

**OPEN SPACE PRESERVE
LONG TERM MANAGEMENT PLAN**

**SAN MARCO DEVELOPMENT
PITTSBURG, CONTRA COSTA COUNTY, CA**

**West Coast Home Builders, Inc
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1.0 INTRODUCTION

This Long-Term Management Plan ("Plan") addresses long-term maintenance and adaptive management for the approximately 12.5-acre San Marco open space and mitigation area ("Preserve") at the San Marco residential development project ("Project") in Pittsburg, California.

1.1 Setting & Project History

The Project is located within the City of Pittsburg ("City") in Contra Costa County, California (Figures 1 & 2). The Project area consists of approximately 617 acres of a master planned community consisting of 2,938 residential housing units with over 20 acres of parks and open space pathways and trails. The Project area, including areas directly adjacent to the Preserve, primarily consists of hilly topography vegetated by non-native annual grassland historically used for livestock grazing. Prior to construction the Project site contained approximately 2.85 acres of jurisdictional waters and wetlands (1.56 acres of seasonal wetlands and 1.29 acres of ephemeral drainage) delineated as waters of the United States pursuant to Department of the Army Permit No. 19301S; Regional Water Quality Control Board Resolution No. 97-90, 2118.03 MYM; and California Fish and Game Streambed Alteration Agreement #R3-0084-97. These permits are collectively referred to herein as the "Resource Agency Permits." Together, the Corps, Service and Regional Board are referred to herein as the "Resource Agencies."

The Resource Agency Permits require the establishment of a long-term management plan for the Preserve, and the recordation of Conservation Easements over the Preserve protecting them from further development and establishing them as wildlife habitat in perpetuity. This Plan is being provided to fulfill those requirements.

The mitigation activities are described in detail in the approved *Revised Wetlands and Water Mitigation and Monitoring Plan, San Marco Development* (Mosaic, January 19 2005). The on-site mitigation required included:

- (1) 2.53 acres of stream channel (20 feet wide) and banks (15 feet wide, both banks) of which 1.1 acres of channel bottom were to function as seasonal wetland and 1.43 acres were to function as channel bank riparian habitat.
- (2) 1.2 acres of overbank seasonal wetland adjacent to the upstream reaches of the channel
- (3) 2.0 acres of emergent herbaceous marsh (Lower Basin); and
- (4) 0.1 acre of associated willow riparian habitat surrounding the Lower Basin.

The Preserve consists of four main features the Upper Basin, Middle Basin, Babbling Brook and Lower Basin including the riparian habitat surrounding each feature. The construction and planting of the mitigation features was completed in 2005. Together the features provide a total wetland and riparian habitat of 9.75 acres which is comprised of 3.43 acres of riparian habitat, 3.10 acres of seasonal wetland, and 3.22 acres of freshwater marsh. The created features are shown on Figure 3 – *Mitigation Features*.

The Preserve will be protected in perpetuity by conservation easements placed in accordance with Section 815 *et seq.* of the California Civil Code (“Conservation Easements”).

1.1.1 Surrounding Land Use

The site is bordered on its eastern boundary by residential development along Leland Road. The southern boundary is bordered by the private land currently subject to grazing activities. The northern boundary is Highway 4 and the western boundary is Avila Road and private land currently being utilized for construction yards and storage.

1.2 Plan Goal

The goal of this Plan is to ensure that created wetland and riparian habitats existing within the Preserve, in accordance with the Mitigation Plan, are maintained in perpetuity.

In order to realize the Plan Goal, the Plan provides the following:

1. Guidelines for the management of the created seasonal wetland and riparian habitat;
2. Provide a framework for implementing an adaptive management program, including reporting requirements to the Resource Agencies, to manage the site for the benefit of wildlife; and
3. Provide a program to maintain habitat values.

It should be noted that while it is the intent of this Plan to comply with the Resource Agency Permits, if any discrepancies between this Plan and the Resource Agency Permits exist, the Resource Agency Permits override the Plan stipulations unless approved by the Agencies with jurisdiction.

2.0 PRESERVE PERSONNEL

The Preserve Manager (defined below) is the primary entity responsible for overseeing, monitoring and coordinating maintenance of the Preserve in accordance with this Plan.

2.1 Preserve Manager

The Preserve Manager will maintain the Preserve in accordance with the Conservation Easements, the Resource Agency Permits, and the Plan.

2.1.1 Preserve Manager Responsibilities

The Preserve Manager's responsibilities and duties shall include but not be limited to:

- Maintaining fencing and signage installed within the Preserve pursuant to the Plan.
- Coordinating trash removal within the Preserve.
- Evaluating the presence of newly introduced non-native invasive plant species within the Preserve and recommend management, if needed.
- Monitoring compliance and coordinating with the Resource Agencies for any remedial action needed within the Preserve.
- Maintaining a Log for the Preserve. This Log will contain a record of all activities, correspondence and determinations regarding the Preserve.
- Performing General Inspections and reporting of the Preserve pursuant to this Plan.
- Performing an annual Biological Inspection and reporting pursuant to this Plan.
- Arranging for any corrective action necessary to ensure the performance of the habitat at the Preserve in accordance with this Plan.

2.2 Use of Qualified Personnel/Monitoring Biologist

As necessary, the Preserve Manager shall retain professional biologist, botanists or other types of specialists to conduct specialized tasks. Any professional personnel utilized to perform technical components of this Plan shall be familiar with California flora and fauna, and shall have knowledge regarding wetland species and their ecology.

3.0 LONG TERM MANAGEMENT OF THE PRESERVE

3.1 Adaptive Management

The following management strategies, approved uses, and restrictions are intended to provide a framework for the long-term management and operation of the Preserve. Before considering any *management action*, the Preserve Manager must consider the Plan Goal, which is to ensure that the protected wetland and upland habitats within the Preserve are maintained in good condition for the benefit of wildlife in perpetuity.

Over time, the specific habitat management tasks may be revised, added, or deleted as determined appropriate by the agencies. It is anticipated that these management and monitoring tasks will be adapted to the needs of the biological resources on site, new information, and changes on the site and the surrounding environment.

3.2 Preserve Management Activities and Guidelines

Notwithstanding anything to the contrary herein, the owner of the Preserve maintains the right to perform any and all activities identified as Grantor's Reserved Rights in the Perpetual Conservation Easements granted over the Preserve. In addition, the following management and maintenance activities will take place within the Preserve.

3.2.1 Authorized Access

The intent of the Preserve is to maintain the habitats of these areas in perpetuity. Post-construction access to the Preserve should be discouraged through fencing and signage. Perimeter fencing will be maintained by the Preserve Manager. Access to the Preserve for maintenance, emergency and geological hazard abatement activities is allowed, but should be restricted wherever possible to the immediate area where such activities are required.

3.2.2 Non-native Plant Species Management

The Preserve Manager will assess the presence of any newly introduced exotic pest plant species during inspections, and recommend and perform removal as needed. Three methods of removing or controlling these species are outlined in sections below.

The Preserve Manager can refer to the species found on the California Invasive Plant Inventory Council (CalIPC) List A, List B, and Red Alert List to assist them in determining if a plant is an exotic plant species of concern, and which species should be given priority for management. This list is updated from time to time by CalIPC. The most current list should be obtained from the CalIPC website at <http://www.calipc.org/>.

3.2.2.1 Hand/Mechanical Removal

Hand removal or use of small hand powered or handheld equipment (such as a Weed Wrench or a chainsaw) should always be the preferred method of removing exotic pest plant species from the Preserve. If hand removal methods are tried and found to

be ineffective, or the problem is too widespread for hand removal to be practical, then biological controls as described below can be implemented. The Preserve Manager does not need to notify the Agencies if removal will be done by hand or hand held equipment. The Agencies will be notified if large equipment other than a mower is used.

3.2.2.2 Use of Herbicides for Non-Native/Exotic Pest Plant Management

If the use of herbicides is necessary, they should be used in conjunction with physical and/or mechanical or other non-chemical based methods. This approach is intended to reduce the use of herbicides in the long term and to insure that the lowest possible risk chemicals are utilized. All herbicides used will be EPA-labeled herbicides that will avoid harm or loss of wetland vegetation and wildlife. In order to limit or avoid impacts to non target plants, spot treatments should be employed. All applicable laws, regulations, and safety precautions must be followed if chemical weed controls are used.

3.2.3 Created Wetland Maintenance

Annual site checks will be performed to ensure the created wetlands are functioning properly and free of any potential issues that may compromise its integrity in the future. This includes but is not limited to, assuring that the inlet and outlet features are kept free of any debris or sediment accumulation obstructing the structures, and will address visible erosion of the outlet barrier or slope.

3.2.3.1 Sediment Removal

Sediment may accumulate in limited quantities in the created wetlands. The Preserve Manager will be responsible for removing sediment if sufficient accumulation exists to reduce pond capacity in a manner that impacts the habitat quality of the pond. If removal of accumulated sediments is deemed necessary to maintain sufficient pond depth and duration, only half of the sediments would be removed in any one year so as to maintain suitable habitat for pond invertebrates that provide food for wildlife. Sediment removal will be limited to the months of July to October. A biologist will conduct a pre-construction survey in the area to be impacted by the sediment maintenance activities to ensure that federally threatened and endangered species are not present. A biologist will also be present during sediment removal. Any necessary regulatory agency permits will be obtained prior to sediment removal.

3.2.3.2 Erosion Control

In order to function properly, the Preserve Manager will be responsible for assuring that the outlet barrier for the wetlands and the banks do not erode. Erosion control measures should be utilized if any signs of erosion are found at the outlet barrier or pond banks.

3.2.4 Mosquitoes

Access is currently provided for the Contra Costa Mosquito & Vector Control District ("District"). The Preserve Manager will be responsible for coordinating with the District so that any control measures instituted by the District to control mosquitoes or other disease vectors is performed in a manner that does not adversely effect the suitability of the wetlands for wildlife.

3.2.5 Homeowner Liaison

The Preserve Manager will be responsible for informing residents whose property adjoins the Preserve if actions taken or conditions on adjoining properties are degrading the habitat value of the conservation lands subject to the Conservation Easement.

3.2.6 Trash Removal

The Preserve Manager will remove accumulations of trash and other unwanted debris from the Preserve periodically.

4.0 LONG TERM MAINTENANCE OF STRUCTURES AND IMPROVEMENTS

The following paragraphs outline the allowed maintenance of structures and improvements present within the Preserve.

4.1 Fencing, Signage, and Gates

4.1.1 Fencing and Signage

The Preserve is fenced adjacent to the development area, and on the perimeter with neighboring properties. The storm water detention basins and created wetland areas are also currently fenced with chain link fence and 5 strand barbed wire and/or a combination of both in areas necessary to permanently exclude cattle. Pursuant to requirements in the Resource Agency Permits, the fencing is sufficient to prevent the passage of people, pets, and livestock. All fencing is a combination of conventional multi-strand barbed-wire, chain link or other materials to achieve desired management goals. Signage is installed along the fence in order to designate the area's protected status. The Preserve Manager will be responsible for the maintenance and replacement of fencing, gates and signage.

4.1.2 Gates

Preserve Manager will be responsible for the maintenance of all existing and new gates into the Preserve. Gates are required to allow authorized access for management activities. Gates are currently installed in several locations including but not limited to following areas: at the entry to the Upper Basin, at the entry to the Middle Basin, and at the entry to the Lower Basin.

4.2 Utility Lines, Geologic Hazard Abatement

Underground water, electrical, telephone, storm drain, culverts, roadway retaining walls, remedial (corrective) grading and all other utilities currently installed as part of the existing residential development or that will be installed as part of the construction of future phases of the project may require access to the Preserve. Within the Preserve, the Permittee or its assigns may perform maintenance and replacement of utility lines required in the future in a manner it deems most economically practicable, but such activities will be carried out in a manner that is not unnecessarily damaging to the Preserve. Unless warranted by emergency, any such repairs will be completed during the dry season, months of July through October.

Geologic hazard abatement inspections and preventative or remedial activities may be performed from time to time within the Preserve to the extent deemed necessary by the Permittee or its assigns, including the Preserve Manager, to protect any and all improvements associated with the San Marco residential development as identified in the Resource Agency Permits. The Permittee, its assigns, including the Preserve Manager, may carry out preventative or remedial hazard abatement activities within the Preserve in the manner deemed most economically practicable by the Permittee, its assigns, including Preserve Manager. Except for emergencies, any such activities that are carried out will be in a manner that is not unnecessarily damaging to the conservation values of the Preserve.

4.3 Fire Breaks

As required by law and consistent with the Mitigation Plan and Resource Agency Permits, vegetation may be removed by creating fire breaks adjacent to residential areas or improvements within the Preserve. The Preserve Manager will not perform these activities, but will monitor to assure consistency with the Mitigation Plan and Resource Agency Permits.

5.0 PROHIBITED ACTIVITIES WITHIN THE PRESERVE

Activities prohibited within the Preserve are those set out in the Conservation Easements covering the Preserve, subject to the Grantor's reserved rights set out in the Conservation Easements.

6.0 REMEDIATION/RESTORATION ACTIVITIES

6.1 Restoration of Preserve Vandalism

It is difficult to anticipate maintenance and repair for all forms of vandalism within the Preserve, however, the following table outlines some potential mitigation guidelines. If a particular situation is not listed here, determining an appropriate corrective action will be at the discretion of the Preserve Manager in coordination with the Resource Agencies, if necessary.

Type of Disturbance	Mitigation Guideline
Disturbance of Grassy Upland Areas	Revegetation of grassy upland areas due to disturbance resulting in bare ground should include seeding the area with native grass seed and implementing erosion control measures until bare ground becomes vegetated again.
Removal of Native Tree or Shrub Habitat	Restoration from the deliberate removal of native trees (if any) or shrubs should result in the replacement of the habitat. This could be in the form of planting tree/shrub seeds or seedlings in an amount sufficient to ultimately result in the survival to maturity of the same number of trees or shrubs that were removed. Monitoring of the replacement plants should be done for at least one season.
Wetlands/Waters of the U.S.	Restoration for fill/loss of waters of the U.S. should result in the removal of fill from the feature, potentially the minor re-grading and revegetation of the feature (if appropriate) and monitoring for at least two seasons to gauge the feature's recovery. The Preserve Manager will contact the Corps if fill/loss of wetlands or waters of the U.S. has occurred and submit a remediation/restoration plan.
Fencing	Restoration for the destruction or modification of Preserve fencing should include repairing or replacing the section of fencing to its initial specifications.
Structures, Landscaping, Other Improvements, etc.	Any unauthorized structure, landscaping, or other improvement should be removed from the Preserve, and the Preserve restored to initial conditions.

6.2 Timing/Process for Corrective Actions

Minor corrective measures (i.e. replanting, grade adjustments, etc) not requiring notification or approval of the Resource Agencies (e.g., prevention of unexpected runoff, prevention of unauthorized access to the area by placing locks on gates, etc.) will be carried out by the Preserve Manager within sixty (60) days, unless site conditions warrant delay. All other actions under this Section will take place when conditions are best suited for restoration to occur, and after the appropriate Resource Agencies have been notified or the Preserve Manager has received approval.

7.0 PRESERVE INSPECTIONS AND REPORTING

7.1 Schedule

The monitoring/inspections described below are long-term activities to be carried out in perpetuity. Subsequent to the Resource Agencies sign off on achievement on all success criteria, the Preserve Manager will commence its monitoring and reporting responsibilities under this section. The schedule of inspections for the Preserve is as follows:

- The Preserve Manager shall conduct two Biological Inspections each year, one in April or May and one in September or October.
- The Preserve Manager shall conduct (at minimum) two General Inspections each year, one in January and one in July.

Below is a timeline for site monitoring:

Mitigation Area	Monitoring Type	Monitoring Frequency
Entire Preserve including Upper Basin, Middle Basin, Babbling Brook and Lower Basin	General Inspection and Report: Erosion Fire Hazard Reduction Fencing, Gates, Signage & Trash Removal Unauthorized Motor Vehicle Use	Minimum twice a year; January July
Entire Preserve including Upper Basin, Middle Basin, Babbling Brook and Lower Basin	Non-Native/Exotic Pest Plant	Twice a year; April/May September/October

General Inspections

The Preserve Manager shall arrange for the General Inspections to be made to ensure the integrity of the Preserve. Inspections will concentrate on an evaluation of the following factors: erosion, introduction or spread of non-native vegetation, fire hazard reduction, fencing integrity, condition of signage, trash accumulation, and evidence of unauthorized use by motor vehicles. The entire perimeter of the Preserve should be covered, as well as meandering transects through its interior.

An Inspection Sheet will be utilized in order to evaluate the above criteria during each field visit. Previous inspection sheets should be reviewed before each visit in order to determine that a possible or recurring problem area is not missed. If any problems are identified, more frequent

inspections will be done in order to closely track any problems as well as to ensure that remedial actions are effective. Evaluation and corrective actions for each factor are described below:

7.1.1 Erosion

If evidence of detrimental erosion is observed during general inspections, the Preserve Manager will address with standard erosion control measures BMPs (such as the installation wattles or hydroseeding).

7.1.2 Fire Hazard Reduction

In addition to fire hazard abatement activities required by law, which may be performed at any time, if at any time conditions at the Preserve become a fire hazard, the Preserve Manager will work with the Resource Agencies and the local fire authorities to decide on the best method to reduce the fire risk at the Preserve.

7.1.3 Fencing and Signage

The condition of the fencing and signage at the Preserve should be checked during the General Inspection. The Preserve Manager will be responsible for maintaining the fencing and signage at the Preserve.

7.1.4 Trash Accumulation

The Preserve Manager will arrange for the removal of all trash from the Preserve.

7.1.5 Unauthorized Motor Vehicle Use

The perimeter of the Preserve will be inspected for evidence of unauthorized motor vehicle use/access. If necessary, corrective actions such as repairing locks and gates will be taken.

7.2 Biological Inspections

In managing the Preserve, measures must be taken to ensure that the existing conditions are maintained over the long term. Inspections by a qualified biologist will help ensure the long-term integrity of the wetland and riparian habitats.

The Biological Inspection of the Preserve will be conducted by the Preserve Manager or professional biologist employed by the Preserve Manager pursuant to section 2.2 herein, in order to monitor wetland function, newly introduced exotic or non-native invasive plant species, and overall Preserve function. The entire perimeter of the Preserve should be covered, as well as meandering transects through its interior. The goal of these surveys is to identify any conditions that may affect the long-term suitability of the habitat. The first inspection is intended to assess the various wetland habitats during the floristic season. The second inspection will be focused on riparian and upland habitats, problem areas, and assessing the success of restoration efforts or remediation activities. Although each of these surveys has a focus, all aspects of the Preserve will be reviewed during each visit.

7.2.1 Habitat Function

The purpose of assessing habitat function is to ensure that the created wetlands and riparian habitats are continuing to have the appropriate hydrologic regime for that habitat type, to monitor anthropogenic influences on the different habitats, and to informally document (make a species list as meandering transects are walked) the plant and animal species that are present in the Preserve.

7.2.2 Newly Introduced Non-Native Plant Species

The Preserve Manager will assess the presence of any newly introduced or increasing populations of non-native invasive plant species and recommend corrective actions as needed. Special attention will be paid to exotic pest plants.

7.2.3 Preserve Function

The overall Preserve function should be assessed, taking into account the above factors and the purpose of the Preserve, which is to support the flora and fauna of the wetlands, riparian and upland areas in perpetuity.

7.3 Annual Reporting Requirements

An Annual Report summarizing any relevant monitoring activities within the Preserve will be submitted to the Resource Agencies by December 31 of each year.

8.0 PRESERVE OWNERSHIP

8.1 Preserve Owner

Seecon Financial & Construction Company, Inc. is the current owner in fee title of the Preserve.

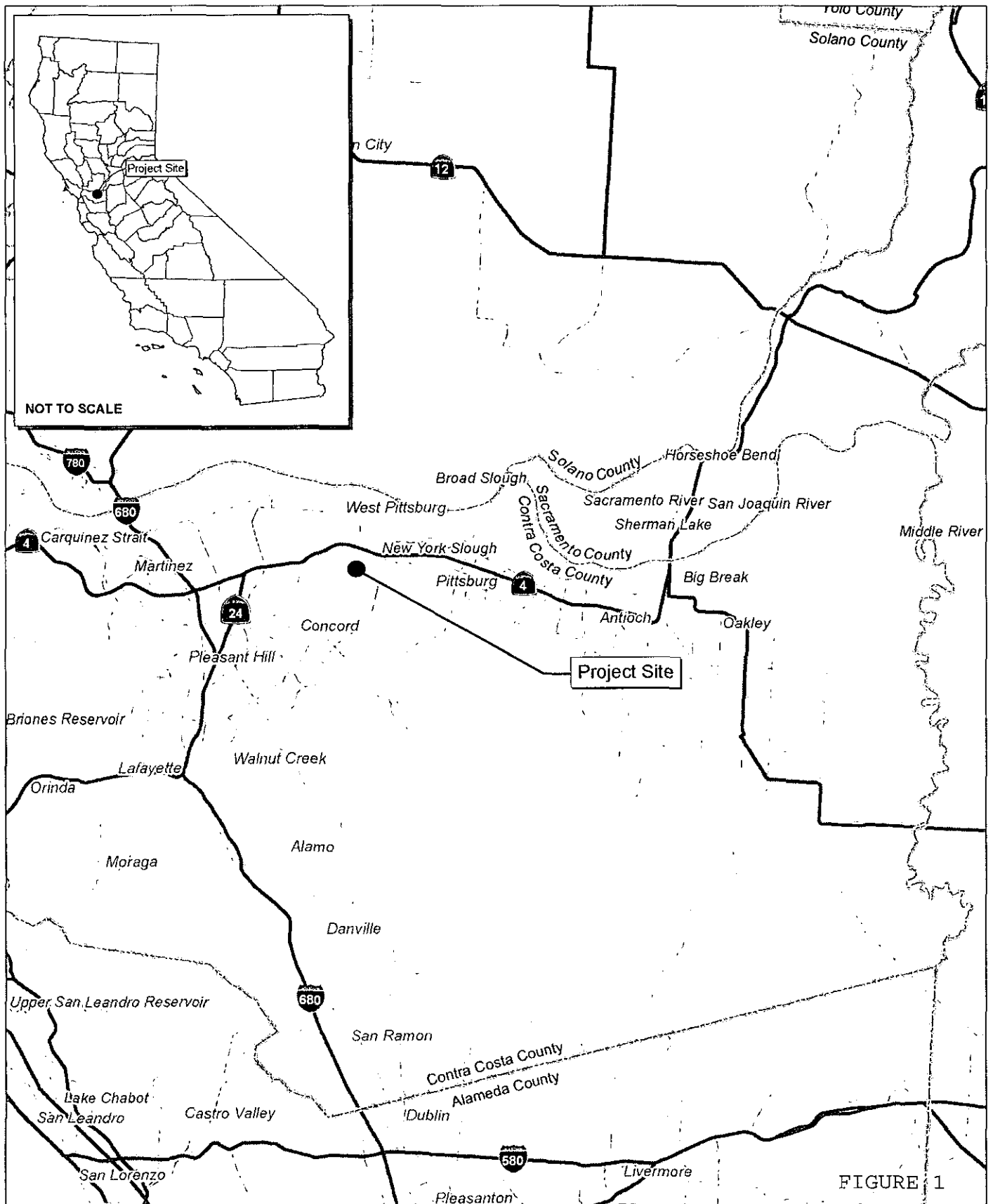
The entire Preserve will be preserved in perpetuity through the placement of a conservation easement over the approximately 12.5 acres. The Preserve or portions of it may be deeded to another entity, such as the Preserve Manager, which shall be responsible for complying with the terms of the Conservation Easement and this Long Term Management Plan.

9.0 REFERENCES

Revised Wetlands and Waters Mitigation and Monitoring Plan, Mosaic Associates, January 19 2005.

10.0 FIGURES

- Figure 1 Vicinity Map
- Figure 2 Vicinity Land Use Plan
- Figure 3 Mitigation Features



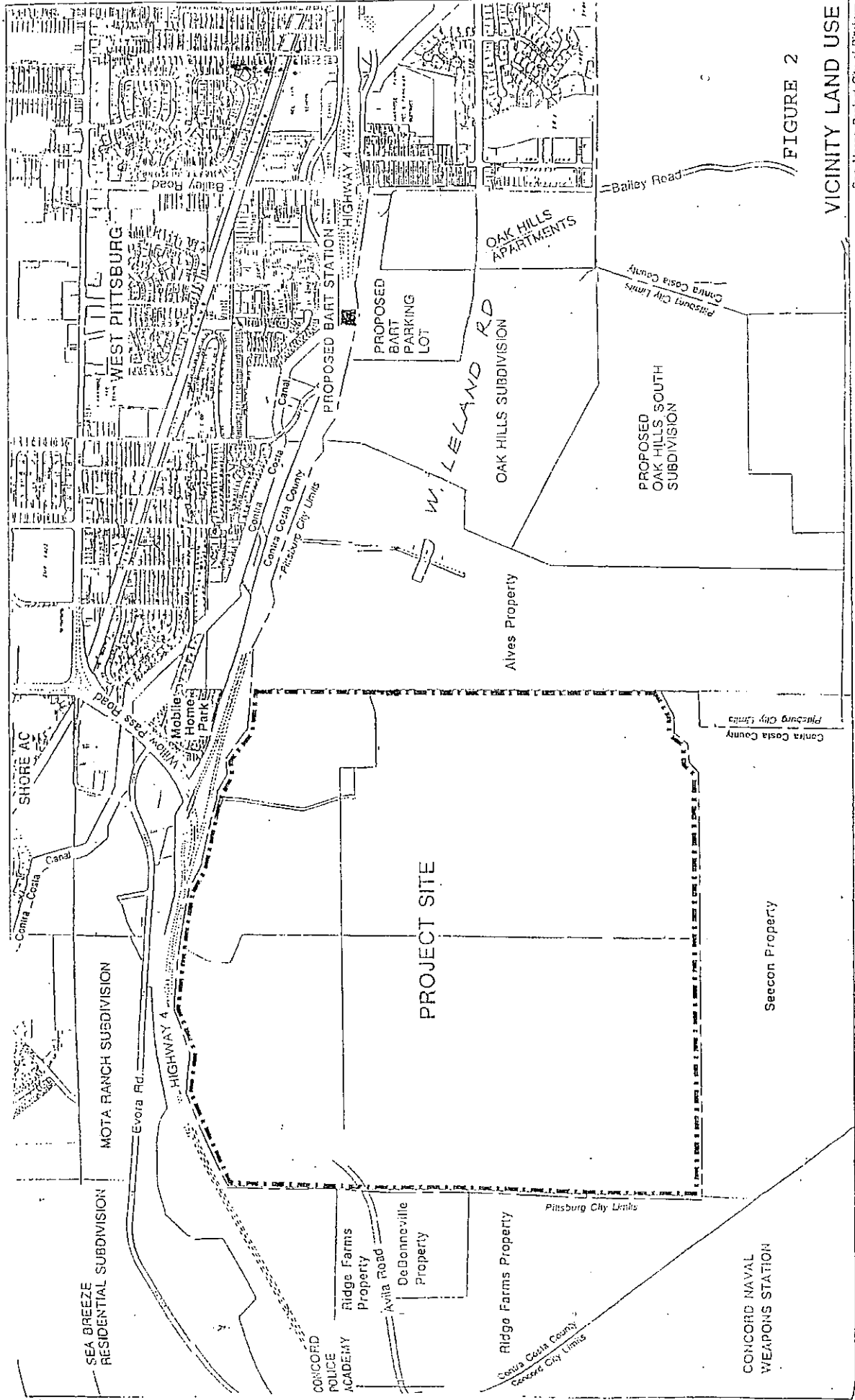
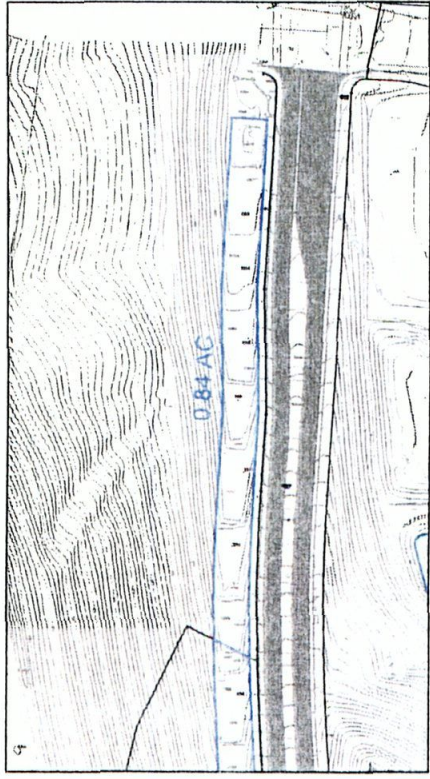
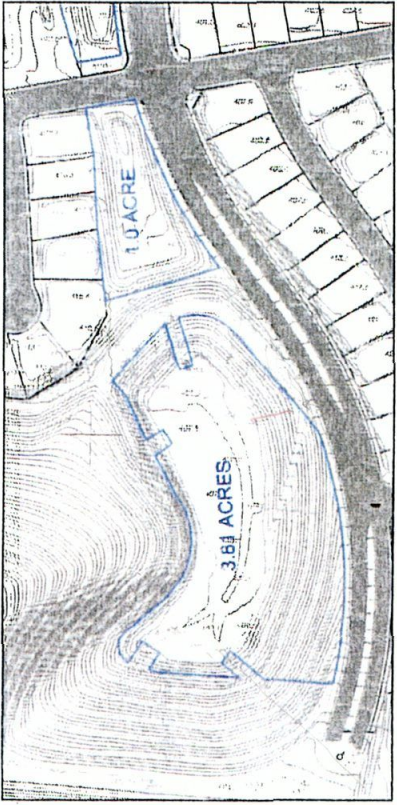
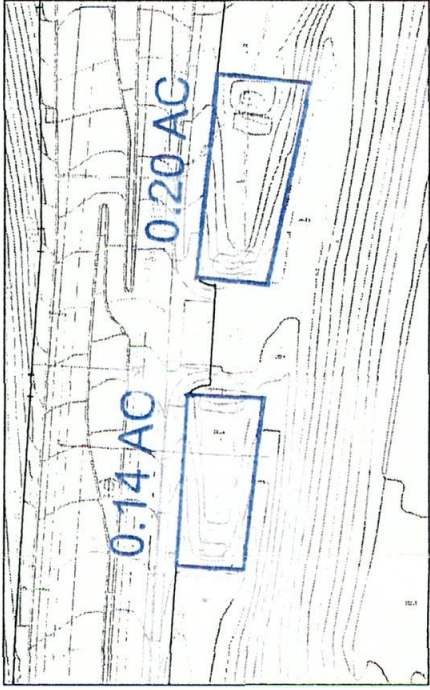
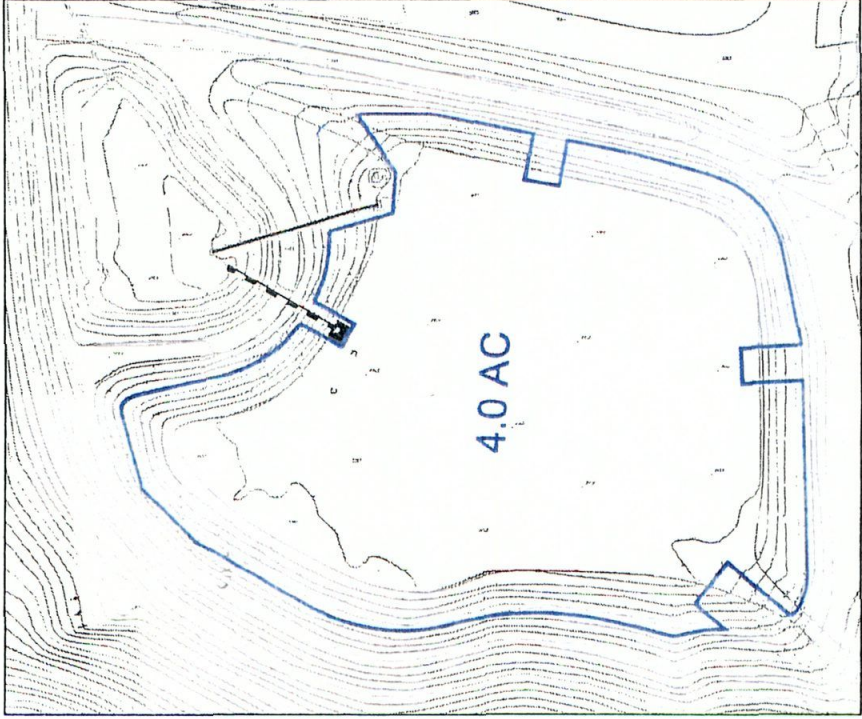
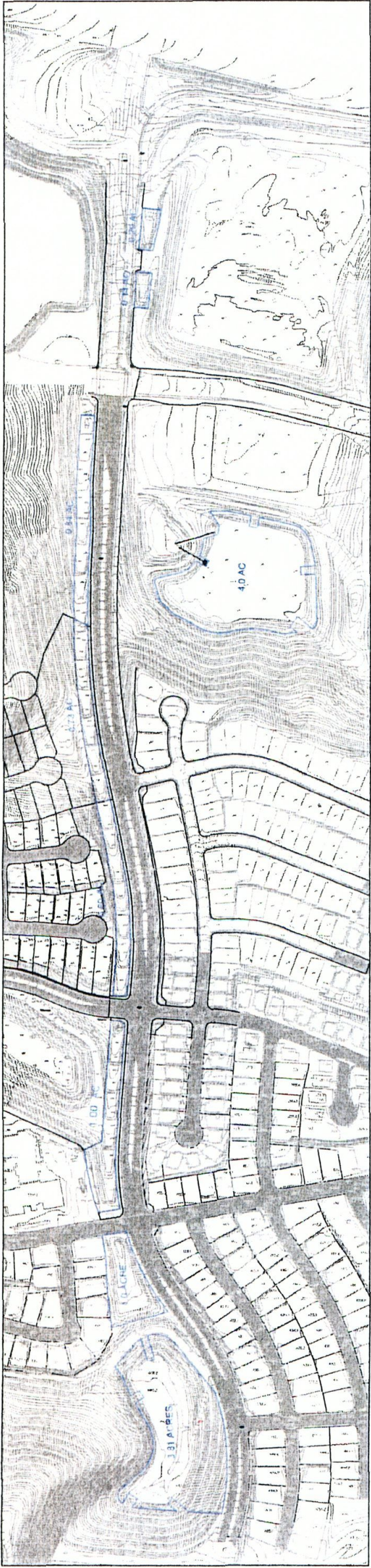


FIGURE 2

VICINITY LAND USE

San Marco Project City of Pittsburg



TOTAL AREA = 12.52 ACRES
 SAN MARCO OPEN SPACE
 PRESERVE
 MITIGATION FEATURES

FIGURE 3