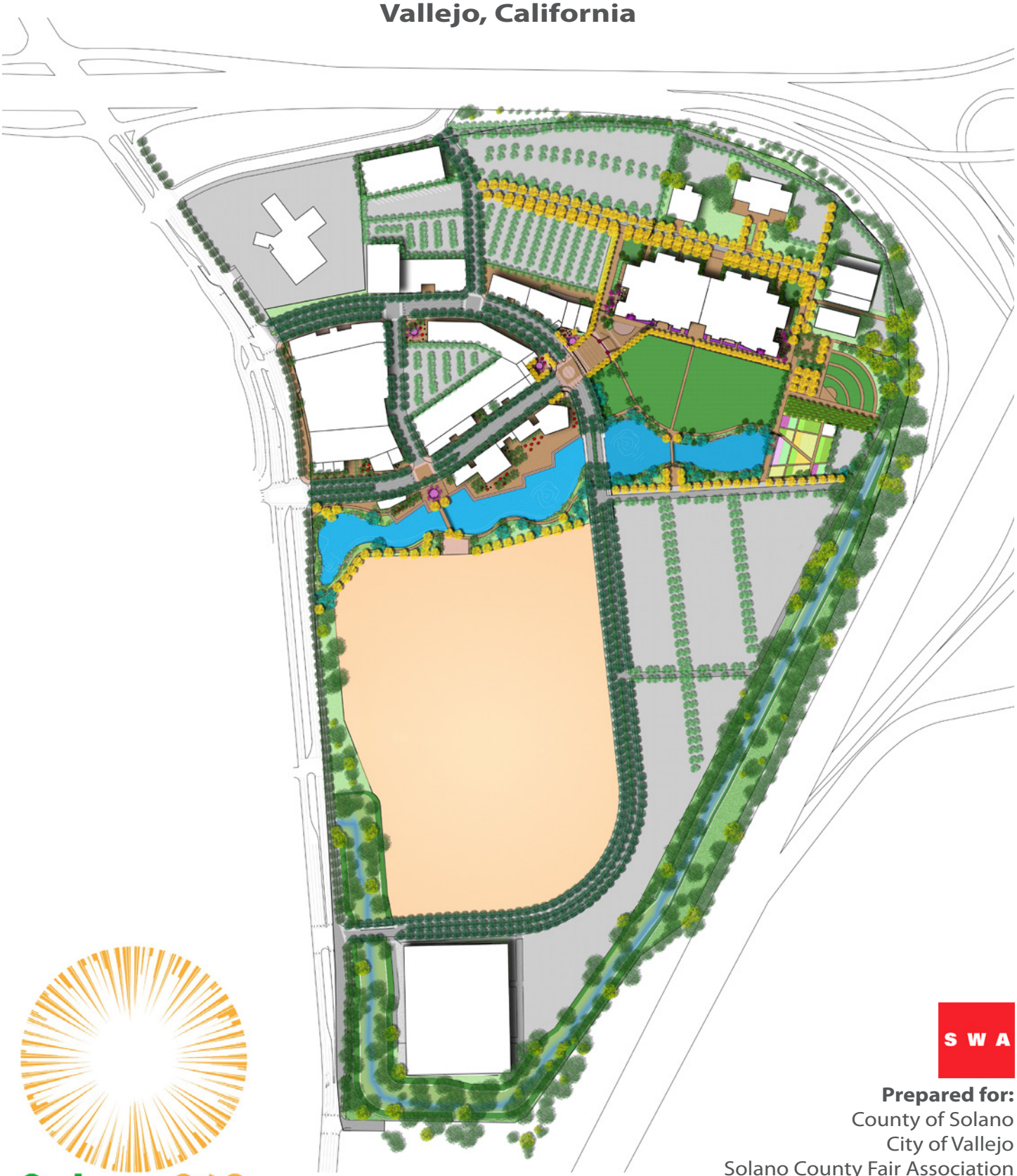
Solano 360
Final Specific Plan
Vallejo, California



Solano360

SWA

Prepared for:
County of Solano
City of Vallejo
Solano County Fair Association
February 26, 2013

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Final Specific Plan
Vallejo, California

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Prepared for:
County of Solano
City of Vallejo
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February 26, 2013
Approved by the Solano County Board of Supervisors on February 26, 2013
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EXECUTIVE SUMMARY

Purpose and Scope

This Solano360 Specific Plan (the "Plan") is a product of a joint effort by the County of Solano ("County"), City of Vallejo ("City"), and the Solano County Fair Association ("Fair Association") to develop a flexible, long-term framework for redevelopment of the Solano County Fairgrounds, a 149-acre County-owned property located at the crossroads of Interstate 80 (I-80) and State Route 37 (SR-37) within the City of Vallejo.

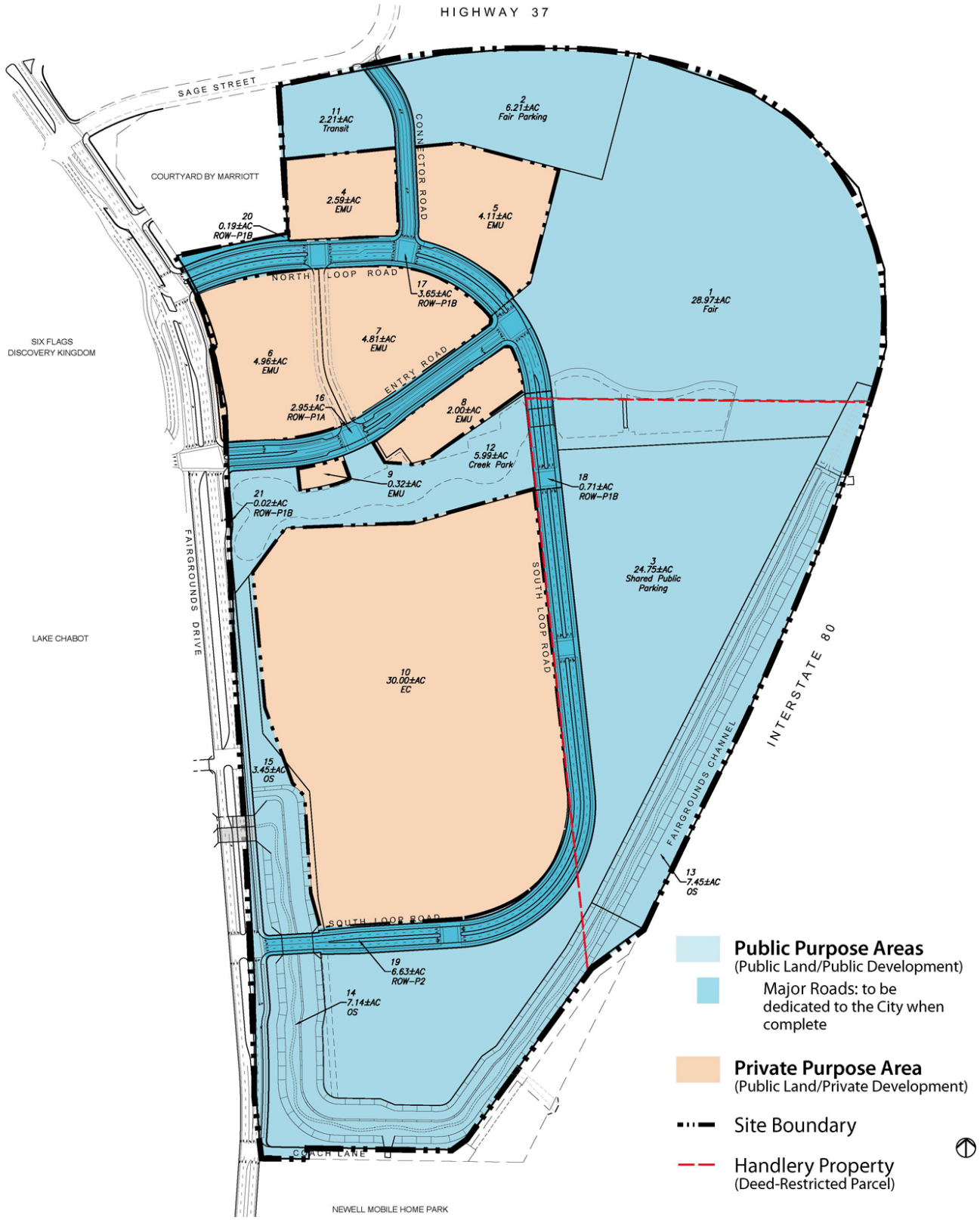
The Plan provides a flexible guide for land use and infrastructure improvements, public and private investments, and long-term, phased revitalization over the next 25 years. In addition, the Plan ensures consistency with the City of Vallejo General Plan, provides the basis for environmental review and subsequent entitlements, and supports County and City future actions as follows:

- **County of Solano -** this document serves as a master plan for development of Public Purpose Areas consisting of a new "Fair of the Future," an iconic, landmark destination that renews the 63-year heritage of the Solano County Fair, along with associated open space, parking, transit, and roadways. The Public Purpose Areas are proposed for primarily public purposes associated with the Solano County Fair and will be exempt from the City's land use authority.
- **City of Vallejo** – this document serves as a Specific Plan and Master Plan that satisfies requirements under the Vallejo Municipal Code (VMC), Title 16. It will provide flexible planning and design provisions for proposed mixed-use development to be undertaken for private, revenue-generating purposes, subject to the City's land use authority. The Private Purpose Areas of the Specific Plan are proposed for private development and will require a General Plan Amendment and Zoning Map Amendment, processed concurrently with this Plan.

The Solano360 Committee, a joint County-City-Fair Association group comprised of representatives from Solano County Board of Supervisors, City of Vallejo City Council, and Solano County Fair Association Board, provided direction for community outreach, planning and design principles, and implementation. Preparation of the Plan included a market study, a Public Facilities Financing Plan, a Fiscal Impact Analysis, a City of Vallejo General Plan Amendment, and technical evaluation of the proposed water feature.

Since 1949, the Solano County Fair Association has operated the annual County Fair on the property. Year-round activities include satellite wagering and a robust and diverse calendar of public and private events. Parking utilizes significant portions of the overall site, and drainage corridors form the eastern, southern and western boundaries. The 27-acre "Handlery Parcel" is limited by deed restriction to use for Fair and public purposes. Fairgrounds Drive provides primary access. Neighboring uses include Lake Chabot, the Six Flags Discovery Kingdom theme park, the Newell Mobile Home Park, and the I-80 and SR-37 corridors.

In conformance with CEQA, the Solano360 Environmental Impact Report (EIR) evaluated impacts associated with the project. The Plan and EIR were prepared concurrently so that project design could address and mitigate environmental conditions and constraints.



Public & Private Purpose Areas

Solano360 Vision

The proposed Solano360 project aims to redevelop the Plan Area by integrating a revitalized County Fairgrounds—the "Fair of the Future", an iconic, region-serving public entertainment destination—with private mixed-use development. A public Visioning Process, conducted in 2008-2009, established the following Guiding Principles, which were jointly adopted by the Board of Supervisors, the City Council and the Fair Association Board to govern the development of the Solano360 project:

- Generate revenues for Solano County and the City of Vallejo, create jobs and ensure long-term economic sustainability.
- Establish a unique place with an unmistakable identity that serves as a destination for visitors as well as a pedestrian-friendly, community gathering place.
- Explore a mix of complementary land uses, including retail, commercial, hospitality, recreational, residential, family and youth oriented, educational and civic uses that seamlessly integrate with the Fair of the Future.
- Explore increased physical connectivity and synergy with Six Flags Discovery Kingdom, downtown Vallejo, the waterfront and other existing commercial operations.
- Provide pedestrian, bicycle, vehicular and transit facilities that foster access to, from and within the site.
- Incorporate sustainable and green principles in all aspects of the development.

Land Use and Phasing

The Plan proposes a mix of region-serving entertainment and amusement attractions, along with complementary restaurant, retail and hospitality uses, that builds on the presence of the existing Six Flags Discovery Kingdom facility and Solano County Fairgrounds. The intent is to create a seamless integration of public and private areas, including Fairgrounds facilities and private mixed use development.

The land use mix allows a range of entertainment options and supporting commercial and residential uses that support the heritage of the Solano County Fair and facilitates logical and cost-effective implementation. The Plan targets opportunities for revenue generation and job creation; project amenities that establish an appealing visitor destination; a circulation system that manages parking demand and encourages pedestrian connections; and sustainable principles for landscape, infrastructure and building systems.

The Plan designates land use areas, as follows:

- **Fair**: 35 acres for the revitalized Solano County Fairgrounds area, or Fair of the Future, including built and open space venues and parking. In Phase 1, the new Exposition Hall provides approximately 50,000 net square feet of exposition space (approximately 72,000 gross square feet) to replace the existing Exposition Hall building. Phase 3 expansion would double the size of that facility. Site improvements include a new water feature, demonstration farm, arrival plaza and midway/event lawn. Parking facilities expand on a phased basis to serve events and activities at the Fair.
- **Transit/North Parking Center**: 2.2 acres for a transit and parking facility in the northwest area of site, with surface parking in Phase 1 and a parking structure constructed as part of Phases 2.
- **Parking and Roads**: 24.7 acres for major roadways and shared public parking to support the continuing viability of entertainment uses within and near the Plan Area. Phase 1 makes use of existing surface parking areas. Phase 2 improves surface parking lots to serve approximately 2,600 cars. In Phase 3, a multi-level parking structure replaces the southern portion of the shared public surface parking to support higher intensity development.

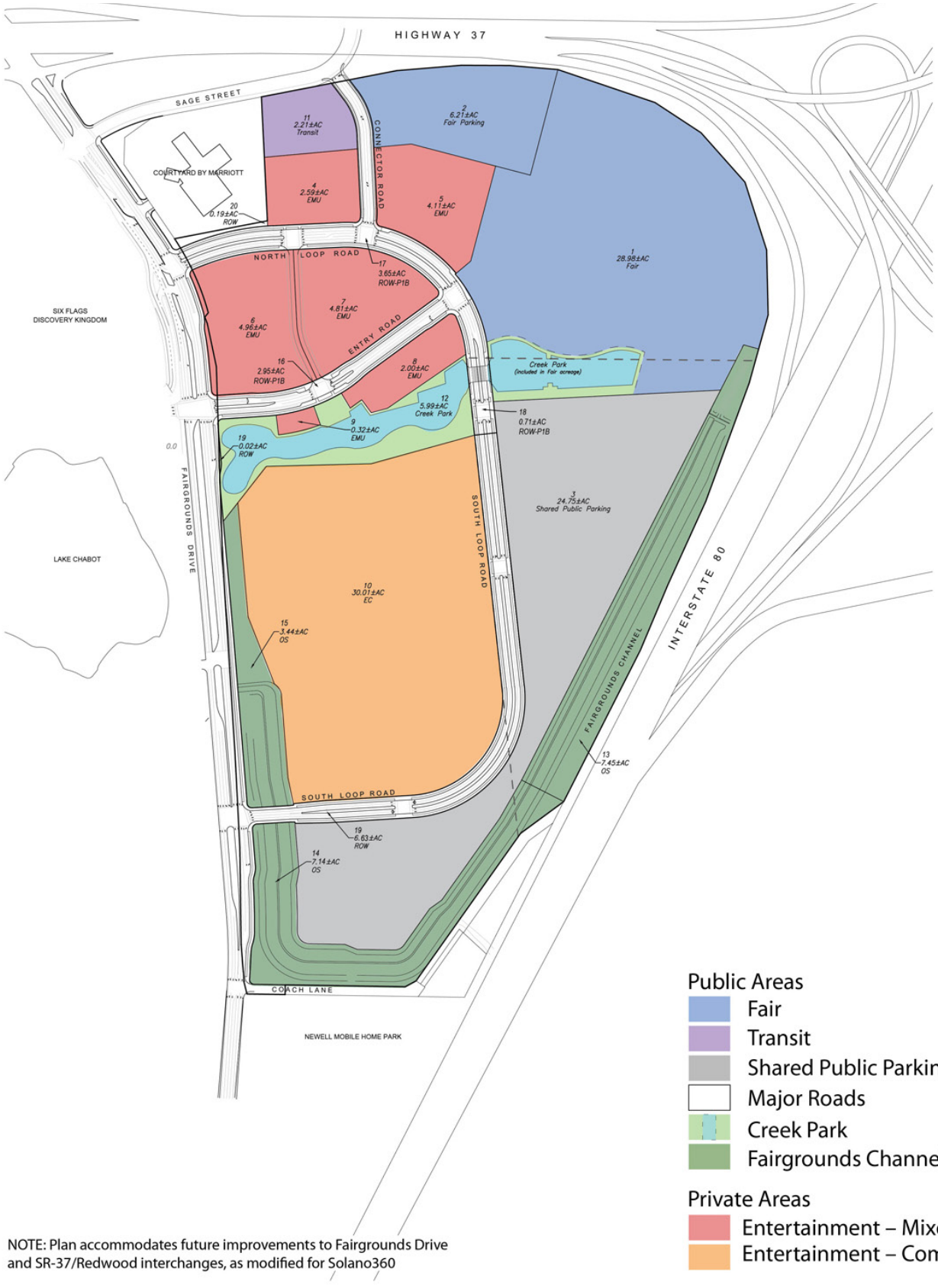
- **Open Space:** Six acres for the Creek Park and its water feature that form the spine of the "Public Entertainment Core" connecting the Fair of the Future with mixed use development areas, Entry Road, and Fairgrounds Drive. The water feature provides a visual amenity and water quality feature for onsite stormwater. In addition, the 17.9-acre Fairgrounds Channel alleviates existing flooding problems within the Plan Area and provides opportunities for riparian/ wetland habitat and trails.
- **Entertainment-Mixed Use (EMU)**: 18.8 acres for entertainment-oriented commercial uses, such as "Family Entertainment Centers", and associated restaurant and retail activities. EMU parcels are clustered in the northern portion of the site near the Creek Park water feature and Entry Road. Buildings are expected to consist primarily of ground-floor commercial (retail, restaurant, or entertainment) uses with possible incidental office and/or residential space occupying upper stories. Parking is provided within the EMU areas and on major roads. In Phase 3, a parking structure allows intensification of EMU uses from 0.2 to 0.4 FAR.
- **Entertainment Commercial (EC)**: 30.0 acres for a major entertainment use that requires a large undivided site. The Plan locates this parcel on the west side of the site, with primary vehicular access from the South Loop Road/Fairgrounds Drive intersection. Entertainment Commercial structures, outdoor rides, and other entertainment attractions are expected to be concentrated in the northern portion of the parcel in order to increase visibility and make best use of the Creek Park amenity. In Phase 2, parking is expected to be located within the southern portion of the parcel. In Phase 3, the EC venues could expand by making use of the shared public parking structure.

Land Use Program

LAND USES	Acres	Building Square Feet	Housing Units	Parking Stalls
Public Development Areas				
Fairgrounds	35.2	149,500		775
Transit/North Parking Center Bus Docking	1.1			
Transit/North Parking Center Parking Structure	1.1	121,600		380
Shared Public Parking Structure	5.0	800,000		2,500
Shared Public Surface Parking	19.7			1,980
Creek Park (w/water feature)	6.0			
Fairgrounds Channel (peripheral drainage)	17.9			
Major Roads	14.3			73
SUBTOTAL FOR PUBLIC DEVELOPMENT AREAS	**100.3**	**1,071,100**		**5,708**
Entertainment Mixed Use (EMU)	18.8	327,571		804
EMU Parking Structure (included in EMU area)		320,000		1,000
Residential (included in EMU area)[1]			50	
Entertainment Commercial (EC)[2]	30.0	n/a		750
SUBTOTAL FOR PRIVATE DEVELOPMENT AREAS	**48.8**	**647,571**	**50**	**2,554**
TOTALS	**149.1**	**1,718,671.2**	**50**	**8,262.0**

Table Notes:

1. Housing is allowed within EC or EMU as a Conditional Use Permit from the City of Vallejo (see land use policies).
2. Square foot totals do not include Entertainment Commercial uses, which may include both outdoor venues and buildings. EC parking assumes 750 onsite surface spaces and 1,250 Shared Public Parking spaces at build-out (see parking program).
3. Shared Public Parking serves the Fair and other entertainment venues; includes 19.7 acres of surface parking and a 5-acre (2,500 car) parking structure (see parking program).
4. Square footages include parking structures as noted.



NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

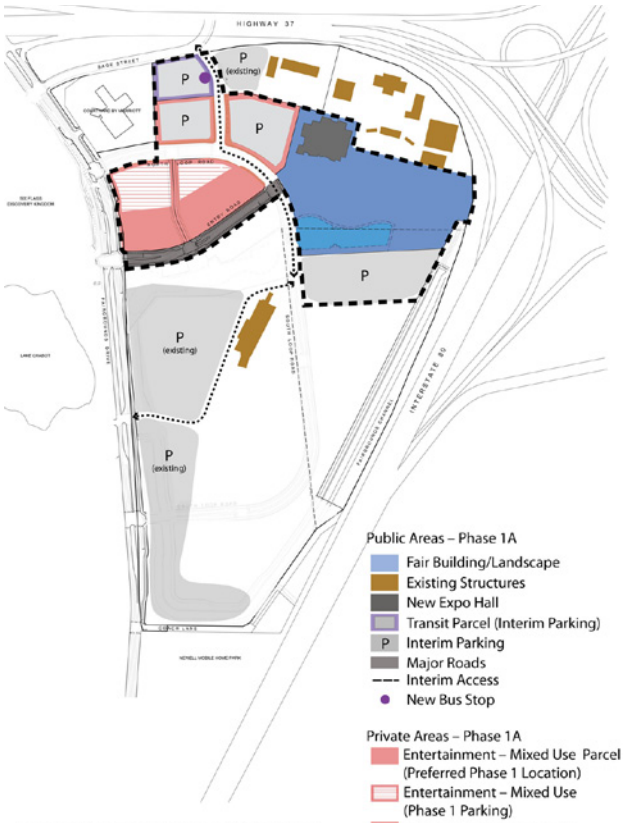
Land Use Plan

Within the private development areas (EMU and EC parcels), the Plan allows up to 220,000 square feet of office space as a permitted use and up to 50 housing units as a conditionally permitted use. These uses would substitute for other private development uses on a square foot basis.

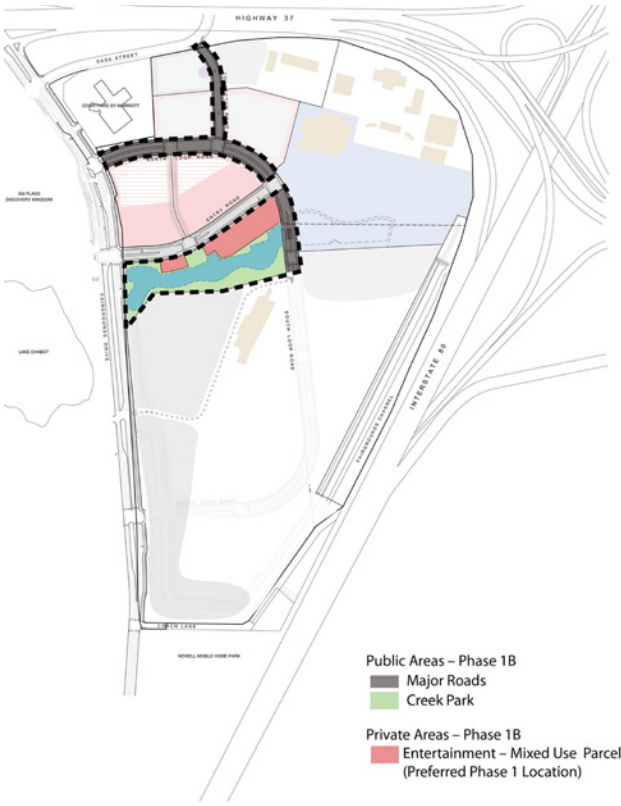
Project phasing is designed to be flexible while establishing a strong initial character for the project, providing logical and cost-effective infrastructure investments, supporting development of the Fair of the Future and enhancing marketability. Phase 1 projects establish a strong and appealing sense of place through construction of the Creek Park, Entry Road, and Exposition Hall with outdoor venues. Project phasing coordinates levels of development intensity with required infrastructure including improvements to the SR-37/Fairgrounds Drive interchange.

The proposed phasing of major uses may be summarized as follows:

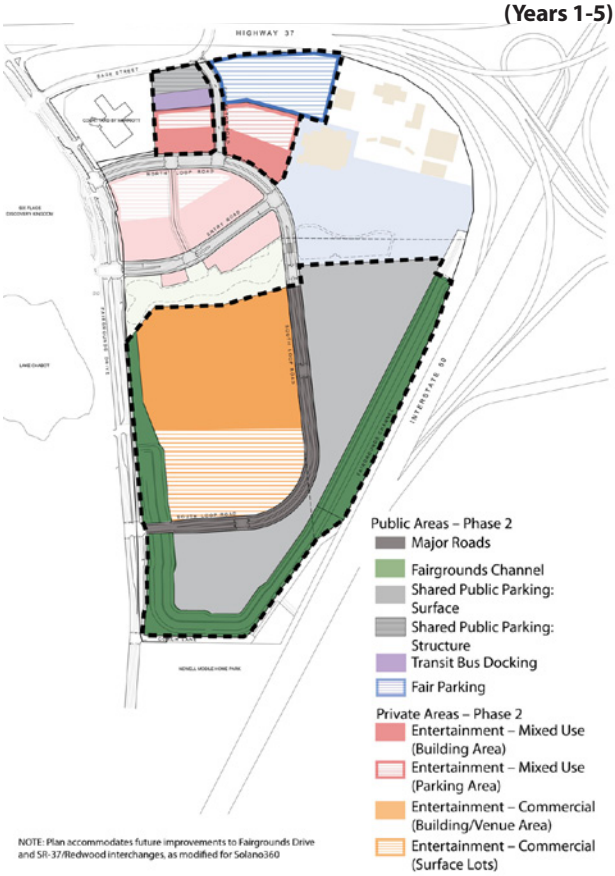
- **Phases 1a and 1b (years 1-5**): Upgrading and expansion of the Fairgrounds including the new Exposition Hall, outdoor venues, and public amenities in the Entertainment Core; creation of Entertainment-Mixed Use venues and facilities that may be feasible in the near term.
- **Phase 2 (years 6-15):** Creation of a larger parcel for a major Entertainment-Commercial user and additional Entertainment-Mixed Use development; build-out of the Plan Area at a density supported by surface parking.
- **Phase 3 (years 16-25):** Further intensification of Fairgrounds venues and Entertainment-Mixed Use and Entertainment-Commercial development along with expanded structured parking facilities.



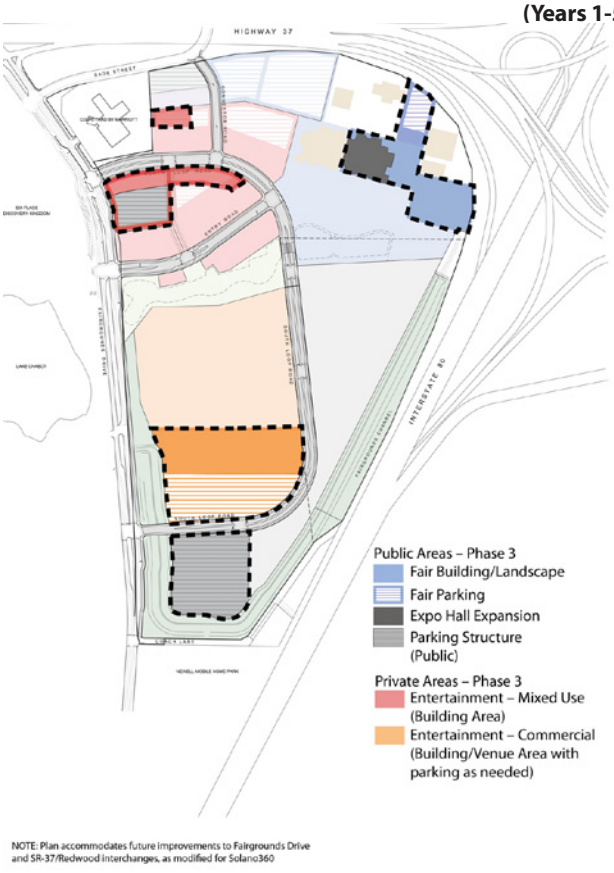
Phase 1A Projects
(Years 1-5)



Phase 1B Projects
(Years 1-5)



Phase 2 Projects
(Years 6-15)



Phase 3 Projects
(Years 16-25)

Design Character

The Plan sets forth urban design concepts and guidelines to shape and facilitate redevelopment of the Plan Area, consistent with the Guiding Principles and land use provisions described above.

Key to overall character is the Public Entertainment Core, envisioned as a lively, mixed use entertainment corridor. The Core includes the Creek Park with its water feature, promenades, plazas and pedestrian bridges; the thematic "Main Street" or Entry Road aligned with Creek Park; and the Fair of the Future with arrival plaza and midway/event lawn with terraced seating.

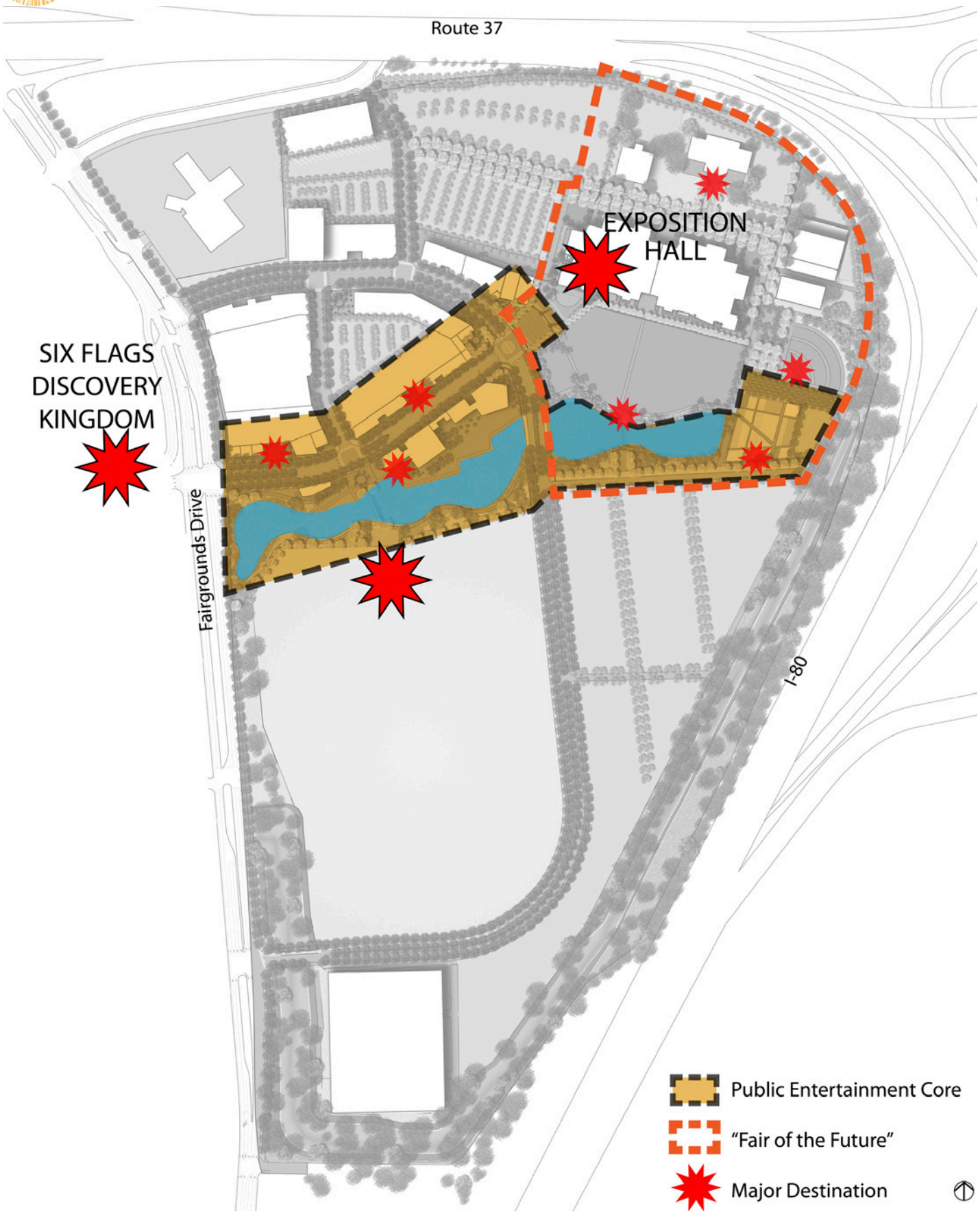
The Plan proposes tree-shaded sidewalks and streets to reinforce a pedestrian-friendly character and complement a system of trails within the Creek Park, along Fairgrounds Channel, and within the Fair. The Creek Park forms a new open space corridor with waterfront promenades, picnic areas, lawn terraces, water view plazas, wetlands, and bridges. Consistent treatment of landscape, street character including plazas and paving, site drainage, parking, signage and lighting, walls and fencing, and loading/service areas reinforce a strong and appealing environment for both public and private uses.

The Fair of the Future is a focus for design, due to the impact of Phase 1 facilities on the image of Solano360 as a whole. The Plan replaces the existing Expo Hall with a new Exposition Hall offering approximately 50,000 net square feet of exhibition space in a highly marketable venue integrated with the existing fair concourse and other facilities. This flexible space can be subdivided to accommodate a range of events including conventions, consumer shows, festivals, large parties, and other special events.

Fair Illustrative Plan - Phase 1
Building areas depicted here are conceptual only.

Illustrative Plan

Building areas depicted here are conceptual only.



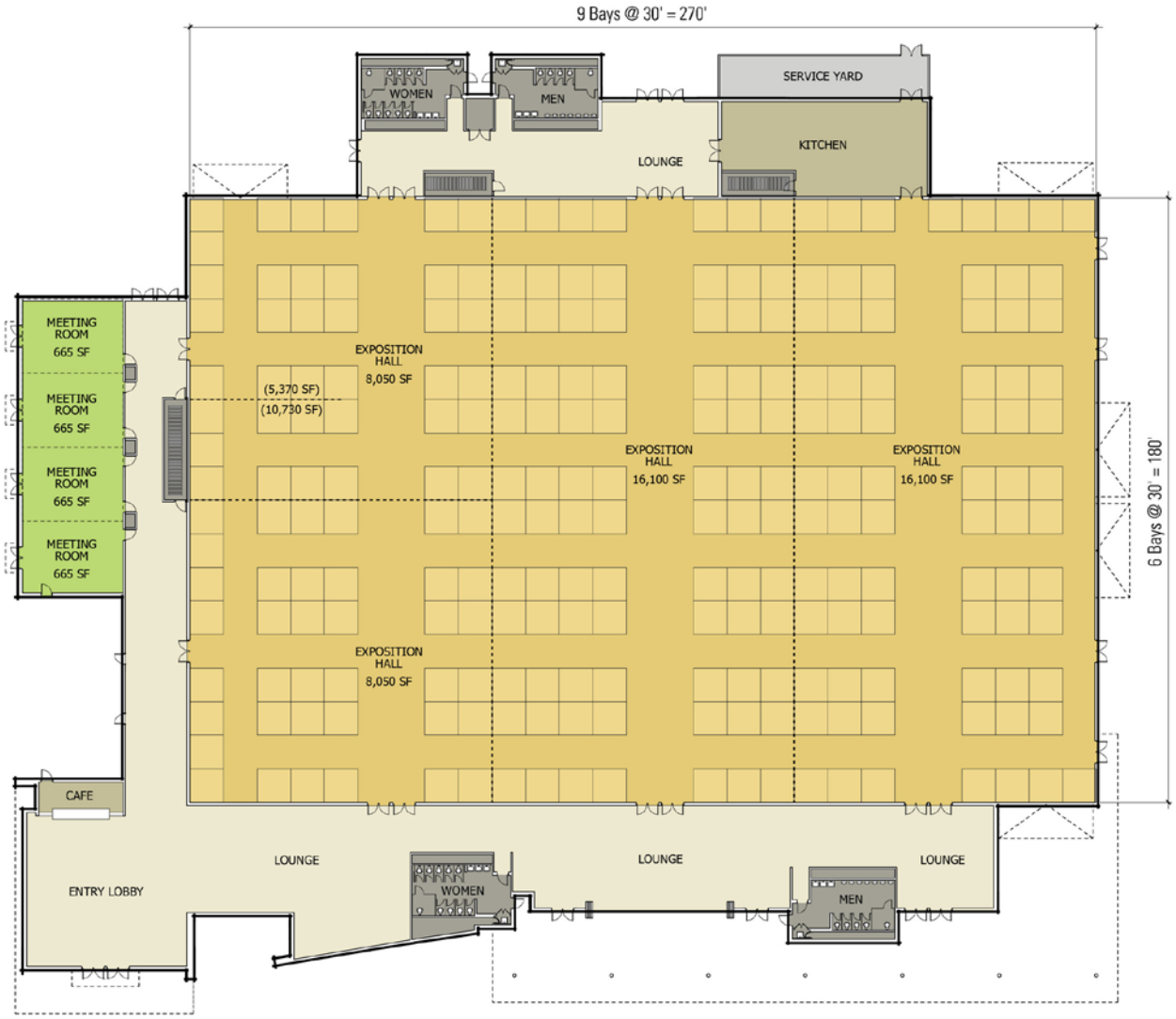
Public Entertainment Core

Building areas depicted here are conceptual only.

The Exposition Hall also provides lobbies, circulation, meeting rooms, kitchen, storage of movable wall panels, and restrooms for a total of 72,000 square feet. The building's conceptual design represents a functional, economical building design that provides an architecturally distinct and compelling landmark facility.

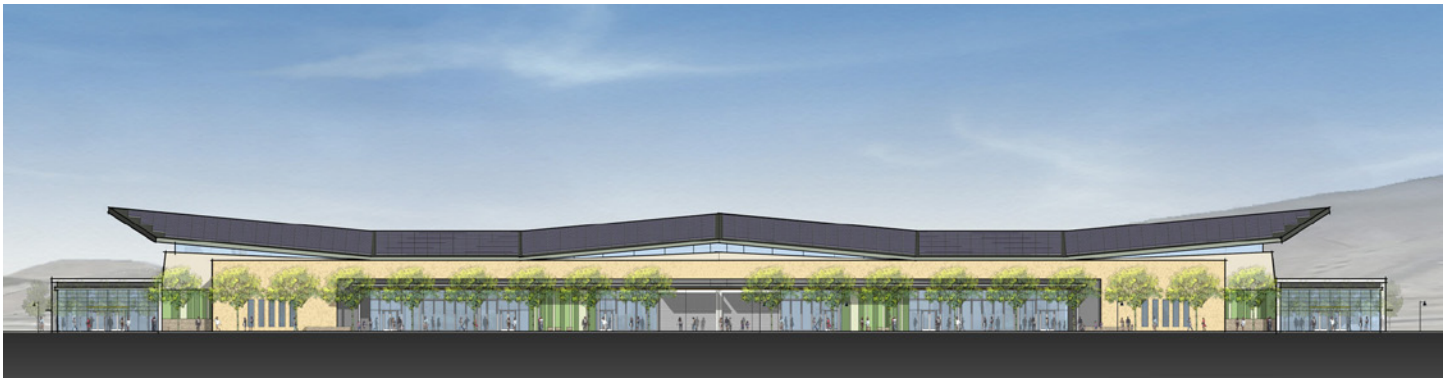
New outdoor spaces reinforce the Fair as an event and recreational destination. These include an arrival plaza at the eastern terminus of the Entry Road, with portable ticket booths and a major gateway feature; rain gardens and plazas around the Exposition Hall; a four-acre midway/event lawn between the hall and the water feature; and a demonstration farm at the eastern end of the waterway. With expansion of the Exposition Hall in Phase 3, a new amphitheater replaces the existing outdoor concert hall.

The Plan describes fencing and gates to secure the Fairground perimeter during events while maintaining an open, park-like appearance. It provides guidelines for private purpose areas to ensure a high quality, unified character between the "Fair of the Future" and thefor Entertainment Mixed Use and Entertainment Commercial development, with sustainable measures for site and building design, health, water quality, transportation, and energy.



Exposition Hall –Schematic Floor Plan

Arrival Plaza Perspective



South Elevation
(Buildout Condition)

East Elevation
(Buildout Condition)

South Lobby Perspective

Transportation and Infrastructure

The Plan Area gains access from adjacent freeways (I-80 and SR-37) via Fairgrounds Drive. To minimize traffic impacts, project phasing is tied to Solano Transportation Authority (STA) plans for Redwood Parkway/Fairgrounds Drive Improvement Project. As a result, the Phase 1 level of development is configured to avoid the need for off-site transportation improvements; subsequent phases are also linked to the capacity of off-site facilities.

Three intersections on Fairgrounds Drive and one on Sage Street provide access into the Plan Area. The Entry Road connects from the existing signalized intersection, located on Fairgrounds Drive opposite the entrance to Six Flags Discovery Kingdom, to the Fair's new arrival plaza. This establishes the Entry Road as a thematic "main street" with wide sidewalks and retail frontages. The Loop Road provides primary site circulation, connecting to Fairgrounds Drive at two locations. The Sage-Loop Connector Road serves service and transit vehicles.

A system of traffic calming, pedestrian, and bicycle features encourages non-vehicular circulation. Parking includes Phase 1 surface lots and interim parking; Phase 2 construction of the Transit/North Parking Center structure and paved surface lots within Shared Public Parking, the Fairgrounds, and private development areas; and Phase 3 construction of parking structures within both the Shared Parking and EMU areas. A Parking Operations Management Plan will be developed by the County to address parking facilities, joint-use, and scheduling. Travel Demand Management measures and a Fairgrounds Events Management Program will define strategies to avoid traffic congestion on peak event days.

In addition to transportation, the Plan proposes cost-effective infrastructure improvements for storm drainage (including grading), potable and non-potable water, wastewater, electricity, natural gas, telecommunications, wireless communications, and waste management. Existing utilities within the fair concourse area will remain in-place, but will be connected to new infrastructure along the Sage-Loop Connector Road.

Proposed drainage improvements will remove the Plan Area from the flood plain and address high off-site flows from the east and south by placing fill material in the northern end of the Plan Area and

enlarging the existing Fairgrounds Channel. These measures will also alleviate flooding at the Newell Mobile Home Park.

Sustainable infrastructure measures include harvesting runoff for onsite irrigation, installation of a non-potable water system within backbone roadways, and possible installation of wastewater facilities under surface parking areas.

Implementation and Administration

The Plan includes strategies and actions to be undertaken by the County and City to achieve high quality Private Purpose Area and Public Purpose Area development. These measures include definition of Public Purpose Areas, which are owned by the County and utilized for a public purpose, and are exempt from City land use authority.

The Solano360 development strategy assumes that the County will have the following Property Owner responsibilities in addition to any set forth in the Conditions of Approval.

- The County and City will enter into a Development Agreement/Implementation MOU.
- The County may issue an RFP for a single Developer or multiple Developers for the site. Such agreement(s) may include a ground lease of land.
- The County, or its Developer(s), will have responsibility for constructing all "horizontal development" (including grading, roads, and utilities) necessary to serve the Plan Area. Major roads will be built by the County and dedicated to the City of Vallejo once constructed to City standards.
- The County, or its Developer(s), will have responsibility for the preparation of finished pads for the EMU and EC parcels.
- The County, or its Developer(s), may seek others to develop the vertical buildings on the EMU and/or EC parcels, or may "build to suit" (develop, maintain and manage).
- The County, or its Developer(s), will sub-lease the EC and EMU parcels.
- EC and EMU end-users will build vertical improvements, or the County, on its own or through its Developer(s), will build-to-suit.

The County/Fair Association and the City will enter into agreements necessary for successful implementation, including the Implementation Memorandum of Understanding (MOU), Development Agreement, and Cost and Revenue Sharing Agreement.

The Plan is consistent with the land use policies and objectives contained in the City of Vallejo's General Plan, as amended to incorporate the Land Use Map and specifications. The Plan converts the property to the City of Vallejo Zoning Designation of Mixed-Use Planned Development (MUPD). Development within Private Purpose Areas will be subject to the City's regulatory and review process including preparation of Unit Plans, Subdivision Maps, and additional actions. Implementation of Public Purpose Area projects will be the primary responsibility of the County and will require full compliance with applicable building codes, ordinances and other regulatory authorities.

The Solano360 Specific Plan EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) and provides environmental clearance on County and City approvals. Proposed private and / or public development may require additional environmental review and documentation in accordance with CEQA depending on the extent of consistency of the specific proposed development to the type and extent of development analyzed in the Specific Plan EIR.

CHAPTER ONE: INTRODUCTION

1.1 OVERVIEW

1.1.1 Purpose

This Solano360 Specific Plan (the "Plan") is a product of a joint effort by the County of Solano ("County"), City of Vallejo ("City"), and the Solano County Fair Association ("Fair Association") to develop a flexible, long-term framework for redevelopment of the Solano County Fairgrounds, a 149-acre County-owned property located at the crossroads of State Route 37 and Interstate 80 within the City of Vallejo (see Figure 1.1).

The Plan is intended to guide land use and infrastructure improvements, coordinate public investments, facilitate private investment, and support successful long-term, phased revitalization over the next 25 years while retaining the ability to respond to market conditions and development opportunities. In addition, the Plan ensures consistency with the City of Vallejo General Plan and provides the basis for environmental review and subsequent entitlements.

The Solano360 Specific Plan and Environmental Impact Report ("EIR") provide the foundation for future actions by both the County and City, as follows:

- County of Solano - this document serves as a master plan for development of Public Purpose Areas consisting of a new "Fair of the Future," an iconic, landmark destination that renews the 63-year heritage of the Solano County Fair, along with associated open space, parking, transit, and roadways. The Public Purpose Areas, as shown on Figure 1.2, are proposed for primarily public purposes associated with the Solano County Fair and will be exempt from the City's land use authority.
- City of Vallejo – this document serves as a Specific Plan and Master Plan that satisfies requirements under the Vallejo Municipal Code (VMC), Title 16. It will provide flexible planning and design provisions for proposed mixed-use development to be undertaken for private, revenue-generating purposes, subject to the City's land use authority. The Private Purpose Areas of the Specific Plan, as shown on Figure 1.2, are proposed for private development and will require a General Plan Amendment and Zoning Map Amendment, processed concurrently with this Plan (see Appendix D and Section 7.4.1).

Figure 1.2: Public & Private Purpose Areas Diagram indicates the portions of the Plan Area that will be developed for primarily public purposes, as described above ("Public Land/ Public Development") and the portions of the Plan Area that will be developed for private, revenue-generating purposes, subject to City land use authority ("Public Land/Private Development"). It also shows the boundaries of the Handlery parcel that is limited by deed restriction to use for Fair and public purposes.

1.1.2 Organization and Terminology

The following chapters of this document address site context, land use and phasing, design, transportation, site infrastructure and implementation.

The Plan process also included preparation of the Solano360 Public Facilities Financing Plan and the Solano360 Fiscal Impact Analysis. Executive Summaries of these reports are included as Appendices B and C of this document, and the entire reports are available separately. Other Plan appendices provide technical information as referenced in the List of Appendices above.

Unless otherwise stated, terminology used throughout this Plan is as follows:

- "Solano360" refers to the overall project and proposed development described in this

document, including Public and Private Purpose Areas.

- "Plan Area" refers to the total 149.1-acre land area addressed in this document, as depicted on Figure 3.1: Land Use Plan.
- "Plan" refers to this Solano360 Specific Plan.
- "EIR" refers to the Solano360 Specific Plan Environmental Impact Report.
- "General Plan" refers to the City of Vallejo General Plan.
- "County" refers to Solano County.
- "City" refers to the City of Vallejo.
- "Fair Association" refers to the Solano County Fair Association.
- "Fair of the Future" refers to the revitalized Solano County Fairgrounds.
- "VMC" refers to the City of Vallejo Municipal Code.

1.2 SOLANO360 VISION

The proposed Solano 360 project aims to integrate the revitalized County Fairgrounds—the "Fair of the Future", an iconic, region-serving public entertainment destination—with private mixed-use development. The project incorporates planning and analysis under the direction of the Solano360 Committee, a joint County-City-Fair Association group comprised of representatives from Solano County Board of Supervisors, City of Vallejo City Council, and Solano County Fair Association Board.

A public Visioning Process, conducted in 2008-2009, provided a foundation for this Plan. The Visioning Process established the following Guiding Principles, with joint approval by the Board of Supervisors, the City Council and the Fair Association Board.

- Generate revenues for Solano County and the City of Vallejo, create jobs and ensure long-term economic sustainability.
- Establish a unique place with an unmistakable identity that serves as a destination for visitors as well as a pedestrian-friendly, community gathering place
- Explore a mix of complementary land uses, including retail, commercial, hospitality, recreational, residential, family and youth oriented, educational and civic uses that seamlessly integrate with the "Fair of the Future".
- Explore increased physical connectivity and synergy with Six Flags Discovery Kingdom, downtown Vallejo, the waterfront and other existing commercial operations.
- Provide pedestrian, bicycle, vehicular and transit facilities that foster access to, from and within the site.
- Incorporate sustainable and green principles in all aspects of the development.


1.3 PLANNING PROCESS

1.3.1 Background

The Solano360 project represents a coordinated effort between Solano County, City of Vallejo, and Solano County Fair Association.

In 2008, in recognition of the project's prominent location and significance, Solano County initiated a public Visioning Process that encompassed intensive community outreach, planning, and analysis under the direction of the Solano360 Committee, a joint County-City group comprised of members of the Solano County Board of Supervisors, the Vallejo City Council, and Solano County Fair Association.

With input from community workshops, the process produced a Project Vision (*Solano360 Vision Report*, 2009) for a diverse and future-oriented program of uses to be developed over time. The defining features of the Project Vision were the Public Entertainment Zone and the Fair of the Future areas, envisioned to be well-integrated on the site and complementary to Six Flags

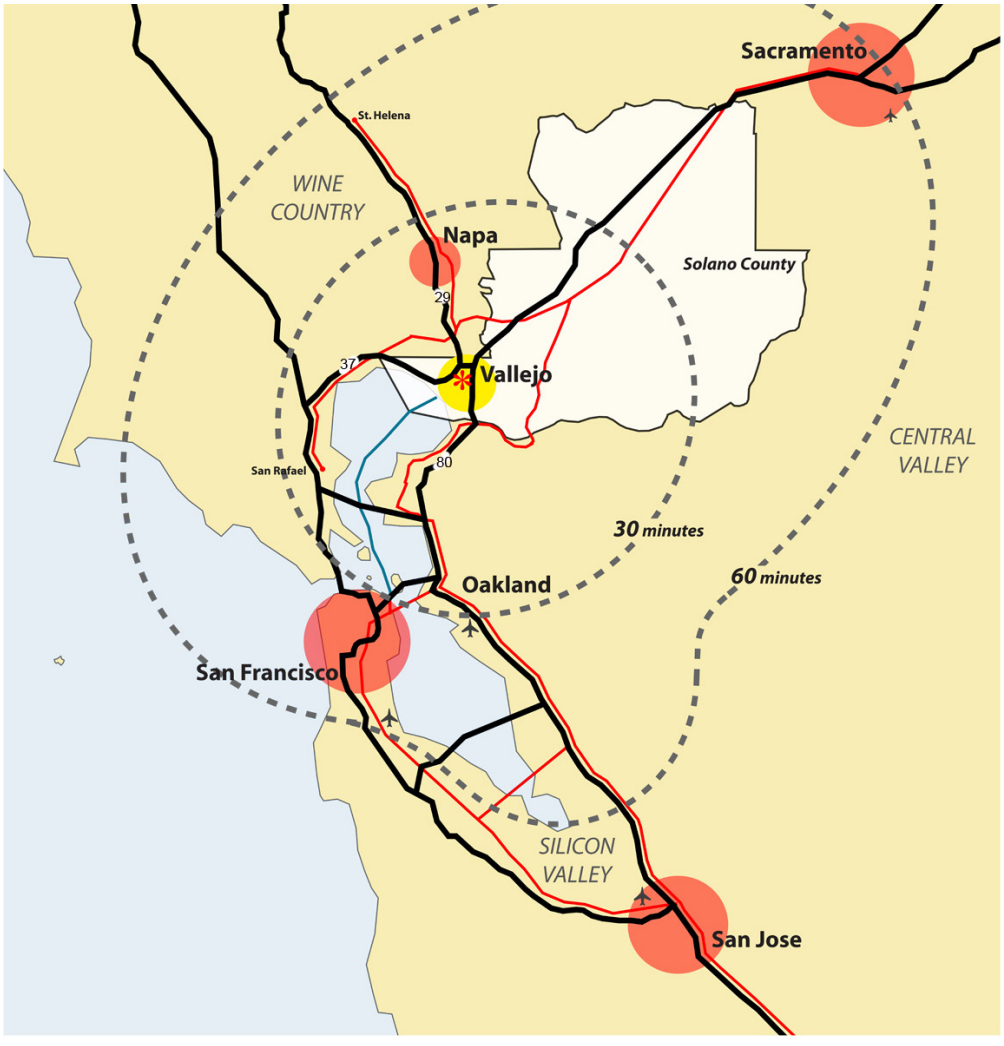


Figure1.1: Regional Location

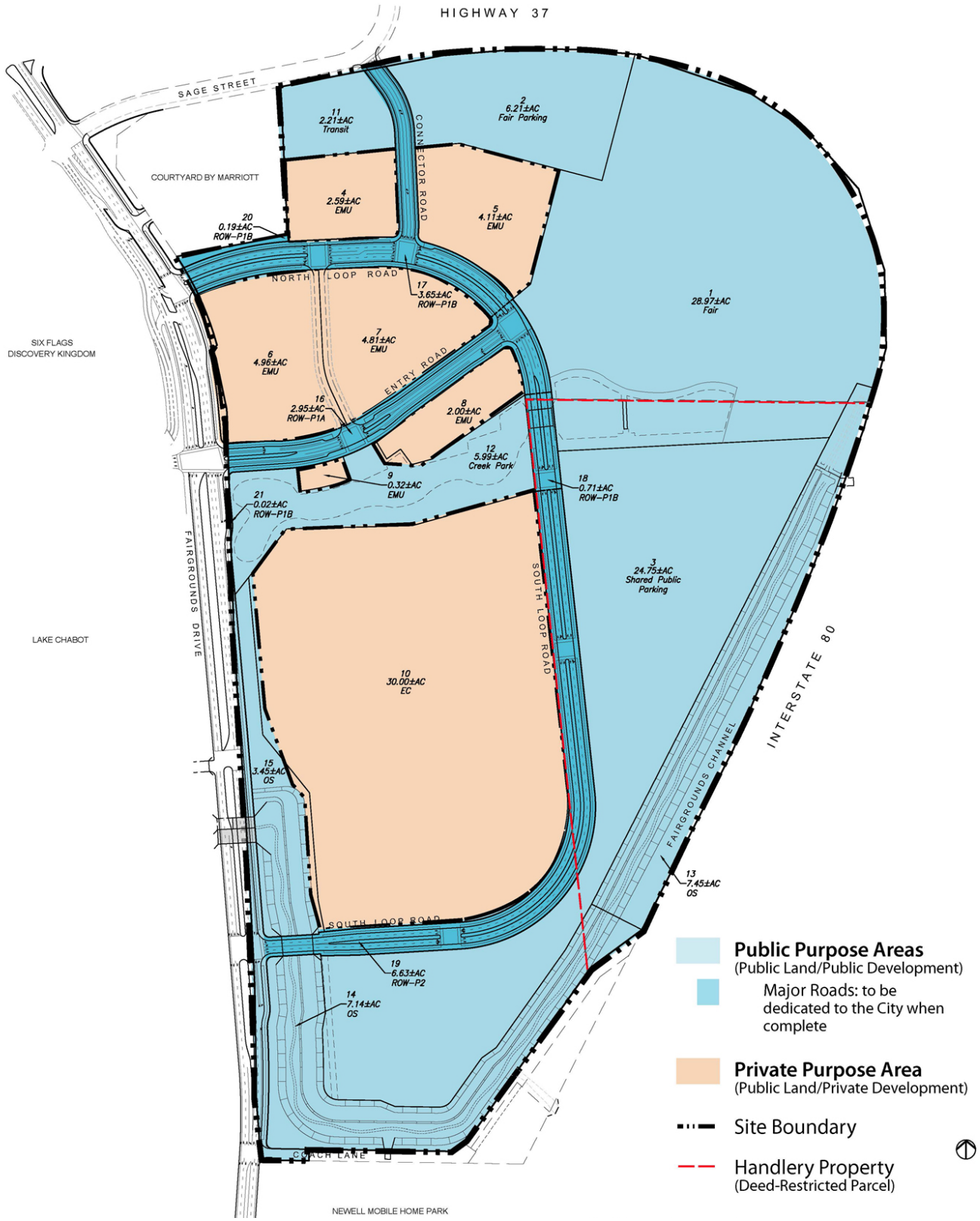


Figure 1.2: Public & Private Purpose Areas

Discovery Kingdom, located to the west across Fairgrounds Drive. Sports fields, a transit center and a mix of hospitality, office and retail uses made up the balance of the Project Vision.

To provide structure for entitlements and development of the Project Vision, the City, the Vallejo Redevelopment Agency (which has since been eliminated under State law) and the County executed an Amended and Restated Memorandum of Understanding (MOU) on February 9, 2010 (as further amended on February 1, 2011). Based on the MOU, the County, City, and Fair Association have worked in partnership to prepare this Plan and a concurrently prepared EIR.

One of the important tasks of the Solano360 Specific Plan process was to effectively engage in a public information process. This included community outreach through a series of public meetings, email notifications, and access to Solano360 Committee agendas, reports and other materials made available through a link to the Solano360 project on the County's main website (www.solanocounty.com).

1.3.2 City of Vallejo Entitlements

As provided by California State Government Code §65450-65457, the Solano360 Specific Plan establishes policies that will govern future uses in the Plan Area and implement the policies of the City's General Plan. In addition, this Plan has been prepared in accordance with Chapter 16.104 of the City of Vallejo Zoning Ordinance that establishes local procedures for specific plans and master plans.

The Specific Plan must be consistent with the Vallejo City General Plan and Zoning. The General Plan land use designation prior to the adoption of this Plan was "Community Park", and the zoning designation for the Plan Area was "Public Facilities". A discussion of consistency with the General Plan and Zoning and a description of pertinent General Plan policies is provided in Chapter 7: Implementation and Appendix D: City of Vallejo General Plan Amendment.

1.3.3 CEQA and Required Approvals

The Solano360 Specific Plan is subject to the California Environmental Quality Act (CEQA) statutes and guidelines. The Plan and EIR were prepared concurrently, so that project design could consider, address and mitigate existing environmental conditions and constraints including traffic, parking, water quality and flood control.

Project approvals and entitlements include the following:

- As the lead agency, the County Board of Supervisors certifies the EIR and approves the Plan as a master plan for the Public Purpose Areas.
- Following certification of the EIR by the County Board of Supervisors, the City Planning Commission considers and recommends approval of the Specific Plan/Master Plan, General Plan Amendment and Zoning Map and Text Amendment to the Vallejo City Council.
- Following recommendation of the City Planning Commission, the Vallejo City Council adopts the Specific Plan/Master Plan, General Plan Amendment and Zoning Map and Text Amendment.

1.3.4 Fiscal and Financial Analyses

The planning process for the Solano360 Specific Plan has included a series of fiscal and financial analyses to evaluate, guide, and support project objectives. These are:

- A market study to determine the economic and financial feasibility of the major private uses and the public fairground uses set forth in the Vision Plan (see Section 2.3: Market Factors).

- A Public Facilities Financing Plan to identify funding sources and mechanisms for the private and public infrastructure improvements required for development of the project (see Appendix B for Executive Summary).
- A Fiscal Impact Analysis to assess the expected revenue to be received and operating costs to be incurred by the City and the County General Funds through build-out of the project (see Appendix C for Executive Summary).
- The County and City will also develop a revenue and cost sharing agreement to identify project financial commitments by the respective entities.

CHAPTER TWO: SITE AND CONTEXT

2.1 INTRODUCTION

The following represents a brief summary of site characteristics and key issues related to opportunities for redevelopment of the Plan Area. Additional background information is available in the Solano360 Specific Plan EIR.

2.2 SITE CONTEXT

The Plan Area consists of 149.1 acres bounded by Interstate 80 (I-80) to the east, State Route 37 (SR-37) and Sage Street to the north, Fairgrounds Drive to the west and Coach Lane to the south. Approximately 265,000 cars pass the Fairgrounds each day on the I-80/ SR-37 freeway system, providing high visibility and easy access to both greater San Francisco Bay and Sacramento areas. The presence of Six Flags Discovery Kingdom, the County Fair, and existing hotel uses have established the site as a well-known venue for entertainment and special events within the region.

In addition to Six Flags Discovery Kingdom located to the west, the site is bordered by the Newell Mobile Home Park immediately to the south. Other residential neighborhoods are located across Fairgrounds Drive to the southwest and across SR-37 to the north. The Gateway Plaza shopping center is located east of I-80.

2.2.1 Land Use and Ownership

The Solano County Fairgrounds is owned by the County, subject to certain reversionary interests owned by the City of Vallejo, and is located within the Vallejo city limits. The property provides a fairgrounds and events site operated by the Solano County Fair Association. It also has supplied overflow parking for the adjacent Six Flags Discovery Kingdom. The Plan Area includes four parcels, all of which are owned by Solano County. The 27-acre "Handlery Parcel" is limited by deed restriction to use for Fair and public purposes (see Figure 2.1).

Since 1949, the Solano County Fair Association has operated Fair Week on the project site, a one to two week mid-summer event offering a traditional program of entertainment, midway, livestock demonstration, and crafts. In

Figure 2.1: Site Aerial

2012, the Fair drew a crowd of 42,613 people.

In addition to Fair Week, year-round activities include satellite wagering, a robust and diverse calendar of public and private events including facilities rental, and a public-use 9-hole golf course located in the infield of the former horse racetrack. Outdoor venues include the carnival/ midway area, paved and lawn areas, and the concourse. Parking utilizes significant portions of the overall site, with peak use of approximately 3,500 cars through the course of one weekend day during Fair Week.

The primary existing Fairgrounds facilities include a total of approximately 425,000 square feet of building space concentrated in northeast portion of site adjacent to an east-west landscape concourse. Horse racing, which formerly occupied a large portion of the property, was discontinued after the 2009 season; vacant secondary stables and horse racing facilities occupy the eastern and southern portions of the site. Surface parking and overflow parking occupy western portions of

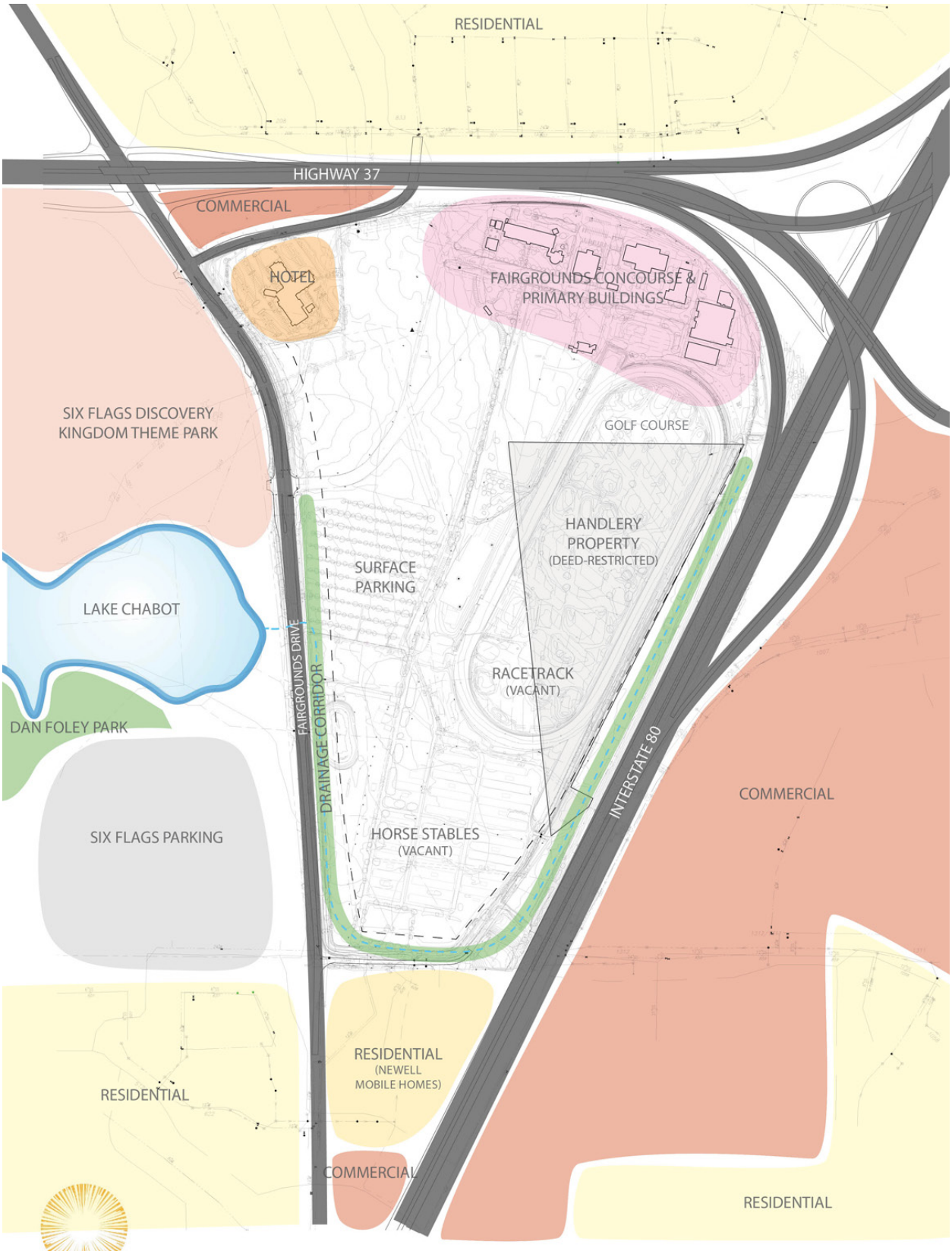


Figure 2.2: Existing Land Uses and Context

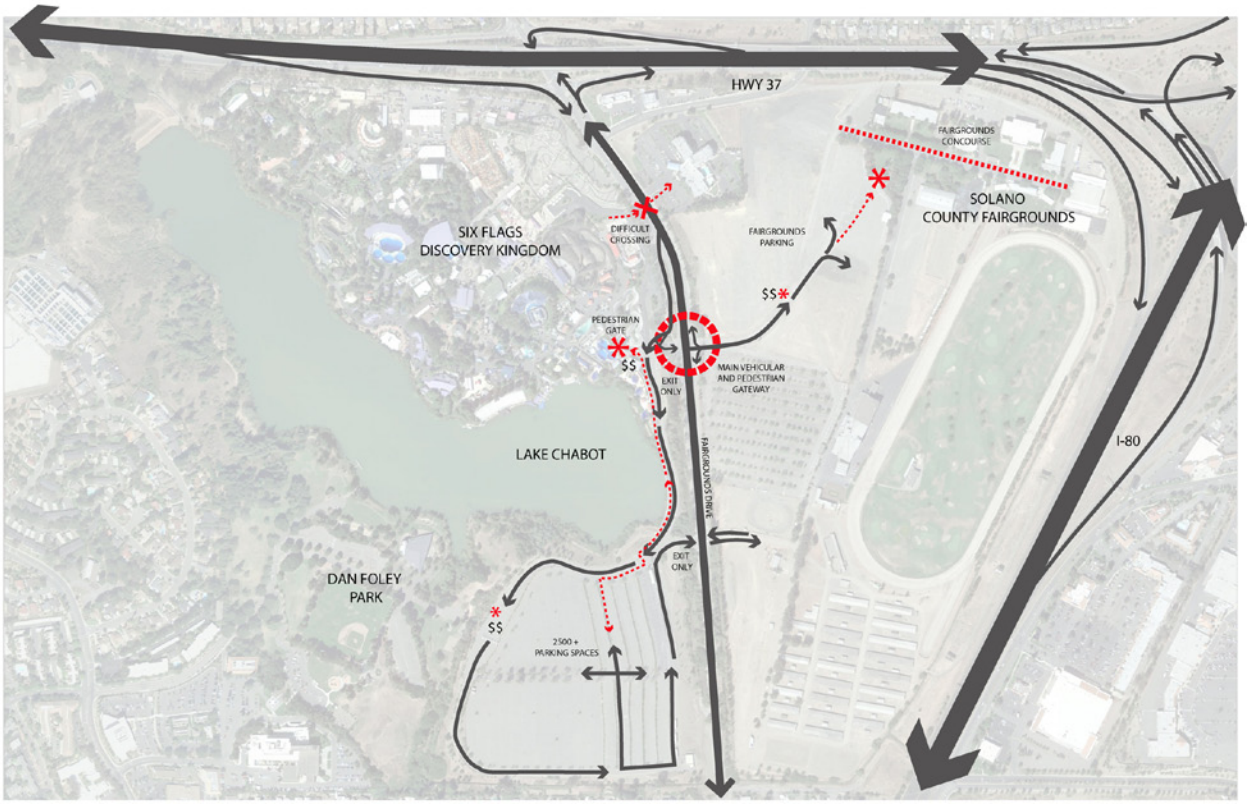


Figure 2.4: Existing Site Access

the site. Drainage corridors form the eastern, southern and western boundaries.

2.2.2 Access

The Solano County Fairgrounds site is located adjacent to the junction of I-80) and SR-37. Key transportation conditions are summarized below:

- Direct site access to the Plan Area is provided only via Fairgrounds Drive.
- Access to adjacent neighborhoods is limited. Sage Street provides an entry to the Courtyard by Courtyard by Marriott Hotel and a route to residential areas located north of SR-37, but currently does not connect to the Plan Area. Access from the Plan Area to Coach Lane is blocked by the existing drainage channel along the southern property boundary, and the freeway corridors form access barriers to the east and north.
- The site is highly visible from both freeways (I-80 and SR-37). Access from the freeway to the local street network serving the site is provided by two existing interchanges:
- The SR-37 / Fairgrounds Drive interchange provides the closest (less than a quarter-mile) and most visible access to the site via Fairgrounds Drive.
- The I-80 / Redwood Parkway interchange provides less direct access to the site via Redwood Parkway and Fairgrounds Drive.
- Solano Transportation Authority (STA) is currently developing plans for the widening of Fairgrounds Drive and SR-37/ Fairgrounds Drive interchange improvements (see Chapter Five: Transportation).
- Existing traffic congestion at SR-37/ Fairgrounds Drive interchange related to Six Flags Discovery Kingdom and Fairgrounds events may exceed acceptable levels of service

during certain peak hours.

- Existing intersections on Fairgrounds Drive provide access to Six Flag Discovery Kingdom and Solano County Fairgrounds, and their respective parking areas. Pedestrians currently cross Fairgrounds Drive from the Courtyard by Marriott Hotel to the Six Flags Discovery Kingdom entry.
- Public transit service and access is very limited to the site. The Solano County Fairgrounds is currently served by Vallejo Transit, which operates one bus route (#85) along Fairgrounds Drive. Two stops are located within a quarter-mile of the site: one at the Six Flags Discovery Kingdom entrance and one on Sereno Drive south of the site.

2.2.3 Natural Features

The Plan Area ranges in elevation from approximately 106 feet above mean sea level in the northeastern portion of the Fairgrounds concourse/building area to 83 feet in the southwest area, with a gentle slope from northeast to southwest. Four existing creeks (North Rindler Creek, Center Rindler Creek , South Rindler Creek and Blue Rock Springs) have been diverted into a combination of underground pipes and open channels (see Figure 2.4: Existing Drainage Pattern).

Issues associated with existing hydrology and flooding include:

- Some western and southern portions of the site are located within the 100-year flood zone as identified by the FEMA maps, calling for the need to widen existing channels and/or create new waterways. Via an existing storm drain system, Lake Chabot receives storm water runoff from the creeks as well as runoff from the Fairgrounds property.
- Existing water quality issues result from off-site watershed flowing through the site and from previous horse stabling on fairgrounds.
- Off-site flooding issues have been identified on Coach Lane/Newell Mobile Home Parks located south of the site.
- Shallow existing ground water limits the potential deepening of the peripheral channel and constrains options for water quality improvements.
- Seasonal and perennial wetlands exist within the site.
- Undocumented fill and soft compressible materials exist within the site.
- A berm currently separates the racetrack from the peripheral drainage.

2.3 MARKET FACTORS

The Solano360 Vision Report (2009) set forth a conceptual program of entertainment, commercial and mixed-use development. This conceptual program established a starting point for planning, in accordance with the Guiding Principles for the project.

As part of the Plan process, the County commissioned a market study to evaluate and focus the Vision Report land use assumptions. The market study concluded that it would be challenging for the amount and type of retail, office and hotel uses previously proposed in the Solano360 Vision Report to be feasibly supported in the foreseeable future, given current and projected economic and real estate market conditions. In addition, the market study indicated that market demand for convention, trade shows, corporate meetings and other events is unlikely to support a 100,000 square foot exposition building and additional fairgrounds facilities in the near future.

As a recommended direction for the Plan, however, the market study identified an opportunity to create a synergetic mix of region-serving entertainment and amusement attractions, along with complementary restaurant, retail and hospitality uses, that would build on the presence of the

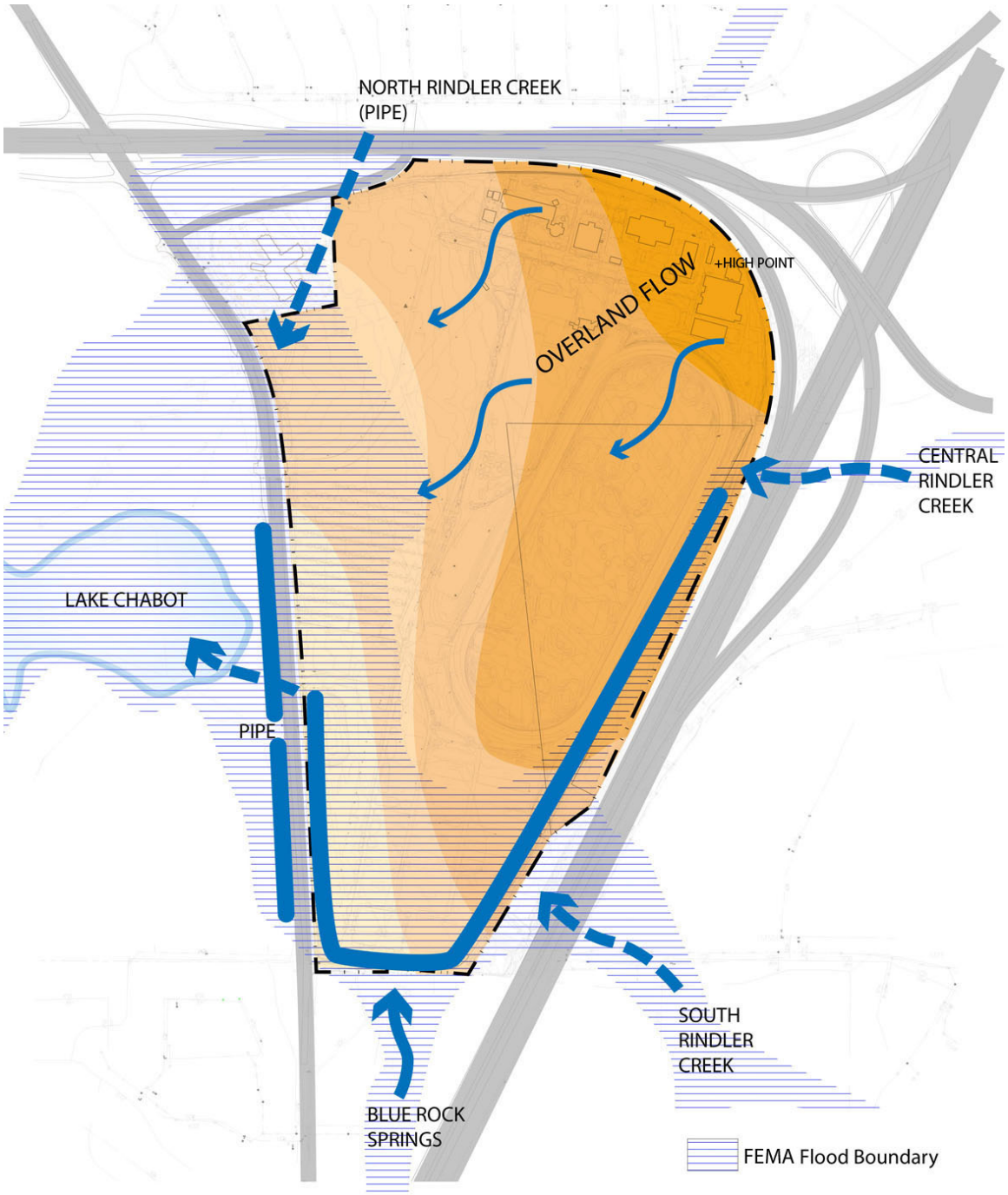


Figure 2.5: Existing Drainage Pattern

existing Six Flags Discovery Kingdom facility and Solano County Fairgrounds. These opportunities would include experiential entertainment (including education and recreational), shopping, and food uses.

Entertainment uses are particularly well-suited to this particular site, given its excellent freeway visibility and access, relatively limited local and neighborhood access, large single ownership pattern and adjacency to existing major entertainment attractions. In the mid-term and long-term of approximately the next 10 years (2012-2022), entertainment uses will likely generate demand for support uses such as restaurants, retail stores, and hotels. Office use and a limited quantity of residential development may also be considered for portions of the site.

The market study informed the subsequent planning efforts in the following ways:

- The Plan land use mix emphasizes themed entertainment park and family entertainment uses, with flexibility to accommodate retail, restaurant, office, housing, and/or hospitality uses as demand arises.
- Instead of demolition/rebuilding of the entire Fairgrounds, the Plan proposes replacement and upgrading of facilities along the existing concourse, and construction of a new Exposition Hall that will initially provide 50,000 net square feet of exposition space with possibilities for expansion in later phases.
- The Plan provides for continuation of public parking available to lease to nearby existing major entertainment uses, in order to support viability of those uses.
- Subsequent research into the functional requirements and industry standards for themed entertainment uses focused on development types that would build on the site's regional freeway visibility and the presence of the Fairgrounds and Six Flags Discovery Kingdom. These included:
- Entertainment park-type uses requiring approximately 20 to 40 acres in a single parcel (including parking); these could consist of a water park, amusement park, commercial recreation or an entertainment center offering outdoor and outdoor venues and attractions. Ideally, sites should accommodate opportunity for expansion. Parking can either be contained within the parcel or provided nearby.
- Family entertainment centers (FEC's) requiring smaller sites of approximately one to seven acres (including parking). These uses typically provide activities located within buildings (e.g., combined video game/restaurant attraction) or outside (e.g., go-kart or miniature golf). They can provide some street-oriented retail frontage and require parking in close proximity.
- Limited retail and restaurant uses, such as a "restaurant row" connecting the Fairgrounds with the Six Flags Discovery Kingdom entry.

These entertainment-oriented uses can enhance year-round programming possibilities for the Fairgrounds, with increased opportunities for traveling exhibitions and events that encourage repeat visitation and offer diverse, multi-generational attractions.

The co-location of the uses presents the opportunity for shared parking and linked trips; a single trip in the family car, for example, might lead to visits to multiple destinations within the project area. Initially, the project should provide for surface parking in close proximity to each entertainment attraction. In the long-term, however, increased demand may lead to the need for increased public transit, shuttles connecting through the Plan Area and to nearby entertainment attractions, and structured parking solutions.

Other requirements for these uses include design of backbone infrastructure, parking and ingress/egress, and installation of phased infrastructure to encourage prospective end-users.

CHAPTER THREE: LAND USE

3.1 INTRODUCTION

This chapter establishes land use objectives, plan and program, phasing, and policies for the Plan Area. The provisions of this chapter shall be used to regulate all land uses for both private and public areas. The Plan is intended to provide flexibility for a range of entertainment options and supporting commercial uses, in a way that supports the heritage of the Solano County Fair and creates synergy with existing major entertainment uses and lodging.

3.1.1 Land Use Changes from the Vision Report

As previously described in Section 2.3, Market Factors of the Plan, a market study was conducted to evaluate the land use assumptions described in the Vision Report. Based on the evaluation, the land use program for the Plan has been changed from the Vision Plan as shown below:

Table 3.1: Comparison of Vision Plan and Specific Plan Project Description (Buildout Condition)

	VISION PLAN		SPECIFIC PLAN	
USE	**ACRES**	**Subtotals**	**ACRES**	**Subtotals**
PRIVATE PURPOSES-Vision Plan				
Entertainment Commercial	14.2			
Entertainment/Mixed Use	4.8			
Mixed Use Commercial/Hospitality	25.4			
Office/Flex Parking	16.0			
Hotel (250 room)	10.9			
Open Space/Drainage/Wetlands	19.7			
Subtotal		**91.0**		
PRIVATE PURPOSES-Project Description				
Entertainment Mixed Use (EMU)			18.8	
Entertainment Commercial			30.0	
Subtotal				**48.8**
PUBLIC PURPOSES				
Fairgrounds	44.9		35.2	
Transit/North Parking Center	2.5		2.2	
Shared Public Parking			24.7	
Creek Park & Water Features			6.0	
Fairgrounds Channel			17.9	
Major Roads	10.7		14.3	
		58.1		**100.3**
Totals		149.1		149.1

3.2 LAND USE POLICIES

The following land use policies provide consistency with the Solano360 Guiding Principles and establish a basis for the plans, programs, and policies of the Plan.

The project should be structured to maximize opportunities for revenue generation, job creation, and long-term economic sustainability.

- Establish Solano360 as an entertainment site with multiple attractions, including a varied set of destinations for family activities, a year-round program of events for the Fair of the Future, and a pedestrian-oriented Public Entertainment Core as the defining feature.
- Provide a flexible and synergistic mix of uses that can be phased over time.
- Emphasize entertainment-oriented commercial, recreational, and civic uses, with flexibility to allow incidental residential uses and office and hotel development.
- Define land uses that will complement the Fair of the Future, with opportunities for a "critical mass" of entertainment-related activities and destinations in the Plan Area.
- Provide flexibility in parcel sizes and land use relationships to help attract the types of commercial enterprises identified by the market analysis.
- Define land uses that will generate net positive fiscal impacts for the County, City and Fair.
- Define land uses that will create job opportunities for City and County residents.
- Project amenities and features should be designed to establish a unique and appealing destination for visitors.
- Initiate an early program of site amenities and Fair of the Future improvements to establish strong initial character, including a Public Entertainment Core that encourages social gathering and fosters a strong sense of place.
- Design the Public Entertainment Core to encompass the Entry Road and a Creek Park that includes a central east-west water feature and pedestrian promenades connecting from Fairgrounds Drive to the Fair of the Future (see Figure 3.1).
- Establish the Fair of the Future as a community gathering area, with a variety of open spaces for recreational and civic engagement as well as enhanced commercial and entertainment functions.
- Establish the Plan Are as a regional attraction and destination.
- The project's circulation systems should be designed to increase pedestrian and vehicular connections with existing major entertainment uses, downtown Vallejo, and other destinations.
- Provide efficient access and ample parking to attract and support entertainment commercial uses.
- Emphasize direct access to parking areas, with primary circulation along a Loop Road and a pedestrian character for the Entry Road and promenade, including wide urban sidewalks for trees and outdoor seating as well as trails along the water feature.
- Align the Main Entry Road with Six Flags Discovery Kingdom's main gate.
- Designate locations for transit and shuttle facilities that link the Plan Area with existing major entertainment uses, Downtown Vallejo, the waterfront, and other destinations;

Table 3.2: Land Use Program

LAND USES	Acres	Building Square Feet	Housing Units	Parking Stalls
Public Development Areas				
Fairgrounds	35.2	149,500		775
Transit/North Parking Center Bus Docking	1.1			
Transit/North Parking Center Parking Structure	1.1	121,600		380
Shared Public Parking Structure	5.0	800,000		2,500
Shared Public Surface Parking	19.7			1,980
Creek Park (w/water feature)	6.0			
Fairgrounds Channel (peripheral drainage)	17.9			
Major Roads	14.3			73
SUBTOTAL FOR PUBLIC DEVELOPMENT AREAS	**100.3**	**1,071,100**		**5,708**
Entertainment Mixed Use (EMU)	18.8	327,571		804
EMU Parking Structure (included in EMU area)		320,000		1,000
Residential (included in EMU area)[1]			50	
Entertainment Commercial (EC)[2]	30.0	n/a		750
SUBTOTAL FOR PRIVATE DEVELOPMENT AREAS	**48.8**	**647,571**	**50**	**2,554**
TOTALS	**149.1**	**1,718,671.2**	**50**	**8,262.0**

Table Notes:

1. Housing is allowed within EC or EMU as a Conditional Use Permit from the City of Vallejo (see land use policies).

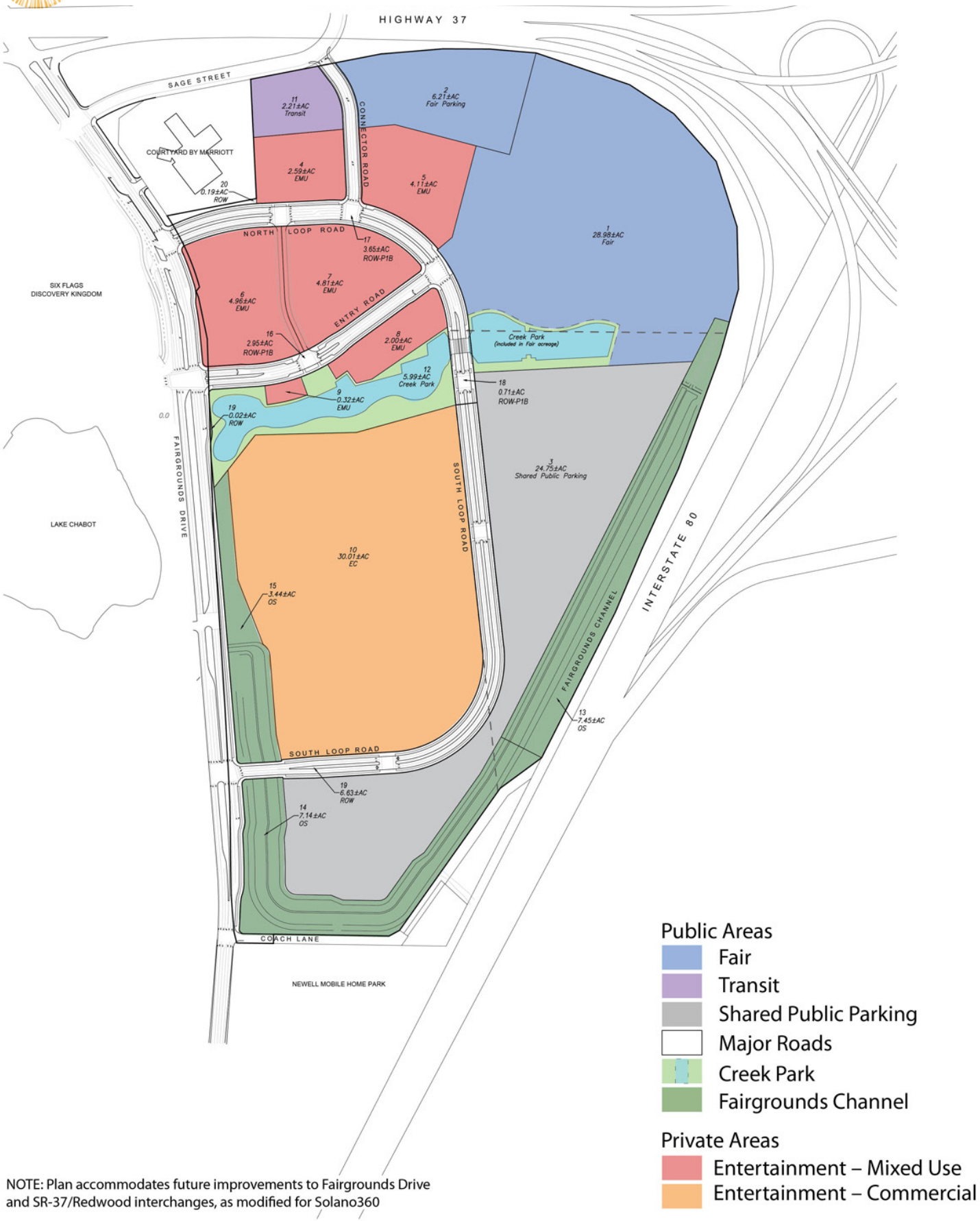
2. Square foot totals do not include Entertainment Commercial uses, which may include both outdoor venues and buildings. EC parking assumes 750 onsite surface spaces and 1,250 Shared Public Parking spaces at build-out (see parking program).

3. Shared Public Parking serves the Fair and other entertainment venues; includes 19.7 acres of surface parking and a 5-acre (2,500 car) parking structure (see parking program).

4. Square footages include parking structures as noted.

Table 3.3: Public-Private Acreages

LAND USE	Acres at Buildout	Subtotals
Public Areas		
Fairgrounds (Facilities, Waterway, Parking)	35.2	
Creek Park	6.0	
Open Space/Channel	17.9	
Transit/North Parking Center	2.2	
Shared Public Parking	24.7	
Major Roads	14.3	
Subtotal Public Areas		100.3
Private Development Areas		
Entertainment-Mixed Use (EMU)	18.8	
Entertainment-Commercial (EC)	30.0	
Subtotal Private Areas		48.8
TOTAL	**149.1**	**149.1**



NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

Figure 3.1: Land Use Plan

Table 3.4: Parcel Acreages

Parcel #	Land Use	Acres	Subtotals (acres)
1	Fair	28.97	
2	Fair	6.21	35.2
3	Shared Parking	24.75	24.8
4	EMU	2.59	
5	EMU	4.11	
6	EMU	4.96	
7	EMU	4.81	
8	EMU	2.00	
9	EMU	0.32	18.8
10	EC	30.00	30.0
11	Transit/N. Parking	2.21	2.2
12	Creek Park	5.99	6.0
13	Open Space	7.45	
14	Open Space	7.01	
15	Open Space	3.45	17.9
16	Right-of-Way	2.95	
17	Right-of-Way	3.65	
18	Right-of-Way	0.71	
19	Right-of-Way	6.76	
20	Right-of-Way	0.19	
21	Right-of-Way	0.02	14.3
		149.11	149.1

serve commuters; and augment the parking supply for events on weekends.

- Provide pedestrian and bicycle routes along roadways and within a comprehensive trails system, including along the Fairgrounds Channel if possible.
- Allow for shared parking facilities that provide the capacity to accommodate full development of the Plan Area.
- The project should incorporate sustainable and green principles in its landscape, infrastructure, and building systems.
- Create an enduring place that fosters a strong sense of community while contributing to the positive well-being of the environment.
- Reduce the use of energy, water and materials by making best use of existing facilities, creating multi-use buildings and open spaces, and integrating measures for onsite energy generation and energy savings.
- Protect and restore the existing habitat while solving flooding and drainage issues.
- Provide shared parking, transit, bicycle-pedestrian, and shuttle systems to reduce vehicular impacts.
- Create opportunities to build housing above commercial locations in an effort to limit commuter trips to and from the Plan Area.

Table 3.5 Phasing Program

Summary Description of Phases	Expo Hall; midway, water feature, farm & grounds at Fair; EMU development along Entry Rd			More EMU and EMU parcel improvements; Creek Park at EMU; additional roads		Exposition Hall (50,000 net sf of expo space) and outdoor venues at Fair; partial EMU development		Buildout of EC and EMU parcels with surface parking					Expansion of Exposition Hall to 100,000 net sf of expo space; intensification of EMU and EC uses; South Parking Garage and EMU parking garage					
	PHASE 1a			**PHASE 1b**		**PHASE 1 Total (years 1-5)**		**PHASE 2 (years 6-15)**					**PHASE 3 (years 16-25)**					
	New Program			**New Program**		**Cumulative Program (includes prior phases)**		**New Program**		**Cumulative Program (includes prior phases)**			**New Program**			**Cumulative Program (includes prior phases)**		
LAND USES	**New Acres**	**New Square Feet (net)**	**New Square Feet (gross)**	**New Acres**	**New Square Feet**	**Cumulative Acres**	**Cumulative Square Feet**	**New Acres**	**New Square Feet**	**Cumulative Acres**	**Cumulative Square Feet[2]**	**Housing Units**	**New Acres**	**New Square Feet (net)**	**New Square Feet (gross)**	**Cumulative Acres**	**Cumulative Square Feet[2]**	**Cumulative Housing Units**
Public Development Areas																		
New Exposition Hall	1.6	50,000	72,000			1.6	72,000			1.6	72,000		1.6	50,000	72,000	3.2	144,000	
New Outdoor Arena/Outdoor Venues/Landscape	12.4					12.4				12.4			3.6		5,500	16.0	5,500	
New Fair Parking/Roads				2.2		2.2		4.0		6.2						6.2		
Existing Fair Facilities						14.5		-4.0		10.5			-5.2			5.3		
Existing Fair Parking/Roads	4.5					4.5				4.5						4.5		
Subtotal - Fair	**18.5**		**72,000**	**2.2**		**35.2**	**72,000**	**0.0**		**35.2**	**72,000**		**0.0**		**77,500**	**35.2**	**149,500**	
Transit Center-Bus Docking								1.1		1.1						1.1		
Transit Center-Surface Parking/Bus Stop				2.2				-2.2		0.0								
Transit Center - Parking Structure								1.1	121,600	1.1	121,600					1.1	121,600	
Shared Public Parking - Surface[3]								24.7		24.7			-5.0			19.7		
Shared Public Parking - Structured[3]							0				0		5.0		800,000	5.0	800,000	
Temporary South Fair Parking	7.0					7.0		-7.0		0.0								
Major Roads	2.5			4.0		6.5		7.8		14.3						14.3		
Subtotal Roads & Public Parking	**9.5**			**6.2**		**13.5**	**0**	**25.5**	**121,600**	**41.2**	**121,600**		**0.0**		**800,000**	**41.2**	**921,600**	
Creek Park (w/new water feature)				6.0		6.0				6.0						6.0		
Fairgrounds Channel (peripheral drainage)						0.0		17.9		17.9						17.9		
Subtotal Open Space & Waterways	**0.0**			6.0		**6.0**	0	**17.9**		**23.9**						**23.9**		
SUBTOTAL FOR PUBLIC DEVELOPMENT AREAS	**28.0**	50,000	**72,000**	**14.4**	**0**	**54.7**	**72,000**	**43.4**	**121,600**	**76.4**	**193,600**		**0.0**	50,000	**877,500**	**100.3**	**1,071,100**	
Private Development Areas[1, 2]																		
Entertainment Mixed Use (0.2 FAR)	9.8		85,378			9.8	85,378	7.0	60,984	16.8	146,362		-16.8					
Entertainment Mixed Use (0.4 FAR)			0	2.0	34,848	2.0	34,848			2.0	34,848		16.8		146,362	18.8	327,571	
EMU Parking Structure															320,000		320,000	
Housing Units in EMU												50						50
Entertainment Commercial - venue area							0	18.0	N/A	18.0			6.0			24.0	N/A	
Entertainment Commercial - parking area							0	12.0		12.0	N/A		-6.0		N/A	6.0		
SUBTOTAL FOR PRIVATE DEVELOPMENT AREAS	**9.8**		**85,378**	**2.0**		**11.8**	**120,226**	**37.0**	**60,984**	**48.8**	**181,210**		**0.0**		**466,362**	**48.8**	**647,571**	
Subtotal Public and Private	**37.8**			**16.4**		**66.5**		**80.4**		**149.1**			**0.0**			**149.1**		
Undeveloped Site & Overflow Parking						**82.6**				**0.0**						**0.0**		
TOTALS			**157,378**		**34,848**	**149.1**	**192,226**		**182,584**	**149.1**	**253,210**	50			**1,343,862**	**149.1**	**1,718,671**	50

Table Notes:

1. Housing is allowed within EC or EMU as a Conditional Use Permit from the City of Vallejo (see land use policies).
2. Square foot totals do not include Entertainment Commercial uses, which may include both outdoor venues and buildings.
3. Shared Public Parking serves the Fair and other entertainment venues; includes 19.7 acres of surface parking and a 5-acre (2,500 car) parking structure in Phase 3 (see parking program).
4. Square footages include parking structures as noted.

3.3 LAND USE PLAN AND PROGRAM

The land use plan, program and phasing incorporate a comprehensive analysis of the Plan Area's physical conditions, the results of public outreach and visioning, and research into the needs of the Solano County Fair and the prospects for near and long-term development over the next 25 years.

Figure 3.1: Land Use Plan illustrates the distribution of uses within the Plan Area. Parcel acreages, as defined by the colored and labeled areas on Figure 3.1, are exclusive of major roadways. Table 3.1: Land Use Summary provides an overall summary of land uses, and Table 3.4: Phasing Program provides additional detail including proposed phasing of development and on-site parking.

The proposed mix of development, open space, and infrastructure is intended to facilitate the following principle actions:

- Phases 1a and 1b (years 1-5): Upgrading and expansion of the Fairgrounds and associated public amenities in the Entertainment Core; creation of "Entertainment-Mixed Use" (EMU) venues and facilities that may be feasible in the near term. (Note: References in this Plan to "Phase 1" assumes Phases 1a and 1b together.
- Phase 2 (years 6-15): Creation of a larger parcel for a future "Entertainment-Commercial" (EC) user, such as a theme park anchor, and additional EMU development
- Phase 3 (years 16-25): Further intensification of Fairgrounds venues and EMU and EC development along with expanded parking facilities.

The parcelization indicated in Figure 3.1 and Table 3.3 is intended to be illustrative. The land use plan envisions a flexible framework for development, and parcels within the Private Development areas may be combined or adjusted in size to fit a proposed building program. Each phase includes adequate parking to maintain a successful entertainment district.

This development program will be implemented in accordance with the policies contained in this section and Chapter Four: Urban Design and Guidelines.

3.4 LAND USE DESCRIPTIONS

3.4.1 Fair of the Future

Referred to as the "Fair of the Future," the Solano County Fairgrounds area will include approximately 35 acres of built and open space venues and parking. The Fair of the Future is intended to continue the 60-year tradition of the annual Solano County Fair, offering a world-class Exposition Hall and other built and open space venues to support a variety of events and gatherings.

As envisioned, the existing Fair facilities will remain generally in their current locations along the existing landscape concourse, with upgrades and building replacement planned through a program of cost-effective, incremental, and phased improvements over time. New buildings and open spaces will relate to the existing concourse as well as the new Midway/Events Lawn and the Creek Park with its water feature (see Section 3.4.4, below). As illustrated in Chapter Four, proposed Fairgrounds improvements include:

- A new Phase 1a Exposition Hall with approximately 50,000 net square feet of exposition space (approximately 72,000 gross square feet including meeting rooms, lobbies, restrooms and other support space) that will replace the existing Exposition Hall building; potential for expansion in Phase 3 to 100,000 net square feet (approximately 144,000 gross square feet).
- Improvements to the grounds, including a new Arrival Plaza and Midway/Event Lawn adjacent to the new Exposition Hall.

- Continuation of the east-west Creek Park including a water feature, trails and a pedestrian bridge.
- A family and student-oriented demonstration farm at the eastern terminus of the Creek Park.
- New promenades and plazas, an amphitheater, and other flexible open spaces.
- Parking facilities in the north (North Fair Parking) and south (Shared Public Parking) with separate gates that can serve multiple activities; additional parking, loading and vehicular circulation around the outer perimeter of the area.
- Phased upgrading and modification of existing buildings, as needed, with in-kind replacement of buildings that are no longer usable in their current physical condition.

Permitted uses are described in Section 3.5 of this chapter. Chapter Four provides additional descriptions of design concepts and phasing.

3.4.2 Transit / North Parking Center

The Plan proposes 2.2 acres for a transit/parking facility in the northwest area of site, with access from Sage Street and the North Loop Road. In Phases 1A and 1B, this site is expected to serve as surface parking. Phase 2 is proposed to include development of approximately half the site for a bus docking facility to serve commuters, with the balance of the site utilized for a multi-level parking garage that would serve commuters during the weekdays and provide overflow parking for entertainment uses on weekends.

3.4.3 Parking and Roads

The Plan allocates 24.7 acres for Shared Public Parking to support the continuing viability of entertainment uses within and near the Plan Area. Phase 2 includes proposed improvements to this area for surface parking of approximately 2,600 cars. In Phase 3, approximately five acres in the southern portion of the Shared Public Parking area is anticipated to be converted to a multi-level parking structure to support a higher intensity of entertainment and / or supporting commercial uses within the Plan Area.

The large-scale surface parking areas could include solar arrays to provide for onsite energy generation and a possible revenue source. Parking facilities are described further in Chapter Five.

The Plan proposes major roadways for access to all parcels and parking areas (see Chapter Five). These roadways have been sized and located to accommodate projected traffic demands generated by the build-out of the Plan Area. Major roadways would also include site infrastructure as described in Chapter Six.

Chapter Four provides additional descriptions of roads and parking areas.

3.4.4 Open Space

Figure 3.1: Land Use Plan indicates the location of open space proposed by the Plan. Chapter Four provides additional detail on the Creek Park, Fair-related outdoor areas, streetscape and other open space elements.

Creek Park, Water Feature and Public Entertainment Core

The Creek Park and its central water feature would extend east-west through the central portion of the Plan Area, forming the spine of a "Public Entertainment Core" that connects the Fair of the Future with the mixed use development areas, Entry Road, and Fairgrounds Drive (see Figure 4.4: Public Entertainment Core). The Public Entertainment Core is intended to provide an active gathering place with a waterside pedestrian trail, restaurants, public art, shops, and terraced

seating. Rental of small pedal boats may be possible within the Fair portion of the Creek Park.

The Creek Park water feature is envisioned as a multi-purpose amenity that provides the key visual amenity within the Public Entertainment Core. The water feature is also designed to provide:

- Onsite stormwater hydro-modification (matching pre- and post-development runoff rates) will likely be required to meet water quality permit requirements.
- The ability to collect and use stormwater for onsite irrigation, which reduces potable water use (capture and reuse).
- Improve onsite stormwater quality prior to discharging water into downstream systems that lead to Lake Chabot.
- Cut material to fill the northwest portion of the Plan Area to alleviate existing flood plain issues.
- High "onsite lake" water quality by incorporating wetland planters, biofilters, aeration and circulation in addition to maintaining an appropriate water temperature through depth and water volume.

Onsite stormwater will be routed through the Creek Park water feature that will discharge into an existing storm drain system and then into Lake Chabot. Offsite stormwater flows from Rindler Creek and/or Blue Rock springs will not be diverted through the onsite water feature but will continue to flow through the Fairgrounds Channel.

Chapter Six (see Section 6.2 and Appendix F) describes the hydrological functions of the water feature in more detail. Chapter Four provides additional guidelines for landscape (see Section 4.4).

Fairgrounds Channel

Along the eastern, southern, and western boundaries of the site, the Plan sets aside acreage for the Rindler Creek drainage and adjacent buffer. The size and configuration of this area are designed to addresses area-wide storm drainage and flooding issues as described in Chapter Six. To improve habitat values and aesthetic appearance of this significant channel, the Plan proposes landscape and grading measures as described in Chapter Four.

In summary, the Fairgrounds Channel design provides:

- Alleviation of flood plain problems at the south end of the Plan Area, on Coach Lane, on Fairgrounds Drive and within the Newell mobile home park caused by the 3,300+ acre upstream watershed.
- A multi-level channel to provide riparian habitat and wetland benefits as well as flood protection (meandering low flow level, frequent storm event level and 100-year storm event level).
- A corridor for pedestrian trails.
- The ability to allow for a future creek restoration project (potentially with grant funds or other funding sources).

3.4.5 Entertainment-Mixed Use (EMU)

This land use is expected to include "Family Entertainment Centers" (FEC's) as well as associated restaurant and retail activities. Examples of FEC anchor uses within the EMU area include John's Incredible Pizza, Dave & Buster's, and other businesses that combine eating, entertainment, small amusement park, non-casino related gaming, animatronic shows, and similar uses, either within buildings and/or as outdoor venues.

FEC's typically require parcels of one to seven acres, including surface parking provided within each parcel or nearby. Some parking lots may be available for joint use, according to the provisions of a Parking Operations Management Plan to be prepared separately by the County.

The Entertainment-Mixed Use parcels are clustered in the northern portion of the site in association with the Creek Park water feature and the Entry Road. Parcels may be combined or adjusted to respond to requirements of future users. As described in Chapter Four, EMU uses should orient entries and amenities to public streets, namely the Entry Road and Loop Road.

Initially, this land use is expected to develop at a density of 0.2 Floor Area Ratio ("FAR"), with limited higher density development proposed adjacent to the Creek Park. In Phase 3, a higher density of 0.4 FAR is proposed for the entire EMU area. A multi-level parking structure within the EMU area will be needed to accommodate this higher intensity of development.

A limited number of housing units may be permitted above the ground floor of FEC's or other permitted uses (see Section 3.6.4).

Permitted uses are described in Section 3.5 of this chapter.

3.4.6 Entertainment-Commercial (EC)

The Entertainment-Commercial land use provides for a major entertainment use that requires a large single, undivided site of up to 30 acres in size. The Plan locates this parcel on the west side of the site, with major vehicular access from the South Loop Road/Fairgrounds Drive intersection, and with proximity to adjacent parking. This land use parcel provides the opportunity to create a future entertainment venue with a common entry or identity, with expanded and coordinated parking. The concept provides sufficient acreage for one large venue or multiple smaller venues to develop facilities over time. The EC use can include pedestrian gates at the northern and southern ends of the parcel, as suggested in Figure 4.3: Urban Design Elements.

Surface parking is proposed for the southern portion of the parcel through Phase 2. In Phase 3, joint use of the South Parking Garage (located within the Shared Public Parking area) would allow a portion of the EC surface parking to be replaced by expansion of the EC entertainment venues.

3.5 PERMITTED USES

The implementation of the Solano360 project will result in the conversion of existing Solano County Fairgrounds property to the City of Vallejo zoning designation, Mixed-Use Planned Development (MUPD). The intent and purpose of the MUPD Zoning designation for the Solano360 Plan Area is to allow flexibility for the entirety of the site, consistent with the Plan.

Under this proposed zoning designation, the following public uses will be allowed by right: Fair, public transit centers, parking facilities, drainage facilities, reclaimed wastewater facilities, and other infrastructure, roadways, and recreational open space.

Private uses allowed in the MUPD zoning include Entertainment Mixed-Use and Entertainment Commercial. The Entertainment Mixed-Use and Entertainment Commercial areas are designed to allow for a range of uses consistent with the amusement park and entertainment uses envisioned. In addition, office uses are allowed within private purpose development areas up to a total of 220,000 square feet of office space.

While the list described below is intended to be inclusive, additional uses may be proposed provided they meet the general intention of the Plan and are approved by the City Economic Development Director.

Whenever the development regulations for private purpose areas contained herein conflict with those contained in the City of Vallejo Municipal Code, the development regulations contained

within this Plan shall take precedence. When any issue, condition or situation arises or occurs for private purpose areas that are not specifically covered or provided for by these standards, those provisions in the Zoning Ordinance that are most similar to the issue, condition, or situation, as determined by the City Development Services Director, shall apply.

Permitted uses for the three primary land use areas (Fair, Entertainment Mixed-Use, and Entertainment Commercial) are as follows.

3.5.1 Permitted Uses – Fair

The area designated as "Fair" on Figure 3.1: Land Use Plan shall be used for fair and/or fair-related uses including, but not limited to, public gatherings, midway and thematic ride activities, trade and display shows, competitions and pageants, music and theater performances, trade industries and other organizational conferences. The parcels with a Fair designation will be limited to fair and fair-related activities, and may include commercial activities that generate rental income from Fair buildings and/or are associated with Fair activities, such as continuation of existing uses (e.g., day care facility, satellite wagering) and new uses (e.g., boat rentals for the water feature, operation of a theater venue at the future amphitheater).

Permitted Uses for the Fair area are:

- Fairgrounds and fair related uses, including thematic rides and mid-way entertainment.
- Exhibition and Exposition Halls.
- Amphitheaters.
- Natural resource areas, water channels, preserves and protective buffer areas.
- Public water features and trails.
- Public/private utility buildings, structures and facilities (as needed for infrastructure services).
- Recreational facilities, including parks, recreation areas, libraries, and buildings for recreational use.
- Picnic facilities.
- Playgrounds and play apparatus.
- Playing fields and courts; participant sports and facilities.
- Public Transit Centers, park and ride lots, and related surface or structured parking.
- Surface and/or structured parking.
- Reclaimed wastewater facilities (under surface parking).
- Loading and servicing for fair-related events.
- Recreation Vehicles (RV) parks and storage.
- Private food or beverage concessions.
- Photovoltaic arrays or other energy-generating facilities.
- Agricultural uses, including demonstration farms.
- Other uses similar in nature that benefit the public and reinforce the viability of the Fair, as recommended by the Solano County Fair Association Board and approved by the Solano County Board of Supervisors.

Interim Uses for Fairgrounds

Prior to full buildout of the Plan Area, the Fair may operate interim uses on any parcel not slated for development until later phases. These interim uses are expected to be limited in duration and may include the following:

- Commercial recreation activities such as go-carts or other land-intensive activities.
- Outdoor performances or events utilizing the existing grandstand or other existing facilities.
- Temporary signage and billboards.
- Parking.
- Any use permitted for the Fair, as described above.

Reconfiguration of Phase 1 parking and access will be allowed to accommodate these uses if determined practicable by the County.

3.5.2 Permitted Uses – Entertainment-Mixed Use and Entertainment Commercial

While the permitted uses for Entertainment-Mixed Use and Entertainment-Commercial areas are the same, the end users are expected to be different. EMU is expected to attract the smaller FEC-type businesses and associated retail activity described in Section 3.4.5, while the 30-acre EC site is intended to accommodate a larger destination amusement or theme park.

Permitted Uses are as follows:

- Amusement Park Recreation.
- Amusement Park Retail.
- Specialty Entertainment Restaurants.
- Eating Establishments: restaurants and bars, fast food outlets (drive- through restaurant facilities and services are prohibited), delicatessens and snack bars.
- Specialty Retail stores.
- Outlet Retail stores.
- Entertainment including theaters; amusement centers, and indoor and outdoor participant sports facilities.
- Commercial Offices including but not limited to establishments that provide financial, insurance, real estate, legal, medical services, marketing management, architectural and engineering design, and other comparable professional services and support services; also Business Services including administrative and professional services, business support services, research services, telecommunications facilities, gas and electric services, correspondence schools and vocational schools, educational services, libraries, public administrative services, and research and development. Business Services and Commercial offices are permitted up to a maximum of 220,000 square feet; these uses would substitute for other EMU uses.
- Surface and/or structured parking: public and private. Parking facilities may include photovoltaic arrays.
- Photovoltaic arrays or other energy-generating facilities
- Other compatible uses as approved by the City Development Services Director.
- Conditional Uses for EMU and EC

The following uses are allowed with approval of a Conditional Use Permit by the City of Vallejo:

- Lodging: hotels and motels (transient habitation) and bed and breakfast inns.
- Wholesale trade.
- Amphitheaters.
- Up to 50 housing units.

3.6 LAND USE POLICIES

The Plan land use regulations and policies provide for the orderly and efficient development of the Plan Area and create a flexible range of uses while avoiding land use conflicts. Chapter Four: Urban Design and Guidelines provides additional criteria.

3.6.1 Overall Policies

- Development within the Plan Area shall be consistent with the Land Use Objectives of this chapter and the design provisions of Chapter Four.
- Development standards for Private Purpose Areas, including building heights and setbacks, shall be determined during subsequent entitlements as described in Chapter Seven: Implementation. Development standards will reflect the guidelines and other provisions of Chapter Four: Urban Design and Guidelines.
- The Plan shall permit the maximum amount of development in the Plan Area allowed by implementation of required mitigations, including onsite and offsite infrastructure.
- Onsite and offsite infrastructure shall be developed concurrently with project development, so that requirements for transportation, water, and other facilities are provided with each phase of development (see Section 3.7.4 for phasing policies).
- A total of up to 222,000 square feet of office uses is permitted within private purpose parcels and will substitute for other EMU development. Proposals for additional office space must be reviewed by the City and may be subject to additional environmental review.
- Within the Private Purpose Area, permanent surface parking may not be located adjacent to the water feature or Creek Park in order to maintain the open space character of these features. Within EMU parcels located between Entry Road and Creek Park, parking should be limited to handicapped and emergency parking and set back a minimum of 40 feet from Creek Park. Within the Entertainment Commercial parcel, vehicular parking and service areas should be set back a minimum of one hundred feet from Creek Park.
- The Plan shall permit adjustments to and flexibility within the phasing of development in the Plan Area, subject to required mitigations, including onsite and offsite infrastructure.

3.6.2 Entertainment Mixed Use Policies

- EMU buildings are intended to consist primarily of ground-floor commercial (retail, restaurant, or entertainment) uses with possible incidental office and/or residential space occupying upper stories of multi-level buildings. The primary retail/restaurant activity zone is intended for the Public Entertainment Core along the Entry Road and Creek Park, with a wider range of uses encouraged along the North Loop Road.
- To reinforce a walkable character, minor amounts of neighborhood-serving retail, such as

food, grocery or drug stores, are encouraged within the EMU area to provide for the needs of potential Plan Area residents, employees, and/or hotel guests as well as visitors in need of such services.

- Development rights may be transferred between EMU parcels, provided that adequate parking is provided for the overall EMU area (including provisions for shared use) and the total Plan development program and infrastructure capacities are not exceeded. In addition, buildings should be oriented with entries and primary facades facing the Entry Road and Loop Road as indicated by Figure 4.1: Illustrative Plan.
    - The Phase 3 parking structure may be located within any EMU parcel adjacent to the North Loop Road and/or Sage-Loop Connector Road, but should not be located south of the Entry Road or adjacent to the water feature. Primary access into the parking structure should be from the North Loop Road or Connector. The parking structure should contain ground-level retail/commercial development along North Loop Road in order to avoid the appearance of a stand-alone parking garage.
    - Development of additional EMU development beyond the thresholds identified by the Plan and EIR would be subject to the appropriate environmental review and certification, including any required mitigation measures.

3.6.3 Entertainment Commercial Policies

- Entertainment Commercial structures, outdoor rides, and other entertainment attractions are encouraged to be concentrated in the northern portion of the EC parcel, in order to make use of high visibility from adjacent streets and create attractive views from project gateways and the Creek Park.
- Parking is anticipated to be located in the southern portion of the parcel, with easy access to the South Loop Road entrance from Fairgrounds Drive. No parking will be located adjacent to the Creek Park.
- In Phase 2, the Entertainment Commercial parking is proposed to be provided within the EC parcel. This is assumed to require approximately 40% of the 30-acre site, reflecting typical surface parking ratios derived from evaluation of similar entertainment venues.
- In Phase 3, the built venues may expand into the EC parking areas providing that adequate parking is available within the Plan Area, either within the Shared Public Parking area or within the EC parcel itself (see Section 5.3).
- Taller structures should be concentrated in the center of the EC parcel, as described by the design guidelines (see Section 4.5).
- Should the EC area be developed as a multi-parcel, mixed-use commercial center with new roads, the land use and design provisions for EMU areas will apply. Conversion of the EC area to more intensive mixed-use development shall not permitted if such conversion exceeds the infrastructure capacities described in this document and in the Solano360 EIR.
- Development of additional EC development beyond the thresholds identified by the Plan and EIR would be subject to the appropriate additional environmental review and certification, including any required mitigation measures.

3.6.4 Residential Policies

- Residential use of the Plan Area is intended to be subordinate to, and integrated with, the principal and conditionally permitted EC and EMU uses.

- Residential development requires Conditional Use Permit approval by the City of Vallejo.
- Approximately 50 dwelling units are allowed under this Plan.
- If more than 50 dwelling units are proposed, the additional units over 50 will be subject to the appropriate additional environmental review and certification, including any required mitigation measures.
- Residential units will displace an equivalent square footage of allowed commercial development.
- To avoid potential health risks associated with freeway emissions, as identified by Bay Area Air Quality Management District (BAAQMD) air quality modeling, residential uses should be located in the western portion of the project site. Additional air quality studies should accompany proposals to develop residences within the Plan Area.

3.7 PHASING

Phasing plays a key role in the programming and physical development of this long-term, multi-use project. Each phase must be flexible yet stand on its own, while accommodating future expansion and intensification of development activities.

Figures 3.2 to 3.5 illustrate the potential phasing for full buildout of Solano360 land uses (Phases 1A and 1B, 2 and 3). Figure 3.6 illustrates the related phasing for infrastructure and preparation of graded pads with utilities. Table 3.4 provides a tabulation of land uses by phase. Chapter Five and Table 5.1 provide additional information on phasing of parking facilities.

Phasing is contemplated according to the following approximate timeline, which is subject to change depending on market conditions and development opportunities.

- Phases 1a and 1b: 1 to 5 years.
- Phase 2: 6 to 15 years.
- Phase 3: 16 to 25 years.

The land use and site development program for the project phases is dictated by the desire to establish a strong initial character for the project, provide logical and cost-effective investments in infrastructure, support development of the Fair of the Future and enhance the marketability of private purpose areas. Each phase proposes a level of development that can be accommodated by the associated onsite and offsite infrastructure capacity. The intent of proposed phasing is to establish the ability to intensify land uses over time through structured parking and transit solutions that allow for higher floor area ratios in the later phase of build-out.

Phasing of development uses and related infrastructure is summarized as follows. The information is this chapter is informed by the Plan's conceptual site plans and may be subject to change as more detailed plans and specifications are developed as part of the design and development process.

3.7.1 Phases 1a and 1b

For purposes of establishing more detailed phasing and costing, Phase 1 has been divided into two sub-phases (Phases 1a and 1b) as detailed below, in Table 3.4, and in Figures 3.2 and 3.3. References in this Plan to "Phase 1" assumes Phases 1a and 1b together.

Fair of the Future

Phase 1a:

- First phase of Exposition Hall, including approximately 50,000 net square feet of exhibition space combined with meeting rooms, lobbies, café, circulation space and restrooms for a total of 72,000 square feet.
- Fair open space venues, including the Midway/Events Lawn with Terrace Steps, Arrival Plaza/Main Gate, East Plaza, Creek Park and water feature, South Gate and Demonstration Farm (see Figure 4.11: Fair Illustrative Plan – Phase 1).
- Minor perimeter road improvements.
- Interim North and South Fair Parking.
- Demolition of existing Expo Hall, concourse restrooms, and other site/utility features.
- Mass grading and drainage improvements (including placing fill material to raise the ground elevations above the existing floodplain elevation).

Roads and Other Public Purpose Areas

Phase 1a:

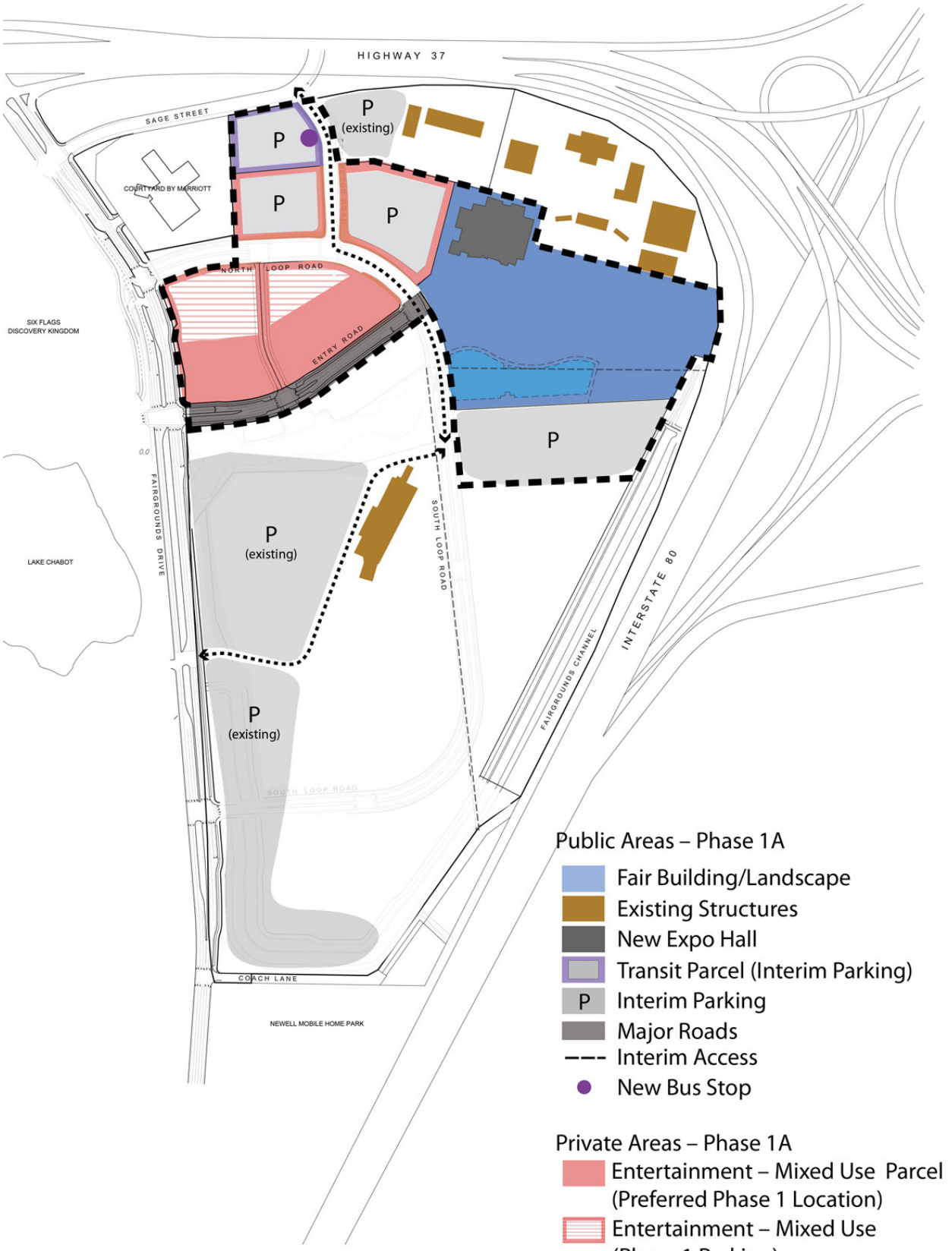
- Entry Road, streetscape and intersection with Fairgrounds Drive.
- Surface parking at Transit/North Parking Center, with a new bus stop along Sage-Loop Connector Road.
- Creek Park and water feature within public development area

Phase 1b:

- Northern segments of the Loop Road and intersections with Fairgrounds Drive.
- Sage-Loop Connector Road including permanent bus stop and intersection with Sage Street.
- On-site intersections and streetscape.
- Creek Park including the water, trails, and open space within private development area.

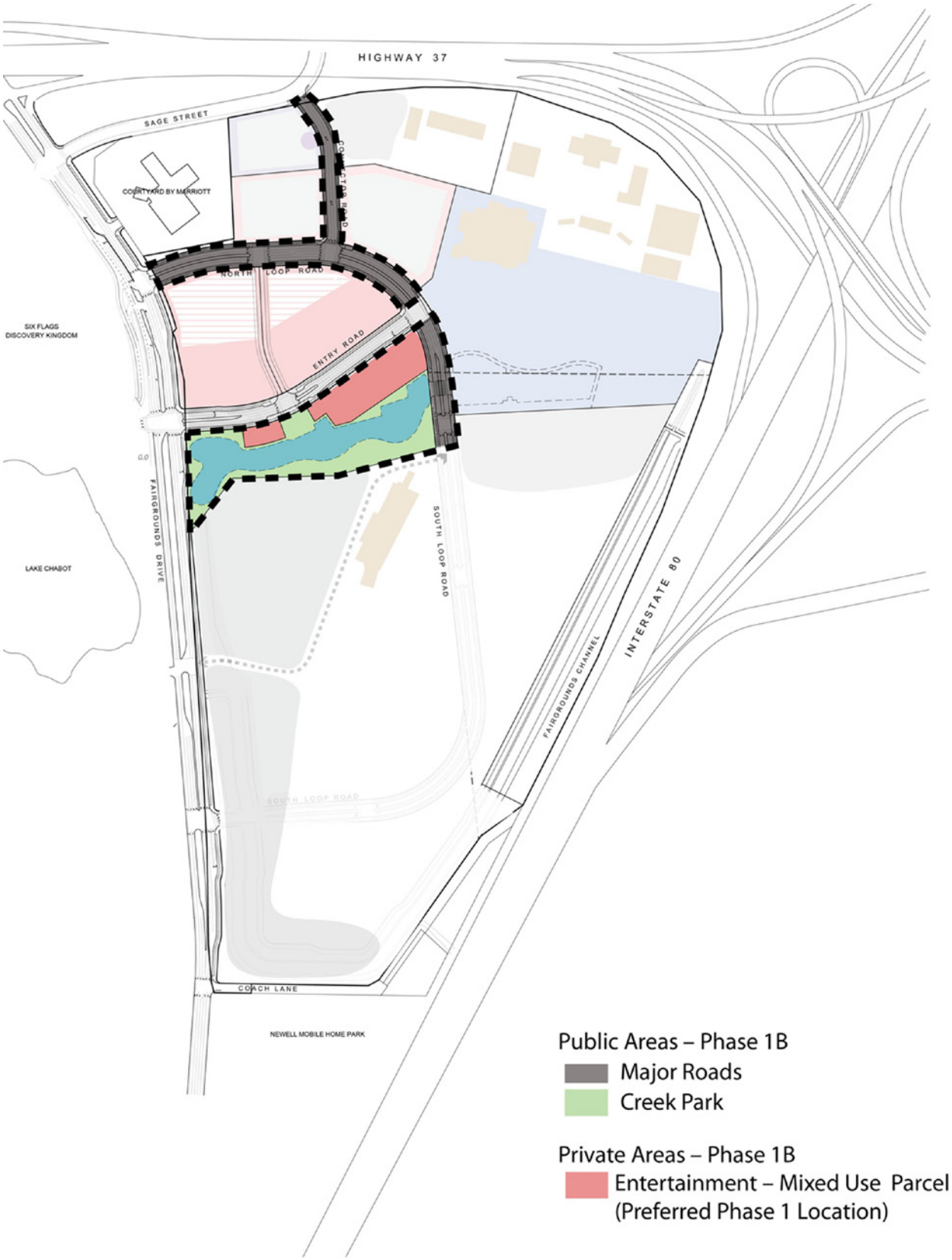
Both Phases 1a and 1b:

- Retention of existing road access opposite the Six Flags Discovery Kingdom parking lot, with continued use of existing undeveloped parking.
- Retention of existing grandstand (to postpone demolition costs and support possible interim Fair activities)
- Site, utility and building demolition, mass grading, drainage improvements and backbone utilities for the above (including placing fill material to raise the ground elevations above the existing floodplain elevation).
- Relocation of existing public utilities (sewer, water and gas transmission).
- Temporary parking south of the creek park/water feature area
- Private Purpose Areas
- Phase 1a:
- Preparation of nearly all Entertainment Mixed Use (EMU) parcels as graded parcels with roadway access and utilities.
- Initial 9.8 acres of EMU development.



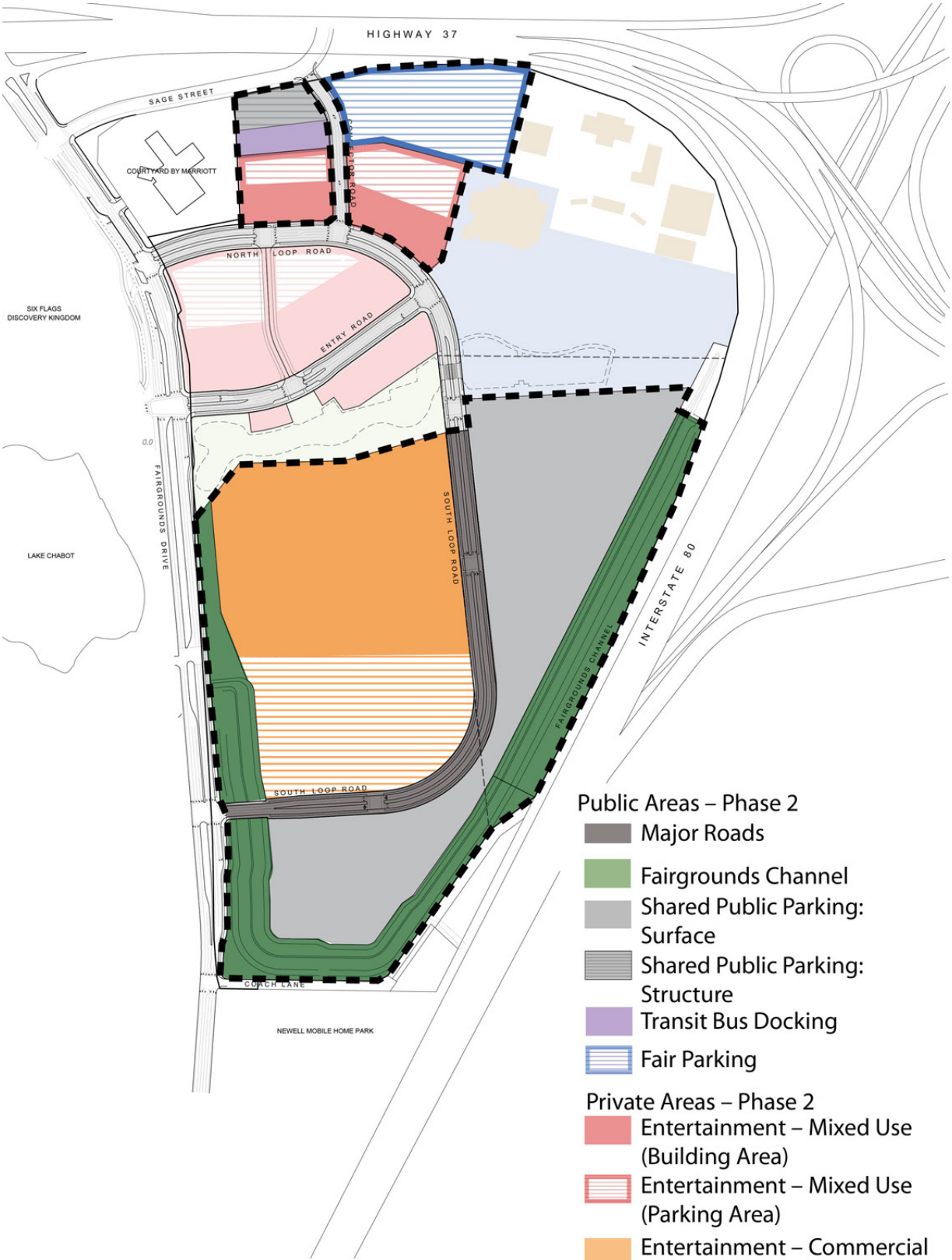
NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

Figure 3.2: Phase 1A Projects
(Years 1-5)



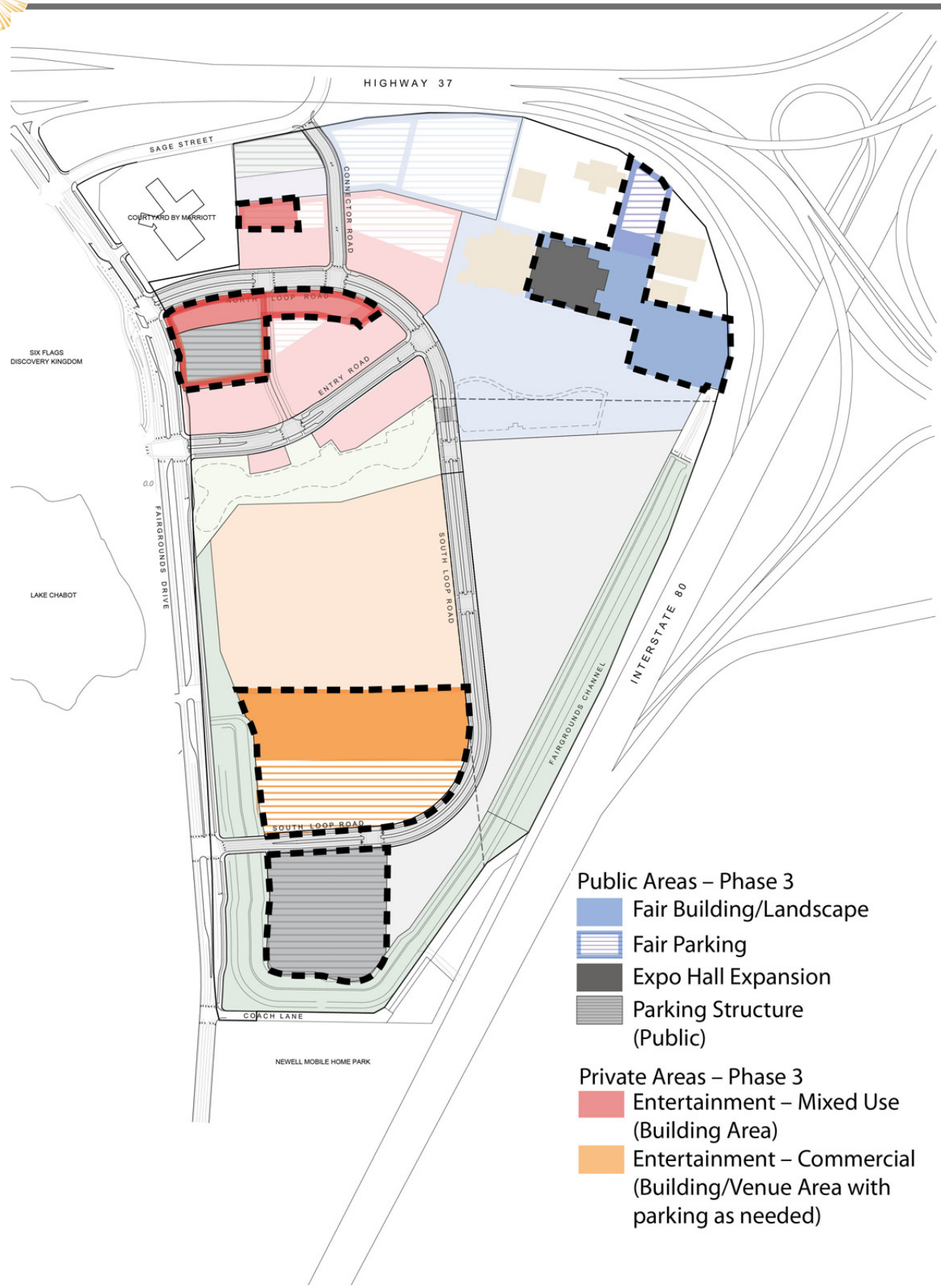
NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

Figure 3.3: Phase 1B Projects
(Years 1-5)



NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

Figure 3.4: Phase 2 Projects
(Years 6-15)



NOTE: Plan accommodates future improvements to Fairgrounds Drive and SR-37/Redwood interchanges, as modified for Solano360

Figure 3.5: Phase 3 Projects
(Years 16-25)

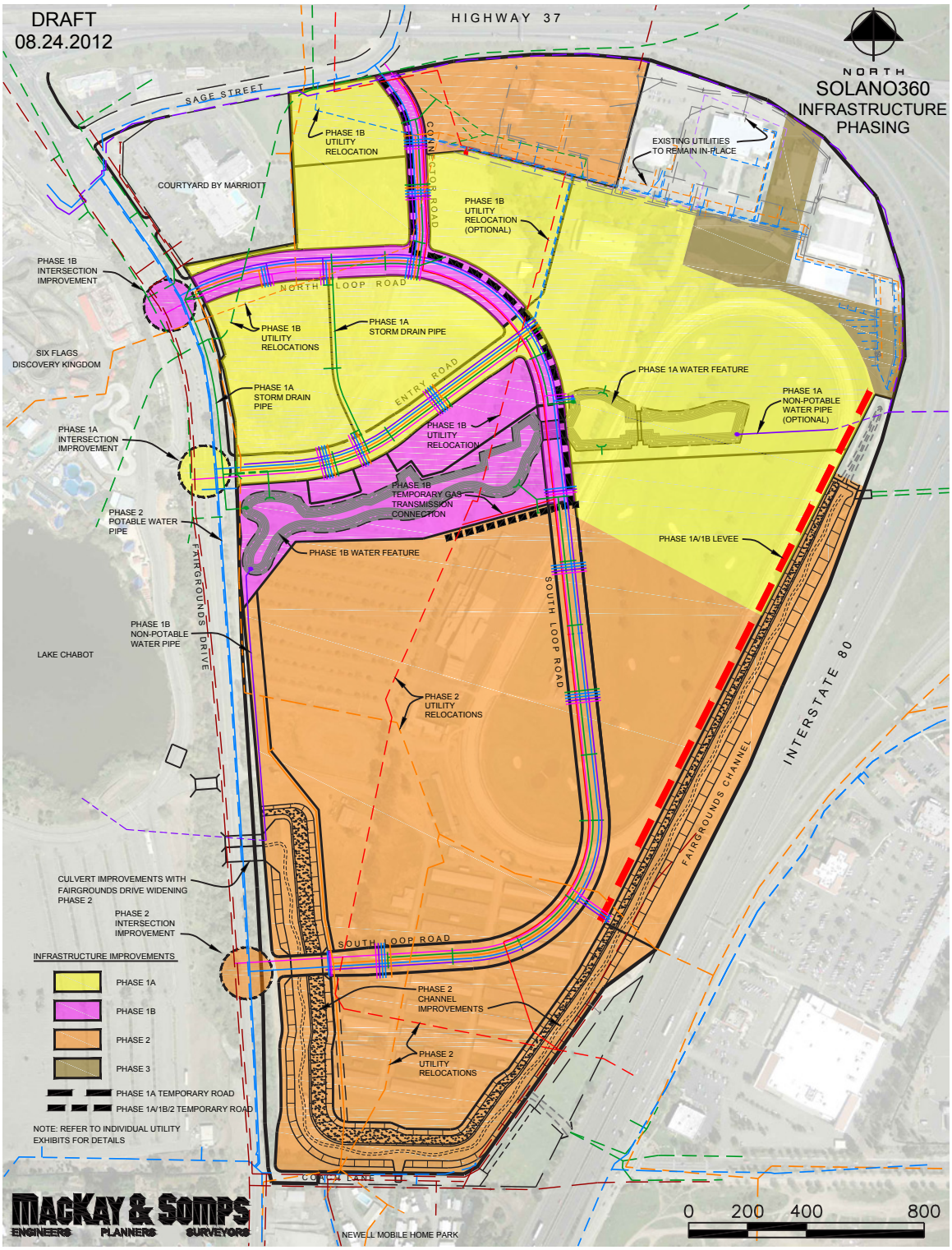


Figure 3.6: Phasing of Infrastructure

- Balance of EMU parcels available for overflow parking as needed.
- Site and utility demolition for the above.
- Phase 1b:
- Two additional acres of EMU development.
- Construction of Creek Park and water feature.

3.7.2 Phase 2

Phase 2 includes buildout of the entire Plan Area with designated uses at an intensity permitted by surface parking.

Fair of the Future

- Construction of expanded North Fair Parking and associated demolition of Administrative Office, Security Office, and Directors Trailer (relocation of these uses to portables if not accommodated in Phase 1 Expo Hall) and demolition of County Building.
- Continuing minor upgrades to existing facilities.
- Site and utility demolition, mass grading, and drainage improvements for the above.

Roads and Other Public Purpose Areas

- Transit Center Bus Docking and Parking Structure.
- Fairgrounds Channel improvements to address site floodplain issues.
- Completion of South Loop Road and intersection with Fairgrounds Drive.
- Shared Public Parking (surface parking lots and possible photovoltaic arrays).
- Site, utility and building demolition, mass grading, drainage improvements and backbone utilities associated with the above.
- Relocation of existing public utilities (sewer, water and gas transmission).

Private Purpose Areas

- Preparation of Entertainment Commercial (EC) parcel and Shared Public Parking parcel as graded parcels with roadway access and utilities.
- Additional EMU development to utilize all EMU parcels with onsite surface parking.
- Development of Entertainment Commercial (EC) 30-acre parcel with onsite surface parking.
- Site and utility demolition for the above.

3.7.3 Phase 3

Phase 3 assumes the further intensification of the Plan Area with the addition of structured parking to allow more intensive infill and expansion of uses, including the enlargement of the Exposition Hall to approximately 100,000 net square feet of exposition space. See Section 5.3 for further discussion of parking.

Fair of the Future

- Additional 50,000 net square foot expansion of Exposition Hall.
- Associated outdoor promenades and connections.

- Demolition of existing concert venue; construction of new amphitheater.
- Demolition of Civic Building; new parking and maintenance area.
- Site and utility demolition, mass grading, and drainage improvements associated with the above.

Roads and Other Public Purpose Areas

- South Parking Garage (in Shared Public Parking).

Private Purpose Areas

- Intensification of EMU development with addition of EMU Parking Garage.
- Expansion of EC venues and joint use of Shared Public Parking/South Parking Garage.

3.7.4 Phasing Policies

Overall Phasing

- Project phasing should:
  - Establish the Public Entertainment Core, including the Creek Park and Entry Road, in the initial stages of development in order to create a strong and appealing sense of place,
  - Prioritize upgrade of Fairgrounds facilities, including a new Exposition Hall and complementary outdoor venues,
  - Allow logical and cost-effective construction and extension of infrastructure,
  - Continue to provide parking opportunities for nearby major entertainment uses,
  - Make best use of existing infrastructure, including maximizing the capacity of the existing Fairgrounds Drive/SR-37 interchange, and
  - Prepare parcels and site improvements to accommodate near-term market opportunities, while maintaining flexibility for later phase development.
- The phasing plans shown in Figures 3.2 to 3.6 are intended to guide efficient staging of development that makes best use of infrastructure and creates a strong initial character for the Plan Area. However, phasing may be modified to respond to changing market conditions and development opportunities, provided that adequate onsite and offsite infrastructure improvements are made available to accommodate the pace of development, and the impacts of the project do not exceed the levels analyzed by the EIR.
- Development of the Plan Area in excess of thresholds identified by the Plan and EIR would be subject to the appropriate additional environmental review and certification, including any required mitigation measures.
- Any changes to the phasing program must be approved by the County and City to ensure that the provisions of financing, fiscal, and cost sharing agreements are not adversely affected.
- Phasing should facilitate the replacement and upgrading of older fairgrounds facilities that no longer provide a competitive advantage for attracting users.
- Infrastructure improvements, including transportation, site drainage, and utilities, should be provided before or as part of development uses within the Plan Area in order to ensure a safe and orderly development process for each phase. The provision

of infrastructure should be reviewed as part of subsequent entitlements through the County or City, with coordination between agencies to insure adequate services for each phase of development (see Chapter 7).

- Parking facilities and parking management/transportation management strategies should be phased to serve the needs of development areas within the Plan Area and the nearby major entertainment uses. Phasing of parking is addressed further in Section 5.3. Usage and financial terms will be defined by a Parking Operations Management Plan to be prepared by the County and by parking agreements between the County and Six Flags Discovery Kingdom.

Phase 1 Priorities

- The first phase of the project (Phases 1a and 1b) should be designed and implemented to provide a high level of amenity features to establish an appealing, highly marketable setting. These features include the landscape and site improvements proposed for the Entry Road, Creek Park and water feature, Fair of the Future, and other public areas.
- To the extent possible, the first phase should be concentrated in the northern portion of the Plan Area in order to a) establish a "critical mass" that builds on the concentration of existing and proposed Fair buildings and facilities, b) create cost efficiencies in the extension of roads and utilities, c) make best use of the proposed water feature and other amenity features, and d) integrate with existing nearby uses.
- To attract family entertainment and similar users, the first phase should include installation of horizontal improvements and backbone infrastructure and creation of parcels that are readied for vertical development.

CHAPTER FOUR: URBAN DESIGN AND GUIDELINES

4.1 INTRODUCTION

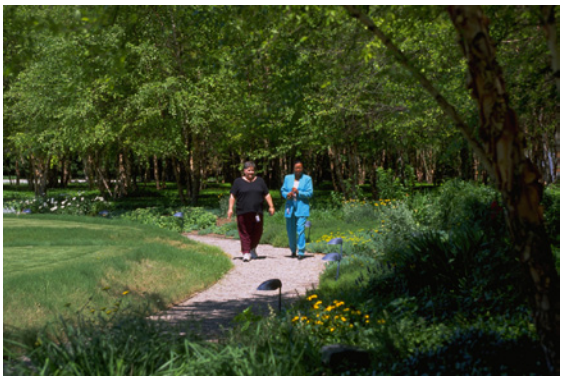
This chapter sets forth urban design concepts and guidelines to shape and facilitate redevelopment of the Plan Area, consistent with the Guiding Principles and land use provisions described above. The intent is to create an exciting, synergistic fusion of entertainment, fairgrounds, and mixed use destinations that builds on the regional visibility of the Plan Area and supports the ongoing success and long-term viability of the Solano County Fair, new Entertainment Mixed Use and Entertainment Commercial uses, and nearby major entertainment uses.

These design guidelines address both overall issues of site development and detailed issues of landscape, building form, walls and fences, and signage. Illustrative plans, photos and other materials are intended as guidelines and examples for review of future building approvals. Lastly, sustainability guidelines are included that both summarize sustainable project elements and provide suggestions for future development.

To assist future users of these design provisions, the following chapter contains separate sections for:

- The overall Plan Area,
- The Fair of the Future (Fairgrounds),
- Other Public Purpose Areas (Major Roads, Creek Park, Fairgrounds Channel, Transit/North Parking Center, and Shared Public Parking), and
- Private Purpose Areas (Entertainment Mixed Use and Entertainment Commercial parcels).

The information is this chapter is informed by the Plan's conceptual studies and may be subject to change as more detailed plans and specifications are developed as part of the design and development review process.



4.2 PLAN AREA DESIGN

4.2.1 Urban Design Concepts

The Land Use Plan (Figure 3.1) establishes a framework for the Plan's proposed urban design features. The intent is to create a seamless integration of public and private areas, including Fairgrounds facilities and private mixed use development.

Guidelines are as follows:

- The Public Entertainment Core, the defining feature of Solano360, encompassing a lively, mixed use entertainment corridor connecting from the gateway at Fairgrounds Drive in the west to the demonstration farm at the Fair's eastern edge. The Public Entertainment Core includes:
  - The Creek Park with its walkways, promenades, plazas and bridges,
  - The Creek's Park's central water feature that connects public and private area and provides multiple benefits including visual amenity, wateredge promenades, onsite stormwater hydromodification, capture and reuse of stormwater for irrigation, and water quality treatment,
  - The thematic "Main Street" or Entry Road aligned with Creek Park, terminating at the new Exposition Hall and offering wide urban sidewalks and a pedestrian-friendly frontage for restaurants, retail associated with entertainment uses, and gathering areas, and
  - Within the Fair, a major Arrival Plaza at the entrance to the Exposition Hall, a Midway/Event Lawn with terraced seating, the water feature and Creek Park with pedestrian bridge, and a demonstration farm oriented toward families and school groups.
- Indoor and outdoor venues for the Fair of the Future, fostering a year-round program of activities within a variety of active and passive spaces.
- Transformative Phase 1 project that includes the Creek Park with its water feature and creates a new Exposition Hall located as a focal point for the Entry Road.
- Strong relationship to nearby major entertainment uses via roadway and pedestrian connections, including integrated design elements and synergistic land use opportunities.
- Pedestrian, bicycle and transit connections integrated into streets and open space systems.
- Creation of a Rindler Creek drainage and adjacent buffer along the eastern, southern and western boundaries of the site to alleviate floodplain issues, establish riparian habitat and wetland benefits, and provide the opportunity for pedestrian trails.

These features are described further in this chapter and in Chapters Five and Six.

4.2.2 Access and Circulation

Connections to the Plan Area

Figure 4.7 illustrates key features relating to site access, parking, and entries.

The configuration of roads, entries and parking is intended to facilitate efficient access to parking facilities while focusing views on the Creek Park and other destinations, with attractive streets defined by buildings.

Because the Plan Area has a direct, physical connection to Six Flags Discovery Kingdom, the project has also been designed to establish a strong pedestrian character to encourage walking between the theme park and the Fair of the Future. Visitors to the Plan Area will be able to park, shop, dine, relax and visit Fair programs with the option of walking or taking a shuttle.

Connections within the Plan Area

The Plan proposes an integrated system of internal connections that encourages shared use, walking, bicycling and transit. Features include:

- Walkable network of tree-shaded sidewalks, including special Entry Road streetscape (see Figures 4.24 to 26).
- Pedestrian trails within the Creek Park, connecting to continuous perimeter trail along the Fairgrounds Channel.
- Multi-use paths along the South Loop Road, connecting parking areas with the Public Entertainment Core.
- Continuous perimeter trail for the south area of the Plan Area as shown on Figure 5:10.
- New promenades and plazas within the Fair of the Future.
- Raised intersection and pedestrian crosswalks at the Entry Road/Loop Road to calm traffic and provide safe pedestrian crossings.
- A potential parking shuttle serving internal destinations and connecting to Six Flags Discovery Kingdom and the Transit/North Parking Center (see Figure 5.15: Transit and Shuttle Routes).

Accessibility

According to the Americans with Disabilities Act of 1990 "ADA" standards, new facilities constructed by, on behalf of, or for the use of a public entity must be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities.

Public purpose areas within Solano360 will be designed to provide for ADA access according to applicable ADA Standards for Accessible Design.

4.2.3 Landscape Plan and Guidelines

Figure 4.8: Landscape Character illustrates the location and variety of landscape areas and public spaces envisioned for the Plan Area, including:

- Streetscape planting.
- Buffer/riparian planting along the Fairgrounds Channel, using species that are compatible with the flood control function of the channel.
- Planting along soft or earthen water edges.
- Park landscape.
- Turf, both regular and reinforced (such as with mesh reinforcement material).

- Rain gardens.
- Demonstration Farm.
- Hardscape and plaza areas (including the Fairgrounds Concourse).
- Terrace seating at grade changes along the Creek Park water feature and in the Fairgrounds amphitheater.
- Surface parking areas.

Specific guidelines for Fair property landscape features as well as for the Fairgrounds Channel and Creek Park are included in Section 4.3: Fair of the Future and Section 4.4: Other Public Areas, respectively. The following general guidelines apply to the Plan Area as a whole.

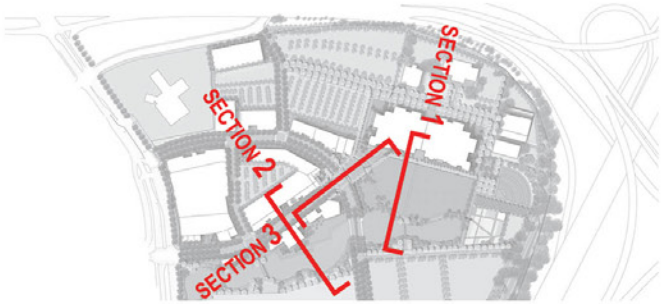
Street Character

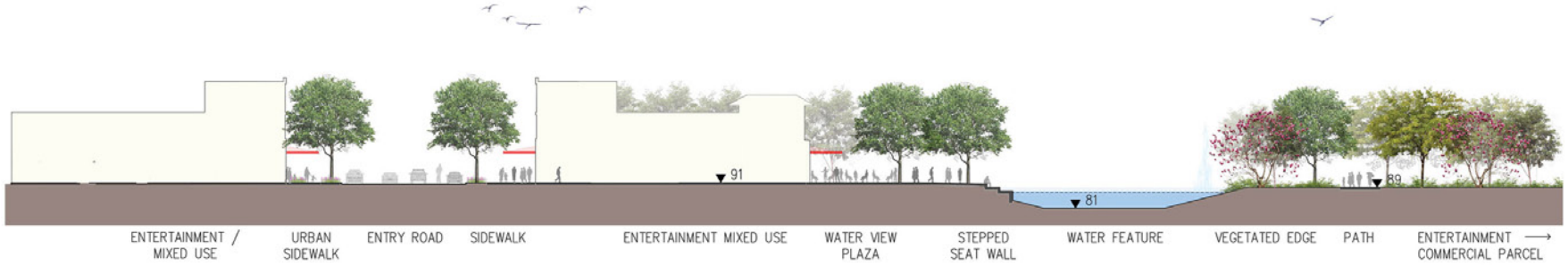
- Hardscape and plazas should be paved attractively, with paving patterns and materials conducive to pedestrian circulation and gathering.
- Tree planting should be designed to create shaded areas, especially in public areas such as sidewalks, parking lots, roadways, courtyards, plazas and parks.
- Trees along the Entry Road and at the Arrival Plaza should be of a different character than the streetscape trees on the other roads, and should be planted in tree grates.
- Street trees should be placed in park strips between the curb and sidewalk as shown by Figures 4.24 to 4.26.
- Parkway strips and medians should be planted with a variety of drought-tolerant species.
- Contrasting tree species should be used for perimeter trees and trees along pedestrian corridors and hardscape areas to clearly identify paths of travel.
- Street trees should be spaced at approximately one tree per 25 feet, or less if smaller trees are used.
- Trees for major streets should be a minimum of 24-inch box container size. Fifteen-gallon container size may be used for minor streets and buffers.

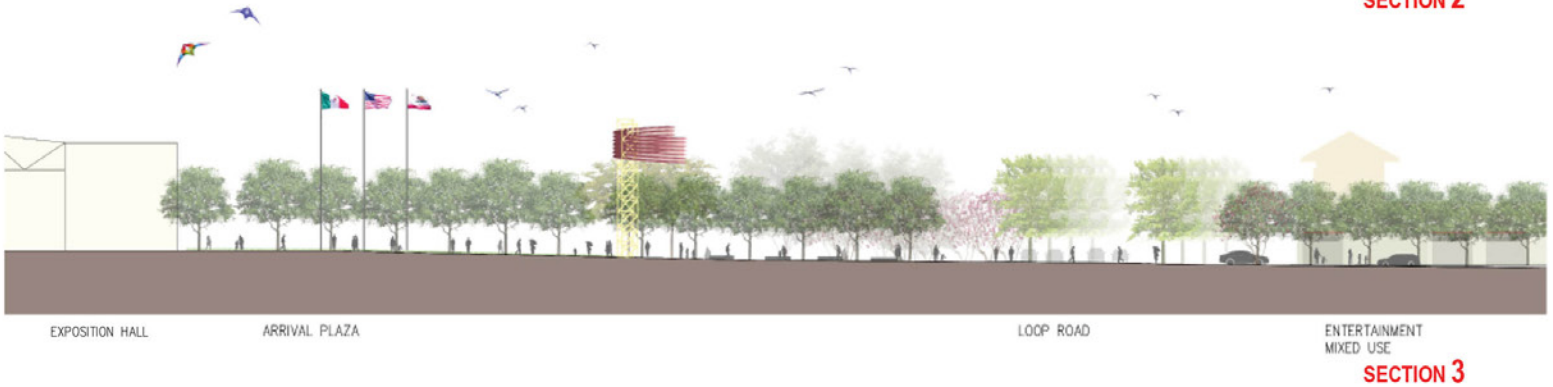
Planting Criteria

- Plant materials should be selected from the plant palette in Appendix E: Solano360 Plant Palette. Substitutions or additions may be considered based on the suitability of the species in terms of similarity of form, adaptability, tolerance to site soils, climatic conditions or water quality, or other pertinent characteristics. The plant list is not intended to be exhaustive but to provide a clear guide for selection. Additional plants may be used that are compatible with this list and are consistent with the intent of these guidelines.
- In order to establish a unique and cohesive image for the Plan Area, a limit range of plant material should be used for public roads, park and common areas, commercial sites, and the Fairgrounds. For these areas, the intent is to employ a limited number of plant species for the majority of the planting in each identified area.
- Plant materials should be selected to be at an appropriate scale for the surrounding area when at mature size. Larger, more dramatic species should be utilized for important public areas such as the Public Entertainment Core, major entries, and Loop Road.

Figure 4.1: Illustrative Plan
Building areas depicted here are conceptual only.







Sections through Creek Park & Water Feature (at Fair and at Entry Road)

Figure 4.2: Illustrative Sections

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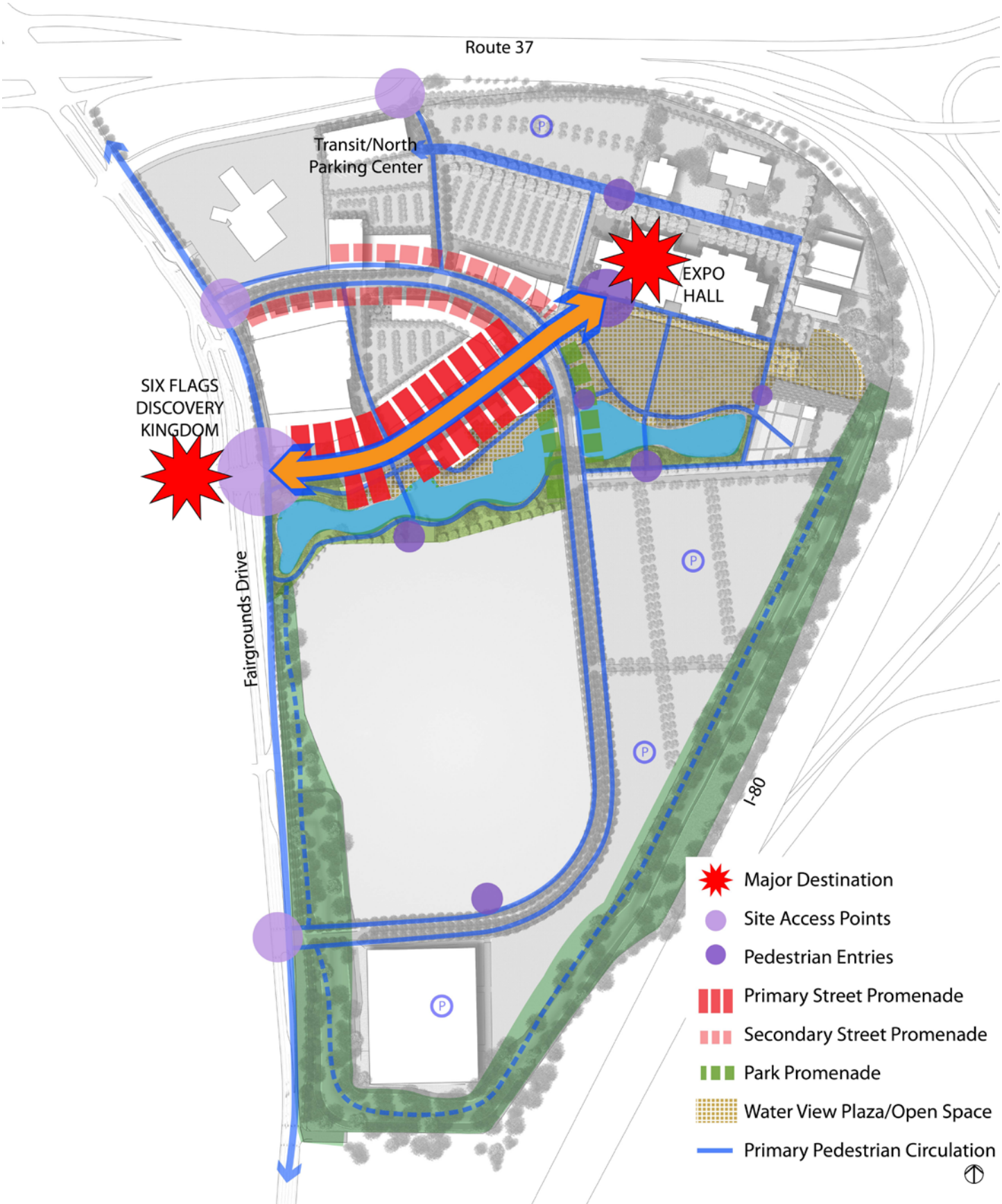

Figure 4.3: Urban Design Elements
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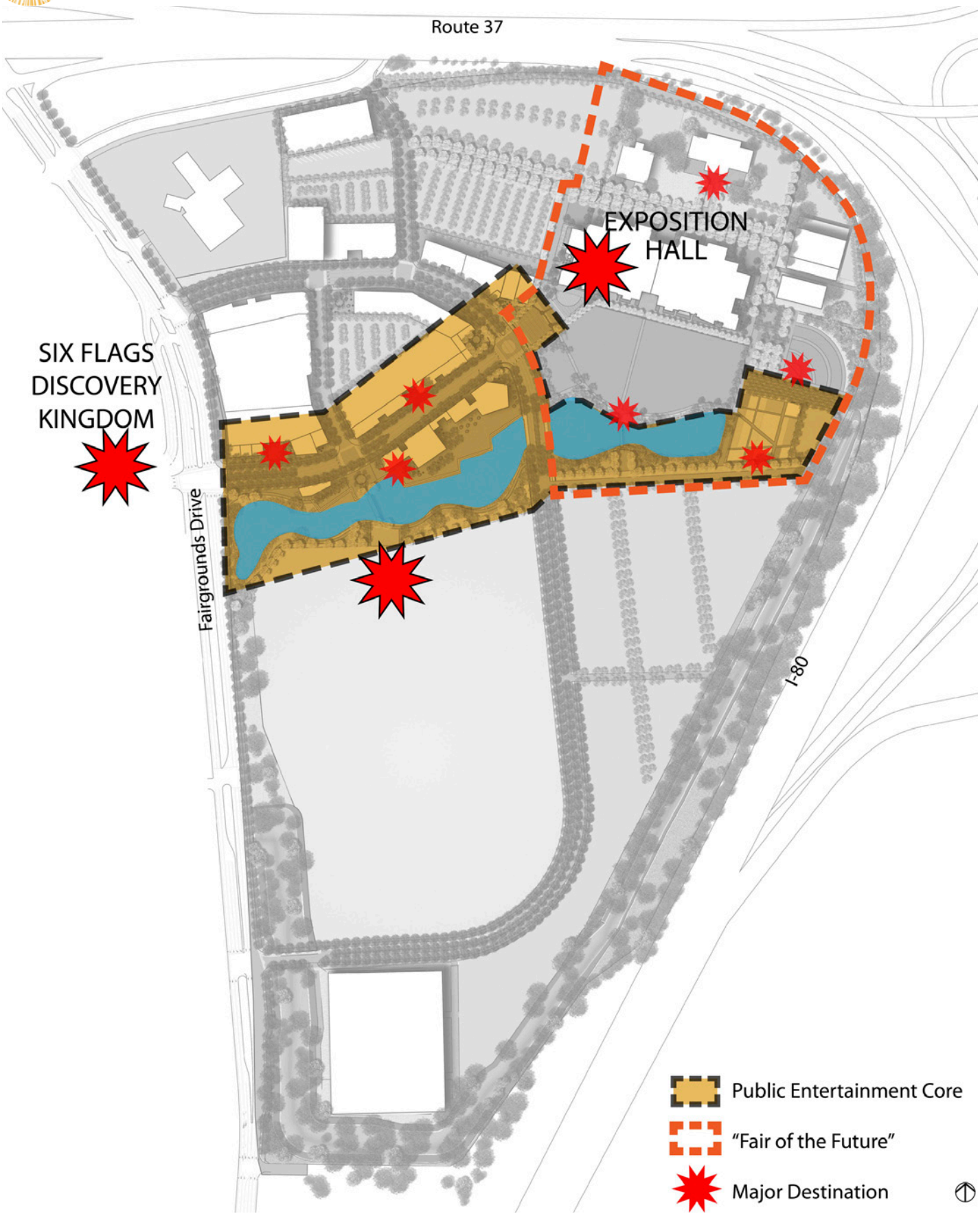

Figure 4.4: Public Entertainment Core
Building areas depicted here are conceptual only.

Figure 4.5: Site Relationships
Building areas depicted here are conceptual only.

View from I-80

View from S.R. 37

Figure 4.6: Perspective Views

- Plant materials should be selected to meet the criteria listed below.
- Emphasize the planting of drought-tolerant, long-lived plant species that are native and/or well adapted to the climatic and soils conditions of the Plan Area and require minimal maintenance.
- Avoid planting tree species with invasive root systems near utility lines, concrete and other paving. Such species may be utilized in setback areas adjacent to roadways or in transition areas, provided there is adequate clearance.
- Avoid the use of non-native, invasive species that may spread into areas of permanent, undeveloped open space.
- Landscaping is required where development is visible from major public roadways and public facilities including trails. Tree planting should consider the need to preserve solar access and views and maintain fire safety requirements.
- All plants should be carefully selected to avoid toxic species that could be harmful to children or cause allergic reactions.
- Planting design should consider year-round interest and seasonal character through the careful use of flower and leaf color.
- Landscape design should provide effective screening of parking areas, retaining walls, utility enclosures, utility cabinets, service areas, or service corridors to reduce negative visual impacts. Screen landscaping should incorporate evergreen plant species in order to maintain year-round leaf cover.
- Plant materials along water edges at the water feature and in the fairgrounds channel should be native vegetation capable of filtering water, preventing erosion, and providing habitat and food to native species.
- Landscaping within the Plan Area will be subject to any special requirements identified by future soils or drainage investigations.
- Landscape plans should be prepared by a landscape architect registered to practice in the State of California.

Irrigation and Maintenance

- The use of potable water for landscape should be minimized. It is anticipated that non-potable

water from the onsite water feature will serve as the irrigation source (refer to Chapter Six for additional details). If reclaimed water becomes available, it may be utilized as well. Any water-intensive planting should be concentrated in shaded areas, where natural runoff occurs, or at highly visible locations, such as within the Public Entertainment Core and at the Arrival Plaza.

- Groundcovers, grasses, or drought-tolerant turf should be used in place of standard lawn where possible.
- Existing vegetation is limited within the Plan Area; however, healthy existing vegetation along drainage ways or other areas should be retained to the extent feasible, with replacement provided where removal is unavoidable. In Phase 1, existing (and healthy) parking lot trees should be retained within parking areas if such trees do not interfere with site development.
- All public areas, rights-of-way and commercial project landscaping should have high efficiency, automatic irrigation systems. Low volume spray heads and drip irrigation systems should be utilized. Landscape improvements should be installed and maintained with a sustainable landscape maintenance plan that uses toxin-free organic or biological fertilizers and weed/pest control products.
- Landscape plans should be submitted to the City to ensure water-efficient irrigation systems according to City requirements.

Transition Areas and Buffers

Grade transition areas between development and site edges are subject to the following:

- Transition areas should be landscaped to create a visually pleasing transition between development and common areas, and provide filtered views both from and toward the Plan Area. Landscaping of transition areas is required where development is visible from major public freeways or roadways and from public facilities.
- Landscaping of transition areas should emphasize trees and shrub planting and grasses. Irrigation should be provided for plant establishment.

Site Drainage

- All site stormwater runoff must be treated consistent with the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP) prior to discharging into an offsite drainage system. Treatment should utilize Best Management Practices (BMPs) and Low Impact Development (LID) principles as specified in MRP Provision C.3.
- Acceptable treatment measures within the Plan Area may include:
- Infiltration
- Evapotranspiration
- Biotreatment (e.g., rain gardens, bioswales, biotreatment units, planter/tree boxes)
- Minimizing impervious areas
- Constructed riparian channel (see Section 4.4.3: Fairgrounds Channel)
- BMP's should be incorporated into parking lots, medians, and street/parcel edges.
- Sub-drains should be provided unless a percolation test shows such drains are unnecessary.

Figure 4.7: Site Access & Parking
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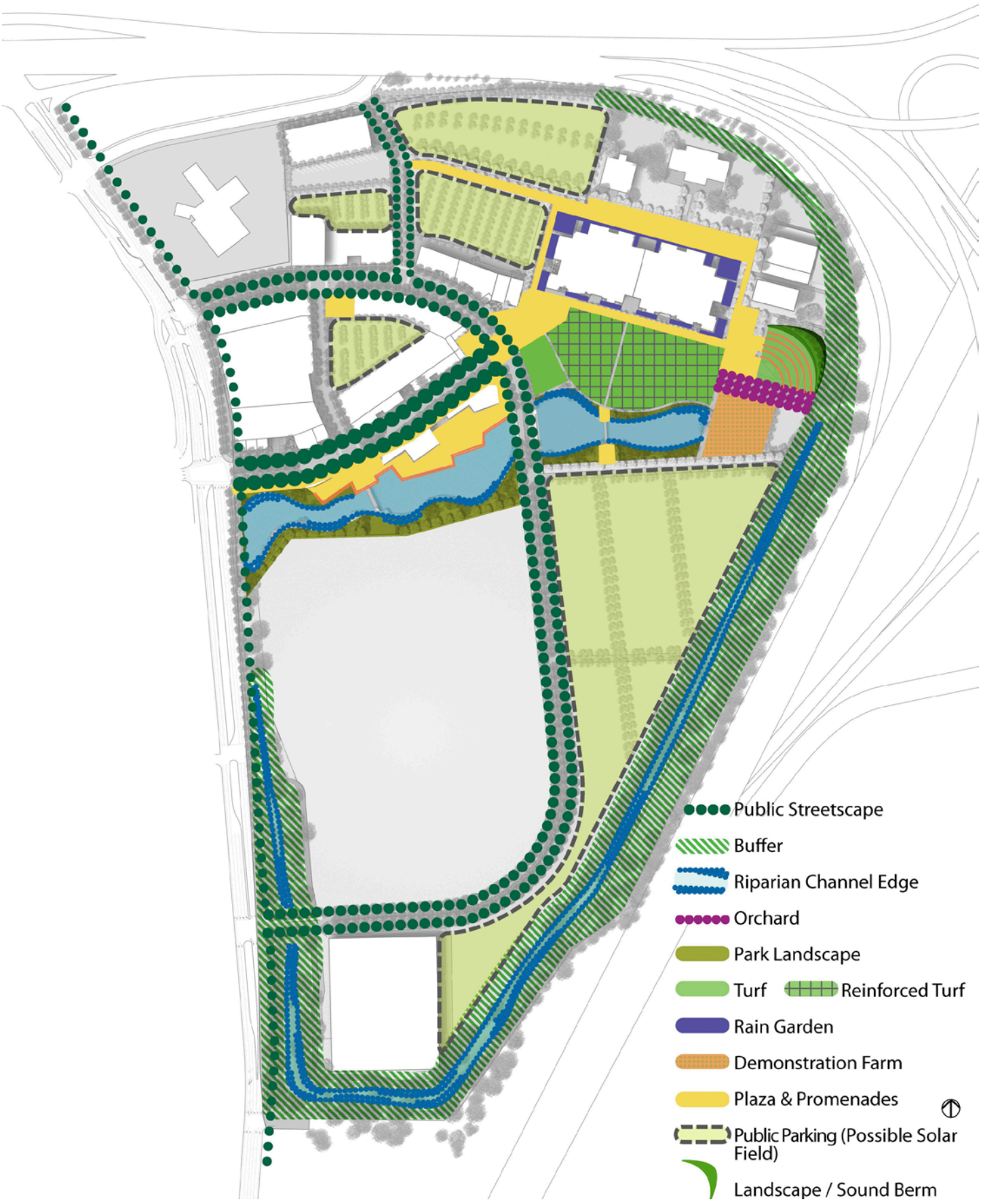


Figure 4.8: Landscape Character

Building areas depicted here are conceptual only.

Erosion and Sedimentation

- Grading operations should be planned and implemented to efficiently control erosion and sedimentation.

Berms, Channels and Swales

Berms, channels, and swales should:

- Be shaped to appear as an integral part of the graded or paved surface.
- Have smooth transitions between changes in slopes.
- Be designed so as to appear a natural part of the site topography.

Slopes and Retaining Walls

- Landscapes should incorporate smooth transitions between changes in slope.
- The maximum slope for a landscaped area should be 2:1 if the area is planted with a ground cover and 3:1 if planted with lawn.
- Where space constraints exist, terracing with retaining walls will be allowed.
- Retaining walls should not exceed three feet in height. For grade changes that exceed three feet, walls should be stepped in equal increments with three foot-wide planted terraces between.
- Retaining walls should be constructed of a low-maintenance, durable material compatible with nearby architecture.

4.2.4 Parking Areas

This section addresses design of parking facilities, located per Figure 5:14: Land Use and Parking. Chapter Five provides additional information on phasing of parking facilities.

Overall Guidelines

- In general, parking should be located and designed to allow buildings to be located directly along street frontages, with parking areas to the rear, while providing adequate parking facilities to serve commercial and public uses.
- During peak use periods, such as Saturdays and Sundays during Fair Week, parking may be augmented by shuttles to offsite locations.
- Parking facilities (including surface lots and structured parking) with pedestrian or vehicle access from Entry Road should be screened at the street level by buildings or significant amenity features to maintain an active street character and well-defined street edge.
- Signs indicating routes to parking should be displayed clearly along the Entry Road, Loop Road and Connector Road in order to guide visitors.
- Shared parking between the Fairgrounds, nearby major entertainment uses, private development, and other parking users should be maximized and will be defined by a Parking Operations Management Plan to be prepared by the County and by parking agreements between the County and Six Flags Discovery Kingdom.
- Parking should not be located adjacent to the Creek Park or water feature in order to maintain the open space character of those areas (see Section 3.6.1).

Surface Lot Design and Landscaping

As described in Chapter Six, a majority of the Plan Area, including parking lots, will be designed to drain to the Creek Park water feature. The water feature will provide water quality treatment, but it is likely that bio-treatment will need to be integrated into the parking lot design as well.

- Surface parking lots should be planted with trees to minimize their visual impact, reduce heat gain, and create a more comfortable pedestrian setting.
- For private areas (EMU and EC development), trees should be planted at a rate of one tree per six parking stalls.
- Larger scale parking areas, such as Shared Public Parking, require more flexible landscape guidelines in order to serve multiple purposes such as temporary fairs and festivals; therefore, tree planting may be concentrated along perimeters, entries, and key pedestrian corridors.
- Parking lots may be developed with photovoltaic arrays (in place of trees) as described in Section 4.6.2 Next Step Sustainability Measures.
- Ample, well-lit and shaded (either by trees or solar collectors) pedestrian routes should be provided from parking areas to main destinations and building entries. Where possible, pedestrian circulation should be separated from vehicular areas.
- For interior parking lots, smaller trees should be selected to allow adequate visibility beneath mature tree canopies to building entries and storefronts.
- All surface lots should have landscape buffers at street or other public area edges. Landscape buffers should consist of trees and low plantings (to provide views into lot interiors) interrupted with regular pavers or other walkways for ease of pedestrian access.
- All major surface lots should incorporate bicycle parking facilities.
- Passenger loading areas for ridesharing vehicles and preferred parking for carpools and/or certified pure zero emission vehicles (100% battery electric and hydrogen fuel cell) and compressed natural gas (CNG) vehicles should be located near main building entrances.
- Two way parking lot drive aisles should be a minimum 24 feet wide.
- Parking lot landscape islands should be a minimum of eight feet wide at the aisle ends and a minimum of six feet wide elsewhere.
- Tree wells and planting strips should be a minimum of six feet diameter/ width and should be located between all doubled-loaded parking rows.
- Parking lots should incorporate handicapped spaces per ADA guidelines; such spaces should be located near entry points.

Design of Parking Structures

As parcels develop and land use intensifies, structured parking may replace surface lots in the southern end of the Plan Area (South Parking Structure), within the Transit/North Parking Center, and within the Entertainment Mixed Use area. These structures will support anticipated Phase 3 development including expansion of the Exposition Hall and expansion of the Entertainment Mixed Use and Entertainment Commercial development.

- Parking structures should be screened with planting of suitable scale and species.
- Parking structures located in the EMU area should be wrapped by ground floor retail

or entertainment uses along the North Loop Road or other public roads, and retail/commercial uses are encouraged for the ground floor of parking structures to activate streets and pedestrian corridors.

- The upper floors of parking structures should utilize planters, trellises, vegetated walls or other decorative screens along vertical walls at street frontages or other public area and open space frontages.
- Parking structures should be designed to complement nearby architecture in terms of style, massing, color and detailing, and should be located to prevent shadowy, windy canyons.
- Interiors of parking structures shall be well lit and shall utilize light colors on interior walls to create a safe and comfortable environment.

4.2.5 Signage and Lighting Guidelines

See Section 4.3.6 for Fair of the Future signage, lighting and site furnishing guideline; see Section 4.4.6 for guidelines addressing electronic reader board signage on the Fairgrounds adjacent to I-80 and SR-37.

Figures 4.22 and 4.23 provide examples of site furnishings and lighting.

Signage

Signs will aid in establishing the sense of quality and character for the Plan Area, in addition to conveying critical wayfinding information for visitors.

- Comprehensive signage programs should be developed for both the Private and Public Purpose Areas. These programs should be prepared together or, if prepared separately, should be coordinated to convey a unified identity for Solano360 including the Fair of the Future, Creek Park, and the entertainment and retail development.
- Permanent signs prepared as part of comprehensive signage programs should include entry signs, area signs, directional signs for vehicles, bicyclists/pedestrians, street signs, interpretive and educational signage within the Creek Park and Fair, and signs identifying businesses in the EMU and EC areas.
- Temporary signs may include special event signs, temporary signage during construction or at the opening of a new venue or business, real estate information signs, and parking controls for major events.
- In general, signs should be utilized only where necessary, emphasizing an image of permanence and quality; however, signs should offer adequate visibility and reflectivity, where appropriate, to provide for safety and orientation at night. The

purpose of permanent signage is to convey information, to aid in identifying visitor destinations and to add an element of consistency.

- Entry signs may be integrated into entry pylons, arches, or other features.
- All permanent signs and monuments should be constructed of durable, high quality materials.
- Freestanding signs should be limited to directory-type signs with information limited to the name of the project for multi-parcel developments and building or address numbers.
- Access to parking should be adequately signed to guide visitors to parking facilities.
- All free-standing parcel or project signs along streets and common access drives should be designed as a 'family' of signs, consistent with the architectural style of related buildings.
- Small, free standing signs for individual buildings may be allowed near building entries; such signs should be consistent with the architectural style of the building. Other signs for individual buildings or tenants should be located on the building in a manner consistent with the architectural style.
- A digital kiosk or marquis sign at the Entry Road entry or other appropriate location may be allowed for use by the Fair Association for Fair and other Solano360 events.

- With the exceptions noted above, all signs within Private Purpose Areas should conform to the City Zoning Ordinance Chapter 16.64.
- For signs within the Private Purpose Areas, sign area and dimensions shall be based on the approved sign program for a specific building or project.

Lighting

Street-level and pedestrian lighting are important for safety and will also contribute to site identity and character within the Plan Area. Lighting elements should adhere to the following.

- Lighting should be designed to differentiate use areas, emphasize amenities and landscape features, provide continuity along street corridors and promote safety.
- Lighting may be combined with banners or incorporated into other pageantry and wayfinding features to create a festive setting.
- In general, lighting should provide sufficient levels of ambient light to create a safe and pleasant environment without causing light pollution or glare into adjacent properties.

- Low-level, cut-off, pedestrian-scale fixtures should be utilized to the degree possible.
- Street lighting should be directionally shaded to reduce off-site fugitive light and glare.
- Exterior building lighting should be shielded to minimize direct glare and reflections.
- Lighting should utilize LED or other energy-efficient fixtures with pleasing light color.
- Materials for lighting fixtures should be durable and low maintenance. Natural finishes like bronze, and nickel steel are recommended.
- Spacing and illumination levels should be calibrated to achieve IESNA standards (e.g., a 0.5 foot candle level for sidewalks in medium pedestrian activity areas), and local requirements, based on photometric studies prepared as part of design submittals for each street.
- Intersection lights should be on 22-foot tall poles.
- Pedestrian lighting along sidewalks should not exceed 15 ft in height.
- Parking lot lights should be no higher than necessary to provide efficient lighting of the area, but should not exceed 28 feet, including the base.

4.2.6 Walls and Fences

Walls and fences may be used to define public and private boundaries and spaces, as described below. See additional guidelines for Fairgrounds fencing and entries in Section 4.3.

- Where used, walls and fences should be open and/or low to maintain an inviting, attractive appearance and provide adequate sight distance for entries. Materials should be compatible with and complementary to principal buildings. Fence and wall panels may be divided into regular modules that reflect the module of the principal building.
- Thick and thin elements should be used, with thicker pieces for supports and panel divisions. Fence posts and support columns should be emphasized and/or built-up.
- Screen walls are intended to screen uses such as loading, service areas, and utilities, while maintaining a common architectural language with the buildings surrounding them. All screen walls connected to buildings should match the building style. Maximum height of a screen wall should be six inches higher than the object being screened.
- Masonry walls should have a base and coping.
- Fences visible from public areas should be wrought iron, cast iron, and welded steel ornamental fences

or wood. Metal fences may be mounted on a low masonry wall, and/or spanning masonry piers. Wooden fences should be painted, preferably a light color.

- Security fences should not be visually prominent. Black, vinyl-clad chain link fencing (with matching posts) may be used for security fencing with a maximum height of six feet; taller fences may be allowed along freeway edges. Evergreen hedges, flowering vines and/or trees should be planted along the base of all security fences.
- Black, vinyl-clad chain link fencing (with matching posts) may be utilized for storage or service areas that are not visible from public areas, including public roads.
- Plywood, un-clad chain link, barbed wire or razor wire fence are prohibited.

4.2.7 Loading and Service Areas

- Loading areas should be sited to the rear building or sides of buildings not visible from public areas, including streets.
- All service, loading, trash, storage areas, and utility equipment should be screened from public view utilizing a combination of planting and architectural elements that are compatible with the building architecture.
- Loading/garage doors are prohibited on building facades facing a public street.
- Service loading from public streets is prohibited except for parcels where other configurations are not feasible, such as adjacent to the Creek Park.
- No refuse or storage areas may be located between the front of a building and a primary road right-of-way except for parcels where other configurations are not feasible, such as adjacent to the Creek Park.
- Refuse collection and storage should be located to the rear and sides of buildings, covered with a roof, and sized to contain all refuse generated on site between collections.
- Common recycling bins should be provided for all commercial uses and must be readily accessible to all tenants/employees, and be screened in the same manner as refuse collection areas.
- Transformers and other utility equipment should not be placed in the public street setback area.
- All rooftop equipment should be fully screened with the same or similar materials of which the building is constructed.

4.3 FAIR OF THE FUTURE

4.3.1 Fairgrounds Programming

Throughout the planning process, Solano County Fair Association representatives provided input regarding near-term and mid-term plans to establish a new Fair of the Future that could offer a broad array of year-round activities while maintaining the traditions and community connections of the existing Fair.

Outdoor spaces, including lawn and hardscape plazas, are of critical importance to the Fair.

Following are the identified program uses for the Fair of the Future:

- Establishment of a new, flexible event hall of approximately 50,000 net square feet of exposition/event space, with potential for expansion to 100,000 net square feet in the

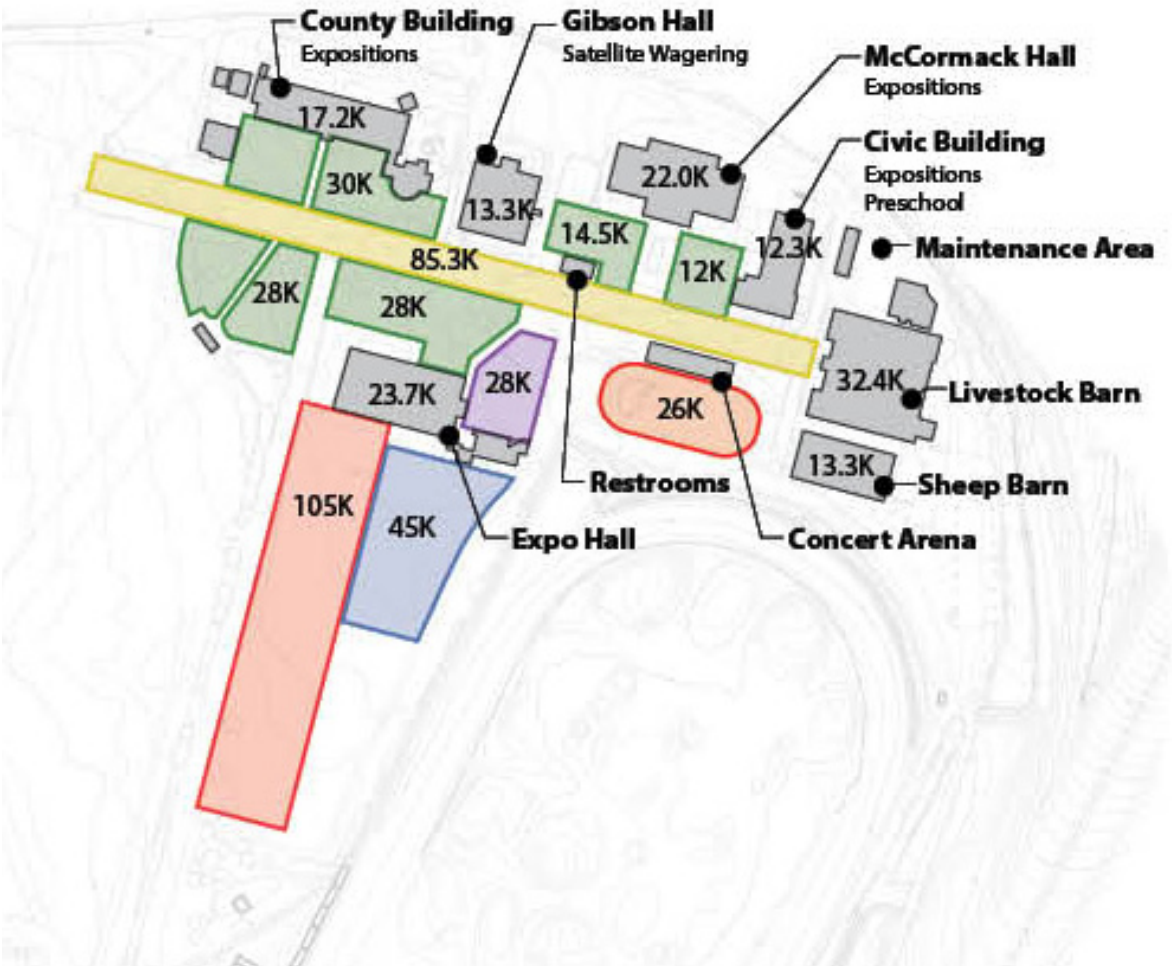
future when demand warrants such an expansion.

- Ability to provide an array of event and entertainment venues to respond to market opportunities and region serving demand.
- Selective update, expansion and/or replacement of existing Fair facilities.
- Desire to have complementary program to Six Flags Discovery Kingdom and adjacent mixed-use development.
- Convenient and proximate transitions from indoor to outdoor venues.
- Branding and image to focus on local culture and heritage of the Fair, with consideration of the County Fair roots/heritage: Livestock, Agriculture, Food and Community.
- Reinforcement of important County Fair themes including (1) heritage of Solano County Fair; (2) sustainability; (3) agricultural demonstration.

- Expression of the diverse character of Solano County, (urban / rural, ethnic/cultural diversity, lifestyle diversity) and effective use of the site's key location at the crossroads of major roads.

In addition to current events and activities at the Fair, specific new attractions and programming could include:

- A Ferris wheel or similar feature visible from I-80.
- "Mini-midway", or small amusement park, with year-around operation.
- "Festival-on-the-green" program of activities within a new event open space; consideration of an outdoor inflatable movie screen.
- Demonstration Farm that could attract school groups and take advantage of interests in micro-sustainability and urban farming.
- Wedding events with location for wedding 'photo op.'
- Tractor pulls, livestock shows and similar agriculture-related events and activities.
- Running or walking races.
- Flea markets and farmer's markets.
- Complementary operational relationships with Six Flags Discovery Kingdom, local hotels, and other businesses, such as providing exhibit or meeting space to help hotels attract larger scale meetings or convention business.



EXISTING FACILITIES

BUILDING AREA	134,200
SHADED PLAZA AREA	28,000
PAVED VENUE AREA	45,000
LAWN VENUE AREA	110,300
OTHER OPEN SPACE (ARENA)	26,000
CARNIVAL / MIDWAY AREA	105,000
CONCOURSE	83,300

Figure 4.9: Existing Fairgrounds Facilities

PROPOSED FACILITIES (Sq.Ft.)
At Buildout/Phase 3

Building Area	233,060
New Hardscape Venue Area	59,102
Lawn Venue Area	60,000
Concert Amphitheater	60,700
Midway/Multi-Purpose	164,621
Concourse (Existing)	55,000
Demonstration Farm	90,770
Gardens/Courtyards	48,768
RV Parking	30,500

Figure 4.10: Proposed Fairgrounds Facilities

4.3.2 Fairgrounds Design Objectives

Figures 4.11 and 4.12 illustrate the conceptual plans for the Fair's outdoor and building venues for Phases 1 and 3. As envisioned, the Fair of the Future plan upgrades the Fairgrounds in its current location, with long-term flexibility to expand southward into parking areas as additional space for event venues is required beyond the scope of this Plan.

The overall objectives of this conceptual-level design are as follows:

- Provide new, multi-functional event facilities that expand the Fair's abilities to market to a wide variety of entertainment, educational, commercial, and civic programs on a year-round basis.
- Create new outdoor venues adjacent to and in association with the new Exposition Hall to support the Fair's program of outdoor events and create appealing and durable outdoor public spaces. For maximum usability, these venues should include both turf and paved spaces and should be designed as "outdoor rooms" with simple, outdoor areas framed by trees and/or buildings.
- Distribute parking areas and entry gates, with clear wayfinding signage to enable flexible event programming and allow the Fair facilities to serve multiple, concurrent events.
- Develop options for year-round uses and products at the Fair; require that events and attractions stay relevant and relate to contemporary preferences for food, entertainment and education.
- Consider the selective update, expansion, and/or replacement of existing Fair facilities in a phased program that allows each incremental stage to function effectively.
- For intermediate/interim enhancements to Fair facilities, consider "facelifts" to key buildings and enhancements to the grounds.

4.3.3 Fairgrounds Phasing

Flexibility is a critical objective for the Fair of the Future. The phased upgrade of structures and open spaces is intended to allow multiple and shared uses, allowing the Fair to operate and generate revenue throughout the year and providing for maximum synergy with non-public and public uses on the overall site.

- **Phase 1** (Phases 1a and 1b) includes the demolition of the existing Expo Hall and construction of the new Exposition Hall providing approximately 50,000 net square feet (approximately 72,000 to 77,000 gross square feet, depending on whether Administrative and Security Offices are included). Associated outdoor venues, including Arrival Plaza and Midway/Event Lawn and Creek Park with water feature, are scheduled for Phase 1. If funds are available, Phase 1 could include relocation of the existing Administrative and Security Offices into the building; alternatively, this may occur in Phase 3.

Figure 4.11: Fair Illustrative Plan - Phase 1

Building areas depicted here are conceptual only.

Figure 4.12: Fair Illustrative Plan – Phase 3

Building areas depicted here are conceptual only.

- In **Phase 2**, in order to provide for North Fair Parking expansion, the existing County Building will be demolished. The Fair's Administrative and Security Offices will also be demolished and housed in portable buildings, if not already located within the Exposition Hall in Phase 1.
- In **Phase 3**, or if sufficient demand arises in Phase 2 and if supported by onsite and offsite infrastructure and mitigations, the Exposition Hall will be expanded to approximately double the Phase 1 footprint and program. The Phase 3 expansion will require demolition of the existing concert arena and construction of a new amphitheater for concerts and theater events as shown in Figure 4.12. If Administrative and Security Offices are still housed in portables, they would be relocated into permanent space within the expanded Exposition Hall.

Together with the existing facilities that will continue to function (including Gibson, McCormack, the livestock and sheep buildings), this phased approach provides essential facilities that will allow for the efficient operation and financial sustainability of the Fair of the Future.

Table 4.1: Fair Building Program & Phasing

Facilities to be demolished and/or replaced by buildout
Facilities to Remain

EXISTING BUILDINGS AT CONCOURSE (Note: does not include facilities for horse racing or golf course)	EXISTING QUANTITY (sq. ft.)	PHASE 1 (sq. ft.)	PHASE 2 (sq. ft.)[1]	PHASE 3 (sq. ft.)[1]
Admin/Directors Trailer/Security Office	5,110			
County Bldg	17,170	17,170		
Gibson Hall	13,325	13,325	13,325	13,325
Concourse Restroom	1,650			
McCormack Hall	22,000	22,000	22,000	22,000
Civic Bldg	12,325	12,325	12,325	
Trash Shed	2,000	2,000	2,000	2,000
Maintenance Shed	4,550	4,550	4,550	4,550
Livestock Bldg	32,400	32,400	32,400	32,400
Sheep Barn	13,285	13,285	13,285	13,285
Concert Arena/Grandstand Cover	5,200	5,200	5,200	
Twilight Patio Office/Concessions/Storage	1,800			
Existing Exposition Hall	23,730			
Guard Shack (adjacent to director's trailer)	1			
TOTAL Existing	**154,545**	**122,255**	**105,085**	**87,560**

NEW BUILDINGS (based on project description)		PHASE 1	PHASE 2[1]	PHASE 3[1]
New Exposition Hall[2]		72,000	72,000	144,000
Temporary Administrative Offices (Phase 2)			5,000	
New Concert Arena/Grandstand Cover				5,500
TOTAL New		**72,000**	**77,000**	**149,500**
TOTAL Existing and New	**154,545**	**194,255**	**182,085**	**237,060**

Notes

1. Totals are cumulative and include prior phases

2. The Exposition Hall replaces existing Expo Hall and concourse restrooms; also adds lobby, circulation, kitchen, admin offices and meeting rooms. In Phase 2, existing Admin offices would be demolished to provide North Fair parking; if not provided in Phase 1 Expo Hall, the Admin Offices would be housed in portables until Phase 3 Expo Hall expansion provides permanent admin space.

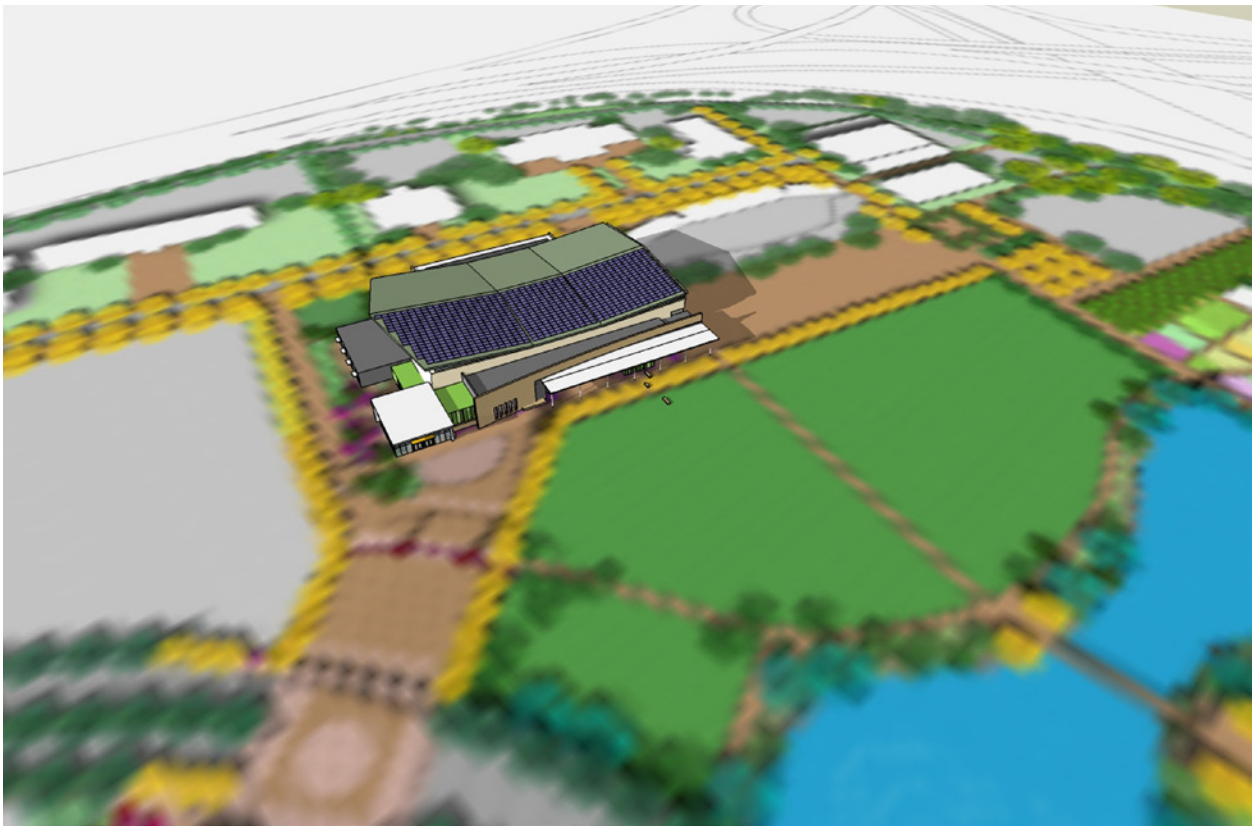


Figure 4.13: Aerial View - Phase 1
Building areas depicted here are conceptual only.

Figure 4.14: Aerial View - Phase 3
Building areas depicted here are conceptual only.

4.3.4 Exposition Hall

As part of Phase 1a, the Plan proposes to replace the existing Expo Hall with a new Exposition Hall that offers 48,600 net square feet of exhibition space in a flexible, highly marketable venue integrated with the existing fair concourse and other facilities. This flexible space can be subdivided in logical increments, as described below, in order to accommodate a wide range of events including conventions, consumer shows, festivals, large parties, and other special events.

In addition to exhibition space, the Exposition Hall provides support space for lobbies, circulation, meeting rooms, kitchen, storage of movable wall panels, and restrooms for a total of 72,000 square feet.

Figure 4.15 to 4.19 illustrate the layout and architectural concepts for this important event building, which is envisioned as follows.

The following descriptions refer to the initial building proposed for construction in Phase 1a and anticipated to serve the Fair through Phase 2. Possible expansion in Phase 3 will approximately double this space and also provide for office space for Fair Administration and Security services.

Building Concept

Conceptual design for the Exposition Hall represents a functional, economical and flexible building design that also provides an architecturally distinct and compelling landmark facility for the Plan Area. In addition to its style and massing, a range of contemporary building materials were selected to reflect a forward-looking vision for the "Fair of the Future". The conceptual design for the Exposition Hall includes the following key elements:

- In addition to serving as interior circulation and gathering spaces, the entry lobby and lounge areas (located on the south side of the building) have been organized to open directly onto a covered exterior terrace and multi-purpose lawn/event space, with views and direct access to the water feature beyond.
- The simple, yet geometrically expressive roof shape of the main Exposition Hall provides an iconic and easily identified building element within the overall site. With its inclined roof surfaces—reminiscent of the hillsides that surround the site—and exposed wall surfaces at both the east and west ends, the building's height and orientation provide a highly visible signage/graphic opportunity when viewed from both SR-37 and I-80.
- The conceptual design embodies a commitment to environmental responsibility, and sustainable goals and practices through proposals for a variety of material selections, features, and elements (see below).

Central Exposition Space

- Nominally, a 270' long by 180' wide (48,600 net square feet), column-free exposition space for each phase, with 30 feet clear to the underside of the structural grid above.
- The space will likely be constructed as a system of steel columns and roof trusses at 15 feet on center, which will clear span the entire (180 feet) width of the hall.
- The interior layout for each phase accommodates the following program functionalities.
- Up to 235 vendor booths, (at 10' x 10' each)
- Approximately 1,823 people for banquet-type events, (assuming 20 s.f./person)
- Approximately 3,645 people for live concerts and shows, (assuming 10 s.f./person)
- Movable, full-height wall panels allow the main space to be subdivided into multiple

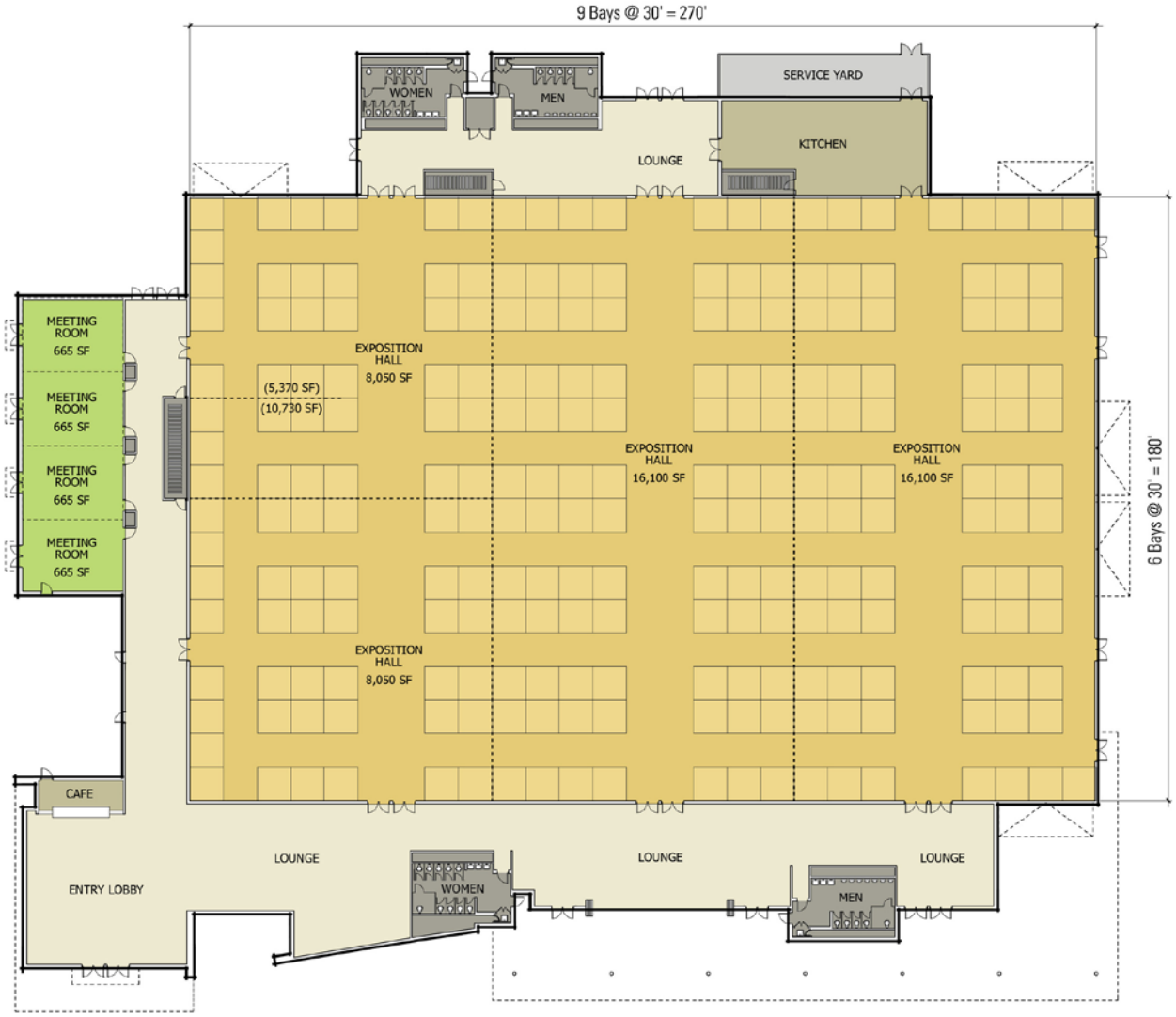
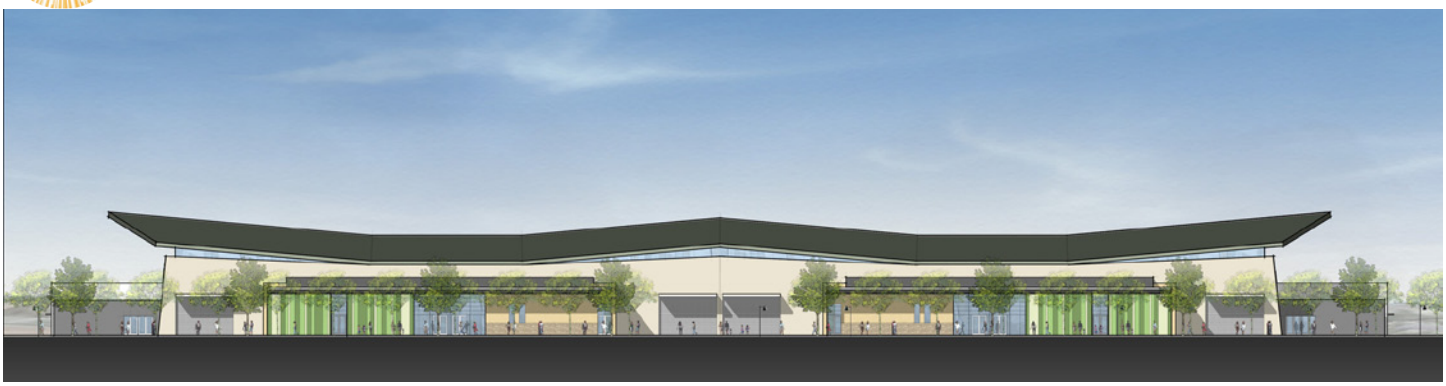
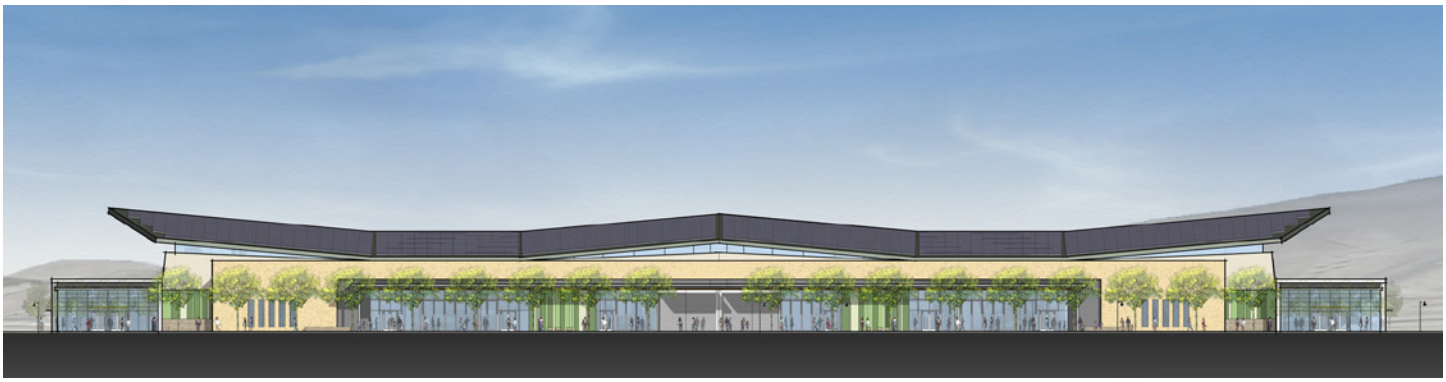


Figure 4.15: Exposition Hall –Schematic Floor Plan

(Phase 1; 50,000 net square feet)



North Elevation



South Elevation

East Elevation

West Elevation

Figure 4.16: Exposition Hall –Elevations

(Buildout Condition; 100,000 net square feet)

configurations and a broad range of sizes, including: 48,600; 32,400; 16,200; 10,800; 8,100; and 5,400 square foot options.

- Windows provide natural daylight at upper levels of exterior walls, and along east elevation of building, which can be fully blacked out (with movable drapes).
- The floor finish will be natural concrete, with painted interior gypsum board walls, with painted roof trusses and metal deck ceiling/roof.
- Electrical power will be provided at: the perimeter of the main space; the upper level grid/catwalk; and distributed locations across the floor (via floor boxes).
- Provisions will be made to accommodate audio/visual presentations in any of the various room configurations. Room lighting controls will be integrated with the A/V presentation systems.
- A system of catwalks (accessed by an interior caged ladder) will be provided at the bottom chord of roof trusses, to accommodate special event lighting and rigging systems (by others).
- HVAC and lighting systems will be separately zoned and controlled to accommodate the various room configurations.
- Event load-in and load-out will be achieved through on-grade access doors (including standard and high-bay doors) distributed around the perimeter of the building.

Entry Lobby/Café/Lobbies

These areas serve as the primary arrival/entrance point to the facility. The Entry Lobby has been positioned to be easily viewed from the main Entry Road and Arrival Plaza, yet can be easily accessed from secondary entry points. Features include:

- Two exterior walls of the Entry Lobby will be fully glazed to bring natural light into the building interior.
- Interior finishes will include either a carpet tile or quarry tile floor; painted gypsum board or wood paneled accent walls; and a decorative wood slat ceiling below acoustically absorptive materials.
- Secondary Lobbies and Corridors will be finished in a similar manner, and will include glass doors and windows, and a system of movable glass walls to open Lobby spaces directly to the exterior.
- A small café has been located along one wall of the Entry Lobby, to provide snacks and beverages to visitors.

Meeting Rooms

Four break-out meeting rooms have been provided with movable wall partition systems, allowing a variety of room sizes and configurations to serve larger and smaller group needs. Features include:

- Each Meeting Room will be provided with separately controlled lighting and audio/visual presentation systems
- Interior finish materials will include: carpet tile floors; painted gypsum board walls; and suspended acoustical tile ceilings (+12' high), which accommodate fluorescent room and display/accent lighting.
- Natural daylight will be provided through a glazed exterior wall system, (including provisions for drapes to fully black-out the room during presentations), with doors to access a landscaped exterior patio/garden.

Kitchen

The plan provides space for an approximately 1,800 s.f. commercial grade kitchen in the northeast corner of the building, immediately adjacent to the main Exhibition Hall, (and future Phase III expansion). The Kitchen, as currently sized, will be able to prepare and serve sit down meals to approximately 350-500 diners, in one or more of the exhibition halls or meeting rooms.

To serve larger events, the Kitchen will be optimized to also function as a "catering kitchen" (with food preparation/cooking done off-site, and delivery in warming ovens). For such events, plating and set up will likely need to be provided in temporary exterior space, or utilize a portion of one of the sub-divided exhibition halls.

Features include:

- Interior finishes will be commercial grade, durable and washable and able to meet stringent public health codes and sanitation standards.
- All kitchen appliances will be standard commercial grade.

Administrative Offices

In Phase 3 (or in Phase 1 or 2, if funds are available), the Fair's administrative offices should be located within the Exposition Hall to optimize operational efficiencies and enhance the market appeal of the new facility. Approximately 5,000 square feet will provide for fair management, security, and parking management, with areas for small staff meetings. Larger groups, such as the Fair Association Board, could make use of the Exposition Hall meeting rooms during non-paid events.

- If incorporated into the building in Phase 1, the administrative offices may be situated as second floor uses over the meeting rooms and hallway; this approach may be the most cost effective as it makes use of building elements (walls and roof) already in place and requires only the addition of stairs, a one-story elevator, and flooring.
- If incorporated into the expanded Phase 3 building, the administrative offices would occupy the portion of the building designated as "Meeting Rooms" in the Phase 1 structure.

Restrooms

Restrooms have been provided in strategic locations around the Exposition Hall.

Positioned on the exterior of the building, restroom entrances have been organized to allow direct access from either interior or exterior events, (and administratively controlled). The new restrooms on the north side of the building will replace the existing restrooms currently located along the concourse.

Exterior Elevations, Materials and Features

- Based on a system of pre-manufactured, insulated metal panels, exterior walls will include a variety of additional finish options (alternate colors, textures, or metal finishes; cement plaster; or stone veneer at select locations).
- Similar to the exterior walls, the main Exposition Hall roof structure will be based on a system of pre-manufactured, insulated metal panels, with a pre-finished standing seam metal roof finish.
- Lower (single-story) roofs will be designed with open-web roof trusses, metal decking, and a built-up or single-ply roofing system over rigid insulation.
- Glazing at the main and secondary entrance locations will be designed around a pre-finished (either natural or painted), aluminum storefront system. Additionally, large

sections of the exterior glazing system will be designed as operable walls, to increase the inter-connection between interior and exterior spaces.

- As conceived, portions of the main Exposition Hall roof will receive photovoltaic and/or solar hot water heating panels.
- Gutters and roof drains will be also be piped to a series of landscaped "rain garden" areas, where rainwater can be collected and filtered before draining to the central water feature.

Sustainable Building Features and Goals

- The south-facing half of the Exposition Hall is proposed for installation of photovoltaic arrays and/or solar water heaters. With a total roof surface of approximately 50,000 square feet, this south-facing portion would provide an area of approximately 25,000 square feet. Additional roof areas over the entry lobby, meeting rooms, and/or south-facing shade canopy could also be utilized, depending on the results of more detailed studies in conjunction with overall energy programs for the Plan Area.
- Pre-manufactured exterior wall and ceiling panels should be selected to provide high insulation values, with metal support framing and finish surface options containing up to 85% recycled material content.
- Concrete slabs and foundations should include reinforcing steel with recycled content (typically ranging between 45% and 70%) and fly-ash, as part of a recycled waste diversion program.
- High efficiency water fixtures should be utilized to conserve water and offset high peak loads within the facility.
- To minimize the use of artificial light, south-facing yet shaded lobby/lounge spaces (as well as small meeting rooms) should have access to natural daylight through operable windows and exterior doors that open directly onto landscape areas. Additionally, skylights or light tubes should be included wherever practical.
- Operable windows should be provided at the upper (clerestory) level of the main Exposition Hall to provide natural daylight, as well as naturally ventilate the space.
- Efficient interior lighting and control systems should be provided, and occupancy sensors utilized wherever practical.

Phase 3 Expansion

Phase 3 assumes a doubling in size of the Exposition Hall from approximately 50,000 net square feet (72,000 gross square feet) to approximately 100,000 net square feet (144,000 gross square feet). If the administrative offices are already accommodated within the Phase 1 building, these uses would be accommodated. At full build out, the Exposition Hall will be a contiguous, column-free space that is sub-dividable into multiple smaller halls, as in Phase 1.

A second Entry Lobby will be "mirrored" at the opposite end of the building, to provide another primary entry point into the expanded facility. Similar in layout to Phase 1, additional lobbies, meeting rooms, restrooms, and an expansion of the Kitchen are also proposed in Phase 3.

4.3.4 Outdoor Venues

Arrival Plaza

- At the eastern terminus of Entry Road, a new Arrival Plaza at the Exposition Hall entry is envisioned for Phase 1a as a location for congregation, ticketing and entry, and a

Figure 4.17: Arrival Plaza Illustrative (Phase 3/Buildout Condition)

Figure 4.18: Arrival Plaza Perspective

Figure 4.19: South Lobby Perspective

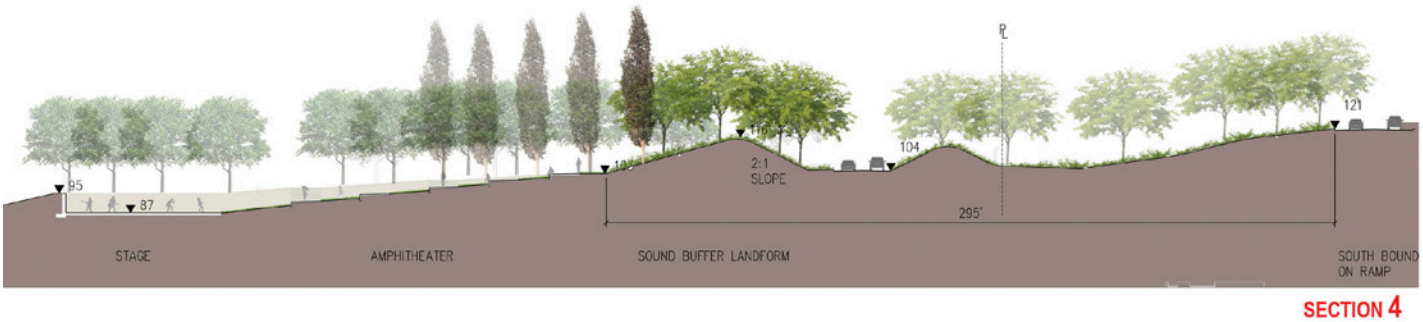


Figure 4.20: Amphitheater Section

paved outdoor venue for art exhibitions, car shows, or similar events.

- The Arrival Plaza would create a flexible space incorporating movable bollards, planters, or other barriers to accommodate primarily pedestrians, but also occasional vehicles, according to the scheduled event. The width of the plaza should allow for turnaround of passenger vehicles (approximately 80-foot diameter) and drive-through of safety and service vehicles that need to access the west or south sides of the Exposition Hall, with exits to the landscape concourse.
- Portable ticket booths may be integrated into a dramatic entry element. The plaza design and ticket booth location should create spaces for pedestrian gathering and orientation both outside and inside a secured perimeter. Ticket booths may be integrated with signage, banners, and other elements celebrating the Fair of the Future.
- The Arrival Plaza would also be a suitable area for Farmer's Markets or other similar and temporary events.

Exposition Hall Gardens

- Rain gardens constructed as part of the Phase 1a and Phase 3 Exposition Hall should surround the building in order to capture, filter, and retain stormwater draining from the large roof surface. The rain gardens should be installed with suitable soil and drainage measures, and planted with species that tolerate rain garden conditions and provide visual appeal.

Midway/Event Lawn and South Concourse

- South of the Exposition Hall, a new Midway/Event Lawn of approximately four acres is proposed for Phase 1a to accommodate the midway during Fair week(s) and other major events throughout the year such as dog shows, festivals, and other activities where a turf surface is desirable. Between events, this area could serve as an extension of the Creek Park, with public access for strolling, picnicking, painting, and other passive recreation.
- The Midway/Event Lawn is intended as a simple grassy area sloping gently toward the water feature, with walks and ramps that provide accessibility. The slope should be approximately two percent in order to provide positive drainage and allow a wide range of activities.
- Mesh-reinforced turf should be used for the Midway in order to accommodate vehicles and temporary structures. A recommended surface material is reinforced turf (such as Grasspave or Advanced Pave Tech Turf) incorporating a root zone mesh or other system that provides a free draining natural grass surface with high load-bearing capability.
- The south-facing edge of the Exposition Hall is intended to include a South Concourse; this pedestrian promenade should be a minimum of 10 feet in width to accommodate service vehicles. The promenade could include terraced steps that lead to the Event Lawn, providing a location of seating and viewing the Midway and water feature.

East Plaza

- In Phase 1, the East Plaza would provide a paved venue for outdoor events adjacent to the expanded portion of the Exposition Hall. It could also serve as a staging area and meeting place near the amphitheater.
- This area would also be suitable for art installations, either permanent or temporary.

Amphitheater

- In Phase 3, with expansion of the Exposition Hall, a new amphitheater is proposed to replace the Fair's existing 6,000-person concert venue. The new amphitheater is intended as a series of grassy terraces with concrete seat walls and steps for flexibility and visually appeal. A portion of the terraces may be designed to accommodate tables and chairs, so that the amphitheater can accommodate dinner concerts, weddings, and similar events.
- To protect the amphitheater from freeway noise, the upper areas should include berms and/or walls as suggested by Figure 4.20: Amphitheater Section.
- Mesh turf should be considered for amphitheater terraces.

Demonstration Farm

The Demonstration Farm is envisioned for Phase 1a or 1b. Modeled after the popular Centennial Gardens in Orange County, the Demonstration Farm pays homage to Solano County's rich agricultural heritage and provides an outdoor living classroom for children and families to learn about new techniques in urban agriculture, horticulture, composting, food preparation, healthy living and solar energy or other alternative energy technologies (for example, biofuel production).

Located at the eastern terminus of the Creek Park, the Demonstration Farm celebrates and carry forward the traditions of the Solano County Fair while allowing for exploration and year-round visits from families and school groups.

- The farm should be located close to parking areas to allow easy access for school groups, visitors and service vehicles. The farm should be secured by permanent fencing as needed for security and operations.
- The Demonstration Farm should be planted with rotating crops in all seasons to provide year-round visual interest.

4.3.5 Fairgrounds Fencing, Walls and Gates

Figure 4.21 illustrates the locations of proposed fencing and gates for the Fair of the Future.

Entries are planned for:

- North Gate at the existing concourse to serve the Exposition Hall and buildings including the satellite wagering facility and McCormack Hall.
- Main Gate at the Arrival Plaza to serve the Exposition Hall, overall Fairgrounds, Creek Park, and pedestrian traffic along the Entry Road.

- South Gate at the Creek Park to link from Shared Public Parking into the Midway and central areas.
- Farm Gate to also link from Shared Public Parking and serve school groups coming to visit the Demonstration Farm.
- Service gates at the north and south ends of the perimeter service road.
- In general, the Fairgrounds should appear open and welcoming to visitors throughout the year. A fortified, "closed for business" appearance should be avoided.

While providing an open, park-like appearance, the Fair's edges and entry points should be designed to provide flexible solutions for safety, security and controlled access to a variety of ticketed venues, with separate gates for concurrent events.

- Attractive, permanent frontage fencing of six to eight feet in height should be used along the more public and visible edges of the Fair, as defined by Figure 4.21. Such

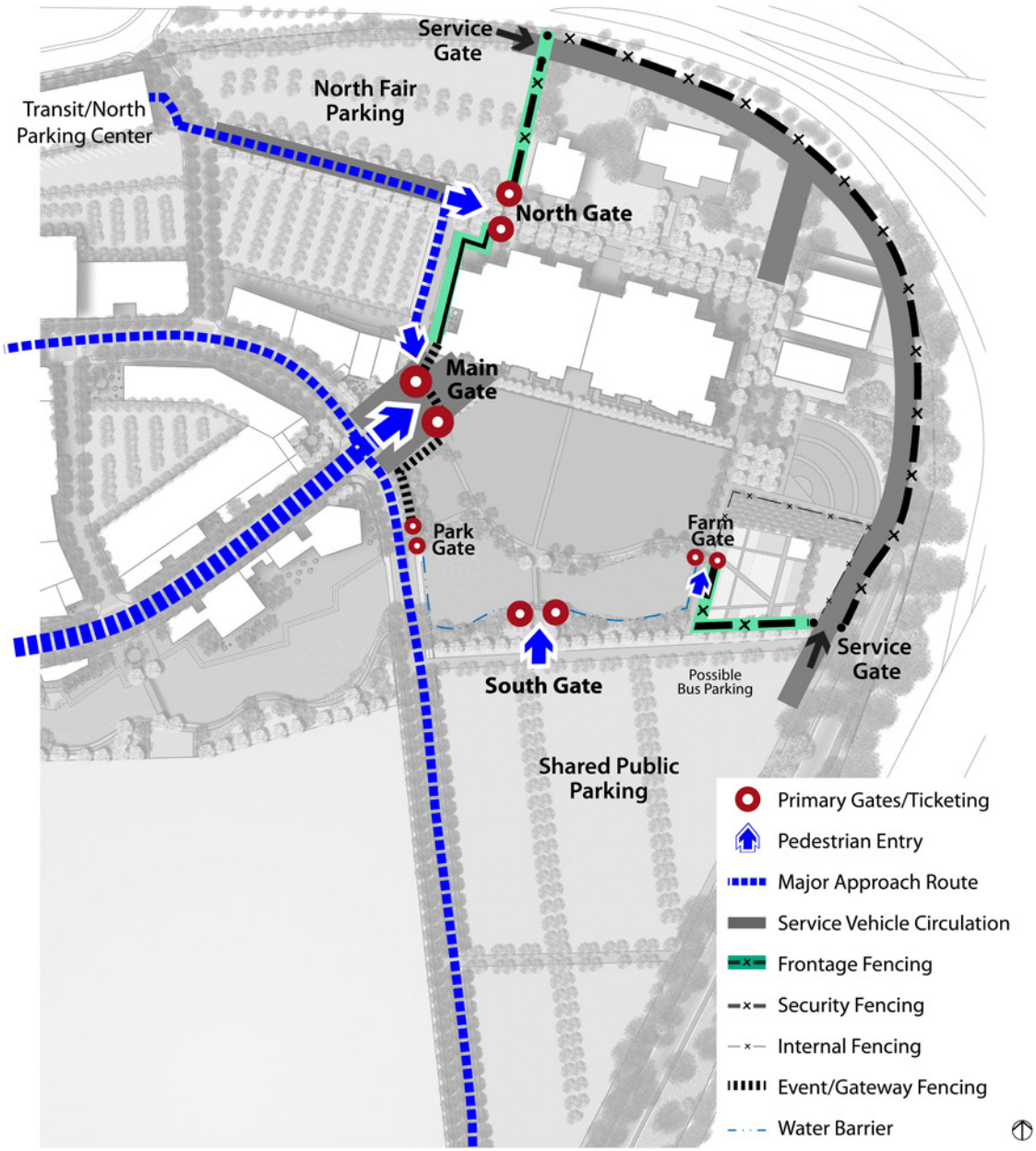


Figure 4.21: Fairgrounds Fencing and Gates

Building areas depicted here are conceptual only.

fences should be combined with landscape planting and constructed of wrought iron or similar high quality materials. Metal fences may be mounted on a low masonry wall, and/or spanning masonry piers.

- Movable barriers used at the Arrival Plaza for Fair Week and other special events should be designed to create an attractive, festive appearance. Portable ticket booths and other gateways elements should likewise be designed to be compatible with the Exposition Hall architecture and convey an image of quality befitting the Fair of the Future.
- Black, vinyl-clad chain link fencing (with matching posts) may be used to provide security and safety along the north and eastern edges of the Fair and for less visible storage or service areas within the Fair. Evergreen hedges, flowering vines and/or trees should be planted along the base of all security fences. Security fences should be approximately six feet in height or as needed for security.
- Walls may be used to accommodate grade transitions and provide informal seating areas along the water feature, amphitheater, or other areas. Walls should provide an image of permanence and quality, and may be used as locations for signage and permanent graphics.
- Plywood, un-clad chain link, barbed wire or razor wire fence are prohibited.

4.3.6 Fairgrounds Signage, Lighting and Site Furnishings

- Signage for the Fair of the Future should be designed as a comprehensive "family" of elements to:
  - announce arrival at entry gates,
  - provide schedule of current and upcoming events,
  - direct service vehicles and pedestrians to their destinations, and
  - supply information on the Fair's history and current features.
- Signage may be incorporated into gateway features such as the Arrival Plaza's turnstile/ security check point.
- Signage should be considered in conjunction with other site furnishings including lighting and seating.
- All site furnishings should be selected to be low-maintenance, durable and attractive elements that harmonize with and complement the Exposition Hall architecture.
- Fairgrounds lighting fixtures should provide attractive, low-level lighting that promotes a safe environment for all users, but remains pedestrian-oriented.
- Lighting should utilize LED or other energy-efficient fixtures that provide pleasing light color.
- Materials for lighting fixtures should be durable and low maintenance. Natural finishes like bronze and nickel steel are recommended.

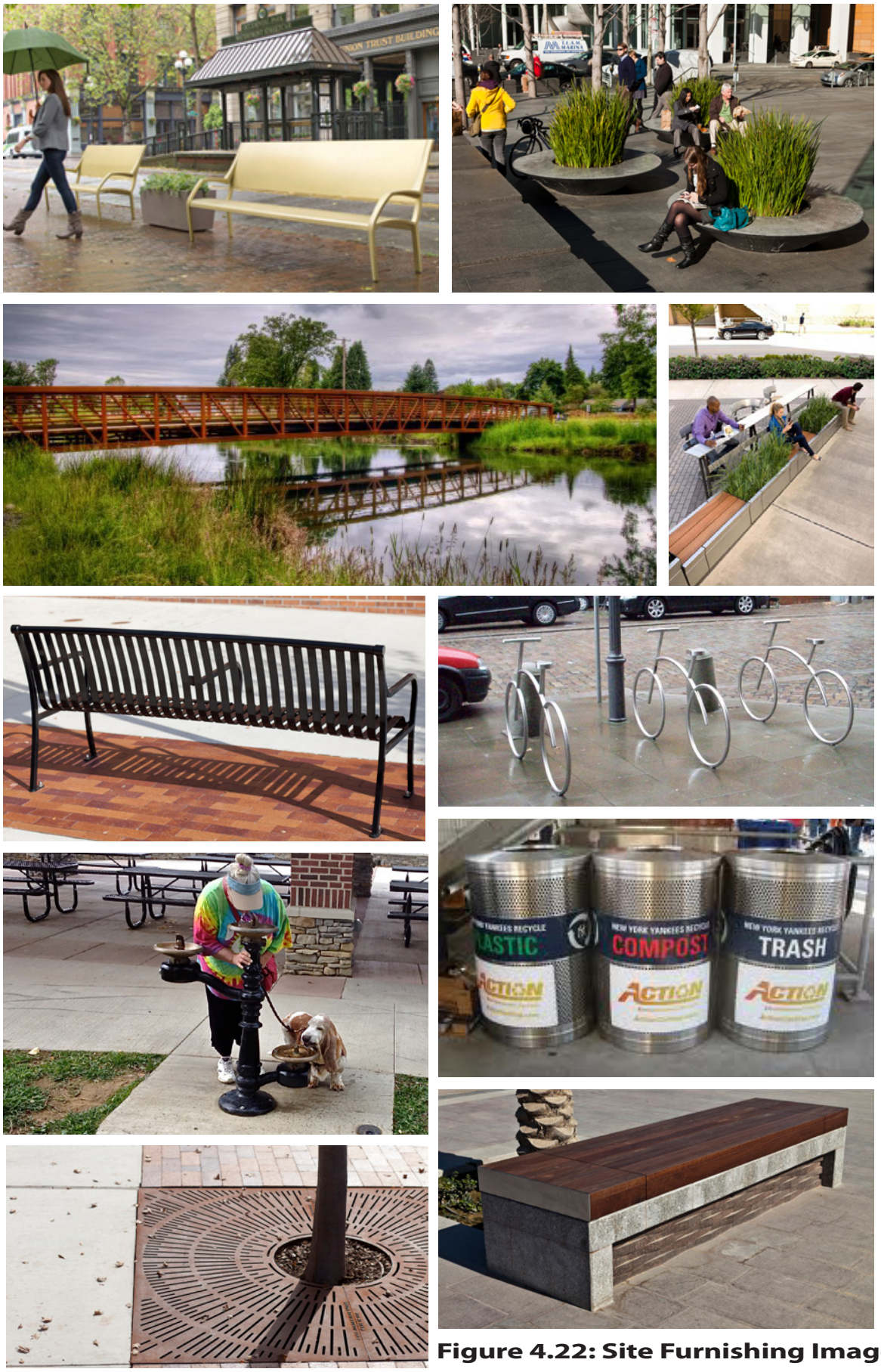


Figure 4.22: Site Furnishing Images

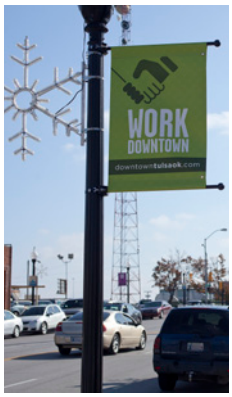


Figure 4.23: Signage Images

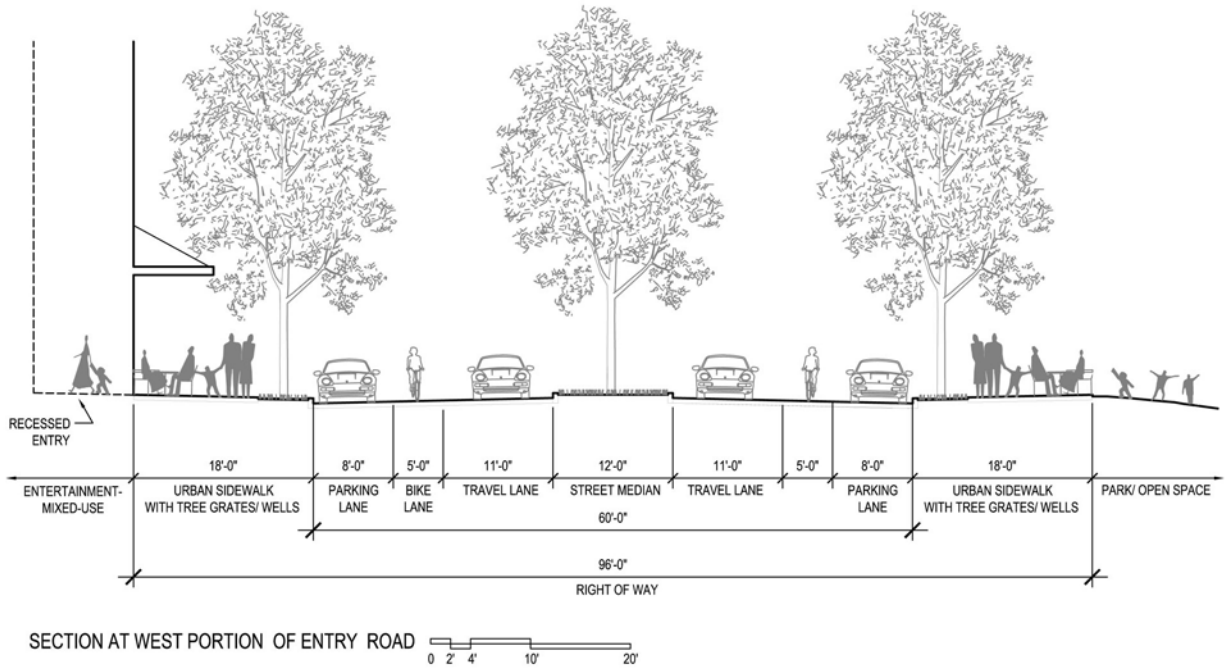
4. 4 GUIDELINES FOR RIGHT-OF-WAY AND OTHER PUBLIC AREAS

4.4.1 Streetscape and Entries

Streetscape

- Streetscape should conform to the street sections provided in Figures 4.24 to 4.26 and the provisions of Chapter Five.
- Regularly-spaced street trees should be installed as part of roadway construction to along all new roadways to visually unify street edges, establish an identity with the Plan Area, provide a sense of visual enclosure along corridors and perimeters, and generate shade for pedestrian comfort.
- Special street sections include the following:
- The North Loop Road includes a passenger drop-off lane along Parcel 6 in Figure 1.2, northwest of the Exposition Hall Arrival Plaza. This drop-off serves visitors to the Exposition Hall and also helps to activate a small entry plaza within the Parcel 6 EMU development in Figure 1.2.
- The South Loop Road segment between the Entry Road and the bridge includes the same travel lane dimensions as the North Loop Road, with 10-foot wide monolithic sidewalks and no landscape area. Tree wells may be included in the sidewalk, but any additional landscaping would be located within the adjacent Fair or EMU parcels.
- At the bridge itself, the South Loop Road sidewalks are 12 feet wide to serve bicycles and pedestrians. This segment does not include any street side landscape.

- Streetscapes should reflect the hierarchy and identity of the roadway system. Taller trees should define the Entry Road and Loop Road, with the most impressive tree type marking the Entry Road. Medium-sized trees may articulate the Connector Road and secondary onsite roads.
- Major streets should be planted with single species of trees to establish gracious and distinctive corridors. Trees should be used to enclose the street, create a comfortable pedestrian scale, and contribute to the identity of the street. Plant selection should consider City of Vallejo guidelines and be limited to hardy species that are drought-tolerant and will thrive in local climate and soil conditions.
- In general, street trees should at maturity be medium or large canopy trees, equal to or greater than the height of adjacent buildings. The planting pattern and species may vary at intersections to provide a flowering or contrasting tree.
- Trees should be planted between the curb and the sidewalk to protect pedestrians and



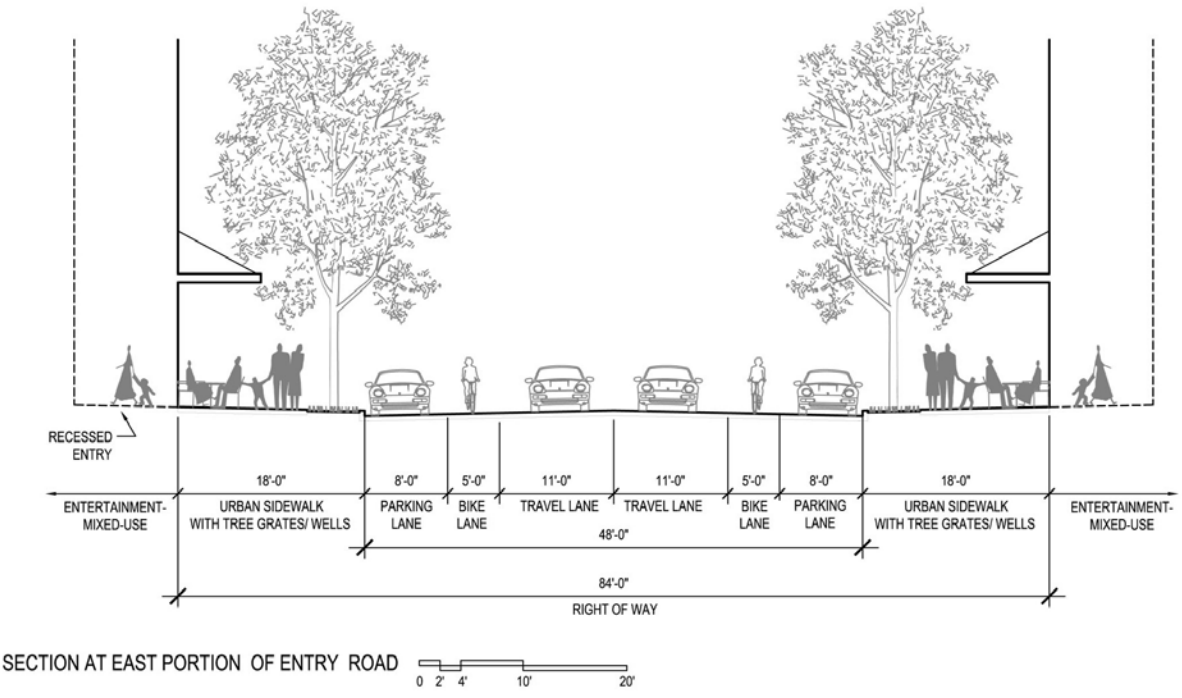
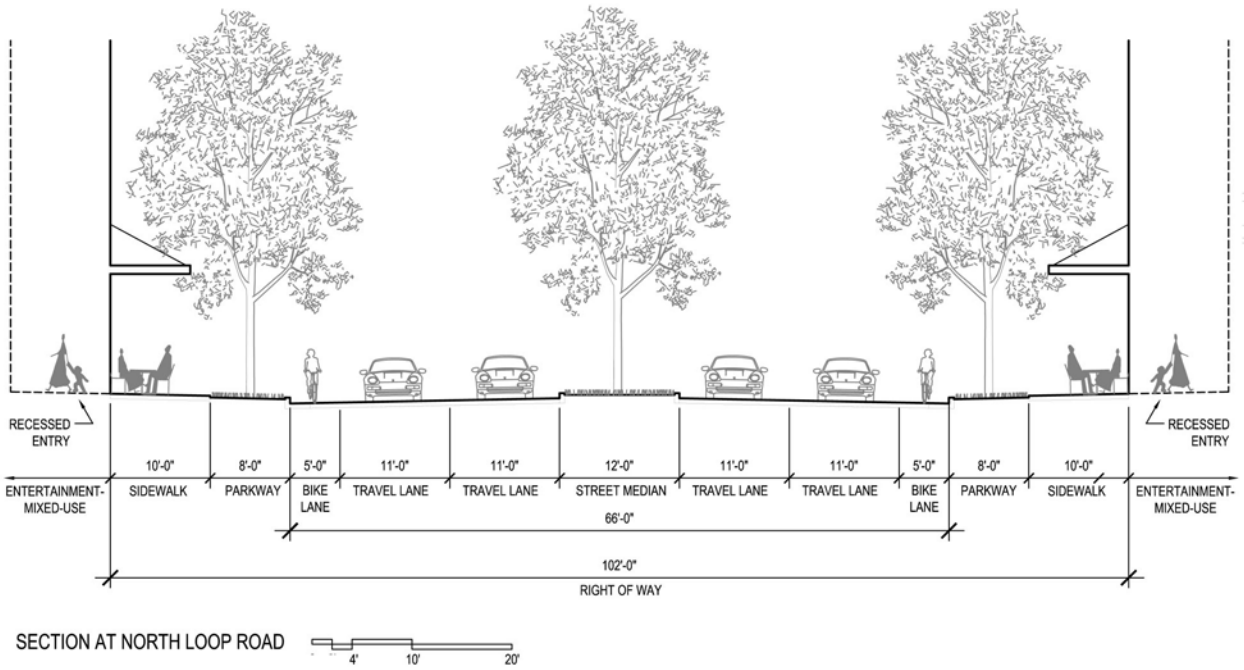
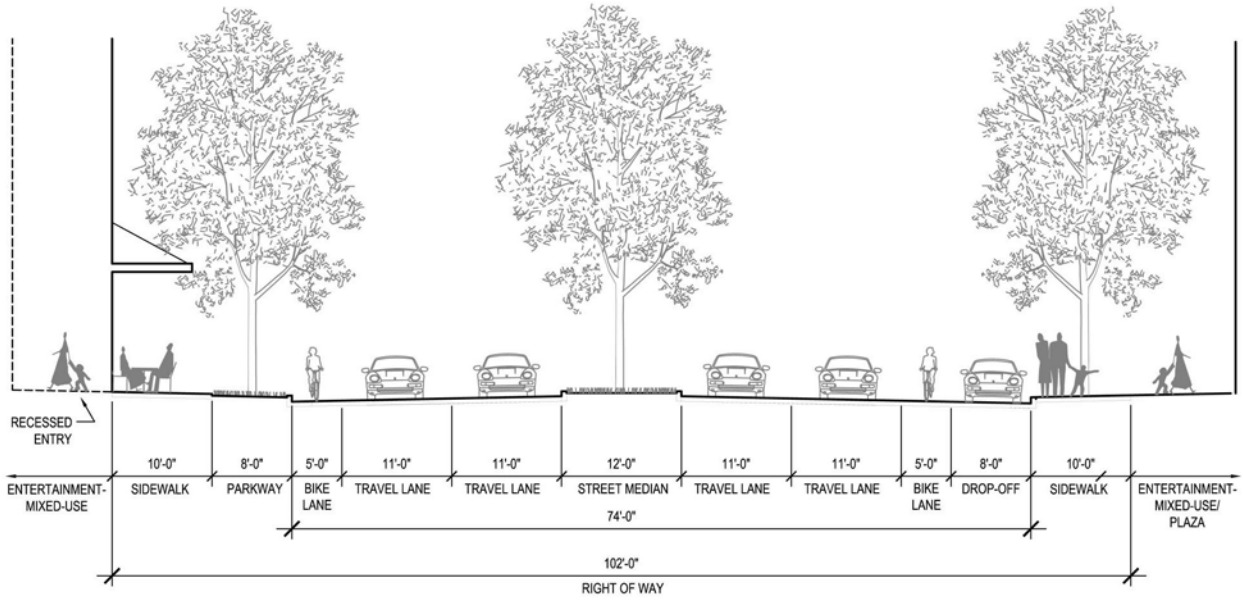


Figure 4.24: Entry Road Sections

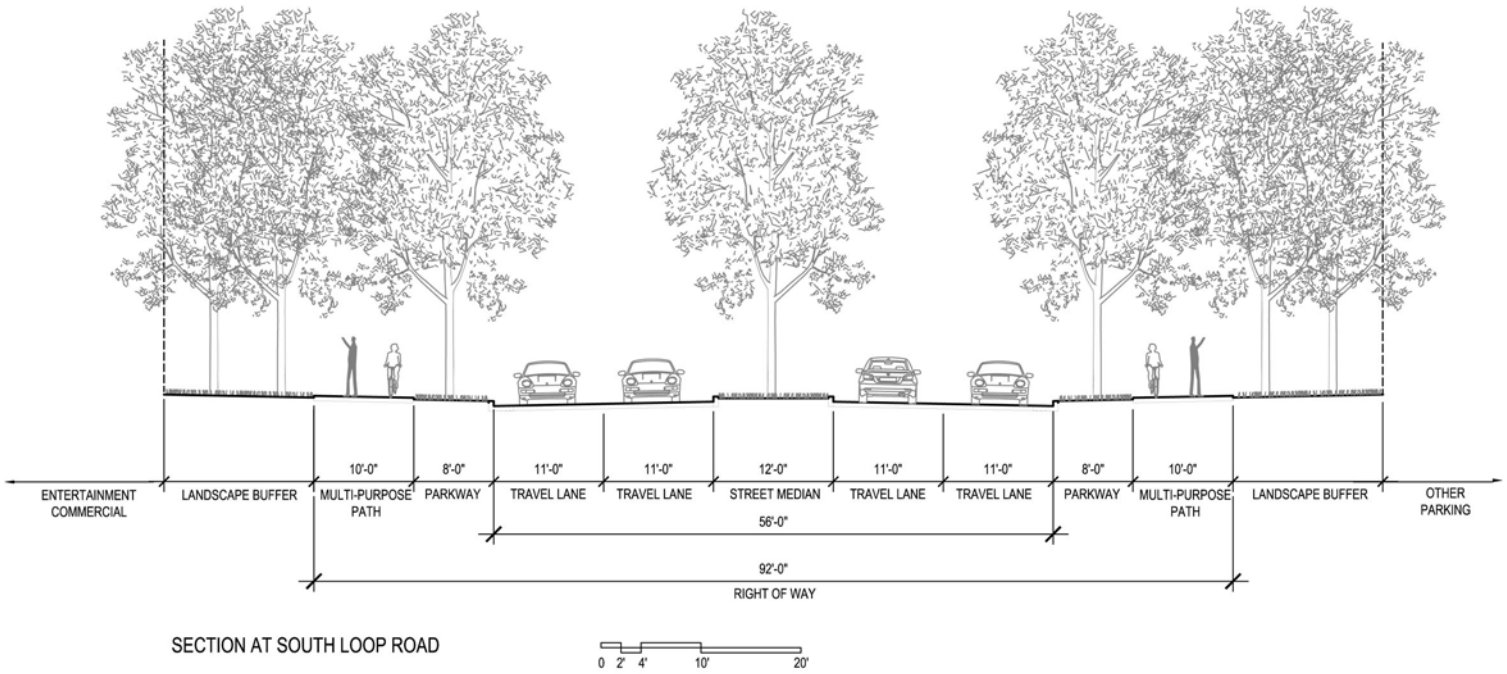


SECTION AT NORTH LOOP ROAD



SECTION AT NORTH LOOP ROAD / FAIRGROUNDS DROP-OFF

Figure 4.25: North Loop Road Sections



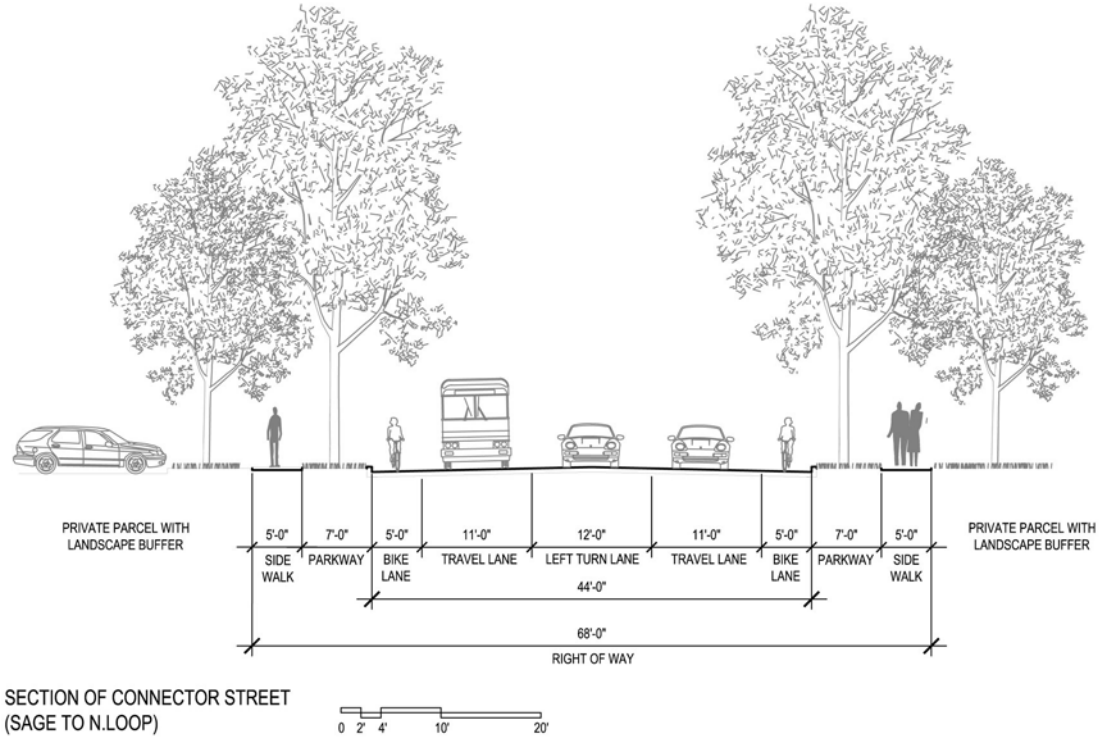


Figure 4.26: South Loop Road and Sage-Loop Connector Road Sections

reduce the scale of the street. Large street trees should be regularly spaced, typically 25 feet on center, but spacing may vary to accommodate street lights, driveways and utility boxes, or other conditions. Smaller scale trees may be spaced more closely.

- For street promenades along the Entry Road and at the pedestrian drop-off near the Arrival Plaza, trees should be provided within minimum five-foot wide tree grates.
- Parkway strips between sidewalks and the curb should be a minimum of seven feet in width, measured from sidewalk to face of curb. Parkways should be planted in low maintenance trees, shrubs, groundcovers or lawn, grasses or wild flowers. Plant material should be selected to be well-suited to location; for example, lawn is preferred to shrubs in areas where foot traffic is expected.
- Parkway strips should not be compacted as part of road bed preparation, or if compacted should be properly amended to support healthy root development and plant growth.
- Non-fruiting street trees species are preferred. If fruiting trees or vines are utilized, they should be located so as not to overhang sidewalks or otherwise create maintenance problems.
- Where bump-outs are provided, trees may be shifted into the enlarged planter area provided sight safety distances are maintained.
- Design of the Solano 360 public open space and street areas should create a consistent character and environment conducive to entertainment and urban activities, with a festive and colorful atmosphere.
- Site furnishings (including lighting, seating, wayfinding and waste/recycling receptacles) throughout the Plan Area should be designed and selected to establish a unified vocabulary of related forms and materials to reflect a sense of unity and identity.
- Bike lanes and pedestrian multi-use spaces will characterize the street environment in the Plan Area. As such, lighting, signalization and signage should be pedestrian-scale and should facilitate easy pedestrian and bicycle movement.
- Durable seating should be provided at frequent areas throughout the Plan Area in the form of benches, movable tables and chairs and seat walls to encourage walking while providing rest opportunities.
- Low road speeds throughout the Plan Area should be defined to foster pedestrian and bicycle-friendly streets (see Section 5.2.1 for traffic calming features).

Entries and Intersections

- Roadway entries into the Solano360 Plan Area should provide a sense of arrival and celebration. The primary pedestrian and "ceremonial" entry at the Entry Road should be designed to welcome pedestrians and

  orient views toward the water feature. The Loop Road entries should likewise provide a strong sense of place, with clear signage indicated vehicular routes to parking areas.
- The Sage Street entry should emphasize clear signage for service vehicles, buses, and Transit/North Parking Center access.
- Entry plans should be prepared for each project entry prior to development of adjacent improvements. These plans should address landscape, pedestrian access, grading, drainage, monuments, signage, lighting and other public amenities.

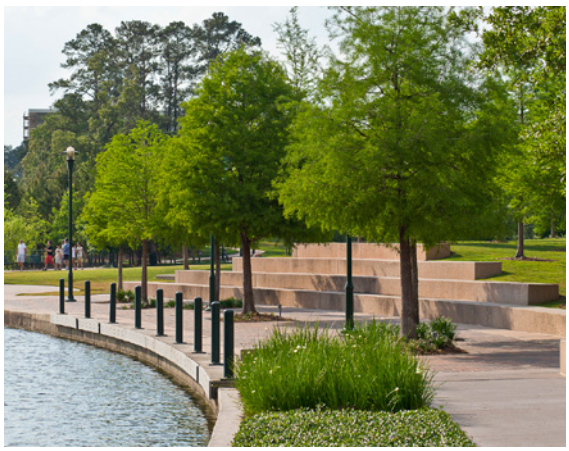
- The design of the intersection of the Entry Road and Loop Road should include special features for traffic calming and pedestrian comfort. As envisioned, this stop sign-controlled intersection will be raised six inches to alert vehicles and provide continuous, level crossings for pedestrians from the Entry Road promenade through to the Arrival Plaza.
- Other intersections along the Entry Road and Loop Road should also include traffic calming, bulb-outs to narrow the crossing distances for pedestrians, high-visibility striping, and special paving or textured crosswalks to enhance pedestrian safety. Up lighting may be considered to enhance safety at night and provide a festive atmosphere.

4.4.2 Creek Park and Water Feature

The Creek Park is a critical project component, not only because of its ecologic and hydrologic function, but also because it will provide an important public open space and recreational amenity for visitors and future residents.

The Creek Park forms a new open space corridor through the site with waterfront promenades, picnic areas, lawn terraces, water view plazas, wetlands, and bridges. This example of sustainable design addresses drainage, flooding and water quality issues while providing an iconic feature that visually enhances the project's entries and activities within the central area.

Appendix F provides additional design criteria addressing water balance, water quality management, creation of wetlands, shoreline conditions, and shoreline safety.



Landscape and Amenity Features

- Creek Park should be a comfortable and beautiful multi-use space.
- The Creek Park should be planted with native and low-water vegetation to minimize irrigation needs.
- Plantings on flat, upland areas should vary from garden-like and decorative to more hardy species conducive to play, but requiring little maintenance.
- Pedestrian amenities within the park, including lighting, seating, wayfinding and waste/recycling

receptacles should be designed and selected to establish a unified character for the park.

- The South Loop Road crossing over the water feature should be designed economically, while creating the appearance of a continuous waterway.
- A variety of edge conditions along the waterfront should be established to provide a safe and visually intriguing waterfront with opportunities for enjoyment of the water.
- Figure 4.27: Water Feature Section describes how the water feature could incorporate a wall or bulkhead in some areas, with riparian vegetation in other areas (see Appendix F for further details).

Recreation Opportunities

- The park should accommodate a wide-range of passive and active recreational uses including strolling, jogging, people watching, enjoying views, picnicking, meeting with friends, kite-flying and similar activities.
- Small non-motorized watercraft rentals could be considered as a concession in the Fairgrounds portion of the Creek Park so that visitors can interact with the park via the water feature.

Hydrological Function

Onsite stormwater will be routed through the Creek Park water feature which will discharge into an existing storm drain system and then into Lake Chabot. Offsite stormwater flows from Rindler Creek and/or Blue Rock springs will not be diverted through the onsite water feature but will continue to flow through the Fairgrounds Channel (Chapter Six provides additional detailed information).

- The water feature will capture, treat and store onsite stormwater runoff for water quality improvements and re-use (see Chapter Six).
- The minimum surface area and depth should be based on flood control and water quality requirements. The surface area is planned to be approximately 5.4 acres and the depth will be eight feet with a shallow shelf for wetland planting and safety (see Chapter Six and Appendix F for additional details).
- Sufficient freeboard should be provided between the normal water surface elevation and adjacent development, taking into account the varying types of land uses. Freeboard should be designed to accommodate fluctuations in the water elevation for water quality and flood control purposes.
- The minimum distance between shorelines should provide sufficient space for sides slopes taking into account the varying types of edge conditions. The maximum distance between shorelines should take the bridge designs into consideration. The maximum bridge span is currently planned to be no greater than 100 feet.
- Side slopes may vary depending on the edge conditions, safety considerations and liner requirements. In general, slopes should not exceed 4:1 in most locations. The bottom surface should be sloped at 2% minimum toward the middle of the water feature.

Access

- Plaza and hardscape areas along the west side of the park are associated with retail, shopping and dining uses along Entry Road and should engage pedestrian activity as follows:

- A main plaza should be established along the north waterfront, visible from Entry Road.
- Plaza and hardscape areas along the waterfront should provide ample room for dining and viewing.
- West Creek Park and all plaza and hardscape areas should be publicly accessible, year round.
- The east portion of Creek Park is associated with the Fair of the Future programming. With the exception of facilities operated by private companies, for example a Ferris wheel, these portions of the park should be publicly accessible except during major ticketed Fair events and as needed for maintenance and security of Fair facilities.

4.4.3 Fairgrounds Channel

- To the extent possible within the designated Fairgrounds Channel area as shown by Figure 3.1: Land Use Plan, the channel should be defined in a natural-appearing manner, with a meandering horizontal alignment and banks that vary in slope. If meandering or varied side slope angles are not possible within the Fairgrounds Channel area, the channel bottom should be constructed to undulate as much as is feasible, without creating undesirable ponding.
- The final design of the drainage corridor must meet the hydrological requirements for flood control and conform to the space limitations of the designated Fairgrounds Channel area.
- To increase the biotic value of the drainage channel, planting benches should be incorporated into the channel design. The banks of the creeks should be stabilized with native vegetation such as willow, and other native riparian plants adapted to the climate of Vallejo.

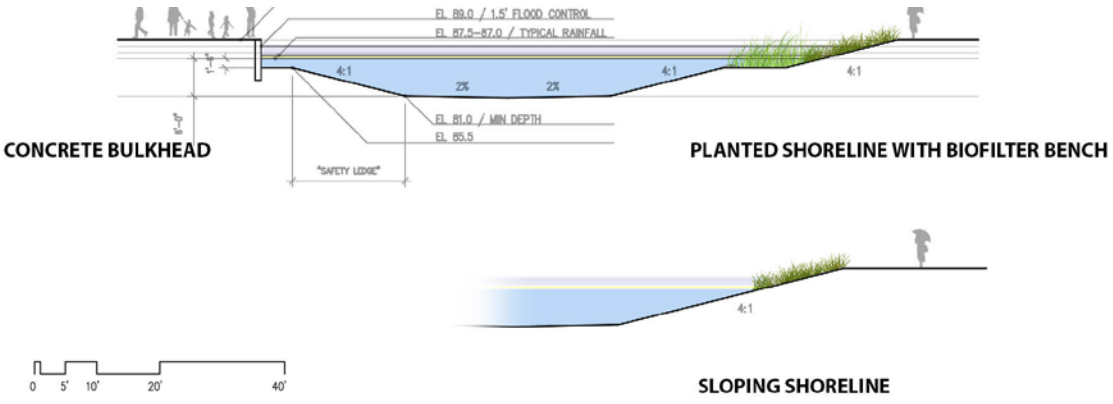


Figure 4.27: Water Feature Section

- Where feasible, the native tule at the bottom of the current channel may be left and will recruit naturally, as will sedges and rushes that could be planted on the channel benches. Side slopes should be planted with a variety of riparian plants adapted to the local climate; these include willows, coyote bush, wild rose, and native grasses. The overstory may be planted with larger, native trees such as sycamore and oak to provide shade and provide a visual buffer from adjacent freeways.
- Invasive species, such as arundo, tamarisk, or star thistle, should be eradicated if present along the drainage corridor.
- Preconstruction surveys should be carried out for special-status species, nesting raptors, nesting song birds and for roosting bats if mature trees will be removed along riparian area. To prevent direct take of a special-status species, under provisions of a Section 7 permit, any special-status species should be moved to a safe location or appropriately mitigated for, according to the requirements of the permitting process.
- Best Management Practices should be used to avoid siltation of the drainage channels from any onsite stormwater runoff.
- A SWPPP should be prepared specifically for the conditions of the site in compliance with the NPDES permit. Examples of BMPs include:
  - Conduct all in-channel construction activities during the regional "dry" period as approved by the RWQCB. All efforts should be made to perform all channel work potentially impacting surface waters during periods when surface water flows are at their lowest point.
  - No diversion of surface waters should occur during migration periods for special-status species.
  - The re-vegetation of banks should follow guidelines and specifications as outlined by environmental review for the Solano 360 project.
  - If creek flow is from Rindler Creek and/or Blue Rock Springs Creek is determined to be perennial, work should be conducted during the lowest flow portion of the year. Stream flow should be diverted around the work area using temporary bypass pipes, flumes, or excavated channels that temporarily re-route water around construction area(s). A qualified biologist should be present documenting the conditions and the impact of the construction activity, and assist in relocating stranded wildlife, where necessary.
  - Erosion control blankets and/or mats should be used to control erosion of banks and offer bank stabilization.
- Project construction should comply with all terms and conditions of a Streambed Alteration Agreement. Depending on the results of the Phase 1 ESA, and in coordination with the RWCQB, borrow materials should be examined for potential contaminants (e.g., mercury).
- The channel design should incorporate a walking/jogging trail as indicated in Figure 5.10: Pedestrian Circulation. To avoid adding extra width to the channel, this trail should make use of maintenance driveways if possible.

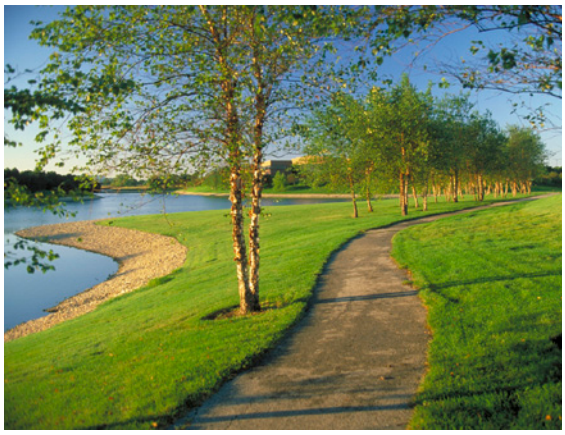
4.4.4 Transit / North Parking Center

The Plan proposes 2.2 acres for a transit/parking facility in the northwest area of site. The Transit/ North Parking Center will provide bus access and parking through all phases of the project. In Phase 1, this consists of a bus stop and surface parking. Starting in Phase 2, a three-level parking

garage will replace surface parking to serve commuters during the weekdays and parking for the Fair on weekends and at night.

Guidelines are as follows:

- The Transit/North Parking Center access should be from Sage Street and the North Loop Road.
- Buses, shuttles (to/from local hotels, nearby major entertainment uses and the Vallejo Ferry Terminal), taxis, Paratransit (and similar services for disabled individuals), personal electric vehicles and bicycles should be encouraged to use the Transit/North Parking Center.
- Secure bicycle parking should be provided and a bicycle repair and rental facility should also be included.
- Priority parking should be available for disabled persons and car-share services.



- Priority parking should be available for certified pure zero emission vehicles (100% battery electric and hydrogen fuel cell) and compressed natural gas (CNG) vehicles.

4.4.5 Public Parking

Public parking will be provided in parking lots and garages as shown in Figure 5.14: Land Use and Parking, and on the Entry Road.

- Parking facilities should adhere to the guidelines in Section 4.2.4: Parking Areas.
- Parking structures in Public Purpose Areas may incorporate retail uses or other non-parking uses at street level.
- To provide screening from public view, landscape plans for parking structures should include planting, trellises, vegetated walls or other decorative screens, both at the ground level and along vertical walls at street frontages or other public area and open space frontages.

4.4.6 Electronic Reader Boards

Electronic reader boards are planned along the freeway edges, in the locations shown on Figure 4.5: Site Relationships. These signs are intended to provide a revenue source for the Fair and include a new electronic reader board along SR-37, an upgraded electronic reader board along I-80, and two static electronic signs along I-80.

- Design and siting of electronic reader boards should not impede Fair programming or detract from the overall visual and aesthetic character of the Plan Area.

- Electronic reader boards should be oriented away from the Plan Area and toward freeways.
- Electronic reader boards should not contribute to light pollution that would affect nearby residences and should not adversely impact highway travel safety.
- Electronic reader boards must comply with any applicable federal and/or state requirements for highway-oriented signage.

4. 5 GUIDELINES FOR PRIVATE PURPOSE AREAS

Private Purpose Areas consist of the Entertainment Mixed Use (EMU) parcels, totaling 18.8 acres, and the Entertainment Commercial (EC) parcel of 30 acres. These uses are distinct, as follows:

- EMU development is envisioned to create a connected, walkable area of family entertainment commercial (FEC) businesses and associated restaurants and retail, with buildings oriented to Entry Road, Creek Park, and North Loop Road. As the intensity of this area increases through Phases 2 and 3, development will include vertically mixed uses that contribute to a vibrant, pedestrian-oriented Public Entertainment Core.
- EC development is envisioned to be a single destination theme park or amusement park with outdoor rides and venues visible from adjacent freeways and public roads, contributing to the visibility and identity of Solano360 as an entertainment district. Should the EC area be developed as a multi-parcel, mixed-use commercial center, the land use and design provisions for EMU areas will apply.

4.5.1 Use of the Guidelines in Private Purpose Areas

The Solano 360 Design Guidelines are intended to provide clarity in expectations for future design of projects in the Solano 360 Specific Plan Area. Projects found consistent under the Guidelines and other standards contained in the Specific Plan will receive expedited review and approvals. The Guidelines will be utilized by the City of Vallejo as part of its review of development proposals in private purpose areas and by the County in working with properties in private purpose areas and fair related property in public purpose areas.

The Guidelines are written with enough specificity to facilitate and ensure the project vision is achieved, while retaining enough flexibility to account for the range of uses that may be allowed, and the anticipated multi-year build out of the project area. The Guidelines have been approved by both the County and the City as part of the overall approvals for the Specific/Master Plan. These are intended to be integrated into the development review processes set forth in the approvals and for development agreement between the City and County.

Guidelines by nature require some interpretation in implementation. Not all guidelines will be applicable in all situations. They are intended to provide guidance for facilitating compliance with the Solano360 vision as a whole. Individual

guideline provisions are not intended to be standards that must be met in each and every circumstance. Substantial compliance with the overall design vision of the Solano360 project is the objective. To achieve this, compliance with Individual guidelines must be evaluated in the context of the project vision and overall design guideline package.

4.5.2 Design Review Process – Private Purpose Areas

Project proposals on private purpose areas are subject to application review processes set forth in the Vallejo Municipal Code as amended by the Specific Plan and Development. Project proposals found consistent with the Design Guidelines contained in this Chapter will receive expedited review.

4.5.3 Entertainment Mixed Use (EMU) Guidelines

Design Concept and Objectives

The intent of the Design Guidelines is to encourage new private purpose developments that will contribute to the vibrancy and success of the Solano 360 vision. The Design Guidelines do not dictate specific design themes or architectural styles, but instead outline design concepts that support the vision articulated in this Solano360 Specific Plan.

Solano360 Character and Design Principles

Solano360 will have a highly unique character shaped by the existing Discovery Kingdom Park, the proposed Fair of the Future, the "Main Street" type of mixed use and entertainment area, the unifying Creek Park and a future theme park. The following design principles reflect that unique character and form the basis for the Design Guidelines.

Create a Unique Place

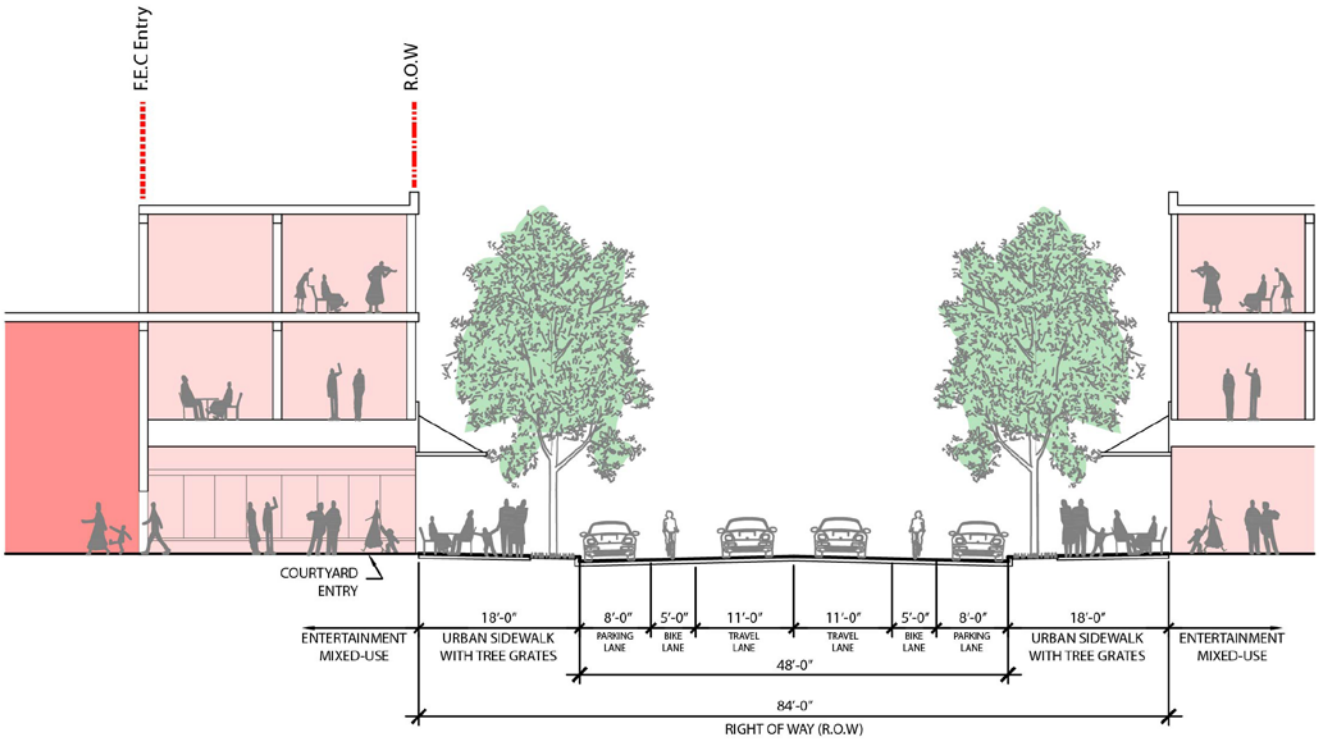
Solano360 will be an iconic public entertainment destination. The Entertainment – Mixed Use component has the physical structure of a traditional mixed-use urban neighborhood, with a variety of uses and activities, including shops, offices, arts and entertainment venues, and residences. The Entertainment – Mixed Use area's urban form is defined by buildings that maintain a relatively consistent framework of building facades lining a traditional pedestrian oriented street and opening onto the Creek Park plazas.

The rich visual architecture expected in Solano360 will help create an inviting environment. Individual buildings can contribute greatly to a positive experience for pedestrians with small scale, intimately-designed facades and storefronts that emphasize interaction with passersby. This interactive architecture creates opportunities for a lively streetscape environment, with public amenities, places to stroll, shop and dine.

The design of new buildings should be distinctive, while still part of the visual composition of the streetscape. Designs at the sidewalk level should highlight interaction with pedestrians. The architecture should be carefully composed, with variety in massing, changes in materials and unique details that stay in the memory of visitors and residents.

Create Connectivity and Synergy

The core of Solano360 is a unique combination of major public entertainment venues each interconnected with the other. The Entertainment – Mixed use area gains synergy through the connectivity provided for in the Solano360 Specific Plan. New buildings and developments should emphasize a pedestrian orientation to the unifying elements and linkages surrounding the Entertainment – Mixed Use component of Solano360 plan area.



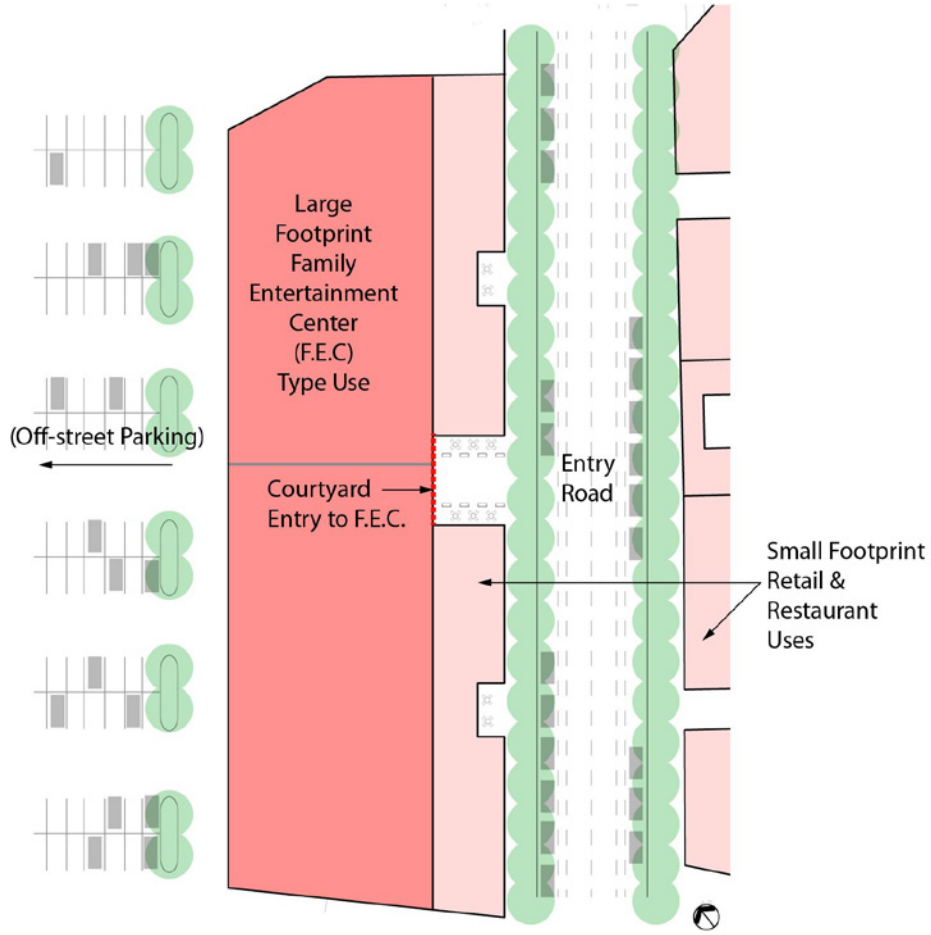


Figure 4.28: Entertainment-Mixed Use Building Prototype

Building areas depicted here are conceptual only.

Urban Design

- New developments should substantially conform to the urban form and footprint for the Entertainment – Mixed Use area as illustrated in the Solano360 Specific Plan.
- Design of buildings and outdoor spaces along Entry Road should utilize complementary color, special materials, signage, furnishings and landscaping to promote a unique identity and active commercial heart for the Plan Area.
- To create an attractive environment for restaurants and an active pedestrian promenade along the Entry Road, blocks that include FEC's or large retail stores are envisioned to include smaller footprint storefronts along the primary road right-of-way (see Figure 4.28: Entertainment-Mixed Use Building Prototype).
- Entries to large footprint buildings, such as FEC's or large retail stores, may be recessed, emphasized with architectural elements, or otherwise articulated to identify entry points to primary FEC uses.
- Development along North Loop Road in Phase 3 may also include large footprint buildings, but should also incorporate smaller, street-oriented retails shops with recessed entries or entries off of an interior courtyard or arcade.
- Open spaces for recreation, gathering and visual relief should be designed to appear deliberate and not as "left over" space between buildings.
- Outdoor dining should be encouraged along sidewalks and promenades to promote street activity.
- Use ground-level open space to complement retail shops, live/work units, cafes and restaurants, or other ground floor uses. Provide benches, sitting areas and other elements that allow people to linger. Use decorative railings, special paving or other design techniques to demarcate outdoor dining areas.
- Provide physical and visual connections to the public way, while using distinct pavement, landscaping, art, signage, screening or decorative fences to identify the ownership and acceptable uses of the space.
- Open space can be provided through ground-level courtyards. Office or residential courtyards at upper levels, as applicable, or rooftop decks and gardens.

Architectural Design

Buildings should reflect the vibrant, urban mixed-use nature of the Solano360 Plan Area, supporting the pedestrian character of streets and contributing to an overall identity for the project.

Site Design and Building Orientation

- Parking should be located to the rear of parcels. By Phase 3, no surface parking lots should front on either Entry Road or North Loop Road.
- New buildings and development in the Entertainment – Mixed Use core should orient primary facades toward the street edge, parallel to the sidewalk to create activity along sidewalks. Intersections should be activated by orienting uses toward corners.
- Organize sidewalks, pedestrian circulation, open spaces and entries to connect and align with surrounding pedestrian circulation patterns, paseos, plazas and pathways. Orient pedestrian pathways to connect with links to public transportation, such as bus stops and transit terminals.

- Incorporate retail entries at corners facing intersections and provide pedestrian amenities. Corners should emphasize pedestrian interaction at the sidewalk level with entries, canopies, small plazas, arcades or other architectural elements. Pedestrian entries should be accessed from the street with the greatest pedestrian intensity.
- Locations designated in the Specific Plan or these Design Guidelines as Gateways should address both streets with primary facades, and should provide space at the corner for special streetscape enhancements.

Building Design

- All buildings shall be designed to be attractive on all sides utilizing similar architectural detailing and building form concepts.
- All buildings shall be well modulated both horizontally and vertically to avoid monotonous and unattractive facades and overall form.
- Architectural interest shall be derived primarily through use of design elements that are integral to overall building form. Tack on elements should generally be avoided except if there is a specific purpose such as an overhang to shade a west facing window A mansard roof would be an example of an architectural detail that would be a tack on and inappropriate.
- Building function should be integral to overall form.
- Exaggerated or oversized architectural detailing should be discouraged as such features are often utilized to compensate for poor overall design.

Entries and Access

- The Entry Road should provide an urban, pedestrian-oriented corridor of specialty shops and services, restaurants, tree-shaded sidewalks, and art illustrating the history of Vallejo and Solano County, all developed at an appealing pedestrian scale.
- All buildings should provide a clearly articulated pedestrian entrances, either via storefront, recessed storefront, arcade or courtyard, with direct pedestrian access to either North Loop Road or Entry Road.
- Buildings and entries should be located primarily at the back of road rights-of-way. Where building entries are set back in courtyards, paseos, or arcades, landscape features such as vertical planting treatments, trellises, or decorative walls should define and clearly mark such openings at the street edge.
- Pedestrian entries and retail shops should open directly to a public sidewalk or major pedestrian corridor. Mixed-use buildings with residential uses should be accessed through a clearly identifiable primary entryway directly from an adjacent sidewalk.
- Entries to buildings and retail shops should generally be located directly at the sidewalk level. Ramps for barrier free access should generally be located inside the building envelope and integrated into the overall design.
- Buildings that front on both the Entry Drive and Creek Park should have appropriate design elements to take advantage of both frontages. Portions of buildings facing the Creek Park should feature elements that enable for outdoor dining and seating opportunities while the Loop Road frontage should contain elements of a downtown shop, including recessed entries and shop windows.

- Building entries at ground level shall be accentuated through use of human scale design elements in building architecture.
- Entries to shops and restaurants at ground floor level should directly access and be at sidewalk level to facilitate ADA access.
- Entries shall be clearly identifiable and highlighted through the use of sheltering elements such as canopies, awnings or inserts tucked under the second floor.
- Addresses shall be clearly identified at building entries and shall be sized and designed in accordance with a detailed sign plan for the overall project.
- Building design should carefully consider how service entries are addressed to ensure they do not detract from overall building appearance and design concept. These must be identified with preliminary design and floor plan concepts to avoid becoming an afterthought.
- In no case will these Design Guidelines supersede or negate any applicable regulations for Barrier-Free Design required by the US Government, the State of California, the City of Vallejo or other responsible authorities.

Massing, Scale and Articulation

- New buildings and developments should promote distinctive and visually interesting streetscapes through the thoughtful expression of building massing and façade design.
- The massing of buildings and the arrangement of volumes at the lower floors should visually reinforce the grid pattern of surrounding streets in the Entertainment – Mixed Use area by maintaining a street wall at the edge of the adjacent street or sidewalk area.
- Building facades should generally be of similar height and scale to facades on buildings directly across the street.
- The perceived heights of buildings are as important as the actual heights, and incorporating varying heights at the street edge will create visual interest in the streetscape. Vary the heights of the building volumes, incorporate changes of materials and rooflines, or step back upper floors.

- Consider the visual relationship with neighboring buildings. Some facade elements that may relate to adjoining buildings and should be considered include:
  - building modulation patterns
  - ground floor arcades or upper floor setbacks
  - signage bands above the storefront level
  - patterns of change in materials, colors, or finishes
  - architectural elements such as belt courses, cornices, awnings and canopies, window types and patterns
  - the alignment of storefront windows
  - transom and clerestory windows
  - window sills on upper floors
  - windows opening patterns and styles
  - roof lines and horizontal changes
- Buildings should establish continuous storefronts and courtyard openings along Entry Road and, in Phase 3, North Loop Road. Buildings should maintain a distinctive urban character with storefronts oriented to streets.
- Building frontages should contribute to an active street life by providing ample seating, gathering places, and exterior protection from sun and rain in the form of recessed walkways, awnings, canopies, or trellises along primary pedestrian traffic areas.
- Longer building façades should be designed to appear as more than one building, aggregated on the block with variation in massing, eave/parapet, color, material and balcony depth.
- Buildings should incorporate vertical height variation to break the monotony of long un-interrupted building facades of matching height.
- Building floor plans should be designed with flexibility to accommodate changes in commercial tenants over time.
- Sun angles should be considered in the design and placement of structures to allow sunlight into deep spaces and provide for both shaded and sunlit public spaces.

Gateways and Corners

- Buildings on corner lots should orient windows and openings toward the intersection and to both public street frontages.
- Primary intersections, particularly those along Entry Road and Creek Park, should be reinforced with high quality landmark buildings or gateway elements to support the identity of the Plan Area. Such buildings should exhibit thoughtful, imaginative architectural design to welcome visitors and promote a pedestrian-oriented character.
- Corner lots present special opportunities for incorporating distinctive architectural forms and details in the project. Special design treatment for Gateway locations should serve as a visual marker announcing an arrival into the Entertainment – Mixed Use area.
- The corners of buildings located at Gateway intersections designated in the Specific Plan should incorporate special architectural forms with significant visual emphasis,

such as vertical towers, spires or other roof forms, with distinctive fenestration, architectural detailing and other elements that visually emphasize the massing of the building.

- Corner edges of buildings should be maintained on upper floors. Locate windows, balconies and other architectural elements near corners, and avoid blank walls or large decks that erode the comer's edge on upper floors. Incorporate distinctive canopies, roof forms and other architectural elements to emphasize the corner.

Rooflines

- Rooflines should be varied to reflect the articulation and modulation of the overall building. Unbroken horizontal rooflines should be avoided.
- Utilize roof design elements and roof shapes as part of the overall building composition and architectural expression.
- Use distinctive roof forms, profiles and cornices to provide a termination to the top of the building.
- Consider that rooflines not visible from the street level may be highly visible from a distance and have a different visual impact. Explore designs from multiple viewpoints.
- Rooflines should be integral to overall building form and design concept. False rooflines should be avoided in most situations.
- If flat rooflines are utilized, they should be articulated through use of architectural features such as articulated parapets or cornices.
- Rooflines should reflect and be integral to overall building form and function, reflecting and accentuating entries, floor plans and overall building form.
- Quality roof material shall be utilized that are attractive and durable. Tile is one example; other similar materials may also be suitable.

Architectural Details

- Utilize a variety of architectural elements to add dimensional detail to the architectural expression of the facade. Primary facades should include human-scaled details, unique material finishes and architectural elements such as:
  - Decorative masonry patterns and courses
  - Unique windows and doors
  - Cornice, trim and roofline line details
  - Detailing on the underside of projecting bay windows and other overhead projections
  - Decorative metal balconies and railings
  - Windows with special detailing
  - Decorative spandrel panels
  - Unique or custom lighting fixtures
  - Unique, artist-made building parts that are integrated into the design of the building
  - Pavers and other surface treatments that create custom patterns

- Grates, grilles and other screening materials that incorporate artwork or decorative patterns
- Other unique or custom features that add to the character of the overall streetscape.

Weather Protection

- Provide shade and cover for inclement weather, canopies, awnings and other weather protection to help create a sense of safety and comfort for pedestrians.
- When designed as part of the overall facade and streetscape composition, the design and detailing of weather protection will add visual interest of the streetscape.
- Arcades, awnings, canopies, recessed entries and other methods of weather protection should be designed as integral parts of the building when adjacent to sidewalk and public walkways. At a minimum, weather protection elements should be provided at retail and building entry locations.
- Single continuous canopies or other overhead weather protection that emphasizes horizontality are discouraged.
- Awnings and canopies should fit within framed openings relating to storefronts, should be consistent with the architectural style and character of the building, and should be constructed with materials, finishes and profiles that exceed the minimum physical and structural requirements.
- Awnings should fit into the openings of the building on which they attach without overlapping the opening or multiple openings. They should generally add color and serve as a transition between the storefront and the upper facade.
- Avoid a uniform awning design for multiple retailers.
- Awnings and canopies should identify a business's street frontage, and be identified as part of the tenant's image.
- Awning material should be of a woven fabric or other material that projects the natural appearance of canvas. Traditional canvas awnings are recommended. Retractable or open side awnings are preferred and vinyl awnings are prohibited. Canopies should be fabricated of durable materials such as steel, and glass.

Windows and Doors

- Wall openings should show depth of the wall, without use of flat or tacked-on window trims.
- Windows and doors should be simple in both design and placement. Use of mullions that divide window into panes of glass is encouraged.
- Building doors and windows facing street frontages should be fully functional.

Porches and Patios

- Upper level patios (either recessed or extended) or French balconies are encouraged, but should be usable and not merely decorative.

Colors and Materials

- Rich materials such as stone, brick, and wood are encouraged. Material mixture must be in accord with the simplicity of building massing.
- Brick and stone should be detailed in proper corner-turning and load-bearing

proportions.

- Local materials and vendors are preferred.
- Exterior materials on primary facades should incorporate materials common to the buildings in found throughout Vallejo and convey a sense of permanence.
- At the ground floor, incorporate materials such as bronze, steel, brick or other masonry, and architectural-grade concrete that have a heavy, permanent appearance.
- Preferred facade materials include:
  - brick and stone masonry
  - pre-cast concrete lintels, sills and panels
  - stucco with a quality finish
  - wood profiles and details
  - stone (marble, granite) lintels, sills, cladding and detailing
  - ceramic and clay tiles or masonry
  - Other materials that are acceptable include:
  - metal panels that are pre-finished or painted
  - metal and glass curtain wall systems when used for less than 30 percent of the facade area
  - synthetic detail profiles when covered with a stucco finish
  - concrete masonry units, except gray, and when used in limited quantities at the ground floor and designed with patterns of multiple colors and/or finishes
  - other innovative materials and new technologies that convey high-quality design and durability
- Thin materials generally do not convey high-quality and durability. At the pedestrian level avoid thin materials such as "stick-a-brick", clear-anodized aluminum windows and storefronts, and other light-weight materials and finishes.
- The following materials and finishes are generally inappropriate:
  - Coarsely finished, "rustic" materials, such as wood shakes, shingles, barn board or fir plywood
  - Indoor-outdoor carpeting ("astro-turf")
  - Corrugated or expanded metal, except as part of a design feature or detail
  - Corrugated fiberglass panels
  - Imitation masonry and stone materials or panels
  - Rough coat stucco
  - Silver or clear anodized aluminum sheets
  - Silver or clear anodized aluminum extrusions for windows, doorways and storefronts
  - Plastic molded imitations of a conventional building material
  - Mirrored or metallic reflective glass

- Glass block, except as a limited part of a design feature or detail

- To avoid the appearance of a false facade, materials and finishes should return around comers and terminate with an architectural detail or relief.
- Avoid colors that contrast dramatically with the colors of neighboring buildings. Neon and other bright colors should be avoided, except when used in a very limited amount as part of an architectural detail or feature.
- The grade of finishes should be highest at the pedestrian level of buildings. Textures should generally be more fine-grained and smooth in ground floor areas. In areas of building facades with little or no human activity, materials may be less highly-finished.

Lighting and Signage for Buildings

- Materials for lighting and signage fixtures should be durable and weather well.
- Natural finishes like bronze, nickel steel and sustainably-treated wood are recommended.
- Lighting and signage should be integrated into building design.
- Lighting, where appropriate for convenience and safety, should not cause light pollution or glare into adjacent properties.
- Energy-efficient LED lighting is highly encouraged.
- In addition to wall signs, pedestrian scale signage such as blade signs, awning signs, and window decal signs are encouraged throughout the project to contribute to an active, vibrant pedestrian experience. Signage that clutters pedestrian environments is discouraged.

Utilities and Mechanical Equipment

- Mechanical equipment should be hidden or screened by architectural elements that match the architecture of the rest of the building.
- Where possible, alleys or secondary streets should be utilized for access to utilities and building services access, including, but not limited to, trash/recycling storage and collection mechanical equipment servicing and fire department connections.
- Service facilities should generally be located in less visible locations. Where possible, facilities and equipment should be located within the building envelope.
- Fire Department connections, water sprinkler risers and other emergency and public works equipment should be located internally to the development. Backflow preventer devices should be located away from public streets, in a recessed location or located underground.
- Utilize landscape design, art elements or other architectural details to integrate the design of service access, utility connections or other mechanical equipment into the overall design of the development. Consider artist-made building parts for screening if appropriate for the equipment.
- Any mechanical equipment, including when located on rooftops, should be visually screened in a manner that is integrated into the design of the building. Materials used should be finished and incorporate colors that blend with the overall building and reduce their visual impact. Plastic screens, chain link fences, and other utilitarian screens are insufficient for screening mechanical equipment.

Retail Storefronts

- The predominant length of sidewalk-level retail frontages should be storefronts, entry ways, doors, windows, and other openings that allow for a visual connection between the interior and the street environment, and for access directly from the sidewalk. Multiple entries should be incorporated where possible. Entry doors may be recessed, but storefront windows and displays should not be set back from the sidewalk. Storefront designs should be coordinated with adjacent designs to create a cohesive streetscape facade.
- Utilize traditional storefront designs. Storefronts should be individual expressions of a tenant's identity, but should create an expression that is complimentary to the downtown architectural vocabulary. National and regional tenants who have a standard, recognizable storefront design and color palette will be required to tailor their designs and colors to complement Vallejo's community identity and the Solano 360 vision.
- Storefronts should consist predominantly of transparent glass to provide views into the store, but glass should not be the exclusive material. Opaque, smoked and reflective glass should be used for accents only.
- The degree of construction detailing and finish in storefronts should generally exceed that of other parts of a building.
- Subject to approval by the applicable authority having jurisdiction, retailers may use sidewalks as a part of their presence on the street. A storefront expansion zone of approximately 2' wide may be identified along the building facades that will be available for tenants to extend their merchandising past the building facade plane.

Retail Signage and Lighting

- Retail signage should be incorporated into storefront designs, communicating a retailer's identity.
- Creative signage design is encouraged. Appropriate signage can take the form of wall-mounted signs, projecting blade signs, awning or canopies. Blade/projecting signs are appropriate for storefronts on the Entry Road and Loop Road. Signage may be incorporated into the design of canopies, marquees and awnings, where the latter are incorporated into the design of storefronts or entries. Emphasis should be placed on durable materials and quality manufacturing.
- The following types of signs should be avoided:
  - generic box signs
  - back-lit plastic and neon sign
  - pole-mounted and freestanding signs for individual businesses
- Storefront facades, recessed doorways, outdoor spaces and passageways should be lighted. Lighting fixtures should generally complement the architectural expression and detailing of the building and storefront.
- Creative use of lighting may be incorporated into the architectural design of buildings to highlight feature elements, particularly at corners.
- Fixtures should be located and angled to ensure that they spotlight a retailer's merchandise and do not point toward the window or cause distracting reflections.
- Awnings and canopies may incorporate lighting with fixtures that light the sidewalk

and storefront. Back-lit awnings are not allowed. Signage lighting, including flat-mounted signs, blade and banner signs, must be lit with concealed lighting or from above with down-lighting.

- Storefronts should provide for "after hour" lighting within the front floor area of stores so as to highlight goods and to contribute to pedestrian lighting. Night lighting will help animate the Solano360 public purpose area and increase pedestrian safety.
- Use fixtures and a comprehensive lighting plan that maximizes the efficiency of light sources and limits light intrusion into residential units. Pedestrian lights placed on buildings along streets and sidewalks should complement and supplement the pedestrian lighting plan of the street lighting without creating excess light or glare.

On-Site Amenities

- On primary pedestrian frontages and in open space setbacks adjacent to public pedestrian ways consider providing amenities for use by the public such as benches, fountains, planters with seating walls, art, bicycle racks, kiosks and notice boards.
- Public amenities should be designed and located to complement public streetscape improvements, and should exceed the normal levels of craftsmanship, reflecting the typical materials, finishes and colors of the building.
- Kiosks and Boards for wayfinding, public notices and information can be provided along pedestrian ways. They should be accessible and well-lighted. The design and construction should complement the design and composition of the building facade and/or other streetscape elements.
- Amenity feautres should be fixed in one place or attached to the building so as to be permanent.

Safety and Accessibility

- Amenity features should not create physical hazards or other issues of safety for pedestrians or drivers. They should allow for easy pedestrian access and required barrier free accessibility. Materials should be permanently fixed, durable, easily cleaned and maintained, and without sharp edges or points.

4.5.2 Entertainment Commercial (EC) Guidelines

In addition to the general guidelines provided in Section 4.2, the following guidelines are included to address the Entertainment Commercial (EC) area.

- Design of the northern portion of the EC parcel should address the Creek Park by incorporating a pedestrian gateway connected to trails and promenades along Entry Road and Creek Park. Design of venues and structures along this northern edge should create appealing, festive views for visitors traveling southbound on Fairgrounds Drive.
- Because development of the Entertainment Commercial Area may not occur until Phase 2, landscape treatment of the northern edge adjacent to the Creek Walk should occur with initial phases of the project.
- EC entries should be reinforced with high quality, highly visible landmark structures or gateway elements to support the identity of the Plan Area as an entertainment hub for Vallejo and the greater Solano County. Such elements should exhibit thoughtful, imaginative architectural design to welcome visitors.
- Any security barriers along Creek Park should consist of high quality, ornamental fencing with low vegetation that allows filtered views. Visually impermeable barriers

along the Creek Park should be avoided.

- Taller rides and venues, up to 250 feet in height, should be concentrated within the central and eastern portions of the EC parcel in order to maximize visibility from I-80 and provide transitions to Fairgrounds Drive and the Creek Park. Along the EC parcel's northern, western, and southern boundaries, maximum heights should be limited to approximately 150 feet.
- Parking areas should be concentrated in the southern portion of the EC parcel, with active venues concentrated to the north along the Creek Park and the west along Fairgrounds Drive (see Section 3.6: Land Use Policies). Design of venues should consider creation of exciting views from freeways.
- EC development should incorporate locations for shuttle stops along the Loop Road.

4. 6 SUSTAINABILITY AND RESOURCE MANAGEMENT

4.6.1 Solano360 Sustainable Design Attributes

The Plan incorporates sustainable design and development within the land use, transportation, infrastructure, and design provisions described in this document. The following section summarizes those measures and provides cross-references to relevant sections. In addition, this section provides "next step" measures for sustainability that can be incorporated into subsequent design proposals and project implementation.

The following measures incorporate aspects of national guidelines and standards for sustainability, including the United States Green Building Council (USGBC) Leadership in Energy & Environmental Design – Neighborhood Development (LEED-ND) rating system and the Guidelines and Performance Benchmarks identified under the Sustainable Sites Initiative (SSI).

Sustainable Site and Building Design

- Location and Facility Reuse: The Plan makes use of areas that have been previously developed, including significant portions of the existing Fairgrounds facilities. Approximately 87,000 square feet of existing Fair building area will be retained as well as the concourse itself (approximately 83,300 square feet.) and associated outdoor (paved and lawn) venue areas totaling over 30,000 square feet. This approach recycles previously disturbed land and reduces the need for construction of buildings and infrastructure. Reusing buildings, materials and existing paved surfaces also reduces

waste, debris, and air quality impacts that would be generated during demolition.

- Compact Development: The Plan land use mix emphasizes the phased development of themed entertainment park and family entertainment uses, with flexibility to accommodate office and residential uses. Higher density development helps to conserve land and preserve open space and, when provided alongside a mix of uses, promotes livability, transportation efficiency and walkability.
- Diversity of Uses: The housing allowed in the Private Purpose Areas would be located within a quarter-mile (five minute) walk of onsite uses including shops, restaurant, entertainment and offices. As mentioned in Section 3.6.2, establishing a small grocery store onsite would deter some vehicle trips for residents and workers.
- Open Space: Open space areas can provide habitat, reduce urban heat island effects and allow for enhanced stormwater management. The Plan establishes a variety of open spaces that encourage walking, physical activity and time spent outdoors. New open space uses include six acres of Creek Park within Private Development Area and three acres within the Fair, two acres of Demonstration Farm, four acres of Midway/ Event Lawn, one and a half acres of concert amphitheater, three acres of paved plazas and promenades, and one acre of other gardens and courtyards around the new Exposition Hall (acreages are approximate).
- Sustainable Building Design: The proposed conceptual design for the Exposition Hall incorporates sustainable features, such as natural ventilation and photovoltaic roof panels, that will partially enable the building to obtain LEED Silver certification or meet equivalent performance standards, as required by County General Plan policy. The Plan will comply with the Solano County General Plan requirement and Vallejo Climate Action Plan relative to energy efficiency and green construction policies, as applicable .

Health and Well-Being

- Bicycle and Pedestrian System: In addition to the open space described above, the Plan proposes pedestrian and bicycle routes as illustrated by Figures 5.10 and 5.11. In addition, a jogging circuit is proposed along the Fairgrounds Channel. These public trails, promenades, bike lanes and paths encourage residents and visitors to get out of their cars and walk, bike or jog from destinations within and near the Plan Area.
- Walkable Streets: Walking is key to providing healthy and sustainable communities. The major roads (Entry Road and Loop Road) provide a minimum of 10-foot wide, tree-shaded sidewalks or multi-purpose paths on each side. Controlled intersections, bulb-outs, and high-visibility crosswalks are provided at onsite intersections to enhance pedestrian safety; this includes the raised intersection at the Fairgrounds Arrival Plaza (see Figure 4.17).
- Bicycle Facilities: The Plan proposes bicycle facilities along the Entry Road and Loop Road, connecting to proposed bike lanes on Fairgrounds Drive between SR 37 and Redwood Parkway and allowing easy bike connections to onsite destinations. These facilities consist of bike lanes on Entry Road and North Loop Road, multi-purpose paths along South Loop Road, and secure bicycle parking at key activity nodes including the Fairgrounds and private purpose development (EMU and EC) parcels. The Transit/North Parking Center will also provide a secure bicycle parking area and may include other bicycle amenities such as a bicycle repair facility (see Figure 5.11: Bicycle Circulation).
- Noise: To the extent possible, the Plan provides buffers and provisions for onsite uses

that may be particularly sensitive to noise impacts. The amphitheater, located in the eastern portion of the Fairgrounds near the I-80 freeway, is buffered by an earthen berm as shown by Figure 4.20: Amphitheater Section. Within the Fairgrounds, the amphitheater is separated from the future midway to avoid noise impacts during multiple events or Fair Week. Possible housing is restricted to the western portions of the Plan Area in order to avoid impacts from noise and air quality. Impacts by the project on offsite uses are mitigated by the distance between noise-generating uses, such as the amphitheater or midway, and sensitive offsite areas such as residential neighborhoods.

- Equitable Site Use: Site uses will provide economic or social benefits to the local community, with public access to recreational and civic facilities such as the Creek Park, renovated Fair of the Future and outdoor spaces, and Demonstration Farm.
- Sustainability Awareness and Education: The proposed Demonstration Farm provides opportunities to celebrate the historic agricultural character of the area and provide educational programming. Other environmental education programs may be provided through the Fair. Educational and interpretive signs describing restored habitat and water conveyance systems will be located throughout the Creek Park.

Water Quality and Management

- Flood Control: The Plan proposes removing the western and southern portions of the Plan Area from the floodplain, alleviating flooding in the offsite mobile home park to the extent possible, and improving the quality of onsite storm runoff. As described in Chapter Six, these improvements involve enlarging the Fairgrounds Channel and adding improving the existing crossing under Fairgrounds Drive.
- Stormwater Collection and Re-use: The new multi-purpose water feature within Creek Park will retain and improve runoff from the Plan Area, which can then be re-used onsite for irrigation. It also functions as a recreational amenity and water quality BMP (see Chapter Six). Capture and reuse is consistent with Low Impact Development practices and the San Francisco Bay Area NPDES stormwater quality permit. As described in Chapter Six, a majority of the Plan Area will be designed to drain to the Creek Park water feature for water quality treatment. Portions of the southern Plan Area may drain to the Fairgrounds Channel depending on the storm drain system hydraulic limitations.
- Potable Water Demand: Capture and reuse of stormwater for irrigation within the water

feature will reduce potable water demand. Use of drought-tolerant and local plant species will further reduce potable water demand (see Section 4.2.3: Landscape Plan and Guidelines). In addition, a "purple-pipe" (recycled water) system is planned within each backbone roadway (see Figure 6.3: Non-Potable Water Exhibit). The "purple-pipe" system will be installed in accordance with Title 22 standards for recycled water use in the event recycled water becomes available on a municipal scale.

- Low Impact Design (LID): Structural LIDs proposed by the Plan include the water feature bioswales and rain gardens to collect water from the Exposition Hall roof. Non-structure LID's include minimization of paved parking areas through creation of shared parking strategies and multi-purpose turf areas, such as the midway, that can accommodate overflow parking.
- Wastewater: The Plan's water reduction and conservation measures also result in reduced generation of wastewater due to recycling and reduced flows.

Chapter Six provides additional measures (see Sections 6.2.4, 6.3.4, and 6.4.4).

Transportation

- Transit: The Plan provides a multi-modal Transit/North Parking Center where commuters can park their vehicles and board buses bound for job centers or other destinations such as the Vallejo Ferry Terminal. Frequent local bus service will provide a better option for bringing people to the project, reducing the overall traffic impact. The Transit/North Parking Center can also be used for parking during weekend events.
- Linked Trips: The project is designed to include a variety of complementary venues and attractions within easy walking distance of each other, resulting in a 33% rate of linked vehicular trips and a corresponding reduction of transportation impacts.
- Parking: The Plan designates paved parking areas to serve development uses as the project builds out, but minimizes the extent of parking through phased and shared parking strategies and multi-purpose turf areas, such as the midway, that can accommodate overflow parking when it is not in use for outdoor events. Within the Entertainment Mixed Use areas, parking is allocated to the side and/or rear of blocks, creating more pedestrian-oriented streets. Larger surface lots will have landscape buffers at the street and channels edges and will incorporate shade trees or, as described below, solar arrays for an onsite source of renewable energy.

Energy

- Solar Arrays at Exposition Hall: As described in Section 4.3.3, the main Exposition Hall roof is proposed for a photovoltaic array and/or solar hot water heating panel installation of approximately 24,300 or more square feet. Other buildings and parking facilities are also available for installation of photovoltaics.
- Natural Cooling: The Exposition Hall incorporates a shade canopy to mitigate the effects of solar glare along the south-facing facade.

4.6.2 Next Step Sustainability Measures

In addition to the sustainable provisions embodied in the Plan as described above, additional "next step" measures are proposed for consideration during implementation of projects within the Plan Area.

Green Building

- Other green building and low impact design (LID) measures should be considered for more detailed stages of building and site design. These may include:

- cisterns to capture rain water,
- recycled water facilities for flushing toilets and other uses where potable water is not required,
- high efficiency fixtures and appliances within buildings,
- vegetated roofs and photovoltaic arrays on roofs,
- use of recycled and locally available materials,
- maximizing opportunities for natural shading and ventilation,
- orientation of buildings to maximize energy efficiency and provide natural cooling and ventilation,
- deciduous trees next to buildings and along streets to reduce ambient temperature, reduce heat gain, allow for cooler natural ventilation, and provide a more pleasant pedestrian environment,
- deciduous trees and vines in front of south-facing walls and windows to further cool buildings by intercepting sunlight during summer months, yet allow direct sunlight during the winter,
- green screens (metal lattices planted with vines and/or climbing flowers) to shade south- and west-facing walls to reduce interior heat gain and beautify buildings,
- trees of appropriate heights and spreads to provide ample shade in the summer months for outdoor spaces such as patios and plazas, pedestrian walkways, roadways, and parking lots,
- structures such as trellises and porticoes incorporated into the building/landscape edge, especially on south- and west-facing exposures, to provide shade in the summer and allow solar penetration when the sun is at a low angle in the winter,
- landscape buffers, screens, and windrows to permit facilitate cooling by prevailing breezes in summer months and to reduce interior heat gain, and
- site lighting minimized to reduce light pollution and minimize energy usage, using full cutoff luminaries, low-reflectance surfaces, and low-angle spotlights.

• Non-structural LID measures should be established where practical. These may include, but are not limited to, programs to monitor pavement cleaning (street sweeping), illicit discharge elimination, and parking lot design and management.

• Developer of projects within the Plan Area should be encouraged to pursue LEED

certification and other green building credits and awards, as such recognition will physically and symbolically represent the sustainability values of Solano360.

Energy

The following measures are in addition to the photovoltaic arrays / solar hot water heating panels planned for the Exposition Hall roof, as described previously. All proposals should be developed in coordination with the County Operations Manager.

- A Public Private Partnership (PPP) with a solar partner may be pursued to provide some of the infrastructure costs associated with the site development. The Plan allocates extensive areas for parking, including approximately 24.7 acres for Shared Public Parking. These large-scale facilities could include photovoltaic arrays to provide onsite energy, shade for cars, cost savings and a possible revenue source (as excess energy could be sold).
- A district energy system, or cogeneration, could be evaluated to provide on-site energy and reduce building water heating and cooling requirements. The water feature in the Creek Park could be utilized to provide cooling via a heat transfer/cooling tower device for adjacent buildings.
- Photovoltaic arrays should be considered for all new and retrofitted buildings, including structures within the EMU and EC areas.
- Wind turbine and other alternative energy technologies could be incorporated into the Demonstration Farm to test and provide educational examples for families and visiting school groups.

Waste Management

- A construction waste management plan could be developed that would identify salvage, recycling or donation of construction materials.

Materials, Operations and Maintenance

- No wood from threatened tree species should be used in construction or finishing. Certified wood should be used wherever practical.
- Building and landscape materials should contain recycled content wherever practical.
- Materials that are produced and sold locally, including soils, should be used wherever practical.
- Any adhesives, sealants, paints and coatings used should be those with reduced VOC emissions.

CHAPTER FIVE: TRANSPORTATION

5.1 INTRODUCTION

This chapter addresses circulation and transportation within the Plan Area, including off-site and on-site roadways. It describes the existing roadway system, identifies likely improvements needed to support Plan Area development, and establishes policies for transportation, parking and circulation systems within the Plan Area.

The information is this chapter is informed by the Plan's conceptual site plans and may be subject to change as more detailed plans and specifications are developed as part of the design and development process.

5.1 OFF-SITE HIGHWAYS AND ROADS

The Plan Area is bounded by Fairgrounds Drive to the west, Sage Street and SR-37 to the north, I-80 to the east, and Coach Lane to the south. The site is currently directly accessed via Fairgrounds Drive and Sage Street.

- SR-37 is an east-west four-lane freeway that connects I-80 to US 101 in Marin County. A diamond interchange is provided at SR-37/Fairgrounds Drive. East of I-80, SR-37 connects to Columbus Parkway, providing a route through eastern Vallejo to Benicia.
- I-80 is an interstate freeway that runs in a north-south direction directly east of the site. Between three and five travel lanes are provided in the northbound (eastbound) and southbound (westbound) direction, as lanes are added and dropped between interchanges adjacent to the project site.
- Fairgrounds Drive is a north-south arterial road that provides four lanes along most of the project frontage, transitioning to two lanes south of the Six Flags Discovery Kingdom exit driveway.
- Sage Street is an east-west two-lane roadway that connects Fairgrounds Drive to the neighborhood north of SR-37, via an underpass.
- The Solano Transportation Authority (STA) is planning the Redwood Parkway/ Fairgrounds Drive Improvement Project that will improve Fairgrounds Drive to a continuous four lanes between SR-37 and Redwood Parkway, plus a third northbound through lane between the Six Flags Discovery Kingdom Exit Driveway/Fairgrounds Drive intersection and SR-37, and improve the configuration and capacity of the SR-37/Fairgrounds Drive interchange and the Redwood Parkway/I-80 interchange. The project is in the Project Approval/Environmental Document (PA/ED) phase.

5.2 ON-SITE CIRCULATION

5.2.1 Vehicular Circulation

The Plan Area will be accessed via:

- Two higher-capacity intersections along Fairgrounds Drive at the North and South Loop Road,
- A lower-capacity but highly visible secondary access from Fairgrounds Drive at the Entry Road, and
- Another secondary intersection on Sage Street (see Figure 5.1) serving primarily service and transit vehicles.

Figures 5.2 and 5.3 show the roadway and intersection configurations in the northern and southern parts of the Plan Area, respectively. Figure 5.4 highlights the turning movements for intersections along Fairgrounds Drive. Figures 5.5 to 5.8 show street sections for the primary roadways.

Major Roads

Entry Road – The Entry Road aligns with the current Fairgrounds entry road, opposite the Six Flags Discovery Kingdom exit. The intersection is currently signalized.

The Fairgrounds Drive/Redwood Parkway Improvement Project is currently designed to provide a second southbound left-turn lane and a third northbound through lane at the intersection. However, in order to create a more pedestrian-oriented character for the Entry Road, the Plan proposes a narrower Entry Road street section of one 11-foot lane and a parking lane in each direction, with a wide urban sidewalk on the north and south sides. Therefore, the intersection with Fairgrounds Drive will only require a single southbound left-turn lane to feed into the single inbound travel lane onto the Entry Road. A center median will extend approximately 250 feet east from Fairgrounds Drive, opening to provide space for a 150-foot left-turn lane into the EMU Parcels 7 and 8.

The Entry Road will intersect with the Loop Road at the Exposition Hall Arrival Plaza, with a raised intersection to provide traffic calming and pedestrian safety. East-bound traffic will turn right or left onto the Loop Road, with a drop-off area located north of the Arrival Plaza where only limited vehicular access will be possible for special purposes such as emergencies or access for the disabled.

Loop Road – The Loop Road is intended to provide the primary circulation through the site, connecting to Fairgrounds Drive at two locations. The Plan proposes that the northerly connection include two left-turn lanes for southbound traffic on Fairgrounds Drive; this would require a revision to the Fairgrounds Drive/Redwood Parkway Improvement Project design.

North Loop Road is planned to provide two right turn lanes northbound onto Fairgrounds Drive, with no southbound left turning movement allowed. The intersection would be signal-controlled for all movements except for the southbound through traffic along Fairgrounds Drive, which would be a free-flow movement, with no change to access into Six Flags Discovery Kingdom. Additionally, the direct access from the Courtyard by Marriott Hotel onto Fairgrounds Drive would need to be modified to prohibit outbound left turns. All other turning movements would remain.

The South Loop Road intersection connection is located between the Entertainment Commercial (EC) parcel and the southerly parking area. This intersection would be signalized and would serve as the main access for the EC uses (although all trips to the site would have the option of using other intersections). At the planned intersection location, Fairgrounds Drive currently includes two travel lanes; in the future, the STA project is expected to provide a four-lane cross-section that includes two southbound lanes and two northbound lanes.

The Loop Road has a different design to the north and the south of the Entry Road. To the north, the configuration would consist of four 11-foot through lanes with a center median/left-turn lane and bike lane on both sides. This design would serve as the "urban street" function desired for the adjacent Entertainment Mixed Use (EMU) and Fair uses. Along the EMU Parcel 6 frontage, north of the Exposition Hall Arrival Plaza, the north side of the street would include a passenger drop-off lane.

To the south of the Entry Road, the proposed South Loop Road configuration consists of four 11-foot lanes, a center median/left turn lane, and a multi-purpose path on both sides. This section is expected to serve higher traffic volumes generated by a combination of Fair and EMU trips, along with most or all of the EC trips. The multi-purpose paths would provide pedestrian promenades connecting from the southern parking facilities to destinations located at the Fair and Public Entertainment Core.

Sage-Loop Connector Road – This short north-south roadway will provide access to the site from Sage Street, connect to the North Loop Road, and provide access to the Transit/North Parking Center, adjacent EMU parking areas, and North Fair parking lot. The street section is planned to be three 11-foot lanes (one in each direction and a center two-way left-turn lane), with bike lanes. As this roadway will provide the most direct route between points north and the northerly fair parking lots, it will be a desirable route, potentially overloading the single southbound left-turn lane on Fairgrounds Drive at Sage Street. Therefore, on peak-attendance days, such as the County Fair weekend, access management may be needed on Fairgrounds Drive to distribute traffic appropriately to the Sage-Loop Connector Road entrance; the North Loop Road entrance, at which the southbound left-turn capacity is twice that at Sage Street; and the Main Entry Road entrance. [1]

In-Tract Minor Roads and Driveways

Other vehicular roadways would provide circulation within individual land use parcels. These routes will be determined at a later stage of the site development process, but are expected to include:

- Loop-Main Entry Connector– The Phase 1 Illustrative Concept (Figure 4.11) indicates an in-tract (within the parcel) driveway from the Entry Road into the two large EMU parcels #6 and #7, connecting to the North Loop Road. This minor connector may also function as a storm drainage easement (see Chapter Six).
- Perimeter Road – The northerly and southerly parking lots would be connected via a perimeter road to allow maximum parking and circulation efficiency. The perimeter roadway would likely have a minimal two-lane cross-section between the lots, and would run along the northern and eastern edges of the Fair parcels, providing intra-lot circulation and travel between designated parking areas. The roadway will be gated at both ends of the Fairgrounds to provide for security.

Traffic Calming Features

The Plan Area roadways and intersections would be designed for slow speeds to enhance the pedestrian environment and promote safety. Proposed traffic calming features include:

- Narrow (11-foot) lane widths
- Curved roadway alignments and short blocks (northern portion)
- Traffic control at primary intersections (all-way stops)
- Curb extensions at intersections
- High-visibility crosswalks
- Raised intersection design at certain intersections, including the intersection of the Entry Road and the Loop Road

Speed humps, while not currently envisioned, may be considered for the long straight section of South Loop Road, should speeds become a problem in this section.

5.2.2 Pedestrian Circulation

Figure 5.10 shows the pedestrian circulation plan. The Plan provides a comprehensive network of pedestrian facilities, including sidewalks, multi-use paths, and controlled crossings to promote walking to the site and within the site. All of the primary and secondary roadways on the site

1 Note that Sage Street/Fairgrounds Drive is not currently signalized, but is programmed to be signalized by the City of Vallejo.

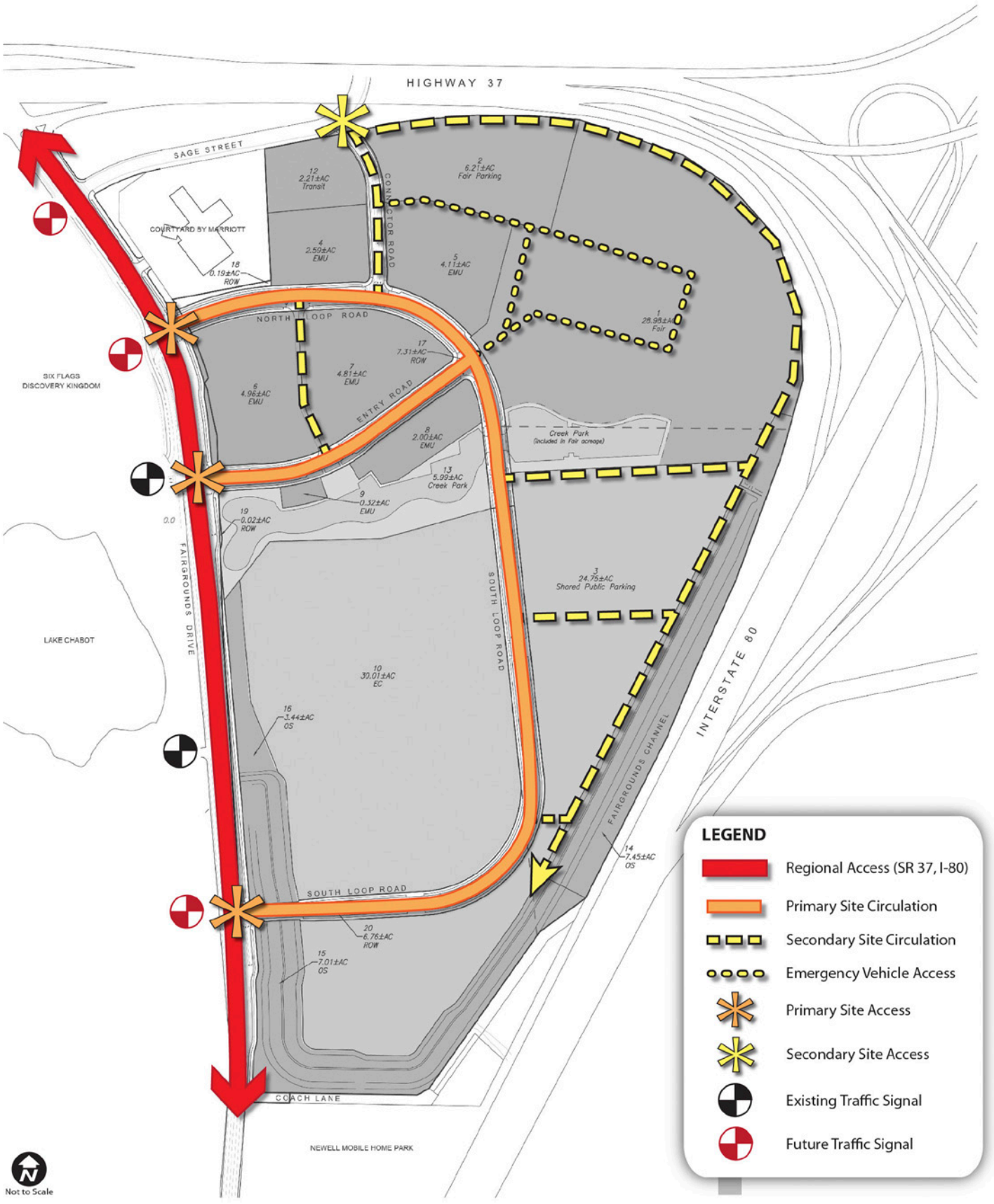


Figure 5.1: Vehicular Circulation

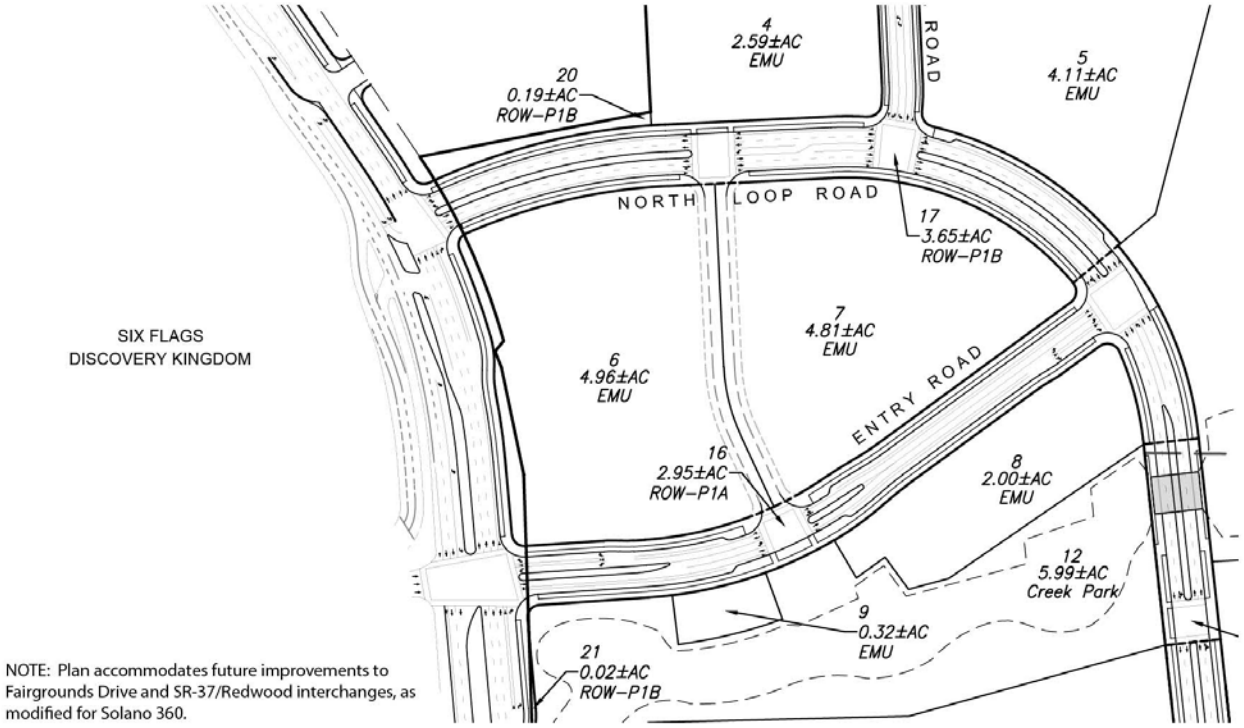


Figure 5.2: North Area Circulation

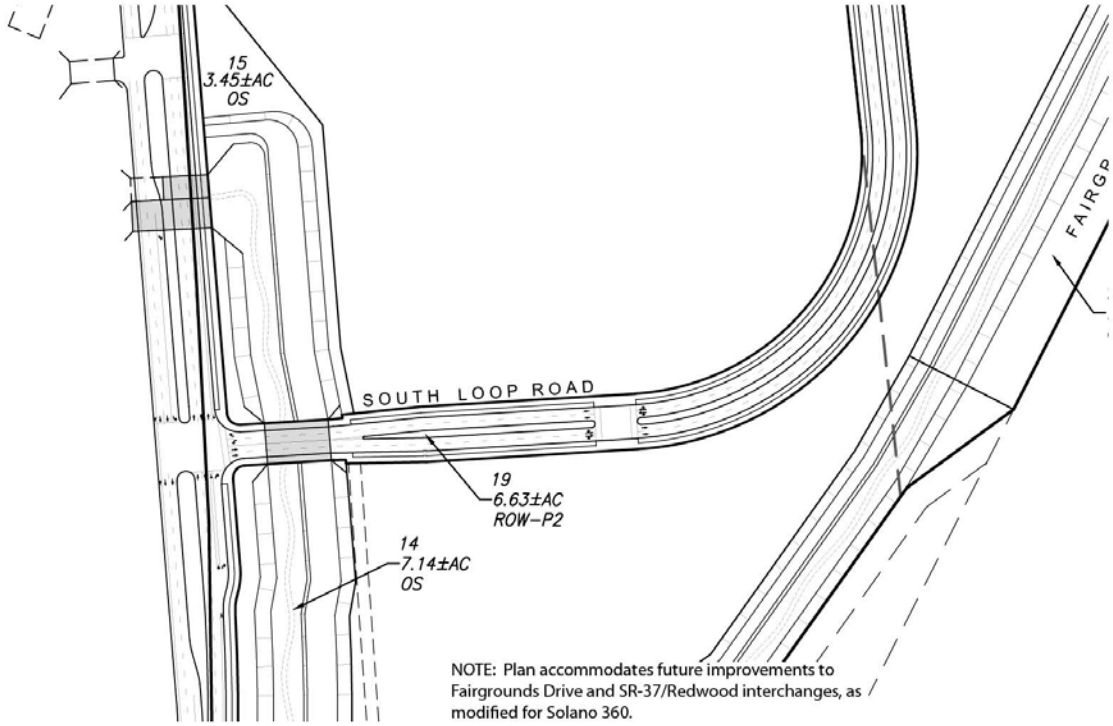
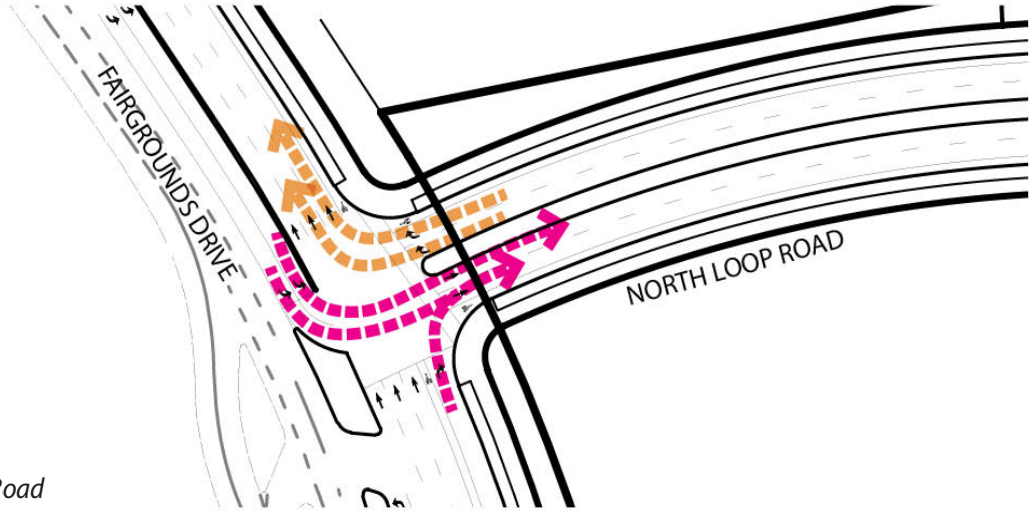
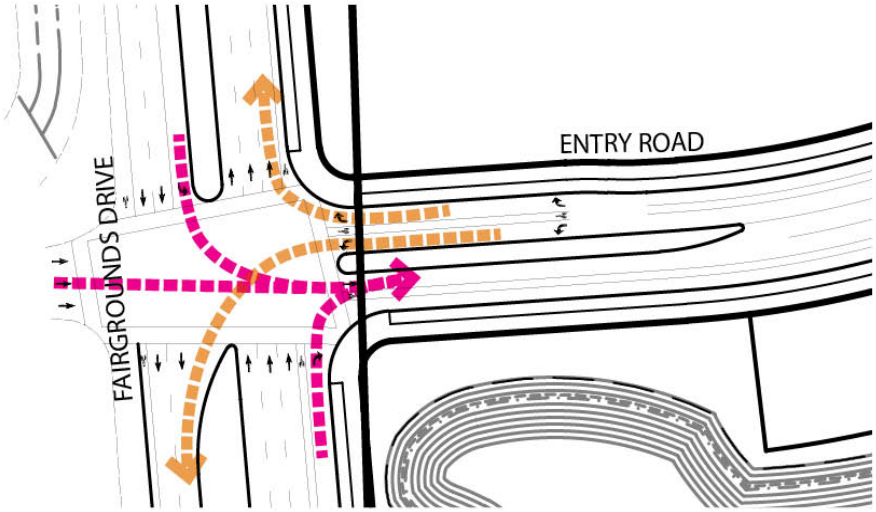


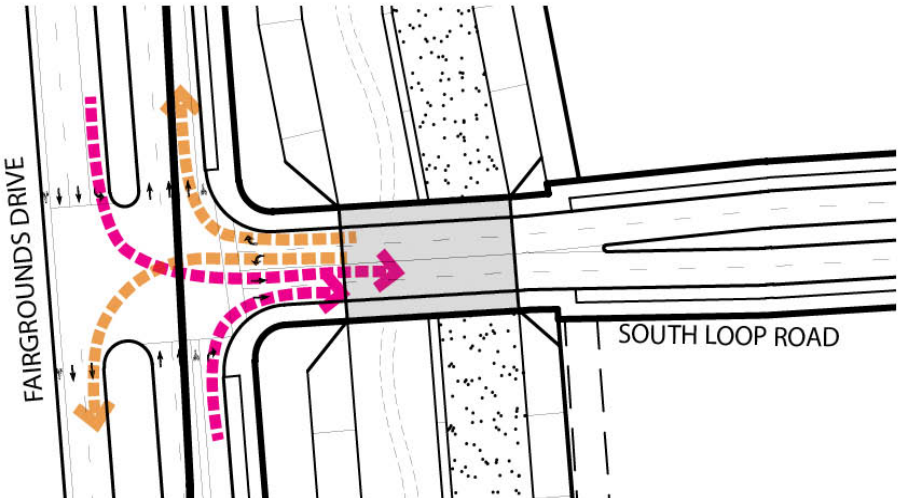
Figure 5.3: South Area Circulation



North Loop Road



Entry Road



South Loop Road

Figure 5.4: Turning Movements at Fairgrounds Drive Intersections

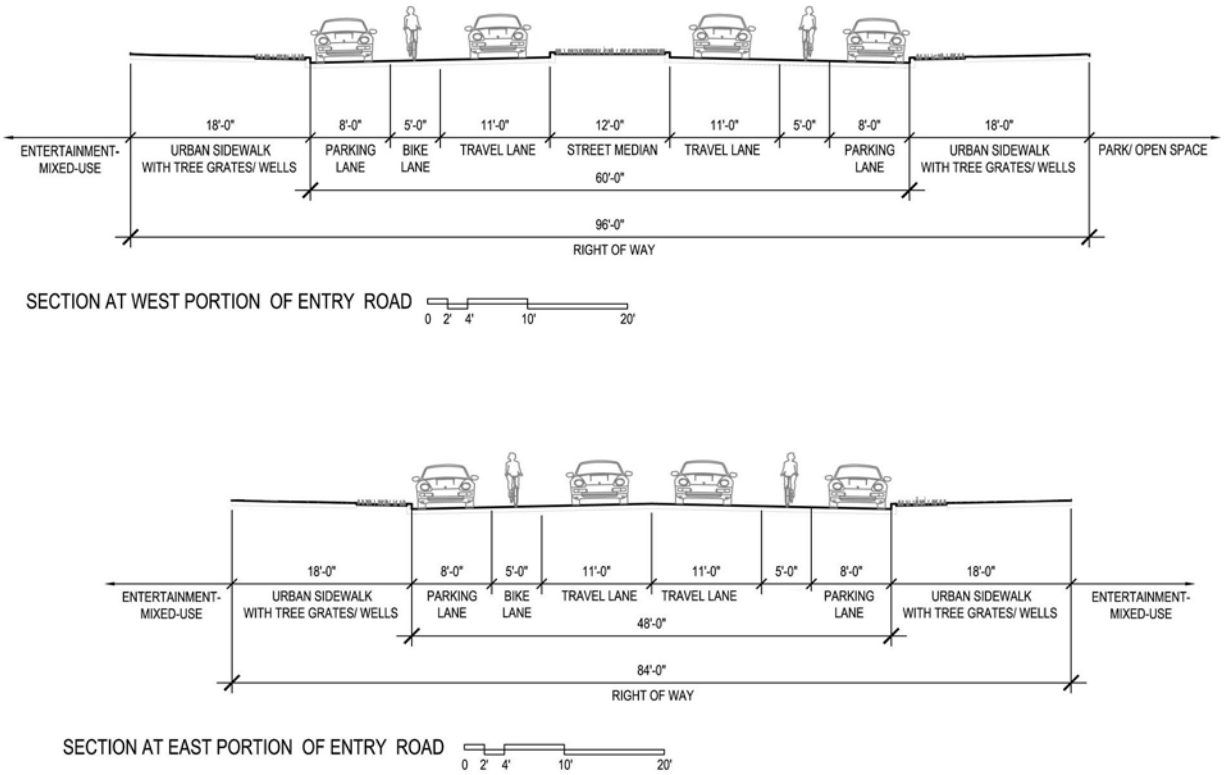


Figure 5.5: Entry Road Sections

have 10-foot minimum wide sidewalks or multi-use paths on both sides.

Controlled crossings (i.e. regulated by a traffic signal) will be provided across Fairgrounds Drive at the Main Entry Road intersection and at the Sage Street intersection (when signalized). High visibility crosswalks will be provided on all approaches at the on-site intersections, including Main Entry Road/Loop Road, Loop Road/Sage-Loop Connector, and Main Entry Road/Main Entry-Loop Connector.

The Plan proposes a continuous trail loop around the southern area including a along the west and southern boundaries of the Plan Area along Fairgrounds Channel, along the Fairground Drive buffer, and through Creek Park. Along with other subsequent permits, the trail along Fairgrounds Channel will need to be confirmed by relevant agencies.

5.2.3 Bicycle Circulation

Figure 5.11 shows the bicycle circulation plan. Fairgrounds Drive currently has bicycle lanes along most of the project frontage, although there is a gap in the lanes as shown on Figure 5.3. The STA project will provide continuous bike lanes on Fairgrounds Drive between SR-37 and Redwood Parkway. The Plan provides bike lanes or a multi-purpose path on all the primary roadways. Secure bicycle parking areas will be provided on the Fairgrounds site and on all EMU parcels as they develop, and on the EC site. The Transit/North Parking Center will also provide a secure bicycle parking area, and may include other bicycle amenities such as a bicycle repair facility.

5.3 PARKING

5.3.1 Plan Area Parking

Figures 5.12 to 14 illustrate the distribution and phasing of parking within the Plan Area, and

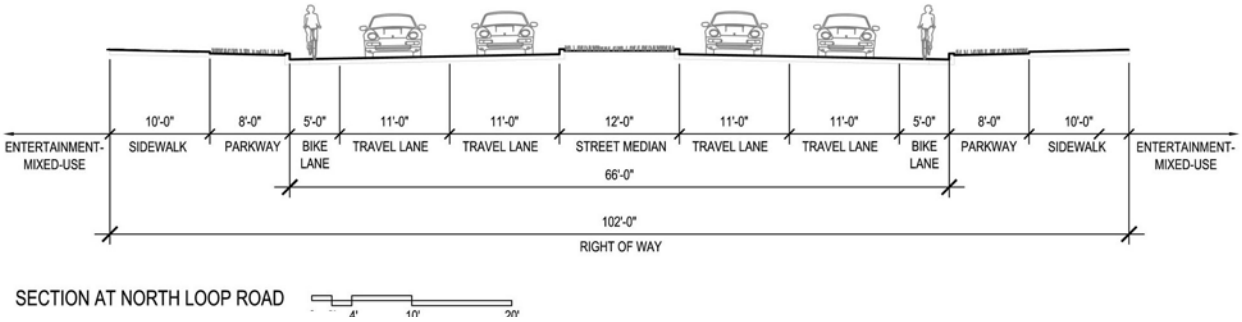


Figure 5.6: North Loop Road Section

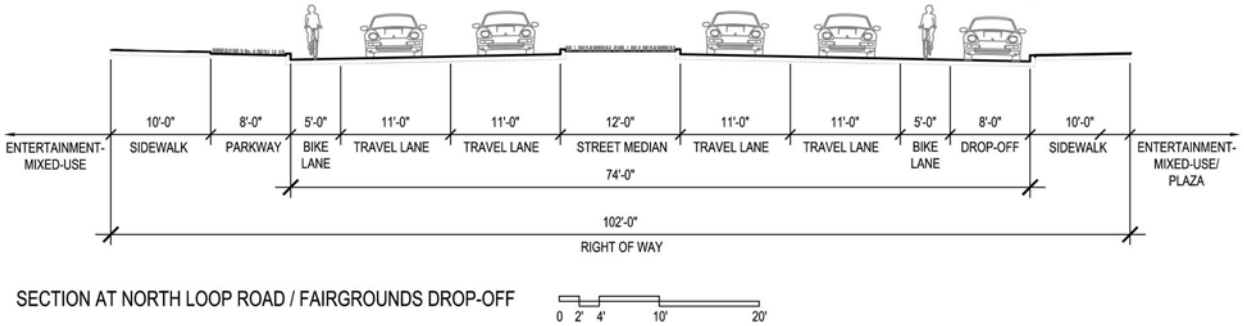


Figure 5.7: North Loop Road Section at Drop-Off

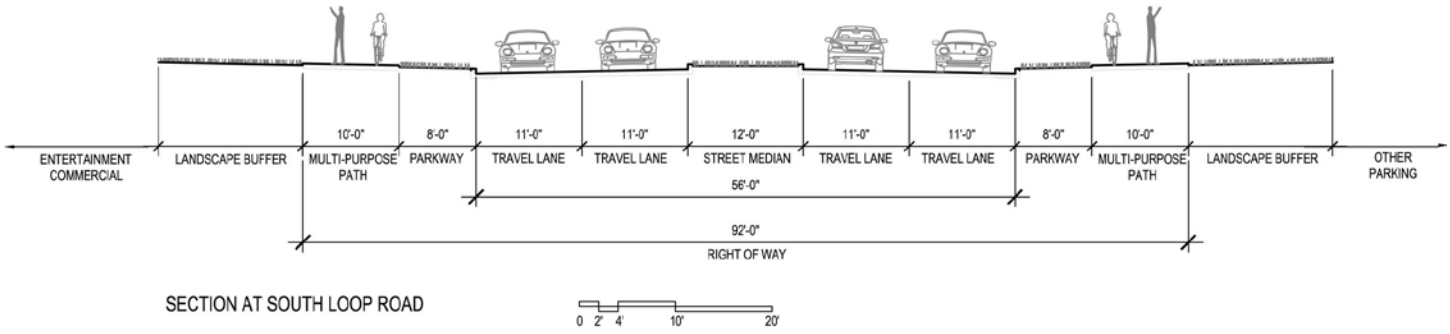


Figure 5.8: South Loop Road Section

Table 5.1 shows the parking totals by phase and land use type.

In Phase 1, parking facilities would include the existing surface lots and interim parking within graded pads and other areas that are not yet fully developed with buildings or other uses. Phase 2 parking would be provided by surface lots and the Transit/North Parking Center's parking structure. In Phase 3, additional structured parking is proposed to meet parking demand for the increased development density (see discussion below).

The parking supply is calculated based on the projected demand for the various uses at each phase of buildout. These parking provisions are subject to a Parking Operations Management Plan to be prepared by the County and parking agreements between the County and Six Flags Discovery Kingdom.

The Plan provides parking as follows.

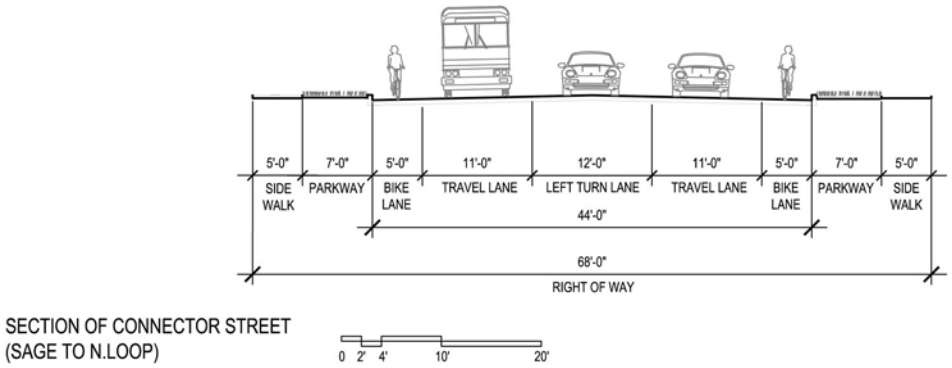


Figure 5.9: Sage-Loop Connector Section

Public Development Areas Parking

- Solano County Fairgrounds currently requires parking at levels that vary through the year, peaking during the County Fair week at about 3,500 spaces accommodated within on-site lots, most of which are in unpaved parking areas.
- The Plan proposes Fairgrounds parking within the North Fair Parking lots and additional parking, service and loading areas along the northern and eastern perimeter of the Fair area. In Phase 1, the Fair would also utilize an interim parking area of approximately seven acres located at the northern portion of the existing golf course. In Phases 2 and 3, the Fair would also utilize Shared Public Parking (see below).
- Shared Public Parking would be used by the Fair and others under the terms of the County's Parking Operations Management Plan and parking agreements between the County and Six Flags Discovery Kingdom. This 24.7-acre area would be developed as surface parking in Phase 2, replacing the existing golf course and Phase 1 interim parking. In Phase 3, approximately five acres of the surface parking lot is intended to be converted to a multi-level parking structure.
- The Transit/North Parking Center would provide interim surface parking in Phase 1 and, starting in Phase 2, a parking structure.
- On-street parking would be available along both sides of the Entry Road; these parking lanes can be converted to travel lanes to accommodate heavier traffic during peak events.

Private Development Areas Parking

- Entertainment Mixed Use Development should be supplied with parking at five spaces per thousand square feet for each phase as shown in Table 5.1. Parking would consist of surface parking within parcel areas. In Phase 3, a parking structure is planned to allow intensification of development. The parking structure may be located in any EMU parcel that is not adjacent to the Creek Park.
- This phased increase in parking is intended to provide for buildout and intensification of uses within the EMU area, with the goal of providing retail-type parking supplies.
- Entertainment Commercial Development would include surface parking within the EC parcel for Phase 2, transitioning to a combination of on-site surface parking within the EC parcel and joint use of Shared Public Parking facilities in Phase 3 (either within the proposed parking structure or in surface lots) as shown in Table 5.1. These parking

requirements are based on surveys of similar theme park uses indicating that such parking typically accounts for approximately 40 percent of the site's acreage.

5.3.2 Structured Parking

Structured parking is proposed as follows:

- A three-level parking structure at the Transit/North Parking Center, accommodating approximately 380 parking stalls (assume 300' x 135' footprint, three levels, 320 square feet/stall).
- A four-level parking structure in the southern end of the Plan Area within the Shared Public Parking area, accommodating approximately 2,500 parking stalls (assume 400' x 500' footprint, four levels, 320 square feet/stall).
- A three-level parking structure integrated into the Entertainment-Mixed Use area, accommodating approximately 1,000 parking stalls (assume 300' x 360' footprint, three levels, 320 square feet /stall). Figure 5.14 Land Use and Parking indicates this parking structure located at EMU Parcel 6 near the intersection of Fairgrounds Drive and the North Loop Road; however, it could be located within any EMU parcel(s) located along North Loop Road (Parcels 4, 5, 6 or 7) but should not be located in Parcels 8 or 9 or adjacent to the Creek Park. The parking structure would allow for intensification of EMU development from 0.2 to 0.4 FAR and could contain ground-level development along North Loop Road.

5.3.3 Parking for Nearby Major Entertainment Areas

Parking facilities proposed for the Plan Area are designed to support the viability of the overall entertainment district, including the sustained operations and potential growth of Six Flags Discovery Kingdom. The usage and financial terms for parking will be subject to a Parking Operations Management Plan to be prepared by the County and by parking agreements between the County and Six Flags Discovery Kingdom.

In addition to parking within Six Flag Discovery Kingdom's own property, parking is available, subject to a Parking Operations Management Plan and parking agreements between the County and Six Flags Discovery Kingdom, within the Solano360 Plan Area through each phase, as follows:

- Phases 1a and 1b: Existing surface parking and additional overflow parking within undeveloped portions of the site.
- Phase 2: Shared Public Parking (surface parking)
- Phase 3: Shared Public Parking (surface parking and South Parking Garage)

In addition to these parking facilities, the project proposes shuttle connections linking parking facilities, Six Flags Discovery Kingdom, and Plan Area destinations (see Figure 5.15).

5.3.4 Parking Operations Management Plan

In order to maximize the flexibility of parking throughout the build-out of the project, the County should develop a Parking Operations Management Plan to provide a mechanism for coordinating events, facilitating joint-use parking, and addressing offset of scheduling to make full and efficient use of the planned onsite parking facilities.

A parking management plan would include the following elements:

- A cooperative use agreement outlining the parking requirements for each use/operator, including an annual schedule with days and times of day for minimum parking requirements.

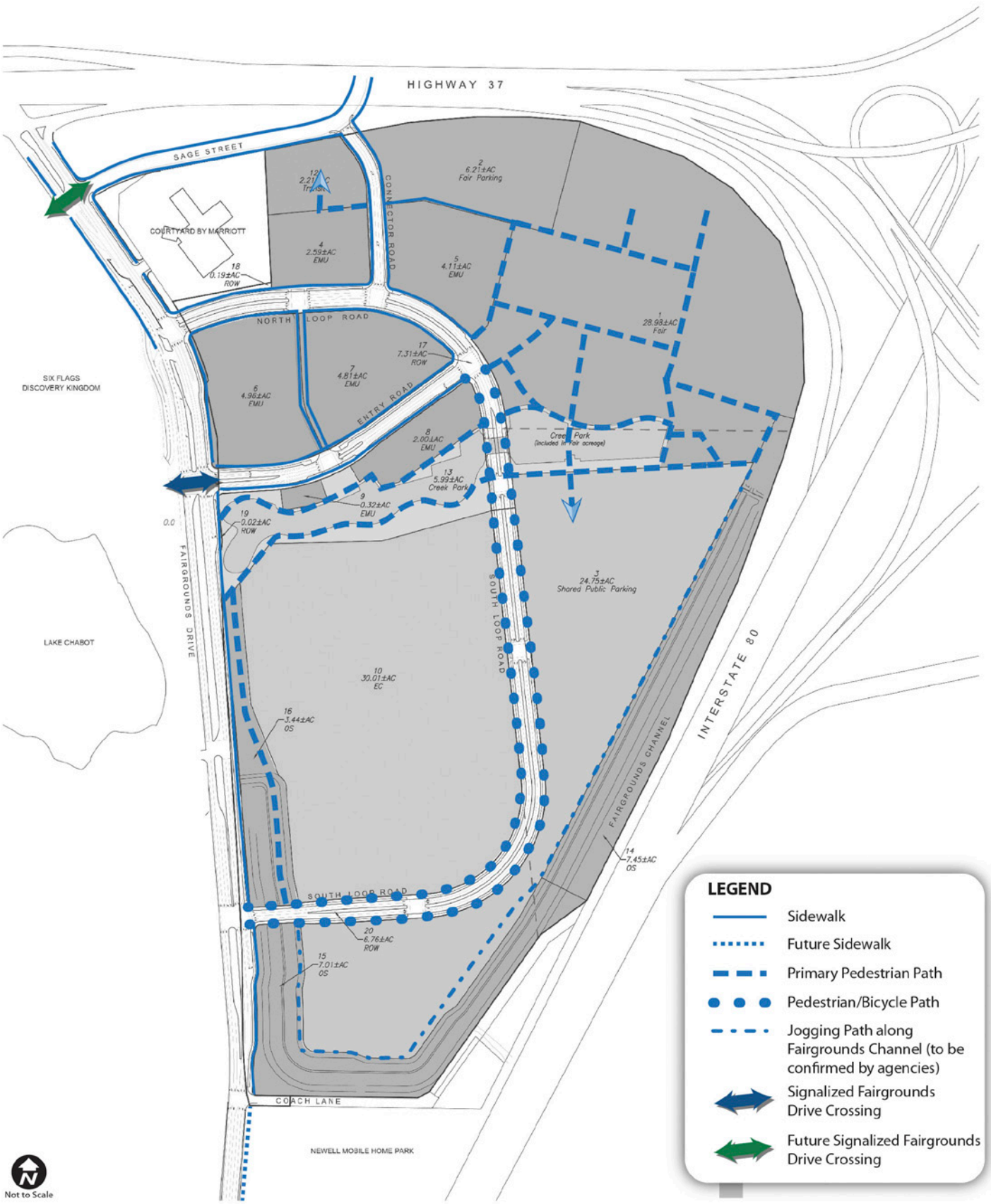


Figure 5.10: Pedestrian Circulation

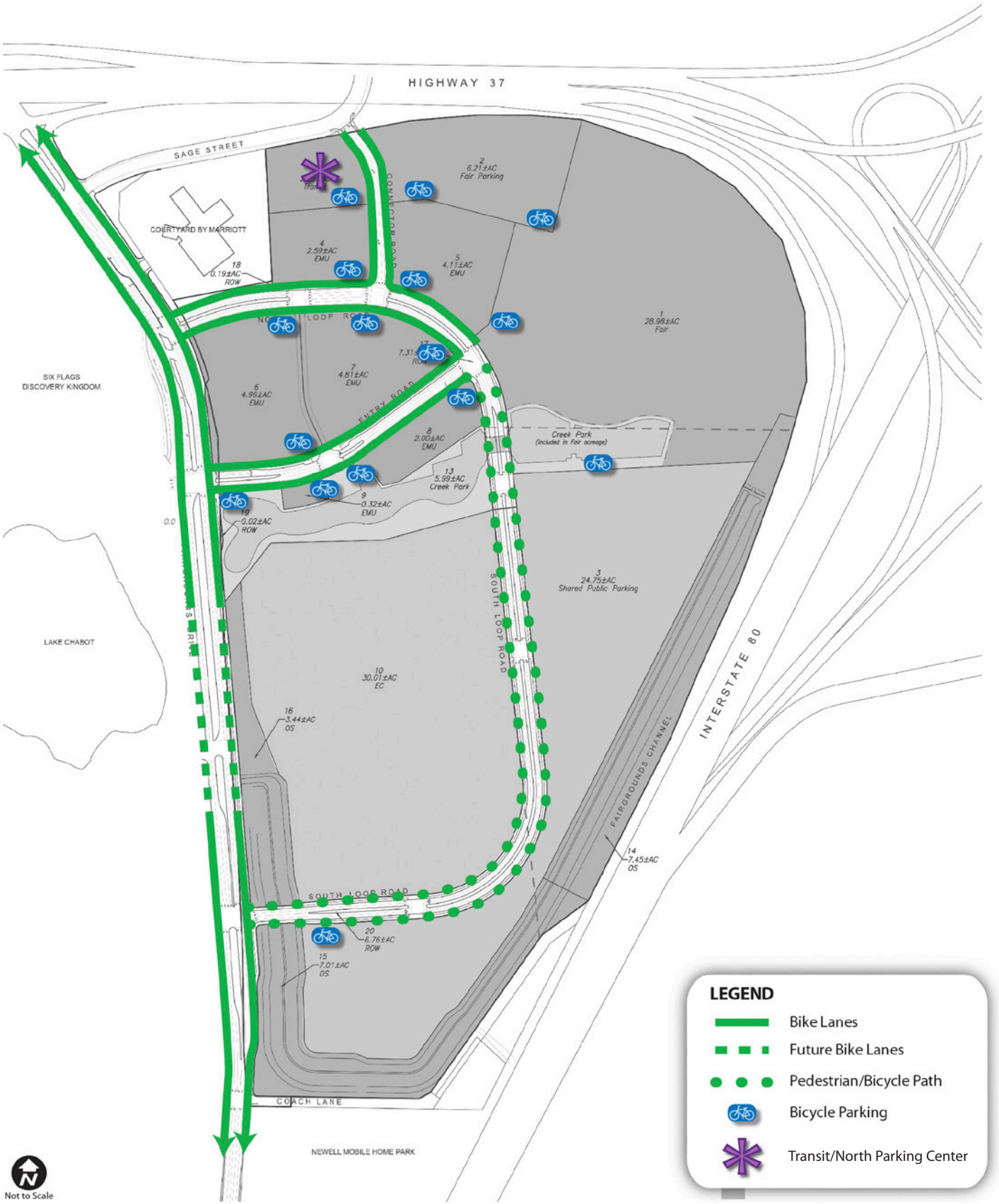


Figure 5.11: Bicycle Circulation

- Designation of parking management staff for each user/operator, along with County and City liaisons.
- A process by which the parking management staff and liaisons would meet and update the parking management plan on a regular basis, including assessing past performance of the plan and adjusting the plan to improve operation going forward.
- Provision of changeable message signs on-site and at the project entrances to direct drivers to the appropriate parking area.
- Regular monitoring of parking usage and traffic approach and departure patterns on peak days, to allow fine-tuning of site wayfinding, traffic management, and parking management strategies.

Table 5.1: Parking by Phase

Summary Description of Phases			Expo Hall; midway, water feature, farm & grounds at Fair; EMU development along Entry Rd.		More EMU and EMU parcel improvements; Creek Park at EMU; additional roads			Buildout of EC and EMU parcels with surface parking; transit parking structure			Expansion of Exposition Hall to 100,000 sf of expo space; intensification of EMU and EC uses; South Parking Garage and EMU parking garage			
	EXISTING		PHASE 1A		PHASE 1B			PHASE 2			PHASE 3			
			Years 1-5 New Program		Years 1-5 New Program			Years 6-15 New Program			Years 16-25 New Program			
LAND USES	Parking Spaces[1, 10]		New Acres	New Parking Spaces[1]	New Acres	New Parking Spaces[1]	Cumulative Parking Count	New Acres	New Parking Spaces[1]	Cumulative Parking Count	New Acres	New Parking Spaces[1]	Cumulative Acres	Cumulative Parking Count
Public Development Areas														
Existing Parking	1,300			1300			1,200							
South Fair Interim Parking (north portion of golf course)			7.0	875			875							
North Fair Interim Parking (undeveloped transit/road/EMU parcels & existing admin pkg)				1,750			1,375							
North Fair Parking[9, 11]	2,650							6.2	775	775				775
Shared Public Parking Structure[6]											5.0	2,500	5.0	2,500
Shared Public Parking Surface[6]								24.7	2,600	2,600	-5.0	-620	19.7	1,980
Transit Center-Bus Docking								1.1						
Transit Center - Parking Structure[5]								1.1	380	380				380
Entry Road onstreet parking[8]			2.3	73			73			73				73
Subtotal - Public Areas [10]	**3,950**			**3,998**		**0**	**3,523**		**3,755**	**3,828**		**1,880**		**5,708**
Private Development Areas[2,3]														
Entertainment Mixed Use (0.2 FAR)			9.8	427			427	7.0	305	732	-16.8			
Entertainment Mixed Use (0.4 FAR)					2.0	174	174			174	16.8	630		804
Entertainment Mixed Use Parking Structure[7]												1,000		1,000
Entertainment Commercial - venue area								18.0			6.0			
Entertainment Commercial - parking area[4]								12.0	1,500	1,500	-6.0	-750		750
Entertainment Commercial - Shared Public Parking use[6]											See Note 6	1,250		See Note 6
Subtotal Private Development				**427**		**174**	**601**		**1,805**	**2,406**		**2,130**		**2,554**
TOTALS	**3,950**			**4,425**		**174**	**4,124**		**5,560**	**6,234**		**4,010**		**8,262**

Table Notes:

1. Surface parking assumes 125 cars/acre.
2. Parking demand for EMU uses assumed to be 5 spaces/1000 sf.
3. Parking demand for EC uses assumed to be similar to typical theme park configurations.
4. In Phase 2, 40% of Entertainment Commercial (EC) parcel is used for parking (12 acres); in Phase 3, EC parking is provided by 6 acres within the EC parcel and by the South Parking Garage located in Shared Public Parking area.
5. In Phase 2, Transit Center provides approx. 380 parking spaces (300x135' footprint; 3 levels; 320 sf/stall)
6. In Phase 2, "Shared Public Parking" assumes development of 27.4 acres of surface parking (2,600 spaces). In Phase 3, five acres are used for South Parking Garage (approx. 2,500 parking spaces with 400x500' footprint; 4 levels; 320 sf/staff), with 1,975 remaining surface spaces. Shared Public Parking is shared by Fair, expanded EC (in Phase 3) and others according to County's Parking Operations Management Plan and other parking agreements.
7. In Phase 3, EMU parking includes parking structure (approx. 1,000 parking spaces with 300x360' footprint; 3 levels; 320 sf/stall); 630 surface spaces; and onstreet spaces for total of approx. 1,650 spaces (5 spaces/1000 sf)
8. Parking lanes will be available along the Entry Road except when needed as travel lanes for peak events.
9. In Phase 2, added North Fair Parking requires the demolition of Admin and County buildings; admin space would be in a portable at rear of fair site
10. Parking totals do not include an estimated 4 acres of service/ employee parking space at the back of the fairgrounds.

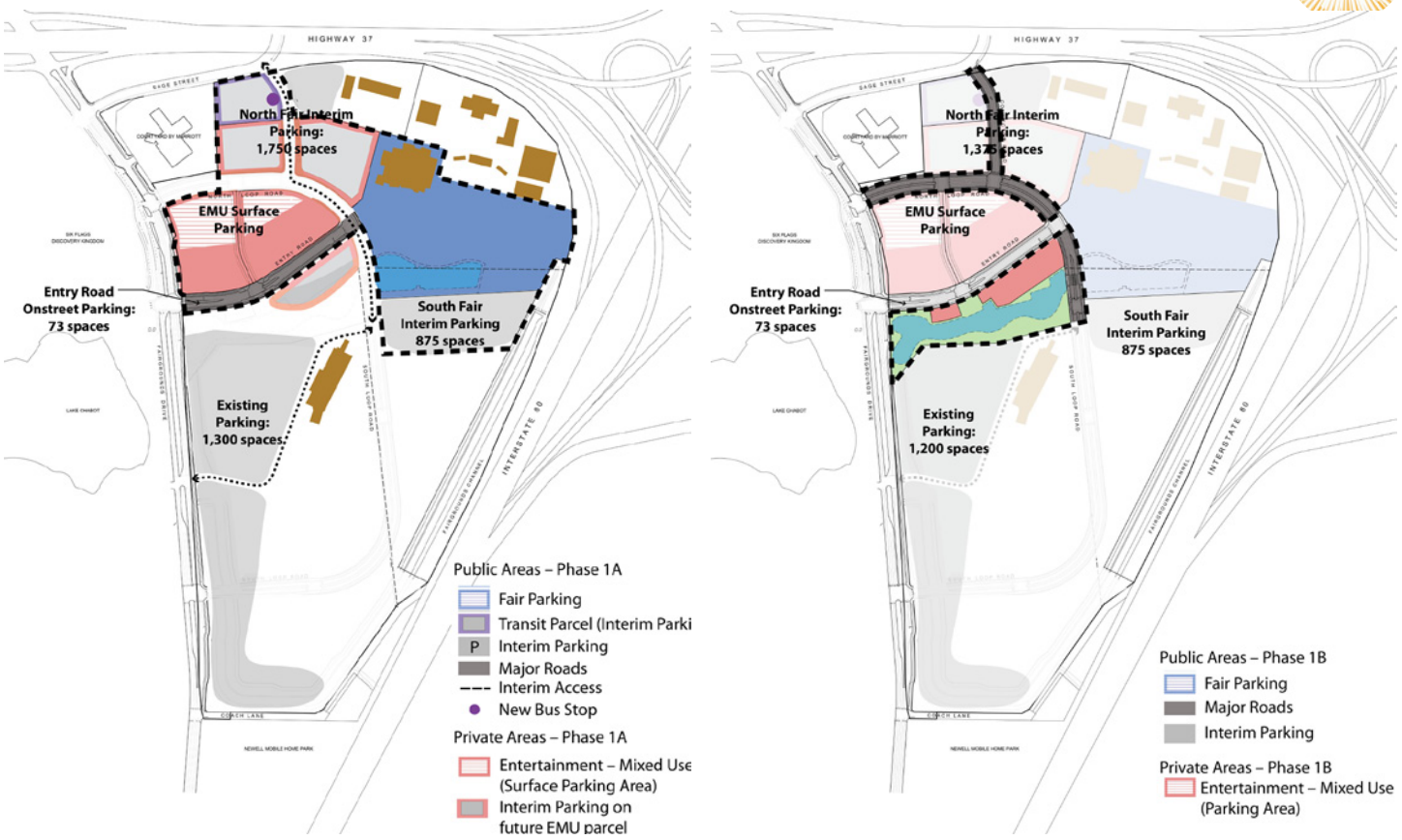


Figure 5.12: Phase 1 Parking Facilities
(Years 1-5)

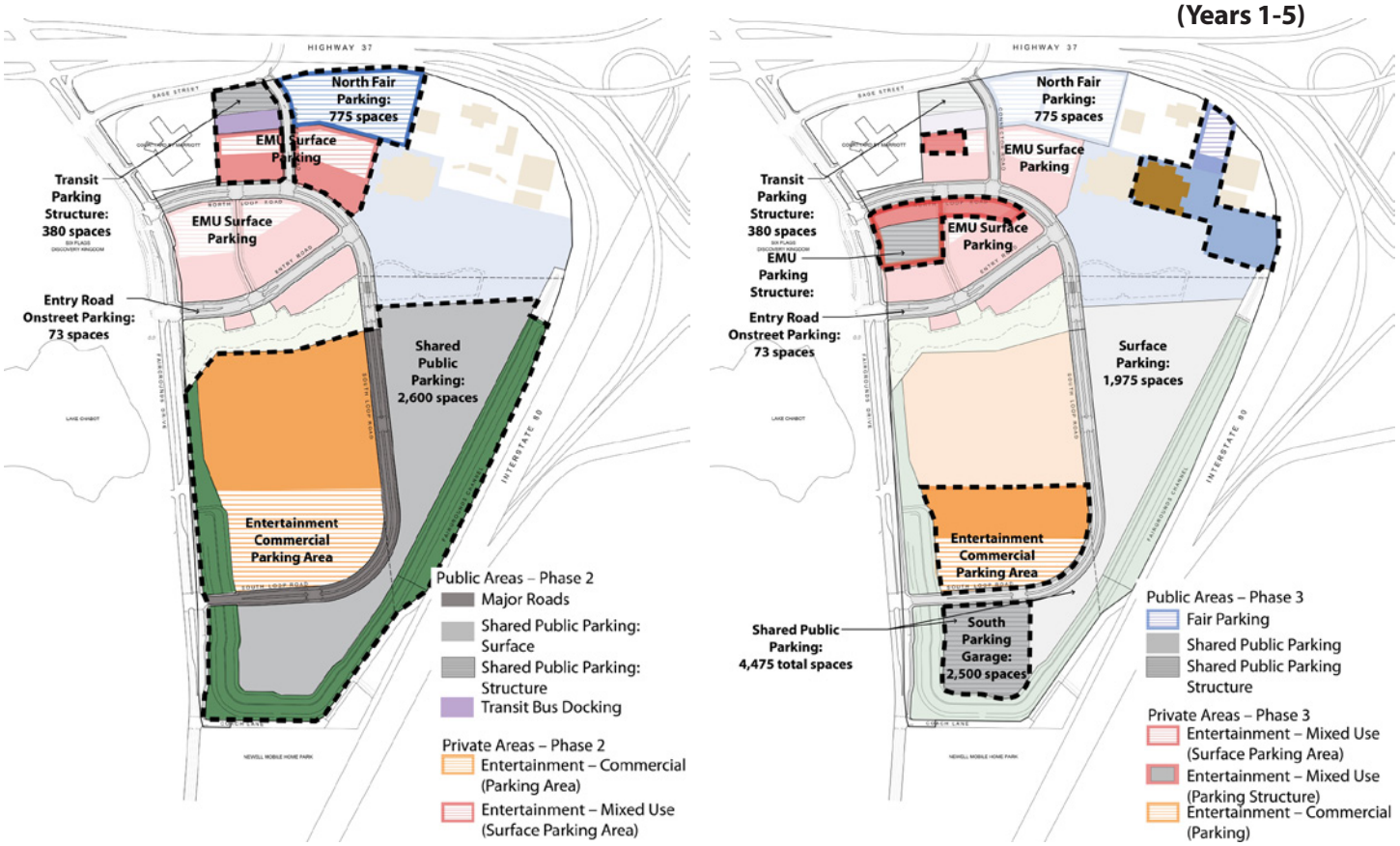


Figure 5.13: Phase 2 & 3 Parking Facilities
(Years 6-15 & 16-25)

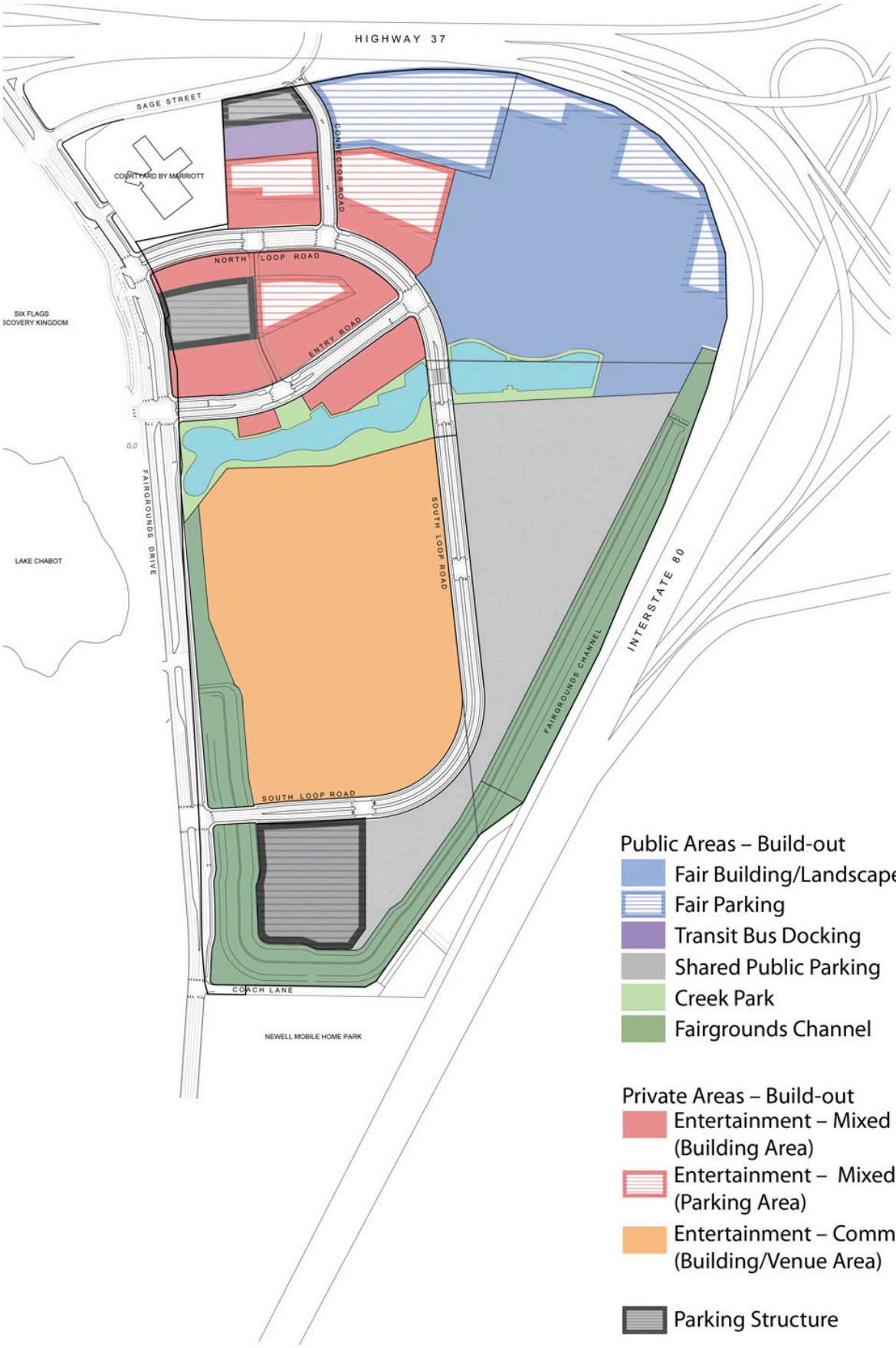


Figure 5.14: Land Use and Parking

5.4 TRANSIT AND ONSITE SHUTTLE

The Solano360 Vision Report included a 2.5-acre Transit/North Parking Center that incorporates a structured parking facility (scheduled for Phase 2). The Plan locates this use in the northern portion of the site, with access from Sage Street and North Loop Road.

Public transit is promoted as a viable transportation mode choice for those traveling to the Plan site for employment or entertainment, for the following reasons:

- The Plan land uses, along with Six Flags Discovery Kingdom across the street, will generate high traffic volumes on summer weekends, as well as on summer weekdays and to a lesser extent on non-summer weekends and weekdays. Transit use can reduce passenger vehicular traffic approaching and departing the site;
- Several transit routes operate in the Plan vicinity and in greater Vallejo, making transit a reasonable option for a good portion of the potential employment base and visitor market;
- As regional travel demand and corresponding congestion grows over time, transit may become a more desirable choice for travelers, with the growing system of High-Occupancy Vehicle (HOV) lanes and higher funding levels for sustainable transportation systems at the state and federal levels.

The Transit/North Parking Center would serve as a bus hub, with pedestrian and bicycle connections to the rest of the site. The Transit/North Parking Center is located south of Sage Street and would be accessed directly from the Sage – Loop Connector Road. Potential bus circulation routes are shown in Figure 5.15: Transit and Shuttle Routes. Prior to the construction of the Transit Center (expected in Phase 2), bus service can be accommodated with a stop on the Entry Road or the North Loop Road.

The Transit Center could also serve an on-site shuttle that could potentially be coordinated with Six Flags Discovery Kingdom operations to serve both sites. Figure 5.15 indicates possible routes for onsite shuttles that could pick up passengers at parking facilities and deliver them to destinations within the Plan Area and Six Flags Discovery Kingdom.

5.5 OFFSITE TRANSPORTATION IMPROVEMENTS

The off-site roadway and intersection improvements, by phase, are summarized below.

Phase 1

- Contribute funding, based on the Plan's proportional share of total future traffic, toward the provision of an exclusive right-turn lane at the intersection of Redwood Street/I-80 Westbound Ramps/Fairgrounds Drive; alternatively, contribute the same funds toward the provision of the ultimate improvements planned at this location as part of the Redwood Parkway/Fairgrounds Drive Improvement Project currently being planned by the STA.

Phase 2

- Contribute funding, based on the Plan's proportional share of total future traffic, toward the provision of improvements at the Fairgrounds Drive/SR 37 Ramps intersections, which are part of the Redwood Parkway/Fairgrounds Drive Improvement Project, including:
  - Widening the SR 37 Westbound Off-ramp to a four-lane cross section
  - Widening Fairgrounds Drive between the two ramp intersections to allow two

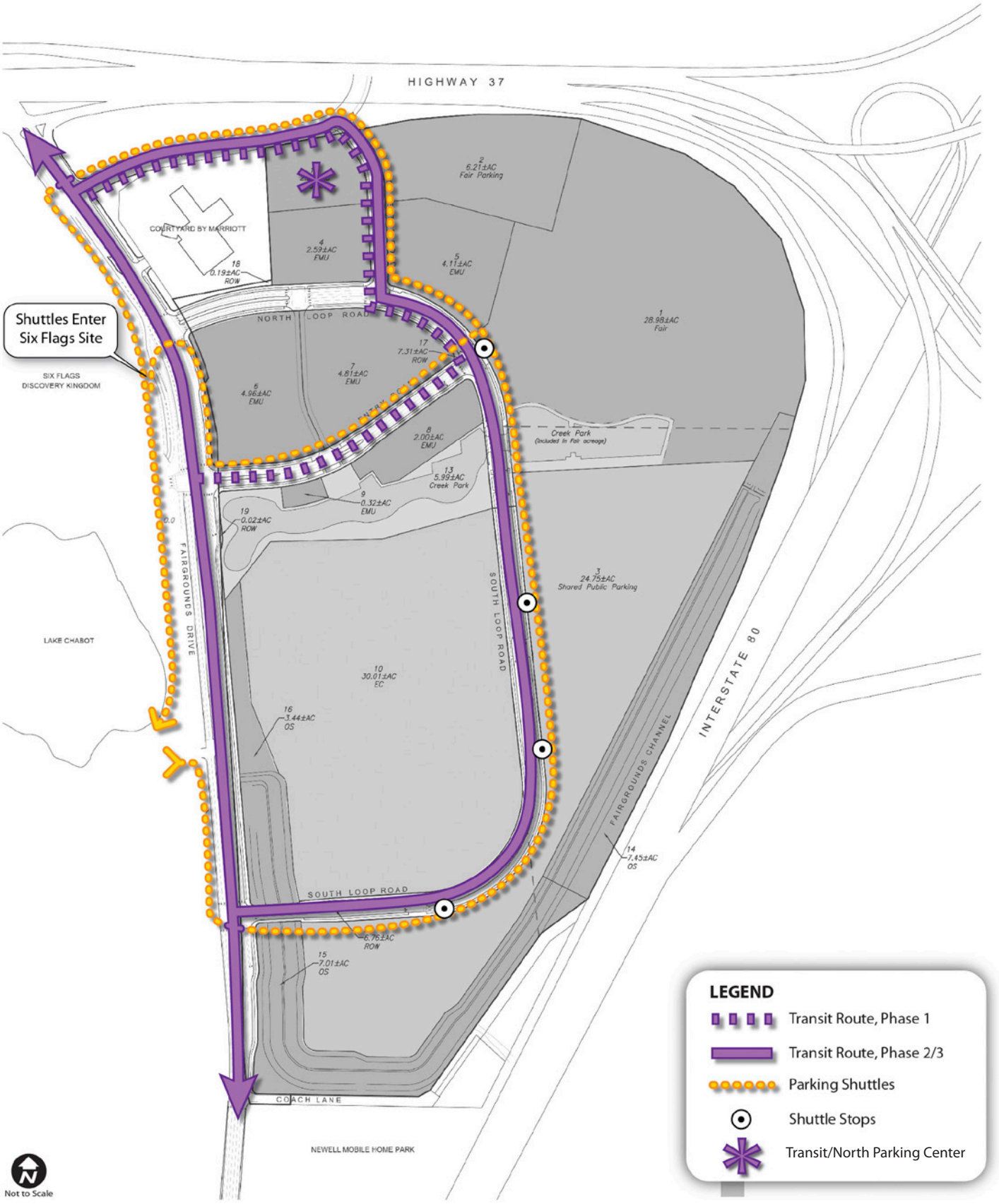


Figure 5.15: Transit and Shuttle Routes

full-length southbound left turns at the eastbound ramps intersection and one full-length northbound left turn at the westbound ramps intersection (including a transition on southbound Fairgrounds Drive north of the westbound ramps intersection)

- Widening the northbound approach to the eastbound ramps intersection to provide a third northbound lane that feeds directly into a right-turn lane onto the eastbound on-ramp

- Contribute funding, based on the Plan's proportional share of total future traffic, toward the construction of the re-configured I-80/Redwood Parkway interchange, which is part of the Redwood Parkway/Fairgrounds Drive Improvement Project.

Phase 3

- Contribute funding, based on the Plan's proportional share of total future traffic, toward the widening of Fairgrounds Drive along the Plan frontage, which is part of the Redwood Parkway/Fairgrounds Drive Improvement Project. Specifically, the improvements include widening the northbound direction to two lanes, with a third northbound through lane added just south of the South Loop Road intersection, widening the southbound direction to two lanes; bicycle lanes on both sides, and sidewalk along the east side of the roadway.
- Modify the Fairgrounds Drive/SR 37 Eastbound Ramps intersection to add a second northbound right-turn lane feeding the eastbound on-ramp.

5.6 TRAVEL DEMAND MANAGEMENT

Travel Demand Management refers to strategies to reduce single-occupant vehicle use for trips to/from the site, which in turn reduces traffic congestion and parking demand. Both of these effects would significantly benefit the site. Traffic congestion on peak days could be a deterrent to visitation at all the uses on the site – the Fairgrounds, the Entertainment Mixed Use uses, and the Entertainment Commercial uses. Similarly, inability to find a parking space, or back-ups resulting from the parking being close to fully occupied, would also deter visitation, as well as exacerbate traffic congestion on Fairgrounds Drive. The following travel demand management strategies are therefore included in the Plan to minimize the traffic and parking generated by the site:

- Provision of a commuter check benefit to all employees of the Fair, EMU and EC uses, allowing them to use pre-tax dollars to purchase discounted bus passes;
- Designation of separate employee and visitor parking areas, and limitation of the number of parking spaces available to employees;
- Advertisement of transit options on the County Fair website and the websites of all users/operators in the Plan Area;
- Provision of brochures detailing transit options, bicycle routes, and on-site bicycle parking facilities, at all venues in the Plan Area;
- Provision of a use agreement for an off-site parking supply, with shuttle service, for use by site employees during the peak-use days, for example during the County Fair and other high-attendance events.
- Discounted tickets to events and venues for off-peak hour admission and/or parking.
- Advertised incentives for weekend use of the downtown Vallejo Ferry and Parking Garage, with direct shuttle service to the Plan Area.

5.7 EVENTS MANAGEMENT PROGRAM

A Fairgrounds Events Management Program is proposed as part of this Plan to allow an increased amount of Entertainment Mixed Use development in Phase 1 of the project, without incurring the need for offsite transportation improvements. The Events Management Program pertains to the Fair only and does not restrict private development uses within the project. The program will be developed and implemented by the Solano County Fair Association.

The Events Management Program is designed to reduce automobile trips at the summer weekend late morning peak hour, when the capacity of the existing offsite transportation infrastructure (especially the SR-37/Fairgrounds Drive interchange) would otherwise be exceeded, resulting in undesirable traffic congestion. The objective is to insure that automobile trips do not exceed 498 peak hour trips.

Under the Events Management Program, the Fair would stagger starting and ending times for activities held during the peak summer weekend hours, spreading them out over time in order to keep traffic impacts at a baseline condition. For example, a major summertime weekend event at the Exposition Hall could not be scheduled at the same time as an event at other Fair facilities.

The following measures apply to summer weekends, from May to October.

- When Banquet Seating, Assembly Seating, or Trade Show events with estimated attendance at 75% or higher occupancy are scheduled on weekend days starting by 1 PM, all other events on-site should have start times staggered by a minimum of two hours (later than the Exposition Hall event start time). End times for those events should also be staggered by at least two hours.
- When Banquet, Assembly or Trade Show events with estimated attendance from 50% - 75% occupancy are scheduled on weekend days starting by 1 PM, all other events on-site should have start times staggered by at least one hour (later than the Exposition Hall event start time). End times should also be staggered by at least one hour.
- Non-seated concert events with estimated attendance at 50% or higher occupancy should not be scheduled to start before 1 PM on weekend days.
- When non-seated concert events with estimated attendance below 50% are scheduled for weekend days starting by 1 PM, all other events should have start times staggered by at least two hours (later than the concert). End times should also be staggered by two hours.
- In addition to the above guidelines, when multiple venues including the Exposition Hall are scheduled on summer Saturdays and Sundays, all events should be staggered by a minimum of one hour.

CHAPTER SIX: PUBLIC INFRASTRUCTURE AND SERVICES

6.1 INTRODUCTION

The construction of onsite and offsite infrastructure improvements will be required to accommodate proposed development within the Plan Area. The Plan is intended to provide infrastructure and services that meet City standards and integrate with existing and planned facilities and connections, without diminishing services to existing residents or businesses within the City.

This chapter provides an overview of the major utility infrastructure improvements and the public services needed to serve full build-out of the Plan Area. Utilities addressed include storm drainage (including grading), potable and non-potable water, wastewater, electricity, natural gas, telecommunications, wireless communications, and waste management. Services include police and fire protection. (Transportation and parking infrastructure requirements are addressed in Chapter 5.)

The major public "backbone" infrastructure improvements are planned to provide services to the entire Plan Area including both public purpose and private purpose development.

The existing utilities within the fair concourse area will remain in-place, but will be connected to new "backbone" infrastructure along Sage-Loop Connector Road (water, sewer, storm, electric, gas, phone, cable). In addition, new utility stubs to the fair parcels will be provided along North and South Loop Road. The new Exposition Hall, for example, can connect to new utility stubs at the intersection of North Loop Road and Entry Road and/or to existing utilities within the concourse. Improvements to existing utilities within the concourse area are not included with this plan.

Major objectives for infrastructure include:

- Develop practical cost effective solutions that can be constructed in phases.
- Provide flexible options that can adapt to market conditions.
- Implement solutions that minimize impacts to the environment and maximize sustainability.
- Details relating to phasing and financing are included in Chapter Seven: Implementation.

The information is this chapter is informed by the Plan's conceptual site plans and may be subject to change as more detailed plans and specifications are developed as part of the design and development process.

6.2 STORM DRAINAGE AND GRADING

6.2.1 Background and Existing Conditions

Vallejo Sanitation and Flood Control District (VSFCD) provides public stormwater and flood control protection services for the Plan Area. The City of Vallejo administers stormwater quality protection through the San Francisco Bay Region Municipal Regional Stormwater National Pollution Discharge Elimination System (NPDES) permit (the permit is generally referred to as the MRP).

The Plan Area is located within a 4,600+ acre watershed identified in the VSFCD master plan as the Lake Chabot watershed. Drainage systems from approximately 3,300 acres of the watershed converge on the Fairgrounds property and discharge into the "Fairgrounds Channel". The channel

wraps around the eastern, southern and western periphery of the Plan Area as shown in Figure 6.1.

Approximately 62 of the 149± acres within the Plan Area are currently developed with impervious surfaces including buildings and paved parking lots. Approximately 33 additional acres are developed with a golf course and equestrian racetrack. The remaining 57 acres are generally undeveloped. Portions of the undeveloped land are utilized as unpaved parking facilities for fair events and for overflow parking from Six Flags Discovery Kingdom.

There are several components related to the existing drainage system within the Plan Area. Major components include four creeks (North, Central and South Rindler Creek and Blue Rock Springs), a manmade open channel (Fairgrounds Channel) and Lake Chabot. Other components include both public and private underground pipe systems. Public facilities are owned and maintained by the VSFCD and are located both onsite and offsite. Private facilities are owned and maintained by the County / Fairgrounds Association and are generally located onsite. The private facilities are not well documented, but appear to discharge into public facilities.

An understanding of the historical creek systems is important as it relates to the drainage system and causes of flooding in the Plan Area. The existing public drainage facilities within the Plan Area revolve around the creek systems that collect water from the much larger watershed to the north, east and south of the site. The creeks are known as North Rindler Creek, Central Rindler Creek, South Rindler Creek and Blue Rock Springs. The creeks converge near the Plan Area and discharge into Fairgrounds Channel prior to discharging into Lake Chabot (see Figure 2.4: Existing Drainage Pattern and Figure 6.1: Stormwater Exhibit).

- North Rindler Creek has been diverted into an underground pipe system that crosses under SR-37 and discharges into Lake Chabot.
- Central Rindler Creek has been diverted into a combination of underground pipes, box culverts and manmade open channels. A pipe/culvert system crosses under I-80 near the north end of the existing racetrack and discharges into the Fairgrounds Channel (the channel flows south along the east property line; then flows west along the south property line; then flows north along the west property line and eventually crosses under Fairgrounds Drive and discharges into Lake Chabot).
- South Rindler Creek has been diverted into a combination of underground pipes, box culverts and manmade open channels. A pipe system crosses under I-80 near the south end of the racetrack and discharges into the Fairgrounds channel that connects to Lake Chabot as described above.
- Blue Rock Springs has been diverted into a combination of pipes, box culverts and manmade open channels. South of the Fairgrounds property it is an open channel that flows north through the Newell Mobile Home Park and discharges into the Fairgrounds Channel (near the middle of the southern Plan Area).

The Fairgrounds Channel is not capable of containing 100-year flood flows from the offsite creeks as identified in the VSFCD Storm Drain Master Plan and illustrated on the FEMA flood map (Panel Number 06095C0440E). Flows overtop the banks and spill onto portions of the Fairgrounds property, Fairgrounds Drive, Coach Lane and into the Newell Mobile Home Park. Proposed improvements to alleviate flooding impacts within the Plan Area are described in Section 6.2.2 of this chapter.

6.2.2 Proposed Stormwater Collection and Conveyance

In conjunction with the preparation of this Plan, VSFCD was consulted to determine existing system operation, capacity and future infrastructure needs. VSFCD reported that:

- Drainage improvements within the Plan Area should be based on hydrology and hydraulic calculations documented in the VSFCD Master Plan. The Master Plan contains an analysis of the upstream watershed including estimates of the peak 100-year flow rates for North, Central and South Rindler Creek and Blue Rock Springs.
- Drainage improvements within the Plan Area should lower the maximum hydraulic grade line (HGL) to elevation 86.0 (NAVD88) at the confluence of Blue Rock Springs and the Fairgrounds Channel. Lowering the HGL to elevation 86.0 would be consistent with recommendations in the VSFCD Master Plan and would help alleviate flooding along Coach Lane and within the Newell Mobile Home Park area.

The main drainage infrastructure improvements for the project are designed to remove the Plan Area from the flood plain. The site is currently in the flood plain due to high offsite flows from the east and south as described in Section 6.2.1. Newell Mobile Home Park to the south of the Plan Area also has flooding problems due in part to the existing channel conditions. It is therefore desirable to also improve the flood conditions for the mobile home park. Proposed floodplain improvements include placing fill material at the northern end of the Plan Area to raise the ground elevation and enlarging the existing Fairgrounds Channel to contain flood flows at the southern end of the Plan Area.

Fairgrounds Channel

In order to remove the southern portion of the Plan Area (Phase 2) from the flood plain the existing Fairgrounds Channel will be widened and deepened, and the existing crossing will be improved under Fairgrounds Drive. The channel improvements will improve the flooding conditions for the mobile home park although additional improvements within the park may be required that will not be a part of this project (a separate VSFCD Capital Improvement Project has been identified in the VSFCD Master Plan for that work).

The proposed cross-section of Fairgrounds Channel includes an eight-foot wide, one-foot deep meandering low flow "notch"; a 40 to 50-foot wide, two-foot deep low flow channel section; and a 20 to 50-foot wide, five to seven-foot deep upper level bench. Side slopes are planned at a minimum of 3:1, but may be flattened to 4:1 where possible. Some slopes may be constructed at 2:1 if approved by VSFCD. The overall depth of the channel varies from 5 to 15 feet. The channel ranges in overall width from 100± to 180± feet at the top of bank as shown on Figure 6.1. Refer to Chapter Four for design guidelines associated with the channel improvements.

As an option, particularly as it relates to Phase 1 development, the existing levee along the channel and adjacent to the racetrack may be utilized to protect portions of the Plan Area from flooding. In order for the levee to be taken into account in its "as-is" condition it would need to be able to be accredited / certified through the Army Corps of Engineers. As of the preparation of this Plan it is not known if the levee in its current "as-is" condition would meet the design standards. If the levee cannot meet the design standards it would need to be reconstructed. In any event, the levee would not be sufficient to remove the entire Plan Area from the floodplain and the above described improvements to Fairgrounds Channel would still be required. The levee in combination with channel improvements may also be considered as a viable solution, which could potentially avoid some jurisdictional wetland impacts, but at the same time would make the Plan Area a "levee protected community".

The design of the Fairgrounds Channel should be closely coordinated with VSFCD and other permitting agencies.

Creek Park and Water Feature

Aside from the proposed channel improvements, the multi-purpose water feature within the Creek Park would be constructed onsite to manage and reduce peak discharges from the Plan

Area. It would effectively function as a recreational amenity providing a visual focus for the Creek Park and associated trails, a water quality Best Management Practice feature, a detention basin, and an irrigation source. The water feature would connect to an existing 84" underground pipe near the northwest corner of the Plan Area.

A primary objective of the water feature is to provide water quality benefits for the project and improve the water quality of site runoff before that water leaves the Plan Area and enters Lake Chabot. Some of the potential water quality measures that may be implemented include:

- Provide sufficient depth and volume of water to control temperature
- Construct a flow and depth control device where water leaves the onsite water feature and connects to a pipe that connects to Lake Chabot
- Line the water feature to avoid impacts associated with the existing high water table condition. The water feature should be designed to maintain a high quality of water and the liner should minimize any existing poor groundwater quality water from mixing with the water feature. In addition, the water feature should be designed to maintain a minimum depth of water and the liner should minimize fluctuations in water elevation due to changes in groundwater elevation.
- Construct sediment control systems
- Construct trash/debris collection systems
- Install aeration system in water feature
- Connect Plan Area irrigation systems to the water feature to circulate water
- Provide a make-up water system to maintain water volume due to evaporation losses

Other Improvements

Additional water quality improvements would be constructed throughout the Plan Area such as biotreatment facilities in order to meet the MRP requirements.

Onsite drainage systems within the streets would be designed in accordance with City and VFSCD standards. Underground pipes would be designed to accommodate 15-year storm events. Surface flow in the streets would be designed to accommodate 100-year storm events by directing runoff toward the water feature or Fairgrounds Channel.

New stormwater pipelines would be constructed in each backbone roadway providing service to each parcel. Existing public pipelines that traverse the Plan Area would be relocated as necessary to avoid conflicts with development. Existing pipes with the Fair concourse will remain in use.

Refer to Figure 6.1: Stormwater Exhibit for drainage calculations.

6.2.3 Grading and Soil Conditions

Preliminary geotechnical studies have determined that undocumented fills and soft compressible materials exist within the Plan Area. The "fill" is associated with the partial filling of Lake Chabot, which previously extended from its existing eastern bank to the west side of the existing Fairgrounds racetrack. The undocumented fill may require remedial grading and/or deep foundations. Additional geotechnical studies to determine the extent and condition of the fill and the required remediation should be required with future design phases of development.

Groundwater within the area is shallow; therefore, dewatering should be included in the construction process to allow for deep excavations.

The onsite water feature as described in Section 6.2.2 should be lined to avoid impacts associated

Figure 6.1: Stormwater Exhibit

with shallow groundwater.

6.2.4 Sustainable Practices for Storm Drainage

The onsite water feature would serve to "harvest runoff" to be used onsite for irrigation. Harvesting and reuse is consistent with Low Impact Development (LID) practices as specified in the San Francisco Bay Region Municipal Regional Stormwater National Pollution Discharge Elimination System permit (MRP).

The MRP requires "regulated projects", of which Solano360 qualifies, to implement at least one "site design and stormwater treatment requirement" from a specific list of options (MRP Provision C.3.c(i)(2)(a)). As an example, option (v), as specified is to "minimize stormwater runoff by implementing one or more of the following site design measures":

- Direct roof runoff into cisterns or rain barrels for reuse.
- Direct roof runoff onto vegetated areas.
- Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.
- Direct runoff from driveways and/or uncovered parking lots onto vegetated areas.
- Construct sidewalks, walkways, and/or patios with permeable surfaces.
- Construct driveways, bike lanes, and/or uncovered parking lots with permeable surfaces.

The Solano360 project would implement these measures to the extent practical and as required by the MRP. In particular the Solano360 onsite water feature would effectively function to harvest stormwater runoff for reuse similar to a cistern or rain barrel.

MRP Provision C.3.c(i)(1) requires "regulated projects" to implement "source control measures" as follows:

(a) Minimization of stormwater pollutants of concern in urban runoff through measures that may include plumbing of the following discharges to the sanitary sewer, subject to the local sanitary sewer agency's authority and standards:

- Discharges from indoor floor mat/equipment/hood filter wash racks or covered outdoor wash racks for restaurants.
- Dumpster drips from covered trash, food waste and compactor enclosures.
- Discharges from covered outdoor wash areas for vehicles, equipment, and accessories.
- Swimming pool water, if discharge to onsite vegetated areas is not a feasible option.
- Fire sprinkler test water, if discharge to onsite vegetated areas is not a feasible option.

(b) Properly designed covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas;

(c) Properly designed trash storage areas;

(d) Landscaping that minimizes irrigation and runoff, promotes surface infiltration, minimizes the use of pesticides and fertilizers, and incorporates other appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping;

(e) Efficient irrigation systems; and

(f) Storm drain system stenciling or signage.

6.3 POTABLE AND NON-POTABLE WATER

6.3.1 Background and Existing Conditions

Public water service for the Plan Area is provided by the City of Vallejo and managed by the City of Vallejo Public Works Department – Water Division. Private systems located within the Fairgrounds property are owned, operated and maintained by the County. Under current conditions, adequate water service is provided. New construction in the Plan Area will result in increased demand for water service.

Existing public pipelines are located underneath Fairgrounds Drive, Sage Street and Coach Lane. There are two public water connections and meters to the site. The first is located at the north end of the site off of Sage Street. The second is located at the south end of the site off of Coach Lane. Private pipelines exist throughout the Fairgrounds property.

Two non-potable (raw) water systems exist within the vicinity of the Plan Area. One system is public and is owned, operated and maintained by the City of Vallejo. The pipeline is referred to by the City as the "Cal-Pac" line. The other system is privately operated and maintained by the County / Fairgrounds Association. The pipeline is referred to by the Fairgrounds Association as the "Lake Chabot" line.

The supply source for the Cal-Pac system is the North Bay Aqueduct (NBA). The NBA is also one of the City's potable water supply sources. The Cal-Pac pipeline runs along the northern property line of the Fairgrounds site and currently delivers irrigation water to Blue Rock Springs golf course. The system has been utilized in the past to provide irrigation water to the Fairgrounds Joe Motara golf course and racetrack. A turnout in the system exists near the north end of the racetrack which could be utilized for future development on the Fairgrounds property.

The supply source for the Lake Chabot system is Lake Chabot itself and the tributary watershed area that drains to it. The Lake Chabot system currently provides water to the Joe Motara golf course through a lease agreement between the City of Vallejo and the Vallejo Golf Club.

The Lake Chabot pipeline extends from Lake Chabot to the Joe Motara golf course near the middle of the Fairgrounds property. A pump station is located on the southeast shore of Lake Chabot that delivers water into the pipeline.

6.3.2 Potable and Non-Potable Water Supply and Demand

The City of Vallejo will provide water to the site for domestic use, fire protection, irrigation purposes and make-up water for the onsite water feature. The total average water demand estimate for the Plan Area is approximately 97.7 million gallons per year including potable use, irrigation and evaporation losses from the water feature.

6.3.3 Water Treatment, Storage and Distribution

The City of Vallejo will provide treated water to the Plan Area. Non-potable sources may be available for irrigation and make-up water purposes. Depending on the non-potable water quality, it is possible that a chlorination and/or filtration system may be required.

A 12" public water pipe currently exists within Fairgrounds Drive. Public water connections also exist at the north end of the project off of Sage Street and at the southern end of the project off of Coach Lane.

Based on information provided by the City Water Division, development of the Plan Area may trigger the need for a new 24" pipeline in Fairgrounds Drive from Sage Street to Coach Lane. Water modeling should be required with future design stages of the development to determine if the new 24" pipe is required and when.

Water storage tanks exist throughout the City of Vallejo. Based on information provided by the City Water Division, development of the Plan Area is not expected to trigger the need for any additional storage.

New potable water and non-potable water pipelines should be constructed in each backbone roadway providing service to each parcel. The non-potable pipelines should be constructed in conformance with Title 22 recycled water standards (also sometimes referred to as "purple" pipe). Existing potable water pipelines with the Fair concourse area will remain in use.

6.3.4 Sustainable Practices for Potable and Non-Potable Water

Measures for water reduction, efficiency and conservation are recommended for development in the Plan Area as required by the California Green Building Code and recommended in the City of Vallejo's Urban Water Management Plan. This Plan includes guidelines that are intended to incorporate water-conserving measures in the design of new development and infrastructure (see Chapter Four).

Harvesting and reusing stormwater for irrigation along with non-potable water sources are intended to be used throughout the Plan Area. A non-potable water system is planned within each backbone roadway. The non-potable system should be installed in accordance with Title 22 standards for recycled water use in the event recycled water becomes available.

The VSFCD prepared a wastewater treatment and reclaimed water feasibility study in 2003. The study concluded that constructing a city-wide reclaimed water system was not economically feasible. However, the VSFCD has long term goals of implementing such as system sometime in the future. Benefits of the system include a reduction in potable water demand as well as reducing water quality impacts on the Bay associated with wastewater discharge.

6.4 WASTEWATER

6.4.1 Background and Existing Conditions

The wastewater conveyance and treatment system for the Plan Area is owned, operated and maintained by the VSFCD. Public conveyance pipelines are located within public right-of-way or easements. Private systems are located within the Fairgrounds property and are operated and maintained by the County / Fairgrounds Association.

The VSFCD treatment plant is permitted to treat up to 15 million gallons per day (mgd), but is currently only treating approximately9 mgd. Based on discussions with the District Engineer there is sufficient capacity to treat wastewater generated by future development within the Plan Area.

Based on discussions with the District Engineer it is not likely that any offsite improvements will be required to convey wastewater to the treatment plant. The VSFCD system model should be updated to verify pipeline capacity is sufficient during the design stage of the infrastructure.

6.4.2 Wastewater Generation & Treatment

The total average wastewater generation estimate for the Plan Area is approximately 53.0 million gallons per year (0.15 mgd).

VSFCD has adequate treatment capacity to accommodate development of the Plan Area.

6.4.3 Wastewater Collection and Conveyance

New wastewater pipelines should be constructed under each backbone roadway providing service to each parcel. New facilities located within the public right-of-way or within public easements should be owned and operated by VSFCD. Existing public pipelines that traverse the Plan Area should be relocated as necessary to avoid conflicts with development.

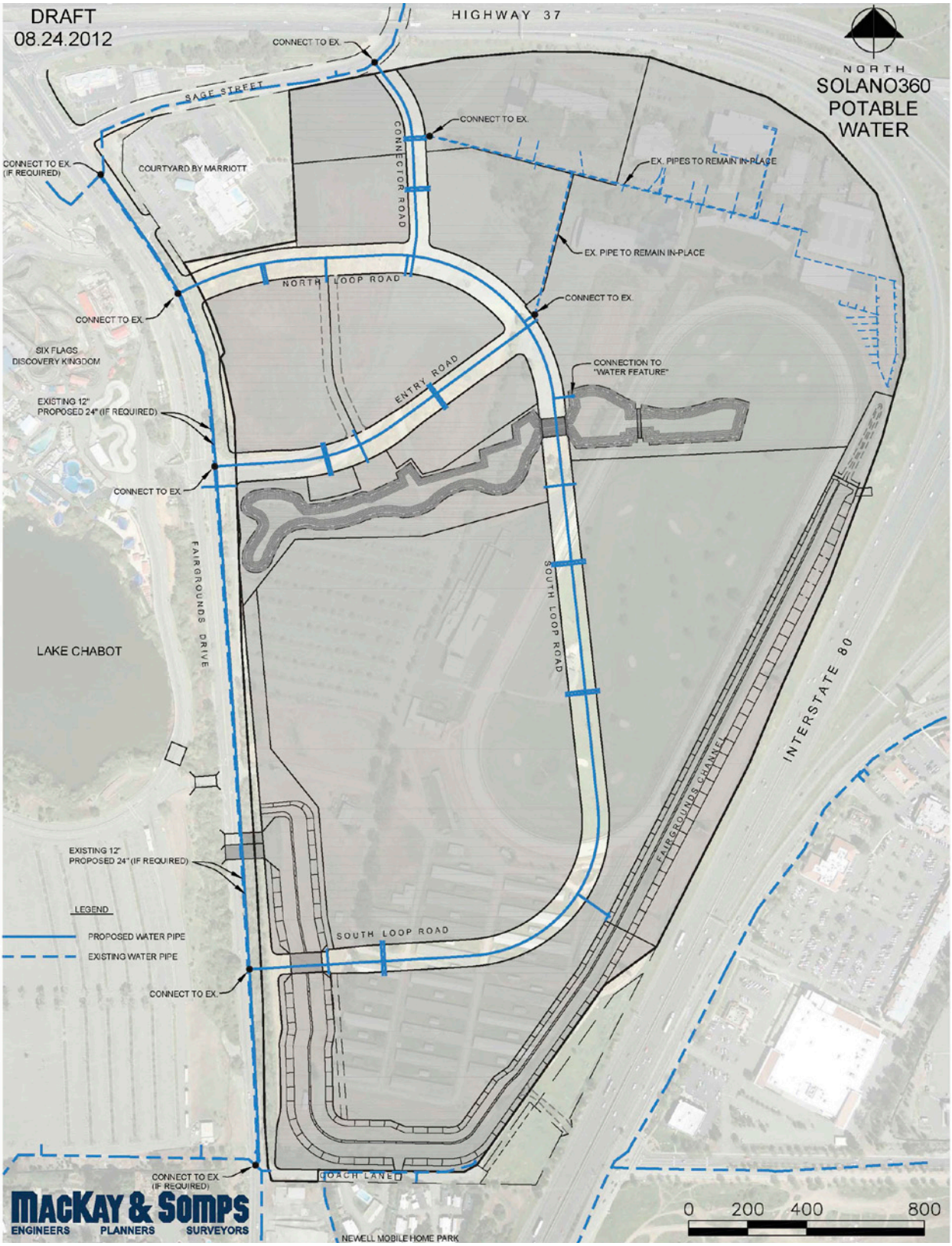


Figure 6.2: Potable Water Exhibit

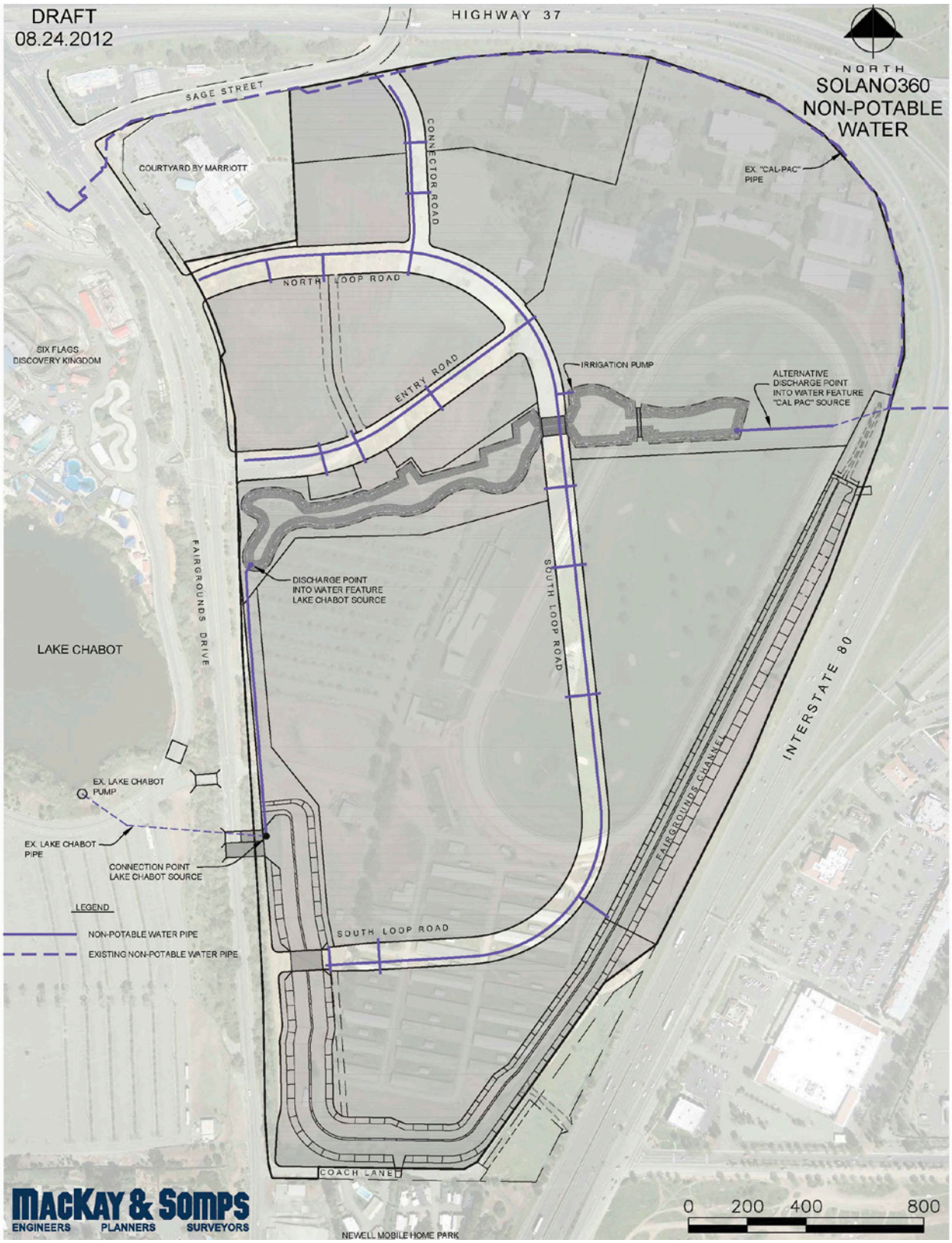


Figure 6.3: Non-Potable Water Exhibit

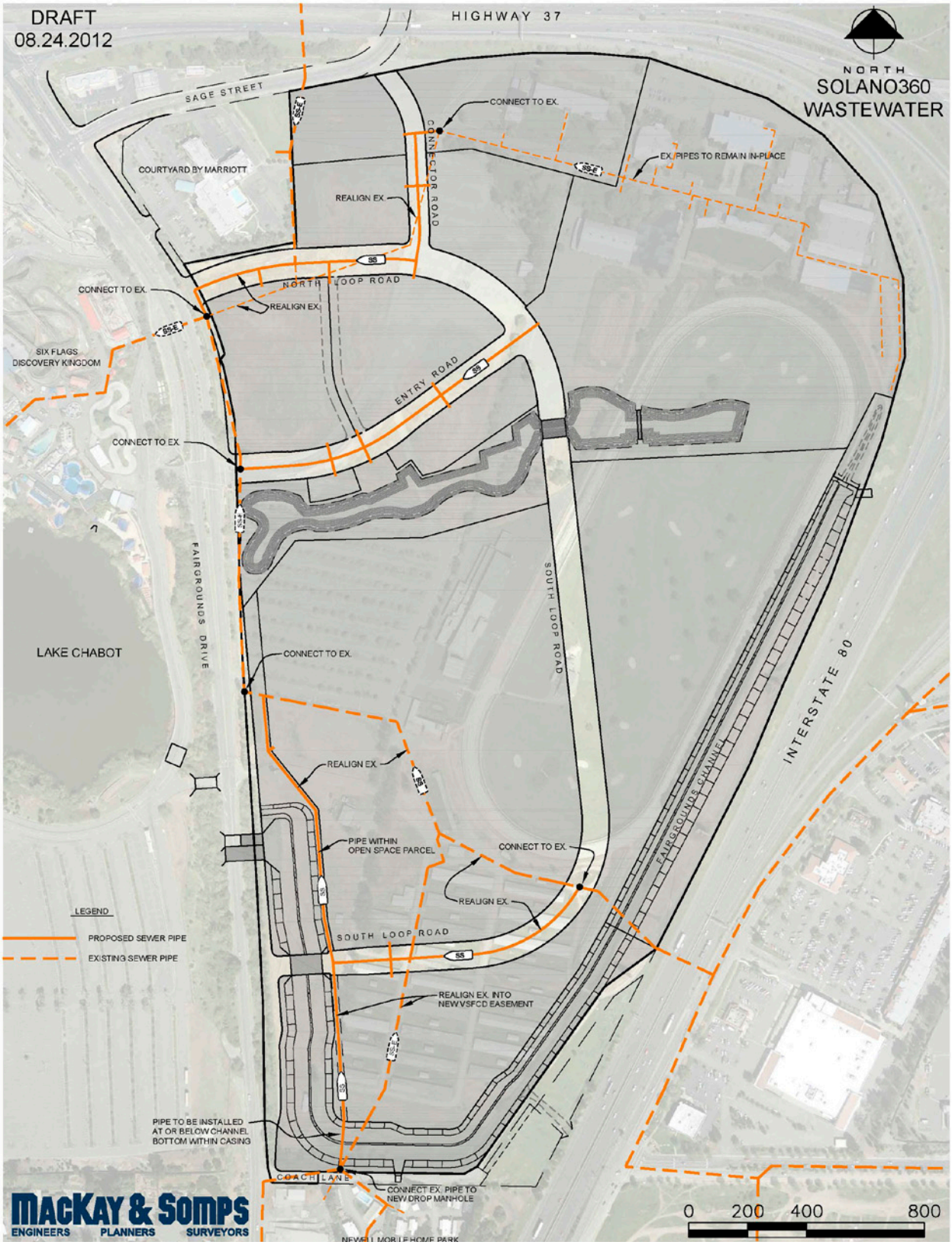


Figure 6.4: Wastewater Exhibit

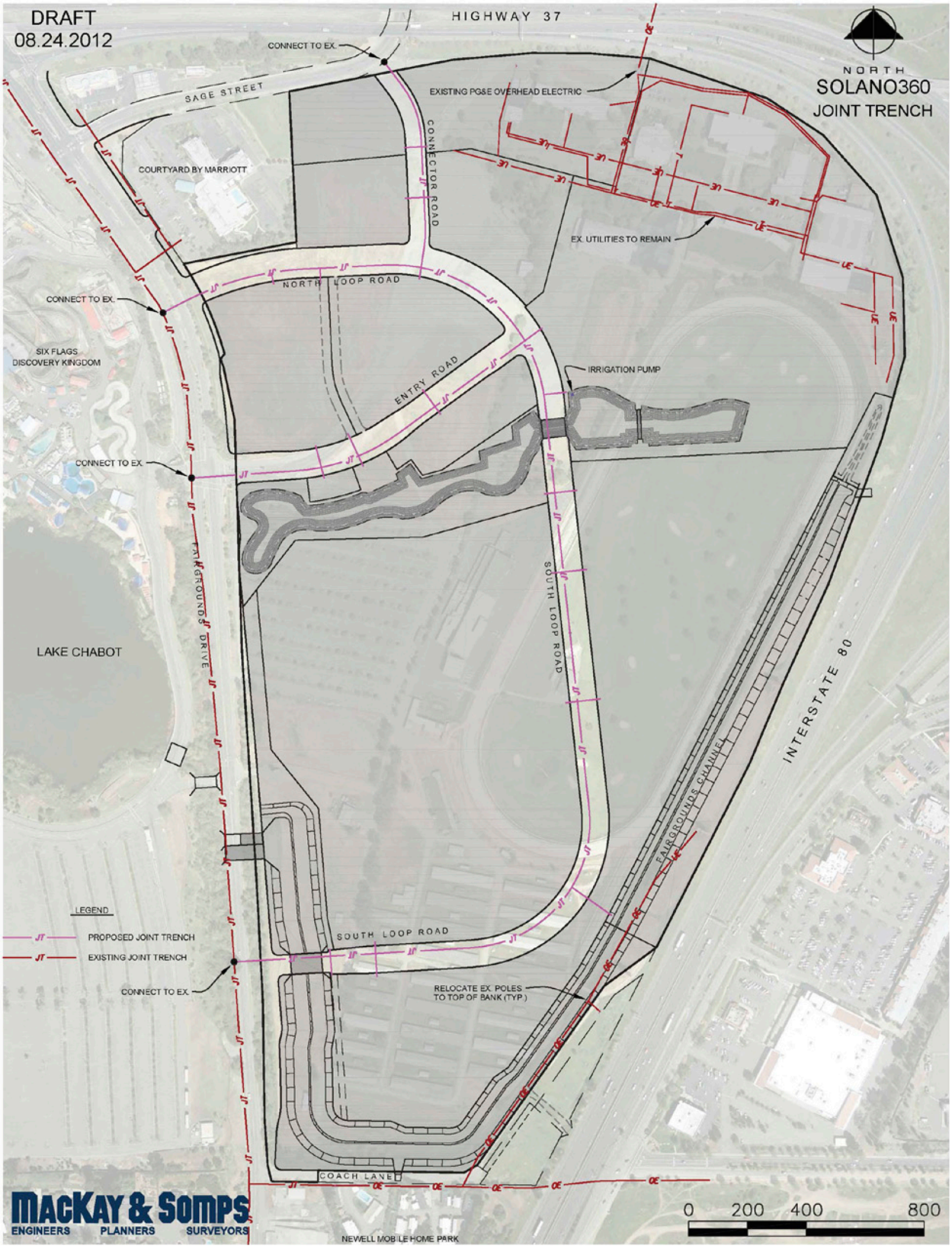


Figure 6.5: Joint Trench Exhibit

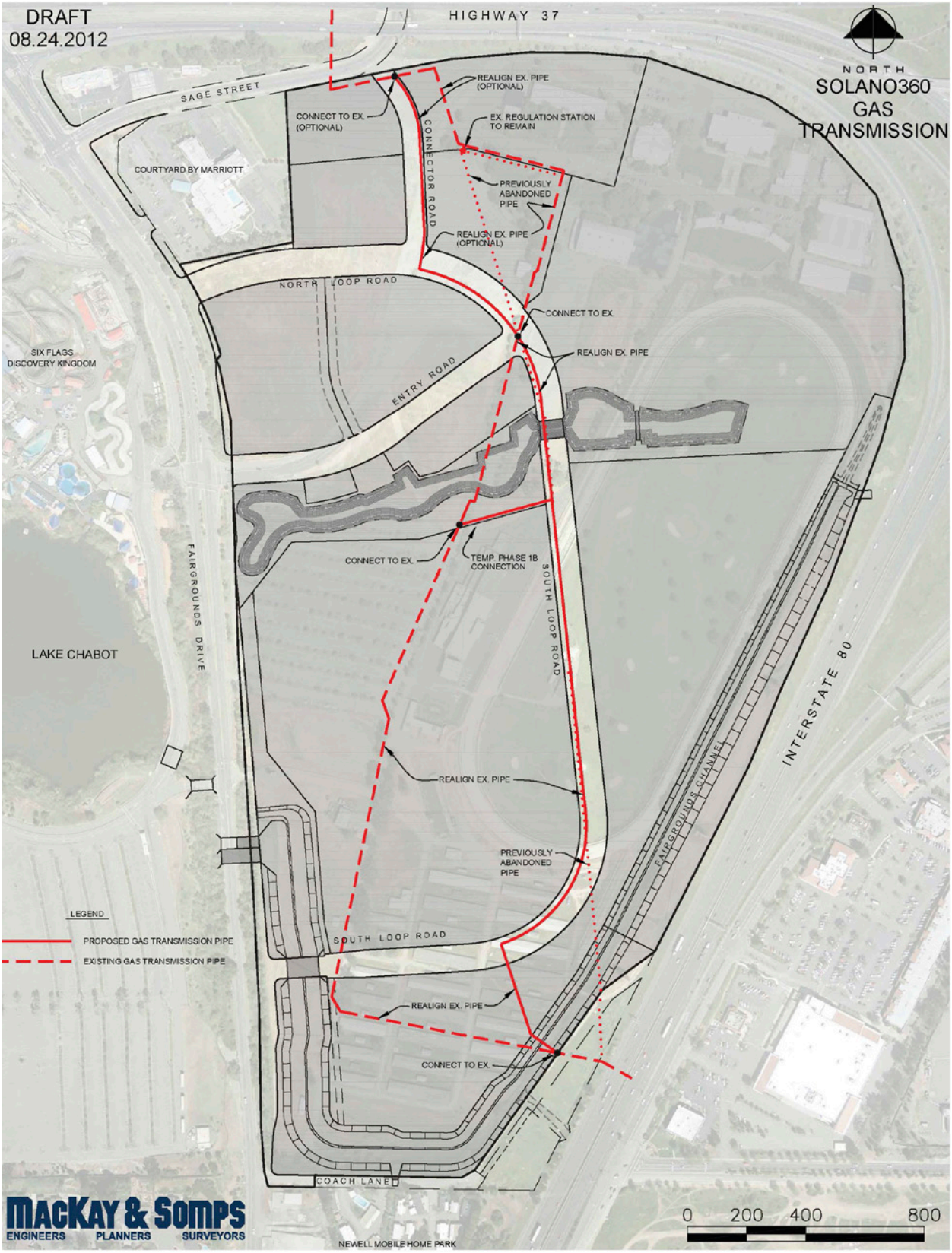


Figure 6.6: Gas Transmission Exhibit

6.4.4 Sustainable Practices for Wastewater

Water reduction, efficiency and conservation measures should be implemented throughout the Plan Area in order to save potable water and reduce wastewater generation. Reducing wastewater flows improves water quality in the Bay by reducing the amount of discharge into the Bay and helps reduce energy requirements associated with treatment and pumped conveyance.

Reclaimed wastewater facilities may be installed under surface parking areas within the Plan Area; this use is included as a permitted use in Section 3.5.

6.5 ENERGY AND TELECOMMUNICATIONS

6.5.1 Background and Existing Conditions

Primary power to the Plan Area is currently provided by Pacific Gas & Electric (PG&E) at the north end of the site. An overhead PG&E power line crosses Highway 37 and connects to PG&E transformers behind the "County Building". The power system leaving the transformers is a private system maintained by the County / Fairgrounds Association. The system consists of both overhead and underground facilities.

An additional power source is located at the south end of the site that provides power to the highway signs along I- 80.

Underground joint trench facilities exist in Fairgrounds Drive. It is anticipated that power will be provided to the proposed development from these facilities.

AT&T telephone facilities exist both underground and overhead throughout the site.

A 12" steel gas transmission pipe runs through the site. A gas regulation station is located near the existing Administration Building, which reduces the transmission pressure down to distribution pressure. Distribution pipes are located throughout the site. It is anticipated that a majority of the transmission pipe will need to be relocated as part of the proposed development.

6.5.2 Electricity and Natural Gas

Natural gas and electricity will be provided to the Plan Area by PG &E. Additional development and build-out of the project as envisioned in this Plan will increase the demand for natural gas and electricity. As noted above it is anticipated that a majority of the existing gas transmission pipe that traverses the Plan Area will need to be relocated.

6.5.3 Telecommunications

Telecommunication and cable service for the Plan Area will be provided by AT&T and CableCom. Additional development and build-out as envisioned in this Plan will increase the demand for telecommunication and cable service.

6.6 PUBLIC SAFETY

Police and fire protection will be provided by the City of Vallejo. A separate Fiscal Impact Analysis has been prepared by Goodwin Consulting Group for the Solano360 Plan. The Fiscal Impact Analysis indicates that the Plan Area will generate sufficient revenue in each Phase to cover Police and Fire Protection costs.

CHAPTER SEVEN: IMPLEMENTATION AND ADMINISTRATION

7.1 INTRODUCTION

This chapter sets forth the planned strategies and actions to be undertaken by the County and City in order to achieve the proposed high quality Private Purpose Area and Public Purpose Area development envisioned in the Plan.

7.1.1 Purpose of the Plan

As described in Chapter One, this document serves a dual purpose:

- For the County, this document serves as a master plan to guide improvements to the Public Purpose Areas, as shown on Figure 1.2. These areas, consisting of the Fair, Major Roads, Shared Public Parking, Creek Park, Fairgrounds Channel, and Transit/ North Parking Center, will be exempt from the City's land use authority as long as they are utilized for a public purposes. These areas will be subject to the provisions of the County's process for development review, as well as approvals required from other agencies as described below.
- For the City, this document serves as a Specific Plan and Planned Development Master Plan within the meaning of Vallejo Municipal Code (VMC) Chapters 16.104 and 16.116 to guide development of the Plan Area. Private Purpose Areas, consisting of the Entertainment Mixed Use and Entertainment Commercial parcels (as shown on Figure 1.2: Public & Private Purpose Areas), are subject to the provisions of this Plan and must be consistent with all City codes, regulations, policies and guidelines.

7.1.2 Definition of Public Purpose Areas

Public Purpose Areas, which are owned by the County and utilized for a public purpose, are exempt from City land use authority. Upon adoption of this Plan, the City and County shall enter into an agreement that will establish a process to categorize future uses not contemplated in this Plan into Public Purpose or Private Purpose Areas.

The County intends to construct the Major Roads according to City standards and intends to dedicate them to the City as public rights-of-way when complete.

Requirements and procedures for development of public and private areas, as well as coordination between the agencies, are outlined below.

7.2 DEVELOPMENT STRATEGIES FOR PUBLIC AND PRIVATE AREAS

The County and City intend to take actions to create an environment that is conducive to private investment through by:

(1) Establishing land use regulations through adoption of the Specific Plan and Master Plan and amendments to the General Plan and City of Vallejo Municipal Code, including specific development standards;

(2) Certifying environmental review for the proposed project; Approving a financing plan for public infrastructure, and financing / implementing initial public facilities and infrastructure in order to create the high quality character of the area and a sense of place; and

(3) Vesting of development rights and entitlements through Development Agreement and land use process;

(4) Establishing a simple and expeditious project approval process for proposed private development consistent with the adopted Plan.

The County and City will also undertake actions outlined in this section to assure that there is an implementation process in place that provides for certainty and consistency related to approval of proposed public and private development actions consistent with the adopted Plan.

In summary, the Solano360 development strategy assumes that the County will have the following Property Owner responsibilities in addition to any set forth in the Conditions of Approval.

- The County and City will enter into a Development Agreement/Implementation MOU.
- The County may issue an RFP for a single Developer or multiple Developers for the site. Such agreement(s) may include a ground lease of land.
- The County, or its Developer(s), will have responsibility for constructing all "horizontal development" (including grading, roads, and utilities) necessary to serve the Plan Area. Major roads will be built by the County and dedicated to the City of Vallejo once constructed to City standards.
- The County, or its Developer(s), will have responsibility for the preparation of finished pads for the EMU and EC parcels.
- The County, or its Developer(s), may seek others to develop the vertical buildings on the EMU and/or EC parcels, or may "build to suit" (develop, maintain and manage).
- The County, or its Developer(s), will sub-lease the EC and EMU parcels.
- EC and EMU end-users will build vertical improvements, or the County, on its own or through its Developer(s), will build-to-suit.

7.3 COUNTY-CITY AGREEMENTS

Subsequent to or concurrent with the certification of the EIR and adoption of the Plan, the County/Fair Association and the City will enter into agreements necessary for successful implementation of the Solano360 Project, including the respective authorities, responsibilities and coordination among the parties regarding proposed public facilities and infrastructure, proposed public and private development and project management responsibilities. It is the intent of the County and City to have these agreements finalized prior to proactively seeking interest from prospective private development interests.

These agreements are expected to include, but are not necessarily limited to the following, which may be combined into one master agreement between the City and the County.

7.3.1 Implementation Memorandum of Understanding (MOU)

The Implementation MOU will address:

- Planning, design, financing, installation, and maintenance of public facilities and infrastructure.
- Public and private development approval processes, including applicable design review.
- Provision and financing of public services to serve the proposed public and private development.
- Process for solicitation and selection of a private developer (Master Developer) for the Private Purpose Area development, including the disposition of County-owned property.

- Execution of necessary deeds between the City and the County necessary to clear title for the Private Purpose Areas.
- Resolution of disputes between the City and County regarding whether a proposed land use is a private or public use.
- Construction, inspection, maintenance, operation, repair, and process for dedication of public rights-of-way.
- Ongoing project management.

7.3.2 Development Agreement

The County and the City intend to enter into a Development Agreement regarding the Plan Area. The terms of that Agreement would be binding upon any Developer with whom the County subsequently contracts.

Section 65864 et seq. of the California Government Code empowers a public agency to enter into a Development Agreement with any entity having control over real property if that entity has an intention to develop that property. Development agreements are contracts established between the agency that approves entitlements for private development (in this case, the City) and the entity proposing the project (in this case, the County). In most situations, a developer or similar interested party negotiates an agreement with the City where both sides commit to a series of actions directly related to a proposed development intended to be implemented or accomplished over a stipulated period of time. Under development agreements, changes in policies governing land uses, intensity of development and the like which occur after approval of a development agreement typically do not affect the property which is the subject of the development agreement. The property owner therefore has a vested right to develop its property in accordance with the provisions of its development agreement.

Development Agreements with property owners and developers may be used to implement the Plan, assure financing and construction of needed public utilities and infrastructure, assure dedication of land for public street right-of-way, public open space and other public purposes, assure compliance with requirements for development pursuant to development constraints, and provide for continuity of implementation of the Plan. Development agreements also may include project phasing and completion schedules, plans for financing of public infrastructure improvements, including any anticipated public financing, adjustments and credits to regulatory fees and development impositions to account for the making of dedications or improvements in excess of the project's "fair share".

Development agreements for projects within the Plan Area must be consistent with the Plan. As required by State Law, the Specific Plan/Master Plan is consistent with the City's General Plan and therefore the development agreements will also be consistent with the General Plan.

Development agreements are subject to approval by an ordinance of the City Council because they are a legislative act. Accordingly, development agreements are subject to the public hearing process, including review and recommendation by the City Planning Commission, prior to being adopted by the City Council.

The Development Agreement between the County and the City may address:

- Vesting of development rights consistent with the provisions of the adopted Plan for the designated Private Purpose Areas. This will provide assurances to the County and end-users that the type and extent of development envisioned in the Plan is vested so that the County can pursue development of the designated Private Purpose Areas consistent with the provisions of the adopted Plan.

- Creation and adoption of specific design standards for the Plan Area.
- Phasing, timing and financing for installation of public infrastructure necessary to serve build-out of the Plan Area.
- Type and extent of development impact fees and other fees to be assessed on proposed Private Purpose Area and Public Purpose Area development.

7.3.3 Cost and Revenue Sharing Agreement

A cost and revenue sharing agreement will be executed by the City and County. The agreement will address:

- Revenues that will be generated by the Plan Area for the benefit of the County, City and Fair Association.
- Costs that will be incurred by the County, Fair and City for public services related to the Plan Area.
- Funding for the Plan Area infrastructure.
- Responsibility for provision of public services to serve the Plan Area.
- Other Plan Area cost and revenue matters.

7.4 REGULATORY AND REVIEW PROCESSES – PRIVATE PURPOSE AREAS

The Plan sets forth the areas which are currently planned to be used for Public Purpose uses as well as those which are planned to be for Private Purpose uses. The Plan sets forth these areas as well as the entitlement process that applies to implementation of Private Purpose uses within the currently planned Private Purpose Areas by the City of Vallejo. In the future, if new or additional uses that have not been considered in this Plan are proposed, City staff and County staff will collaborate in determining whether the proposed use is consistent with this Plan or whether it requires a minor amendment or a major amendment (See VMC 16.116.140). Private uses proposed within an area currently designated as 'public' by this Plan will be subject to the City's land use authority. Any disputes between the County and City will be addressed by a dispute resolution process established in the Implementation MOU.

7.4.1 Relationship to General Plan

The Solano360 Plan establishes policies that will govern future uses and development in the Plan Area and further implement the policies of the City's General Plan. As required by California Government Code section 65454, the Plan is consistent with the land use policies and objectives contained in the City of Vallejo's General Plan, as amended to incorporate the Land Use Map and specifications included in this plan.

The following represents a summary of General Plan Amendments required for Solano360 Plan approval by the City of Vallejo. The complete version of the text amendments can be found in Appendix C.

- Amendment to the General Plan Land Use Element and Land Use Map establishing a new Commercial Recreation land use designation for the Plan Area to replace the existing Community Park designation.
- Amendments to the summary section of the General Plan text pertinent to the Solano360 Plan.
- Amendments to various elements of the General Plan text establishing new goals and policies specific to the Solano360 Plan Area for Urban Design, Commercial

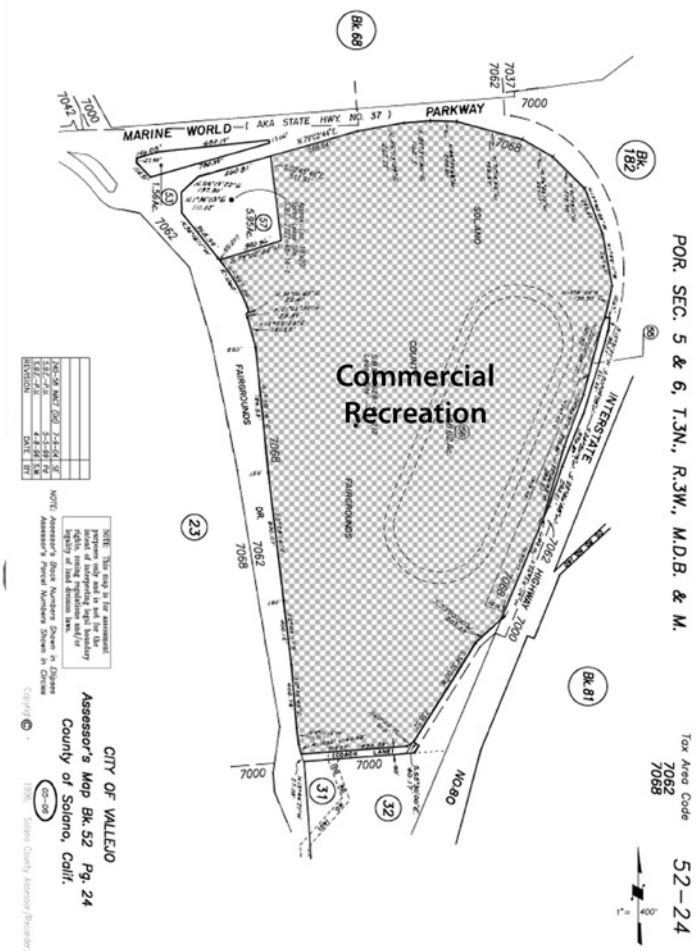


Figure 7.1: General Plan Amendment

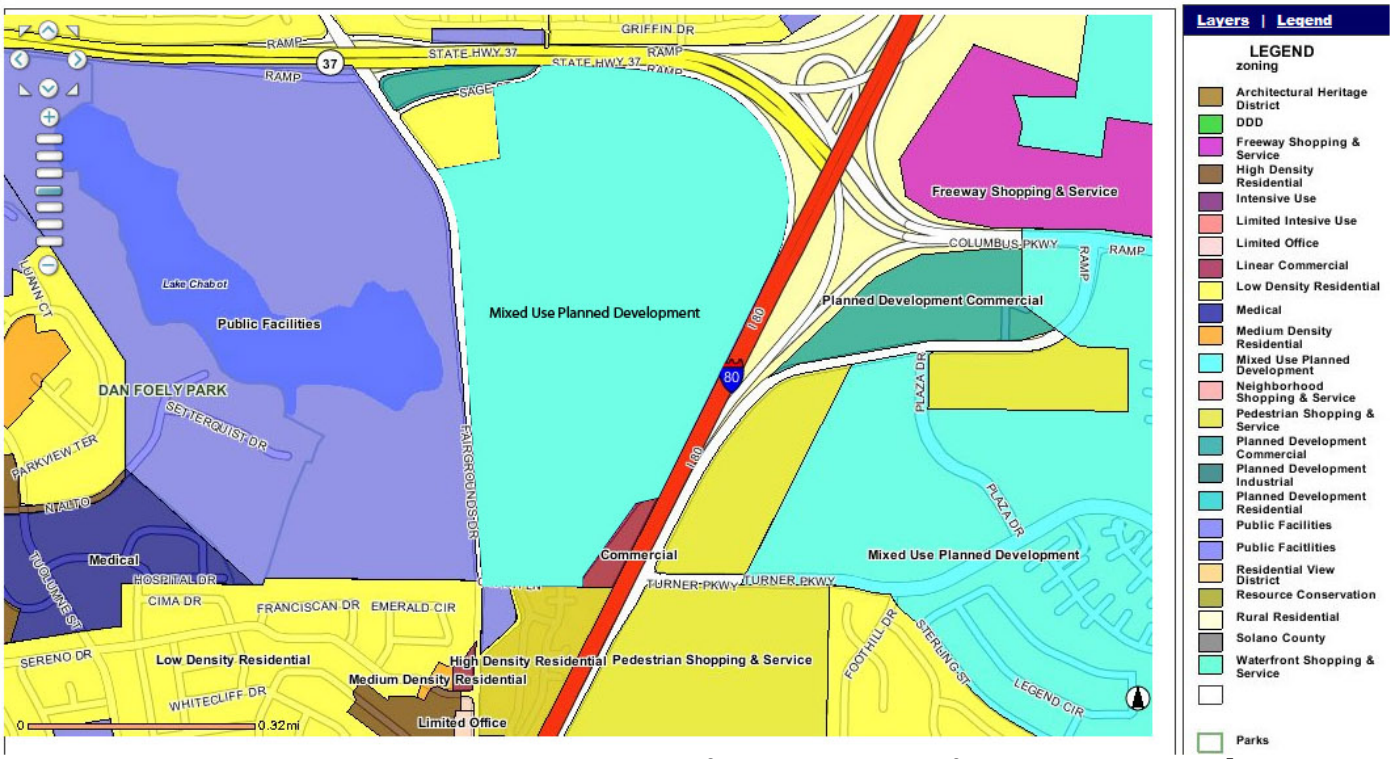


Figure 7.2: Zoning Map Amendment

Development, Transit, Non-Motorized Transportation, and Economic Development.

7.4.2 Zoning

This Plan serves to convert the existing Solano County Fairgrounds property to the City of Vallejo Zoning Designation of Mixed-Use Planned Development (MUPD). The City's Planned Development (PD) is both a zoning district and project development process that allows for flexible application of zoning regulations. The PD process facilitates the development or redevelopment of land which, because of special circumstances, would be difficult to develop through conventional zoning ordinance regulations.

Where there are conflicts between the Plan and the Vallejo Municipal Code, the Plan policies and regulations will apply. Where the Plan is silent, the VMC will apply.

To ensure consistency between the VMC and this Solano360 Plan, the following will be added to VMC Title 16 - Zoning:

16.116.036 – Solano360 Specific Plan/Master Plan.

A Specific Plan for the existing Solano County Fairgrounds shall be prepared to serve as the zoning ordinance for these properties. The Specific Plan shall serve as a Master Plan and shall contain the elements described in Section 16.116.040 applicable to the reuse of these properties as well as an implementation program for subsequent zoning actions. Where the Specific Plan is silent, the Vallejo Municipal Code shall apply

16.116.078 – Solano360 Unit Plans.

Unit plans for reuse and development projects shall be prepared consistent with the policies, standards and implementation program in the Solano360 Specific Plan.

7.4.3 Specific Plan Amendments

The City's Charter authorizes the City to amend a Specific Plan or Master Plan as often as deemed necessary by the legislative body. Plan amendments will be processed in the same manner as a General Plan amendment pursuant to Title 16 of the Vallejo Municipal Code.

The City may amend the Plan by exercising their land use authority at any time pursuant to 16.116.140 of the City's Code in consultation with the County and as needed for successful implementation of development projects within the Private and Public Purpose Areas. The City and the County may choose to contractually limit this authority by executing a Development Agreement as referenced in Section 7.3.2 above.

7.4.4 Subsequent Project Entitlements

The Plan has been prepared to include basic land use entitlements and development standards for the Plan Area. Once the Plan has been approved, development of the Plan Area will proceed and further development approvals and design guidelines will be provided as described below.

Unit Plans

As set forth in Section 16.116.030 of the City of Vallejo's Zoning Ordinance, the Plan serves as a "Master Plan" for each parcel. The Master Plan represents the overall concept for the proposed project and is intended to give the City a comprehensive illustration of the intent and purpose of the Plan Area development.

Master Plans are implemented through Unit Plans which describe the specific design and uses for the project as proposed conceptually in the Master Plan and give the City a more refined and detailed description of structures, landscaping, design features and uses within a particular part of the project.

Accordingly, future private development within the Plan Area will be processed through the City of Vallejo consistent with the following provisions.

- Per Section 16.116 of the City of Vallejo's Zoning Ordinance, a Unit Plan for the development within the Plan Area shall be prepared consistent with this Plan.
- Upon a finding by the Planning Manager that the uses contemplated by a Unit Plan application are substantially consistent with the provisions of the Plan and provided that no subdivision map or major use permit is required for the Unit Plan, such Unit Plan application will be acted upon by the Planning Division. All property owners within 200 feet of a project under administrative review (staff-level) will be notified. The applicant or any party adversely affected by the decisions of the Planning Manager shall have the right of appeal from such decisions within the time and in the manner prescribed by Chapter 16.102 of the City of Vallejo's Zoning Ordinance.
- With respect to Unit Plan applications for parcels that also require action on a tentative or vesting tentative subdivision map or that include action on a major conditional use permit, the Planning Division shall forward the Unit Plan application to the Planning Commission (PC) for final action. All property owners within 500 feet of a project under PC review will be notified of the pending PC action. The applicant or any interested party shall have a right to appeal as prescribed by Chapter 16.102 of the City of Vallejo's Zoning Ordinance.

Subdivision Maps

- Any proposed subdivision of property within the Private Purpose Area will be subject to applicable City of Vallejo subdivision ordinance provisions, requirements and procedures.
- Tentative Maps or Vesting Tentative Maps for subdivision of property will be reviewed by staff and approved by the Planning Commission.
- Final Maps for subdivision of property will be reviewed by staff and approved by the City Council.

Additional Actions

Additional future actions may include, but not be limited to, the issuance of:

- Grading and building permits
- Improvement plans
- Landscape and irrigation plans
- Will-serve letters for potable water
- Minor Use Permits
- Sign Permits
- Administrative Permits (accessory structures and temporary activities)
- Any other permits or approvals as required by the VMC.

7.5 REGULATORY AND REVIEW PROCESSES – PUBLIC PURPOSE AREAS

The provisions that apply to implementation of Public Purpose Areas will be the primary responsibility of the County.

7.5.1 County Approvals

Upon certification of the Solano360 Specific Plan EIR discussed in Section 7.7 below, no further environmental review of the Public Purpose Areas will be needed, except as may be required under CEQA (see Section 7.7.1).

County will engage the services of necessary design professionals to prepare the plans and specifications for the Public Purpose Areas, including the Fair, Major Roads and Fairgrounds Channel in full compliance with applicable building codes, ordinances and other regulatory authorities. The County's Department of Resource Management - Building Division will oversee plan review and applicable building and grading permits. The County's Building Division will ensure compliance ,with all applicable laws, codes, ordinances, rules or regulations of affected governmental agencies, such as the City of Vallejo Fire Marshall and Vallejo Flood & Sanitation District, affecting the construction.

- Any future modifications to the land use plan contained in this Plan will be presented to the City for determination of conformity to the City's General Plan in accordance with California Government Code section 65402.

7.5.3 Other Agencies

A number of other agencies in addition to the City of Vallejo will serve as Responsible and Trustee Agencies. The EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation.

As described in more detail in the EIR, these agencies may include but are not limited to the following.

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Army Corps of Engineers (USACE)
- California Department of Fish and Game (CDFG)
- California Department of Transportation (Caltrans)
- San Francisco Regional Water Quality Control Board (RWQCB)
- Bay Area Air Quality Management District (BAAQMD)
- Greater Vallejo Recreation District (GVRD)
- Vallejo Sanitary and Flood Control District (VSFCD)

7.6 INFRASTRUCTURE FINANCING

The Plan studies include a Public Facilities Financing Plan (PFFP) and a Fiscal Impact Analysis. Executive summaries of these reports are provided as Appendices B and C. Full reports are available separately. In summary:

PFFP: The Solano360 Specific Plan Public Facilities Financing Plan (PFFP) evaluated the ability of Plan land uses to fund required public facilities. It identified appropriate financing tools and aligned them with those public facility needs, providing a long-term forecast of the financial burdens associated with providing infrastructure to the Solano360 project. The PFFP serves as a blueprint to guide subsequent individual development applications and will ensure that future development conforms to the financial strategies outlined in this plan.

Fiscal Impact Analysis: The Solano360 Specific Plan Fiscal Impact Analysis evaluated the potential recurring fiscal impacts to the City and County resulting from development of the Solano360

project. The fiscal impact analysis compared the annual costs associated with providing public services against the annual revenues that will be generated by the proposed development to determine the net fiscal impact.

7.7 COMPLIANCE WITH CEQA

The Solano360 Specific Plan EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with implementation of the Specific Plan (State Clearinghouse No. 2011092067). The purpose of the EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the proposed project.

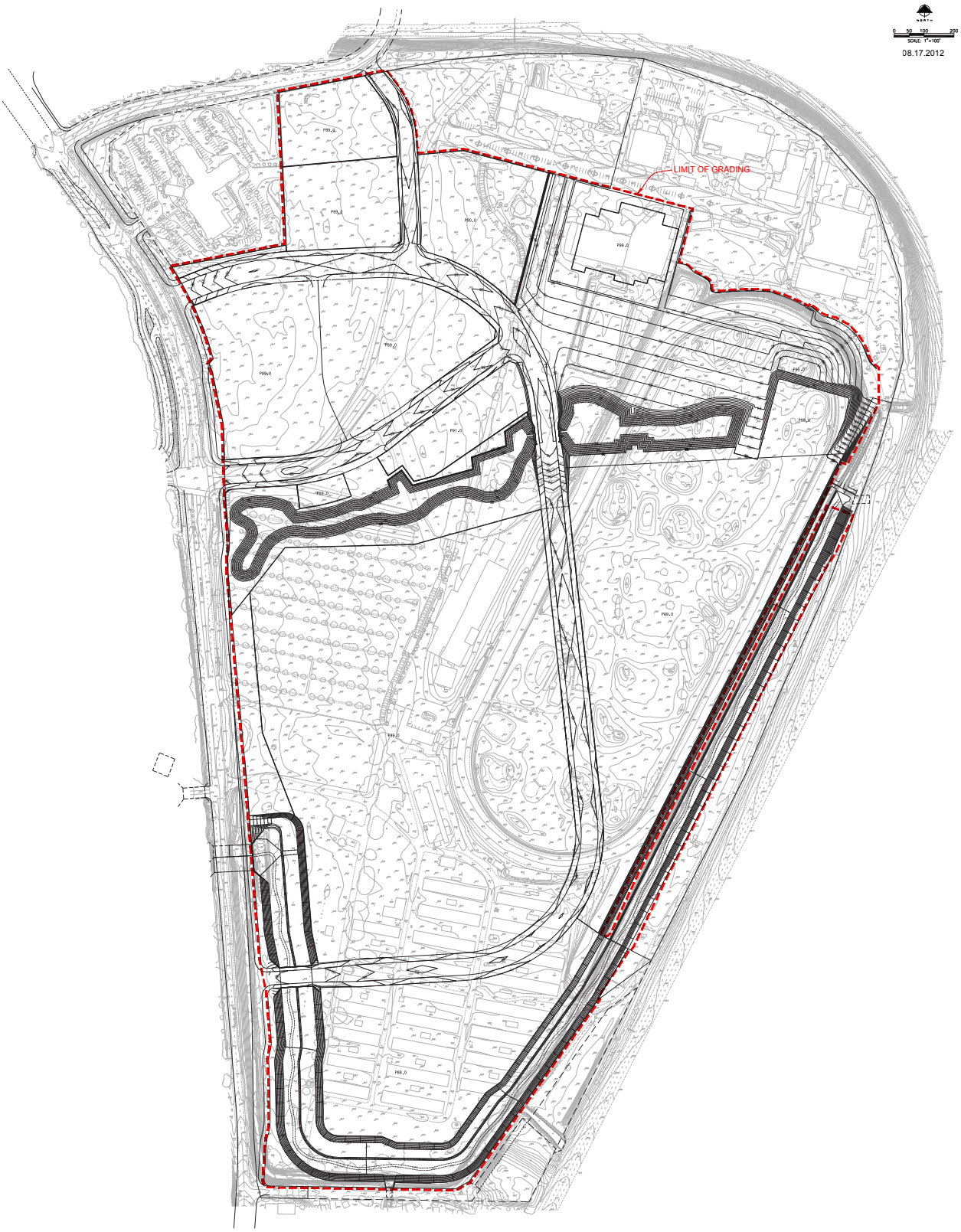
The County served as Lead Agency for the EIR. The Solano360 Specific Plan EIR serves for environmental clearance on County and City approvals.

7.7.1 Additional Environmental Review

Proposed private and / or public development may require additional environmental review and documentation in accordance with CEQA depending on the extent of consistency of the specific proposed development to the type / extent of development analyzed in the Specific Plan EIR. The determination as to the need for additional environmental review will be made by the City in the context of the regulatory review process for Private Purpose Area development, and the County in the context of the regulatory review process for Public Purpose Area development.

APPENDIX A: Conceptual Grading Plan

August 2012



APPENDIX B: Solano360 Public Facilities Financing Plan Executive Summary

Goodwin Consulting Group, November 2012

EXECUTIVE SUMMARY

PURPOSE AND SCOPE OF REPORT

This public facilities financing plan (PFFP) has been prepared to evaluate the ability of land uses proposed in the Solano360 Specific Plan (Specific Plan) to fund required public facilities, and to identify appropriate financing tools and align them with those public facility needs. The Specific Plan envisions a project consisting of a public-private program of uses that will integrate a new "Fair of the Future" with private mixed-use development (Project).

The PFFP is a long-term look at the financial impacts associated with providing infrastructure to the Project, which includes three major phases of development with Phase 1 divided into two sub-phases (i.e., Phase 1a and Phase 1b). This PFFP will serve as a blueprint for Project financing, to guide subsequent individual development applications and to ensure that future development conforms to the financial strategies outlined in this plan. In addition to quantifying the Project's infrastructure burdens, this analysis provides private developers, the County of Solano (County), the Solano County Fair Association (Fair), and the City of Vallejo (City) with analyses that can be factored into an estimate of residual land values and potential returns from development proposals.

It must be recognized that the PFFP is only a *test* of overall financial feasibility. As development progresses, the timing and mix of costs and funding sources may change. The assumptions and results presented in this report are estimates, and actual results may vary. Furthermore, neither the County (including the Fair) nor the City are obligated or committed to execute the financing strategy presented in the PFFP. However, regardless of the extent to which proposed financing mechanisms are used or other financing mechanisms are introduced later as the Project develops, the feasibility of the overall infrastructure burden has been evaluated in this PFFP.

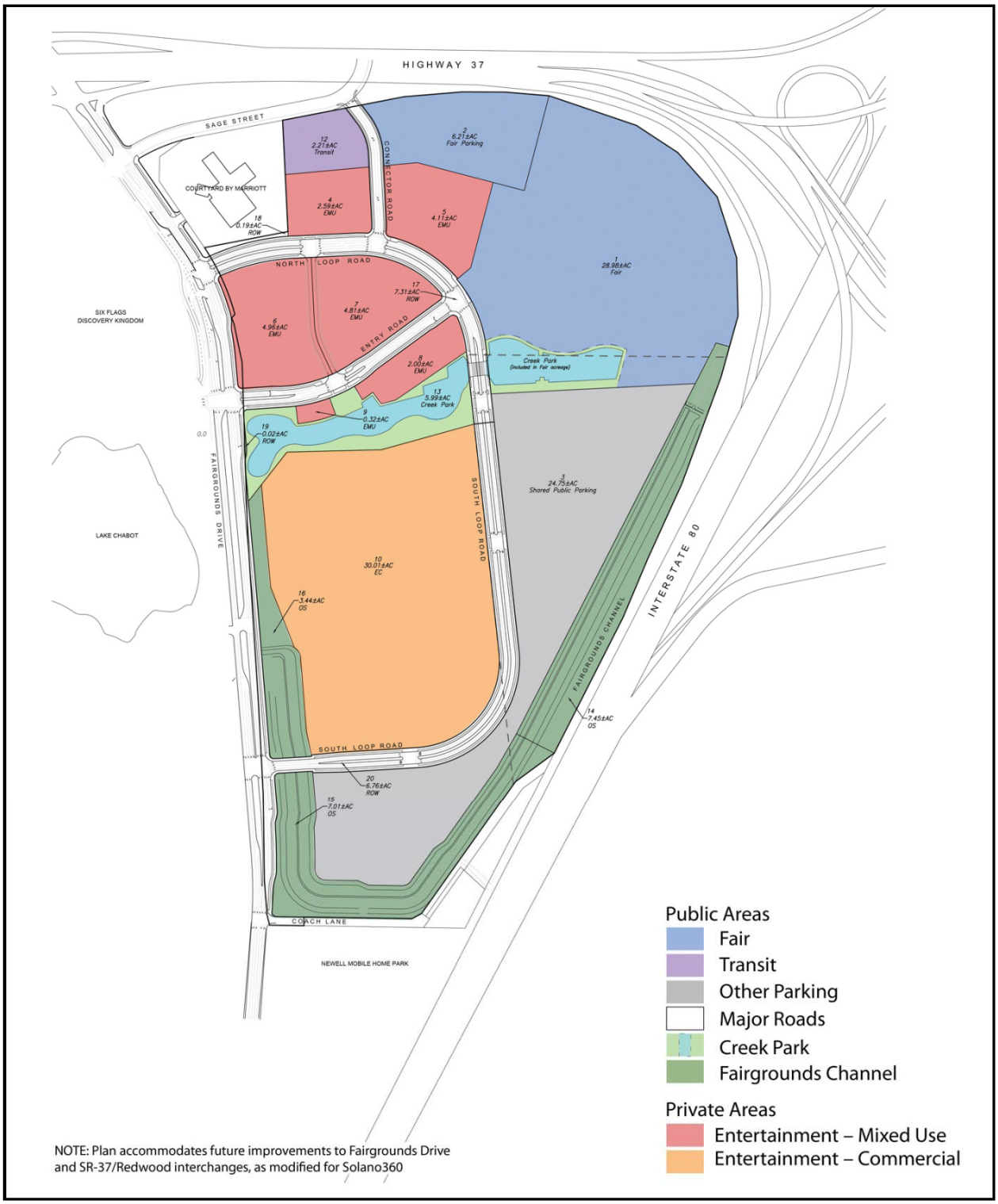
PROJECT DESCRIPTION

The Project is located within the City limits on the current site of the Solano County Fair, adjacent to Six Flags Discovery Kingdom. Located at the crossroads of Highway 37 and Interstate 80, the Project consists of a mix of public and private land uses on 149.1 acres. A local vicinity map and preliminary land use plan are shown below.

Local Vicinity Map

Source: Solano360 Specific Plan, dated November 9, 2012

Preliminary Land Use Plan



Source: Solano360 Specific Plan, dated November 9, 2012

Private development areas include 18.8 acres of Entertainment Mixed Use (EMU) and 30 acres of Entertainment Commercial (EC). The EMU portion of the Project includes approximately 328,000 square feet of non-residential development, which is comprised of approximately 213,000 square feet of EMU retail development and 115,000 square feet of EMU restaurant development, and up to 50 residential units. Public development areas include 149,500 square feet of Fairgrounds development on 35.2 acres, a 2.2-acre Transit center and parking structure, a 24.7-acre public parking lot and structure shared by the Fairgrounds site and entertainment venues, and 38.2 acres of other public land uses such as parks and roads.

ONE-TIME COST BURDENS

The Project requires significant amounts of public infrastructure to accommodate the proposed development. Project-specific backbone infrastructure (e.g., streets, sewer, drainage, and water) is estimated to cost approximately $37.0 million. Costs associated with demolition of certain existing Fair buildings total $4.5 million and costs associated with rehabilitation and upgrade of other existing Fair buildings and construction of a new Exposition Hall and other Fair facilities are projected to be $49.4 million, for a total of $53.9 million. Offsite regional facilities are estimated to cost approximately $4.9 million, making the total gross cost of the Project approximately $95.8 million. However, the Project will receive various minor reimbursements and contributions for the onsite water feature and offsite regional improvements, thus reducing the total net cost to $93.5 million. All costs included in this report are shown in 2012 dollars.

Table ES-1 on the next page presents the one-time cost burdens that result after the costs of net project-specific and regional facilities are allocated to the proposed land uses. Based on selected benefit criteria, a fair share cost is identified for each type of land use in the Project, before accounting for any debt financing or other sources of funding. In addition to the project-specific and regional burdens, the Project will be subject to certain impact fees – including City development impact and connection fees, County Public Facilities Fees (PFF), and Vallejo Unified School District (VUSD) fees – throughout the course of the development process. These amounts are added to the project-specific and regional one-time burdens to determine the total gross one-time burdens on each land use (presented in the far right column). Note that EMU retail and restaurant burdens and Fairgrounds burdens are presented on a per-building square foot (BSF) basis, burdens on the EC parcel are displayed on a per-acre basis, and residential burdens are presented on a per-unit basis. Furthermore, burdens on the parking uses are presented on a per-stall basis.

The total gross one-time burdens are reduced to net one-time burdens after applying the various financing tools discussed in the Financing Strategy section starting on the following page. Only development impact fees contribute to the net one-time burdens, which are generally paid at the time a building permit is issued. However, no impact fees are expected to be implemented to fund project-specific and regional fee obligations, so only the existing City, County, and VUSD fees produce net one-time burdens to be borne by new private development within the Project.

Table ES-1
Project-Specific and Regional, Other, and Total Gross One-Time Burdens

Land Use	Project-Specific and Regional One-Time Burdens	Other One-Time Burdens	Total Gross One-Time Burdens *
Private Development Areas			
EMU – Retail	$35 per BSF	$10 per BSF	$45 per BSF
EMU – Restaurant	$39 per BSF	$15 per BSF	$53 per BSF
EC	$409,100 per Acre	$89,200 per Acre	$498,300 per Acre
Residential	$19,700 per Unit	$31,700 per Unit	$51,400 per Unit
Fairgrounds			
Fairgrounds	$449 per BSF	$17 per BSF	$466 per BSF
Parking			
EMU Parking	$708 per Stall	$44 per Stall	$752 per Stall
Transit Parking Structure	$732 per Stall	$45 per Stall	$778 per Stall
Shared Public Surface Parking	$716 per Stall	$44 per Stall	$760 per Stall
Shared Public Parking Structure	$506 per Stall	$31 per Stall	$537 per Stall

** Totals may not sum due to rounding.*

FINANCING STRATEGY

Two of the principal purposes of any financing plan are to identify how infrastructure will be funded and to make a preliminary assessment of the financial feasibility of a proposed project. Financial feasibility is defined here in terms of the estimated annual and net one-time burdens, both as a percentage of developed value, for each of the proposed private land use categories.

Development projects of this nature and extent typically make use of a land-secured debt financing technique to fund infrastructure improvements required before development can begin. By accessing capital to meet the substantial and front-loaded cash outflows, and by spreading costs over the repayment term of the debt, the Project can increase its potential for successful implementation. Funding mechanisms, besides impact fees, are typically needed to close funding gaps that occur because impact fee revenues do not accrue in a manner sufficient to finance large amounts of infrastructure. To ensure that funding keeps pace with infrastructure needs, formation of a Mello-Roos district and the use of a number of other financing vehicles are typically necessary.

This PFFP has determined that a project-specific impact fee program is not necessary because debt issued through a Mello-Roos Community Facilities District (CFD) can cover all project-specific costs. If a regional fee program for certain offsite roadway improvements is implemented, then the Project would likely participate in that program; however, this analysis assumes that the Project's private development fair share of regional facilities is covered through the CFD. CFD special taxes will be collected annually from the private development component of the Project as well as EMU structured parking and shared public surface and structured parking uses to repay the bonds issued through the CFD. Excess special tax revenue related to debt service coverage may be used to fund infrastructure directly on an annual basis and to reimburse developers and the County for infrastructure that they funded.

In addition, it is anticipated that the County will issue Certificates of Participation (COPs) to fund all of the Fair's share of project-specific and required regional mitigation infrastructure costs as well as all Fair development costs in Phases 1 through 3. Furthermore, the analysis assumes that the County issues Capital Appreciation Bonds (CABs) to fund all initial project-specific and regional mitigation infrastructure that it is required to oversize (i.e., not all of the Phase 1 and Phase 2 infrastructure relates to the Fair's obligation) due to lack of other available funding sources. The County is assumed to issue additional COPs to retire CABs. While the County will initially fund infrastructure in Phases 1 and 2 that is oversized through the issuance of CABs since it is expected to initiate development before a significant amount of private development begins, private development sources of funding will substantially reimburse the County for its Phase 1 and Phase 2 oversizing in Phase 3 when a considerable amount of private development is expected to occur and certain financing tools can be utilized for that purpose.

The table below summarizes the proposed financial obligations of the various parties involved in the Project's financing.

Table ES-2
Proposed Financial Obligations Related to the County, City, and Private Development [1]

Financial Obligation [1]	Purpose	Timing	Net Amount Funded	Source of Funds
COUNTY [1]				
Certificates of Participation (COPs) – 4 bond issues [2]	Fair Exposition Hall; Fair's Public Infrastructure Obligation	Project Year (PY): 1, 9, 12, & 16	$64.6 M	Debt service repaid from Fairgrounds, net Project fiscal impact revenue, and ground lease revenue
Capital Appreciation Bonds (CABs) – 3 bond issues [3]	Public Infrastructure Oversizing	PY: 1, 4, & 6	$0	New COPs issuances
COPs – 3 bond issues [2]	Retire CABs	PY: 11, 14, & 16	$12.7 M	Debt service repaid from Fairgrounds, net Project fiscal impact revenue, and ground lease revenue
CITY [1]				
Community Facilities District (CFD) Bonds – 4 bond issues	Public Infrastructure	PY: 6, 19, 22, & 25	$25.4 M	Debt service repaid from annual special taxes levied on private development
PRIVATE DEVELOPMENT [1]				
Development Impact Fees	Public Infrastructure; Regional Fee Obligation	Building Permit Issuance	---	Not required
Annual CFD Special Taxes per Unit/BSF/Acre/Stall	Public Infrastructure	Annually, beginning PY 6	See CFD above	Building owners / leasehold interests
Excess Annual CFD Special Taxes	Public Infrastructure	Annually, beginning PY 3	$3.2 M	Building owners / leasehold interests
Developer Equity	Public Infrastructure	As Needed	---	Developers

[1] The PFFP is a planning document that includes a **proposed** financing strategy for the Project. It does not commit the City, County, or Fair to a specific financial obligation. Note that the PFFP does not account for: (i) repayment of the County loan to fund the Specific Plan process; and (ii) City and County General Fund operating revenues and expenses (i.e., net fiscal impacts).

[2] A total of six COPs issues are anticipated. The last COPs issuance funds (i) Fair costs in Phase 3, (ii) the Fair's share of infrastructure costs related to the second half of the Exposition Hall, and (iii) the maturity value of the last series of CABs.

[3] The net amount funded by CABs equals $0 because it is considered an interim funding source. All costs funded through CABS are eventually funded by another source of revenue by the time the Project builds out.

A matrix that compares, in general terms, interest rates and bond terms for COPs, CABs, and CFD bonds is presented in the table below. The table also shows the amount of bonds issued and net bond proceeds available for infrastructure costs, as well as average and maximum annual debt service and related debt service statistics for COPs and CFD bonds.

Table ES-3
Comparison of Financing Tools
COPs, CABs, and CFD Bonds

	COPs	CABs	CFD Bonds
Bond Term (Years)	30	10	30
Bond Interest Rate	5.5%	5.0%	6.5%
Bond Amount [1]	$79.2 M	$19.5 M	$29.5 M
Costs of Issuance	$1.9 M	$0.4 M	$1.2 M
Reserve Fund	$0.0 M	$0.0 M	$2.9 M
Capitalized Interest	$0.0 M	$0.0 M	$0.0 M
Net Proceeds Available for Infrastructure [1]	$77.3 M	$19.1 M	$25.4 M
Average Annual Debt Service	$4.1 M	--	$1.5 M
Maximum Annual Debt Service	$6.3 M	--	$2.8 M
Debt Service Coverage	100%	100%	110%
Annual Debt Service Escalation	2.0%	--	2.0%

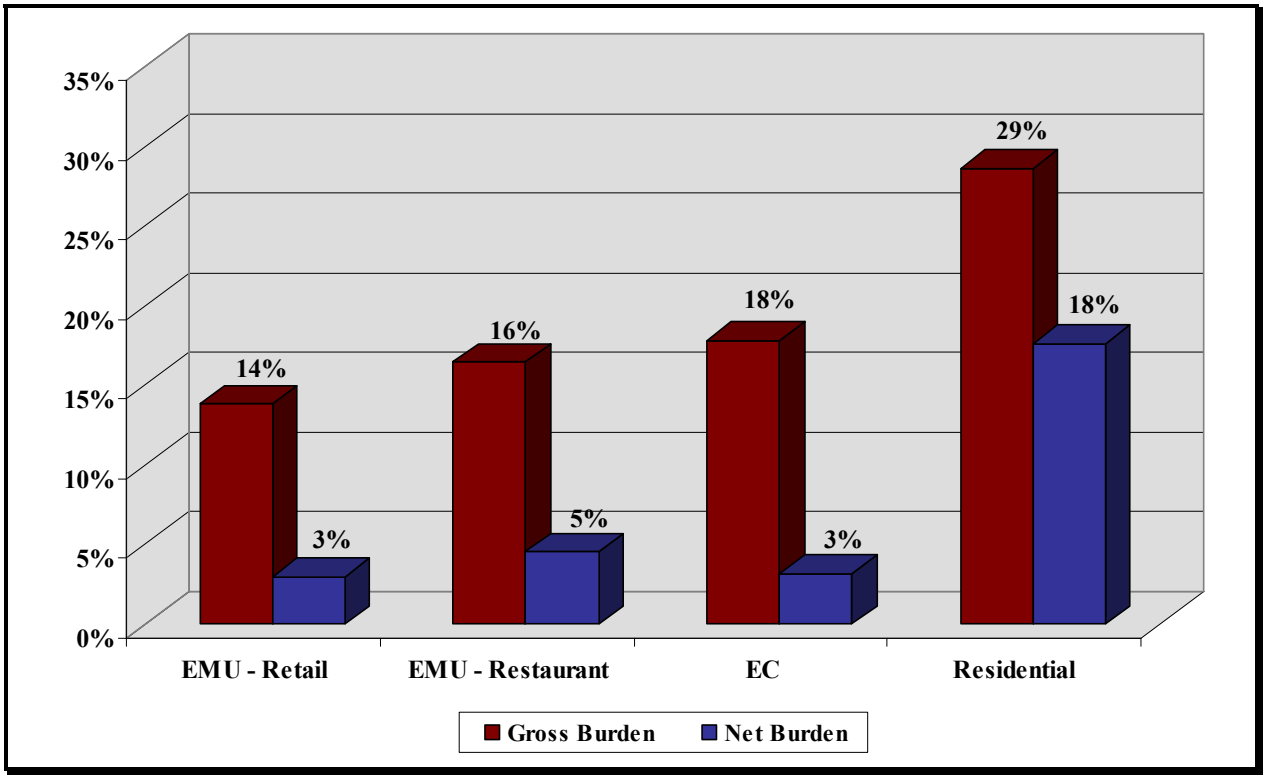
[1] The COPs bond amount and net proceeds available for infrastructure reflect a series of private development reimbursements in Phase 3 and the refunding of CABs as described above. CABs are an interim funding source only.

PROJECT FEASIBILITY

Both the gross and net burdens on private development parcels lie at the heart of the one-time feasibility analysis. While the gross one-time burden represents a sort of *all-in* cost, the net one-time burden accounts for the impacts that various financing mechanisms have on each land use. Implementation of CFD bonds and other debt financing options effectively reduces the upfront project-specific infrastructure burden from the developer's perspective, and increases the feasibility of the Project with net burdens that are below, and in most cases well below, 20% of value. In fact, the debt financing sources basically fund all project-specific costs, meaning the net burden is simply equal to the existing development impact fees.

When divided by the applicable estimated value, total costs are translated into a burden percentage. This is the percentage that presents a meaningful and easily studied comparison. Typically, in this area of California, and based on general industry guidelines and Goodwin Consulting Group's experience, one-time burden-to-value ratios up to approximately 20% of developed value are considered feasible. The bar graphs below compare the gross and net one-time burden-to-value ratios for all of the land use categories in the private development area of the Project.

Gross and Net One-Time Burden-to-Value Ratios
Private Development Areas



The total gross one-time burdens range from 14% to 29% of value for the private development areas. However, after applying the various funding mechanisms as an offset to the total gross one-time burdens, the resulting net one-time burdens range from 3% to 18% of value. Implementing these other financing sources results in net one-time burden-to-value ratios that are significantly lower than the gross ratios. While not shown in the chart above, the total gross one-time burdens range from 3% to 4% of value for non-transit parking structure uses, and 35% for the shared public surface parking. However, after applying the various funding mechanisms as an offset to the total gross one-time burdens, the resulting net one-time burdens range from 0.2% to 2% of value.

PHASED PUBLIC FACILITIES AND FINANCING CASH FLOW

With the Project expected to develop in three major phases, the relationship between the timing of infrastructure improvements and absorption of land uses becomes a critical cash flow issue. Often, initial phases need to support a disproportionate amount of the overall infrastructure requirements as certain large scale, and expensive, capital facility items must be built before development can proceed. The chart on the next page presents the total net costs by phase, including sub-phases 1a and 1b, for Fair, offsite regional, and onsite project-specific infrastructure improvements. As the chart illustrates, approximately 82% of all costs are required during Phase 1 and Phase 2. In fact, the vast majority of these costs are expected to be incurred at the beginning of each phase. More specifically, two-thirds of all expenses are slated to be incurred through the first year of Phase 2, yet only approximately 40% of the total EMU and Exposition Hall building square footage will have been constructed by that point in time.

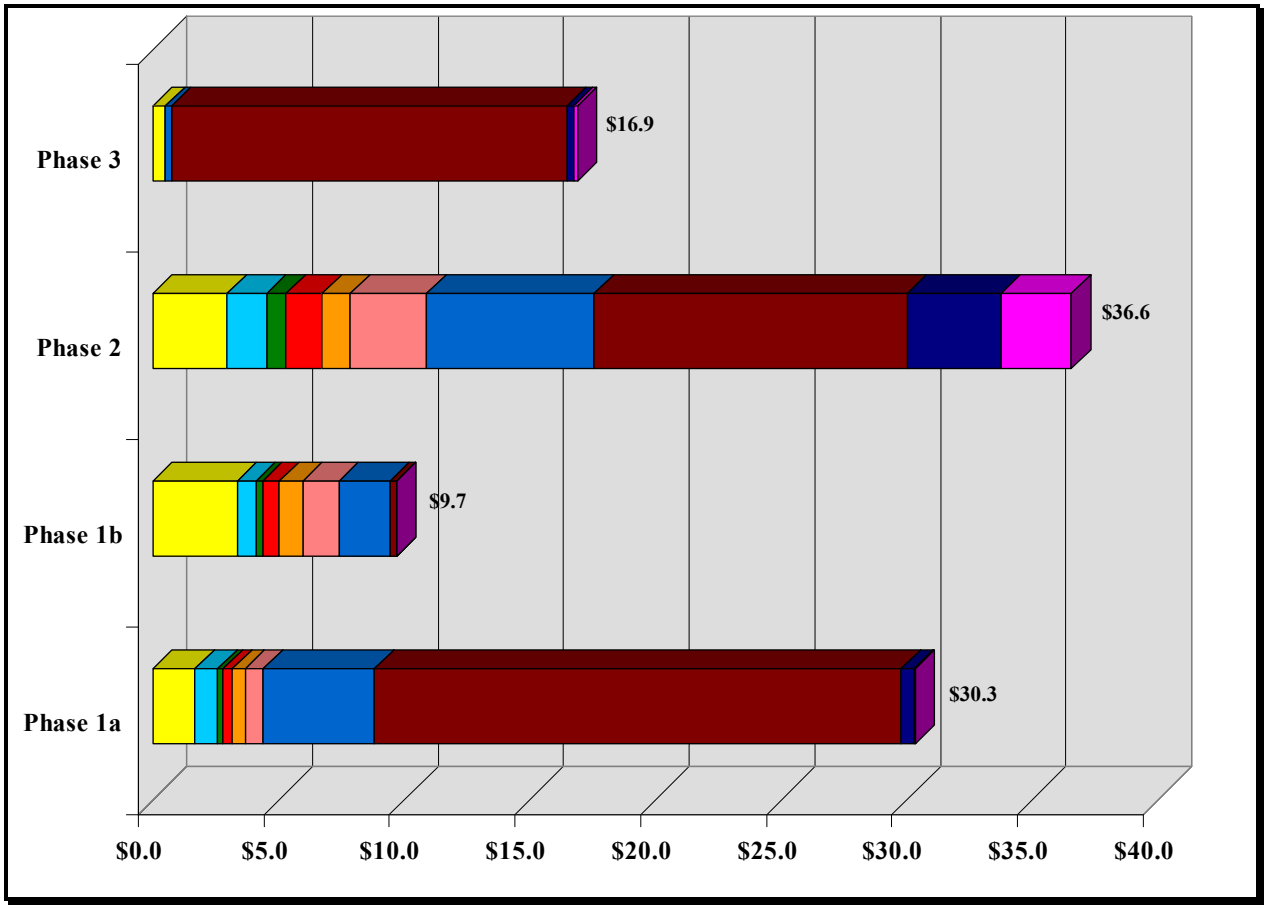
Consequently, even though proposed CFD bond proceeds, special tax revenues, and COPs bond proceeds are expected to fully fund all required infrastructure costs (together with a very small amount of state/federal grants expected to fund the transit center parking structure's infrastructure obligation), the front-loaded nature of the public facilities results in significant cash flow requirements in the early years of Project development. CABs proceeds are anticipated to provide gap funding in the early years of development and fund infrastructure oversizing. Table ES-4, which follows the chart below, summarizes the funding shortfalls and surpluses that result on a phase-by-phase basis, including sub-phases 1a and 1b, under the proposed financing strategy.

As shown in Table ES-4, development of Phase 1 will require approximately $40.0 million in project-specific infrastructure, demolition, and Fair improvement costs ($30.3 million in Phase 1a and $9.7 million in Phase 1b), and $55,000 in required offsite regional mitigation costs, for a total of approximately $40.1 million. Anticipated sources of funding in Phase 1a and Phase 1b include COPs proceeds, CABs proceeds, and revenue from special taxes, which total approximately $40.2 million. Comparing costs against available revenue results in a surplus of approximately $0.1 million, which is anticipated to be available to reimburse developers and the County in the next phase. However, the County is anticipated to fund approximately $12.7 million in oversizing through issuance of CABs by the end of Phase 1.

During Phase 2, $45.0 million in infrastructure costs and CABs interest is incurred, but $37.4 million must be County financed because the CFD bond proceeds, together with a small amount of private development equity and other funding, cannot fund all of the Phase 2 costs. Less than half of the costs financed by the County in Phase 2 relates to Fair costs; the remainder is needed to fund infrastructure oversizing. The small amount of private development equity utilized at the beginning of Phase 2 is assumed to be reimbursed by the middle of Phase 2, keeping the burden on developers as low as possible and for as short a timeframe as possible.

The County contribution of $37.4 million during Phase 2 pushes the County oversizing up to $19.2 million. The amount of County oversizing increases slightly to $20.1 million at the beginning of Phase 3, but it drops rapidly over the next three years down to $5.7 million. Total net revenues during Phase 3 available to reimburse the County, including the proceeds of three CFD bond issues, bring the net oversizing down to zero before the end of Phase 3.

Net Project-Specific and Offsite Regional Costs by Phase (In Millions)



Improvements	Phase 1a	Phase 1b	Phase 2	Phase 3
Offsite Regional	$0.1	$0.0	$2.8	$0.2
Fair Demo	$0.5	$0.0	$3.7	$0.2
Fair Improvements	$21.0	$0.3	$12.4	$15.7
Other [1]	$4.4	$2.0	$6.7	$0.3
Landscaping	$0.7	$1.5	$3.0	$0.0
Dry Utility	$0.5	$0.9	$1.1	$0.0
Water	$0.4	$0.7	$1.4	$0.0
Sewer	$0.2	$0.3	$0.8	$0.0
Drainage	$0.9	$0.7	$1.6	$0.0
Major Road	$1.7	$3.4	$3.0	$0.5
Total	**$30.3**	**$9.7**	**$36.6**	**$16.9**

[1] Other includes Water Feature, Pedestrian Bridge, Habitat, and Miscellaneous Improvements.

Table ES-4
Cash Flow by Phase
(In Millions)

	Phase 1a	Phase 1b	Phase 2	Phase 3	Total
Phased Costs					
Project-Specific Costs	$30.3	$9.7	$33.8	$16.7	$90.5
Regional Costs	$0.1	$0.0	$2.8	$0.2	$3.0
CABs Interest Carry	$0.0	$0.0	$8.4	$4.3	$12.7
Total	$30.3	$9.7	$45.0	$21.2	$106.2
Revenues					
CFD Bond Proceeds/Special Tax Revenue	$0.1	$0.4	$13.4	$14.8	$28.6
County COPs (Non-Oversizing)	$27.1	$0.0	$16.2	$21.3	$64.6
County COPs (Retire CABs/Reimbursement)	$0.0	$0.0	$21.2	($8.5)	$12.7
County CABs (Oversizing)	$3.2	$9.4	($6.2)	($6.4)	$0.0
Other Public Funding	$0.0	$0.0	$0.3	$0.0	$0.3
Total	$30.4	$9.8	$44.8	$21.2	$106.2
Developer Equity/Financing	$0.0	$0.1	$0.6	$0.0	$0.7
Developer Reimbursement	($0.1)	($0.2)	($0.4)	$0.0	($0.7)
Total Revenues	$30.3	$9.7	$45.0	$21.2	$106.2
Cumulative Developer Oversizing	**($0.1)**	**($0.2)**	**$0.0**	**$0.0**	
County – Fair Costs & Infra. Obligation					
Fair Improvements	$21.0	$0.3	$12.4	$15.7	$49.4
Fair Demo	$0.5	$0.0	$3.7	$0.2	$4.5
Project Specific Infra. Obligation	$5.2	$0.0	$0.0	$5.2	$10.4
Offsite Mitigation Infra. Obligation	$0.1	$0.0	$0.0	$0.1	$0.3
Total Cost & Infra. Obligation	$26.8	$0.3	$16.2	$21.3	$64.6
County Financing (COPs)	$27.1	$0.0	$37.4	$12.8	$77.3
County Financing (CABs)	$3.2	$9.4	($6.2)	($6.4)	$0.0
CABs Interest Carry Funded by COPs	$0.0	$0.0	($8.4)	($4.3)	($12.7)
Subtotal County Financing	$30.3	$9.4	$22.7	$2.1	$64.6
County Oversizing	$3.5	$9.2	$6.5	($19.2)	$0.0
Cumulative County Oversizing	**$3.5**	**$12.7**	**$19.2**	**$0.0**	

** Totals may not sum due to rounding.*

SUMMARY OF COUNTY/FAIR IMPACTS

As discussed in more detail above and as illustrated in Table ES-4 above, total Fair improvements are expected to cost $49.4 million. Demolition of existing Fair structures, the fair share of project-specific infrastructure that is the Fair's obligation, and the fair share of regional offsite mitigation improvements that is the Fair's obligation, total another $15.2 million. The total County cost associated with the public portion of the Project – a new Exposition Hall, other improvements to the Fair, and infrastructure and other costs related to the Fair – is estimated to be $64.6 million. This cost is spread out over all three phases of the Project.

Also discussed above, it is anticipated that the County will cover these Fair-related costs through the issuance of COPs. Due to timing issues associated with when infrastructure is required compared to when private development might occur, the County will also need to fund more than its fair share of project-specific infrastructure and/or regional improvements until it can be reimbursed in later Project phases. It is expected that the County will utilize CABs to fund the oversizing. The CABs will ultimately be refunded with COPs and the County will be reimbursed for its oversizing, but interest and issuance costs associated with the CABs is estimated to cost $12.7 million. As a result, the County is expected to issue a net amount of approximately $77.3 million in COPs during the life of the Project, which equals the County's $64.6 million Fair-related cost plus $12.7 million in carrying costs on the CABs.

Debt service on outstanding COPs is projected to run approximately $1.6 million annually for the first eight years (2014 through 2021). Debt service will increase to approximately $6.1 million per year by 2032 as more COPs are issued to cover costs and refund CABs. During the next 11 years (to 2043), debt service on the COPs remains fairly level, as reimbursements for oversizing compensate for the escalating structure of the COPs debt service. Then, as COPs bond issues reach maturity, annual debt service decreases to $4.2 million in 2044, to $3.4 million in 2055, and down to $2.2 million in 2057; the final year of debt service is 2058. Average net annual debt service is approximately $4.1 million, the maximum debt service of $6.3 million is reached in 2043, and total debt service over the course of 45 years is $183.0 million.

Note that annual net fiscal impacts to the County produced by the Project are estimated in a separate, companion study to the PFFP – the *Fiscal Impact Analysis* – also dated November 9, 2012.

APPENDIX C: Solano360 Fiscal Impact Analysis Executive Summary

Goodwin Consulting Group, November 2012

PURPOSE AND SCOPE OF REPORT

This report summarizes the analysis of the potential recurring fiscal impacts to the City of Vallejo (City) and County of Solano (County) from potential development of the Solano360 Project (Project). Brief analyses of the fiscal impacts to the Greater Vallejo Recreation District (GVRD) and Vallejo Sanitation and Flood Control District (VSFCD) are also incorporated into this analysis.

This fiscal impact analysis compares the estimated annual costs of providing public services against the estimated annual revenues that will be generated by new development to determine the net fiscal impact. This report details the annual fiscal impacts to the City's General Fund and the County's General Fund. Furthermore, the revenues and expenses associated with the Project for GVRD and VSFCD are analyzed in this report. Other funds that are supported by development fees and user charges (e.g., enterprise funds), state resources (e.g., school districts), or a specific allocation of property taxes (e.g., school districts, mosquito abatement districts) are not included in this analysis.

PROJECT DESCRIPTION

The Project is located within the City limits on the current site of the Solano County Fair, adjacent to Six Flags Discovery Kingdom. Located at the crossroads of State Highway 37 and Interstate 80, the Project consists of a mix of public and private land uses on 149.1 acres. With approximately 328,000 square feet of Entertainment Mixed Use (EMU) including restaurant and retail uses, 30.0 acres of Entertainment Commercial (EC), and 149,500 square feet of fairgrounds uses, the Project is anticipated to generate approximately 4,600 jobs and visitor employee equivalents (VEE's). Furthermore, the Project may include up to 50 residential units that will be home to approximately 86 residents.

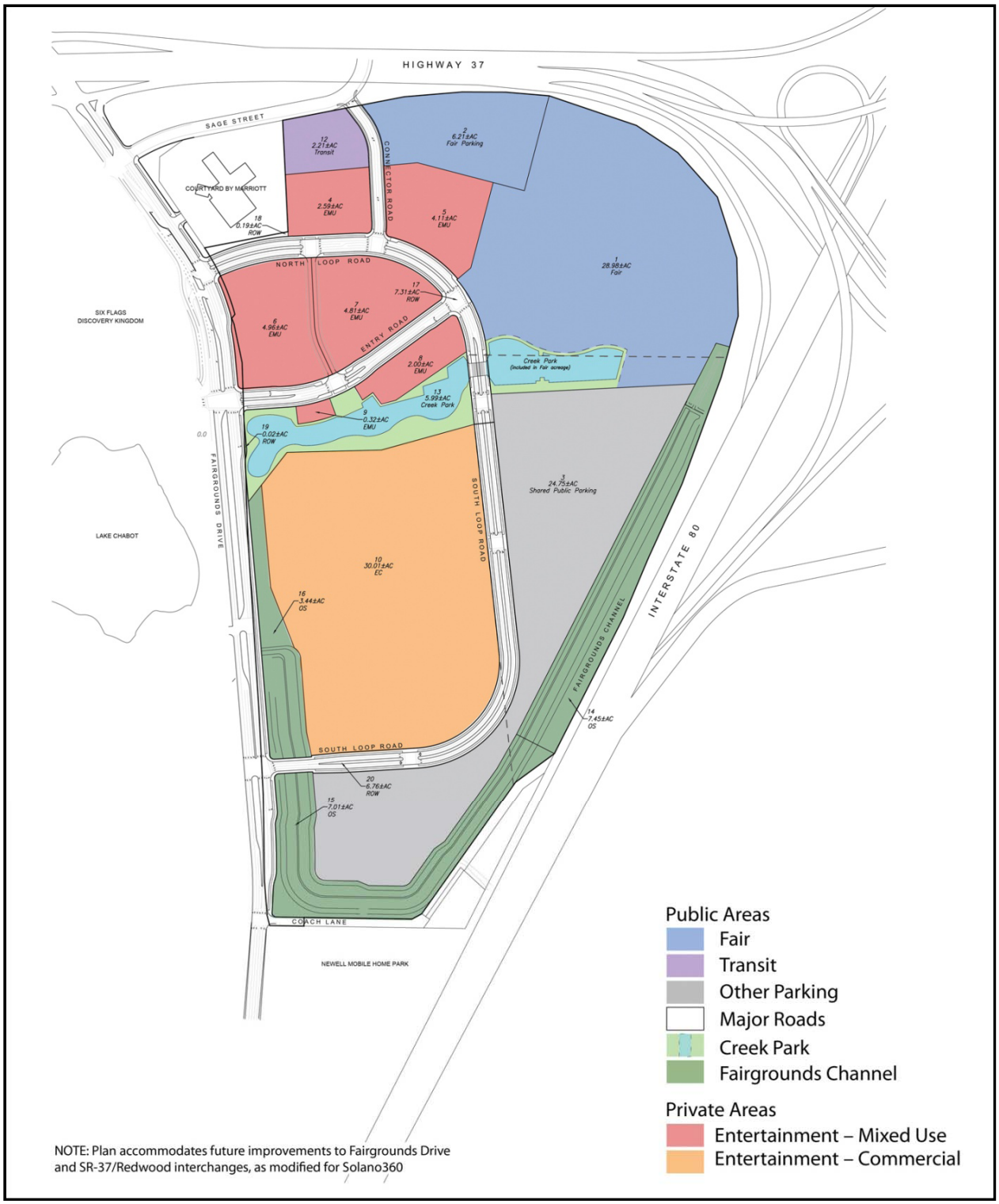
It appears that the number of visitors to the EC and Fair developments, rather than the number of jobs at those sites, is a better indicator of fiscal impacts from these land uses. Therefore, EC and Fair seasonal visitor estimates are translated into an equivalent number of annual employees, and are combined with employment at EMU sites, to determine certain fiscal impacts.

Development of the Project is anticipated to span a 25-year horizon. During this timeframe, it is expected that development will occur in three major phases. Phase 1 is further divided into two sub-phases (i.e., Phase 1a and Phase 1b). Phase 1 is anticipated to develop over a 5-year period (i.e., approximately three years for Phase 1a and two years for Phase 1b), and Phases 2 and 3 are anticipated to develop over sequential 10-year periods.

Local Vicinity Map

Source: Solano360 Specific Plan, dated November 9, 2012

Preliminary Land Use Plan



Source: Solano360 Specific Plan, dated November 9, 2012

METHODOLOGY

Fiscal impacts arising from land development can be categorized broadly as either one-time impacts or recurring impacts, both of which involve a revenue and expense component. For example, a project may create the need for an onsite fire station, and the one-time construction cost of the station may be offset by a development impact fee. The annual expenses associated with staffing and maintaining the fire station will be offset by annual property taxes and other revenues generated by new development. The fiscal impacts compared in this study are the annual, or recurring, revenues and expenses that affect the City, County, GVRD, and VSFCD as a result of development associated with the Project.

Two methodologies are employed in estimating recurring fiscal impacts. First, the case study method is used to estimate recurring revenues and expenses by applying defined service standards, existing tax and fee rates, and suggested operating and maintenance costs to the various land uses and services proposed in the Project. The second methodology used is the multiplier method, which assumes that fiscal impacts will result from proposed development at forecasted rates per resident, employee and VEE, or person served based on the fiscal year 2011-12 budgets for the City and County.

KEY ASSUMPTIONS

Generally, property taxes and property-related taxes comprise a majority of revenue generated by a new development project. As such, property tax allocations play a pivotal role in determining whether a development project will generate a fiscal surplus or deficit to a public agency. The Project was previously included within the Flosden Acres Redevelopment Plan area; however, with the passage of the fiscal year 2011-12 State budget, legislative bills ABX1 26 and ABX1 27, as well as the California Supreme Court decision permitting the State to proceed with its plans to eliminate redevelopment agencies within the State, the analysis assumes that all property tax revenue reverts back to the pre-redevelopment agency distributions specified by the applicable tax rate areas.

Other important assumptions that drive the results of the fiscal analysis include the following:

1. The County will likely solicit proposals from master developers and enter into a long-term ground lease and agreement with a master developer to implement the buildout of the private development component of the Project, including the shared public parking structure and surface lot anticipated to serve the Fair and other entertainment venues. Therefore, the market or assessed value assumptions in the fiscal study include land and construction values, both of which will be taxed as possessory interests.

2. The County will be developing this Project, either directly or indirectly through an agreement with a master developer, and will need a point person to handle Project management, administrative, financial, legal, and other matters as the Project builds out. The fiscal analysis includes the cost of a County project manager for that purpose. Since the Project is located within the City, the fiscal analysis also includes the cost of

approximately a half-time City project manager to mitigate various administrative and other related costs incurred by the City as a result of the Project.

3. The City currently collects an entertainment tax from Six Flags Discovery Kingdom equal to 2.5% of gate revenues. It is assumed that the EC parcel will function in a similar manner to Six Flags Discovery Kingdom – operating an amusement park, theme park, or combination of such uses – and that the County, most likely through a development agreement, will also collect an entertainment tax on EC parcel entrance fees at the same 2.5% rate.

4. The Project will generate additional sales tax revenue to the City based on the recently approved Measure B one-cent sales tax for City general fund purposes. Measure B sunsets in less than 10 years, and sales tax revenue accounted for in the fiscal analysis related to Measure B is assumed to expire at that time.

5. Net Fair revenue is anticipated to grow considerably as the exposition hall expands, the quality of the Fair experience improves, and attendance increases, while certain fixed costs remain the same and other costs are contained. An analysis of Fair profit centers suggests that net rental income and use of the exposition hall will escalate proportionally based on the increase in exposition hall net square footage from 20,000 to 100,000. Net income associated with other profit centers is assumed to remain constant, except that net income related to golf and track operations terminates as these two operations are eliminated. Administration, overhead, and other indirect Fair costs are assumed to increase by two times at full buildout of the new Fair.

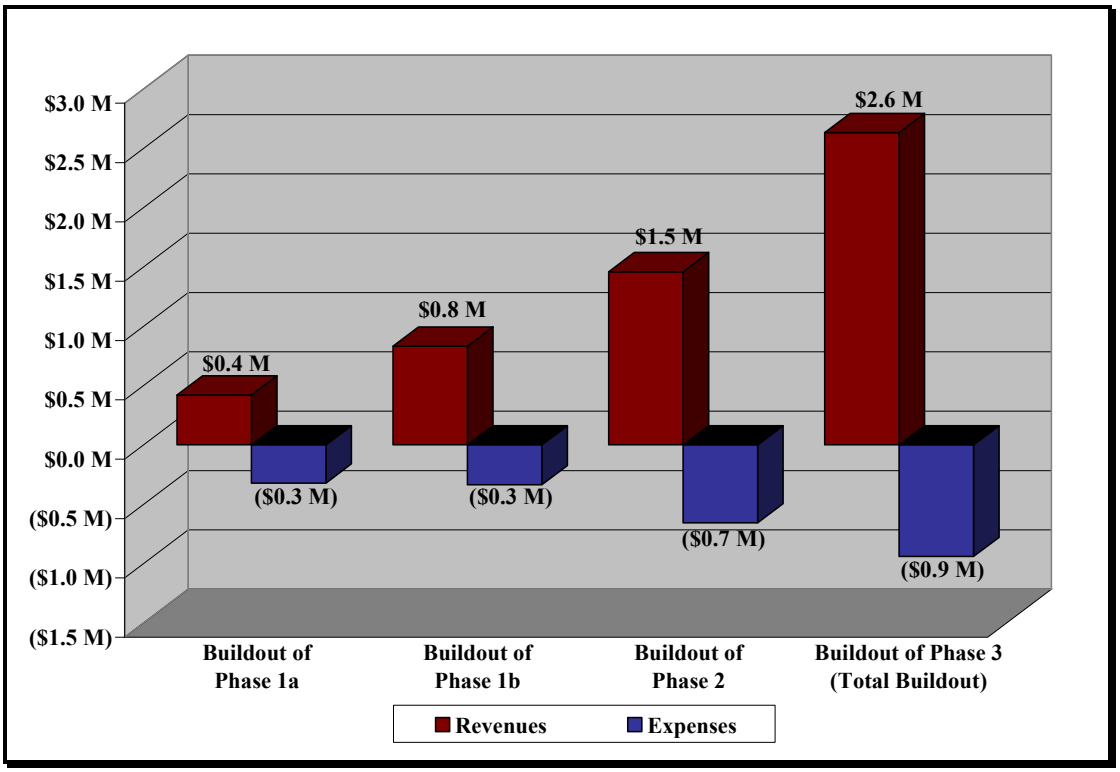
6. The fiscal analysis utilizes higher City building, grounds, and road maintenance costs than shown in the City budget so that existing maintenance service level deficiencies are not exacerbated. Similarly, City public safety departments are currently understaffed, so the fiscal analysis utilizes a higher, more desirable level of service commensurate with average, rather than depressed, economic conditions.

CONCLUSIONS

Annual Net Fiscal Impacts to the City

The Project is expected to generate net fiscal surpluses at buildout of each of the three phases, including sub-phase 1a. The graph on the next page shows that projected revenues exceed expenses at buildout of each phase of development. At final buildout, the Project is anticipated to produce an annual surplus of more than $1.7 million to the City. On an annual basis, the Project is anticipated to generate a modest net fiscal deficit during the first year of development only because costs for maintenance and a City project manager are anticipated to occur concurrent with development, while revenues do not start accruing to the City until development has occurred. The Project is then forecasted to generate annual fiscal surpluses for all remaining years of the 50-year analysis period.

Summary of Annual Revenues and Expenses to the City

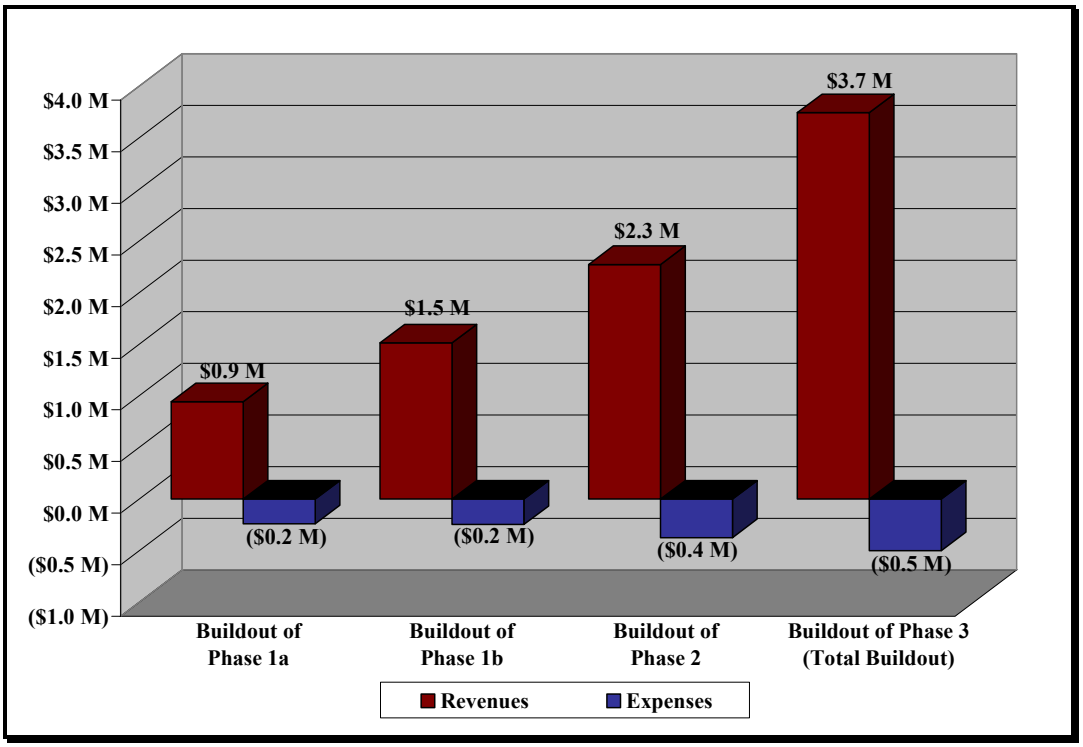


Annual Net Fiscal Impacts to the County and Fair

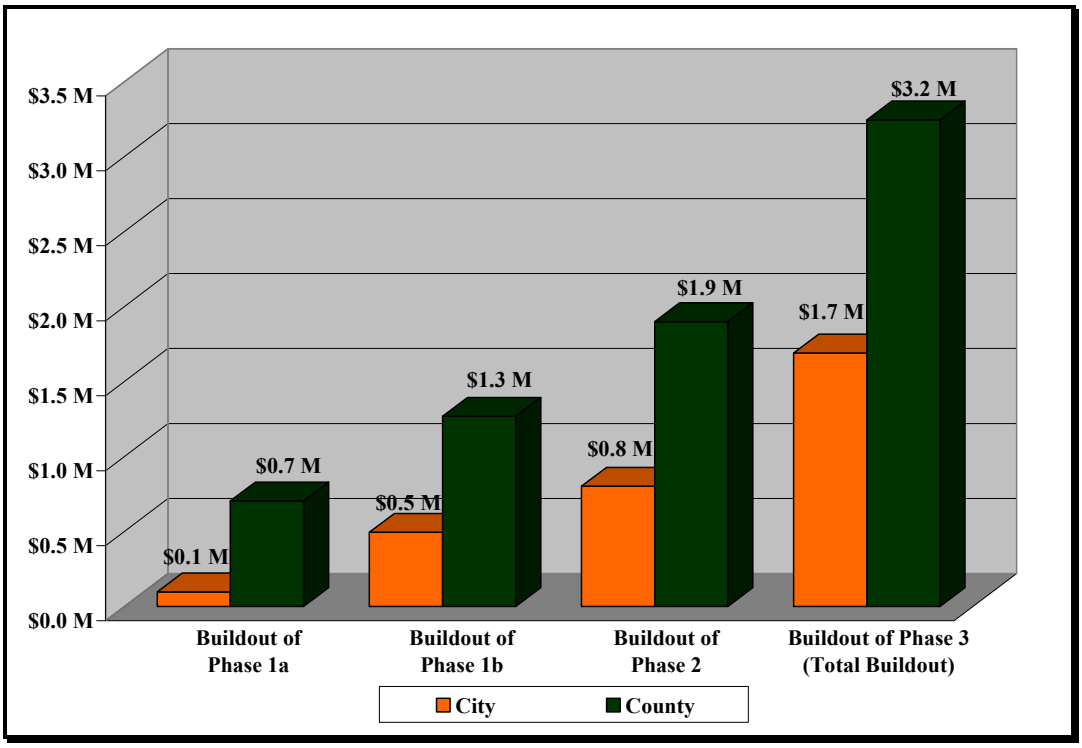
Net fiscal impacts to the County and Fair are very similar to those of the City – a fiscal surplus is anticipated at buildout of each phase. However, unlike the City impacts, it is not anticipated that the County will experience a deficit in the early years of the Project when net impacts to the Fair are included in the County impacts.

The Project is expected to generate approximately $3.7 million in annual revenues to the County and Fair, and is expected to create approximately $0.5 million in annual expenses at buildout. This results in an annual surplus of approximately $3.2 million to the County and Fair. A summary of the net County/Fair revenues and expenses anticipated at buildout of each phase is presented in the graph below. A summary of the net fiscal impacts to the City and County/Fair is also presented below.

Summary of Annual Revenues and Expenses to the County and Fair



Comparison of Annual Net Fiscal Impacts to the City and County/Fair



Annual Net Fiscal Impacts to the GVRD and VSFCD

In addition to the impacts on the City and County, the Project is expected to generate annual revenues and expenses for GVRD and VSFCD. Annual expenses associated with the Project for GVRD and VSFCD are assumed to be covered by annual revenues generated from the Project; therefore, no net fiscal impacts from the Project are anticipated to GVRD or VSFCD.

Table 1
Solano360 Specific Plan
Fiscal Impact Analysis
Summary of Fiscal Impacts

Project Year	*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Fiscal Year	*2012-13*	*2013-14*	*2014-15*	*2015-16*	*2016-17*	*2017-18*	*2018-19*	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*
Phase	*Entitle.*	*1a*	*1a*	*1a*	*1b*	*1b*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
City													
Revenues	$0	$0	$0	$419,899	$796,056	$831,224	$1,104,361	$1,166,031	$1,777,167	$1,843,308	$1,293,422	$1,333,894	$1,326,636
Expenses	$0	$0	($121,361)	($323,102)	($336,340)	($336,340)	($389,942)	($389,942)	($593,272)	($603,862)	($603,862)	($631,285)	($631,814)
Net Fiscal Impact	$0	$0	($121,361)	$96,797	$459,717	$494,885	$714,418	$776,089	$1,183,895	$1,239,446	$689,560	$702,610	$694,822
County & Fair													
County Revenues	$0	$0	$0	$129,576	$238,776	$236,069	$325,287	$346,311	$906,275	$913,001	$907,242	$932,174	$929,008
Fair Revenues	$0	$0	$190,000	$813,750	$1,277,500	$1,277,500	$1,277,500	$1,277,500	$1,277,500	$1,277,500	$1,277,500	$1,277,500	$1,277,500
Total County and Fair Revenues	$0	$0	$190,000	$943,326	$1,516,276	$1,513,569	$1,602,787	$1,623,811	$2,183,775	$2,190,501	$2,184,742	$2,209,674	$2,206,508
Expenses	$0	$0	($150,000)	($239,076)	($244,921)	($244,921)	($249,597)	($249,597)	($339,375)	($344,051)	($344,051)	($359,579)	($359,813)
Net Fiscal Impact	$0	$0	$40,000	$704,249	$1,271,355	$1,268,648	$1,353,190	$1,374,214	$1,844,400	$1,846,450	$1,840,691	$1,850,095	$1,846,695
Total City Plus County & Fair	**$0**	**$0**	**($81,361)**	**$801,046**	**$1,731,071**	**$1,763,533**	**$2,067,608**	**$2,150,303**	**$3,028,296**	**$3,085,896**	**$2,530,252**	**$2,552,705**	**$2,541,517**

Source: Goodwin Consulting Group, Inc.

11/09/2012

Table 1
Solano360 Specific Plan
Fiscal Impact Analysis
Summary of Fiscal Impacts

Project Year	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*
Fiscal Year	*2025-26*	*2026-27*	*2027-28*	*2028-29*	*2029-30*	*2030-31*	*2031-32*	*2032-33*	*2033-34*	*2034-35*	*2035-36*	*2036-37*	*2037-38*
Phase	*2*	*2*	*2*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
City													
Revenues	$1,352,928	$1,337,697	$1,458,958	$1,452,806	$1,895,369	$1,757,790	$1,997,172	$2,218,477	$2,372,700	$2,506,561	$2,509,035	$2,504,861	$2,631,069
Expenses	($650,096)	($650,096)	($656,980)	($656,980)	($656,980)	($846,013)	($859,250)	($871,959)	($922,791)	($933,381)	($933,911)	($933,911)	($940,794)
Net Fiscal Impact	$702,832	$687,601	$801,978	$795,827	$1,238,390	$911,778	$1,137,922	$1,346,519	$1,449,909	$1,573,180	$1,575,125	$1,570,951	$1,690,275
County & Fair													
County Revenues	$944,838	$937,151	$995,847	$990,936	$1,294,613	$1,229,128	$1,346,585	$1,454,982	$1,599,587	$1,672,532	$1,671,371	$1,667,117	$1,728,984
Fair Revenues	$1,277,500	$1,277,500	$1,277,500	$1,087,500	$1,087,500	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000
Total County and Fair Revenues	$2,222,338	$2,214,651	$2,273,347	$2,078,436	$2,382,113	$3,244,128	$3,361,585	$3,469,982	$3,614,587	$3,687,532	$3,686,371	$3,682,117	$3,743,984
Expenses	($370,165)	($370,165)	($373,204)	($373,204)	($373,204)	($456,669)	($462,514)	($468,125)	($490,570)	($495,245)	($495,479)	($495,479)	($498,519)
Net Fiscal Impact	$1,852,173	$1,844,486	$1,900,143	$1,705,232	$2,008,909	$2,787,458	$2,899,071	$3,001,857	$3,124,017	$3,192,286	$3,190,891	$3,186,638	$3,245,466
Total City Plus County & Fair	**$2,555,005**	**$2,532,087**	**$2,702,121**	**$2,501,058**	**$3,247,299**	**$3,699,236**	**$4,036,993**	**$4,348,376**	**$4,573,927**	**$4,765,466**	**$4,766,016**	**$4,757,589**	**$4,935,741**

Source: Goodwin Consulting Group, Inc.

11/09/2012

Table 1
Solano360 Specific Plan
Fiscal Impact Analysis
Summary of Fiscal Impacts

Project Year	*26*	*27*	*28*	*29*	*30*	*31*	*32*	*33*	*34*	*35*	*36*	*37*	*38*
Fiscal Year	*2038-39*	*2039-40*	*2040-41*	*2041-42*	*2042-43*	*2043-44*	*2044-45*	*2045-46*	*2046-47*	*2047-48*	*2048-49*	*2049-50*	*2050-51*
Phase	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*
City													
Revenues	$2,622,035	$2,619,487	$2,617,328	$2,615,540	$2,614,105	$2,613,008	$2,612,234	$2,611,768	$2,611,597	$2,611,709	$2,612,091	$2,612,733	$2,613,625
Expenses	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)
Net Fiscal Impact	$1,681,241	$1,678,693	$1,676,534	$1,674,746	$1,673,311	$1,672,214	$1,671,440	$1,670,974	$1,670,803	$1,670,915	$1,671,297	$1,671,939	$1,672,831
County & Fair													
County Revenues	$1,722,662	$1,719,746	$1,717,236	$1,715,112	$1,713,355	$1,711,950	$1,710,880	$1,710,130	$1,709,687	$1,709,537	$1,709,669	$1,710,069	$1,710,729
Fair Revenues	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000
Total County and Fair Revenues	$3,737,662	$3,734,746	$3,732,236	$3,730,112	$3,728,355	$3,726,950	$3,725,880	$3,725,130	$3,724,687	$3,724,537	$3,724,669	$3,725,069	$3,725,729
Expenses	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)
Net Fiscal Impact	$3,239,143	$3,236,228	$3,233,717	$3,231,593	$3,229,837	$3,228,431	$3,227,361	$3,226,612	$3,226,169	$3,226,019	$3,226,150	$3,226,551	$3,227,210
Total City Plus County & Fair	**$4,920,384**	**$4,914,920**	**$4,910,251**	**$4,906,339**	**$4,903,148**	**$4,900,646**	**$4,898,801**	**$4,897,586**	**$4,896,972**	**$4,896,934**	**$4,897,447**	**$4,898,490**	**$4,900,041**

Source: Goodwin Consulting Group, Inc.

Table 1
Solano360 Specific Plan
Fiscal Impact Analysis
Summary of Fiscal Impacts

Project Year	*39*	*40*	*41*	*42*	*43*	*44*	*45*	*46*	*47*	*48*	*49*	*50*
Fiscal Year	*2051-52*	*2052-53*	*2053-54*	*2054-55*	*2055-56*	*2056-57*	*2057-58*	*2058-59*	*2059-60*	*2060-61*	*2061-62*	*2062-63*
Phase	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*	*Buildout*
City												
Revenues	$2,614,756	$2,616,119	$2,617,703	$2,619,501	$2,621,506	$2,623,711	$2,626,109	$2,628,693	$2,631,459	$2,634,401	$2,637,513	$2,640,791
Expenses	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)	($940,794)
Net Fiscal Impact	$1,673,962	$1,675,325	$1,676,909	$1,678,707	$1,680,712	$1,682,917	$1,685,315	$1,687,899	$1,690,665	$1,693,607	$1,696,719	$1,699,997
County & Fair												
County Revenues	$1,711,637	$1,712,783	$1,714,160	$1,715,758	$1,717,570	$1,719,588	$1,721,805	$1,724,216	$1,726,813	$1,729,591	$1,732,545	$1,735,671
Fair Revenues	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000	$2,015,000
Total County and Fair Revenues	$3,726,637	$3,727,783	$3,729,160	$3,730,758	$3,732,570	$3,734,588	$3,736,805	$3,739,216	$3,741,813	$3,744,591	$3,747,545	$3,750,671
Expenses	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)	($498,519)
Net Fiscal Impact	$3,228,118	$3,229,265	$3,230,641	$3,232,239	$3,234,051	$3,236,069	$3,238,287	$3,240,697	$3,243,294	$3,246,073	$3,249,027	$3,252,152
Total City Plus County & Fair	**$4,902,080**	**$4,904,589**	**$4,907,550**	**$4,910,947**	**$4,914,763**	**$4,918,986**	**$4,923,601**	**$4,928,596**	**$4,933,959**	**$4,939,679**	**$4,945,746**	**$4,952,149**

Source: Goodwin Consulting Group, Inc.

11/09/2012

APPENDIX D: Solano360 General Plan Amendments

SOLANO360 GENERAL PLAN AMENDMENTS
December 7, 2011

The following represents amendments to the City of Vallejo General Plan.

I. Scope and Use of the Plan

Page I-1, amend fourth paragraph to recognize Solano360 Specific Plan Area. Text to read:

The existing Solano County Fairgrounds will be redeveloped as the Solano360 Specific Plan Area. References to the Solano360 Specific Plan Area in this document include both the public land uses specific to the Solano Fair of the Future and private land uses targeted for market development. Fair parcels are subject to the City of Vallejo General Plan but are owned and operated by Solano County and Solano County Fair Association.

Part II – Summary of Goals and Objectives

Page II-1, amend Urban Design Goal 1, by adding Urban Design Policy 7 to recognize the Solano360 Specific Plan. Text to read:

7. *Use a specific plan as the guide for re-use and development of the Solano County Fairgrounds. The Solano360 Specific Plan shall address and promote the development of mixed-use entertainment, mixed-use commercial and fair uses to create a thematic entertainment district that caters to specialty activities not found within the City of Vallejo or the greater region.*

Page II-2, amend Urban Design Goal 3, by adding Urban Design Policy 6. Text to read:

6. *The Solano360 Specific Plan Area will serve as a specialty entertainment and retail district, compatible with Six Flags Discovery Kingdom and the Solano County Fair. Amenities located in the Plan Area will include unique and specialty options not found within the region.*

Page II-7: Commercial Development Goals; delete Commercial Development Goal 3, policy 2 and add new policy 2:

~~*2. Consider the feasibility of tying in the office center with a convention center on the Fairgrounds property.*~~

2. Consider the feasibility of developing complimentary commercial uses in the Northeast Quadrant with the Solano360 Specific Plan Area.

Page II-8, Commercial Development Goals; add new Commercial Development Goal 8 and associated policies:

Commercial Development Goal 8: To promote the use of the Solano360 Specific Plan that encourages a mix of commercial entertainment related uses that will become unique commercial assets for the City of Vallejo.

Policies

1. *Use the Solano360 Specific Plan to guide new commercial development in the private parcels of the Solano360 Specific Plan Area in a manner that emphasizes specialty and thematic entertainment land uses.*

Page II-11, Transit Goal: To have a transit system that results in a significant increase in transit usage especially among commuters and better service for transit dependent residents; add new policy 7

7. *The City shall promote the use of the Solano360 Transit Center as a viable option for regional commuter transit use.*

Page II-12, Non-Motorized Transportation Goal: To have facilities that encourages greater use of bicycles for recreation, commuting and shopping; add new policy 7

7. *The City shall integrate the existing Vallejo Bicycle Route Plan with the Solano360 bicycle route system and parking facilities as a viable option for Plan Area access.*

Part III – Land Use Element

Page III-5: B. Urban Design, add fourth bullet: 4. Solano360 Specific Plan Area and associated language.

- The Solano360 Specific Plan Area will create a unique place with an unmistakable identity that serves as a destination for visitors as well as a pedestrian-friendly, community gathering places. The Solano360 Specific Plan Are will combine a mix of complementary land uses, including retail, commercial, hospitality, recreational, residential, family and youth oriented, educational and civic uses that seamlessly integrate with the "Fair of the Future". The Specific Plan Area will generate revenues for Solano County and the City of Vallejo, creating jobs and ensure long-term economic sustainability.

Page III-6: Urban Design Goal 1: To establish a strong city identity; add new policy 6

6. *Use the Solano360 Specific Plan to evaluate projects proposed within this area.*

Page III-6: Urban Design Goal 3: To have attractive, exciting shopping areas; add new policy 8

8. *The Solano360 Plan Area is designed as a destination entertainment center for specialty retail, restaurant and thematic entertainment uses.*

Page III-15, F. Commercial Development: 1. Major Commercial Areas; edit introductory paragraph; add Solano360 Specific Plan Area definition.

There are ~~six~~ seven major commercial sites on the Plan Map: 1) Downtown; 2) Northeast Quadrant along I-80 between Columbus and Redwood Parkways; 3) Vallejo Plaza area; 4) Tennessee Street between Mare Island Way and Tuolumne Street intersection; 5) Springs Road between I-80 and Columbus Parkway; 6) Mare Island and 7) Solano360 Specific Plan Area.

It is proposed that the ~~six~~ seven major commercial areas described above be delineated as follows:

SOLANO360 SPECIFIC PLAN AREA: The existing Solano County Fairgrounds will be redeveloped to include uses for the "Fair of the Future" and parcels intended for Entertainment Mixed-Use and Entertainment Commercial uses providing specialty retail and shopping experiences. These commercial uses will also be compatible with the existing Fair and Six Flags Discovery Kingdom.

Page III-19, Commercial Development Goals; edit existing Commercial Development Goal 3 policy 2:

~~2. Consider the feasibility of tying in the office center with a convention center on the Fairgrounds property.~~

2 Consider the feasibility of developing complimentary commercial uses in the Northeast Quadrant with the Solano360 Specific Plan Area.

Page III-20, Commercial Development Goals; add new Commercial Development Goal 8 and associated policies:

Commercial Development Goal 8: To promote the use of the Entertainment Mixed-Use and Entertainment Commercial Parcels in the Solano360 Specific Plan Area as unique commercial assets for the City of Vallejo.

Policies

1. *Use the Solano360 Specific Plan to guide new commercial development in the Solano360 Specific Plan Area in a manner that emphasizes specialty and thematic entertainment land uses.*

2. *Utilize the unique entertainment and thematic land use patterns adjacent to and within the Solano360 Specific Plan Area in evaluating new commercial development.*

3. *Develop development standards and flexible land use guidelines for commercial development in the Solano360 Specific Plan Area*

Page III-27: add a Commercial Recreation designation for the Solano360 Specific Plan Area including the land use designations and standards:

Amend the General Plan Land Use Map replacing the Open Space – Community Park designation with Commercial

Recreation (see Exhibit A).

Solano360 Land Use Designations:
The following land use designations apply to the Solano360 Specific Plan Area:
Commercial Recreation
The purpose of the Commercial Recreation designation for the Solano360 Specific Plan Area is to create and establish regulations for a mixed use district in which recreational land uses such as the fair, as well as entertainment, commercial and/or office uses are developed as an integral unit. All uses shall complement and enhance each other and their diversity shall be unified by an overall design concept. The intent of this district is to implement the policies of the Vallejo General Plan that call for the establishment of specific areas where flexibility of design and development of diverse land use is appropriate for the benefit of the city as a whole.

IV. Circulation and Transportation Element
Page IV-9, Transit Goal: To have a transit system that results in a significant increase in transit usage especially among commuters and better service for transit dependent residents; add policy 7
7. The City shall promote the Solano360 Transit Center as a viable alternative for park and ride commuter transit and as alternative transit access for visiting the Solano360 Plan Area and Six Flags Discovery Kingdom.

XII. Action Program
Page XII-1, Action Program, B. Specific Area Plans and Special Studies; amend language as follows:
Beside the five area plans completed in the late 1970's, specific plans have been prepared for Sky Valley, Northgate, White Slough, Downtown, Mare Island, and the Solano360 Specific Plan Area.

XIII. Economic Element
Page 10, Citywide Goals and Policies, Goal 4: Increase Workforce Preparedness of Vallejo Residents, amend last paragraph to include text specific to Solano360.
Create Citywide First Source Hiring Program Building Upon Mare Island Program: Creation of a First Source Hiring program to prioritize and assist in hiring Vallejo citizens was called for in the Economic Vision. Developers and tenants on Mare Island are already obligated to target Vallejo residents for job openings. The City could support diverse First Source hiring programs and other programs targeting geographic, linguistic, and culturally diverse populations or create a centralized City-sponsored program that could be implemented citywide. *The City shall promote financial incentives for prospective developers of the Solano360 Specific Plan Area that support First Source hiring programs of Vallejo citizens.* Some cities have initiated this type of effort by tying it to receipt of City financial subsidies, with great success.

Page 11, Citywide Goals and Policies, Goal 5: Expand Visitor Attractions and Services, add new Policy 9.
Policy 9: *Support development of recreation, specialty entertainment retail, commercial and restaurant uses in the Solano360 Specific Plan Area.*
Page 12, Citywide Goals and Policies, Goal 5: Expand Visitor Attractions and Services, add new language to Implementation Strategies.
Increase Physical and Transportation Links between Key Sites, add new last sentence: *Promote public transit and bicycle access routes to the Solano360 Specific Plan Area.*
Provide Vallejo Specific Visitors Guide - Create a visitors guide that provides for one-day and multiple day tours of historic features, waterfront, and local museums (including emerging attractions on Mare Island *and in the Solano360 Specific Plan Area*). Police and visitor docents can distribute these, as well as shops display them.

Page 23, Goals and Policies for Focused Economic Activity Areas, Goal 10: **Develop North Vallejo as a Premier Visitor and Resident Gateway**, edit Policy 2 to include language specific to Solano360 Plan Area.
Policy 2: Encourage and support year-round utilization of the ~~fairgrounds property~~ *Solano360 Specific Plan Area* to enhance visitor attraction, support a gateway image, and provide highest economic return to Vallejo.

Page 23, Goals and Policies for Focused Economic Activity Areas, Goal 10: **Develop North Vallejo as a Premier Visitor and Resident Gateway**, edit language in third paragraph under Background section.

The Solano County Fairgrounds ~~is moving forward with the preparation of a master plan for~~ *will be redeveloped as part of the Solano360 Specific Plan Area* ~~reuse and economic self-sufficiency, with a preferred alternative being developed~~. *The existing Fairgrounds will undergo a phased renovation and development of new facilities and structures to achieve economic self-sufficiency.* The City, through its land use jurisdiction over the site, ~~has communicated its preference for maximizing economic return to Vallejo and its residents~~ *will collaborate with Solano County to assist in the phased redevelopment of private portions of the Fairgrounds site in efforts to maximize the economic return to Vallejo and it residents.* .

Page 24, Goals and Policies for Focused Economic Activity Areas, Goal 10: **Develop North Vallejo as a Premier Visitor and Resident Gateway**, edit first bullet under Potential Implementation Strategies section.

Potential Implementation Strategies

The City has key roles to play in directing development in North Vallejo, including:

- Active partnership with *Solano County and the* Solano County Fair Board and private developers to ~~reuse~~ *redevelop* the fairgrounds *as the Solano360 Specific Pan.*

APPENDIX E: Solano360 Plant Palette

Trees

Scientific Name	Common Name	Suggested Use	Characteristics	Source
Acer rubrum 'Autumn Flame'	Flame Red Maple	Street tree	To 60' tall and 40' wide	City of Vallejo
Acer rubrum 'October Glory'	October Glory Maple	Street tree	To 60' tall and 40' wide	City of Vallejo
Aesculus californica	California Buckeye	Accent Tree	Native, drought-tolerant, to 20' tall and 30' wide	City of Vallejo, EBMUD
Arbutis menziesii	Madrone	Shade tree, accent tree or large shrub	Native, drought-tolerant, 20'-100' tall	EBMUD
Arbutus unedo	Strawberry Tree	Accent Tree	Drought tolerant, to 35' tall	City of Vallejo, EBMUD
Carpinus betulis fastigiata	Upright European Hornbeam	Street tree	To 40' tall	City of Vallejo
Celtis australis	European Hackberry	Street tree	40'-80' tall, 30'-35' wide	City of Vallejo
Cercis canadensis	Eastern Redbud	Street tree	25'-35' tall and wide	EBMUD
Cercis occidentalis	Western Redbud	Accent tree or large shrub	Native, drought-tolerant, 10'-18' tall and wide	City of Vallejo
Citrus sinensis 'Valencia'	Valencia Orange	Agricultural, accent	Evergreen, 20'-25' tall	Sunset Western Garden Book
Citrus x limon 'Lisbon'	Lisbon Lemon	Agricultural, accent	Evergreen, 20'-25' tall	Sunset Western Garden Book
Eriobotrya deflexa	Bronze Loquat	Accent tree	15'-30' tall, drought-tolerant	EBMUD
Ficus carica 'Black Mission'	Black Mission fig	Agricultural, accent	15'-30' tall	Sunset Western Garden Book
Fraxinus oxycarpa	Raywood / Ash Flame	Street tree	To 40', drought-tolerant	EBMUD
Gingko biloba 'Autumn Gold'	Gingko (male)	Street tree	30'-50' tall, drought tolerant	EBMUD, City of Vallejo
Juglans regia	Walnut	Agricultural, accent	To 60' tall and wide	Sunset Western Garden Book
Koelreuteria bipinnata	Chinese Flame Tree	Accent tree	20'-40' tall and wide, drought-tolerant	EBMUD
Koelreuteria paniculata	Goldenrain Tree	Accent tree	20'-30' tall, 25'-40' wide, drought-tolerant	EBMUD
Laurus nobilis 'Saratoga'	Sweet Bay	Accent tree	12'-40' tall and wide, drought-tolerant	EBMUD
Olea europaea	Olive	Agricultural, accent, street tree	Drought-tolerant, 25'-30' tall	EBMUD, Sunset
Pistacia chinensis	Chinese Pistache	Street tree	30'-60' tall and wide	City of Vallejo, EBMUD
Platanus x acerifolia 'Bloodgood'	London Plane Tree	Street tree	40'-80' tall, 30'-40' wide	EBMUD, City of Vallejo
Platanus racemosa	California Sycamore	Riparian or shade tree	Native, 30-80' tall, 20'-50' wide	EBMUD
Prunus dulcis	Almond	Agricultural, accent	20-30' tall	Sunset Western Garden Book
Prunus sargentii	Columnar Flowering Cherry	Accent Tree	40'-60' tall and wide	Sunset Western Garden Book
Prunus 'French Prune'	Prune	Agricultural, accent	30' tall, 25' wide	Sunset Western Garden Book
Pyrus calleryana 'Aristocrat'	Aristocrat Pear	Street tree	50' tall and wide	City of Vallejo
Quercus agrifolia	Coast Live Oak	Street or shade tree	Native, drought-tolerant, 20'-70' tall, evergreen	EBMUD
Quercus coccines	Scarlet Oak	Street tree	60'-80' tall, 40'-60' wide	City of Vallejo
Quercus douglasii	Blue Oak	Shade tree	Native, drought-tolerant, 30'-50' tall, 40'-70' wide	City of Vallejo
Quercus kelloggii	California Black Oak	Shade tree	Native, drought-tolerant, 30'-80' tall and wide	EBMUD
Quercus rubra	Red Oak	Street tree	60'-75 tall, 50' wide	City of Vallejo
Quercus suber	Cork Oak	Street tree	Drought-tolerant, 30'-60' tall and wide, evergreen	City of Vallejo
Tilia cordata	Linden	Shade or street tree	30'-50' tall, 15'-30' wide	City of Vallejo
Tristania laurina	Laurina Box	Accent Tree	To 45' tall, 30' wide	City of Vallejo
Umbelluraria californica	California bay	Shade or accent tree	Native, 20'-25' tall and wide, drought-tolerant	EBMUD

Shrubs / Groundcovers / Perennials

Scientific Name	Common Name	Characteristics	Source
Arbutus unedo	Strawberry Tree	Drought tolerant, to 35' tall	City of Vallejo, EBMUD
Arctostaphylos spp.	Manzanita species	Native, drought-tolerant	Sunset Western Garden Book
Arctostaphylos densiflora 'Howard McMinn'	Howard McMinn Manzanita	Native, drought-tolerant, 5'-6' tall	Sunset Western Garden Book
Baccharis pilularis 'Twin Peaks No. 2'	Dwarf Coyote Brush	Native, drought-tolerant, 8"-24" tall	Sunset Western Garden Book
Ceanothus spp.	California lilac	Native, drought-tolerant	City of Vallejo
Cynara scolymus	Artichoke	Drought-tolerant, ornamental flower	Sunset Western Garden Book
Echinacea purpurea	Purple Cone Flower	Perennial, drought-tolerant, 4' tall	City of Vallejo
Epilobium canum	California Fuchsia	Native, drought-tolerant, 1'-2' tall	City of Vallejo, EBMUD
Eriogonum crocatum	Saffron Buckwheat	Drought-tolerant, 18" tall	EBMUD
Escallonia 'Frades'	Frades Escallonia	Drought-tolerant, 5'-6' tall	EBMUD
Eschscholzia californica	California poppy	Native, drought-tolerant, 6"-12" tall	EBMUD
Garrya elliptica	Silktassel	Native, drought-tolerant, 10'-20' tall	EBMUD

Juniperus spp.	Prostate Juniper	Drought-tolerant	Sunset Western Garden Book
Lavandula spp.	Lavender	Drought-tolerant	City of Vallejo
Lupinus arboreus	Lupine	Native, drought-tolerant. 5'-8' tall	City of Vallejo, EBMUD
Myrica californica	Pacific Wax Myrtle	Native, drought-tolerant, 10'-30' tall	Sunset Western Garden Book
Penstemon spp.	Penstemon	Native, drought-tolerant	City of Vallejo, EBMUD
Pittosporum tobira 'Wheelers Dwarf'	Wheelers Dwarf Pittosporum	Drought-tolerant, 2'-3' tall	EBMUD
Polystichum munitum	Western Sword Fern	Native, drought-tolerant, 2'-4' tall	City of Vallejo
Punica granatum'Wonderful'	Pomegranate	Drought-tolerant, 15'-20' tall and wide	EBMUD
Rhamnus california 'Eve Case'	Coffeeberry	Native, drought-tolerant, 3'-15' tall	EBMUD
Rhaphiolepis indica	Indian Hawthorn	Drought-tolerant, 4'-5' tall	EBMUD
Rosa californica	California wild rose	Native, drought-tolerant, 3' tall	EBMUD
Rosmarinus officialis	Rosemary	Drought-tolerant, 1'-5' tall depending on variety	City of Vallejo
Salvia spp.	Sage	Drought-tolerant, 2'-5' tall	City of Vallejo
Solidago californica	Goldenrod	Native, drought-tolerant, 1'-4' tall	EBMUD

Vines

Scientific Name	Common Name	Characteristics	Source
Bougainvillea cultivars	Bougainvillea	Drought-tolerant	EBMUD
Clematis armandii	Evergreen Clematis	Drought-tolerant	EBMUD
Hardenbergia violacea	Lilac vine	Drought-tolerant	EBMUD
Jasminum polyanthum	Pink jasmine	Drought-tolerant	EBMUD
Vitis californicus	California grape	Native, drought-tolerant	City of Vallejo
Vitis vinifera	Grape	Important agricultural staple of Solano County	EBMUD
Wisteria sinesis	Chinese Wisteria	Drought-tolerant	EBMUD, City of Vallejo

Native Grasses

Scientific Name	Common Name	Characteristics	Source
Festuca californica	California Fescue	Native, drought-tolerant, 1'-2' tall	EBMUD
Festuca idahoensis	Idaho Fescue	Native, drought-tolerant, 1'-2' tall	EBMUD
Melica spp.	Melic	Native, drought-tolerant, 1'-2' tall	EBMUD
Muhlenbergia rigens	Deer Grass	Native, drought-tolerant, 3' tall	EBMUD

Lawn

Scientific Name	Common Name	Characteristics	Source
City or County Standard Sod Blend			

Alternative Lawn Plants

Scientific Name	Common Name	Characteristics	Source
Achillea tomentosa	Woody Yarrow	Drought-tolerant, forms flat, spreading mat	Sunset Western Garden Book
Chamaemelum nobilis	Chamomile	3"-12" tall spreading mat	Sunset Western Garden Book
Thymus sp.	Creeping Thyme	Drought-tolerant	City of Vallejo

Plants for the Water Feature Area, Fairgrounds Channel, and Bioswales

Scientific Name	Common Name	Characteristics	Source
Artemisia douglasiana	Mugwort	Native	First Carbon Solutions
Anemopsis californicus	Yerba Mansa	Native, 1' tall, white flowers	PACE Water Engineering
Carex elata 'Aurea'	Sedge	2.5' tall, will grow in standing water	Sunset Western Garden Book
Carex praegracilis	Clustered Field Sedge	Native, 2.5' tall	PACE Water Engineering
Cyperus eragrostis	Tall Flatsedge	Native	First Carbon Solutions
Distichlis spicata	Salt Grass	Native	First Carbon Solutions
Eleocharis palustris	Spike Rush	Native, 3' tall	SWA Group
Elymus triticoides	Beardless Wild Rye	Native	First Carbon Solutions
Iris brevicaulus	Iris	To 1' tall, for water edge	Sunset Western Garden Book
Iris giganticaerulea	Iris	4' tall, for water edge	Sunset Western Garden Book
Iris laevigata	Japanese Iris	3"-4" water depth	SWA Group
Juncus acutus	Spiny Rush	Native	First Carbon Solutions
Juncus balticus	Baltic Rush	Native, 3' tall	PACE Water Engineering
Juncus bufonius	Toad Rush	Native	First Carbon Solutions
Juncus effusus	Soft Rush	Native, for water edge, 3' tall	PACE Water Engineering
Juncus patens	California Grey Rush	Native, 2' tall, shallow water	Sunset Western Garden Book
Lobelia cardinalis	Cardinal Flower	Native, 4' tall, tall flower spikes	PACE Water Engineering
Sagittaria latifolia	Broadleaf Arrowhead	Native, water-loving, 1'-4' tall	SWA Group
Salix spp.	Willow	A variety of natives should be selected	EBMUD
Satureja mimuloides	Orange Savory	Native, 2' tall, Orange flowers	PACE Water Engineering
Scirpus californica	California Bulrush	Native, water-loving, to 6' tall	SWA Group
Scirpus maritimus	Alkalai Rush	Native, 3' tall, tolerates salty conditions	PACE Water Engineering
Stachys chamissonis	Magenta Butterfly Flower	water	PACE Water Engineering
Stipa pulchra	Purple Needle Grass	Native	First Carbon Solutions

Suggested Agriculture Plant Species for Demonstration Farm and around the Fair

Trees:

Almond, Walnut, Cherry, Olive, Fig, Apple, Prune, Orange, Lemon, Pomegranate, Persimmon

Ground crops:

Grapes, tomatoes, sunflowers, artichokes, beans, squash, melons, corn, brussels sprouts, cucumbers, potatoes, strawberries, pumpkins, and other edibles.

APPENDIX F: Technical Memo on Water Feature (Manmade Lake)

Pace Engineering, August 2012

Technical Memorandum

Date: August 23, 2012

To: Chris Ragan/MacKay & Somps

From: Sonny O. Sim, PE
Ron Rovansek, PE

Re: Evaluation of a 5.4-Acre Manmade Lake System "Solano 360" – Solano, CA # 9366E

Introduction

The purpose of this technical memorandum is to provide an overview of how the proposed lake will function and issues associated with building a manmade lake.

Table 1 – Summary of Manmade Lake Properties	
Operating Volume	10.4 Million Gallons
Depth	8 feet
Perimeter	4,500 feet
Lake Bottom Slope	4:1
Surface Area	5.4 acres
Liner	Soil liner or Geomembrane

Impacts of Urban Runoff on Receiving Waters

Urban developments such as the proposed project are known to create increased runoff with increased loads of pollutants compared to undeveloped or natural conditions. The current conditions of the fairground are similar in nature to the proposed conditions; both have paved parking lots, and maintained lawns (i.e. the golf course). Therefore, we anticipate no significant increases in pollutants loads associated with runoff. In the proposed condition, all runoff from the site will be routed through the proposed onsite manmade lake, which will serve as a stormwater treatment BMP for the runoff. BMP's described in this memo are to maintain the water quality within the lake (i.e. aeration, biofilters, etc.). One water quality concept that the lake will provide for the project that is consistent with the Municipal Regional Permit (MRP) is the ability to harvest and reuse stormwater runoff. The design of the lake is intended to provide good water quality at all times to the maximum extent practicable so that any excess runoff to the lake will result in the discharge of relatively clean lake water to the receiving water downstream. Thus we anticipate a decrease in urban runoff pollutants discharged to the receiving water as a result of the proposed project.

Impact to Stream Flow and/or Groundwater

Rindler Creek enters the project site and will be routed around the proposed onsite lake via an existing channel that will be improved, to discharge into Lake Chabot. Therefore the proposed lake will not have an impact on stream flow in Rindler Creek. We anticipate no significant impact to groundwater caused by the onsite lake or by the project. The lake has the potential to impact groundwater levels by either discharging to the groundwater or becoming a point of groundwater discharge to the surface. Because of this, an impermeable or very low permeability liner is planned for the lake bottom. This will minimize water

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P: (714) 481-7300 F: (714) 481-7299 | www.pacewater.com

SOLANO 360

OVERALL LAKE SYSTEM EXHIBIT 1 08/21/12

LEGEND

LAKE EDGE	AERATION VALVE BOX
RECIRCULATION LINES	AERATION BUBBLE DIFFUSER
EQUALIZER LINE	BIOFILTER
SUCTION LINE	WETLAND PLANTER
AERATION LINE	BIOFILTER FLOW
AERATION TUBING	

LAKE DATA

LAKE	1	2	TOTAL
VOLUME (ACRE FEET)	19.0	12.9	31.9
SURFACE AREA (ACRE)	3.26	2.12	5.38
LENGTH OF SHORELINE (FEET)	2,965	1,635	4,500
PLANTER LENGTH (FEET)	417	363	780

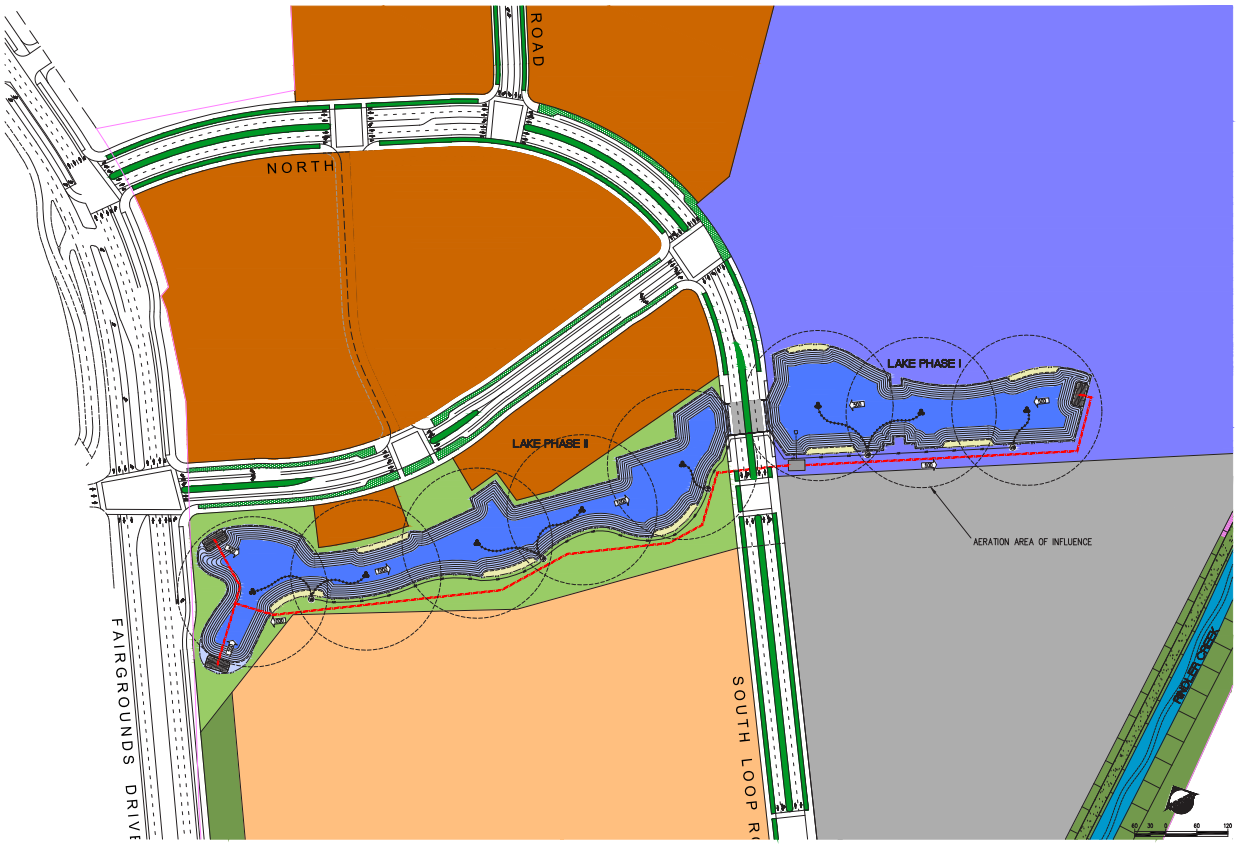
AERATION

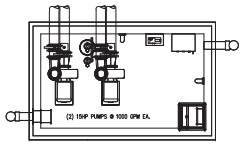
AVERAGE LAKE DEPTH (FEET)	4'
NUMBER OF TURNOVERS (PER DAY)	4
CFM REQUIRED	11
TOTAL NUMBER OF AERATION PODS	8

BIOFILTRATION

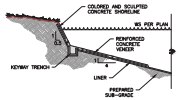
VOLUME (GALLONS OF GALLONS)	9,700,000
BIOFILTER FLOW TURN OVER (HOURS)	107
TOTAL BIOFILTER FLOW RATE (GPM)	1,500
TOTAL BIOFILTER AREA (SF)	3,000
BIOFILTER BACKWASH METHOD	GRAVITY

NOTE: LAKE DATA IS PRELIMINARY.

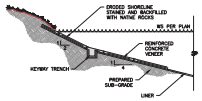




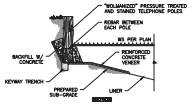
PUMP STATION - PLAN VIEW
DETAIL A



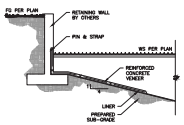
ERODED CONCRETE SHORELINE
DETAIL B



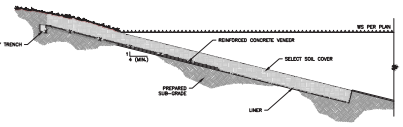
NATURAL SHORELINE
DETAIL C



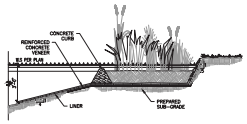
BOLLARD SHORELINE
DETAIL D



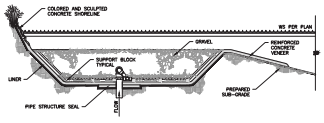
BULKHEAD SHORELINE
DETAIL E



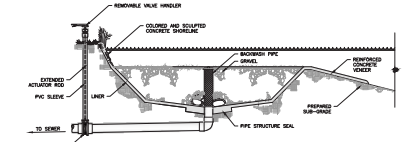
GRASS SHORELINE
DETAIL F



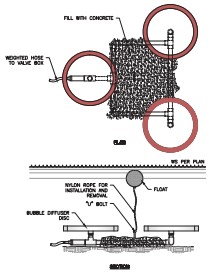
PLANTER SHELF SHORELINE SECTION
DETAIL G



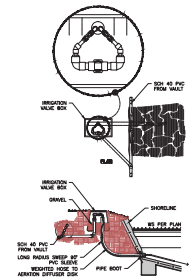
BIOFILTER AT ERODED CONCRETE SHORELINE
DETAIL H



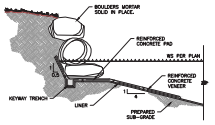
BIOFILTER WITH BACKWASH PIPING
DETAIL J



AERATION BUBBLE DIFFUSER
DETAIL M



AERATION VALVE BOX
DETAIL L



BOULDER WALL
DETAIL K

loss to the soil and thus reduce the need for fill water while minimizing impacts on groundwater to the maximum extent practicable. No significant interaction between the lake and groundwater is expected. In addition, there is a large existing reservoir nearby, and any impacts of the proposed lake would be similar but much smaller than the impacts of the existing reservoir.

Mosquitoes in Manmade Lakes and Water Features

The lake will be constructed with several design features specifically designed to limit the available habitat for mosquito breeding. Mosquito production is a concern for any body of water. There are many species of mosquito in California, but typically only a few create most of the problems in developed areas. These problem mosquitoes breed in stagnant, polluted waters which lack fish or other predators that prey on the defenseless aquatic mosquito larvae. Typical mosquito breeding locations include small pools of water in tires, un-maintained bird baths, trash such as paper cups or cans, or areas where leaking or poorly adjusted irrigation systems create persistent pools of water. Large, clean bodies of water such as well maintained lakes do not typically support significant mosquito populations. The lake at the Solano County Fairgrounds will be constructed with hardened edges, deep water in emergent wetlands, and water quality systems, all of which eliminate mosquito breeding habitat. The edges of the lake will consist of different engineered concrete shorelines and bulkheads. Some of these shorelines will be constructed with roughened surfaces and include natural rock to mimic the appearance of a natural shoreline. In contrast to many natural shorelines, however, the hardened shoreline will provide little extremely shallow water less than a few inches deep that could allow mosquito larvae to survive while excluding fish and other larval predators. Similarly, emergent wetlands within the lake will be designed with a minimum of approximately 6 inches of water. This will allow fish and other predators of mosquito larva access to the wetlands where they will effectively eliminate mosquito larvae. Another feature of the lake that will minimize mosquito production is the excellent water quality. Clean water not only supports fish and other predators but also renders the lake unattractive to many of the most troublesome species of mosquitoes. Finally, the large open water surface will result in ripples and waves that will make survival difficult for mosquito larvae. Overall the lake will provide very little suitable habitat for mosquito larvae and will support healthy populations of mosquito predators, and very few mosquitoes will successfully breed in the lake.

Other Vectors and Nuisance Animals

In the same way that mosquitoes spend part of their lives in and out of aquatic environments, other insects have a similar life history and can inhabit manmade ponds or water features. Some of these insects can occur in numbers that can create a nuisance; however, none of them bites humans, transmits disease, or is attracted to humans the way mosquitoes are.

Midges are small flying insects that begin life in the waters and sediments of ponds, lakes and rivers. Upon reaching adulthood, midges emerge from the water and embark on courtship flights, typically over or near the water in which they were born. These courtship flights take the form of groups of midges flying in masses that hover in a location and often occur near dusk. These flights generally happen near the water, and in some cases occur over trails frequented by people. These masses of midges are not attracted to people, but when a person happens to walk into the mass of midges it is easy to mistake the courtship flight for an organized attack; a midge looks very much like a mosquito. It is interesting to note that reports of thick swarms of mosquitoes are often due to flights of midges.

Midges occur in clean waters, and abundant midges are an indication of a healthy lake. Although midges represent an important part of the aquatic food chain, in many cases predators do not easily control their numbers, and chemical control of midges with pesticides is generally not feasible or desirable, making the control of midges difficult.

Midges are attracted to lights, so careful design of lighting near the pond may offer the best hope for controlling the interaction between people and midges. Elevated lights along lakeside paths should not be placed directly above path intersections. It is not possible to predict exactly where midges will choose to

gather in relationship to lights, but by offsetting the lights slightly from paths the chances that midges will gather directly over paths can be reduced. Alternate lighting designs such as lights placed near ground level may help reduce nuisance created by midges.

Offensive Odors

Offensive or unpleasant odors will not be present at the lake because the lake will have excellent water quality at all times and will be well aerated throughout the lake. Odors associated with lakes are typically released under conditions of low dissolved oxygen in the water and are associated with large blooms of algae, especially blue-green algae, or anaerobic lake-bottom sediments. The lake will be equipped with several water quality maintenance systems such as wetlands, aquatic vegetation, and control of inflows, to prevent large algae blooms by limiting the amount of available nutrients in the water. In addition, the lake will be constantly aerated by a mechanical aeration system that will eliminate stratification and maintain the dissolved oxygen near the saturation point throughout the water column. This will prevent the discharge of unpleasant odors from lake bottom sediments and prevent drops in dissolved oxygen content caused by the growth or die-off of algae in the lake. Many similarly designed lakes have been operated for years without offensive odor problems.

Make-up Water

Source
The "make-up" water to maintain the normal operating lake water level will be pumped primarily from the existing non-potable supply from Lake Chabot. If Lake Chabot water levels cannot support the new lake for make-up water, then a potable water supply connection to the lake will be used to maintain the new lake water level.

An analysis of the water quality of Lake Chabot as it relates to make-up water has not been completed at this time. This issue will need to be evaluated with future stages of the project. If it proves to be infeasible to use Lake Chabot water the specific plan also references that make-up water could come from other sources (i.e. the raw water pipe that delivers North Bay Aqueduct water to Blue Rock Springs, groundwater or potable water from the City).

Water Balance
We conducted a preliminary water balance analysis taking into account water inflow and outflow to and from the lake. Table 2 summarizes the results. The inputs of water to the lake include direct precipitation, non irrigated runoff, and irrigated runoff. Approximately 8 acre feet of water is anticipated as direct precipitation onto the lake surface area. Non irrigated areas include buildings, parking lots, roads, etc. that does not require water for irrigation. The area of non irrigated runoff is approximately 104 acres and is expected to produce 48 AF and is routed to the lake. 45 acres of the site will be irrigated and the runoff expected to be conveyed to the lake is approximately 7 AF annually. We did not take into account drought conditions for this water balance analysis. The total annual input is 64 AF.

Water leaving the lake (output) includes lake evaporation and irrigation water taken from the lake. Based on the results displayed in Table 2, July is the peak make-up water demand month. Assuming average monthly precipitation conditions for July and no nuisance flow into the lake, the lake average monthly evaporation rate is approximately 3.0 AF, and the irrigation demand is 25.4 AF. The net make-up water necessary to sustain lake level taking into account all inputs and outputs is 28.4 AF for the peak demand month of July. This equates to approximately 207 gpm (Minimum water supply rate), assuming continuous pumping at a duration of 24-hours per day. Typical lake level makeup is usually accomplished in a much shorter time instead of a 24 hour fill period. Normally a fill of between 4 and 8 hours is required. This is done to avoid any draw down of the lake due to low inflow rate (fill) compared to outflow due to irrigation. However, a 207 gpm fill rate over 24 hour period with a 600 gpm irrigation rate would only result in a 1.29" draw down of the lake water level. See Table 3. This is due to the large surface area of the lake. Further analysis is required in later phases of the design.

Table 2: Water Balance Table

NO NUISANCE			INPUTS				OUTPUT	IRRIGATION		NET DEMANDS				
			Direct Precipitation	Non Irrigated Runoff	Irrigated Runoff	Total Input per Month	Lake Evaporation	Turf Irrigation	Plant Irrigation	Lake	Turf Irrigation	Plant Irrigation	Demand per Month	Overflow per Month
			(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)	(Ac-ft)
	(1)	(2)	(3)	(4a)	(4b)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Runoff Coefficient		1	0.3	0.1	-	-	-	-	-	-	-	-	-
	Irrigation Efficiency		-	-	-	-	-	0.7	0.9	-	-	-	-	-
	Plant Factor		-	-	-	-	-	0.7	0.8	-	-	-	-	-
	Area (Ac)		5	104	45	-	5	45	0	-	-	-	-	-
MONTH	PREC (in)	ET (in)												
JAN.	3.20	1.28	1.4	8.3	1.2	11.0	0.6	0.0	0.0	0.0	0.0	0.0	**0.0**	10.4
FEB.	2.85	1.72	1.3	7.4	1.1	9.8	0.8	0.0	0.0	0.0	0.0	0.0	**0.0**	9.0
MARCH	2.60	3.27	1.2	6.8	1.0	8.9	1.5	2.5	0.0	0.0	0.0	0.0	**0.0**	4.9
APRIL	1.37	4.48	0.6	3.6	0.5	4.7	2.0	11.7	0.0	0.0	9.0	0.0	**9.0**	0.0
MAY	0.66	5.58	0.3	1.7	0.2	2.3	2.5	18.5	0.0	0.3	18.5	0.0	**18.7**	0.0
JUNE	0.04	6.38	0.0	0.1	0.0	0.1	2.9	23.8	0.0	2.7	23.8	0.0	**26.5**	0.0
JULY	0.00	6.77	0.0	0.0	0.0	0.0	3.0	25.4	0.0	3.0	25.4	0.0	**28.4**	0.0
AUGUST	0.00	5.82	0.0	0.0	0.0	0.0	2.6	21.8	0.0	2.6	21.8	0.0	**24.4**	0.0
SEPT.	0.01	4.50	0.0	0.0	0.0	0.0	2.0	16.8	0.0	2.0	16.8	0.0	**18.8**	0.0
OCT.	1.56	3.09	0.7	4.1	0.6	5.3	1.4	5.7	0.0	0.0	1.8	0.0	**1.8**	0.0
NOV.	1.93	1.63	0.9	5.0	0.7	6.6	0.7	0.0	0.0	0.0	0.0	0.0	**0.0**	5.9
DEC.	4.42	1.01	2.0	11.5	1.7	15.1	0.5	0.0	0.0	0.0	0.0	0.0	**0.0**	14.7
SUM	**18.64**	**45.53**	**8**	**48**	**7**	**64**	**20**	**126**	**0**	**11**	**117**	**0**	**128**	**45**

(1) Average Monthly Precipitation in inches over a 5-yr span (2005-2010) in Napa CA. (NOTE: Napa Ca, is 8.75 mi north of Solana Fairgrounds. Data taken from Station #109 CIMIS)

(2) Average Evapotranspiration Rate in inches over a 5-yr span (2000-2004) in Napa CA. (NOTE: Napa Ca, is 8.75 mi north of Solana Fairgrounds. Data taken from Station #109 CIMIS)

(3) Direct Precipitation equals the area of the lakes multiplied by Precipitation (1)

(4a) Non Irrigated (Storm) Runoff equals the sum of all the non irrigated land use areas of the project (not including the lakes) multiplied by the Precipitation (1) and the runoff coefficient.

(4b) Irrigated (Storm) Runoff equals the sum of all the irrigated land use areas of the project (not including the lakes) multiplied by the Precipitation (1) and the runoff coefficient.

(6) Total Input per month equals the sum of (3), (4a), and (4b)

(7) Direct Evaporation equals the monthly Evapotranspiration Rate (2) multiplied by the area of the lakes.

(8) Total irrigation volume demand for turf land use = (ET - Precipitation) x (plant factor / irrigation efficiency) x irrigation turf area divide by 12 to get AC-ft.

(9) Total irrigation volume demand for plant land use = (ET - Precipitation) x (plant factor / irrigation efficiency) x irrigation turf area divide by 12 to get AC-ft.

(10) Lake Demand is the difference in Lake Inputs (6) and Outputs (7), equal to zero if Inputs exceed Outputs.

(11) Turf irrigation demand (8) minus excess water supply available from the lakes.

(12) Plant irrigation demand (9) minus excess water supply available from the Lakes after turf irrigation use (8).

(13) Sum of the direct evap. (10) and the irrigation demands (11), (12)

(14) Sum of the total input per month (6) minus the sum of the Direct Evap. (7) and the irrigation demands (8), (9). If the sum of (7), (8), (9) is greater than (6), the cell reads zero, if not ((6) - (the sum of (7), (8), (9)) is entered.

Table 3: Draw Down Table

Lake Draw Down Calculations

Version 2.0 (Revised 04-26-05) by Eric Grau

PROJECT NAME:	Solano 360
JOB NUMBER:	9366E
PROJECT LOCATION:	Vallejo, CA
PREPARED BY:	rjo
DATE:	8/21/2012

1. DATA:

Lake Surface Area:	234352	SF.	Normal Water Surface Elevation:	83.0	Feet
Irrigation Demand Rate:	600	GPM	No. of Hours of Irrigation:	8.0	Hours
Water Supply Flow Rate:	207	GPM	Irrigation Starting Time:	12:00 AM	

2.CALCULATION - HOURLY DRAW DOWN TABLE:

Time	W.S. Elev. (FT)	W.S. Drop (IN)	Change in Volume (Gallons)
12:00 AM	83.00	0.00	-
1:00 AM	82.99	0.16	23580
2:00 AM	82.97	0.32	47160
3:00 AM	82.96	0.48	70740
4:00 AM	82.95	0.65	94320
5:00 AM	82.93	0.81	117900
6:00 AM	82.92	0.97	141480
7:00 AM	82.91	1.13	165060
8:00 AM	82.89	1.29	188640
9:00 AM	82.90	1.21	176220
10:00 AM	82.91	1.12	163800
11:00 AM	82.91	1.04	151380
12:00 PM	82.92	0.95	138960
1:00 PM	82.93	0.87	126540
2:00 PM	82.93	0.78	114120
3:00 PM	82.94	0.70	101700
4:00 PM	82.95	0.61	89280
5:00 PM	82.96	0.53	76860
6:00 PM	82.96	0.44	64440
7:00 PM	82.97	0.36	52020
8:00 PM	82.98	0.27	39600
9:00 PM	82.98	0.19	27180
10:00 PM	82.99	0.10	14760
11:00 PM	83.00	0.02	2340
The delivery is insufficient			

SUMMARY:

System:	Proposed Lake	
Maximum Draw Down:	1.29	Inches
Time to Fill:	23	Hours/Day
Total Water Consumption:	288,000	Gallons/Day

NOTES:

1. Assumes completely vertical edge.
2. Irrigation demand to be verified prior to constr.
3. Supply rate to be verified prior to construction.

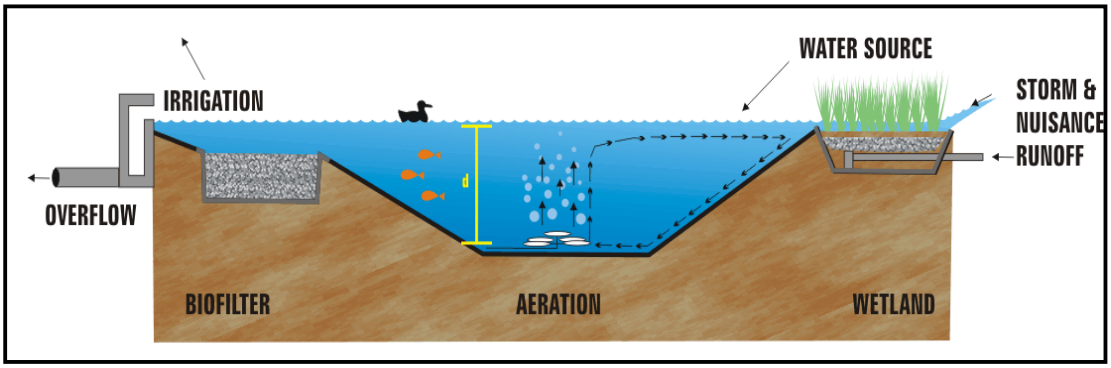
Water Quality Improvement

The new lake will have a stormwater treatment function that can utilize biologic processes for treatment of urban pollutants in runoff as well as maintaining the normal health of the aquascape system. The water quality treatment features incorporated into the new lake system includes: aeration, lake biofilters, wetland planters, and vegetated pretreatment basins or wetland filters. These features function together as an effective system to manage the urban storm runoff quality and the health of the new lake to ensure that any discharges to the adjacent Lake Chabot have an improved quality.

Treatment of runoff and management of water quality relies on re-creation of the natural chemical and biological processes within the lake system resulting from a unique combination of different layers of treatment and is schematically illustrated on (*Figure 1)*. The general treatment processes for the different target pollutants include:

1. Filtering suspended solids in pretreatment wetlands.
2. Reduced concentration of dissolved pollutants, nutrients, and salts through flushing of the lake water volume by utilizing the lake as the irrigation supply source.
3. Reduction of nutrient concentrations from inflows, Nitrogen and Phosphorous, and prevention of algal blooms by using constructed gravel biofilters bed that relies on “biological filtration.”
4. Maintaining oxygen levels through aeration promoting oxygen exchange to prevent anaerobic conditions which allows natural process to occur such as denitrification for removal of nitrogen.
5. Removal of BOD and heavy metals through wetland planters.
6. Collection of large sediments and floating debris at centralized outfall boxes to the lake system with debris collection facilities and sediment traps.
7. Pretreatment and primary control through wetland water quality filters designed as attached-growth biological reactors.

Figure 1: Stormwater Treatment and Water Quality Management Systems



a. *Water Quality Pre & Post Development*
The water quality elements work either through management of urban storm water runoff or through lake water quality maintenance to ensure that the water within the lake and any discharge from the Solano 360 development is of the same or better quality than that discharged prior to development.

b. *Aeration*
Aeration for the new lake is provided via a fine bubble diffusion system placed at the bottom of the lake. *Exhibit 1*. As air temperatures warm in the spring and summer, the upper layer(s) of the lake become warmer than the ambient lake temperature. The warmed upper layers become temporarily separated from the cooler lower layers due to density differences. Sediment and lake

oxygen demand on the lower layers deplete oxygen, which has no means of replenishment as it is separated from the atmosphere until the following autumn.

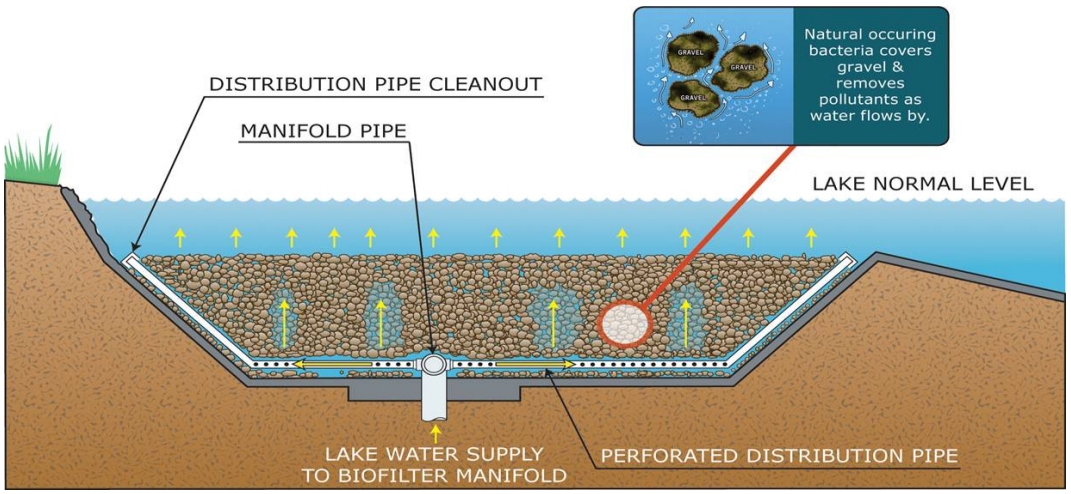
Providing compressed air to the bottom of the lake provides multiple means of the replenishing depleted oxygen. Introducing oxygen in the form of air at the bottom of the lake is achieved via 1) direct oxygen transfer from aeration-pod diffusers and 2) destratification of top and bottom liquid layers. The top of the lake (epilimnion) is exposed to the atmosphere where oxygen is transferred into solution; destratification mixes water from the epilimnion with the typically lower-oxygen hypolimnion layer. In addition to the obvious lake benefits of enhanced conditions for lake biology, specific metals are less toxic and less bio-available when oxidized. Limiting nutrient phosphorus tends to remain in its solid state in lake sediment and does not dissolve efficiently under the presence of oxygen.

Oxidized conditions within the lake column are important for aesthetic reasons. In aerobic conditions odorous compounds such as gaseous sulfur and methane will be reduced. Sulfur typically remains in a precipitated state in lake sediment under the presence of oxygen. Methane may be produced by biological fermentation under anaerobic (reduced or non-oxidized) conditions. In addition, the solubility of iron and manganese, dark colored compounds present in northern California waters, is significantly reduced under oxidized conditions. This will function to enhance water clarity and color.

c. *Biofilter*

The biofilter ponds are typically 3 to 4 feet deep, *(Figure 2)* filled with gravel media and submerged 18 to 24 inches below the lake water surface. The media provides attachment sites for activated biomass used for nutrient removal. A perforated herringbone piping network will be located beneath the media for distributed water flow upward through the media for biological treatment and physical filtration. Water will be pumped through the piping network from the recirculation system pumps *(Exhibit 1)*. Similar to a wastewater treatment nutrient removal filter, the custom gravel media biofilter is capable of high rate biological organic carbon consumption and denitrification (nitrogen conversion and removal) as compared to wetlands. Combined areas of aerobic and anoxic conditions in the biofilter, particularly on the biological flocs, provide an ideal environment for aerobic BOD reduction and nitrification and anoxic nitrate reduction. In addition, phosphorus removal via physical filtration and biological uptake has been shown in the biofilter. Coliform, an indicator of pathogens, may be effectively removed by biological predation in the media biofilters.

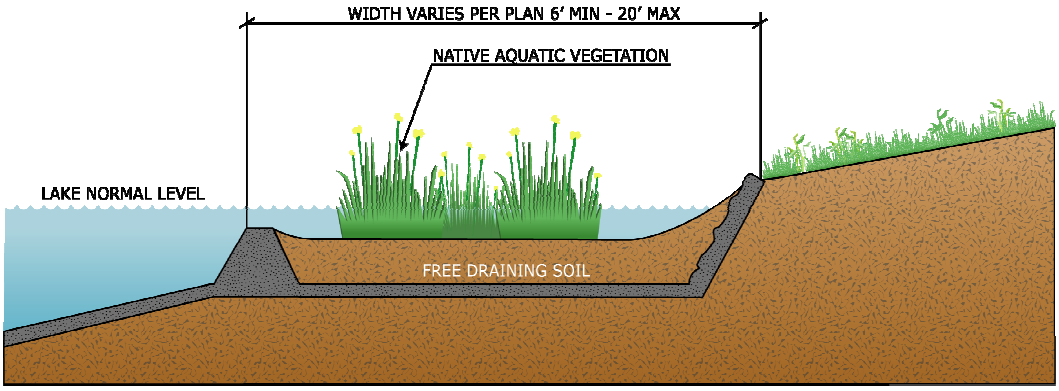
Figure 2: Biofilter System



d. *Wetlands*

Lake water quality is further enhanced and supported by submerged wetland planter areas placed along the lake edge. This water quality enhancement measures is unique and desirable in that they promote and enhance water quality through naturally occurring biological processes, as opposed to costly and potentially environmentally harmful chemical treatment systems. (*Figure 3*)

Figure 3: Planter

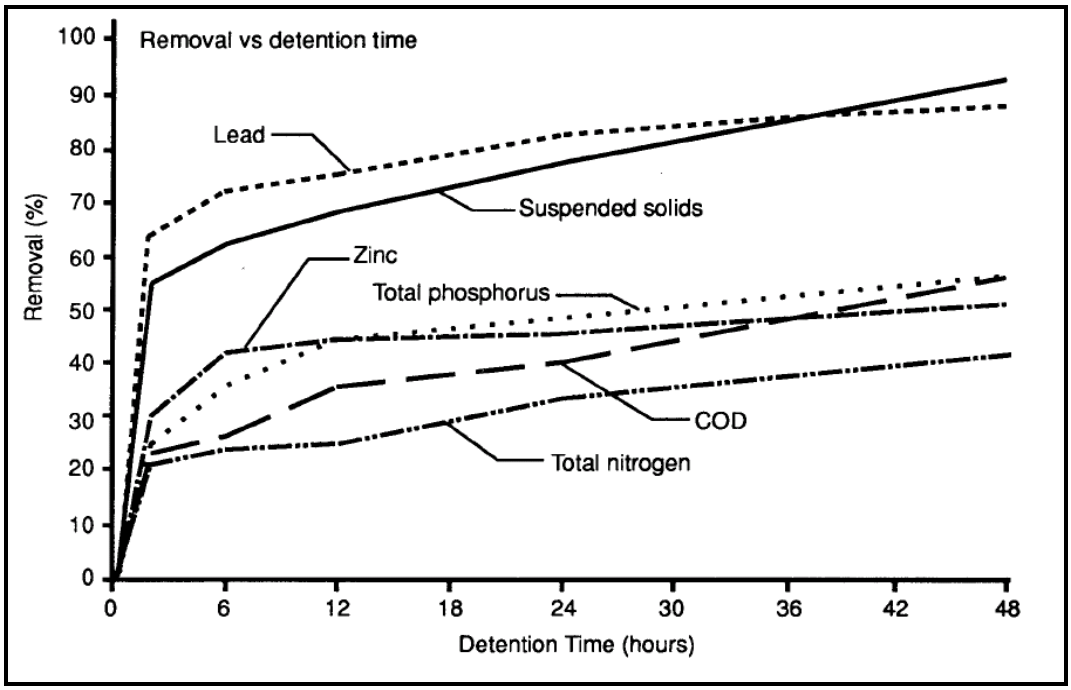


Section at Aquatic Planter or Wetland

e. *Pre-treatment of Stormwater*

The first line of stormwater treatment will occur in the wetland water quality filters situated at the outfall from each drainage area. The filters will consist of organic-rich sediment with beneficial submergent and emergent macrophytes. Adequate detention in the filters will provide primary treatment of first flush storm and nuisance flow. (*Figure 4)* provides empirical data of an extended dry detention basin from the State of Minnesota BMP Handbook. Detention time exceeding 6 hours is minimal and time of 24 hours is preferable. The outfalls from the drainage areas will discharge to water quality filter basins (extended detention basin BMPs) for a quantity of time exceeding 24 hours.

Figure 4: Detention Data



f. *Circulation*

In addition to the biofilter pumping system, additional pumps will circulate the lake water at various points of the lake geometry that might lend itself to stagnation. The circulation pumps will also assist in attaining the required flow rates that would be required for any aesthetic waterfalls or geysers that may be within the lake.

g. *Water Replacement*

Due to the continual and daily nutrient loading occurring in lakes (from various sources including birds, landscaping, urban runoff, etc.) and the subsequent difficulty in maintaining low concentrations of nutrients which contribute to poor water quality, irrigation water will be taken out of the lakes to be replaced with makeup water with higher water quality. It is proposed that this will be done through the use of lake water for irrigation.

Lining System

For a typical manmade lake, either synthetic membrane liner such as a geomembrane liner or soil liner using chemically treated soil or clay is used in lake design.

a. *Soil Liner*

A soil liner is a layer of low permeability soil installed in the bottom of a lake to reduce water infiltration. Typically a clay-rich soil is selected. It has not been determined if a suitable local soil is available. Refer to Preliminary Geotechnical Report by ENGEO for additional details. Soil liner will require certain soil properties with low permeability. The soil will be tested to determine the amount of soil sealant that will be required at this site. The soil sealant is then mixed in pre-measured quantities with the soil using conventional earth moving equipment. The treated soil is then compacted in two consecutive six inch layers. Typically the lake or pond shall be over excavated by the specified liner thickness with side slopes no steeper than 3:1.

b. *Geomembrane Liner*
The lake will could also be lined with a geomembrane liner and will have a constructed lake edge system. A proposed submerged concrete lining to a depth of 18-inches below the water level would be installed around the perimeter that extended out six-feet from the edge to address the safety concerns and provide protection for the geomembrane liner in the shallow areas. The lining beyond the concrete ledge will be covered with a 12-inch protective soil cover.

Lake Geometry

The total project area is 149.1 acres including the 5.4 acre lake. The site is relatively flat, and by creating a lake, excess earth will be generated. This earth can be spread within the project site to raise the lots. The pad elevations will need to be designed to optimize the site drainage system.

A critical aspect of a water feature design affecting operating characteristics and water quality is the horizontal layout and geometry or lake cross section. The proposed lake system is proposed to be situated as part of the plan formulation process to be aligned within the backbone of the project so that it would serve as the primary stormwater conveyance system.

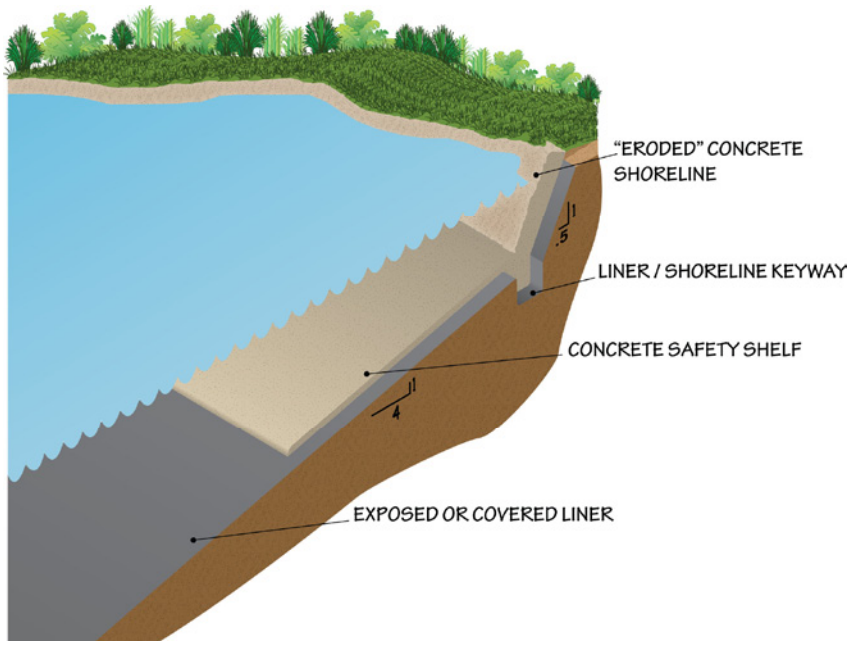
The other important characteristic of the geometry influencing lake quality is the average operating water depth, since this determines the effects of temperature and biological reaction time increases with temperature. An average operating depth of eight feet will eliminate light penetration, maintain lower average temperature, allow temperature stratification, and minimize evaporation. In addition, safety issues are a critical item that had to be addressed in the lake section since there are commonly regulations limiting public accessibility to open water bodies. A proposed submerged concrete lining to depth of 18-inches below the water level would be installed around the perimeter that extended out ten-feet from the edge to address the safety concerns and provide protection for the geomembrane liner in the shallow areas. The steepened shoreline edge treatment extends six-inches above the normal operating water surface elevation to provide a lined freeboard. The remainder of the lake bottom section would be constructed at a 4:1 slope.

Lake Edges

There are several shoreline types that will be incorporated into this project.

a. *Eroded Concrete*
This shoreline is comprised of a 3 inch thick 24 inch high reinforced vertical concrete veneer with keyway at 0.5 to 1 slope, including 6 inch free board, and a 2 inch thick 8 feet to10 feet wide concrete shelf. *(Figure 5)*The concrete shelf has a slope of 4:1. To match the overall landscape, the shoreline is naturally stained concrete with a natural erosion effect. Turf or grasses will be planted directly adjacent to the lake edge. The 6 inch lined freeboard will accommodate lake water surface variation. This is a cost effective option and it will use less landscape space at the shoreline. It also requires the least amount of maintenance compared to other shorelines. Water surface fluctuation within +4 and -12 inches will not affect integrity of the lake edge. The erosion potential is minimized with an eroded concrete shoreline. The negative side of the eroded concrete shoreline is the exposed concrete; even though it is stained and eroded, the vertical edge is not aesthetically pleasing especially when the water surface is lower than normal.

Figure 5: Eroded Concrete Shoreline

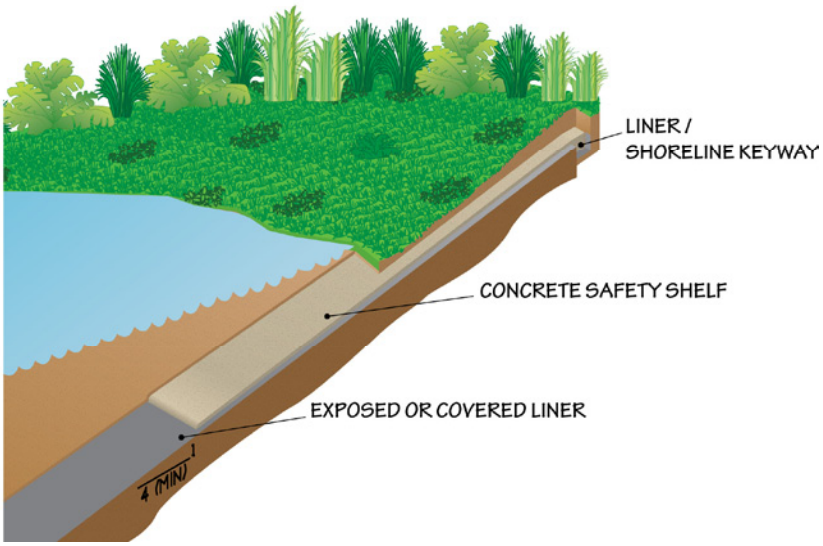


b. *Natural Grass*

This shoreline is another option ideally for golf course environment. Grass will be planted over 12 inch select soil above the liner. Due to water surface wave action caused by wind, soil erosion is a concern for this option. If geomembrane liner is used, an intense maintenance program is required to keep the lake geomembrane liner covered and protected from U.V. light at all times.

To prevent the geomembrane liner from exposure to sun light due to soil erosion, a 2 inch thick concrete veneer with keyway can be installed below the 12" soil cover. The concrete veneer will be exposed instead of the geomembrane liner where soil erosion occurs, until the soil and grass are restored. *(Figure 6)*

Figure 6: Grass Shoreline



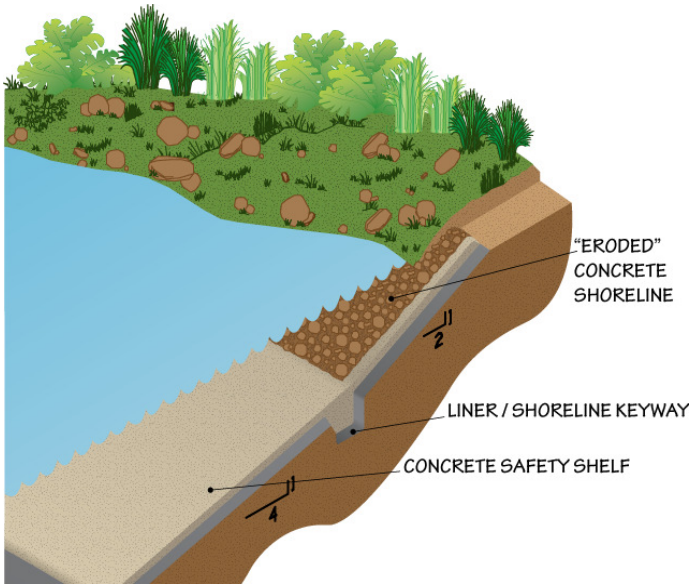
The construction cost of the grass shoreline without concrete veneer will be less than that of eroded concrete shoreline. However, the maintenance cost will be high. Maintenance activities for the grass shoreline include routine checking and inspection, replacing eroded soil and replanting grass, repairing geomembrane liner if it is damaged by UV light, and removing the eroded soil from lake. The addition of concrete veneer will increase the construction cost, higher than the eroded concrete veneer option. To avoid the appearance of concrete at lake shoreline, replacing eroded soil and replanting the grass are still necessary.

Grass shoreline should not be used where lake water will overflow out of the lake or where storm water will flow into the lake over shoreline. A special cut off wall shoreline detail shall be applicable.

c. *Natural Shoreline*

This shoreline lake edge consists of a reinforced concrete veneer with keyway to stabilize the underlying geomembrane liner if a geomembrane liner is used. At the shoreline is a concrete lake edge consisting of concrete and embedded cobbles. *(Figure 7)* A natural soil groundcover is overlain on top of the concrete/cobble surface above the normal water level elevation. Dense native grasses will be planted directly above the sloping natural groundcover to provide stabilization of the overlying soil and provide water quality enhancement of overland flows. Six inches of lined freeboard will be designed above the normal water surface elevation. Wind action promoting waves in Westside Lake may erode specific areas of natural soil cover down to the concrete/cobble shoreline; however, as the soil erodes, the stained concrete and cobble is exposed and appears natural. This is a better alternative than soil erosion than exposes the liner below. The operating water surface shall vary slightly (<2") during non-storm events for prolonged periods of time during lake fill using make-up water. During major winter storm events when the level temporarily increases, the vegetation above the shoreline embankment will be temporarily submerged for a period of days. The lake will return to normal elevation once the storm water recedes. This shall not impact the vegetation negatively. The natural shoreline option can be blended with surrounding landscape smoothly. The cost is higher than eroded concrete shoreline and also requires little maintenance.

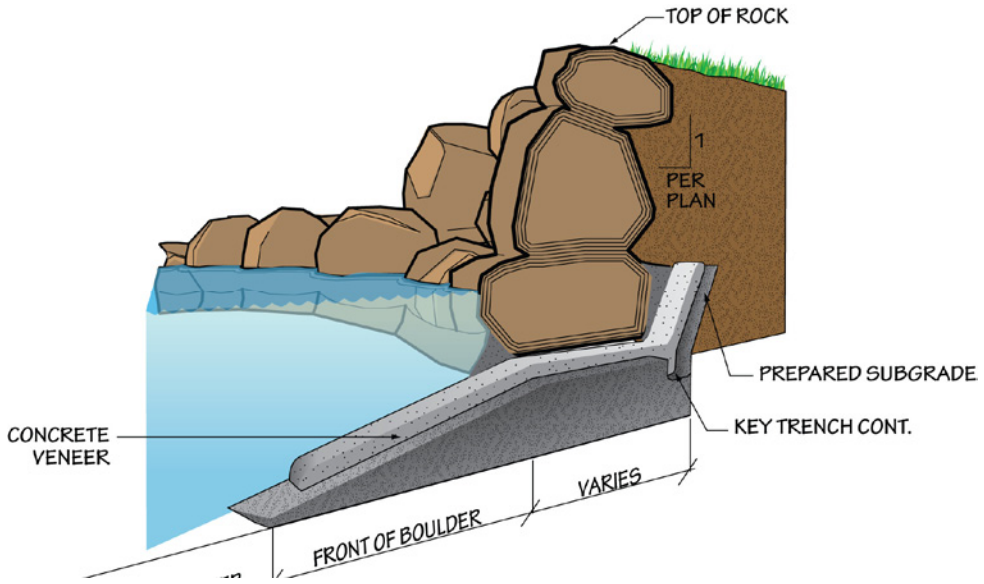
Figure 7: Natural Shoreline



d. *Boulder Shoreline*

This shoreline is comprised of a 6 inch thick 24 inch high reinforced vertical concrete veneer with keyway at 0.5 to 1 slope, including 6 inch free board, and a 6 inch thick 8 feet to10 feet wide concrete shelf. *(Figure 8)* The concrete shelf has a slope of 4:1. To match the overall landscape, the shoreline has boulders placed along the edge. Turf or grasses will be planted directly adjacent to the lake edge. Water surface fluctuation within +4 and -12 inches will not affect integrity of the lake edge.

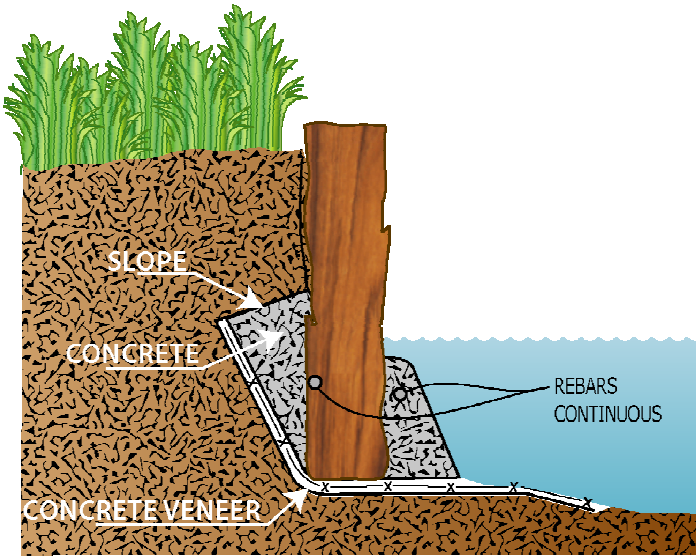
Figure 8: Boulder Shoreline



e. *Bollard Shoreline*

The Bollard shoreline is similar to the boulder shoreline except that the edge is comprised of recycled timber up to 24 inches in diameter. The concrete shelf has a slope of 4:1 to match the overall landscape. *(Figure 9)*

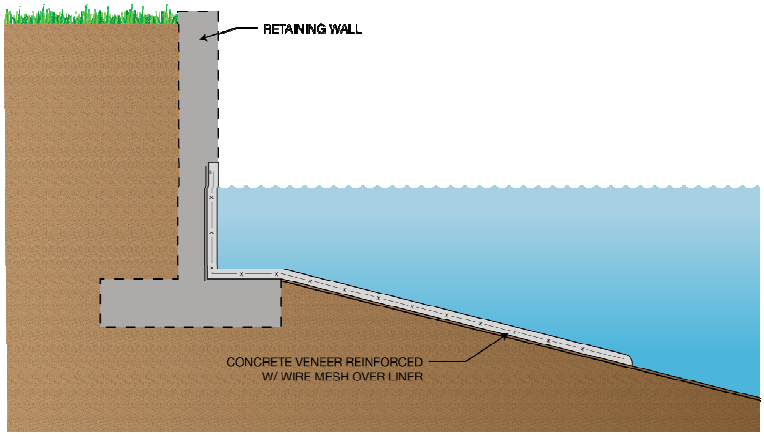
Figure 9: Bollard Shoreline



f. *Bulkhead Shoreline*

The bulkhead shoreline is similar to a retaining wall shoreline. The shoreline consists of a 2 inch thick concrete veneer reinforced with an octagonal wire mesh over geomembrane liner which is attached by a pin and strap. The bulkhead shoreline also consists of a retaining wall having class II backfill for support. This type of shoreline does not require a lot of space and has relatively low maintenance cost. *(Figure 10)*

Figure 10: Bulkhead Shoreline



Shoreline Safety

The safety of the public is a primary concern of lake designers, and the lake will be designed to provide a safe shoreline environment. The shoreline will be constructed with a maximum water depth of 18 inches at the edge, bordered by a gently sloping submerged concrete shelf that extends to a depth of approximately 4 feet creating a "safety ledge." The shallow edge allows anyone who might accidentally fall into the lake to easily exit the lake. The engineered shoreline for this project will generally consist of two types, either a vertical concrete bulkhead or an eroded concrete sloping shoreline. The primary function an engineered shoreline is to prevent erosion from wind waves. The eroded concrete shoreline will have a slope at the immediate water edge will be no steeper than 1:1 and the roughened concrete and rock provide secure footing for anyone who needs to get out of the lake. The engineered shoreline will extend above the normal operating level of the lake an addition 24" to 30" in order to provide sufficient freeboard for surcharge storage of stormwater within the lake. Beyond the immediate face of the submerged shoreline, a submerged concrete safety ledge (roughened to resemble soil or rock) will gradually lead to deeper water. This gentle slope of approximately 4:1 (horizontal:vertical) is steep enough that anyone wading into the lake will be aware that the water is getting deeper toward the middle, but flat enough that the wader can easily retreat from the lake. Beyond the four foot depth a liner system on the bottom over the soil will extend at a slope that may be up to a maximum 3.5:1 (H:V), but 4:1 preferred. The overall effect of the safety edge is to provide a situation in which nobody can accidentally find themselves in deep water. There are no specific safety regulations or public health/building codes, which require fencing of open water bodies. Fencing is required by California Health and Safety Codes for swimming pools which are defined as water bodies with surface area less than 20,000 square feet. The lake has a surface area that exceeds this definition so fencing is not required. Safety liability is limited to duty of care through posting warning signs.