Alternative 2 -- the wisest choice for LAX North Airfield

LAWA management has announced its intention to move the North Airfield outboard runway 260 feet north (further from Terminals 1-3) and to build a taxiway between the runways. This redesign will require re-routing and tunneling Lincoln Blvd under the northeast corner of the runway area.

By comparison, Alternative 2 leaves both North Airfield runways where they sit now, but moves the exits from the outboard runway to the last third of the runway so aircraft can more safely cross the inboard runway.
(Maps on the next two pages highlight proposed airfield changes in yellow.)

1. First, spending priority should focus on terminals and ground transportation to improve passenger experience, not on runways.

2. Cost – LAWA estimates the cost of moving the outboard runway 260' north will be 3½ times as much as Alternative 2 ($713M vs. $205M). That estimate assumes no logistical nightmares develop, such as underground utilities that impede rerouting / tunneling Lincoln Blvd or filling the abandoned Lincoln Blvd. tunnel that extends to the north edge of the existing outboard runway.

3. Efficiency – LAWA's EIR shows that Alternative 2 is the most efficient alternative for moving aircraft between runways and terminal gates.

4. Environment – LAWA's SPAS-DEIR declares Alternative 2 to be the Environmentally Preferred Option.

5. Safety – The only detailed safety study that actually quantified risk – the 2010 North Airfield Safety Study – concluded that the North Airfield is "extremely safe" as currently configured and any negligible safety gains from moving the runway north could not justify the added cost.

7. The Airbus A380 super-jumbo jet is usually cited as the reason runway changes are so important. However, A380 sales are lagging so badly (for example, four orders in 2012, only 26 shy of the Airbus' sales target) that the aircraft program is at risk of being canceled. A380s are predicted to be about 2% of airfield operations in 2025.

Why Alternative 2 is the best choice for LAX North Airfield

In fewer than 100 words:

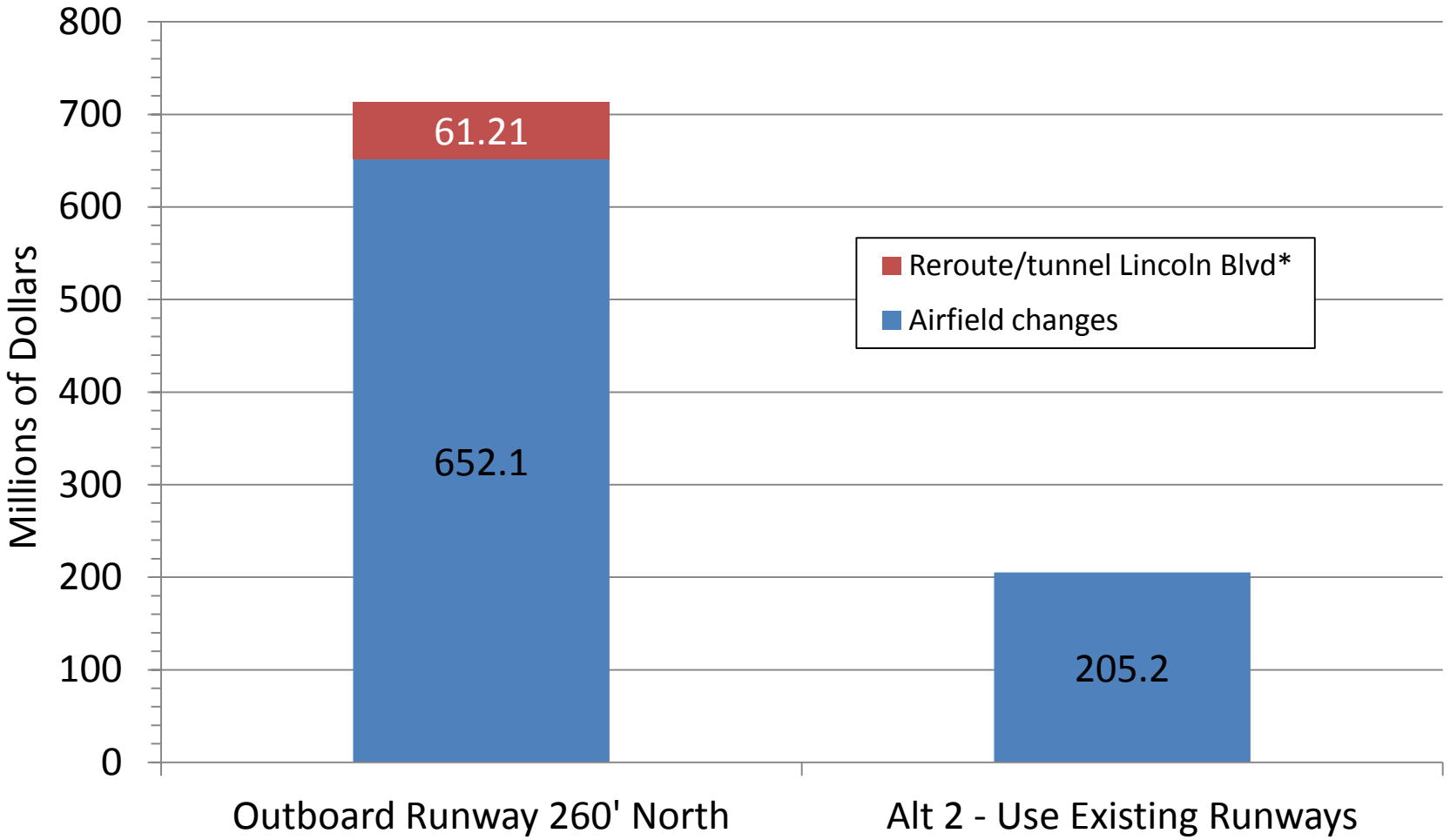
Moving the outboard runway 260 feet north would cost at least 3½ times more than Alternative 2 (by LAWA's own cost estimates) while offering NO return on investment in safety, in aircraft movement efficiency or in aircraft emissions. It would shift aircraft noise from Inglewood into Westchester. Unforeseen cost over-runs for needless North Airfield changes – particularly relocating underground infrastructure – could consume money that should go first for desperately needed terminal and ground transportation improvements.

At the very least, land-side projects that improve passenger experience at terminals and ground transportation should be completed before runway relocation is begun.

The data in this report (except A380 sales) come from LAWA's Specific Plan Amendment Study - Draft Environmental Impact Report released July 29, 2012. North Airfield Safety Study information comes from the study itself.

Estimated Costs of North Airfield Changes in 2010 dollars

(Source: SPAS DEIR Appendix G, Tables AF-1 and AF-3)



* Lincoln Blvd detailed cost estimates make no mention of moving or working around existing underground utilities such as oil and electrical lines, sewer outfalls, etc. Actual costs may be significantly higher if that assumption is incorrect.

A Comparison of Alternative 1 & 2 North Airfield Changes

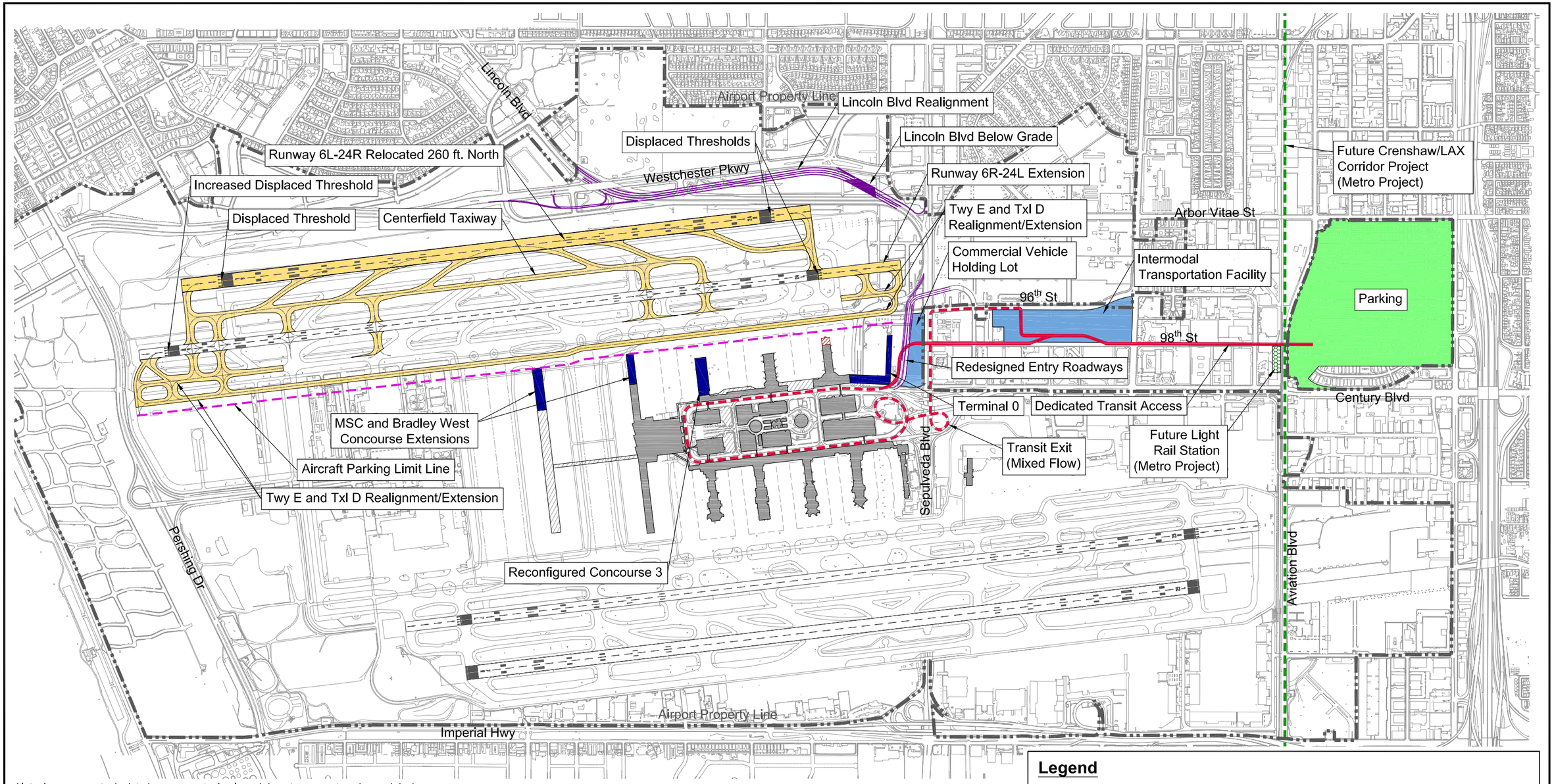
1. Both alternatives extend the North Airfield inboard runway east almost to Sepulveda Blvd.

   Both straighten and realign Taxiways D and E and relocate exits from the outboard runway.

2. Alternative 1 moves the outboard runway 260 feet north (further from the terminals) and creates a new taxiway between inboard and outboard runways. However:

   - Moving the outboard runway 260 feet north requires rerouting Lincoln Blvd and tunneling it under the northeast corner of the airfield.
   - It requires filling the abandoned Lincoln Blvd. tunnel that extends to the north edge of the existing outboard runway.
   - It requires covering over the Argo flood channel near the northern boundary, reducing its current capacity so that it could not handle anything worse than a once-every-10-years flood.

3. Alternative 2 leaves both runways where they are now, but relocates exits from the outboard runway: no taxiway between runways, no changes to Lincoln Blvd. or to the Argo flood channel.



Note: Improvements depicted are conceptual only and do not represent engineered design.

0 1,500 ft
Scale

north

Prepared by: Ricondo & Associates, Inc., 2012.

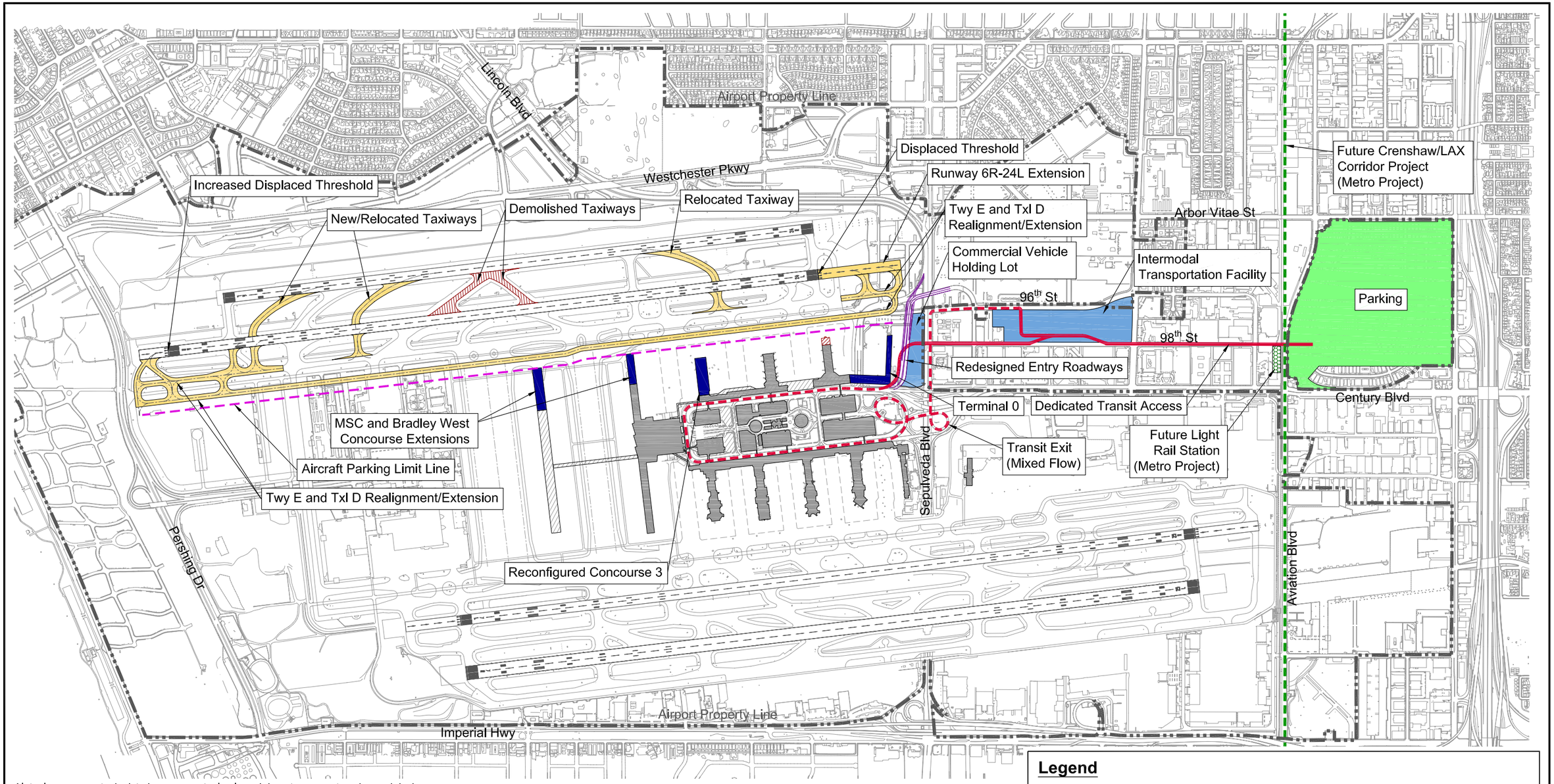
Legend

- Airfield Improvements
- Terminal Improvements
- Terminal Demolition
- Non-SPAS Terminal Improvements
- Aircraft Parking Limit Line
- Roadway Improvements
- Ground Access Facilities
- Parking
- Transit Access (Dedicated)
- Transit Access (Mixed Flow)
- Future Metro Light Rail Project

LAX Specific Plan Amendment Study Draft EIR

Alternative 1

Figure
2-1



Note: Improvements depicted are conceptual only and do not represent engineered design.

0 1,500 ft
Scale

north

Prepared by: Ricondo & Associates, Inc., 2012.

Legend

- Airfield Improvements
- Terminal Improvements
- Terminal/Taxiway Demolition
- Non-SPAS Terminal Improvements
- Aircraft Parking Limit Line
- Roadway Improvements
- Ground Access Facilities
- Parking
- Transit Access (Dedicated)
- Transit Access (Mixed Flow)
- Future Metro Light Rail Project

LAX Specific Plan Amendment Study Draft EIR

Alternative 2

Figure
2-2

Efficiency*

"SPAS Alternative 2 would yield the lowest unimpeded taxi times of the four alternatives (7.86 minutes per operation)."

"Based on the activity level selected for the analysis, none of the alternatives is expected to result in significant operating efficiency gains."

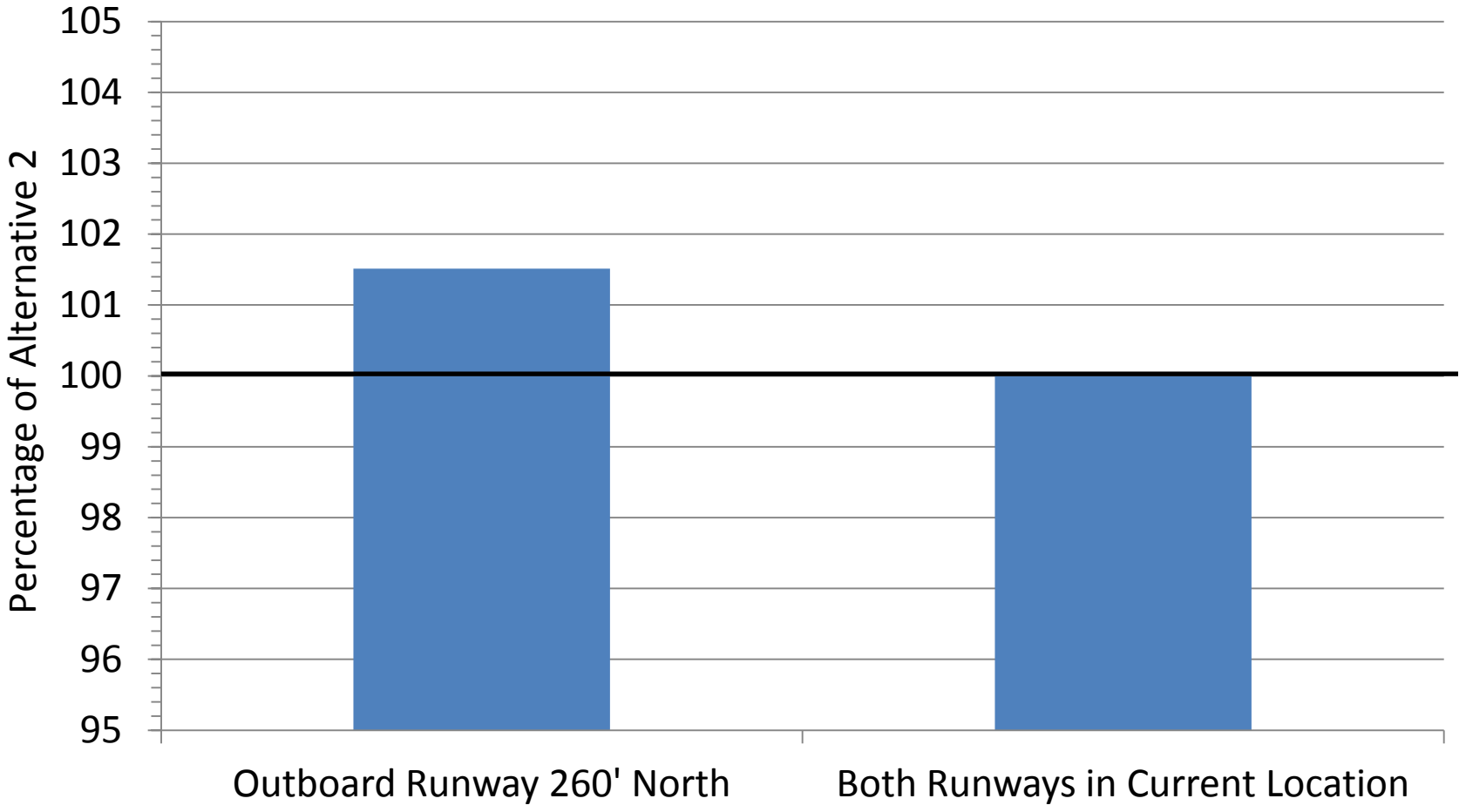
* ** *

That is, LAWA admits that investing (at least) hundreds of millions of additional dollars to move the outboard runway further north will not provide any returns in improved efficiency of airfield operations. In fact, LAWA's estimates of jet fuel use and aircraft emissions (as a measure of airfield operation efficiency) show slightly *less* efficient airfield operations if the outboard runway is moved 260' north.

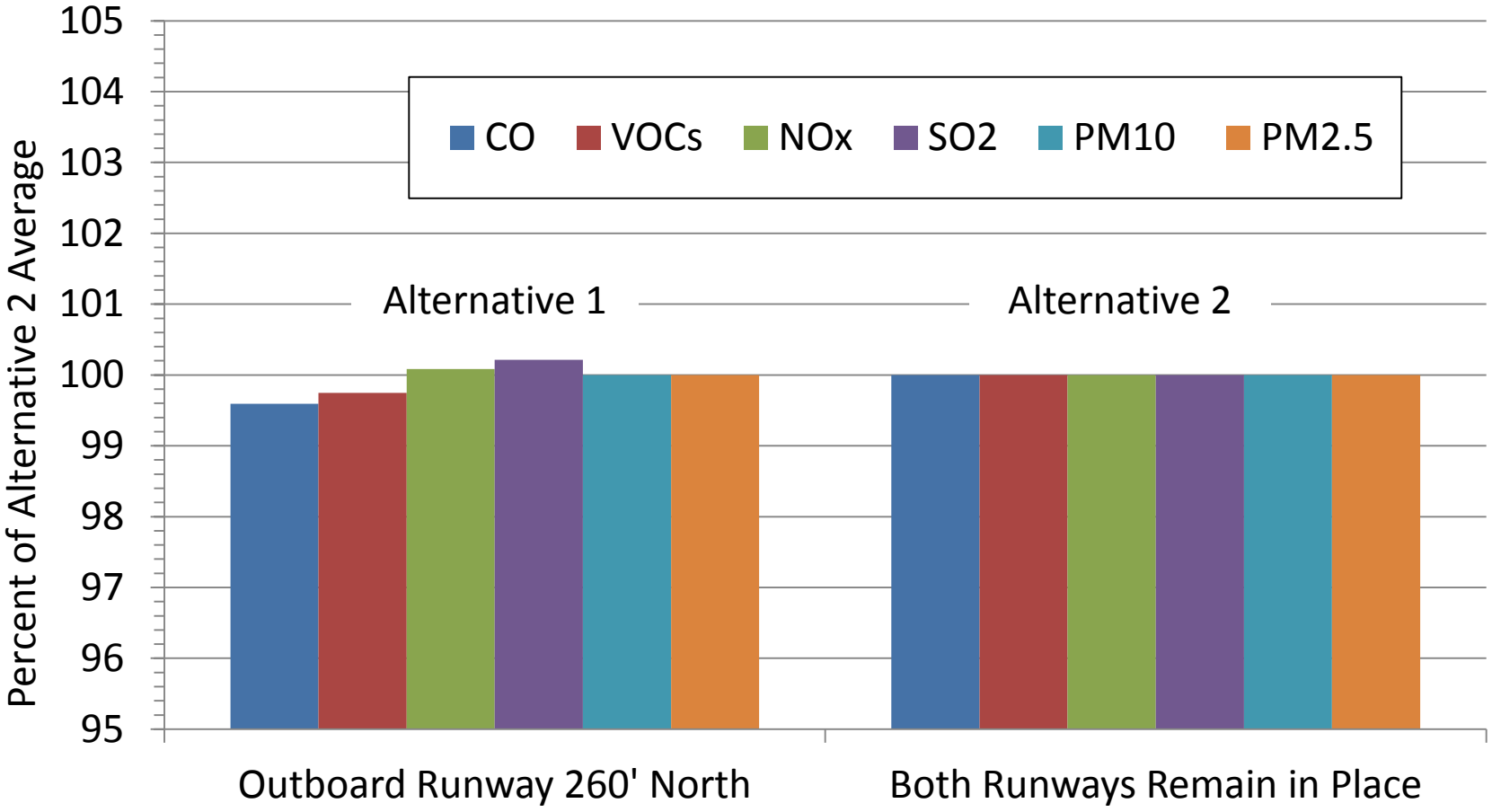
* Appendix F-2, p. 107, LAX Specific Plan Amendment Study Report, July 2012

The following two pages show graphs of predicted jet fuel use and aircraft emissions in 2025, which are used as a way to represent airfield efficiency.

Predicted Aircraft Jet Fuel A Consumption in 2025 as a Percentage of Alternative 2



Predicted Aircraft Emissions in 2025, Average of Upper & Lower Estimates, Alternative 2 = 100%



“Alternative 2 is the Environmentally Superior Alternative”

“ . . .CEQA Guidelines require an EIR to identify an environmentally superior alternative . . . Based on the analyses in Chapter 4, *Environmental Impact Analysis*, and Chapter 5, *Cumulative Impacts*, of this EIR, **Alternative 2 is considered to be the Environmentally Superior Alternative of the nine alternatives evaluated in detail throughout this document**.”*

* LAX Specific Plan Amendment Study, Draft EIR, Introduction and Executive Summary, p. 1-107. Emphasis added.

Safety

A number of small-bore safety studies by friendly groups have mainly focused on how closely the North Airfield complies with FAA regulations.

Only one impartial study, the 2010 North Airfield Safety Study (NASS), conducted by an Academic Panel of university professors in aviation safety, tried to quantify the actual risk of a catastrophic runway-incursion crash.

After detailed analysis and flight simulations, the NASS Academic Panel concluded that with the current North Airfield configuration and currently available ground safety technology, a catastrophic crash might be expected to occur on average once every 200 years. Moving the outboard runway 340 feet north might reduce that risk to about once every 400 years or so (assuming no future ground safety technology is ever deployed.)

On that basis, the Panel concluded that for projected 2020 traffic levels and mix, "the LAX North Airfield is extremely safe under the current configuration" (p. 162). Even though moving runways would substantially reduce the risk of a runway collision "because the baseline level of risk [once ever 200 years] is so low, reducing that risk by a substantial percentage will have a limited practical effect." (p. 163) "All things considered, the Panel cannot construct a compelling argument for reconfiguring the North Airfield on safety grounds alone." (p. 164)

The Federal Aviation Administration wrote a letter to Mayor Villaraigosa criticizing the methods and findings of the North Airfield Safety Study.

The NASS Academic Panel authors reviewed the FAA letter and, while expressing great admiration for past FAA's achievements in aviation safety responded, "*After reviewing the FAA critique of our study, we see no reason to amend our estimates.* We disagree with the assessment that our work suffered from "several critical flaws in the study's assumptions, methodology and conclusions." We continue to believe that our analysis was logical, accurate, and conservative." (Academic Panel letter to LAWA Executive Director Gina Marie Lindsey, April 21, 2010. Emphasis in the original.)

To put it briefly, any expected return on investment in terms of safety will be near zero.

The Airbus A380

Much of the justification for moving the outboard runway 260 feet north revolves around the Airbus A380 super-jumbo jet. But the A380 is at risk of becoming the supersonic Concorde of this half-century -- a wonderful aircraft whose sales are lagging badly and are a huge drag on Airbus's profitability.

1. *"The A380 is best regarded as a $25 billion write-off and an act of industrial irresponsibility."* Richard Aboulafia, vice president of Teal Group, and aviation analysis company, *Business Week*, May 5, 2010.

2. Airbus predictions for A380 sales have consistently been much too optimistic.

    - Airbus originally predicted a "breakeven point" of 270 orders for the A380. In 2006 Airbus raised it to 420 orders.
    - Airbus has sold zero A380s to Japanese carriers, where they had expected a rich market. They have also failed to sell a single A380 freighter, instead withdrawing the freighter model.

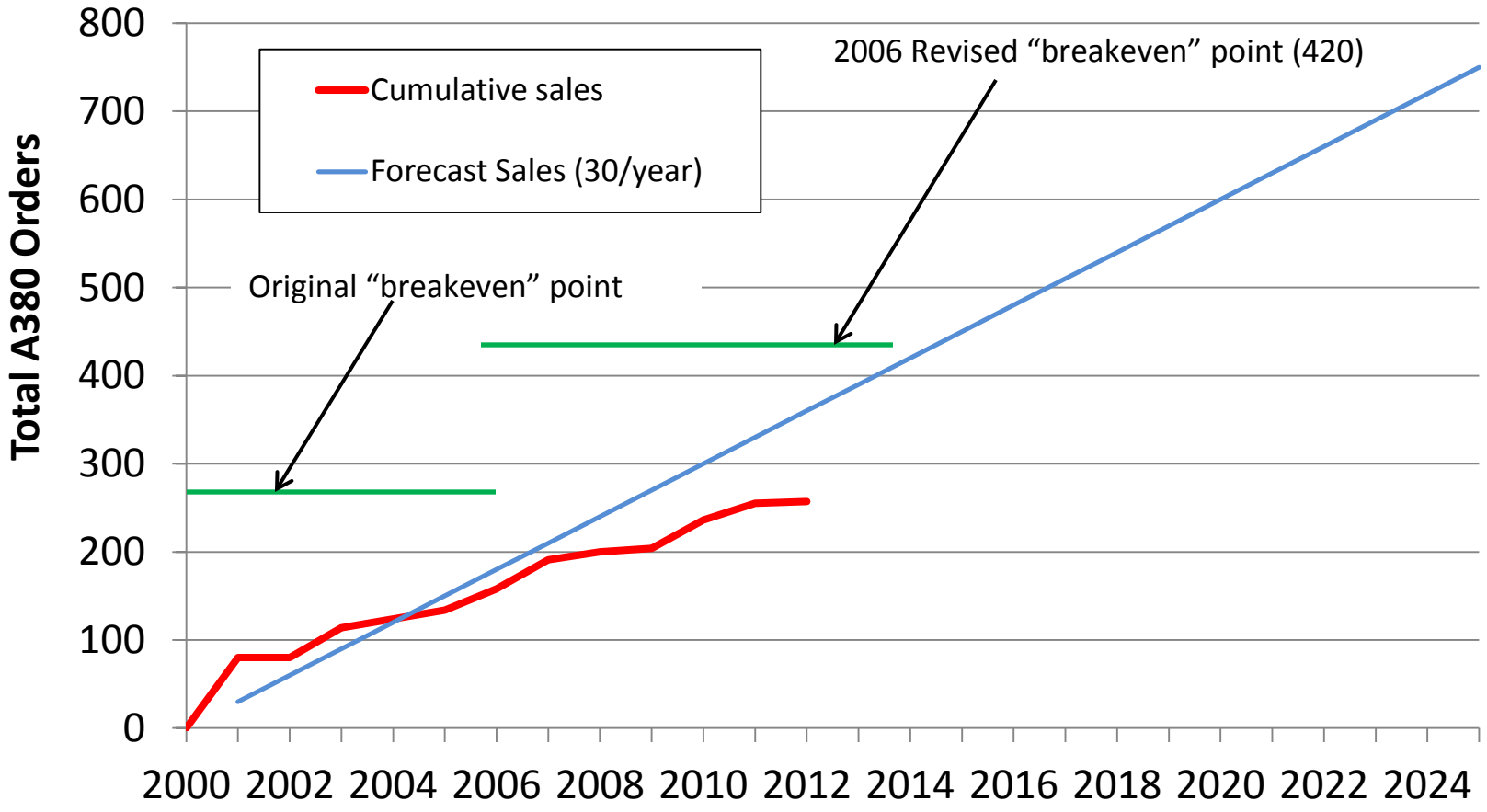
- Airbus predicts selling 1,200 A380s in the next 20 years (60 per year), far outpacing Boeing's sale of the nearly 1,500 747s in 42 years since the 747 was introduced (36 per year average).
- Of 262 orders for the A380 so far, 90 went to a single airline, Emirates, which flies into LAX once a day – on a Boeing 777. Aside from that initial order, A380 orders have averaged about 17 per year.

The Supersonic Concorde

3. LAWA's SPAS-DEIR predicts super-jumbo jets will be less than 2% of airfield operations in 2025. Bad weather that can hamper A380 operations – the other major justification for the runway move – occurs about 1% of the time – that is, about 2 of every 10,000 flight operations.

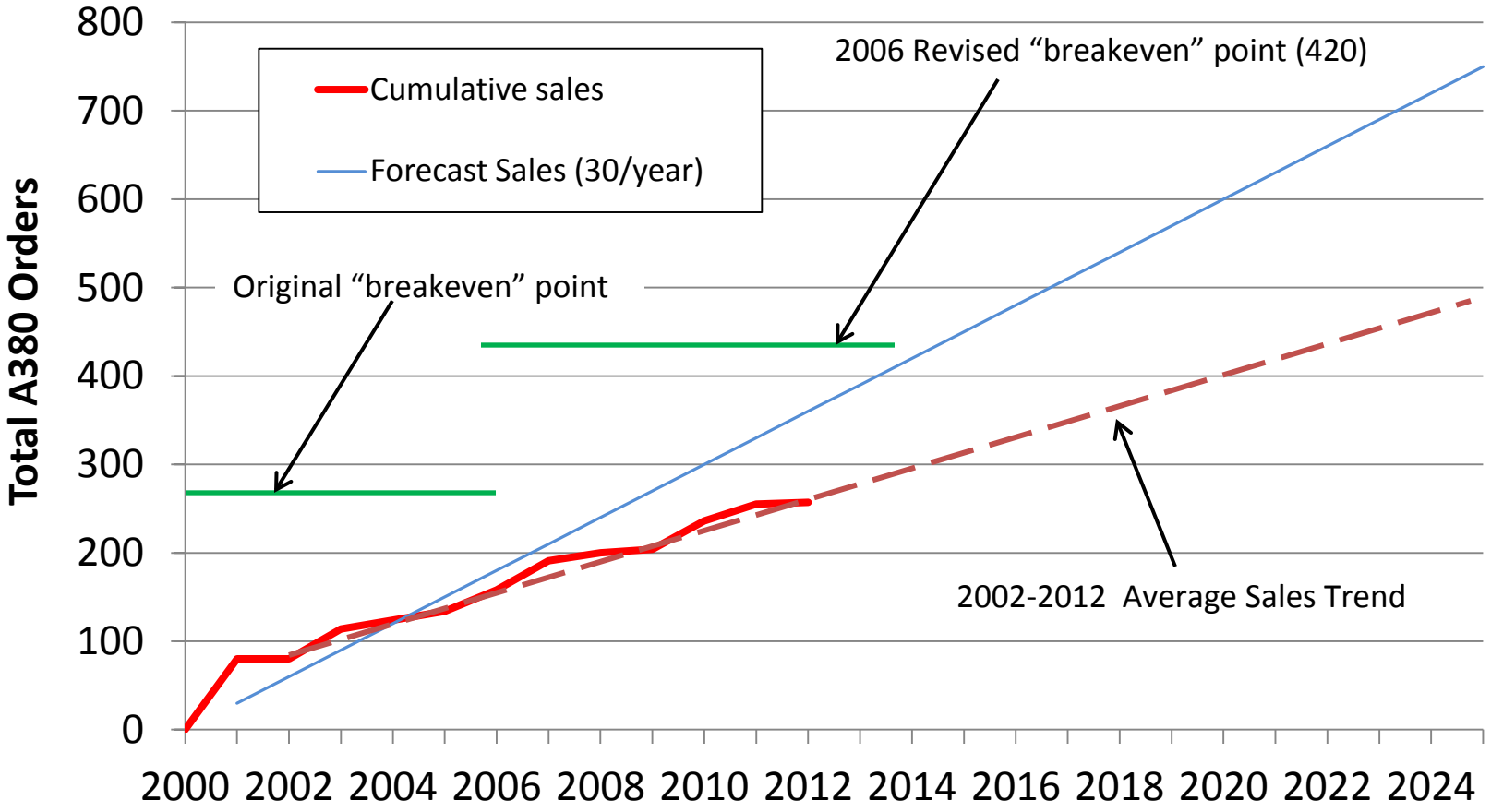
4. If super-jumbo jets such as the Airbus A380 and Boeing 747-8 (FAA Group VI aircraft) are a sales bust, will any manufacturer risk designing and building a comparable aircraft in the next 30 years?

Airbus A380 Forecast & Orders, Cumulative by Year



Airbus forecasts sales of 1500 Very Large Aircraft over the next 20 years, of which 1330 would be passenger aircraft. Boeing predicts 740 (half as many.)

Airbus A380 Forecast & Orders, Cumulative by Year



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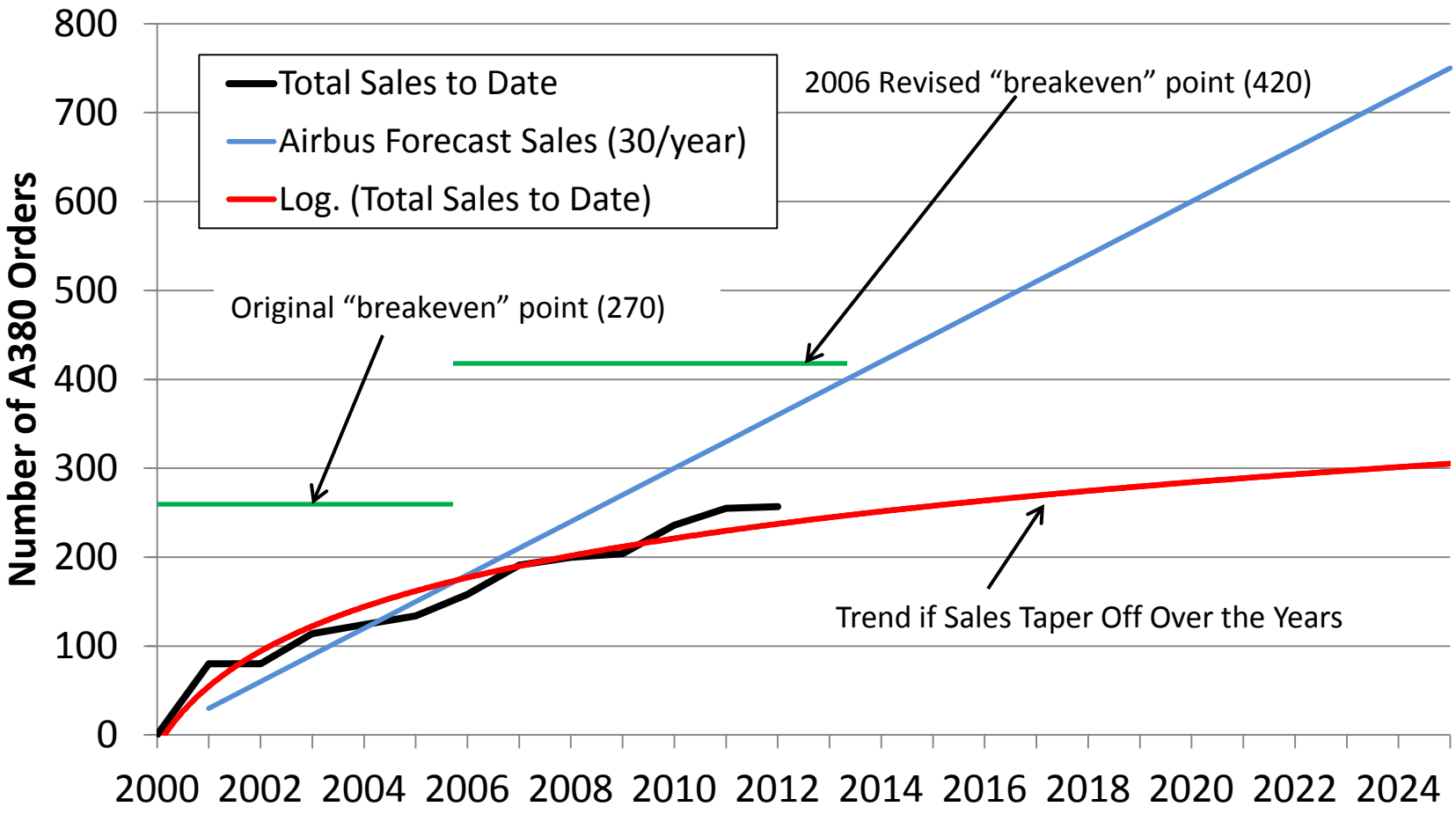


Airbus forecasts sales of 1500 Very Large Aircraft over the next 20 years, of which 1330 would be passenger aircraft. Boeing predicts 740 (half as many.)

LAX AIRPORT SIZE AND CAPACITY

LAWA management's plan to move the North Airfield outboard runway 260 feet north makes economic no sense: there is no justification in terms of safety, efficiency or environmental benefits to spend the minimum of $500M more than it would cost to use the existing runways.

So why spend a half billion dollars or more for no gains?

It might make sense only if one assumes LAX plans to expand far beyond its current passenger limits. But

1. LAX is surrounded on north, east and south sides by business or residential areas and the ocean to the west. It has no room to expand.

2. At about 3,000 acres, it is one of the smallest major airports in the U.S.

3. In 2011 LAX was the 6th busiest airport in the world and 3rd busiest in the U.S. (behind Atlanta and Chicago).

4. At its current capacity limit of 78.9 million annual passengers (MAP), LAX would pack more passengers per acre than any other U.S. airport.

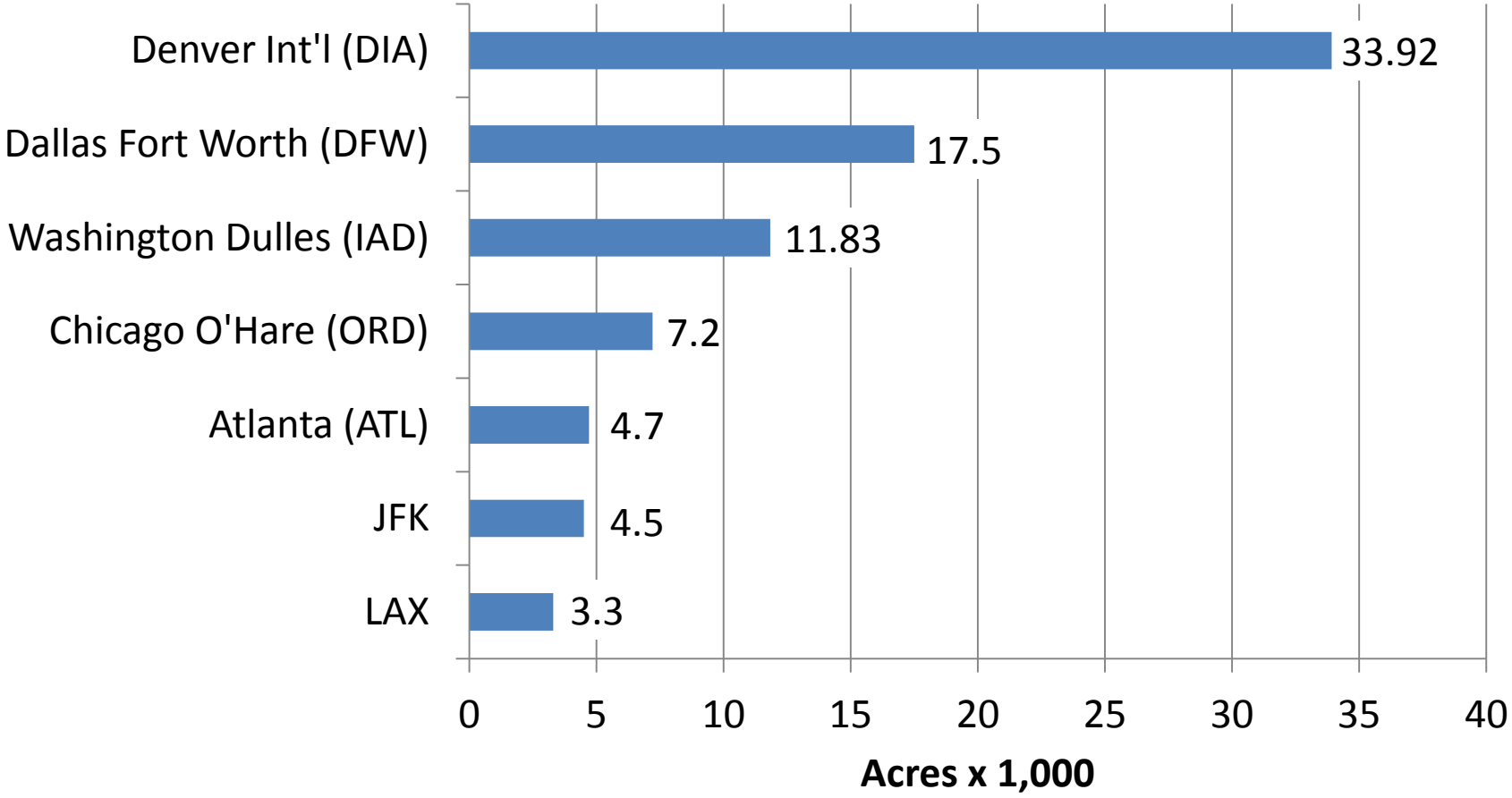
5. Current capacity limits expire in 2020.

6. At present two roads handle all LAX passenger traffic: Century Blvd. and Sepulveda Blvd.

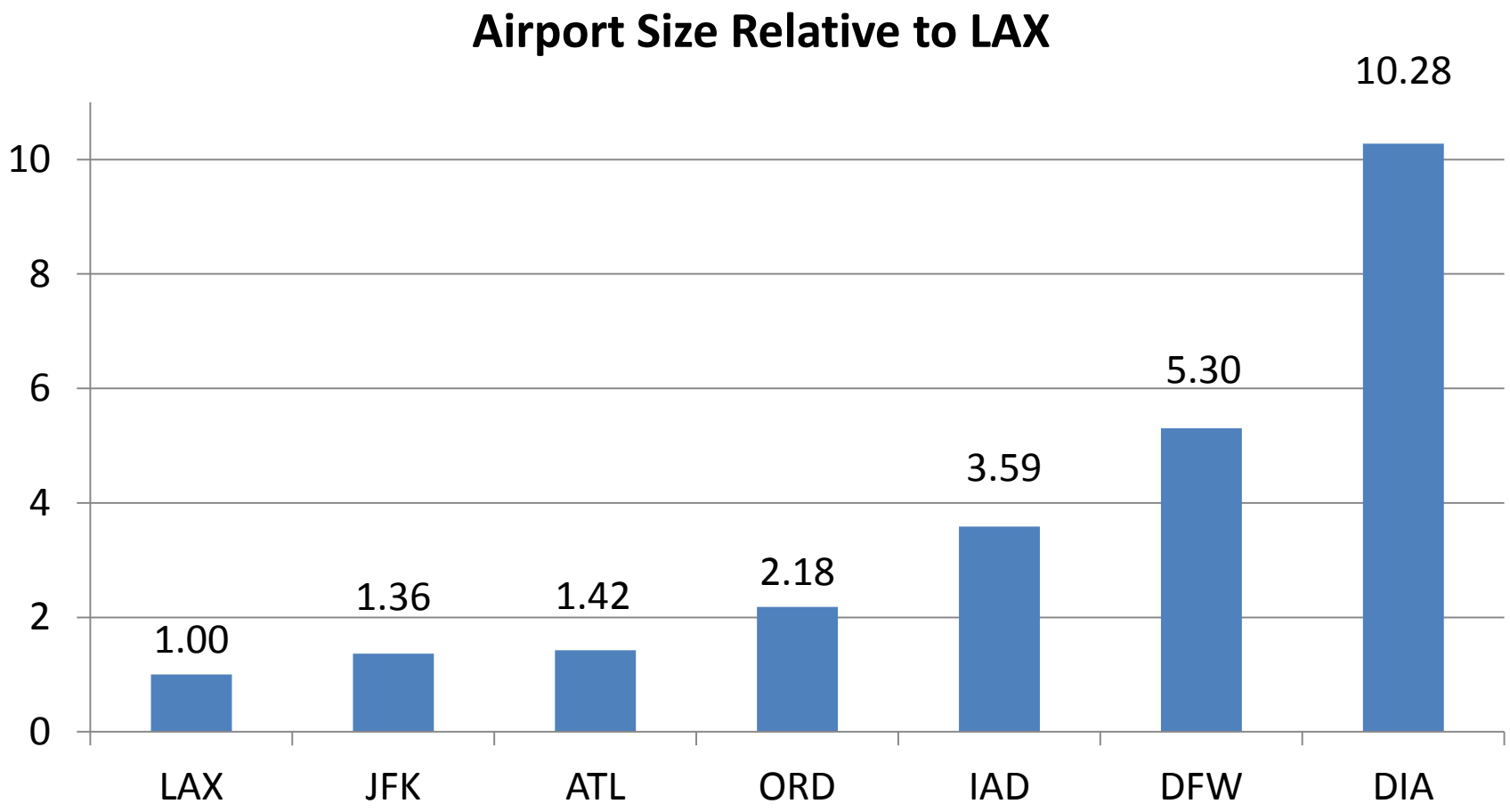
7. Can LAWA expand beyond 78.9 million passengers per year without turning travel through LAX into a soul-crushing cattle call?

Graphs on the following pages compare LAX size to other major U.S. airports and passenger volume relative to airport size.

Airport Size in Acres



Airport Sizes Relative to LAX



Airport Passenger Density