



Lambert-St. Louis International Airport's Alternative W-1W: A Case Study

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Developed from farmland in the 1920s, Lambert–St. Louis International Airport found itself geographically constrained in the later twentieth century. While other cities such as Chicago, Dallas, Kansas City, and Denver built new regional airports, St. Louis opted to enlarge Lambert to accommodate TWA hub operations. However, the airport lacked room to expand without purchasing land already occupied by commercial or residential development. Out of a lengthy investigative process emerged a preference for Alternative W-1W, requiring the removal of 2,000 houses as well as numerous churches, schools, and businesses. Construction of the alternative's \$1.1 billion runway proceeded despite fierce public opposition. Meanwhile, American Airlines purchased TWA, a global decline in air travel followed the attacks of September 11, 2001, and American Airlines dramatically reduced its flight schedule at Lambert. Alternative W-1W now appeared, to many observers, to have been unnecessary. This essay examines the history of Alternative W-1W, including reasons for its construction, the controversy surrounding the project, and its potential in the post–9/11 era.

The first new runway at Lambert–St. Louis International Airport in fifty years officially opened on April 13, 2006. A jet aircraft carrying St. Louis mayor Francis Slay, Federal Aviation Administration (FAA) officials, and U.S. representative Russ Carnahan (D-MO) made the first landing on the 9,000-foot runway before a crowd of 750 people assembled for the ribbon-cutting ceremony. This new runway was the key component of a \$1.1 billion airport expansion program labeled Alternative W1-W. While other cities such as Chicago, Dallas, Kansas City, and Denver built new regional airports, St. Louis had opted to enlarge Lambert to accommodate TWA hub operations. Choking on frequently delayed high volumes of commer-

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URL: <http://www.thebhc.org/publications/BEHonline/2011/rust.pdf>

cial air traffic in the later twentieth century, a geographically constrained Lambert Airport desperately needed to expand its capacity if it were to accommodate current and projected traffic volumes (see Fig. 1). This knowledge propelled the controversial expansion program forward even as the need for the program vanished before it was completed.

Figure 1



Looking north, Lambert–St. Louis International Airport as it appeared May 1, 2005, approximately one year before the completion of the new runway.

Source: ABNA Engineering, Inc.: <http://www.abnaengineering.com/services/civil.aspx>.

Genesis and Growth of Lambert–St. Louis International Airport

Albert Bond Lambert, whose father founded Lambert Pharmaceutical Company and created Listerine mouthwash, learned to fly balloons in France before purchasing a Wright aircraft in 1909. Mr. Lambert became the first St. Louisan to hold a pilot’s license, learning at the hand of none other than Orville Wright. Seeking to create a permanent landing facility available to all flyers, Lambert led a group called the Flying Club of St. Louis to “lease with option to buy” a 160-acre farm 11 miles northwest of downtown St. Louis in 1920. Mr. Lambert paid for the transformation of a cornfield into an airport complete with improved adjacent roads and several hangars. In 1925 he exercised his option to purchase the land for \$68,352 while keeping use of the airport free to anyone who wished to use

it. Named the “Lambert–St. Louis Flying Field,” the facility became the St. Louis terminus for air mail service between Chicago and St. Louis after the U.S Post Office awarded the route to the Robertson Aircraft Corporation, an existing tenant at Lambert. Robertson’s chief pilot, Charles A. Lindbergh, flew the first contract air mail flight between Chicago and Lambert airport on April 15, 1926. The next year several of Lindbergh’s contacts within the St. Louis aviation business community (including Albert Bond Lambert and the Robertson Brothers) financially supported his daring transatlantic flight in an aircraft he named *The Spirit of St. Louis*.¹

Lambert Airport expanded rapidly in the years following Lindbergh’s famous flight. After Albert Bond Lambert sold the airport to the City of St. Louis in November 1927 for \$68,352—the exact amount he had paid for just the land two years earlier—the airport developed into “the new Union Station of St. Louis.” The airport boasted three concrete runways by 1930 and an all-brick terminal by the middle of the decade. But aviation technology quickly made these facilities inadequate. Lambert’s 3,000-foot main runway proved too short for the sleek Douglas DC-3. This airliner revolutionized the air travel industry, providing unprecedented passenger comfort and speed, and prompted the lengthening of Lambert’s runway to 5,500 feet by the end of the 1930s. On the eve of the Second World War, the airport gained its north-south runway, and shortly after the war a new 4,100-foot east-west runway made its debut to facilitate the new four-engine airliners, including the Douglas DC-4 and the elegant Lockheed Constellation. This runway, albeit significantly lengthened to 11,000 feet, served as the main runway into the twenty-first century.²

The Depression-era terminal could not handle the volume of passengers after the Second World War. The City of St. Louis hired architect Minoru Yamasaki to design a new Lambert terminal for the coming jet age. Completed in 1956, the \$7.7 million iconic world-class terminal greeted passengers, who had access to international flights from the airport by the mid-1960s. The terminal’s significance continued to fire the popular imagination decades later as exemplified by its prominence in the 2009 motion picture, *Up in the Air*, starring actor George Clooney.

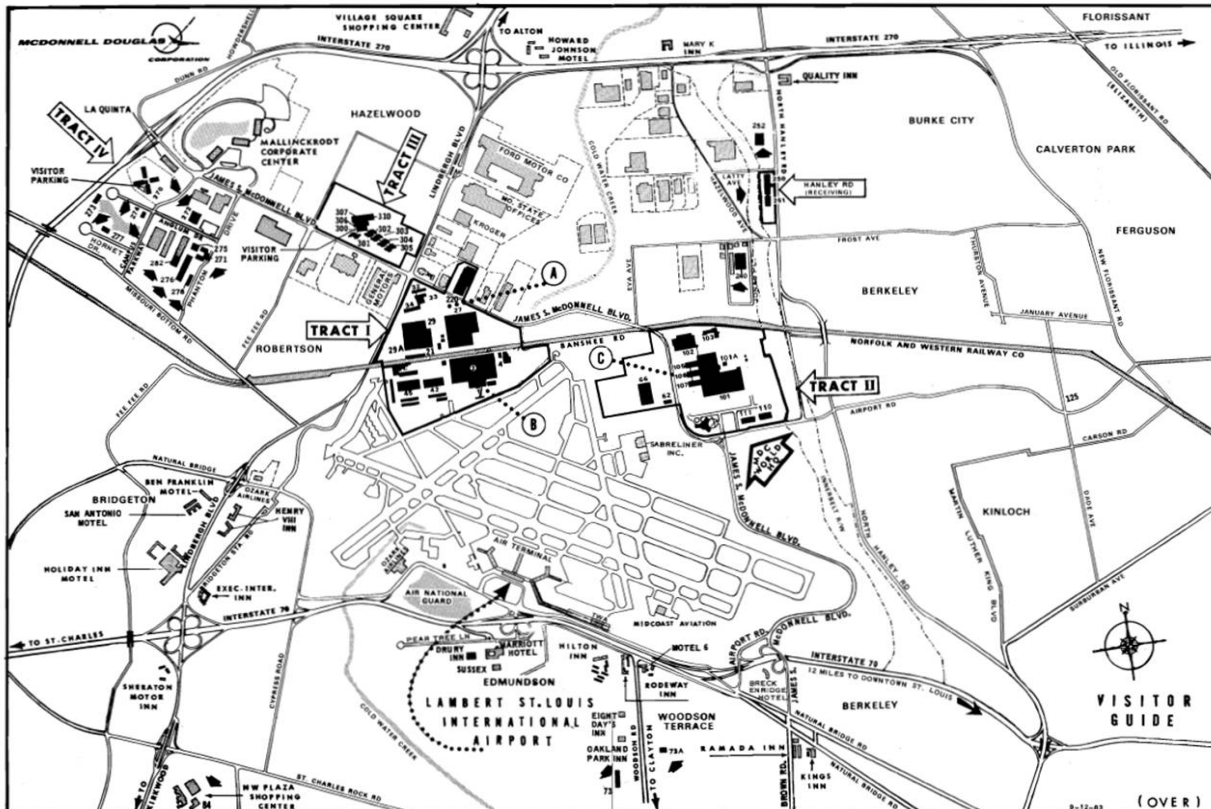
Lambert’s growth in the 1960s and 1970s outpaced its capacity to accommodate the numbers of passengers and flights using its facilities. The number of annual passengers at Lambert increased from 515,000 in 1950 to nearly 5.8 million in 1972. A projection of nearly 31 million passengers using Lambert by the year 2000 spurred airport leadership to propose a \$370 million expansion plan. Under this plan, the airport would

¹ “Landing Facilities in Missouri,” *Aeronautical Bulletin*, no. 24 State Summary Series, Published by the Airways Section, Office of the Chief of Air Service (Washington, D.C., 1 May 1925), 9-10; James Horgan, *City of Flight: The History of Aviation in St. Louis* (Gerald, Mo., 1984), 8-11, 216-30.

² Horgan, *City of Flight*, 10; Harry Levins, “Lambert Expansion: The Never-Ending Story,” *St. Louis Post-Dispatch*, 4 Oct. 1998, B-1.

acquire 1,000 acres far north of the existing airport to accommodate a new terminal and parallel runway. The runway configuration would permit the airport to handle up to 128 flight movements per hour. Critics claimed the true cost of the plan approached \$600 million and would require decimating the towns of Berkeley and Hazelwood as well as tearing down a McDonnell Douglas plant and a Lincoln-Mercury factory (see Fig. 2).³

Figure 2



Visitor guide from McDonnell Douglas, circa 1983, depicting the geographic constraints of Lambert–St. Louis International Airport.

Source: Allan Hoffman Collection.

An Illinois Alternative to Lambert

Political factions in Illinois seized upon the opportunity to advocate a less expensive and less intrusive alternative. Rather than expand Lambert, why

³ *The Past and Future Growth of Air Transportation Activities, St. Louis Airport, 1950-1975*, St. Louis Regional Industrial Development Corporation, 1969; *The Lambert–St. Louis 2000 Plan*, Missouri–St. Louis Metropolitan Airport Authority, 1972; Roger Christian, “St. Louis Intercontinental: Site Selection Quagmire—Logic or Politics?” *Airport World* (Dec. 1972), 19-21.

not replace it with a new airport east of downtown in Illinois? The proposal was not new. In 1946, Illinois governor Dwight H. Green floated the idea of building a large airport across the Mississippi River in his state as the primary commercial airport for the St. Louis region. Comparatively inexpensive open land (with plenty of room for future expansion) located relatively close to downtown St. Louis made this, in the eyes of citizens from the metro east, an attractive alternative to Lambert. Many U.S. cities, including Dallas, Atlanta, and Chicago, had abandoned space-constrained commercial airports in favor of an entirely new airport possessing ample space for growth. Perhaps the St. Louis region would follow suit.

In the late 1960s, Illinois governor Richard B. Ogilvie allied with St. Louis mayor Alfonso J. Cervantes to push forward the concept of a regional airport near the communities of Waterloo and Columbia, Illinois, for the economic benefit of both the City of St. Louis and Illinois residents at the expense of St. Louis County. Nearly a century earlier, after city leaders successfully changed the Missouri constitution, the City of St. Louis split from St. Louis County. This allowed the city to focus on its own prosperous urban future, unencumbered with the needs of county residents. Regretting its short-sighted decision and unable to expand its now restrictive boundaries in subsequent decades, the city repeatedly attempted to become the ninety-first municipality in the county as the city lost population while the county burgeoned with population and wealth.

The 1960s proposal for new regional airport in southwestern Illinois fanned the flames of the St. Louis City/County division and started a decade-long political battle over the future of Lambert. Momentum toward a new airport east of downtown in Illinois rose to a crescendo on September 1, 1976, when U.S. transportation secretary William T. Coleman, Jr. approved the purchase of land to construct an airport at Columbia-Waterloo. He stated, “I cannot find that Lambert could be improved, modernized and developed sufficiently to meet the need [of the greater St. Louis area in the 1990s and beyond].” This “bombshell” announcement, according to the *St. Louis Globe-Democrat* newspaper, ignited a desperate political battle for Lambert’s survival. Missouri’s congressional representatives and senators, governor, and other supporters of Lambert Airport fully engaged in the fight, lobbying incoming secretary of transportation for the Carter administration Brock Adams. On March 30, 1977, Secretary Adams cut funding for the approved airport before construction began. Lambert was saved. Adams called building the Columbia-Waterloo airport “premature,” declaring that Lambert had sufficient time to expand before it reached critical capacity in the 1990s. He also explained that his decision had taken into consideration that the air carriers serving Lambert had extended their use and lease agreements with the airport through 1995. Within five years of Adam’s decision, Lambert boasted rebuilt and extended runways—the longest

stretching for two miles—ready to handle air traffic for the next decade and a half.⁴

TWA at Lambert

But the impetus for expanding Lambert’s runway capacity gained renewed life after TWA designated the airport as its primary domestic hub in 1982. TWA began serving St. Louis’s Lambert Airport in 1929 when one of the airline’s two predecessors, Transcontinental Air Transport, selected St. Louis as a stopping point for its combination air-rail service between New York and Los Angeles. St. Louis remained an important location for TWA in the coming decades as its fleet grew from small, piston-engine aircraft to an all-jet fleet in the 1960s.

TWA’s domestic routes in the 1970s and before were mostly point-to-point—linear routes not connecting through significant hubs. Looking for a survival plan in the wake of airline deregulation in 1978, TWA designated St. Louis as its major domestic hub. By 1979, more TWA flights departed from Lambert than from Chicago’s O’Hare International. Three years later, TWA scheduled 121 daily flights (the most the airline had ever operated from one city) from St. Louis. The airline reduced its presence in Chicago in favor of St. Louis because St. Louis’s Lambert International had less congestion and was less expensive, and TWA could avoid direct competition with American and United.⁵

TWA purchased a thriving St. Louis–based regional carrier named Ozark Airlines in 1986, creating a fortress hub at Lambert. By 1988, TWA used sixty of Lambert’s eighty gates, and carried over 80 percent of passengers passing through Lambert. Congestion at Lambert was again a problem. The airport’s two east-west runways handled most of the airport’s traffic. Although the two runways had similar orientation, they were not true “parallel runways” according to the Federal Aviation Administration (FAA). By definition, parallel runways were at least 3,500 feet apart, whereas only 1,300 feet separated Lambert’s runways. This was

⁴ Rick Stoff, “Sky’s the Limit for Lambert Now,” *St. Louis Globe-Democrat*, 18 Dec. 1982, located in the *St. Louis Globe-Democrat* clipping file at the St. Louis Mercantile Library; Neil Primm, *Lion of the Valley* (Boulder, Colo., 1990), 510-12; Philip Sutin, “At the End of the Runway, a Pot of Gold,” *St. Louis Post-Dispatch*, 23 Jan. 1972; R. Dixon Speas Associates, *Second Air Carrier Airport for the St. Louis Metropolitan Region: Site Selection Study*, 1970, located in E. J. Sutorius Aviation Series, St. Louis Aviation History, Lambert Field Expansion, vol. 9 of 20, Saint Louis University Archives, Special Collections, Pius XII Memorial Library; “Lambert-St. Louis’ Aeronautical Evolution,” *Lambert Log* (May/June 1981), 8.

⁵ “TWA to Add 19 Flights to Schedule Here,” *St. Louis Globe-Democrat*, 9 Nov. 1982, located in the *St. Louis Globe-Democrat* clipping file at the St. Louis Mercantile Library; Robert Serling, *Howard Hughes’ Airline* (New York, 1983), 323; David Learmount, “The Giants Stir,” *Flight International* 124 (1 Oct. 1983): 902.

noteworthy because during poor weather, safety concerns restricted operations to only one runway, a situation occurring about 20 percent of the time.⁶

The airport desperately needed to expand its runways to accommodate current and anticipated air operations. The ten million passengers boarding at Lambert in 1987 would, according to aviation experts, swell to nearly twenty million by 2010. In the late 1980s Lambert ranked seventh-busiest airport nationwide, yet it was the smallest geographically (only 2,300 acres) among the top twenty-five busiest airports in the United States. Lambert Airport found itself hemmed in by Interstate 70 and several residential communities to the south, residential communities and a projected interstate to the east, large aircraft manufacturing facilities (including McDonnell Douglas Corporation) to the north, and the City of Bridgeton to the west. Local leadership believed the time had come for action (see Fig. 3).⁷

Figure 3



Map of St. Louis region showing the location of Lambert–St. Louis International Airport and MidAmerica Airport, as well as the distinction between St. Louis City and St. Louis County and the bisected nature of the region astride the states of Missouri and Illinois.

Source: St. Louis Front Page: <http://www.slfp.com/MetroStLouisMap.html>.

⁶ Margaret Gillerman, “Fares High at Lambert, Bennett Says,” 9 June 1989, B-1; Donald W. Bennett, “As Airport Expansion Gets Off the Ground—Environmental Impact Statement Will Prove Merit of Master Plan,” 15 May 1991, C-3; both *St. Louis Post-Dispatch*.

⁷ Margaret Gillerman and Nordeka English, “Officials, Residents Hail Airport Plans,” *St. Louis Post-Dispatch*, 27 Aug. 1989, D-1.

Championing Lambert’s growth, St. Louis mayor Vincent C. Schoemehl, Jr., publicly argued that the airport must be expanded if the St. Louis region were to thrive, emphasizing Lambert’s \$2 billion economic impact “that will grow significantly if we keep our facilities competitive.” He reminded St. Louisans that the region had “faced this kind of choice before. A century and a quarter ago, we frittered away a similar opportunity by failing to build a bridge across the Mississippi in a timely way, . . . long enough for Chicago to get a major edge on us.” In light of that history, Mayor Schoemehl argued that St. Louis’s “air traffic future must be governed by the needs of the entire St. Louis region of 2.5 million people,” not by the preferences of individuals in the path of the airport’s expansion.⁸

F-4

St. Louis paid Chicago consulting firm Landrum & Brown \$1.44 million to analyze twenty-seven possible ways to meet future needs at Lambert. Many people living near the airport feared the consultants might recommend expanding the airport south across Interstate 70. Southward expansion of Lambert would have meant the destruction of about 10,000 houses and the relocation of 30,000 people, wiping out the cities of Woodson Terrace and Edmundson and severely affecting other cities in the region.⁹

The firm recommended four possible alternatives in August 1989. Each alternative included construction or realignment of runways north of Interstate 70—much to the relief of those living south of the interstate. Hundreds of homes stood in the airport’s path instead of thousands. Woodson mayor John L. Brown said he could now paint his house knowing his town would not be wiped out to make room for a new runway.¹⁰

Airport leadership selected an alternative the consultant labeled “F-4,” calling for a new runway extending west from the existing airport property (“a stake right through the heart of Bridgeton,” in the words of one Bridgeton resident), and the construction of a fourth runway north of the two realigned existing east-west runways. The plan required the acquisition of over 470 houses and mobile homes, nearly 300 apartment units, and approximately 60 businesses in Bridgeton, as well as over 150 residences in St. Ann. F-4’s total projected cost topped one billion dollars. Two years later the anticipate cost reached \$1.9 billion.¹¹

⁸ Vincent C. Schoemehl, Jr., “Plane Truth: Lambert Must Be Expanded,” *St. Louis Post-Dispatch*, 25 June 1989, B-3.

⁹ Nordeka English, “Officials Decry Impact of Lambert Expansion,” *St. Louis Post-Dispatch*, 25 May 1989, A-1.

¹⁰ Gillerman, “Officials, Residents Hail Airport Plans,” 27 Aug. 1989.

¹¹ Tom Uhlenbrock and Margaret Gillerman, “Airport Plan Raises Questions, Hackles,” 27 Aug. 1989, A-1; Yvonne Samuel Kirkwood, “Airport Panel Delays

Opposition to F-4 arose as soon as the plan became public. The group Bridgeton Air Defense (BAD) formed in 1989 for the sole purpose of derailing any airport expansion into Bridgeton. Members of this organization reveled in their anti-establishment approach to informing the public about the proposed Lambert expansion. The group published a newsletter appropriately entitled “BAD News” and distributed t-shirts and bumper stickers bearing the slogan “We’ve Been Sold Out by St. Louis”—mocking the Regional Commerce and Growth Association’s slogan: “I’m Sold on St. Louis.”¹²

Additional critics pointed to TWA’s shaky finances and wondered what might happen if F-4 were built but TWA disappeared. Missouri state representative Jack Buechner of Kirkwood questioned why all traffic projections airport leadership cited assumed that TWA would remain at Lambert. He pointedly asked, “What happens if TWA cut back its operations there?” Lambert airport director Donald Bennett publicly rebutted the question, saying that other airlines would pick up any gates TWA left open. He also declared, “The market will be taken care of. St. Louis is in the middle of the USA,” a common refrain of St. Louis–area leaders.¹³

F-4 remained controversial for years to come. Even as St. Louis airport officials decided to authorize multiple millions of dollars more on additional studies for Lambert’s expansion, Mel Carnahan strongly opposed the plan and won the governorship of Missouri in 1992. St. Louis mayor Schoemehl and U.S. representative Joan Kelly Horn (D-MO), perhaps the staunchest advocates of F-4, both lost re-election bids that year.¹⁴

Alternative W-1W

The FAA threw out F-4 in 1994 after learning that the St. Louis Airport Authority hired the same consultant to complete the expansion-plan study and the noise-impact study. Back to the proverbial drawing board, the airport hired a new consultant to analyze alternatives for possible expansion. Seven years and \$5.2 million after starting the planning process in the late 1980s, the airport revealed a new master plan in 1995. Leigh Fisher Associates, the final report’s author, set forth nine representative alternatives for Lambert’s future expansion: three expanded

Anti-Expansion Action,” 29 Jan. 1990, A-2; Mel Carnahan, “Lambert Opposition Wasn’t Political,” 18 Nov. 1991, B-2: all *St. Louis Post-Dispatch*.

¹² Susan Thomson, “BAD’s Fact Are Good for Airport Debate,” *St. Louis Post-Dispatch*, 8 April 1990, D-1.

¹³ Robert Koenig, “FAA Predicts Lambert Will Drop in Ranking,” 10 Jan. 1990, B-8; Margaret Gillerman, “Lambert Bond Issue,” 20 Oct. 1991, B-4: both *St. Louis Post-Dispatch*.

¹⁴ Margaret Gillerman, “Airport Officials OK Expansion Spending,” *St. Louis Post-Dispatch*, 5 Nov. 1992, A-1.

Lambert northward (Alternative N-1, Alternative NE-1, Alternative NE-1a), having in common a new 9,000-foot parallel northwest-southeast runway north of the existing runways; a fourth alternative, labeled “Alternative S-1,” proposed a new parallel runway south of I-70; three more alternatives (Alternative W-1E, Alternative W-1W, Alternative W-2) each featured a new runway west of Lambert but north of I-70 with various other features; an eighth alternative called “Alternative CANTED-1” was similar to the controversial “F-4” but without a fourth parallel runway northeast of the existing runways; and a final “Alternative X” called for no new construction or property acquisition (see Fig. 4). Consultants also included two

Figure 4

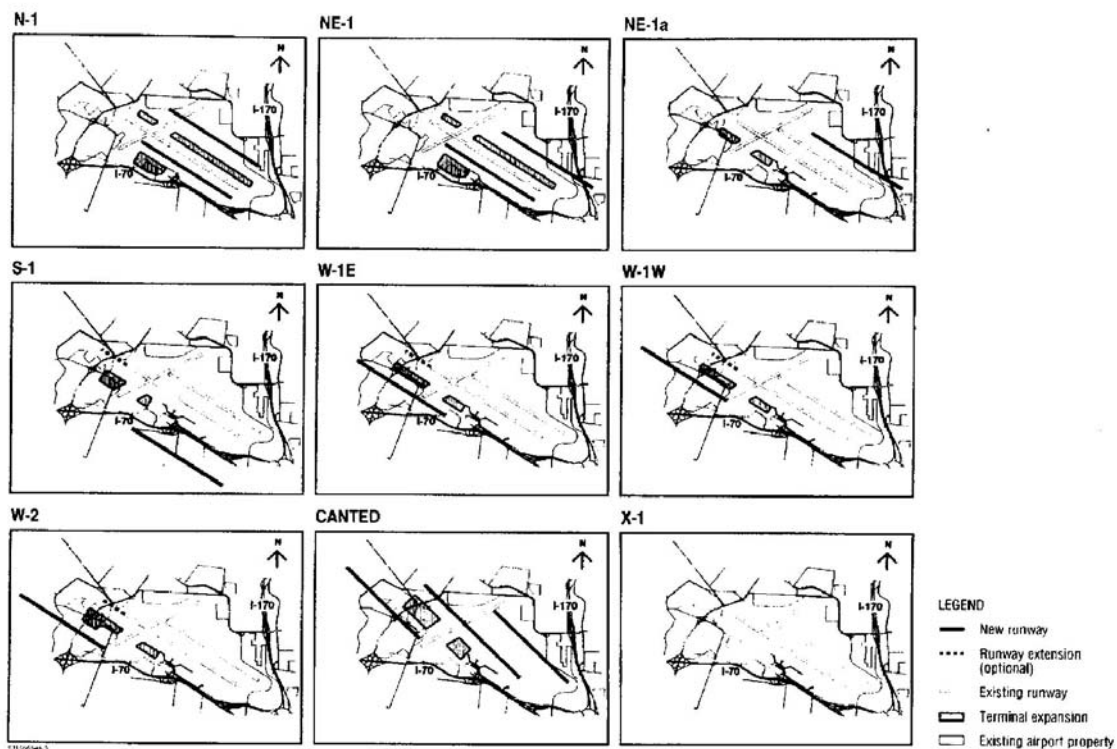


Exhibit D
REPRESENTATIVE ALTERNATIVES
 Master Plan Supplement Study
 Lambert-St. Louis International Airport
 January 1996



The nine representative alternatives for expansion of Lambert-St. Louis International Airport, including W-1W.

Source: Master Plan Supplement Study, Lambert–St. Louis International Airport, Prepared by Leigh Fisher Associates for City of St. Louis Airport Authority (January 1996), 4-5.

“non-Lambert” alternatives: a joint civil/military use airport near Scott Air Force Base in Illinois east of St. Louis, or an entirely new airport to replace Lambert. Consultants dismissed these options because previous studies of “new sites for a major air carrier airport indicated that such sites are much more distant from the major activity centers in the metropolitan area than the Lambert site.” Also, according to consultants, such sites lacked the necessary infrastructure to support a major airport, and a host of uncertainties ranging from the financial feasibility of a new airport to airline unwillingness to relocate from Lambert made constructing a new airport unattractive.¹⁵

City and airport officials quickly endorsed the \$1.77 billion Alternative W-1W, even though the plan would decimate the city of Bridgeton. The plan called for the relocation of 6,000 people (mostly Bridgeton residents), the airport purchasing nearly 2,000 homes, six churches, four schools, and seventy-five businesses to make way for the new runway. Besides a new 9,000-foot runway, W-1W entailed relocation of major roads and required a runway/taxiway bridge across Lindbergh Boulevard to accommodate automobile traffic. Alternative W-1W included a new passenger terminal to be built west of the existing main terminal near the proposed runway when future traffic volumes demanded it.

Support for W-1W

More than anyone else, Lambert airport director Leonard L. “Colonel” Griggs became the public face of Lambert’s expansion. A West Point graduate, Griggs served in the U.S. Air Force for twenty-three years, receiving numerous military honors while serving in Southeast Asia. He retired with the rank of colonel before becoming airport director in 1977. He clashed with Mayor Schoemehl, who relieved Griggs of his directorship in 1987 after Griggs made statements to the media without permission from the mayor’s office. Colonel Griggs briefly served in Washington as assistant administrator for airports at the FAA before newly elected St. Louis mayor Freeman Bosley, Jr., brought Griggs back as director in 1993. Griggs led the charge for building Alternative W-1W, repeatedly making the case for why the new runway was critical to Lambert’s future and the future of the nation’s airway infrastructure. He retired in 2004, two years before the completion of W-1W’s new runway. When Griggs retired, St. Louis mayor Francis Slay stated that “W-1W will be his [Colonel Griggs’] legacy.”¹⁶

¹⁵ *Final Report: Master Plan Supplement Study, Lambert–St. Louis International Airport*, Prepared by Leigh Fisher Associates for City of St. Louis Airport Authority (January 1996), 4-4–4-7; “Airport Chronology,” *St. Louis Post-Dispatch*, 1 Aug. 1998, p. 11.

¹⁶ Joe Holleman, “Griggs Back on Board as City Airports Director,” 10 June 1993, A-3; Elisa Crouch, “Airport’s Warrior Chief Retires,” 31 Dec. 2004, B-1: both *St. Louis Post-Dispatch*; “Griggs to Retire as Director of Lambert,” *St. Louis Commerce Magazine* (Dec. 2004), 81.

A long list of organizations, cities, and politicians expressed support for W-1W: the City of St. Louis, the Regional Commerce and Growth Association (RCGA), Civic Progress Inc., the Coalition of Communities in Support of Westward Expansion (consisting of eleven municipalities, none located west of Lambert), Citizens for a Modern Airport (a committee formed in 1996 to promote W-1W), plus the cities of Florissant (the largest city in the county) and Ferguson, the North County Chamber of Commerce, St. Louis Economic Development Council, Creve Coeur-Olivette Chamber of Commerce, St. Louis Labor Council, Home Builders Association of Greater St. Louis, Leadership Council of Southwestern Illinois, and the St. Louis Clergy Council, in addition to prominent elected officials—representative Richard Gephardt (D-MO), senator Christopher “Kit” Bond (R-MO), senator John Ashcroft (R-MO), and Missouri governor Mel Carnahan. In addition, approximately 1,500 Bridgeton residents formed a group called “Let’s Get On With Our Lives” to push for the construction of W-1W because they wearied of the uncertainty as home prices dropped in expectation of airport expansion.¹⁷

Opposition to W-1W

Undeterred, the City of St. Charles and St. Charles County Council joined the City of Bridgeton in filing a 1998 lawsuit against the FAA contending that the W-1W plan was flawed and would increase aircraft noise over their communities. Bridgeton Air Defense continued its campaign against the airport. Though saving the city from the Lambert juggernaut was their stated goal, members of Bridgeton Air Defense contended that government control was the key issue for them. The people who would lose homes, businesses, schools, and houses of worship to make way for a new runway had no voice in the matter because they did not live in the City of St. Louis. As Bridgeton mayor Conrad Bowers declared, “What W-1W is really about is whether the City of St. Louis can unilaterally come out and destroy another city.”¹⁸

A grassroots campaign against W-1W, People Building Community, originated with the congregation of Shepherd of the Hills Lutheran Church in Bridgeton. Sara Barwinski, the minister’s wife, spearheaded the group. Members repeatedly staged protests, including singing modified Christmas carols (such as “Dollar bills, dollar bills, money thrown away. W-1W’s bad for TWA” to the tune of “Jingle Bells”) at employee-only airport entrances. Across the Missouri River west of Bridgeton, a group called St. Charles County Citizens Against Airport Noise (CAAN) formed in 1996. Not threatened with physical relocation, many St. Charles County

¹⁷ John Sonderegger, “Lambert Expansion Threatens Historic District,” *St. Louis Post-Dispatch*, 19 April 1999, A-9.

¹⁸ Robin Seaton Jefferson, “Bridgeton Group Marks 10-Year Delay of Lambert Expansion,” 2 Sept. 1999, A-1; “St. Charles County Files Suit to Oppose Lambert Plan,” 20 Nov. 1998, C-3; Tommy Robertson, “Meeting Turns Up Resident Resolve Against Lambert Plan,” 2 Sept. 1998, A-1; all *St. Louis Post-Dispatch*.

residents expressed great concern that the planned runway would mean more troublesome jet noise over their communities. Yet another group, Airspace Foundation, formed in St. Charles County in 1997 for the expressed purpose of revealing the “facts, not generalizations and half-truths” about W-1W to the citizens in the county.¹⁹

The Air Line Pilots Association (ALPA), and the National Air Traffic Controllers Association (NATCA) publicly came out against the plan. They contended that the new runway would not safely and effectively solve the congestion issues at Lambert. ALPA backed Alternative S-1, while NATCA favored NE-1A with its new runway northeast of existing runways as superior to Alternative W-1W.²⁰

The lone voice against W-1W among Missouri’s representatives and senators on Capitol Hill was U.S. senator Jim Talent (R-MO). Echoing concerns voiced by ALPA, Talent questioned whether the proposed staggered runway configuration could safely produce anticipated capacity gains. The new runway would be parallel to the existing runways but staggered much farther to the west. Could an aircraft land on the existing middle runway and another aircraft land on the new runway in bad weather simultaneously without compromising safety? Talent and a chorus of W-1W opponents requested that the FAA conduct a real-time computer simulation study capable of determining a definitive answer to that question. St. Charles County and the cities of St. Charles and Bridgeton even volunteered collectively to pay the simulation’s \$60,000 price tag.²¹

Planning and Approval

The FAA invited public comment on the W-1W proposal as part of the draft environmental impact study process lasting from the fall of 1995 until early 1998. Supporters and opponents turned out to make their case and hear what the FAA had to say in a series of open public meetings. In October 1996 approximately 1,580 people showed up at the best-attended meeting the FAA hosted in St. Louis. By February 1998, nearly 15,000 people and organizations had expressed a wide range of opinions, both positive and negative, about W-1W.²²

¹⁹ Nordeka English, “Carolers Bring Bad Tidings for Lambert Plan,” 16 Dec. 1996, B-1; Nordeka English, “Foes Unite, Vow Facts on Airport Plan,” 9 Jan. 1997, A-1: both *St. Louis Post-Dispatch*.

²⁰ John Sonderegger, “Aldermen Back Opposition to Lambert Plan,” *St. Louis Post-Dispatch*, 6 Feb. 1998, A-1.

²¹ Jim Talent, “W-1W Plan for Lambert Expansion Won’t Work,” 25 Sept. 1997, B-7; John Sonderegger, “Lambert Expansion Threatens Historic District,” 19 April 1999, A-9; Philip Dine, “Meeting on Lambert Plan Leaves Area Leaders Hopeful,” 24 July 1998, A-1; Tommy Robertson, “Meeting Turns Up Resident Resolve Against Lambert Plan,” 2 Sept. 1998, A-1: all *St. Louis Post-Dispatch*.

²² Department of Transportation, Federal Aviation Administration, *Record of Decision: Lambert-St. Louis International Airport* (30 Sept. 1998), 47-50.

After granting conditional approval for W-1W in December 1997, the FAA delayed final approval of the plan in summer 1998, wondering if W-1W could really move forward in a timely fashion in light of the safety and capacity questions surrounding it. Realizing that the opportunity to get needed federal funding for Lambert’s expansion could slip away, Representative Gephardt called a private meeting of local St. Louis leadership and the FAA in Washington, D.C. The hour-long summit featured an unprecedented show of unity among labor and business leaders, community groups, airline executives, the mayor of St. Louis, congressional representatives, and even representative Jerry F. Costello (D-IL). Gephardt called it “the best cooperative effort I’ve seen in the region for a regional priority.” The St. Louis delegation put forth a consistent message of the need for W-1W to be funded and completed without delay. Regional economic growth and keeping TWA as a hub in St. Louis depended upon Lambert’s expansion. If W-1W did not go forward, a participant warned, “people are going to lose faith in it ever happening, and the project’s in real trouble.” The effort paid off. Days later FAA administrator Jane Garvey wrote a letter to Representative Gephardt stating that the path was now clear for W-1W’s final approval. Two months later the FAA ruled the runway configuration safe, the airport’s capacity estimates satisfactory, and a real-time simulation study unnecessary.²³

Two years later a federal appeals court panel ruled in favor of the FAA, contending that its approval process of W-1W had sufficiently considered the project’s harmful effects, as well as less disruptive alternative designs. The City of St. Charles, the City of Bridgeton, and St. Charles County had brought the lawsuit against the FAA (spending multiple millions in legal fees), but could no longer stand in the way of W-1W’s construction.²⁴

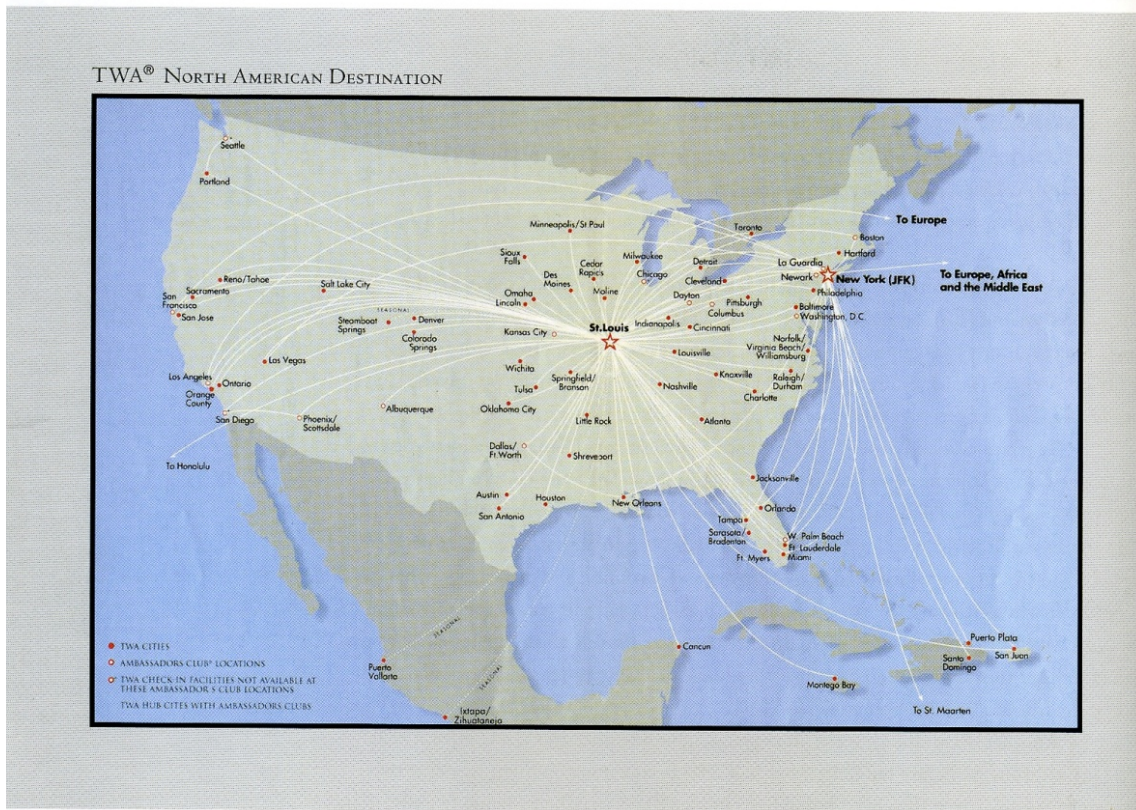
For supporters, the green light for W-1W could not come soon enough. TWA’s Lambert departures increased from 220 per day in 1994 to approximately 350 per day (to over 70 cities) in late 1996. By mid-1998, the airline operated 380 daily flights from Lambert. Delays plagued the airport. From 1985 to 1995, poor weather conditions restricted Lambert to single runway operations 13.3 percent of the time during operating hours (6 a.m. to 11 p.m.). Airlines wasted approximately \$70 million annually in the mid-1990s as a result of air traffic congestion at Lambert. Air travel delays rippled across the country because connecting TWA flights were stuck in St. Louis. A third runway permitting simultaneous landings in poor weather appeared essential for the airport’s (and TWA’s) future.²⁵

²³ Philip Dine, “United Effort Served St. Louis Well in Battle for Lambert Expansion,” *St. Louis Post-Dispatch*, 2 Oct. 1998, A-6; Department of Transportation, Federal Aviation Administration, *Record of Decision*, 51.

²⁴ City of Bridgeton et al v. Slater, 212 F.3d 448 (8th Cir. 2000); Ken Leiser, “Appeals Court Rejects Challenge to Lambert Airport Expansion Plan,” *St. Louis Post-Dispatch*, 8 April 2000, p. 6.

²⁵ Carolyn Tuft, “Across U.S. Airports Seek More Runways,” 23 July 1995, B-1; Christopher Carey, “TWA Future Is Focused on Lambert,” 29 Dec. 1996, A-1:

Figure 5



TWA route map, c. 1998, showing St. Louis as the airline’s primary domestic hub.
Source: Author’s collection.

But TWA had greater problems than congestion at Lambert. With a long history of financial difficulties, TWA filed for bankruptcy in 1992. The following year, businessman Carl Icahn gave up control of the airline, and it exited bankruptcy protection. Just as TWA emerged from the shadow of a second bankruptcy filing in 1995, the airline experienced another setback when its Flight 800 exploded soon after takeoff from New York’s JFK airport in July 1996. The airline briefly recovered, ordering 125 new aircraft, despite TWA’s failure to post an annual net profit since 1988. Fighting for survival, the airline focused its routes on its St. Louis hub, hoping to gain additional operating efficiencies. TWA was the primary reason Lambert’s passenger traffic peaked at 30.6 million in 2000. However, as TWA teeter on the brink of another bankruptcy filing, American Airlines purchased the troubled airline in early 2001.²⁶

both *St. Louis Post-Dispatch*; Donald W. Tugel, “Airport Expansions: The Need for a Greater Federal Role,” *Washington University Journal of Urban and Contemporary Law* 54 (Summer 1998): 291-319.

²⁶ Daniel L. Rust, *Flying Across America: The Airline Passenger Experience* (Norman, Okla., 2009), 98; *TWA: Kansas City’s Hometown Airline* (Kansas City,

Meanwhile, the idea of a new commercial passenger airport built adjacent to Scott Air Force Base became a reality in November 1997. Named MidAmerica St. Louis Airport, the \$307 million facility enjoyed brief periods of scheduled air service in the coming years, but never approached the traffic volume supporters had anticipated.²⁷

As the controversy over W-1W raged, Lambert quietly built a second terminal east of the iconic 1950s main terminal. Completed in 1998, the new terminal provided Southwest Airlines room to emerge as Lambert’s top carrier in the first decade of the new century.²⁸

W-1W Becomes Reality

Soon after American purchased TWA, construction of W-1W finally commenced on July 30, 2001. Standing before dump trucks and bulldozers at the site of the future runway, St. Louis mayor Francis Slay proclaimed, “Today we embark on a long-awaited project that will provide a tremendous boost to our economy. Expanding and modernizing Lambert International Airport is one of the most important things we can do to ensure our economic future.” American Airlines chairman and CEO Don Carty called TWA’s St. Louis hub the “crown jewel” of American’s \$742 million purchase of the troubled airline, stating, “This new runway will give us the wherewithal to follow through on our commitment to grow and develop our new hub for many, many years to come.” He stressed that a new terminal with additional gates would be needed at Lambert in order for American to grow, with Lambert serving as a reliever for American’s other Midwest hubs at Chicago O’Hare and Dallas–Fort Worth.²⁹

Two months later terrorists hijacked four transcontinental jetliners and used them as weapons to bring down the twin towers of the World Trade Center in New York City and strike the Pentagon. Passenger heroism led to the fourth flight’s crash in a field near Shanksville, Pennsylvania. Already hurting from the bursting of the dotcom economic bubble, the airline industry suffered a severe blow. Now American Airlines, under new leadership after the departure of Don Carty in April 2003, saw no need for Lambert to relieve congestion at its Chicago O’Hare and Dallas–Fort Worth hubs. The airline slashed half of its Lambert flights, eliminating 210 out of its previous 417 daily departures there in

2001), 78; R. E. G. Davies, *TWA: An Airline and Its Aircraft* (McLean, Va., 2000), 102-5; Christopher Carey, “TWA Says It Shouldn’t Be the Issue,” *St. Louis Post-Dispatch*, 15 June 1997, E1; Jane Costello, “TWA Shrinks Its World in Effort to Find Profits,” *The Wall Street Journal*, 23 Oct. 2000, p. 1.

²⁷ Robert Goodrich, “MidAmerica Airport Opens with Fanfare, High Hopes,” *St. Louis Post-Dispatch*, 9 Nov. 1997, C-1.

²⁸ Mark Schlinkmann, “Airport’s East Terminal: The ‘Other’ Expansion,” *St. Louis Post-Dispatch*, 8 April 1996, B-1.

²⁹ Ken Leiser, “Leaders Launch Runway Project,” *St. Louis Post-Dispatch*, 31 July 2001, A-1.

November 2003. American gradually reduced its presence at Lambert until April 2010, when the airport lost its status as a focus city for American Airlines.³⁰

Constructing W-1W provided approximately 14,000 jobs, injecting \$400 million into the St. Louis region’s economy. The army of workers poured a two-foot thick, 150(w) x 9,000(l)-foot concrete runway, plus taxiways, realigned Lindbergh Boulevard, and built the only traffic tunnel in Missouri so that automobiles could pass under the new runway, giving Lambert its long-sought additional capacity under budget and ahead of schedule. Before the completion of W-1W, the airport’s capacity was 104-112 flights per hour in good weather. In adverse weather, capacity dropped to 65 flights per hour. With the additional runway, the airport’s capacity increased to 119-127 flights per hour (a 14 percent increase) and 119 flights per hour in adverse weather (an 84 percent increase). Lambert now had its new runway, named Runway 11-29, but the April 2006 opening celebration rang rather hollow. The primary reason for the new runway no longer existed. As the airport’s annual passenger traffic dropped precipitously from a high of 30.6 million in 2000 to 13.4 million in 2004, congestion became a fond memory. The thousands of Bridgeton residents forced to make way for W-1W wondered if their sacrifice had been in vain. Empty streets and sidewalks were all that remained of a once-vibrant middle-class Bridgeton neighborhood obliterated because of noise concerns on the western end of the new runway.

Even after the runway became operational, the city of Bridgeton continued battling airport authorities. Under the leadership of mayor Conrad Bowers, it pushed for a land swap with the airport because the city’s municipal services building was now located a mere 800 feet from the centerline of the new runway. Finally, in February 2007, the city of Bridgeton and the airport agreed to a land exchange. The airport gave forty-three acres suitable for parkland to Bridgeton, and the city gave the airport fourteen acres containing a park and City Hall adjacent to the new runway. The deal also permitted Bridgeton to build a new \$12.5 million Bridgeton Government Center (completed in 2011) at no additional cost to city taxpayers. The land swap marked the formal end of the twenty-year battle over building a new runway at Lambert. While looking out his City Hall office window at the new runway in 2009, Mayor Bowers mused, “It [the runway] happened. I am still surprised by some of the people who looked at this and didn’t question. But, hey, it’s there and nothing’s going to change that. And we move on.”³¹

³⁰ “American Scales Back at Former TWA Hub,” *Airline Business* 19 (Sept. 2003): 15.

³¹ D. Paul Harris, “Landowners Welcome Airport Deal,” 21 Feb. 2007, C-6; Ken Leiser, “Little-used Runway—Pros, Cons,” 14 Oct. 2009, A-1: both *St. Louis Post-Dispatch*.

Post-Construction Realities and Lessons

The airport and the St. Louis region did move on, grappling with the reality that Lambert was no longer a significant hub and probably never would be one again. The number of passenger airline flights peaked in 1997 at 484,288, but hit a new low of 160,633 in 2010. Emplaned passenger statistics reached a new low that same year. Only 12,331,426 passengers passed through Lambert in 2010, a mere 40 percent of passengers using the airport in 2000. Interestingly, the level of locally generated passenger traffic using Lambert dropped relatively little after TWA’s demise. Approximately 40 percent of the airport’s passenger traffic during TWA’s heyday simply changed plans in St. Louis. Without that traffic, Lambert’s passenger levels depended almost entirely on passengers generated among the 2.5 million residents of greater St. Louis.³²

The controversy and cost of W-1W provide an example of what happens when a major metro area retains its 1920s-era airport location as its only major commercial airport. Communities, schools, churches, factories, and businesses sprang up around the airport, preventing its expansion. Enlarging Lambert’s footprint required great financial and human costs because the airport lacked open land for development.

Alternative W-1W also demonstrated the difficulty of major infrastructure planning. Prior to airline deregulation in 1978, airlines routinely committed to an airport for ten to fifteen or more years because the government controlled access to the market. After deregulation, airlines in the United States typically signed airport use and lease agreements lasting no longer than five years because the industry was plagued with uncertainties. Yet airports needed to plan for anticipated demand ten to twenty years in the future. The lengthy planning and approval process for major infrastructure projects such as W-1W stood in stark contrast to the rapidly changing environment of the airline industry. Researchers and policy makers used assumptions about Lambert’s future needs based on data from the airport’s heyday, not knowing that TWA would disappear, the airline industry would undergo a transformation after the 9/11 terrorist attacks, and American Airlines would severely cut its operations at Lambert in the first decade of the new century. In the 1990s, Alternative W-1W appeared as an essential component for future economic growth in the St. Louis region. In 2010, however, only 5 percent of arriving and 8 percent of departing traffic used Lambert’s Runway 11-29. According to an airport official, the “additional capacity the new runway provides [was] not important for Lambert in 2011.” Perhaps it will be needed for future air travel demand, but as of 2011 the airport rarely used the new runway even as a marketing tool for attracting new airlines to St. Louis because

³² Lambert-St. Louis International Airport, “Passenger Statistics,” viewed 19 March 2011. URL: <http://www.lambert-stlouis.com/flystl/media-newsroom/stats>.

congestion would not be an issue regardless of the new runway’s capacity.³³

With the new runway in place, Lambert faced an uphill struggle to attract new air carriers in light of increased landing fees resulting from W-1W. Air carriers serving Lambert were obligated to cover 23 percent of the new runway’s costs. The airport recouped the airlines’ portion of W-1W costs, and covered operating expenses in the wake of American Airlines’ cutbacks, through higher landing fees imposed on air carriers using Lambert. As of 2010, the airport charged \$8.18 per 1,000 pounds of landed aircraft weight, up from about \$6.00 in 2006. In 2010, Chicago O’Hare charged \$3.37, and Kansas City International charged \$1.96. The high landing fees at Lambert probably kept some airlines from entering the St. Louis market or expanding schedules in St. Louis. Hoping to attract new airlines, the airport began offering incentive packages in 2007 to airlines starting service to St. Louis. Under this moderately successful program, Lambert waived landing fees for twelve months conditional upon a two-year airline commitment.³⁴

The new runway has been used as a selling point in the attempt to attract a Chinese cargo airline to St. Louis. Missouri political and business leaders met repeatedly with Chinese officials hoping for creation of a Midwest-China hub at Lambert. Ironically, large international cargo aircraft would likely use the 11,000-foot main runway, rather than the 9,000-foot runway 11-29.³⁵

Perhaps W-1W will prove the critics wrong in the future with greatly increased future air operations at Lambert. If/when that occurs, the new runway will serve its intended purpose. But so far the jury is still out as to whether the project was—in the words of St. Louis mayor Francis Slay—“visionary.”³⁶

³³ Jeffery P. Cohen and Cletus C. Coughlin, “Congestion at Airports: The Economics of Airport Expansions, *Review – Federal Reserve Bank of St. Louis*, 85 (May/June 2003): 9-25; Mr. Brian Kinsey, St. Louis, interview with author, 21 March 2011.

³⁴ Evan Binns, “Lambert Landing Fees Sky High,” *St. Louis Business Journal* (23-29 July 2010), 1, 40-41; Elisa Crouch, “Built for \$1.1 Billion When the Need Was Greater, New Runway Lies Quiet,” *St. Louis Post-Dispatch*, 26 Oct. 2006, A1.

³⁵ Greg Edwards, “China Towns: Memphis, Dallas, Indy Among Cities Looking to Land Chinese Cargo,” *St. Louis Business Journal* (29 Oct.-4 Nov. 2010), 1, 48-49.

³⁶ Elliot Davis, “You Paid for It,” 11 May 2009, KTVI-St. Louis; viewed on 4 March 2011. URL: <http://www.fox2now.com/news/youpaidforit/kvti-you-paid-lambert-airport-runway-051109,0,2100774.story>; Tudor Masek, “Airside Expansion at Lambert Field: The Blues in St. Louis,” 15 Dec. 2007, Massachusetts Institute of Technology; viewed 21 Feb. 2011. URL: http://ardent.mit.edu/airports/ASP_exercises/ASP%20matl%20for%20posting%202007/Masek_Final_Project%20text.pdf.