1739 Snowmass Creek Rd, Snowmass CO 81654
8 April 2024

Dear Commissioners and ABB Members,

On 21 March 2024, I emailed you a surprising new Aspen Fly Right financial analysis as a 2-page summary (handed to the AAB meeting that day) and a 16-page essay. *They showed why the FAA grants that many of you think are vital and are rushing to apply for are actually not needed to get the better airport we all want and need, and are actually cheaper to forego than to accept.*

The previous evening, I'd previewed that new analysis with Steve Child, Jon Peacock, and Dan Bartholomew at the Old Snowmass Capitol Creek Caucus, launching a lively discussion. Jon assured me his Staff would review our analysis. I asked to learn of any comments—especially of any specific errors to fix under our rigorous error correction policy—and am eager for that feedback, re-requested on 5 April. If you've been told of alleged errors and I haven't, that's wrong.

I also promised Jon to update our analysis for you and him as soon as possible to reflect the new cost estimates and simplified airport layout that Brad Jacobsen presented to the Airport Advisory Board on 21 March. That update is on page 6 below as a new graph, adding two columns for the new layout. Most numbers have changed, but our main conclusions in the *Aspen Daily News* 21 March and *Aspen Times* 24 March have not (details are in the Appendix on pp. 3–5 below):

- The original layout of "Bigger Airport" for bigger planes is estimated to cost $473 million, minus $109 million of FAA grants, for a net cost of **$364 million**.
- The new, simpler layout you're being asked to substitute on 10+ April is estimated to cost $335 million, minus $106 million of FAA grants, for a net cost of **$229 million**.
- A "Better Airport" without bigger planes, but with a brand-new runway and doubled-size terminal, would cost about **$247** million, comparable to the net cost of Bigger Airport's new layout: the $18-million difference, under 10%, is far less than the uncertainties.
- The $19 million of new annual income offered by the FBO operator could finance about **$259–325 million** in Airport Enterprise Fund bonds without using other airport revenues or taxes, or about $407 million at the rate assumed for the airport bond in your 2024 Budget. Thus either Bigger Airport's new layout or Better Airport could be financed from that new FBO revenue offered by Atlantic Aviation, *without needing the FAA grants you're now urgently pursuing. Either way, a thriving airport doesn't need those grants. Your most basic assumption thus looks incorrect and needs your urgent public reexamination.*

The Airport Advisory Board didn't discuss our analysis, just as it didn't discuss our detailed critique of the Forecast it recommended to you last summer. Ignoring important new evidence leads to unsound and indefensible decisions. I'm therefore respectfully asking you to consider an alternative to continuing on the expansionist course that you've set for First Reading on 10 April.

A way forward to better choices and community consensus

Probably influenced by Brad's sincere and emphatic but seemingly incorrect claim of impossibility, the AAB on 21 March 2024 ignored without discussion member Valerie Braun's request to consider a real alternative—not just tweaking Bigger Airport designs, but *a status-quo airfield* *without bigger planes*, like Aspen Fly Right's Better Airport. In a dozen-plus years' discussions, the BOCC seems not to have seriously considered such an alternative, but has let itself be corralled into variants of a choice that, according to a respected pollster, 57% of Pitkin County voters don't want. Why do we think Brad erred? Videoclips, transcripts, and an important 4-page contextual narrative at aspenflyright.org/videoguide can remind you that *John Bauer, in statements presented as FAA policy, has twice offered you a clear and crucial choice: you may keep the airfield layout, MoS, and wingspan limit, lose the discretionary grants that our 21 March analysis showed aren't needed, pay about the same, and from the promised new FBO revenues alone*[*]*, finance a better airport that best meets the community's declared goals—and your own.*

A sound and credible strategy would start with the BOCC's publicly exploring that choice. This letter's updated financial analysis reveals that a status-quo airfield is economically rational, feasible without FAA grants, similar in net cost, and probably lower in financial risk. It would eliminate the need you've so keenly expressed in recent months to rush to seek FAA grants for Bigger Airport. Better Airport wouldn't need the grants, but would regain the community's cherished freedom of airport choice, built at its own pace, in its own way, for its own needs. As far as we can see, it could comply with FAA rules, directives[†], and Grant Assurances while acceptably bypassing FAA's institutional ambition for maximum feasible access to more planes of more types. Nor would environmental goals, still falsely claimed[‡] to be met by your expansion plan, suffer. *Thus our financial analysis has changed the conversation, and must inform your deliberations.*

Speed matters too. While you needn't keep racing the FAA's grant clock, the urgency of replacing the decrepit runway and terminal remains. However, if the County accepted John Bauer's offer of a status-quo airfield without discretionary grants, the FAA shouldn't need long or complex analyses to approve the new Airport Layout Plan needed to rebuild the runway to all modern FAA specs (except separation and widening) where it now is. Safety and related analyses were already done for the current layout, and proposed minor improvements have already been mostly discussed. Nor should the FAA need a slow and elaborate Environmental Impact Assessment, if any: no significant impact was found for the pending ALP that relocates many airfield elements, so the impact of *not* relocating them should be far less—roughly zero. Foregone construction has no impact. It therefore seems reasonable to infer that FAA approval to keep our airfield, MoS, and wingspan limit should be no slower, and probably quicker, than for the current runway-moving proposal. This might even cut a year off your current ambition to start construction in 2026, while also possibly reducing construction duration and cost-escalation risks.

Procedurally, to accept Mr. Bauer's 11 April 2023 offer of not pursuing bigger planes or a new airfield layout, in return for losing discretionary grants, it seems to me—subject of course to discussions reflecting and scrutinizing your experts' advice—that you'd need seven main actions:

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[*] This assumes you accept Atlantic Aviation's private-monopoly offer. You haven't released analyses of proven and possibly even better models.

[†] Reconstruction does *not*, as you've been told, require bringing nonstandard airfield elements up to standard. Prof. Greg Walden (1998–90 FAA Chief Counsel), on 20 March 2019 at https://www.youtube.com/watch?v=4nDFi3x90wg, 51:52, showed this slide: "In the event of a pre-existing non-standard airfield configuration, AIP [Airport Improvement Program] funds may only be used to rehabilitate or reconstruct the affected airfield element if FAA has formally approved a modification to standards [as it did in this case in 1999] or the airfield element is brought up to standards. (FAA Order 5100.38D, page 3-19.)" That provision is at https://www.faa.gov/documentLibrary/media/Order/AIP-Handbook-Order-5100-38D-Chg1.pdf, p 3-19, §3-23, and Mr. Bauer confirmed that the FAA will not revoke ASE's MoS (last clip at aspenflyright.org/videoguide). Also, §3-12 provides an unmentioned safety exception to the usual requirement that useful life must have been met for the project to be funded.

[‡] Most recently by Brad to the AAB 21 March; neither he nor Dan knew where the fake green checkmark came from. Your plan flunks every goal in your WHEREAS clause (Essay #15, pp. 3–8). The AAB has declined for 17 months to learn the modern status of solutions not in the Forecast.

- instruct Staff, consultants, and PR agency to pursue this new objective wholeheartedly;
- publicly accept Mr. Bauer's offer to keep our airfield and lose discretionary grants;
- to be able to rebuild the runway in place and in its present 100′ width, send the FAA a new Airport Layout Plan keeping the runway and taxiway where they are, welcoming advice on optimizing their durable construction, and proposing any agreed minor refinements that may improve safety or efficiency without increasing the 320′ separation;
- negotiate with the FAA a finding of No Significant Impact or, better, no need for an EIS;
- *assure the FAA that the County stands ready to fund and rebuild the runway as soon as the FAA approves a new ALP that preserves the current layout (so any delay is on them);*
- in parallel, refine the terminal design[§] for prompt construction, and have your financial experts design a strategy to finance prompt runway and terminal projects;
- if required (the FAA might not think it relevant in these circumstances), resubmit the 2023 Forecast, but return to its Low-Range variant that the community recommended and the County originally preferred but the FAA rejected[**]—apparently without being officially offered convincing evidence that it fits the historic data while the FAA-chosen Mid-Range forecast does not—and work with the FAA to support and perform the reasoned, evidence-based decision-making required by its rules and customs and by Federal law.

If seriously considered now, these actions to change the FAA and community conversation might even forego the need for a vote of the people this November that could end up mandating BOCC action on similar lines. This could also start to heal growing divisions in the community, and help to restore the BOCC's and AAB's credibility as unbiased, flexible, bold, and imaginative policy-makers/advisors. These goals are worth taking seriously. Aspen Fly Right remains eager to help.

Respectfully,

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Amory B. Lovins, President, Aspen Fly Right

Appendix: Updated financial analysis of three airport alternatives

What our financial analysis does

Our financial analysis is conceptually simple. It's based entirely on the County's *very approximate* published cost estimates, and on actual County bond rates and those estimated by five municipal-bond experts, four of them familiar with Pitkin County finances. Such an analysis

[§] Lovins (Hon. AIA), a leading expert on and Stanford Adjunct Professor in superefficient design, has offered to help the County explore a net-positive-or-better, probably lower-capital-cost passive design applying the principles of existing and attractive Old Snowmass and Basalt buildings that are among the most efficient in the world, and to offer the County's design professionals a technical tour and discussion of both. Such designs are readily incorporated at the preconceptual phase, but are too often considered far too late, after big decisions are already made.

[**] That evidence, augmented in the BOCC's 27 June 2023 "roundtable" meeting, was provided to the AAB but ignored, to the BOCC but not substantively discussed, and to the FAA (by Lovins) but apparently not considered. Lovins continues to offer to help explain it to the FAA—ideally in collegial collaboration with the forecasters, who also preferred the original Low-Range variant but were induced by client and FAA pressures to abandon it, perhaps to their subsequent embarrassment or regret. Sound governance requires you to critically consider any important new evidence, informed by public scrutiny, whether it's about the aviation forecast and fleet mix or about the financial issues summarized here.

could have been done at any time in recent years, and your underwriters could do it better. There are two parts—three alternatives' total capital costs, plus several financing options:

- I added up County cost estimates in ~2024 dollars for the original official layout we called "Bigger Airport" (brown) now before the FAA, minus its FAA grants (magenta); its new and improved layout (yellow) with *its* proportionately slightly smaller FAA grants (second magenta); and a "Better Airport" (green) with new runway, terminal, and (added in this update) the FAA-optional but rightly County-desired south-end blast fence and two EMAS systems to stop overrunning planes. As far as I know, all relevant items are included once and only once, and are cross-checked where possible[††].
- The right-hand column (blue) shows potential debt funding, clarifying the description and drawing in our original analysis. The darkest wedge shows the $289 million net proceeds, using throughout our standard assumptions of 1% issuance cost and 1% bond insurance, of a 5%/y Airport Enterprise Fund bond issuance supportable by $19 million of annual debt service—the same as the Airport's new guaranteed minimum fuel-and-rental revenue offered for the pending FBO 30-year contract (but no other revenue streams: I assumed all others would keep funding airport operations, not these major capital projects). A new dashed line shows $30 million less using Brad's new 6%/y rate estimate. Conversely, the medium-aqua bar adds another $36–66 million available if the County used comparable debt service of $19 million a year to borrow at its lower 4%/y General Obligation rate and lent the $325 million net proceeds at cost to the Airport Enterprise Fund (if feasible and permissible, as it apparently was in 2013)—not transferring or hypothecating the FBO revenues but simply reducing borrowing costs, as some other airports like Des Moines have done. The Fund would then treat the General Fund like an outside lender, paying debt service with no burden on taxpayers. (We haven't assumed such a pass-through bond and don't think it's needed, but if permitted, it could cut costs.) Another $79 million more, totaling $407 million, is potentially available if the Fund can borrow at the 2.23%/y rate implicit in the County's 2024 Budget's assumed airport bond (light-aqua box). Finally, for additional safety margin against major contingencies, but not included in the chart on p. 6, the County's 2022 General Obligation bonding capacity offers roughly $87 million more, *plus* any potential sales-tax revenue bonding, whose 2022 debt service ($0.54 million) had 38× annual revenue coverage, *vs.* the required 2×.

We didn't try to emulate underwriters' abstruse skills in precisely estimating bond rates and terms; to model real escalation; to consider inter-account transfers and structures; to analyze cashflows, accounting mechanisms, or other arcana; or to model revenue reductions during the expected two airport construction closures, nor revenue increases if the forecast aviation growth were realized. We just wanted to test transparently a snapshot of costs and financings in the simplest and broadest terms. I agree with Brad and Dan that their cost estimates are necessarily very fuzzy, and best used for comparisons rather than for absolute values, but the qualitative lessons nonetheless seem clear and compelling. Eight stand out:

What our analysis found using Brad's updated cost estimates and the new airport layout

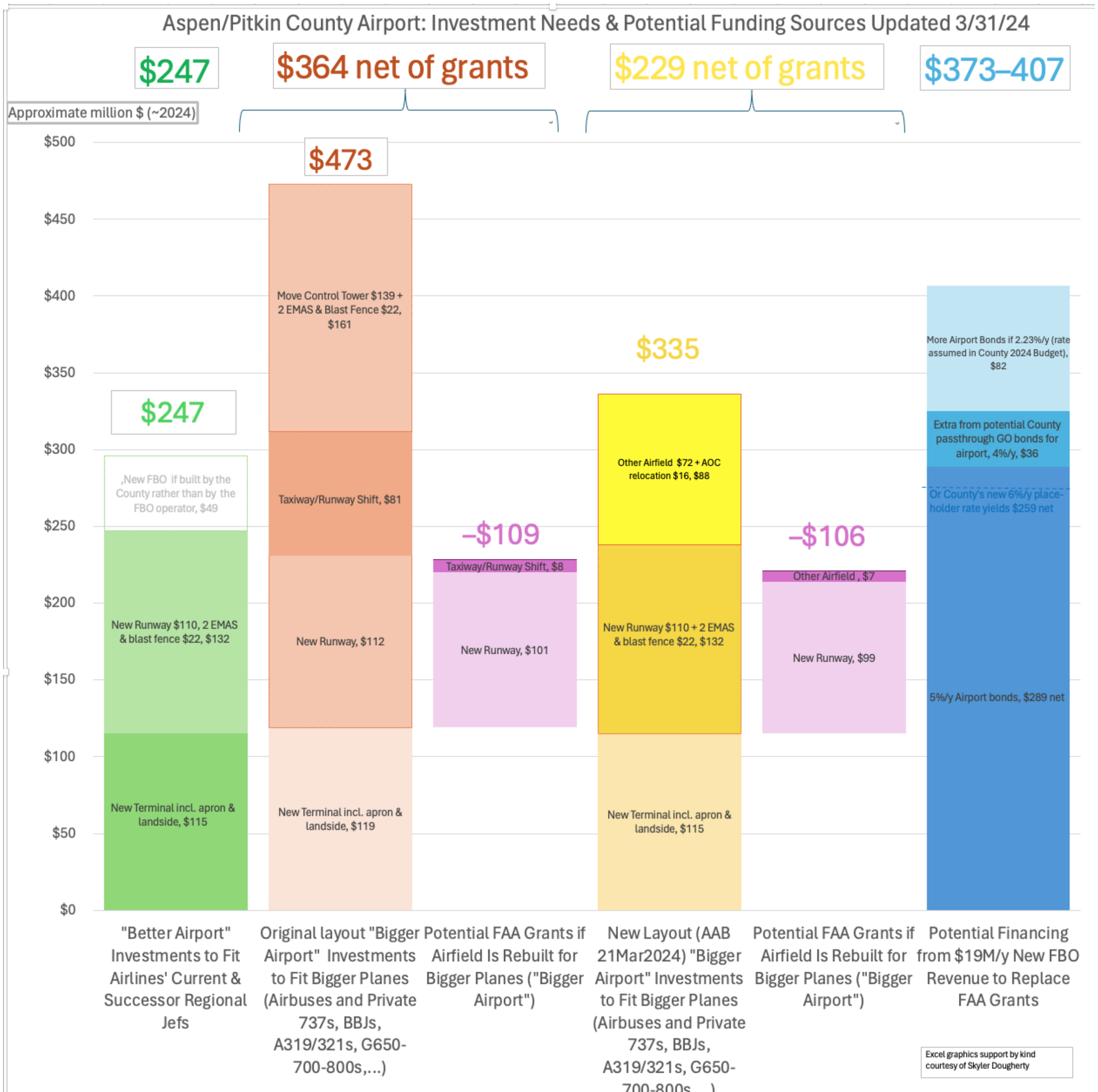
[††] For reasons I don't understand and Dan is exploring, Brad re-costed the original layout (brown bar) at *$257 million less* for the airfield, including the new runway, than its $450-million placeholder in the County's 2024 Budget ($84M new runway + $366M "Taxiway/Runway Shift"). Brad's 21 March 2024 update shows $193 million ($112M new runway + $81M "Other Airfield"). Neither estimate includes the terminal ($120M in original layout, $119M in new layout including apron and landside) nor moving the control tower (>$100M in old layout, $139M in new). Our new graph on p 6 below shows Brad's $257-million-cheaper new brown bar, and the new-layout yellow bar that's $138 million cheaper still.

1. Bigger Airport's new layout is about 29% or $138 million cheaper to build than the old layout (after the unexplained $257 million reduction in *its* projected cost—see footnote on p. 4), but is eligible for FAA grants only about $3 million smaller, so its cost net of grants is about $135 million cheaper, along with advantages of simplicity and speed.
2. The new layout drops Brad's projected bonding requirement from $339 million to $189 million. That's after getting $106 million in FAA grants and drawing $26 million from other Airport fees that Aspen Fly Right's analysis didn't divert from routine operations. Thus Bigger Airport with FAA grants doesn't eliminate the need to issue bonds, but could reduce it to Brad's estimate of roughly $189 million, modestly below our Better Airport estimate of about $247 – 26 = $221 million if compared on the same basis. That's a difference of about $32 million or 14%. Either way, bond risks and complexities remain.
3. Better Airport is about 26% or $88 million cheaper to build than Bigger Airport's new layout, and this reduced construction also reduces escalation risk. However, FAA grants, available only to Bigger Airport, would offset that gross-cost advantage, with about $18 million left over—a difference "down in the noise," less than 10%, and smaller than the uncertainties in these cost estimates, so it's fair to say they cost roughly the same.
4. Choices between Bigger Airport (new layout[‡‡]) and Better Airport should thus be based largely or wholly on differences *other than cost*.
5. Better Airport, with no FAA grants or use of airport fees, would need about $247 million in bonds. The Airport's new $19 million in minimum guaranteed FBO revenue could support $259 million in 6%/y bonds (Brad's rate) or $289 million in 5%/y bonds (our advisors' estimate). That's ample either for Better Airport or (after FAA grants) for Bigger Airport, using six patently conservative assumptions.
6. Previous official statements that FBO revenues are far too small to support the Airport's capital needs—apparently overlooking financing—are incorrect. *Thus FBO and airfield choices should be considered together.* Choosing the best FBO model (private monopoly, County-run, or contractor-run under County control) may increase FBO revenues further, or cut prices, by not having to reward KKR investors, but no public analysis is available.
7. This comparison illuminates important choices worth careful public scrutiny. Good governance requires examining both status-quo *and* bigger-planes alternatives—not just the risible sole alternative offered to the AAB 21 March, "Do Nothing" until the runway fails and the FAA seizes and fixes it at County expense. Statements that the FAA would not approve a status-quo airfield are flatly contradicted by what the FAA's John Bauer twice told you on 11 April 2023, verified by videoclips at aspenflyright.org/videoguide.
8. These are all enormous projects. The net investment cost of even the cheapest is about the same size as one year of the entire Pitkin County Budget. This choice requires broad, deep, and thoughtful public input. Policies that, for example, limit the BOCC's public comments to Second Reading, when the cake is already baked, may save time, but build frustration and limit potentially valuable insights. Aspen Fly Right believes that more transparent processes[§§] would have yielded better results, still could, and now should.

[‡‡] Aspen Fly Right thinks it's been clear for a couple of years that the original Bigger Airport layout now before the FAA was inferior to what Brad has now proposed under what seems to us sensible FAA layout guidance. Precious time was regrettably lost. We suspect that an independent expert Airport Board of Directors could have reached the better design at least a year sooner, and that such a governance reform is badly needed now and will become even more vital under the management strains of airport construction equivalent to the County's entire annual budget.

[§§] With great respect and gratitude to its citizen participants, we do not think the ASE Vision process can be accurately so described. In the end, out of nearly 160 initial participants, just a handpicked 15 formally endorsed the whole plan, and 30 more, their parts of it. We feel the Airport Advisory Board features similarly flawed design: County Staff effectively controls its governance, agenda, schedule, and information, while its composition (5:2 favoring expansion) differs sharply from recently and reputably polled community sentiment (~2:3 opposing expansion).

This graph reflects the County's latest (21 March 2024) approximate cost estimates for an airport redesigned to fit bigger planes. The green bar rebuilds the runway and a doubled-size terminal, but doesn't rebuild the airfield for bigger planes as both official alternatives do—the brown bar (original layout) and the yellow bar (proposed new layout). Those are eligible for FAA grants in magenta, yielding the net costs at the top. Promised private-plane revenues support net bond proceeds in blue. No tax-supported County funding is shown.



All costs shown adopt the indicative, very approximate costs presented by Brad Jacobsen (head of County airport consultant Jacobsen|Daniels) to the Airport Advisory Board on 21 Mar 2024. We adopt the same terminal and runway cost for Better Airport as for the new Bigger Airport layout (yellow), because both rebuild on or near their current sites, rather than complicating design by the relocations required in the brown bar. The green, brown, and yellow bars show two ~$10M EMAS systems (to halt overrunning planes at either end of the runway) and the $2 million south-end blast fence; Dan Bartholomew kindly confirmed on 27 Mar 2024 that they weren't included in Brad's cost estimates and the FAA won't pay for them. I asked Brad on 22 Mar 2024 why the brown bar's new runway plus Taxiway/Runway Shift shrank from the $450M in the 2024 County Budget to just $193 million in his 21 Mar 2024 estimate for the same original layout (reportedly excluding the control-tower move); his reply is pending. Both magenta bars adopt Brad's assumption that FAA AIP grants cover 90% of Runway Reconstruction cost and 10% of Other Airfield cost. We don't show traditional 5% State of Colorado grants, not among Brad's funding sources either, because Dan says while they may be available for AIP-eligible costs even if the FAA didn't participate (as in the green bar), they're capped at $0.25 million and are thus invisible. The blue column of potential financing adds, as a dotted line near the top of the dark lower section, Brad's projected bond rate of 6%/y. That would reduce our originally graphed $289 million net proceeds for a 5%/y airport bond to $259 million at 6%/y if supported by the same $19 million/y debt service with 1% issuance costs and 1% bond insurance. Conversely, if permitted, a 4%/y County passthrough bond (dark aqua) could increase net proceeds by $36 million *vs.* 5% or $66 million *vs.* 6%; or the 2.23%/y bond rate implicitly assumed in the County's 2024 Budget airport bond (light aqua) could raise total net proceeds to $407 million. (Our financings bar omits potential ~2%/y TIFIA bonds because they're supported by the same airport revenues as the 5%/y bonds shown, but their lower cost could support more borrowing from the same debt service.) Brad's illustrative funding also includes $21–23 million in Facility Fees that we assume will instead fund routine airport operating costs, so they're not in our financings bar. His projections of Bigger Airport nonetheless include $319 million of bonds for the original layout and $186 million of bonds for the new layout. Better Airport with no grants and no draw on other Airport revenue streams would need about $247 million of bonds, still within the Airport Enterprise Fund's capacity if our assumed bond insurance, or other common credit enhancements such as subordinating other obligations to debt service, replaced a simple coverage ratio, as discussed in Essay #17. We assume no increases in fees and charges to commercial or General Aviation airport users, though those may offer additional revenue streams. We alsoi assume no added burdens on local taxpayers.

So original-layout Bigger Airport with grants would cost $364 million; new-layout Big Airport with grants, $229 million; and Better Airport without grants, $247M, or $18 million more—a difference far down in the noise, much less than the large uncertainties.
The original layout with grants would cost $117 million more than Better Airport without grants—twice the $61 million disadvantage estimated in our 20 March 2024 publications at aspenflyright.org/asefinance and aspenflyright.org/airportfinance.
Even the lowest estimate of financing potential, using the County's latest 6%/y estimate of bond rate, could pay for Better Airport, or for new-layout Bigger Airport with FAA grants.

CONCLUSION: BETTER AIRPORT WITHOUT GRANTS COSTS ABOUT THE SAME AS BIGGER AIRPORT WITH GRANTS, BECAUSE BIGGER AIRPORT ADDS ABOUT AS MUCH COST AS GRANTS; SO CHOOSE ON COMMUNITY INDEPENDENCE, NOT COST.