

**Report to the California Department of Transportation Division of Aeronautics
RE: County of San Mateo Evaluation of
San Francisco International Airport Compliance with
the Relevant Provisions in California Administrative Code
Title 21, Subchapter 6, State Noise Standards
October 2002**

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Summary

San Francisco International Airport (SFIA) has submitted a quarterly noise report for the Fourth Quarter of 2001 and related documentation to the County of San Mateo (County) to support its position that it is in compliance with the relevant provisions of the State of California Noise Standards for Airports (California Administrative Code Title 21, Subchapter 6). The documentation asserts that SFIA has achieved a noise impact area of zero (zero incompatible land uses) within the 65 dB CNEL (Community Noise Equivalent Level) noise contour for the Fourth Quarter of 2001.

Based on the data submitted to the County by SFIA and the methodology and findings explained herein, the County concludes that SFIA has achieved a noise impact area of zero, as of the Fourth Quarter of 2001, and therefore, is in compliance with Section 5012 of Title 21 Subchapter 6 State Noise Standards. This conclusion is limited to the County's review of the submitted data for the Fourth Quarter of 2001 only. It does not imply that the Airport is in compliance with the relevant provisions of the State Noise Standards in perpetuity nor does this determination mean SFIA is no longer a "noise problem" airport. More importantly, it does not mean that there are no longer airport noise impacts in affected communities or that the SFIA noise problem has been "solved." SFIA will continue to administer and manage existing noise abatement programs, rules, regulations, and procedures that evolved from past variance conditions. SFIA will also continue to work with the County, local communities, and the Airport/Community Roundtable, to monitor new land development in the noise impact area to identify any potential new incompatible land uses.

The County will continue to review quarterly noise reports submitted by SFIA to determine if the noise impact area (NIA) remains at zero. If the NIA becomes greater than zero, the County will notify SFIA and the Caltrans Division of Aeronautics to discuss appropriate follow-up actions.

Introduction

SFIA submitted a report entitled, Final Title 21 Report: Reduction of Noise Impact Area to Zero to the County for review. The document asserts that SFIA is in compliance with the State of California Noise Standards, as of the Fourth Quarter of 2001 and therefore, SFIA does not need another variance from the State Noise Standards to continue to operate. The document uses the 65 dB CNEL noise contour reported for the fourth quarter 1999 as a reference contour to identify the noise impact area in which to provide additional funding for the local noise insulation program. The document notes the following: "Due to 1999 winter weather conditions and flight approach changes, the 4th Quarter 1999 State 65 dB CNEL contour was fairly expansive and the 4th Quarter readings represented a "worst case" scenario for the noise impact area".

**County of San Mateo Report to the Caltrans Division of Aeronautics, RE: Evaluation of San Francisco International Airport (SFIA) Compliance with the Relevant Provisions in the State Noise Standards (California Administrative Code Title 21, Subchapter 6)
October 2002**

Page 2

The intent of this report is to: (1) meet the County's obligation, per section 5022 of the State Noise Standards, to enforce the State Noise Standards for airports, as they are applicable to SFIA, (2) demonstrate to the State of California Department of Transportation (Caltrans), SFIA, and the public, that the County has made a "due diligent" effort to review the data and documentation submitted by SFIA, to determine if in fact SFIA is in compliance with the relevant provisions of the State Noise Standards, based on the data submitted for the Fourth Quarter of 2001, and (3) inform the Caltrans Division of Aeronautics of the County's findings.

The following text details the history of SFIA's variances from 1982 to present, how the airport reduced its noise impact area to zero, the County's role in the implementation of the State Noise Standards, the compliance review by County staff, and how SFIA will continue to comply with the State Noise Standards.

Background

The County first declared SFIA to be a noise problem airport on February 27, 1972, per Section 5020 of the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6, Sections 5000-5090). Since that time, SFIA has been granted four variances by the State of California Department of Transportation (Caltrans) Division of Aeronautics. The most recent variance was granted on September 20, 1998 and remains in effect until Caltrans determines if another variance is needed.

An airport is considered to be a noise problem airport when the county in which it is located declares it to be a "noise problem" airport. Once the county has made such a declaration, the airport proprietor must obtain a variance from the State Noise Standards to continue to operate in violation of those standards. A variance is issued by the State of California Department of Transportation Division of Aeronautics. The granting of a variance is an administrative procedure that allows an airport proprietor additional time to comply with the basic requirements in the State Noise Standards. The ultimate goal of the variance process is to provide the airport proprietor with sufficient time to implement appropriate actions that will lead to full compliance with the Noise Standards and therefore, eliminate the need for a variance. A variance may be granted for a period of up to three years. Once it is granted, it remains in effect until a new variance is issued or until Caltrans determines a variance from the State Noise Standards is no longer needed.

In 1974, SFIA received its first variance from the State Noise Standards. A second variance was issued in 1975. These first two variances were granted to provide SFIA with more time to install a noise monitoring system, per the parameters described in the State Noise Standards, not for a variance to operate the airport. In 1982, SFIA received its first variance to continue operating with a noise impact area of greater than zero.

**County of San Mateo Report to the Caltrans Division of Aeronautics, RE: Evaluation of San Francisco International Airport (SFIA) Compliance with the Relevant Provisions in the State Noise Standards (California Administrative Code Title 21, Subchapter 6)
October 2002**

Page 3

Since 1982, SFIA has continued to operate under several variances to Section 5012 of the Noise Standards. Section 5012 of Title 21 states: "No airport proprietor of a noise problem airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance as prescribed in Article 5 of this subchapter." It is the duty of SFIA to comply with the standards set forth in Section 5012. A zero impact area requires that all incompatible land uses (i.e. dwelling units, schools, and churches) located in the 65 dB Community Noise Equivalent Level (CNEL) noise contour be insulated against aircraft noise or have an avigation easement for noise attached to the title of the property.

Over the past 20 years, SFIA has continued to reduce its noise impact area by a number of methods, the most aggressive method being serving as a funding source for the local noise insulation program. This program has been implemented by several eligible local jurisdictions, as defined by FAA eligibility criteria. The eligible jurisdictions include Daly City, Millbrae, Pacifica, San Bruno, South San Francisco, and the County of San Mateo. These locally administered insulation programs have reduced SFIA's noise impact area from 1.46 square miles to zero square miles. In 1982, there were 12,696 dwelling units and several churches and schools in the noise impact area.

As of the Fourth Quarter of 2001, there were zero incompatible land uses within the 65 dB CNEL aircraft noise contour. For an incompatible land use to become compatible, it must meet the conditions specified in Section 5014 of the Noise Standards, as follows: (1) "an avigation easement for aircraft noise has been acquired by the airport proprietor, or (2) "the dwelling unit...has adequate acoustic insulation to ensure an interior CNEL due to aircraft noise of 45 dB or less in all habitable rooms." or (3) "the airport proprietor has made a genuine effort as determined by the department in accordance with adopted land use compatibility plans...but the property owners have refused to take part in the program."

SFIA has taken the following actions to achieve compliance with the State Noise Standards:

- (1) provided sufficient funding to the affected local jurisdictions to insulate all eligible land uses,
- (2) received an avigation easement for noise from participating property owners for each insulated dwelling unit, church, and school, and
- (3) made a documented "good faith" effort to offer the insulation program to property owners who ultimately chose not to participate in the program or did not respond to the offer.

Implementation of the local insulation programs was accomplished through federal and airport funds totaling \$168,261,801. The airport contributed \$131,205,244 towards the noise insulation program, and the FAA contributed \$37,056,577 to the affected jurisdictions.

In addition to the noise insulation program, SFIA has complied with conditions contained in past variances to mitigate noise impacts in affected communities. These efforts include the following:

- (1) implementation of noise abatement flight procedures (i.e. Runways 28 Shoreline Departure, late night preferential runway use),
- (2) support of the Airport/Community Roundtable activities and its Work Program, and
- (3) creation of a Memorandum of Understanding (MOU) with affected jurisdictions to expedite the noise insulation program by providing additional funding.

**County of San Mateo Report to the Caltrans Division of Aeronautics, RE: Evaluation of San Francisco International Airport (SFIA) Compliance with the Relevant Provisions in the State Noise Standards (California Administrative Code Title 21, Subchapter 6)
October 2002**

Page 4

Discussion

SFIA's Final Title 21 Compliance Report: Reduction of Noise Impact Area to Zero contains documentation to support SFIA's position that it is in compliance with Section 5012 of State Noise Standards, based on the data provided for the reference 65 dB CNEL noise contour (fourth quarter 1999) and the noise impact boundary and noise impact area reported in the quarterly noise report for the Fourth Quarter of 2001, and therefore, no longer requires a variance from the State Noise Standards to continue to operate. This section of this report highlights the County's evaluation of the submitted documentation to determine if SFIA is in compliance with the relevant provisions of the State Noise Standards.

County Role

It is the duty of the County, per Section 5022 of the State Noise Standards, to enforce those standards. It is, therefore, the responsibility of the County of San Mateo to ensure that SFIA is in compliance with Section 5012 of the Noise Standards. The County's role is to verify that SFIA has complied with the relevant provisions in the State Noise Standards, not to determine if a variance from those standards is necessary. The State of California is the only agency that has the authority to authorize SFIA to operate without a variance.

Compliance Review

The County's compliance review consisted of an audit of the data submitted by SFIA in a document entitled Final Title 21 Compliance Report: Reduction of Noise Impact Area to Zero. The audit included (1) a meeting with SFIA Finance Department staff to discuss the data submitted by SFIA and to review the County's compliance evaluation process and (2) research of 89 parcels identified in the above-referenced report to verify if the title of the identified parcels includes an avigation easement for noise. This information would indicate that the property owner had participated in the noise insulation program and therefore, his/her property had become a compatible land use, as defined in the State Noise Standards.

County staff used the title search software system at the County Recorder's Office to research the title content for 89 parcels (one percent of the dwelling units) that were insulated in the affected jurisdictions of Daly City, South San Francisco, San Bruno, and the County of San Mateo. Avigation easements for noise were obtained by SFIA for all incompatible land uses (dwelling units, schools, and churches) in exchange for the installation of noise insulation features in the affected structures. These features included acoustically-rated windows, double pane doors, attic insulation, vent baffles, etc.

**County of San Mateo Report to the Caltrans Division of Aeronautics, RE: Evaluation of San Francisco International Airport (SFIA) Compliance with the Relevant Provisions in the State Noise Standards (California Administrative Code Title 21, Subchapter 6)
October 2002**

Page 5

The audit areas focused on parcels located near the outer boundary of the 65 dB CNEL contour reported for the fourth quarter 1999. The rationale for this approach was based on two assumptions: (1) dwelling units in the inner portion of the 65 dB CNEL noise contour were insulated first and (2) verification of easements on the "fringe" of the noise contour would guarantee that dwelling units closer to the airport would have an avigation for noise and thereby, be deemed a compatible land use by the State Noise Standards. The audited parcels are shown in Attachment 1 Exhibits 1 and 2. The results of the audit are as follows:

<u>City</u>	<u># of Dwelling Units Audited</u>	<u># of Dwelling Units with Easement</u>
Daly City	24	23
So. San Francisco	34	34
San Bruno	28	28
Co. of San Mateo	6	6
TOTAL	89	88

Findings

According to the audit, 99% of the parcels audited had an appropriate easement on the title of the property (one homeowner in Daly City dropped out of the insulation program). Sixty percent of the audited parcels have avigation easements for noise and have been recorded with the County of San Mateo. The remaining 40% of the parcels have avigation easements for noise that are currently in the control of SFIA and have yet to be recorded. The County believes that the results of this sample audit are sufficient to indicate that SFIA has converted all incompatible land uses in the noise impact area (Fourth Quarter 2001 65 dB CNEL noise contour) to compatible land uses, per the relevant criteria contained in the State Noise Standards

Compliance Determination

Based on the methodology described herein, it is the position of the County of San Mateo that SFIA has achieved a noise impact area of zero, as of the Fourth Quarter 2001 and is, therefore, in compliance with Section 5012 of Title 21 Subchapter 6 of the State Noise Standards. A copy of the 65 dB CNEL noise contour reported for the fourth quarter 2001 is shown in Exhibit 3. This compliance determination is limited to the County's review of the reports and data submitted for both the fourth Quarter of 1999 and the fourth quarter of 2001 only. It does not imply that SFIA is now in compliance with the relevant provisions in the State Noise Standards in perpetuity.

**County of San Mateo Report to the Caltrans Division of Aeronautics, RE: Evaluation of San Francisco International Airport (SFIA) Compliance with the Relevant Provisions in the State Noise Standards (California Administrative Code Title 21, Subchapter 6)
October 2002**

Page 6

Future Compliance

Although the County has concluded that SFIA is in compliance with the State Noise Standards, as of the Fourth Quarter of 2001, this determination does not mean SFIA is no longer a "noise problem" airport. More importantly, it does not mean that there are no longer airport noise impacts in affected communities or that the SFIA noise problem has been "solved." SFIA will continue to administer and manage existing noise abatement programs, rules, regulations, and procedures that evolved from past variance conditions. SFIA will also continue to work with the County, local communities, and the Airport/Community Roundtable to monitor new development in the noise impact area to identify any potential new incompatible land uses.

The County will continue to review quarterly noise reports submitted by SFIA to determine if the noise impact area remains at zero. If the noise impact area becomes greater than zero, the County will notify SFIA and Caltrans Division of Aeronautics to discuss appropriate follow-up actions.

Attachments

Attachment No. 1: San Francisco International Airport State Noise Standards
4Q99 65 dB CNEL Parcel Audit

Exhibits

Exhibit No. 1: San Francisco International Airport 65 dB CNEL Noise Impact Boundary
Quarter Ending December 31, 1999

Exhibit No. 2: San Francisco International Airport State Noise Standards Parcel Audit
RE: Parcel Location by Street Reference

Exhibit No. 3: San Francisco International Airport 65 dB CNEL Noise Impact Boundary
Quarter Ending December 31, 2001

San Francisco International Airport State Noise Standards 4Q99 65 dB CNEL Parcel Audit**Daly City Total**

<u>Parcel No.</u>	<u>Street</u>
091183270	Callan
091183280	Callan
091183290	Callan
091183310	Callan
091462040	Norwood
091765060	Gellert*
091205010	Warwick
091205020	Warwick
091205030	Warwick
091205040	Warwick
091205050	Warwick
091205060	Warwick
091205070	Warwick
091205080	Warwick
091205090	Warwick
091205100	Warwick
091205110	Warwick
091205120	Warwick
091205130	Warwick
091205140	Warwick
091205150	Warwick

* Dropped out of the program

South San Francisco

010343080	Alta Loma
010343090	Alta Loma
010343100	Alta Loma
010343110	Alta Loma
010343120	Alta Loma
010343130	Alta Loma
010343140	Alta Loma
010343150	Alta Loma
010343160	Alta Loma
010343170	Alta Loma
010343180	Alta Loma
010343190	Alta Loma
010343200	Alta Loma
013153180	Hazelwood
013153190	Hazelwood

South San Francisco Con't

<u>Parcel No.</u>	<u>Street</u>
013153200	Hazelwood
013153210	Hazelwood
013153220	Hazelwood
013153230	Hazelwood
013153240	Hazelwood
013153250	Hazelwood
013153260	Hazelwood
013153270	Hazelwood
013153280	Hazelwood
013153290	Hazelwood
013153300	Hazelwood
013153310	Hazelwood
013154020	Hazelwood
013154030	Hazelwood
013154040	Hazelwood
013154050	Hazelwood
013154060	Hazelwood
013154070	Hazelwood
013154080	Hazelwood

San Bruno

014263310	Tanforan
014263320	Tanforan
014263330	Tanforan
014263340	Tanforan
014263370	Tanforan
014263380	Tanforan
014263390	Tanforan
014263420	Tanforan.
014263430	Tanforan
014263440	Tanforan
014263450	Tanforan
014263460	Tanforan
014263480	Tanforan
014263490	Tanforan
014263500	Tanforan
020176070	5 th Ave
020176090	5 th Ave
020176120	5 th Ave
020176140	5 th Ave

SFO State Noise Standards 4Q99 65 dB CNEL Parcel Audit

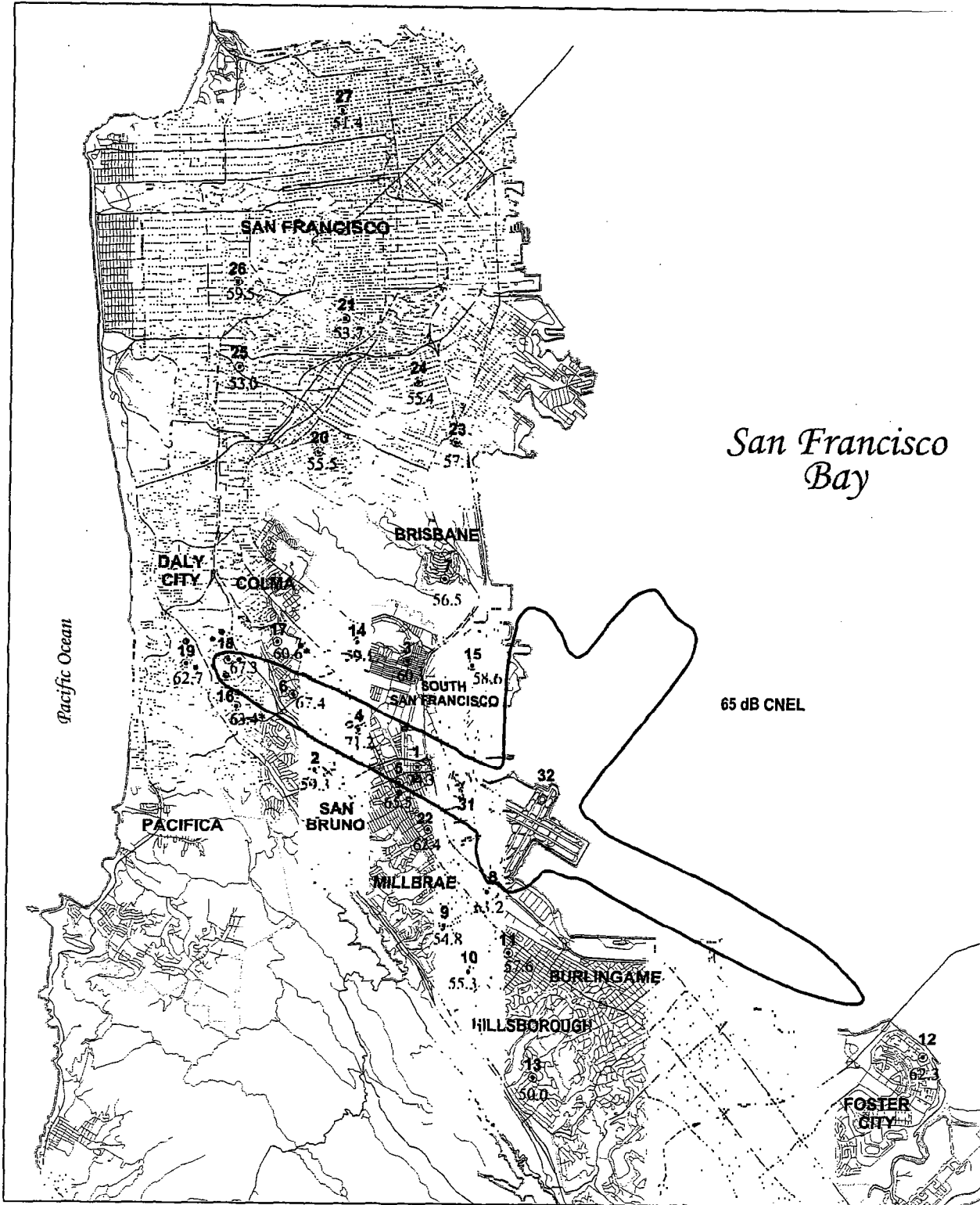
San Bruno Con't

<u>Parcel No.</u>	<u>Street</u>
020177010	Angus Way
020176020	Angus Way
020174130	Angus Way
020174140	Angus Way
020174150	Angus Way
020174160	4 th Ave
020174170	4 th Ave
020174180	4 th Ave
020174190	4 th Ave

County of San Mateo

<u>Parcel No.</u>	<u>Street</u>
013145340	Country Club
013145020	Country Club
013133080	Country Club
013133090	Country Club
013133100	Country Club
013133120	Country Club

San Francisco International Airpo

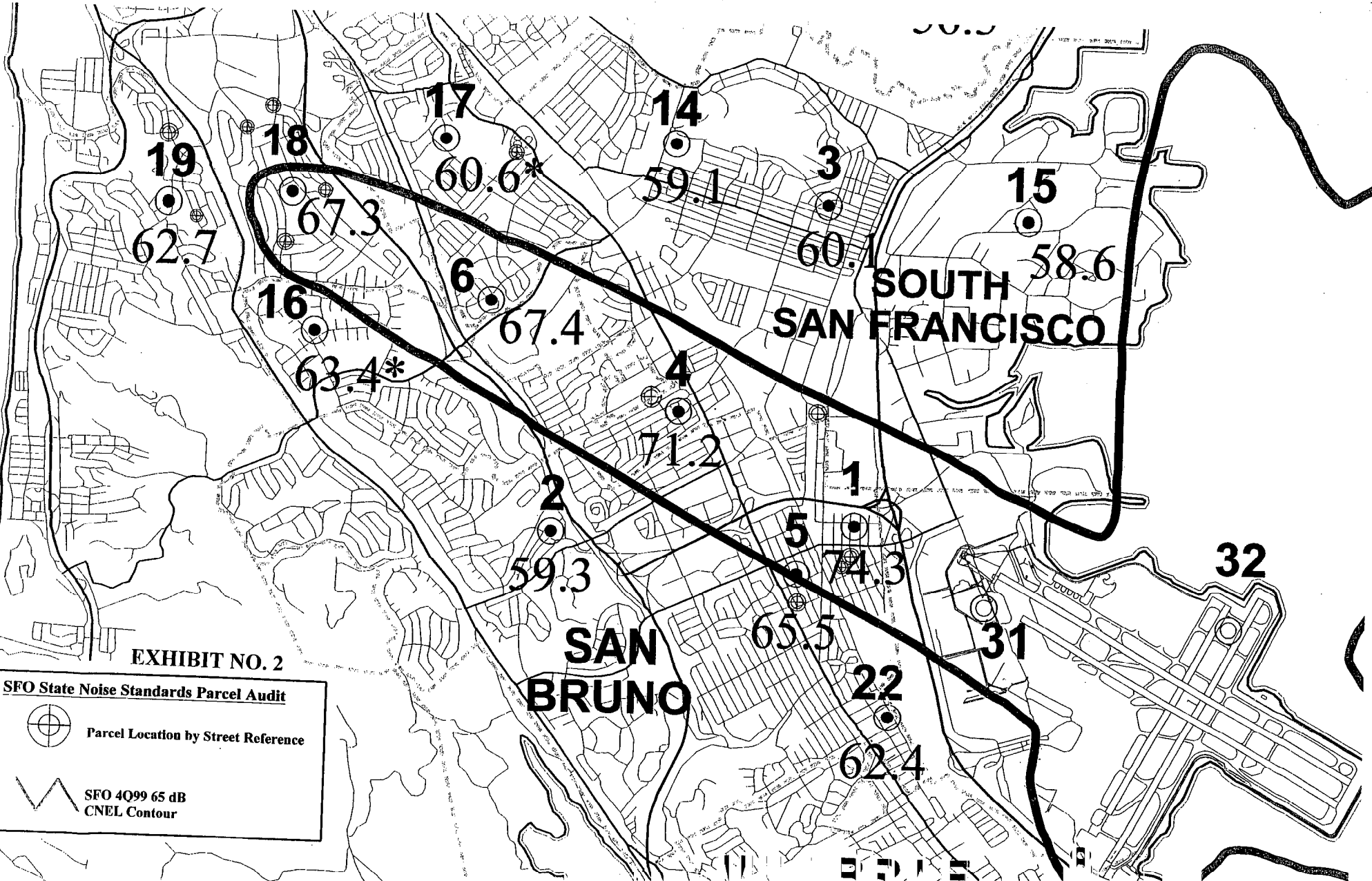


**65 CNEL NOISE IMPACT BOUNDARY
 QUARTER ENDING: DECEMBER 31, 1999**

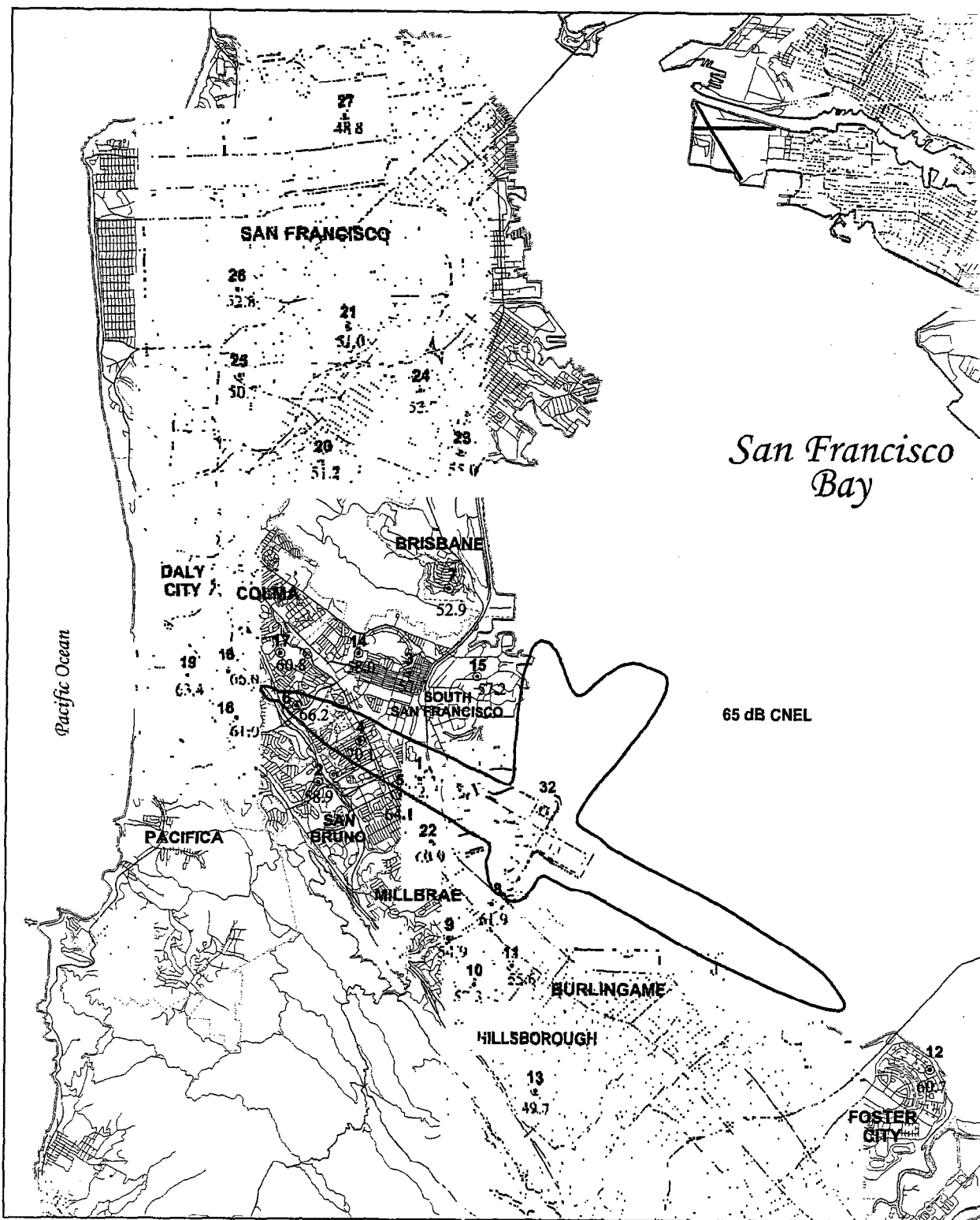
**PREPARED BY:
 SAN FRANCISCO INTERNATIONAL AIRPORT
 AIRCRAFT NOISE ABATEMENT OFFICE**

- ⊙ NOISE MONITOR
- ⊙ SPECIAL FUNCTION ON-AIRPORT MONITOR
- * LIMITED DATA AVAILABLE DUE TO RELOCATION OF MONITOR

SCALE
 0 1
 Statute Mile



San Francisco International Airpc



**65 CNEL NOISE IMPACT BOUNDARY
 QUARTER ENDING: DECEMBER 31, 2001
 PREPARED BY:
 SAN FRANCISCO INTERNATIONAL AIRPORT
 AIRCRAFT NOISE ABATEMENT OFFICE**

- ⊙ NOISE MONITOR
- ⊙ SPECIAL FUNCTION ON-AIRPORT MONITOR

SCALE
 0 1
 Statute Mile