

George W. Nickelson, P.E.

Traffic Engineering • Transportation Planning

December 19, 2008

APR 30

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Napa Office LLC
c/o Mr. William Saks
1010 Main Street
St. Helena, CA 94574

Subject: ***Focused Traffic Impact Analysis for the Proposed Napa Executive Center Project in the Napa Airport Industrial Area (NAIA)***

Dear Mr. Saks:

I am pleased to provide this traffic impact analysis for the proposed Napa Executive Center project in the NAIA. The analysis reflects input received from County staff and is consistent with prior traffic studies in the area.

The proposed project would involve an office development at the end of Gateway Road East (see Figure 1). As directed by the Napa County Traffic Engineer, our study has focused on the project's effects at the key NAIA access intersection of Airport-State Route 12/State Route 29 and the project's share of the future volumes at that intersection.⁽¹⁾ We have also assessed the project's access, internal circulation and parking.

The existing traffic conditions have been based on new AM and PM peak commute period counts conducted at Airport-State Route 12/State Route 29.⁽²⁾ Short term intersection traffic growth has been derived from a previous study conducted in the area and Napa County information regarding other approved developments in the NAIA.⁽³⁾⁽⁴⁾

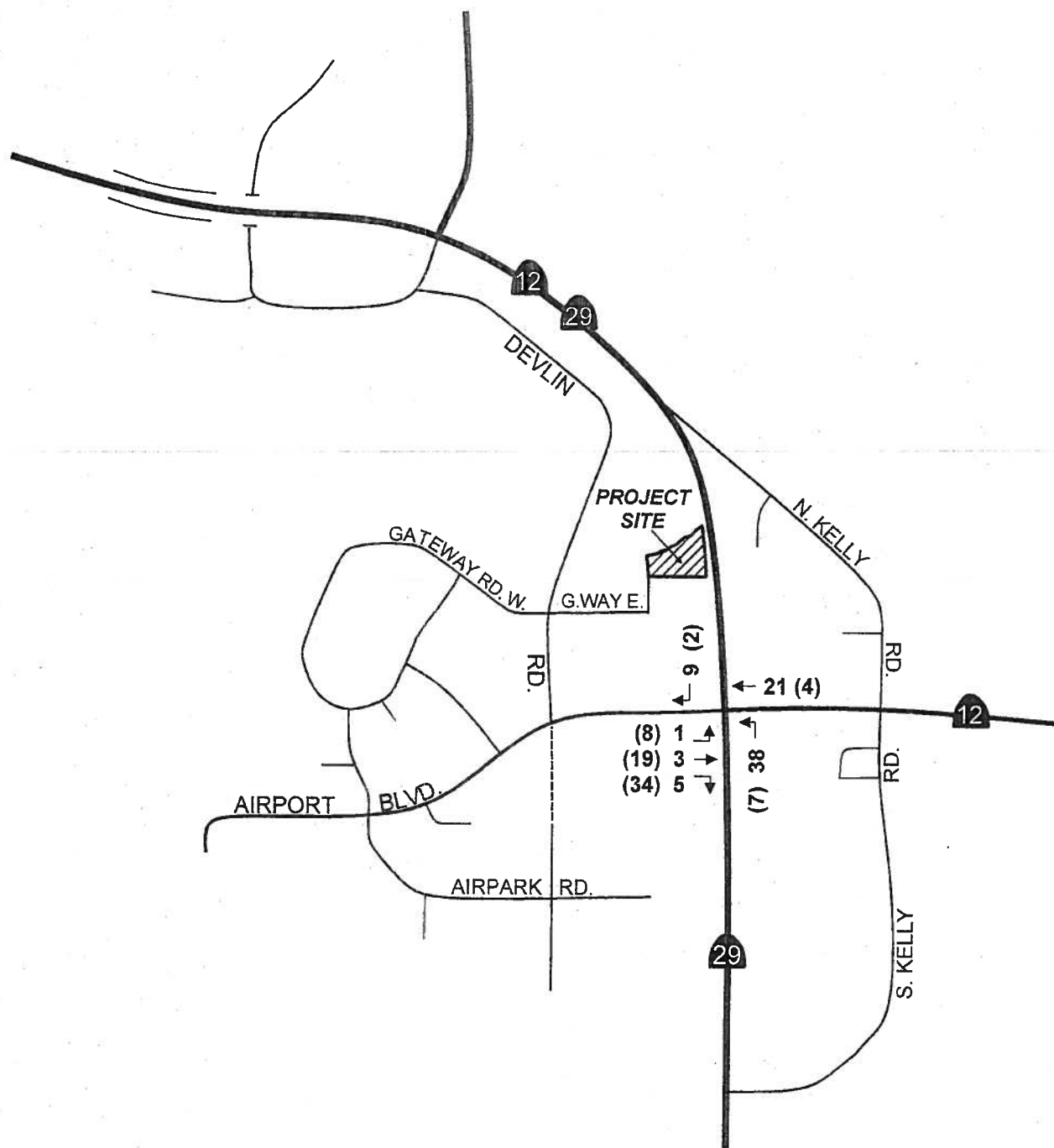
1. ROADWAY NETWORK AND EXISTING TRAFFIC FLOWS

The project site is located at the end of Gateway Road East west of State Route 29 (SR 29). Gateway Road East is a two-lane cul-de-sac street extending east and north from Devlin Road. In the project area, Devlin Road is a four-lane north-south roadway that extends north from Airport Boulevard to Soscol Ferry Road (Devlin narrows to two lanes north of Sheehy Creek). Devlin Road will eventually extend throughout the NAIA. Airport Boulevard is a four lane roadway and is the primary east west access linking the NAIA with SR 29 and SR 12.

Because the traffic counts were conducted during a non-peak month, we have adjusted the count volumes to reflect peak summer season conditions.⁽⁵⁾

2. TRAFFIC FLOW CONDITIONS WITH SHORT TERM TRAFFIC GROWTH

It is assumed that the proposed project could be completed and occupied within approximately two years. To establish a short-term traffic "baseline", we have identified the expected traffic growth



MAP NOT TO SCALE

Site Location
and A.M. & (P.M.) Peak Hour Project Trips



George W. Nickelson, P.E.

figure 1

and added that growth to the existing volumes at Airport-State Route 12/State Route 29. This short term traffic growth includes the following:

- Traffic generated by approved but not yet occupied developments within the NAIA; and
- An assumed 2% (1% per year) increase in through volumes on SR 29 and SR 12.

Napa County has provided a list of all approved developments in the NAIA. Where specific traffic analysis information is available, we have used that data. For all other approved developments, we have estimated the peak hour trip generation and those trips have been distributed through the Airport-State Route 12/State Route 29 intersection (consistent with a recent traffic impact analysis in the NAIA).

It is also noted that the baseline calculations for the Airport-State Route 12/State Route 29 intersection assume completion of a short term Caltrans improvement project. This project will add a second westbound through lane on the SR 12 approach.⁽⁶⁾

As shown in Table 1, with baseline traffic growth, the Airport-State Route 12/State Route 29 intersection would operate at LOS "D" during both peak hours. This operation would be considered acceptable for urban peak hour conditions.

In addition to the intersection LOS, we have calculated queuing conditions in critical SR 29 turn lanes at Airport-State Route 12/State Route 29. As noted in Table 2, the baseline queues are within the available storage lengths.

3. PROJECT TRIP GENERATION/TRAFFIC EFFECTS

a. Project Trip Generation and Distribution

The project site is currently a vacant parcel within the NAIA. The site has no current trip generation. A three story building would be constructed on the site with a total gross building area of 67,839 sq.ft.(the actual tenant area would be 58,136 sq.ft.). We have employed a conservative "worst case" traffic analysis assuming all office tenants.

Based on "General Office" trip rates compiled by the Institute of Transportation Engineers (ITE), the project would generate the following peak commute hour trips⁽⁷⁾:

- 67,839 sq.ft. @ 1.55/1,000 = 105 AM peak trips; 92 in/13 out.
- 67,839 sq.ft. @ 1.49/1,000 = 101 AM peak trips; 17 in/84 out.

The project trips have been distributed onto the roadway network consistent with previous traffic impact analyses in the NAIA. (see Figure 1).

TABLE 1
AIRPORT-STATE ROUTE 12/STATE ROUTE 29
PEAK HOUR INTERSECTION OPERATIONS

Analysis Scenario	AM Peak Hour LOS/Delay	PM Peak Hour LOS/Delay
Future Base (existing volumes + approved development + SR 29 and SR 12 growth)	LOS "D"/ 46.2 seconds	LOS "D"/ 47.7 seconds
Future Base + Proposed Project	LOS "D"/ 49.7 seconds	LOS "D"/ 49.0 seconds

TABLE 2
AIRPORT-STATE ROUTE 12/STATE ROUTE 29
PEAK HOUR INTERSECTION QUEUES

Turn Lane - Peak Hour	Calculated Queue/Storage Length	
	Future Base	Future Base + Project
SR 29 southbound left turn – AM peak	917 ft./1,400 ft.	915 ft./1,400 ft.
SR 29 southbound left turn – PM peak	1,210 ft./1,400 ft.	1,187 ft./1,400 ft.
SR 29 southbound right turn – AM peak	278 ft./400 ft.	356 ft./400 ft.
SR 29 southbound right turn – PM peak	375 ft./400 ft.	351 ft./400 ft.
SR 29 northbound left turn – AM peak	N.A./350 ft.*	N.A./350 ft.*
SR 29 northbound left turn – PM peak	N.A./350 ft.*	N.A./350 ft.*
SR 29 northbound right turn – AM peak	128 ft./150 ft.	113 ft./150 ft.
SR 29 northbound right turn – PM peak	N.A./150 ft.*	N.A./150 ft.*

* The northbound SR 29 left turn and right turn queues are well within the available storage lanes. However, heavy northbound SR 29 through volumes can block access for vehicles attempting to enter the northbound left turn and right turn lanes.

b. Project Effects on Baseline Traffic Conditions

The project trips would add about 1% to the baseline peak hour traffic flows at Airport-State Route 12/State Route 29. Changes of this magnitude would not be measurable within the typical daily fluctuations in traffic flows.

With project trips added to the baseline volumes, the Airport-State Route 12/State Route 29 intersection operations were recalculated. As shown in Table 1, intersection delays would increase slightly, but the overall operation would be unchanged. Similarly, the turn lane queues would be essentially unchanged with the addition of the project trips (see Table 2).

As a part of the NAIA, the project is subject to the "Airport Industrial Area Traffic Impact Fee", currently \$3,551 per PM peak hour trip. By paying this fee (calculated on the basis of trip generation of the actual planned development land uses), the project would be contributing a "fair share" toward the areawide roadway improvements. A portion of the NAIA collected traffic fees would provide a share of the costs associated with the ultimate interchange construction at Airport-State Route 12/State Route 29.

4. SITE ACCESS, INTERNAL CIRCULATION AND PARKING

The proposed project would have its driveway at the end of the Gateway Road East cul-de-sac. There would be minimal potential for conflicts between driveway traffic and traffic on the street.

The site plan has been designed with perpendicular parking and two-way parking aisles. The parking aisles (25 feet wide) would meet the Napa County standards for internal circulation design. At the ends of parking aisles, areas would be provided to accommodate vehicle turning maneuvers.

The project would provide 204 spaces or a parking ratio of 3.5 spaces per 1,000 sq.ft. of office area (58,136 sq.ft. of actual office space). This parking supply would be less than the Napa County Code designated 4.0 spaces per 1,000 sq.ft. It is recognized however, that the project's proposed parking supply would exceed the Urban Land Institute (ULI) recommendation that office parking be provided at a rate of 3.0 spaces/1,000 sq.ft.⁽⁸⁾

5. CONCLUSIONS

As a part of the NAIA, the project is subject to the "Airport Industrial Area Traffic Impact Fee", currently \$3,551 per PM peak hour trip. The project's 101 PM peak hour trips would result in a fee of \$358,651.

December 19, 2008
Mr. William Saks
Page 6 of 7

With the addition of project trips (to future base conditions), the Airport-State Route 12/State Route 29 intersection's operation would remain acceptable (LOS "D" or better). Turn lane queues would be virtually unchanged with project trips.

I trust that this report responds to the needs of Napa County. Please call me with any questions or comments.

Sincerely,



George W. Nickelson, P.E.

References:

- (1) Mr. Rick Marshall, Principal Transportation Engineer, Napa County Department of Public Works, November 10, 2008.
- (2) George W. Nickelson, P.E., traffic counts conducted on December 4, 2008.
- (3) Mark D. Crane, P.E., *Traffic Report Panattoni Napa Corporate Center Phase 2*, April 15, 2008.
- (4) Mr. Sean Trippi, Napa County Planning & Conservation Department, "Airport Industrial Area Recent Projects – Approved/Under Construction", December 11, 2008.
- (5) Based on a review of Caltrans peak hour volume data for SR 29 and SR 12, the counts conducted for this analysis were increased by 35% to reflect peak summer season conditions.
- (6) Ms. Kelly Hirschberg, Caltrans District 4, November 24, 2008.
- (7) ITE, *Trip Generation – 8th Edition*, 2008.
- (8) Urban Land Institute and National Parking Association, *The Dimensions of Parking – 4th Edition*, 2000.

December 19, 2008
Mr. William Saks
Page 7 of 7

APPENDICES

- LOS Definitions
- LOS Calculations
- Intersection Queue Calculations
- Site Development Plan

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE	SIGNALIZED INTERSECTIONS	UNSIGNALIZED INTERSECTIONS*
"A"	Uncongested operations, all queues clear in a single-signal cycle. (Average stopped delay less than 10 seconds per vehicle; V/C less than or = 0.60).	Little or no delay. (Average delay of ≤ 10 seconds)
"B"	Uncongested operations, all queues clear in a single cycle. (Average delay of 10-20 seconds; V/C=0.61-0.70).	Short traffic delays. (Average delay of >10 and ≤ 15 secs.)
"C"	Light congestion, occasional backups on critical approaches. (Average delay of 20-35 seconds; V/C=0.71-0.80).	Average traffic delay. (Average delay of >15 and ≤ 25 secs.)
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. (Average delay of 35-55 seconds; V/C=0.81-0.90).	Long traffic delays for some approaches. (Average delay of >25 and ≤ 35 secs.)
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). (Average delay of 55-80 seconds; V/C=0.91-1.00).	Very long traffic delays for some approaches. (Average delay of >35 and ≤ 50 secs.)
"F"	Total breakdown, stop-and-go operation. (Average delay in excess of 80 seconds; V/C of 1.01 or greater).	Extreme traffic delays for some approaches (intersection may be blocked by external causes--delays >50 seconds).

* Level of Service refers to delays encountered by certain stop sign controlled approaches. Other approaches may operate with little delay.

























Source: Transportation Research Board, *Highway Capacity Manual*, 2000.

HCM Signalized Intersection Capacity Analysis

AM Future Growth & Geometries Conditions

1: Airport Blvd. & Hwy. 29

12/16/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1610	3374	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1610	3374	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Volume (vph)	41	65	84	87	323	438	179	2103	51	1142	1861	227
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	65	84	87	323	438	179	2103	51	1142	1861	227
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	13	0	0	0
Lane Group Flow (vph)	34	72	84	87	323	438	179	2103	38	1142	1861	227
Turn Type	Split		Free	Split		Free	Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)	4.7	4.7	128.8	12.0	12.0	128.8	15.7	53.1	53.1	43.0	80.4	128.8
Effective Green, g (s)	4.7	4.7	128.8	12.0	12.0	128.8	15.7	53.1	53.1	43.0	80.4	128.8
Actuated g/C Ratio	0.04	0.04	1.00	0.09	0.09	1.00	0.12	0.41	0.41	0.33	0.62	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	59	123	1583	165	330	1583	216	2096	653	1146	2209	1583
v/s Ratio Prot	0.02	0.02		0.05	0.09		0.10	0.41		0.33	0.53	
v/s Ratio Perm			0.05			0.28			0.02			0.14
v/c Ratio	0.58	0.59	0.05	0.53	0.98	0.28	0.83	1.00	0.06	1.00	0.84	0.14
Uniform Delay, d1	61.1	61.1	0.0	55.7	58.3	0.0	55.2	37.9	22.8	42.8	19.2	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.9	6.9	0.1	3.0	43.3	0.4	22.3	20.5	0.2	25.6	4.1	0.2
Delay (s)	74.0	68.0	0.1	58.7	101.6	0.4	77.5	58.3	23.0	68.4	23.3	0.2
Level of Service	E	E	A	E	F	A	E	E	C	E	C	A
Approach Delay (s)		39.0			44.9			59.0			37.6	
Approach LOS		D			D			E			D	
Intersection Summary												
HCM Average Control Delay	46.2			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.98											
Actuated Cycle Length (s)	128.8			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	98.8%			ICU Level of Service			F					
Analysis Period (min)	15											
c Critical Lane Group												

























HCM Signalized Intersection Capacity Analysis 1: Airport Blvd. & Hwy. 29

PM Future Growth & Geometries Conditions
12/16/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↰	↰	↰	↰↰	↰	↰	↰↰↰	↰	↰↰	↰↰	↰
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1610	3368	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1610	3368	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Volume (vph)	256	369	569	69	105	391	169	1597	160	1198	1883	63
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	256	369	569	69	105	391	169	1597	160	1198	1883	63
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	69	0	0	0
Lane Group Flow (vph)	201	424	569	69	105	391	169	1597	91	1198	1883	63
Turn Type	Split		Free	Split		Free	Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)	13.0	13.0	100.0	6.0	6.0	100.0	10.0	31.0	31.0	34.0	55.0	100.0
Effective Green, g (s)	13.0	13.0	100.0	6.0	6.0	100.0	10.0	31.0	31.0	34.0	55.0	100.0
Actuated g/C Ratio	0.13	0.13	1.00	0.06	0.06	1.00	0.10	0.31	0.31	0.34	0.55	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	209	438	1583	106	212	1583	177	1576	491	1167	1946	1583
v/s Ratio Prot	0.12	0.13		0.04	0.03		0.10	0.31		0.35	0.53	
v/s Ratio Perm			0.36			0.25			0.06			0.04
v/c Ratio	0.96	0.97	0.36	0.65	0.50	0.25	0.95	1.01	0.19	1.03	0.97	0.04
Uniform Delay, d1	43.3	43.3	0.0	46.0	45.5	0.0	44.8	34.5	25.3	33.0	21.6	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	51.1	34.4	0.6	13.4	1.8	0.4	54.0	26.0	0.8	33.3	14.1	0.0
Delay (s)	94.3	77.7	0.6	59.4	47.4	0.4	98.8	60.5	26.1	66.3	35.7	0.0
Level of Service	F	E	A	E	D	A	F	E	C	E	D	A
Approach Delay (s)		43.8			16.3			61.0			46.7	
Approach LOS		D			B			E			D	
Intersection Summary												
HCM Average Control Delay	47.7			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	93.9%			ICU Level of Service			F					
Analysis Period (min)	15											
c Critical Lane Group												

























HCM Signalized Intersection Capacity Analysis
1: Airport Blvd. & Hwy. 29

AM Future Growth & Geometries +Project
12/16/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1610	3374	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1610	3374	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Volume (vph)	42	68	89	87	344	438	217	2103	51	1142	1861	236
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	68	89	87	344	438	217	2103	51	1142	1861	236
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	35	75	89	87	344	438	217	2103	39	1142	1861	236
Turn Type	Split		Free	Split		Free	Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)	6.0	6.0	140.0	13.0	13.0	140.0	19.7	59.0	59.0	46.0	85.3	140.0
Effective Green, g (s)	6.0	6.0	140.0	13.0	13.0	140.0	19.7	59.0	59.0	46.0	85.3	140.0
Actuated g/C Ratio	0.04	0.04	1.00	0.09	0.09	1.00	0.14	0.42	0.42	0.33	0.61	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	69	145	1583	164	329	1583	249	2143	667	1128	2156	1583
v/s Ratio Prot	0.02	0.02		0.05	0.10		0.12	0.41		0.33	0.53	
v/s Ratio Perm			0.06			0.28			0.02			0.15
v/c Ratio	0.51	0.52	0.06	0.53	1.05	0.28	0.87	0.98	0.06	1.01	0.86	0.15
Uniform Delay, d1	65.6	65.6	0.0	60.6	63.5	0.0	58.9	40.0	24.0	47.0	22.5	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.8	3.1	0.1	3.3	62.0	0.4	26.6	15.5	0.2	29.9	4.9	0.2
Delay (s)	71.3	68.7	0.1	63.9	125.5	0.4	85.5	55.5	24.2	76.9	27.4	0.2
Level of Service	E	E	A	E	F	A	F	E	C	E	C	A
Approach Delay (s)		38.5			56.3			57.5			42.9	
Approach LOS		D			E			E			D	
Intersection Summary												
HCM Average Control Delay			49.7				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			99.4%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 1: Airport Blvd. & Hwy. 29

PM Future Growth & Geometries +Project
12/16/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1610	3370	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1610	3370	1583	1770	3539	1583	1770	5085	1583	3433	3539	1583
Volume (vph)	264	388	603	69	109	391	176	1597	160	1198	1883	65
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	264	388	603	69	109	391	176	1597	160	1198	1883	65
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	69	0	0	0
Lane Group Flow (vph)	210	442	603	69	109	391	176	1597	91	1198	1883	65
Turn Type	Split		Free	Split		Free	Prot		Perm	Prot		Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)	13.0	13.0	100.0	6.0	6.0	100.0	10.0	31.0	31.0	34.0	55.0	100.0
Effective Green, g (s)	13.0	13.0	100.0	6.0	6.0	100.0	10.0	31.0	31.0	34.0	55.0	100.0
Actuated g/C Ratio	0.13	0.13	1.00	0.06	0.06	1.00	0.10	0.31	0.31	0.34	0.55	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	209	438	1583	106	212	1583	177	1576	491	1167	1946	1583
v/s Ratio Prot	0.13	0.13		0.04	0.03		0.10	0.31		0.35	0.53	
v/s Ratio Perm			0.38			0.25			0.06			0.04
v/c Ratio	1.00	1.01	0.38	0.65	0.51	0.25	0.99	1.01	0.19	1.03	0.97	0.04
Uniform Delay, d1	43.5	43.5	0.0	46.0	45.6	0.0	45.0	34.5	25.3	33.0	21.6	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	63.5	45.3	0.7	13.4	2.1	0.4	65.7	26.0	0.8	33.3	14.1	0.0
Delay (s)	107.0	88.8	0.7	59.4	47.7	0.4	110.6	60.5	26.1	66.3	35.7	0.0
Level of Service	F	F	A	E	D	A	F	E	C	E	D	A
Approach Delay (s)		49.5			16.6			62.2			46.6	
Approach LOS		D			B			E			D	
Intersection Summary												
HCM Average Control Delay	49.0			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	94.5%			ICU Level of Service			F					
Analysis Period (min)	15											
c Critical Lane Group												

Queuing and Blocking Report
AM Future Growth & Geometries

Hwy. 29 / Hwy. 12 - Airport Blvd.
12/16/2008

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	82	98	72	167	185	346	346	292	383	505	503	440
Average Queue (ft)	37	41	25	14	100	200	192	115	212	501	493	370
95th Queue (ft)	75	79	60	89	193	358	375	291	420	507	527	473
Link Distance (ft)		1455	1455			1684	1684			432	432	432
Upstream Blk Time (%)										50	35	1
Queuing Penalty (veh)										0	0	0
Storage Bay Dist (ft)	320			600	160			300	350			
Storage Blk Time (%)					2	23	3	0	0	50		41
Queuing Penalty (veh)					3	20	14	0	0	89		21

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	NB	BO	BO	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	R	T	T	L	L	T	T	R	T	T	
Maximum Queue (ft)	159	1117	1117	808	822	861	875	424	68	8	
Average Queue (ft)	40	1043	1037	572	589	479	442	62	4	0	
95th Queue (ft)	128	1366	1381	917	942	930	815	278	60	6	
Link Distance (ft)		1083	1083			1335	1335		817	817	
Upstream Blk Time (%)		39	37			0	0				
Queuing Penalty (veh)		0	0			0	0				
Storage Bay Dist (ft)	150			1000	1000			400			
Storage Blk Time (%)	0			0	0	1	4	0			
Queuing Penalty (veh)	0			1	3	6	9	0			

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	349	1469	1470	644	141	87	80	212	387	505	511	496
Average Queue (ft)	304	971	989	475	54	44	33	76	253	496	482	396
95th Queue (ft)	412	1812	1866	786	114	80	70	205	463	547	554	506
Link Distance (ft)		1455	1455			1684	1684			432	432	432
Upstream Blk Time (%)		4	14							55	36	3
Queuing Penalty (veh)		0	0							0	0	0
Storage Bay Dist (ft)	320			600	160			300	350			
Storage Blk Time (%)	40	61	39	5	1				4	54		43
Queuing Penalty (veh)	125	79	221	9	0				23	91		69

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	NB	EB	EB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	R	T	T	L	L	T	T	R	T	T	T
Maximum Queue (ft)	187	1109	1108	997	1042	1410	1410	437	833	829	
Average Queue (ft)	98	843	827	612	826	1054	1068	90	176	160	
95th Queue (ft)	194	1465	1486	980	1210	1561	1560	375	682	650	
Link Distance (ft)		1083	1083			1335	1335		817	817	
Upstream Blk Time (%)		28	28			5	5		2	1	
Queuing Penalty (veh)		0	0			0	0		0	0	
Storage Bay Dist (ft)	150			1000	1000			400			
Storage Blk Time (%)	2			0	1	6	40	0			
Queuing Penalty (veh)	9			2	7	76	25	0			

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	87	78	72	120	186	648	675	328	376	505	507	461
Average Queue (ft)	34	41	27	7	103	332	340	153	222	501	494	380
95th Queue (ft)	72	74	61	58	197	808	913	337	396	509	527	485
Link Distance (ft)	1455		1455		1684		1684		432		432	
Upstream Blk Time (%)									49		34	
Queuing Penalty (veh)									0		0	
Storage Bay Dist (ft)	320				600		160		300		350	
Storage Blk Time (%)					2		40		11		1	
Queuing Penalty (veh)					4		35		49		2	
							0		0		106	
											20	

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	NB	B9	B9	SB	SB	SB	SB	SB	B6	B6
Directions Served	R	T	T	L	L	T	T	R	T	T
Maximum Queue (ft)	188	1106	1117	800	811	878	851	426	249	330
Average Queue (ft)	34	1042	1035	570	589	498	465	97	12	14
95th Queue (ft)	113	1350	1377	891	915	973	835	356	144	174
Link Distance (ft)	1083		1083		1335		1335		817	
Upstream Blk Time (%)	37		36		0		0		0	
Queuing Penalty (veh)	0		0		0		0		0	
Storage Bay Dist (ft)	150				1000		1000		400	
Storage Blk Time (%)	0				1		1	1	4	0
Queuing Penalty (veh)	0				6		10	9	10	0

Queuing and Blocking Report
PM Future Growth & Geometries +Project

Hwy. 29 / Hwy. 12 - Airport Blvd.
12/16/2008

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	353	1476	1476	639	133	95	83	205	379	508	503	478
Average Queue (ft)	300	957	973	443	57	46	33	74	257	499	486	382
95th Queue (ft)	415	1792	1838	758	112	87	72	203	459	540	553	490
Link Distance (ft)		1455	1455			1684	1684			432	432	432
Upstream Blk Time (%)		6	12							56	38	2
Queuing Penalty (veh)		0	0							0	0	0
Storage Bay Dist (ft)	320			600	160			300	350			
Storage Blk Time (%)	39	61	38	4	0				4	54		42
Queuing Penalty (veh)	126	80	229	8	0				19	95		67

Intersection: 1: Airport Blvd. & Hwy. 29

Movement	NB	B9	B9	SB	SB	SB	SB	SB	B6	B6
Directions Served	R	T	T	L	L	T	T	R	T	T
Maximum Queue (ft)	180	1111	1105	1020	1043	1411	1407	426	839	836
Average Queue (ft)	102	864	849	558	807	1096	1113	79	271	235
95th Queue (ft)	199	1470	1493	938	1187	1616	1628	351	847	781
Link Distance (ft)		1083	1083			1335	1335		817	817
Upstream Blk Time (%)		29	28			8	8		3	2
Queuing Penalty (veh)		0	0			0	0		0	0
Storage Bay Dist (ft)	150			1000	1000			400		
Storage Blk Time (%)	1			0	0	8	43	0		
Queuing Penalty (veh)	5			1	5	90	28	0		

Conceptual Site Plan

GATEWAY ROAD EAST, LOT 1

PROJECT DATA:

OWNER: Napa Office LLC
 DEVELOPER / APPLICANT: William A Saks & Company
 ASSESSOR'S PARCEL NUMBER: APN 057-200-001 & 009
 LOT AREA: 187,308 SF
 ZONING: IP-AC

COVERAGE AREAS

Building Footprint: 22,560 SF
 Total Building Floor Area: 67,839 GSF
 Office Space Proposed (usable tenant area): 58,136 SF
 Remaining Bldg. Space: 9,703 SF

SETBACKS

On-Site Developable Area (SF): 118,000 SF
 Land Area Between Curbside and Minimum Building Setback Line: 66,000 SF

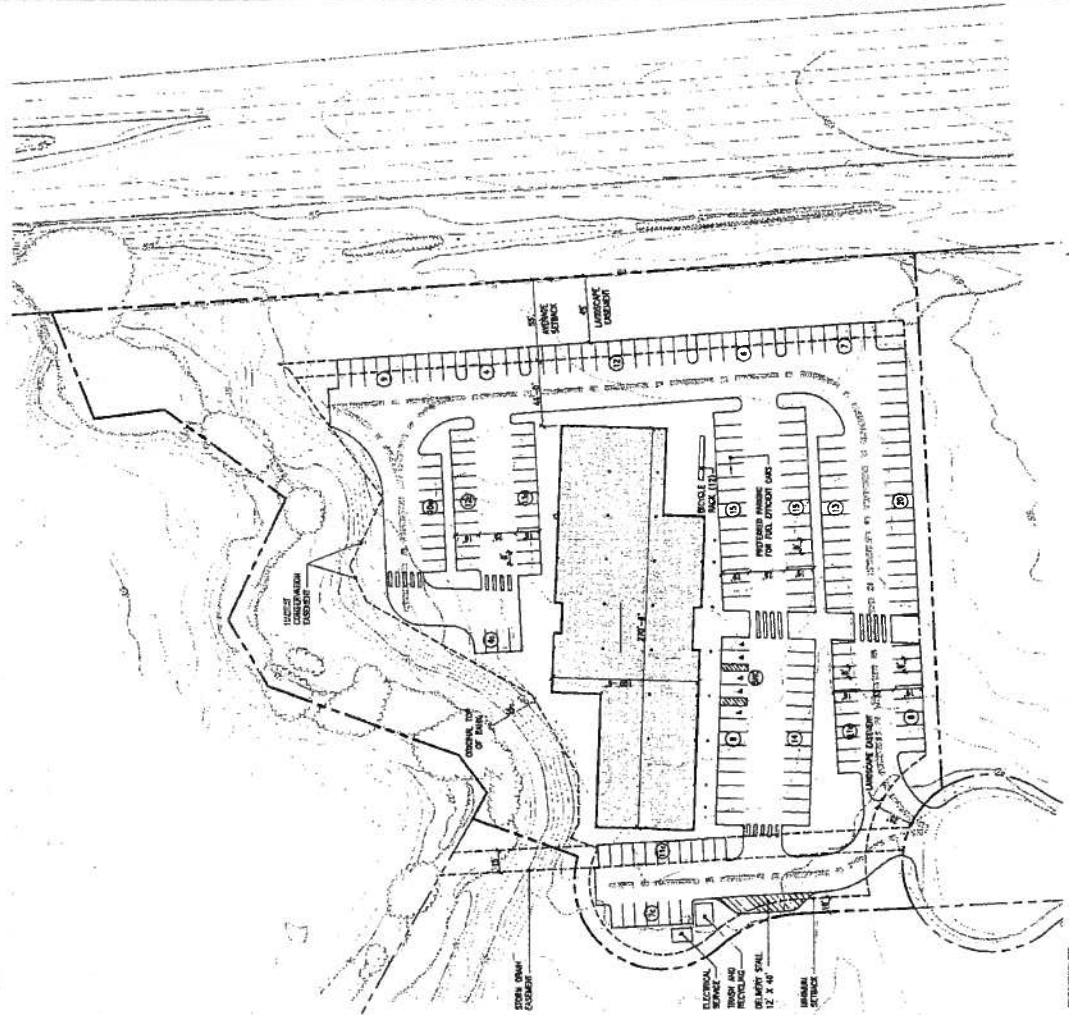
PARKING TABULATION

Compact (8' x 16') (33% of total): 68 stalls
 Standard (9' x 19'): 131 stalls
 Accessible Parking: 5 stalls
 Total Parking (3.5 : 1,000 sf of office space): 204 stalls

Preferred for Fuel Efficient Vehicles (Standard): 12 stalls
 Bicycle Parking: 12 stalls

LEGEND:

--- Property Line
 --- Setbacks and Easements
 --- FIRE TRUCK ACCESS ROUTE



NAPA EXECUTIVE CENTER

① Plan Scale 0' 25' 50' 100'

Napa, CA

September 2, 2008



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO
ATTENTION OF

FEB 5 - 2010

Regulatory Division

SUBJECT: File Number 2009-00477N

RECEIVED

APR 30 2010

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Mr. William A. Saks
William A. Saks and Company
1010 Main Street
Saint Helena, California 94574

Dear Mr. Saks:

Thank you for your submittal of November 16, 2009 requesting confirmation of the extent of Corps of Engineers jurisdiction at the proposed Napa Executive Center located at the northeast corner of the dead end of Gateway Road East, directly west of Highway 12/29, and directly south of Sheehy Creek in the City of Napa, Napa County, California (APNs 057-200-001 and 057-200-009).

The enclosed map entitled, "Figure 3. Areas Subject to Corps Section 404 Clean Water Act Jurisdiction," in one (1) sheet date certified January 25, 2010, accurately depicts the extent and location of Corps jurisdiction within the study area boundary. We have based this jurisdictional delineation (delineation) on the current conditions of the site, as verified during a field investigation of January 6, 2010, and other data included with your submittal.

We have determined that there are no waters of the U.S. as defined by Section 404 of the Clean Water Act (33 U.S.C. Section 1344) and no navigable waters of the U.S. as defined by Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403) within the study area boundary shown on the attached delineation map for your project. Therefore, a Department of the Army authorization will not be required to complete the activity you are proposing.

This delineation/determination will expire in five years from the date of this letter unless new information warrants revision of the delineation/determination before the expiration date. Also, a change to your project could also change this delineation/determination.

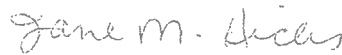
This delineation/determination does not obviate the need to obtain other Federal, State or local approvals required by law, including compliance with the Federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.). Even though this activity is not prohibited by, or otherwise subject to regulation under Section 404, the take of a threatened or endangered species as defined under the ESA is not authorized. In the absence of a separate authorization from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal takes of protected species are a violation of the ESA. Similarly, the appropriate State of

California, Regional Water Quality Control Board may still regulate your proposed activity because of impacts to a "water of the State". Therefore, you should also contact appropriate Federal, State and local regulatory authorities to determine whether your activity may require other authorizations or permits.

You are advised that the Corps has established an Administrative Appeal Process, as described in 33 C.F.R. Part 331 (65 Fed. Reg. 16,486; March 28, 2000), and outlined in the enclosed flowchart and "Notification of Administrative Appeal Options, Process, and Request for Appeal" form (NAO-RFA). If you do not intend to accept the approved jurisdictional determination, you may elect to provide new information to the District Engineer for reconsideration or submit a completed NAO-RFA form to the Division Engineer to initiate the appeal process. You will relinquish all rights to appeal, unless the Corps receives new information or a completed NAO-RFA form within sixty (60) days of the date of the NAO-RFA.

Should you have any questions regarding this matter, please call Bryan Matsumoto of our Regulatory Division at 415-503-6786. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter.

Sincerely,

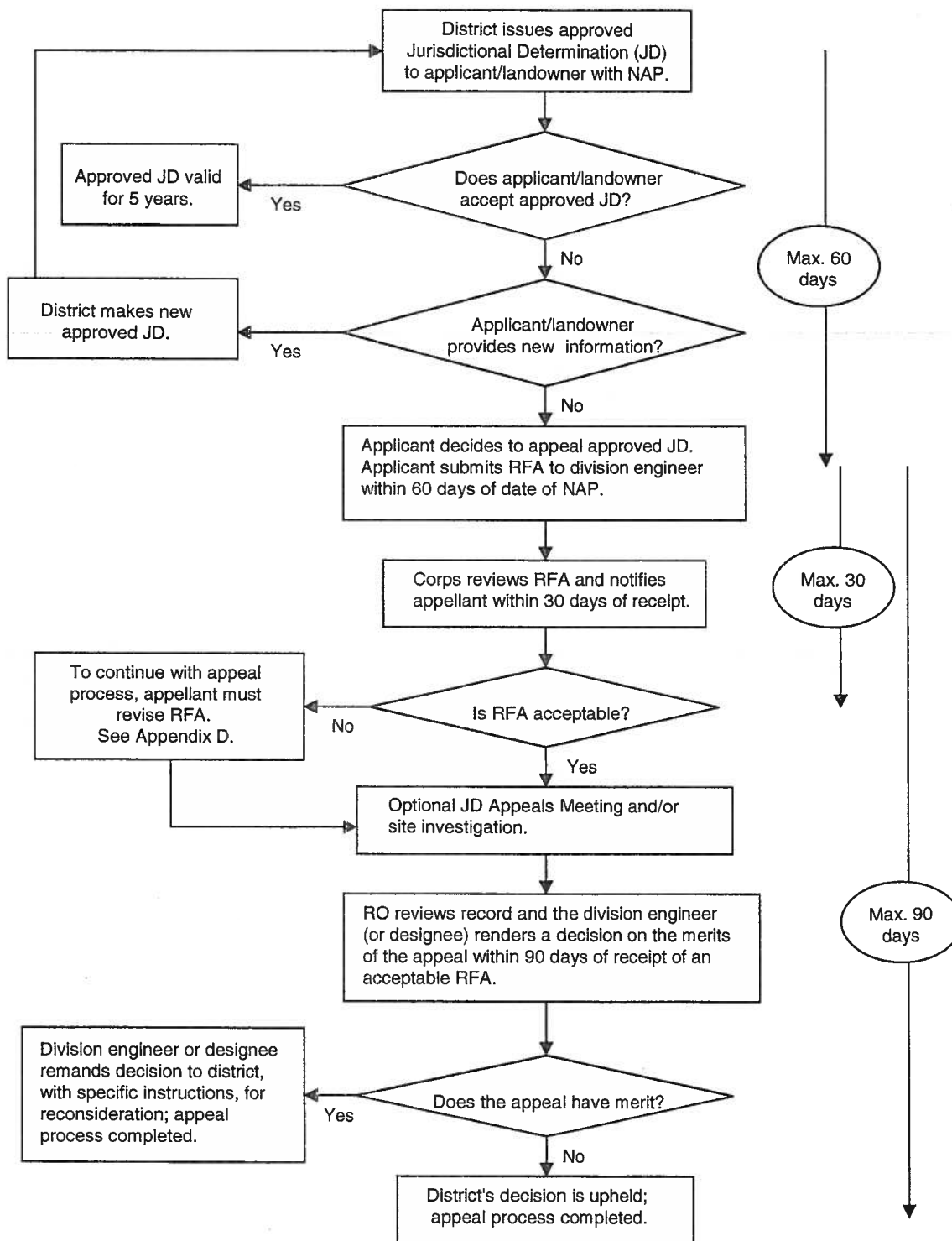


Jane M. Hicks
Chief, Regulatory Division

Copy Furnished (w/ delineation map only):

RWQCB, Oakland, CA
Huffman-Broadway Group, Inc., San Rafael, CA (Attn: Greg Huffman)

Administrative Appeal Process for Approved Jurisdictional Determinations



NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: William A. Saks and Company		File Number: 2009-00477N	Date: Feb. 3, 2010
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	FINAL PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps Regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the District Engineer. Your objections must be received by the District Engineer within 60 days of the date of this Notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the District Engineer will send you a final proffered permit for your reconsideration, as indicated in Section B below.

B: FINAL PROFFERED PERMIT: You may accept or decline/appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this Notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this Notice.

D: APPROVED JURISDICTIONAL DETERMINATION (JD): You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this Notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this Notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION (JD): You do not need to respond to the Corps regarding the preliminary JD. The preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps District for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT, FINAL PROFFERED PERMIT, PERMIT DENIAL, or JURISDICTIONAL DETERMINATION

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record; the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the Review Officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Jane Hicks, Regulatory Division Chief
U.S. Army Corps of Engineers, San Francisco District
1455 Market Street, San Francisco, CA 94103-1398

Tel.: (415)503-6771 Fax: (415) 503-6690

If you only have questions regarding the appeal process you may also contact:

Thomas Cavanaugh, Appeal Review Officer
U.S. Army Corps of Engineers, South Pacific Division
1455 Market Street, San Francisco, CA 94103-1399
Email: thomas.j.cavanaugh@usace.army.mil
Tel.: (415)503-6574 Fax: (415) 503-6647

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of Appellant or Agent

Date:

Telephone Number:

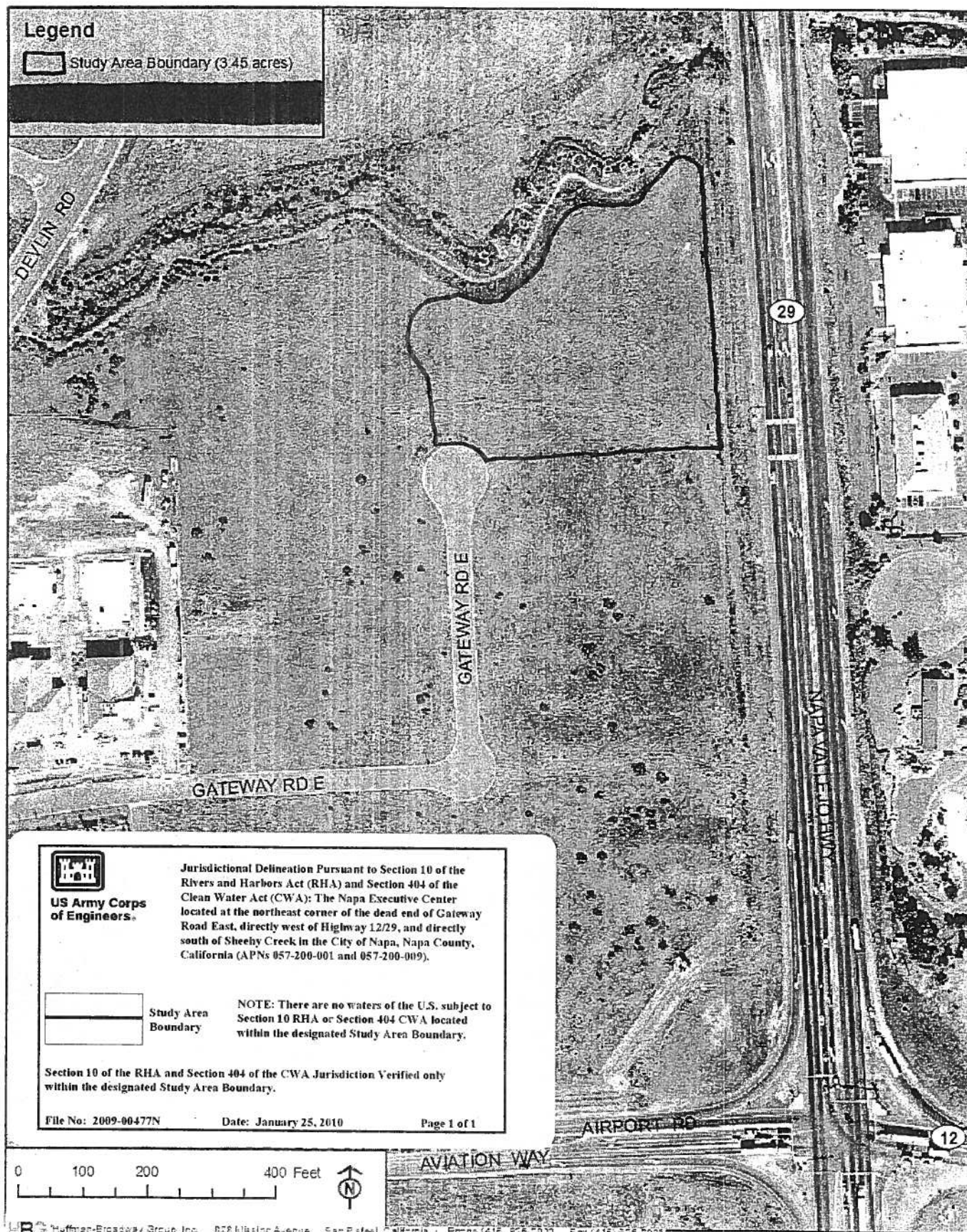


Figure 3. Areas Subject to Corps Section 404 Clean Water Act Jurisdiction,
 Napa Executive Center,
 Napa, Napa County, California

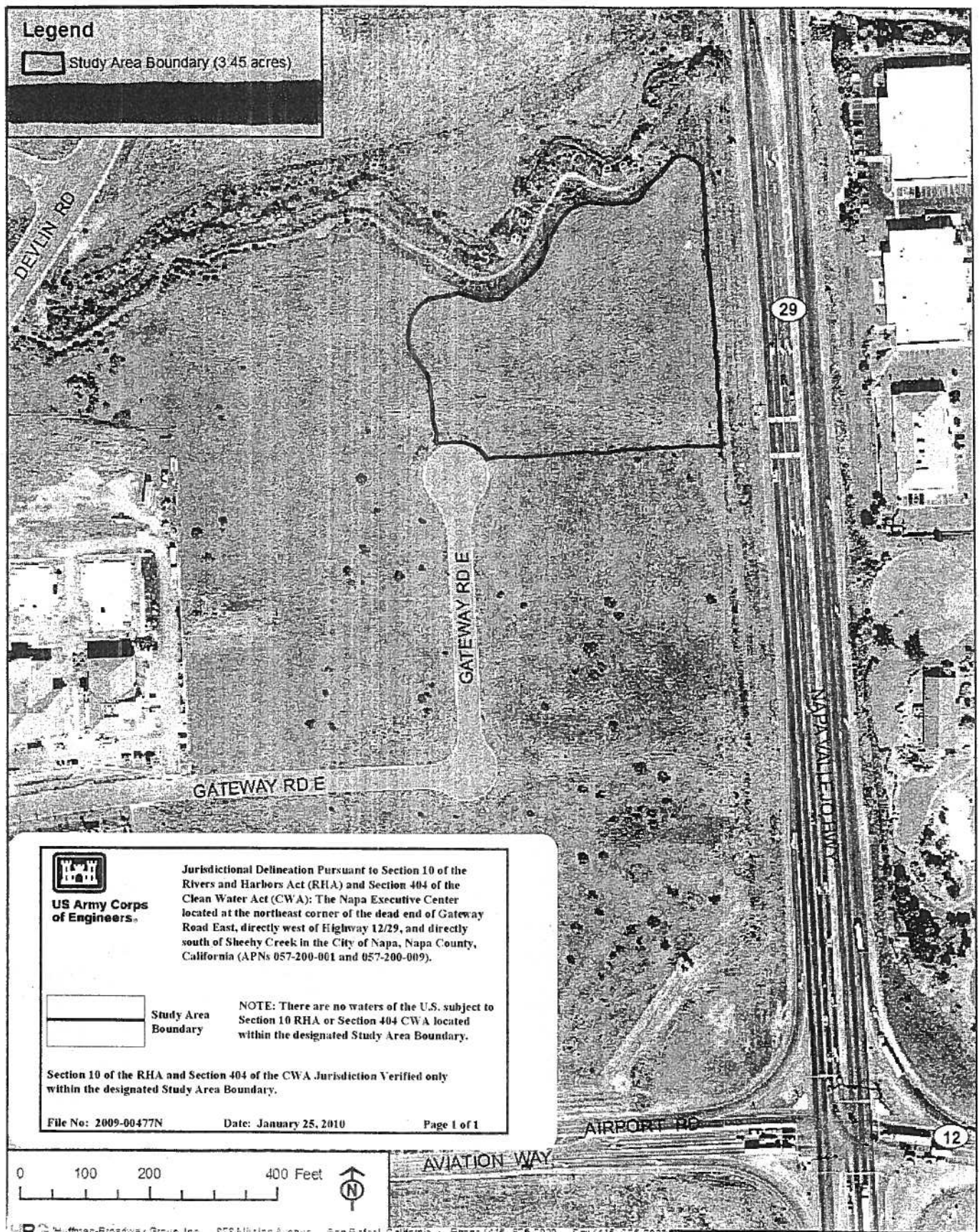


Figure 3. Areas Subject to Corps Section 404 Clean Water Act Jurisdiction,
 Napa Executive Center,
 Napa, Napa County, California

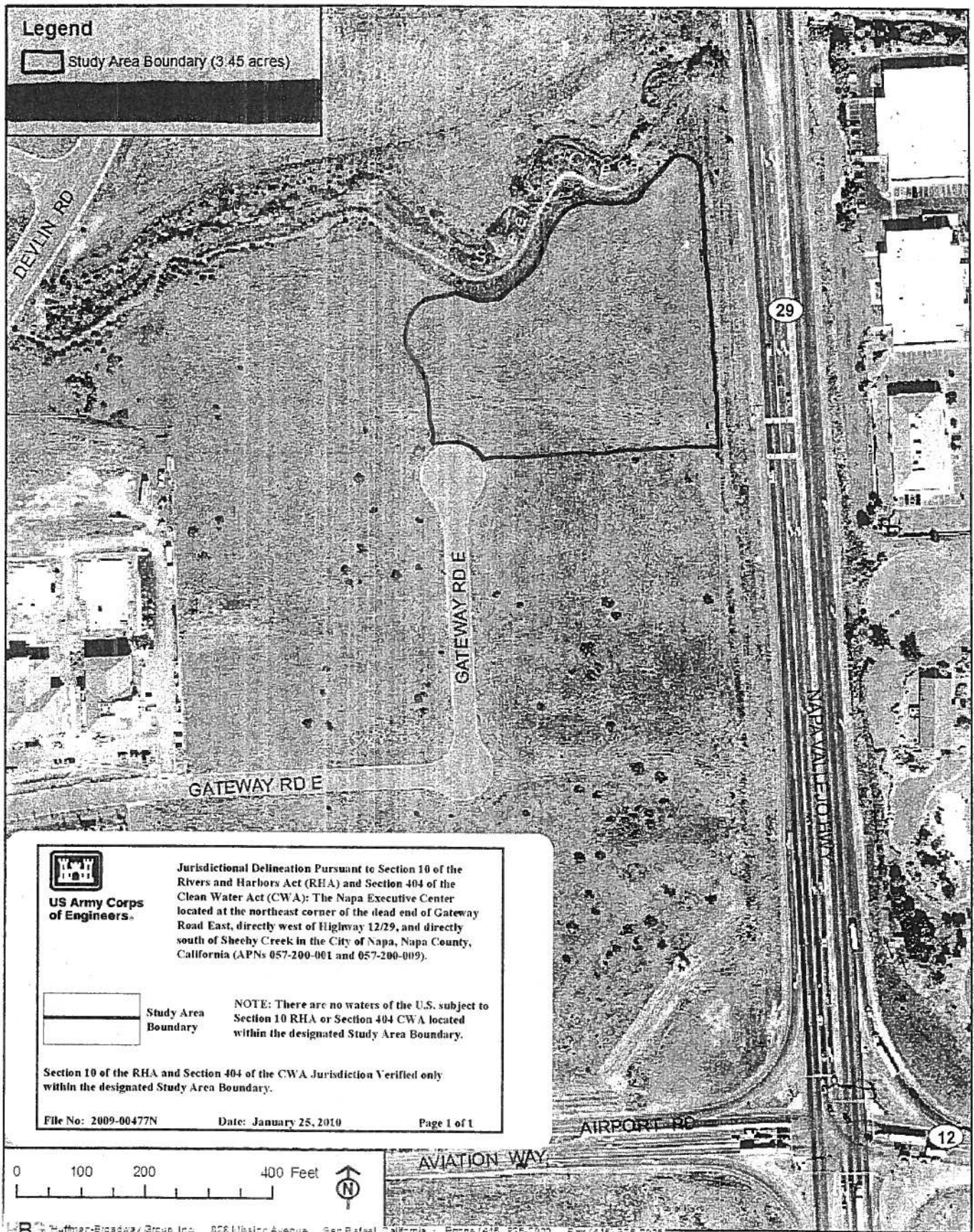


Figure 3. Areas Subject to Corps Section 404 Clean Water Act Jurisdiction,
 Napa Executive Center,
 Napa, Napa County, California