 10"
- Specific Plan Boundary

Note:

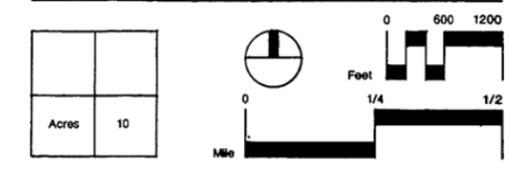
This conceptual wastewater collection system is based upon a recent DSRSD proposed wastewater collection system, with modifications to reflect current proposed Eastern Dublin specific plan land uses. It should be emphasized that the modifications made herein to DSRSD's recent proposed wastewater collection system have been made using "Engineering Judgment", and have not been analyzed using a computer model. It is recommended that a computer model analysis be performed prior to design and construction of the conceptual system.

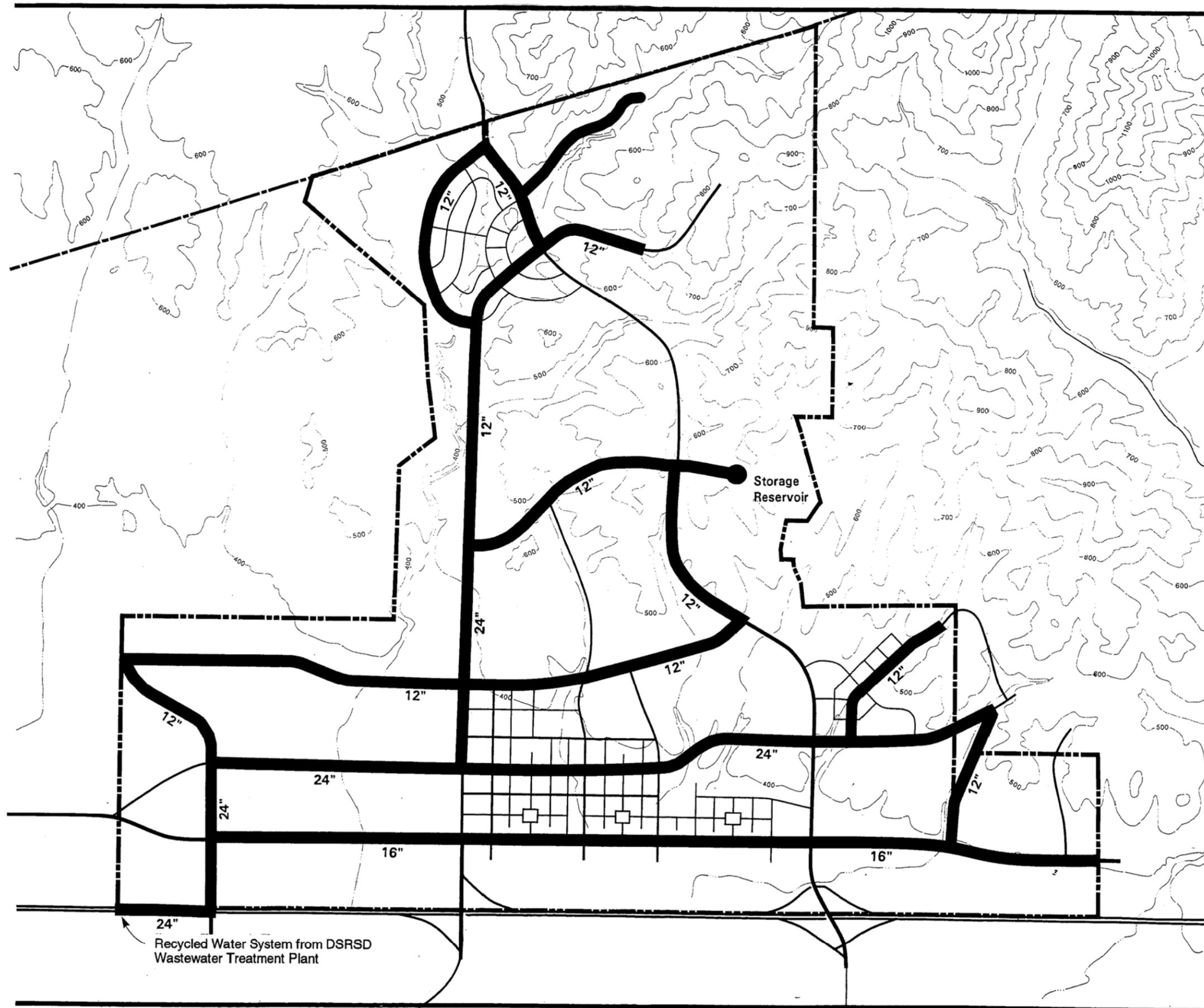
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Conceptual Backbone Recycled Water Distribution System

Figure 9.3

Legend:

- Recycled Water Line with Diameter 12"
- Specific Plan Boundary

Note:

This conceptual recycled water distribution system is based upon a recent DSRSD proposed recycled water distribution system, with modifications to reflect current Eastern Dublin specific plan land uses. It should be emphasized that the modifications made herein to DSRSD's recent proposed recycled water distribution system have been made using "Engineering Judgment", and have not been analyzed using a computer model. It is recommended that a computer model analysis be performed prior to design and construction of the conceptual system.

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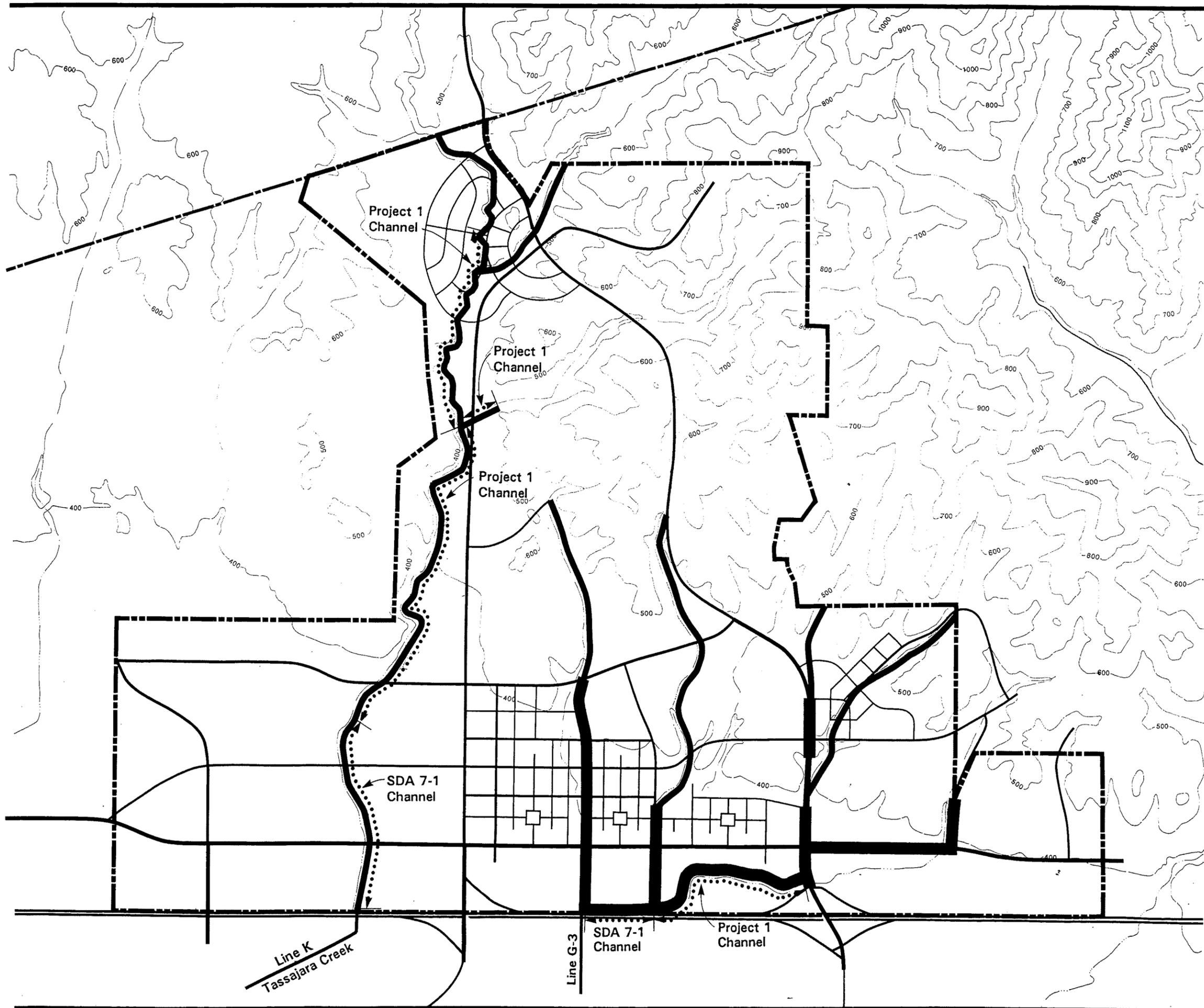
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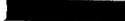


Conceptual Backbone Storm Drainage Facilities

Figure 9.4



Legend:

-  Open Channel
-  Pipeline
-  SDA 7-1 Channel
-  Project 1 Channel
-  Existing Channel
-  Specific Plan Boundary

Note:

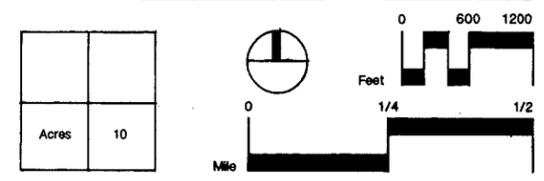
These conceptual storm drainage facilities are preliminary concepts and have not been hydraulically analyzed using a computer model. As planning proceeds, it is recommended that a hydraulic computer analysis be prepared to establish channel and pipe sizing.

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Acres	10
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10.0 FINANCING

10.1 INTRODUCTION

The two primary purposes of this financing plan are 1) to show how the major infrastructure costs of new eastern Dublin development will be financed and 2) to show that measures have been taken to ensure that new development will not drain existing City resources.

10.2 FINANCING CONSIDERATIONS

Development of eastern Dublin is expected to require approximately \$532 million in infrastructure development and in-lieu fees prior to construction of new homes. Of this total, approximately \$136 million represents the cost of streets, highway interchanges and mass grading; \$235 million will be required for onsite and offsite water and sewage treatment and storage facilities; nearly \$160 million will be for public buildings and parks including police and fire stations, schools, other public buildings, park development, and park and school impact fees. Contingency factors are included in the cost estimates.

The residents and businesses of eastern Dublin will require the usual public services from the City of Dublin: police and fire protection, recreational services, road maintenance, community development services, and general government. The City pays for these services to both existing and future residents out of revenues (property taxes, sales taxes, state-allocated revenues, and other revenues) to the General Fund and other city funds. A detailed fiscal analysis was performed in earlier phases of the planning for this development proposal; this analysis indicates that, after several initial years of shortfalls, the project will provide more revenues than it will require in expenditures for public services. Based on a 20-year analysis of cash flows, eastern Dublin would not be a fiscal drain on the existing City of Dublin.

In addition, there may be some ongoing maintenance costs associated with the new development that is not typical of the current expenditure patterns of the City of Dublin. These may include maintenance of the landscaping along public rights of way; preventive maintenance associated with slide-prone soils; maintenance and fire hazard reduction associated with open space surrounding the developed areas; and maintenance of small parks within specific subdivisions.

The development schedule for eastern Dublin calls for the area to be annexed to Dublin in 1993. For the first phase, the major infrastructure and public facility construction would commence in 1994 and would be substantially complete by 1995, when construction would begin on housing products. Based on projections, the earliest that the first residents would occupy homes would be in 1996. It is projected that housing units initially will be absorbed at a rate of about 300 per year, with absorption increasing to about 1,000 units per year during the peak years.

10.3 SOURCES OF FINANCING

10.3.1 CAPITAL IMPROVEMENTS

DUBLIN GENERAL FUND

Although public improvements in Dublin in the past have been financed partly through the General Fund, it is City policy that no General Fund monies will be used to provide infrastructure to new development.

DEVELOPER'S RESPONSIBILITY

Given the lack of City funding, responsibility to provide capital improvements falls to the developer. In general, developers provide items like streets, sewers, and parks in order to make habitable the houses that they will build and sell. Developers typically front the cost of the infrastructure and then include these costs in the price of the homes sold.

However, on projects of the scale of eastern Dublin, the capital requirements may be so great as to make development impossible if the full burden falls on the developers in advance of any sales. In order to enable developers to construct new projects, the California Legislature has devised several means to assist developers in obtaining financing for public improvements and not be required to pay the costs up front. The most important of these methods are outlined below.

MELLO-ROOS COMMUNITY FACILITIES DISTRICT (CFD)

Since 1982, cities, counties, school districts, and special districts have been able to create a separate district, called a Mello-Roos Community Facilities District (CFD), to finance

- certain public facilities on a pay-as-you-go basis or through the sale of bonds;
- certain public services on a pay-as-you-go basis,
- or any combination of the above.

The public agency that sponsors the CFD may raise money to provide these services and facilities by levying a special tax throughout the district.

After the public agency proposes a CFD, the district is approved either by a two-thirds vote of the registered voters living in the area, or, if fewer than twelve registered voters live in the area, by a two-thirds vote of landowners in the area, with votes apportioned according to acreage. When the goal is to provide infrastructure financing for proposed development on largely undeveloped land, it is usually quite simple to obtain the necessary votes of the landowners.

A CFD may provide for the planning, design, purchase, construction, expansion or rehabilitation of any real or other tangible property with an estimated useful life of at least five years. Examples of these facilities include parks, schools, and libraries. The facilities need not be located within the district (for example, in the case of a central library).

A CFD may also provide services such as police protection, fire protection and suppression, ambulance and paramedic services, recreation and library services, maintenance of parks and open space, flood protection, and storm drainage system operation and maintenance. However, these services may be provided only to the extent that the level of service is in addition to that provided in the district's territory prior to creation of the district and these services may not supplant those services already available within that territory.

Bonds issued by a Mello-Roos GFD are called special tax bonds because they are secured by and payable from the annual special tax levied on the district by the local agency. The tax formula need not be based on the degree of benefit that each parcel will receive from the improvements, but it must be based on a formula that the local legislative body finds to be reasonable. Under no circumstances are the general funds of the public agency (the city or school district) obligated to pay debt service on the special tax bonds.

If the special tax is levied against real property, the tax is usually paid along with the regular property tax. If payment is not made, delinquent charges are assessed and the property is eventually sold to collect the taxes.

MARKS-ROOS BOND POOLING

Marks-Roos bonds are essentially a bond pool made up the other bonds that a city has issued or plans to issue. They were created in 1985 to save cities some of the administrative costs of tracking the disbursements from bond sales proceeds and repayments from individual bond issues, and to hedge against future interest rate increases. The funds from the bond sales must be disbursed (lent to developers to create infrastructure) within three years of the issue date and are repayable within a 30-year term. Some cities in California have gotten into trouble recently by overestimating the demand for the infrastructure funds

and creating a bond issue too large to be spent within the three-year limit;⁵¹ those cities will have to repay the bond issue, including interest and underwriting fees, when the three-year disbursement term expires.

SPECIAL ASSESSMENT DISTRICTS

The 1911 Improvement Act, 1913 Municipal Improvement Act, and the 1915 Improvement Bond Act provide that public agencies may form a special assessment district to pay for needed infrastructure either on a pay-as-you-go basis or via bond funding if

- the money is used for a public purpose that will benefit a limited area of land;
- the assessment on land parcels is proportional to the benefit received; and
- the owners of the assessed land are given an opportunity to be heard regarding the extent of the benefit.

The assessment district is ordinarily initiated by petition of 60 percent of the property owners in the area. The types of infrastructure and support structures that can be financed in this way include grading, slope stabilization and slide repair, street paving, sidewalks, street lighting, curbs and gutters, sanitary and storm sewers, and water supply facilities (onsite or offsite), among other items. The amount of the bond issue may also cover architectural and engineering fees as well as the cost of the bond issue.

The public agency that institutes the district raises money by levying special assessments against the benefiting property owners. The assessment formula must be based on the degree to which each property benefits, and in this regard public agencies have traditionally considered such factors as acreage, building size, number of units, front footage, units of water or sewer usage, and land value.

Assessments are due either upon application for building permit or, if bonds have been issued to finance infrastructure, annual assessments are due along with ad valorem property taxes.

In addition to the general-purpose assessment districts authorized by the 1911 and 1913 Acts, several other types of assessment districts exist. These districts include the following: Vehicle Parking Districts (1943 and 1951), Pedestrian Mall Districts (1960), and Landscaping and Lighting Districts (1972).

¹ Charlotte-Anne Lucas, "Municipal Bond Deals Threatening California Towns," San Francisco Examiner, May 19, 1991, Section A, p 1.

SB-308 INFRASTRUCTURE FINANCING DISTRICTS (SEYMOUR BILL)

Recent legislation introduced by Senator Seymour and passed by the Legislature on September 1990 authorizes counties and cities to form infrastructure financing districts to fund public capital facilities using a method called "tax increment" financing. Prior to this legislation, redevelopment agencies were the only entities authorized to incur debt and fund capital projects from this method of financing. Under redevelopment law (Section 16, Article XVI, of the California Constitution), property tax base is frozen when a redevelopment project area is established.

The tax yields on increments in the value of taxable property is then set aside for repayment of debt incurred to finance redevelopment projects.

SB 308 authorizes cities and counties to use a similar method of tax increment financing to fund infrastructure development. However, it exempts school districts from participating and requires the cooperation of all other special districts affected by the diversion of property tax. The amount of annual fiscal surplus accruing to affected districts as a result of the development is a key factor in the negotiation process. Tax increments are redistributed back to affected districts once infrastructure projects are paid.

The constitutionality of SB-308 is currently being challenged.

DUBLIN DEVELOPER IMPACT FEES

All cities estimate and program for the potential future demand for capital improvements that serve the entire city; these items may include wider roads, new freeway interchanges, new community buildings, and new parks. These items are commonly described and scheduled in a capital improvements program. In many growing cities, the portion of costs that can be allocated equitably to new development is then funded through a system of impact fees, whereby new development, at the time of issuance of building permits, is charged a set amount to provide for its pro-rata share of the new infrastructure. It is important to stress that the coordination of infrastructure development of the scale required in eastern Dublin will probably require the establishment of such a system of developer impact fees.

Otherwise, for most public infrastructure, Dublin currently does not have an impact fee program in place and therefore must fund capital improvements within the existing city boundaries out of other revenues. The exception is that Dublin does require residential subdividers to dedicate parkland and/or pay an in-lieu fee for acquiring parkland. In the case of eastern Dublin, the Specific Plan calls for 241.5 acres of public parks. If the City finds the land allocated for park dedication acceptable, no in-lieu fee would be required. If not, some or all of the estimated \$12 million in park in-lieu fees would be payable at the time of Final Map approval for individual subdivisions.

DRFA FIRE IMPACT FEES

In addition to these City of Dublin impact fees, the Dougherty Regional Fire Authority (DRFA) currently assesses a fire impact fee for new development projects. With a current fire impact fee set at \$600 per residential development unit and \$600 per 2,000 square feet for other types of occupancies, the eastern Dublin and Santa Rita fire impact fees would total more than \$11 million. Based on 1992 costs, the cost estimate for the fire stations required in eastern Dublin is based on a projected cost of \$2.3 million per each fully equipped fire station. Fire stations must be provided for in advance of most residential development. Fees collected by the DRFA at the time of issuing building permits will then be used to partially reimburse the developer (if private financing is used) or an assessment district to pay for upfront fire station construction.

AB 2926 SCHOOL IMPACT FEES

The State legislature authorizes school districts to charge fees to new development to assist the districts in providing sufficient capacity for the students who live in the new houses or who move when their parents take a job at a newly built place of employment. The state-determined maximum limit for the fee is currently at \$1.58 per square foot of habitable residential space and \$0.25 per square foot of commercial or industrial space; school districts must charge the maximum rate if they wish to be eligible for additional funds from the State. The fee alone typically falls far short of the amount necessary to construct school facilities, so the state contributions, if available, are essential.

The estimated fee due from the Eastern Dublin Specific Plan area would total nearly \$24 million, which would pay for about 25 percent of the capacity needed for local school children.

DSRSD, ZONE 7 AND TWA FEES

Utility fees will be levied by the Dublin San Ramon Services District. These fees include a water connection charge based on meter size and a wastewater connection charge calculated on the basis of dwellings and equivalents.

Also Zone 7 charges water connection fees. There may also be fees associated with implementation of the preferred TWA (now LAVWMA) Project Alternative.

10.3.2 ONGOING COSTS

DUBLIN ANNUAL BUDGET

As discussed previously, the city pays for the ongoing costs of normal public services out of ongoing revenues to its general fund and other funds; the City does this for existing residents and would be expected to continue to do so for new development. Revenues will also accrue to the general fund from the new development, primarily in the form of

property taxes but also from sales taxes and many state-distributed revenues that are allocated on the basis of population. A unique aspect of the City's relationship with eastern Dublin is that the pre-existing Annexation Agreement for the County-owned Santa Rita parcel specifies that the County will collect revenues generated from development on that property but will reimburse the City for all routine municipal service costs up to some level. This Agreement is currently being renegotiated, and the outcome will most likely affect the sharing of revenues between the City and County.

The fiscal analysis prepared for eastern Dublin indicates that, after several initial years of shortfalls, project-generated revenues would be more than sufficient to cover project-generated costs; see Table III-9 in Appendix 7. Despite the initial shortfalls, overall impact on the City budget is positive.

LANDSCAPING AND LIGHTING DISTRICT

The Landscaping and Lighting Act of 1972 provides for the creation of a special assessment district (see discussion above) to pay for installation and maintenance of landscaping and lighting. This act has been used primarily to fund maintenance, but it is possible to issue bonds to cover the cost of construction. Such a district, or a series of districts, could pay for maintenance of the open space in and around eastern Dublin.

GEOLOGIC HAZARDS ABATEMENT DISTRICT

This is another type of special assessment district used primarily for maintenance. The City of Clayton has used such a district in the Oakhurst Country Club project to provide for periodic inspection and maintenance of slide-prone areas, as well as to create a reserve fund in the event that major repairs need to be made. In this case, the developer arranged a \$200,000 line of credit, which will be replaced eventually with the reserve fund built up from the annual assessments collected from homeowners. In 1990, assessments amounted to \$125 per single-family unit and \$94 per duet. For slide prone sub-areas within eastern Dublin, Geologic Hazards Abatement Districts may be another useful financing tool. For slide prone sub-areas within eastern Dublin, Geologic Hazards Abatement Districts may be another useful financing tool. Per the 2005 Fallon Village amendment, Fallon Village Geologic Hazard Abatement Districts may also maintain slide area, as well as water quality basins and other long-term geologic and hydrologic project

10.4 FINANCING GOALS AND POLICIES

The following goals and policies, apply to the Eastern Dublin Specific Plan area.

Goal: New development in the Specific Plan area should pay the full cost of infrastructure needed to serve the area, and should fund the costs of mitigating adverse project impacts on the City's existing infra-structure and services.

Goal: The financing plan should provide for reimbursements from any other benefiting areas for costs that Specific Plan area owners are required to advance, and should provide a fair allocation of costs among land uses.

Policy 10-1: Fund the full costs of the on-site and off- site public infrastructure and public services required to support development in the Specific Plan area from revenues generated by development within that Specific Plan area. These revenues may include City, County, State, or Federal revenues generated by development within that Specific Plan Area.

Policy 10-2: Allocate the backbone infrastructure costs to property within the Specific Plan area based on the general principles of benefit received. "Backbone infrastructure" means public infrastructure outside of building tracts.

Policy 10-3: Adopt an Area of Benefit Ordinance and form an Area of Benefit for the Specific Plan area that establishes a fair share cost allocation for public improvements required to serve development of the Specific Plan area.

Policy 10-4: Use pay-as-you-go financing to the extent possible. Use debt financing only when essential to provide facilities necessary to permit development or to maintain service standards.

Policy 10-5: Require development projects in the Specific Plan area to fund the oversizing of facilities if required by the City, subject to reimbursement from future developments benefiting from the oversizing.

Policy 10-6: Require developers who proceed ahead of the infrastructure sequencing plan to pay the costs of extending the backbone infrastructure to their project subject to future reimbursement.

Policy 10-7: Require dedication of land for road improvements, park and other public facilities, and construction of such improvements consistent with citywide policies.

Policy 10-8: Provide for reimbursements from any other benefiting areas for costs that specific Plan area owners are required to produce.

Policy 10-9: Issue Bonds (such as Mello- Roos and/or Assessment District bonds) only so long as the security for those bonds equals 300 percent (or more) of the bond value. Developers shall be required to finance privately any infrastructure costs that would cause bond issues to fail to meet the above-stated criteria.

Policy 10-10: Issue Bonds (such as Mello- Roos and/ or Assessment District bonds), only so long as the annual special assessment or special tax and 1.0 percent

regular property tax and existing bonded indebtedness does not exceed 2.0 percent of property value.

10.5 CAPITAL FINANCING SOURCES AND BURDEN ON LAND USES

This section illustrates how development in eastern Dublin could be financed in accordance with the above-described goals and policies. Table 10.1 (at the end of the chapter) estimates sources of funding for each of the infrastructure costs. In general, the developers will be required to pay for sweets and utilities within their tracts. Note that the costs of in-tract improvements are not included in Table 10.1. In addition, developer impact fees already in place or established in the future by the City or special districts will serve as a major source of financing. For example, some school costs may be covered by AB 2926 fees, which the builders are responsible for paying at the time building permits are issued. Similarly, in-lieu fees for park dedications are payable by the developer at the time of Final Map approval. Developers are also currently required by the Dublin San Ramon Services District to pay for a large amount of the water treatment and water service infrastructure costs through fees. Yet, these existing fees are not sufficient to cover all the infrastructure costs. The City will have to consider creating a system of developer and builder impact fees to fund remaining costs, particularly those costs which could not be funded by one or more Area of Benefit assessments (via either a Mello-Roos CFI) or Special Assessment District) due to the excessive burden the costs would impose on future homeowners. As a general guideline, "excessive" refers to yearly assessments (including property tax) of more than 2.0 percent of the assessed value of the home. In Table 10.1, it has been estimated that roughly 75 percent of the costs of streets and mass grading would have to be funded by a system of impact fees or in-kind contributions by developers in order to keep the Mello-Roos debt service load bearable on future property owners.

Table 10.2 presents total infrastructure costs and development phased over a 17-year period. The start of construction occurs in 1994 with near 100 percent completion during 2010. This phasing schedule reflects WRT team discussion regarding the sequence of development that is likely to take place in eastern Dublin. DKS Associates (transportation consultants) and Kennedy/Jenks (water and sewer engineering consultants) provided estimates of infrastructure costs for three phases of development. ERA then used these cost estimates to create this annual phasing schedule.

Table 10.3 presents an analysis of the project's capacity to support bonds issued for infrastructure financing. The first section of the table outlines the infrastructure expenditures over time and adds in financing costs to arrive at estimates of annual and cumulative bond issues. The second section compares annual average residential debt service (the annual special assessment or Mello-Roos special tax) to the cumulative value of homes sold and finished and unfinished lots. Once all the bonds have been issued, the annual infrastructure debt service, on average, would equal 0.8 percent of the value of the

homes and residential lots. During the entire period of development, the annual infrastructure debt service is equal or less than 1 percent, except during 1996. The general guideline is that total annual assessments, which include regular property taxes as well as special taxes or assessments, should not exceed 2.0 percent of the value of the home. Because 1.0 percent is already accounted for in regular property taxes, only 1.0 percent remains available for special taxes or special assessments, and this project's capital infrastructure requirements would place these homes within that limit.

The third part of the table compares the infrastructure bonds issued year-by-year to the value of the entire property that would be security for those bonds. The bonds are easiest to sell when the property is worth at least three times the bond issue, as the last line of the table shows, this development would meet that criteria.

Table 10.4 allocates the costs borne by the Area of Benefit (Mello-Roos CFD or Special Assessment) among the land uses proposed in the development. Costs are apportioned according to various factors; for instance, road costs are allocated on the basis of trips generated by each land use, and school development costs are allocated on the basis of average number of children per unit. Several lines in the middle of the table indicate the total capital cost per housing unit (or per 1,000 square feet of non-residential development), the proportion of total value this amount represents, the estimated yearly assessment each unit would have to pay to retire bonds sold, and the proportion of the unit's market value represented by that yearly assessment.

The generally accepted standard is that total annual assessments (ad-valorem property taxes plus Mello-Roos or other assessments) should be less than two percent of property value. Since one percent is already accounted for in the ad-valorem property tax, the assessments should not exceed one percent. Note that in Table 10.4 all of the residential and commercial units would have annual assessments equal or below one percent. In short, this financing plan would spread the debt burden amongst the various land uses without placing any undue burden on any one land use.

ACTION PROGRAM: FINANCING

The City of Dublin should take the following actions to carryout the financing policies of the Specific Plan.

- **Development Agreement.** For each property in the Planning Area, prepare and adopt a development agreement that spells out the precise financial responsibilities of the developer.
- **Area of Benefit Ordinance.** Adopt an Area of Benefit Ordinance and form an Area of Benefit for those properties benefiting from construction of public improvements described in the Specific Plan.

- Special Assessment District or Mello-Roos CFD. Create one or more Mello-Roos CFD or Special Assessment Districts to finance construction of the infrastructure (outlined in Table 10.1) to serve the Area of Benefit. Some of the special taxes or special assessments may be due upon application for building permits, and the remainder may be financed with the appropriate bond mechanisms.
- Marks-Roos Bond Pooling. Have bond counsel evaluate whether the City would save money and refrain from incurring undue risk by pooling bonds issued for eastern and western Dublin, or for eastern Dublin alone, under the Marks-Roos Bond Pooling Act.
- Citywide Developer and Builder Impact Fee Systems. Analyze city-wide infrastructure needs to assess the usefulness of implementing an impact fee program, in compliance with AB 1600, that could draw some funding from new development when final map or building permits are issued. The fees could pay for infrastructure of citywide importance, such as downtown infrastructure or new arterial streets through eastern Dublin.

Actions needed by other agencies include:

- School Impact Fees. The City and the School District should coordinate efforts to fund necessary school facilities and collect payable fees.
- Highway Interchange Funding. The City and CalTrans should coordinate efforts to fund necessary freeway improvements and collect developers' share of costs.
- Utilities Impact Fees. The City, Dublin San Ramon Services District and Zone 7 should coordinate efforts to fund utilities services and collect developers' share of costs.
- Bonding Capacity. The City of Dublin and its bond counsel will coordinate with all affected agencies to develop a method of financing infrastructure that will fairly apportion the assessment burden among the agencies expected to provide services, and not allow the bonding capacity to be maximized by any one agency or infrastructure need.

Table 10-1

MAJOR CAPITAL IMPROVEMENTS COSTS AND SOURCES OF FUNDING

Eastern Dublin Financing Plan /1

CAPITAL IMPROVEMENTS	Engineer's Estimated Costs /2	SOURCES OF FUNDING (Thousands of Constant 1992 Dollars)				
		Existing Impact Fees	School Impact Fees (AB2926)	Developer Funding & Impact Fees	Mello-Roos or Assess- ment District	Mello-Roos or Assess- ment District W/Issuance Costs
Streets and Highways						
Streets and Mass Grading /6	\$108,323			\$81,242	\$27,081	\$33,851
Intersection Improvements	\$4,775				\$4,775	\$5,969
Freeway Overcrossings	\$11,468				\$11,468	\$14,335
Share of Freeway Improvements (60%)	\$11,220				\$11,220	\$14,025
Subtotal Streets and Highways	\$135,786					
Water and Sewer						
Water Service	\$87,215			\$58,275	\$28,940	\$36,175
Wastewater service	\$130,300			\$122,910	\$7,390	\$9,238
Storm Drainage	\$17,640				\$17,640	\$22,050
Subtotal Water and Sewer	\$235,155					
Public Buildings and Park						
Police and Fire Stations /7	\$9,400	\$9,200			\$200	\$250
School Development	\$106,150		\$23,100		\$83,050	\$103,813
Other Public Buildings /3	\$4,950				\$4,950	\$6,188
Park In-Lieu Fees /4	\$12,085	\$12,085			\$0	\$0
Park Improvements /5	\$28,944				\$28,944	\$36,180
Subtotal Public Buildings and Parks	\$161,529					
TOTAL COSTS/FUNDING	\$532,470	\$21,285	\$23,100	\$262,427	\$225,658	\$282,072

Notes:

/1 Project evaluated is WRT's March 6, 1992 Final Plan.

/2 Engineers included a contingency factor of 20% for road improvements and 30-35% for water and sewer costs.

ERA added a 10% contingency factor to fire stations and school costs.

/3 Includes 7 elementary schools, 2 middle school, and 1 high school; excludes land cost.

Type of School	Acres	Cost with- land (\$M)	Cost with- out land (\$M)	Number of Students	Number of Schools Req.	Cost per School w/Contingency	Cost per School w/Contingency less Fees
Elementary	10	\$8.0	\$5.5	2,215	7	\$6.1	\$4.7
Middle School	20	\$24.5	\$19.5	1,107	2	\$21.5	\$16.8
High School	40	\$29.5	\$19.0	1,502	1	\$20.9	\$16.4
TOTAL						\$48.4	\$37.9

/4 Based on a total of 241.7 acres @ \$50,000/acre.

/5 Based on park improvement cost of \$120,000 per acre of park.

/6 Does not include in-tract streets and grading.

/7 Police station @ \$50/sq.ft. with 4,000 sq.ft or total cost of \$200,000. Total cost includes 4 fire stations @ \$2.3 million each.

Sources: DKS Associates, Kennedy/Jenks/Chilton, and Economics Research Associates

05/19/92 c:\123r22\9047\spbond3

Table 10-2
INFRASTRUCTURE PHASING PROGRAM /1
 Eastern Dublin Fiscal Analysis - Specific Plan Area
 (In Thousands of Constant 1992 Dollars)

	Total										
<u>Capital Improvements</u>	<u>Costs</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Streets and Mass Grading	\$27,081	0	0	0	0	3,840	3,840	7,680	0	0	0
Intersection Improvements	\$4,775	0	0	0	0	0	0	675	675	675	675
Freeway Overcrossings	\$11,468	0	0	0	0	0	2,867	2,867	0	0	0
Share of Freeway Improvements	\$11,220	0	0	0	0	0	0	0	0	0	0
Water Service	\$28,940	0	0	0	0	0	7,868	1,063	638	1,063	744
Wastewater Service	\$7,390	0	0	0	0	0	2,492	337	202	337	236
Storm Drainage	\$17,640	0	0	0	0	0	2,731	369	221	369	258
Police and Fire Stations	\$200	0	0	0	0	0	0	0	0	200	0
School Development	\$83,050	0	0	0	0	0	0	0	0	4,733	0
Other Public Buildings	\$4,950	0	0	0	0	495	495	495	495	495	495
Park Improvements	\$28,944	0	0	0	0	0	6,756	4,932	468	0	0
TOTAL	\$225,658	\$0	\$0	\$0	\$0	\$4,335	\$27,049	\$18,418	\$2,699	\$7,873	\$2,408
CUMULATIVE TOTAL		\$0	\$0	\$0	\$0	\$4,335	\$31,384	\$49,802	\$52,501	\$60,374	\$62,782
Assumptions:											
% of Commercial Uses Absorbed		0%	0%	0%	0%	0%	0%	6%	10%	6%	10%
Cum. % of Commercial Uses Absorbed		0%	0%	0%	0%	0%	0%	6%	16%	22%	32%
% of Residential Units Absorbed		0%	0%	0%	0%	0%	0%	0%	1%	1%	2%
Cum. % of Residential Units Absorbed		0%	0%	0%	0%	0%	0%	2%	6%	10%	15%

Note: /1 Phasing for roads, sewer and water is based on the next year's percent absorption of commercial uses. This phasing schedule is based on WRT team discussion.

Source: Economics Research Associates

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05/19/92

Table 10-2

INFRASTRUCTURE PHASING PROGRAM

Eastern Dublin Fiscal Analysis - Specific Plan Area

(In Thousands of Constant 1992 Dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Capital Improvements											
Streets and Mass Grading	0	0	0	3,859	3,859	0	0	2,002	2,002	0	0
Intersection Improvements	675	0	0	400	400	0	0	0	600	0	0
Freeway Overcrossings	0	0	0	2,867	2,867	0	0	0	0	0	0
Share of Freeway Improvements	0	0	0	5,610	5,610	0	0	0	0	0	0
Water Service	1,276	532	851	3,245	730	584	1,314	4,669	2,043	2,043	0
Wastewater Service	404	168	269	937	211	169	379	594	260	260	0
Storm Drainage	443	185	295	4,765	1,071	857	1,929	2,069	905	905	0
Police and Fire Stations	0	0	0	0	0	0	0	0	0	0	0
School Development	4,733	0	4,733	16,782	4,733	16,352	4,733	16,782	4,733	0	4,733
Other Public Buildings	495	495	495	495	0	0	0	0	0	0	0
Park Improvements	0	0	0	14,940	540	0	0	708	360	0	0
TOTAL	\$8,026	\$1,380	\$6,644	\$53,900	\$20,021	\$17,961	\$8,355	\$26,823	\$10,903	\$3,208	\$4,733
CUMULATIVE TOTAL	\$62,782	\$64,162	\$70,805	\$124,706	\$144,727	\$162,688	\$171,043	\$197,866	\$208,769	\$211,977	\$216,710
Assumptions:											
% of Commercial Uses Absorbed	7%	12%	5%	8%	4%	5%	4%	9%	3%	1%	1%
Cum. % of Commercial Uses Absorbed	39%	51%	55%	63%	67%	73%	77%	86%	88%	90%	91%
% of Residential Units Absorbed	2%	3%	3%	8%	8%	8%	8%	7%	8%	8%	7%
Cum. % of Residential Units Absorbed	22%	29%	36%	44%	52%	60%	68%	75%	83%	91%	98%

Note: /1 Phasing for roads, sewer and water is based on the next year's percent absorption of commercial uses. This phasing schedule is based on WRT team discussion.

Source: Economics Research Associates

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Table 10-3

ANALYSIS OF BONDING CAPACITY

Eastern Dublin Fiscal Analysis - Specific Plan Area

(In Thousands of Constant 1992 Dollars)

<u>Funds Required</u>	<u>Total</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Infrastructure Costs	\$225,658	0	0	0	0	4,335	27,049	18,418	2,699	7,873	2,408
Capitalized Interest	19,745	0	0	0	0	379	2,367	1,612	236	689	211
Reserve Fund	25,386	0	0	0	0	488	3,043	2,072	304	886	271
Issuance Costs	4,231	0	0	0	0	81	507	345	51	148	45
Bond Underwriter's Fee	7,052	0	0	0	0	135	845	576	84	246	75
Annual Bond Issue	282,072	0	0	0	0	5,418	33,812	23,022	3,374	9,841	3,010
Cumulative Bond Issue		0	0	0	0	5,418	39,230	62,252	65,626	75,467	78,477
Debt Service Ratio (Residential Portion)											
Total Annual Net Debt Service		0	0	0	0	465	3,366	5,342	5,631	6,476	6,734
Residential Share of Debt Service		0	0	0	0	330	2,389	3,791	3,997	4,596	4,780
Value of Homes Constructed		0	0	0	0	0	0	65,000	164,550	253,475	367,225
Value of Finished Lots (Res. Only)		0	0	0	0	0	16,250	24,888	22,856	30,625	33,850
Value of Unfinished Lots (Res. Only)		<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>227,945</u>	<u>217,990</u>	<u>208,848</u>	<u>196,598</u>	<u>183,058</u>
Total Value of Homes & Lots		<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>234,445</u>	<u>244,195</u>	<u>307,878</u>	<u>396,254</u>	<u>480,698</u>	<u>584,133</u>
Debt Service as % of Value (Resid.)		0.0%	0.0%	0.0%	0.0%	0.1%	1.0%	1.2%	1.0%	1.0%	0.8%
Property Value Vs. Bond Issues											
Value of Homes Constructed		0	0	0	0	0	0	65,000	164,550	253,475	367,225
Value of Commercial Uses Absorbed		0	0	0	0	0	0	48,250	137,060	188,560	284,410
Value of Finished Lots		0	0	0	0	0	16,250	24,888	22,856	30,625	33,850
Value of Unfinished Lots		<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>317,701</u>	<u>298,865</u>	<u>284,573</u>	<u>262,738</u>	<u>242,577</u>
Total Development Value		<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>329,026</u>	<u>333,951</u>	<u>437,003</u>	<u>609,039</u>	<u>735,398</u>	<u>928,062</u>
Value of Property vs. Bond Issues		--	--	--	--	60.7	8.5	7.0	9.3	9.7	11.8

Assumptions:

Interest Rate	7.00%
Reserve Fund	9.00%
Costs of Issuance	1.50%
Underwriter's Fee	2.50%
Term (in Years)	25
Resid. Value as % of Total Value	70.97%
Number of Lots (Units)	12,458
Average Home Value	\$185,638

/1 Includes only those costs that may be financed through Mello-Roos or Assessment District; other costs to be financed directly by developers.

Source: Economics Research Associates

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05/19/92

Table 10-3

ANALYSIS OF BONDING CAPACITY

Eastern Dublin Fiscal Analysis - Specific Plan Area

(In Thousands of Constant 1992 Dollars)

Funds Required	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure Costs	8,026	1,380	6,644	53,900	20,021	17,961	8,355	26,823	10,903	3,208	4,733
Capitalized Interest	702	121	581	4,716	1,752	1,572	731	2,347	954	281	414
Reserve Fund	903	155	747	6,064	2,252	2,021	940	3,018	1,227	361	533
Issuance Costs	150	26	125	1,011	375	337	157	503	204	60	89
Bond Underwriter's Fee	<u>251</u>	<u>43</u>	<u>208</u>	<u>1,684</u>	<u>626</u>	<u>561</u>	<u>261</u>	<u>838</u>	<u>341</u>	<u>100</u>	<u>148</u>
Annual Bond Issue	10,033	1,724	8,305	67,375	25,027	22,452	10,444	33,529	13,628	4,009	5,917
Cumulative Bond Issue	88,510	90,235	98,540	165,915	190,942	213,393	223,837	257,366	270,994	275,004	280,921
Debt Service Ratio (Residential Portion)											
Total Annual Net Debt Service	7,595	7,743	8,456	14,237	16,385	18,311	19,208	22,085	23,254	23,598	24,106
Residential Share of Debt Service	5,391	5,496	6,001	10,105	11,629	12,996	13,632	15,674	16,504	16,749	17,109
Value of Homes Constructed	489,150	613,450	722,500	910,900	1,109,650	1,308,400	1,507,150	1,662,100	1,809,850	1,964,000	2,113,900
Value of Finished Lots (Res. Only)	36,250	34,338	52,500	52,500	52,500	52,500	41,550	39,750	41,350	41,075	13,331
Value of Unfinished Lots (Res. Only)	<u>168,558</u>	<u>154,823</u>	<u>133,823</u>	<u>234,445</u>	<u>91,823</u>	<u>70,823</u>	<u>54,203</u>	<u>38,303</u>	<u>21,763</u>	<u>5,333</u>	<u>0</u>
Total Value of Homes & Lots	693,958	802,610	908,823	1,197,845	1,253,973	1,431,723	1,602,903	1,740,153	1,872,963	2,010,408	2,127,231
Debt Service as % of Value (Resid.)	0.8%	0.7%	0.7%	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%	0.8%
Property Value Vs. Bond Issues											
Value of Homes Constructed	489,150	613,450	722,500	910,900	1,109,650	1,308,400	1,507,150	1,662,100	1,809,850	1,964,000	2,113,900
Value of Comm'l Component	350,620	460,110	505,300	582,300	626,100	687,560	736,060	824,560	850,530	858,530	864,050
Value of Finished Lots	36,250	34,338	52,500	52,500	52,500	52,500	41,550	39,750	41,350	41,075	13,331
Value of Unfinished Lots	<u>217,128</u>	<u>198,874</u>	<u>170,174</u>	<u>266,416</u>	<u>117,648</u>	<u>91,798</u>	<u>66,328</u>	<u>47,831</u>	<u>30,491</u>	<u>13,509</u>	<u>4,176</u>
Total Development Value	1,093,148	1,306,771	1,450,474	1,812,116	1,905,898	2,140,258	2,351,088	2,574,241	2,732,221	2,877,114	2,995,457
Value of Property vs. Bond Issues	12.4	14.5	14.7	10.9	10.0	10.0	10.5	10.0	10.1	10.5	10.7
Assumptions:											
Interest Rate	7.00%										
Reserve Fund	9.00%										
Costs of Issuance	1.50%										
Underwriter's Fee	2.50%										
Term (in Years)	25										
Resid. Value as % of Total Value	70.97%										
Number of Lots (Units)	12,458										
Average Home Value	\$185,638										

/1 Includes only those costs that may be financed through Mello-Roos or Assessment District; other costs to be financed directly by developers.

Source: Economics Research Associates

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Table 10-4

MELLO-ROOS OR ASSESSMENT DISTRICT COST ALLOCATIONS, BY LAND USE /3
 Eastern Dublin Financing Plan

LAND USES CHARGED WITH MELLO-ROOS OR ASSESSMENT DISTRICT COSTS

Capital Improvements	Factor	Open	Rural	Low	Medium	Med-High	High	Regional	Neighborhood	Campus	Industrial	Government/ Institutional	
		Space (0-0.3/ac)	Residential (0.3-3/ac)	Density (3-6/ac)	Density (6-12/ac)	Density (12-25/ac)	Density (25+/ac)						Hotel
Streets and Mass Grading	trips	\$0	\$4,951	\$2,963,250	\$6,053,991	\$2,358,470	\$908,656	\$9,718,303	\$2,638,194	\$258,449	\$6,281,923	\$929,914	\$1,734,838
Intersection Improvements	trips	0	873	522,494	1,067,467	415,856	160,218	1,713,575	465,178	45,571	1,107,657	163,967	305,894
Freeway Overcrossings	trips	0	2,097	1,254,860	2,563,709	998,751	384,792	4,115,451	1,117,207	109,446	2,660,232	393,794	734,659
60% Share of Freeway	trips	0	2,051	1,227,723	2,508,268	977,153	376,471	4,026,453	1,093,047	107,080	2,602,704	385,278	718,772
Water Service	DUE	0	8,906	5,329,947	10,889,210	4,848,159	544,794	4,161,939	1,129,827	374,031	6,060,866	1,153,531	1,673,790
Wastewater Service	DUE	0	2,274	1,361,033	2,780,624	1,238,006	139,116	1,062,776	288,508	95,511	1,547,678	294,561	427,412
Storm Drainage	DUE	0	5,428	3,248,800	6,637,376	2,955,132	332,072	2,536,856	688,672	227,986	3,694,322	703,120	1,020,237
Police and Fire Stations	DUE	0	62	36,834	75,254	33,505	3,765	28,763	7,808	2,585	41,886	7,972	11,567
School Development	child	0	55,958	33,490,993	45,790,716	12,888,469	11,586,364	0	0	0	0	0	0
Other Public Buildings	capita	0	2,277	1,362,887	2,523,372	1,210,637	1,088,328	0	0	0	0	0	0
Park Improvements	capita	0	13,315	7,969,170	14,754,845	7,078,922	6,363,748	0	0	0	0	0	0
Total Capital Costs Funded		0	98,192	58,767,990	95,644,833	35,003,058	21,888,325	27,364,114	7,428,442	1,220,659	23,997,268	4,032,136	6,627,170
Total Capital Cost Per Unit		\$0	\$24,548	\$24,548	\$19,555	\$12,859	\$8,945	\$7,319	\$7,319	\$5,086	\$6,171	\$2,335	\$6,171
Total Capital Cost as % of Value		0.0%	4.9%	8.2%	8.7%	10.3%	11.9%	9.1%	9.1%	4.7%	5.6%	4.0%	/2
Estimated Yearly Assessment/Unit /1		\$0	\$2,106	\$2,106	\$1,678	\$1,103	\$768	\$628	\$628	\$436	\$529	\$200	\$529
Yearly Assessment as % of Value		0.0%	0.4%	0.7%	0.7%	0.9%	1.0%	0.8%	0.8%	0.4%	0.5%	0.3%	/2

Allocation Factors

Number of Units (homes or 1,000 sf)	0	4	2,394	4,891	2,722	2,447	3,739	1,015	240	3,889	1,727	1,074
Trips per unit	10.0	10.0	10.0	10.0	7.0	3.0	50.0	50.0	10.0	15.0	5.0	15.0
Total Trips	0	40	23,940	48,910	19,054	7,341	78,514	21,314	2,088	50,751	7,513	14,016
Dwelling Unit Equivalent (DUE)	1.0	1.0	1.0	1.0	0.8	0.1	0.5	0.5	0.7	0.7	0.3	0.7
Total Dwelling Unit Equivalents	0	4	2,394	4,891	2,178	245	1,869	507	168	2,722	518	752
School-children per unit	0.65	0.65	0.65	0.44	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00
Total school-children	0	3	1,556	2,128	599	538	0	0	0	0	0	0
Population or Employment per unit	3.2	3.2	3.2	2.9	2.5	2.5	3.0	3.0	1.0	4.5	1.8	2.5
Total Population	0	13	7,661	14,184	6,805	6,118	0	0	0	0	0	0
Acreage	0	607.6	649.9	505.5	137.4	71.8	317.8	72.1	10	218.5	141.6	98.6
Average Market Value/Unit	\$700,000	\$500,000	\$300,000	\$225,000	\$125,000	\$75,000	\$80,000	\$80,000	\$108,000	\$109,800	\$58,250	\$0

Note: /1 Assumes 25-year financing at 7 percent.

/3 Costs include the costs of issuing bonds.

/2 Market value for government/institutional land uses is undetermined.

Source: Economics Research Associates

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11.0 IMPLEMENTATION

The preceding chapters of this Specific Plan provide the plans, policies and guidelines for the orderly development of the eastern Dublin planning area. This chapter sets forth a variety of implementing steps and regulatory and organizational procedures to implement the Specific Plan.

11.1 SUMMARY: SPECIFIC PLAN IMPLEMENTATION PROGRAM

The following shows the approximate sequence of the key implementing steps that should be followed by the City to effectively implement this Specific Plan.

- Certify the Eastern Dublin Specific Plan Program Environmental Impact Report
- Adopt findings as required by the California Environmental Quality Act (CEQA)
- Amend the General Plan
- Adopt the Specific Plan
- Adopt rezoning for the Specific Plan area
- Conclude property tax exchange agreement with the County
- Annex currently unincorporated Specific Plan areas into the City and DSRSD service area
- Prepare a Plan for Services
- Adopt development review procedures for projects in the Specific Plan area
- Adopt Subarea Planned Development Plans
- Approve Master Grading, Utility and Drainage Plans
- Review and approve individual Tentative Subdivision maps
- Adopt Public Improvement Plans
- Adopt Financing Plans
- Negotiate development agreements and set up financing mechanisms (assessment districts, impact fee ordinance, etc)

11.2 KEY IMPLEMENTING ACTIONS OF SPECIFIC PLAN

11.2.1 EIR CERTIFICATION

To meet the requirements of the California Environmental Quality Act (CEQA), a program Environmental Impact Report (EIR), as authorized by Section 15168 of the CEQA guidelines, has been prepared to assess the environmental impacts of the Eastern Dublin Specific Plan.

The Specific Plan's EIR has been prepared as a program EIR to cover the development of the eastern Dublin planning area as a total undertaking, although development is expected to occur in several increments over a number of years by several developers. The program EIR will expedite the processing of future projects. Projects that are consistent with the Plan, and are determined by the City's Initial Study to not result in new effects or require additional mitigation, may be approved without further environmental documentation. For other projects, only those factors with potential impacts will require additional analysis. The Specific Plan's Final EIR must be certified by the City as accurate and complete, once all comments on the Draft EIR have been responded to. The City's action to certify the Final EIR does not constitute approval of the Specific Plan. Rather, it indicates that all required environmental information has been presented to the City's decision-makers and the public.

11.2.2 CEQA FINDINGS

The City must approve Findings of Fact and Statement of Overriding Considerations, as required by Sections 15091 and 15093 of the CEQA guidelines. The Findings of Fact explain how the City has dealt with each significant adverse environmental impact and the project alternatives offered in the Final EIR. The Statement of Overriding Considerations identifies the specific reasons for approving a project for which all significant adverse environmental impacts have not been at least substantially mitigated. On May 10, 1993, the City Council approved the findings and Statement of Overriding Considerations for the Eastern Dublin Project.

11.2.3 GENERAL PLAN AMENDMENTS

The City will amend the Dublin General Plan to add appropriate land use designations for the Eastern Extended Planning Area. Amendments to the General Plan's policies and text will also be adopted. The City Council adopted the Eastern Dublin General Plan Amendment on May 10, 1993.

11.2.4 ADOPTION OF THE SPECIFIC PLAN

Following amendment of the General Plan, the Specific Plan will be adopted by the City Council. The City Council adopted the Eastern Dublin Specific Plan on May 10, 1993.

11.2.5 PREZONING

The City needs to determine the zoning that will apply to the eastern Dublin planning area in anticipation of subsequent annexation of this area to the City. Such prezoning becomes the effective zoning of property when the annexation becomes effective.

City prezoning of the Planning Area should be consistent with the amended Dublin General Plan. The following City zoning districts could be used as a basis for land use regulations, with adaptation as needed for conditions in eastern Dublin. As currently written, the categories in the City's Zoning Ordinance would not be adequate to achieve the development character described in the Eastern Dublin Specific Plan. Rather than suggesting a major revision of the Ordinance that could affect uses throughout Dublin, it is recommended that emphasis be placed on using Planned Development (PD) zoning to ensure adequate City review and provide necessary flexibility to achieve Specific Plan objectives. Some revisions will still need to be made in the Ordinance to accommodate this approach and address other needs created by the Specific Plan (e.g., creation of a PD overlay district that can be applied to non-residential categories, creation of open space and public facilities districts, etc.).

Table 11.1

RECOMMENDED PREZONING FOR LAND USE DESIGNATIONS

<u>Specific Plan Land Use</u>	<u>City Zoning District</u>
Rural Residential	A
Residential Single Family	PD with R-1 base
Residential Medium Density	R-PD with R-S base
Residential Medium-High Density	R-PD with R-S base
Residential High Density	R-PD with R-4 base
General Commercial	H-1 for areas adjacent to I-580 PD with C-1 base for Town Center
Neighborhood Commercial	PD with C-N base
Campus Office	C-O
Industrial Park	M-P
Public/Semi-Public	Create a new district
Open Space	Create a new district

SOURCE: Wallace Roberts & Todd, March 1992

11.2.6 ANNEXATION

The Eastern Dublin Specific Plan area is within the City's current sphere of influence, but most of it (all except for the County's Santa Rita property) is outside the existing city limits. The City will be required to adopt a resolution of annexation before filing an application for annexation with the Alameda County Local Agency Formation Commission.

11.2.7 DISTRICT PLANNED DEVELOPMENT PLANS

To create more coordinated, coherent development, the Planning Area is divided into subareas with a requirement of the project sponsor(s) to provide more specific Planned Development planning before granting development permit approvals for each district. Recommended boundaries are illustrated in Figure 4.2. However, areas can be expanded or divided to respond to ownership patterns (although landowners are encouraged to work together to formulate the plans).

"Planned Development Plans" shall be prepared in greater detail than the Specific Plan, in keeping with zoning ordinance requirements. The plan shall show the location and arrangement of all proposed uses, specify the circulation system, define parcels, refine the design standards, specify the infrastructure requirements and their sequencing, reflect the applicable mitigation measures of the Final EIR, include master neighborhood landscape plans, and note neighborhood park location. Planned Development plans shall also include a written statement which discusses affordable housing and any other such material or information required by the Eastern Dublin Specific Plan, the Dublin General Plan, and/or needed for the type of development proposed. Action programs within the Specific Plan provide specific requirements.

Planned Development plans shall be consistent with the Dublin General Plan, as amended and the Eastern Dublin Specific Plan. Planned Development plans may be reviewed by the City together with the tentative map(s) for the subarea.

11.2.8 TENTATIVE MAP

The subdivision process in the Planning Area will be governed by the Subdivision Map Act, as well as City standards and procedures. Tentative maps must be consistent with the Specific Plan. Given the size of some of the landholdings, Master Tentative maps may be filed that include large parcels which are intended for further subdivision at a later date. Where appropriate, the Master Tentative Map will note the potential for future tentative maps to be filed on these interim parcels.

11.2.9 SITE DEVELOPMENT REVIEW (SDR)/DESIGN REVIEW

The City shall adopt staff SDR guidelines for the eastern Dublin planning area to ensure more attractive buildings and coherent neighborhoods. SDR would be based upon the design standards, guidelines and mitigations contained in this Specific Plan and the EIR on the Specific Plan, and may be augmented by design guidelines which the City has established for the entire Dublin community.

SDR should initially take place simultaneous with the subarea plan review process and subsequently at the individual development plan/subdivision map stage.

11.2.10 PUBLIC IMPROVEMENT PLANS

The on-site and off-site public improvements necessary to serve the eastern Dublin planning area need to be specifically de- signed. The applicants should prepare for City review and

approval Public Improvement Plans, consisting of detailed engineering designs and documents for all utilities necessary to develop the land uses identified in the Specific Plan. These plans should include an infrastructure sequencing program that will allow orderly development throughout the Specific Plan area.

The sequencing program shall prioritize roads, sewer, water, drainage and other utilities that must be in place prior to specific levels of development being permitted.

11.2.11 FINAL MAP

When all issues associated with the Tentative Map are resolved, a Final Map will be filed and approved by the City, in keeping with City standards and procedures, and the Subdivision Map Act.

11.2.12 PARK IMPROVEMENT PLANS

The City shall prepare improvement plans for proposed public parks.

11.2.13 FINANCING PLANS

The major capital improvements required supporting development in the eastern Dublin planning area, major project responsibilities and possible methods of funding are described in Chapter 11. Detailed financial plans shall be prepared and be made a part of the Development Agreement. The Financing Plans shall identify the necessary capital improvements including public facilities, streets and utilities and assure their timely financing. Implementation of the Financing Plans can be assured by inclusion of provisions in development approvals and/or development agreements that require adherence to the plan.

11.2.14 RESPONSIBILITIES FOR KEY IMPLEMENTING ACTIONS

The following table indicates the responsibilities for preparation of the documents discussed above:

Table 11.2

RESPONSIBILITIES FOR KEY IMPLEMENTING ACTIONS

<u>Key Implementing Actions</u>	<u>Responsibility for Document Preparation</u>	<u>Adoption by</u>
EIR Certification	City	City
CEQA Findings	City	City
General Plan Amendments	City	City
Specific Plan Adoption	City	City
Rezoning	City	City
Annexation	City/DSRSD	City
Subarea Plans	Developers	City
Tentative Map	Developers	City
Site Development/Design Review	City	City
Public Improvement Plans	Developers	City
Final Subdivision Map	Developers	City
Park Improvement Plans	City	City
Financing Plans	Developers	City

SOURCE: Wallace Roberts & Todd, March 1952

11.3 OTHER IMPLEMENTING ACTIONS

In addition to the foregoing key actions, the following actions will assist in Specific Plan preparation.

11.3.1 DEVELOPMENT AGREEMENTS

The City shall require all applicants for development in eastern Dublin to enter into a mutually acceptable development agreement with the City for their respective area. Agreements should only be arranged where the developer is prepared to proceed promptly in accordance with a specific time schedule for seeking the required approvals and commencing construction. Typically, the agreements would be entered into after the EIR is certified and before tentative subdivision maps are approved.

Such development agreements will set forth the roles that will govern the developments as they proceed through the approval process. Both the City and the project sponsors (developers) would commit themselves to proceed in accordance with the terms of the agreements. The City may agree to process further applications in accordance with its plans and laws in existence at the time of the agreements. In effect, the City promises not to change its planning or zoning laws applicable to these developments for a specified period of time. Thus, future land use decisions are not made according to the City's laws and policies in effect at that time, but are made according to the laws in effect when the agreements were entered into. In return, the developers may agree to construct specific improvements, provide public facilities and services, develop according to a specified time schedule or make other commitments which the City might otherwise have no authority to compel the developers to perform.

The Specific Plan and its EIR places substantial requirements on the development of the properties within the eastern Dublin planning area. These requirements include financing, construction and maintenance of public facilities, design standards, and mitigation of environmental impacts. For this Specific Plan, a development agreement is the recommended legal document to:

- **Augment the City's standard development regulations in response to the particular characteristics of each individual project;**
- **Spell out the precise financial responsibilities of the developer;**
- **Ensure timely provision of adequate public facilities for each project;**
- **Streamline the development approval process by coordinating various discretionary approvals;**
- **Provide the terms for reimbursement when a developer advances funding for specific facilities which have community-wide or area benefit;**

- **Provide mutually to both the City and the developer regarding entitlements to the developer in return for commitments for public improvements.**

The City should first develop a Master Development Agreement to serve as the format for all development agreements within the eastern Dublin planning area. The conditions included in this Master Development Agreement would then be tailored to the special condition for each major project area and the development projects within it.

11.3.2 AREA OF BENEFIT ORDINANCE

The City shall adopt an Area of Benefit Ordinance and form an Area of Benefit for those properties benefiting from construction of public improvements described in the Specific Plan. Area of Benefit fees may be enacted by the City of Dublin through adoption of an ordinance, without voter approval. The fee must be directly related to the benefit received. It does not create a lien against property, but must be paid in full as a condition of approval. Benefiting properties may be given the option to finance the fees by entering into an assessment district (1913 - 1911 Act) or Mello-Roos CFD.

11.3.3 ANALYSIS OF FINANCING TECHNIQUES

Further analysis of various public financing techniques is required to identify and develop the most flexible and lowest cost financing program for necessary public infrastructure and facilities in the project area. Each technique or combination of techniques should be evaluated for its suitability of funding public infrastructure and facilities costs and its capacity to insure both adequate and timely provision of infrastructure and facilities, and lowest possible burden to new residents. In addition, the financing program developed should be consistent with financing policies set out in the Specific Plan. Public financing mechanisms that the City should consider as part of this analysis may include:

- Special Assessment District 9 Mello-Roos CFD. The City shall analyze the use of a Mello-Roos CFD, Special Assessment District, or a combination of these and other financing mechanisms to finance construction of the required public improvements (outlined in Tables 10-1 and 10-4 in Chapter 10) to serve the Area of Benefit. Some of the special taxes or special assessments may be due upon application for building permits, and the remainder may be financed with the appropriate bond mechanisms.
- Landscaping and Lighting District. The City shall analyze the use of a district to fund certain ongoing costs such as maintenance of streetlights and landscaping.
- Geologic Hazards Abatement District (GHAD). The City shall analyze use of a GHAD to periodically inspect and maintain unstable slopes in the eastern Dublin area. A GHAD would provide for the assessment of a special fee on property owners in the area to pay for inspections and maintenance as well as create a reserve fund from which to make any necessary repairs. Water quality basins and other geologic and hydrologic hazards and facilities may also be maintained by a GHAD.

11.3.4 MARKS-ROOS BOND POOLING

The City should have impartial bond counsel evaluate whether the City would save money and refrain from incurring undue risk by pooling bonds issued for western and eastern Dublin, or for eastern Dublin alone, under the Marks-Roos Bond Pooling Act.

11.3.5 CITYWIDE BUILDER IMPACT FEE SYSTEM

Citywide infrastructure needs should be analyzed to assess the usefulness of implementing an impact fee program, in compliance with AB 1600, that could draw some funding from new development when building permits are issued. The fees could pay for infrastructure of citywide importance, such as a community park or freeway interchange.

11.3.6 RESPONSIBILITIES FOR OTHER IMPLEMENTING ACTIONS

Table 11-3

RESPONSIBILITIES FOR OTHER IMPLEMENTING ACTIONS

<u>Other Implementing Actions</u>	<u>Responsibility For Document Preparation</u>	<u>Adoption by</u>
Development Agreements		
Master Development Agreement	City	Not applicable
Individual Development Agreement	City	City
Area of Benefit Ordinance	City	City
Special Assessment District or Mello-Roos CFD	Developers	City
Landscaping and Lighting District	Developers	City
Geological Hazards Abatement District	Developers	City
Marks-Roos Bond Pooling	City	City
Citywide Builder Impact Fee System	Developers	City

SOURCE: Wallace Roberts & Todd, March 1952

11.4 ADMINISTRATION OF THE SPECIFIC PLAN

When this Eastern Dublin Specific Plan is adopted by the City Council, it will be used to direct the processing of proposed project within the Planning Area. Given that many developers will be involved in the development of the eastern Dublin planning area, the following responsibilities, mechanisms and procedures will be necessary to review, monitor, coordinate and integrate what otherwise may be piecemeal and uncoordinated incremental development.

11.4.1 RESPONSIBILITIES FOR ADMINISTRATION OF THE SPECIFIC PLAN

Administration of the Eastern Dublin Specific Plan will be a joint effort of the City of Dublin and any developer who is a party to a development agreement between the City and the developer.

11.4.2 TYPICAL DEVELOPMENT REVIEW PROCESS

The intent of this section is to summarize the typical procedural steps needed to review and approve projects in the Planning Area. The following discussion of the development review process is simplified. Detailed information on how a proposed project can be processed should be obtained from the Dublin Planning Department.

Summary of the Development Review Process

A proposed project (usually a subdivision map or a development plan) is submitted to the Dublin Community Development Department for processing.

If the proposed project is next to and involves alterations to a natural waterway, the applicant may be required to submit pertinent information.

If a proposed project involves the dedication of parkland or development of a park, creek or other open space area, pathway or trail, it must be reviewed for consistency with this Specific Plan as well as the needs of the eastern Dublin community and the wider community.

Each proposed project shall be reviewed by staff for conformance with City land use laws, engineering standards and the provisions of the General Plan and this Specific Plan.

An initial environmental study will be prepared for each proposed project. Such environmental review will determine whether all important environmental issues were adequately addressed by the EIR for this Specific Plan or whether additional study is needed.

Summary of the Development Review Process

Site development/design review for projects within the Planning Area as required in this Specific Plan.

Responsibilities

Planning Department

Planning Department
California Department of Fish & Game

Parks and Recreation Commission
Planning Department

Planning Department
Public Works Department

Planning Department

Responsibilities

Planning Staff

Each project will be reviewed for its consistency with the provisions of the General Plan and this Specific Plan. Based on findings, it will be approved, changed or denied.

Planning Staff
 Planning Commission
 City Council

11.4.3 SPECIFIC PLAN CONSISTENCY

Following adoption of this Specific Plan, no development plan, subdivision, use permit or other entitlement for use shall be approved by the City and no public improvement shall be authorized by the City for construction in the eastern Dublin planning area until a finding has been made that the proposed entitlement or public improvement is in substantial conformance with this Specific Plan. Approval of final development plans; on-site public improvement plans and use permits also shall be substantially consistent with the applicable provisions of the Dublin General Plan.

All Specific Plan changes (both minor and major amendments) must be found consistent with the Dublin General Plan, or a General Plan Amendment may be required. If any regulation, condition or portion of this Specific Plan is held invalid by a California or Federal court, these portions shall be deemed separate, distinct, and independent provisions. The invalidity of these provisions shall not affect the validity of the remaining parts of the Specific Plan.

11.4.4 SPECIFIC PLAN AMENDMENT

Amendments to the Specific Plan may be requested by a developer or property owner and may be initiated by the City in accordance with City procedures for initial Specific Plan adoption. Specific Plan Amendments shall be processed in accordance with City ordinances.

11.4.5 ENVIRONMENTAL REVIEW

The EIR prepared for this Specific Plan assesses the expected effects of the ultimate environmental changes resulting from the Specific Plan and development taking place in conformance with the Specific Plan. The program EIR will act as a "Master EIR" for the specific plan area, reducing the need for project-specific environmental review in the initial years of development under the recommendations of the Specific Plan. Pursuant to Section 15182 of the CEQA Statutes and Guidelines, residential projects which are in conformity with the Specific Plan are exempt from subsequent environmental review, eliminating the need for additional EIR's. For non-residential and mixed-use projects that conform to the level of development prescribed in the Specific Plan, the subsequent environmental review process will only need to address the project's site-specific impacts. If additional impacts are identified and a subsequent EIR is required, general impacts which are addressed in the Specific Plan program EIR can be included by reference. Overall, the program EIR should result in faster processing of project applications that are consistent with the Specific Plan and the mitigation measures identified in the EIR.

For a project the size of eastern Dublin, and with such an extended projected buildout period, the effectiveness of the Specific Plan EIR may tend to decrease over time. Five to ten years from now, circumstances may change sufficiently to make it necessary to update information and reassess impacts as well as mitigation measures. Since eastern Dublin is projected to buildout over a 40 year or greater time frame, it is likely that additional specific environmental review, on a project-by-project basis, may be necessary in the later stages of plan area buildout. This could include focused studies on one or more identified environmental concerns (such as traffic or noise) or a full EIR. These determinations will be made by the City, and additional/ revised mitigation will be incorporated into the development approval process.

11.4.6 CONDITIONS, COVENANTS, & RESTRICTIONS

The major project developers or successors in interest shall be obligated to maintain architectural, landscape and site control at point of sale within individual districts so as to insure the cumulative character intended by the Specific Plan and subarea plans. Although Conditions, Covenants, and Restrictions (CC&R's) lie outside City enforcement procedures, this Specific Plan requires the use of CC&R's to enforce the design guidelines of the Specific Plan and to maintain landscape and open space areas and the improvements of each development project. The mechanism(s) to enforce the CC&R's shall be agreed to by the Developers and the City.

All CC&R's shall reflect the requirements contained in the Specific Plan. In addition, provisions for the design and maintenance of fencing, landscaping and open space areas and other facilities within projects as well for the abatement of nuisances shall be set forth in the CC&R's.

11.4.7 PHASE I ENVIRONMENTAL SITE ASSESSMENTS

Some former uses of the land within Eastern Dublin Specific Plan area involved the use of materials and methods of processing in the form of construction, in the manufacturing of goods, in the pursuit of agriculture, and in the provision of medical services, which today are considered to be hazardous. Information available to the City indicate that some remnants of these materials may remain on lands within the area. To ensure that development of the Eastern Dublin area does not occur until such time as such materials are either removed or encapsulated on site, the following condition shall apply.

Policy 11-1 Prior to issuance of building permits for site-specific Phase I (and if necessary Phase II) environmental site assessments shall be made available to the Community Development Director, with appropriate documentation that all recommended remediation actions have been completed.



APPENDICES

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City of Dublin
Eastern Dublin Specific Plan

APPENDIX 1

REPORT PREPARES



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City of Dublin
Eastern Dublin Specific Plan

APPENDIX 1

REPORT PREPARERS

The Specific Plan was prepared by Wallace Roberts & Todd and associated consulting firms as given below:

Wallace Roberts & Todd

Barbara Maloney, AIA – Partner-in-Charge
Stephen Hammond – Project Manager
John Skibbe – Urban Designer
Diane Ochi – Landscape Architect
Robert H. Sinkoff – Planner
Catherine Ramdsen – Environmental Designer
Diane Hiland – Administrative Assistant

BioSystems Analysis Inc.

Jeremy Prat- Principal-in-Charge
Gary Ahlborn – Biologist

Hans Giroax

Hans Giroux – Air Quality Specialist

Holman & Associates

Miley P. Holman – Principal-in-Charge

Charles Salter & Associates

Alan T. Rosen – Acoustical Analyst

Economic Research Associates

Steven Spickard – Principal-in-Charge
Eleanor Tiglao – Economist

DKS Associates

Randall McCort, P.E. – Principal-in-Charge
Michael Aronson, P.E. – Transportation Engineer

Kennedy/Jenks Consultants

Douglas B. Henderson, P.E. – Principal-in-Charge
Donald Bentley, P.E. – Civil Engineer

Harlan Tait Associates

Robert Wright - Geologist

APPENDIX 2

ANTICIPATED LAND USES BY DESIGNATION



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City of Dublin
Eastern Dublin Specific Plan

APPENDIX 2

ANTICIPATED LAND USES BY DESIGNATION

The following is intended to provide more detail regarding the specific types of land uses that are anticipated within each of the Specific Plan land use categories. The listed uses are considered appropriate uses given the intent of the Plan, but are not the only uses that may be approved. It is intended that the following lists will supplement the Plan text to provide guidance to the Planning Commission and City Council when making decisions regarding the appropriateness of future development proposals.

COMMERCIAL/INDUSTRIAL

General Commercial (.20 to .50 Floor Area Ratio)

Anticipated uses include, but are not limited to:

- retail uses, including a major community-serving uses (e.g., supermarkets, drug stores, hardware stores, apparel stores, etc.) and regionally-oriented retail uses (e.g., high-volume retail uses such as discount centers, promotional centers, home improvement center, furniture outlets, auto malls, etc.);
- all office uses;
- hotels;
- services uses; and
- restaurants and other eating and drinking establishments.

General Commercial/Campus Office

Anticipated uses include, but are not limited to:

- retail uses, including major community serving uses (e.g., supermarkets, drug stores, hardware stores, apparel stores, etc.) and regionally-oriented retail uses (e.g., high volume retail uses such as discount centers, promotional centers, home improvement centers, furniture outlets, auto malls, etc)
- professional and administrative offices;
- hotels;
- service uses;
- restaurants and other eating and drinking establishments;
- administrative headquarters; and
- research and development.

Mixed Use

Anticipated uses include, but are not limited to:

- neighborhood serving commercial uses (both retail and office);
- entertainment and cultural facilities;
- restaurants and bars;
- high density housing.

Mixed Use 2/Campus Office

Anticipated uses include, but are not limited to:

- neighborhood serving and regional commercial uses (both retail and office);
- entertainment and cultural facilities;
- restaurants and bars;
- medium, medium-high and high density housing – including shopkeeper & liver-work units;
- hotel and spa;
- professional and administrative offices;
- administrative headquarters;
- research and development; business and commercial services; and
- ancillary uses (restaurants, convenience shopping, copying services, branch banks, etc.)

Neighborhood Commercial (.25 to .60 Floor Area Ratio)

Anticipated uses include, but are not limited to:

- office uses which provide neighborhood and citywide services such as real estate, accounting, legal, etc.;
- local-serving commercial services such as laundries, dry cleaners, beauty salons, finance, video rental, etc.;
- all local and community serving retail, but not regionally-oriented, high volume retail sales establishments;
- restaurants and bars;
- hotels and bed-and-breakfast inns which are consistent with the scale and character of the commercial street; and
- entertainment and cultural facilities.

Campus Office (.25 to .80 Floor Area Ratio)

Anticipated uses include, but are not limited to:

- professional and administrative offices;
- administrative headquarters;
- research and development;
- business and commercial services;
- limited light manufacturing, assembly and distribution activities; and
- ancillary uses (restaurants, gas stations, convenience shopping, copying services, branch banks, etc.)

Industrial Park (Maximum .35 Floor Area Ratio)

Anticipated uses include, but are not limited to:

- manufacturing, processing, assembly, fabrication;
- research and development;
- printing;
- warehouse and distribution;
- wholesale and heavy commercial uses; and
- outdoor storage and service yards.

PUBLIC/SEMI-PUBLIC

Public/Semi-Public (Maximum .50 Floor Area Ratio)

Anticipated uses include, but are not limited to:

- public buildings (e.g., libraries; city office buildings; State, County and other public agency facilities; post offices; fire stations; and utilities);
- semi-public uses (e.g., churches, theaters, community centers, hospitals, etc.)
- schools and parks are not included under this designation.

Semi-Public

Anticipated uses include, but are not limited to:

- semi-public uses (e.g., churches, theaters, community centers, hospitals, etc.).

PARKS AND OPEN SPACE

City Park

Anticipated uses include, but are not limited to:

- large open space areas, including unique natural or cultural features;
- group picnic areas;
- interpretive centers;
- bicycling and hiking trails;
- sports facilities (e.g., lighted baseball fields, outdoor basketball courts, outdoor volleyball courts, lighted tennis courts, innovative children’s play structures, and play fields suitable for a variety of sporting activities including informal softball, soccer and football);
- special features (e.g., water features, petting zoo, education center or museum, library, outdoor amphitheater, Community Center, skateboard park, aquatics center, and a Teen Center; and
- other facilities (e.g., permanent restroom facilities and parking lots).

Community Park

Anticipated uses include, but are not limited to:

- regulation sports fields and facilities for competition baseball, softball, and soccer; a swimming pool and related amenities;
- basketball, volleyball, and tennis courts;
- children’s play structures;
- special facilities (e.g., a gymnasium, a Teen Center, and specialized sports facilities such as lawn bowling, croquet, bocce ball, or a putting green);
- a jogging/walking loop with a par course;
- picnic facilities for large and small groups, with barbecues, tables, and water;
- restroom facilities; and
- vehicular and bicycle parking.

Neighborhood Park

Anticipated uses include, but are not limited to:

- landscaping and/or structures for shade and shelter ;
- sports facilities (e.g., turf fields for practice softball and soccer or informal recreation, lighted tennis courts, volleyball courts, and outdoor basketball courts);
- play areas and apparatus for very young children, with seating areas for adults;

- family-size picnic areas; and
- off-street parking (only if street frontage is inadequate to accommodate parking needs. It is generally assumed that most residents will walk to the park).

Neighborhood Square

Anticipated uses include, but are not limited to:

- park amenities (e.g., public art, fountains, formal landscaping, and seating);
- smaller scale sports facilities (e.g., a basketball court, tennis court, or tot lot);
- low level night lighting; and
- parking will be accommodated by on-street parking.

APPENDIX 3

LAND USE SUMMARY BY PLANNING SUBAREA



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City of Dublin
Eastern Dublin Specific Plan

APPENDIX 3 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY PLANNING SUBAREAS				
Planning Subareas Land Use Category	Area	Density	Square Feet	Units
Tassajara Gateway				
General Commercial	52.7	.25	573,903	
General Commercial/Campus Office	10.5	0.28	128,066	
Campus Office	33.28	.35	507,387	
Open Space	6.9			
Total	121.96		1,209,356	
Town Center - Commercial				
General Commercial	65.4	.35	997,088	
Neighborhood Commercial	31.7	.35	483,298	
Public/Semi-Public	7.8	.25	84,942	
Total	104.9		1,565,328	
Town Center – Residential				
High Density Residential	33.6	35		908
Medium High Density Residential	44.9	20		852
Medium Density Residential	198.8	10		1,949
Single Family Residential	89.2	4		399
Subtotal	356.7			4,108
Open Space	49.8			
City Park	56.3			
Community Park	80.6			
Neighborhood Park	11.6			

Neighborhood Square	7.5			
Nature Community Park	10.4			
Subtotal	216.2			
Elementary School	31.1			
Total	604			4,108
Fallon Gateway				
General Commercial	121.2	.25	1,319,868	
General Commercial/ Campus Office	72.7	.28	886,708	
Medical Campus	42.88	.51	950,000	
Industrial Park	61.3	.28	747,664	
Total	298.08		3,904,240	
Tassajara Village Center				
Neighborhood Commercial	8.6	.3	112,385	
Medium High Density Residential	27.1	20		542
Medium Density Residential	52.0	10		520
Single Family Residential	17.6	4		70
Subtotal	105.3		112,385	1,132
Open Space	17.1			
Neighborhood Park	5.3			
Neighborhood Square	2.8			
Subtotal	25.2			
Elementary School	11.8			
Total	142.3		112,385	1,091

Fallon Village Center				
Medium High Density Residential	13.33	20		267
Medium Density Residential	38.43	10		384
Semi-Public*	4.5			
Public/Semi-Public	3.7			
Neighborhood Square	2.0			
Community Park	13.5			
Open Space	3.6			
Total	79.06			651
Foothill Residential				
Medium-High Density Residential	27.1	20		542
Medium Density Residential	261.9	10		2,619
Single Family Residential**	800	4		3,200
Estate Residential	30.4	0.13		4
Rural Residential/Agriculture	543.3	.01		5
Subtotal	1,662.7			6,370
Open Space	632.5			
Regional Park	11.7			
Neighborhood Park	41.2			
Neighborhood Square	6.4			
Subtotal	689.9			
Elementary School	22.7			
Junior High School	1.4			
High School	55.3			
Subtotal	79.4			

Public/Semi Public	7.2	0.24 FAR		
Total	2,432.9			6,370 du 7 parks 5 schools
Grafton Plaza				
Option 1	25.33	0.45	496,519 sf which includes min. 248,260 sf of non-residential uses	+/- 235 units (max. 248,259 sf)
Option 2	25.33	0.45	496,519 sf non-residential uses	0 units
Hacienda Gateway				
General Commercial	81.1	.25	883,179	
Neighborhood Commercial	18.0	.3	235,224	
Campus Office	49.5	.35 FAR	754,677	
Campus Office	37.0	.75 FAR	1,208,790	
Subtotal	185.6		3,081,870	
High Density Residential	36.3	35		1,271
Medium High Density Residential	15.3	20		306
Subtotal	51.6		3,081,870	1,577
Total	237.5		3,081,870	1,577
County Center				
Industrial Park	53.4	.28	651,309	
Public/Semi-Public	90.8	.25	988,812	
Total	144.2		1,640,121	
TOTAL LAND AREA	3,997.8		11,999,560	13,737

* The locations of the Semi-Public sites on the Jordan, Croak and Chen properties of Fallon Village will be determined at the time of the Stage 2 PD approval. The site on Jordan will be 2.0 net acres within the Fallon Village Center subarea; the site on Croak, 2.0 net acres, and the site on Chen, 2.5 net acres within the Fallon Village Center subarea. For the purposes of this table, 2.0 acres of Medium High Density Residential land on Jordan was changed to Semi-public, 2.0 acres of Single Family Residential land on Croak (in the Foothill Residential Subarea) was changed to Semi-Public, and 2.5 acres of Medium High Density residential land on Chen was changed to Semi-Public. These assumptions may change at the time of the Stage 2 PD approval.

**The Eastern Dublin Specific Plan originally considered 68 units on the Dublin Ranch North (Redgewick) property. The land use designation was amended to allow development of 4 units. This change results in 64 excess single family units then what was analyzed in the 1993 Eastern Dublin Environmental Impact Report.

APPENDIX 4

LAND USE SUMMARY BY LAND OWNER



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City of Dublin
Eastern Dublin Specific Plan

Ownership of land has changed since the Eastern Dublin Specific Plan was completed. Additionally, properties have been added to the Planning area and also properties were not included in the original tables.

APPENDIX 4				
EASTERN DUBLIN SPECIFIC PLAN				
LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#1 CHANG SU-O-LIN				
General Commercial	49.1	.25	534,699	
Neighborhood Commercial	2.8	.3	36,590	
Medical Campus	42.88	.35	950,000600,692	
High Density Residential	7.0	35		245
Medium High Density Residential	19.9	20		398
Medium Density Residential	201.9	10		2,019
Single Family Residential	297.0	4		1,188
Rural Residential	170.5	.01		1
Community Park	101.5			
Neighborhood Park	16.8			
Neighborhood Square	4.3			
Open Space	271.6			
Elementary School	33.6			
High School	20.6			
Total	1,239.48		1,521,289	3,851
#2 TIPPER				
Medium Density Residential	8.2	10		82
Open Space	4.3			
Total	12.5			82
#3 VARGAS				
Medium Density Residential	2.08	6.48		16
Open Space	0.98			
Right-of-way	1.89			
Total	4.95			16

APPENDIX 4 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#4 FREDRICH				
Medium Density Residential	4.08	6.48		32
Open Space	2.08			
Total	6.16			32
#5 HAIGHT				
Medium Density Residential	2.1	20		42
Total	2.1			42
#6 MISSION PEAK				
Medium High Density Residential	1.1	20		22
Single Family Residential	24.2	4		97
Rural Residential	38.5	.01		1
Open Space	2.7			
Total	63.5			120
#7a Lin				
Estate Residential	30.4	0.13		4
Open Space	126.8	--		0
#7b DSRSD	0.5	--		0
Total	157.7			4
#8 SILVERA				
Medium High Density Residential	4.0	20		80
Medium Density Residential	22.1	10		210
Single Family Residential	8.7	4		35
Rural Residential	45.1	.01		1
Community Park	11.1			
Total	91.0			326
#9 NIELSON				
Rural Residential	10.9	3.3		36
Total	10.9			36

APPENDIX 4 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#10 ZIMMER				
Medium High Density Residential	6.5	10		65
Rural Residential	3.5	.01		0
Total	10.0			65
#11 KOBOLD				
Medium Density Residential	2.0			20
Open Space	1.8			
Total	3.8			20
#12 GYGI				
Medium Density Residential	1.0	10		10
Total	1.0			10
#13 EBRPD				
Neighborhood Park	11.7			
Open Space	15.5			
Total	27.2			
#14 KOLLER				
Medium Density Residential	41.2	10		412
Open Space	14.0			
Junior High School	16.4			
Total	71.6			412
#15 CASTERSON				
Medium Density Residential	10.2	10		102
Junior High School	5.0			
Open Space	4.0			
Total	19.2			102

APPENDIX 4 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#16 ALAMEDA COUNTY¹				
General Commercial	133.75	.21 - .3	1,369,874	
Campus Office ²	79.05	.85 / .40	2,416,273	
Public/Semi-Public	88.5	.25	963,765	
Industrial/Office	65.0	.37	1,047,618	
High Density Residential	31.74	35		1,159
Medium High Density Residential	41.76	16 – 20		799
Medium Density Residential	60.2	10		602
Single Family Residential	89.2	4 – 5.4 ³		399
City Park	56.3			
Open Space/Creek	29.1			
Elementary School	11.0			
Total	685.6⁴		5,797,530	2,959
#17 UNITED STATES OF AMERICA				
General Commercial	4.2	.35	64,033	
Total	4.2		64,033	
#18 DUBLIN LAND COMPANY				
General Commercial	60.3	.35 / .25	846,153	
Neighborhood Commercial	3.7	.35	56,410	
High Density Residential	3.2	35		112
Medium High Density Residential	5.3	20		106
Medium Density Residential	4.3	10		43
High School	3.3			
Total	80.1		902,563	261

¹ Source: Alameda County Surplus Property Authority

² Includes 5.0 acres of Neighborhood Commercial

³ Density Ranges for Medium High and Single-Family reflect actual California Creekside densities

⁴ Acreage total does not correspond with adopted Specific Plan due to more accurate mapping

APPENDIX 4				
EASTERN DUBLIN SPECIFIC PLAN				
LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#19 PAO-LIN (Areas F, G & H)				
General Commercial ¹	26.9	.25	292,941	
Neighborhood Commercial	22.0	.35	230,000	
Medical Campus/Commercial	15.85	.36	248,553	
Mixed Use 2/Campus Office ²	25.33	.45	496,519	
Public/Semi-Public	7.0	.25	76,230	
High Density Residential	25.0	35		876
Medium High Density Residential	26.2	20		528
Medium Density Residential	68.9	10		689
Single Family Residential	22.7	4		91
Neighborhood Park	12.3			
Neighborhood Square	4.5			
Elementary School	10.0			
High School	30.6			
Open Space	4.2			
Total	301.48		1,344,243	2,184
#20 JORDAN				
Medium High Density Residential	13.33	20		267
Medium Density Residential	49.52	10		495
Single Family Residential	48.0	4		253
Neighborhood Park	5.0			
Neighborhood Square	2.0			
Community Park	13.5			
Public/Semi-Public	3.7			
Open Space	60.5			
Total	195.55			1015

¹ 10.5 acres of General Commercial located in the south-west quadrant of Area H (refer to amended Land Use Map) may be used for Campus Office Uses pursuant to a Stage 2 Planned Development (PD) application process. If Campus uses were constructed on the 10.5 acres, the maximum square footage would be 205, 821.

² The Mixed Use 2/Campus Office land use designation allows for either a mixed use project with residential land uses comprising up to 50% of the project's development area (248,259 sf) or an all Campus Office project (with no residential uses) with up to 496,519 sf of development. Appendix 4 has been amended to reflect a Campus Office project. If the project is developed as a mixed-use project with residential uses, the table shall be amended at that time to reflect that.

APPENDIX 4 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#21 CHEN				
Medium High Density Residential	4.0	20		130
General Commercial	72.1	.25	785,169	
General Commercial/Campus Office	18.5	.28	225,641	
Semi-Public*	2.5			
Community Park	7.2			
Open Space	35.8			
Total	140.1		1,010,810	130
#22 ANDERSON				
Medium-High Density Residential	7.0	20		108
General Commercial/Campus Office	34.2	.28	417,131	
Open Space	9.1			
Total	50.3		417,131	108
#23 RIGHETTI				
Medium Density Residential	9.6	10		96
General Commercial/Campus Office	18.5	.28	225,641	
Industrial	21.5	.28	262,231	
Total	49.6		487,872	96
#24 BRANAUGH				
Medium Density Residential	9.7	10		97
Industrial Park	30.5	.28	372,002	
Total	40.2		372,002	97
#25 MONTE VISTA				
Industrial Park	9.3	.28	113,430	
Total	9.3		113,430	

APPENDIX 4				
EASTERN DUBLIN SPECIFIC PLAN				
LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#26 FALLON ENTERPRISES				
Single Family Residential	184.7	4		867
Rural Residential/Agricultural	53.9			
Semi-Public	2.8			
Elementary School	10.6			
Neighborhood Park	6.3			
Neighborhood Square	5.3			
Open Space	65.1			
Total	328.7			867
#27 BRADDOCK & LOGAN				
Single Family Residential	55.5	4		211
Rural Residential/Agricultural	69.6			0
Elementary School	.5			
Open Space	33.9			
Total	159.5			211
#28 CROAK				
Medium Density Residential	10.4	10		104
Single Family Residential	115.4	4		469
Rural Residential/Agricultural	19.4			
Neighborhood Park	11.5			
Semi-Public*	2.0			
Open Space	6.8			
Total	165.5			573
#29 EBJ Partners				
General Commercial/Campus Office	1.1	.28	13,416	
Total	1.1		13,416	

APPENDIX 5

SUMMARY OF GOALS, POLICIES, AND ACTION PROGRAMS



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City of Dublin
Eastern Dublin Specific Plan

APPENDIX 5

SUMMARY OF GOALS, POLICIES, AND ACTION PROGRAMS

CHAPTER 4.0 LAND USE

***GOAL:** To establish an attractive and vital community that provides a balanced and fully integrated range of residential, commercial employment, recreational, and social opportunities.*

Policy 4-1: Maintain a reasonable balance in residential and employment-generating land uses by adhering to the distribution of land uses depicted in Figure 4-1, Land Use Map.

ACTION PROGRAM: Community Concept

- **Program 4A:** Require applicants to demonstrate that proposed developments are in conformance with the Eastern Dublin Specific Plan policies and land use program. Any deviation must establish how the plan's overall intent to create a balanced and integrated community is preserved. Deviations may require a specific plan amendment. Such a decision would be made by the Planning Manager.

***GOAL:** To provide a diversity of housing opportunities that meets the social, economic and physical needs of future residents.*

Policy 4-2: Encourage higher density residential development within convenient walking distance of shopping areas, employment centers, transit stations/stops, and other community facilities.

Policy 4-3: Permit residential development as an upper story use throughout the commercial areas in the Town and Village center.

Policy 4-4: Permit residential development in areas designated for campus office uses if it: 1) meets a specific housing need in the community; 2) reduces daily vehicle trips; 3) is designed to foster pedestrian access to employment and shopping areas; 4) creates an attractive neighborhood environment; and 5) does not comprise more than 50% of the developed area.

Policy 4-5: Concentrate residential development in the less environmentally constrained portions of the plan area, and encourage cluster development as a method of reducing or avoiding impact to constrained or environmentally sensitive areas. Also consider the use of Transfer of Development Rights (TDR's) in areas designated as Rural Residential/Agricultural or Open Space.

Policy 4-6: Encourage innovative approaches to site planning, unit design, and construction to create housing products for all segments of the community including single-parent families, the elderly, extended nuclear families, first-time buyers, “empty-nesters,” and non-auto households.

ACTION PROGRAM: Location and Diversity

- **Program 4B:** The City shall revise its zoning regulations to reflect Specific Plan land use designations and policies. Zoning regulations for development in eastern Dublin will be based on the City’s current zoning ordinance, with those revisions necessary to implement the policies and standards set forth in this Specific Plan. Where feasible, changes in the zoning regulations should be made applicable citywide. However, if regulations for eastern Dublin would be inappropriate in the rest of the City, the new regulations should be written to specifically address development in eastern Dublin. Regulations requiring revisions will include those relating to permitted land uses, inclusion of residential uses in commercial areas, encouragement of mixed use projects, provision for second units, and site development and design standards (refer to Community Design, Chapter 7).
- **Program 4C:** Place a Planned Development District overlay zone on the entire planning area. The PD District overlay would require all projects above a certain size (to be determined by staff) to submit to a Planned Development review process. This will help ensure that policies and underlying intent of the Eastern Dublin Specific Plan are implemented, including; the creation of compatible mixed-use development; creation of an attractive, efficient and safe environment; encouragement of innovative development solutions; efficient use of land and the preservation of significant open space areas and natural and topographic landscape feature with minimum alteration of natural land forms; development of an environment that encourages social interaction and the use of common open areas for neighborhood or community activities and other amenities; and creation of an environment that decreases community dependence on the private automobile.
- **Program 4D:** Explore the use of development agreements with applicants for major developments, to ensure that infrastructure improvements, public facilities, and other amenities are provided consistent with Specific Plan policies, and is needed by planning area development.
- **Program 4E:** Review each development application for consistency with the Livermore Airport Protection Area. The Specific Plan currently allows some low and medium density residential uses within the APA. If, at the time of rezoning, the residential designations are inconsistent with the APA, the residential designations will convert to “Future Study Area” with an underlying rural/residential agricultural designation.

Policy 4-7: Encourage the development of affordable housing throughout eastern Dublin, and avoid the concentration of such housing in any one area.

Policy 4-8: Ensure that projects developed in the plan area provide affordable housing in accordance with the City's Housing Element, the Inclusionary Housing Ordinance, the Density Bonus Ordinance, and the Rental Availability Ordinance.

Policy 4-9: Affordable housing in eastern Dublin shall include both ownership and rental units and a mix of single family and multi-family units.

Policy 4-10: Developers shall include affordable housing units within their developments pursuant to City housing ordinances.

ACTION PROGRAM: Affordability

- **Program 4F:** Develop an inclusionary housing program which requires a minimum percentage of all approved units to be affordable to very low, low, and moderate-income households.
- **Program 4G:** Explore the possibility of establishing an in-lieu fee to support the development of below-market-rate housing.
- **Program 4H:** Develop a monitoring program that will track residential growth in Dublin in terms of unit type and price categories. Such a program will provide City decision-makers with data necessary to make informed decisions relating to City housing goals and new development.
- **Program 4I:** Develop a specific numeric goal for percentage of affordable units in eastern Dublin, which should be ownership units, as opposed to rental units.

GOAL: *To create a well-defined hierarchy of neighborhood, community, and regional commercial areas, that serves the shopping, entertainment and service needs of Dublin and the surrounding area.*

Policy 4-11: Concentrate regionally oriented commercial uses south of Dublin Boulevard and near freeway interchanges where convenient vehicular access will limit traffic impacts on the rest of eastern Dublin.

Note: There are several areas indicated on the land use map that could develop as either general commercial or campus office uses. This flexibility has been provided in these key areas to respond to changing market conditions that may occur in the future. The shift from campus office (the underlying land use designation) to general commercial would only be permitted if the established traffic levels of service were not exceeded. Appropriate traffic studies may need to be conducted in order for the City to make the proper determination regarding traffic levels of service.

- Policy 4-12:** Locate community-oriented commercial development in the “Town Center” within walking distance or a short ride for most residents, and conveniently served by transit.
- Policy 4-13:** Encourage the development of neighborhood-serving retail and service uses in village centers in order to reduce daily vehicle trips, and contribute to the identity and character of the outlying residential areas.
- Policy 4-14:** Establish the Town Center commercial area as a vital and visually distinctive central business district and major focus of community life in Dublin.
- Policy 4-15:** Concentrate pedestrian-oriented commercial uses along the transit spine and at key transit transfer points.
- Policy 4-16:** Avoid dispersion of commercial uses along major collectors and arterials in a linear (i.e., “strip”) development pattern that is oriented solely to vehicular traffic.
- Policy 4-17:** Encourage the creation of a pedestrian-oriented shopping environment in the Town and Village centers, while still accommodating the safe movement of vehicular traffic.
- Policy 4-18:** Encourage mixed-use development in the commercial areas of the Town and Village centers that contributes to the social, cultural, and economic vitality of the commercial districts.

ACTION PROGRAM: Commercial

- **Program 4J:** Develop Commercial Mixed-Use zoning that will accommodate a mix of retail, office, service and residential uses in the Neighborhood and General Commercial designated areas of eastern Dublin. This zoning should be generally based on the City’s C-1 zoning district, with Specific Plan policy recommendations incorporated to ensure desired land use and development character. Commercial Mixed-Use zoning should base permitted land uses on the compatibility of their traffic generation characteristics (i.e., avoid the inclusion of just high traffic generating uses or uses that all have the same peak hour characteristics), their compatibility with a pedestrian and transit-oriented commercial environment, and their compatibility with other uses.

GOAL: To provide a stable and economically sound employment base for the City of Dublin, which is diverse in character and responsive to the needs of the community.

- Policy 4-19:** Encourage employment-generating uses, which provide a broad range of job types and wage/salary scales.

- Policy 4-20:** Maintain enough Industrial Park land to accommodate the city's long-term needs for land-extensive, low-capital improvement type uses.
- Policy 4-21:** Encourage high-intensity office and other employment-generating uses near the future BART station, and at freeway interchanges where the development can take advantage of convenient access, and the high visibility will make a distinctive, high quality statement at these important entry points into eastern Dublin.
- Policy 4-22:** Encourage the creation of more vital working environments that integrate different land uses into a compatible whole whose active life does not terminate at the end of business 47 hours.
- Policy 4-23:** Require all employment-related development to provide convenient and attractive pedestrian, bicycle, and transit-related facilities to encourage alternate modes of commuting to and from work.
- Policy 4-24:** Permit mixed-use projects in designated employment areas outside the Town and Village centers, as long as the projects are consistent with the intent of the Specific Plan and do not result in adverse environmental or service impacts. Such projects can be either "vertically" mixed (e.g., office or residential over retail), or "horizontally" mixed (uses separated into different buildings).
- Policy 4-25:** Provide support services adjacent to or near employment centers, including food service, limited retail services, child care facilities, and open space/recreation amenities.
- Policy 4-26:** Maintain sufficient land for housing in reasonable relationship to jobs (employment-generating uses) in the eastern Dublin area.
- Policy 4-27:** Discourage amendments to the Specific Plan that would increase the employment generating potential within the planning area, without balancing it with an equivalent increase in housing potential.

ACTION PROGRAM: Employment

- **Program 4K:** Develop a monitoring program that will track employment-generating uses developed in the planning area in terms of the numbers, type, and salary levels of employees. Project applicants can supply this information as part of their development application. This information, along with data relating to housing, can provide the basis for understanding the ongoing relationship between the jobs/housing balance and proposed development.

- **Program 4L:** Revise current zoning regulations to permit residential uses in Campus Office designated areas when it can be shown that such development is consistent with the intent of the Specific Plan and does not result in adverse environmental or service impacts.

GOAL: To develop a comprehensive, integrate park and recreational open space system designed to meet the diverse needs of the City of Dublin.

Policy 4-28: Ensure that park development in eastern Dublin is consistent with the standards and phasing recommended in the City of Dublin’s Recreation and Parks Master Plan, and provides a full range of recreational activities from intense active sports to passive open space enjoyment.

Policy 4-29: Ensure, as part of the approval process, that each new development provides its fair share of planned open space, parklands, and trail corridors, as shown in Figure 4.1.

Policy 4-30: Establish a convenient, multi-use, all-weather network of trails, including bike lanes, to link planning area parks, recreation facilities, schools, employment centers and major open space areas to each other and to the surrounding community.

ACTION PROGRAM: Recreation

- **Program 4M:** Develop a Parks Implementation Plan for eastern Dublin that identifies: the preferred phasing of land dedication and improvements; facilities priorities and their location; and City responsibility for design and construction of parks.
- **Program 4N:** Calculate and assess in-lieu park fees based on the City’s parkland dedication ordinance. Credit toward parkland dedication requirements will only be given for areas, which meet the City’s standards and policies for park and recreation land. The amount of credit allowed may vary depending upon the physical features of the land offered for dedication.
- **Program 4O:** Require developers to dedicate public access easements along ridgetops and stream corridors to accommodate the development of trails and staging areas.
- **Program 4P:** The City shall work with East Bay Regional Parks District regarding the provision of staging areas in the Specific Plan area.

CHAPTER 5.0 CIRCULATION

GOAL: To provide a circulation system for eastern Dublin that is convenient and efficient, and encourages the use of alternate modes of transportation as a means of improving community character and reducing environmental impacts.

Policy 5-1: Encourage higher intensity development near transit corridors.

Policy 5-2: Require all development to provide a balanced orientation toward pedestrian, bicycle, and automobile circulation.

Policy 5-3: Plan development in eastern Dublin to maintain Level of Service D or better as the average intersection level of service at all intersections within the Specific Plan area during AM, PM and midday peak periods. The average intersection level of service is defined as the hourly average.

GOAL: *To establish a vehicle circulation system, which provides sufficient capacity for projected traffic and allows convenient access to land uses, while maintaining a neighborhood scale to the residential street system.*

Policy 5-4: Provide six to eight lane major arterial streets to carry major community and sub-regional traffic through the Specific Plan area.

Policy 5-5: Provide four to six lane arterial streets to move traffic quickly and efficiently within the planning area.

Policy 5-6: Provide two to four lane major collector streets to provide access to commercial and industrial areas, and into residential neighborhoods.

Policy 5-7: Provide collector streets to provide access into residential neighborhoods and to connect local residential streets with arterial streets.

Policy 5-8: Provide local residential neighborhood streets, which use the street alignment, short street length, strategic narrowing of lanes and appropriate neighborhood traffic control measures to discourage through traffic and high speeds.

Policy 5-9: Construct auxiliary lanes on both directions of I-580, extending from the Tassajara Road/Santa Rita Road interchange at the Fallon Road/El Charro Road interchange. Construct a partial cloverleaf interchange on I-580 at Fallon Road/El Charro Road, including a six-lane over crossing, two-lane off-ramps, and truck bypass lanes for truck movements from northbound El Charro to eastbound or westbound I-580.

ACTION PROGRAM: Streets and Highways

- **Program 5A:** Detailed development plans submitted to the City shall include the standards noted below. Localized exceptions for special conditions may be approved by the Public Works Director in keeping with City procedures.

Major Arterial Streets:

- Minimum design speed: 55 miles per hour
 - Curb-to-curb width: 102 feet (126 feet for eight-lane sections) including a 14-foot wide, raised median
 - Maximum grade: 7 percent
 - Minimum curve radius: 1,200 feet with 4 percent superelevation to 2,000 feet with no superelevation.
 - Minimum distance between street intersections: 660 feet
 - No direct residential frontage
 - On-street parking is prohibited with the exception of emergency parking
 - Provide two left-turn bays and one right-turn bay at all intersections with major arterial and arterial streets
 - Full access to major arterial streets will occur only at signalized intersections. Right-turn-only access may be considered at a minimum separation of 300 feet from other access points or intersections
- Arterial Streets:
 - Minimum design speed: 50 miles per hour
 - Curb-to-curb width: 78 feet including a 14-foot wide, raised median
 - Maximum grade: 7 percent
 - Minimum curve radius: 1,400 feet with no superelevation
 - Minimum distance between street intersections: 660 feet
 - No direct residential frontage
 - On-street parking is prohibited with the exception of emergency parking
 - Direct access to abutting properties to be controlled but not prohibited
- Major Collector Streets:
 - Minimum design speed: 45 miles per hour

- Curb-to-curb width: 76 feet for 4 lanes, 52 feet for two lanes
 - Maximum grade: 8 percent
 - Minimum curve radius: 1,100 feet with no superelevation
 - Minimum distance between street intersections: 660 feet
 - No direct residential frontage
- Collector Streets:
 - Minimum design speed: 30 miles per hour
 - Curb-to-curb width: 40 feet
 - Maximum grade: 12 percent (maximum grade up to 15 percent may be allowed under special conditions and approved by City Engineer)
 - Minimum curve radius: 450 feet with no superelevation
 - Minimum distance between street intersections: 250 feet
 - Direct residential frontage only as approved by Public Works Director
- Local Residential Streets:
 - Minimum design speed: 25 miles per hour
 - Curb-to-curb width: 36 feet (32 feet with parking on one side)
 - Maximum grade: 12 percent (maximum grade up to 15 percent may be allowed under special conditions and approved by City Engineer)
 - Minimum curve radius: 200 feet with no superelevation
 - Maximum length of cul-de-sac streets: 900 feet, serving no more than 25 dwelling units
 - Local residential streets may not intersect arterial streets
 - Terminate junctions of local residential streets at three-way “T” intersections where possible
 - Minimum distance between street intersections: 150 feet

- Industrial Roads:
 - Minimum design speed: 30 miles per hour
 - Curb-to-curb width: 52 feet
 - Maximum grade: 7 percent
 - Minimum curve radius: 450 feet with no superelevation

GOAL: To maximize opportunities for travel by public transit.

Policy 5-10: Provide transit service within one-quarter mile of 95 percent of the population in the Specific Plan area in accordance with LAVTA service standards.

Policy 5-11: Provide transit service, at a minimum frequency of one bus every 30 minutes during peak hours, to 90 percent of employment centers with 100 or more employees in accordance with LAVTA service standards. Encourage frequent and regular service headways along the transit spine.

Policy 5-12: Upon implementation of BART service to the proposed eastern Dublin/Pleasanton station, orient local transit service to provide transit connections between the BART station and all portions of the Specific Plan area.

Policy 5-13: Establish design guidelines for residential and commercial development so that there are clear and safe pedestrian paths between building entrances and transit service stops.

Policy 5-14: Provide transit shelters at major transit stops and bus pullouts on major collector, arterial and major arterial streets.

ACTION PROGRAM: Public Transit

- **Program 5B:** The City shall require review and approval of the following as a condition of project approval for applicable projects in eastern Dublin:
 - Public transit route and phasing plan, to be prepared in consultation with LAVTA
 - Bus turnouts and transit shelters, in consultation with LAVTA
 - Pedestrian paths between transit stops and building entrances

GOAL: *To provide a safe and convenient pedestrian circulation system in eastern Dublin, designed for functional and recreational needs.*

Policy 5-15: Provide a north-south trail along Tassajara Creek, and trails along other stream corridors as shown on the Pedestrian and Bicycle System map.

Policy 5-16: Provide sidewalks and other streetscape amenities in the Town Center and Village Center areas in conformance with the Specific Plan design guidelines.

ACTION PROGRAM: Pedestrian Circulation

- **Program 5C:** The City shall require development applicants in eastern Dublin to submit a detailed pedestrian circulation plan for review and approval by the City. This plan shall include the following components as deemed applicable under this Specific Plan by the Public Works Director. Any proposed improvements other than the City of Dublin Standard Plans must be approved by the Director of Public Works.

Tassajara Creek Trail. Trail construction materials and methods shall conform to the East Bay Regional Parks District standards for trail construction. The trail shall be constructed for minimum visual impact.

There should be a buffer with an approximate minimum width of 100 feet between the trail and nearby development.

Staging Area and Trailheads. A staging area for the Tassajara Creek trail shall be provided in eastern Dublin, with parking, signs and trash containers as designated by the East Bay Regional Parks District in consultation with the City of Dublin. The location of the staging area shall be based on convenience for visitors from outside eastern Dublin, with minimal disruption of local neighborhoods.

Local trailheads shall be primarily designed for use by residents of eastern Dublin. Local trailheads shall be provided with appropriate signs and trash containers.

Sidewalks. Street improvement plans for eastern Dublin shall include sidewalks on both sides of the street except where the following conditions occur:

- On single-loaded streets, sidewalks may be allowed on one side only, with the approval of the Director of Public Works.
- No sidewalk is required on local street frontages with no abutting residential or commercial lots, and where it can be demonstrated that the sidewalk is not needed for local pedestrian circulation.

GOAL: To provide opportunities for safe and convenient bicycle circulation in eastern Dublin.

Policy 5-17: Establish a bicycle circulation system, which helps to serve the need for non-motorized transportation and recreation in eastern Dublin that is consistent with the Bikeways Master Plan.

Policy 5-18: Provide convenient and secure bicycle parking facilities at key destinations in eastern Dublin, such as schools, recreation areas, transit stops and commercial centers.

ACTION PROGRAM: Bicycle Circulation

- **Program 5D:** The City shall require development projects in eastern Dublin to include provisions for bicycle circulation that are consistent with the Bikeways Master Plan, as follows:

Bike Path. Construct a bike path parallel to the Tassajara Creek trail.

Bike Lanes. Construct bike lanes on Gleason Road, on the Transit Spine, on Tassajara Road and Fallon Road north of the Transit Spine, and elsewhere as designated on the Bicycle Circulation map, including all necessary signs and lane striping.

Bicycle Storage Facilities. Locate at key destinations.

GOAL: To provide adequate, but not excessive amounts of parking.

Policy 5-19: Parking requirements in eastern Dublin shall be kept to a minimum consistent with actual parking needs. Allowance shall be made for shared parking in mixed-use areas. Parking requirements may be reduced wherever it can be demonstrated that use of alternative transportation will reduce parking demand.

Policy 5-20: Encourage on-street parking on collector and local residential streets. Allow on-street parking on lower volume arterial streets within commercial areas.

ACTION PROGRAM: Parking

- **Program 5E:** Adopt parking standards for eastern Dublin. Subject to the approval of the Planning Director or Zoning Administrator, and Public Works Director, allowance may be made for reduced parking requirements where effective alternative transportation is available, or for shared parking in mixed-use areas.
- **Program 5F:** Revise the City's existing zoning ordinance as needed to allow flexible parking standards in eastern Dublin.

GOAL: To minimize the transportation-related impacts of development in eastern Dublin.

Policy 5-21: Require all non-residential projects with 50 or more employees to participate in Transportation Systems Management (TSM) program.

Policy 5-22: Establish park-and-ride lots, adjacent to the freeway interchanges at Hacienda Drive, Tassajara Road and Fallon Road, to facilitate ridesharing by eastern Dublin residents.

ACTION PROGRAM: Transportation Systems Management

- **Program 5G:** The City shall establish a citywide Transportation Systems Management (TSM) program. The program would require employers with 50 or more employees to prepare a TSM program for submittal to the City.
- **Program 5H:** Work with developers at the freeway interchanges to provide park-and-ride lots between I-580 and Dublin Boulevard on the west sides of Hacienda Drive, Tassajara Road and Fallon Road. The parking lots will provide a minimum of 100 parking spaces and will include lighting and landscaping.

CHAPTER 6.0 RESOUCE MANAGEMENT

GOAL: To foster an environmentally sound community whose built form respects and enhances the natural systems found within the Planning Area.

GOAL: To establish an integrated open space system to preserve scenic qualities, protect environmental resources, enhance recreation opportunities, and ensure public health and safety.

Policy 6-1: Establish a continuous open space network that integrates large natural open space areas, stream corridors, and developed parks and recreation areas.

Policy 6-2: Locate development so that large, continuous open space areas/corridors are preserved. Avoid creating open space islands. Encourage single-loaded streets in areas adjacent to open space, rural residential and agricultural lands.

Policy 6-3: Provide convenient access from developed areas to designated open space areas and trails. Emphasize pedestrian connections between developed and natural areas.

Policy 6-4: Preserve views of designated open space areas.

Policy 6-5: Ensure adequate access to open space areas for maintenance and management purposes.

Policy 6-6: Establish a mechanism for ownership, management and maintenance of open space areas in eastern Dublin, prior to final map approvals.

Policy 6-7: All Rural Residential/Agriculture (RR/A) areas shall be kept primarily in open space. If possible, allowable development in these areas should be transferred to other residential development areas and the future use of the land restricted to open space uses. If development does occur within RR designated areas, it should be located in the least visible portion of the development site and situated to preserve the area's value as open space and wildlife habitat.

Policy 6-8: Designate undeveloped areas within individual developments as private open space, with management and maintenance responsibilities resting with the individual landowners or homeowners association.

ACTION PROGRAM: Open Space

- **Program 6A:** The City of Dublin shall require review and approval of the following elements as part of the application for proposed developments in eastern Dublin:
 - Clear and detailed identification of all potential open space areas, including: areas with slopes over 30%, areas with unstable slopes, visually sensitive ridglands, stream corridors, sensitive habitat areas, trail corridors, and park areas.
 - Clear and detailed description of the purpose and/or function of open space areas and their relationship to other open space areas beyond the development; the proposed treatment (i.e., restoration, revegetation, etc.) of these areas; proposed maintenance and emergency access provisions; the proposed ownership of open space areas; and the responsibility for their management and maintenance.
 - Negotiated agreements with any public agencies that are going to acquire, manage, and/or maintain open space as a result of the project, or when private entities will be responsible for open space management and maintenance, a detailed set of codes, covenants, and restrictions (i.e., CC&R's) that set forth maintenance and management standards and responsibilities.
 - Review of open space plans by the City police and fire departments and other applicable agencies (e.g., Department of Fish and Game, Zone 7, etc.) to ensure compatibility with their standards and practices.
- **Program 6B:** The City should explore options for ownership and management of areas set aside as open space. Ownership of these areas by public agencies, such as the East Bay Regional Park District, is preferred. In particular, the City should encourage East Bay Regional Park District to accept ownership of the Tassajara Creek open space corridor. The City should also work with the Park District to develop guidelines for management and uses in open space areas.

- **Program 6C:** Require open space lands that occur within development projects to be restricted to permanent open space, with binding agreements established with the City to permanently protect such areas.
- **Program 6D:** Determine the appropriate funding mechanism(s) (e.g., a landscape assessment district, real estate transfer tax, etc.) for on-going maintenance of open space areas.

GOAL: To maintain and enhance the planning area's natural resources.

Policy 6-9: Natural stream corridors, ponds, springs, seeps, and wetland areas, as shown in Figure 6.2, shall be preserved wherever possible. Prior to submittal of development applications, the appropriate agencies such as the California Department of Fish and Game and the Army Corps of Engineers must be consulted to determine whether they have jurisdiction over the watercourse or wetland area.

Policy 6-10: Riparian and wetland areas should be incorporated into greenbelt and open space areas as a means of preserving their hydrologic and habitat value. Unavoidable loss of riparian habitat due to development should be replaced with similar habitat on a 3:1 in kind basis. Loss of wetlands must be mitigated consistent with the COE's current policy.

Policy 6-11: All stream corridors, as shown in Figure 6.2, should be revegetated with native plant species to enhance their natural appearance and improve habitat values. Revegetation must be implemented by a professional revegetation specialist.

Policy 6-12: Maintain natural open stream channels to carry storm runoff wherever feasible, rather than replacing with underground storm drainage systems. When extra capacity is necessary, retention basins are preferable to channelization, if the channelization would disturb riparian habitat. When channelization is necessary, the channel should be designed and constructed to accommodate both the projected flows and the growth of riparian vegetation, and to have more natural-appearing contours.

Flood control maintenance practices will be designed and performed to be responsive to public safety while preserving the unique riparian community. Maintenance agreements (memoranda of understanding) between the City and responsible agencies will address, but not be limited to, site access, criteria for determining the need for maintenance (i.e. assessment and monitoring), and the timing and frequency of actual maintenance practices.

Policy 6-13: Establish a stream corridor system (see Figure 6.2) which provides multi-purpose open space corridors capable of accommodating wildlife and pedestrian circulation. In order to facilitate the use of these corridors by both humans and wildlife, human activities (e.g., trails) should be limited to one side of the stream.

Policy 6-14: Enhance public enjoyment and visibility of stream corridors by avoiding, or minimizing, development that backs directly onto the stream corridor, and ensure safe public access to stream corridors by providing frequent access points within each development area.

ACTION PROGRAM: Stream Corridors and Wetland

- **Program 6E:** The City of Dublin shall require all project applicants to submit a multi-parameter wetlands delineation and plans for proposed alteration to any watercourse to appropriate agencies in accordance with formally adopted regulations of those agencies. Applicants will be required to submit these agencies' determinations, any required permits, and approved mitigation plans as part of the final development plan submittal.
- **Program 6F:** The City should work with Zone 7 and the Department of Fish and Game to develop a comprehensive stream corridor restoration program that identifies a detailed set of criteria for grading, stabilization and revegetation of planning area stream channels. The program would provide guidelines for plant species, planting densities, and long-term maintenance requirements and responsibilities. Such a program will facilitate development approvals and insure a consistent standard for stream channel improvement throughout the planning area. The program should identify the procedures to be followed by applicants for development, permits to be obtained, and improvement and revegetation practices to be implemented. The program should be reviewed by East Bay Regional Parks District.
- **Program 6G:** The City should require dedication of land and improvements (i.e., trails, revegetation, etc.) along both sides of stream corridors (as shown in Figure 4.1) as a condition of subdivision approval. The width of dedicated corridors will be established in consultation with the regulatory authority since these may vary with specific sites (The California Department of Fish and Game typically recommends a minimum buffer of 100 feet on each side.)
- **Program 6H:** The City should enact and enforce an erosion and sedimentation control ordinance establishing performance standards to ensure maintenance of water quality and protection of stream channel. The ordinance should regulate grading and development activities adjacent to streams and wetland areas, and require revegetation of all ground disturbances immediately after construction to reduce erosion potential. Until such an ordinance is in place, the City shall require project applicants to provide a detailed erosion and sedimentation control plan as part of the project submittal.
- **Program 6I:** The City should negotiate with Zone 7 the level of flood control improvements required to meet district standards and rights-of-way requirements and maintenance responsibilities.

- **Program 6J:** The City should establish a landscape maintenance district of other equivalent mechanism to cover the long-term costs of maintaining public facilities (i.e., trails, benches, etc.) along the stream corridors.

GOAL: To protect and enhance existing biological resources in eastern Dublin.

Policy 6-15: Avoid development and potentially destructive activities in areas with high-value habitat including:

- Northern riparian forest
- Arroyo willow riparian woodland
- Freshwater marsh

Exceptions may only be granted where an owner's reasonable beneficial use of the land cannot be otherwise provided.

Policy 6-16: To ensure long-term protection, high-value habitat areas either should be dedicated as public open space or restricted from potentially harmful development and activities with deed restrictions and design standards.

Policy 6-17: Impacts to sensitive wildlife species that occur in the planning area will be avoided wherever possible. Mitigation programs will be required as necessary to reduce or eliminate impacts on special status species.

Policy 6-18: Development in the planning area will be designed to maintain contiguous areas of natural open space interconnected by functional wildlife corridors that permit the free movement of wildlife throughout the open space areas. As a means of preserving wildlife corridors, cluster development is generally preferable to an even low-density sprawl over an entire area.

Policy 6-19: Where roadways divide open space areas, underpasses or other means of access shall be provided to facilitate the movement of wildlife without barriers.

Policy 6-20: Maintain a natural open space zone (i.e., no development) around the golden eagle nest located in the northeast corner of the planning area (see Figure 6.3 for the designated setback). Exceptions to this setback will have to be approved by the U.S. Fish and Wildlife Service (USFWS), based on field examinations of the site to determine what constitutes "harassment" of the eagles at this particular location. Construction within this protection zone will not be allowed unless it is determined that the eagles have ceased to use the nest site for two consecutive years as verified by the USFWS.

Policy 6-21: Direct disturbance or removal of trees or native vegetation cover should be minimized and should be restricted to those areas actually designated for the construction of improvements.

Policy 6-22: All areas of disturbance should be revegetated as quickly as possible to prevent erosion. Native trees (preferably those species already on site), shrubs, herbs, and grasses should be used for revegetation of areas to remain as natural open space. The introduction of non-native plant species should be avoided.

Specific physical characteristics of proposed revegetation areas will be determined to evaluate the long-term feasibility of the proposed mitigation and to identify potential conflicts at the site. Characteristics would include but not be limited to ground and flow hydrology, geomorphology, soils, aspect, terrain, and land uses. Plants used for revegetation will be native to the Tri-Valley area.

Policy 6-23: Vegetation enhancement/management plans should be prepared for all open space areas (whether held publicly or privately) with the intent to enhance the biologic potential of the area as wildlife habitat. The focus of such plans will be to re-introduce native species in order to increase the vegetative cover and plant diversity.

ACTION PROGRAM: Biological Resources

- **Program 6K:** The City of Dublin shall establish and maintain a liaison with resource management agencies (i.e. California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers) for the purpose of monitoring compliance with specific plan policies. These agencies should be consulted and involved throughout the planning and development process of individual properties in order to avoid violations of state and federal regulations and ensure that specific issues and concerns are recognized and addressed.
- **Program 6L:** The City shall require development applicants to conduct a pre-construction survey within 60 days prior to habitat modification (clearing construction and road site, etc.) to verify the presence or absence of sensitive species, especially the San Joaquin kit fox, nesting raptors, the red-legged frog, western pond turtles, the California tiger salamander, and other species of special concern.
- **Program 6M:** The City shall require placement of all transmission lines underground to avoid the potential for raptor electrocutions. If undergrounding is not feasible in all areas, the following design specifications will be implemented:
 - a. For Main Power Poles (Non-riser): Energized wires should be placed a safe distance apart (60 inches for crossarm configuration/5 inches for armless configuration). For crossarm (two outer wires) or by placing the center wire on a tag pole extension.

- Where adequate (safe) separating of conductors and potential conductors cannot be attained, an alternative is to install conductor insulation (i.e. PVC tubing) extending a minimum of 3 feet on either side of the pole-top insulator.
- b. For Riser Poles: All exposed energized conductors, including jumper wires, lightening ancesters, and pot heads should be insulated. Pot heads can be insulated by covering them with wildlife protective boots. In addition, when feasible, the use of cutouts on riser poles should be avoided. If this is not possible, either use non-conductive (fiberglass) crossarms or install perch guards that prevent birds from landing on the crossarm (Olendorf et al. 1981).
 - c. For Three Wire Configurations (not applicable) to common neutral configurations). In order to prevent the circuit to ground from being completed by a bird touching the ground wire and an energized wire simultaneously, place 4 inch gaps along the ground wires near energized conductors. Lightening will spark over these gaps, but day to day safety of birds is ensured.
 - d. The use of grounded steel crossarm braces should be avoided. As a general rule, the less grounded metal that is placed near conductors, the less hazard for electrocution.
- **Program 6N:** The use of rodenticides and herbicides within the project area should be restricted to avoid impacts on wildlife. The City shall require any poisoning programs to be done in cooperation with and under supervision of the Alameda County Department of Agriculture.
 - **Program 6O:** The City will require a detailed revegetation/restoration plan to be developed for all disturbed areas that are to remain undeveloped. The plan will be developed by a qualified revegetation specialist, and should incorporate stockpiling of native topsoils as appropriate, for later reapplication to cut slopes, shoulders, and pads.

GOAL: To preserve Dublin's historic structures and cultural resources.

Policy 6-24: The presence and significance of archaeological or historic resources will be determined, and necessary mitigation programs formulated, prior to development approvals for any of the sites identified in the cultural resource survey prepared for this plan.

Policy 6-25: The discovery of historic or prehistoric remains during grading and construction will result in the cessation of such activities until the significance and extent of those remains can be ascertained by a certified archaeologist.

Policy 6-26: All properties with historic resources, which may be impacted by future development, shall be subjected to in-depth archival research to determine the significance of the resource prior to any alteration.

Policy 6-27: Where the disruption of historic resources is unavoidable, encourage the adaptive re-use or restoration of historic structures (such as the old school house, several barns, and Victorian residences currently in the area) whenever feasible.

ACTION PROGRAM: Cultural Resources

- **Program 6P:** The City of Dublin shall require the following actions as part of the application process for development within eastern Dublin:

Site Sensitivity: Based on the first stage cultural resource survey of the area conducted as background for the Plan, the City will make a determination of whether the subject site has been identified as having prehistoric or historic resources potentially located on it.

Research: For those sites with potential resources, a second level of detailed research and field reconnaissance will be required to determine the level of archaeological or historical significance. This research will be the responsibility of the development applicant, and be conducted by a qualified archaeologist. The research will be consistent with the guidelines for prehistoric and historic resources provided in the cultural resources survey prepared for eastern Dublin.

Mitigation: For those sites that contain significant resources, a mitigation plan must be developed which is consistent with the policies in this Specific Plan and current CEQA guidelines concerning cultural resources.

GOAL: To preserve establish a visually distinctive community which preserves the character of the natural landscape by protecting key visual elements and maintaining views from major travel corridors and public spaces.

Policy 6-28: Preserve the natural open beauty of the hills and other important visual resources, such as creeks and major stands of vegetation.

Policy 6-29: Development is not permitted on the main ridgeline that borders the planning area to the north and east, but may be permitted on the foreground hills and ridgelines. Minor interruptions of views of the main ridgeline by individual building masses may be permissible in limited circumstances where all other remedies have been exhausted.

Policy 6-30: Structures built near designated scenic corridors shall be located so that views of the back drop ridge (identified in Figure 6.3 as 'visually sensitive ridgelines - no development') are generally maintained when viewed from the scenic corridors.

- Policy 6-31:** High quality design and visual character will be required for all development visible from designated scenic corridors.
- Policy 6-32:** Visual impacts of extensive grading shall be reduced by sensitive engineering design, by using gradual transitions from graded areas to natural slopes and by revegetation.
- Policy 6-33:** Site grading and access roads shall maintain the natural appearance of the upper ridgelines or foreground hills within the viewshed of travelers along I-580, Tassajara Road, and the future extension of Fallon Road. Streets should be aligned to follow the natural contours of the hillsides. Straight, linear rows of streets across the face of hillsides shall be avoided.
- Policy 6-34:** Alterations of existing natural contours shall be minimized. Grading shall maintain the natural topographic as much as possible. Grading beyond actual development areas shall be for remedial purposes only.
- Policy 6-35:** Extensive areas of fiat grading are not appropriate in hillside areas, and should be avoided. Building pads should be graded individually or stepped, wherever possible. Structures and roadways should be designed in response to the topographical and geotechnical conditions.
- Policy 6-36:** Building design shall conform to the natural landform as much as possible. Techniques such as multi-level foundations, rooflines, which complement the surrounding, slopes and topography, and variations in vertical massing to avoid a monotonous or linear appearance, should be used. In areas of steep topography, structures should be sited near the street to minimize required grading.
- Policy 6-37:** Graded slopes shall be re-contoured to resemble existing landforms in the immediate area. Cut and graded slopes shall be revegetated with native vegetation suitable to hillside environments.
- Policy 6-38:** The height of cut and fill slopes shall be minimized to the greatest degree possible. Grades for cut and fill slopes should be 3:1 or less whenever feasible.
- Policy 6-39:** Tassajara Creek and other stream corridors, as shown in Figure 4.1, are visual features that have special scenic value for the planning area. The visual character of these corridors should be protected from unnecessary alteration or disturbance, and adjoining development should be sited to maintain visual access to the stream corridors.

ACTION PROGRAM: Visual Resources

- **Program 6Q:** The City should officially adopt Tassajara Road, I-580, and Fallon Road as designated scenic corridors; adopt a set of scenic corridor policies; and establish review procedures and standards for projects within the scenic corridor view shed.
- **Program 6R:** The City should require projects with potential impacts on scenic corridors to submit detailed visual analysis with development project applications. Applicants will be required to submit graphic simulations and/or sections drawn from affected travel corridors through the parcel in question, representing typical views of the parcel from these scenic routes. The graphic depiction of the location and massing of the structure and associated landscaping can then be used to adjust the project design to minimize the visual impact.
- **Program 6S:** Establish technique(s) for implementing the long-term preservation of visually significant portions of hillsides. Options to consider include: density transfers (thought the Planned Unit Development process) and homeowner association maintenance; private ownership with public maintenance supported by assessments on homeowners; or dedication of land to a public agency, such as the East Bay Regional Parks District or the City of Dublin, with maintenance being the responsibility of the agency holding title to the land.

GOAL: To create a land use pattern that ensures public health, safety and welfare.

Policy 6-40: No structure shall be located on slopes of between 20 to 30%, where this location is downslope of colluvium or dormant landslides on slopes over 30%, unless detailed feasibility and design-level geotechnical investigations indicate that development can be safely undertaken and/or mitigation measures can be implemented which will reduce impacts to a level of insignificance.

Policy 6-41: No structure shall be located on slopes of 10-30%, where underlain by highly expansive soils, areas of unconsolidated fill, or within 100' of incised stream channels, unless detailed feasibility and design-level geotechnical investigations are undertaken and required engineered design mitigations performed.

Policy 6-42: Development is generally not permitted in areas with slopes of 30% or greater. Limited grading and repair of landslides will be permitted in areas with slopes of 30% or more when the area involved is less than 3 acres in size; is less than 20% of a larger developable area; and is surrounded by topography which is predominantly less than 30%; and it is necessary to create effective buildable areas or access to areas with slopes predominantly less than 30 percent.

Policy 6-43: New development shall be designed to provide effective control of soil erosion as a result of construction activities and the alteration of site drainage characteristics.

Policy 6-44: Require development along the I-580 frontage to provide adequate mitigation to conform to the State Land Use Compatibility Standards for noise and policies and standards in the City of Dublin's Noise Element.

CHAPTER 7.0 COMMUNITY DESIGN

[See Chapter 7 for specific design guidelines.]

ACTION PROGRAM: Community Design

- **Program 7A:** At Design Review. The City shall establish Design Review procedures and assign review responsibilities for projects proposed in eastern Dublin. The content of the Design Review will be based on the design guidelines and development standards contained in this Specific Plan and any guidelines, which the City has established for the City as a whole. In general, it is recommended that the process include at least three steps: Conceptual Design Review, Site Plan Review and Building Design Review. The City has the option of conducting this review with planning staff and Planning Commission, or augmenting their review with a Design Review Board or a qualified design professional.
- **Program 7B:** Design Submittals. Development applicants will be required to submit, at a minimum, the following material for review. The City may require other information to be submitted based on the specific issues involved with each project. The basic submittal will include:
 - Existing Conditions Map(s) including relevant information such as slope, vegetation, soils/geology, infrastructure, etc.
 - Design Concepts including maps/illustrations of concepts for built form, landscape, circulation, and grading and drainage. Site Plans (Preliminary and Final) including site plans, grading plans, landscape plans (planting, hardscape, and amenities), lighting plan, and drainage plans. Building Design including perspective sketches/renderings, exterior building elevations, building cross-sections, floor plans, building materials and color board, and signage design. Special Concerns including visual simulations, revegetation plans, stream channel improvement plans, and site models.
- **Program 7C:** Master Streetscape Plan. The City shall require the development of a Master Streetscape Plan for the Town Center Commercial area to ensure the concepts set forth in the Specific Plan are translated into detailed design standards that will be applied to all projects in the subarea. The Master Streetscape Plan shall include the following elements:

- Street Tree Planting Plan including tree species, spacing, and tree well treatment.
Paving Standards including types of materials to be used and their location.
Lighting Standards including types and spacing of light standards. Signage Standards including the design criteria for size, placement, and materials for signs within the commercial district. Amenities Standards including criteria for selecting and siting street furniture (e.g., public telephones, newspaper stands, benches, bicycle racks, trash receptacles, etc.), public art, seasonal decorations, etc.
- **Program 7D:** Public Parking Lots. The City should work with developers in the Town Center to encourage joint development of public parking lots and garages by area merchants and the City.
- **Program 7E:** Community Events. The City should encourage local merchants to participate in programming and marketing of special events in public areas, such as open air markets, weekend or lunchtime concerts and seasonal celebrations.

CHAPTER 8.0 COMMUNITY SERVICES AND FACILITIES

GOAL: To provide school facilities adequate to meet the community's need for quality education.

- Policy 8-1:** Reserve school sites designated in the Specific Plan Land Use Map (Figure 4.1) to accommodate the future development of schools in eastern Dublin.
- Policy 8-2:** Promote a consolidated development pattern that supports the logical development of planning area schools, and, in consultation with the appropriate school district(s), ensure that adequate classroom space is available in coordination with occupancy of new homes.
- Policy 8-3:** Ensure that adequate school facilities are available prior to development in eastern Dublin, to the extent permitted by law.

ACTION PROGRAM: Schools

- **Program 8A:** Work with the Dublin Unified School District and the Livermore Joint Unified School District to resolve the jurisdictional issue regarding which district(s) should serve the eastern Dublin planning area. Determine the service district arrangement that best serves the needs of planning area students and minimizes the fiscal burden of the service providers.
- **Program 8B:** Work with appropriate school district(s) to ensure that the development of new facilities is provided for through the dedication of school sites and/or the payment of development fees by developers, or any other means permitted by law.

- **Program 8C:** Encourage the school district(s) to use best efforts to qualify for and obtain state funding assistance for construction of new schools. In addition, work with the district(s) to establish appropriate funding mechanism, such as a Mello Roos Community Facilities District, development impact fees, or a general obligation bond measure, to fund new school development in eastern Dublin.

GOAL: Provide adequate police services to the eastern Dublin Planning area to ensure the health, safety and welfare of existing and future residents, workers, and visitors.

Policy 8-4: Provide additional personnel and facilities and revise “beats” as needed in order to establish and maintain City standards for police protection service in eastern Dublin.

ACTION PROGRAM: Police Services

- **Program 8D:** Coordinate with the City Police Department regarding the timing of annexation and proposed development, so that the Department can adequately plan for the necessary expansion of services to the area.
- **Program 8E:** Incorporate into the requirements of project approval Police Department recommendations on project design that affects traffic safety and crime prevention.

GOAL: To ensure that fire protection services in eastern Dublin are consistent with standards maintained in the rest of the City.

Policy 8-5: Time the construction of new facilities to coincide with new service demand in order to avoid periods of reduced service efficiency. The first station will be sited and construction completed prior to completion of initial development in the planning area.

Policy 8-6: Require all new development adjacent to open space or rural residential areas to be designed to minimize the potential for impact related to wildland fires. At a minimum, design measures will include: provision of emergency vehicle access from subdivisions to open space areas; use of fire resistive landscape materials as a buffer between developed and open space areas; use of non-combustible roofing materials; and long-term maintenance programs for the urban/open space interface.

ACTION PROGRAM: Fire Protection

- **Program 8F:** Establish appropriate funding mechanisms (e.g., Mello Roos District, developer financing with reimbursement agreements, etc.) to cover up-front costs of capital improvements (i.e., fire stations and related facilities and equipment).

- **Program 8G:** Coordinate with DRFA to identify and acquire specific sites for new fire stations. The westernmost site must be assured prior to the approval of the first development plans in eastern Dublin. Timing for acquisition of the second site will be determined by DP.FA. Specific landowners that may be affected by the requirements for a fire station site are the County of Alameda for the first station, and either Jordan or TMI for the second station.

- **Program 8H:** Based on approval by the City, incorporate applicable DRFA recommendations on project design relating to access, water pressure, fire safety and prevention into the requirements for development approval. Require that the following DRFA design standards are incorporated where appropriate:
 - Use of non-combustible roof materials in all new construction.
 - Available capacity of 1,000 GPM at 20 PSI fire flow from project fire hydrants on public water mains. For groupings of one-family and small two-family dwellings not exceeding two stories in height, the fire flow requirements are a minimum of 1,000 GPM. Fire flow requirements for all other buildings will be calculated based on building size, type of construction, and location.
 - A buffer zone along the backs of homes which are contiguous with the wildland area. This buffer zone is to be landscaped with irrigated (wet banding) or equivalent fire-resistive vegetation.
 - Automatic fire alarm systems and sprinklers in all non-residential structures for human use.
 - Compliance with DRFA minimum road widths, maximum street slopes, parking recommendations and secondary access road requirements.
 - Require residential structures outside the DRFA's established response time and zone to include fire alarm systems and sprinklers.

- **Program 8I:** Ensure, as a requirement of project approval, that an assessment district, homeowners association, or some other mechanism is in place that will provide regular long-term maintenance of the urban/open space interface.

- **Program 8J:** Integrate fire trails and fire breaks into the open space trail system. Meet fire district standards for access roads in these areas while minimizing environmental impact.

GOAL: To reduce the total flow of waste to landfill by promoting waste reduction, source separation, curbside collection, and other recycling alternatives to landfilling.

Policy 8-7: Support ACWMA efforts to develop alternate disposal facilities for organic waste in the Tri-Valley area, particularly for composting and re-use of organic material.

Policy 8-8: Encourage the separation of recyclable materials from the general waste stream by supporting the development of a recycling collection system and facilities.

ACTION PROGRAM: Solid Waste

- **Program 8K:** Prepare a solid waste management plan for eastern Dublin which includes the following:
 - A requirement for the City to compost all organic wastes resulting from the ongoing maintenance of public parks and open space.
 - Extension of Dublin's curbside collection program for recyclable materials.
 - Specific areas designated for the collection of recyclable material in multi-family and commercial areas, with coordination as needed for pick-up.
 - Support for re-use of composted materials in landscaped areas of all new development.

GOAL: *To provide a full complement of community services and facilities as needed in eastern Dublin.*

Policy 8-9: Coordinate with Pacific Gas and Electric and Pacific Bell in planning and scheduling future facilities, which will serve eastern Dublin.

Policy 8-10: Encourage and support the efforts of the U.S. Postal Service to establish a post office within the eastern Dublin Town Center.

Policy 8-10: Encourage and support the efforts of the Alameda County Library System to establish a library(ies) and associated services for eastern Dublin as determined to be appropriate given the size and population of the planning area.

ACTION PROGRAM: Other Community Services and Facilities

- **Program 8L:** Require project applicants to provide documentation that electric, gas, and telephone service can be provided to all new development.
- **Program 8M:** Coordinate with the U.S. Postal Service to identify facility needs and site criteria for a new post office in eastern Dublin, and direct the land owner/developer of

the Public/Semi-Public designated area in the Town Center to explore the potential for a post office in this location.

- **Program 8N:** Coordinate with Alameda County to provide library services to eastern Dublin, including the following options:
 - A new branch library
 - Bookmobile service in eastern Dublin
 - Possible assessment of fees to fund new branch library

CHAPTER 9.0 WATER, WASTEWATER AND STORM DRAINAGE

GOAL: To provide an adequate water system for the Eastern Dublin Specific Plan area.

Policy 9-1: Provide an adequate water supply system and related improvements and storage facilities for all new development in the Eastern Dublin Specific Plan area.

Policy 9-2: Coordinate with DSRSD to expand its service boundaries to encompass the entire Eastern Dublin Specific Plan area. Expansion of the DSRSD water system into eastern Dublin should be coordinated with the Zone 7 wholesale water delivery system. The City should support DSRSD's Zone 7's policies, capital improvement programs and water management plans as they relate to the Eastern Dublin Specific Plan area.

ACTION PROGRAM: Water Supply

- **Program 9A: Water Conservation.** Require the following as conditions of project approval in eastern Dublin:
 - Use of water-conserving devices such as low-flow showerheads, faucets, and toilets.
 - Support implementation of the DSRSD Water Use Reduction Plan and implementation of Best Management Practices (BMPs) for water conservation.
 - Require all developments to meet the BMPs of the Memorandum of Understanding Regarding Urban Water Conservation in California, of which DSRD is a signatory.

- Water efficient irrigation systems within public rights-of-way, median islands, public parks, recreation areas and golf course areas (see Program 9B on Water Reclamation).
 - Drought resistant plant palettes within public rights-of-way, median islands, public parks, recreation areas and golf course areas.
 - Ensure that highly invasive plant species that could out-compete native species and threaten wildlife habitat are not used in these areas. Species which should be prohibited include, but are not limited to: Acacia, Algerian Ivy, Bamboo, Mattress Vine, Black Locust, Blue Gum Eucalyptus, Castor Bean, Cotoneaster, English Ivy, French Broom, Fountain Grass, Giant Reed, German Ivy, Gorse, Ice Plant, Pampas Grass, Periwinkle, Pyracantha, Scotch Broom, Spanish Broom, Tamarisk, Tree of Heaven, and Tree Tobacco.
 - Water efficient irrigation and landscaping systems for residential, commercial, institutional, and industrial areas in accordance with AB325.
 - Adoption of a water efficient landscape ordinance by the City of Dublin that will apply to eastern Dublin development.
 - Encourage the use of recycled water during construction for compaction and dust control.
- **Program 9B: Water Reclamation.** Require the following as conditions of project approval in eastern Dublin:
 - Implementation of DSRSD and Zone 7 findings and recommendations on uses of reclaimed water to augment existing water supplies.
 - Construction of a recycled water distribution system in eastern Dublin as well as necessary offsite facilities to support recycled water use. Construction of such a recycled water system will require approval of the use of recycled water for landscape irrigation by DSRSD, Zone 7 and the San Francisco Bay Area Regional Water Quality Control Board.
 - **Program 9C: Water System Master Plan.** Request DSRSD to update its water system master plan computer model reflecting the proposed Specific Plan land uses and verifying the conceptual backbone water distribution system presented on Figure 9.1. Consistent with DSRSD's current policy, it is assumed that proposed development within the project area will be responsible for the costs of preparing a design level wastewater collection system master plan computer model.

- **Program 9D: Combining of Water Systems.** Encourage Alameda County to combine its respective Zone 7 turnouts and water system into the DSRSD system.
- **Program 9E: DSRSD Standards.** Require that design and construction of all water and recycled water system facility improvements be in accordance with DSRSD policies, standards and master plans.
- **Program 9F: Consistency With Resource Management Policies.** Require the siting of water system infrastructure to be consistent with the Resource Management Policies of this plan.
- **Program 9G: Implementation Responsibilities.** Require the Developer to obtain proper approvals; refer to attached Table 9.1, Water Service Matrix of Implementation Responsibilities.
- **Program 9H: DSRSD Service.** Require a “will-serve” letter from DSRSD prior to grading permit approval.

GOAL: To provide adequate wastewater collection, treatment and disposal for the Eastern Dublin Specific Plan area.

Policy 9-3: Provide for public wastewater collection, treatment and disposal for all new development in the Eastern Dublin Specific Plan area.

Policy 9-4: Coordinate with DSRSD to expand its service boundaries to encompass the entire Eastern Dublin Specific Plan area. Also coordinate with the District regarding the possible need for wastewater storage facility in eastern Dublin. The expansion of the DSRSD wastewater system should be coordinated with proposed TWA wastewater facilities. The City should also support the wastewater management efforts of LAVWMA and TWA as it relates to the Eastern Dublin Specific Plan area.

Policy 9-5: Coordinate with DSRSD to expand its recycled water service boundary to encompass the entire Eastern Dublin Specific Plan area. Require recycled water use or landscape irrigation in accordance with DSRSD’s Recycled Water Policy.

Policy 9-6: Ensure wastewater treatment and disposal facilities are available to meet the needs of future development in eastern Dublin. The City should support DSRSD’s and TWA’s wastewater management plans as they relate to the Eastern Dublin Specific Plan area.

ACTION PROGRAM: Wastewater

- **Program 9I: Export Pipeline.** Support TWA in its current efforts to explore the feasibility of a new wastewater export pipeline system, which would serve eastern Dublin.

- **Program 9J: Wastewater Collection System Master Plan.** Request DSRSD to update its wastewater collection system master plan computer model reflecting the proposed Specific Plan area land uses to verify the conceptual proposed backbone wastewater collection system presented on Figure 9.2. Consistent with DSRSD’s current policy, it is assumed that proposed development within the project area will be responsible for the costs of preparing a design level wastewater collection system master plan computer model.
- **Program 9K: Recycled Water Distribution System.** Require development within the Project to fund a recycled water distribution system computer model reflecting the proposed Specific Plan land uses and verify the conceptual backbone reclaimed water distribution system presented on Figure 9.3.
- **Program 9L: Recycled Water and Reuse.** Support the efforts of the Tri-Valley Water Recycling Task Force Study through Zone 7, encouraging wastewater reclamation and reuse for landscape irrigation within the Eastern Dublin Specific Plan area.
- **Program 9M: Design Level Wastewater Investigation.** Require eastern Dublin applicants to prepare (in coordination with DSRSD) a detailed wastewater capacity investigation to supplement the information in the Specific Plan, which reflects the phased development approach matched against the allocation of sewer permits. Such an investigation shall include, at a minimum, a thorough estimate of planned land uses at the site and estimated wastewater flows to be generated at the site. Base the estimation of the wastewater flows for sewer permits on the DSRSD approved wastewater flow factors.
- **Program 9N: DSRSD Service.** Require a “will-serve” letter from DSRSD prior to grading permit approval.
- **Program 9O: DSRSD Standards.** Coordination with DSRSD Policies, Standards and Master Plans. Require design and construction of all wastewater systems to be in accordance with DSRSD service policies, procedures, design and construction standards and master plans.
- **Program 9P: Onsite Wastewater Treatment.** In conjunction with DSRSD, discourage onsite wastewater treatment systems such as package plants and septic systems in accordance with the policies of the San Francisco Bay Regional Water Quality Control Board.
- **Program 9Q: Connection to Public Sewers.** Require all developments in the Specific Plan be connected to public sewers. Exceptions to this requirement, in particular septic tank systems, will only be allowed upon receipt of written approval from Alameda County Environmental Health Department and DSRSD.
- **Program 9R: Implementation Responsibilities.** Require developers obtain proper approvals; refer to attached Table 9.2, Wastewater Service Matrix of Implementation Responsibilities.

GOAL: To provide adequate storm drainage facilities for the Eastern Dublin Specific Plan area.

Policy 9-7: Require drainage facilities that will minimize any increased potential for erosion or flooding.

Policy 9-8: Require channel improvements consisting of natural creek bottoms and side slopes with natural vegetation where possible to meet Policy 9-7 above. (See also Policy 7-11.)

Policy 9-9: Plan facilities and select management practices in the Eastern Dublin Specific Plan area that protect and enhance water quality.

ACTION PROGRAM: Storm Drainage

- **Program 9S: Consistency With Resource Management Policies.** Require the siting of wastewater system infrastructure to be consistent with the Resource Management Policies of this plan.
- **Program 9T: Storm Drainage Master Plan.** Require a Master Drainage Plan be prepared for each development application prior to development approval. The plan shall include:
 - Hydrologic studies of entire related upstream watersheds.
 - Phase approaches and system modeling.
 - Documentation of existing conditions.
 - Design-level analysis of the impacts of proposed development on the existing creek channels and watershed areas.
 - Detailed analysis of effects of development on water quality of surface runoff, consistent with applicable standards.
 - Detailed drainage design plans for each phase of the proposed project.
 - Design features to minimize runoff flows within existing creeks/channels in order to alleviate potential erosion impacts and maintain riparian vegetation.
- **Program 9U: Flood Control.** Require development in the Planning Area to provide facilities to alleviate potential downstream flooding due to project development. These facilities shall include:

- Retention/detention facilities as appropriate to control peak runoff discharge rates.
 - Energy dissipators at discharge locations to prevent channel erosion, as per Zone 7 guidelines.
 - Energy dissipators should be designed to minimize adverse effects on biological resources and the visual environment; in particular, widespread use of rip-rap should be avoided.
- **Program 9V: Coordination with Other Agencies.** Coordinate modifications or enhancements to creeks or the abutting riparian areas with the required permitting agencies as necessary (California Department of Fish and Game and/or U.S. Army Corps of Engineers).
 - **Program 9W: Implementation Responsibilities.** Require the Developer obtain proper approvals; refer to attached Table 9.3, Storm Drainage Matrix of Implementation Responsibilities.
 - **Program 9X: Consistency With Resource Management Policies.** Require the siting of storm drainage infrastructure to be consistent with the Resource Management policies of this plan.

CHAPER 10.0 FINANCING

GOAL: New development in the Specific Plan area should pay the full cost of infrastructure needed to serve the area, and should fund the costs of mitigating adverse impacts on the City's existing infrastructure and services.

GOAL: The financing plan should provide for reimbursements from any other benefiting areas for costs that Specific Plan area owners are require do advance, and should provide a fair allocation of costs among land uses.

Policy 10-1: Fund the full costs of the on-site and off-site public infrastructure and public services required to support development in the Specific Plan area from revenues generated by development within that Specific Plan area. These revenues may include City, County, State, or Federal revenues generated by development within that Specific Plan area.

Policy 10-2: Allocate the backbone infrastructure costs to property within the Specific Plan area based on the general principles of benefit received. "Backbone infrastructure" means public infrastructure outside of building tracts.

- Policy 10-3:** Adopt an Area of Benefit Ordinance and form an Area of Benefit for the Specific Plan area that establishes a fair share cost allocation for public improvements required to serve development of the Specific Plan area.
- Policy 10-4:** Use pay-as-you-go financing to the extent possible. Use debt financing only when essential to provide facilities necessary to permit development or to maintain service standards.
- Policy 10-5:** Require development projects in the Specific Plan area to fund the oversizing of facilities it required by the City, subject to reimbursement from future developments benefiting from the oversizing.
- Policy 10-6:** Require developers who proceed ahead of the infrastructure sequencing plan to pay the costs of extending the backbone infrastructure to their project subject to future reimbursement.
- Policy 10-7:** Require dedication of land for road improvements, park and other public facilities, and construction of such improvements consistent with City-wide policies.
- Policy 10-8:** Provide for reimbursements from any other benefiting areas for costs that Specific Plan area owners are required to produce.
- Policy 10-9:** Issue bonds (such as Mello-Roos and/or Assessment District bonds) only so long as the security for those bonds equals 300 percent (or more) of the bond value. Developers shall be required to finance privately any infrastructure costs that would cause bond issuer to fail to meet the above-stated criteria.
- Policy 10-10:** Issue bonds (such as Mello-Roos and/or Assessment District bonds) only so long as the annual special assessment or special tax and 1.0 percent regular property tax and existing bonded indebtedness does not exceed 2.0 percent of property value.

ACTION PROGRAM: Financing

The City of Dublin should take the following actions to carry out the financing policies of the Specific Plan:

- Development Agreement. For each property in the Planning Area, prepare and adopt a development agreement that spells out the precise financial responsibilities of the developer.
- Area of Benefit Ordinance. Adopt an Area of Benefit Ordinance and form an Area of Benefit for those properties benefiting from construction of public improvements described in the Specific Plan.

- Special Assessment District of Mello-Roos CFD. Create one or more Mello-Roos CFD or Special Assessment Districts to finance construction of the infrastructure (outlined in Table 10.1) to serve the Area of Benefit. Some of the special taxes or special assessments may be due upon application for building permits, and the remainder may be financed with the appropriate bond mechanisms.
- Marks-Roos Bond Pooling. Have bond counsel evaluate whether the City would save money and refrain from incurring undue risk by pooling bonds issued for eastern and western Dublin, or for eastern Dublin alone, under the Marks-Roos Bond Pooling Act.
- Citywide Developer and Builder Impact Fee Systems. Analyze city-wide infrastructure needs to assess the usefulness of implementing an impact fee program, in compliance with AB 1600, that could draw some funding from new development when final map or building permits are issued. The fees could pay for infrastructure of citywide importance, such as City Hall, downtown infrastructure, or new arterial streets through eastern Dublin.

Actions needed by other agencies include:

- School Impact Fees. The City and the School District should coordinate efforts to fund necessary school facilities and collect payable fees.
- Highway Interchange Funding. The City and CALTRANS should coordinate efforts to fund necessary freeway improvements and collect developers' share of costs.
- Utilities Impact Fees. The City, Dublin San Ramon Services District and Zone 7 should coordinate efforts to fund utilities services and collect developers' share of costs.
- Bonding Capacity. The City of Dublin and its bond counsel will coordinate with all affected agencies to develop a method of financing infrastructure that will fairly apportion the assessment burden among the agencies expected to provide services, and not allow the bonding capacity to be maximized by any one agency or infrastructure need.

APPENDIX 4 EASTERN DUBLIN SPECIFIC PLAN LAND USE SUMMARY BY LAND OWNERS				
Owner/Land Use Category	Acres	Density	Square Feet	Units
#30 PLEASANTON RANCH				
General Commercial/Campus Office	.4	.28	4,879	
Total	.4		4,879	
#31 Richey/Moller (Casamira Valley)				
Low Density Residential	79.6	4.8		381
Rural Residential/Agriculture	136.8	.01		1
Neighborhood Park	1.1			
Semi-Public	1.2			
Open Space	7.6			
Total	226.3			382
GRAND TOTAL				
	4,159.3		12,052,616	16,785

*The locations of the Semi-Public sites on the Jordan, Croak and Chen properties of Fallon Village will be determined at the time of Stage 2 PD approval. The site on Jordan will be 2.0 net acres within the Fallon Village Center subarea; the site on Croak, 2.0 net acres; and the site on Chen, 2.5 net acres within the Fallon Village Center subarea. For the purposes of this table, 2.0 acres of Medium High Density Residential land on Jordan was changed to Semi-Public, 2.0 acres of Single Family Residential land on Croak (in the Foothill Residential Subarea) was changed to Semi-Public and 2.5 acres of Medium High Density residential land on Chen was changed to Semi-Public. These assumptions may change at the time of Stage 2 PD approval.

Acres and uses have changed since the original Specific Plan was approved via several amendments. The Fallon Enterprises, Croak and Braddock and Logan properties in Fallon Village and Casamira Valley were added to the planning area. Other amendments modified land use and intensities.

The square footage, acreages and unit counts shown in this table represent the maximum development of the properties. The City does not guarantee that the listed maximums will be permitted at the time of project approval.

APPENDIX 6

BACKGROUND DOCUMENTATION FOR SEWER, WATER, AND STORM DRAINAGE



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City of Dublin
Eastern Dublin Specific Plan

EASTERN DUBLIN WATER SERVICE

BACKGROUND

Water service for the Specific Plan area will be provided by the Dublin San Ramon Services District (DSRSD). Currently, the DSRSD water service boundary is the same as the City Limits of the City of Dublin which extends as far east as Tassajara Road. However, DSRSD now provides water service only as far east as roughly Dougherty Road. The Specific Plan area lands east of Tassajara Road will have to be annexed to DSRSD. DSRSD has been actively planning to provide water service to the Specific Plan area. It should be noted that the County of Alameda does have a direct water supply connection to Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7) for the Santa Rita Rehabilitation Center (outside of the Specific Plan area) and to the Old Santa Rita Jail (inside the Specific Plan area). Also, the United States of America has a direct water supply connection to Zone 7 for the Camp Parks Reserve Forces Training Area (outside the Specific Plan area). DSRSD would be the logical agency to ultimately combine all the water services into one system.

CURRENT POLICIES

DSRSD does not have policy requiring all developments to connect to its water distribution system. Thus, developments are free to explore other options for water supply -- such as groundwater wells. However, groundwater resources are generally believed not to be that extensive in the eastern Dublin area, and thus probably could only support very small development -- perhaps a few low-density ranchette type houses on one well. If wells are drilled, the Developer must conform to all state, county and local well drilling requirements.

EXISTING WATER SUPPLY, TREATMENT AND DISTRIBUTION SYSTEM

On February 4, 1992, DSRSD Board of Directors passed Resolution 5-92 that outlined the District's water supply policy. This policy has the following basic points:

- To secure water to meet the needs of the District's existing customers.
- To pursue the acquisition of additional water supplies to meet the needs of new developments being planned by the Cities of Dublin and San Ramon.
- To cooperate with Zone 7 to obtain the needed water, but to take steps that may be necessary to acquire this water from sources other than Zone 7 if that becomes required.
- Make the ultimate beneficiaries of the new water equitable participate in funding for the planning, engineering, acquisition, and delivery of water into new service areas.

A second policy that relates to eastern Dublin was passed by Resolution 38-92 on July 7, 1992 by the DSRSD Board of Directors. This policy relates to extension of utility services and is summarized as follows:

DSRSD will consider annexing territories and extending utility service when requested to do so by owners or public agencies having land use jurisdiction over the territory. Annexations must be economically sound and should not place a burden on constituents currently served by the

District. DSRSD will only commit to provide service to a new development project at the time of annexation on the terms and conditions specified in the annexation ordinance. This policy also outlines how DSRSD will recover costs from the owners of new property through planning period agreements.

DSRSD owns and operates a water distribution system that supplies water to the City of Dublin. DSRSD obtains all of its water supplies from Zone 7, which wholesales treated local surface water, local groundwater and imported water to various Valley water agencies. A brief description of the existing water supply sources, water treatment systems and water distribution systems follows.

Existing Water Supply Sources

As was noted above, DSRSD obtains all of its water from two turnouts on the Zone 7 water supply system. Zone 7 has three main sources for its water supply as noted below.

Zone 7 Sources of Water

- **Local Surface Water:** Zone 7 captures local surface runoff at Lake Del Valle near Livermore.
- **Local Groundwater:** A large groundwater basin exists in the Valley and Zone 7 has two well fields to pump this groundwater - Hopyard Well Field and Mocho Well Field.
- **Imported Surface Water:** Zone 7 contracts with the Department of Water Resources through its State Water Project for delivery of imported water from the Delta through the South Bay Aqueduct.

Existing Water Treatment Systems

Zone 7, as the only water supplier to DSRSD, owns and operates water treatment facilities that provide a safe and potable water to DSRSD. Zone 7 has two surface water treatment plants: Patterson Pass Water Treatment Plant and Del Valle Water Treatment Plant. There are also chlorination facilities at the Hopyard Well Field and at the Mocho Well Field.

Additionally, at each of the two turnouts from the Zone 7 system, DSRSD has constructed chlorination/fluoridation facilities. The chlorination facilities are to insure an adequate chlorine residual remains in the water since there are long travel times from the Zone 7 treatment plants where original disinfections occur. The fluoridation is for health reasons, to prevent decay of teeth.

Existing Water Distribution System

As was noted above, DSRSD currently has two turnouts on the Zone 7 water supply system. Turnout No. 1 is located at Dougherty Road and the old Southern Pacific right of way and Turnout No. 2 is located at Amador Valley Boulevard and Stagecoach Road. Turnout No. 1 has a 5,000 gallon per minute (gpm) capacity and Turnout No. 2 has a 5,500 gpm capacity.

Currently DSRSD does not provide water service to the Specific Plan area. In 1992, a new water main was placed in the Dublin Boulevard extension. The closest DSRSD water service to the Specific Plan area is an 8-inch diameter main at the end of Scarlett Court adjacent to the old Southern Pacific right-of-way near the western edge of Camp Parks as well as a 12 inch diameter main at the end of Dublin Boulevard extension. Both mains terminate at the Old Southern Pacific right of way. Zone 7 does have direct water supply connections to: 1) the County of Alameda for the old Santa Rita Jail (inside the Specific Plan area) and for the Santa Rita Rehabilitation Center (outside of the Specific Plan area); and 2) the United States of America for the Camp Parks Reserve Force Training area (outside, but adjacent to the Specific Plan area).

WATER SYSTEM NEEDS AND PLANNED IMPROVEMENTS

Development of the Specific Plan area will have significant impact on the existing water supply, treatment and distribution systems. Both DSRSD and Zone 7 have been evaluating existing system capacities and planning for needed system improvements as development occurs in their respective service areas. Presented hereinafter are the currently planned water system improvements by DSRSD and Zone 7.

Water Supply and Demand

Zone 7 recently prepared a study~ on its current water supply situation and the potential demands within the Zone 7 service area as growth occurs in the Livermore-Amador Valley. In that study, Zone 7 estimated the average annual existing water supplies available to meet municipal and industrial demands, as shown in Table A-1. The average annual current water supply for Zone 7 is 40,900-acre feet per year (AFY). Zone 7 currently uses an overall community consumption rate of 210 gallons per capita per day (gpcd). It should be noted that the 210 gpcd is an overall Valley-wide average that assumes the eastern Dublin development will have the same overall mix of commercial, residential, and industrial facilities in the future as the entire valley does now. This figure may be high, given that peak DSRSD water consumption in 1990 for commercial and residential uses was 170 gpcd. However, using the consumption rate of 210 gpcd, 40,900 AFY could support a Valley-wide population of 174,000. In 1991, the population estimate for the Zone 7 service area by the Alameda County Planning Department was 133,000. Zone 7 has noted that if the annual growth rate were 2 percent to 3 percent, the growth from 133,000 to 174,000 would occur in 9 to 14 years. Zone 7 has also noted that if a 10 percent reduction in water use is achieved through water conservation, then the 40,900 AFY could meet the needs of a population of 192,000. This could then provide three to five additional years of growth before supply is exceeded.

Zone 7 has reported that the current General Plans for the Valley indicate a potential population of 188,000 and that the "prospective" General Plans indicate a potential population of 274,000. In order to meet the water demands of 274,000 people, Zone 7 would need a water supply of 64,400 AFY (@ 210 gpcd). This is about 25,000 AFY more than the current available supply of 40,900 AFY.

Thus, Zone 7 would have to develop an additional 25,000 AFY of water supply in order to meet the potential water demands of the "prospective" General Plans. Zone 7 has identified the following potential water sources to meet this future demand:

<u>Zone 7 Potential Water Sources</u>	<u>Potential Yield (AFY)</u>
Los Banos Grande Reservoir	8,400
Water Marketing	14,300
Additional Storage	20,000
Recycled Water	25,000

Planned Water Supply Sources Improvement

Zone 7 recently prepared a study² on needed water supply and water quality improvements. In that study the following new facilities were proposed to improve the water supply source:

- Hopyard Well No. 6 upgrade to 6 MGD (Completed).
- 3 MGD Well in or near Hopyard Well Field.
- Four new wells.
- Gravel Pit Lakes pump station and pipelines for emergency supply to Del Valle Water Treatment Plant.
- Tri-Valley Water Recycling Task Force Study.

Recognizing that it basically only has one source of water (Zone 7), DSRSD has begun preliminary studies on the feasibility of constructing groundwater wells as an additional supply sources. DSRSD staff feels that the addition of wells would give DSRSD additional flexibility in meeting peak water demands in summer months. Also, the wells would serve as a backup, should the Zone 7 distribution system fail. It is noted that DSRSD and the City of Pleasanton have jointly constructed a well within Pleasanton that will enable DSRSD to obtain its agreed-upon independent quota of 210 million gallons per year (about 640 acre feet per year).

A major element of improvements to water supply sources is the development of a water conservation program, to efficiently use the current water supply and delay the need for development of additional water supplies. This is especially true in California, which is now undergoing its fifth year of drought. Both Zone 7 and DSRSD have actively been planning water conservation programs for their respective service areas.

Recently, Zone 7 prepared an urban water management plan update³ under the requirements of Assembly Bill 797, the Urban Water Management Planning Act. This act requires all urban water purveyors serving more than 3,000 customers either directly or indirectly, or more than 3,000 acre-feet of water annually, to prepare and submit a plan or plan update once every five years. The purpose of the plan is to evaluate and develop water management polices to achieve conservation and efficient use of urban water supplies. The urban water management plan update presented the following water management programs to be implemented over the next five years by Zone 7:

- Xeriscaping
- Landscaping Ordinance(s)

- In-School Education Public Information/Water Awareness Program
- Distribution System Water Audit/Leak Detection Program
- Water Recycling Water Conservation (voluntary or mandatory depending on status of drought and water availability from State Water Project)

DSRSD recently enacted a water use reduction plan⁴ for its service area. The plan was prepared because DSRSD recognized that demands on the State Water Project (by which DSRSD gets up to 70% of its water through Zone 7) are growing faster than capacity to deliver water and that five years of subnormal rainfall has made this chronic situation acute. The DSRSD goals for water use reduction in peak season demand are presented in Table A-2.

DSRSD is also a signatory to the "Memorandum of Understanding" Regarding Urban Water Conservation in California" along with one other value retailer, California Water Services Company. DSRSD is implementing the Best Management Practices identified within the MOU to achieve water conservation.

Planned Water Treatment System Improvements

In the Zone 7 study² on needed water supply and water quality improvements, Zone 7 identified the following new facilities that would improve water treatment for their system:

- 18 MGD Del Valle Water Treatment Expansion to 36 MGD (Completed).
- New Water Quality Laboratory and Maintenance Shop Upgrade at Del Valle Water Treatment Plant.
- New Clarifier at Patterson Pass Water Treatment Plant.
- 1 GD Reverse Osmosis Treatment Plant at or near Mocho Well Field or Hopyard Well Field.
- Ozone installation at Del Valle Water Treatment Plant and at Patterson Pass Water Treatment Plant.

Planned Water Distribution System Improvements

In the Zone 7 study² on needed water supply and water quality improvement, Zone 7 identified the following new facilities that would improve their distribution system:

- Mocho Pipeline (Under construction).
- Vineyard Pipeline.
- Booster Pump Stations to allow water to be delivered in a west-to-east direction in the Zone 7 system.

DSRSD recently completed a water system master plan⁵, which included planning for an "Eastside study area". The Eastside study area included the majority of the Specific Plan area, except it did not include the Alameda County lands west of Tassajara Road that are part of the Specific Plan. More recently, DSRSD prepared an update⁶ to this water system master plan based on the proposed eastern Dublin land uses under previous Concept 4, exclusive of Doolan Canyon. A proposed water distribution system was developed by DSRSD through the use of a computer model. The proposed

water distribution has three pressure zones, five reservoirs and four pumping stations. Water would be supplied to the distribution system through two turnouts from Zone 7's Cross Valley Pipeline along Interstate 580 and potentially from DSRSD's existing pressure Zone 1. Also, the system was planned under the assumption that a portion of the demand in Dougherty Valley must be provided through eastern Dublin.

ESTIMATED WATER SUPPLY DEMAND

Estimated average day and maximum day water demands for the Specific Plan Area are presented on Table A-3. These water demands are based on full build out of the Specific Plan and on water demand factors currently used by DSRSD. The Table does not account for savings through the use of recycled water for landscape irrigation.

PROPOSED WATER SYSTEM IMPROVEMENTS

The proposed water system improvements for the eastern Dublin Specific Plan area are presented below by their principal components: water supply sources, water treatment systems and water distribution systems.

Proposed Water Supply Sources Improvements

Proposed water supply sources improvements should be in accordance with the recently prepared Zone 7 study² on needed water supply and water quality improvements, as previously discussed. In addition, the Zone 7 supply sources should be augmented by DSRSD developed water supply sources, such as potential groundwater wells. Two additional turnouts from the Zone 7 Cross Valley Pipeline will be required to serve eastern Dublin, as well as potential interconnections with the current DSRSD water system to the west, the Camp Parks water system to the west, the Alameda County water system in the Specific Plan area and with the City of Pleasanton water system to the south. Wastewater reclamation and reuse, as described in the Wastewater Service section, will provide an additional source of water supply to the eastern Dublin Specific Plan area. Preliminary estimates indicate up to 2.5 MGD of reclaimed water could be used to meet irrigation demands in the Specific Plan area (see Table A-7).

Proposed Water Treatment System Improvements

Proposed water treatment system improvements should be in accordance with the Zone 7 planned water treatment system improvements². In addition, two new DSRSD chlorination/fluoridation stations will be needed -- one for each of the two new Zone 7 turnouts.

Conceptual Water Distribution System Improvements

A conceptual water distribution system for the Specific Plan area is presented on Figure 10.1. This conceptual water distribution system is based upon an earlier water distribution system proposed by DSRSD⁶, with modifications to reflect the current proposed land uses for the Specific Plan area. The earlier water distribution system proposed by DSRSD was developed using the District's computer model. It should be emphasized that the modifications made herein to DSRSD's earlier proposed water distribution system have been made using "engineering judgment," and have not been analyzed using a computer made. As the planning proceeds, it is recommended DSRSD's computer model be run using

the modified system presented herein. The conceptual water distribution system consists of three pressure zones, five storage reservoirs and four pump stations. The water distribution pressure zones and their associated facilities are presented below:

Eastern Dublin
Proposed Water System Pressure Zones and Reservoirs

DSRSD Proposed Reservoirs

<u>Pressure Zone</u>	<u>Elevations</u>	<u>Reservoir No.</u>	<u>Storage (MG)¹</u>
1E	Less than 390'	1A	1.7
		1B2	4.0 ²
2E	390' - 520'	2A	1.5
		2B	3.0
3E	520' - 740'	3	3.5

Water would be delivered to the proposed distribution system from six sources:

- Two new turnouts on the Zone 7 Cross Valley Pipeline.
- An interconnection to DSRSD's existing pressure Zone 1 to the west.
- An interconnection with the Camp Parks water system Zone 7 turnout.
- An interconnection with the Alameda County Water System Zone 7 turnout.
- An interconnection with the City of Pleasanton water system through the joint use of the proposed Tassajara Reservoir.

RECOMMENDED PHASING AND IMPLEMENTATION RESPONSIBILITIES

Eastern Dublin is planned to be developed in a west to east direction in three phases. Phase 1 contains the area essentially from the western boundary of the Specific Plan to roughly the future road about 1,200 to 2,200 feet east of Tassajara Road. Phase 2 contains the area essentially from this same future road east to the future extension of Fallon Road. Phase 3 contains the area essentially from the future extension of Fallon Road east to the eastern boundary of the Specific Plan. Presented below is a description of the recommended phasing and implementation responsibilities.

DSRSD will require eastern Dublin development interests to enter into a planning period agreement that will study and analyze phasing of the water distribution system in related facilities. Conditions for annexation into DSRSD would include a requirement for the development interests to comply with the recommendations of a phasing study.

¹ Reservoir storage per recent DSRSD proposed water distribution system. The storage has not been verified with modifications made herein to the recent DSRSD proposed water distribution system.

² Located at the site of proposed Tassajara Reservoir, a potential joint use reservoir with City of Pleasanton, with a combined storage capacity 13.0 MG for DSRSD and the City of Pleasanton.

Construction costs for the recommended improvements are discussed in the next section. Recommended phasing for the improvement costs is presented in Table A-13.

Recommended Phasing

Phase I water system facilities would include: 1) about 15 miles of backbone water distribution system pipeline ranging in size from 8 inches to 16 inches in diameter, 2) three storage reservoirs, and 3) one pumping station.

Phase 2 water system facilities would include: 1) about 7 miles of backbone water distribution system pipeline ranging in size from 8 inches to 16 inches in diameter, 2) one storage reservoir, and 3) two pumping stations.

Phase 3 water system facilities would include: 1) about 11 miles of backbone water distribution system pipeline ranging in size from 8 inches to 16 inches in diameter, 2) one storage reservoir, and 3) one pump station.

The required water system improvements should be phased to coincide with development phasing. That is, required major improvements to water supply sources, water treatment facilities and water distribution transmission facilities need to be in place prior to commencing construction of development.

Phasing for water supply source improvements should be in accordance with the recommended phasing for eastern Dublin and with Zone 7 and DSRSD planned phasing. Zone 7 has established the following phasing for water supply improvements:

Zone 7 Water Supply Source Improvement Phasing

<u>Year</u>	<u>Improvements</u>
1988	Hopyard Well No. (5 upgrade to 6 MGD
1989	3 MGD Well in or near Hopyard Well Field.
1991	Tri-Valley Water Recycling Task Force Study.
1992	New Well
1993	New Well
1994	New Well
1995	New Well
Constructed When Needed	Gravel Pit Lakes Pump Station and Pipelines.

DSRSD is just beginning preliminary studies on the feasibility of constructing groundwater wells as an additional source of supply. A phasing plan has not yet been developed for construction of these new wells.

Phasing for the water treatment system improvements should be in accordance with the recommended phasing for eastern Dublin and with Zone 7 and DSRSD planned phasing. Zone 7 has established the following phasing for water treatment system improvements:

Zone 7 Water Treatment System Improvement Phasing

<u>Year</u>	<u>Improvements</u>
1991	New Water Quality Laboratory and Maintenance Shop Upgrade at Del Valle Water Treatment Plant.
1994	Ozone installation at Patterson Pass Water Treatment Plant.
1995	Ozone installation at Del Valle Water Treatment Plant.
1996	New Clarifier at Patterson Pass Water Treatment Plant.
1997	1 MGD Reverse Osmosis Treatment Plant at or near Mocho Well Field or Hopyard Well Field.

DSRSD will need to construct two new chlorination/fluoridation stations at the two proposed Zone 7 turnouts to eastern Dublin. Since development is planned occur in a west to east direction in eastern Dublin, the western Zone 7 turnout would be constructed first, along with a chlorination/fluoridation station at this western turnout. The eastern Zone 7 turnout and chlorination/fluoridation station would not be constructed until the eastern portion of the eastern Dublin Specific Plan is developed, or when development begins in the balance of the eastern Dublin General Plan area.

Phasing for the water distribution system improvements should be in accordance with any Zone 7 and DSRSD planned phasing. Zone 7 has established the following phasing for water distribution system improvements:

Zone 7 Water Distribution System Improvement Phasing

<u>Year</u>	<u>Improvements</u>
1991	Mocho Pipeline and Booster Pump Station
1992	1st Stage Vineyard Pipeline
1993	2nd Stage Vineyard Pipeline

Recent DSRSD studies^{5,6} on future water systems did not establish a phasing plan for distribution facilities. As was noted above, development in the eastern Dublin Specific Plan area will be in a west to east direction.

Initially, DSRSD will need to develop water supply connections in the Phase 1 portion of the Specific Plan area from one or some combination of the following sources: 1) a new western 24-inch turnout from the Zone 7 Cross Valley Pipeline; 2) a new connection to DSRSD's existing Pressure Zone 1; 3) a new connection to the existing Alameda County Zone 7 turnout; 4) a new connection to the existing Camp Parks Zone 7 turnouts; and 5) a new connection to the City of Pleasanton water system through joint use of the proposed Tassajara Reservoir. Construction of the most appropriate combination of the above water supply sources will be determined as development proceeds in the western portion of the Specific Plan area. As the eastern portion of the Specific Plan area develops, Phases 2 and 3, a second 24-inch Zone 7 turnout will be constructed, that will ultimately provide service for the balance of the General Plan area.

DSRSD will probably encourage phased construction of the pressure zones in the Specific Plan area as development allows. Initially, pressure Zone 1E facilities would be constructed which would service much of the southern portion of the Specific Plan area that is below ground elevation 390 feet. As development proceeds in the higher elevations, Pressure Zone 2E and 3E facilities would be constructed. Pressure Zone 2E would serve developments between elevations 390 feet and 520 feet and Pressure Zone 3E would serve developments between elevations 520 feet and 740 feet. Both Pressure Zone 2E and 3E serve primarily residential areas.

Implementation Responsibilities

A matrix of implementation responsibilities for water service for the City of Dublin, DSRSD, Zone 7 and developers is presented in Table A-4. The implementation responsibilities include phasing, funding and construction.

ESTIMATED IMPROVEMENT COSTS

Estimated improvement costs have been developed for a water system to serve the Eastern Dublin Specific Plan area and are presented in Table A-5. The basis for these costs is presented below.

The estimated improvement costs for the water distribution system are based on the conceptual backbone water distribution system presented on Figure 10. 1. Costs were developed only for the proposed water distribution facilities that are essential to the operation of the water system in the Specific Plan area. In order to achieve this, some facilities outside the Specific Plan area were required (e.g. pipelines and reservoirs). The water distribution system was sized to ultimately serve the entire General Plan area. As was noted above, this proposed water distribution system is based on an earlier water distribution system proposed by DSRSD⁶, with modifications to reflect the current proposed land uses for the Specific Plan area. It should be emphasized that the modifications made herein to the DSRSD's earlier proposed water distribution system have been made using "engineering judgment", and have not been analyzed using a computer model. As the planning proceeds, it is recommended that DSRSD's computer model be run on the modified system presented herein.

The unit costs for the cost estimate were developed by DSRSD's and include 35% for engineering and contingencies. The pipeline costs are for ductile iron pipe installed in open- country, unpaved areas.

Connection fees are collected by both Zone 7 and DSRSD for water service. When a developer submits his plans for review by DSRSD, the developer pays a fee for each water service connection.

As an example, the current rate for a 5/8-inch meter hookup is \$1,760/connection. Larger size meters have higher fees. When the development is complete and ready for hookup, the developer pays Zone 7 an \$830 connection fee. The developer provides a copy of the Zone 7 invoice to DSRSD, who then goes out to install the appropriate meter. For the purposes of this cost analysis, the total DSRSD and Zone 7 connection fees to be collected have been estimated assuming: 1) the total number of connections are equivalent to the total estimated DUE's for the Specific Plan area; and 2) all meters are standard residential 5/8-inch meters, since there is no way to currently estimate the number and range of larger size meters that would be in the Specific Plan area.

EASTERN DUBLIN WASTEWATER SERVICE

BACKGROUND

Wastewater service for the Specific Plan area will be provided by the DSRSD. Currently the DSRSD service boundary extends east from the City of Dublin to Tassajara Road, and only includes that portion of the Specific Plan area that is west of Tassajara Road. Specific Plan area lands east of Tassajara Road will have to be annexed to DSRSD. DSRSD has been actively planning to provide wastewater collection, treatment and disposal service to the Specific Plan area. Presented hereinafter are the major DSRSD wastewater service policies that will be applicable to the entire Specific Plan area once it is completely annexed to DSRSD.

Wastewater Collection

DSRSD requires all developments within its wastewater service boundary to be connected to its wastewater collection system. The only exceptions to this policy would be based on a findings of hardship by the DSRSD Board of Directors. If a finding of hardship is approved by the DSRSD Board of Directors, a development may propose an alternate system, such as a septic system with leach fields.

Wastewater Treatment

Since DSRSD requires all developments to be connected to its collection system (excluding hardship cases), all wastewater therefore is treated at the DSRSD Wastewater Treatment Plant. DSRSD discourages package wastewater treatment plants as an alternative treatment under findings of hardship. DSRSD prefers to have all wastewater in its service area treated at one central location, the DSRSD Wastewater Treatment Plant, rather than at various plants, i.e. package plants, throughout its service area. DSRSD staff have stated that operation and maintenance is more efficient with one central plant versus scattered package plants.

Wastewater Disposal

DSRSD currently exports its treated wastewater for disposal to the San Francisco Bay. DSRSD is a member of two existing wastewater disposal agencies in the Valley; the Livermore Amador Valley Water Management Agency (LAVWMA) and the Tri-Valley Wastewater Authority (TWA). LAVWMA currently owns and operates wastewater export facilities that pump DSRSD's treated wastewater to the East Bay Dischargers Authority (EBDA) disposal system which discharges the treated wastewater to the San Francisco Bay. TWA is the agency that is planning construction of additional export facilities for disposal of wastewater beyond the capacity of the LAVWMA system. Currently TWA has no facilities. In addition, DSRSD will soon be supplying reclaimed water to Caltrans for landscape irrigation along a portion of Interstate 580 and Interstate 680 and will be supplying water for landscape irrigation to the Dublin Sports Ground. Also, DSRSD is participating in a Valley-wide wastewater reclamation study sponsored by Zone 7.

EXISTING WASTEWATER COLLECTION, TREATMENT AND DISPOSAL SYSTEM

DSRSD owns and operates a wastewater collection and treatment system that will be expanded to serve the Specific Plan area. As noted above, DSRSD is a member of two wastewater disposal

agencies, LAVWMA and TWA, that will serve the Specific Plan area. A brief description of the existing collection, treatment and disposal system follows.

Existing Wastewater Collection System

The majority of the lands within the Specific Plan area are not currently served by the DSRSD wastewater collection system. Most existing facilities within the Specific Plan area are on septic systems and only the old Santa Rita Jail facilities are currently served by DSRSD. There is a major 36-inch DSRSD trunk sewer that currently serves the old Santa Rita Jail. It also serves Camp Parks and the New Santa Rita Rehabilitation Center, which are both outside the Specific Plan area. The existing collection system is adequate for these existing land uses.

Existing Wastewater Treatment System

The DSRSD Wastewater Treatment Plants is jointly owned by DSRSD and the City of Pleasanton and is operated by DSRSD. The current average dry weather flow (ADWF) capacity of the plant is 11.5 MGD. The breakdown of the plant capacity between the two agencies is shown below:

DSRSD Wastewater Treatment Plant Capacity

DSRSD Capacity	4.365 MGD-ADWF
City of Pleasanton Capacity	<u>7.135 MGD-ADWF</u>
Total Capacity	11.5 MGD-ADWF

In the 1990's, the average dry weather flows to the plant were about 8.0 MGD-ADWF, and have averaged about 7.8 MGD-ADWF over the past six years. Thus, there still is about 3.5 MGD-ADWF of treatment plant capacity. This remaining treatment plant capacity is for both DSRSD and the City of Pleasanton.

DSRSD sells sewer permits in terms of its portion of remaining treatment plant capacity. DSRSD sewer permits are based on Dwelling Unit Equivalents (DUE's). Each DUE represents the flow from a typical single family residence or multi-family residence. DSRSD uses a flow rate of 220 gpd/DUE for a single family residences and 180 gpd/DUE for multi-family residences. For non-residential developments, wastewater flow is estimated in gpd, and an equivalent DUE is determined, normally based on 220 gpd/DUE. As of March 1992, DSRSD has approximately 2,900 DUE's available for purchase. All sewer permits are sold on a first come, first served basis. Based on the above analysis, it would appear that DSRSD has about 0.64 MGD of capacity remaining at the plant (2,900 DUE's x 220 gpd/DUE). However, DSRSD staff have indicated that there may actually be slightly more capacity available due to water conservation in homes which appears to be yielding wastewater flows less than 220 gpd/DUE.

Existing Wastewater Disposal System

Disposal of treated wastewater from the DSRSD Wastewater Treatment Plant is through export through the LAVWMA and EBDA systems with final disposal in San Francisco Bay. A summary of the Valley's wastewater treatment and disposal system is shown on Figure A-I. The current LAVWMA

capacity is 21.0 MGD average day maximum month (ADMM). DSRSD's portion of this capacity is 4.382 MGD-ADMM. TWA estimated that Valley wastewater flow would exceed the capacity of the LAVWMA system in the early 1990s^{7,8}.

In the near future DSRSD will begin limited disposal of wastewater through landscape irrigation of freeway landscaping along portions of Interstate 580 and Interstate 680 as well as irrigation at the Dublin Sports Grounds.

WASTEWATER SYSTEM NEEDS AND PLANNED IMPROVEMENTS

Development of the Specific Plan area will have significant impact on the existing wastewater collection, treatment and disposal systems. Both DSRSD and TWA have been evaluating existing system capacities and planning for needed system improvements as development occurs in their respective service areas. Presented hereinafter are currently planned wastewater system improvements by DSRSD and TWA.

Planned Wastewater Collection System Improvements

DSRSD is in the process of preliminary planning^{6,9} for a wastewater collection system for the Specific Plan area. The most recent DSRSD planning was based on the proposed eastern Dublin land uses under previous Concept 4, exclusive of Doolan Canyon. A proposed wastewater collection system was developed by DSRSD through the use of a computer model. In general, a collection system was developed that collected flows from north to south through the eastern Dublin area and then west through the Interstate 580 corridor to existing collection facilities along Hacienda Drive.

Planned Wastewater Treatment System Improvements

DSRSD has a master plan¹⁰ for treatment plant expansion. The current treatment plant capacity is 11.5 MGD-ADWF. Presented below are the planned expansions for the plant.

Planned Staged Expansion at DSRSD Wastewater Treatment Plant

Stage 4	14.7 MGD-ADWF
Stage 4B	18.3 MGD-ADWF
Stage 5	22.0 MGD-ADWF
Stage 6	36.0 MGD-ADWF

It should be noted that the limiting factor in the plant expansion schedule is available export disposal capacity. Also, if the current TWA proposal (as discussed below) is constructed, less wastewater would need to be treated locally and the planned DSRSD treatment plant expansions may not be required.

Planned Wastewater Disposal System Improvements

There are no planned system improvements for the existing LAVWMA export system. Planning efforts for future wastewater disposal capacity are now primarily through TWA. Currently TWA is proposing the construction of a wastewater disposal system where untreated wastewater would be collected and

pumped north to Central Contra Costa Sanitary District (CCCSD) for treatment. Under this proposal, up to 40 MGD of untreated wastewater would be pumped to the north to an existing CCCSD sewer interceptor in San Ramon. From this point, the raw wastewater would flow by gravity to the CCCSD Wastewater Treatment Plant in Martinez for treatment. Final effluent disposal would be through CCCSD's outfall to Suisun Bay. Improvements would be required to certain potential bottlenecks in the existing CCCSD collection system and the existing CCCSD wastewater treatment plant would have to be expanded.

Another potential form of wastewater disposal is wastewater reclamation and reuse study. Zone 7 is currently studying~ reclamation and reuse and has determine it would be possible reuse up to 25,000 AFY through groundwater basin recharge and surface irrigation. However, it is too early in this study to make any conclusions and recommendations on the feasibility of wastewater reclamation and reuse as a form of disposal.

ESTIMATED WASTEWATER FLOWS

Estimated wastewater flows for the Specific Plan area are presented in Table A-6. These estimated wastewater flows are based on full build out of the Specific Plan and on wastewater flow factors currently used by DSRSD and discussed previously in this report. As shown on Table A-6, total estimated wastewater flow for the Eastern Dublin Specific Plan area is 4.4 MGD. DSRSD currently has only about 2,900 DUE sewer permit available which represents an approximate remaining capacity of 0.64 MGD. Therefore, a significant increase in treatment and disposal capacity will be required to accommodate the flows from eastern Dublin.

PROPOSED WASTEWATER SYSTEM IMPROVEMENTS

The proposed wastewater system improvements for the Eastern Dublin Specific Plan area are presented below by their principal components: collection system improvements, wastewater treatment plant improvements and wastewater disposal improvements.

Proposed Wastewater Collection System Improvements

A conceptual wastewater collection system for the Specific Plan area is presented on Figure 10.2. The collection system was sized to ultimately serve the entire Eastern Dublin General Plan area. This conceptual collection system is based upon an earlier collection system proposed by DSRSD with modifications to reflect the current proposed land uses for the Specific Plan. The earlier collection system proposed by DSRSD was developed using the District's computer model. It should be emphasized that the modifications made herein to the DSRSD's earlier proposed collection system have been made using "engineering judgment," and have not been analyzed using a computer model. As the planning process proceeds, it is recommended DSRSD's computer model be run on the modified system presented herein.

The collection system presented on Figure 10.2 will generally collect the wastewater from north to south and then send the wastewater to the west. The collection system is entirely a gravity system, with no pump stations. The wastewater would flow to a 33-inch interceptor in the proposed extension of Dublin Boulevard. Depending on the final outcome of the current proposed TWA disposal project, the

raw wastewater could flow from the Specific Plan area to one of two locations or a combination of these two locations:

1. An expanded DSRSD Wastewater Treatment Plant, for in-Valley treatment, and export or reuse.
2. A proposed TWA raw wastewater storage facility and pump station that would pump untreated wastewater to the CCCSD collection system to the north for treatment and disposal by CCCSD.

Proposed Wastewater Treatment Plant Improvements

Proposed DSRSD wastewater treatment plant improvements should be in accordance with the current District planned expansion program. If the proposed TWA plan to export raw wastewater to CCCSD is constructed, there would not be a need to treat all of DSRSD's wastewater at its plant, and thus reduce the need for staged expansion of the DSRSD plant to 36 MGD, or at least significantly delay such an expansion.

DSRSD is also advocating wastewater reclamation and reuse in the Valley through the participation in the Zone 7 study. DSRSD staff have stated that the Specific Plan area would be an ideal location to plan for wastewater reuse through landscape irrigation. This would require construction of a dual water system and reclaimed water storage facilities in the

Specific Plan area and construction of improvements to the existing wastewater treatment plant to meet reuse requirements. For landscape irrigation, wastewater treatment plant effluent would at a minimum have to meet requirements of Title 22, Division 4 of the California Administration Code. This would potentially require additional chemical feed facilities (for chemical additions such as alum and polymer) flocculation basins, clarifiers, filters and disinfection facilities. Also, due to problems with the potential for excessive salt loading to the groundwater basin, Zone 7 may require desalination facilities such as reverse osmosis.

Proposed Wastewater Disposal System Improvements

Proposed wastewater disposal system improvements should be in accordance with the planning efforts of TWA. Currently TWA is proposing a disposal system that would pump untreated wastewater to the CCCSD system to the north for treatment and disposal.

In addition, City of Dublin should encourage wastewater reclamation and reuse within the Specific Plan area in conjunction with DSRSD and the on-going Zone 7 wastewater reclamation and reuse study. Such forms of reclamation and reuse could consist of landscape irrigation of parks, schools, median strips, and common areas. Additional areas of potential reuse include in-building uses such as toilet flushing, urinal flushing, and floor drain trap primers, as well as building heating and cooling system. The reclaimed water could also be used for recreational lakes or decorative fountains. Reclamation and reuse would not only provide a partial answer to wastewater disposal, but it would also reduce the need for developing additional water supplies. As was noted above, a dual water system and reclaimed water storage facilities would need to be constructed in the Specific Plan area, as well as construction of improvements to the DSRSD treatment Plant.

A preliminary estimate of the potential reclaimed water irrigation demand in the Specific Plan area is presented in Table A-7. This estimate is based on irrigation of landscaping in the following areas:

- Residential
- Commercial/Industrial
- Government/Institutional
- Parks
- Schools
- Open Space Corridors

A proposed reclaimed water distribution system is presented on Figure 10.3. This reclaimed water distribution system is based upon an earlier reclaimed water distribution system proposed by DSRSD6. Modifications have been made to reflect current proposed land uses. Storage of reclaimed water would be in storage tanks and potentially in recreational lakes located in parks and open space areas within the Specific Plan area. Onsite storage of the reclaimed water is beneficial for two reasons: 1) onsite storage helps meet peak irrigation demands in summer months; and 2) onsite storage will hold excess reclaimed water in winter months when irrigation demands are low. If the wastewater is stored in recreational lakes, it will have to be treated to meet Title 22 requirements for non-restricted recreational impoundments.

RECOMMENDED PHASING AND IMPLEMENTATION RESPONSIBILITIES

Eastern Dublin is planned to be developed in a west to east direction in three phases. Phase 1 contains the area essentially from the western boundary of the Specific Plan to roughly the future road about 1,200 to 2,200 feet east of Tassajara Road. Phase 2 contains the area essentially from this same future road east to the future extension of Fallon Road. Phase 3 contains the area essentially from the future extension of Fallon Road east to the eastern boundary of the Specific Plan. Presented below is a description of the recommended phasing and implementation responsibilities. Construction costs for the recommended improvements are discussed in the next section. Recommended phasing for the improvement costs is presented in Table A-13.

Recommended Phasing

Phase 1 wastewater facilities would include: 1) about 8 miles of backbone wastewater collection system pipelines, varying in size from 8 inches to 33 inches in diameter; 2) increased wastewater treatment plant capacity for about 2.6 MGD-ADWF from Phase 1; 3) advanced wastewater treatment facilities for about 1.1 MGD-ADWF; 4) a 1.1 MGD-ADWF reclaimed water pump station; 5) a two-mile reclaimed water force main; 6) about 10 miles of backbone reclaimed water distribution system pipeline ranging in size from 12 inches to 24 inches; 7) a 5.0 MG reclaimed water reservoir; and 8) initial TWA pump stations, force mains storage facilities to handle the balance of the wastewater flows not reclaimed.

Phase 2 wastewater facilities would include: 1) about five miles of backbone wastewater collection system pipelines, varying in size from 8 inches to 27 inches in diameter; 2) increased wastewater treatment capacity for about 1.04 MGD-ADWF from Phase 2; 3) advanced wastewater treatment facilities for about an additional 0.8 MGD-ADWF of flows to be reclaimed in Phase 2; 4) additional reclaimed water pumping capacity for about 0.8 MGD-ADWF; 5) about three miles of backbone

reclaimed water distribution pipelines ranging in size from 12 inches to 24 inches; and 6) additional TWA pumping capacity for the balance of wastewater flows not reclaimed in Phase 2.

Phase 3 wastewater facilities would include: 1) about four miles of backbone wastewater collection system pipelines, varying in size from 8 inches to 18 inches in diameter; 2) increased wastewater treatment capacity for about 0.76 MGD-ADWF from Phase 3; 3) advanced wastewater treatment facilities for about an additional 0.6 MGD-ADWF of flows to be reclaimed in Phase 3; 4) additional reclaimed water pumping capacity for about 0.6 MGD-ADWF; 5) about three miles of backbone reclaimed water distribution system pipelines ranging in size from 12 inches to 24 inches; and 6) additional TWA pumping capacity for the balance of wastewater flows not reclaimed in Phase 3.

The required wastewater system improvements should be phased to coincide with development phasing. That is, required major trunk sewers, treatment plants and disposal facilities capacity need to be in place prior to selling of sewer permits and commencing construction of developments.

In general, wastewater collection system for the Specific Plan area phasing will occur in a west to east direction since existing trunk sewers are available on the west end of the Specific Plan area. It is important to note that the recommended phasing of eastern Dublin will be seriously impacted by the final chosen methods of treatment and disposal. If the TWA proposal to pump partially treated raw wastewater to CCCSD is adopted, collection system design and phasing will be impacted by TWA phasing for the construction of storage facilities for the raw wastewater and for the construction of pumps to send the raw wastewater to CCCSD. If construction of this export system is delayed or not pursued, raw wastewater would continue to flow to the DSRSD Wastewater Treatment Plant and greater levels of in-Valley wastewater reuse will be required which will impact collection system design and phasing.

For treatment, DSRSD has already adopted a master plan for treatment plant expansion¹⁰, as was previously discussed. However, there is no timetable on this expansion plant, in part due to the impacts of the current limited availability of wastewater disposal capacity.

For wastewater disposal, there is no real phasing schedule other than the fact that the Valley is projected to run out of disposal capacity in the LAVWMA system in the early 1990s. The proposed TWA disposal option to the north is in the early stages of planning, and a phasing schedule has not yet been developed. Zone 7 and DSRSD are currently studying reclamation and reuse as an alternate method of wastewater disposal. However, there is no current phasing schedule on such reclamation and reuse. Any delays to development of additional wastewater disposal capacity would delay the recommended phasing for eastern Dublin.

Implementation Responsibilities

A matrix of implementation responsibilities for the City of Dublin, DSRSD, TWA and the developers is presented on Table A-8. The implementation responsibilities include phasing, funding, and construction.

ESTIMATED IMPROVEMENT COSTS

Estimated improvement costs have been developed of a wastewater system to serve the Eastern Dublin Specific Plan area and are presented in Table A-9 and Table A-10. These estimated improvement costs have been developed for two cases of final wastewater disposal:

- Maximum wastewater export through the proposed TWA system (no reclamation and reuse) -- Table A-9.
- Maximum wastewater reclamation and reuse (with reduced share of the proposed TWA export system) -- Table A-10.

The basis for these costs is presented below by their principal components: estimated wastewater collection system improvement costs, estimated wastewater treatment plant improvement costs, and estimated wastewater disposal improvement costs.

Estimated Wastewater Collection System Improvement Costs

The estimated improvement costs for the wastewater collection system are based on the conceptual backbone collection system presented on Figure 10.2. Costs were developed only for the proposed sewer lines in the Specific Plan area, although the collection system was sized to ultimately serve the entire General Plan area. As was noted above, this proposed collection system is based on an earlier collection system proposed by DSRSD's, with modifications to reflect the current proposed land uses for the Specific Plan. It should be emphasized that the modifications made herein to the DSRSD's earlier proposed collection system have been made using "engineering judgment", and have not been analyzed using a computer model. As the planning process proceeds, it is recommended DSRSD's computer model be run on the modified system presented herein.

The unit costs for the cost estimate were developed by DSRSD's and include pipe manholes, miscellaneous appurtenances, installation, excavation, bedding and backfill, limited dewatering, testing, contractor overhead and profit and 30 percent engineering and contingencies.

Estimated Wastewater Treatment Plant Improvement Costs

Regardless of the method of final disposal, additional wastewater treatment facilities will have to be constructed. These additional wastewater facilities will either be at the existing DSRSD Wastewater Treatment Plant or at the existing CCCSD Wastewater Treatment Plant under the TWA proposed export system, or some combination of both.

At this level of cost estimating, a good method of estimating treatment plant costs is through sewer connection fees. DSRSD funds capital improvements for its wastewater treatment plant through sewer connection fees, which were established at \$3,900 per dwelling unit equivalent (DUE) as of July 1991. One DUE is equivalent to one single-family residence with a wastewater flow of 220 gallons per day (gpd). Therefore, wastewater treatment costs were estimated based on the current sewer connection fee of \$3,900/DUE.

Equivalent DUEs were calculated for the Specific Plan area. DUEs have a residential and non-residential component. The residential component of the DUE's for each alternative has been assumed to be the total residential units for the Specific Plan area. The non-residential component of the DUEs was determined based on the estimating wastewater flows from the non-residential uses of commercial/industrial and government/institutional (as shown in Table A-6, converted to DUE's by the factor of 220 gpd/DUE).

Estimated Wastewater Disposal Improvement Costs

As was previously noted, estimated improvement costs have been made for two cases of final wastewater disposal: 1) maximum wastewater export through the proposed TWA system (no reclamation and reuse); and 2) maximum wastewater reclamation and reuse (with reduced share of the proposed TWA export system). These are further discussed below.

Maximum Wastewater Export Through Proposed TWA System

TWA is currently proposing to construct Alternative North 3 as described in recent reports^{7, s}, which would export untreated wastewater to the CCCSD wastewater system for treatment and disposal. The total estimated cost for Alternative North 3 had been estimated at \$129.2 million in 1990 dollars. This estimate has been updated to May 1991 dollars herein using Engineering News Records (ENR) Construction Cost Indexes for the San Francisco area, for an updated construction cost estimate of \$133.6 million. This includes a 9.0 MGD in-valley pipeline from Livermore to DSRSD, new export pump station and storage facilities, and a 19.0 MGD export pipeline transporting raw wastewater to an existing CCCSD trunk sewer, where the raw wastewater would flow by gravity to the CCCSD Wastewater Treatment Plant in Martinez. Final disposal would be through an outfall to Suisun Bay.

TWA has yet to determine how these costs are to be distributed throughout the Valley. For the purposes of this analysis, a rough distribution of the 19 MGD system capacity has been made based on the following percentages of planned allocation for the TWA system:

TWA Planned Capacity Allocation

	First Project <u>(MGD)</u>	Second Project <u>(MGD)</u>	Total <u>(MGD)</u>	Percent <u>of Total</u>
Livermore	2.452	2.5	4.952	26%
DSRSD	1.564	2.5	4.064	21%
Pleasanton	3.560	2.5	6.060	32%
Alameda Co.	<u>1.424</u>	<u>2.5</u>	<u>3.924</u>	<u>21%</u>
	9.0	10.0	19.0	100%

Based upon the above percentages the total 133.6 million cost for the North 3 alternative can be broken down by participating agency as follows:

Estimated Allocation of North 3 Alternative Cost

Livermore	26%	\$34.7 million
DSRSD	21%	\$28.1 million
Pleasanton	32%	\$42.8 million
Alameda Co.	<u>21%</u>	<u>\$28.0 million</u>
	100%	\$133.6 million

Eastern Dublin Specific Plan area wastewater flows would fall within the DSRSD wastewater flows and the Alameda county wastewater flows. DSRSD and Alameda County together would have the following estimated share of the 19.0 MGD/\$133.6 million TWA North 3 project:

Estimated DSRSD and Alameda County Share of TWA:

Flow: $4.064 + 3.924 = 7.988$ MGD

Percent of Flow: $21\% + 21\% = 42\%$

Share of \$: $\$28.1 \text{ million} + \$28.0 \text{ million} = \$56.1 \text{ million}$

Wastewater flows from the Specific Plan area have been estimated at 4.4 MGD (see Table A-6). This represents only a portion of the total TWA wastewater flow capacity for DSRSD and Alameda County of 7.988 MGD. Therefore, the estimated Eastern Dublin Specific Plan area share of the DSRSD and Alameda County share of TWA is estimated as follows:

Estimated Eastern Dublin Specific Plan Area Share of TWA:

$(4.4 \text{ MGD}/7.988 \text{ MGD}) (\$56.1 \text{ Million}) = \31 Million

Maximum Wastewater Reclamation and Reuse

This option would only be necessary if demineralization is reclaimed water is required. Based on a recent (1992) Zone 7 study, the eastern Dublin area is on a fringe basin and would not require demineralized water for irrigation purposes. Reclamation and reuse facilities would be constructed to irrigate lands in the Eastern Dublin Specific Plan area with about 2.5 MGD- ADWF of reclaimed water. Since a total of 4.4 MGD-ADWF of wastewater is estimated to be generated by the Specific Plan area, 1.9 MGD-ADWF of wastewater would still be disposed of through the proposed TWA facilities.

Cost estimates were made for reclamation and reuse facilities. A reverse osmosis advanced treatment plant would be constructed at the existing DSRSD Wastewater Treatment Plant. A pump station would also be constructed at the plant, with a force main to deliver the reclaimed water to distribution system in the Specific Plan area. Costs for the reverse osmosis advanced treatment plant were based on recent costs developed in a study¹² on reuse for City of Livermore. Pump station and force main costs were developed by Kennedy/Jenks Consultants. Unit costs for the reclaimed water pipeline and reservoir were developed by DSRSD staff.⁶

As a result of reclamation of 2.5 MGD, the Eastern Dublin Specific Plan area would have a reduced share of the TWA export facilities as follows:

Estimated Eastern Dublin Specific Area Share of TWA with Reclamation and Reuse:

$$(4.4 \text{ MGD} - 2.5 \text{ MGD}) / (7.988 \text{ MGD}) (\$6.1 \text{ Million}) = \$13 \text{ Million}$$

EASTERN DUBLIN STORM DRAINAGE

STORM DRAINAGE POLICIES

Zone 7 is the responsible agency for channel and culvert storm drainage in the Eastern Dublin Specific Plan area. Zone 7's responsibilities include: 1) establishment of design standards; 2) design and construction of certain major channels and culverts; 3) maintenance of channels and culverts and 4) assisting in establishing policies on joint use of channel facilities. City of Dublin is the responsible agency for local storm drains that drain to Zone 7 channels and culverts. City of Dublin responsibilities include: 1) establishment of design standards for storm drains; 2) design and construction of certain major storm drainage facilities; and 3) maintenance of storm drains.

Zone 7 and City of Dublin will be responsible for review of storm drainage facilities for all proposed development in the Specific Plan area.

EXISTING STORM DRAINAGE SYSTEM

The watershed of the Livermore-Amador Valley, in which the Specific Plan area is located, is drained by Alameda Creek and its tributaries. The two principal tributaries in the Valley are Arroyo Del Valle and Arroyo Mocho, which drain the area from east to west. These streams, along with other smaller streams, drain into Arroyo de la Laguna which in turn drains into Alameda Creek at the community of Sunol. Upstream of the confluence with Arroyo de la Laguna, Alameda Creek receives the flows of Calaveras and San Antonio Creeks. Alameda Creek flows in a westerly direction through Niles Canyon, until it ultimately discharges to the San Francisco Bay. None of the tributaries to Alameda Creek have natural year-round flow. The two main drainage courses out of the Specific Plan area are Tassajara Creek (Zone 7 designated Line K) and Zone 7 designated Line G-3, which is a culvert under I-580 about 200 feet east of Tassajara Road.

There are currently no major storm drainage facilities in the Specific Plan area, with the exception of storm drainage facilities at the County of Alameda's old Santa Rita Jail facilities and the storm drainage culverts under I-580.

STORM DRAINAGE SYSTEM NEEDS AND PLANNED IMPROVEMENTS

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps indicate that flooding during a 100-year storm will occur primarily along Tassajara Creek. The flooded areas are: 1) areas within and immediately adjacent to over half the length of Tassajara Creek through the Specific Plan area; and 2) a wide area just north of where Tassajara Creek flows under I-580, covering portions of the old Santa Rita jail facilities.

Currently drainage from the Specific Plan area flows in a southern direction and leaves the area through two drainage courses: 1) Tassajara Creek, designated Line K by Zone 7; and 2) Zone designated Line G-3, which is a culvert under I-580 about 2,000 feet east of Tassajara Road. The drainage system and potential storm water flooding in eastern Dublin are shown on Figure A-2.

Zone 7 has determined major channels in the Specific Plan area it wants to see improved. These improvements will probably be funded and constructed by developers. Zone 7 has designated certain channels as Specific Drainage Area (SDA) 7-1 channels and other channels as Project I Channels. SDA 7-1 channels are part of a program where drainage fees are paid to Zone 7 by Developers for residential and non-residential development within SDA 7-1 areas, and the Developer becomes eligible for SDA 7-1 reimbursements from Zone 7 provided the Developer enters into an agreement with Zone 7 before any work is done. Project I Channels are non-SDA 7-I channels, and thus do not have any reimbursement programs. In the Specific Plan area designated SDA 7-1 Channels include: 1) approximately 4,000 feet of the southern portion of Tassajara Creek (Line K); and 2) approximately 1,500 feet of the G-3 Line.

Currently Alameda County is studying the flooding problems of the southern portion of Tassajara Creek at 1-580. Preliminary results of this study indicate inadequate culvert capacity for Tassajara Creek as it flows under 1-580.

EFFECT OF DEVELOPMENT ON FLOW

Development in the Eastern Dublin Specific Plan area will have two major impacts on the storm water flow: 1) Surface runoff will increase and flow in the creeks will increase; and 2) the potential for water quality degradation of the creek will increase due to non-point source pollution. Each of these two major impacts is discussed below.

Storm Water Flow

As development occurs in the Specific Plan area, more impervious surfaces will be created due to paved streets and building development. This will increase runoff to the creeks in the area. Improvement to creek channels in the Specific Plan area will be required by Zone 7. Basically, Zone 7 requires that the hydraulic capacity of the channel be sufficient to carry the 100-year design flow with one-foot of freeboard at the ultimate upstream development. Already flooding occurs along Tassajara Creek during a 100-year flood. Thus with development, it is inevitable that significant channel improvements will be required along Tassajara Creek as well as other creeks. The Developer should consult Zone 7 for all requirements related to channel improvements.

Storm Water Quality

A potential impact to storm water quality is non-point sources of water pollution. Non-point sources of water pollution are defined as sources which are diffuse and/or not subject to regulation under the Federal National Pollution Discharge Elimination System (NPDES) Program. Non-point sources are a significant cause of water quality impairment in California¹³. Types of non-point sources in California include: natural runoff, urban runoff, irrigation return flows, mining activities, subsurface drainage, confined animals, industrial activities, vessel discharges, construction site runoff, silviculture, and hydrologic modification.

The potential non-point sources in the Specific Plan area which could cause degradation of receiving water quality are: 1) urban runoff; 2) non-stormwater discharges to storm drains; 3) subsurface drainage; and 4) construction site runoff (erosion and sedimentation).

Water quality constituents in urban runoff that can cause impairment to beneficial uses of receiving waters include: pesticides, petroleum distillates, nutrients, sediments, synthetic organics, coliform bacteria, trace elements, and metals. Non-stormwater discharges to storm drains can occur from industrial and commercial sites with improper plumbing and house keeping practices and also from public dumping of household chemicals and waste automotive oils and fluids. Construction site runoff primarily contributes sediments and turbidity to receiving waters.

In 1987, Congress passed the Water Quality Act (WQA), which amended the Clean Water Act (CWA) and created new programs within the Environmental Protection Agency (EPA) to control non-point source (NPS) pollution in both surface and groundwaters. Section 319 of the WQA requires States to conduct assessments of their waters and to develop state programs for non-point source management. The State Water Resources Control Board (SWRCB) has completed draft non-point source assessment and program documents^{13, x4} in accordance with Section 319 requirements. The major focus of the State NPS program is controlling urban runoff in large cities. Other specific non-point source control programs are being developed by some of the Regional Boards in accordance with requirements of Basin Plans and Pollutant Policy Documents. The Eastern Dublin Specific Plan area is located within the jurisdiction of the Regional Water Quality Control Board (RWQCB) -- San Francisco Bay Basin.

The San Francisco Bay Basin Plan is driving the development of RWQCB non-point source programs. The 1986 Basin Plan Update identifies urban runoff control as one of the region's highest priorities. Alameda County is currently involved in studies of specific non-point source problems and effectiveness of control measures with the region, as directed by the RWQCB. The results of these studies will likely influence Regional Board strategies for non-point source regulation in the future.

PROPOSED DRAINAGE IMPROVEMENTS

Conceptual backbone storm drainage facilities improvements for the East Dublin Specific Plan area are presented on Figure 10.4. These conceptual storm drainage facilities are preliminary concepts and have not been hydraulically analyzed using a computer model. As planning proceeds, it is recommended that a hydraulic computer analysis be prepared to establish channel and pipe sizing.

The conceptual backbone storm drainage facility improvements include improvements to existing major channels as well as major underground pipes. This conceptual backbone system does not include catch basins and smaller diameter lateral lines that tie into the major backbone system. There are two basic drainage systems -- one to Tassajara Creek (Line K) and one to Line G-3.

RECOMMENDED PHASING AND IMPLEMENTATION RESPONSIBILITIES

Eastern Dublin is planned to be developed in a west to east direction in three phases. Phase 1 contains the area essentially from the western boundary of the Specific Plan to roughly the future road about 1,200 to 2,200 feet east of Tassajara Road. Phase 2 contains the area essentially from this same future road east to the future extension of Fallon Road. Phase 3 contains the area essentially from the future extension of Fallon Road east to the eastern boundary of the Specific Plan. Presented below is a description of the recommended phasing and implementation responsibilities. Construction costs for the recommended improvements are discussed in the next section. Recommended phasing for the improvement costs is presented in Table A-13.

Recommended Phasing

Phase 1 storm drainage facilities would include primarily open channel improvement to Tassajara Creek, in particular significant improvements to approximately 4,000 feet of the southern portion of Tassajara Creek and to the drainage at the southern end of Tassajara Creek where it passes under 1-580.

Phase 2 storm drainage improvements would include primarily open channel and pipeline improvements to the Line G-3, and creeks within Phase 2 that drain to Line G-3.

Phase 3 storm drainage improvements would include primarily open channel and pipeline improvements to creeks within Phase 3 that drain to Line G-3.

The required storm drainage system improvements should be phased to coincide with development phasing. That is, required major improvements to channels and creeks need to be in place prior to completing the construction of a development. Additionally, storm drainage system improvements must begin downstream and work upstream. As development proceeds, Developers need to contact both the City of Dublin and Zone 7 to verify phasing.

Implementation Responsibilities

A matrix of implementation responsibilities is presented in Table A-8. The implementation responsibilities include phasing, funding and construction.

ESTIMATED IMPROVEMENT COSTS

Estimated improvements have been developed for the proposal backbone storm drainage system to serve the East Dublin Specific Plan area and are presented in Table A-12. Essentially there are two components to the improvement costs -- open channels and pipelines. Lengths of open channels and pipelines have been estimated from the proposed backbone storm drainage facilities shown on Figure 5. Unit costs presented in Table 11 are very rough costs, since exact dimensions of the channels and pipelines cannot be determined at this time. The cost estimate should be viewed as order of magnitude. Once a storm drainage master plan has been completed, more refined cost estimates can be made.

REFERENCES

1. Zone 7 Water Supply Update, Zone 7, Alameda County Flood Control and Water Conservation District, February 1992.
2. Draft, 1991 Capital Facilities Plan Update, April 1991 Zone 7, Alameda County Flood Control and Water Conservation District.
3. Urban Water Management Plan Update for Zone 7 of Alameda County Flood Control and Water Conservation District, Dublin San Ramon Services District, City of Livermore, City of Pleasanton, April 1991, Zone 7 of Alameda County Flood Control and Water Conservation District.
4. Dublin San Ramon Services District, Water Use Reduction Plan.
5. Water Master Plan Update, Dublin San Ramon Services District, May 1989.
6. 4 March 1991 letter from Mr. Bert Michalczyk, Technical Services Manager of DSRSD to Mr. Larry Tong, Planning Director of the City of Dublin.
7. Long-Range Wastewater Management Plan for the Livermore-Amador Valley, Draft Environmental Impact Report, May 1987, EIP Associates.
8. Long-Range Wastewater Management Plan for the Livermore-Amador Valley, Draft Subsequent Environmental Impact Report, 31 January 1992, EIP Associates.
9. Wastewater Collection System Master Plan, Dublin San Ramon Services District, June 1988, CH2M-Hill.
10. Wastewater Treatment Plant Master Plan, Dublin San Ramon Services District, January 1984, Brown and Caldwell.
11. 26 August 1988 telephone conversation with Mr. Bob Whitley of DSRSD.
12. Advanced Treatment and In-Valley Effluent Reuse/Disposal, City of Livermore, 24 October 1989, Black & Veatch.
13. Nonpoint Source Problem Assessment (Draft), 19 February 1989, State Water Resources Control Board.
14. Nonpoint Source Assessment Report (Draft), 20 May 1988, State Water Resources Control Board.

TABLE A-1

SUMMARY OF ZONE 7's EXISTING WATER SUPPLIES AVAILABLE TO MEET
MUNICIPAL & INDUSTRIAL (M&I) NEEDS¹
(acre-feet per year)

Source	Local Pumpers ²	Independent Quotas ³	Zone 7	Valley Totals	Water Available to Meet Existing M&I Demand
Safe Groundwater Yield	6,000	7,200	---	13,200	7,200
Del Valle Reservoir Storage			7,000	7,000	7,000
State Water Project (SWP)			31,700	31,700	31,700
Less the Water Reserved for Small Systems and Agriculture					-5,000
Totals	6,000	7,200	39,700	51,900	40,900

Notes:

- ¹ Source: Zone 7 Water Supply Update, Zone 7, Alameda County Flood Control and Water Conservation District, February 1992.
- ² Local pumpers consist of agricultural users and gravel mining users.
- ³ IQ is the amount of groundwater the Zone's 4 major purveyors are permitted by contract to pump from the groundwater basin.

TABLE A-2

DSRSD WATER USE REDUCTION PLAN

Stage	Action	Initiated By
Stage 1	25% Voluntary Reduction	Zone 7 informing DSRSD that there is uncertainty in normal water supply.
Stage II	40% Mandatory Reduction	Declaration of Water Emergency by DSRSD Board of Directors when Zone 7 cannot meet the terms of the water supply contract.
Stage III	50% Mandatory Reduction	Declaration of Water Emergency by DSRSD Board of Directors when Zone 7 cannot meet the terms of the water supply contract.
Stage IV	Emergency Curtailment	All provisions of Stage III in force and there is evidence that fire storage water volume is threatened in any reservoir, or low water pressure may occur in any pressure zone.

TABLE A-3

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED WATER DEMANDS

			Average Day Demand		Maximum Day Demand	
Land Use	Amount	Units	Water Use Factor ¹ (gpd/unit)	Total MGD	Water Use Factor ¹ (gpd/unit)	Total MGD
<u>Residential</u>	29,031	Persons	125	3.6	250	7.3
<u>Commercial/Industrial</u>						
General Commercial	317.8					
Neighborhood Commercial	72.1					
Campus Office	218.5					
Industrial Park	141.6					
Public/Semi-Public	98.6					
Hotel	<u>10.0</u>					
Total	858.6	Gross Acres	1970	1.7	4210	3.6
<u>Schools</u>						
Elementary School	69.4					
Junior High School	37.1					
High School	<u>54.4</u>					
Total	160.9	Gross Acres	2150	0.4	2300	0.4
<u>Parks</u>						
City	56.3					
Community	124.5					
Neighborhood	47					
Neighborhood Square	<u>13.4</u>					
Total	241.2	Gross Acres	1130	0.3	3020	0.7
Grand Total				6.0		12.0

Note:

¹ Current water use factors used by DSRSD staff.

TABLE A-4
WATER SERVICE
MATRIX OF IMPLEMENTATION RESPONSIBILITIES

	CITY OF DUBLIN	DSRSD	ZONE 7	DEVELOPER
PHASING	<ul style="list-style-type: none"> - Reviews overall development plans and phasing from Developer. - Refers Developer to DSRSD for review of proposed water facility system element phasing. - Provides regular input to DSRSD and Zone 7 on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current District facilities and planned facility improvements. - Reviews phasing of water facility elements of Developer plans. - Develops phasing of improvements to major water distribution facilities. 	<ul style="list-style-type: none"> - Develops long-term water supply sources for wholesale distribution. - Develops phasing of new facilities based on consultation with Valley agencies, including DSRSD and City of Dublin. 	<ul style="list-style-type: none"> - Consults with DSRSD on current and planned DSRSD water facilities. - Prepares phasing plan for water facilities in conjunction with submittal of development plans for review by Dublin and DSRSD.
FUNDING	<ul style="list-style-type: none"> - Not responsible for water system improvements and funding. - DSRSD is responsible agency for funding major capital facilities. 	<ul style="list-style-type: none"> - Does not provide funding for Developer-constructed water distribution systems. - Does provide periodic funding of certain major system-wide capital facilities (major water lines, major pump stations, storage reservoirs) primarily through connection fees. 	<ul style="list-style-type: none"> - Does not provide funding for Developer-constructed water distribution system. - Does provide periodic funding of certain major system-wide capital facilities through connection fees, which are collected from Developer upon issuance of a building or use permit and prior to installation of DSRSD water meter. - Other potential sources of funding include selling of bonds, a change in the connection fee rate, a change in the replacement allowance, and a possible treated water rate surcharge. 	<ul style="list-style-type: none"> - Pays connection fee to DSRSD at time of development plan review. - Pays connection fee to Zone 7 prior to issuance of a building or use permit to then obtain meter installation by DSRSD. - Funds construction of internal water distribution system in development.
CONSTRUCTION	<ul style="list-style-type: none"> - Issues building permit upon favorable review of Developer plans by DSRSD. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed water facilities within Development. - Charges connection fees to Developer at review of Developer plans. - Installs water meters upon completion of development and Developer payment of connection fee to Zone 7. - Constructs certain major system-wide infrastructure, improvements, i.e., major water lines, major pump stations, and reservoirs. 	<ul style="list-style-type: none"> - Constructs major wholesale water treatment and transmission facilities to customers, including DSRSD. 	<ul style="list-style-type: none"> - Upon payment of DSRSD connection fees and issuance of building permit, constructs water distribution system within development in accordance with DSRSD design standards, exclusive of major infrastructure to be constructed by DSRSD. - Request DSRSD to install water meter for completed project after payment of Zone 7 connection fees. - Turnover constructed water collection system to DSRSD.

**EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED IMPROVEMENT COSTS
WATER SERVICE**

Item	Units	Quantity	\$/Unit	Total Cost \$
Pipelines				
8-inch diameter	LF	20,200	\$74 ¹	\$1,490,000
10-inch diameter	LF	43,200	81 ¹	3,500,000
12-inch diameter	LF	80,000	95 ¹	7,600,000
14-inch diameter	LF	20,100	111 ¹	2,230,000
16-inch diameter	LF	10,800	117 ¹	1,260,000
Subtotal				\$16,080,000
Storage Reservoirs				
Reservoir 1A, 1.7 MG	LS	--	--	\$1,760,000 ¹
Reservoir 1B, 4.0 MG	LS	--	--	2,570,000 ¹
Reservoir 2A, 1.5 MG	LS	--	--	1,620,000 ¹
Reservoir 2B, 3.0 MG	LS	--	--	2,300,000 ¹
Reservoir 3, 3.5 MG	LS	--	--	2,430,000 ¹
Subtotal				\$10,680,000
Pumping Stations				
2,400 gpm	LS	--	--	\$550,000 ¹
1,260 gpm	LS	--	--	360,000 ¹
5,530 gpm	LS	--	--	970,000 ¹
1,000 gpm	LS	--	--	300,000 ¹
Subtotal				\$2,180,000

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED IMPROVEMENT COSTS
WATER SERVICE (Cont.)

Item	Units	Quantity	\$/Unit	Total Cost \$
Connection Fees				
DSRSD Water Service Connection Fee	Connection	22,500 ²	1,760 ³	\$39,600,000
Zone 7 Water Service Connection Fee	Connection	22,500 ²	830 ³	\$18,675,000
Subtotal				\$58,275,000
Total Estimated Cost				\$87,215,000

Notes:

- ¹ Unit costs from 4 March 1991 letter from Bert Michalczyk, Technical Services Manager of DSRSD to Mr. Larry Tong, Planning Director of the City of Dublin. Unit costs include 35% for engineering and contingencies.
- ² Assume total number of connections equals total estimated DUEs for Specific Plan area. DUEs consist of 12,953 residential dwelling units plus equivalent non-residential dwelling units. Equivalent non-residential dwelling units are determined by the sum of the estimated wastewater flow from commercial/industrial, 1.8 MGD, plus the estimated wastewater flow for schools, 0.3 MGD, for a total of 2.1 MGD, divided by 220 gpd/DUE, which yields 9,545 DUEs. Total DUEs is therefore 12,953 plus 9,545 which equals 22,499 or 22,500 DUEs.
- ³ Connection fee for 5/8-inch meter. For the purpose of the analysis, assumes all meters are 5/8-inch meters.

TABLE A-6

EAST DUBLIN SPECIFIC PLAN
ESTIMATED WASTEWATER FLOWS

	Gross Acres	Estimated Wastewater Flow (MGD-ADWF)
Residential Projected Population = 29,031 @ 80 gpcd ¹		2.3
<u>Commercial/Industrial</u> General Commercial Neighborhood Commercial Campus Office Industrial Park Public/Semi-Public Hotel	317.8 72.1 218.5 141.6 98.6 10.0	
Total	858.6	
Total Net Acres @ 85% of Gross Acres = 730 Net Acres @ 2,500 gpad ¹		1.8
<u>Schools</u> Elementary School Junior High School High School	69.4 37.1 54.4	
Total	160.9	
Total Net Acres @ 85% of Gross Acres = 137 Net Acres @ 2,000 gpad ¹		0.3
Total		4.4

Notes:

¹ Current wastewater flow factors used by DSRSD staff.

MGD: Million gallons per day
ADWF: Average dry weather flow
gpcd: Gallons per capita per day
gpad: Gallons per acre per day

EASTERN DUBLIN SPECIFIC PLAN
ESTIMATED RECLAIMED WATER IRRIGATION DEMAND

ESTIMATED IRRIGABLE AREA

<u>Residential</u>	<u>Gross Acreage</u>
High Density	71.8
Medium High Density	137.4
Medium Density	508.5
Low Density	649.9
Rural Residential	<u>607.6</u>
Total	1,975.2

Estimated Irrigation Area @ 15% of Gross Acres¹ = 296 Irrigable Acres

<u>Commercial/Industrial</u>	<u>Gross Acreage</u>
General Commercial	317.8
Neighborhood Commercial	72.1
Campus Office	218.5
Industrial Park	141.6
Public/Semi-Public	98.6
Hotel	<u>10.0</u>
Total Gross Acres	858.6

Estimated Net Acreage @ 85% = 730 Net Acres

Estimated Irrigation Area @ 25% = 183 Irrigable Acres

<u>Parks</u>	<u>Gross Acreage</u>
City	56.3
Community	124.5
Neighborhood	47
Neighborhood Square	<u>13.4</u>
	<u>241.2 Irrigable Acres</u>

<u>Schools</u>	<u>Gross Acreage</u>
Elementary School	69.4
Junior High School	37.1
High School	<u>54.4</u>
	160.9

Estimated Irrigation Area @ 15% of Gross Acres¹ = 24 Irrigable Acres

EASTERN DUBLIN SPECIFIC PLAN
ESTIMATED RECLAIMED WATER IRRIGATION DEMAND (Cont.)

<u>Open Space Corridors</u>	<u>Gross Acreage</u>
Total Open Space Area	192.6
Less Stream and Creek Area - Assume 50%	<u>-96.3</u>
Total Estimated Open Space Corridor for Irrigation	<u>96.3 Irrigable Acres</u>
Total Estimated Irrigable Area	= 296 + 183 + 241.2 + 24 + 96.3
	= 840.5 <u>Use 840 Irrigable Acres</u>

ESTIMATED IRRIGATION DEMAND

Estimated Average Annual Irrigation Demand
in Livermore Amador Valley = 3.3 ft.

Estimated Irrigation Demand in
East Dublin Specific Plan Area
= (840 Acres) (3.3 ft/yr)
= 2,770 AFY
= 2.5 MGD

Notes:

1. 4 March 1991 letter from Mr. Bert Michalczyk, Technical Service Manager of DSRSD to Mr. Larry Tong, Planning Director of the City of Dublin.
2. Interim Irrigation Report in North Pleasanton, A Report to the Prudential Insurance Company of Americal and Callahan - Pentz Properties, June 1986, Lowry & Associates. (Typical landscape area at nearby Hacienda Business Park).

MGD = Million gallons per day
AFY = Acre-feet per year

TABLE A-8

WASTEWATER SERVICE
MATRIX OF IMPLEMENTATION RESPONSIBILITIES

ITEM	CITY OF DUBLIN	DSRSD	TWA	DEVELOPER
PHASING	<ul style="list-style-type: none"> - Reviews overall development plans and phasing from Developer. - Refers Developer to DSRSD for review of proposed wastewater facility element phasing. - Provides regular input to DSRSD and TWA on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current District facilities, availability of sewer permits, and planned facility improvements. - Reviews phasing of wastewater facility elements of Developer Plans. - Develops phasing of improvements to major trunk sewers and wastewater treatment plant. 	<ul style="list-style-type: none"> - Develops long-term wastewater disposal facilities. - Develops phasing of new facilities based on consultation with Valley agencies, including DSRSD, Alameda County and City of Dublin. 	<ul style="list-style-type: none"> - Consult with DSRSD on current and planned DSRSD facilities and availability of sewer permits. - Prepare phasing plan for wastewater facilities in conjunction with submittal of development plans for review by Dublin and DSRSD.
FUNDING	<ul style="list-style-type: none"> - Not responsible for wastewater system improvements and funding. - DSRSD is responsible agency for funding major capital facilities. 	<ul style="list-style-type: none"> - Does not provide funding for Developer-constructed wastewater facilities. - Does provide periodic funding for certain major system-wide capital facilities (major trunk sewers, major pump stations, treatment plant improvements, disposal facility improvements) through the sale of sewer permits to Developer, and/or formation of assessment districts. 	<ul style="list-style-type: none"> - Does not provide funding for Developer-constructed wastewater facilities. - Funding mechanism yet to be determined. May be prorated through agency capacity in TWA. DSRSD would probably fund from sewer permit revenues or assessment districts. 	<ul style="list-style-type: none"> - Purchase sewer permits to cover cost of DSRSD constructed facilities (major trunk sewers, treatment plant improvements, and disposal facility improvements). - Fund construction of internal wastewater collection system in development.
CONSTRUCTION	<ul style="list-style-type: none"> - Issues building permit upon favorable review of Developer plans and issuance of sewer permit to Developer by DSRSD. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed sewers within Development. - Sells sewer permit to Developer based on favorable review of Developer plans, presentation of evidence of recordation of a Final Subdivision Map, and availability of sewer permits. - Constructs certain major system-wide infrastructure, improvements, i.e., major trunk sewers, major pump stations, treatment plant improvements, and reclamation facilities. 	<ul style="list-style-type: none"> - Construct long-term wastewater disposal facilities. 	<ul style="list-style-type: none"> - Upon issuance of sewer permit and building permit, construct wastewater collection system within development in accordance with DSRSD design standards, exclusive of major infrastructure to be constructed by DSRSD. - Turnover constructed sewer collection system to DSRSD.

TABLE A-9

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED IMPROVEMENT COSTS
WASTEWATER SERVICE
MAXIMUM EXPORT THROUGH PROPOSED TWA SYSTEM

<u>ITEM</u>	<u>UNITS</u>	<u>QUANTITY</u>	<u>\$/UNIT</u>	<u>TOTAL COST \$</u>
Collection System Sewers				
8-inch diameter	LF	34,250	\$41 ¹	1,400,000
10-inch diameter	LF	7,750	\$57 ¹	440,000
12-inch diameter	LF	16,000	\$73 ¹	1,170,000
15-inch diameter	LF	1,850	\$90 ¹	170,000
18-inch diameter	LF	9,300	\$114 ¹	1,060,000
27-inch diameter	LF	6,700	\$171 ¹	1,150,000
30-inch diameter	LF	3,450	\$193 ¹	670,000
33-inch diameter	LF	6,250	\$212 ¹	<u>1,330,000</u>
			Subtotal	\$7,390,000
Wastewater Treatment ²	DUEs	22,500	\$3,900	\$87,750,000
Wastewater Disposal (Estimated Eastern Dublin Share of TWA Alternative North 3)	LS	--	--	\$31,000,000
			Total Estimated Cost	<u>\$126,140,000</u>

Notes:

- ¹ Unit costs from 4 March 1991 letter from Bert Michalczyk, Technical Service Manager of DSRSD to Mr. Larry Tong, Planning Director of the City of Dublin. Unit costs include contractor overhead and profit plus 30% for engineering and contingencies.
- ² Wastewater Connection Fee of \$3,900/DUE is assumed be applied toward the cost of expansion of existing CCCSD Wastewater Treatment Plant for treatment of TWA wastewater flows from Eastern Dublin Specific Plan area.

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED IMPROVEMENT COSTS
WASTEWATER SERVICE
MAXIMUM WASTEWATER RECLAMATION AND REUSE

<u>ITEM</u>	<u>UNITS</u>	<u>QUANTITY</u>	<u>\$/UNIT</u>	<u>TOTAL COST \$</u>
Collection System Sewers				
8-inch diameter	LF	34,250	41 ¹	\$1,400,000
10-inch diameter	LF	7,750	57 ¹	440,000
12-inch diameter	LF	16,000	73 ¹	1,170,000
15-inch diameter	LF	1,850	90 ¹	170,000
18-inch diameter	LF	9,300	114 ¹	1,060,000
27-inch diameter	LF	6,700	171 ¹	1,150,000
30-inch diameter	LF	3,450	193 ¹	670,000
33-inch diameter	LF	6,250	212 ¹	<u>1,330,000</u>
			Subtotal	7,390,000
Wastewater Treatment ²	DUEs	22,500 ⁵	\$3,900	\$87,750,000
Wastewater Disposal				
- Reclamation and Reuse System				
2.5 MGD Advanced Treatment Plant	LS	--	--	\$7,500,000 ³
2.5 MGD Pump Station	LS	--	--	1,600,000 ⁴
2.5 MGD Force Main	LF	10,600	\$180 ⁴	1,900,000
5.0 MG Reservoir	LS	--	--	5,000,000
12-inch diameter line	LF	43,920	55 ¹	2,420,000
16-inch diameter line	LF	15,840	73 ¹	1,160,000
24-inch diameter line	LF	22,080	117 ¹	<u>2,580,000</u>
			Subtotal Reclamation and Reuse System	\$22,160,000
- Reduced Eastern Dublin Share of TWA Alternative North 3				
	LS	--	--	<u>\$13,000,000</u>
			Subtotal Wastewater Disposal	\$35,160,000
			Total Estimated Cost	<u>\$130,300,000</u>

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED IMPROVEMENT COSTS
WASTEWATER SERVICE
MAXIMUM WASTEWATER RECLAMATION AND REUSE (Cont.)

Notes:

- ¹ Unit costs from 4 March 1991 letter from Bert Michalczyk, Technical Services Manager of DSRSD to Mr. Larry Tong, Planning Director of the City of Dublin.
- ² Wastewater Connection Fee of \$3,900/DUE is assumed be applied toward the cost of both the expansion of the existing DSRSD Wastewater Treatment Plant and the expansion of the existing CCCSD Wastewater Treatment Plant for treatment of TWA wastewater flows from East Dublin Specific Plan area.
- ³ Based on a proration of estimated costs for a 6.5 MGD reverse osmosis treatment plant for the City of Livermore as developed by Black and Veatch.
- ⁴ Costs estimated by Kennedy/Jenks Consultants.
- ⁵ DUEs consist of 12,953 residential dwelling units plus equivalent non-residential dwelling units. Equivalent non-residential dwelling units are determined by the sum of the estimated wastewater flow for commercial/industrial, 1.8 MGD, plus the estimated wastewater flow for schools, 0.3 MGD, for a total of 2.1 MGD, divided by 220 gpd/DUE, which yields 9,545 DUEs. Total DUEs is therefore 12,953 plus 9,545 which equals 22,499 or 22,500 DUEs.

TABLE A-11
STORM DRAINAGE
MATRIX OF IMPLEMENTATION RESPONSIBILITIES

ITEM	CITY OF DUBLIN	ZONE 7	DEVELOPER
PHASING	<ul style="list-style-type: none"> - Develops phasing for local storm drainage improvements within the City. - Reviews overall development plan and phasing from Developer. - Provides regular input to Zone 7 on planned growth in the City. 	<ul style="list-style-type: none"> - Provides Developers with information on current Zone 7 facilities and planned facility improvements. - Reviews phasing of Developer constructed channels and culverts. - Develops phasing for major channel and culvert improvements within Zone 7 boundaries. 	<ul style="list-style-type: none"> - Consults with City of Dublin and Zone 7 on current and planned facilities. - Prepares phasing plan for storm drainage facilities in conjunction with submittal of development plans for review by City of Dublin and Zone 7.
FUNDING	<ul style="list-style-type: none"> - Does not provide funds for Developer-constructed storm drainage improvements. - Collects appropriate fees for review of development plans that include hydrology map, hydraulic and hydrologic calculations and for City inspection. 	<ul style="list-style-type: none"> - Does not provide funds for Developer-constructed storm drainage improvements. - Funds inspection costs of Developer-constructed improvements and certain major channel and culvert improvements through collection of drainage fees from Developers. - Issues SDA 7-1 reimbursements to Developers for Developer improvements to SDA 7-1 designated creeks. 	<ul style="list-style-type: none"> - Pays Zone 7 drainage fees. - Pays appropriate City of Dublin fees for review development plans that include hydrology map, and hydraulic and hydrologic calculations and for City inspection. - Funds construction of required storm drainage facility improvements. - Eligible for SDA 7-1 reimbursements from Zone 7 for Developer improvements to an SDA 7-1 designated creek.
CONSTRUCTION	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed local storm drain facilities. - Provides inspection of Developer-constructed local storm drainage facilities. 	<ul style="list-style-type: none"> - Provides design standards to Developer for Developer-constructed channel and culvert improvements. - Provides inspection of Developer-constructed channel and culvert improvements. 	<ul style="list-style-type: none"> - Upon issuance of building permit and payment of appropriate City of Dublin and Zone 7 fees, constructs storm drainage facilities in accordance with City of Dublin and Zone 7 design standards. - Turnover constructed local storm drains to City of Dublin and constructed channels and culverts to Zone 7.

TABLE A-12

EASTERN DUBLIN SPECIFIC PLAN AREA
 ESTIMATED IMPROVEMENT COSTS
 BACKBONE STORM DRAINAGE FACILITIES¹

<u>ITEM</u>	<u>UNITS</u>	<u>QUANTITY</u>	<u>\$/UNIT</u>	<u>TOTAL COST \$</u>
Channel Improvements	LF	39,300	\$230 ²	\$9,040,000
Pipelines	LF	17,200	500 ²	<u>8,600,000</u>
			TOTAL	\$17,640,000

Notes:

- ¹ Includes only major storm drainage facilities -- does not include catch basins and lateral lines that tie into backbone system.
- ² Rough unit costs estimated by Kennedy/Jenks Consultants.

TABLE A-13

EASTERN DUBLIN SPECIFIC PLAN AREA
ESTIMATED PHASED IMPROVEMENT COSTS

<u>ITEM</u>	<u>PHASE 1</u>	<u>PHASE 2</u>	<u>PHASE 3</u>	<u>TOTAL</u>
Water Service	\$48,150,000	\$20,758,000	\$18,307,000	\$87,215,000
Wastewater Service	77,740,000	30,730,000	21,830,000	130,300,000
Storm Drainage	<u>5,020,000</u>	<u>9,000,000</u>	<u>3,620,000</u>	<u>17,640,000</u>
Totals	\$130,910,000	\$60,488,000	\$43,757,000	235,155,000

Wastewater Treatment and Disposal

Figure A-1

Legend:

- DSRSD Dublin San Ramon Services District
- LAVWMA Livermore Amador Valley Water Management Agency
- EBDA East Bay Dischargers Authority
- MGD Millions of Gallons per Day
- ADWF Average Dry Weather Flow
- ADMM Average Day Maximum Month
- PWWF Peak Wet Weather Flow

Source:

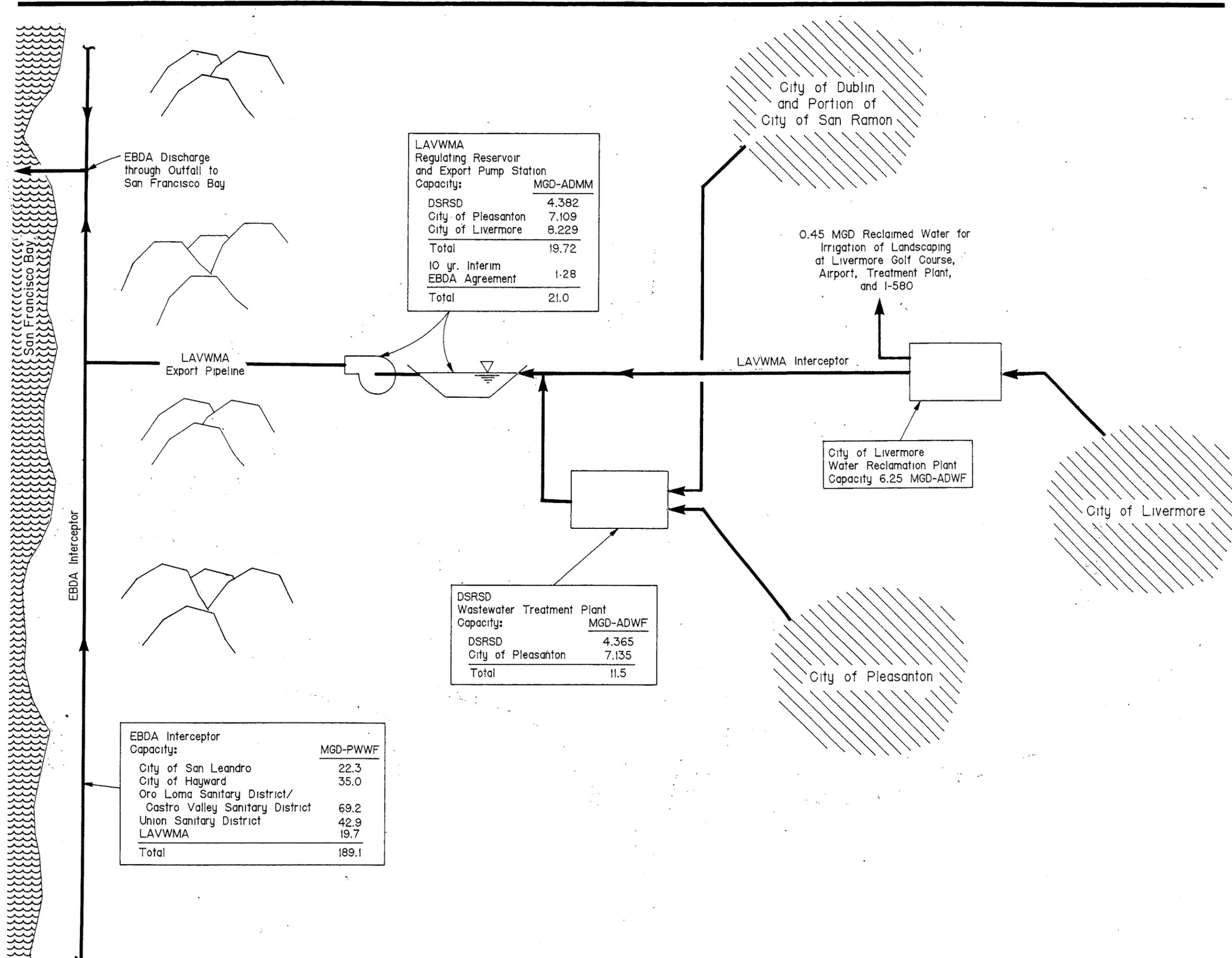
Staff at LAVWMA, DSRSE, EBDA, and City of Livermore

Kennedy/Jenks Consultants

EASTERN DUBLIN

Wallace Roberts & Todd

Urban and Environmental Planners
 121 Second Street, 7th Floor
 San Francisco, CA 94105
 (415) 541-0830



Storm Water Flooding

Legend

-  General Plan Amendment Study Area
-  Specific Plan Study Area
-  Creek
-  Zone A1-A30
Areas of 100-year flood; base flood elevations and flood hazard factors determined.
-  Zone B
Areas between limits of 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from base flood.
-  Zone C
Areas of minimal flooding (no shading)

Source:

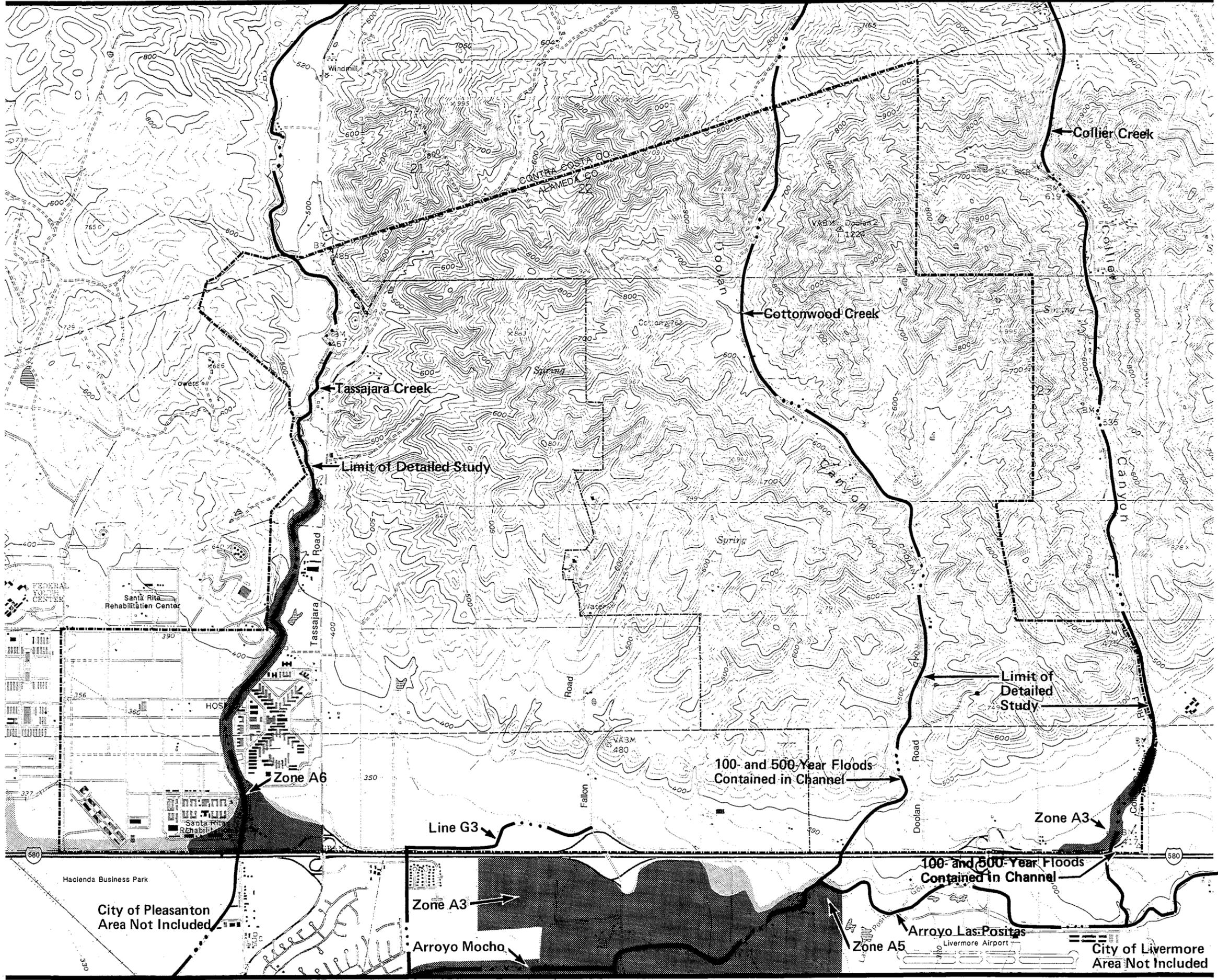
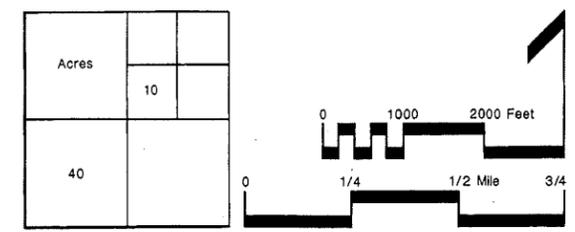
Federal Emergency Management Agency, Flood Insurance Rate Map Alameda County, California (Unincorporated Areas), Panel 115 (Revised 2/19/86) and Panel 120 (4/15/81).

Kennedy/Jenks/Chilton

Figure A-2

EASTERN DUBLIN Specific Plan

Urban and Environmental Planners
121 Second Street, 7th Floor
San Francisco, CA 94105
(415) 541-0830



APPENDIX 7

FISCAL ANALYSIS



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City of Dublin
Eastern Dublin Specific Plan

FISCAL CASH FLOWS: SANTA RITA PARCEL

NOTES RE: FISCAL CASH FLOW TABLES

Two fiscal cash flow tables are included in the appendix: one for the Santa Rita Property and one for the remainder of eastern Dublin. Both tables show total revenues and expenses which would traditionally flow to the provider of municipal services. However, the City and County have a pre-existing annexation agreement, which calls for a sharing of costs and revenues. The annual net fiscal cash flow to Dublin cannot yet be determined precisely because the City and the County are currently renegotiating the cost and revenue sharing portion of the agreement for the Santa Rita parcel.

Table III-9
FISCAL CASH FLOW: City of Dublin
Eastern Dublin Fiscal Analysis

<Santa Rita Property: January 16, 1992 Proposed Plan>
 [Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	1990	1991	1992	1993	1994	1995	1996
		(In Constant 1990-91 \$1000s)						
REVENUES								
Property Taxes (Incl. Home. Relief)	General	0	0	0	0	0	0	0
Sales and Use Taxes	General	0	0	0	0	0	0	100
Real Property Transfer Tax	General	0	0	0	0	0	0	52
Hotel Transient Occupancy Tax	General	0	0	0	0	0	0	0
Franchise Taxes	General	0	0	0	0	0	0	17
Other Court Fines	General	0	0	0	0	0	0	1
Intergovern. Revenue - State	General	0	0	0	0	0	0	36
Other Revenues	General	0	0	0	0	0	0	4
Vehicle Code Fines	Traffic	0	0	0	0	0	0	1
State Gas Taxes	Gas Tax	0	0	0	0	0	0	12
Total Revenue - All Funds		0	0	0	0	0	0	224
EXPENDITURES								
General Government		0	0	0	0	0	0	56
Building Management		0	0	0	0	0	0	18
Police		0	0	0	0	0	0	125
Fire		0	0	0	0	0	0	821
Other Public Safety		0	0	0	0	0	0	16
Transportation		0	0	0	0	0	0	58
Culture & Leisure Services		0	0	0	0	0	0	53
Community Development		0	0	0	0	0	0	38
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		0	0	0	0	0	0	1,185
ANNUAL FISCAL SURPLUS (OR DEFICIT)		0	0	0	0	0	0	(961)
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		0	0	0	0	0	0	(961)

Table III-9
FISCAL CASH FLOW: City of Dublin
Eastern Dublin Fiscal Analysis

<Santa Rita Property: January 16, 1992 Proposed Plan>

[Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	1997	1998	1999	2000	2001	2002	2003
REVENUES		(In Constant 1990-91 \$1000s)						
Property Taxes (Incl. Home. Relief)	General	241	598	830	1,117	1,322	1,474	1,572
Sales and Use Taxes	General	1,621	1,721	3,242	3,342	3,951	4,051	4,051
Real Property Transfer Tax	General	129	50	62	44	33	21	5
Hotel Transient Occupancy Tax	General	0	0	0	327	327	327	327
Franchise Taxes	General	42	63	89	111	134	154	157
Other Court Fines	General	2	3	5	6	7	8	8
Intergovern. Revenue - State	General	78	124	174	227	277	325	325
Other Revenues	General	10	15	21	27	32	37	38
Vehicle Code Fines	Traffic	2	3	5	6	7	8	8
State Gas Taxes	Gas Tax	26	42	59	77	94	110	110
Total Revenue - All Funds		2,153	2,620	4,486	5,284	6,184	6,515	6,601
EXPENDITURES								
General Government		136	204	287	360	433	498	509
Building Management		44	66	93	116	140	161	164
Police		301	450	634	795	957	1,100	1,124
Fire		757	740	690	654	924	924	924
Other Public Safety		38	57	80	101	121	139	142
Transportation		139	208	293	367	442	508	519
Culture & Leisure Services		128	191	270	338	407	468	478
Community Development		92	137	193	242	292	335	343
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		1,635	2,053	2,541	2,974	3,714	4,133	4,204
ANNUAL FISCAL SURPLUS (OR DEFICIT)		518	567	1,945	2,310	2,470	2,382	2,397
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		(443)	123	2,069	4,379	6,848	9,231	11,628

Table III-9

FISCAL CASH FLOW: City of Dublin
Eastern Dublin Fiscal Analysis

<Santa Rita Property: January 16, 1992 Proposed Plan>

[Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	2004	2005	2006	2007	2008	2009	2010
REVENUES		(In Constant 1990-91 \$1000s)						
Property Taxes (Incl. Home. Relief)	General	1,594	1,630	1,663	1,702	1,745	1,792	1,840
Sales and Use Taxes	General	4,121	4,121	4,121	4,121	4,121	4,121	4,121
Real Property Transfer Tax	General	353	7	8	9	10	11	7
Hotel Transient Occupancy Tax	General	327	327	327	327	327	327	327
Franchise Taxes	General	161	164	168	171	175	178	180
Other Court Fines	General	8	8	9	9	9	9	9
Intergovern. Revenue - State	General	325	325	325	325	325	325	325
Other Revenues	General	39	40	41	41	42	43	44
Vehicle Code Fines	Traffic	8	9	9	9	9	9	9
State Gas Taxes	Gas Tax	110	110	110	110	110	110	110
Total Revenue - All Funds		7,047	6,741	6,780	6,825	6,873	6,925	6,973
EXPENDITURES								
General Government		521	532	543	554	565	576	583
Building Management		168	172	175	179	182	186	188
Police		1,151	1,176	1,200	1,225	1,249	1,273	1,289
Fire		851	924	924	924	885	832	924
Other Public Safety		146	149	152	155	158	161	163
Transportation		532	543	555	566	577	588	595
Culture & Leisure Services		490	500	510	521	531	541	548
Community Development		351	359	366	373	381	388	393
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		4,210	4,354	4,425	4,496	4,529	4,547	4,683
ANNUAL FISCAL SURPLUS (OR DEFICIT)		2,837	2,387	2,355	2,328	2,344	2,378	2,290
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		14,464	16,852	19,207	21,535	23,879	26,257	28,547



FISCAL CASH FLOWS: REMAINDER EASTERN DUBLIN

Table III-9
FISCAL CASH FLOW: City of Dublin
Eastern Dublin Fiscal Analysis

<Eastern Dublin Area: January 16, 1992 Proposed Plan >
 [Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	1990	1991	1992	1993	1994	1995	1996
(In Constant 1990-91 \$1000s)								
REVENUES								
Property Taxes (Incl. Home. Relief)	General	0	0	0	0	0	0	0
Sales and Use Taxes	General	0	0	0	0	0	0	0
Real Property Transfer Tax	General	0	0	0	0	0	0	10
Hotel Transient Occupancy Tax	General	0	0	0	0	0	0	0
Franchise Taxes	General	0	0	0	0	0	0	2
Other Court Fines	General	0	0	0	0	0	0	0
Intergovern. Revenue - State	General	0	0	0	0	0	0	0
Other Revenues	General	0	0	0	0	0	0	1
Vehicle Code Fines	Traffic	0	0	0	0	0	0	0
State Gas Taxes	Gas Tax	0	0	0	0	0	0	0
Total Revenue - All Funds		0	0	0	0	0	0	13
EXPENDITURES								
General Government		0	0	0	0	0	0	7
Building Management		0	0	0	0	0	0	2
Police		0	0	0	0	0	0	16
Fire		0	0	0	0	0	0	103
Other Public Safety		0	0	0	0	0	0	2
Transportation		0	0	0	0	0	0	7
Culture & Leisure Services		0	0	0	0	0	0	7
Community Development		0	0	0	0	0	0	5
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		0	0	0	0	0	0	149
ANNUAL FISCAL SURPLUS (OR DEFICIT)		0	0	0	0	0	0	(136)
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		0	0	0	0	0	0	(136)

Table III-9
FISCAL CASH FLOW: City of Dublin
 Eastern Dublin Fiscal Analysis

<Eastern Dublin Area: January 16, 1992 Proposed Plan>
 [Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	1997	1998	1999	2000	2001	2002	2003
		(In Constant 1990-91 \$1000s)						
REVENUES								
Property Taxes (Incl. Home. Relief)	General	46	193	296	527	782	1,209	1,516
Sales and Use Taxes	General	100	100	200	200	1,800	1,800	3,400
Real Property Transfer Tax	General	42	22	50	55	93	66	154
Hotel Transient Occupancy Tax	General	0	0	0	327	327	327	327
Franchise Taxes	General	9	16	30	46	72	93	143
Other Court Fines	General	0	1	2	2	4	5	7
Intergovern. Revenue - State	General	13	24	55	92	143	194	315
Other Revenues	General	2	4	7	11	17	23	35
Vehicle Code Fines	Traffic	0	1	2	2	4	5	7
State Gas Taxes	Gas Tax	4	8	19	31	48	66	106
Total Revenue - All Funds		218	369	660	1,295	3,289	3,788	6,011
EXPENDITURES								
General Government		30	51	97	149	233	301	464
Building Management		10	16	31	48	75	97	150
Police		66	112	215	329	515	666	1,024
Fire		167	184	234	270	924	924	924
Other Public Safety		8	14	27	42	65	84	130
Transportation		31	52	99	152	238	308	473
Culture & Leisure Services		28	48	91	140	219	283	436
Community Development		20	34	65	100	157	203	312
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		361	511	860	1,230	2,427	2,867	3,912
ANNUAL FISCAL SURPLUS (OR DEFICIT)		(143)	(142)	(200)	65	862	921	2,099
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		(279)	(421)	(621)	(555)	307	1,228	3,327

Table III-9

FISCAL CASH FLOW: City of Dublin

Eastern Dublin Fiscal Analysis

<Eastern Dublin Area: January 16, 1992 Proposed Plan>

[Date = Beginning of Fiscal Year]

REVENUE & EXPENSE BALANCE	Fund	2004	2005	2006	2007	2008	2009	2010
REVENUES		(In Constant 1990-91 \$1000s)						
Property Taxes (Incl. Home. Relief)	General	2,229	2,837	3,461	4,032	4,702	5,245	5,756
Sales and Use Taxes	General	3,600	3,800	4,000	5,700	5,900	6,100	6,238
Real Property Transfer Tax	General	614	135	124	145	118	111	110
Hotel Transient Occupancy Tax	General	327	327	327	327	327	327	327
Franchise Taxes	General	189	234	279	329	372	415	458
Other Court Fines	General	10	12	14	17	19	21	23
Intergovern. Revenue - State	General	435	556	676	796	917	1,037	1,158
Other Revenues	General	46	57	67	79	90	100	111
Vehicle Code Fines	Traffic	10	12	14	17	19	22	24
State Gas Taxes	Gas Tax	147	188	229	270	310	351	392
Total Revenue - All Funds		7,606	8,158	9,192	11,712	12,775	13,730	14,597
EXPENDITURES								
General Government		611	758	903	1,063	1,206	1,344	1,481
Building Management		197	245	291	343	389	434	478
Police		1,350	1,676	1,995	2,350	2,664	2,970	3,273
Fire		997	1,848	1,848	1,848	1,887	1,940	2,772
Other Public Safety		171	212	253	298	337	376	415
Transportation		624	774	922	1,086	1,231	1,372	1,512
Culture & Leisure Services		574	712	848	999	1,133	1,263	1,392
Community Development		412	511	608	717	812	906	998
Health & Welfare		0	0	0	0	0	0	0
Total Operating Budget		4,935	6,737	7,669	8,704	9,660	10,604	12,321
ANNUAL FISCAL SURPLUS (OR DEFICIT)		2,672	1,421	1,522	3,008	3,115	3,126	2,276
CUMULATIVE FISCAL SURPLUS (OR DEFICIT)		5,998	7,420	8,942	11,950	15,065	18,190	20,466