



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Aitken

SUBJECT: SEE BELOW

DATE: September 13, 2021

Approved

Date

9/17/2021

COUNCIL DISTRICT: 3 & 6

SUBJECT: CONSTRUCTION CRANE FEE PROGRAM STUDY FINDINGS AND RECOMMENDATION

RECOMMENDATION

- (a) Approve an ordinance requiring developers whose means or methods of construction exceed the City's Downtown Building Height Limits to indemnify the City for all costs or losses arising out of developers construction means or methods, to make a deposit of estimated costs or losses prior to the city issuing a building permit, and to reconcile a percentage of costs associated with actual Air Carrier denied passenger boardings, prior to the city issuing a temporary or permanent certificate of occupancy.
- (b) Adopt a resolution to implement a Landing Fee Reduction Program for air carriers that incur passenger weight impacts caused by a developers construction means and methods in the "Construction Crane Guidance Area" and to grant the Director of Aviation authority to waive landing fees up to 75% of the total Air Carrier denied boarding costs due to construction cranes and to set the estimated crane fee deposit percentage up to 50% and fee cap on an annual basis.

OUTCOME

City Council approval of the above recommendations would allow the Construction Crane Fee Program to be implemented, requiring developers to pay an estimated crane fee deposit (30 – 50% of total fees due) at the time of building permit issuance based on the expected duration a project's construction means and methods (e.g. construction cranes, temporary hoisting devices, etc.), referred to as "construction cranes" that will operate above the City of San Jose's Downtown Building Height Limits. Construction crane fees will have a cap for the first six

months, with the cap being eliminated after six months and the full estimated crane fee to be due. Fees will be reconciled before the issuance of temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (COO), whichever occurs sooner and will be based on actual Air Carrier denied boarding impacts. In addition, approval of the above recommendations will help attract and retain domestic and international Air Carriers by allowing them to participate in the Landing Fee Reduction Program at the Mineta San Jose International Airport (SJC). The Airport will be the administrator of the fee program and will not fund the program on behalf of either the development community or the Air Carriers.

EXECUTIVE SUMMARY

The Federal Aviation Administration (FAA) protects various airspace surfaces surrounding an airport, known as Terminal Instrument Procedures (TERPS) surfaces, and in turn makes the final decision on the height of permanent buildings and temporary construction cranes. The City of San Jose's Construction Crane Fee Program Study (Study) explored a crane permit fee to offset the potential Air Carrier weight penalties (denied passenger boardings) associated with operating construction cranes above the Council approved Downtown Building Height Limits when the Airport is in South Flow operations (aircraft departing the airport towards the Downtown).

The Study calculated a crane fee by determining the annual denied boarding costs to the Air Carriers, directly attributed to project construction cranes exceeding the Downtown Building Height Limits. The estimated Air Carrier denied boarding cost impacts are estimated at a current total of \$2.8 million annually, based on SJC's full 2019 flight schedule. Four flight schedule options were analyzed, covering 75% of the Airlines annual estimated denied boarding costs. Option 3 was ultimately selected for the start of the program based on SJC's current flight schedule and is estimated at \$935,000. Option 3 includes SJC's full domestic flight schedule (East Coast and Hawaii) and London (British Airways) as the only international flight.

To offset the Air Carrier's denied boarding costs, each development project will be required to provide a crane fee deposit (including a 15% City administrative program fee) prior to issuance of building permit, based on the estimated number of months construction crane(s) will operate above the Downtown Building Height Limits. The deposit will be set by the Director of Aviation up to 50% of the total estimated fees and will later be reconciled at TCO or COO, whichever occurs sooner based on the actual denied boardings reported by the Air Carriers. A fee cap will be set by the Director of Aviation for projects that operate construction cranes above the Downtown Building Height Limits for six months or less, with the cap being eliminated for cranes operating for longer than six months.

BACKGROUND

On February 26, 2019 the City Council accepted the Downtown Airspace and Development Capacity Study to use the FAA obstruction evaluation determinations as a maximum building height limit in the Downtown Core and Diridon Station Area. The selected scenario was to allow building heights up to the FAA TERPS surfaces. Further, Council directed the development of a construction crane policy to minimize impacts to airline service during construction.

As directed by City Council on February 26, 2019 Council, the Construction Crane Height Guidance Study was presented to City Council on March 9th, 2021. The City Council approved recommendations from the study and directed staff to explore a construction crane permit fee to support a Landing Fee Reduction Program for Air Carriers that incur either cargo or passenger weight impacts on account of construction crane impacts in the Downtown Core and Diridon Station Area “Construction Crane Guidance Area”.

City Council approved preparation of a Construction Crane Guidance document to include three ways developers can minimize impacts on Air Service:

1. To utilize crane jumps to ensure crane at maximum height for shortest period of time
2. Minimize the maximum crane height for 6 months
3. Schedule the highest heights during non-South for months (April – September)

The Construction Crane Height Guidance Study considered the potential weight reduction impacts to commercial aircraft associated with construction cranes penetrating the TERPS surfaces. Estimating the financial impacts to Air Service associated with denied boardings was not included in the previous study. The goal of the Construction Crane Fee Program Study (Study) was to develop a fee program that balances the financial impacts to both the Airlines and the development community. The Construction Crane Fee Program will only apply to developers operating construction cranes above the Downtown Building Height Limits (TERPS surfaces).

The Airline industry denies boarding to passengers on a regular basis for a variety of reasons such as overbooking, weather, or maintenance. This Study focused on the financial impacts from passenger air carrier denied boardings cause by construction cranes penetrating the TERPS surfaces within the study area.

Denied boardings are categorized by two types: voluntary and involuntary denied boardings. A voluntary denied boarding is when a passenger has a seat on their current flight but has voluntarily accepted compensation in exchange for a seat on a later flight or another carrier. An involuntary denied boarding is where a passenger has not been issued a seat on their current flight, will be re-accommodated on a later flight, and is required to receive compensation. Removing passengers involuntarily from a flight is not a sound business practice for the airline industry and therefore voluntary denied boardings are estimated to occur the majority of the time (95%), while involuntary denied boardings make up the remaining 5%.

The United States Department of Transportation (USDOT) regulates involuntary denied boardings and sets the minimum compensation an Air Carrier is required to pay passengers based on the length of delay. The minimum compensation ranges from \$775 to \$1550 depending on the length of delay and whether the flight is a domestic or international flight. Air Carriers are also required to document and submit a denied boarding form to USDOT each time an involuntary denied boarding occurs on one of their flights.

In March 2021, Landrum & Brown, a national aviation planning/engineering consultant with extensive experience working for the City on airspace and other airport technical issues, was contracted to perform the technical work on the Study, which analyzed the factors associated with Air Carriers' denied boardings as a result of construction cranes operating above the Downtown Building Height Limits in the "Construction Crane Guidance Area".

The Airport Commission was briefed on the Study on May 4, 2021 and August 9, 2021 and given the opportunity to review the scope, technical analysis, and provide feedback. City staff participation in the Study included representatives from Planning, Building and Code Enforcement Department (PBCE), Office of Economic Development and Cultural Affairs, City Attorney's Office, and the Airport Department. The development community was engaged over the course of six months through both a "Developer Working Group", a group of 17 developers, 3 contractors, and through individual developer meetings upon request. Over the course of three "Developer Working Group" meetings, discussion topics included: fee program scope, technical fee analysis, administration of the program, and preferred fee structure recommendation. The meetings were well attended by the development community and served as opportunities for developers to share their knowledge, provide input, and provide feedback to the study itself.

ANALYSIS

The Study, an extension of the Construction Crane Height Guidance Study, consisted of 3 major tasks:

- Task 1: Estimate Construction Crane Fee Structure
- Task 2: Determine Administration of Crane Fee Program
- Task 3: Formulate Landing Fee Reduction Program

Task 1: Estimate Construction Crane Fee Structure

This task estimated the annual financial impact from construction cranes to the Air Carriers associated with denied boardings in order to determine the developer fee amount. The analysis included data collection and review, estimated per passenger costs, and determined an estimated annual Air Carrier financial impact.

Staff collected data from the USDOT and SJC including:

- The annual and monthly flight data for all impacted routes (Hawaii, Transcontinental, Asia, and Europe), by aircraft type and air carrier, using 2019 pre-pandemic schedules.
- Average aircraft load factors (percentage of seats filled) and passenger volumes from 2019 flight schedules to compare to the maximum aircraft load factor assessments completed in the Construction Crane Height Guidance Study and produce an estimate of the number of denied boardings for each flight.
- Historical weather data from 2010 to 2021 identifying the total number of days and percentage of time (hours) when SJC operates in a south flow runway configuration. This weather data was merged with SJC's 2019 flight schedule to isolate where the denied boardings would occur.
- Potential impacts to air cargo and associated cost factor. (It was determined that Air Carrier belly cargo operations would mitigate any loss at SJC by ground shipping to another airport or putting belly cargo on another flight. Freightier cargo operators would mitigate any losses by utilizing their ground networks, moving cargo to SFO or OAK to be shipped.)

Staff evaluated the costs associated with Air Carrier denied boardings for both domestic and international flights by completing the following steps:

- Estimated voluntary and involuntary compensation and per diem amounts based on whether SJC was a passenger's origin or destination.
- Sorted the USDOT traffic mix of denied boardings into percentage of voluntary versus involuntary denied boardings for both SJC local (originating) and SJC non-local (destination) passengers.
- Weighted the average denied boarding cost for domestic and international flights utilizing the per passenger cost and traffic mix.

Voluntary domestic (e.g., Hawaii and Transcontinental) denied boardings were set at \$300, which is in line with the value of a ticket voucher. The voluntary denied boarding cost for international flights was set at \$600, based on fewer flight re-accommodation options, as most international flights operate only once a day and not seven days a week. Involuntary domestic flights were set at \$1,000, which is in line with statistics from the Government Accountability Office (GAO) reporting airlines paid out an average of \$937 in 2018. Involuntary international flights were doubled to \$2,000 due to even fewer flight re-accommodation options.

Air Carriers also factor per diem costs (e.g., overnight lodging, meal vouchers, and transportation vouchers) into their denied boarding costs. For local passengers flying out on an SJC flight (originating), the per diem cost was set at \$200 for both domestic and international denied boardings based on input from Air Carriers. For non-local passengers where SJC is their destination, a \$300 hotel voucher is included, for a total of \$500, based on industry standards.

The total denied boarding cost per passenger was determined by multiplying the traffic mix of denied boardings by flight origin point (e.g., SJC local or SJC non-local) by per diem cost and voluntary and involuntary denied boarding costs.

Table 1 displays the total annual financial impacts by route, carrier, aircraft type, and season. A full year of financial impacts to the Air Carriers operating flights to all impacted markets is estimated to be \$2.8 million.

Table 1

Estimated Financial Impact: Denied Boardings & Denied Boardings Compensation (DBC)								
Airline	Destination	Aircraft Type	Oct - March		Apr-Sept		Full Year	
			DB Psgrs	Financial Impact	DB Psgrs	Financial Impact	DB Psgrs	Financial Impact
AS	EWR	Boeing 737-800	-	-	-	-	-	-
AS	EWR	Boeing 737-900ER	-	-	-	-	-	-
AS	HNL	Boeing 737-800	122	\$71,790	78	\$46,027	200	\$117,816
AS	HNL	Boeing 737-900ER	210	\$123,408	299	\$176,190	509	\$299,598
AS	JFK	Airbus Industrie A319	1	\$949	-	-	1	\$949
AS	JFK	Airbus Industrie A320-100/200	5	\$3,677	-	-	5	\$3,677
AS	JFK	Boeing 737-800	0	-	-	-	0	-
AS	JFK	Boeing 737-900ER	-	-	-	-	-	-
AS	KOA	Boeing 737-800	82	\$48,335	81	\$47,765	163	\$96,100
AS	KOA	Boeing 737-900ER	122	\$71,648	155	\$91,466	277	\$163,114
AS	OGG	Boeing 737-800	149	\$87,927	283	\$166,449	432	\$254,376
B6	JFK	Airbus Industrie A320-100/200	13	\$8,555	21	\$14,258	34	\$22,813
B6	JFK	Airbus Industrie A321	2	\$1,032	-	-	2	\$1,032
BA	LHR	B787-900 Dreamliner	100	\$99,166	72	\$72,195	172	\$171,361
DL	JFK	Boeing 737-800	\$0	\$0	\$0	\$0	0	\$0
DL	JFK	Boeing 737-900ER	-	-	37	\$24,905	38	\$26,004
DL	JFK	Boeing 757-200	-	-	-	-	-	-
HA	HNL	Airbus Industrie A321-200n	0	-	45	\$26,240	45	\$26,240
HA	HNL	Airbus Industrie A330-200	-	-	-	-	-	-
HA	HNL	Boeing 767-300/300er	-	-	-	-	-	-
HA	OGG	Airbus Industrie A321-200n	0	-	38	\$22,145	38	\$22,145
HU	PEK	B787-800 Dreamliner	270	\$267,688	18	\$18,034	289	\$285,722
HU	PEK	B787-900 Dreamliner	481	\$475,729	295	\$291,965	775	\$767,694
LH*	FRA	A340-300	-	-	-	-	-	-
NH	NRT	B787-800 Dreamliner	439	\$434,232	84	\$83,460	523	\$517,692
NH	NRT	B787-900 Dreamliner	8	\$8,276	6	\$5,718	14	\$13,994
WN*	HNL	Boeing 737-800	0	-	0	-	0	-
WN*	OGG	Boeing 737-800	0	-	0	-	0	-
TOTAL			2,005	\$1,702,411	1,512	\$1,086,819	3,517	\$2,790,328

Four flight schedule scenarios were developed based on SJC’s flight schedules, consisting of the various domestic and international flight schedule combinations. Based on the current and near-term flight schedule activity at SJC, staff is recommending Option 3 which includes domestic flights, but does not include any international flights except for the London route.

1. Option 1: Full Schedule – SJC’s full domestic and international flight schedule
2. Option 2: Full Schedule with No Beijing – SJC’s full domestic and international flight schedule without Beijing
3. Option 3: No International and London – SJC’s full domestic flight schedule with London included as the only international route
4. Option 4: No International – SJC’s full domestic flight schedule, no international flights included.

All four flight schedule options and the associated monthly crane fees are shown in **Table 2**. The monthly crane fee amounts are based on 75% of the annual Air Carrier denied boarding costs, plus a 15% City administrative fee. Based on analysis performed and for the purpose of a 75% fee waiver, Air Carriers will receive \$445 for each domestic denied boarding and \$747 for each international denied boarding.

Table 2 is sorted by season, flight schedule options, and number of simultaneous developers operating temporary structures above the Downtown Building Height Limits.

Table 2

**Developer Monthly Crane Fee Rates
(75% Forecasted Costs to Airlines + 15% City Administrative Fee)**

Options	Crane Fee Monthly Rates April – September “Summer Season”				Crane Fee Monthly Rates October – March “Winter Season”			
	Option 1	Option 2	Option 3	Option 4	Option 1	Option 2	Option 3	Option 4
# Projects	Full Schedule	Full schedule No Beijing	No International + London	No International	Full Schedule	Full schedule No Beijing	No International + London	No International
1 Projects*	\$158,125	\$111,694	\$98,849	\$88,406	\$244,375	\$137,856	\$74,867	\$59,944
2 Projects*	\$79,063	\$55,847	\$49,425	\$44,204	\$122,188	\$68,929	\$37,433	\$29,972
3 Projects*	\$52,709	\$37,232	\$32,958	\$29,469	\$81,458	\$45,953	\$24,956	\$19,982

*Each project that requires a building permit is considered a single project.

Note: Each column above is calculated separately and cannot be added to reach a total.

Staff's recommendation highlighted in yellow

Task 2: Determine Administration of Crane Fee Program

This task determined the best way to administer this new program within existing City processes. After much review and dissecting of the issues related to new City program, the best way was determined to be an estimated crane fee deposit from the developer at issuance of a building permit. The deposit will be set at up to 50% of the estimated fee and will be evaluated annually by the Director of Aviation. At the start of the program, the deposit will be 40% of the total fees due. The crane fee formula is listed below:

$$40\%^1 \quad \times \quad \frac{\text{Published Monthly fee rate} \times \text{Estimated \# months construction crane(s) will exceed Downtown Building Height limits}}{\text{\# of projects with crane(s) exceeding Downtown Building Height Limits.}}$$

¹ 40% is the starting deposit percentage for the first year of implementation.

denied boardings due to construction crane heights. SJC will verify the flight details are accurate, the Airport was in South Flow at the time of the flight, and construction cranes were operating above the Downtown Building Height Limits (TERPS surfaces) at the time of flight.

As actual weight impacts occur (denied boardings) and Air Carriers request landing fee credits, developers with a crane fee deposit on file at SJC will receive quarterly statements indicating balance. Auditing of the program may occur at any time by the City's auditor.

CONCLUSION

The Study considered stakeholder input from the development community, crane operators, Air Carriers, Downtown Association, Silicon Valley Leadership Group and multiple City departments. After much consideration, staff is recommending that the City move forward with a Construction Crane Fee Program with rates that are 75% of the airlines' denied boarding financial impacts. Developers will be eligible to provide a reduced crane fee deposit (40% at the start of the program) at PBCE issuance of building permit. A fee cap will be implemented for project's that operate construction cranes above the Downtown Building Height Limits for six months or less. The goal of the Construction Crane Fee Program is to partner with the airlines and development community, offsetting a portion of the potential cost impacts to the Air Carriers via the Landing Fee Reduction Program. Staff will continue to work with the Air Carriers and development community to ensure the Construction Crane Fee Program is successfully implemented, for projects in the "Construction Crane Guidance Area," that require operation of construction cranes above the City's Downtown Building Height Limits.

EVALUATION AND FOLLOW-UP

Airport and PBCE staff shall implement the recommendations brought forward in this memorandum upon Council approval and report the relevant impacts of these recommendations back to the appropriate Council committee, as necessary.

CLIMATE SMART SAN JOSE

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

POLICY ALTERNATIVES

Alternative: Accept the Construction Crane Fee Program, at a different partnership rate lower than 75% of the Air Carrier financial impacts.

Pros: Developer fees associated with construction cranes will be reduced in Downtown San Jose.

Cons: This alternative further jeopardizes long-haul air service routes at SJC due to the significant potential for denied boardings.

Reason for not recommending: Implementing this policy does not support a key economic development policy in the Envision 2040 General Plan to “Continue developing a world-class Airport, maintaining a high level of partnership with the air carriers while and building national and international connections by attracting new air service to it.”

PUBLIC OUTREACH

Stakeholder outreach for this study was accomplished through a “Developer Working Group” consisting of 17 developers and 3 contractors and the PBCE “Developers and Construction Roundtable.” Over the course of the study, SJC hosted three “Developer Working Group” meetings and SJC discussing program scoping, technical fee analysis, and preferred fee recommendation for the proposed crane fee program. The meetings were well attended by the development community and served as opportunities to ask questions and provide feedback to the study. Additional meetings were held with the Downtown Association, Silicon Valley Leadership Group, Air Carriers, and individual developers upon request.

COORDINATION

This memorandum has been coordinated with PBCE, Office of Economic Development and Cultural Affairs, the City Manager’s Budget Office, and the City Attorney’s Office.

COMMISSION RECOMMENDATION/INPUT

The Airport Commission was briefed on the Study in public meetings on May 10, 2021 and August 9, 2021 and given the opportunity to review the technical analysis, fee recommendation, and provide feedback.

FISCAL/POLICY ALIGNMENT

The recommendations in this memorandum are consistent with the Envision San Jose 2040 General Plan amended on 03/10/2020 to continue developing a world-class airport and build national and international connections by attracting new air service to it (Goal IE-4.2).

HONORABLE MAYOR AND CITY COUNCIL

September 13, 2021

Subject: Construction Crane Fee Program Study Findings and Recommendation

Page 11 of 11

CEQA

Not a Project, File No. PP17-008, General Procedure and Policy Making resulting in no physical changes to the environment.

/s/

JOHN AITKEN, A.A.E.

Director of Aviation

For questions, please contact Matthew Kazmierczak, Manager of Policy and Strategy, at 408-392-3640.