

Chapter 1

PROJECT OVERVIEW

INTRODUCTION

In the fall of 1998, the Counties of Sonoma and Marin formed the Sonoma Marin Area Rail Transit Commission (SMART) to develop an implementation plan for a start-up level of commuter rail service for the two counties.

The Commission was made up of two Supervisors and three City Council Members from each county. The lead agency for the management and administration of the project was the Sonoma County Transportation Authority (SCTA). SCTA was responsible for hiring the railroad operations and engineering experts to develop the implementation plan.

Over the subsequent 18-month period, the Commission, administrative staff and consultants explored numerous options for initiating commuter rail service. Options included variations on route, schedules, types of commuter rolling stock (cars and locomotives), funding alternatives, and potential environmental impact mitigation. Their work resulted in a recommendation for a preferred alternative for the initial service, consisting of the following elements.

1. The route would run 68 miles from Cloverdale in the north to downtown San Rafael in the south. There would be 11 stations along the route.
2. The service would begin with 45-minute peak period headways (the time intervals between trains). Headways would shorten to 30 minutes after six years of operation.
3. Though primarily a commuter service, it would offer limited mid-day trains as well.
4. The service would employ one of three rolling stock types. This could either be traditional diesel electric locomotives hauling coaches (locomotive-hauled equipment), self-propelled diesel cars known as Diesel Multiple Units (DMUs), or rebuilt self-propelled Rail Diesel Cars (RDC) or “Budd cars”.
5. The service would be funded through a combination of sources. These would include contributions from a ½ cent sales tax in both counties, Proposition 116 rail bond funds designated for the service, existing federal and proposed state earmarks, and fare revenue.

A draft plan was presented to the SMART Commission in May 2000. Subsequently, comments were received from public agencies, interest groups, and individuals. Based on these comments, the project consultants made revisions to the draft plan. The focus of the revisions were on items that were material and within the scope of the project. These revisions are included in this final report.

RATIONALE FOR COMMUTER RAIL

There were several factors supporting the Commission’s goal of initiating commuter rail service in the US 101 corridor.

Congestion on US 101

First and foremost, there is considerable congestion in the corridor now. The 1995 Congestion Management Programs (CMPs) for each county identified the Level of Service (LOS) throughout the corridor at either “E” or “F”, indicating severe and recurring congestion. The Programs also identified the need for significant corridor improvements to reduce congestion and delays at bottlenecks during peak commute times. There are two primary causes for existing traffic delay along US 101. These are insufficient capacity and growth in travel demand¹.

Travel Demand in the Corridor Will Strain Existing Capacity Further

The population in the US 101 corridor north of San Francisco (Sonoma and Marin Counties) is expected to grow by 130,000 between 2000 and 2020². Also, jobs in the area are expected to grow by 116,000. The increases in population and jobs will cause travel demand in the corridor also to grow. As US 101 is the primary link between most communities in the corridor, the growth in travel demand will result in heavier use of the highway in future years. Given congested conditions now on US 101, conditions predictably will worsen.

Commuter Rail Could Have a Short Term Implementation

Commuter rail use of the existing Northwestern Pacific (NWP) right-of-way between Cloverdale and San Rafael could offer an effective alternative to auto commutes on the congested US 101 corridor. Track between Cloverdale and Ignacio was in regular commercial freight use until 1998. It is currently being upgraded so that a low-speed freight rail operation can be reinstated. South Ignacio, the right-of-way is intact to San Rafael, though it has not seen freight service since the mid-1980s. While the track along the entire 68-mile route is in need of substantial upgrading for commuter rail operations, the upgrades could be completed in within one year. The manufacturing of rolling stock would take conservatively about three years. Mitigation for significant environmental impacts, such as noise, could be completed within a few years. Accordingly, implementation of a commuter rail operation could be accomplished within five years.

Rail Would Serve Many of the Markets Served by US 101

The NWP right-of-way parallels US 101. Stations are planned for all the major communities and job centers in the corridor between Cloverdale and downtown San Rafael. As a result, rail service would provide a viable alternative to automobiles and existing transit on the crowded highway.

Increased Mode Choice for Commuters

¹ *Sonoma/Marin Multi-Modal Transportation and Land Use Study*, Sonoma County Transportation Authority and the Marin Countywide Planning Agency, 1997.

² *Projections 98*, Association of Bay Area Governments, December 1997.

Perhaps more important than all other factors, commuter rail would increase commuters' choices of how they wish to reach their workplace. Choices are currently limited to the private automobile, ride sharing (carpools or vanpools), and existing bus transit. Carpools and buses can use HOV lanes where they exist. However, they do not yet exist in most of the corridor, and as a result, even these alternatives are subject to significant delays on a recurring basis. Commuter rail would be a meaningful addition to commuters' modal options. Schedules call for a regular rail transit time between Santa Rosa and San Rafael of under an hour.

SUCCESSFUL COMMUTER RAIL START-UPS OFFER A USEFUL PARADIGM

Since the early 1990s, five commuter rail operations have begun on the West Coast and in Texas. Each has experienced increasing ridership and improving financial performance over time. These results are indicators of successful start-ups. That is, not only are the services growing, they are also becoming more efficient. For these reasons, it was hoped that they might share their experience so as to provide practical information on how a Sonoma – Marin rail service might be implemented successfully. These new commuter rail operations include:

- λ The Los Angeles Metrolink system
- λ The San Diego Coaster system
- λ The East Bay's Altamont Commuter Express
- λ Vancouver, BC's West Coast Express
- λ Dallas's Trinity Rail Express

Indeed, senior managers and consultants of these commuter rail operations provided their insights on various issues including the likely share of the commuter market that commuter rail could expect, as well as typical operating costs and capital costs. Fares charged by the California lines, along with the San Francisco Peninsula *Caltrain* commuter line, provided information helpful in constructing average fares for the Sonoma – Marin rail service.

PROCESS AND PLAN

Summarized below, the following chapters of this report describe the process that SMART Commission utilized to formulate an implementation plan.

Chapter 2: Vision for the Rail Service

First efforts centered on articulating a vision for the service. At the outset, the Commission confirmed that the focus should be on commuter rail service during peak periods with a start-up as soon as possible.

Chapter 3: Service Options

A series of initial decisions by the Commission framed the analysis. Five discrete route options for start-up service were selected for detailed evaluation. The longest was the 68-mile

Cloverdale to downtown San Rafael route. The shortest was 21 miles long, between Petaluma to downtown San Rafael. The start-up would include limited mid-day trains. For all route options, stations would be located on average every six miles. Three types of rolling stock would be evaluated. Lastly, track would be upgraded for maximum flexibility.

Chapter 4: Service Operating Plans

The Commission also opted for 45-minute peak period headways at start-up, shifting to 30-minute frequencies in the eighth year. Applied to each of the route options, this service pattern determined both the rolling stock requirements and the number and locations of sidings.

Chapter 5: Ridership, Revenue, and Operating Costs

While the Commission ultimately decided that the service would begin five years after the approval of a ½ cent sales tax for transportation improvements, this study initially utilized a planning year of 2002 to identify ridership, revenue and operating costs. At start-up in 2002, ridership was projected at a high of about 2,900 for the longest distance route – Cloverdale to San Rafael. This figure would increase to about 4,700 over 10 years. In 2002, revenues would cover approximately 21 percent of operating costs, assuming DMU equipment. Known as farebox recovery, this ratio of revenues to operating costs would improve significantly over time.

Chapter 6: Capital Requirements

Three alternatives for train set rolling stock were explored: conventional locomotives and coaches, DMUs that would be compliant with Federal Railroad Administration (FRA) regulations pertaining to crashworthiness for equipment running concurrently with freight service and conventional passenger equipment, and Budd cars. DMU rolling stock, track upgrades, signalization, stations, and environmental mitigation would total about \$138 million for start-up.

Chapter 7: Selection of a Preferred Alternative

The Commission selected the Cloverdale to downtown San Rafael service option as its preferred alternative for further investigation. Higher ridership figures and superior financial performance were the significant factors influencing the selection. After 10 years of operation, this alternative promises service levels and farebox recovery comparable to other commuter rail alternatives as well as bus transit alternatives in the Bay Area.

Chapter 8: Funding Plan

Funding for the rail service would come from various sources. These would include contributions from a ½ cent sales tax levied in Sonoma and Marin Counties, Proposition 116 funds, federal and state earmarks, and fare revenue. To minimize contributions from the sales

tax, the Commission opted to begin operations five years after voter approval of the sales tax rather than in 2002, as was originally envisioned at the beginning of the SMART planning effort.

Chapter 9: Transit Integration and Potential Bike Use of the Right-of-Way

Operators of transit services in the US 101 corridor promised best efforts to integrate their bus schedules with the Sonoma – Marin Rail Service. Conversations were held with Golden Gate Transit, Marin County Transit, Petaluma Transit, Sonoma County Transit, and Santa Rosa CityBus. Fare integration was identified as a potentially effective tool to encourage ridership and intermodality. Existing and proposed plans calling for bicycle use of the railroad right-of-way were also briefly reviewed.

Chapter 10: Environmental Impacts

Various potentially significant impacts were identified through an environmental assessment. Potential impacts include the interruption to the rail service due to geologic or seismic activity and flooding, noise impacts to residential properties adjacent to the rail line, and traffic congestion resulting from passenger trains crossing already busy streets, among others. An Environmental Impact Report likely would be required for implementation.

Chapter 11: Next Steps

Following voter approval of the sales tax, work can begin in earnest for implementation of the rail service. The first step required to move the plan into reality within five years would be identifying project managers whose responsibility would be to move forward on numerous critical path items. These items would be preliminary engineering, the state and federal environmental processes, identification of a rolling stock type, station planning, a detailed transit integration plan, applications for Prop 116 funds as well as federal and state earmarks, and further operations planning, including the selection of a service operator.