

Airport Max: A Case Study

Were it not for an unsolicited proposal by construction and engineering giant Bechtel, Portland's light rail line to the airport would still be only a plan. Portland took advantage of the unique opportunity that Bechtel presented and extended light rail service to the airport over ten years ahead of original plans.

The rail segment referred to as Airport MAX is a 5.5 mile extension to Portland's existing Red Line light rail line. The Airport extension has four stops and brings passengers from downtown to the airport in 38 minutes. This project was a partnership between Bechtel, the Port of Portland, the City of Portland and TriMet.

Background: Planning and Transit in Portland

Portland is extremely progressive in the way it controls land use and integrates it with transportation improvements on a regional basis. There are a number of public agencies and authorities that are involved in this process and that many of them shaped the Airport Max project.

TriMet

TriMet is the Portland region's transit agency. The agency was formed in 1969 and oversees a network of busses and light rail transit. The city's light rail system, called MAX, was first established in 1986 and has since built 44 miles of rail with 64 stations.

Portland aims to integrate its light rail with transit-oriented development. The City of Portland has devised a light rail transit overlay zone for selected transit stations where development is restricted to uses and designs that will encourage transit and create a pedestrian orientation.

Light Rail to the Airport

Plans for the region included an extension of the MAX system to the Portland International Airport since the 1980s. When Interstate 205 was built, it was designed with a median that would accommodate light rail transit. In addition, when the airport was expanded, plans included an accommodation for a light rail transit station near the baggage claim area. These elements of advanced planning for the rail link greatly facilitated the building of Airport Max.

Portland Development Commission/Airport Way Urban Renewal Area

The Portland Development Commission is an independent agency responsible for economic development in the City of Portland. Its board members are local citizens who are appointed by the Mayor and approved by city council. The Commission's projects are funded in large part through tax increment financing (TIF). It designated areas as "Urban Renewal Areas" and raises funds for their redevelopment through a bond issue. The bonds are repaid through the incremental additions in property tax revenues that come as a result of the Commission's improvements.

One of the Commission's designated Urban Renewal Areas was the Airport Way Urban Renewal Area, designated in 1986, and included the corridor leading to the airport from central Portland. The goal of the Urban Renewal Area was to develop the area into a major employment center. Since the Commission designated the area as an urban renewal area, the City was able to use tax increment financing to issue bonds for infrastructure improvements in the corridor.

Urban Growth Boundary

Planning in Oregon is unique, as in addition to counties and municipalities, the Portland region elects a regional government called Metro. Metro has the responsibility to oversee land use planning in the Portland region and make decisions on a regional scale. They have the right to levy taxes based on voter approval.

According to Oregon law, every metropolitan region is required to designate an Urban Growth Boundary to separate urban from rural land. Development can only occur within the boundary. Metro is



responsible for managing the Urban Growth Boundary and ensuring that there is a sufficient supply of land within the boundary for 20 years of projected residential growth.

The Urban Growth Boundary limits the supply of developable land in Portland. This raises prices of land for development within the boundary. At this time, large contiguous areas of land suitable for commercial development within the boundary were rare, and therefore considered very valuable.

Portland International Center

The Port of Portland is one of the largest developers of commercial land in the Portland Region. The Port had designated 458 acres of land near the airport for development as a mixed-use business park and named the area the Portland International Center. This tract housed the largest assembled piece of commercially-zoned property within Portland's Urban Growth Boundary. The plans for light rail service to the airport ran right through the Portland International Center.

Bechtel's Proposal

The value of the land in the Portland International Center was not lost on Bechtel Corporation, which was also aware of Portland's plans to extend light rail to the airport. In fact, the Port of Portland's projections estimated that passenger counts at the airport would more than double by 2020, so the need for improved infrastructure around the airport was integral to the continued success and development of the airport.

Aware of these dynamics, Bechtel approached the City of Portland, the Port of Portland and TriMet separately and proposed to assist in financing and building of the planned airport extension. In exchange, they would 1) have the sole right to design and build the project and 2) have a right to develop a 120-acre parcel in the Portland International Center near a new transit station. This parcel would come to be called Cascade Station.

The Public-Private Partnership

Having each spoken with Bechtel separately, the three public organizations formed a working group consisting of the Mayor of Portland, Vera Katz, Executive Director of the Port of Portland Mike Thorne and the General Manager of TriMet, Thomas Walsh. The three succeeded in negotiating a deal with the following terms:

City of Portland: The city agreed to contribute \$23.8 million toward the light rail construction. These funds would partially pay for construction of the system from the 2.9-mile segment from the Gateway Transit Center along the I-205 right-of-way. (TriMet would also contribute to this section of the line.)

Since the area is within the Airport Way Urban Renewal Area, the city was able to use Tax Increment Financing to fund its contribution. It issued bonds to raise funds to cover the infrastructure improvements. Future tax revenues from increases in the land values of parcels within the Urban Renewal Area boundary would be used to pay off the debt.

TriMet: TriMet was responsible for \$45.5 million of the construction costs. Along with the city, TriMet was responsible for the development of the 2.9-mile segment of the rail corridor that used the right-of-way in the median of Interstate 205. TriMet used monies from its general fund for its contributions, and did not request additional state or federal funds specifically for this project. TriMet's general fund is primarily funded through a .64% payroll tax and self-employment tax. TriMet would receive all farebox revenues from the project.

Since TriMet did not use federal funds for this project, the stringent planning process required by the Federal Transit Administration did not come into play. However, TriMet did receive federal funds over this period for the purchase of new busses and other capital improvements. Had funds from TriMet's general fund been available for these projects, it is unclear if TriMet would have received the extensive federal funding that came in for its bus purchase and other projects.

Port of Portland: The Port of Portland oversees the Portland International Airport. They took responsibility for the development of the rail station inside the airport terminal as well as a 1.2 mile segment of the rail line leading from NE 82nd Street to the airport along Airport Way. This portion required a capital investment of \$28.3 million. In addition, the Port provided the land for the station at the terminal, as well as the development rights to the land that would be given to Bechtel in the Portland International Center.

The Port was able to fund its portion through its Passenger Facility Charge (PFC). This is a set charge, at the time \$3.00, that airlines pay to the Port for each passenger that boards a plane at the Portland International Airport. The Port of Portland regularly issues bonds that will be paid off using revenues from the Passenger Facility Charge. Revenues from the PFC can only be used for designated purposes that are approved by the Federal Aviation Administration. In the case of Airport Max, the Federal Aviation Authority granted a special approval for the funds to be used for the light rail project.

Bechtel: Bechtel would receive an 85 year lease for 120 acres of land in the Portland International Center to create a development which would be known as Cascade Station and include two stops on the Airport Max line. In place of rent, Bechtel would fund a 1.4 mile segment of the rail line, including two stations and an overpass, at a cost of \$28.2 million. Bechtel also negotiated for an option to renew the lease at market rents for 14 years following the initial period, making the lease term 99 years.

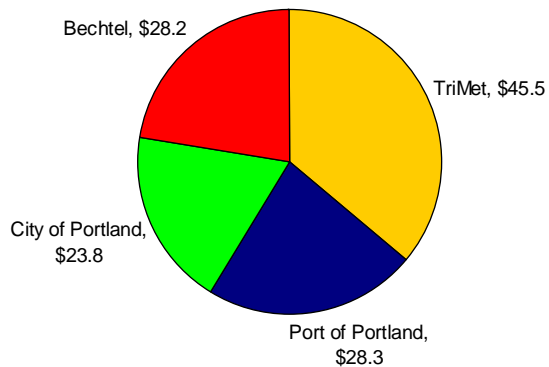
An important part of this arrangement was the understanding that the city, transit authority and port would bypass the requirements for a competitive bidding process and Bechtel would be awarded a design-build contract for the light rail construction. Therefore, total compensation to Bechtel would be the value of its design-build construction contract (\$125 million) which was awarded on a sole-source basis and any profits resulting from its real estate development efforts at Cascade Station. In order to break even on the deal, the value of its real estate profits would have to exceed the \$28.2 million benchmark, less the company's profits from the design-build agreement, a figure which has not been revealed.

In addition to the construction funds described above, Bechtel received \$500,000 from each of the three agencies for preliminary engineering studies. Bechtel matched these funds.

Like the City of Portland and the Port of Portland, Bechtel's financial contribution also came from a bond issue. These bonds were issued through a complex arrangement that involved the Portland Development Commission, the Port of Portland and TriMet. The Port of Portland granted development rights for the 120 acre Cascade Station parcel to the PDC. TriMet issued the \$28 million in bonds to fund Bechtel's portion. Bechtel assumed responsibility to repay these bonds. In exchange, the PDC gave them the development rights to the 120 acre lot that would become known as Cascade Station.

Bechtel partnered with Trammel Crow, a real estate development company, to develop Cascade Station. The two companies formed the Cascade Station Development Company. Trammel Crow brought real estate development experience to the partnership, and took on the primary role in developing and leasing the Cascade Station development. The plans for the area prescribed that it be a mixed-use transit-oriented development with retail, office and hotel uses. It was to contain two Airport Max transit stops.

Airport Max Funding, in millions



Source: TriMet

Approval Processes

Only five years passed from the time Bechtel first approached the public authorities to the day Airport Max opened. For a public rail project, this is unusually fast.

Timeline

- 1997 – Bechtel approaches Portland with an unsolicited proposal
- 1998 – Public entities secure required approvals from their respective boards
- 1999 – Construction begins
- 2001 – Airport Max begins operation

In part, the speed of the approval processes can be explained by several factors:

- Airport Max did not directly use federal funds which require lengthy planning and approval processes.
- Portland was able to use exiting revenue sources through its Urban Renewal Area TIF, so no new tax which would require voter approval was necessary.
- Minimal local land use issues were relevant since the majority of the line runs in the middle of a highway median or on previously undeveloped land adjacent to the airport.
- The right-of-way had been slated for transit in Portland's master plans. Local and regional planning efforts assumed that the airport transit link would be built so the project was already consistent with and complemented existing land use plans.

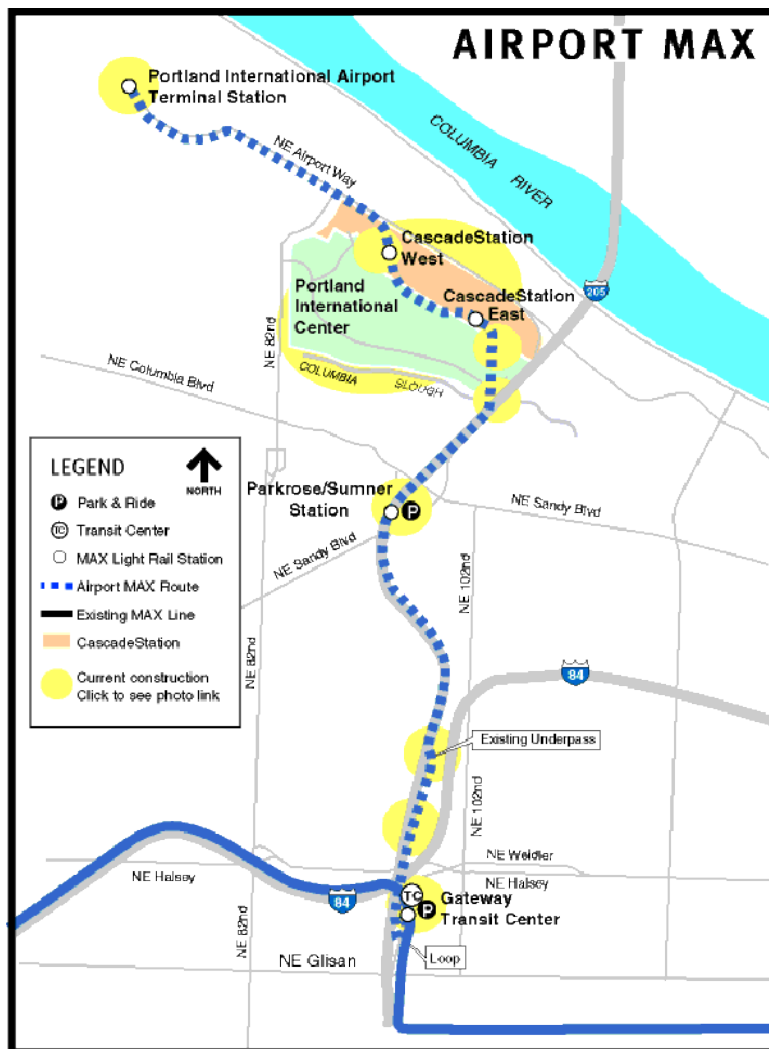
According to GB Arrington, who was director of strategic planning with TriMet during this period, much of the speed of this project can be explained by high levels of motivation. Since the public officials realized that unique nature of the Bechtel offer, they were motivated to streamline the approval process as not to miss out on this opportunity. The region realized that as a result of this offer they could bring light rail to the airport ten years before originally planned.

For the review process, each of the agencies involved appointed members to a blue-ribbon commission. The commission reviewed the plans and held five public hearings. TriMet also conducted an environmental assessment, and combined the public hearings for the environmental assessment with

the blue-ribbon commission hearings. The commission recommended to each of the agency boards that they proceed with the plans for Airport Max.

Each agency board or council conducted its own due diligence. TriMet did a cost estimate for the project independent of Bechtel's and confirmed that they costs in the plan were within reason. The City of Portland, through the Portland Development Commission, conducted studies on the value of the potential economic development, including job creation, in the area as a result of the planned light rail extension. The Port of Portland had to do extensive work to secure FAA approval for the use of Passenger Facility Charges, including demonstrating to them the cost-effectiveness of the plan.

There were costs to speeding the approval process. Due to the fast nature of this project, there was significantly less public participation than would have been required had the construction included federal funds. The negotiations among the public entities and Bechtel were not publicized until the details of the deal were agreed upon. However, there were a series of community meetings on the subject. Since light rail and transit-oriented development are popular in Portland, there was little resistance to the plan. In addition, this project was moved ahead of other projects on the regional list of priorities due to the unique nature of this opportunity.



Source: Light Rail Central, www.lightrail.com

Construction



Bechtel's contract to build the Airport Max was awarded on a design-build basis. Under this model, Bechtel was responsible completing both the final engineering work for the project, as well as construction. This was the first light rail transit project on the west coast that used the design-build model. The design-build approach allowed Bechtel, as constructor, to design the project to be consistent with its own construction methods and equipment. In addition with design-build procurements design and construction activities are often performed concurrently, which can result in valuable time savings. In addition there were no delays involved in organizing a separate construction procurement following the completion of final design. Instead, Bechtel was able to begin activities before the final design details were finalized.

Opening Day – September 10, 2001

Airport Max opened its doors to passenger service on September 10, 2001, one day before the terrorist attacks of September 11th. Following the attacks, the Federal Aviation Administration closed the Portland International Airport, along with other airports across the country. This action left thousands of air passengers stranded and the AirportMAX played an important role in evacuating people from the airport.

While stranded passengers appreciated the service on September 11th, the timing of the opening had a negative effect on the overall project. The planned opening celebrations for the rail line were cancelled, as any excitement generated from the new line was overshadowed by the tragic events of the next day. Air travel suffered significantly in the months and years that followed, which impacted the value of the project. Ridership on the line was significantly below projections for the first year.

Air travel recovered following the attacks and ridership on the line later reached projected levels TriMet later extended the Red Line to the Beaverton Transit Center to meet demand. However, the downturn in the economy that followed the attacks, and especially the effects on the real estate office market in Portland, caused irreparable damage to the plans for the transit-oriented development at Cascade Station.

Cascade Station Following Rail Opening

The original plans for Cascade Station included office space, shops and restaurants and a 1200 room hotel, anchored by a 24 screen movie theater. Prior to the September 11th attacks and the opening of Airport Max there was a significant amount of building in Portland. Several movie theaters went up in the area in a short time. Due to these developments, the cinema complex was taken out of the plans for Cascade Station.

The joint Bechtel- Trammel Crow Cascade Station Development Corporation worked very hard to pre-lease the planned development to tenants, but was unsuccessful. The office market, along with the entire economy in Portland, was weak. Analysts estimated office vacancy rates in the Portland area were as high as 15%.

Plans for the area also included pedestrian-friendly, small-scale retail development. However, retail development also did not come to the area. Retailers did not believe that there would be sufficient foot traffic to support their establishments. This could be explained since the area was isolated from residential development due to its proximity to the airport. Subsequent market analysis led the developers to believe that large-format, anchoring retailers were necessary to draw people to the area.

After years of unsuccessful attempts to find tenants for the development, the Cascade Station Development Corporation voiced its desires to change the plans for the area to include more large-format "big-box" retail stores to anchor the development. The Portland Development Commission hired Economic Research Associates to analyze the plan and conduct a market study of the area. The 2004 study concluded that Cascade Station could support increased retail activity without minimal effects on existing retail developments.

The carefully-crafted plans for Cascade Station had designed it specifically for transit-oriented uses. However, in retrospect these plans may have been inconsistent with local market forces and were not

viable, especially given fluctuations in the economic cycle. As a result, in February of 2005 the Portland City Council approved changes to the area's zoning to allow for large-format big-box retail use. In addition to changing the allowable retail space and store size, the Council removed the words "pedestrian sensitive" from Cascade Station's general purpose statement.

Currently, the land designated to be the transit-oriented development of Cascade Station is still vacant. In July, 2006 Trammel Crow bought out Bechtel's stake in the project, presumably due to the large losses that Bechtel suffered through this development. The financial terms of this agreement have not been disclosed. Trammel Crow has succeeded in signing the Swedish home furnishings retailer IKEA onto the project and is apparently in negotiations with Costco Home as well.

Lessons Learned

Advance planning for transit streamlines process: Three elements of advanced planning for transit made this project possible: 1) I-205 was built with a median designed to accommodate transit and 2) the Portland International Airport was designed to accommodate a future rail line and 3) the plans for this transit line were made public well in advance of design so Bechtel could become aware of them and offer its proposal.

Design-build project delivery can significantly expedite the project: The design-build method of project delivery was able to provide valuable time savings in building Airport Max. It allowed construction of the project to begin even before later-phase design details were finalized and eliminated the need for a lengthy delay following the design for a construction procurement process.

The private sector will take on risks and share revenues with the public sector: If the private entity is confident in the public administration, it will partner with the public sector. In this case, it is unclear if Bechtel's gamble paid-off financially for them; however the public gained a new rail line ten years ahead of schedule.

The planning environment has an important impact: In Portland, the regional body Metro has significant control over development through the urban growth boundary. Due to this boundary, development rights within Portland were very valuable and therefore played an important role in ostensibly making this project worthwhile for the private party.

However, even with that the value of the land and its ability to attract lucrative development were overestimated and ultimately the joint rail and real estate development project was not viable on a PPP basis. However, Bechtel's financial return on this project is unknown, since we cannot know the profits that Bechtel made on this large design-build contract which it was awarded on a sole source basis. This raises questions about Bechtel's rationale when entering this deal; it is unclear if the company just made a bad decision on the real estate end, or if it expected losses to be covered through its construction profits.

It is a challenge to maintain transparency and involve the public in negotiations with the private sector: In negotiating with the private sector, it is difficult to maintain the transparency and public participation that is generally accepted to be a part of large public works projects. In this case, Bechtel's bid was unsolicited so there was no competitive bidding process. Therefore, public involvement began after most of the design and negotiations were complete. While this was approved through public means, it still is an aberration from standard public controls.