

## The DART Reality Check

By Judy Kendler, Elizabeth Carruth and Jim Dillavou

The Mayors of Plano, Richardson and Addison recently wrote an editorial in favor of the DART Cotton Belt Line. Their support is based on image, not facts or economics.

Much discussion about the future plans for DART relate to the following four issues. The concern is whether DART has the resources to address all of these issues at once:

1. Building the Cotton Belt Line from Plano to DFW
2. Creating a second Downtown Dallas track to create a loop in Downtown and move trains more efficiently with greater frequency and volume
3. Extension of the trolley streetcar in Downtown Dallas to connect the McKinney Line to the Oak Cliff Line
4. Adequacy of bus service and the ridiculous transit times it can take to get between points in DART's service area (3 hours is not unusual).

This discussion is focused on issues 1 and 4 above, but much of the discussion is relevant to items 2 & 3. It is based on information from DART's Comprehensive Annual Financial Reports, presentations, published ridership and DART's own engineering and feasibility studies.

### 1. What are the facts?

Has anyone read the financial aspects of DART's preliminary engineering report, Alternatives and Environmental Considerations Report (AECR), for the Cotton Belt Line? The financial aspects on the Cotton Belt Line and ridership projections do not justify building this line. These issues are discussed below.

### 2. A lower percentage of people use DART than in 1992 when it had bus only service.

Since its inception in the mid 1980's DART's primary focus has been its long-term visions of rail service as the key component of mass transit. DART also took on bus service, but its focus has always been on light rail. For its first 10 years of existence, there was no rail service and buses were the only service. Yet during those years DART was still focused on the rail future, retaining most of its sales tax collections for future rail construction. In spite of that rail focus, DART built decent bus ridership numbers in the early 1990's. Since the launch of rail service, however, bus service has deteriorated and ridership has declined by over one third or 55,000 boardings per day. In fact, total ridership, including bus and rail, is only 16% greater than bus-only

ridership of the early 1990's, even as the population in DART's service area has increased by over 40%, from 1.7 million to 2.4 million. A lower percentage of Dallas area residents are using mass transit than when DART had bus only service.

This increase in total ridership equates to 26,000 incremental boardings per day or 13,000 additional daily users since 1992 (most riders board at least twice for a roundtrip). Are 13,000 incremental riders the return us taxpayers should see on our investment of over \$4.5 billion in light rail during this time (not including billions spent to cover operating losses and interest)? That \$4.5 billion equates to \$375,000 of capital cost for each additional daily mass transit user.

### **3. The projected ridership does not justify the cost of the Cotton Belt**

The limited service Cotton Belt Line is expected to cost an additional \$1.2 billion. DART's own study estimates that there will only be 12,682 incremental light rail trips (6,300 users) on each average day. The study estimates 16,382 gross trips light rail trips but 3,700 of these replace rides currently taken on the Red, Orange or Green lines, thus only 12,682 incremental boardings. These 6,300 incremental light rail users do not deduct out passengers that currently take the bus, so the incremental users to the whole DART system may be far less than 6,300. Over 20 years, the Cotton Belt operating costs are estimated to be \$360 million but the additional riders will pay fares of only \$72 million. That is, riders will only pay 20% of the operating costs and none of the capital costs or interest. Including interest and DART's assumed payment of 25% of the principal over a 20-year period, the \$72 million paid by riders will only constitute about 7% of the \$1.1 billion costs of the Cotton Belt Line and still leave DART with \$724 million in Cotton Belt debt at the end of 20 years.

### **4. DART's projected ridership is anemic but actual ridership may be far less.**

Most of the people who are enthused about the Cotton Belt say they want to take it to DFW because it would save on parking. DART's estimated 12,682 incremental boardings per day is overly optimistic. It estimates that 2,600 riders will board daily at DFW airport. The 2,600 estimated Cotton Belt boardings per day at DFW is very high as in 2015 there were only 900 average daily weekday boardings at DFW on the Orange Line. The Orange Line currently carries riders from Plano, Richardson, Downtown Dallas, Irving and all other points on the DART light rail system to DFW and is the only train to DFW. Thus the 2,600 estimated boardings for the Cotton Belt

is highly suspect. It is also unlikely that ridership will be so high for the remaining stations (9,400 boardings beginning and ending between East Plano and Carrollton). Try to find someone who wants to go from Carrollton to East Plano. DART's projections show 2,700 daily boardings at downtown Carrollton, many of which are estimated to be transfers from the Green Line, but in 2015 there were only 687 average weekday boardings on the Green Line at Carrollton and less than 300 on weekends.

**5. Satisfying member cities will drive up the cost with little benefit.**

Due to the potential ridership, the Cotton Belt Line needs to include the CityLine / Bush station in Richardson. Yet Plano wants the line to include a 12<sup>th</sup> Street Station less than a mile away. The 12<sup>th</sup> Street station would be three blocks from Plano's 15<sup>th</sup> Street station on the Red Line in Plano that also stops at City Line. DART's engineering study states that the 12th street station, if built, would need to be elevated to cross over the Red Line at an estimated cost of \$63.7 million. DART's optimistic estimate is that 600 riders per day would board at the 12<sup>th</sup> station That is a cost of \$100,000 per rider just to add this station. But never mind about cost, Plano will insist the 12<sup>th</sup> Street Station gets built.

**6. The service will be limited and will not attract riders**

As has been widely reported, the Cotton Belt proposal is for a single track. That would require limited service to allow eastbound trains to pass before westbound trains can proceed and vice versa and would add to the trip time. If a train in one direction is delayed, trains in the opposing direction must wait. Most people who want DART to the airport think they would be getting express service. Most of the public do not realize that with many street surface crossings and stops, the service will be slow and infrequent. DART's estimated trip time is 45 minutes but it is unlikely to be that quick. DART's projections are based on providing service every 20 minutes during peak hours and once an hour service during off peak hours. Traveling to the airport often occurs during off-peak hours (leave early morning, return late at night or on a week-end). Would you take the train if, after arriving at DFW at 10 PM, you then had to wait an hour for a train and then spend another hour in transit, getting you to your car at midnight?

**7. DART should evaluate why people don't use its service.**

In addition to the stated costs of the line it would be necessary to build park & ride facilities at these new stations. The DART park and rides are open lots and are unattended with no nighttime security. Once people realize their cars would sit for a week in an unattended lot, subjected to the hot sun, violent storms and hail and that they may have to return to their car late at night with no security, they will decide to not take the train.

**8. The Cotton Belt Line misses key population centers.**

By 2018, there are expected to be at least 90,000 people living and working in Legacy Business Park, many of whom are frequent air travelers. These potential riders would be totally missed by the Cotton Belt Line. Does that make any sense?

**9. There are better ways to provide prompt and efficient service.**

Carrollton Mayor Marchant's idea for "bus rapid transit" is far better than light rail. The problem with this solution, however, is it is a fixed line that still misses major employment centers. While bus rapid transit could be more frequent than train service at a fraction of the cost, it would still be slow because it would cross many surface streets. It would be far better to make use of our expressways (635, 190, 121), possibly with some HOV lanes or bus-only shoulder lanes that allow buses to skip around congestion.

**10. DART is under investing in bus service.**

DART's bus service is poor because DART is spending all of its resources on trains. If DART spent more of its funds on providing decent bus service, ridership would increase far more than adding the Cotton Belt. Besides increasing the frequency of local and express service to major employment centers (Downtown, Legacy and others), DART could provide frequent bus service to DFW that could leave from many points, including Legacy Business Park and Addison, along George Bush Expressway and stations on the Red Line. This service would be a fraction of the cost of rail service - in the tens of millions for equipment rather than over \$1.2 billion for the Cotton Belt and would cost far less than the \$365 million of annual operating expenses projected for the Cotton Belt Line. The savings could be spent on dramatically increasing bus service throughout the system.

**11. DART should consider alternatives that could serve far more riders.**

Since costly parking is a big deal to people, DART could build massive parking garages at locations like Midway and LBJ and Midway and George Bush for \$35 million apiece and provide covered, 24 hour attended parking for a nominal charge per day and then have buses to the airport leaving every 10 minutes (or more frequently if demand required) running for 16 hours per day and every 20 minutes for the remaining 8 hours. This would still be a fraction of the cost of light rail and would have far greater ridership. People would actually use service that included attended, covered parking and faster and more frequent service than light rail. DART would be fulfilling its mission by taking people the last fifteen to twenty miles of the trip. For those people not wanting to drive, it would be a short Uber or bus ride to the Park'n'Ride facility that would be heading in the right direction toward the airport instead of backtracking to Downtown Plano or CityLine to park. DART could afford to buy plush luxury buses for this service and include free WIFI with part of the savings. Finally, it has already been shown that while DART cannot charge nonresidents more than residents to use its transportation, they can charge far more for parking by non-residents (like \$15 per day) so those Allen, McKinney and Frisco residents would have to pay their fair share for the service.

### **12.The Cotton Belt will not reduce congestion**

One of the arguments for DART is that it reduces congestion. Consider first that the 6,300 daily commuters on the Cotton Belt is likely overstated and then consider that many of those commuters traveling in Carrollton, Addison, North Dallas, Richardson and Plano would be traveling on city streets during off peak hours and not taking the expressways. The potential riders are a drop in the bucket to traffic. The current daily traffic on LBJ is approximately 300,000 vehicles per day. The intersection of I-635 and Central expressway is designed to handle 500,000 vehicles per day. Highway 190, PGBT, carries over 250,000 vehicles per day.

### **13.Providing service to UT Dallas**

The projected riders from the CityLine/Bush station on the Red Line to UT-Dallas is one of the largest sources of the projected ridership for the Cotton Belt. It is only about 3 miles between these two points and is currently served by the free 883 bus Shuttle every 30 minutes from 7 am to 11 pm. So these riders will largely be substituting rail for bus service, yet service during off peak hours will be far less with rail. This route serves an important constituency of college students and the Cotton

## Response to September 26, 2016 Editorial - Draft

Belt right of way for this short section has few grade crossings. It could make sense to use this short section between the City Line and UT-Dallas. It could be utilized as bus rapid transit, or DART could even complete this short section for rail service between the two points. It would be a small part of the cost of the Cotton Belt and as a short spur much more frequent service could be provided between these two points than the hourly off-peak light rail service planned for the larger Cotton Belt Line.

It is too bad that the public has this romantic image of light rail service as being the answer to commuting and has a much lower perception of bus service. Most of the people that think that way actually never take the train or the bus, but they like the image of light rail. For actual riders, the reality is far different and the emphasis is on quick efficient service that runs close to their origination and destination. What of the opinion of our mayors? How often do the mayors of Richardson Plano and Addison take scheduled DART service? Part of the success of Uber is that it takes away the anxiety of waiting and wondering when the ride is going to show up because users can see their car approaching on a map in real time. If DART invested in similar technologies for its buses, combined with more frequent service and amenities like WIFI, ridership would take off. The people that actually use mass transit want convenient, reliable service that gets them where they want to go in an expeditious manner. The limited Cotton Belt Line service does not deliver on that count.