

Implementation Plan



INTRODUCTION. This chapter provides an agenda for continued development at Nut Tree Airport by presenting recommendations for project phasing associated with the 20-year improvement program. The improvements necessary to efficiently accommodate the potential aviation demand have been organized into three phases: Phase I is the initial time frame (1-5 years), Phase II is the intermediate time frame (6-10 years), and Phase III is the long-term time frame (11-20 years). The proposed improvements are also illustrated graphically by time period.

Project List and Cost Estimates

A list of capital improvement projects has been assembled based on the Development Plan previously presented. The project list has been coordinated with the Airport Layout Plan (ALP) drawing set and the Airport Capital Improvement Program (CIP) that is continuously updated by airport management and the Federal Aviation Administration (FAA). For the purposes of

planning, the project list and cost estimates are not limited to public or FAA eligible projects. Other projects are also identified including private hangar projects, and public/private partnership projects.

Following review of the project phasing recommendations by airport staff and the FAA, cost estimates for the individual projects based on current dollars were prepared. Facility costs were formulated using unit prices extended by the size of the particular facility and tempered with specific considerations related to Solano County and the surrounding area, and California in general. This data was reviewed and analyzed at a planning level for specific factors that may influence costs, such as operational constraints, project schedule, utility locations, and other special project requirements. That being said, *these estimates are intended to be used for planning purposes only and should not be construed as detailed construction cost estimates*, which can only be compiled following the preparation of detailed design documentation.

Implementation Schedule

The following tables entitled *DEVELOPMENT PLAN PROJECT COSTS* provide the suggested phasing for improvement projects throughout the 20-year planning period. The projects in Phase I are listed by fiscal year to make them easily translatable into the FAA's Capital Improvement Plan format. The projects listed in Phases II and III are listed in generalized priority order without specific year designators. With the best facts and assumptions available today, the tables provide information related to what projects will be needed, when those projects are likely to be constructed, and how the improvements are likely to be funded.

Table F1
PHASE I (1-5 YEARS) DEVELOPMENT PLAN PROJECT COSTS

Project Description		Total Costs	Federal (a)	Local (b)	Other (c)
2013 Projects					
1	Airport Pavement Management System (APMS)	\$15,000	\$14,250	\$750	\$0
2	Runway Safety Area (RSA) Stabilization – Runway 20 <i>[Design/Construction]</i>	\$50,000	\$47,500	\$2,500	\$0
3	Shade Hangars 36,000 sf (Solarized) <i>[Design/Construction]</i>	\$1,300,000	\$0	\$0	\$1,300,000
4	RW 2/20 Shift 200' North; Runway Pavement Rehab, Phase I; Relocate Edge Lighting, Signs & Markings; Purchase New PAPIs <i>[Environmental/Design]</i>	\$225,000	\$213,750	\$11,250	\$0
Sub-Total/2013 Projects		\$1,590,000	\$275,500	\$14,500	\$1,300,000
2014 Projects					
5	RW 2/20 Shift 200' North; Runway Pavement Rehab, Phase I; Relocate Edge Lighting, Signs & Markings; Purchase New PAPIs <i>[Construction]</i>	\$1,400,000	\$1,330,000	\$70,000	\$0
6	Relocation of ASOS/AWOS <i>(Design/Construction)</i>	\$160,000	\$152,000	\$8,000	\$0
7	Relocation of Fence, Light Poles, & Other Obstructions <i>[Design/Construction]</i>	\$200,000	\$190,000	\$10,000	\$0
8	South Corporate Hangar Development – 100,000sf (Private) <i>[Environmental]</i>	\$80,000	\$0	\$0	\$80,000
9	South Corporate Hangar Development – 100,000sf (Private) <i>[Design]</i>	\$1,600,000	\$0	\$0	\$1,600,000
10	South Corporate Hangar Development – 100,000sf (Private) <i>[Construction]</i>	\$16,000,000	\$0	\$0	\$16,000,000
Sub-Total/2014 Projects		\$19,440,000	\$1,672,000	\$88,000	\$17,680,000
2015 Projects					
11	Taxiway & Taxilane Pavement Rehabilitation <i>[Construction]</i>	\$300,000	\$285,000	\$15,000	\$0
12	Apron Lighting Refurbishment & New Rotating Beacon <i>[Design/Construction]</i>	\$170,000	\$161,500	\$8,500	\$0
Sub-Total/2015 Projects		\$470,000	\$446,500	\$23,500	\$0
2016 Projects					
13	Airfield Lights Replacement (RWY & TWY) <i>[Design/Construction]</i>	\$500,000	\$475,000	\$25,000	\$0
14	Airfield Perimeter Fencing & Gates <i>[Design/Construction]</i>	\$650,000	\$617,500	\$32,500	\$0
15	North T-Hangar Development - (incl. utilities) Project #: 19, 20, 26, 28, & 29, below <i>[Environmental/Hydrology/Prelim Design]</i>	\$200,000	\$190,000	\$10,000	\$0
Sub-Total/2016 Projects		\$1,350,000	\$1,282,500	\$67,500	\$0
2017 Projects					
16	Expand Multi-Use Arrival/Departure Facility – 13,000 sf <i>[Design]</i> (Public/Private)	\$400,000	\$0	\$0	\$400,000
17	South Apron Expansion – 221,000 sf <i>[Construction]</i>	\$2,750,000	\$2,612,500	\$137,500	\$0
18	Hangar Refurbishment (Units #1-9) <i>[Design/Construction]</i>	\$1,000,000	\$0	\$1,000,000	\$0



19	North T-Hangar Development- (incl. utilities) Project #: 20, 26, 28, & 29, below [Design]	\$500,000	\$80,000	\$420,000	\$0
Sub-Total/2017 Projects		\$4,650,000	\$2,692,500	\$1,557,500	\$400,000
Total Phase I Projects		\$27,500,000	\$6,369,000	\$1,751,000	\$19,380,000

Notes:

- (a) *Federal*– FAA Airport Improvement Program (AIP) Entitlement & Discretionary Grants
- (b) *Local* – Airport Net Revenues or Cash Reserves
- (c) *Other*- Unidentified or Private Third-Party Funding



Table F2
PHASE II (6-10 YEARS) DEVELOPMENT PLAN PROJECT COSTS

Project Description		Total Costs	Federal (a)	Local (b)	Other (c)
Phase II Projects (6-10 Years)					
20	North T-Hangar Development – Phase I: Utilities & Access [Construction]	\$3,400,000	\$3,230,000	\$170,000	\$0
21	Expand Multi-Use Arrival/Departure Facility – 13,000 sf [Construction] (public/private)	\$4,000,000	\$0	\$0	\$4,000,000
22	East Corporate Hangars - 20,000 sf (Private) [Environmental]	\$10,000	\$0	\$0	\$10,000
23	East Corporate Hangars - 20,000 sf (Private) [Design]	\$300,000	\$0	\$0	\$300,000
24	East Corporate Hangars - 20,000 sf (Private) [Construction]	\$3,000,000	\$0	\$0	\$3,000,000
25	Airfield Pavement Rehabilitation [Design]	\$75,000	\$71,250	\$3,750	\$0
26	North T-Hangar Development – Phase II, West: 46,500 sf T-hangar space [Construction]	\$2,700,000	\$0	\$2,700,000	\$0
27	Airfield Pavement Rehabilitation [Construction]	\$1,000,000	\$950,000	\$50,000	\$0
28	North T-Hangar Development– Phase III, Middle: 47,500 sf box hangars [Construction]	\$6,000,000	\$0	\$6,000,000	\$0
29	North T-Hangar Development– Phase IV, East: 33,000 sf T-hangars, 56,0000 sf box hangars [Construction]	\$8,900,000	\$0	\$8,900,000	\$0
Total Phase II Projects		\$29,385,000	\$4,251,250	\$17,823,750	\$7,310,000
PHASE I & II TOTALS		\$56,885,000	\$10,620,250	\$19,574,750	\$26,690,000

Notes:

- (a) Federal– FAA Airport Improvement Program (AIP) Entitlement & Discretionary Grants
- (b) Local – Airport Net Revenues or Cash Reserves
- (c) Other- Unidentified or Private Third-Party Funding



Table F3
PHASE III (11-20 YEARS) DEVELOPMENT PLAN PROJECT COSTS

Project Description		Total Costs	Federal (a)	Local (b)	Other (c)
Phase III Projects(11-20 Years)					
30	North Land Acquisition for RW 20 Approach Protection (± 10 acres) <i>[NEPA Environmental Assessment]</i>	\$200,000	\$190,000	\$10,000	\$0
31	North Land Acquisition for RW 20 Approach Protection (± 10 acres) <i>[Reimbursement for Land Purchase]</i>	\$2,000,000	\$1,900,000	\$100,000	\$0
32	Airfield Pavement Rehabilitation <i>[Design/Construction]</i>	\$1,100,000	\$1,045,000	\$55,000	\$0
33	West Side Land Acquisition (± 82 acres) <i>[Reimbursement for Remaining Land Purchase]</i>	\$9,500,000	\$9,025,000	\$475,000	\$0
34	East Hangar Area Expansion (Private/County) <i>[Environmental]</i>	\$60,000	\$0	\$0	\$60,000
35	East Hangar Area Expansion (Private/County) <i>[Design]</i>	\$1,400,000	\$0	\$0	\$1,400,000
36	East Hangar Area Expansion – 16,000 sf T-hangars, 100,000 sf box hangars (Private/County) <i>[Construction]</i>	\$14,000,000	\$0	\$0	\$14,000,000
37	Runway 20 Extension to 5,300 ft (600 ft x 75 ft) <i>[NEPA Environmental Assessment]</i>	\$500,000	\$475,000	\$25,000	\$0
38	Runway 20 Extension to 5,300 ft (600 ft x 75 ft) <i>[Design]</i>	\$400,000	\$380,000	\$20,000	\$0
39	Runway 20 Extension to 5,300 ft (600 ft x 75 ft) <i>[Construction]</i>	\$5,000,000	\$4,750,000	\$250,000	\$0
Total Phase III Projects		\$34,160,000	\$17,765,000	\$935,000	\$15,460,000
GRAND TOTALS		\$91,045,000	\$28,385,250	\$20,509,750	\$42,150,000

Notes:

- (a) *Federal*– FAA Airport Improvement Program (AIP) Entitlement & Discretionary Grants
- (b) *Local* – Airport Net Revenues or Cash Reserves
- (c) *Other*- Unidentified or Private Third-Party Funding

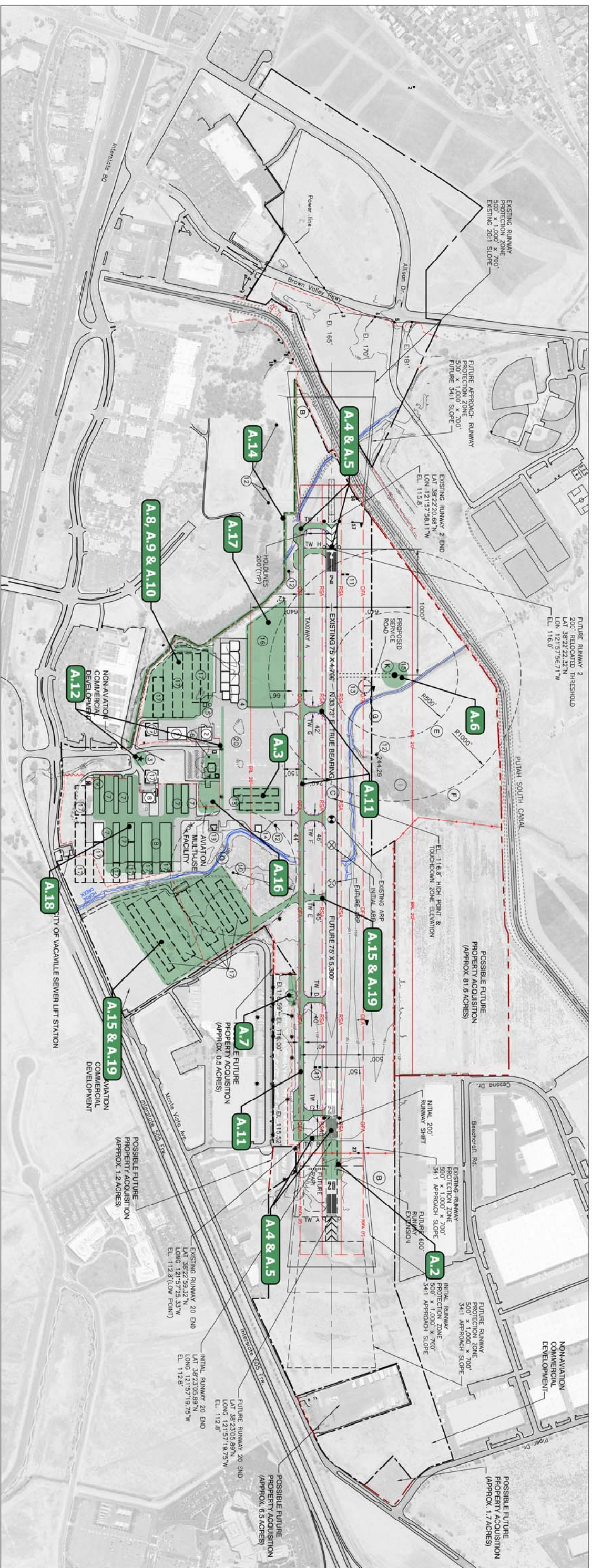
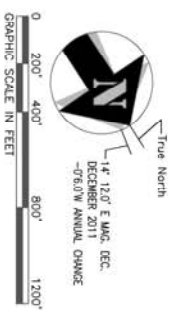


Phasing Plan

The following illustration entitled *PHASING PLAN* indicates the suggested phasing for projects in a graphic format. As with the Implementation Schedule, these are suggested schedules and variance from them may be necessary, especially during the latter time periods. Particular attention has been given to the first five years, as they are the most critical and the scheduled projects outlined in that time frame include key projects. The demand for certain facilities and the economic feasibility of their development, are to be the prime factors influencing the timing of individual project construction. Care must be taken to provide for adequate lead-time for detailed planning (*inclusive of environmental review*) and construction of facilities in order to meet aviation demands. It is also important to minimize the disruptive scheduling where a portion of the facility may become inoperative due to construction, and to prevent extra costs resulting from improper project scheduling.

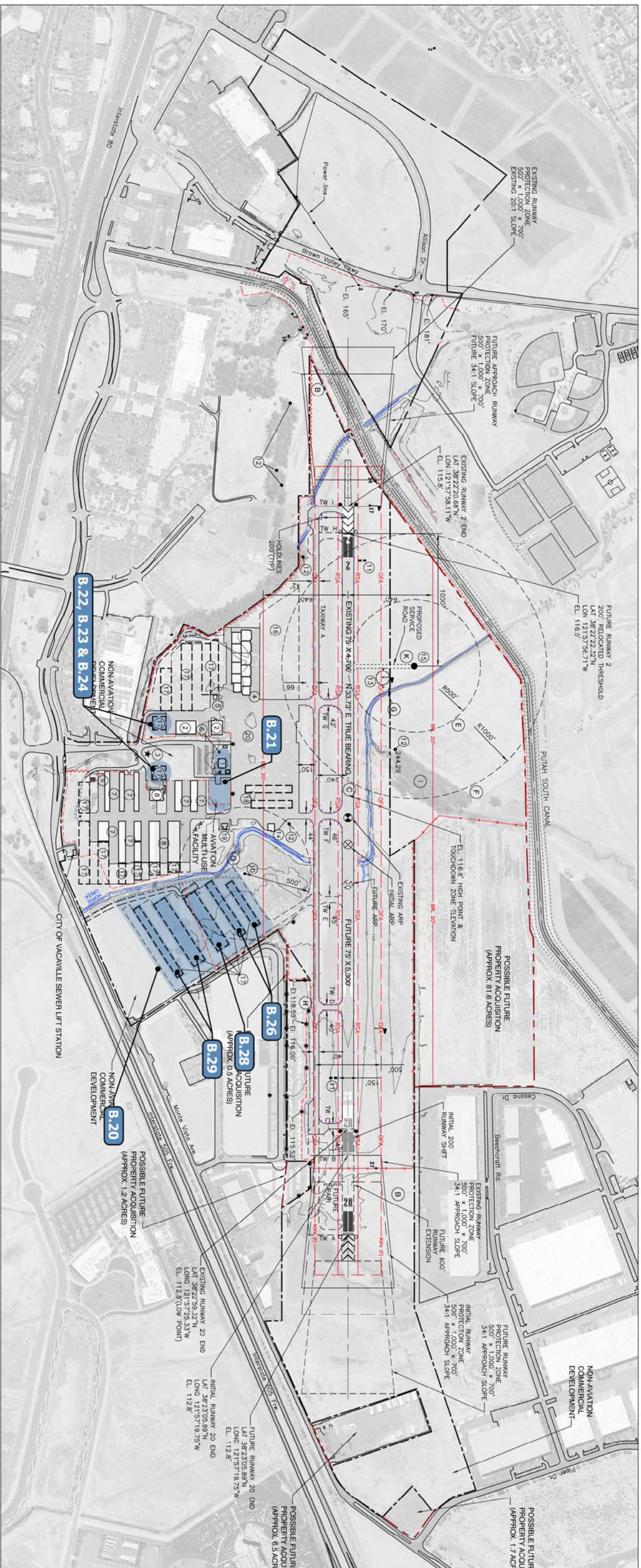
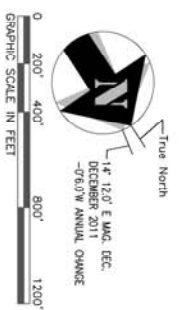
Capital Improvement Plan

The projects, phasing, and costs that are presented in this 2012 Airport Master Plan are the best program level projections that can be made at the time of formulation. The purpose is to provide a reasonable projection of capital needs, which can then be used in fiscal programming to test for financial feasibility. To assist in the preparation of the Airport's CIP that the Airport keeps on file and updates annually with the FAA, the first phase of the projects list and cost estimates are organized in a format similar to that used by the FAA.



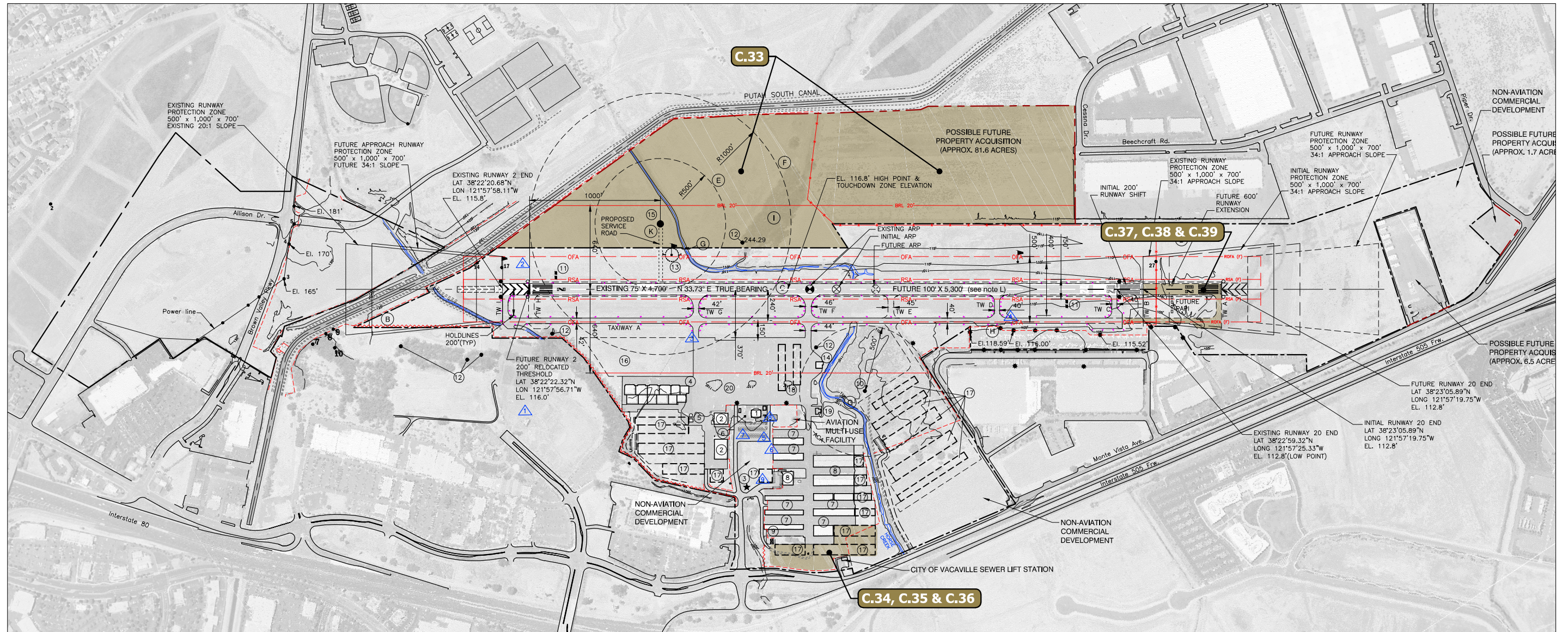
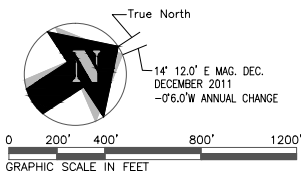
PHASE I (1-5 Years)

FIGURE F1
PHASING PLAN - PHASE I



PHASE II (6-10 Years)

**FIGURE F2
PHASING PLAN - PHASE II**



PHASE III (11-20 Years)

FIGURE F3
PHASING PLAN - PHASE III

Financial Plan and Implementation Strategy

Funding sources for the capital improvement program depend on many factors, including Airport Improvement Program (AIP) grant eligibility, the ultimate type and use of facilities to be developed, debt capacity of Solano County, the availability of other financing sources, and the priorities for scheduling project completion. For planning purposes, assumptions were made related to the funding source of each capital improvement. The project costs provided in the previous tables have been identified with likely funding sources.

Sources of Capital Funding

Following is a short description of potential capital improvement funding sources.

Federal Airport Improvement Program (AIP) Grants. The FAA is expected to provide grants on a 90%/10% basis to airports similar to the Nut Tree Airport for public-use improvement projects. On an entitlement grant basis, under new funding guidelines, the Airport should receive \$150,000 in AIP Non-Primary Entitlement (NPE) funds annually from 2012-2016 under new congressional reauthorization. There are also discretionary funds available through the AIP. Discretionary grants are over and above entitlement funding, and are provided to airports for projects that have a high federal priority for enhancing safety, security, and capacity of the Airport, and would be difficult to fund otherwise. The dollar amounts of individual grants vary and can be significant in comparison to entitlement funding. Discretionary grants are awarded at the FAA's sole prerogative. Discretionary grant applications are evaluated based on need, the FAA's project priority ranking system, and the FAA's assessment of a project's significance within the national airport and airway system.

FAA Facility and Equipment Funds. Within the FAA's budget appropriation, money is available in the Facilities and Equipment (F&E) Fund to purchase navigational aids and air safety-related technical equipment, including Airport Traffic Control Towers (ATCTs) equipment. Each F&E development project is evaluated independently through a cost/benefit analysis to determine funding eligibility and priority ranking. The qualified projects are totally funded (i.e., 100%) by the FAA, with the remaining projects likely being AIP. In addition, the Airport can apply for NAVAIDS maintenance funding through the F&E Program for those facilities that are not F&E funded.

California Department of Transportation (Caltrans) Division of Aeronautics. The following discussion regarding Caltrans funding is appropriate to describe as it can be a favorable factor in for long-term capital planning; however, Caltrans funding is more supportive in nature, rather



than sustaining as is the case with FAA funding. Therefore, Solano County will pursue State funding on a case-by-case basis.

The Division of Aeronautics administers three state aid programs for airports: (1) Annual Grants, (2) AIP Matching, and (3) Acquisition and Development (A&D) Grants. The sole funding source for these grants is the excise tax revenue on general aviation (GA) gasoline (\$0.18 per gallon) and for jet fuel (\$0.02 per gallon) which generates approximately \$7 million per year to support state-wide airport funding programs.

In addition, the Division administers the Local Airport Loan Program.

Caltrans Annual Credit Grants. These are State grants (\$10,000 annually) to eligible airports for use at the sponsor’s discretion subject to applicable laws and regulations, with prior approval from the Division.

The Annual Credit Grants (Annual Grants) fund projects for “airport and aviation purposes” as defined in Section 21681(f) of the State Aeronautics Act. Also, the Annual Grant can fund fueling facilities, restrooms, showers, and wash racks, including operation and maintenance expenses. The Annual Grant can provide part of the sponsor’s match for projects that are funded by FAA grants as long as the project is otherwise eligible for state funding. To receive the Annual Grant the airport cannot be an FAA designated Reliever or Commercial Service Airport. Nut Tree Airport is eligible to receive the Annual Grant.

Caltrans AIP Matching Grants. These are state grants to eligible airports for eligible projects subject to programming and allocation by the California Transportation Commission (CTC). This grant assists the sponsor in meeting the local match for Airport Improvement Program (AIP) grants from the FAA. The state grant assists in the local 10% share of the Federal AIP amount. Generally, state matching is limited to projects that primarily benefit general aviation and matching grants are limited to non-commercial service airports.

Caltrans Acquisition and Development (A&D) Grants. In general, the sponsor must meet the same eligibility requirements as for the Annual Grant. An A&D grant cannot be used as local match for an FAA grant. The minimum amount of an A&D grant is \$20,000. The maximum amount that can be allocated to an airport in a single fiscal year is \$500,000.

The amount available for A&D grants is what is left in the Aeronautics Account after funding Annual Grants and AIP Matching. The local match can vary from 10% to 50% of the project's cost. The match rate is set annually by the CTC. (A 10% rate has been utilized for the past 15+ years.) Again, the Annual Grant may not be used for the local match to an A&D grant.

Caltrans Local Airport Loan Program. The Local Airport Loan Account is a revolving fund that was initiated with seed money from the Aeronautics Account. As principal and interest payments are returned to the Loan Account, additional loans can be provided to airports. Loans are available for revenue generation projects such as hangars and fueling facilities. Loans can be made for airport development projects also and can be made to assist the sponsor with the local match for an AIP project.

No limit on the size of a loan has been established. The Division determines the amount for each individual loan in accordance with the feasibility of the project and the sponsor's financial status.

Private Third Party Financing. Many airports use private third party financing when the planned improvements will be primarily used or managed by a private business or other organization. Many such projects are not ordinarily eligible for federal funding. Projects of this kind typically include hangars¹, fixed based operator (FBO) facilities, fuel storage, exclusive aircraft parking aprons, industrial aviation use facilities, non-aviation office/commercial/industrial developments, and various other projects. Private development proposals are considered on a case-by-case basis.

Airport Revenues. The Nut Tree Airport generates revenue through the facility leases, commercial activity fees, fuel fees, etc. At many airports, including the Nut Tree Airport, generating the necessary cash flow to balance the operations and maintenance can be a difficult task and generation of money to adequately fund capital costs associated with the development of an airport is even more of a challenge. Many general aviation airports rely on supplemental money from its Sponsor to assist with funding major projects. The Sponsor for the Nut Tree Airport is the Solano County. As with most counties in California, the need for county-wide capital improvement funding is almost always greater than the money on hand, and careful planning is required to ensure that the critical capital needs are met with the scarce dollars that are available.

¹ Under certain conditions of FAA's Non-Primary Airport Entitlement Program, airports may use AIP funds in support of non-commercial hangar development, on a case-by-case basis, so long as all essential airside funding needs have been met for a 3-5 year period.



Summary - Airport Master Plan Capital Improvement Program Financial Implications

If aviation demands continue to indicate that improvements are needed, the capital improvement financial implications discussed above may be acceptable for the FAA and Solano County. However, it must be recognized that this is only a programming analysis and not a commitment on the part of the FAA or the Airport Sponsor. If the cost of an improvement project is not financially feasible, it will not be initiated. In addition, this capital improvement program may well be further shaped by policy direction of the County as it relates to operating initiatives that could include capital costs.

Before detailed planning on a particular project is developed, the funding structures and requirements should be identified and determined to reflect the current funding policies by the various funding entities.

