Chapter Six

CAPITAL IMPROVEMENT PROGRAM

Hollister Municipal Airport

The analyses conducted in the previous chapters evaluated airport development needs based upon safety, security, potential aviation activity, and operational efficiency. Through this analysis, a plan for the use and development of the airport was defined. The purpose of this chapter is to identify the projects to implement the proposed plan for the use and development of Hollister Municipal Airport and those capital needs required to maintain the airport in a safe and environmentally acceptable manner.

The presentation of the financial plan and its feasibility has been organized into two sections. First, the airport's capital needs are presented in narrative and graphic form. Secondly, funding sources on the federal, state, and local levels are identified and discussed.

DEMAND-BASED PLAN

The Master Plan for Hollister Municipal Airport has been developed according to a demand-based schedule. Demand-based planning refers to the intention to develop planning guidelines for the airport, based upon airport activity levels, instead of guidelines based on points in time. By doing so, the levels of activity derived from the demand forecasts can be related to the actual capital investments needed to safely and efficiently accommodate the level of demand being experienced at the airport. More specifically, the intention of this Master

HOLLISTER

Plan is that the facility improvements needed to serve new levels of demand should only be implemented when the levels of demand experienced at the airport justify their implementation.

For example, the aviation demand forecasts projected that based aircraft could be expected to grow through the year 2025. This forecast was supported by the local community's growing economy, and population and historical trends showing growing based aircraft levels.

The forecasts noted, however, that future based aircraft levels will be dependent upon a number of economic factors. These factors could slow or accelerate based aircraft levels differently than projected in the aviation demand forecasts. Since changes in these factors cannot be realistically predicted for the entire forecast period, it is difficult to predict with the level of accuracy needed to justify a capital investment, exactly when an improvement will be needed to satisfy demand level.

For these reasons, the Hollister Municipal Airport Master Plan has been developed as a demand-based plan. The Master Plan projects various activity levels for short, intermediate, and long term planning horizons. When activity levels begin to reach or exceed the level of one of the planning horizons, the Master Plan suggests planning begin to consider the next planning horizon level of demand. This provides a level of flexibility in the Master Plan, as the development program can be accelerated or slowed to meet demand. This can extend the time between Master Plan updates.

A demand-based Master Plan does not specifically require implementation of any of the demand-based improvements. Instead, it is envisioned that implementation of any Master Plan improvement would be examined against demand levels prior to implementation. In many ways, this Master Plan is similar to a community's general plan. The Master Plan establishes a plan for the use of the airport facilities, consistent with potential aviation needs and the capital needs required to support that use. However, individual projects in the plan are not implemented until the need is demonstrated and the project is approved by the City of Hollister.

CAPITAL NEEDS AND COST SUMMARIES

Once the specific needs for the airport have been established, the next step is to determine a realistic schedule and costs for implementing each project. The capital needs presented in this chapter outline the costs and timing for implementation. The program outlined on the following pages has been evaluated from a variety of perspectives and represents the culmination of a comparative analysis of basic budget factors, demand, and priority assignments.

Each year, the City of Hollister will need to reexamine the priorities for funding in the short-term period, adding or removing projects on the capital programming lists. **Table 6A** summarizes the key activity milestones for each planning horizon.

TABLE 6A
Planning Horizon Activity Levels

	2002	Short Term	Intermediate Term	Long Term
Based Aircraft	195	240	285	380
Annual Operations	57,300	74,400	91,200	129,600

Exhibit 6A summarizes capital needs for Hollister Municipal Airport through the planning period of this Master Plan. An estimate of federal and state funding eligibility has been included with each project, although none of those amounts are guaranteed.

Individual project cost estimates account for engineering and other contingencies that may be experienced during implementation of the project, and are in current (2003) dollars. Due to the conceptual nature of a Master Plan, implementation of capital improvement projects should occur only after further refinement of their design and costs through engineering and/or architectural analyses. Capital costs in this chapter should be viewed only as estimates subject to further refinement during design. Nevertheless, these estimates are considered sufficient for performing the feasibility analyses in this chapter.

The capital needs for the airport can be categorized as follows:

1) **Maintenance -** Maintaining the existing infrastructure is a priority. The capital needs program provides for the continued maintenance and rehabilitation of the airport's pavement areas.

2) **Safety and Security -** Of utmost importance with any transportation facility is safety and security. All projects in the plan are designed according to Federal Aviation Administration (FAA) design standards. This is carried throughout the other areas of focus. The safety needs in the capital needs program are considered necessary for the operational safety and protection of aircraft and/or people and property on the ground near the airport.

3) **Efficiency** - These are capital needs intended to improve aircraft ground and/or flight operations.

4) **Demand** – The master plan has established future activity levels for the airport. Should these activity levels be reached, it may be necessary to improve existing facilities to safely, efficiently, and securely accommodate the new activity levels. Therefore, the capital needs program includes provisions to accommodate levels of aviation demand. The implementation of these projects should only occur when demand for these needs are verified.

Each capital need is categorized using one of the four categories. Some projects have been identified to cover more than one category. The first category is considered the primary reason for completing the project. The applicable category (or categories) is included in parentheses within the description of the capital project. **Table 6B** summarizes capital needs by category.

TABLE 6B
Capital Needs by Category

Category	Short Term	Intermediate Term	Long Term	Total
Maintenance	$3,041,000	$904,000	$1,000,000	**$4,945,000**
Safety/Security	9,788,350	4,141,400	0	**13,929,750**
Efficiency	114,000	2,126,000	3,087,000	**5,327,000**
Demand	661,050	3,170,000	13,897,800	**17,728,500**
Total	**$13,604,400**	**$10,341,400**	**$17,984,800**	**$41,930,600**

SHORT TERM CAPITAL NEEDS

The Short Term Planning Horizon is the only planning horizon correlated to time. This is because development within this initial period is concentrated on the most immediate needs of the airfield and landside areas. Therefore, the program is presented year-by-year from Federal Fiscal Years (FFY) 2004 to 2009, to assist in capital planning, not only locally, but at the state and federal levels. Short term capital needs presented on **Exhibit 6A** are estimated at $15.6 million. Assuming full federal and state funding, the City of Hollister's share of these improvements is approximately $92,148, or approximately $15,358 per year over the six years contained in the Short Term Planning Horizon.

Projects included in the Short Term Planning Horizon focus on maintaining existing airport pavements, upgrading airfield lighting, and supporting existing and projected aviation demand. A summary of the projects included in the Short Term Planning Horizon, by category, is presented below.

Maintenance Projects: There are $3.041 million in maintenance projects in the Short Term Planning Horizon. This includes storm water handling system improvements (2004 and 2005), overlaying Runway 13-31 (2005), sealing and restriping Runway 6-24 (2005), sealing and restriping the main taxiways (2004) at the airport, and preparing a Pavement Maintenance Program.

Safety and Security Projects: Safety and security projects programmed for the Short Term Planning Horizon total $9.788 million and represent the largest category of projects proposed for the next five years. A project to add security fencing and access gates is programmed for 2004. This project is intended to add fencing, especially around

01MP12-6A-12/22/03

No.	Description	Total Cost	Federally Eligible	State Eligible	Local Share
SHORT TERM PLANNING HORIZON					
2004					
1.	Install Security Gates/Perimeter Fencing *(Security/Safety)*	$ 250,000	$ 237,500	$ 6,250	$ 6,250
2.	Facility Storm Water Handling System (Phase 1) - Design *(Maintenance)*	300,000	285,000	7,500	7,500
3.	Install Standby Power System *(Safety/Security)*	390,000	370,500	9,750	9,750
4.	Seal/Restripe Main Taxiways *(Maintenance)*	433,000	411,350	10,825	10,825
5.	Convert Runway Edge Lighting for Glider Operations *(Safety/Efficiency)*	15,000	14,250	375	375
6.	Construct Helicopter Hardstand *(Safety)*	22,000	20,900	550	550
Subtotal 2004		**$ 1,410,000**	**$ 1,339,500**	**$ 35,250**	**$ 35,250**
2005					
1.	Facility Storm Water Handling System (Phase II) - Construction *(Maintenance)*	$ 1,200,000	$ 1,140,000	$ 30,000	$ 30,000
2.	Seal/Restripe Runway 6-24 *(Maintenance)*	386,000	366,700	9,650	9,650
3.	Overlay Runway 13-31 *(Maintenance)*	657,000	624,150	16,425	16,425
4.	Install Taxiway Lighting *(Safety)*	195,000	185,250	4,875	4,875
Subtotal 2005		**$ 2,438,000**	**$ 2,316,100**	**$ 60,950**	**$ 60,950**
2006					
1.	Construct West Hangar Access Taxilanes (Phase I) *(Demand)*	$ 847,000	$ 804,650	$ 21,175	$ 21,175
2.	Construct 20 T-Hangars *(Demand)*	534,000	507,300	13,350	13,350
3.	Increase Fuel Farm Capacity *(Demand)*	349,000	331,550	8,725	8,725
4.	Construct West Parallel Taxiway - Phase I *(Efficiency)*	652,000	619,400	16,300	16,300
Subtotal 2006		**$ 2,382,000**	**$ 2,262,900**	**$ 59,550**	**$ 59,550**
2007					
1.	Northern Land Acquisition *(Safety/Security)*	$ 2,306,000	$ 2,190,700	$ 57,650	$ 57,650
2.	Relocate Taxiway A *(Safety/Security)*	2,272,000	2,158,400	56,800	56,800
3.	Construct 20 T-Hangars *(Demand)*	534,000	507,300	13,350	13,350
4.	Remove T-Hangars *(Safety)*	50,000	47,500	1,250	1,250
Subtotal 2007		**$ 5,162,000**	**$ 4,903,900**	**$ 129,050**	**$ 129,050**
2008					
1.	Shift Runway 6-24 330' Northwest/ Extend to 7,000' *(Safety/Demand)*	$ 1,592,000	$ 1,512,400	$ 39,800	$ 39,800
2.	Install High Intensity Runway Lighting Runway 13-31 *(Safety)*	803,000	762,850	20,075	20,075
3.	Replace Runway 13 and Runway 31 PAPI-2 with PAPI-4 *(Safety/Efficiency)*	133,000	126,350	3,325	3,325
4.	Install MALSR *(Efficiency)*	350,000	332,500	8,750	8,750
5.	Install Instrument Landing System (ILS) Runway 31 *(Efficiency)*	1,500,000	1,425,000	37,500	37,500
6.	Construct By-Pass Taxiway Runway 31 *(Efficiency)*	114,000	108,300	2,850	2,850
Subtotal 2008		**$ 4,492,000**	**$ 4,267,400**	**$ 112,300**	**$ 112,300**
SUBTOTAL SHORT TERM PLANNING HORIZON		**$ 15,884,000**	**$ 15,089,800**	**$ 397,100**	**$ 397,100**

No.	Description	Total Cost	Federally Eligible	State Eligible	Local Share
INTERMEDIATE TERM PLANNING HORIZON					
1.	Construct Southeast Corporate Taxiway *(Demand)*	$ 276,000	$ 262,200	$ 6,900	$ 6,900
2.	Construct Southeast Corporate Hangar Access Road *(Demand)*	207,000	196,650	5,175	5,175
3.	Construct West Hangar Access Taxilanes (Phase II) *(Demand)*	847,000	804,650	21,175	21,175
4.	Construct 40 T-Hangars *(Demand)*	1,068,000	1,014,600	26,700	26,700
5.	Construct Southern Diagonal Taxiway *(Demand)*	468,000	444,600	11,700	11,700
6.	Acquire land for Runway 6-24 North Parallel Taxiway (11.3 acres) *(Safety/Security)*	1,210,000	1,149,500	30,250	30,250
7.	Construct North Parallel Taxiway - Phase I *(Demand)*	610,000	579,500	15,250	15,250
8.	Construct Glider Staging Area *(Efficiency/Demand)*	333,000	316,350	8,325	8,325
9.	Acquire Runway 24 RPZ Aviation Easement (2.78 acres) *(Safety/Security)*	480,000	456,000	12,000	12,000
10.	Runway 6 RPZ Land Acquisition *(Safety/Security)*	679,000	645,050	16,975	16,975
11.	Realign Runway 6 and 24 Entrance Taxiways/Remove Pavement *(Safety/Efficiency)*	256,000	243,200	6,400	6,400
12.	Construct Holding Apron Runway 6 *(Efficiency)*	138,000	131,100	3,450	3,450
13.	Construct Holding Apron Runway 24 *(Efficiency)*	138,000	131,100	3,450	3,450
14.	Replace Runway 24 VASI-4 with PAPI-2 *(Safety/Efficiency)*	66,700	63,365	1,668	1,668
15.	Install PAPI-2 Runway 6 (Safety/Efficiency)	66,700	63,365	1,668	1,668
16.	Install REILs Runway 6 and Runway 13 *(Safety/Efficiency)*	40,000	38,000	1,000	1,000
17.	Acquire National Guard Facility/Remove Building *(Safety/Security)*	1,500,000	1,425,000	37,500	37,500
18.	Land Acquisition (78.5 acres) *(Safety/Security)*	7,250,000	6,887,500	181,250	181,250
19.	Overlay Main Apron *(Maintenance)*	404,000	383,800	10,100	10,100
20.	Construct Service Road *(Safety)*	200,000	190,000	5,000	5,000
21.	Pavement Maintenance *(Maintenance)*	500,000	475,000	12,500	12,500
SUBTOTAL INTERMEDIATE TERM PLANNING HORIZON		**$ 16,737,400**	**$ 15,900,530**	**$ 418,435**	**$ 418,435**
LONG TERM PLANNING HORIZON					
1.	Relocate AWOS *(Efficiency/Demand)*	$ 150,000	$ 142,500	$ 3,750	$ 3,750
2.	Relocate Segmented Circle/Lighted Wind Cone *(Efficiency/Demand)*	25,000	23,750	625	625
3.	Construct West Parallel Taxiway - Phase II *(Efficiency/Demand)*	2,256,000	2,143,200	56,400	56,400
4.	Construct North Parallel Taxiway - Phase II *(Efficiency/Demand)*	766,000	727,700	19,150	19,150
5.	Construct Northeast Corporate Hangar Taxiways *(Demand)*	429,000	407,550	10,725	10,725
6.	Construct Northeast Corporate Hangar Access Road/Extend Utilities *(Demand)*	413,000	392,350	10,325	10,325
7.	Construct T-Hangar Access Taxilanes *(Demand)*	667,000	633,650	16,675	16,675
8.	Construct Automobile Parking and Access *(Demand)*	419,000	398,050	10,475	10,475
9.	Construct 50 T-Hangars *(Demand)*	1,334,000	1,267,300	33,350	33,350
10.	Construct Above Ground Fuel Storage Facility *(Demand)*	250,000	237,500	6,250	6,250
11.	Pavement Maintenance *(Maintenance)*	1,000,000	950,000	25,000	25,000
SUBTOTAL LONG TERM PLANNING HORIZON		**$ 7,709,000**	**$ 7,323,550**	**$ 192,725**	**$ 192,725**
TOTAL ALL DEVELOPMENT		**$ 40,330,400**	**$ 38,313,880**	**$ 1,008,260**	**$ 1,008,260**

REIL - Runway End Identifier Light
PAPI - Precision Approach Path Indicator
MALSR - Medium Intensity Approach Lighting System with Runway Alignment Indicator Lighting
VASI - Visual Approach Slope Indicator
AWOS - Automated Weather Observation System
RPZ - Runway Protection Zone

Hollister Municipal Airport

Exhibit 6A
CAPITAL IMPROVEMENT PROGRAM

the existing terminal area, to limit the potential for inadvertent vehicle and pedestrian access to the aircraft operational areas. A safety project identified for 2004 is the conversion of some of the existing runway lighting standards on the north side of Runway 6-24, to in-pavement lighting. Currently, when Runway 6-24 is used for glider operations, the glider operators remove the existing runway lighting standards to ensure that the light standards are not hit by a glider aircraft wing. The existing lighting standards are not made to be removed on such a regular basis. This increases the chances for the lighting standards to be damaged and not work after use. In-pavement lighting would eliminate this practice and ensure lighting aids are not damaged and prevented from working.

Currently, the taxiways at the airport are without pavement edge lighting. A project in 2005 would add medium intensity taxiway lighting (MITL) to assist pilots in ground maneuvering at night. The development of a helicopter hardstand is planned for 2004. The hardstand is an area for helicopter parking segregated from the fixed wing parking apron. The hardstand can only be approached by a hover taxi. A hardstand cannot be used for takeoff and landing. With the hardstand, helicopters must approach to a runway or taxiway surface prior to parking at the hardstand.

The bulk of the safety projects programmed for the Short Term Planning Horizon are related to bringing Runway 13-31 in conformance to FAA Airport Reference Code (ARC) C-II design standards and meeting design requirements so that an Instrument Landing System (ILS) approach can be installed to Runway 31. All runway improvements are planned before the ILS installation, as compliance with the design standards is a prerequisite for the approach, and the FAA would prefer to establish the ILS to the permanent Runway 31 threshold. This pushes the ILS installation beyond 2009, as land acquisition, building removal, and taxiway development will need to precede the ILS installation.

For an ILS approach at an ARC C-II airport, FAA design standards require a runway centerline to parallel taxiway centerline separation distance of 400 feet. A project in 2009 relocates Taxiway A 100 feet east, to meet these design requirements. The existing Taxiway A surface would be removed and most likely used in the base material for the new taxiway.

A project in 2009 shifts Runway 13-31, 330 feet northwest, to allow for the full development of the runway safety area (RSA) and object free area (OFA) behind the Runway 31 end. Concurrent with the shift, Runway 13-31 and Taxiway A are planned to be extended to 7,000 feet, which is the FAA recommended runway length for Hollister Municipal Airport. The shift allows for Medium Intensity Approach Lighting System with Runway Alignment Indicator Lighting (MALSR) to be developed almost entirely on existing airport property, and for the Runway 31 runway protection zone (RPZ) to encompass an area already protected by an avigation easement. Since the area behind the relocated Runway 31 end would be

dedicated for the RSA and OFA, the existing pavement behind the relocated Runway 31 threshold would be removed and most likely used as base material for the runway extension. The existing lead-in taxiway behind the Runway 31 end is contrary to federal design standards, which require any pavement used for aircraft departure and/or landing to be marked accordingly and all federal design standards be met. Following the shift, two existing T-hangars may need to be removed and replaced, as they would be within the RPZ and could be a considered an obstruction. The removal and replacement of the T-hangars is planned to precede the ILS installation in the Intermediate Term Planning Horizon.

Extending Runway 31 to 7,000 feet will require the acquisition of approximately 25 acres of land north of the Runway 13 threshold. This land is needed to protect the Runway 13 RPZ and provide for the full development of the RSA and OFA behind the Runway 13 end. The land acquisition is programmed for 2008. The installation of Precision Approach Path Indicators (PAPI) to each end of Runway 13-31 is planned for 2009, concurrent with the runway shift and extension.

The development of a portion of the west parallel taxiway from Runway 6-24, south to the relocated Runway 31 end is included in this planning horizon. This taxiway segment is needed to serve the future California Department of Forestry (CDF) facilities planned west of Runway 13-31.

The development of a portion of the parallel taxiway north of Runway 6-24 is programmed for this planning horizon. This taxiway would extend from the Runway 6 end, to its intersection with Runway 13-31. The acquisition of approximately 11 acres of land north of Runway 6-24 is programmed to allow for this taxiway to be eligible for federal and state funding, and also protect the Runway 6-24 transitional surface. Following this taxiway development, the development of a glider staging area is planned. Designed in conjunction with the glider operator at the airport, this staging area is planned and designed to allow for the ground handling of glider aircraft off of the active runway.

The full development of the southwest diagonal taxiway to the Runway 31 end is planned. This taxiway will allow for quick access to the Runway 31 end for aircraft in the west T-hangar area.

Efficiency Projects: Efficiency projects in the Short Term Planning Horizon total $114,000, and are intended to improve aircraft taxiing. This includes two separate taxiway projects and a bypass taxiway on the east side of Runway 13-31 at the Runway 31 end. Since there is not sufficient area between a relocated Taxiway A and the existing pavement area to construct a holding apron, a bypass taxiway must be constructed to ensure that aircraft ready for departure are not delayed by aircraft preparing for departure or waiting for a departure clearance.

Demand Projects: Demand projects include hangar development in the west T-hangar area. The development of 20 units in 2007 is expected to fulfill the existing unmet demand as shown by the existing hangar waiting list. The development of the necessary access taxilanes is also programmed.

INTERMEDIATE TERM CAPITAL NEEDS

Intermediate Term development needs support projected aviation demand, continue pavement maintenance, add airfield taxiways, and improve instrument approach capabilities. Intermediate Term Planning Horizon improvements are estimated at $10.3 million.

The installation of an ILS and MALSR to Runway 31 is programmed for this planning horizon. The ILS enhances the existing approach capability to ensure the airport can be reached during periods of poor visibility. The ILS is anticipated to provide for ½ mile visibility and 200-foot cloud ceiling approaches to Runway 31. The ILS and MALSR installation will need to follow the shifting of Runway 31 to the north (programmed for 2009). Without the shifting, the MALSR cannot be easily installed, as it would extend into an existing industrial development area. Furthermore, the FAA would prefer to establish the ILS procedure once the runway threshold is in a permanent location. As mentioned previously, the Runway 31 threshold must be relocated to allow the development of the RSA and OFA behind the runway 31 end. Compliance with the design standards is a prerequisite for the approach. The removal of 20 T-hangars east of the runway (with replacement planned in the west T-hangar area) will precede the ILS installation. These hangars obstruct the approach.

The Runway 6 and Runway 24 entrance taxiways are planned to be realigned perpendicular to the runway alignment. This is the preferred alignment for runway entrance taxiways. The pavement behind the Runway 6 and Runway 24 thresholds, which presently is not marked as runway, will be removed and no longer usable for aircraft operations. Instead, the area behind the runway thresholds will be dedicated to complying with ARC B-II RSA and OFA standards. Similar to the Runway 31 end, the existing lead-in taxiway behind the Runway 6 and Runway 24 ends is contrary to federal design standards, which require any pavement used for aircraft departure and/or landing to be marked accordingly and all federal design standards be met.

Holding aprons are planned at the Runway 6 and Runway 24 ends. Runway End Identifier Lights (REILs) are planned for the Runway 6 and Runway 13 ends. REILs assist pilots in locating the runway end at night and during poor visibility conditions. PAPIs are planned for each end of Runway 6-24.

Several projects to support future hangar development needs are also planned. This includes developing the southeast corporate taxiway. This will allow for hangar development east of existing apron area. This taxiway will connect with Taxiway B. Full develop-

ment of the west T-hangar access taxilanes and 60 T-hangars is planned. The full development of the west T-hangar access taxilanes will allow for individual/corporate hangar development on the eastern side of the west T-hangar area.

A service road is planned from the existing terminal area to the west T-hangar area. This roadway is intended to extend around the airfield operations area and provide a year-round roadway for use by airport maintenance, security, and aircraft refueling vehicles. This enhances airfield safety by allowing for airport vehicles to access portions of the airport without crossing active runways and taxiways.

The acquisition of the California National Guard Armory and removal of the former armory building is planned. This will ensure that this land is compatible with the operation of the Runway 6-24. The acquisition of land within the Runway 6 RPZ and avigation easements to protect the Runway 24 RPZ are also planned.

A total of $500,000 is included in the Intermediate Term Planning Horizon for pavement preservation activities. Pavement preservation activities typically include applying a slurry seal to rejuvenate and protect the pavement surface, crack sealing, and/or small pavement repairs. The overlay of the existing main apron is planned for strengthening and surface repair. Expansion of fuel storage and the overlay of the main apron is also planned.

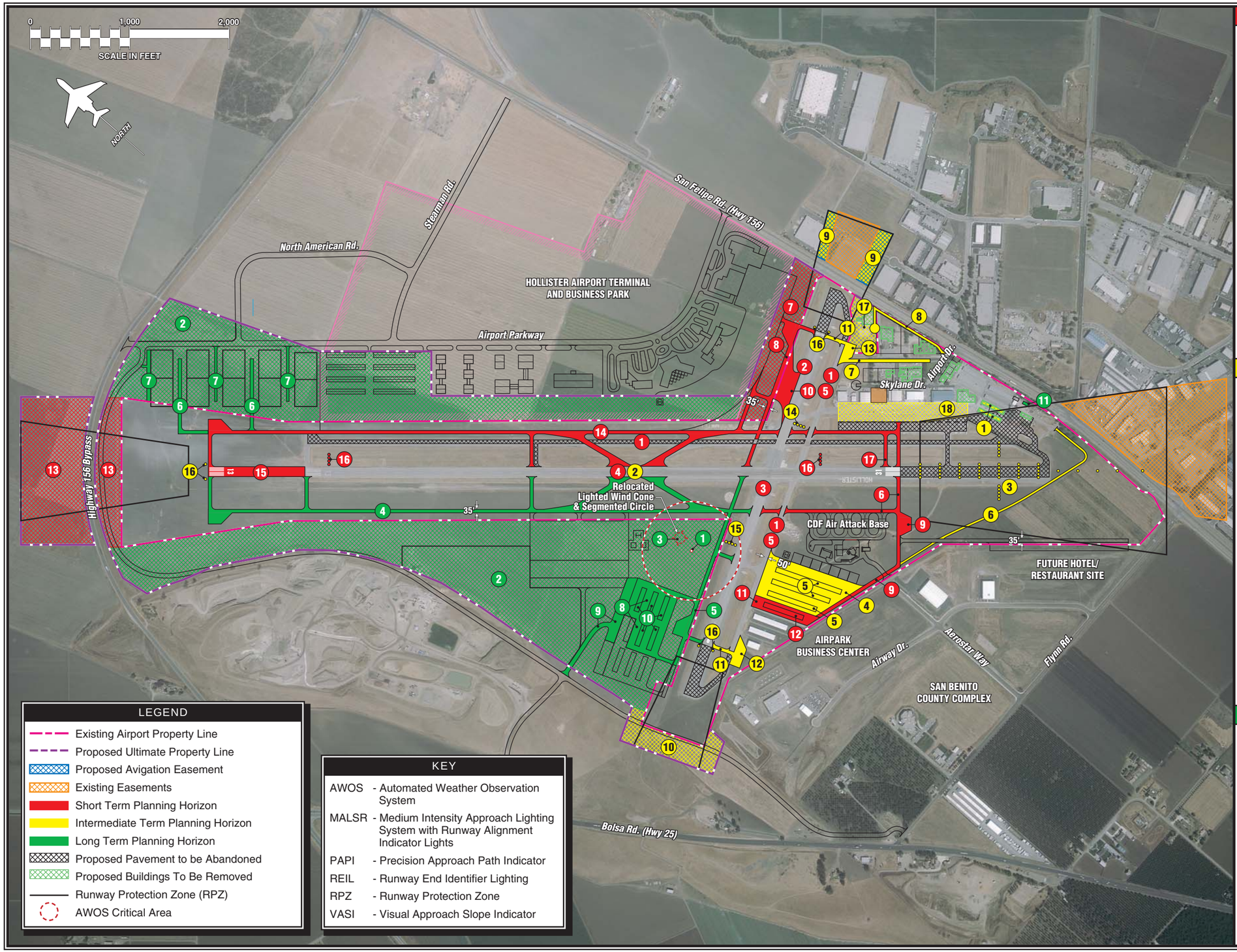
LONG TERM CAPITAL NEEDS

Projects in the Long Term Planning horizon are focused on meeting long term facility needs. This includes beginning T-hangar development north of the Runway 6 end. The northeast corporate hangar access taxilanes and roadway development is planned. An above ground fuel storage facility is planned in the former CDF area. To allow for the full development of the west parallel taxiway, the Automated Weather Observation System (AWOS) will need to be relocated. This also requires the relocation of the segmented circle and windcone. While the AWOS is being installed in 2004, the City does not own the property where the AWOS must ultimately be located. Therefore, the AWOS will ultimately need to be relocated. The full development of the north parallel taxiway is also planned.

Land acquisition totaling 112 acres is planned for the long term facility needs. This includes land to the east and west of Runway 13-31. A total of $1,000,000 is included in the Long Term Planning Horizon for pavement preservation activities. As mentioned previously, pavement preservation activities typically include applying a slurry seal to rejuvenate and protect the pavement surface, crack sealing, and/or small pavement repairs.

Exhibit 6B graphically depicts development staging.

01MP12-6B-4/19/04



SHORT TERM PLANNING HORIZON

1. Seal/Restripe Main Taxiways *(Maintenance)*
2. Convert Runway Edge Lighting for Glider Operations *(Safety/Efficiency)*
3. Seal/Restripe Runway 6-24 *(Maintenance)*
4. Overlay Runway 13-31 *(Maintenance)*
5. Install Taxiway Lighting *(Safety)*
6. Construct West Partial Parallel Taxiway *(Safety)*
7. Acquire land for Runway 6-24 North Parallel Taxiway (11.3 acres) *(Safety)*
8. Construct North Partial Parallel Taxiway *(Safety)*
9. Construct Southern Diagonal Taxiway *(Safety)*
10. Construct Glider Staging Area *(Safety)*
11. Construct West Hangar Access Taxilanes *(Safety)*
12. Construct 20 T-Hangars *(Demand)*
13. Northern Land Acquisition *(Safety)*
14. Construct Taxiway A Relocation *(Safety)*
15. Construct Runway 13-31 330' Northwest Shift and Extension to 7,000' *(Safety)*
16. Replace Runway 13 and Runway 31 PAPI-2 with PAPI-4 *(Safety)*
17. Construct By-Pass Taxiway Runway 31 *(Efficiency)*

INTERMEDIATE TERM PLANNING HORIZON

1. Remove T-Hangars *(Safety)*
2. Install High Intensity Runway Lighting Runway 13-31 *(Safety)*
3. Install MALSR *(Efficiency)*
4. Construct West Hangar Access Taxilanes *(Demand)*
5. Construct 60 T-Hangars *(Demand)*
6. Construct Service Road *(Safety)*
7. Construct Southeast Corporate Taxiway *(Demand)*
8. Construct Southeast Corporate Hangar Access Road *(Demand)*
9. Acquire Runway 24 RPZ Aviation Easement (2.78 acres) *(Safety/Security)*
10. Runway 6 RPZ Land Acquisition *(Safety/Security)*
11. Realign Runway 6 and 24 Entrance Taxiways/Remove Pavement *(Safety/Efficiency)*
12. Construct Holding Apron Runway 6 *(Efficiency)*
13. Construct Holding Apron Runway 24 *(Efficiency)*
14. Replace Runway 24 VASI-4 with PAPI-2 *(Safety/Efficiency)*
15. Install PAPI-2 Runway 6 *(Safety/Efficiency)*
16. Install REILs Runway 6 and Runway 13 *(Safety/Efficiency)*
17. Acquire National Guard Facility/Remove Building *(Safety/Security)*
18. Overlay Main Apron *(Maintenance)*

LONG TERM PLANNING HORIZON

1. Relocate AWOS *(Efficiency/Demand)*
2. Land Acquisition (112.4 acres) *(Demand)*
3. Relocate Segmented Circle/Lighted Wind Cone *(Efficiency/Demand)*
4. Construct West Parallel Taxiway - Phase II *(Efficiency/Demand)*
5. Construct North Parallel Taxiway - Phase II *(Efficiency/Demand)*
6. Construct Northeast Corporate Hangar Taxiways *(Demand)*
7. Construct Northeast Corporate Hangar Access Road/Extend Utilities *(Demand)*
8. Construct T-Hangar Access Taxilanes *(Demand)*
9. Construct Automobile Parking and Access *(Demand)*
10. Construct 50 T-Hangars *(Demand)*
11. Construct Above Ground Fuel Storage Facility *(Demand)*

LEGEND

- Existing Airport Property Line
- Proposed Ultimate Property Line
- Proposed Avigation Easement
- Existing Easements
- Short Term Planning Horizon
- Intermediate Term Planning Horizon
- Long Term Planning Horizon
- Proposed Pavement to be Abandoned
- Proposed Buildings To Be Removed
- Runway Protection Zone (RPZ)
- AWOS Critical Area

KEY

AWOS	- Automated Weather Observation System
MALSR	- Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
PAPI	- Precision Approach Path Indicator
REIL	- Runway End Identifier Lighting
RPZ	- Runway Protection Zone
VASI	- Visual Approach Slope Indicator

Hollister Municipal Airport

Exhibit 6B
DEVELOPMENT STAGING

CAPITAL IMPROVEMENTS FUNDING

Financing capital improvements at the airport will not rely exclusively upon the financial resources of the City of Hollister. Capital improvement funding is available at the federal level and state level for many airport projects. The following discussion outlines the key sources for capital improvement funding.

FEDERAL GRANTS

Through federal legislation over the years, various grants-in-aid programs have been established to develop and maintain a system of public airports throughout the United States. The purpose of this system and its federally-based funding is to maintain national defense and promote interstate commerce. The most recent legislation is the *Vision 100 – Century of Aviation Reauthorization Act*. *Vision 100* was signed into law on December 13, 2003.

Vision 100 is a four-year bill covering FAA fiscal years 2004, 2005, 2006, and 2007. *Vision 100* provides national funding levels of $3.4 billion in 2004, increasing $1 million annually, until reaching $3.7 billion in 2007. The Fiscal Year 2004 appropriation is expected to be finalized in January 2005. Until the appropriation is completed, 2004 AIP funding will not be available.

The source for federal funding of airports is the Aviation Trust Fund. The Aviation Trust Fund was established in 1970, to provide funding for aviation capital investment programs (aviation development, facilities and equipment, and research and development). The Trust Fund also finances the operation of the FAA. It is funded by user fees, taxes on airline tickets, aviation fuel, and various aircraft parts.

Proceeds from the Aviation Trust Fund are distributed each year by the FAA, from appropriations by Congress. A portion of the annual distribution is to primary commercial service airports (e.g., Monterey, Oakland, San Jose), based upon enplanement levels. Commercial service airports enplaning more than 10,000 passengers annually are provided a minimum $1,000,000 annual entitlement. For eligible general aviation airports, *Vision 100* provides up to $150,000 of funding each year. As a reliever airport, Hollister Municipal Airport does not qualify for the commercial service entitlement; however, it does qualify for the annual $150,000 entitlement.

After meeting entitlement obligations, the remaining Airport Improvement Program (AIP) funds are distributed by the FAA, based upon the priority of the project for which they have requested federal assistance through discretionary apportionments. A national priority ranking system is used to evaluate and rank each airport project. Those projects with the highest priority are given preference in funding. Each project for Hollister Municipal Airport is required to follow this procedure and compete with other airport projects in the State for AIP State Apportionment dollars, and across the country for other Federal AIP funds. An important point to consider is

that most funding for Hollister Municipal Airport is not guaranteed, as the airport is currently only eligible for the $150,000 annual entitlement. As evident from the airport development schedule and cost summaries, the City of Hollister could benefit significantly from federal discretionary funding.

Airport development that meets the FAA's eligibility requirements can receive 95 percent federal funding. This is a five percent increase from past funding, which only provided 90 percent funding for eligible projects. The 95 percent funding level is currently only provided by law until 2007. After 2007, the funding level would revert back to 90 percent unless extended by Congress. Funding at 95 percent for AIP eligible projects has been assumed to extend through the planning period, as it is expected that subsequent legislation would make permanent the 95 percent funding level. Property acquisition, airfield improvements, aprons, perimeter service roads, and access road improvements are examples of eligible items. General aviation terminal buildings and airport maintenance buildings are not eligible at non-primary airports such as Hollister Municipal Airport.

Vision 100 does provide for the Secretary of Transportation to fund revenue-generating developments such as hangars and fuel facilities, which have historically not been eligible for federal funding. *Vision 100* limits this funding eligibility to non-primary airports such as Hollister Municipal Airport. *Vision 100* also requires the Secretary of Transportation to determine that adequate provisions have been made to finance airside needs at the airport, prior to an airport receiving funding for revenue generating development.

FAA FACILITIES AND EQUIPMENT PROGRAM

The Airway Facilities Division of the FAA administers the national Facilities and Equipment (F&E) Program. This annual program provides funding for the installation and maintenance of various navigational aids and equipment for the national airspace system and airports. Under the F&E program, funding is provided for FAA airport traffic control towers, enroute navigational aids, and on-airport navigational aids such as approach lighting systems. While the capital improvement schedule provides for the City of Hollister to fund the Runway 31 Instrument Landing System (ILS), Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR), and planned Precision Approach Path Indicators (PAPIs) with AIP funds, these improvements could be installed and maintained by the FAA Airways Facility Division. The City of Hollister should maintain contact with this division of the FAA to determine their eligibility for equipment installation and maintenance.

STATE AID TO AIRPORTS

In support of the State airport system, the California Transportation Commission (CTC) also participates in State airport development projects. An Aero-

nautics Account has been established within the State Transportation Fund, from which all airport improvement monies are drawn. Tax revenues from the sale of general aviation jet fuel ($0.02 per gallon) and Avgas ($0.18 per gallon) are collected and deposited in the Aeronautics Account to support the State airport system development program.

The California Transportation Commission has established three grant programs to distribute funds deposited in the Aeronautics Account: Annual Grants, Acquisition and Development (A & D) Grants, and AIP Matching Grants. Another funding source provided by the CTC is low-interest loans. Each item is briefly discussed below.

Annual Grants

Annual Grants are distributed by the CTC for projects considered for "airport and aviation purposes" as defined in the State Aeronautics Act. All public use airports, with the exception of reliever and commercial service airports are eligible for this annual $10,000 grant. Hollister Municipal Airport is eligible for this grant.

Acquisition and Development (A & D) Grants

A & D Grants are designed to provide funding to airports for the purpose of land acquisition and development. This grant has a minimum allocation level of $10,000 and provides up to $500,000 per fiscal year (maximum allowable funding to a single airport yearly). Grant requests are initiated through the CIP process and require a local match of 10 to 50 percent of the project's cost. Unlike Annual Grants, all airports are eligible for the A & D grant.

AIP Matching Grants

The AIP grant is distributed for the purpose of aiding an airport with the local match of a federally-funded improvement project. In order to be eligible for an AIP Matching Grant, the project must have been included in the State CIP and the sponsor must have accepted a Federal AIP Grant for the project. This grant provides one-half of the project's remaining cost after federal funding. Following the enactment of *Vision 100*, it is expected that this would equate to 2.5 percent of the project cost. This funding counts towards the yearly $500,000 maximum grant disbursement level. As illustrated by **Exhibit 6A,** a majority of the projects within the CIP reflect eligibility for matching funds provided by the State.

California Airport Loan Program

The loan program provides funding for all airports within the State of California which are owned by an eligible public agency and open to the public without exception. These loans provide funding to eligible airports for construction and land acquisition projects which will benefit the airport and improve its self-sufficiency. The loans can be used for any airport-related project, and the

funding limits are not bound by law or regulation. The amount of the loan is determined in accordance with project feasibility and the sponsor's financial status. Terms of the loan provide 8 to 15 years for its payback, and the interest rate is based upon the most recent State bond sale.

LOCAL FUNDING

The balance of project costs, after consideration has been given to grants, must be funded through local resources. Assuming federal and state funding, this essentially equates to 2.5 percent of the project costs if all eligible FAA and state funds are available.

There are several alternatives for local finance options for future development at the airport, including airport revenues, direct funding from the City of Hollister, issuing bonds, and leasehold financing. These strategies could be used to fund the local matching share, or complete the project if grant funding cannot be arranged.

The capital improvement program has assumed that some landside facility development would be completed privately. Under this type of development, for on-airport landside development, the City of Hollister would complete the necessary infrastructure improvements, as this development is grant-eligible. Apron, taxiway, and utilities improvements off-airport are not eligible for grant funding assistance and would need to be completed with private funds.

There are several municipal bonding options available to the City of Hollister including: general obligation bonds, limited obligation bonds, and revenue bonds. General obligation bonds are a common form of municipal bonds which are issued by voter approval and secured by the full faith and credit of the City of Hollister. City of Hollister tax revenues are pledged to retire the debt. As instruments of credit, and because the community secures the bonds, general obligation bonds reduce the available debt level of the community. Due to the community pledge to secure and pay general obligation bonds, they are the most secure type of municipal bond and are generally issued at lower interest rates and carry lower costs of issuance. The primary disadvantage of general obligation bonds is that they require voter approval and are subject to statutory debt limits. This requires that they be used for projects that have broad support among the voters, and that they are reserved for projects that have highest public priorities.

In contrast to general obligation bonds, limited obligation bonds (sometimes referred to as Self-Liquidating Bonds) are secured by revenues from a local source. While neither general fund revenues nor the taxing power of the local community is pledged to pay the debt service, these sources may be required to retire the debt if pledged revenues are insufficient to make interest and principal payments on the bonds. These bonds still carry the full faith and credit pledge of the local community and, therefore, are considered, for the purpose of financial analysis, as part of the

debt burden of the local community. The overall debt burden of the local community is a factor in determining interest rates on municipal bonds.

There are several types of revenue bonds, but in general they are a form of a municipal bond which is payable solely from the revenue derived from the operation of a facility that was constructed or acquired with the proceeds of the bonds. For example, a Lease Revenue Bond is secured with the income from a lease assigned to the repayment of the bonds. Revenue bonds have become a common form of financing airport improvements. Revenue bonds present the opportunity to provide those improvements without direct burden to the taxpayer. Revenue bonds normally carry a higher interest rate because they lack the guarantees of general and limited obligation bonds.

Leasehold financing refers to a developer or tenant financing improvements under a long term ground lease. The obvious advantage of such an arrangement is that it relieves the community of all responsibility for raising the capital funds for improvements. However, the private development of facilities on a ground lease, particularly on property owned by a municipal agency, produces a unique set of problems. In particular, it is more difficult to obtain private financing, as only the improvements and the right to continue the lease can be claimed in the event of a default. Ground leases normally provide for the reversion of improvements to the lessor at the end of the lease term, which reduces their potential value to a lender taking possession. Also, companies that want to own their property as a matter of financial policy may not locate where land is only available for lease. The City of Hollister has used long term lease arrangements successfully to finance capital improvements at the airport in the past. Most hangar facilities were developed with private funds under a long term ground lease with the City.

PLAN IMPLEMENTATION

The successful implementation of the Hollister Municipal Airport Master Plan will require sound judgment on the part of the City of Hollister with regard to the implementation of projects to meet future activity demands, while maintaining the existing infrastructure and improving this infrastructure to support new development. While the projects included in the capital improvement program have been broken into short, intermediate, and long term planning periods, the City of Hollister will need to consider the scheduling of projects in a flexible manner, and add new projects from time-to-time to satisfy safety or design standards, or newly created demands. In summary, the planning process requires that the City of Hollister continually monitor the need for new or rehabilitated facilities, since applications (for eligible projects) must be submitted to the FAA and state each year.