

Pleasanton Community Farm Master Plan

Pleasanton, California

Table of Contents

Section Number	Title	Page
1.0	Introduction	2
2.0	Background	2
3.0	Vision & Goals	6
4.0	Design Objectives	6
5.0	Project Description	6
6.0	Community Farm Users & Operators	7
7.0	Program Elements in Sub-Area 7	9
8.0	Program Elements in Sub-Area 16	16
9.0	Architecture & The Grange	21
10.0	Circulation and Parking	28
11.0	Grading, Drainage and Stormwater Design	28
12.0	Utility Demand	30
13.0	Planting Design	30
14.0	Agricultural Uses and Operations	33
15.0	Implementation	33
16.0	Potential Impacts of Farming Activities	36
17.0	Operations and Maintenance	36
18.0	Revenue Generation & Expenses	36
19.0	Phasing Plan	37
20.0	Next steps	37
21.0	DESIGN GUIDELINES	37
	APPENDICES	45
	REFERENCES & SOURCES	51

List of Figures

Figure Number	Title	Page
1	Sub-Area 7 Site Photographs	3
2	Sub-Area 16 Site Photographs	4
3	Phase II Specific Plan Bernal Property, Illustrative Park Plan	5
4	Phase II Specific Plan Conceptual Plan For Urban Agriculture	5
5	Sub-Area 7 Land Uses	9
6	Sub-Area 7 Existing Site Conditions	11
7	Sub-Area 7 Proposed Site Plan	12
8	Sub-Area 7 Conceptual Planting Plan	13
9	Sub-Area 7 Garden Patch Detail Plan	14
10	Sub-Area 7 Learning Center Detail Plan	14
11	Sub-Area 7 Master Gardener Program Detail Plan	14
12	Sub-Area 7 Farm Operations Plan	15
13	Sub-Area 16 Land Uses	16
14	Sub-Area 16 Existing Site Conditions	17
15	Sub-Area 16 Proposed Site Plan	18
16	Sub-Area 16 Conceptual Planting Plan	19
17	Sub-Area 16 Farm Operations Plan	20
18	Sub-Area 7 Architectural Roof Plan	22
19	Sub-Area 7 Architectural Floor Plan 1	23
20	Sub-Area 7 Architectural Floor Plan 2	24
21	Sub-Area 7 Architectural Sections	25
22	Sub-Area 7 Architectural Concept	26
23	Sub-Area 7 Architectural Concept	27
24	Parking Table	28
25	Parking Plan & Section	29
26	Sub-Area 7 Utility Plan	31
27	Sub-Area 16 Utility Plan	32
28	Sub-Area 16 Conceptual Hedgerow Buffer Section	34
29	Sub-Areas 7 & 16 Plant List	35

Pleasanton Community Farm MASTER PLAN

Preliminary Design Statement

1.0 Introduction

This Pleasanton Community Farm Master Plan (Master Plan) will guide the implementation of the Pleasanton Community Farm (Community Farm), representing the agricultural uses envisioned in the Bernal Property Phase II Specific Plan. The Community Farm is to be created within the bounds of Sub-Area 7 and Sub-Area 16, as designated in the Specific Plan. This Master Plan report documents the net acreage for Community Farm development, and identifies a short list of possible agricultural uses, with accompanying site plans. (See Figures 1 & 2). The Master Plan establishes the parameters, framework and guidelines to be followed as part of the Community Farm's implementation and management.

The Master Plan also identifies the Community Farm operations structure and function. Site plans for each sub-area help to visually describe the arrangement of uses and activities anticipated at the Community Farm. Design Guideline topics include the establishment, care and harvesting procedures for several types of orchards and vineyards, integrated pest management, landscape buffers, architecture, open space design, and water quality design features. Conceptual designs for the farm buildings, or grange, are proposed. Implementation costs and phasing are included, with a focus on the first phase, which will be executed upon approval of the Master Plan and City of Pleasanton funding through its Capital Improvement Program.

Implementation of this Master Plan would begin with City-funded site improvements that provide the circulation, parking and utilities for the initial operators of the Community Farm. Over time, other building and site projects will be constructed in step with the addition of farmers to manage row crops, orchards and vineyards.

2.0 Background

In May 2006, City Council adopted the Bernal Community Park Master Plan, which was the result of extensive community outreach and input including the efforts of City commissions and the Bernal Community Park Task Force. As part of this process, which also included work related to the Bernal Property Phase II Specific Plan, the local 4-H Youth Development Group (4-H YDG) encouraged the community to consider the inclusion of a working community farm to establish educational, recreational, livestock, and agricultural components for a portion of the Bernal Property. As an outcome of that effort, an agricultural component was included in the Bernal Property Phase II Specific Plan adopted on May 16, 2006, and ratified by Pleasanton voters by the approval of Measure P ("Bernal Property Phase II Land Use Plan") on November 7, 2006. (See Appendix A for additional possible uses)

Included in the approved Specific Plan is approximately 20 acres on the southern-most section of the Bernal property for which "Agriculture Club" and "Agriculture" have been designated as permitted land uses. (See 1 for the general vicinity of the Bernal property; see Figure 3 for the areas covered

by Phase II Specific Plan; see Sub-Areas 7 and 16 in Figure 4 for parcels designated as "Agriculture Club" and "Agriculture") Although the City owns all of the land in the Phase II areas, interested community organizations have been encourage to partner with the City to develop the property and operate facilities in accordance with the permitted uses.

Following Specific Plan approval, the 4-H YDG continued to promote a community farm concept. On July 1, 2012, the City entered into a Community Grant Recipient Agreement with 4-H YDG in the amount of \$24,463 to provide funding for it to secure architectural services to prepare a conceptual community farm master plan which could be used to better inform the City Council and the community of its vision for a community farm.

In response to this funding, MD Fotheringham Landscape Architects was retained to prepare a draft community farm master plan for the 4-H YDG (Draft 4-H YDG Master Plan). An initial version, of the 4-H YDG Master Plan, which was presented to the City Council at its 2015-16 Work Plan Priorities session included development of Sub-Areas 7 and 16 to establish: (1) a barn to accommodate large animal projects (both breeding and raising) for various species, (2) crop and orchard projects (especially those with historical relevance in the Tri-Valley), (3) ancillary agriculture (e.g. beekeeping) and composting/recycling projects, and (4) facilities to accommodate educational and club meeting activities.

Preparation of a community farm master plan was added to the City Council list of priority projects and is included with the current City Council Priorities. In addition, development of a Community Farm Master Plan was funded as part of the City's 2016-2017 Capital Improvement Program.

However, shortly after the City began its work on the Master Plan, it was informed that an agreement between the 4-H YDG and the Alameda County Fairgrounds will accommodate large animal projects (both breeding and raising of various farm animals species) and therefore, aspects of the original project related to animal care were no longer necessary to be part of the Master Plan.

Based on the above information, at the meeting of March 21, 2017, the Pleasanton City Council approved an agreement with MD Fotheringham Landscape Architects, Inc., (MD Fotheringham) to prepare a final version of the Master Plan based in part on the Draft 4-H YDG Community Farm Master Plan authorized in 2012. Because of the changed involvement and direction of the 4-H YDG, the City Council's direction is to develop a Master Plan that:

- Meets the requirements of the Specific Plan;
- Is consistent with the City's Parks Master Plan;
- Does not include facilities for farm animals;
- Contains a strong educational and recreational component;
- That it be processed in cooperation with Parks and Recreation Commission with adequate opportunity for public input.

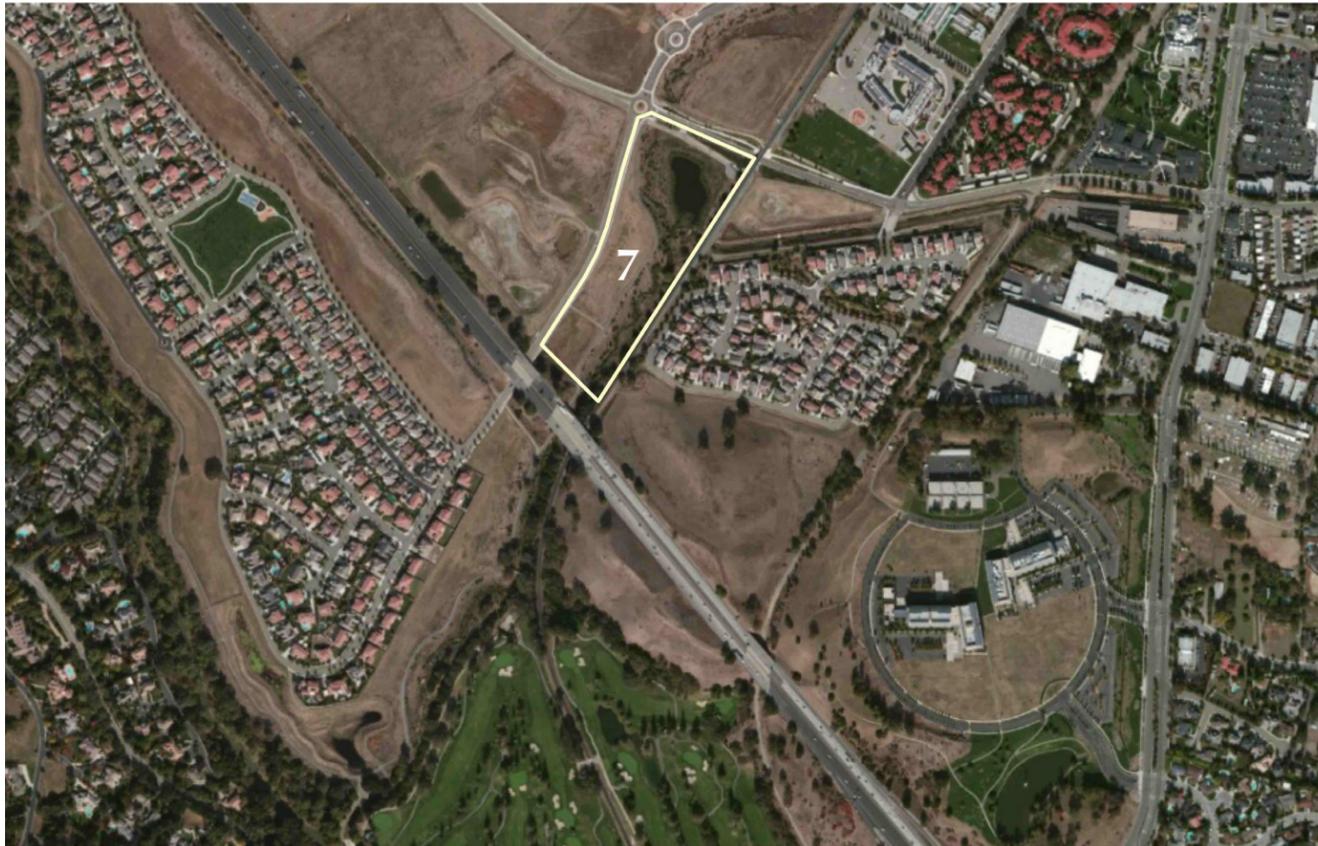


Fig. 1 - SUB-AREA 7 SITE PHOTOGRAPHS



Fig. 2 - SUB-AREA 16 SITE PHOTOGRAPHS



Fig. 3 - ILLUSTRATIVE PARK PLAN
Bernal Property
Phase II Specific Plan



Fig. 4 - CONCEPTUAL PLAN for URBAN AGRICULTURE
Bernal Property
Phase II Specific Plan

Notwithstanding adoption of the Master Plan, before the land can be developed or used, detailed site designs that adhere to the general planning guidelines contained in the Phase II Specific Plan must be created. Such designs must go through Pleasanton’s public planning approval process, including public hearings, review/approval by the Parks and Recreation Commission, Planning Department, and final approval by the City Council.

3.0 Vision & Goals

The interest in urban agriculture—community farms that grow and distribute fruits and vegetables to local venues—is growing and expanding. Teaching the next generation about the productive potential of the landscape and the expanding benefits of locally grown produce will benefit the participants, including 4-H YDG members, students, interested individuals, and local citizens who might rent community garden spaces.

One of the primary objectives for providing community-sponsored agricultural uses is to implement the ‘farm to fork’ movement. This movement reflects the needs and opportunities to provide urban agriculture that benefits local residents who desire to engage in the process of learning about farming organically grown fresh produce. The Pleasanton Community Farm is an opportunity for the City of Pleasanton to implement this objective.

Vision statement: “To provide Pleasanton residents with a recreational and educational amenity focused on community farming, home gardening and working orchards and/or vineyards.”

This vision statement emphasizes the public benefit mission of the Community Farm, which is to facilitate appreciation for the origins of agricultural practices, the social benefits of available and locally grown produce, and the joy of gardening. The Community Farm would produce fruits, nuts and vegetables that flow into the local food supply chain. Imagine ordering your fresh Community Farm produce online. The food is then delivered to you directly or through local grocery stores, packaged with other items. The family could also swing by the Community Farm and pick up their order on the way back from soccer practice.

Project goals:

- (1) Involve Pleasanton youth in an ongoing and clearly defined public education and outreach program focused on self reliance through agriculture;
- (2) Increase the community’s awareness of local agriculture, home gardening, crop development, and the benefits and safe use of organic fertilizers, pesticides, and sustainable farming practices;
- (3) Increase opportunities for community gardening as part of the City’s overall community services programming;
- (4) Develop an agricultural amenity that provides fresh produce for local neighborhoods;

- (5) Minimize the impacts of urban farming on adjacent neighborhoods;
- (6) Partner with nonprofit organizations with an educational mission centered on community gardening and urban farming;
- (7) Successfully complete the Master Plan as the first step in making the Pleasanton Community Farm a reality.

4.0 Design Objectives

- Confirm site development program of uses for each sub-area;
- Minimize environmental impacts to adjacent neighborhoods;
- Minimize visual impacts of farming activities along Laguna Creek Lane;
- Maximize on-site agricultural waste conversion through recycling and composting;
- Provide sufficient public improvements to optimize farming activities;
- Partner with local entities and agencies to optimize agricultural operations;
- Create a facility that minimizes energy use while deploying photovoltaic devices;
- Provide an architectural statement and site design that symbolizes the Project Vision;

The Master Plan Project will benefit residents of Pleasanton in the following ways:

- Accelerates the long-term objective of creating a community farm in Pleasanton;
- Creates a model or type of successful urban agriculture planning;
- Enhances collaboration opportunities to partner with local schools and other community-based organizations;
- The Master Plan will be a resource and reference for urban agricultural best practices.
- The agricultural uses and activities of the Community Farm are foremost, a public benefit.

5.0 Project Description

The Project site is located in Sub-Areas 7 and 16 of the Adopted Phase II Bernal Property Specific Plan (See Figure 3). Proposed improvements extend into both sub-areas. Meeting facilities are located in Sub-area 7. Agricultural crops are the primary use for Sub-area 16. The proposed program descriptions for “Agricultural Club” and “Agriculture” found on pages 16-17 of the Phase II Specific Plan are the guiding language for the Pleasanton Community Farm Project. The anticipated land uses, as identified in the Environmental Impact Report for the Phase II Specific Plan, include community gardens (‘R’), agricultural club with parking (‘S’) and agriculture (‘T’). (See page 12 and 13 of the EIR and Appendix A)

Potential agricultural resources envisioned on the Community Farm include row crops, orchards, vineyards and community garden plots for Pleasanton residents. There are also opportunities to create outdoor passive recreational elements such as trails, outdoor classrooms, arboreta, and demonstration gardens that celebrate the history of farming in Pleasanton, water-conserving

landscape design, and awareness of native plant species.

There are approximately 14.75 net acres of agricultural lands available for the growing of a variety of vegetables, nuts and fruits: in Sub-Area 7 there are 4.81± net acres (13 gross acres) and in Sub-Area 16 there are 9.93± net acres (10.9 gross acres). Both sub-areas are larger in gross area, as published in the Phase II Specific Plan. This is because both sub-areas also include riparian habitats, restored creeks and water conservation/treatment basins. See Figures 1 and 2 for photographs of existing site characteristics for Sub-Areas 7 and 16 respectively.

The Project Applicant is, at the moment, the City of Pleasanton. The Applicant has identified potential users and operators of the Community Farm, including the University of California Cooperative Extension Master Garden Program of Alameda County (UC Master Gardener Program), the local 4-H Youth Development Group (4-H YDG) as well as Pleasanton residents, who have signed up to rent raised garden beds in its “Garden Patch” program. The development program for this Project has been provided by the Applicant and describes the site development potential of the Project as follows:

- 5.1 Meeting facilities to include an assembly room, workroom, storage, restrooms;
- 5.2 Orchard and vineyard areas;
- 5.3 Row crops;
- 5.4 Agricultural/horticultural demonstration areas; tool and bulk material storage; green houses and storage/office buildings;
- 5.5 Outdoor event gathering space; picnic facilities;
- 5.6 Containerized community garden plots (known in Pleasanton as the “Garden Patch”)
- 5.7 Parking for up to 82 vehicles;
- 5.8 Ancillary landscape elements such as buffers, trails, park furnishings;

The properties identified in Sub-Areas 7 and 16 of the Phase II Specific Plan are owned by the City of Pleasanton and would be leased to operators for use and development of the agricultural uses identified in this Master Plan. Design consultants have contracted with the Applicant for purposes of completing the scope of this Master Plan Project, and will coordinate its efforts with the City of Pleasanton so that both the Applicant and the City achieve desired outcomes.

The project descriptions and design guidelines published in the Bernal Property Phase II Specific Plan

serve as a basis for preparing this Final Master Plan for the agricultural club and agriculture facilities. Description of Potential Land Uses, Phase II, Bernal Property Specific Plan, specifically addressing the Agricultural Club and Agriculture Uses (items 1 and 2 of the List of Potential Land Uses, in the Land Use Element) can be found in Appendix A.

The potential agricultural uses published in the Phase II Specific Plan are generally supported by this Master Plan, although the timing and phasing of improvements may preclude any interim agricultural uses. The Project Goals for the Community Farm provide a comprehensive vision to enlist the participation of the Master Gardener program as well as additional row crop and orchard operators so that the Community Farm becomes a reality in the near term.

6.0 Community Farm Users & Operators

6.1 UC Master Gardener Program:

City of Pleasanton staff met with representatives from the University of California Cooperative Extension of Alameda and Contra Costa Counties, which provides governance for the local UC Master Gardener Program, to discuss its interest in partnering with the City to use a portion of the Community Farm for an educationally focused demonstration garden. As an outcome of that meeting, staff learned the following information:

- The UC Master Gardener Program Mission Statement: “To extend research-based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California and be guided by our core values and strategic initiatives.”
- Gardening activities to be overseen by UC Master Gardener Program volunteers include growing vegetables, berries, perennial and annual row crops, vines, espalier trees, hops, a demonstration fruit orchard and an area for plant propagation for annual plant sales, all in an enclosed and secure area. Other activities outside the fenced compound would include a water feature, low water use garden, succulent garden, native garden, pollinator garden, an “allstars garden” and wildlife habitat creation.
- The UC Master Gardener Program would provide a full range of educational services including workshops, classes, weekly talks, an annual plant sale, a newsletter and other services subject to the availability and capacity of local UC Master Gardener volunteers, which currently has approximately 43 participants in Pleasanton and 146 certified UC Master Gardener volunteers in Alameda County.
- The City would provide water connections, storm drainage, electricity, parking, site access, and required lighting. Portions of the UC Master Gardener Program site (MGP Demonstration Garden) also requires an electrified perimeter fence for rodent control. Site

improvements would also include green houses, storage buildings with a small office.

- The UC Master Gardener volunteers would operate and develop a 1.32-acre site in accordance with design guidelines established by the City, and operate the MGP Demonstration Garden in accordance with a ground lease/use agreement between the City and UCCE. Staff reviewed samples of existing UC Master Gardener Program agreements used in other communities, including the City of Walnut Creek, and believes that a similar agreement could be prepared to meet City of Pleasanton needs.
- Any agreement with the UC Master Gardener Program is subject to approval of University of California, Division of Agriculture and Natural Resources.
- The annual plant sale event, which would be the MGP Demonstration Garden major fund raiser, would be anticipated to generate up to 300 daily transactions and this usage would generate a parking demand that exceeds the amount of on-site parking planned for Sub-area 7. To address this situation, it is anticipated that the City of Pleasanton Community Services Department could coordinate this event with events occurring on the same day at the Bernal Sports fields and if necessary, pursue using the vacant land immediately north of Sub-Area 7 for overflow parking so that there is a coordination of parking to meet the collective need.
- While the UC Master Gardener Program could conduct training and workshops outside on the site, which it does frequently at other locations, it would welcome the use of the City Learning Center for these events. It is anticipated that the classroom would need to accommodate up to 75 participants for these events.
- Funding for the MGP Demonstration Garden development and operation would rely almost exclusively on product sales, i.e., the annual plant sale, and donations/fund raising. Ongoing City grants or funding is not anticipated.
- Development of the MGP Demonstration Garden would occur in phases over several years. The initial phases would include fence installation and the planting of trees.
- Operations would require structures such as green houses and small storage/office buildings subject to the approval of a site design plan and available funding. It is anticipated that funding for these long-term assets would be provided by a variety of entities, including state and local agencies, and possibly a non-profit organization that could be formed specifically to benefit the Pleasanton Community Farm implementation and operations.

6.2 City of Pleasanton “Garden Patch” Community Gardens (see Appendix B for Garden Patch rules and regulations):

A key component of the Community Farm is an expansion of the City’s Garden Patch program, through the construction of defined garden plots made available for rental to residents. The current Garden Patch Program has 33 large garden plots and 7 small garden plots at the Val Vista Community Park location, with 21 people on the current waiting list. This Master Plan recommends up to 50 new garden plots in three sizes. These are proposed in Sub-Area 7. Program operations would be subject to program rules and regulations which would be reviewed and if necessary amended, prior to the start of the expansion on the Community Farm. Staff anticipates that plot development would be phased, based on public demand, with the first phase providing plots for Pleasanton residents on the waiting list.

6.3 Additional Possible Operators:

Based on feedback from the Parks & Recreation Commission and public input, it is important that the City select possible operators for various operation elements of the Community farm in a public meeting to assure they have the resources to meet the expectation of the City and the community. It is anticipated that operators would be used for the development and operation of the row crops of vegetables, root crops, and/or cut flowers; nut orchard; fruit orchard; and vineyard. At this stage of the master planning process, specific operators have not been identified. However, the Parks & Recreation Commission and City staff have expressed the desire to include acreage and guidelines for these agricultural uses in this Master Plan document, with the expectation that the City will conduct the appropriate process to select the most qualified entities for these purposes.

The role of the local 4-H YDG in creating a vision for the Community Farm has been key to the preparation of this Master Plan. It is noted that both 4-H YDG and the UC Master Gardener Program programs fall under the jurisdiction of the University of California Cooperative Extension. As such there is a natural partnership that is emerging between the local 4-H YDG and UC Master Gardener Program volunteers, within which 4-H YDG participants will have many opportunities to participate on the Community Farm in various projects, including growing crops to raise funds and learning the best practices of urban agriculture.

Row crops are distinctly different from orchards or vineyards in that growing vegetables is a seasonal rotation activity. Orchards, on the other hand, are long-term installations of seasonal transformations rather than turnover. Orchards and vineyards require different levels of maintenance and cost controls. Even for non-profit entities, the finances of operating row crops, orchards and vineyards require identifying viable markets, produce handling and distribution that cover costs and generate sufficient income to sustain the operations over time. Thus, the land areas set aside for row crops and orchards are a function of financial sustainability. The Master Plan has provided site plans for row crops, orchards and vineyards that maximize the land area or number of trees. However, there is built-in flexibility in the extent of these potential agricultural uses to accommodate the financial demands of future operators.

7.0 Program Elements in Sub-Area 7

Sub-Area 7 is located along Laguna Creek Lane on the East side of Highway 680. The boundaries of Sub-Area 7 extend to the restored creek to the South and Valley Avenue to the East. The existing Marilyn Murphy Kane Trail roughly parallels the restored creek along the southern boundary of Sub-Area 7. In response to the above Specific Plan descriptions of possible agricultural uses on the Community Farm, the program elements in Sub-Area 7 are listed in Figure 5.

The combined developable area is 4.81 acres. Each component listed below includes areas for landscape screening, particularly along Laguna Creek Lane.

7.1 Sub-Area 7 Uses:

- A ground lease of 1.32 acres would be assigned to the UC Master Gardener Program to operate the MGP Demonstration Garden. UC Master Gardener Program volunteers would provide a range of educational and training services for the benefit of Pleasanton and Alameda County residents, including a broad range of environment-friendly gardening practices, such as home food production, water conservation, and home composting. All services and training would be provided with a vision of enhancing local sustainable food systems. At full development the MGP Demonstration Garden project most likely would include green houses, storage areas for tools and incidentals, a small office space, truck access, a shade house, rainwater storage, compost piles, and a produce cleaning station. The major portion of the MGP Demonstration Garden would be fully fenced with an electrified fence to repel animals and rodents. As noted previously, the UC Master Gardener Program would partner with the City through a ground lease use agreement consistent with UCCE and City requirements and City development standards.

Pleasanton Community Farm SUB-AREA 7 - LAND USES			
USE	SQUARE FEET	ACRES	PERCENTAGE
Community Gardens	27,665	0.64	13.19%
Master Gardener Program	57,680	1.32	27.50%
Agriculture/Row Crops	50,000	1.15	23.84%
Entry Drives, Parking	35,825	0.82	17.08%
Learning Center	22,290	0.51	10.63%
Existing Sidewalk	10,817	0.25	5.16%
Existing Parkway	5,455	0.13	2.60%
TOTAL AREA	209,732	4.81	100.00%

Fig. 5 - SUB-AREA 7 - Land Uses

- A City-operated 5,290 square-foot Learning Center building (Learning Center) for conducting instruction, demonstrations and training regarding home gardening and agriculture. This building would include public restrooms, a workroom suitable for conducting classes and food service, utility and tool storage, a small office and an open assembly room with capacity for 75 visitors. It is anticipated that the City would work closely with the Pleasanton Unified School District (PUSD) for educational enrichment programming, the UC Master Gardener Program, and other site lessees in developing the design of the Learning Center building and grounds.
- An expansion of the community's Garden Patch program through the construction of approximately 50 garden plots made available for rental to Pleasanton residents. Program operations would be subject to program rules and regulations (Appendix B) which would be reviewed and if necessary amended, prior to the start of the program at the Community Farm. Staff anticipates that plot development would be phased based on public demand.
- A reservation of approximately 1.23 acres for row crops and/or general agriculture, which would be farmed by a yet-to-be-determined operator. As indicated in the July 13, 2017 report, the City would pursue a model involving a partnership, through a ground lease/use agreement with a community mission-focused nonprofit organization. The entity would provide educational activities, fund raising, and instructions focused on connecting the community through farming-related activities and making produce available to meet operating expenses and for a community benefit purpose.
- Parking for 70 vehicles; the proposed site plan for Sub-Area 7 indicates the preferred arrangement of this parking into two areas, as directed by the Parks & Recreation Commission. Each parking area has 35 spaces, including four accessible parking spaces. Design features for the parking areas emphasize maximizing pervious surfaces while minimizing surface runoff.
- Vehicle access to allow for the delivery of supplies and equipment required for all users of this sub-area.
- A trail connection to Township Square just east of I-680, consistent with the City's Trails Master Plan.
- Installation of a concrete split rail fence along Laguna Creek Lane and Valley Avenue in Sub-Area 7 consistent with the split rail fence currently installed along Valley Avenue at the Oak Woodlands.

7.2 Sub-Area 7 Site Plan:

Access to Sub-Area 7 occurs at two driveway cuts leading to the two parking areas. The eastern

parking area has 35 spaces and would provide access to the Garden Patch garden plots as well as the Learning Center and associated outdoor learning landscape elements. A trash enclosure is also included at the southern end of this parking area.

The western parking area also includes 35 parking spaces and would provide access for the MGP Demonstration Garden participants, as well as the row crop operator. Pedestrian access to the MGP Demonstration Garden would occur along a central axis pathway running east-west. This axis is as much a visual corridor as it is a pedestrian connection between the two parking areas. See Figure 7.

The expansion of the Garden Patch community garden program is located at the eastern end of Sub-Area 7. A total of 49 garden plots are proposed, and three sizes are indicated: 12 feet by 16 feet; 12 feet by 12 feet; 8 feet by 12 feet. These raised planters would be constructed using steel or wood materials that would provide long-term usefulness. Concrete or stabilized decomposed granite pathways will connect the parking area to the raised garden plots. The pathways between the plots would be a minimum of 4 feet in width, and designed for universal access. The garden plots and paths would be wheelchair accessible. The planters could be constructed all at once, or phased. Several planter heights are possible and may appeal to different users.

The Learning Center is envisioned as a linear building, with a north/south axis running perpendicular to Laguna Creek Lane. The building has two footprints, separated by a covered outdoor room. The northern footprint would house the main assembly space, and storage areas. The southern building contains restrooms, utilities, storage, office and multi-purpose workroom that can be used also for food service. The restrooms are accessible from the exterior of the building. This arrangement facilitates access to the restrooms by UC Master Gardener Program and Garden Patch users without impacting an event in the assembly room. The western facade of both north and south building footprints would have glass doors, and a covered porch that opens up to and connects with an outdoor learning environment.

The enclosed MGP Demonstration Garden would be bounded along the southern edge by a concrete wall, approximately six feet high, with sloping, sub-dividing walls that create outdoor storage bays for bulk garden materials, such as gravel, sand, compost, topsoil, and mulch. The western edge of the compound is formed by two small buildings, one for storage of tools and equipment (north building) and the other for storage of light-sensitive gardening materials and a small office for use by Master Gardener staff (south building). This building would be a conditioned space, with internet access. The storage areas of these two buildings could have rollup doors on one or both sides of the structures.

It is noted that the fence that encloses the secured portion of the MGP Demonstration Garden is customized to repel rodents, and includes an underground wire mesh barrier, as well as an electrified charge. The UC Master Gardener Program volunteers will install this fence, examples of which can be found at other MGP demonstration gardens in the region. While not dangerous to humans, the charge is sufficient to repel rodents. The site plan envisions that the electrified fence

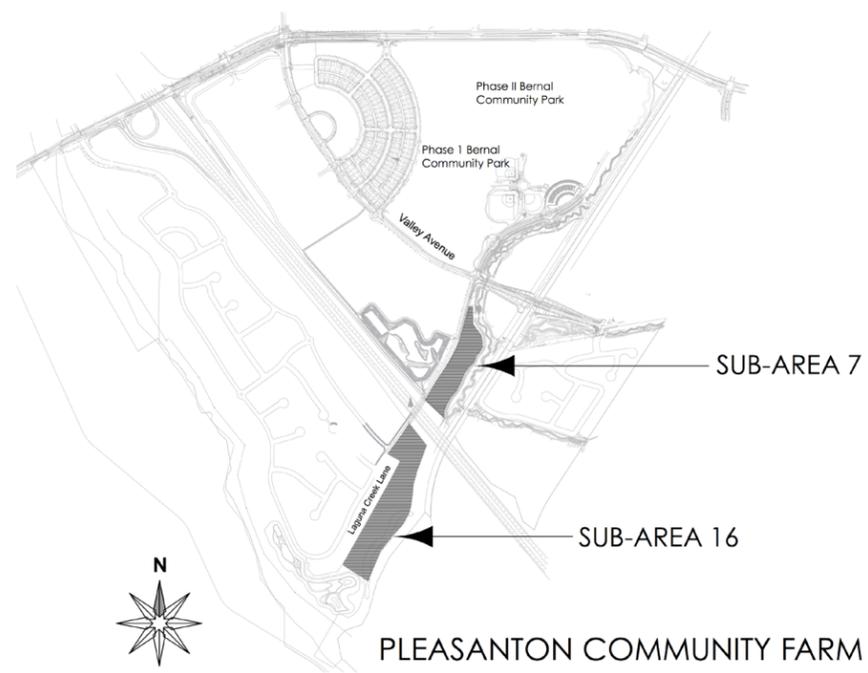
would be placed between the buildings whenever possible. The precise boundaries of the fenced-in Master Gardener area would be finalized during implementation, subject to a specific site design developed in partnership with the UC Master Gardener Program.

There is an additional unfenced area to the West of the West Parking Lot that will be used by Master Gardener volunteers to provide publicly accessible theme gardens related to research, educational, and teaching activities. The research-oriented activities and operation of the Demonstration Garden will be located within the fenced area.

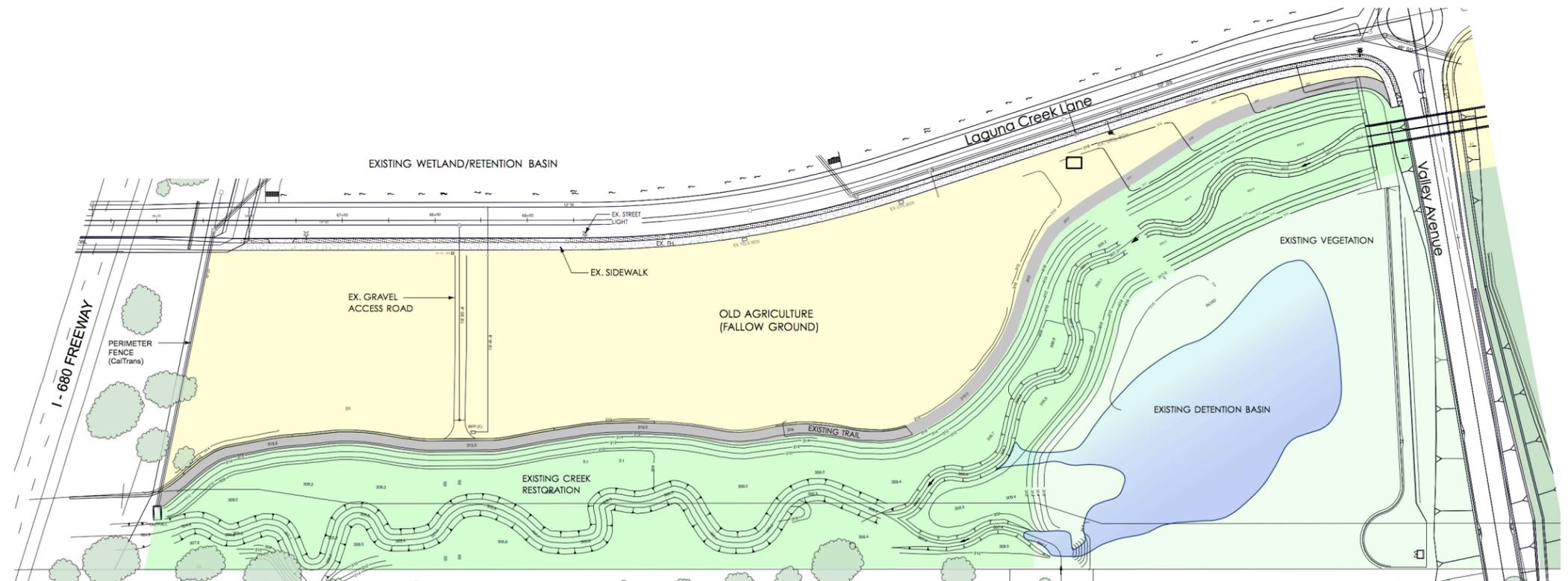
The row crop area, located to the west of the unfenced Master Gardener Demonstration Garden, is approximately 1.25 acres in size and extends to the western end of Sub-Area 7. This area could have an additional trash enclosure and will be fenced, if determined necessary by the operator and/or the City.

The site plan for Sub-Area 7 attempts to minimize the visual impacts of buildings and parking by aligning these elements perpendicular to Laguna Creek Lane. This alignment maximizes views to the various agricultural fields and gardens, as well as the restored riparian habitat along the Marilyn Murphy Kane Trail. The Master Plan would encourage public access to the Community Farm from this Trail, and proposes a new trail segment that connects the existing Marilyn Murphy Kane Trail to the sidewalk along Laguna Creek Lane. This new trail segment follows the existing toe of slope at the bottom of the Highway 680 overpass berm.

The viewshed from Laguna Creek Lane has been a sensitive topic expressed by adjacent neighbors during the development of this Master Plan. The Master Plan includes a variety of screening elements along the south side of the Lane, extending along both Sub-Areas. The existing fence running parallel to Laguna Creek Road and behind the sidewalk, would be replaced with the City's standard rail fence, typical of other Bernal Property park developments. This rail fence would be installed along the perimeter of both Sub-Areas, as determined feasible. The rail fence is constructed of concrete and has a faux wood finish.



SUB-AREA 7
NET ACRES: 4.81±



EXISTING CONDITIONS
Sub-Area 7
Phase II Specific Plan

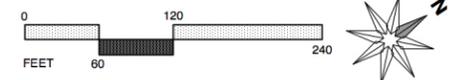
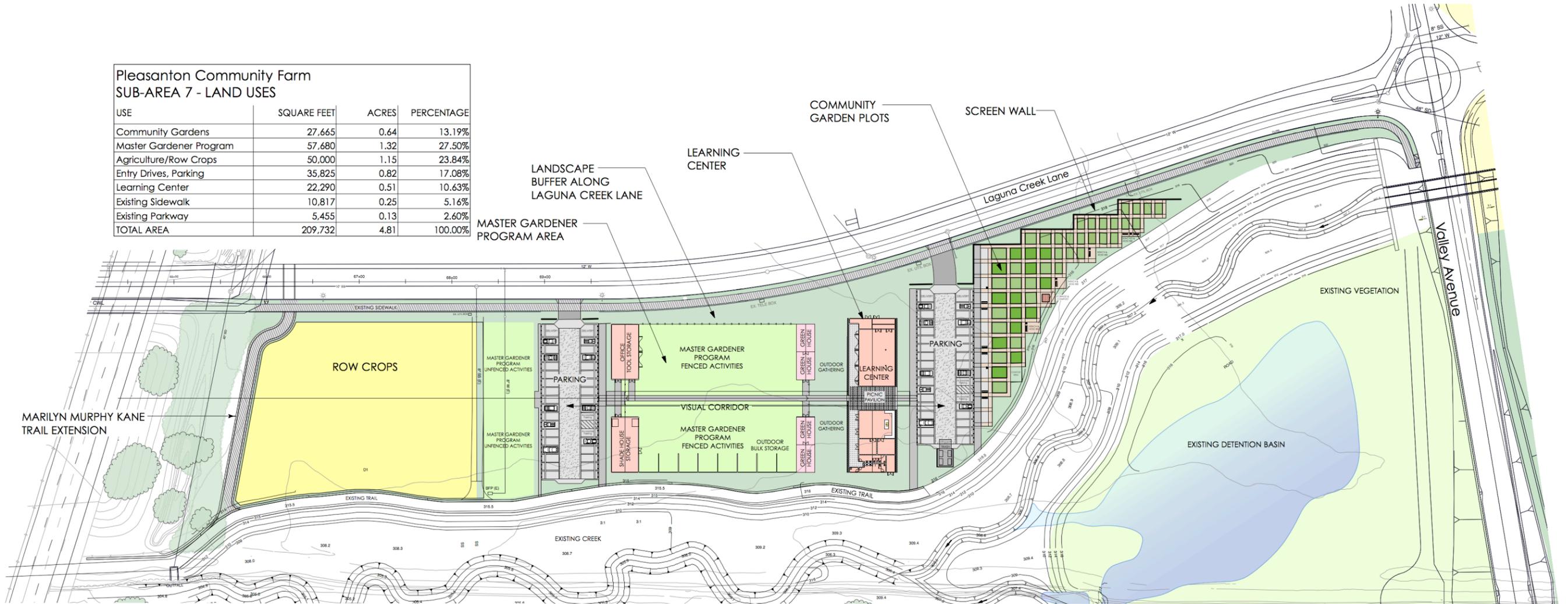


Fig. 6 - SUB-AREA 7 - EXISTING SITE CONDITIONS

Pleasanton Community Farm SUB-AREA 7 - LAND USES			
USE	SQUARE FEET	ACRES	PERCENTAGE
Community Gardens	27,665	0.64	13.19%
Master Gardener Program	57,680	1.32	27.50%
Agriculture/Row Crops	50,000	1.15	23.84%
Entry Drives, Parking	35,825	0.82	17.08%
Learning Center	22,290	0.51	10.63%
Existing Sidewalk	10,817	0.25	5.16%
Existing Parkway	5,455	0.13	2.60%
TOTAL AREA	209,732	4.81	100.00%



PROPOSED FARM USES

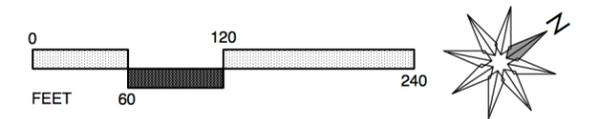


Fig. 7 - SUB-AREA 7 - PROPOSED SITE PLAN

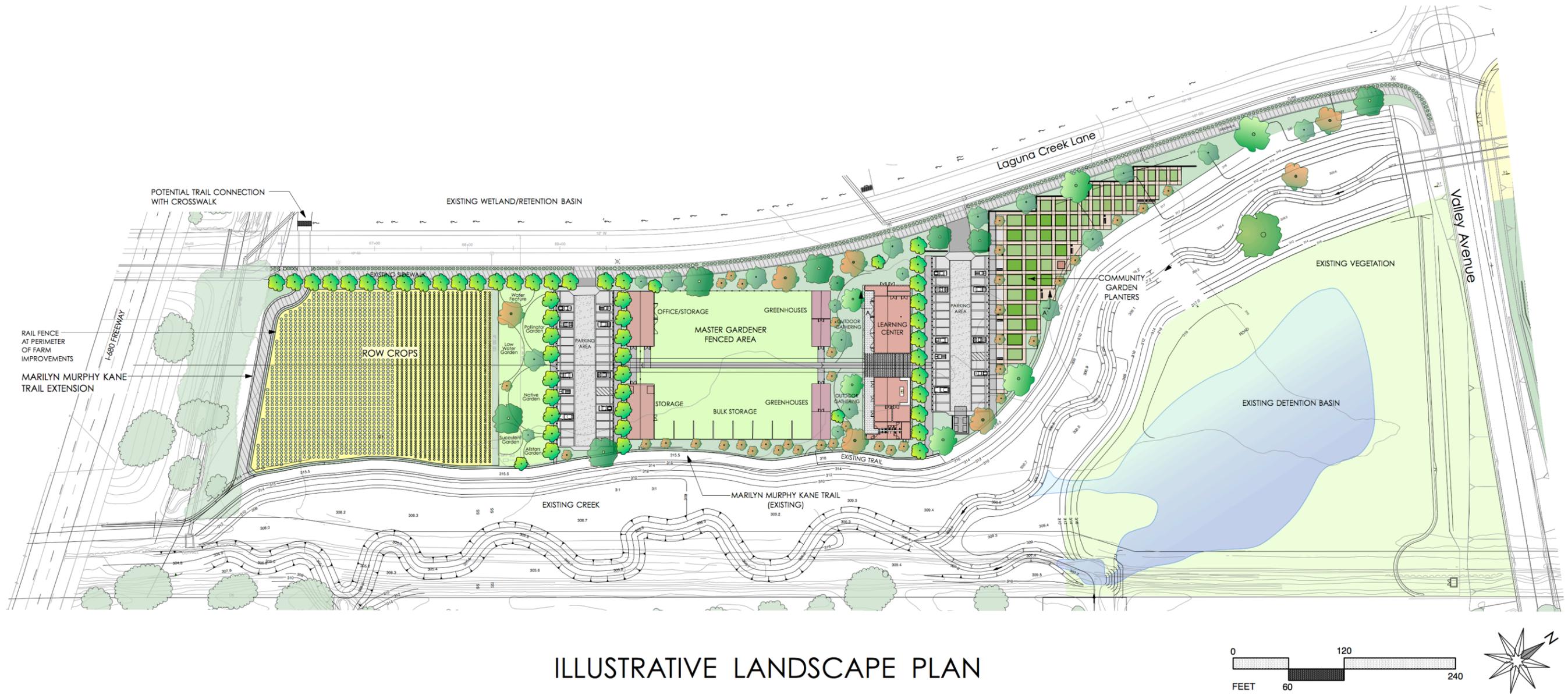


Fig. 8 - SUB-AREA 7 - CONCEPTUAL PLANTING PLAN



"GARDEN PATCH"
COMMUNITY GARDEN PLOTS

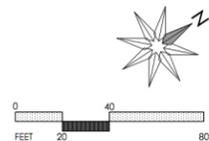


Fig. 9 - SUB-AREA 7 - GARDEN PATCH DETAIL PLAN



LEARNING CENTER

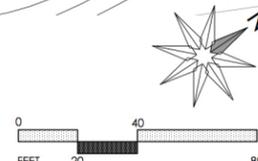
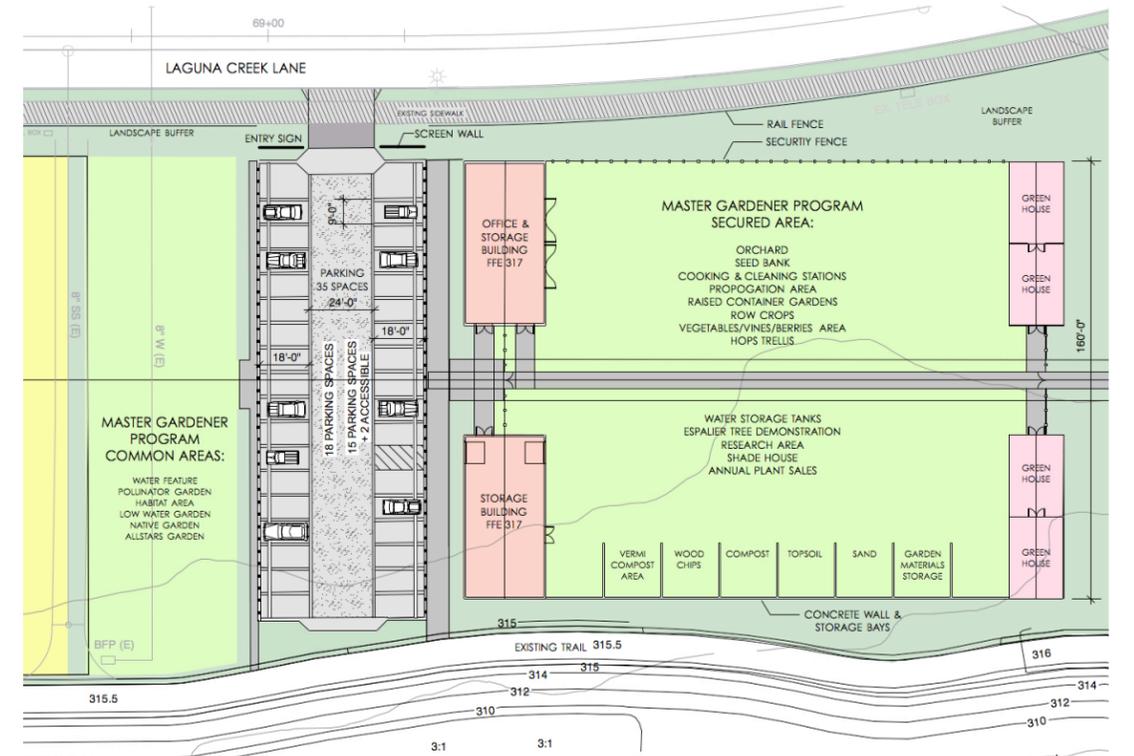


Fig. 10 - SUB-AREA 7 - LEARNING CENTER DETAIL PLAN



MASTER GARDENER PROGRAM AREAS

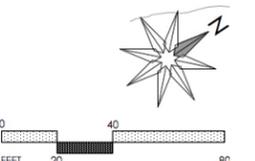


Fig. 11 - SUB-AREA 7 - MASTER GARDENER PROGRAM DETAIL PLAN

SUB-AREA 7 FARM OPERATIONS

-  CITY OF PLEASANTON
-  MASTER GARDENER PROGRAM
-  GARDEN PATCH COMMUNITY GARDENS (City of Pleasanton)
-  ROW CROP OPERATOR (Not Yet Identified)

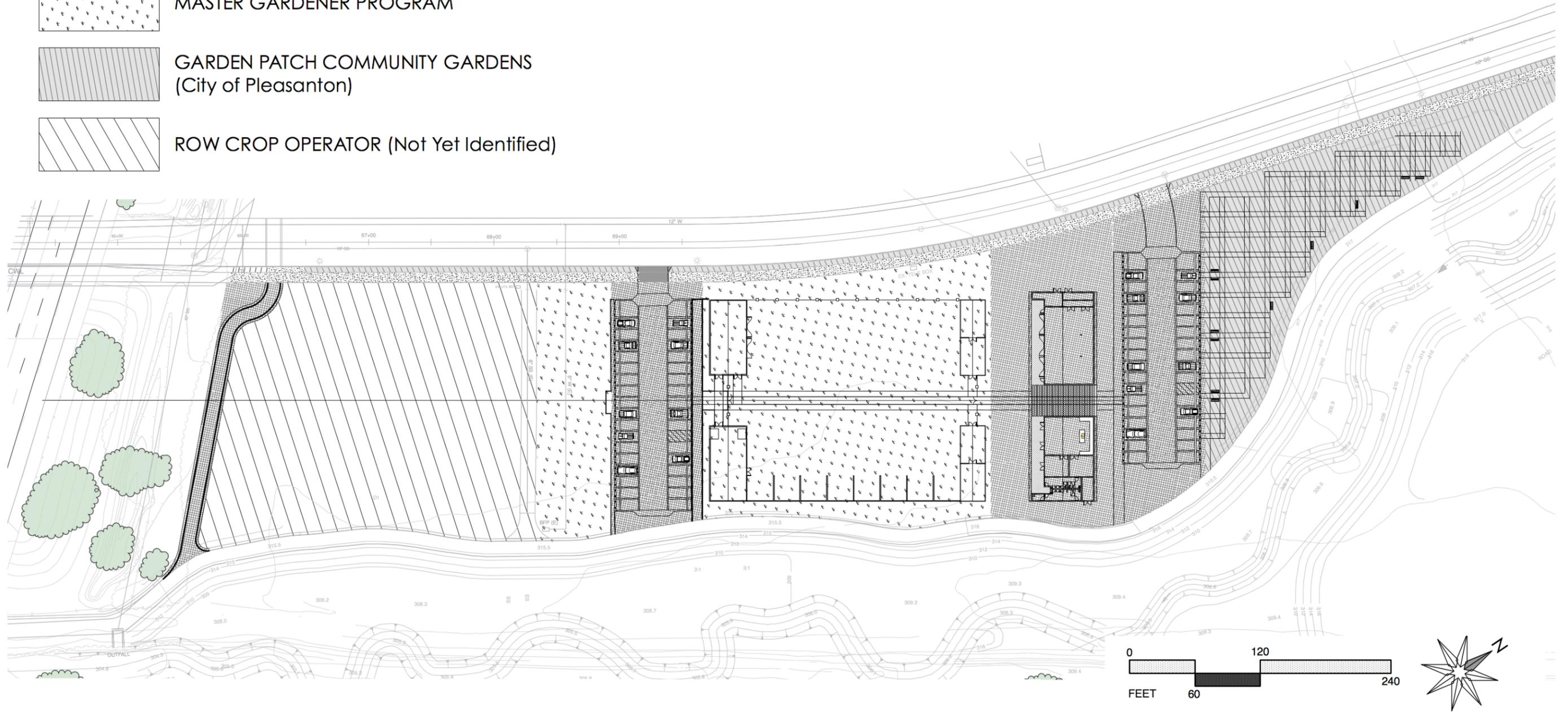


Fig. 12 - SUB-AREA 7 - FARM OPERATIONS PLAN

8.0 Program Elements in Sub-Area 16

8.1 Sub-Area 16 Uses:

Sub-Area 16 is located along Laguna Creek Lane on the West side of Highway 680. The boundaries of Sub-Area 16 extend to the creek along the southern border, and the existing storm water detention facilities to the West. Approximately two-thirds of the northern boundary of Sub-Area 16 backs up to existing homes that front Laguna Creek Lane. Given the proximity to existing homes, the Master Plan proposes lower-intensity and long-term agricultural uses.

The preferred uses include an orchard, a vineyard and a linear native habitat hedgerow buffer, composed of oak trees, toyon, coffee berry and other suitable native plant species. The linear landscape buffer is to be planted along the existing back yards. This edge condition will provide separation between existing homeowners and the orchard or vineyard activities. During the initial phases of orchard development, agricultural activities will be limited to planting of the trees or vines, installing irrigation and seasonal weeding. Harvest activities will not take place for several years after initial planting. The program elements in Sub-Area 16 are listed in Figure 13 and illustrated in Figure 15.

Pleasanton Community Farm SUB-AREA 16 - LAND USE			
USE	SQUARE FEET	ACRES	PERCENTAGE
Open Space and Buffer Landscape	102,215	2.35	23.64%
Building Footprint	2,100	0.05	0.49%
Vineyard	45,450	1.04	10.51%
Orchards	232,400	5.34	53.75%
Staging, Parking and Packing	45,388	1.04	10.50%
Existing Sidewalk	3,158	0.07	0.73%
Existing Parkway	1,700	0.04	0.39%
TOTAL AREA	432,411	9.93	100.00%

Fig. 13 - SUB-AREA 16 - Land Uses

There is no public parking in Sub-Area 16. The operation of several acres of orchards and vineyards will require an equipment storage building, and produce staging area that may appear similar to a gravel parking lot. Equipment required for orchard operation would include augers, a tractor, air-blast sprayers, tree guards and the following hand tools: shovel, hose, grafting tool, and pruning tools. Reusable boxes for fruit/nut harvest would be brought to the site during harvest periods. The future operator of the orchards and/or vineyard would have the option of constructing an enclosure for farm equipment, storage crates and other tools required for the harvesting and packing of fruits and/or nuts.

Public access to Sub-Area 16 will be pedestrian only. No public parking would be provided. The vehicle/equipment staging area may be gated for security. Any additional trails would connect the existing Marilyn Murphy Kane Trail with existing sidewalks and other trails in the Bernal Property open space. Emergency vehicle access is to be provided onto and within the Sub-Area 16 farm uses.

8.2 Sub-Area 16 Site Plan

The predominate agricultural use in Sub-Area 16 is orchard. Given the local weather conditions, fruit orchards are more likely to succeed than nut orchards. However, the type of orchard that is to be implemented would be determined by the orchard operator that signs on with the City. In addition to the orchard use, a one-acre vineyard site has been included in the site plan. The proportion of vineyard to orchard can certainly change, depending on the yet-to-be-identified operator(s). See Figure 16 for an illustrative site plan of Sub-Area 16.

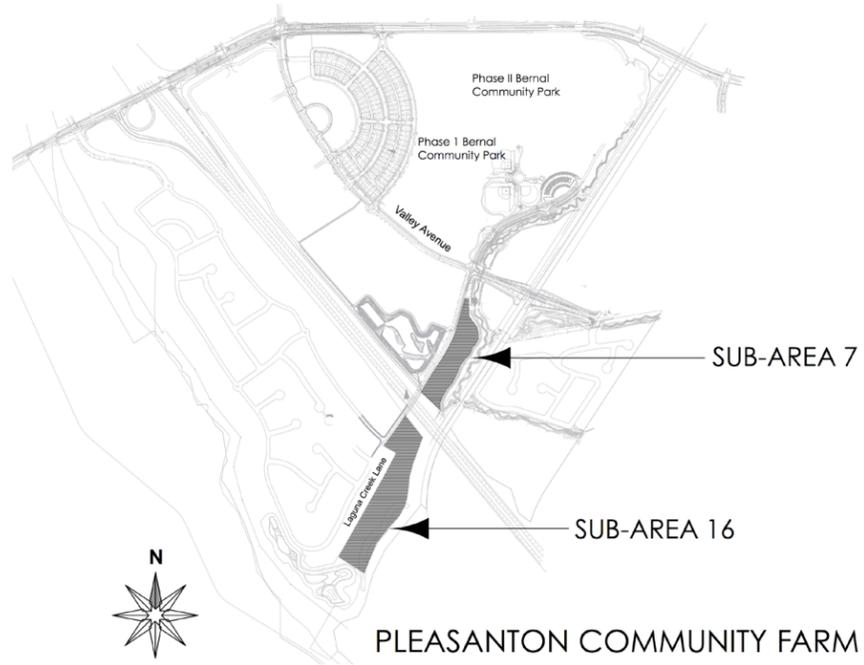
Vehicle access to this sub-area will be at the eastern end of the site, west of the Highway 680 overpass and the Caltrans maintenance access gate. The vehicle entry area is to function as an equipment storage and staging area, as well as providing temporary parking for farm workers. The primary function of the staging area is to wash and pack fruits and/or nuts at harvest time. An equipment storage building is included in the site plan.

As in Sub-Area 7, the City of Pleasanton would fund the construction of the utilities and parking area, as well as the permanent landscape improvements, including the landscape hedgerow buffer. The orchard operator would provide all other labor and materials to plant and maintain the agricultural uses. The agreement between the operator and the City would stipulate responsibilities for constructing and maintaining the equipment storage building, fencing and other improvements.

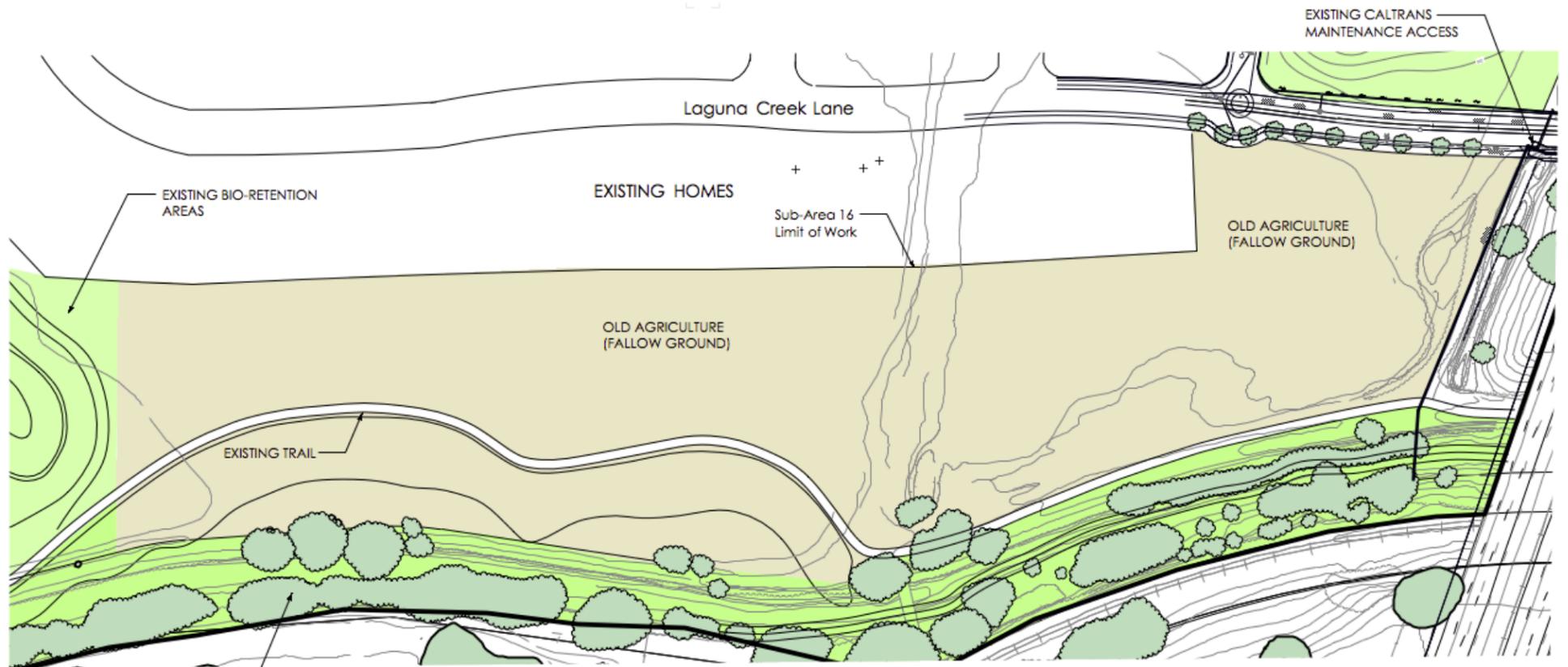
At the request of local residents, a landscape buffer is to be installed within a 75-foot wide setback along the northern boundary of Sub-Area 16. The purpose of the buffer is to screen agricultural activities from the back yards of existing homes. (See Figures 15, 16 and 28). The composition of this landscape buffer creates a transition from shade trees at the edge of private lots, to sub-shrubs and grasses, creating many types of cover and protection to many animals and birds. The buffer will also attract insect species that help facilitate pollination of the fruit trees and grape vines. An additional twenty feet of separation from the back yards is provided between the hedgerow and the first row of orchard trees. This aisle provides access and maneuverability for farm equipment.

The orchards extend westward to the existing detention ponds. The orchards could extend to the South to the setback line from top of bank at the existing creek. This arrangement creates a unique opportunity for users of the Marilyn Murphy Kane Trail to meander through the future orchards.

Ancillary uses in Sub-Area 16 include small gathering areas along the existing Marilyn Murphy Kane Trail. A trash enclosure is included in the produce staging area.



SUB-AREA 16
NET ACRES: 9.93±



EXISTING CONDITIONS
Sub-Area 16
Phase II Specific Plan

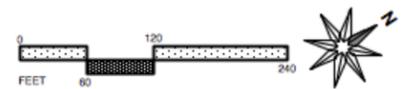
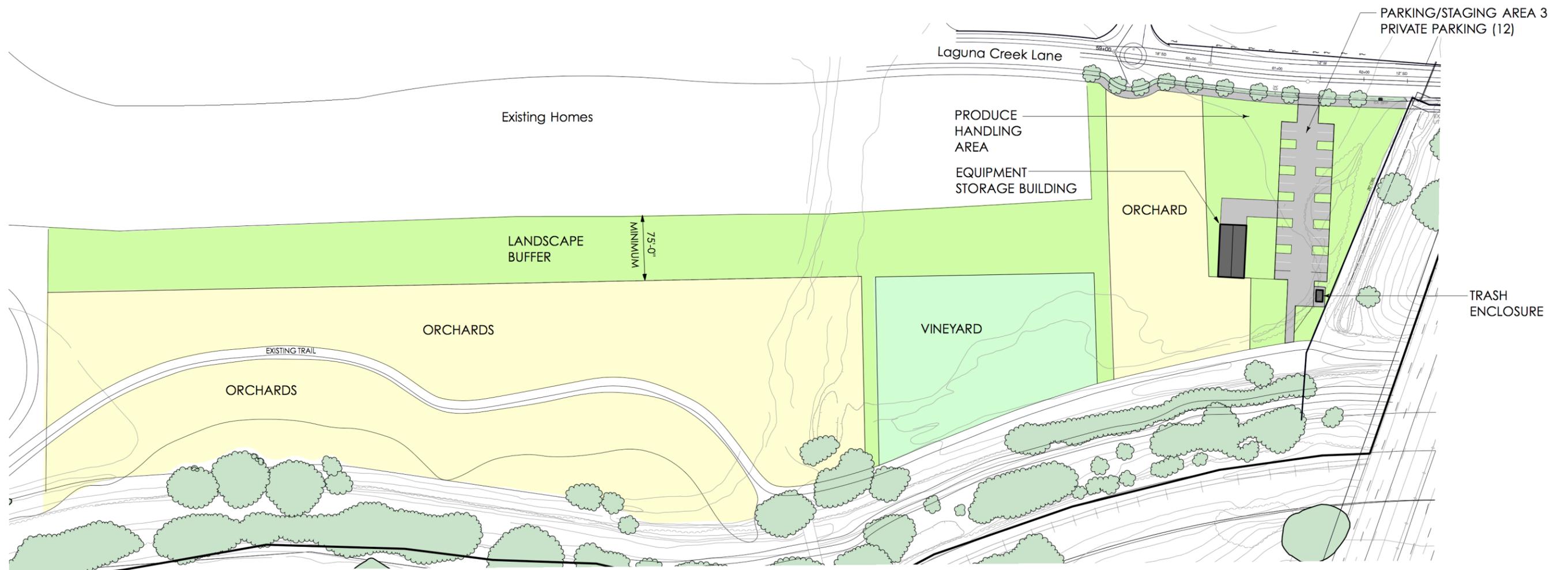


Fig. 14 - SUB-AREA 16 - EXISTING SITE CONDITIONS



PROPOSED FARM USES

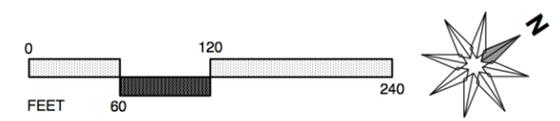


Fig. 15 - SUB-AREA 16 - PROPOSED SITE PLAN

Pleasanton Community Farm SUB-AREA 16 - LAND USE			
USE	SQUARE FEET	ACRES	PERCENTAGE
Open Space and Buffer Landscape	102,215	2.35	23.64%
Building Footprint	2,100	0.05	0.49%
Vineyard	45,450	1.04	10.51%
Orchards	232,400	5.34	53.75%
Staging, Parking and Packing	45,388	1.04	10.50%
Existing Sidewalk	3,158	0.07	0.73%
Existing Parkway	1,700	0.04	0.39%
TOTAL AREA	432,411	9.93	100.00%



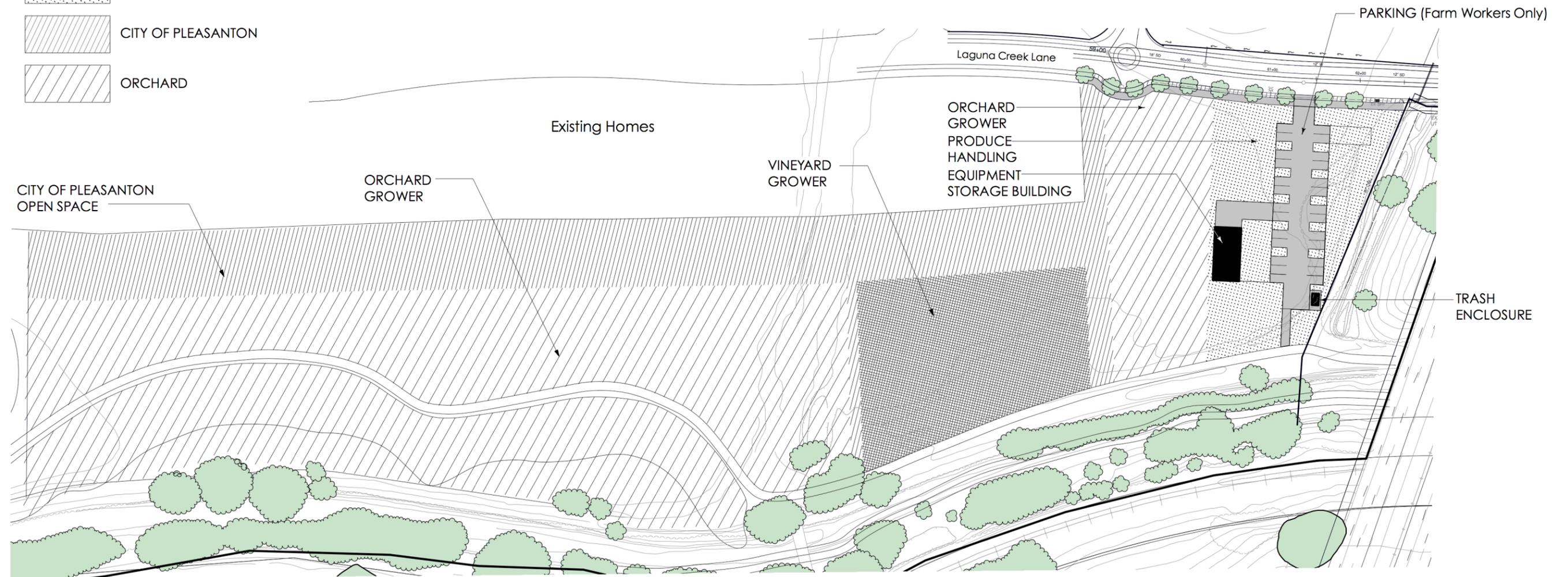
ILLUSTRATIVE LANDSCAPE PLAN



Fig. 16 - SUB-AREA 16 - CONCEPTUAL PLANTING PLAN

FARM OPERATIONS

-  VINEYARD
-  CITY OF PLEASANTON
-  CITY OF PLEASANTON
-  ORCHARD



FARM OPERATIONS PLAN - Sub-Area 16

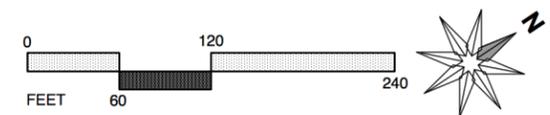


Fig. 17 - SUB-AREA 16 - FARM OPERATIONS PLAN

The site plan for Sub-Area 16 is to be more flexible than that proposed site plan for Sub-Area 7. There are many variables involved in the development of the orchards and vineyard, including the selection of fruit or nut species, and the number of orchard and vineyard operators that might become involved.

9.0 Architecture & The Grange

A grange is a cluster of agricultural structures, traditionally including the main farm house, hay barn, animal stables, hen house, and other assorted farm buildings. The buildings on Sub-Area 7 have been carefully arranged to provide a grange that creates an identity for the Community Farm. The program for each building has emerged from the needs of the users and operators that have been identified in this Master Plan. Building forms and materials are reminiscent of traditional farm buildings, while meeting the needs of future users of the Pleasanton Community Farm.

The main building is the publicly accessible Learning Center, framing the grange on the East side. The Learning Center would contain an assembly area, workroom, restrooms, and storage/utility areas. The secondary cluster of buildings are the green houses and storage facilities for the MGP Demonstration Garden. These four buildings anchor the corners of the fenced compound area. All five buildings are oriented to an east-west axis that link the buildings together, forming the grange.

9.1 Sub-Area 7 Building Strategy:

The Sub-Area 7 site plan is organized around two points of entry from Laguna Creek Lane with UC Master Gardener Program access from the West, and general public access from the East, reflected as such in the location of the two parking areas. The buildings have been positioned in order to celebrate the exterior spaces between the buildings as much as the buildings themselves. The Entry/Picnic Area, the Outdoor Gathering Area and the MGP Demonstration Garden are examples of outdoor spaces that the adjacent architecture helps delineate.

We have drawn inspiration for the buildings from the extruded pitched roof form of the traditional barn typology. The green houses have been deliberately grouped end-to-end to achieve a uniformity in scale of all buildings. The Learning Center functions both on a site-wide and local scale. As approached from the public parking area, the Learning Center serves as the East gateway to the site beyond. The semi-covered exterior Entry/Picnic Area aims to slow the visitor's pace through shadow and modulation of sunlight through the roof openings above, while framing and focusing one's view of the MGP Demonstration Garden to the West. Both the Learning Center and the two MGP Demonstration Garden buildings have an inward site focus with windows and glass doors positioned to provide direct views of the green houses and the enclosed work area beyond, for increased visual connection with the various outdoor activities.

The orientation of the main building roof is ideal for a photovoltaic array and would provide sufficient area to supply the electrical needs of Sub-Area 7.

9.2 Building Program:

The Learning Center comprises two wings, joined by a wide gap between buildings which serves as the public entry and an outdoor, sheltered gathering space. The pitched roof continues overhead but the roof opens to allow dappled light into the shaded exterior space below. The South wing comprises the multipurpose work room, two storage areas, public restrooms with janitor's closet, and mechanical room. The multipurpose work room includes food service facilities, and seating for group events in a classroom setting.

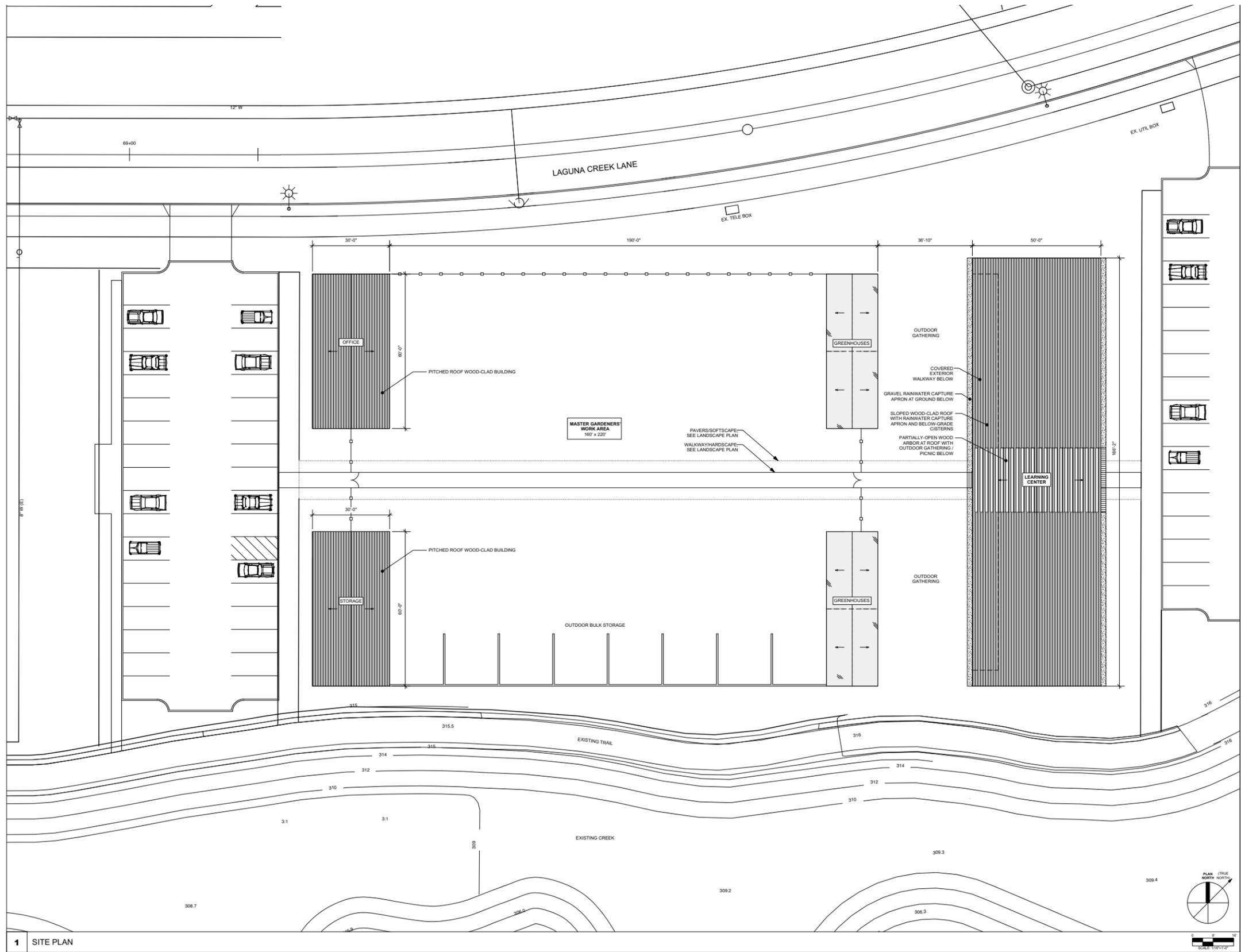
The North wing includes a large open-plan assembly space with storage for folding tables and chairs, general storage and mechanical room. Each wing is designed to have its own heating and air conditioning system. A 10-foot wide covered walkway runs the length of the West side of the building to join both wings, and provides the ability to open the entire west side of the assembly space to the outdoors, regardless of weather conditions. A large fixed window is positioned high in the North wall to allow diffused northern light into the assembly space. The long, pitched roof acts as a rainwater collector with below-grade cisterns located along the east and west sides of the building. This solution replaces downspouts as a roof drain solution, resulting in a dispersed flow pattern that allows precipitation to drain directly into the ground.

The final program for the MGP Demonstration Garden office and storage buildings will be developed in conjunction with the UC Master Gardener Program during future design phases. It is anticipated the office building will be a conditioned space, containing work stations and perhaps a small meeting or conference room, as well as a storage space. A series of glass doors provide direct views of and open directly onto the fenced in area.

The storage building would be unconditioned, and would house equipment and tools used by the volunteers, and includes industrial roll-up doors to accommodate large equipment and loading/unloading needs from both the parking lot and Work Area side.

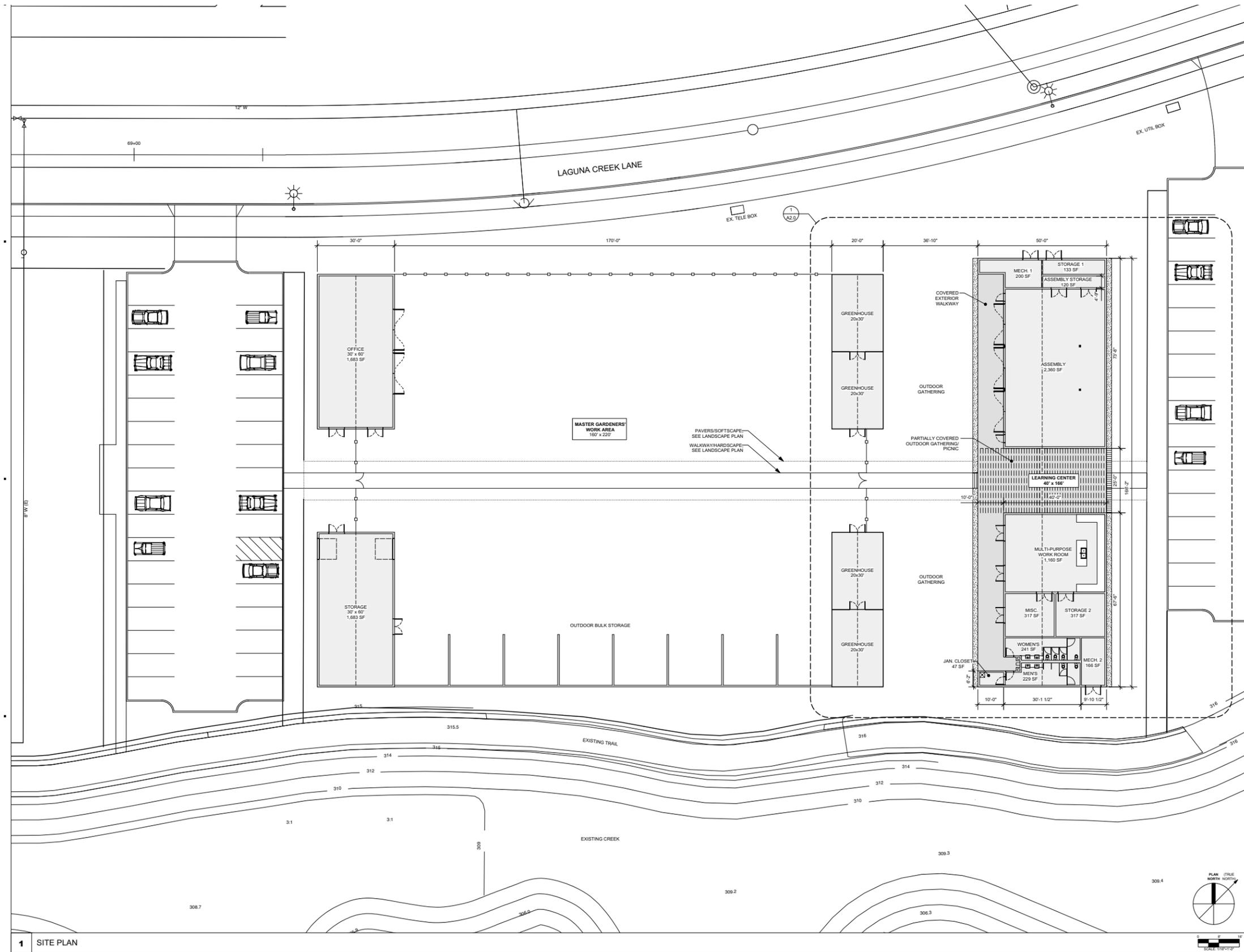
9.3 Materials:

As a means to create a singular identity expressed through a cohesion of material, a homogeneous wood panel for both the wall and roof exterior finish is proposed for all three buildings. Wood was chosen for both its natural character as it relates to the Community Farm, and for its sustainability as a renewable resource. The specific wood cladding system proposed is designed for both exterior wall and roof applications and has undergone a chemical treatment that yields a stable, maintenance-free product that will not warp, cup, or split over time, resists rot and is eco-friendly (Cradle to Cradle gold, LEED, FSC-certified).



1 SITE PLAN

Fig. 18 - SUB-AREA 7 - ARCHITECTURAL ROOF PLAN



1 SITE PLAN

Fig. 19 - SUB-AREA 7 - ARCHITECTURAL FLOOR PLAN 1

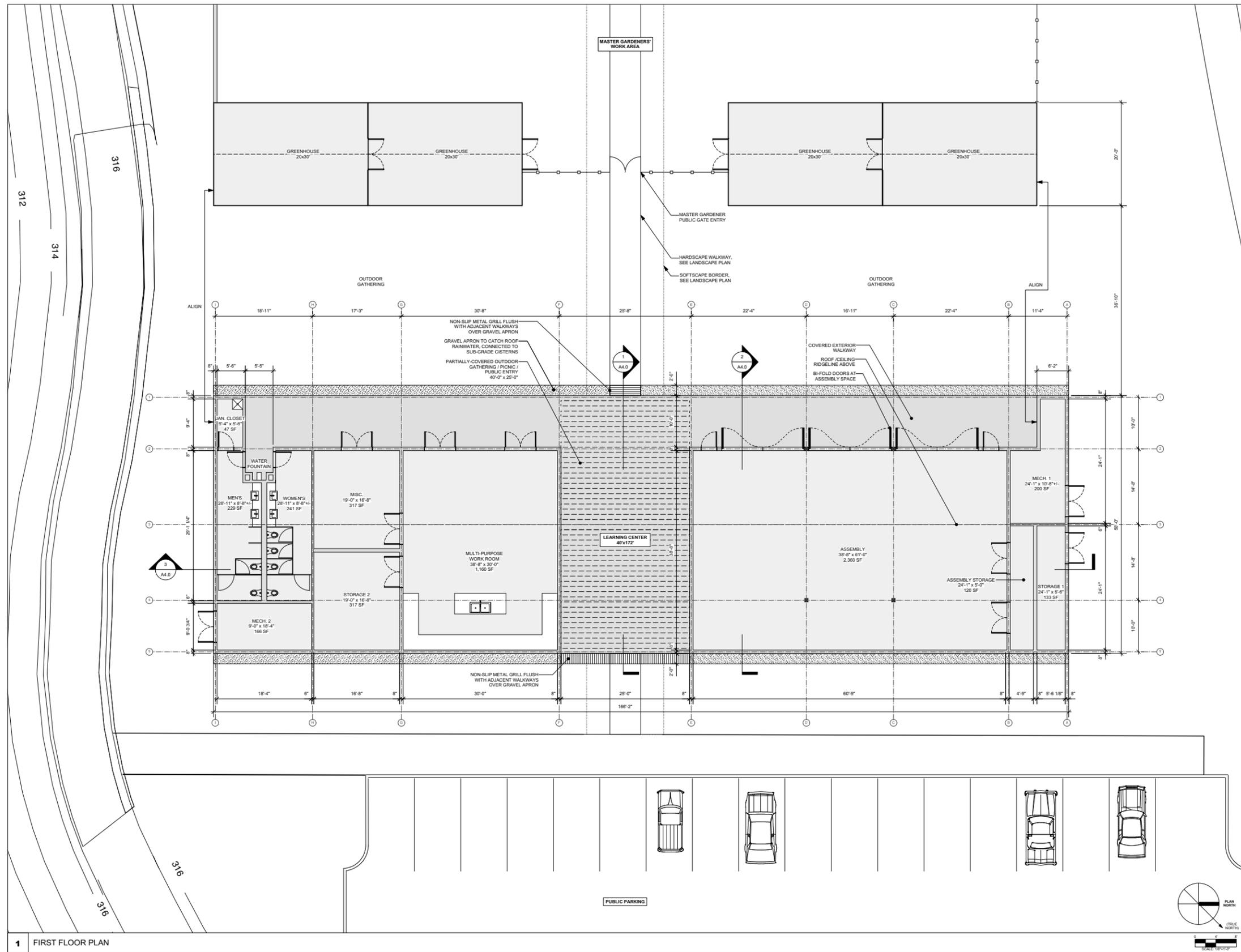


Fig. 20 - SUB-AREA 7 - ARCHITECTURAL FLOOR PLAN 2

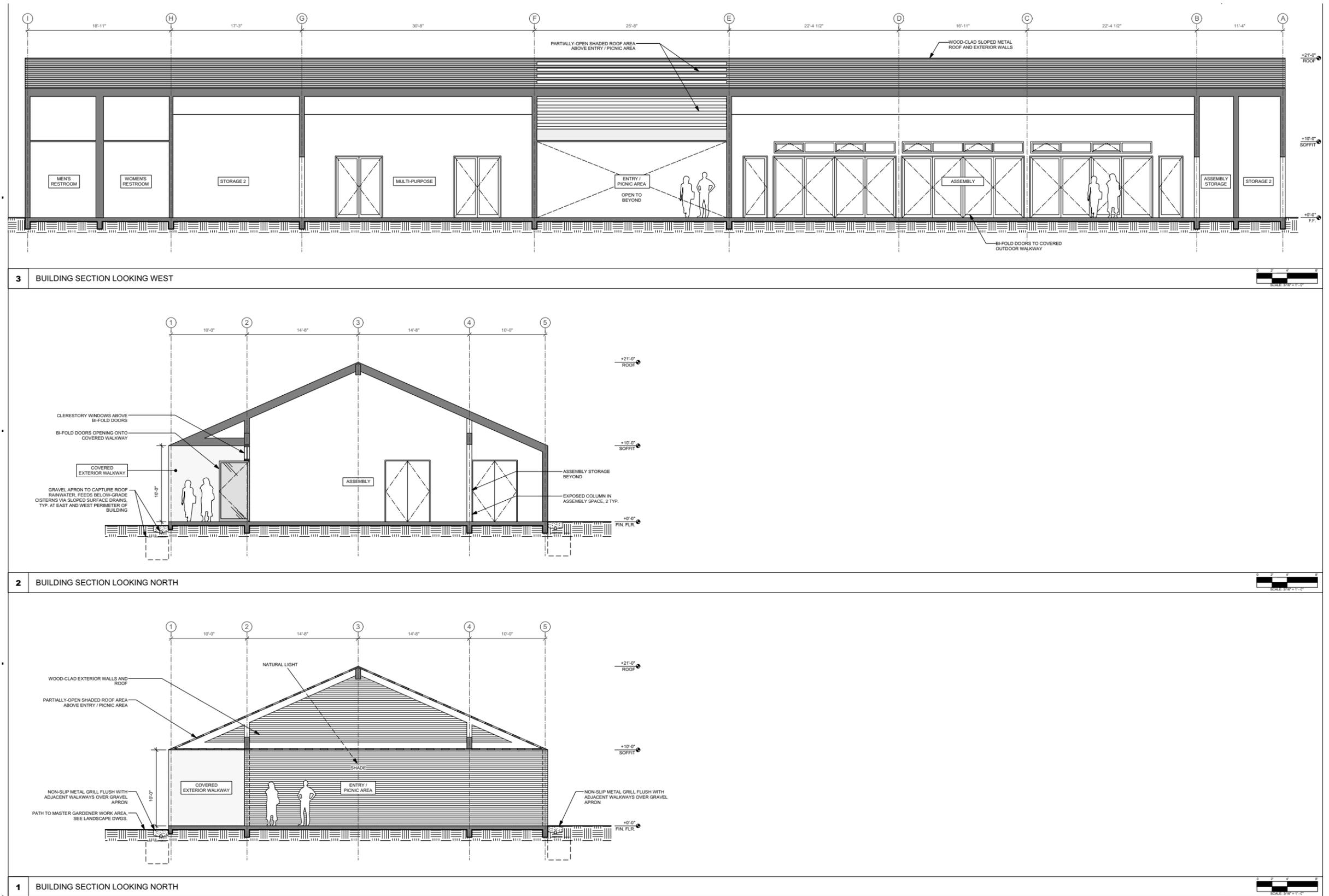
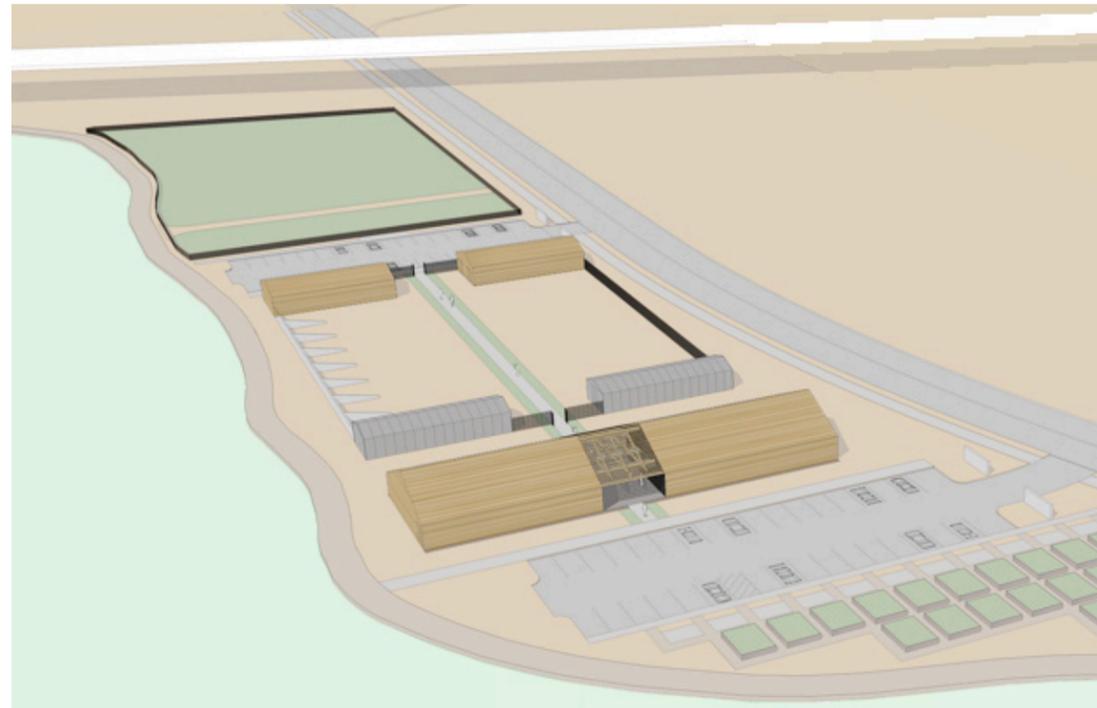


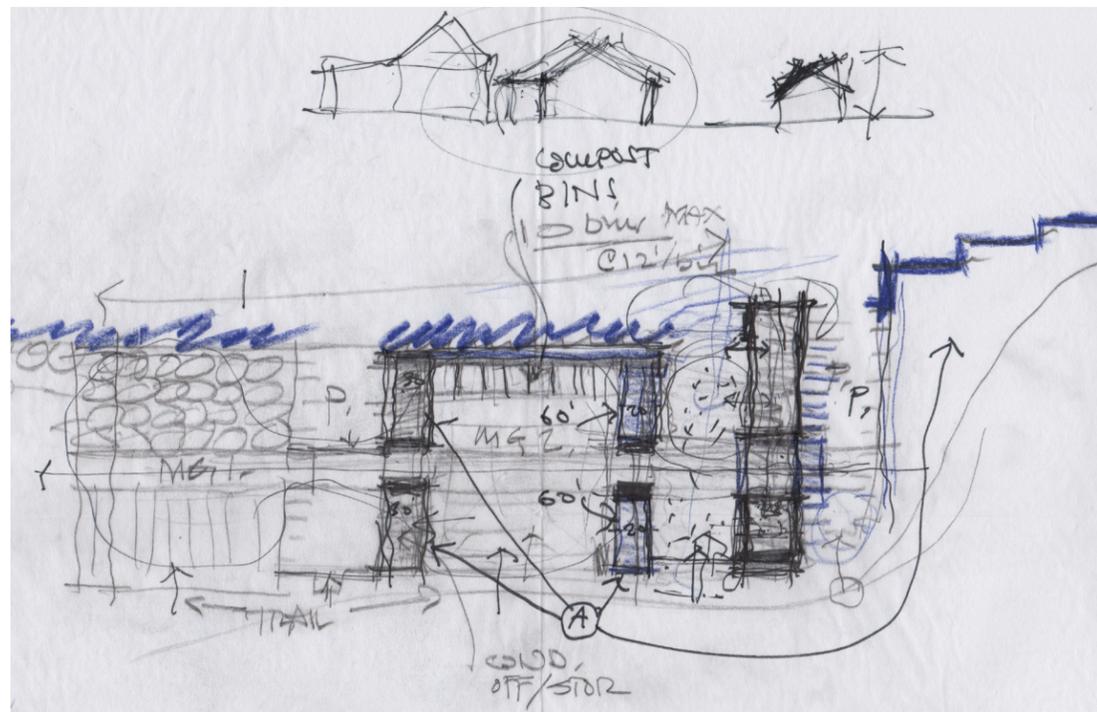
Fig. 21 - SUB-AREA 7 - ARCHITECTURAL SECTIONS



AERIAL LOOKING WEST



AERIAL LOOKING NORTH-EAST



GRANGE CONCEPT PLAN



LEARNING CENTER LOOKING SOUTH-EAST

Fig. 22 - SUB-AREA 7 - ARCHITECTURAL CONCEPT



VIEW OF MAIN BUILDING & MAIN GATE FROM MASTER GARDENER PROGRAM WORK AREA

A contrasting treatment is proposed for the wall and soffit surfaces recessed into the Learning Center covered exterior walkway, including a darker painted or stained wood or dark metal siding or dark stucco. Structurally Insulated Panels (SIPs) are proposed for the wall and roof enclosure for their insulation properties and reduced labor and installation time, versus traditional enclosure construction.

The interior ceiling and wall finishes of the assembly and multipurpose work room of the Learning Center are proposed as either the exposed sealed natural surface of the SIPs panels, which is typically oriented strand board, or painted drywall. Tile backsplash, as needed above the work counters, is proposed for the multipurpose work room. A combination of painted drywall and tile walls with a lowered painted drywall ceiling is proposed for the restroom interiors. All mechanical and storage space walls and ceilings are proposed to be left unfinished, depending on the final exterior wall and roof construction.

Bi-fold glazed aluminum doors are proposed at the assembly space that completely opens the West wall to the covered walkway and gardens. Glazed double doors also allow the multipurpose work room to open onto the exterior covered walkway. All windows and glazed doors in the project will be dual-glazed insulated glass per code, with aluminum frames.

Sealed concrete floors are proposed throughout all buildings, including the exterior walkways immediately surrounding each wing of the Learning Center.

The architectural design would implement green building strategies and components in accordance with the California Green Building Code and Pleasanton Municipal Code 17.50 Green Building. LEED certification is not anticipated at this time. In addition, this Project would include design and management strategies as described in the City of Pleasanton Climate Action Plan, specifically in reducing energy use and on-site waste recycling.

10.0 Circulation and Parking

Vehicular access to both sub-areas is provided from Laguna Creek Lane. Two new driveways are proposed for Sub-Area 7, each connecting to a parking lot; the existing driveway cut near the West end of Sub-Area 7 is to be retained, and is likely to be used by Caltrans for purposes of maintaining the I-680 overpass facility. Pedestrian circulation and access at Sub-Area 7 is to include a new segment of the Marilyn Murphy Kane Trail that connects the existing Trail along the southern edge of Sub-Area 7 with the sidewalk on Laguna Creek Lane. This segment is provided as a requirement of the Phase II Specific Plan, and the City's trails master plan.

One new driveway is proposed for Sub-Area 16, providing vehicular access to the proposed staging area and equipment pavilion. The existing gated driveway entrance at the bottom of the Highway 680 overpass slope is to remain untouched. There is no public access to the Community Farm from this maintenance road.

The combined parking for both sub-areas is 82 spaces (See Figure 24). The 12 spaces at Sub-Area 16 are not for public use and are reserved for farm workers. There is no on-street parking along Laguna Creek Lane. Off-site parking for special events may be accommodated on surrounding City-owned open space sites located off of Valley Avenue and Laguna Creek Lane and/or at the Bernal Community Park in coordination with the City's Community Services department.

Pleasanton Community Farm PARKING COUNT				
LOT	LOCATION	REGULAR SPACES	ACCESSIBLE SPACES	TYPE
PARKING 1	SUB-AREA 7	33	2	PUBLIC
PARKING 2	SUB-AREA 7	33	2	PUBLIC
PARKING/STAGING 3	SUB-AREA 16	12		PRIVATE (Operator Only)

Fig. 24 - Parking Table

City of Pleasanton parking lot dimensions will be followed for all three parking areas. Parking spaces in Sub-Area 16 would be oversized to accommodate larger vehicles. The Master Plan recommends using as much pervious paving as possible so that the parking lots are self-treating while minimizing surface runoff. The drive aisles are to be asphalt. Parking spaces are to be pervious paving. Bollards and wheel stops are to be used in place of traditional curb and gutter. See the Design Guidelines for further detail, and Figure 25 for a typical parking lot section and plan view.

11.0 Grading, Drainage and Stormwater Design

Conceptual grading design has been provided in the form of preliminary finish floor elevations for the buildings. In addition, the site plans maximize the use of pervious surfaces, thus relying on infiltration as the primary means of storm and irrigation runoff management. Water quality facilities would be provided for 4% of the impervious areas, which would be limited to the enclosed meeting areas, paved driveways, and selected walks and paths. It is anticipated that there would be no impervious surfaces in Sub-Area 16, except for the equipment storage building.

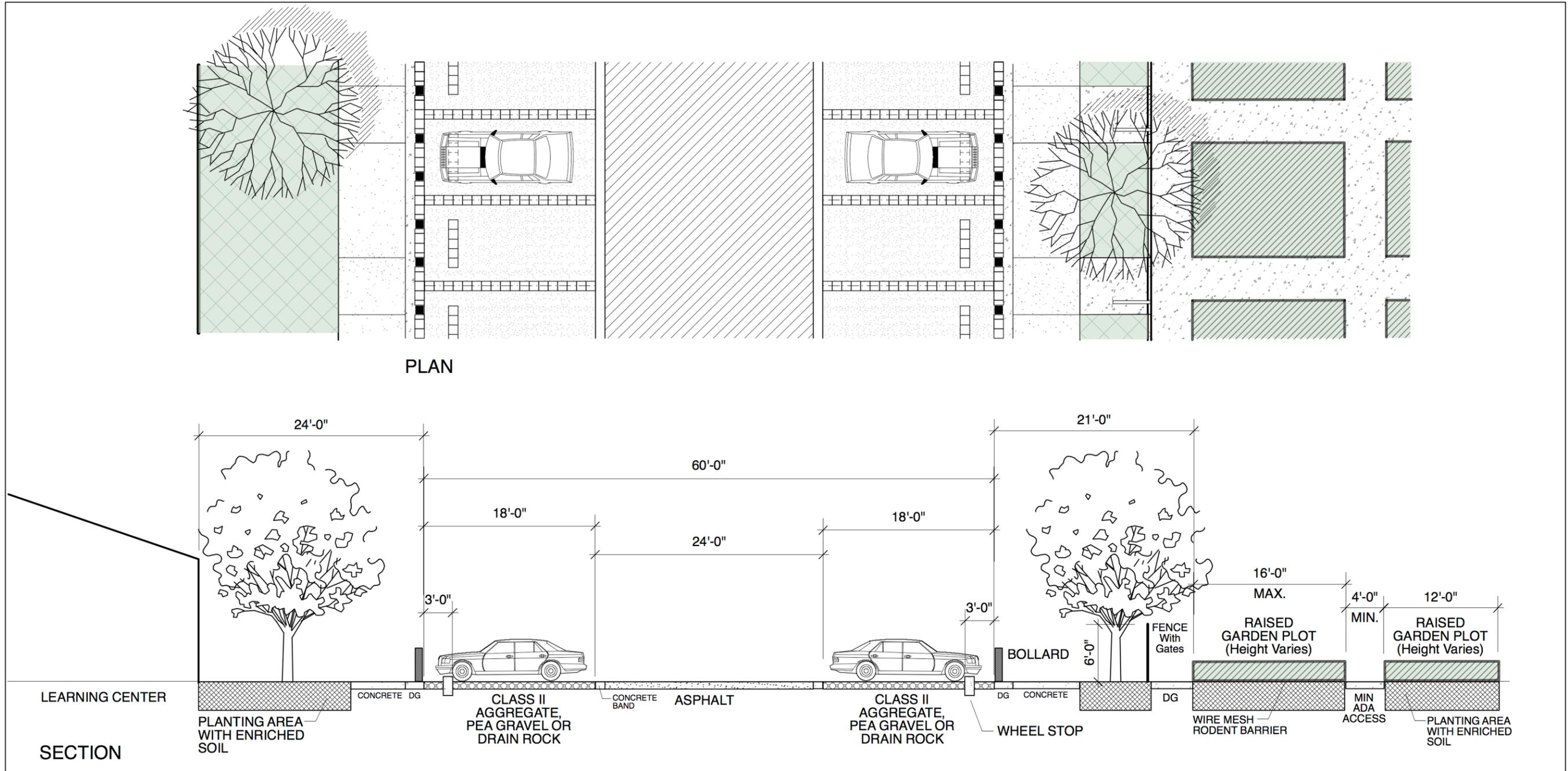


Fig. 25 - SUB-AREA 7 - TYPICAL PARKING PLAN & SECTION

The City of Pleasanton is covered under the Municipal Separate Storm Sewer Systems (MS4) NPDES issued to the Alameda Countywide Clean Water Program (ACCWP) under Order Number R2-2009-0074 and amended by order R2-2011-0083. The Community Farm project will develop a Stormwater Management Plan (SWMP) based on a hierarchical approach advocated by local agencies and particularly by the Alameda County-wide Clean Water Program in their C.3 storm-water Technical Guidance (Version 6, dated October 31, 2017) to demonstrate compliance with the County's MS4 permit. The hierarchical approach has the following levels:

- **Level I – Site Design**
Incorporate appropriate site design elements to enhance efforts to limit water quality impacts by establishing a land use pattern that limits the amount of directly connected impervious areas (DCIAs), clustering buildings/pavement areas, and encouraging infiltration and runoff reduction to the greatest extent practicable.
- **Level II – Source Control**
It is generally more effective, in terms of both impact and cost, to prevent or limit constituents of concern from being released than it is to remove them from the environment once they have been mobilized. Source control measures, including implementation of Bay-Friendly Landscaping and Gardening / ReScape California best practices, preventing runoff from dumpsters or recycling areas and marking storm drain inlets as “No Dumping! Flows to Bay” all limit pollution from entering the storm drain system.
- **Level III – Treatment Measures**
The phrase “treatment measures” refers to those Best Management Practices (BMPs) that are designed to reduce constituents of concern once they have been mobilized in stormwater runoff. They should properly be seen as a “last line of defense” in the overall suite of BMPs that are employed. Treatment measures are generally considered necessary BMPs since even the most aggressive site design and source control programs cannot guarantee that constituents of concern will not be mobilized from the site.

The Master Plan approach to storm water runoff management would optimize Level I and Level II design elements so that no or minimal Level III treatment is necessary.

12.0 Utility Demand

The utility demand for the Sub-Area 7 would include natural gas, electricity, sanitary sewer, storm drain, cable, telephone, and on-site water quality facilities. Potable water services would be provided to the Learning Center, common open space areas for drinking and irrigation, the MGP Demonstration Garden, and row crops. Existing irrigation services for portions of the site south of the Marilyn Murphy Kane Trail are to remain operational, and the potential expansion of this existing irrigation point of connection will be explored during later design phases. Site lighting is proposed at

Sub-Area 7 only, and would be limited to the Learning Center, the two parking lots and the common open space areas associated with these improvements.

The utility demand for Sub-Area 16 would be limited to electricity, storm water management and potable water services. Minimal outdoor lighting would be made available at the staging area for use only during orchard and vineyard harvesting activities.

See Figure 26 and Figure 27 for the conceptual utility services plans for Sub-Area 7 and Sub-Area 16 respectively.

13.0 Planting Design

The planting design for the Community Farm originated in the Pleasanton Central Park Design Competition, in which the designers based the 318-acre park design on historical watershed patterns and native habitats. One of the outcomes of the Phase II Specific Plan park design was that these two sub-areas were designated for agricultural use because of the proximity to the restored creek (B22 reach in Zone 7) and created wetlands associated with the Arroyo de la Laguna.

Historically, farms would be located next to natural waterways so that a predictable irrigation source was readily available. The interface of natural habitats and agricultural patterns is emphasized in this Master Plan as a reflection of that history.

Natural habitats typical of the bioregion are:

Annual Grassland:

Annual grasslands are described as open grasslands composed primarily of annual plant species. Species commonly found within annual grasslands include wild oats, ripgut brome, red brome, soft chess, wild barely, foxtail fescue, filaree, and various clovers among others. Wildlife species that use annual grasslands include the western fence lizard, garter snake, western rattlesnake, black-tailed jackrabbit, California ground squirrel, western burrowing owl, short-eared owl, horned lark, western meadowlark, northern harrier, and American kestrel. Annual grasslands may have existed throughout the entire Specific Plan area.

Valley-Foothill Riparian:

Valley-foothill riparian habitat is found throughout natural drainage corridors that define the western and southern edges of the Phase 2 Specific Plan area. Much of the riparian habitat within the Project area has been preserved and restored. Riparian habitat is critical for many species, even those that primarily use surrounding oak woodlands and annual grasslands. This habitat provides food, water, migration and dispersal corridors and access and escape,

UTILITY LEGEND

-  JOINT TRENCH (JT - CABLE, TELEPHONE, GAS & ELECTRICAL)
-  POTABLE WATER (PW)
-  IRRIGATION (IRR)
-  FIRE WATER (FW)
-  SANITARY SEWER (SS 6")
-  SS MANHOLE
-  POINT OF CONNECTION (POC)
-  FIRE HYDRANT
-  EXISTING STREET LIGHT
-  BFP (E) EXISTING BACK FLOW PREVENTER

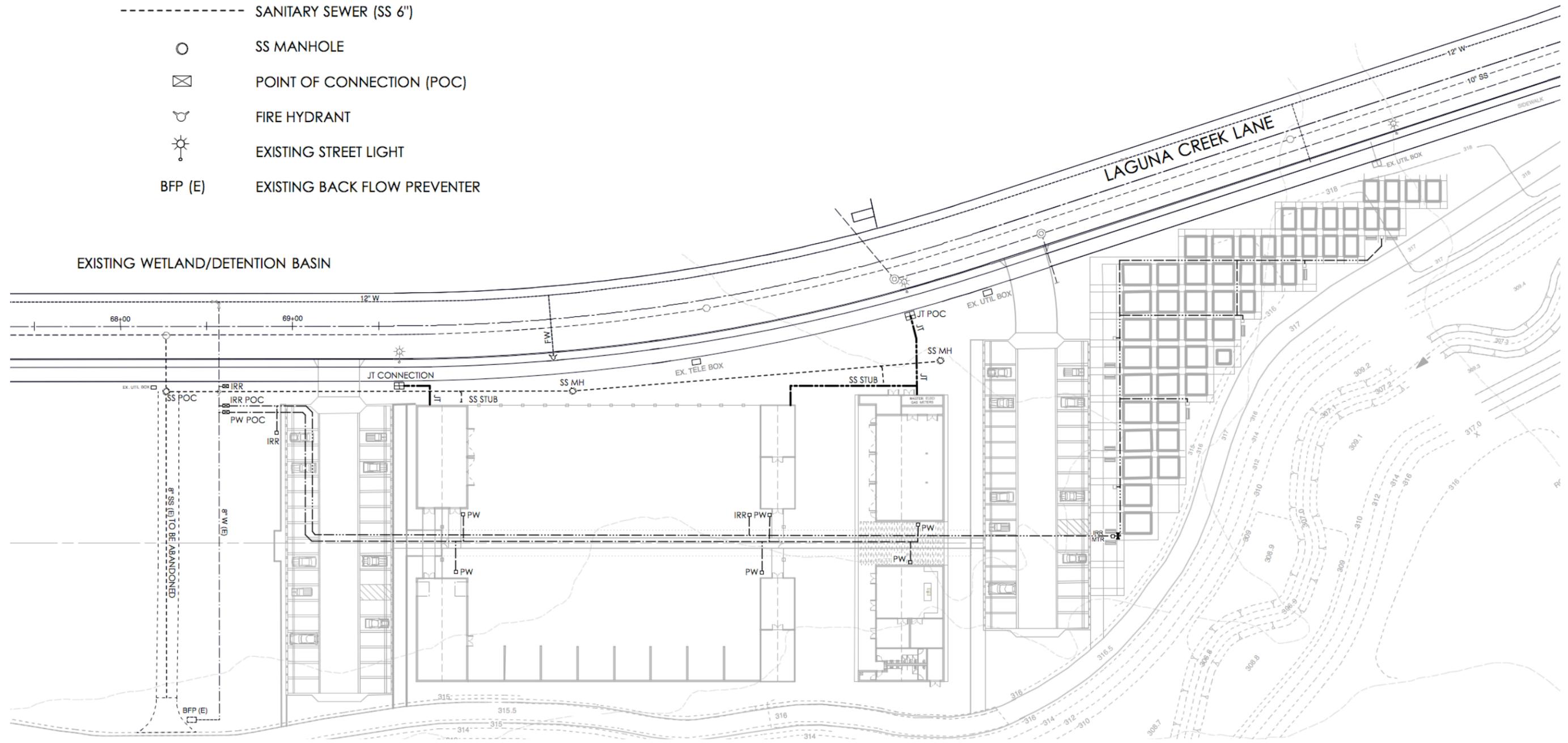


Fig. 26 - SUB-AREA 7 - UTILITY PLAN

UTILITY LEGEND

---JT---JT---	JOINT TRENCH (JT - CABLE, TELEPHONE, GAS & ELECTRICAL)
-----	POTABLE WATER (PW)
-·-·-·-·-·-·-	IRRIGATION (IRR)
-----	FIRE WATER (FW)
-----	SANITARY SEWER (SS 6")
○	SS MANHOLE
⊠	WATER POINT OF CONNECTION (POC)
⊕	FIRE HYDRANT
☀	EXISTING STREET LIGHT
⊠	JOINT TRENCH CONNECTION

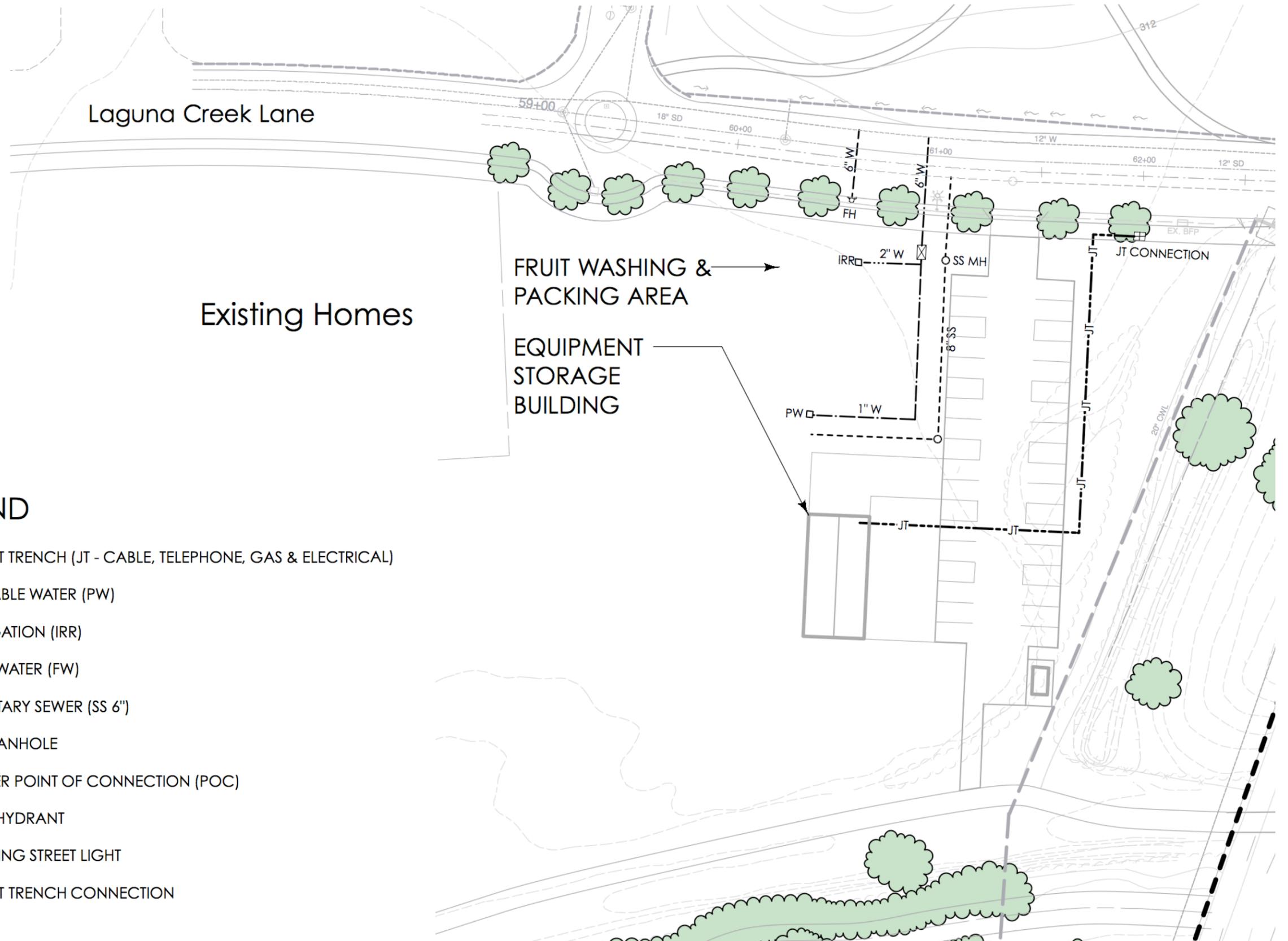


Fig. 27 - SUB-AREA 16 - UTILITY PLAN

nesting and thermal cover for a high density of California's wildlife. Dominant vegetation in the canopy typically includes cottonwood, California Sycamore, and Valley Oak. Sub-canopy tree species include White Alder, Box Elder, and Oregon Ash. Typical understory plants include wild grape, wild rose, California blackberry, blue elderberry, poison oak, button brush and willow. The herbaceous layer consists of sedges, rushes, grasses, miner's lettuce, Douglas sagewort, poison hemlock and hoary nettle. Characteristic wildlife includes egrets, herons, ducks, raptor species, swallows, bats, broad-footed mole, western gray squirrel, striped skunk, and raccoon.

Valley Oak Woodland:

Valley Oak Woodlands consist of an over story of Valley Oak and an understory of annual grasses, forbs, and/or shrub species, such as Coffeeberry. Valley Oak Woodlands persist in moister environments and are often found among Blue Oak woodlands and annual grasslands around water features such as ephemeral drainages. Common animal species that breed in this area include raptors, acorn woodpeckers and small mammals.

Hedgerow:

This landscape feature is often associated with farms and is used to redirect winds up and over cultivated fields, helping to retain topsoil, particularly in row and field crops. There are additional benefits to hedgerows that will aid in the successful implementation of the various agricultural opportunities on the Pleasanton Community Farm. Hedgerows serve as visual and particulate buffers along the edges of farming operations. A 75-foot wide hedgerow is planned for the northern edge of the primary orchard in Sub-Area 16, to serve as a buffer between the orchard and adjacent private residential lots. Portions of the buffer along the northern edge of Sub-Area 7 will be a hedgerow, although not as deep and wide. Hedgerows also provide habitat for many birds and insects, and can increase the number of pollinator species necessary for fruit and grape production. The City will consult with adjacent neighbors regarding the design and selection of trees for the hedgerow as part of the design process. See Figure 28 for a typical cross-section of the 75-foot wide hedgerow proposed for Sub-Area 16.

The planting design approach for this Project is based on composing trees, shrubs and ground covers that mimic indigenous or naturalized habitats in the region, and using these arrangements to create outdoor learning environments that complement agricultural operations. The typical visitor to the Community Farm will experience a working farm environment that melds with the native riparian habitats of restored creeks and created demonstration arboreta. Plant communities will create a framework for outdoor classrooms, themed gardens and landscape buffers that optimize the outdoor experience. See Figure 29 for the preliminary plant list for the common landscape areas on the Community Farm.

14.0 Agricultural Uses and Operations

The Community Farm operations include four distinct functions: orchard, row crops, demonstration garden, open space. Each component will begin in one state and mature over time, changing appearances either on a seasonal basis or over the decades. The most dynamic function is row crops, which will be in constant flux as farmers rotate among vegetables, melons, root crops and fallow seasons. The establishment of the orchard and vineyard are more long-term and not anticipated to be developed in the early stages of the project. Once the orchard or vineyard is planted, annual plant growth will transform the landscape until fruit or nut trees, and vines are ready to bear fruit.

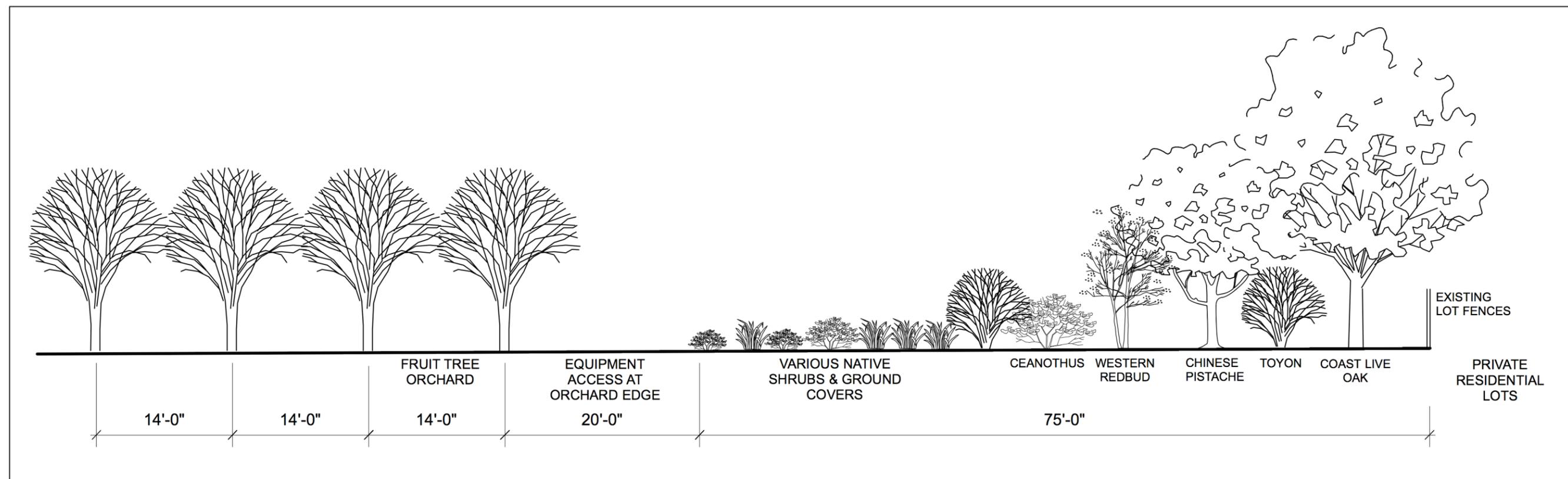
The first construction phase will prepare the Community Farm for implementation and establish safe access, essential utilities and accessible routes for Community Farm users. At the minimum, the first phase of Community Farm development will include the infrastructure needs of the Master Gardener Program. Driveways, parking areas, pads for buildings and the perimeter of the Master Gardener operations may be installed. Wet and dry utilities will also be provided, including outdoor lighting, telecommunications, water for drinking and irrigation and storm drain controls. The majority of initial improvements will occur in Sub-Area 7. Additional phase one improvements in Sub-Area 16 may be installed if the row crop and orchard farmers are prepared to begin operations during the phase one design period.

15.0 Implementation

The Master Plan is a long-term effort to maximize the productive capacity of the Community Farm acreage. Implementation of this Master Plan would begin with City-funded site improvements in Sub-Area 7 that provide the circulation, parking and utilities for the initial Phase One operators of the Community Farm, including the MGP Demonstration Garden and the Garden Patch community garden plots. Row crop production, which is also located in Sub-Area 7, is the easiest and most convenient agricultural use to implement as a Phase One project. The orchards and vineyard uses in Sub-Area 16 might not be scheduled for implementation until after Phase One construction is completed. The MGP Demonstration Garden and the Garden Patch plot rentals could begin operations once the initial site improvements are constructed.

Successful urban agriculture requires a sustainable model that matches local demand for fresh produce with local productive landscapes. Operators can be for-profit or non-profit and as noted previously, the City will conduct a process for identifying an operator(s) to maximize this resource in a way that meets community expectations. The types of fruits and vegetables to be grown will be a reflection of market demands and local environmental suitability. That success is scalable, too, depending on who is involved.

The City as Applicant is committed to creating partnerships with Community Farm operators to develop the orchards, vineyard and row crops. Lease agreements will include site plans that identify



*Plant species may vary

LANDSCAPE BUFFER AT PRIVATE RESIDENTIAL LOTS

Fig. 28 - SUB-AREA 16 - CONCEPTUAL HEDGEROW BUFFER SECTION

FARMSTEAD PLANT LIST *

BOTANICAL NAME	COMMON NAME	SW / NE EXPOSURE	WATER DEMAND
TREES			
<i>Aesculus californica</i>	California Buckeye	SW	VL
<i>Carpinus</i> b. 'Frans Fontaine'	Columnar Hornbeam	SW	L
<i>Cercis occidentalis</i>	Western Redbud	SW	VL
<i>Platanus racemosa</i>	California Sycamore	SW	M
<i>Populus fremontii</i>	Western or Fremont Cottonwood	SW / NE	M
<i>Quercus agrifolia</i>	Coast Live Oak	SW	L
<i>Quercus lobata</i>	Valley Oak	SW	L
<i>Quercus kelloggii</i>	Black Oak	SW	VL
<i>Quercus wislizenii</i>	Interior Live Oak	SW	VL
<i>Pistacia chinensis</i>	Chinese Pistache	SW	L
SHRUBS/GROUND COVERS			
<i>Arctostaphylos</i> species	Manzanita	SW / NE	VL-L
<i>Baccharis pilularis</i>	Dwarf Coyote Bush	SW	L
<i>Carpenteria californica</i>	Bush Anemone	SW / NE	L
<i>Ceanothus</i> species	California Lilac	SW	VL-L
<i>Cistus crispus</i>	Rockrose	SW	L
<i>Cornus stolonifera</i>	Red Twig Dogwood	SW	M
<i>Dendromecon rigida</i>	Bush Poppy	SW	VL
<i>Erigonum fasciculatum</i>	California Buckwheat	SW	L
<i>Garrya elliptica</i>	Coast Silktassel	SW / NE	VL
<i>Heteromelels arbutifolia</i>	Toyon	SW	VL
<i>Kniphofia</i> 'Primrose Beauty'	Red-hot Poker or Torch Lily	SW	L
<i>Lupinus arboreus</i>	Lupine	SW	L
<i>Mahonia repens</i>	Creeping Mahonia	NE	L
<i>Nandina</i> i. 'Firepower'	Dwarf Heavenly Bamboo	SW	L
<i>Rhamnus californica</i> 'Eve Case'	Coffeeberry	SW / NE	L
<i>Ribes malvacium</i>	Chapparral Currant	SW / NE	L
<i>Ribes sanguineum</i>	Pink Currant	SW / NE	L
<i>Ribes viburnifolium</i>	Catalina Perfume Currant	SW / NE	L
<i>Rosa californica</i>	California Rose	SW	L
<i>Sambucus mexicana</i>	Blue Elderberry	SW	L
<i>Symphoricarpus albus</i>	Snowberry	SW / NE	L
PERENNIALS			
<i>Mimulus</i> a. <i>longiflorus</i> , <i>rutilus</i>	Monkey Flower	SW / NE	L
<i>Romneya coulteri</i>	Matilija Poppy	SW	L
<i>Sisyrinchium bellus</i>	Blue-eyed Grass	SW / NE	L
<i>Zauschneria californica</i>	California Fuchsia	SW	L

*PLANT SPECIES MAY VARY

Fig. 29 - SUB-AREA 7 & 16 - PLANT LIST

which land areas are to be leased and managed by the operators, and which are to be managed by the City of Pleasanton, as owner. A lease agreement between the City and the University of California (Alameda County Master Gardener Program) will identify, among many features, the specific area that Master Gardener will maintain and manage. It is anticipated that the City will operate the Learning Center, common area open spaces, parking areas, trash collection and utility services for the benefit of all operators. Conversely, Community Farm operators will take responsibility for safe and successful production of the lease-holdings, and will follow food safety protocols while being good neighbors to adjacent residents.

The local community of Community Farm supporters has planted the idea of forming a non-profit, single purpose entity to raise funds for capital improvements and to take on management of the Community Farm. There is also potential for forming a public-benefit or mutual-benefit non-profit entity that would lease from the City the combined acreage of the two sub-areas, and then sub-lease to Community Farm operators. Leveraging private resources to assist the City in building and managing this vision of the Community Farm can build long-term commitments and engender community enthusiasm for this unique venture.

16.0 Potential Impacts of Farming Activities

In summary, concerns regarding Community Farm activities, particularly in Sub-Area 16, include the impact of pesticides, dust, noise, and general orchard activity, including the impact of workers, on land which is located immediately behind existing back yards. In addition, there is concern regarding the perceived uncertainty of retaining ongoing effective property management in view of changing economic markets and uses for fruits that would be produced on the site. As an alternative, neighbors have expressed a preference for development of a grove of oak trees or fruit trees that do not require pesticides, dust production and/or large machinery.

Concerns with Sub-area 7 include traffic and the related impact of parking, unsanctioned activities in the evening hours, and the overall level of care and maintenance. Specific recommendations from neighbors include the use of hedges as a visual barrier, minimizing parking, taking steps to assure site security, and establishing guidelines for community garden plots or eliminating them altogether.

The site plans for Sub-Areas 7 and 16 have been modified in response to neighborhood concerns. In addition, this Master Plan has included design guidelines that address the many constraints and opportunities inherent in the successful implementation of the Pleasanton Community Farm.

With each phase of implementation, the City will assess the level of success and challenges that may emerge. Operators that partner with the City will provide invaluable knowledge and experience that will bring long-term success to the Community Farm.

17.0 Operations and Maintenance

The City will oversee all phases of implementation and take on traditional operations and maintenance of all public facilities, including parking lots, the Learning Center and public park and open space improvements surrounding the leased areas. If a non-profit group, such as a “friends of the farm” is formed, a memorandum of understanding would define a public-private partnership with shared responsibilities for ongoing operations and maintenance, including fund-raising for the Learning Center. This standalone non-profit entity would be the sole interface with the City of Pleasanton and could manage many of the operational aspects of the Pleasanton Community Farm property.

Operations of the Garden Patch program will remain with the City of Pleasanton, unless the Parks & Recreation Commission and City Council determine otherwise.

Operations of the MGP Demonstration Garden will be overseen by the UC Master Gardener Program director. The leased area set aside for the Master Gardener program is not likely to change over time but would be subject to the lease agreement.

The row crop area in Sub-Area 7 may be subdivided to serve two or more operators or one operator may work the land for several years, then relinquish operations to a new leaseholder.

Orchard and vineyard development is much different, unique in the commitment to nurture young trees or vines until the productive years. The available land for orchards and vineyards in Sub-Area 16 is limited. In addition, the operations and maintenance steps of an orchard are subtle in the early years and short-lived during the productive years. See the Design Guidelines Section 21.0 for a description of the typical year in the life of a mature fruit orchard.

18.0 Revenue Generation & Expenses

Revenues to build Phase One of the Community Farm would be generated primarily from City capital improvement funding. Once Phase One construction is completed, City funding for operations could come through revenue generated from rental fees for use of the Learning Center, proceeds from crop sales, grants, and/or corporate and individual contributions.

Operating expenses would be covered by the City of Pleasanton for its operations, and by the leaseholders. The UC Master Gardener Program is self-sustaining, generating operating revenue primarily through annual plant sales. Membership dues are not required. The City of Pleasanton would cover the costs of maintaining the building and parking, including the Learning Center Gardens and the Garden Patch planters.

If the single purpose entity is formed and approved by the City, it could agree to maintain and

operate the entire Community Farm. In addition to operations, this entity would be in a position to generate revenue through fund-raisers and grant writing that solidifies long-term success of the Pleasanton Community Farm.

19.0 Phasing Plan

The Master Plan anticipates that project improvements would be phased over time, depending on available resources and interest from project advocates, users, and potential operators. Due to the fact that the City has not yet allocated funding for project development and the time required to conduct this funding process, it is not appropriate to provide a specific development time frame. However, staff does anticipate that the project would be developed over a number of years.

The anticipated phasing is as follows:

1. Establish safe access, essential utilities (water connections, sewer, storm water control, electrical services, outdoor lighting), accessible driveways and parking, restrooms, fencing, pathways, drinking water, irrigation connections and park furnishings for the safe and comfortable use of the MGP Demonstration Garden and the Garden Patch plots;
2. Development of the UC Master Gardener Program Demonstration Garden;
3. Expansion of City's Garden Patch program including garden plot construction, storage building, fencing, seating and water services;
4. Construction of the Learning Center with associated outdoor gathering and landscape improvements;
5. Development of the row crop area in Sub-Area 7;
6. Development of the orchard/vineyard and landscape buffer areas in Sub-Area 16;

20.0 Next steps

A coordinated and well-planned implementation is anticipated for Community Farm development, with a focus on assuring quality services and features that meet the City's high standards for park development. As such, a phased approach with the following immediate steps will be pursued, not in any particular order:

- Architectural Design (schematics, design development, construction documents);
- Phase One site improvement plans, including civil and structural engineering, joint trench, and landscape construction documents.
- Phasing Plan
- Financial Plan
- Fund raising from public and private sources.

Commencement of these initial and later steps, are dependent on the City allocating financial resources for each step in the process, with an anticipation that no step will be pursued until such time that the City has identified funding for critical project elements to assure that phases are not halted due to lack of funding. In addition, the City will assure that it has identified the personnel resources and financial means to provide sustainable Community Farm operations on a long-term basis. Therefore, the City may anticipate partially funding a capital improvement and/or operating reserve over time until long-term funding is acquired.

21.0 DESIGN GUIDELINES

These guidelines address the agricultural operations of the Community Farm as well as the planning and design characteristics of buildings and site improvements.

Grange Architecture:

1. The grange of farm buildings includes these five buildings: Learning Center, green houses (up to four green houses, in two clusters), the storage building and the office building shown within the MGP Demonstration Garden.
2. The grange buildings are to be permanent structures, and may be used by one or more of the leaseholders and farm operators. The cluster or arrangement of the five buildings that comprise the grange should be located as shown in this Master Plan.
3. The sizes of the farm buildings have been researched and are based on needs and expectations of the Community Farm operators. Minor adjustments to building size and programming are allowed during future design phases.
4. This Master Plan includes a conceptual rendition of each building that portrays the program requirements and formal responses to the site plan. The entire building program, including the grange, is as follows:
 - a. Learning Center
 - b. MGP Demonstration Garden Green houses
 - c. MGP Demonstration Garden Storage
 - d. MGP Demonstration Garden Office/Storage
 - e. Trash enclosure(s) - if there are more than one, all require the same high quality design solution
 - f. Farm Equipment Pavilion
 - g. Garden Patch Storage (8 feet by 8 feet as shown on Sub-Area 7 site plan)
5. Building materials should be durable and unified so that the grange reads as one design statement.
6. The theme of the grange of agricultural buildings could be described as a *school of agricultural arts and sciences*.
7. The grange buildings are rendered using an exterior building product called acetylated wood (*Pinus radiata*). Acetylation is a treatment that results in reduced swelling

and shrinking of wood, thus increasing the durability.

8. The green houses should consider a particular “smart” technology that uses a unique glazing system with embedded photovoltaic strips that generates electricity to operate the green house while allowing photosynthesis to support plant life. The technology is referred to as “wavelength-selective photovoltaic system” or WSPV. (See also Soliculture LUMO panels).
9. See Section 9.3 of the Master Plan for a more detailed description of building materials and finishes envisioned for the grange architecture.

Urban Agriculture:

1. The concept of urban agriculture embraces the idea of a holistic community that could grow crops, sufficient to support its citizens. This is the practical argument.
2. The Community Farm is to provide local access to fresh produce for a variety of purposes, including supporting food banks, and providing opportunities for residents to grow their own food.
3. The learning component of the Community Farm is to teach self-reliance, especially to the rising generation.
4. The Community Farm operations and its park surroundings are functions that implement the planning policy of providing “nature in the city.”

Learning Environments (indoor and outdoor):

1. The Community Farm Master Plan and these Guidelines are provided to inform local residents and farmers of current best agricultural practices. One of the functions of Community Farm participants should be to update and inform the public policies of the ongoing benefits and practices of urban agriculture.
2. The Pleasanton Community Farm is a working farm and should promote access and public participation through on-farm projects, presentations and demonstrations.
3. The most important resource of farming is the availability of topsoil that is teeming with living microbes. “Living soils” promote the growth of plants as nature intended. Community Farm operations should cultivate living soils at all growing sites.
4. Sustainable farm practices has many facets. Long term success is achieved when soil viability is maintained and tree health is optimized. Those operators that engage with the City to farm on the Community Farm shall be qualified as organic growers and/or be thoroughly trained in organic farming. Sustainable means, in this context, the ability to retain or create living topsoil and optimize the use of water and organic amendments the promote viable and safe produce
5. An overarching theme of Community Farm operations is to serve as a *demonstration farm or garden*. Row crops, vineyard and orchard activities are going to be highly visible to adjacent residents and Community Farm visitors. The Marilyn Kane Trail wanders

through and along side the agricultural fields, exposing the public to the Community Farm. The general public are expected to respect the rights of growers, UC Master Gardener Program, and Community Farm volunteers. Visitors shall not interfere with nor damage any Community Farm operations, including unauthorized harvesting.

6. One of the anchor tenants of the Community Farm is the City’s Garden Patch project, which encourages willing residents to rent a garden plot for purposes of growing vegetables, fruits and flowers for home use. Participating residences must agree to rules and regulations that require a minimum of care and attention to their plots. See Figure 25 on page 29. The installation of these raised planters may be phased over time, in response to demand.
7. The UC Master Gardener Program is sponsored by the University of California Cooperative Extension. Its primary purpose is to provide home gardening best practices to the general public. Gardening enthusiasts must certify to become a “master gardener”. The majority of the UC Master Gardener Program participants are volunteers, and all are experts in one or more gardening and landscaping skills. The City of Pleasanton will provide the infrastructure for the UC Master Gardener volunteers, who will demonstrate their knowledge and experience within a 1.32-acre outdoor learning environment.
8. The Pleasanton Community Farm operations are integrated into both park land and natural habitats. The boundaries between land uses are blurry such that the activities of humans and wildlife will mingle. Community Farm operations should include perimeter fencing to protect crops from wildlife intrusion. The general public are expected to stay on the trails and not pilfer.

Row Crop Protocols:

Crop Types and Rotation

1. The row crops area on the Community Farm should provide a variety of vegetables and fruits. Cut flowers, hops and other types of seasonally harvested crops may also be farmed in the row crop area.
2. Not all of the row crops area needs to be farmed each season. Some sections can remain fallow.
3. Cover crops that replenish the topsoil may be grown when appropriate. This method of soil conservation is used to replenish the soil of accessible nitrogen. This is accomplished by growing plants that host nitrogen-fixing bacteria within their root systems. These bacteria, through a process that continues to puzzle scientists, absorb the nitrogen from the air and convert that nitrogen into a form that is released into the soil, which is then absorbed by vegetables and other plants. Only a few plants support these bacteria, including alfalfa and legumes.
4. The area set aside for row crops in Sub-Area 7 may be fenced, as determined by the

operator. The site plan for Sub-Area 7 illustrates the location of this optional fence. The specific fence design will be determined by the operator.

5. Water conservation shall be the highest priority of the Community Farm operators.
6. The following sources of water may be made available at the Community Farm in either or both sub-areas:
 - potable water service
 - rain water cisterns
 - reclaimed water service
 - well water and other sources including the City's adjacent detention pond.

Irrigation Sources & Methods:

1. Four water sources are potentially available for use on the Community Farm: well water, city potable water service, gray water (on-site water harvesting, including pumping water from the City's detention pond adjacent to Sub-Area 7) and the City reclaimed water system. Each source can be tapped according to purpose and effectiveness. The objective is to use water in a sustainable way and to demonstrate water conservation to the public.
2. The preferred method for orchard irrigation distribution is to use bubbler nozzles attached to a minimum 1/2" diameter flexible pipe. The flexible pipe is connected to a buried fixed-line network of lateral pipe. In contrast to drip systems, this method of distributing water to orchard trees is more reliable than thin-walled micro-tubing that can be easily breached by rodents.
3. Irrigation timing controls should have weather sensors or connectivity to local evapo transpiration data that can modify irrigation watering schedules as needed according to site weather conditions.
4. Each fruit tree species variety may require unique watering needs; therefore irrigation valves should be grouped accordingly.
5. Water conservation shall be the highest priority of the Community Farm operators.
6. Flood or overhead sprinkler irrigation is the most efficient method of watering row crops, so only potable water sources are viable. Gray water sources, including rain harvesting and reclaimed water service should be used only for ornamental landscape irrigation and are not approved for growing vegetables and fruits that require direct watering. Well water is not a likely source for irrigation, due to the cost of construction and operation, and uncertainty of water quality. Gray water and well water could be used for irrigating orchards using drip or bubbler nozzles.
7. Potable or drinking water service will be available at the Learning Center and MGP Demonstration Garden. An existing potable water service provides irrigation for restored habitat areas in Sub-Area 7 and may be tapped for use at the row crops. Sub-Area 16 is also to have potable water service for safe drinking and for washing fruit during the harvest. Potable water connections to the City's water

system will likely be used for all farming operations.

8. Rain water cisterns may be provided at the MGP Demonstration Garden for irrigation. Given the average annual amounts of precipitation received in the region, this source of water is more symbolic than significant. Nonetheless, this method of water harvesting can be worth the effort in remote areas and could be promoted on the Community Farm as a source for irrigating ornamental planting.
9. The City of Pleasanton has implemented a reclaimed water service in the some sections of the City. It may be years before service is extended to the Community Farm properties. Reclaimed water can be used to irrigate ornamental landscapes and some row crops and orchards. This water source has higher levels of dissolved salts which can damage some plants. These same salts will also accumulate in topsoil over time, requiring corrective soil treatment.
10. Both sub-areas are situated above extensive aquifers or underground water reservoirs, which could be tapped for irrigation. Future implementation phases of the Community Farm project could include installation of one well in each sub-area to provide irrigation water for row crops, orchards, vineyards and ancillary landscape projects. A typical well system would include well head with pump, with an optional water storage tank system. This method is most common in agriculture in the Central Valley of California.
11. State and local water efficient landscape ordinances (WELO) are not applicable to park lands, nor agriculture. However, the calculations to determine the estimated total water use can be used to determine annual water demand. In addition, water conservation best practices should be followed. For master planning purposes, the estimated annual water use at buildout of the Community Farm is:

Sub-Area 7 = 2,045,000 gallons;
Sub-Area 16 = 2,020,000 gallons;
12. Each operator, including the City of Pleasanton is to have an irrigation water meter or sub-meter for purposes of measuring the annual water use.

Harvest & Delivery:

1. The infrastructure and vehicular circulation of the Community Farm needs to account for harvest, packaging and distribution of produce. Harvest times will vary depending on the vegetable and fruit species. Safe food handling rules must be followed during harvest times. Community Farm operators must be qualified to safely harvest, wash, package and deliver produce.

Orchard/Vineyard Protocols:

Fruit Tree Selection:

1. Tree spacing for smaller canopies can be 14 feet on center.
2. Tree spacing for larger canopies can be 18-20 feet on center.
3. Turn-around widths or diameters for equipment should be 25 feet at the ends of rows.
4. Total number of trees per acre should be in the range of 120 to 130.
5. Fast-growing orchard trees include plums and peaches. These should be considered for first planting to accelerate production. Use several varieties of each to extend the harvest window from late June to late August.
6. Plant cherries and apricots for early season production during the months of May to July.
7. Plant apples and pears for late season production during the months of August to October.
8. Citrus orchards are not recommended at the Community Farm due to the potential for frost and freeze damage. However, for demonstration purposes, a small bosquet of citrus trees could be planted in protected micro-climatic pockets that receive winter sun.
9. Phasing the orchard planting is up to the operator. The designated areas for orchards are small enough that phasing is not a requirement. However, the production demand may be such that phasing in the orchards may be beneficial to long-term success.
10. The planting of hops is encouraged, even as a demonstration crop, to recall the local history of this vital agricultural product. Hopyard Road has been named in recognition of hops growing in the City.

Soil Preparation:

1. Existing fallow and "old agriculture" areas would require tilling and banked weed seed control as a first step in preparing the land for orchard tree planting. The recommended treatments include solarization, and on-going cultivation to control weeds. Identify the depth of existing topsoils and stockpile topsoil for future use if mass grading operations are needed.
2. Pre-emergent herbicides are not recommended, given that these chemicals can also kill beneficial soil microbes.
3. At time of planting, soil amendments in the form of certified organic compost, should be applied to the backfill planting soil mix as each tree is planted. The proportion of soil nutrients shall be determined by soils analysis testing at each orchard planting site. Test several soil samples taken throughout the area to be planted as orchard.
4. Use of chemical, and pelletized fertilizers shall not be used without professional advice and oversight. These chemicals can kill helpful soil microbes that thrive in healthy soils. One teaspoon of healthy soil can contain over one billion beneficial bacteria and fungi.

Nurturing the Orchard Until Production:

1. Initial planting of orchard trees should include a plant protection device to eliminate damage from rodents and browsing deer.
2. The installation size of the orchard tree can vary but is typically a 4" - 6" pot.
3. Root stocks are common to many orchard trees. This type of orchard tree is a graft of the fruit stock on top of the root stock. Root stocks are selected based on soil type and other site-specific conditions. The fruit stock is selected according to the variety of fruit types to be harvested.
4. Root stocks also vary in how quickly a fruit tree will produce. The orchard operator will have the knowledge and expertise to select the correct combination of root stocks and fruit trees, according to the desired outcome.
5. Each orchard tree species should be pruned according to its standard methodology so that the optimum size and shape at maturity is achieved. Pruning methods that maximize production should also be followed.
6. Equipment requirements for orchard development include: orchard tractor; mower for weed control between rows; sprayer attachment; disc and rake attachments; bin hauler and bins; shed or carport for equipment; storage for chemicals, irrigation parts, hand tools, etc should be included when site planning the orchard.
5. Fencing the orchard and vineyard is optional and will be determined and installed by the operator.

Operating the Producing Orchard:

1. A professional farming team must be involved in the management of the producing orchard. The City of Pleasanton would issue a request for proposal or qualifications in order to interview and select the professional farmer best suited to operate the Community Farm orchard element.
2. The professional farming team can be one of the following: custom farmers; community supported agriculture (CSA) or traditional farmer.
3. Volunteers including the 4-H Youth Development Program, UC Master Gardener Program, and community gardeners can assist the professionals in the best practices of pruning, pest control, irrigation, fruit thinning and weed control.
4. Share-cropping is an acceptable relationship in which the farmer takes two-thirds of the crop and the City of Pleasanton or local volunteers would take one-third, distributing that one-third throughout the local economy. However, the actual arrangements for share cropping, if any, will be determined as part of the Orchard operator selection process, and is not a requirement of the Master Plan.
5. A year in the life of an orchard in Sub-Area 16 at year 10 or so:

November to bud break - some pruning to thin and shape trees; 10-15 workers for a day or two; weed control and cover crop planting using disc and seeder, one to two days;

March/April bud break - some spraying, one or two days; activate drip or bubbler irrigation which may need repairs; all terrain vehicle in the orchard for a day or two; fertilizer application is best through the irrigation system;

May - bud and fruit thinning - 10-15 workers for a day or two; another round of spraying may include nutrients as well as pest control;

May/June - picking begins for cherries, apricots; other fruits in July/August; 10 am to 2 pm; no music allowed; availability of restrooms, shade, drinking water, first aid;

August to October - picking of peaches, apples, pears; duration of picking is two weeks;

6. Emergency and fire safety equipment access to Sub-Area 16 is required and will be reviewed and finalized with the orchard or vineyard operator.
7. Installation of the hedgerow, which may precede orchard installation, may include meeting with the neighborhood to confirm design efficacy of this landscape buffer area.

Produce Handling & Distribution:

1. The professional farmer and/or CSA shall manage the picking, washing and crating of harvested fruit. Local volunteers may assist under the guidance of professionals.
2. A number of different distribution avenues may be used including: on-site fruit stand, a U-pick operation, distribution to local farmers' markets, distribution to regional produce outlets and local restaurants.
3. Food washing, handling and distribution are to follow FSMA (Food Safety Modernization Act) standards. Records shall be established by Community Farm operators that document that preparation and distribution standards are followed for all produce leaving the Community Farm.
4. A qualified individual who has completed training on food handling and safety through FSMA shall be employed to develop and apply a food safety system on the Community Farm.
5. Preventative controls must be in place to prevent, eliminate or reduce the effects of identified hazards to ensure foods meet a safe level for consumption.
6. The qualified individual shall verify each week during harvesting, that food safety protocols are being followed.
7. Every three years, food safety protocols shall be updated to meet the current FSMA standards.
8. Fruit handling needs to include sorting by size using industry grading practices, boxing, and cold storage prior to distribution. Local volunteers may be involved in these pre-distribution activities.

Integrated Pest Management:

"Integrated Pest Management is a holistic approach to controlling insects, plant diseases, weeds, and other pests. IPM programs integrate the use of many environmentally sound strategies for managing, but not necessarily eliminating pests. First and foremost, IPM seeks to prevent pests by fostering a healthy environment in which plants have the strength to resist disease and insect infestations, and to out-compete weeds. An IPM approach requires an understanding of the life cycles of pests and beneficial organisms and regular monitoring of their populations. If a pest problem is identified, IPM then considers all viable solutions and uses a variety of techniques to control pests, rather than turning only to pesticides. The least toxic pesticides are used as a last resort only."

- Bay Friendly Landscapes (See Resources)

1. Community Farm operators shall not use chemicals that are inconsistent with the City's Integrated Pest Management (IMP) policies.
2. Include plants on the Community Farm that attract beneficial insects.
3. Space plants far enough apart to allow air circulation and space to reach natural size without overlapping other plants.
4. Nurture the planting soils by adding compost and organic amendments, sand and other ingredients that encourage soil microbes to grow, retain moisture while improving percolation.
5. Select new plantings that are free from disease and insects.
6. Install plants to the correct depth - never cover the root crown with soil.
7. Maintain mulch layers at all times.
8. Do NOT over water plants.
9. Do NOT over fertilize.
10. Prune selectively all plants. Over-pruning (not necessarily hedging) stresses plants and causes new growth; both conditions attract pests.
11. Plant species that attract beneficial insects. See Appendix B.
12. Use the least toxic and least persistent pesticide only when preventative and non-chemical methods are not reducing pest populations.
13. Use naturally occurring pesticides rather than synthetic pesticides whenever possible.
14. Do not use broad-spectrum synthetic pesticides.

IPM Applied to Weed Control:

1. Eliminate weeds before they go to seed.
2. Install weed-free plants.
3. Use only weed-free compost; keep records of organic compost applications, sources and methods of creation.
4. Disc orchards on a regular basis to minimize weed growth.

5. Maintain mulch layers to control weed seed sprouting.
6. Herbicides such as corn gluten meal and horticultural vinegar or acetic acid (not exceeding 5%) may be used in the ornamental landscapes of the Community Farm.

Hidden Parking:

1. Parking areas should be screened from views along Laguna Creek Lane.
2. Parking surfaces should use pervious materials.
3. Parking areas should allow 100% storm water infiltration in or immediately surrounding the parking area.
4. Several parking areas are preferred over one large area.
5. Parking areas should be secure and illuminated for safe use during hours of operation.
6. Parking for all vehicle types shall be provided per City ordinance, including fuel-efficient vehicles, electric vehicles with charging stations, and accessible parking. Any required parking for compact and carpool vehicles may be waived for this project.
7. Short- and long-term bicycle parking shall be provided per City ordinance.
8. Parking areas are not to be fenced nor gated.

Storm Water Management:

1. Runoff from building roofs should be collected in storage cisterns for future use as a source of irrigation water, or directed to swales in ornamental landscapes for infiltration.
2. Runoff from paved surfaces should be directed to adjacent landscape areas.
3. Parking lots are to be constructed of pervious pavement wherever possible, in order to minimize surface flows. Acceptable paving materials can include turf-block, interlocking pavers, crushed gravels or pervious asphalt.
4. All surface flows should be directed to a series of collection swales to be located along the northern edge of the existing Marilyn Kane Trail. Given the nature of the Community Farm activities, many of the areas are considered self-treating. The amount of treatment is minimal.
5. To the extent possible, surface flows should be directed to landscape features to supplement irrigation.

Master Gardener Program Demonstration Garden:

1. The site plan for the MGP Demonstration Garden program is generalized, and does not illustrate the specific locations for programming that is anticipated. Based on input from the UC Master Gardener Program Director, the area set aside for protected functions and activities within the electrified fence would include the following:
 - a. working compost piles;
 - b. wood chip pile;

- c. vermi compost area (also known as vermi-compost; harvesting worm castings to be used as a soil amendment;
 - d. seed saving or harvesting;
 - e. propagation area;
 - f. demonstration orchard;
 - g. row crop area;
 - h. native garden;
 - i. cleaning and cooking station;
 - j. hops;
 - k. plant research area;
 - l. espalier trees;
 - m. vines;
 - n. blueberries and cane berries;
 - o. raised bedding garden;
 - p. perennial vegetables;
2. Activities outside the fence enclosure would include the following:
 - a. pollinator garden;
 - b. succulent garden;
 - c. native garden;
 - d. "allstars" garden;
 - e. water feature;
 - f. low water use garden;
3. The extent and alignment of the protective fence may change during future design phases.
4. The locations for the green houses and storage/office buildings are to be considered optimal to the success of the enclosed demonstration garden and should not be relocated during future design phases.
5. Consideration shall be given to the location, size, design form, and materials used for Demonstration Garden plots and planters to assure consistency with the these Master Plan Design Guidelines.
6. Programming the unfenced City-maintained landscape areas surrounding the enclosed Demonstration Garden will be finalized during future design phases.
7. The MGP Demonstration Garden shall be designed and constructed to meet the high standards of the City of Pleasanton. Design plans, details and specifications for all Demonstration Garden improvements shall be approved by the City of Pleasanton design review process prior to any installation by the UC Master Gardener Program volunteers, or its hired contractors.

Pleasanton Community Garden (Garden Patch) Protocols:

1. The Garden Patch area of the Community Farm Master Plan will be designed to contain approximately 50 plots with the goal of maximizing the number of plots and a small storage shed to meet the overall community demand. The plot sizes will vary based on data developed by the City, which will identify the needs of various users. The largest plots are to be 12 feet by 16 feet in size, with the majority raised to comfortable heights for a variety of users. The number of ground level plots, if any, will be identified based on data provided by the City's existing Garden Patch program.
2. Raised planters are to be constructed of permanent and easily maintained materials, including materials to limit plant destruction by gophers, moles and similar ground dwelling animals. Place a layer of wire mesh with a maximum opening dimension of 1 inch (or equal) between the existing soil subgrade and the planter topsoil to prohibit ground-dwelling rodents from infesting the plots. The preferred material is redwood or cedar, with a minimum board thickness of four inches. Plots that are not raised will include borders or other means to show the limit of the plot. See Figure 25 on page 29.
3. Access pathways between the raised planters should be a minimum of four feet, utilize weed barriers, and must meet ADA accessibility standards in terms of stable paving surface and access way clearance. The City will utilize the services of a specialist to assure maximum accessibility for the disabled and seniors.
4. A perimeter fence may be installed to provide security and discourage pilfering.
5. The garden plots may be phased over time, based on demand at the time of construction.
6. The City shall actively monitor demand and usage to assure that plot availability is maximized to meet the demand of active gardeners, residents seeking to utilize a plot and overall program effectiveness.
7. The fenced-in area of the garden plots is to include the following: bench seating, hose bibs equally distributed among the plots and at a maximum of 50 feet from any plot, areas for compost and green waste collection, and an 8 foot by 8 foot (minimum) storage building for gardening hand tools.
8. The current Rules and Regulations for the Garden Patch Program shall apply. See Appendix B.
9. The City will update the rules regarding when a garden plot that is under utilized may be reassigned to the next in line on the Garden Patch waiting list, so that the garden plots are actively used at all times.
10. The City will conduct community outreach for volunteers, including Scouting groups, to assist with development of the Garden Patch.

Learning Center:

1. The Learning Center is a public building to be accessible to all Community Farm users as

- determined appropriate by the City. The restrooms are located in the South wing of the building so that public access is maintained throughout the Community Farm hours of operation without interrupting events in the North wing of the Learning Center.
2. The Learning Center building has been located as far as possible from the Highway 680 Freeway in order to minimize noise impacts.
3. The long axis of the building footprint is oriented perpendicular to Laguna Creek Lane to minimize the visual impact from drivers. This orientation benefits users by maximizing both views to the outdoors and daylight penetration through window openings on both the east and west sides of the structure.
4. An outdoor space is created between the assembly area and the workroom/restroom storage areas of the Learning Center. This area is to be programmed as an outdoor classroom and gathering space for smaller groups. This outdoor space may include picnic tables, outdoor seating, lighting, public art and other park furnishings.
5. The landscape area west of the Learning Center building is to be designed for public gatherings, outdoor learning, and as an arboretum that identifies a number of unique plant habitats and themed gardens. This area is not part of the MGP Demonstration Garden programming.
6. Architectural design of the Learning Center is limited to the form, massing and primary finish materials as described in the Master Plan.
7. The West facade of the Learning Center should have a porch extension so that access to the outdoor gathering area will be convenient and comfortable.

Open Space Integration:

1. The Community Farm has two main functions – active farming and interpretive landscape. The boundaries between these two program types should be clearly defined for the benefit of leaseholders who are farming, and the general public who are observing.
2. Active farming may include orchards, vineyards, row crops, and specialty items such as the MGP Demonstration Gardens and the Garden Patch.
3. The interpretive landscapes may include theme gardens, arboreta, outdoor classrooms, relic plantings such as a hops trellis, native habitat restoration, storm water treatment swales, pollinator areas, beehives, butterfly gardens, and other specialty gardens.
4. Nature study should be considered the primary purpose for all interpretive landscapes.
5. In accordance with the Phase II Specific Plan, a new segment of the Marilyn Murphy Kane Trail shall be added to the site plan in Sub-Area 7. The location of the Trail extension shall occur at the western end of Sub-Area 7 along the Highway 680 overpass berm, connecting the existing MMK Trail to the sidewalk on Laguna Creek Lane.
6. Publicly accessible connections to the Marilyn Murphy Kane Trail and adjacent sidewalks shall be created at or near the Community Farm parking areas only.

-
7. Outdoor gathering areas should include the following park amenities:
 - a. drinking fountain (City standard park fountain);
 - b. various types of seating;
 - c. accessible paths and walks;
 - d. minimum light levels;
 - e. convenient trash receptacles;
 - f. plant identification label system;
 - g. picnic amenities, including tables, grills and access to shade;
 - h. information kiosks;
 8. Install the City of Pleasanton standard concrete split rail fence along Laguna Creek Lane and Valley Avenue in Sub-Area 7 consistent with the split rail fence currently installed along Valley Avenue at the Oak Woodlands and along the perimeter of the Bernal Community Park, Phases 1 and 2. This rail fence may be installed in other areas of the Pleasanton Community Farm, as determined by the City and in cooperation with future Farm operators. The color and finish of this fence is to match existing rail fences.

3. The Community Farm project promotes the use of “smart” green houses that include integrated solar panels for production of electricity. These transparent panels contain low-density silicon photovoltaic strips arranged on a panel of glass with space between so that some of the sunlight is transmitted between the strips. A thin layer of luminescent material is adhered to the backside of the glass that converts green light to red light, which enhances electricity production while facilitating plant growth. (Soilculture LUMO panels uses the Wavelength-Selective Photovoltaic Systems or WSPV)
4. Green houses shall have the latest in wi-fi remote controls that monitor irrigation, fertilizer and temperature, based on local weather conditions.

Green Building:

1. The City of Pleasanton Green Building Ordinance shall apply to this project.
2. The Energy Element of the Pleasanton General Plan shall guide the implementation of this Project.
3. The CalGreen Checklist for non-residential buildings shall be used as the frame of reference during the design documentation phases of this project.
4. Water-conserving plumbing fixtures and fittings shall be used throughout the buildings.
5. Exterior site lighting shall meet minimum photometries defined for safe use of the building and grounds at night. Exterior light fixtures shall be dark-sky compliant.
6. Conserve electricity by using LED light fixtures throughout the Community Farm.
7. The storage buildings and Learning Center shall be designed to a minimum “LEED certification” standard per 17.50.040 of the Green Building Ordinance. Designers should voluntarily seek to apply the highest and best green building techniques and practices to this project that are acceptable to the City and applicant. LEED Registration and Certification is NOT required.
8. Community Farm buildings should apply design methods, construction materials and systems that produce net zero energy consumption and low carbon results.
9. The use of photovoltaics on the building roofs is encouraged.

Smart Green Houses:

1. The green house component of the Community Farm is an essential feature for year-round research and production.
2. Green houses should be commercially available kits that can be assembled on site.



APPENDICES

Appendix A: Specific Plan Conformance

Excerpts from the Phase II Specific Plan for the Bernal Property that address the potential uses for Sub-Area 7 and Sub-Area 16 are included below. The project descriptions and design guidelines published in the Phase II Specific Plan serve as a basis for preparing this Final Master Plan for the agricultural club and agriculture facilities. Description of Potential Land Uses, Phase II, Bernal Property Specific Plan, specifically addressing the Agricultural Club and Agriculture Uses (items 1 and 2 of the List of Potential Land Uses, in the Land Use Element) are quoted from the Specific Plan as follows:

- “Agricultural Club – Agricultural club provides opportunities for children to grow crops, raise livestock and participate in a variety of related social and educational programs. Demonstrations of club work and activities can be a valuable community asset. In addition, farming classes can be established where school children are assigned their own plots to experiment and learn about the mechanics of soil development, water use and conservations, organic amendments, plant requirements and nutrition. Composting sites and support buildings for equipment storage would need to be sensitively located out of public view, to the extent feasible. Equipment and materials might be shared with other adjacent agricultural uses.”
- “Agriculture – The Bernal Property has historically been maintained in agricultural use. Crops have included hops, alfalfa, oats, corn and other seasonal field grains, and flowers. Agricultural use will continue, at least in the near-term, as future site development occurs. Agricultural acreage will gradually be reduced and be replaced by a variety of uses, including primarily open space as defined by native woodlands and meadows.”

“In addition to temporary agricultural use, permanent agriculture is a potentially permitted use. Agriculture uses would serve symbolic as well as functional purposes, and help to recall the early heritage of Pleasanton. It can also serve as an educational asset. Demonstration planting areas reflecting Pleasanton’s agricultural heritage might be developed, such as flowers, orchards, vineyards or hops. Gardening clubs could be provided with areas for the cultivation of flowers. Plots could be made available for local restaurants to grow their own produce. The sale of off-site grown holiday items such as pumpkins, and Christmas trees might also be appropriate.

“Agricultural uses should generally be restricted to sustainable farming practices. The potential use of pesticide and fertilizers would need to be minimized and carefully managed to minimize impacts to adjacent neighbors. Sustainable agriculture would offer numerous educational opportunities to the community and children in particular. Practicing sustainable agriculture that mimics natural processes, allows for ‘hands on’ lessons in the natural sciences and ecology.”

Phase II Specific Plan and Environmental Impact Report Conformance

The Applicant must comply with the description, impact analyses and mitigation measures identified in the Phase II Specific Plan and Environmental Impact Report (EIR). The purpose of this Section is to demonstrate conformance to EIR requirements as the implementation of the agricultural uses in the Bernal Property Open Space moves forward.

Selected language from the EIR is provided below, followed by responses that reflect the intent of the Applicant to implement the agricultural resources within the Bernal Property.

Chapter 4, Section B, Sections 1, 2 and 3:

1. Framework for Analysis
“This section addresses the relationship between the proposed Phase II Bernal Property Specific Plan and agricultural resources of the site.
2. Setting
 - a. Agricultural Resources at the Site The Phase I Specific Plan EIR (DEIR 1997 FEIR 2000) describes the agricultural resources value of soils on the site, which include lands meeting US Soil Conservation Service criteria for designation of prime farmland (Class I and II soils). The County of Alameda’s EIR (1995) estimated that there were 500 acres of prime agricultural land on the site: in general, all of the site except for the knoll and the corridor of the Arroyo de la Laguna. A description of that resource and a map showing the location of Class I and Class II soils is presented in the Phase I EIR, pp. 61-62. Open areas of the site have long been used for production of alfalfa hay.
 - b. Site Context
The site lies in an area surrounded by urban development, including the development on the Phase I Specific Plan portion of the site. Urban use of this land (both Phase I and Phase II areas) has been planned for many years. Development of the site is envisioned in Pleasanton’s 1996 General Plan, as it was in Alameda County’s East County Area Plan of 1995 (the applicable plan prior to Pleasanton’s annexation of the site).

3. Key Project Characteristics, Impacts, and Mitigation Measures

a. Key Project Characteristics:

The Bernal Specific Plan Phase II site would be devoted to public uses as described in the Specific Plan (see Chapter II of this EIR and the use descriptions in Appendix B). The Plan would convert lands previously used for agricultural production to recreational, institutional, public and open space uses. This conversion is anticipated to occur over a period of years, so that some interim agricultural use will remain pending completion of the development program, contingent on agreement between the City and an agricultural operator.

In addition to temporary agricultural use, permanent agriculture is a potentially permitted use. Such use might include demonstration gardens; cultivation plots for garden clubs, restaurants, and/or individuals; and areas for sales of agricultural products (e.g., pumpkins, Christmas trees). Agricultural education (e.g. farming classes, 4-H club) may also be part of the area committed to produce crops and raise livestock. Equipment and materials might be shared with other adjacent agricultural uses. Composting sites and support buildings for equipment storage would be sensitively located out of public view, to the extent feasible.”

b. Significance Criteria:

Significance criteria for the proposed project’s impacts on agriculture are based on criteria set forth in CEQA Guidelines (Appendix G (Item II (a); Item II (b) is not applicable because there is no existing agricultural zoning at the site and no contract under the Williamson Act, and Item II (c) is not applicable because development of the site would not affect other agricultural lands, in view of the fact that the surroundings are urban). Impact on agricultural resources would be significant: (if the Project would) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

The conversion of farmland on the Bernal Property to urban uses, although consistent with the local planning documents (Pleasanton’s 1996 General Plan and Alameda County’s East County Area Plan (ECAP), was found to be a significant adverse project and cumulative impact of Bernal Property development. (See Bernal Property Phase I EIR, p. 61) This impact (A3) was found not mitigatable.

c. Impacts:

The development of the remaining Bernal Property to recreational, institutional, public and open space uses would eliminate use of those lands in commercial agricultural production. Agriculture may remain as an interim use pending development of other planned uses, and some agricultural use may remain as a permanent use, primarily for recreational and educational agriculture. The potential mitigation measures are built into the Plan. Lands remaining in agricultural [use] would, however, be a minority of the site.

The conversion of the agricultural resources at the site to urban use is an impact of the project. It is also a cumulative impact.

Impact B1. Conversion of Bernal Property lands to urban uses would have an adverse impact on agricultural resources, both for the project (the Specific Plan) and cumulatively. This impact is significant (see Significance Criterion (1)).

d. Mitigation Measures:

Impact B1. Conversion of Bernal Property lands to urban uses would have an adverse impact on agricultural resources, both for the project (the Specific Plan) and cumulatively.

No practical project mitigation of impacts on agricultural resources is available consistent with the purposes of the Specific Plan. Therefore, the impact is significant and unavoidable, both on a project basis and on a cumulative basis.

e. Summary of Impacts and Mitigation Measures Relating to Agriculture (Significance after mitigation: S=significant; LS=less than significant; C=contributes to cumulative impact).

B1: Impact: Conversion of Bernal Property lands to urban uses would have an adverse impact on agricultural resources, both for the project (the Specific Plan) and cumulatively.

Mitigation Measure: No practical mitigation measures are available that are consistent with the purposes of the project.

Significance after mitigation: S/C

4. Appendix B – Description of Potential Land Uses:

- (1) Agricultural Club – Agricultural clubs provide opportunities for children to grow crops, raise livestock and participate in a variety of related social and educational programs. Demonstration of club work and activities can be a valuable community asset. In addition, farming classes can be established where school children are assigned their own plots to experiment and learn about the mechanics of soil development, water use and conservation, organic amendments, plant requirements, and nutrition.
- (2) Agriculture – The Bernal Property has historically been maintained in agricultural use. Crops have included hops, alfalfa, oats, corn, other seasonal field grains, and flowers. Agricultural use will continue, at least in the near-term, as future site development occurs. Agricultural acreage will gradually be reduced and be replaced by a variety of uses, including primarily open space as defined by native woodlands and meadows.

In addition to temporary agricultural use, permanent agriculture is a potentially permitted use Agriculture would serve symbolic as well as functional purposes, and help to recall the early heritage of Pleasanton. It can also serve as an educational asset. Demonstration planting areas reflecting Pleasanton’s agricultural heritage might be developed such as flowers, orchards, vineyards or hops. Gardening clubs could be provided with areas for the cultivation of flowers. Plots could be made available for local restaurants to grow their own produce. The sale of off-site grown holiday items, such as pumpkins, Christmas trees, etc. might also be appropriate.

Agricultural uses should generally be restricted to sustainable farming practices. The potential use of pesticides and fertilizers would need to be minimized and carefully managed. Sustainable agriculture would offer numerous educational opportunities to the community and children in particular. Practicing sustainable agriculture based on natural processes allows for ‘hands on’ lessons in the natural sciences and ecology.

- (5) Community Vegetable Garden – Community vegetable gardens are most commonly used by apartment and condominium residents who may not have sufficient land area of their own to grow vegetables. A small area of agricultural land could be allocated for use as community garden plots.

(Note: other park and open space uses listed in Appendix B may also apply to the Pleasanton Community Farm Project, and will be integrated appropriately).

Appendix B. Garden Patch Rules & Regulations

ATTACHMENT 5



Pleasanton Community Garden Garden Patch Program Rules and Regulations

I. Overview

Pleasanton Community Garden, in Val Vista Community Park, is intended to be a beautiful, safe, and peaceful place for residents to cultivate flowers and vegetables. The following set of rules and regulations have been designed to ensure:

- That the community garden is safe.
- That the community garden is a pleasant place to be and look at, for gardeners, neighbors, and the general public.
- Fairness and equity among the gardeners.

II. Who Can License a Patch in Pleasanton Community Garden?

You must be 18 years or older and live within the City of Pleasanton tax base.

III. Patch Allocation, Registration, Fees

1. One (1) garden patch per individual or household.
 - i. The person whose signature appears on the Registration Form is considered the primary patch member and is responsible for the garden patch.
2. Garden patches are issued on a year-to-year basis, from January 1-December 31.
 - i. Current Patch gardeners in good standing have the option to renew their garden patch for the following year.
 - ii. Returning Patch gardeners must complete the Community Garden Patch License Renewal Form and pay the annual fee by the registration deadline. Those who do not meet the registration deadline will forfeit gardening privileges and their patch will be re-assigned to a new gardener.
 - iii. If there are no vacant garden patches, prospective gardeners can add their name to a waiting list. When a patch becomes available, prospective gardeners will be contacted in order of the list.
 - iv. Gardeners who relinquish their patch may not directly transfer the patch to another gardener. The Garden Management Team will reassign patches that become available.
 - v. New gardeners must complete the Community Garden Application and License Agreement and pay the annual fee and deposit before being issued a key and beginning gardening.
 - vi. Annual Patch Fees are not refundable.

Updated 12/12/12
Page 1 of 3

IV. Gardener Responsibilities

1. Gardeners are responsible for year-round maintenance of their garden patch and surrounding pathways. Patches and pathways must be kept free of weeds, diseased plants, trash, and debris at all times. Vines and other plants cannot encroach onto pathways. Gardeners will strive to use organic and sustainable gardening principles and will avoid the use of chemical fertilizers, pesticides and herbicides at all times. Sustainable gardening means utilizing resources carefully to sustain the garden in perpetuity. Sustainable practices include water conservation, soil management using green manure and composting, and using natural pest controls - barriers, traps and attracting beneficial insects to the garden.
2. Common areas are maintained as a shared responsibility by all gardeners.
3. Gardeners are required to participate in quarterly garden cleanups. The City will provide a green waste container to assist in the clean up two to three times a year, or as needed.
4. Gardeners must attend at least two (2) garden meetings annually. At least four (4) meetings will be held annually. Meetings will strive to educate gardeners on sustainable gardening practices.
5. Gardeners must be involved in the hands-on cultivation of their patches; however family and friends are welcome to share in the responsibility.
6. Gardeners may not pay for someone else to garden their patch.
7. Gardeners and their guests must comply with all rules and regulations.
8. Children must be supervised at all times.
9. Patches should be prepared for planting by April 30.
10. If winter crops are not planted, garden must be free of weeds and dead or unsightly plant materials and a 4" layer of manure or a cover crop **must** be planted by November 30 to help enrich and nourish the soil sustainably.
11. Garden carts and wheelbarrows must be returned and locked when not in use to the designated area.
12. Trellises and other support structures may not exceed a 6' height. Courtesy should be extended to fellow gardeners so as not to shade their patch with structures or plant materials as much as possible.
13. Invasive plants are not allowed in gardens – this includes mint, blackberries, trees of any kind, shrubs over 2' high or other invasive plants that will or could encroach on another patch and would be difficult to remove.
14. The \$75 deposit will be refunded to gardener after patch is surrendered, key is returned and all materials are cleared from patch, including any underground cages or wire, and all plant materials.
15. Gardeners may keep a 20-gallon trash container with lid on within their patch to store supplies and tools. All other tools must be kept off site. In addition, gardeners may keep a home compost bin up to 13 cubic ft in size within their patch. No other storage containers will be allowed.

Updated 12/12/12
Page 2 of 3

16. A designated area has been set aside for composting. This area is maintained by Patch members. Gardeners will chop large material into smaller pieces (nothing larger than 12”) and diseased plants and invasive weeds and seeds will not be placed in compost areas. All patch gardeners are responsible for their own garbage and green waste removal that can not be composted. (Except on pre-designated green waste collections coordinated by the City, when a green waste container will be provided.) Patch gardeners will be responsible for the maintenance/clean up of this area.
17. There are underground pipes running beneath the community gardens. If a pipe breaks, City maintenance staff may have to remove a gardeners patch materials, such as raised beds, plants and soil to repair the pipe. Maintenance staff will not be responsible for returning the garden to its previous state. Gardener may have to repair raised beds and replace soil and plants after a repair.

V. At the Community Garden

Hours of Operation: Daily, from 7:00 a.m. to Sunset

- Gates:** In general, garden gates will be kept closed at all times.
- Behavior:** Foul language or loud offensive behavior is not permitted.
- Cars/Trucks:** Personal vehicles are not permitted in the garden area or on park pathways, for any reason.
- Bathroom:** Proper bathroom facilities (located nearby) must be used.
- Garbage:** Pack it in, pack it out. Discarding of garbage on the ground, in the compost area, or green waste area is strictly prohibited.
- No Selling:** Produce from patches is primarily for family consumption. Excess food can be shared with family, friends and neighbors. You may not sell your produce.
- Harvesting:** Harvest only from your own patch.
- Smoking:** No smoking is permitted in the garden area.
- Controlled Substances:** No alcoholic beverages or illegal drugs of any kind are allowed in the garden area.
- Animals:** Pets are not allowed in the garden area.
- Irrigation System:** No alterations to the irrigation system are permitted. Irrigation system may NOT BE LEFT ON when gardener is not present in the garden. Timers are not allowed, Spigots must be turned off when not in use **and when gardeners leave the community garden area.** Water conservation methods should be utilized by all gardeners whenever possible, **including mulching with straw, leaves or grass clippings and using soaker or drip irrigation hoses.**

VI. City Oversight

The City of Pleasanton and the Director of Community Services reserves the right to modify, change, or alter the above rules and regulations in the best interest of the community.

3 Principles & Practices

I.E. Control pest problems with biological controls

Description

Biological control is the use of living organisms to control pests. Knowing the life cycles of the pest and its enemies is important to maximizing the efficiency of any biological control.

Applications

- Encourage beneficial insects by planting a wide variety of plants that flower throughout the year.
- Introduce natural predators, parasites and beneficial microbes. Parasitic nematodes are effective for control of pests. *Bacillus thuringiensis* (Bt) is a bacterium that kills caterpillars, including those of non-pest moths and butterflies. (Do not use Bt in a butterfly garden.) Compost tea introduces large and diverse populations of microbes that can suppress some leaf and root diseases.
- Buy all biological controls from a reputable source.
- Do not use pesticides, especially broad spectrum pesticides, when using beneficial organisms.
- Goats, used with care, can be an excellent means of controlling poison oak, blackberries and other vegetation and in the process, returning nutrients to the soil.

Benefits

Beneficial organisms feed on or parasitize pests, potentially reducing the cost of purchasing and applying pesticides. Your staff will not be applying dangerous pesticides, which may reduce your liability.

Pesticides to Avoid:

- Metaldehyde
- Pyrethroids
- Disulfoton
- Bifenthrin
- Carbaryl
- Cypermethrin
- Malathion
- Cyfluthrin
-
- Permethrin

Use with Caution:

- Pyrethrins
- Imidacloprid
- Fipronil

SOURCE: KELLY MORAN & MARY LOUISE FLINT.



“I grew up in the nursery business. The older generation had a lot of health issues, a lot of cancer. For ourselves and our own health and safety, we should try to eliminate toxics. Why should a beautiful landscape be purchased with the health of the people who work on it?”

— Glen Schneider, Proprietor, Glen Schneider Gardening, Berkeley



TIPS FOR SUCCESS

Attracting Beneficial Insects

Attract these beneficial insects	By planting these species
Bigeyed bug	Native grasses <i>Polygonum</i> sp. (Silver Lace Vine)
Hoverflies	<i>Achillea</i> sp. (Yarrow) <i>Asclepias fascicularis</i> (Narrowleaf Milkweed) <i>Baccharis</i> sp. (Coyote brush, Mulefat) <i>Ceanothus</i> sp. (California Lilac) <i>Eriogonum</i> sp. (Buckwheat) <i>Prunus ilicifolia</i> (Hollyleaf Cherry)
Lacewings	<i>Ceanothus</i> sp. (California Lilac) <i>Prunus ilicifolia</i> (Hollyleaf Cherry)
Lady beetles	<i>Achillea</i> sp. (Yarrow) <i>Asclepias fascicularis</i> (Narrowleaf Milkweed) <i>Atriplex</i> sp. (Quailbush, Saltbush) <i>Ceanothus</i> sp. (California Lilac) Native grasses <i>Rhamnus californica</i> (Coffeeberry) <i>Salix</i> sp. (Willow)
Minute pirate bug	<i>Achillea</i> sp. (Yarrow) <i>Baccharis</i> sp. (Coyote brush, Mulefat) <i>Eriogonum</i> sp. (Buckwheat)
Parasitic & Predatory Wasps	<i>Achillea</i> sp. (Yarrow) <i>Aesclepias fascicularis</i> (Narrowleaf Milkweed) <i>Eriogonum</i> sp. (Buckwheat) <i>Myoporum</i> sp. (Boobiella)
Tachnid flies	<i>Achillea</i> sp. (Yarrow) <i>Eriogonum</i> sp. (Buckwheat) <i>Heteromeles arbutifolia</i> (Toyon) <i>Myoporum</i> sp. (Boobiella) <i>Rhamnus californica</i> (Coffeeberry)

ADAPTED FROM CORNFLOWER FARMS WILDLAND/AGRICULTURE CATALOG, 2006

REFERENCES & SOURCES

State of California Department of Water Resources

<https://www.water.ca.gov>

Bay-Friendly Landscaping & Gardening Coalition

<http://www.californialandcan.org/local-resources/BayFriendly-Landscaping-and-Gardening-Coalition/23093>

Tenth Acre Farm

<https://www.tenthacrefarm.com>

Stross, Amy, and Becky Bayne. The Suburban Micro-Farm: Modern Solutions for Busy People. Full Color ed., Twisted Creek Press, 2018. ISBN 978-0-9975208-3-5

Veggielution

San Jose, California

Catherine Aisbitt, Operations Manager

(408) 753-6705

Sunflower Hill

Pleasanton, California

Lynn Monica, Director of Sunflower Hill Gardens

(415) 269-7266

Edie Nehls, Executive Director

(858) 405-8164

The Faust Family Farm

Oakdale, California

Carol Faust

(209) 847-4800

Sunol Ag Park

Sunol, California

Susan Ellsworth, Food Systems Specialist

(925) 371-0154 (ext 103)

The Cannery

Davis, California

Shelly Penick, Community Ambassador

(530) 292-6906

Nikademas Ford, Project Manager

(510) 316-2515

Las Positas College

Livermore California

David Everett, Program Coordinator

(925) 485-5208

Urban Adamah

Berkley, California

Corey Block, Farm Manager

(510) 649-1595 x 112

Christopher P. Schlies, Attorney

Pleasanton, California

(925) 462-0444

Allen Lucchesi, Farmer

Oakley, California

100 Kessler Lane

Oakley, California

Jellicles Farm

Sunol, California

Lalitha

Jelliclesinc@gmail.com

Center for Land Based Learning

Winters, California

Julia Michaels

(530) 795-1520

High Ground Organics

Watsonville, CA

Jeanne Byrne

(831) 254-4918

PROJECT SPONSORS:

City of Pleasanton

Brian Dolan, Assistant City Manager
Steve Bocian, Special Advisor, Management Partners

Rotary Club of Pleasanton

Abby 4-H Club, Pleasanton

Community Advisory Committee:
Bob Brown, Chair

DESIGN TEAM:

Jim Jennings Architecture

49 Rodgers Alley
San Francisco, CA 94103
(415) 551-0827
Jim Jennings
Justin Piercy

MacKay & Somps, Civil Engineers

5142 Franklin Dr., Suite 'B'
Pleasanton, CA 94588
(925) 225-0690
Chris Guenther

MD Fotheringham, Landscape Architects

1700 North Broadway, Suite 390
Walnut Creek, CA 94596
(925) 939-8292
Michael Fotheringham
Ben Hu