Summary

Orange County is a desirable place to live and work. Our communities have remained attractive over the years even in the face of tremendous growth and urbanization. In spite of the expansion, many residents now find it easier to get from place to place. This has been accomplished through continued investment in the transportation infrastructure—most recently through freeway widening, the addition of high occupancy vehicle (HOV) lanes, the inauguration of commuter rail and surface street improvements funded by Measure M.

This growth continues even as our cities are built out and our available land developed. Population growth is now being driven by increases in density as well as by increases in the number of homes and apartments. The Orange County job market requires a large number of employees to be imported each day—largely from the Inland Empire. Employment growth rate will far exceed the population growth rate in the next twenty years. Several of the large transportation projects now under discussion will bring additional employees into the County—some by automobile and some by transit with the need of a ride once they arrive.

The remaining transportation component foreseen by the drafters of Measure M is a light rail system to serve the high density portions of central Orange County and the Santa Ana Regional Transit Center for long distance commuters. The Orange County Transportation Authority (OCTA) now has a proposed system, the CenterLine, in the preliminary engineering phase to address this need. The Grand Jury has identified both opportunities and problems for OCTA to consider as planning progresses.

There are two opportunities for enhancing the success of the CenterLine that the 2002-2003 Orange County Grand Jury believes the Orange County Transportation Authority should evaluate:

1. Establishing a bus route as a pilot program for the CenterLine. This line should replicate the CenterLine route as nearly as streets and traffic allow and operate in a simulated rail transit mode.

2. Including the planned future link to Santa Ana College as part of the initial project. The number of riders added by this link has the potential of outweighing the cost of the link.

The Grand Jury has concerns about four problems that, if not resolved, threaten the implementation of the CenterLine or its success if built:

1. Competition with commercial interests for prime locations for stations.
2. Conflicting interests of cities at their mutual borders where the rail line must be at the same grade.

3. Difficulties in obtaining accurate ridership forecasts eight to ten years into the future.

4. Concern that, to gain approval from the alignment cities, OCTA may be required to promise too many local changes and improvements resulting in delays and cost overruns.

**Introduction and Purpose**

The 1998-1999 Orange County Grand Jury produced a report highly critical of OCTA’s then proposed 28 mile light rail transit system—especially the community outreach efforts of OCTA. While disagreeing with all of the Findings, the OCTA Board responded that they were complying with all of the Grand Jury’s Recommendations.

The cities along the proposed route had significant concerns with the planned alignment and wavered in support causing OCTA to put the system on hold in March 2001. The idea was revived later in 2001 when the cities of Santa Ana, Costa Mesa and Irvine expressed their support for a light rail system through their cities.

The decision on whether or not to construct a light rail system (CenterLine) to solve some of the County’s growth and transportation problems is a signal event for the County’s future. The 2002-2003 Orange County Grand Jury revisited the light rail program to ascertain status, evaluate progress and make updated Recommendations.

**Method of Study**

The Grand Jury reviewed the OCTA CenterLine plan, current and projected demographic data for Orange County and the light rail experience of nearby communities with similar characteristics. OCTA executives and staff, elected and administrative Orange County city and county officials, incumbent and past San Diego transit officials, academicians and leaders of organizations representing the full spectrum of transit viewpoints were interviewed. The Grand Jury attended city council and OCTA Board meetings. The Grand Jury inspected and rode several modes of public mass transit in Orange, Los Angeles and San Diego Counties.

**Background**

**The Need for Light Rail**

**The Cost of Success**

Orange County residents expressed a continuing satisfaction with life in the County in the November 2002 Public Policy Institute of California Poll. Of those surveyed, 92% were somewhat or very satisfied with their homes, and 77% were somewhat or very satisfied with their commutes.
This same poll indicated that the populace was concerned with the maintenance of this high level of contentment. The top two concerns were growth and development (20%) and traffic and transportation (16%). These are problems that go along with a strong local economy. Orange County has a strong economy and will continue to experience significant increases in population and jobs.

The concern with this growth and the resulting traffic would almost certainly have been greater were it not for Measure M, the 1990 voter approved half-cent sales tax for transportation improvements over a twenty year period. Through September 2002, $2.2 billion of Measure M money has been invested to augment the Orange County transportation network. This monumental expenditure has done more to accommodate a fast growing population and an even faster growing number of workers than to ease traffic problems. The pressure on Orange County transportation systems will continue as the population is expected to grow at 0.9% per year and employment is expected to grow at 2.2% per year according to Census Bureau projections.

**What’s Worked in the Past**

The Public Policy Institute Poll respondents look to continued public investment to maintain the status quo. Surface transportation was the top priority for public expenditures for 27% of the respondents—second only to school facilities, which were ranked at the top by 45% of the respondents.

When questioned about transportation project priorities, residents chose highways (39%), light rail (21%), streets and roads (16%), buses (14%) and car pool lanes (7%). With the exception of light rail, these are the improvements that have successfully allowed Orange County to accommodate past growth.

As Orange County has become a major metropolitan area, residents have taken advantage of new modes of transportation to keep their commute times manageable. Orange County now has the second fastest growing bus system in the nation with 77 routes and over 200,000 boardings each weekday. Percentage wise, Orange County uses its 214 miles of high occupancy vehicle lanes more than any other county in California. Long distance commuters have embraced the MetroLink system of commuter rail that has been expanded to a schedule of 40 weekday trains on 3 routes since its inauguration in 1994.

**Light Rail—An Additional Component**

The introduction of the CenterLine light rail system into the mix of transportation alternatives is a recognition of the continuing urbanization of Orange County and the shortage of available space to build new freeways or widen existing freeways. Orange County now has the population density to support a light rail system. The present CenterLine alignment links high-density residential communities in Santa Ana, a major commercial and business center in Costa Mesa and high density employment centers in Irvine. The proposed alignment is anchored at one end by the Santa Ana Regional Transportation Center with connections to MetroLink commuter rail, Amtrak passenger rail and OCTA bus system and to the University of California at Irvine campus at the other end. An OCTA prepared map detailing the CenterLine route with other geographic and demographic information is included as an Appendix.
With a population of 2.94 million in 2002, Orange County is becoming increasingly urban in character. By 2025, the population is projected to grow to 3.4 million. Orange County in 2025 is projected to have the population of today’s City of Los Angeles in about the same area. For much of the City of Santa Ana, the urban transition is complete. In the western United States, the population density in Santa Ana is exceeded only by that in San Francisco. The density continues to increase due to ethnic diversification and economic change allowing the population to increase without a corresponding increase in available housing. There are more than 340,000 jobs and 415,000 residents located within two miles of the proposed CenterLine alignment.

Irvine can be characterized as having a high job density with three jobs per household in 2000. This is expected to increase to four jobs per household in 2025. Many of these workers must commute to Irvine from increasingly greater distances.

Measure M projects were automobile oriented in the early years with major freeway widening, high occupancy vehicle lane and street improvement projects. However, Orange County is running out of automobile oriented options largely because of space considerations. Major projects under consideration are weighted toward bringing ever more workers to Orange County each workday. Examples are the planned improvements to the 91 freeway, planned increases to MetroLink service from Riverside to Irvine and a proposed tunnel through the Santa Ana mountains to bring workers from inland Riverside and San Diego Counties into South Orange County. Much of the sprawl that has now moved to the Inland Empire is still focused on Orange County for jobs.

Since the opening of the first segment of San Diego’s light rail system in 1981, seven other western cities have established light rail systems to address their similar or unique transit problems. One measure of the success of these systems is their high rate of expansion with extensions and new lines—often with multiple projects. The light rail systems in Los Angeles and San Diego serve communities with characteristics similar to those of the CenterLine cities.

**Light Rail Planning in Orange County**

**History**
The Orange County Transportation Authority has long proposed a light rail transit system for central Orange County to accommodate a portion of the increased traffic generated by the growing numbers of residents and employees. With the passage of Measure M, *The Revised Traffic and Growth Management Act*, in 1990 light rail rapid transit was formally introduced into the County's transportation plan. Track mileage under discussion has ranged from as long as a speculated 87 miles for a completed network to 11.4 miles for the initial segment now being planned.

An OCTA proposed light rail system was first studied by the 1998-1999 Orange County Grand Jury. Their report was critical of the CenterLine and especially of the community outreach efforts of the OCTA. The CenterLine project was put on hold in March 2001 due to lack of support by alignment cities.
The Present Situation

The present CenterLine incarnation was initiated by the cities of Santa Ana, Costa Mesa and Irvine in September 2001. An OCTA management team, augmented with experienced light rail transit managers, has worked with the cities to define an alignment and to move the project into the Preliminary Engineering Phase. The CenterLine project now calls for a 11.4 mile route to be built at a cost of $1.5 billion with construction to begin in 2007 with completion targeted for 2011.

Establishing a feasible alignment through contiguous cities with conflicting visions has been especially difficult. The Federal Transit Administration, which is likely to provide one-half of the funds for construction of the proposed system, requires that each city approve the route alignment through its city. This veto power makes local political considerations even more of a challenge than the considerable engineering and financial challenges. The route through Santa Ana and Costa Mesa has remained the same throughout the planning process, but Irvine has requested significant changes to accommodate neighborhood opposition. The present route through Irvine has been altered to mollify neighborhoods that fear light rail. In September 2002, the southern terminus of the route was moved from the Irvine Transportation Center to the University of California at Irvine to avoid the neighborhoods of Woodbridge and Oak Creek. This issue is so contentious in Irvine that two ballot measures will be brought to the voters in June, 2003. One measure would amend the city’s general plan to remove from consideration any light rail project. The other proposed measure would allow the present CenterLine alignment but require a majority vote on any future expansion in the City of Irvine.

Funding

OCTA plans to fund the CenterLine project with 50% Federal Transportation Administration New Starts Funds, 28% Federal Congestion Mitigation and Air Quality (CMAQ) funds, 12% Measure M funds, 8% Proposition 116 state bonds and 2% State Transportation Improvement Program (STIP) funds. A portion of the available Measure M funds would be used for an endowment to support CenterLine operations. OCTA will submit the Funding Grant Application to the Federal Transportation Administration in 2004. The availability of federal funding and the awarding of the funding to the CenterLine project in competition with other projects around the country represents some risk to the program. The current California fiscal crisis may put the State funds at risk.

Opportunities

Bus Route to Simulate CenterLine

No existing OCTA bus route comes close to the proposed CenterLine alignment. An approximation to the CenterLine can be realized only with segments from four existing bus routes. This new alignment poses a challenge for the rapid acceptance of the CenterLine once it is completed.

The Grand Jury believes that OCTA should consider implementing a new bus route following the CenterLine route as nearly as streets and traffic allow before the start of CenterLine construction. Additionally, the line should supplement existing bus service by
operating in a mode more nearly simulating the proposed light rail service with fewer stops, better connections and enhanced stations. Improved bus feeder lines and stations could be added over time to gradually establish ridership and development along the CenterLine corridor prior to the service being inaugurated.

**Link to Santa Ana College**
Santa Ana College, with no additional land for expansion, serves a rapidly growing population. Appreciable expansion of campus facilities would likely be at the expense of parking. Current OCTA planning includes the less than one-mile link to Santa Ana College as an optional future extension. This extension adds approximately 7% to the cost of the CenterLine project with a potential for a proportionally greater ridership increase. If only 5% of the over 30,000 students and employees were to commute to and from the school daily on the CenterLine, projected weekday ridership at startup would be increased by almost 14%.

**Concerns**

**Station Location is a Key Element**
The experience of other light rail systems has shown that the proximity of stations to major business, commercial, educational and entertainment centers is a key element to success. To attract riders, stations need to be attractive, safe and accessible by walking, buses or a park and ride lot. At major destinations such as South Coast Plaza or John Wayne Airport, a station should be as close to the entrance as possible.

**Community Input is Important to Planning and Implementation**
Even with a high level of acceptance of light rail in San Diego, the Metropolitan Transit Development Board (MTDB) had to work at communicating with citizens along the alignment. MTDB had a very successful outreach program utilizing a neutral facilitator to lead monthly community meetings covering the plans and technical details. The facilitator had rules, which every participant had to agree to abide by. MTDB had won acceptance from some of the opposition parties by the time the yearlong outreach program expired.

**Problems at City Boundaries**
The preliminary plan for the CenterLine shows the line elevated after it passes Warner Avenue and returning to grade level before passing under the Costa Mesa Freeway (Route 55). The city of Costa Mesa would like to see the light rail at below grade going into the city. This change not only increases the construction cost but also creates a very undesirable situation for the city of Santa Ana.

On the Bristol corridor, Sunflower Street serves as the border between Santa Ana and Costa Mesa. To satisfy Costa Mesa’s below grade request, the line must start descending long before it reaches Sunflower. This transition would have an adverse impact to the city of Santa Ana. The City of Santa Ana has firmly stated their opposition to Costa Mesa’s request unless the below grade rail begins at Warner—adding yet more to the construction cost. This impasse can eventually kill the CenterLine project if it is not resolved in a timely manner.
**Accurate Forecasts are Mandatory**

As a result of their experience in building a very successful light rail network in San Diego, the Metropolitan Transit Development Board (MTDB) emphasized that the location of the stations, accurate ridership projections and an accurate forecast of the construction costs and schedule were essential to a successful project. While this report has addressed the location of the stations earlier, the Grand Jury is also very concerned about any potential cost over-run—whether it be due to inflation, unplanned construction obstacles or additional “betterments” requested by the alignment cities after the completion of preliminary engineering.

Light rail systems are very costly to build initially but are long-lived and relatively inexpensive to operate. These characteristics argue for taking extreme care in planning and implementing the initial segment to establish a system that will be used and enhanced for many years. The future expansion of the CenterLine will be less controversial once OCTA establishes its credibility by delivering an efficient, well-utilized system on schedule and on budget.

**Findings:**

Under *California Penal Code* Section 933 and Section 933.05, responses are required to all Findings. The Orange County 2002-2003 Grand Jury has arrived at seven Findings:

1. Light rail is a component of the public transportation system for the future growth of Orange County.
2. There is currently no single bus line traveling the proposed CenterLine route.
3. A link to Santa Ana College will increase the projected ridership.
4. The location of the stations is a key element to the success of a light rail system.
5. An open dialogue between OCTA and the residents along the route is important to the planning and implementation of the CenterLine.
6. An accurate forecast of the ridership, the construction schedule, and the cost is essential to the success of the CenterLine Project.
7. Enhancements added to a light rail system after the completion of preliminary engineering are a principal cause of budget overruns.

Responses to Findings 1 through 7 are required from the Orange County Transportation Authority Board of Directors.
Recommendations:

In accordance with California Penal Code Section 933 and Section 933.05, each Recommendation must be responded to by the government entity to which it is addressed.

These responses are to be submitted to the Presiding Judge of the Superior Court. Based on the findings, the 2002-2003 Orange County Grand Jury recommends that:

1. The Orange County Transportation Authority (OCTA) continue with Preliminary Engineering for the CenterLine project. (Finding 1)

2. OCTA consider initiating a bus line simulating the CenterLine route and operation before the start of CenterLine construction. (Finding 2)

3. OCTA study including a link to Santa Ana College as part of the initial project. (Finding 3)

4. CenterLine stations at University of California at Irvine and John Wayne Airport be located as convenient to the facilities as the existing parking. (Finding 4)

5. OCTA consider the feasibility of placing the South Coast Plaza station as near to the “front door” as engineering and operational considerations allow. (Finding 4)

6. OCTA hire a neutral facilitator to guide the discussions at community forums. (Finding 5)

7. OCTA provide a conservative ridership forecast for the first five years of operation. (Finding 6)

8. Enhancements to the project during construction be paid for by the benefiting cities. (Finding 7)

Responses to Recommendations 1 through 8 are required from the Orange County Transportation Authority Board of Directors based upon Findings 1 through 7.
Bibliography


Appendix

CenterLine map from OCTA