

# STEAM TRAIN TO SACRAMENTO

## Walnut Grove Branch Line Acquisition Feasibility Study

Honorable Edmund G. Brown Jr.  
Governor

Honorable Huey D. Johnson  
Secretary for Resources

Honorable Russell W. Cahill  
Director



State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
California State Railroad Museum  
P. O. Box 2390  
Sacramento, CA 95814  
January 1980



## DEPARTMENT OF PARKS AND RECREATION

TEL. NO. 2270  
COURT HOUSE 95811

916/445-2358



Mr. James D. Driscoll  
Chief Clerk of the Assembly  
State Capitol  
Sacramento, California 95814

Dear Mr. Driscoll:

Assembly Bill No. 2954, Chapter 1342 (September 1978), mandated the Department of Parks and Recreation to perform an acquisition feasibility study of the Walnut Grove branch line railroad between Old Sacramento and Isleton. This comprehensive study, entitled Steam Train to Sacramento, is attached.

It is our conclusion that portions of the Walnut Grove branch line are worthy of preservation, and should be acquired by the State. We have further established the feasibility of operating an excursion railroad service from Old Sacramento in conjunction with the Railroad Museum, and recommend that this service be developed.

Once acquired and developed, the Walnut Grove branch line would be of significant value for public recreation, transportation and historical interpretation, and an asset to the State Park System. I am pleased to forward this extraordinary feasibility investigation.

Sincerely yours,

A handwritten signature in cursive script, reading "Russell W. Cahill", is written over the typed name.

Russell W. Cahill  
Director

Enclosure

## DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 2390  
SACRAMENTO 95811

916/445-2358

Mr. Darryl R. White  
Secretary of the Senate  
State Capitol  
Sacramento, California 95814

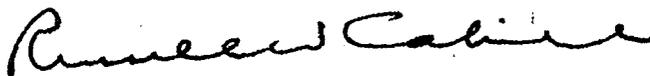
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Development Costs

Costs for the proposed development are estimated to be:

PHASE I, Old Sacramento to William Land Park, 3.5 miles  
PHASE II, William Land Park to Hood Junction, 12.1 miles  
PHASE III, Hood Junction to Locke, 8.40 miles

\$1,290,500  
1,260,400  
4,395,000

Total Development Cost

\$6,945,900

3. OPERATION

As a unit of the State Park System, the excursion railroad would be administered by the California Department of Parks and Recreation through the California State Railroad Museum.

Operation Cost

The cost of operating an interpretive-recreation excursion train service between Old Sacramento and William Land Park for one year is estimated to be \$262,000.

Ultimate operation cost will depend on the extent of future development and train service.

## SUMMARY OF FINDINGS AND RECOMMENDATIONS

### Findings

1. The Walnut Grove branch is an abandoned line of the Southern Pacific Transportation Company which originates in Old Sacramento State Historic Park and runs south through a range of landscapes to Freeport, Hood Junction, Delta Meadows State Park, Locke, Walnut Grove, and Isleton.
2. A portion of the Walnut Grove branch line has potential for use as an excursion railroad and transit corridor, and is worthy of preservation by the state.
3. Recreation-interpretive train operation is feasible, and would provide California State Railroad Museum visitors with the best possible interpretation of railroad history and technology.
4. As an attraction, a well-managed excursion train operation from Old Sacramento has a higher probability of success than at any other location in the United States.
5. The property of the Walnut Grove branch line is subject to immediate piecemeal disposal by Southern Pacific if the state takes no action to acquire it.

### Recommendations

#### 1. ACQUISITION

The property and improvements of the Walnut Grove branch line between Old Sacramento and Locke, 23.2 miles, should be acquired, with particular priority placed on acquiring the 15.6-mile section between Old Sacramento and Hood Junction.

#### Acquisition Costs

Costs for the proposed total acquisition are estimated to be:

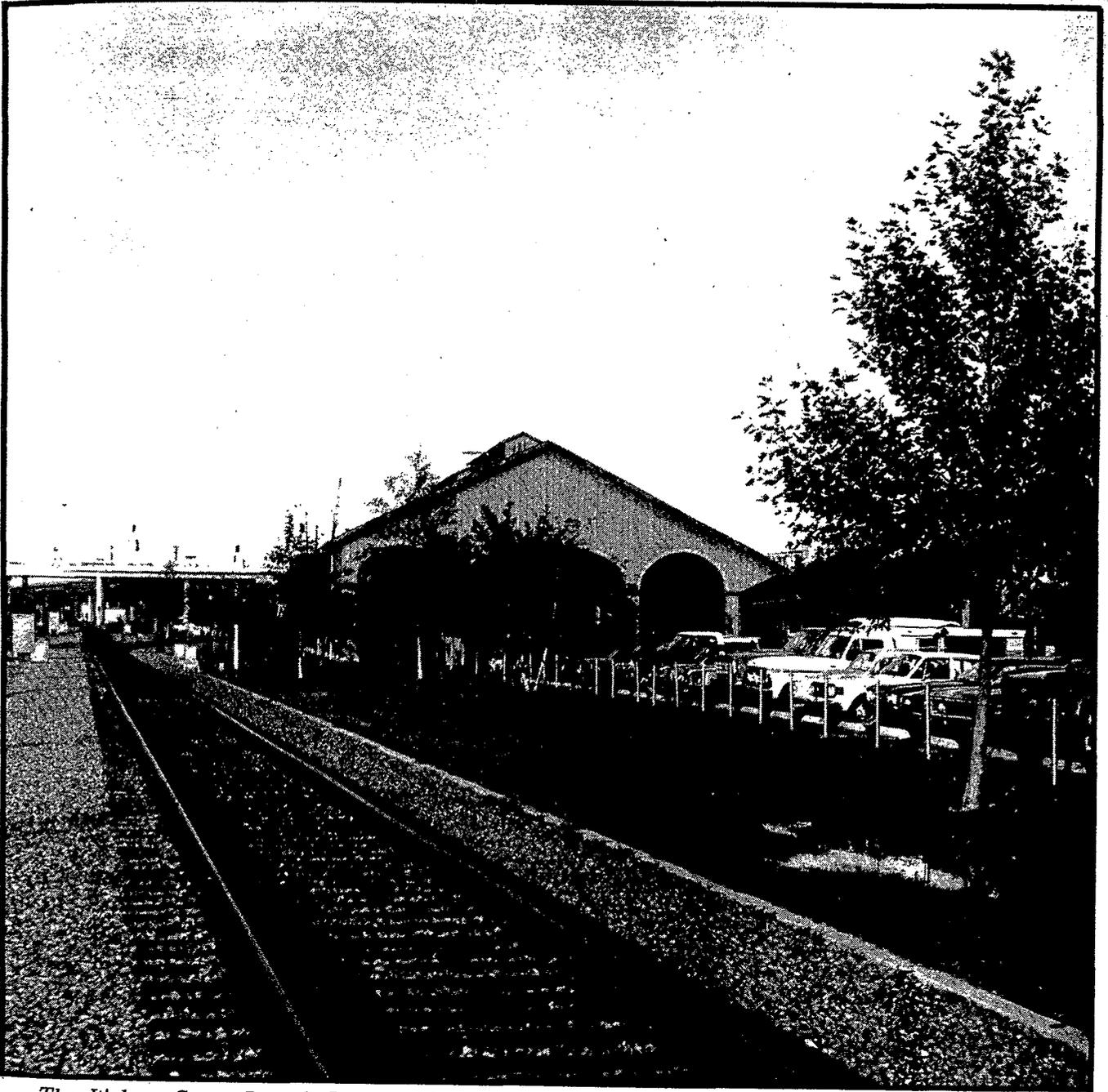
Old Sacramento to Hood Junction	\$1,838,560
Hood Junction to Locke	<u>791,440</u>
Total acquisition cost	\$2,630,000

#### 2. DEVELOPMENT

Track rehabilitation and facilities construction suitable for the operation of interpretive-recreation excursion trains should be performed at Old Sacramento and William Land Park, and in phased increments at other locations farther south as public demand warrants.

Excursion train service originating in Old Sacramento should be established, utilizing locomotives and cars from the California State Railroad Museum Collection.

# INTRODUCTION



*The Walnut Grove Branch Line in Old Sacramento, looking north from about K Street. In the background is the Central Pacific Passenger Station, a historic reconstruction of the 1867 western terminus of the first transcontinental railroad.*

## INTRODUCTION

For more than 15 years, public use of the Walnut Grove branch line and right of way has been the subject of a wide variety of proposals, but little planning, by units of state, Sacramento city, and county government, and other interested groups. The unique nature and location of the railroad, running from an urban center to rural delta wilderness, make it suitable for a whole range of interpretive, preservation, and recreation uses. The line's relationship to Old Sacramento and the State Railroad Museum open up exciting interpretive possibilities. Several wildlife and landscape conservation areas surround or abut the right of way, and 13 city, county, and state parks are located along the railroad, making possible the creation of a linear parkway and trails system. Rapid urbanization south of Sacramento along Interstate 5 and State Highway 99 make the preservation of open space and future recreational capacity paramount considerations at this time.

The adopted functions of the California State Park System, which determine the Department of Parks and Recreation's statewide responsibility, are: to preserve the best examples of California's scenic natural landscape; to preserve significant evidence of the state's history; and to provide adequate opportunities for outdoor recreation. This evaluation of the Walnut Grove branch is based on these responsibilities.

The objectives of the proposed project are:

1. To preserve a major portion of the Walnut Grove branch line right-of-way corridor as open space for recreation, interpretation, transportation, and conservation purposes, both present and future.
2. To develop a successful recreational and interpretive excursion train service on the railroad in conjunction with the California State Railroad Museum in Old Sacramento State Historic Park.

These are the immediate and long-range benefits of the proposed project:

1. Preservation of open space and possible future parkway lands in the rapidly urbanizing southern Sacramento County area.
2. Preservation of a unique transportation corridor between an urban center and the rural delta wilderness, which links 13 public recreation and park facilities. This provides the opportunity to create new recreational trails connecting these facilities, which will partially alleviate existing deficiencies, and permits future development of recreational and commuter transportation systems.
3. The establishment of an excursion passenger train operation as a new state park experience, which will permit interpretation of railroads in the most dynamic way possible, enhance the historic environment of Old Sacramento, connect two units of the State Park System, and facilitate the continuing development of the California State Railroad Museum.
4. Create an attraction which will be accessible to several million people from around the world each year and, if properly managed, potentially self-supporting.

## Location of Rail Line

Southern Pacific Transportation Company's Walnut Grove branch is an abandoned railroad line in Sacramento County, extending 33.1 miles from Old Sacramento State Historical Park south to Isleton. The right-of-way corridor ranges from 20 to 400 feet in width and contains about 825 acres. Passing through the towns of Freeport, Hood, and Walnut Grove, the branch line generally parallels the Sacramento River and State Highway 16 within a radius of four miles. Interstate 5 parallels the right of way from distances of one-quarter to two miles, between Old Sacramento and the vicinity of Walnut Grove.

The northern portion of the railroad passes directly below the Pioneer Bridge near the Interstate 5-Interstate 80 interchange in Sacramento. The Stockton/Sacramento Metropolitan Areas are within the one hour travel time zone from the Walnut Grove branch, and the San Francisco Bay Area is one to two hours away. The Fresno, Monterey Bay, and Reno/Carson City Metropolitan Areas are within two to four hours.

The trackage is situated on extensive levee and embankment works from "R" Street in Sacramento through Walnut Grove. Beyond the Sacramento City limits, the branch line runs through extensive areas of stone fruit orchards and grain fields. South of Freeport to below Hood, the branch line levee system forms the western margin of the Beach and Stone Lakes Flood Retardation Basin which contains important conservation and wildlife preservation habitat in joint public and private ownership.

Lengthy wooden trestles dominate the approaches to the Snodgrass Slough swing-span bridge within the Delta Meadows State Park project, followed by the communal gardens of historic Locke. After bridging the locks of the Delta Cross-Channel Canal, 24 miles south of Old Sacramento, the railroad and levee enter eastern Walnut Grove, dividing the community in half. Continuing south at grade level, the Walnut Grove branch line passes through areas of intensive agricultural production before crossing the lift-span bridge at Georgiana Slough and terminating in Isleton.

# NATURAL FEATURES



*The Sacramento River in the 1870s. View south along what is now the Walnut Grove Branch Line from about the present Capitol Mall.*

## NATURAL FEATURES

### Geology and Soils

The Walnut Grove branch study area is located in the Great Valley Geomorphic Province. Situated on successive deposits of the Sacramento River's alluvial fan, the existing landforms were created during very recent geologic time by periodic flooding. The terrain ranges from nearly level to gently undulating with a 0 to 3 percent slope, and elevation ranges from 2.5 feet to 17.5 feet above sea level.

Beneath the alluvial soils are basin deposits supported by Jurassic to Recent sediments, associated with the Victor and Franciscan-Knoxville Formations. The Victor Formation in the northeast and the Franciscan-Knoxville Formation in the southwest sections of the delta consist of interbedded sand, silt, and clay, with pockets of stream channel gravels.

Soils in the study area are organic or mineral in structure. Formation of mineral soils occurs with the successive deposition of silt from periodic flooding. The predominant soil type from Sacramento to Walnut Grove is Sacramento silty clay loam, which drains poorly and is not subject to erosion. Organic soils of the delta originate from the water-saturated layer of the tule-reed peat, prevalent throughout former marsh areas of the region. From Walnut Grove south to Isleton, the predominant soil types are Egbert Muck (clay and sand), Ryde clay, and silty/clay loams. These soils are high in peat content and are subject to subsidence.

Three minor faults have been identified in the delta region: the Antioch, Sherman Island, and submerged Midland faults. A Sacramento County Planning Department Richter Seismic Regionalization Map places western Sacramento County in Mercalli Intensity Zone VIII, indicating major damage would occur in a major earthquake. The possibility of such an earthquake is slight.

No major earthquake has been reported in the area. The last recorded seismic activity in the region was a mild quake in 1975, associated with the Antioch fault. Due to the liquification hazard of water-saturated sediments, the earthquake danger is greatest in the southwestern part of the delta.

### Water Features

The most prominent water feature of the Sacramento region is the Sacramento River, which contributes about 80 percent of the inflow to the Sacramento-San Joaquin Delta. The Walnut Grove branch occupies the Sacramento River levee near Miller Park in Sacramento and at Freeport. It is not close to the river again until reaching Walnut Grove and then Isleton. Flooded dredge cuts and portions of two navigable sloughs, Snodgrass and Georgiana, parallel the branch line, and each are crossed with railroad drawbridges.

The other major water feature along the line is the Beach and Stone Lakes complex. This is a north-south trending set of lakes that drain the Morrison Creek Stream Group of central Sacramento County. Water flows from here south through Snodgrass Slough and into the delta. This low-lying basin has been designated as a flood retardation basin by the U.S. Army Corps of Engineers. The Walnut Grove branch levee provides the western embankment for this basin.

... railroads in the foundation and growth of commerce. Seasonal flooding of the Sacramento area cannot be overemphasized. Seasonal agricultural lands became the primary destination for river transportation of goods and the commercial center of inland California. Railroads ultimately aided the development of agriculture and provided the means of tapping national and international markets for locally produced commodities. In so doing, railroads have curtailed the influence of riverboats in regional transportation, but they continued to play an important role in the area's agricultural and commercial activities.

Climate

The climate in the Walnut Grove branch study area is Mediterranean, sub-tropical, characterized by hot, dry summers and cool, moist winters. Average precipitation varies over the length of the study area due to the influence of urbanized regions in the northeast and delta waterways in the southwest.

Temperatures average from a high of 77°F in July to a low of 45°F in January. Extremes may reach 100°F and 25°F on occasion. More moderate temperatures prevail in the winter due to the influence of large water surfaces and cooling ocean breezes. (Prevailing winds are typically westerly, flowing through the Carquinez Straits.)

Average annual precipitation ranges from 18 inches in the Sacramento Area to 15 inches around inland waterways, with 90 percent of total rainfall occurring between October and May.

Humidity is increased by the presence of extensive areas of water surface and frequent fog. Air quality in the region south of Freeport is estimated to be higher than in the urbanized portions of Sacramento County to the north.

Vegetation

The Walnut Grove branch study area of way borders or contains four associated plant communities. Remnants of the diversified riparian and freshwater marsh plant communities that were typical of California's Central Valley and now quite scarce, are found in the Delta and Sutter Basin and Delta Meadows. The two other plant communities associated with the study area are valley grasslands and agricultural.

These communities are described as follows:

- 1. Marsh - Subject to partial inundation year-round. Species include cattails, sedges, common reeds, button bush, arrow root, and yellow waterweed.
- 2. Riparian - Streamside environment. Species include willows, cottonwoods, blackberry, poison oak, blue elderberry, wild blackberry, California mugwort, slender aster, and giant reed.

3. Valley Grassland - Flat, semiarid fields and levee crowns, dominated by annual forbs and grasses. Species include wild oats, common foxtail, cheese-weed, Italian rye grasses, morning glory, sweet anise, turkey mullein, clover, vetch, nettles, western ragweed, thistles, wild mustard, California poppy, lupine, and fescue, interspersed with valley oak and eucalyptus.
4. Agricultural - Cultivated fields and orchards. Species include corn, milo, barley, asparagus, sugar beets, stone fruits, and nuts.

At present, no officially designated rare, endangered, or threatened plant species has been found in the Walnut Grove branch line study area.

#### Wildlife

Each particular habitat along the right of way supports an associated population of wildlife. The urbanized upper reaches are dominated by typically urban creatures: rats, mice, squirrels, crows, sparrows, finches, jays, and domesticated pets. Agricultural areas also support large populations of these animals intermixed with naturally occurring wildlife. The natural areas, on the other hand, support a rapidly dwindling, diversified population of native and introduced species.

Of these natural areas, the Beach and Stone Lakes Basin and Delta Meadows are the most significant. Along with adjacent canals, sloughs, and ditches, these areas provide an important wintering ground for migratory birds of the Pacific Flyway, with over 225 resident and seasonal species utilizing this rare wetlands habitat. Rare and endangered avifauna sighted in the areas include southern bald eagle, peregrine falcon, greater sandhill crane, yellow-billed cuckoo, and white fronted and Aleutian Canada goose.

Mammals found along the more remote southern portions of the right of way include beaver, muskrat, river otter, jackrabbit, ground squirrel, raccoon, striped skunk, opossum, and black-tailed deer. Representative of the reptiles and amphibians occurring along the branch line and associated water features are fence lizard, western pond turtle, common bullfrog, western toad, rough-skinned newt, common kingsnake, and garter snake. The Beach and Stone Lakes Basin has been cited as a suitable habitat for the rare giant garter snake. The dredger cuts and adjacent lakes and ditches are known to contain several varieties of catfish as well as largemouth bass, bluegill, carp, and goldfish. The natural areas, as a whole, are regarded by representatives of the Audubon Society, Sierra Club, California State Resources Agency, State Department of Parks and Recreation, State Department of Fish and Game, and the U.S. Bureau of Sport Fisheries and Wildlife as one of the most productive habitats remaining in the Central Valley.

## LAND USE

### Present Ownership and Land Use

The right of way is held primarily by one owner, the Southern Pacific Transportation Company. The railroad has easements over several state and City of Sacramento-owned parcels between Old Sacramento and Land Park, and possesses only limited title to several parcels near Walnut Grove. A small number of parcels are subject to reversion if not maintained in railroad use. The majority of the property is owned in fee. A 2-mile segment of the right of way north of Locke, including the Snodgrass Slough bridge, is being acquired by the Department of Parks and Recreation for Delta Meadows State Park.

Although rail service by Southern Pacific was discontinued south of Miller Park in late 1978, the tracks and most other improvements are still in place. Southern Pacific operates regularly on the northern portion of the line between their Sacramento yards and shops and a single shipper located south of Broadway. Between two and seven train movements are made daily on the branch line, but most do not operate south of Capitol Mall.

Almost the entire right of way is zoned as a transportation corridor. Several utility easements underlie the right of way from Land Park to Freeport, and Southern Pacific draws revenue from these leases. Some property south of Hood is leased to a private gun club. Small parcels not essential for railroad operation are adjacent to the tracks at Locke and Walnut Grove and are now leased for commercial use. In residential areas there are numerous minor impermanent encroachments of the right of way for private gardens, small storage sheds, automobile parking, and refuse dumps.

Virtually the entire length of the right of way is subject to informal recreational use on a regular, almost continuous, basis. It is used as a transportation and recreational hiking path, equestrian trail, and access route for hunters, fishermen, boaters, campers, and off-highway vehicle users. There is considerable fishing activity in the sloughs and dredge cuts that are part of or adjacent to the right of way. Bicyclists use sections of the right of way south of Land Park.

Organized use of the right of way for recreation is minimal. Railroad property near Hood Junction is used several times annually for nature walks by the Audubon Society, Sierra Club, and college ornithology classes.

At the northern end of the line the tracks are a part of the Old Sacramento Riverfront scene and have been used for display of railroad equipment by the California State Railroad Museum. Both the American Freedom Train and British Columbia's provincial interpretive train were popular exhibits on the branch line in 1976 and 1977, attracting thousands of Sacramento area residents. The existing tracks of the California State Railroad Museum are connected to the branch line and provide access for locomotives and cars to museum facilities.

Neither Southern Pacific nor the Sacramento County Sheriff's Department actively attempt to control public trespassing on the branch line. Unrestricted public access and use of the right of way has resulted in occasional incidents of vandalism to property and crops, intrusions on privacy, erosion of banks by powerboats, and noise and damage from off-highway vehicles.

## Present Condition of Railroad Improvements

Any proposed railroad use of the Walnut Grove branch line must take into account the existing condition of the railroad improvements: ballast, ties, rails, switches, track hardware, bridges, trestles, signalling equipment, and other facilities. To provide an objective evaluation of these improvements and reliable cost estimates for rehabilitation, International Engineering Company, Inc., of San Francisco, was commissioned to study the railroad. For the purpose of their report, the branch line was divided into several sections and evaluated based on standard railroad engineering practices. It is summarized here:

### General Condition Evaluation

Between Old Sacramento and Hood Junction, the condition of the railroad is good to excellent. South of Hood Junction to Isleton, the condition varies from very poor to good. All grade crossings south of Miller Park must have protective signals installed, and the trestles between Old Sacramento and Hood Junction require inspection and light repair. Below Hood Junction most trestles must be totally replaced and the existing track is in need of very heavy repair. The cost estimates are based on rehabilitating the railroad to a condition suitable for excursion train operation.

### Specific Comments

- Section 1, Old Sacramento to Miller Park, 2.1 miles.

Railroad is generally in very good condition. Work required includes new track construction in Old Sacramento, modifications to signals and crossing gates at Capitol Mall, automatic interlocking system installation for Southern Pacific interchange at Miller Park, bank widening, and tree pruning.

Estimated rehabilitation cost: \$609,500.

- Section 2, Miller Park to Hood Junction, 13.5 miles.

Railroad is generally in good condition. Work required includes protective signals at grade crossings, inspection and repair of trestles, miscellaneous track repair, and the construction of a turning wye at Hood Junction.

Estimated rehabilitation cost: \$1,266,400.

- Section 3, Hood Junction to Isleton, 17.5 miles.

Railroad is generally in poor condition. Work required includes protective signals at grade crossings, heavy repair or total replacement of all wooden trestles, and track work ranging from heavy repair to total replacement.

Estimated rehabilitation cost: \$5,030,100.

Total estimated rehabilitation cost, Old Sacramento to Isleton: \$6,906,000.

conclusions drawn by International Engineering Company are that the section between Old Sacramento and Hood Junction could be economically rehabilitated for passenger train operation, but south of Hood Junction the cost and magnitude of the work required almost precludes rehabilitation. The consultants stressed that the section between Miller Park and Hood Junction must have some rehabilitation work performed to prevent continuing deterioration. The longer work is postponed on this or any other section, the more costly eventual rehabilitation will be.

#### Present Neighboring Land Use

Due to the wide range of land utilization along the Walnut Grove branch line, it is difficult to summarize adjacent land use. The branch line extends through areas of commercial, industrial, residential, recreational, and agricultural land uses of varying intensity. The following is a general description of the major land uses along the line from north to south.

Originating in the Sacramento yards of the Southern Pacific, the branch line traverses the riverfront along the western margin of historic Old Sacramento. Begun in 1958 as a joint redevelopment project involving state, county, and city agencies, the area features museums, shops, and restaurants set in the restored heart of 19th-century Sacramento. Just south of Old Sacramento is a light industrial area of warehouses and fuel storage tanks. Here the somewhat poor scenic landscape values along the branch line are mitigated by the presence of the Sacramento River to the west.

Open parkland and a marina follow at the City of Sacramento's Miller Park. Crossing over Interstate 5 and Sutterville Road, the right of way enters the dense residential area south of William Land Park. This four-mile section of the branch line is largely bordered by backyard fences on one or both sides, and does not emerge into completely open landscape again until Meadowview Road.

Paralleling Freeport Boulevard, the Walnut Grove branch passes through a light commercial and agricultural district until Freeport, eight miles south of Old Sacramento, where it rejoins the river. Between Freeport and Delta Meadows, some 14 miles, the right of way extends through long stretches of orchards, grain fields, pasture lands, and conservation and preservation areas, passing agricultural structures and the rural community of Hood. California Land Conservation Act provisions and existing environmental preserve status will ensure the continued open character of this region.

Entering the verdant growth on the northern portion of Delta Meadows, the branch line runs through this undeveloped state park project and behind the communal gardens of historic Locke. Passing over the Delta Cross-channel, the right of way bisects eastern Walnut Grove and again enters an area of continuous agricultural land use for the remaining 8.5 miles to Isleton. Here the right of way abuts the residential district before terminating at the town's southern limits.

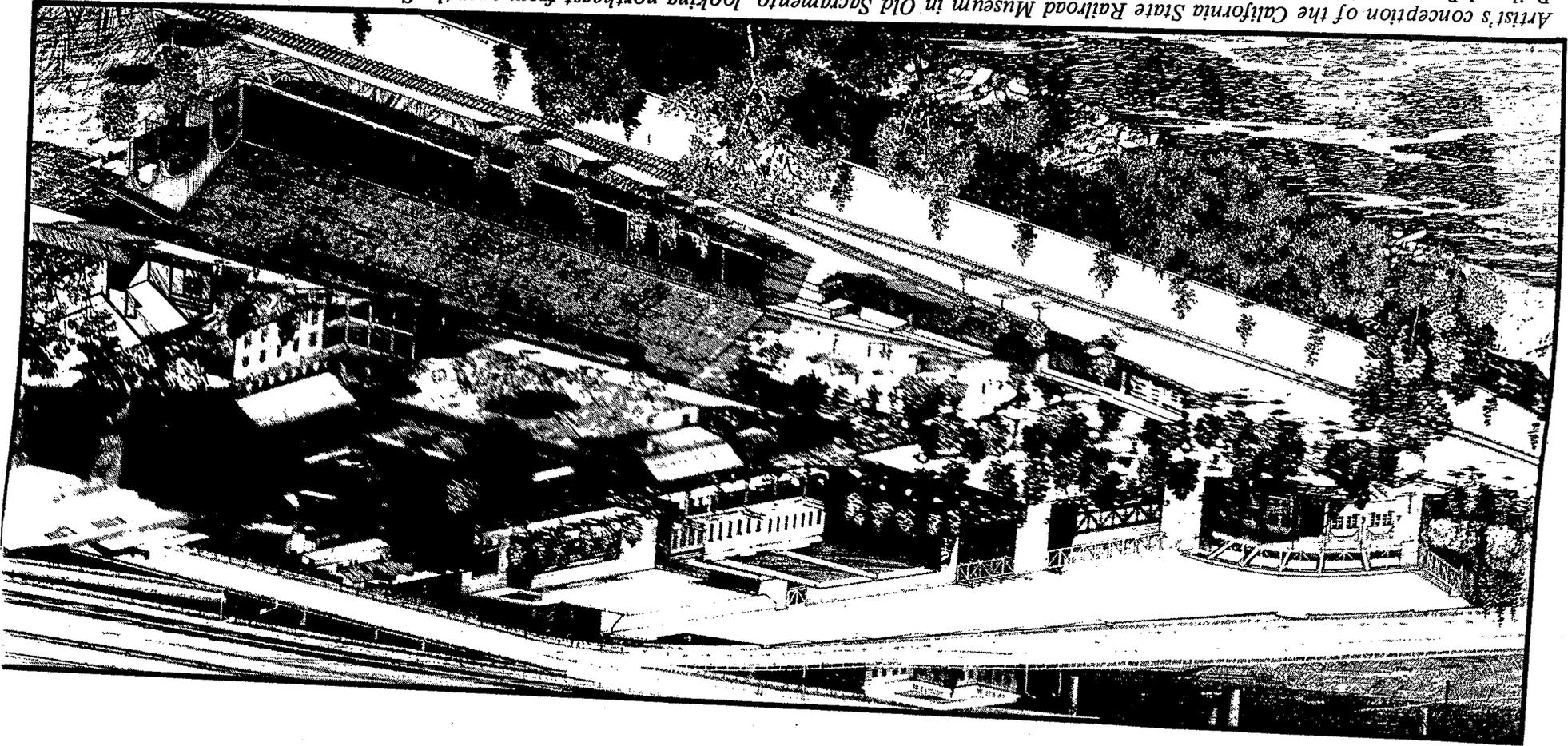
### Probable Disposition Without Public Acquisition

Unless the Walnut Grove branch line is acquired by a public agency for railroad use soon, Southern Pacific will seek to dispose of the property and improvements on the 31-mile abandoned portion of the line, except in those sections which continue to provide income from non-railroad use. The operating improvements (rails, ties, trestles, bridges, etc.) will be salvaged by Southern Pacific or sold for scrap. Most of the real property will then be sold or, in the few parcels where applicable, allowed to revert. Once the tracks are removed and sections of the property are sold, the Walnut Grove branch line right of way will cease to exist as a corridor. At best, it will be costly and time consuming to make the line usable again for recreation or transportation.

Because a significant portion of the right of way consists of levees and embankments unsuitable for alternative development or cultivation, much of the property may not be saleable. A very narrow utility corridor will probably be retained by Southern Pacific between William Land Park and Freeport, as this generates income for the company from underground utility easement leases. It is possible that the railroad tracks could be left in place and limited impermanent surface development permitted over this property. Such additional parcels that can be sold will be disposed of.

Several operators of steam excursion railroads have expressed interest in providing excursion train service on the branch line, but the expected acquisition and development costs are beyond the means of any potential operators, and probably this arrangement would have to include a mixture of private and public funding. Both the City and County of Sacramento are interested in sections of the right of way for trail use, but it is unlikely they would be able to purchase substantial portions of the branch line because of limited available funds. There is a high degree of interest among farmers to purchase all right-of-way properties in agricultural areas for cultivation where suitable, to control trespassing, and to limit public acquisition.

Artist's conception of the California State Railroad Museum in Old Sacramento, looking northeast from over the Sacramento River. The Central Pacific Railroad Passenger Station is in the right foreground, and the History Building/"Big Four" Building complex is at the upper middle and left. The track running nearest to the river is the Walnut Grove Branch Line.



C-076597

C-076597

## VALUES OF RAIL LINE

### Cultural Heritage Values

The Southern Pacific Transportation Company's Walnut Grove branch line was originally named the Sacramento Southern Railroad. The railroad was planned to be built southeasterly from Sacramento to Stockton, with a branch line running from Walnut Grove to Antioch. This branch was eventually to join the main line of either the Southern Pacific or Atchison, Topeka, and Santa Fe, or both. This never happened, and it became a branch line feeder of the Southern Pacific system.

The line originated on the Sacramento riverfront at "I" Street and was completed as far south as Freeport in June 1909. Tracks had reached Walnut Grove by March 1912, when construction was stopped. An extension to Vorman's Landing on the Mokelumne River was opened in 1929, but the line was cut to its present terminus in Isleton, 32 miles south of Sacramento, following World War II.

The primary purpose for the railroad was to transport to Sacramento agricultural produce from numerous packing houses along the line. This was in competition with the Sante Fe, whose boat, the "Francis," would stop at delta canneries and packing sheds and deliver their produce to Antioch, where it was further shipped by train. Passenger service was provided to stations along the route by conventional trains and self-propelled gasoline rail cars.

The railroad served as a vital link between upper delta farms and distant markets until the mid-1930s, when both the freight and passenger business began a long and inexorable decline due largely to the Depression, and automobile and motor truck competition. This resulted initially in the discontinuance of passenger service and deferment of track maintenance. By the early 1970s, trains only ran three or four times a week during most of the year, and less than 200 carloads - primarily pears, farm machinery, and chlorine - were handled annually.

The June 1972 Isleton flood caused extensive damage to the lower portion of the line, wiping out the section from the Georgiana Slough Bridge to Isleton, 2.3 miles. Effective April 1, 1977, Southern Pacific was granted permission by the U.S. Interstate Commerce Commission (ICC) to abandon the 17.5 miles of track between Isleton and Hood Junction. Citing diminishing freight revenues and increasing operating costs, Southern Pacific filed an application with the ICC to abandon the remaining 13.8 miles of the line between Hood Junction and Miller Park in Sacramento. Authorization was granted effective March 8, 1978.

As a condition of its order, the ICC required Southern Pacific to retain intact all property, track, bridges, and culverts between Miller Park and Hood Junction for 180 days following the effective date of the abandonment. This was to provide the California Department of Parks and Recreation with an opportunity to acquire the right of way for recreational rail use in conjunction with the California State Railroad Museum in Old Sacramento State Historic Park. The Department of Parks and Recreation applied for federal "Rails to Trails" funds to purchase part of the right of way, but was not successful in securing a grant.

The last Southern Pacific train on the branch line was run on October 10, 1978 consisted of empty freight cars which had been in storage below Hood. Soon after that all automatic grade crossing signals south of Miller Park were removed, and some crossings were paved over. With these exceptions, Southern Pacific has agreed to keep the right of way and tracks between Sacramento and Isleton intact until the completion of this study and possible legislative action.

The right of way directly connects two unique historic resources of recognized statewide and national significance: Old Sacramento Historic District and Locke. Other pertinent regional and local cultural resources near the right of way include the town of Freeport (founded to avoid Sacramento taxes, and with an intermittent railroad tradition dating back to 1865); the Beach Family Home south of Freeport, possibly the oldest house in Sacramento County; the town of Walnut Grove, dating from 1851; and several archeological sites.

The Walnut Grove branch line is not a railroad of specific historical importance, but it is fully representative of the many significant themes which comprise California railroad history.

Trackage at the north end of the line in Old Sacramento is linked physically and historically with the Central Pacific Railroad and the completion of the first transcontinental route. The branch line itself was begun in 1909 to compete with river traffic at the close of the era of great railroad expansion in the West. This coincided with the end of Southern Pacific's political dominance in California and the beginning of the modern railroad era.

The refrigerator car revolutionized California agriculture, and with this technology the Walnut Grove branch enabled pears from the upper delta to be the first fresh fruit on New York tables each season. And the railroad was essential to the towns along the line, providing the only reliable overland passenger and freight connection between the delta and Sacramento.

#### California State Railroad Museum

Today the Walnut Grove branch line is a reminder of the social, economic, and political importance of railroads to the development of California and the nation. In Old Sacramento, the line is immediately adjacent to the California State Railroad Museum, and it is in conjunction with the museum that the branch has the greatest cultural heritage value. The ability to interpret functioning railroad equipment and passenger trains, to capture and preserve a living remnant of the age of railroad preeminence, is of paramount importance to the Railroad Museum. The Walnut Grove branch provides this opportunity.

The Railroad Museum, a project of the Department of Parks and Recreation, represents a commitment to develop the finest possible public railroad historical facility. The first museum facility, opened in 1976, is the reconstructed 1867 Central Pacific Passenger Station which houses 12 historic locomotives and cars displayed in a typical 1860s station environment. The second facility is the "Big Four" Building, a reconstruction of the structure which housed the Huntington-Hopkins Hardware Store and Stanford Brothers Store and was the original western headquarters of the Central Pacific Railroad. It will contain the museum's administrative offices, a hardware museum and interpretive sales concession, exhibit galleries, and the Railroad Museum Library and Archives, a unique public research facility for the study of western railroad history.

The third and largest museum development is the History Building, scheduled to open in 1980. This 100,000 square foot structure will display 21 fully restored locomotives and cars, complemented by over 40 interpretive exhibit areas dealing with significant aspects of railroad history. Visitors will learn through exciting and imaginative exhibits how railroads have helped shape the development of California and continue to effect their lives today. Themes range from the building of the first transcontinental railroad to the present-day movement of commodities; from a how a steam locomotive operates to dinner in the diner.

The fourth section of the museum will be the Engineering Building, where the technology of railroading will be presented through historic equipment, exhibits, and demonstrations.

The museum is based on a large and internationally recognized collection of historic locomotives and cars acquired by the state beginning in 1969. The collection includes significant pieces such as the Central Pacific's first locomotive, the Southern Pacific's first and last steam locomotives, diminutive narrow gauge equipment from the 1870s, giant modern diesel locomotives, and nearly 50 other pieces. The museum's restoration program is already recognized nationwide as the professional standard by which other restorations will be judged. When complete, the museum complex will be the largest and most sophisticated railroad museum in the United States. The high quality interpretive and exhibit programs and superb collection will make it an attraction of worldwide significance, with an expected visitation of well over one million people each year.

Acquisition of the Walnut Grove branch line is of importance to the museum several ways: it will provide flexibility of equipment movement into and out of the museum; it will enable development of convenient storage facilities for the collection close to Old Sacramento; it will facilitate site selection and development of the museum's Engineering Building; and it will enable the operation of railroad equipment for interpretive and recreational purposes which is not presently possible.

The state's large collection of locomotives and cars is now stored at a number of locations around northern California, some nearly 100 miles from Sacramento. Pieces are transported by common carrier railroad or by truck to the museum's restoration and display facilities at great cost and inconvenience. Because no rail-connected storage facilities exist near the museum, the process must be reversed when a locomotive or car is removed from display or when restoration is completed. Movement by rail must be scheduled far in advance of need, and Southern Pacific is unwilling to allow regular crossing of its east-west mainline at "I" Street by vintage equipment. State ownership of the abandoned section of the branch line, and ownership or joint use of the tracks in Old Sacramento, will facilitate storage of the entire museum collection near Old Sacramento and permit economical movement of this equipment without dependence on Southern Pacific.

Originally, it had been planned to locate the proposed Engineering Building at the abandoned Pacific Gas and Electric Company power station 0.6 mile north of Old Sacramento. However, the poor condition and unsuitable design of the existing buildings, coupled with the inability to regularly transport visitors or equipment into Old Sacramento across the Southern Pacific's main line render the site unsatisfactory for this purpose. Four locations along the branch line have been identified as possibly suitable for the engineering facility, and could also readily satisfy the collection storage requirement outlined above. In addition, shop facilities would be provided for restoration and operational train maintenance which would be essential if excursion services were provided on the branch line. These locations are discussed in the appendix.

## Excursion Railroad

One of the goals of any museum is the best possible interpretation of its subject, and the California State Railroad Museum is no exception. A visitor analysis performed at the Central Pacific Passenger Station during 1977 confirmed that the public wants at least the ability to climb aboard static railroad equipment and participate more actively in interpretation. A large number of visitors surveyed at that time independently suggested the operation of public passenger trains as a means of achieving this participation. What better possible way is there to present the sights, sounds, atmosphere, and experience of railroading than to enable museum visitors to actually ride a train?

Recent surveys taken at existing Railroad Museum facilities and at other recreational developments in the Sacramento area demonstrate that there is a large and definable degree of public interest in train riding, and further, that the great majority of people would ride a train in Old Sacramento if it were possible. Nearly 50 percent of state park visitors surveyed have never ridden a steam-powered passenger train, and over 70 percent viewed the opportunity to ride such a train as desirable. Eighty-five percent believed the availability of a train ride in conjunction with the Railroad Museum to be an integral part of the Old Sacramento experience, and that the institution of such a service by the Department of Parks and Recreation would be worthwhile. It is evident that the operation of interpretive-recreation excursion train service on the Walnut Grove branch line would not only create an attractive new state park experience and enhance the atmosphere of the Old Sacramento riverfront, but provide the capstone for the interpretive program of the Railroad Museum.

As the branch line was a significant factor in agricultural development of the upper delta, and thus important to the livelihood of Locke and Walnut Grove, so might it assist in the interpretation of the Locke area. Trains could be operated from Old Sacramento to Locke and Delta Meadows, providing an energy-efficient means of controlled public access to these sensitive areas. The railroad could ultimately tie with steamboat service on the Sacramento River. Several private entrepreneurs have proposed to operate riverboat excursions and dock at or near Old Sacramento. All proposals suggest the possibility of some form of train/riverboat interchange at Freeport, Hood, or Locke, allowing excursionists to ride down via train or boat and return on the other. Although neither service is now available and it is difficult to predict the demand for combining them, preliminary discussions with riverboat authorities and public surveys indicate that a joint operation at least to Freeport is feasible and would be utilized. The institution of such a service to Locke would structure visitor access to this fragile resource area and create an efficient interpretive and recreational transportation system in the upper delta.

### Natural Heritage Values

The branch line crosses a wide range of natural features. Encompassing some 825 acres, the right of way never exceeds 400 feet in width. The presence of the railroad roadbed and underground utilities has inhibited the growth of large groups of trees. However, the study area as open green-belt space does act to enhance the natural environment.

Throughout the urbanized regions of Sacramento County, there is a need for open areas. If the section of the right of way from Sutterville Road south to the city limits was developed as a linear parkway with plantings, it would create day-use facilities accessible to large numbers of local residents, and provide additional feeding and nesting habitat for birds. This would raise the overall quality of this congested urban environment. To some extent, the right of way in its present state functions this way. With continued growth in Sacramento, the demands for open space and green belt areas will intensify. If preserved intact and developed sympathetically, the Walnut Grove branch can meet some of this demand.

Below Freeport, the right of way is covered with natural grasses and occasional willow or cottonwood stands. Here the branch line levee works are a crucial element of the Beach and Stone Lakes conservation area, defining the basin flow and protecting the fragile habitat from adjacent agricultural activities. The levee also supplies dry ground for riparian flora and fauna. In the Delta Meadows State Park area, the right of way furnishes additional land surface for similar plant ecologies. Except for a few remote islands, both areas represent the last vestiges of original delta wilderness and serve as vital feeding sites for migratory waterfowl on the Pacific Flyway. Most importantly, the Walnut Grove branch provides a potential means of controlled public access via trails or train to these sensitive wildlife habitats. Without such a means, public enjoyment of these scenic resources would be so intrusive as to degrade their natural value.

South of Walnut Grove, the natural heritage values in the study area are negligible. The right of way bisects cultivated fields at grade level and contains essentially no significant natural landscape.

#### Recreation Values

The Walnut Grove branch right of way's unique quality as a transportation corridor allows it to serve a variety of recreational functions. The branch line's performance as a connector joining Old Sacramento State Historic Park and the Delta Meadows/Locke area is in accordance with the department's mandate to acquire such corridors. At the same time, it now functions as an informal transportation link to other existing recreation facilities such as Miller Park, William Land Park, the Bing Maloney-Chorley Park complex, and the Beach and Stone Lakes basin. The right of way provides open space for unstructured, day-use activities like sightseeing and nature walks and allows public access to important fishing, hunting, and birdwatching spots of the upper delta.

Sacramento city, county, and regional agencies have independently assessed all or portions of the right of way for recreational development. The city and county intend to utilize sections as additions to their integrated bikeway system. As yet only portions of the bikeway acquisition project have been funded.

The Sacramento Regional Area Planning Commission and the Delta Advisory Planning Council cite the branch line as a location for local trail developments. The department's California Recreational Trails Plan Summary identifies the need for a trail route through the Sacramento-San Joaquin Delta, linking the San Francisco Bay Area with the Lake Tahoe basin. The Walnut Grove branch right of way could easily serve as a portion of this trail.

Recreation activities is quantified by geopolitical area in California State Parks and Recreation Information System (PARIS). Projected demand for Sacramento County is illustrated in the following graph:

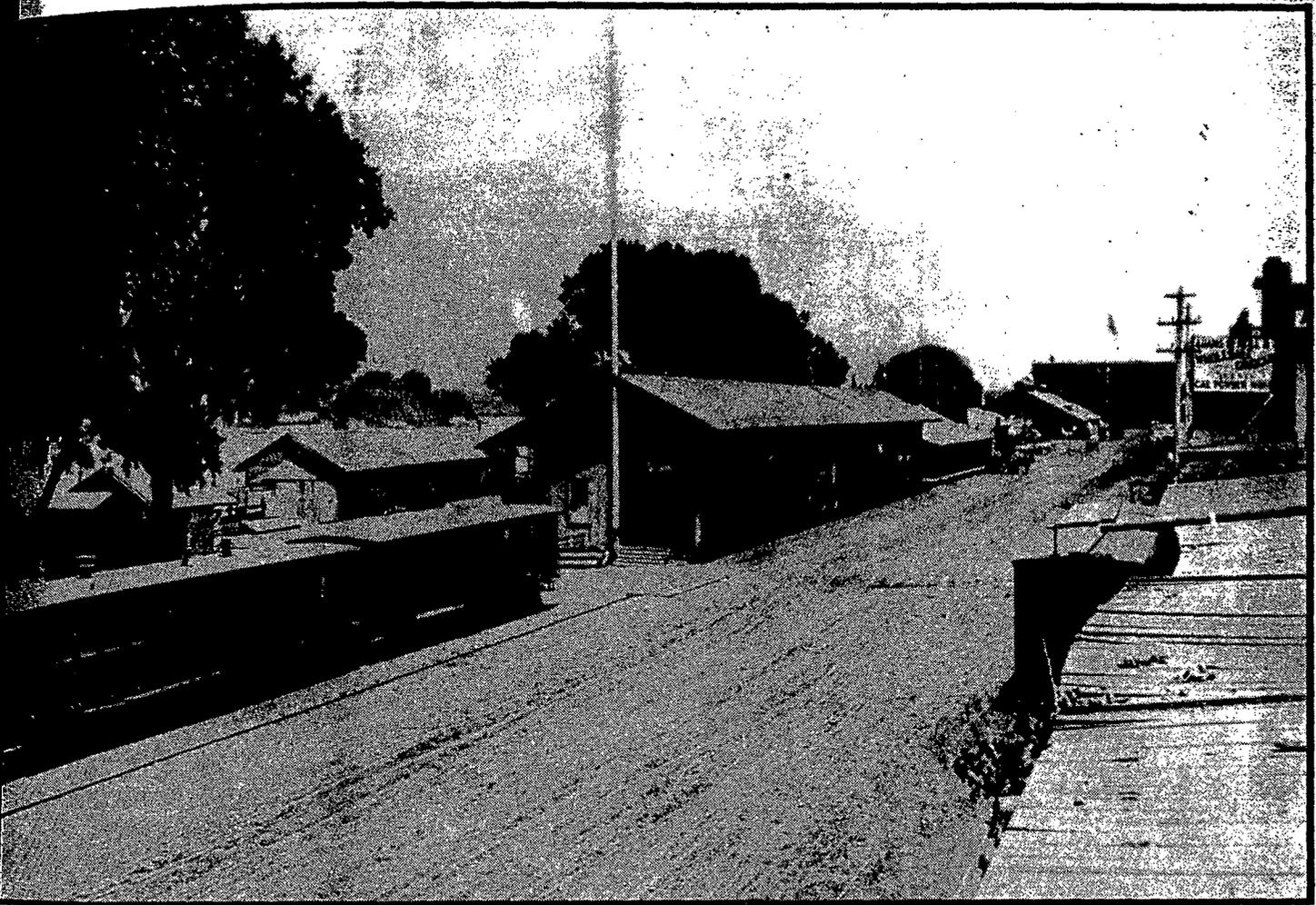
(millions of participation days annually)

<u>Activity</u>	<u>1980</u>	<u>1990</u>
Walking for Pleasure	11.762	15.503
Nature Walks	1.132	1.498
Sightseeing	4.691	6.174
Bicycling	3.742	4.958
Hunting	.379	.518
Fishing	1.324	1.750
Hiking	.253	.331

Many of these activities occur on a limited basis today along the Walnut Grove branch line. The only deficiency specifically cited by PARIS data applicable to the study area is for miles of trail needed in Sacramento County by 1980. The system identifies 421 miles necessary to adequately satisfy demand with 59 miles available, leaving a deficiency of 362 miles. With its acquisition, the right of way would contribute to the alleviation of this demand.

While certainly a factor, the reduced availability of petroleum fuels will not significantly decrease public demand for recreation. It is the responsibility of public agencies to provide adequate recreational outlets while promoting efficient use of dwindling energy resources. A steam train operation is both environmentally sound and fuel efficient. The close proximity of the Walnut Grove branch line to large metropolitan areas also promotes fossil fuel conservation. If properly managed and promoted, the branch line would provide the region and the state with an economically feasible transportation and recreation opportunity which would be utilized by large numbers of Old Sacramento visitors each year.

# POTENTIAL USES OF RIGHT OF WAY



*Old Sacramento in the early 1870s, looking north from Front Street near L Street. Railroad and riverboat-related structures occupy the riverfront at left.*

EXISTING SOUTHERN PACIFIC TRANSPORTATION CO. TRACK THROUGH OLD SACRAMENTO

EXISTING RAILROAD MUSEUM TRACKS NORTH OF J STREET

FLOODWALL

**EXCURSION TRAIN TERMINAL**

AT CENTRAL PACIFIC PASSENGER STATION AND FREIGHT SHED

NEW TRACKS FOR EXCURSION RAILROAD CONSTRUCTED SOUTH OF J STREET TO CAPITOL MALL

PROPOSED FIRST PHASE OF CITY RIVERFRONT DEVELOPMENT (PLANNED)

Sacramento River

CALIFORNIA STATE RAILROAD MUSEUM HISTORY BUILDING (EXISTING)

BIG FOUR BUILDING

I STREET

CENTRAL PACIFIC PASSENGER STATION (EXISTING)

J ST.

FRONT ST.

CENTRAL PACIFIC FREIGHT SHED PASSENGER LOADING AREA (TO BE RECONSTRUCTED AS PART OF RIVERFRONT DEVELOPMENT)

K ST.

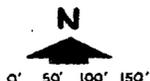
CALIFORNIA STEAM NAVIGATION CO. (SITE)

EXCURSION RAILROAD TRACKS

L ST.

# OLD SACRAMENTO EXCURSION RAILROAD TRACK PLAN

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION  
JUNE, 1979



TRACK PLAN IS SCHEMATIC

TOWER BRIDGE

CAPITOL MALL

SOUTHERN PACIFIC TRACKS CONTINUE SOUTH TO MILLER PARK 1.3 MILES

EXCURSION R.R. TRACKS CONTINUE SOUTH TO LOCKE 23 MILES



## POTENTIAL USES OF RIGHT OF WAY

### Interpretive-Recreation Train Operation

For well over a century, the steam locomotive was the symbol of railroading. The sight, sounds, and smells of a massive steam locomotive pulling a long freight train to the summit of a high mountain pass was awesome, and the passenger train, steaming across the green countryside or leaning gracefully into a long curve, was the embodiment of American railroading. All over America, in the huge passenger terminals of the large cities and the obscure rural way stations, the steam passenger train was the mechanism that united the nation. Steam not only moved the trains, but also created the image of an industry that remains an integral part of the American popular consciousness.

It is not at all surprising that, following the demise of steam propulsion, efforts were made to recapture the flavor of the past. Introduced with considerable success by Knott's Berry Farm and Disneyland as part of their amusement park developments, and later adopted by railroad enthusiasts, the tourist steam passenger train attracted universal public attention and seemed to rekindle the romance of the rails.

The idea of operating steam trains over abandoned branches and short lines burgeoned wherever enthusiasts or promoters could secure an operable steam locomotive and cars. Unfortunately, the phenomenon has not turned out to be an unqualified financial success. The failure rate among tourist steam railroads has been relatively high. A survey of the Steam Passenger Service Directory from 1966 to 1978 reveals a high turnover among those railroads listed. Fifteen of the 40 steam operations listed in 1966 are no longer in existence. Some of the original 40 listed in the directory are still extant but in precarious physical and financial condition, several are doing satisfactorily, and only a few are thriving. In addition, there have been a considerable number which did not survive one season. The success record of the tourist railroad industry, therefore, is not impressive. In spite of the steam locomotive's immense power to attract riders, it alone cannot ensure a viable operation.

Most excursion railroads (except those associated with amusement parks) are situated far from urban centers and generally away from established tourist attractions. Often they are operated by low-paid enthusiasts or volunteers, and are usually undercapitalized. The technical skill and funds available to rehabilitate and maintain railroad equipment and right of way are rarely adequate. The operation slowly dwindles, with reduced patronage and increased mechanical problems, until it can no longer continue. Some excursion train operations are maintained on short line freight railroads, but these are all located away from traditional tourist areas. Those remote operations which are doing well either have significant freight revenues to support the railroad, or have an established clientele who repeatedly make the effort to visit and ride the railroad. No excursion railroad located away from other tourist attractions is financially very successful.

The operators of several leading excursion railroads were invited to evaluate the Walnut Grove branch and discuss the factors which contribute to the success of tourist operations. The railroads were selected on the basis of experience, location, and similarity in length or possible operation to the Walnut Grove branch. Consulted were: William M. Moedinger, president of the Strasburg Rail Road, Strasburg, Pennsylvania, oldest and most successful of the tourist railroads; Charles M. Crocker, president, and Hugh McClung of the Sierra Railroad, Jamestown, California; Willis B. Kyle, president of Kyle Railways, Inc., operators of passenger service on the California Western Railroad,

John Dragg, California, Oregon, Pacific and Eastern Railroad, Cottage Grove, Oregon, and the Lahaina, Kaanapali and Pacific, Maui, Hawaii; and Ed McLaughlin, general superintendent, Texas State Railroad, Rusk, Texas.

Each identified several requirements which experience has indicated are essential for the success of excursion railroads:

The most important of all the conditions favorable to a successful operation is that it be located in an area where there are a number of other attractions (historical, cultural, educational, or recreational) whose combined impact on the prospective visitor is sufficient to justify investing the necessary time and money to visit the area.

A second favorable condition is an area that, either by proximity, good highway access, or a system of convenient mass transportation, is available to a great number of people.

A third condition, one that is crucial if tourists are to be attracted from distances requiring more than one day for the round trip, is adequate lodging and restaurant accommodations.

A fourth condition, one that is within the complete control of the operator of the railroad, is that the operation itself must possess a reasonably high degree of authenticity and be compatible with the general theme and purpose of the area in which it runs. It must project an appropriate, historically credible image.

The fifth condition, also controlled by the operator, is that the railroad must be run like a railroad: that the business aspects be prudently managed, and that there be absolutely no compromises in areas affecting public safety and equipment maintenance.

The industry's poor survival record should not be allowed to obscure the fact that the few operations possessing the above attributes are doing extremely well. Each of the consultants concluded independently that the Walnut Grove branch does or could meet these requirements, and that a recreational train service from Old Sacramento is virtually assured of success. The opportunity to ride a train as part of the Old Sacramento experience would be unique. The other excursion railroads in California are exclusively rural, appeal to a different segment of the recreation market than Old Sacramento, and are all over 75 miles from Sacramento. The existing attractions of Old Sacramento and the Railroad Museum will guarantee a large pool of potential riders; the scenic properties and location of the line make it a desirable recreational trip; and the quality maintained by the Railroad Museum will help contribute to the historical authenticity of the operation.

#### Feasibility

The comparative high initial investment required to purchase the right of way, rehabilitate the tracks, acquire and restore equipment, and develop facilities is outside the means of most potential operators, so the likelihood of the branch line being acquired and developed as an excursion railroad solely with private funds is not great. There is general agreement, however, that capital investment would be repaid in time, and that the excursion railroad could become a lucrative investment for either the state or private interests. Indeed, numerous current operators of excursion railroads have offered to operate the service on a concession basis if the Walnut Grove branch line is acquired

by the state. The overwhelming conclusion is that excursion train operation on the Walnut Grove branch line is not only very feasible, but it has the potential to become, financially and as a public attraction, the most successful excursion railroad in the United States.

Demand for two types of train service is expected initially: short, regularly scheduled trips on weekends from spring through fall and on summer weekdays, and longer, less frequently scheduled tours and charter trips. This does not, of course, preclude possible future trips to Locke, train/riverboat combinations, or transportation-only trips. Existing market studies confirm that slightly less than one hour is the optimal length for casual, exclusively recreational train rides. The rider is given little opportunity to become bored and the excitement of simply being aboard a train sustains interest in the trip. This is very important with younger riders, who tend to get restless after about 45 minutes. The short time required to ride the train makes such an operation attractive to the impulse rider. The ticket cost for one hour or shorter trips can be kept at a reasonable level.

Round-trip excursions from Old Sacramento to the vicinity of William Land Park, about 7 miles total, will take about one hour, including loading, unloading, and switching. Ridership on this one hour service will be 10 percent to 15 percent of total Railroad Museum visitation. Based on a minimum of one million museum visitors annually, the short train operation is anticipated to carry approximately 130,000 passengers each year. Further market penetration in Old Sacramento is impossible to accurately estimate at this time, but it will probably increase the number of riders by 30,000 to 50,000 each year.

The longer type of operation would be tailored to the needs of tour, charter, railroad enthusiast, and wildlife groups. These longer runs, 2-1/2 to 4 hours, could be operated on a demand basis. Trips could utilize special equipment and provide scenic opportunities otherwise unobtainable, and could be run to Freeport, or to a turning wye at Hood Junction 15.6 miles south of Old Sacramento. Although operating costs and tickets prices would be higher than the one-hour run, similar long trips have proved to be quite popular on other railroads. The ridership on special charters and other long trips can initially be expected to run about 18,000 each year.

As public demand warrants, the track should be rehabilitated in stages to permit longer excursion runs south of Hood to Delta Meadows State Park and Locke, a total of 24 miles, possibly interconnecting with a riverboat for the return trip. It is impossible to estimate the numbers of riders who will utilize this service each year. It is not feasible to acquire and develop an excursion train operation on the right of way between Walnut Grove and Isleton because of the poor condition of the existing railroad, the distance and time required to make the trip by train, and the present unsuitable nature of Isleton as a tourist destination.

In summary, it is found that the Walnut Grove branch line between Old Sacramento and the Delta Meadows-Locke area has a remarkably high potential for success as an excursion railroad. The initial acquisition and development costs discourage private undertaking of this project, but it would be utilized by at least 150,000 people each year and probably in time would repay the initial investment. All tourist railroad and recreation venture operators contacted expressed a desire to operate the branch line on a concession basis. Train operation should be developed gradually south from Old Sacramento, to ultimately connect with the Delta Meadows State Park and Locke developments.

Department of Parks and Recreation or a concessionaire could provide the train service. The decision on this question should be deferred until required further study is completed.

(For further information on ridership potential, see Ridership Survey in the appendix. Also see discussions of parking in Old Sacramento and the maintenance and storage facility.)

### Bikeway and Trail Use

Both the City and County of Sacramento have independently assessed the need and feasibility of developing trails along the Walnut Grove branch line. The city has acquired sections of the right of way for bikeway development near Old Sacramento, and the county has indicated an interest in acquiring or gaining access over other portions of the line. Numerous state and regional recreation planning documents contain proposals for trails use of the right of way as far as Isleton. The difficulties of integrating continuing railroad operations with bikeways and trails have been addressed in the Sacramento Bikeways Master Plan and found readily soluble, and the public demand for such activities is recognized by the appropriate local agencies. Therefore, this feasibility study has not reevaluated the need or potential for trails development along the right of way. Both the city and county are willing to develop interconnecting bikeways and trails on portions of the right of way if it were made available.

### Public Mass Transit

An evaluation of the future mass transit and freight potential of the Walnut Grove branch line is necessary. A considerable amount of attention is being directed toward the study of transit corridors in Sacramento, and future transit use of the Walnut Grove branch must not be dismissed without study by an appropriate agency.

Preliminary discussion of the transit potential of the branch line with Regional Transit and Sacramento city engineering staff indicates that the right of way is suitable between Freeport and downtown for commuter purposes with conventional or light-rail vehicles. At present, there is little interest in this line as a transit corridor, but the branch line could connect with an on-street route running into the central city from about Land Park, and could be utilized for public transportation as the need develops.

### Rail Freight Potential

The future of freight operation on the Walnut Grove branch line is negligible. Southern Pacific abandoned the line because freight revenues were not meeting costs and showed no prospect of improving. The United States Interstate Commerce Commission, in granting the abandonment, recognized the low probability of additional freight traffic. CALTRANS has recommended that no funds be provided to subsidize continuing freight operations, and the former shippers have all shifted to other means of transportation, primarily trucks.

It is unlikely that any form of freight service can be successful on this line, and the Department of Parks and Recreation would not be interested in attempting to reinstitute freight operations on the Walnut Grove branch line as part of the excursion passenger train service.

## Potential Problems

Any proposed public use of the right of way must take into account adjacent land use and the concerns of adjacent property owners. Trespassing, vandalism, littering, and public nuisance currently take place to varying degrees along the entire right of way, and will be aggravated to a certain extent by the encouragement of foot and bicycle traffic unless specific measures are taken. In the rural areas additional problems with public acquisition and use would include the possibility of damage to crops, public liability on adjacent private property, firearms use, motorized vehicle use, assignment of levee maintenance responsibility, adequate compensation for levees where Southern Pacific owns less-than-fee interest, and the continuation of existing agreements with Southern Pacific.

Development can be planned so as to greatly reduce or eliminate most of these problems. Screens of trees and fences can be placed in residential areas to provide privacy and keep people on the trails. Levee access can be controlled in agricultural areas, trails can be placed so as to minimize foot access into farmland, firearms and motor vehicles can be restricted, and the right of way can be patrolled more than is now possible by the county sheriff. The existing written agreements with Southern Pacific should be maintained, and some form of effective liability protection from public vandalism and injury should be provided.

# PROPOSED ACQUISITION AND DEVELOPMENT

## Special Considerations

Acquisition and operation of the Walnut Grove branch line involves several special considerations.

### Urgency

Negotiations with Southern Pacific must be started immediately if the state elects to acquire the property. While Southern Pacific has agreed to maintain the right of way and railroad improvements intact for a reasonable period until legislative action on this feasibility report, they are legally entitled to dispose of the branch line at any time, and may do so unless serious discussions are initiated soon.

### Special Opportunity

The opportunity to acquire the branch line will not be repeated, and is available for only a limited period of time. As mentioned above, Southern Pacific is keeping the railroad intact as a courtesy, but only for a limited period of time. Any Southern Pacific owned property not acquired initially by the state or others for railroad operation will probably be disposed of, and it will be impossible to reconstitute the right of way except at extreme cost and effort.

### Cost

Southern Pacific Land Company has been requested to provide the Department of Parks and Recreation with their appraisal of the Walnut Grove branch line and right of way for sale as a recreational railroad line. This appraisal is underway. The cost figures included in this report are estimates, based on values for adjacent properties and data from independent sources. It is anticipated that the asking price for the right of way and improvements will be approximately the same as the estimates.

## Proposed Acquisition

The highest priority should be the right of way and railroad improvements between Old Sacramento and Locke, 23.2 miles, with particular emphasis placed on acquiring the 15.6-mile section between Old Sacramento and Hood Junction.

This will place the property in public ownership, allow measures to halt the ongoing deterioration of the railroad, and permit the gradual phased rehabilitation of the physical plant.

The 9.9-mile portion of the railroad south of Locke is in very poor physical condition, and no acquisition is recommended in this area.

No specific costs for Walnut Grove branch line properties have been received to date from the Southern Pacific Land Company, and the costs below are estimates:

1. Old Sacramento to Miller Park, 1.5 miles.

Property	0
Improvements	35,000
Total, Section 1	35,000

2. Miller Park to Freeport, 7 miles

Property	1,050,000
Improvements	112,000
Total, Section 2	1,162,000

3. Freeport to Hood Junction, 7.46 miles.

Property	522,200
Improvements	119,360
Total, Section 3	641,560

4. Hood Junction to Locke, 7.6 miles.

Property	562,800
Improvements	228,640
Total, Section 4	791,440

Total estimated acquisition cost, Old Sacramento to Hood Junction	1,838,560
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Total estimated acquisition cost, Old Sacramento to Locke	2,630,000
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**OLD SACRAMENTO**  
STATE HISTORIC PARK  
CALIFORNIA STATE RAILROAD MUSEUM  
MILE 0

AREA OF ENLARGEMENT  
COUNTY OF SACRAMENTO

START OF  
ABANDONED SECTION  
MILE 2.1

PROPOSED JOINT RAILROAD USE  
AREA WITH SO. PAC. TRANSP. CO.  
2.1 MILES

LAND PARK  
MILE 3.5

EXECUTIVE AIRPORT

← POSSIBLE FUTURE TRANSIT USE  
OF NORTHERN PORTION OF LINE

FREEPORT  
MILE 8.5

EXCURSION  
TRAIN  
ROUTE

# PROPOSED ACQUISITION MAP. WALNUT GROVE BRANCH LINE.

CALIFORNIA DEPARTMENT  
OF  
PARKS AND RECREATION

MAY 1, 1979



HOOD  
POSSIBLE TRAIN/RIVERBOAT  
INTERCHANGE LOCATION

HOOD  
JUNCTION  
MILE 15.6

HIGH  
PRIORITY  
ACQUISITION  
24.0 MILES  
± 710 ACRES  
WITH IMPROVEMENTS

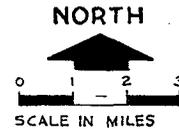
DELTA MEADOWS  
STATE PARK PROJECT

LOCKE  
MILE 23.2  
POSSIBLE TRAIN/RIVERBOAT  
INTERCHANGE LOCATION

LOW PRIORITY  
ACQUISITION  
9.1 MILES  
± 117.8 ACRES

WALNUT GROVE  
MILE 24.4

ISLETON  
END OF TRACK  
MILE 33.1



## Proposed Development

The Walnut Grove branch line should be maintained as a public rail transportation corridor for recreation and possible future transit use.

An interpretive-recreation excursion train service originating in Old Sacramento should be established, with trains operating initially as far as William Land Park, 3.5 miles. As public demand warrants, the excursion train service can be expanded farther south to Freeport, Hood Junction, and possibly Locke, 23.2 miles.

The proposed development consists of phased track and facilities construction in Old Sacramento and at William Land Park, locomotive and car restoration, and track rehabilitation.

### Development Costs

#### PHASE 1 - Old Sacramento to William Land Park, 3.5 miles.

Engineering/Design	75,000
Track Construction/Signals	140,500
Facilities Construction	135,000
Equipment Restoration	340,000
Development, Phase 1	1,290,500

#### PHASE 2 - William Land Park to Hood Junction, 12.1 miles.

Engineering/Design	40,000
Track-Bridge Rehabilitation/Signals	1,135,400
Facilities Construction	60,000
Equipment Restoration	25,000
Development Phase 2	1,260,400

#### PHASE 3 - Hood Junction to Locke, 7.6 miles.

Engineering/Design	130,000
Track-Bridge Rehabilitation/Signals	4,000,000
Facilities Construction	175,000
Equipment Restoration	90,000
Development, Phase 3	4,395,000

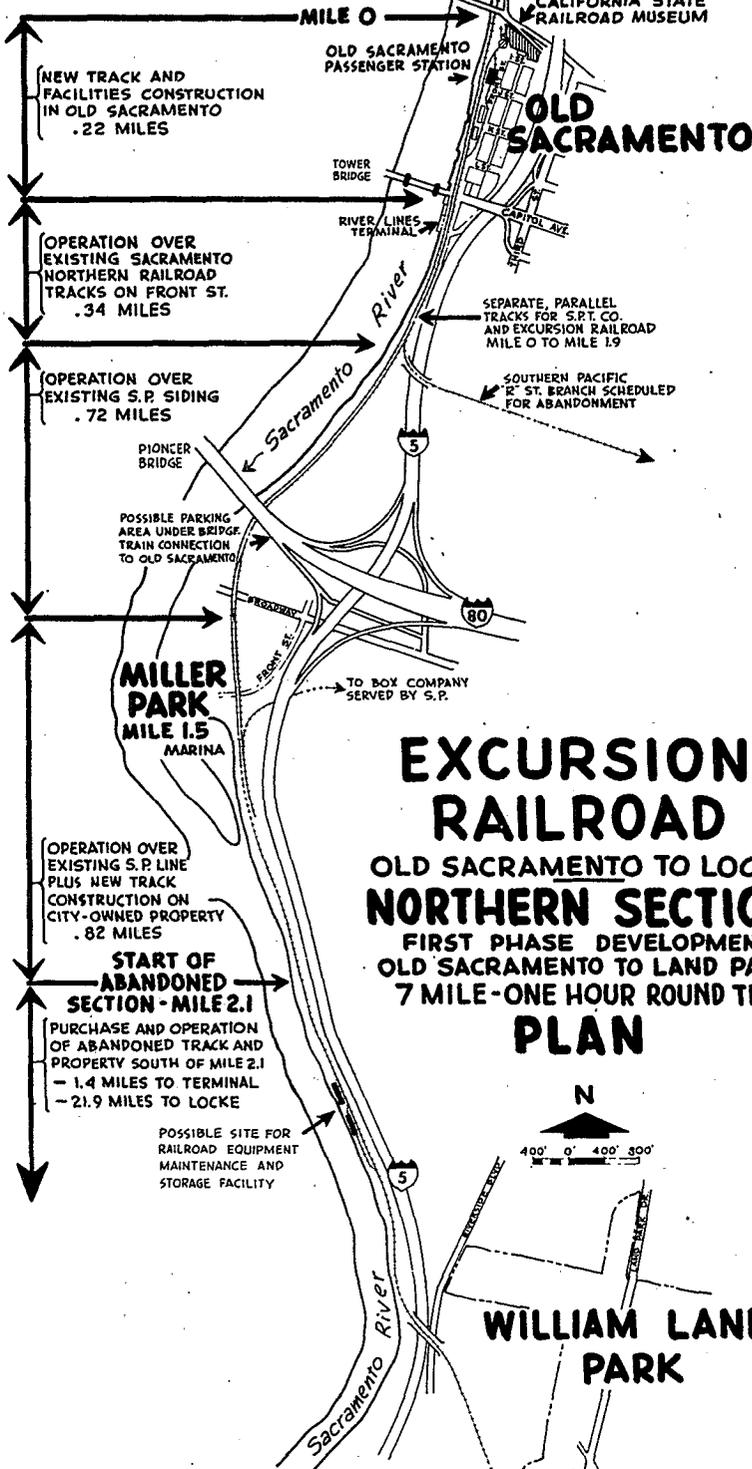
Total Estimated Development Cost	6,945,900
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### Proposed Operation

As a unit of the State Park System, the excursion railroad would be administered by the California Department of Parks and Recreation through the California State Railroad Museum.

It is equally feasible for the excursion train service to be provided by either the Department of Parks and Recreation or a concessionaire.

DEVELOPMENT AND OPERATION REQUIREMENTS:



NEW TRACK AND FACILITIES CONSTRUCTION IN OLD SACRAMENTO .22 MILES

OPERATION OVER EXISTING SACRAMENTO NORTHERN RAILROAD TRACKS ON FRONT ST. .34 MILES

OPERATION OVER EXISTING S.P. SIDING .72 MILES

OPERATION OVER EXISTING S.P. LINE PLUS NEW TRACK CONSTRUCTION ON CITY-OWNED PROPERTY .82 MILES

START OF ABANDONED SECTION - MILE 2.1  
PURCHASE AND OPERATION OF ABANDONED TRACK AND PROPERTY SOUTH OF MILE 2.1  
- 1.4 MILES TO TERMINAL  
- 21.9 MILES TO LOCKE

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION



CALIFORNIA STATE RAILROAD MUSEUM JUNE, 1979

# EXCURSION RAILROAD OLD SACRAMENTO TO LOCKE NORTHERN SECTION FIRST PHASE DEVELOPMENT OLD SACRAMENTO TO LAND PARK 7 MILE-ONE HOUR ROUND TRIP PLAN

N

400' 0' 400' 300'

WILLIAM LAND PARK

ZOO

SOUTHERN TERMINAL FOR ONE HOUR EXCURSION RUN MILE 3.5

FUTURE DEVELOPMENT TO HOOD AND LOCKE

o William Land Park, operated five times daily during summer; and, longer excursions to  
 reeport, Hood Junction, and possibly Locke on an irregular or weekend-only basis.

Operation Costs

The railroad operation cost estimates are based on Department of Parks and Recreation  
 operation of trains, utilizing locomotives and cars in the California State Railroad  
 Museum collection. It assumes four-to six-car trains powered by an oil-burning steam  
 locomotive operated during a "season" of 110 days yearly, over 4.0 miles of track. It is  
 expected that train revenues will nearly equal expenditures.

One Year Operation Costs @ June 1979 Levels:

Salaries	110,000
Equipment Maintenance	90,000
Physical Plant Maintenance	24,000
Fuel/Water	<u>38,000</u>
 Total, One Year	 262,000

Proposed Acquisition and Development - Total Program and Costs

PHASE 1

Acquisition, Old Sacramento to Locke, 24.0 miles	2,630,000
Development, Old Sacramento to William Land Park, 3.5 miles	1,290,500
Operation, First Year	262,000
 Total, Phase 1	 4,182,500

PHASE 2

Development, William Land Park to Hood Junction, 12.1 miles	1,260,400
Operation, First Year	320,000
 Total, Phase 2	 1,580,400

PHASE 3

Development, Hood Junction to Locke, 7.60 miles	4,395,000
Operation, First Year	400,000
 Total, Phase 3	 4,795,000

Total estimated acquisition and development costs  
 for Excursion Railroad, Old Sacramento to Locke \$9,575,900

## Method of Acquisition

There are several possible ways of effectively securing the Walnut Grove branch line and right of way for recreational excursion train operation and trail development, ranging from outright or partial gift to purchase of fee title. Specific negotiations with Southern Pacific must be held to work out a mutually agreeable means for providing for public use, which may include:

1. Outright gift of all or part of the right of way and improvements to the Department of Parks and Recreation. A similar transfer of an abandoned Southern Pacific owned railroad, the San Diego and Arizona Eastern, is being completed in southern California. In that case, the Southern Pacific values the railroad at not less than \$80 million, but is selling it to the San Diego Metropolitan Transit Development Board for \$18.1 million. The difference between the value figure and the sale price is being donated.

While the value of the San Diego and Arizona Eastern Railroad is some 30 times that of the Walnut Grove branch line, the possibility of a negotiated donation or sale-donation is not out of the question and should be explored.

2. Long-term lease or combination lease and purchase of necessary properties. This could be workable in areas where Southern Pacific may desire to retain ownership of a utility corridor in the middle of the existing right of way; use of the utility corridor could be granted to the state under an easement or lease, with acquisition of fee interest in adjacent property.
3. Option to buy all desired properties, with gradual phased acquisition of fee interest as development warrants.
4. Outright purchase of Southern Pacific-owned property.

The specific parcels to be acquired will have to be determined during the master planning phase. It must be reiterated that the actual acquisition, or the identification of property to be acquired, must be performed with speed to preclude other disposition by the property owner. The following options should be considered.

### Acquisition Options

1. No Action.

EVALUATION: Southern Pacific will salvage tracks and other railroad improvements for scrap and dispose of saleable property. The Walnut Grove branch line right of way will be lost for future public use as a recreation/transportation corridor. Least desirable option.

2. State Acquisition of Property and Improvements from Old Sacramento to Locke, 23.2 miles.

EVALUATION: Would permit establishment of feasible recreation excursion train service on northern portion of line, with possibility of extending this service to Locke if funds are available and public use warrants. Would preserve the possibility of future rail access to Locke, but such train service could be instituted only at great cost. Preferred option, has greatest potential for future development.

State Acquisition of Property and Improvements from Old Sacramento to Hood Junction, 15.6 miles.

EVALUATION: Would permit excursion train service from Old Sacramento as far as Hood Junction. Would preserve intact the smallest logical portion of the railroad for future transportation use and trails development. Greatest value for cost, preferred alternative proposal.

State Acquisition of Property and Improvements from Old Sacramento to Freeport, 8.5 miles.

EVALUATION: Would permit limited excursion train service as far as Freeport, but does not allow future train access into non-urbanized areas farther south. Least desirable from standpoint of potential future use.

# RESPONSIBILITY FOR IMPLEMENTATION



*Last Southern Pacific trail on the Walnut Grove Branch Line near Hood Junction, October 10, 1978. This photograph is representative of the landscape adjacent to the right-of-way between Freeport and Walnut Grove.*

## RESPONSIBILITY FOR IMPLEMENTATION

The responsibility for acquiring, developing, operating, and maintaining the Walnut Grove branch line for recreational purposes rests in several hands. The best way to preserve this resource would be with the mutual involvement of governmental agencies, private interests, and concerned civic groups.

### Federal Responsibility

Federal financial support is now limited to possible Land and Water Conservation Fund matching money to local governments. This project would have to compete on a priority basis for these funds, and the funds available would probably be insufficient to acquire and develop significant amounts of the property.

The Federal Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act) established a limited demonstration grant program for recreational reuse of abandoned railroad rights of way. The United States Bureau of Outdoor Recreation administered the \$5 million available nationwide on a 90-10 matching basis. The State Department of Parks and Recreation coordinated a multiple agency pre-application for \$2.475 million of these funds, to acquire and develop an excursion train service on the northern portion of the Walnut Grove branch. Because of the size of grant requested, this application was not successful. This program, however, could still provide funds for acquisition and development of the branch line if additional funds are ever appropriated.

The 4R Act also provides financial assistance on a decreasing federal share basis to maintain rail freight service on lines approved for abandonment. The California Department of Transportation (CALTRANS) has recommended no federal assistance be provided for this line. The potential of the Walnut Grove branch for future freight operation is negligible, and such a use is antithetical to the very real recreation and conservation uses of the property.

### State Responsibility

The primary responsibility for acquisition and recreational use of the right of way rests with the State of California, and specifically the Department of Parks and Recreation. It is the policy of the state to acquire abandoned railroad rights of way which have potential public transportation use, and to acquire and develop trails between units of the State Park System.

It is evident that the primary uses of the Walnut Grove branch line would be by the Department of Parks and Recreation: as a route for interpretive excursion trains and as a connector between state park units. The right of way embodies significant aspects of state history, exceptional natural landscape, unique long-term recreational possibilities, and is accessible to large numbers of visitors. The Walnut Grove branch line would be a desirable and successful addition to the State Park System and its acquisition should be a high priority of the Department of Parks and Recreation.

State Gas Tax funds are available for rail mass transit projects, but not for recreation railroads. Funding for the Walnut Grove branch line project could be provided through direct legislative appropriation, legislative reallocation of mass transit funds, or incorporation of the project in a bond issue.

## and Regional Responsibility

Apparent that preservation of the Walnut Grove branch right of way would maintain open space in the rapidly urbanizing southern Sacramento County area, provide a forum for the development of bikeways and trails, and enable the connection of various existing recreational facilities along the route. This potential for local outdoor recreation will primarily benefit the City and County of Sacramento and the northern Colusa County area.

Acquisition of portions of the Walnut Grove branch would enable the City and County of Sacramento to develop interconnecting trails along the route as demanded. The county would be responsible for acquiring for trails use any portions of the right of way not acquired by the state if county trails development on those portions is deemed desirable.

## State Sector Responsibility

Best means of actually operating excursion trains on the branch line must be determined. The state could own and operate the equipment and maintain the railroad, a concessionaire could be contracted to provide the equipment, run the trains, and maintain the railroad. Either is feasible, but the relatively high acquisition and development costs probably preclude purchase and operation of this property solely by private interests.

The operation will require funding, the development of facilities, restoration of equipment in the existing collection or acquisition of additional equipment, the creation of specific civil service classes, and the hiring and training of staff. The state has never operated an excursion passenger railroad, but the problems are not insurmountable and have been solved with a high degree of success by other states. Most notable is the Texas State Railroad in Rusk, Texas, operated by the Texas Parks and Wildlife Department. A state-operated train service could be run in very close conjunction with other programs of the California State Railroad Museum and is expected to be financially self-supporting. The museum already has the staff qualified to start operation of the excursion service.

Another option involves selection of a qualified concessionaire, of which there are several, to provide the entire operation. The division of development responsibilities between the state and the operator would have to be worked out, but the initial costs of setting up an excursion train operation, including facilities, equipment, insurance, and operation, are significant and may exclude most possible operators.

This type of operation will require the cooperation of the Southern Pacific Railroad to facilitate property acquisition and movement of equipment onto the branch line from the Railroad Museum's remote equipment storage facilities.

# APPENDIXES



*Looking north from the area immediately below Miller Park. The broad expanse of the Sacramento River can be seen to the left, while Interstate 5 is just out of the picture to the right.*

Appendix A  
RIDERSHIP SURVEY

To obtain an objective determination of the relative value visitors ascribe to the opportunity to ride a steam-powered passenger train as a part of their Old Sacramento and Railroad Museum experience, Dr. Cary Goulard of California State University, Sacramento, was contacted to conduct a survey and provide an analysis of the data obtained.

Dr. Goulard was selected because of his professional experience and credentials in the recreation field, and his intimate familiarity with the Railroad Museum project. Currently an assistant professor in the Recreation and Park Administration Department of the School of Business and Public Administration, Dr. Goulard possesses wide experience in public resource management and environmental interpretation. He holds a masters degree in biology and chemistry and a doctorate in instructional development and environmental education. As a long-time Sacramento area resident, Dr. Goulard has a strong personal interest in the cultural and recreational development of the Sacramento community. He has previously conducted a public survey and visitor analysis at Old Sacramento State Historic Park's Central Pacific Passenger Station for the Department of Parks and Recreation. It was in this report that the public's demand for a participatory experience with vintage railroad equipment was first documented. In light of this and other considerations, Dr. Goulard was deemed to be the most qualified individual to carry out the survey.

During the survey, visitors to eight public recreational developments in the Sacramento area (the Morse Building, Hastings Building, Stanford Brothers Warehouse, and Central Pacific Passenger Station in Old Sacramento, and William Land Park, Sutter's Fort, Crocker Art Gallery, and the Governor's Mansion in the Sacramento metropolitan area) were asked to complete questionnaires addressing various aspects of the proposed excursion railroad project, including the relative demand for such a recreational opportunity, optimal time duration and cost of ride, and the visitor's personal interests and expectations in using the facility. The data were collected from Saturday, March 10, to Sunday, March 18, 1979 by assistants of Dr. Goulard.

The results of the survey were extremely supportive of train operation. Of the 502 respondents, "85 percent felt that the steam-powered passenger train would be a popular and valuable asset to the Sacramento community and the people of California." Over 80 percent of the respondents expressed a moderate or better interest in railroads, while more than 50 percent had never ridden a steam train. Better than 70 percent rated the opportunity to ride a steam-powered passenger train as desirable. Further indication of the popular support for such a recreation development was indicated in the numerous written responses on the backs of the questionnaires. Comments range from a simple, succinct "Do it!" to "The train idea would be a valuable asset..." and "Children and adults would thoroughly enjoy this kind of family outing."

While the survey represents only a limited sampling of recreationists in the Sacramento area, several valid assumptions can be drawn from the data. First, there exists an identifiable public demand for the opportunity to ride a steam-powered passenger train. Second, such a development would be viewed as a valuable addition to the Sacramento community and the State of California. Dr. Goulard recommends that caution and prudence be exercised to ensure continued support, but he believes that the expenditure of public funds for acquisition of the Walnut Grove branch would be viewed by the public as a worthwhile investment in recreation. Most importantly, as stated in the final comments of the survey report, the real value of the Railroad Museum complex and the steam-powered excursion train is in preserving an essential component of the past, and giving us a sense of continuity with our heritage.

Appendix D  
PARKING AT PIONEER BRIDGE

Problem

Parking in Old Sacramento has never been plentiful or convenient. Steps have been taken to improve the situation, such as construction of the South Parking Structure, the Macy's parking structure, and initiation of work on double-decking the "I" to "J" under I-5 lot. But there still is a shortage of bus, recreational vehicle, and employee parking facilities. The parking demand caused by opening the California State Railroad Museum, future construction of the History Center, '49 Scene, interpretive riverfront facilities, and continuing commercial development will certainly make existing parking facilities inadequate.

A convenient and practical way must be found to provide parking for buses, recreational vehicles, outsize vehicles, day-long visitors, and Old Sacramento employees. This parking could be off-site, in order not to monopolize close-in parking facilities which should remain available for local or short-term visitors.

Proposal

The property under the Pioneer Bridge could satisfactorily provide this off-site parking capability.

The Pioneer Bridge carries Interstate 80 over the Sacramento River and is located about 0.8 mile south of "K" Street in Old Sacramento. The bridge is an elevated concrete and steel structure. The eastern approach passes over a 9+ acre parcel of land owned by CALTRANS which is used for brick storage by the State Capitol Restoration Project. The Southern Pacific Transportation Company's Walnut Grove Branch and the Sacramento River levee comprise the western boundary of the parcel, with the Pioneer Reservoir to the north, Front Street to the east, and a petroleum products storage facility to the south. Interstate 5 runs to the east, and there is freeway access to the site from both I-5 and I-80 via surface streets.

Present CALTRANS proposals call for state employee surface parking on this site, in conjunction with "W"- "X" park-and-shuttle lots.

A preliminary non-engineering evaluation of the site indicates that it could support a parking structure capable of housing several hundred vehicles. Bus and recreational vehicle parking may also be possible around the structure.

Three methods of transporting visitors from Pioneer Bridge parking into Old Sacramento appear feasible:

1. Trains on existing Southern Pacific Walnut Grove branch line along the river. This could be in conjunction with excursion train operation on the line. An operating agreement with Southern Pacific for access into Old Sacramento would be needed. The route would provide a dramatic, novel, and scenic direct entry into Old Sacramento.
2. Trains, streetcars, or light-rail vehicles on existing Sacramento Northern/Western Pacific trackage on Front Street. This would require new track construction across Capitol Mall, and would involve problems of operating trains on public streets.

Appendix C  
EXCURSION RAILROAD MAINTENANCE FACILITY

Problem

The routine repair and maintenance of railroad equipment requires specialized tools and facilities. Like all complex machinery, railroad equipment is subject to wear and tear during normal operation. Fuel, water, lubrication, and mechanical repair requirements must be met on a regular basis. Cleaning and refurbishing of passenger cars is essential to providing the riding public with a safe, satisfactory experience, and the ability to perform minor repairs and fabricate essential operating items is necessary to prevent delays and disruptions in service. Additionally, a convenient and secure equipment storage yard near the maintenance facility is essential.

In identifying satisfactory locations for the maintenance and storage facility, six criteria for the site were considered:

1. It must be on or readily accessible to the Walnut Grove branch line.
2. It must have adequate space to accommodate a large (60' x 160', approximately 10,000 square feet) Butler system-type building, suitably equipped as a railroad maintenance and repair shop.
3. It must have adequate space for about 1,000 feet of storage track laid out in a workable configuration.
4. It must have adequate road access for large trucks, but be secure to prevent casual public access or vandalism.
5. It must have the potential to allow for free movement of motive power and rolling stock, and permit future expansion.
6. It must have adequate utilities capability (up to 440 volts electricity, gas, water, sewage, and garbage pick-up).

Proposal

In light of these requirements, four locations along or near the branch line have been considered. All possess positive and negative attributes which must be thoroughly investigated and carefully weighed before a final determination is made.

1. The first site considered is a triangular parcel, about nine acres, occupied by the abandoned PG&E "River Station B." Located 0.6 mile north of the Central Pacific Passenger Station in Old Sacramento, the site is bordered by the Sacramento River, Interstate 5, and light commercial development. A railroad maintenance yard may be esthetically incompatible with this environment. It possesses no direct rail access; the Walnut Grove branch terminates 0.5 mile south at Southern Pacific's Sacramento yard. A solution to the access problem is difficult because it is unreasonable to expect Southern Pacific to allow train crossings of their east-west main line on a regular basis. Indirect surface street access to Old Sacramento is provided via Jibboom Street. Reasonable security at this location could probably be achieved, but at some difficulty.

The abandoned PG&E power station on the site was formerly designated as a possible location for Phase IV of the Railroad Museum development, the Engineering Building. Since many of the functions of a maintenance and storage facility will be duplicated in the Engineering Building, the two should possibly be combined as phases of the same development. Aside from the security and rail access problems of this site, the dilapidated condition of the building presents difficulties for such a development. It is not adequate to physically support modern railroad equipment and, because of its design, it cannot serve efficiently as a railroad shop. Several alternative proposals have been proposed for the site and building. These include developing a Center for Historic Restoration or a Museum of Science and Technology. It has also been considered as a remote parking area and visitor orientation center for Sacramento state park units. One of these utilizations would best suit this particular site.

The second site considered as a possible location for the maintenance and storage facility is a roughly "L"-shaped parcel underneath the Pioneer Bridge. Located one mile south of the Central Pacific Passenger Station, the seven-acre site is bounded by the Pioneer Bridge supports, the river levee, Front Street, and the Walnut Grove branch on the west. The surrounding environment is light industrial in nature and, as such, a rail yard development would not intrude or conflict with present use. A substantial portion of the site is currently used for brick storage and sale from the Capitol Restoration Project. In the northwest corner of the site, the county is constructing the Pioneer Reservoir, a wastewater storage basin. Ownership of the site is divided between the California State Department of Transportation and Regional Sanitation. Surface road access is adequate via Front Street. Reasonable security could be developed for this site; however, the presence of numerous large bridge support columns and the wastewater reservoir may preclude development as a rail yard and maintenance shop. Several alternative proposals exist for utilizing this property. Most involve off-street parking either for Old Sacramento visitors or downtown workers, and these parking proposals probably represent the most beneficial use for this location.

A linear parcel below Miller Park, actually a widened portion of the levee top, is the third possible site for a maintenance facility. Roughly four acres in area, this property could be broadened with fill if demand requires. Bounded by the Sacramento River shoreline and the Interstate 5 right of way, the only development in the vicinity is a city wastewater pump station. All the property is owned or being acquired by the City of Sacramento for inclusion in the Sacramento River Parkway. A new landfill berm is slated for construction on the river side of the levee to accommodate the bikeway. Otherwise, no development is currently planned for this site. A rail yard on the levee top would cause only minimal intrusion in this natural area, and any adverse effects could be mitigated. The levee crown and railbed from Miller Park would have to be modified to facilitate road vehicle access, and the branch line itself provides the rail access. Physical accessibility to casual public visitation and the potential for theft or vandalism is low. At the same time, the site has high commuter visibility from Interstate 5. In terms of location, relation to the branch line and Old Sacramento, and physical security, this site has a very high potential for development as a maintenance and storage facility. Its ability to accommodate a full-scale Engineering Building as conceptualized in Railroad Museum planning documents may be limited, but this will have to be explored further.

4. The fourth property considered as a potential site for development as a maintenance and storage facility is a large triangular parcel bordered by Interstate 5, Meadowview Road, and the Walnut Grove branch right of way 7.25 miles south of the Central Pacific Passenger Station. The 21.24-acre site, owned by Cora J. and Gene L. Klotz, is currently in agricultural production. The surrounding area is light commercial and agricultural in nature. There are no present developments which would be severely affected by a rail yard or related development. Road access is available via Meadowview Road, and the Walnut Grove branch parallels the eastern margin of the property across a drainage ditch. Adequate security may be a problem. The site has good potential for a maintenance and storage facility, with adequate size, good access, and high community visibility. But it has one major drawback-- the distance from Old Sacramento and the anticipated "regular" train route is too great. At this time, it is envisioned that the excursion train would operate from Old Sacramento to approximately William Land Park on a regular basis. This southern location would require long daily runs through dense residential areas with an empty train, and place the resources of the shop far from the regular route of the train in event of a mechanical problem.

As previously stated, all four locations possess positive and negative attributes which must be carefully evaluated. Other factors, such as the Railroad Museum's Phase IV development-- the Railroad Engineering Building, the department's proposed artifact restoration and renovation facility, and competition for a particular site by other public agencies, will also influence the final selection. Disregarding these factors for the moment, the four sites have been ranked according to the ability of each to satisfy the six criteria previously discussed. Cost of acquisition and development will also be a deciding factor. The priority sequence has been determined as follows:

1. The site just south of Miller Park-- While limited in size and access, the location, with some alteration, could function very satisfactorily as a maintenance and storage facility site. Its greatest positive attribute is its location directly on the anticipated "regular" run of the steam excursion operation.
2. The Klotz property at the intersection of Interstate 5 and Meadowview Road-- Exceptional in size with good access. Only its distance from Old Sacramento and the anticipated "regular" operation route prevent more favorable consideration.
3. The site beneath the Pioneer Bridge-- Adequate in size and access. But the presence of large bridge supports and the Pioneer Reservoir, as well as competition by other agencies for the site, result in a lower priority classification.
4. The abandoned PG&E power station site on Jibboom Street-- Rail inaccessibility, the condition of the structure, and again competition for utilization of this site by other public agencies result in this location's rank as the least desirable for development as a maintenance and storage facility.

Appendix D  
CAL EXPO RAILROAD SPUR PRELIMINARY INVESTIGATION REPORT

Summary

It has been proposed to locate the Engineering Building, Phase IV of the California State Railroad Museum, at Cal Expo. In addition to adequate space and public access facilities, the Engineering Building requires a railroad connection, but this is lacking at Cal Expo. A spur could be constructed from the Southern Pacific's main line into the exposition grounds at a cost of \$900,000, and this would allow adequate rail service for the Engineering Building.

Proposal

The Engineering Building will be the fourth phase of the California State Railroad Museum project. The purpose of this facility is to interpret the technology of railroads, and relate it to the broader social and economic impact of railroads on the West through exhibits, displays of equipment, and restoration. The basic site requirements for the Engineering Building are relative proximity and good rail connections with the existing Railroad Museum developments in Old Sacramento, adequate space to implement the Engineering Building program and allow future expansion, and easy access by car and public transportation. The California Exposition and State Fair grounds 4 miles northeast of Old Sacramento has been proposed as a possible site for the Engineering Building.

Earlier Proposals

The first documented proposals for excursion train service from Old Sacramento originated in the mid-1960s and called for the regular operation of passenger trains to the then-planned Cal Expo. It was suggested to extend the existing riverfront tracks north and through Discovery Park, by bridge across the American River, and via the levee into the exposition grounds. This route would require about 5 miles of right-of-way acquisition and track construction. The proposal was not investigated further. It is apparent without study that the engineering difficulty and cost of creating a separate railroad between Old Sacramento and Cal Expo outweighs any benefit.

Rail Access

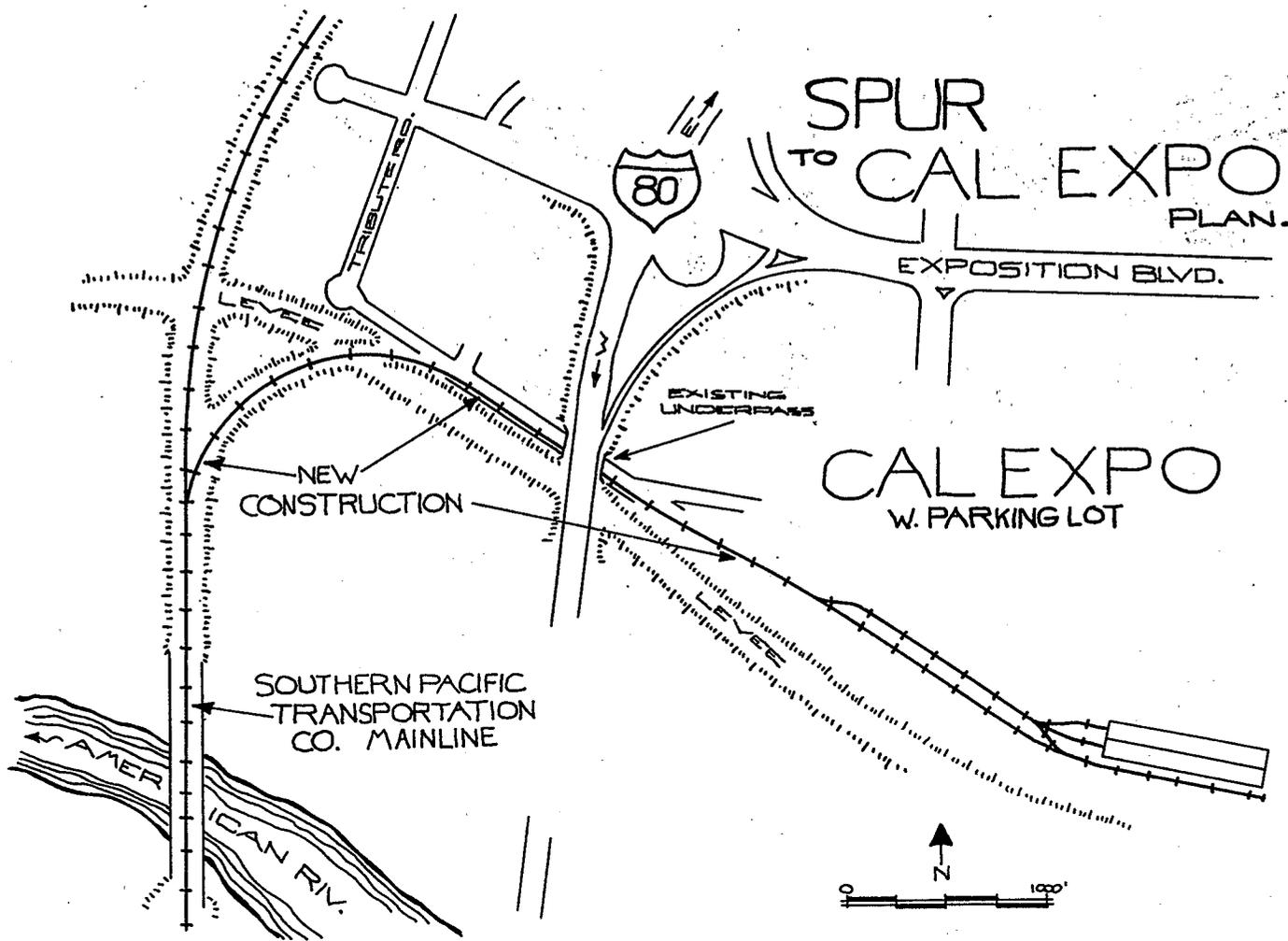
There is currently no rail service into Cal Expo. The main line of the Southern Pacific Transportation Company runs about 2,000 feet west of the exposition grounds, and it is technically feasible to construct a spur track from this line into Cal Expo (see map). This would allow locomotives and cars to be moved by rail into the grounds on an occasional basis, but since the trains would be operated by Southern Pacific as part of their usual freight operations, regular passenger train service would not be possible. Intermittent rail access over the Southern Pacific from Old Sacramento would satisfy the requirements of the Engineering Building, but would not allow visitor services such as parking at Cal Expo or excursion trains.

The construction of this spur will involve limited levee modification and fill east of the Southern Pacific's American River bridge. An easement or franchise from the City of Sacramento will be required in order to operate a railroad under Interstate 80 on Tribute Road, and the construction of about 4,000 feet of track into the exposition grounds. Most of the property required is owned by the state or City of Sacramento, and the total new track construction, including a yard facility at Cal Expo, is estimated to be 5,500 feet. Total cost is estimated to be \$900,000.

Cost estimates and map follow.

CAL EXPO RAILROAD SPUR COST ESTIMATES 6/21/79

Property Acquisition (1.0± acre)		\$10,000
Engineering		\$50,000
Land Fill/Grading		\$70,000
Track Construction		\$650,000
4,000' @ 60.00/ft.	240,000	
1,500' @ 100.00/ft.	150,000	
Specialties	260,000	
Signalling		\$65,000
Paving		\$40,000
Misc. Expenses		\$15,000
<b>TOTAL</b>		<b>\$900,000</b>





Walnut Grove Branch Line M.P. 89.0 - M.P. 122.1  
Old Sacramento to Isleton, California  
 33.10 Miles

<u>M.P.</u>	<u>Station</u>	<u>Distance Between Stations</u>	<u>Distance From Old Sacramento</u>
89.0	Yd. Lmt., Sacramento (I St.)	--	0
90.50	Miller Park	1.50	1.50
91.10	Start of Northern Abandoned Section	.60	2.10
91.60	Potential Site for Maintenance Facility	.40	2.50
91.80	Baths	.30	2.80
92.50	Proposed Land Park Station	.70	3.50
94.20	Del Rio	1.70	5.20
97.50	Freeport	3.30	8.50
104.60	Hood Junction	7.10	15.60
(103.30	Hood (Spur)	.70	16.30)
104.96	Start of Southern Abandoned Section	.36	15.96
107.90	Lambert	2.94	18.90
111.20	Mofuba	8.30	22.20
112.20	Locke	1.0	23.20
113.0	End of Proposed Maximum Acquisition	.80	24.0
113.4	Walnut Grove	.40	24.40
121.9	Isleton	8.50	32.90
122.10	End of Track	.20	33.10

Intermediate Station Distances

Old Sacramento to William Land Park	3.50 miles
William Land Park to Hood Junction	12 10 miles
Hood Junction to Locke	7.60 miles

Appendix E  
SOUTHERN PACIFIC PROPERTY IN ISLETON

Problem

During the course of this study it was learned that the City of Isleton was concerned with the disposition of portions of the Walnut Grove branch line. The right of way runs just inside the southeast city limit, and five streets dead-end against Southern Pacific property (see map). The city is interested in eliminating dead-end streets by constructing a new street between the southern ends of D and H Streets over the Southern Pacific right of way as proposed in the 1973 Isleton General Plan. In addition, recent street maps show proposed extensions of Jackson Boulevard, D Street, and H Street across the right of way.

The Andrus Island Flood of June 21, 1971, inundated the entire town of Isleton and damaged the southern portion of the Walnut Grove branch line beyond economical repair. No trains have operated into Isleton since the flood, and Southern Pacific was given permission to abandon rail operations into Isleton effective January 28, 1977. The track subsided several inches during the flood, and has gradually become overgrown. Informal vehicle crossings exist at the ends of several dead-end streets, and Southern Pacific appears to have taken no action to prevent trespass. So far as has been determined, Southern Pacific owns the right of way in fee, and it is not known if Isleton maintains any claim on this property.

Proposal

This study has earlier found that the 9.1 mile section of the Walnut Grove branch line between Locke and Isleton is unsuitable for excursion train operation or other recreation use and is, therefore, not recommended for acquisition by the state. If the City of Isleton wishes to acquire part of this right of way for public street use, it is essential that representatives of the city contact the Southern Pacific Land Company and determine the present status of the property in question. Subsequent negotiations may result in a mutually agreeable method of transfer such as outright gift of the property, long-term or permanent easement, or sale.

SELECTED REFERENCES

California State Department of Parks and Recreation.  
Bicycling in California. 1978.

-----  
California Outdoor Recreation Resources Plan. 1974.

-----  
California Recreational Trails Plan. 1978.

-----  
Final Environmental Impact Report, Delta Meadows, Sacramento, California.  
Undated.

-----  
Hiking and Equestrian Trails in California. 1978.

-----  
Sacramento-San Joaquin Delta Study. 1966.

-----  
Sacramento Valley River Study. 1964.

California State Department of Transportation.  
Abandoned Railroad Rights-of-Way for Public Transportation Use: 1978 Priority List. 1978.

-----  
Draft 1978 California State Rail Plan. 1978.

California State Resources Agency.  
Preservation of the Stone Lakes Basin, Sacramento County. 1973.

-----  
Sacramento-San Joaquin Delta Master Recreation Plan. 1976.

Candeub, Flessig and Assoc.  
Old Sacramento Historic Area and Riverfront Park, Technical Report. 1964.

Delta Advisory Planning Council, Sacramento Regional Area Planning Commission.  
Delta Action Plan: Policies and Recommendations. 1976.

Environmental Assessment and Resource Planning, Inc.  
Sacramento River Parkway Master Plan. 1975.

Goulard, Cary J.  
Old Sacramento's Central Pacific Passenger Station, A Visitor Analysis. 1978. User survey for California Department of Parks and Recreation.

-----  
Steam Passenger Train Service for Old Sacramento. 1979. User survey for California Department of Parks and Recreation.

McGowan, Joseph A.

The Sacramento Waterfront: 1848-1875. Sacramento Housing and Redevelopment Agency, and Sacramento Museum and History Department. 1976.

Moedinger, William M.

An Evaluation of the Feasibility of Operating A Tourist Steam Passenger Train Over...The Walnut Grove Branch... Report for the California State Railroad Museum, Jan. 1978.

Morrison Knudsen/International Engineering Company.

Cost Estimates For The Rehabilitation of the San Diego & Arizona Eastern Ry. Technical Engineering Report for Southern Pacific Transportation Co., Sept. 1978.

-----  
Walnut Grove Branch Line Rehabilitation Study. Technical Engineering Report for California Department of Parks and Recreation., June 1979.

Nevada State Department of Conservation and Natural Resources.

State of Nevada Air Quality Regulations for Mobile Equipment. 1978.

O'Connor Engineering Laboratories.

A Report on the Environmental Impact from Operating A Stream Locomotive in the Virginia City, Nevada Area. 1973.

Sacramento City-County Bikeway Task Force.

Sacramento Bikeways Master Plan. 1977.

Sacramento County Air Pollution Control District.

Rules and Regulations. 1977.

Sacramento County Community Development and Environmental Protection Agency.

Final Environmental Impact Report, Stone Lake General Plan Amendment. 1974.

Sacramento County Planning Department.

City of Isleton General Plan. 1973.

-----  
Sacramento County General Plan. 1974.

Sacramento Regional Area Planning Commission.

Draft Air Quality Plan. 1978.

Sacramento Regional Transit District.

Draft Sacramento Regional Transit District General Plan: 1979-1984. 1978.

Spencer, Lee, Busse, and Stypula and Barry Howard Assoc.

California State Railroad Museum, Phase I - Design Report.

Spink Corporation/ROMA.

Phase II Report, Old Sacramento Riverfront Master Plan. 1978. Program development synopsis prepared for Redevelopment Agency of the City of Sacramento as part of Riverfront master planning process.

Steam Passenger Service Directory.

Empire State Railway Museum, Inc., Middletown, N.Y., various editions.

U.S. Army Corps of Engineers, Sacramento District.

Coordinated Environmental Working Paper, Sacramento-San Joaquin Delta Investigation. 1978.

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Final Environmental Impact Statement, Morrison Stream Group California. 1974.

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