

City Council Meeting: May 24, 2017
Agenda Item: 8.A

To: Mayor and City Council
From: Susan Cline, Director, Public Works, Civil Engineering
Subject: Airport Runway Shortening Options

Recommended Action

Staff recommends that the City Council:

1. Select the preferred option for shortening the runway at Santa Monica Airport (SMO), referred to as Option B in this staff report, to an operational length of 3,500 feet (the Project);
2. Direct staff to proceed with further design of the preferred option in order to establish a Guaranteed Maximum Price (GMP) for a design-build agreement between the City of Santa Monica (City) and AECOM Technical Services, Inc. (AECOM) to complete runway shortening construction by December 2017, in accordance with the existing Feasibility Professional Services Agreement with AECOM;
3. Find that the Project is categorically exempt from the provisions of CEQA pursuant to CEQA Guidelines Sections 15061(b)(3), 15302, and 15308; and
4. Adopt the attached Resolution that the Runway Shortening Project is categorically exempt from review under the California Environmental Quality Act.

Executive Summary

Regaining local control of land use at Santa Monica Airport (SMO) and reducing the health and safety impacts on adjacent residents is one of the City Council's Strategic Goals. Earlier this year, the City and the Federal Aviation Administration (FAA) entered into an historic Settlement Agreement and Consent Decree to resolve the City's litigation to secure local control. On February 1, 2017, the United District Court for the Central District of California entered an Order approving the Settlement Agreement as a Consent Decree. Among other provisions, the Consent Decree allows the City to reduce the current nearly 5000 foot runway to 3,500 feet pending the City's right to close the Airport "forever" after December 31, 2028. Accordingly, staff and the City's aviation consultant AECOM have developed the two most-viable options to shorten the runway at SMO to 3,500 feet for City Council review and direction to proceed. Option A, the easterly-aligned option, provides for a shortened runway furthest to the east (Attachment A). Option B, the center-aligned option, provides for a shortened runway that is centered equidistant from the existing runway ends (Attachment B). Both options are aligned along the existing runway. Unlike the existing runway, however, both options meet FAA standards and safety requirements, and are consistent with the

Consent Decree. Option B is recommended by City Staff as well as the Airport Commission (with additional conditions). Two other options that centered the shortened runway west of the existing runway's center were also evaluated but not developed further due to noise and safety factors.

Staff in the Planning Department and in the City Attorney's Office have reviewed both concept designs for conformance with the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). The consensus determination is that both proposed options are categorically exempt from the provisions of CEQA, and that no environmental documentation in compliance with NEPA is required for the project to proceed. Additionally, AECOM has prepared Technical Memoranda addressing noise, traffic, historical resources, air quality, and other aspects of the environment that support the CEQA categorical exemption determination (Attachment C).

Staff recommends that the City Council review the two options presented for shortening the runway at SMO and direct staff to proceed with designing the preferred option (in accordance with AECOM's existing Feasibility Professional Services Agreement), to establish a Guaranteed Maximum Price (GMP) for a design-build agreement between the City and AECOM to complete the Project by December 2017.

There is no immediate financial impact or budget action necessary as a result of the recommended action. Once the preferred option is selected by City Council, staff and AECOM will proceed with design of the preferred option (under the existing Feasibility Professional Services Agreement) to a 60% complete design, whereupon a GMP to complete design and construction can be established. Staff will return to Council for approval of the GMP and Design-Build Agreement by or before August 22, 2017, which would provide for shortening the runway by December 2017.

Background

Disputes over operation and control of SMO go back decades. On February 1, 2017, the United District Court for the Central District of California entered an Order approving a Consent Decree between the FAA and the City to resolve these longstanding disputes pertaining to the design and operation of the Airport. The Court concluded that the Consent Decree "is fair, reasonable and adequate to all concerned." Among other provisions, , the Consent Decree allows the City to reduce the current nearly 5000 foot runway to 3,500 feet pending the City's right to close the Airport "forever" after December 31, 2028.

On March 16, 2017, the City of Santa Monica executed Feasibility Professional Services Agreement 10436 (CCS) with AECOM, which engaged AECOM to study reducing

Runway 3-21 at SMO to 3,500 feet. The agreement includes an initial feasibility phase to provide runway shortening options for Council consideration and future selection.

Discussion

In preparation for developing the runway shortening options for Council consideration and future selection, the City and AECOM organized meetings with FAA staff to present preliminary conceptual options for shortening the runway. In attendance at the meetings were staff from Public Works Administration; Airport and Civil Engineering Divisions; personnel from AECOM and Aeroplex; staff from various divisions within the FAA; and Caltrans Division of Aeronautics.

While the FAA had no substantial concerns with any of the preliminary options for runway shortening construction, further discussions with staff and the design team were useful in reducing the range of feasible options to the easterly and centered options presented in this report, including for the reasons discussed below.

Westerly-aligned Shortened Runway

AECOM presented four design options for the City to consider, including westerly-aligned options. The westerly-aligned options were rejected because they would provide the least reduction of noise, air quality, and safety impacts, including impacts on residential areas surrounding SMO and, in particular, the westerly residential areas. It is important to note, that 95% of the airport's operations depart to the west and therefore aligning the runway with a westerly configuration would impede aircraft from gaining enough altitude over the residential areas west of the Airport.

Option A: Easterly-aligned Shortened Runway (See Attachment A)

A 3,500-foot shortened runway that has an easterly-alignment within the current runway configuration would have the following distinguishing characteristics:

- Approximately 438-feet between the existing Runway 21 threshold and the new threshold at the easterly end of the shortened runway.
- Approximately 1,035-feet between the existing Runway 3 threshold and the new

threshold at the westerly end of the shortened runway.

- Fully FAA-compliant Runway Safety Areas (RSA) at each end of the shortened runway, estimated to be 300-feet long, based on Category B-II design standards being applicable for SMO post the runway shortening.
- Approximately 19.2 acres of contiguous land within the west remainder parcel, and 5 acres of contiguous land within the east remainder parcel (i.e. more contiguous land apportioned to the west remainder parcel)
- Better line-of-sight visibility for the Air Traffic Control (ATC) tower, compared to a centered alignment and existing runway, due to the ATC tower being situated at the easterly end of SMO.
- Better connectivity and access for aircraft, compared to a centered alignment and existing runway, because more aircraft tie-down areas and hangars are within the easterly portion of SMO property.

Option B: Center-aligned Shortened Runway (See Attachment B)

A 3,500-foot shortened runway that is centered within the current runway alignment would have the following distinguishing characteristic:

- Approximately 736-feet between the existing and new thresholds at each runway end.
- Fully FAA-compliant RSAs at each end of the shortened runway, estimated to be 300-feet long, based on Category B-II design standards being applicable for SMO post the runway shortening.
- Improved line-of-sight visibility for the ATC tower compared to the existing runway.
- Improved connectivity and access for aircraft compared to the existing runway.
- Approximately 14.3 acres of contiguous land within the west remainder parcel, and 8.5 acres of contiguous land within the east remainder parcel.

Improvements Required for both Center- or Easterly-aligned Shortened Runway

Both center- and easterly-aligned options for a 3,500-foot shortened runway would require essentially similar modifications to the existing runway and taxiway striping,

markings, signs, lighting, and to the various navigational aids at SMO. Both options would also require the creation of six new taxiways within already utilized and paved areas of the Airport, at regular spacing along the re-aligned 3,500-foot runway, providing improved safety for arriving aircraft taxiing off the runway. The defined taxiways would allow the air traffic control (ATC) tower to better control and direct aircraft movement on- and off-the runway, and would be compliant with current FAA standards. The existing non-standard, non-compliant condition that allows aircraft to taxi off at any point along the runway is something that the FAA has previously indicated it would like to see corrected because of safety concerns. Finally, both the center- and easterly-aligned options would likely require taxiways at the runway ends to also be reconstructed to ensure maintenance-free operations until closure of SMO in 2028, regardless of whether they align or are coincident with existing taxiways.

Runway Siting Evaluation Criteria

The runway siting evaluation criteria table (Figure 1) summarizes the factors of safety, noise, air quality, land use, cost, schedule, and features in the Runway Protection Zone (RPZ) that are relevant for Council to consider in selecting an option. As reflected in Figure 1, noise, air quality, cost, and schedule are not expected to vary significantly between the two options. For the safety item, while both options provide the required RSA prescribed by the FAA and therefore meet safety standards, each option provides varying amounts of buffer area (the paved portions of the unused runway that are not removed) at each end the runway. Additionally, as previously mentioned, as between the two options, line-of-sight visibility for the ATC tower is better in the easterly-alignment (Option A). The other differentiating factors for the two options fall under land use and the number of features in the RPZ. The easterly-alignment (Option A) would allocate more contiguous land to the west remainder parcel and the center-alignment (Option B) would contain fewer residences, tie-downs, and reduce roadway exposure within the RPZ. Both the easterly-aligned and the center-aligned options would produce improvements in terms of taxiway configuration, runway visibility from the airport traffic control tower, and the size of contiguous land relative to the existing runway.

Item	Detail	Option A	Option B
Safety	Buffer Area (RWY 21) ¹	When taking off and landing, pilot has additional 1,035 feet of buffer area and more reaction time	When taking off and landing, pilot has an additional 736 feet of buffer area
	Buffer Area (RWY 3) ²	When taking off and landing, pilot has additional 438 feet of buffer area and more reaction time	When taking off and landing, pilot has an additional 736 feet of buffer area
	Down-slope (RWY 21) ¹	Westerly direction is on a downhill slope. This option provides an additional 1,035 feet of emergency overrun.	Westerly direction is on a downhill slope. This option provides an additional 736 feet of emergency overrun.
	Up-slope (RWY 3) ²	Provides an additional 438 feet of emergency overrun on an uphill grade where gravity assists with braking.	Provides an additional 736 feet of emergency overrun on an uphill grade where gravity assists with braking.
	Control Tower	Maximizes runway visibility for the control tower.	Provides improved runway visibility for the control tower.
Noise		Reduces operations & change in fleet = reduced noise	Reduces operations & change in fleet = reduced noise
Air Quality		Reduces operations & change in fleet = reduced emissions	Reduces operations & change in fleet = reduced emissions
Cost		+/- \$4M (Budget Amount)	+/- \$4M (Budget Amount)
Schedule		End of 2017	End of 2017
Land use	West remainder parcel	19.2 acres of contiguous land	14.3 acres of contiguous land
	East remainder parcel	5 acres of contiguous land	8.5 acres of contiguous land
Features in RPZ* (current)	Residences (141)	Reduced to 36	Reduced to 25
	Gas Stations (0)	1 moved from ROFA	1 moved from ROFA
	Public road length (7100)	Reduced to ~ 2,500 LF	Reduced to ~ 2,200 LF
	Tie-downs in controlled activity area (0)	Increased to 7	Increased to 3

* RPZ = Runway Protection Zone ¹ RWY 21 – 95% of operations is westbound ² RWY 3 – 5% of operations is eastbound

Figure 1 – Evaluation criteria used by staff in siting of the shortened runway

Environmental Analysis

California Environmental Quality Act (CEQA) experts working for AECOM, and staff from the Planning Department and the City Attorney’s Office have reviewed both proposed concept designs for conformance with CEQA and the National Environmental Protection Act (NEPA). As explained below, the consensus determination is that both proposed options are categorically exempt from the provisions of the CEQA, and that no environmental documentation in compliance with NEPA is required for the project to proceed.

CEQA Compliance

CEQA applies only to projects that have the potential for causing a significant effect on the environment. A project is not subject to CEQA under CEQA Guideline Section 15061(b)(3) “where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.” In addition,

Section 15302 provides a categorical exemption from CEQA for the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. Section 15308 provides yet another categorical exemption for actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. The City has determined that the proposed Runway Shortening Project does not have the potential for causing a significant effect on the environment, and is categorically exempt from CEQA review under CEQA Guideline sections 15302 and 15308.

The proposed Runway Shortening Project implements the Consent Decree by replacing the existing 4,973-foot runway at SMO with an operational runway of 3,500 feet. The shortened runway will be located on the same site and will have the same purpose as and no greater capacity than the existing runway. The repositioned and replaced runway lights, signs, FAA visual aid equipment and taxiways will have adequate capacity to serve the shortened runway. The proposed Project also is an action by the City, as operator of SMO pursuant to local ordinance and the Consent Decree, in consultation with the FAA, to bring the Airport into compliance with safety and design standards and to maintain and protect the environment. As demonstrated in this staff report and detailed in the Technical Memoranda (Attachment C), the Project would enhance safety and reduce adverse environmental impacts caused by existing Airport operations. A CEQA Categorical Exemption, and supporting Technical Memoranda have been prepared by experts at AECOM to analyze potential impacts resulting from the Project. The following are the results of the analyses prepared for this Project:

Air Quality and Greenhouse Gas – Technical Memorandum

A Technical Memorandum was prepared on May 15, 2017, to analyze potential impacts to air quality from construction activities and long-term changes to airport operations. During construction, it was determined that the project has minimal air quality impacts within the South Coast Air Basin. During operations, the reduction in air traffic will result

in improved air quality at and adjacent to the project area due to a 44% reduction in aircraft at Santa Monica Airport associated with the proposed Project. A study prepared by Coffman Associates determined that reducing the runway's operational length as provided for by the Consent Decree would result in decreased use of the Airport by larger, louder, and less efficient aircraft, due to those aircrafts' abilities to comply with landing limitations imposed by DOT regulations, and consequently reduce the number of flights at the Airport by 44%. (The Coffman Associates Study is found in Attachment D.) It is a matter of speculation if and where these jet aircraft may operate. Nonetheless, the small increase in the use of other local airports by these aircraft and in associated personal vehicle trips to other local airports would have no measurable air quality impact.

Cultural Resources – Technical Memorandum

A Technical Memorandum was prepared on May 12, 2017 to determine if there is a potential for impacts to historical resources. Background research and records searches, a field survey, and a historical evaluation for the runway and taxiways were prepared as a part of this investigation. It was determined that the levels of alterations to the runway and taxiways that have been conducted as a necessary part of airport maintenance and operations throughout the airport's history have impacted the historic integrity of the airport; therefore, the runway and taxiways are not considered historical resources, and no impact would occur as a result of the proposed Project. The evaluation also analyzed impacts to any known or existing historical resources at the airport. The Santa Monica Airport Rotating Beacon Tower is presently listed as City Landmark 19; however, there would be no direct or indirect impacts to the resource from the project, due to its distance from project and the small-scale nature of the improvements.

Noise – Technical Memorandum

A Qualitative Analysis Technical Memorandum was prepared on May 15, 2017, to analyze potential noise impacts that would result from the proposed Project. The analysis determined that noise would be moderately reduced by the proposed Project

for the following reasons. First, the change in starting point for takeoff operations would shift either 438 feet or 736 feet away from residences that are adjacent to the east end of the airport, reducing noise levels in those neighborhoods. Second, the shorter runway length would result in a 44% reduction in jet aircraft operations because the size and type of aircraft that could safely land at Santa Monica Airport in accordance with FAA landing requirements would be limited. Third, as supported by the Coffman Associates study, due to heavier, louder jets no longer using the runway, both the easterly-aligned and the center-aligned options would result in generally lower noise levels, and any anticipated increases of SENELs for aircraft that would continue to use the shorter runway would be imperceptible in residential neighborhoods. The anticipated growth rate in flight operations of smaller aircraft that will continue to use the Airport is approximately 5%, which would not result in noise levels returning to pre-construction levels. Because construction associated with the shortened runways is limited to construction of new taxiways, pavement restriping and modification to navigational lighting, noise from construction or changes to traffic is expected to be less than significant. If construction activities include taxiway pavement removal and nighttime work, an After Hours Construction Permit would need to be obtained from the City and practical noise control strategies may be implemented to minimize noise impacts.

Traffic - Technical Memorandum

A Traffic Assessment Memorandum was prepared on May 15, 2017, to evaluate potential traffic impacts that would result from the proposed Project. During construction activities, the proposed Project is anticipated to generate short-term project construction trips on the regional roadway system. However, the additional non-recurring traffic is not anticipated to conflict with the Los Angeles County Construction Management Program. The proposed Project will minimize potential impacts by complying with City of Santa Monica Temporary Traffic Control Plans (TTCPs).

During operations under the proposed Project, approximately 52 jet aircraft would no longer be able to land at Santa Monica Airport in compliance with safety and FAA requirements on a daily basis. It is a matter of speculation if and where these jet aircraft may operate. Nonetheless, airports within the region that would still be able to

accommodate these jets include:

- Burbank Bob Hope (BUR)
- Camarillo (CMA)
- El Monte (EMT)
- Hawthorne (HHR)
- Van Nuys (VNY)
- Whiteman, San Fernando Valley (WHP)
- Zamperini Field, Torrance (TOA)

Thus, there would be at most minimal increases in activities at such airports.

Only a nominal, insignificant increase in personal vehicle trips per day to or from each of these local airports would occur due to these aircraft using other airports. This small increase in vehicle trips to other local airports would not result in significant traffic impacts.

Safety

It is anticipated that the increased buffer between the runway and adjacent residential areas, addition of FAA-compliant RSAs of at least 300 feet, elimination of non-compliant taxing operations, and 44% reduction in jet aircraft would substantially reduce safety hazards for people residing or working near the Project area. These changes, which will bring the Airport into compliance with federal safety and design requirements, will also improve aviation safety. Limited closures and construction best management practices would be implemented in order to maintain construction-site safety for people residing or working near the Project area during construction activities.

The City reviewed Appendix G to the California Environmental Quality Act (CEQA) Guidelines and determined that neither the center-aligned option nor the easterly-aligned option would adversely impact any other environmental factors listed in Appendix G. In light of these analyses, it can be determined that neither of the runway shortening options would have a significant effect on the environment and, therefore, are not subject to CEQA review pursuant to CEQA Guideline Section 15061(b)(3).

NEPA Compliance

Environmental documentation in compliance with NEPA applies to projects involving federal funding or federal approvals. For the proposed project, however, there is no federal funding and, as a result of the Settlement Agreement/Consent Decree, the Airport is not a federally obligated airport and there is no major federal action required for the project to proceed. Therefore, no environmental documentation in compliance with NEPA is required for the project to proceed.

Navigational Aids (NAVAIDS)

The existing runway at SMO has navigational aids (NAVAIDS) to assist pilots in the landing phase of flight on both ends of the runway. Runway 3 has a Visual Approach Slope Indicator (VASI) and Runway 21 has a Precision Approach Path Indicator (PAPI). Both runway ends also have Runway End Identifier Lights (REIL) that are flashing strobe lights that aid the pilot in identifying the runway at night in a sea of city lights. All existing equipment is owned and maintained by the FAA.

The installation of new PAPIs and REILs will be required for the new runway as a result of relocating both runway ends (thresholds). The approach for the procurement and installation of the new equipment is to have the design-build team (AECOM) procure, install, and certify the equipment. The FAA would continue to be involved throughout the process for the formal decommissioning process of FAA equipment. A flight to certify the equipment will be required before full certification to ensure light angles are accurate and no obstacles penetrate PAPI's Obstacle Clearance Surface.

Instrument Departure and Arrival Procedures

The existing runway at SMO has instrument approach for landing and instrument departure procedures that will need to be updated as a result of the relocation of both runway ends (thresholds). Several meetings with the FAA have occurred to discuss the process and expectations for updating instrument procedures at SMO. Instrument procedures are updated on a rotating cycle. The deadline to submit the required information to update procedures for the December 7, 2017 publication date has already passed. The next publication date is in February 2018. The FAA has indicated their willingness to work with the City to meet the December 7, 2017 publication date,

but existing workload and other factors may result in missing the December date. The FAA has received the proposed runway end coordinates for both the easterly-aligned and center-aligned options. Both options reflect the comments received by the staff and consultants during informal consultations with the FAA. In fact, as discussed above, the proposed Project would improve safety and bring existing Airport operations into compliance with FAA design and safety standards. Continued coordination with the FAA is ongoing to ensure updates to the procedures will not delay the opening and use of the 3,500-foot runway by the end of the year.

Public Outreach Efforts

Staff and the consultant team initiated extensive notification and public outreach efforts in early April, with the approach of:

- Organizing a community and airport stakeholder meeting (at an airport venue to encourage maximum participation) where the two options developed for Council consideration would be presented and comments received.
- Conducting a presentation for the Airport Commission, subsequent to the community and stakeholder meeting, that presented the two options developed for Council consideration and summarized the comments from the earlier community & stakeholder meeting.

Community and Stakeholder Meeting

On Tuesday April 25th from 10 AM to 12 noon, City staff and the consultant team conducted a community and stakeholder meeting at the Museum of Flying, a venue selected to encourage maximum participation. The meeting was moderated by a professional facilitator and well attended, with approximately 100 attendees comprising members of the community, airport tenants, and some professional associations. Notification of the proposed meeting was distributed to the airport tenants and the wider community via email approximately 2 weeks prior. A summary of the comments received and a full report by the facilitator, MIG, are provided as Attachment E.

Airport Commission Meeting

On May 2nd, City staff and the consultant team attended the Airport Commission meeting to present the two options developed for Council consideration, and to additionally summarize the comments from the earlier community and stakeholder meeting. Comments received during the Airport Commission meeting have been summarized and provided as Attachment F. Additionally, the Airport Commission made the following recommendations:

- To adopt Option B [center-aligned option], if and only if, the City obtains binding agreement from the FAA for a two-part project that consist of phase 1 which implements Option B and prevents aircraft incursion (excursions) into the decommissioned runway, and phase 2 which replaces the excess concrete/ asphalt at the runway ends. This recommendation was approved by a vote of 3-2.
- Urge the City Council to direct staff to initiate the CEQA process as soon as possible and that it be completed with requisite haste. This recommendation was approved by a vote of 4-1.

As the project proceeds, staff will continue with outreach efforts to engage the community, airport tenants and other constituent stakeholders to ensure full transparency, disclosure, and fairness.

Staff Recommendation

Staff recommends Option B – the centered option - as the best option to carry forward to a 60% design completion stage, given that the FAA and the City’s aviation consultants see the differences between the two options as subtle; that staff views differences between implementing the construction of either option as the same; and that there is significant community support, from both Santa Monica and Los Angeles, for the centered option.

The above recommendation is based on the consensus opinion that the relative advantages of either option in terms of taxiway configuration, or runway visibility from the ATC tower, or contiguous remainder parcel size, are minimal.

Staff agrees with the Airport Commission that there should be future discussion concerning any removal/reuse of the decommissioned runway. However, there are potentially many options and issues to consider in dealing with use of the property no longer needed for the Airport with a shortened runway. Anything that might be done with the decommissioned portion of the current runway would be a separate and independent project from the runway shortening to 3,500 feet. Any future decision has no bearing on or functional link to the issue of design for runway shortening and should be considered completely separately.

Financial Impacts and Budget Actions

There is no immediate financial impact or budget action necessary as a result of the recommended actions. Once the preferred option for runway shortening is identified by City Council, staff and AECOM will continue development of the preferred option to a level, typically 60% complete design, whereupon a Guaranteed Maximum Price (GMP) to complete design and construction can be confidently established. Staff will return to Council for approval of the GMP and Design-Build Agreement by or before August 22, 2017 to complete the runway shortening construction by December 2017.

Prepared By: Allan Sheth, Civil Engineering Associate

Approved

Forwarded to Council



Susan Cline, Director

5/18/2017



Rick Cole, City Manager

5/19/2017

Attachments:

- A. Option A
- B. Option B
- C. Technical Memoranda

D. Coffman Associates Study

E. Summary Report - Community and Stakeholder Meeting

F. Summary Report - Airport Commission Meeting

G. Resolution