Appendix A – Runway Length Data Tables

Table 1-1. Airplane Weight Categorization for Runway Length Requirements

<table>
<tr><th colspan="3">Airplane Weight Category
Maximum Certificated Takeoff Weight (MTOW)</th><th>Design Approach</th><th>Location of Design Guidelines</th></tr>
<tr><td rowspan="4">12,500 pounds (5,670 kg) or less</td><td colspan="2">Approach Speeds less than 30 knots</td><td>Family grouping of small airplanes</td><td>Chapter 2;
Paragraph 203</td></tr>
<tr><td colspan="2">Approach Speeds of at least 30 knots but less than 50 knots</td><td>Family grouping of small airplanes</td><td>Chapter 2;
Paragraph 204</td></tr>
<tr><td rowspan="2">Approach Speeds of 50 knots or more</td><td>With Less than 10 Passengers</td><td>Family grouping of small airplanes</td><td>Chapter 2;
Paragraph 205
Figure 2-1</td></tr>
<tr><td>With 10 or more Passengers</td><td>Family grouping of small airplanes</td><td>Chapter 2;
Paragraph 205
Figure 2-2</td></tr>
<tr><td colspan="3">Over 12,500 pounds (5,670 kg) but less than 60,000 pounds (27,200 kg)</td><td>Family grouping of large airplanes</td><td>Chapter 3;
Figures 3-1 or 3-2 [1]
and Tables 3-1 or 3-2</td></tr>
<tr><td colspan="3">60,000 pounds (27,200 kg) or more or Regional Jets [2]</td><td>Individual large airplane</td><td>Chapter 4; Airplane Manufacturer Websites (Appendix 1)</td></tr>
</table>

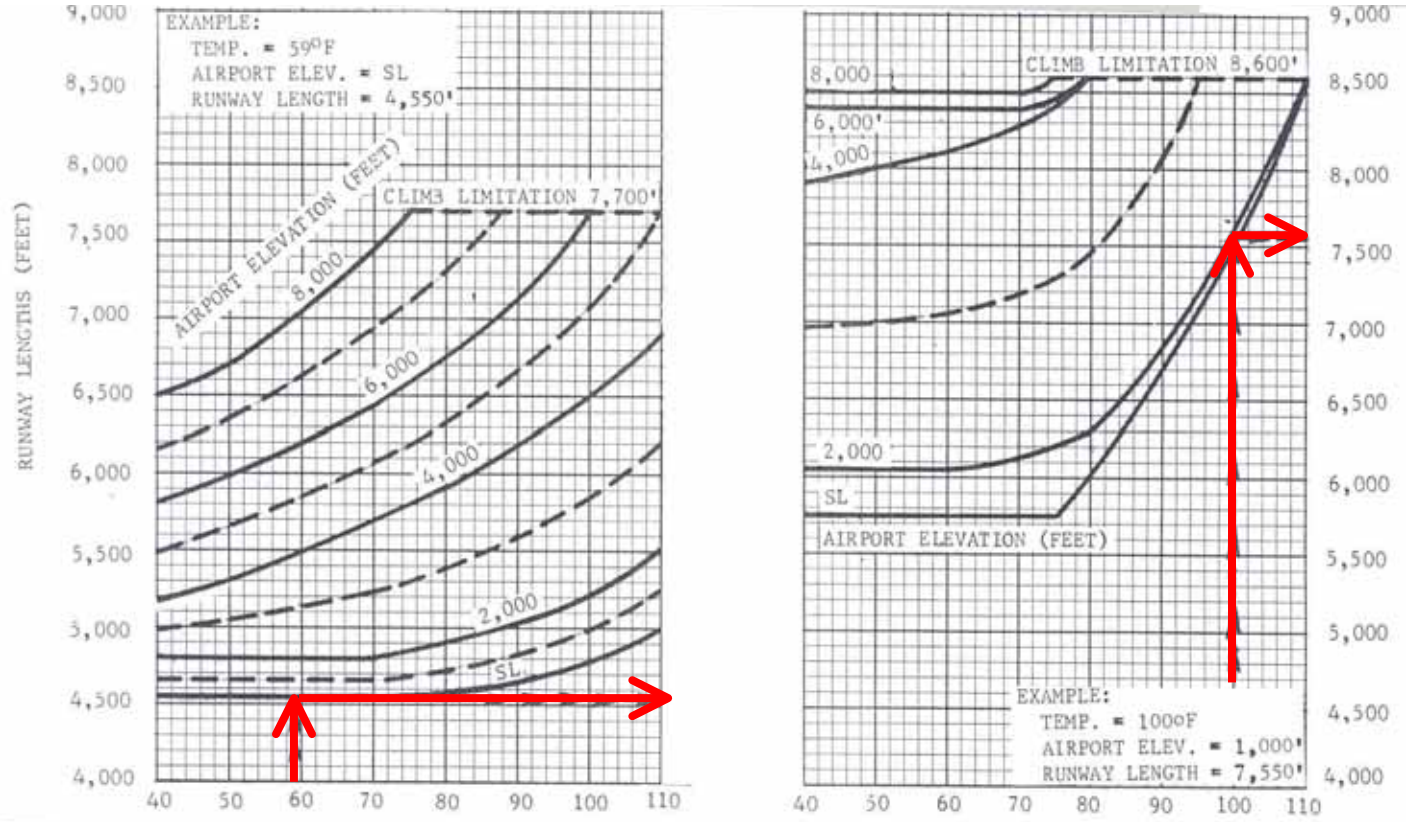
Note [1]: When the design airplane's APM shows a longer runway length than what is shown in figure 3-2, use the airplane manufacturer's APM. However, users of an APM are to adhere to the design guidelines found in Chapter 4.

Note [2]: All regional jets regardless of their MTOW are assigned to the 60,000 pounds (27,200 kg) or more weight category.

103. PRIMARY RUNWAYS. The majority of airports provide a single primary runway. Airport authorities, in certain cases, require two or more primary runways as a means of achieving specific airport operational objectives. The most common operational objectives are to (1) better manage the existing traffic volume that exceed the capacity capabilities of the existing primary runway, (2) accommodate forecasted growth that will exceed the current capacity capabilities of the existing primary runway, and (3) mitigate noise impacts associated with the existing primary runway. Additional primary runways for capacity justification are parallel to and equal in length to the existing primary runway, unless they are intended for smaller airplanes. Refer to AC 150/5060-5, *Airport Capacity and Delay*, for additional discussion on runway usage for capacity gains. Another common practice is to assign individual primary runways to different airplane classes, such as, separating general aviation from non-general aviation customers, as a means to increase the airport's efficiency. The design objective for the main primary runway is to provide a runway length for all airplanes that will regularly use it without causing operational weight restrictions. For Federally funded projects, the criterion for substantial use applies (see paragraph 102a(8).) The design objective for additional primary runways is shown in table 1-2. The table takes into account the separation of airplane classes into distinct airplane groups to achieve greater airport utilization. Procedurally, follow the guidelines found in subparagraph 102(b) for determining recommended runway lengths for primary runways, and, for additional primary runways, apply table 1-2.

104. CROSSWIND RUNWAYS. The design objective to orient primary runways to capture 95 percent of the crosswind component perpendicular to the runway centerline for any airplane forecast to use the airport is not always achievable. In cases where this cannot be done, a crosswind runway is recommended to achieve the design standard provided in AC 150/5300-13, *Airport Design*, for allowable crosswind components according to airplane design groups. Even when the 95-percentage crosswind coverage standard is achieved for the design airplane or airplane design group, cases arise where certain airplanes with lower crosswind capabilities are unable to utilize the primary runway. For airplanes with lesser crosswind capabilities, a crosswind runway may be built, provided there is regular usage. For Federally funded projects, the criterion for substantial use applies to the airplane used as the design airplane needing the crosswind runway (see paragraph 102a(8).) The design objective for the length of crosswind runways is shown in table 1-3. Procedurally, follow the guidelines found in subparagraph 102(b) for determining recommended runway lengths for crosswind runways, and, for additional crosswind runways, apply table 1-3.

Figure 3-1. 75 Percent of Fleet at 60 or 90 Percent Useful Load



Mean Daily Maximum Temperature of Hottest Month of the Year in Degrees Fahrenheit

75 percent of feet at 60 percent useful load **75 percent of feet at 90 percent useful load**

Table 3-1. Airplanes that Make Up 75 Percent of the Fleet

Manufacturer	Model	Manufacturer	Model
Aerospatiale	Sn-601 Corvette	Dassault	Falcon 10
Bae	125-700	Dassault	Falcon 20
Beech Jet	400A	Dassault	Falcon 50/50 EX
Beech Jet	Premier I	Dassault	Falcon 900/900B
Beech Jet	2000 Starship	Israel Aircraft Industries (IAI)	Jet Commander 1121
Bombardier	Challenger 300	IAI	Westwind 1123/1124
Cessna	500 Citation/501Citation Sp	Learjet	20 Series
Cessna	Citation I/II/III	Learjet	31/31A/31A ER
Cessna	525A Citation II (CJ-2)	Learjet	35/35A/36/36A
Cessna	550 Citation Bravo	Learjet	40/45
Cessna	550 Citation II	Mitsubishi	Mu-300 Diamond
Cessna	551 Citation II/Special	Raytheon	390 Premier
Cessna	552 Citation	Raytheon Hawker	400/400 XP
Cessna	560 Citation Encore	Raytheon Hawker	600
Cessna	560/560 XL Citation Excel	Sabreliner	40/60
Cessna	560 Citation V Ultra	Sabreliner	75A
Cessna	650 Citation VII	Sabreliner	80
Cessna	680 Citation Sovereign	Sabreliner	T-39

Appendix B – Water and Sewer Master Plans

SOUTH T-HANGAR AREA

A

B

C

D

MID-NORTH T-HANGAR AREA

NORTH T-HANGAR AREA

IND. PARK

LOWE'S

HORSE CREEK

PINE TREE CREEK

COUNTY AIRPORT ROAD

FAIRWIND PLACE

LEGEND

1	ASSUMED EXISTING WATER MAIN
2	PROPOSED 8" WATER MAIN
3	EXISTING 12" WATER
4	REPLACE EXISTING WITH 12" WATER MAIN
5	PROPOSED 12" WATER MAIN
6	EXISTING 18" WATER
7	FUTURE 18" WATER/FIRE EXTENSION
	FIRE HYDRANT
	BOUNDARY LINE
	EXISTING BUILDING
	FUTURE BUILDING

BUILDING A — COUNTY ADMIN
BUILDING B — FIXED BASE OPERATER
BUILDING C — SPECIALTY SHOP
BUILDING D — SOLANO COMMUNITY COLLEGE

0 100 200

(SCALE IN FEET)

1 inch = 200 ft.

EXHIBIT-4A
NUT TREE AIRPORT
COUNTY OF SOLANO CALIFORNIA

PM.: MARIE SILVEIRA DATE: AUG 2008
DRWN: ELIAS KARAM
WORK ORDER: 333446 TAB:
SCALE: HORIZONTAL: 1"=200' VERT:

JACOBS
Carter Burgess
180 PROMENADE CIRCLE, SUITE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

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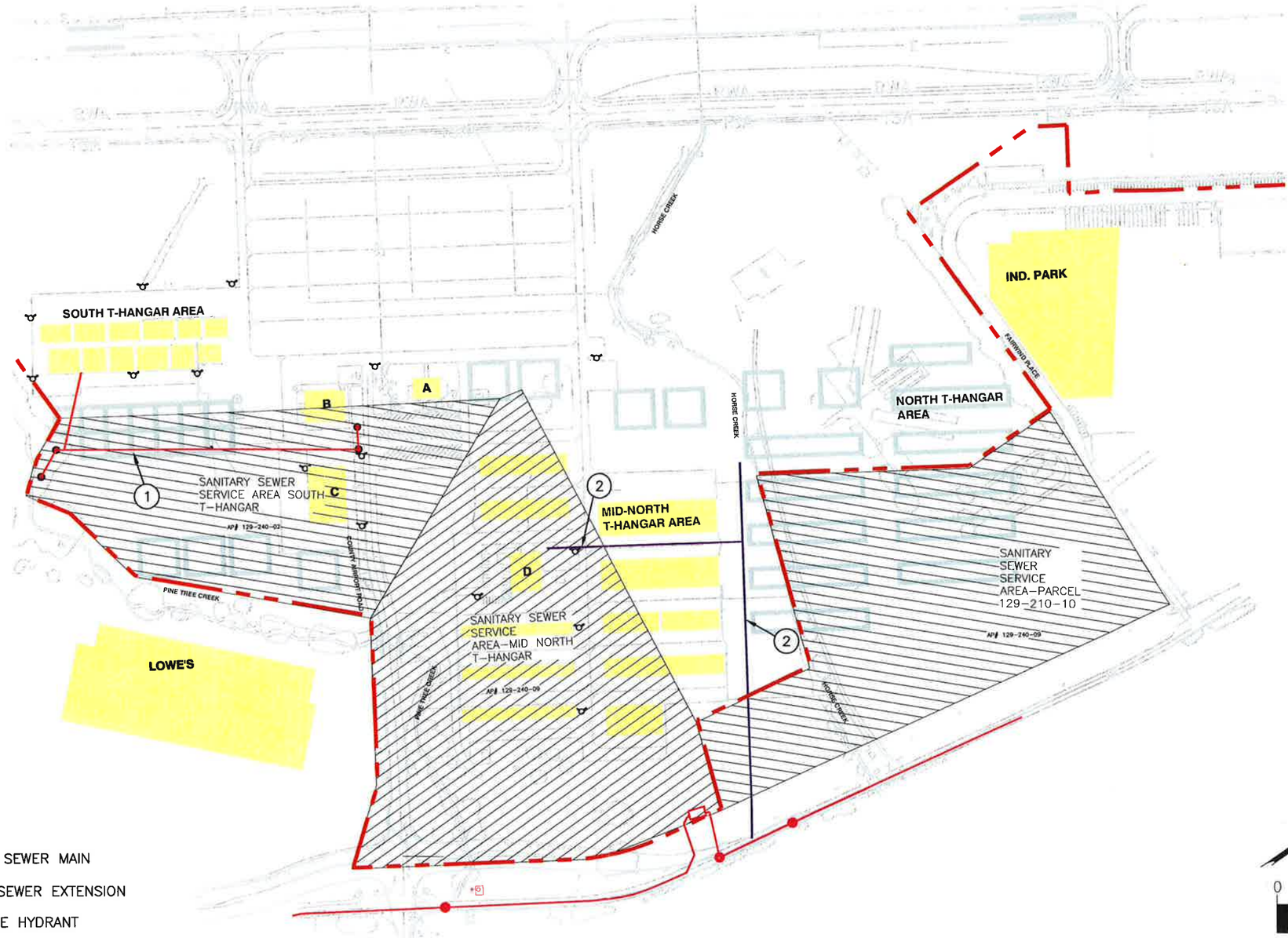
NUT TREE AIRPORT
WATER MASTER PLAN
CALIFORNIA
COUNTY OF SOLANO

SHEET 1 OF 1



LEGEND

(1)	EXISTING 8" SEWER MAIN
(2)	FUTURE 8" SEWER EXTENSION
	EXISTING FIRE HYDRANT
	BOUNDARY LINE
	EXISTING BUILDING
	FUTURE BUILDING
BUILDING A	COUNTY ADMIN
BUILDING B	FIXED BASE OPERATER
BUILDING C	SPECIALTY SHOP
BUILDING D	SOLANO COMMUNITY COLLEGE

EXHIBIT-4C
NUT TREE AIRPORT
COUNTY OF SOLANO CALIFORNIA

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180 PROMENADE CIRCLE, SUITE 300
SACRAMENTO, CA 95834
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PM.: MARIE SILVEIRA DATE: AUG 2008
DRWN: ELIAS KARAM
WORK ORDER: 333446 TAB:
SCALE: HORIZONTAL: 1"=300' VERT:

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NUT TREE AIRPORT
SEWER MASTER PLAN
CALIFORNIA
COUNTY OF SOLANO

SHEET 1 OF 1