

**CITY OF SACRAMENTO  
CALIFORNIA**

DOWNTOWN DEPARTMENT  
DEVELOPMENT GROUP

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February 18, 1998

City Council  
Sacramento, California

Honorable Members in Session:

**SUBJECT:** PROGRESS REPORT ON ACCELERATION OF 7TH STREET CONSTRUCTION

**LOCATION AND COUNCIL DISTRICT:** District 1

**STAFF RECOMMENDATION:** This report is submitted for information only. The staff anticipates requesting Council action on this matter in April of this year.

**CONTACT PERSON:** Wendy Saunders, Development Manager, Downtown Department, 264-8196

**FOR COUNCIL MEETING OF:** March 3, 1998

**SUMMARY:**

This report provides the Council with a status report on the ongoing effort to prepare a strategy to expedite construction of 7th Street between the Downtown (approximately F Street) and North B Street, the Richards Boulevard Area.

**COMMITTEE/COMMISSION ACTION:** N/A

**BACKGROUND:**

On September 30, 1997, the City Council held a workshop on a variety of matters concerning Union Pacific Railroad. An issue of primary concern to the Council was the schedule for extension of 7th Street between the Downtown and Richards Boulevard areas. The railyards area is contaminated by a variety of hazardous materials due to its historic use as an active railyard. The current schedule for remediation would not allow for construction of 7th Street prior to the year 2003. On September 30, the Council passed a Resolution directing the City Manager to undertake plans and studies necessary to identify financing and phasing approaches to allow construction of 7th Street by the year 2000. Council further directed the staff to work with interested community parties in developing the 7th Street acceleration strategy, and to report back to the Council on project efforts.

Pursuant to Council direction, City Downtown Department staff convened a task force composed of property owners in the Richards Boulevard area and their consultants, Union Pacific Railroad and its consultants, and the California Department of Toxic Substances Control, to address the 7th Street issue. Public Works Department staff has provided technical support to the committee, as has a hazardous materials remediation/civil engineering consultant team (Russell Resources, Inc. and Levine-Fricke-Recon), and a financial consultant (EPS, Inc.). A membership roster for the 7th Street Task Force is attached as Exhibit A. The task force has been divided into three subcommittees to address the three issue areas associated with accelerating 7th Street construction, which are (1) remediation, (2) infrastructure, and (3) financing. A schedule of completed and planned meetings for the full task force and its subcommittees is attached as Exhibit B. Issues associated with remediation and infrastructure have been explored and potential solutions have been identified. Preliminary costs for resolution of infrastructure issues have also been identified. Once costs associated with remediation solutions have been determined, potential financing solutions will be explored. In addition to the remediation, infrastructure and financing issues, a pivotal issue regarding the feasibility of an at-grade crossing of the UP mainline at 7th Street remains. These issues are discussed more fully below. An site plan is attached as Exhibit C.

### **Remediation**

The Railyard is contaminated by a variety of hazardous materials due to its long history as a major rail fabrication and maintenance facility. One of the primary contaminants at the site is lead, which is pervasive in the site's shallow soils. A major feature of Union Pacific's plans for site remediation is to encapsulate much of the lead-contaminated soil within a new railroad berm to be constructed at the northern periphery of the Railyard. The railroad berm will act as a secondary flood protection levee, replacing the the existing levee located on the Railyard's northern boundary. The berm is also a primary feature of the Railyard's land use plan. The existing UP mainline would be relocated onto the new berm, and streets which are planned to traverse through the Railyard to the Richards area would pass through the berm approximately at grade. The entire Railyard area would, thus, be opened up for development.

The California Department of Toxic Substances Control (DTSC) has approved a feasibility study for cleanup of lead contaminated soil that identifies the berm as the preferred remediation alternative.. Final approval of the berm remediation approach by DTSC (the Lagoon Study Area Remedial Action Plan) is expected in September of this year. According to the current "Baseline" remediation schedule, completion of the berm will occur by the end of 2002, and construction of 7th Street will immediately follow in the year 2003. Given a one-year construction schedule, the road would be opened by the end of 2003. A chart depicting the major milestones under the Baseline schedule is attached as Exhibit D.

The 7th Street Task Force is examining three alternative approaches to accelerating 7th Street construction. The first two would overlap completion of remediation and construction of the berm with construction of 7th Street. The first alternative would accelerate the Baseline schedule for 7th Street construction by one year, and the second alternative would accelerate 7th Street construction by two years. The third alternative would break the 7th Street roadway corridor out from the balance of the remediation project as a "separate operable unit." Seventh Street is currently part of two larger remediation areas known as "Car Shop 9" and the "Lagoon." Creation of a 7th Street separate operable unit would, to a certain extent, break the links between remediation of the 7th Street corridor and remediation of the balance of the site, allowing its remediation to proceed even if remediation of the Car Shop 9 and Lagoon study areas is delayed.

Each of the three alternatives would complicate, to varying degrees, the ongoing remediation project, adding new tasks to the remediation project scope. The incremental work tasks associated with each alternative are described below. The Task Force is now in the process of estimating the costs associated with the incremental work tasks. Following completion of cost estimates for the alternatives, the Task Force will explore potential financing approaches. This information will be returned to the Council within the next two months.

Alternative 1: One-Year Time Savings (7th Street Open in 2002)

The first alternative uses parallel construction of 7th Street and the berm to gain about one year in the opening of the 7th Street extension. Under this alternative, the 7th Street alignment would be remediated during the years 2000 and 2001, as opposed to 2001 - 2003 under the Baseline schedule. Construction of the road would occur in the year 2002, while remediation of the balance of the site and construction of the berm is ongoing. Seventh Street would be completed by the end of the year, as would installation of flood gates in the berm at 7th Street. Continuous flood protection is, thus, provided throughout the construction process. In the year 2003 with 7th Street fully operational, the berm would be completed with the placement of soil and asphalt cover over the top.

A number of incremental work tasks, as compared to the Baseline schedule, are associated with this alternative. They include the following:

1. Modification of remediation-related documents to incorporate early construction of 7th Street.
2. The need for additional equipment, work crews and soil treatment and stockpiling areas to accelerate remediation of the 7th Street alignment.
3. Measures associated with ensuring that no contamination of the 7th Street alignment occurs after it is remediated. This may include decontaminating trucks that must cross the alignment to place soil taken from the west side of 7th Street to the eastern portion of the berm.
4. Training and special equipment for 7th Street construction crews, as they will be working in a hazardous waste site.

A more complete list of additional work tasks is attached as Exhibit E.

Alternative 2: Two-Year Time Savings (7th Street Open in 2001)

Like the first 7th Street acceleration alternative, the second alternative would use parallel construction of the roadway and berm to achieve time savings. This alternative, which results in a two-year time savings, employs temporary measures to maintain flood protection throughout the construction process. The major components of this alternative are as follows. In the year 2000, remediation of the 7th Street alignment up to the existing flood protection levee would be completed, and construction of the roadway up to the levee would begin. Retaining walls on either side of 7th Street at the location of the berm would be constructed, as under the Baseline schedule, and flood gates would be attached to the retaining walls. Flood gate installation would occur two years earlier than planned under the Baseline schedule. Temporary berms on either side of 7th Street would connect the retaining walls to the existing flood protection levee, which is located about 50 feet north of the new berm. Finally, the existing levee would be removed within the 7th Street right of way by the end of the year 2000. In 2001, the 7th Street alignment in the former levee area

would be remediated, allowing completion of roadway construction by the end of the year. The roadway would, thus, be fully operational in the year 2002 while completion of Railyard remediation and berm construction continues.

The incremental work tasks associated with this alternative include the following:

1. Modification of remediation-related documents to incorporate early construction of 7th Street.
2. The need for additional equipment, work crews and soil treatment and stockpiling areas to accelerate remediation of the 7th Street alignment.
3. Measures associated with ensuring that no contamination of the 7th Street alignment occurs after it is remediated. This may include decontaminating trucks that must cross the alignment to place soil taken from the west side of 7th Street to the eastern portion of the berm.
4. Training and special equipment for 7th Street construction crews, as they will be working in a hazardous waste site.
5. Mitigation measures to protect the health and safety of vehicle passengers driving along the 7th Street extension while remediation is ongoing, such as dust control and fencing. In addition, it is possible that temporary closure of the roadway might occur during some construction activities.
6. The cost of constructing and removing the temporary berms.
7. Potential costs associated with separate remediation operations on either side of 7th Street.

A more complete description of incremental work tasks is included as Exhibit F.

### Alternative 3: 7th Street Separate Operable Unit

The goal of Alternative 3 is to separate the 7th Street alignment from existing remediation study areas so that its remediation may proceed even if schedules for remediation of the Car Shop 9 and the Lagoon Study Areas slip. This goal can only partially be achieved given the overlap of roadway and berm improvements. Specifically, the retaining walls that will hold up a portion of the berm are also necessary for continued flood protection when 7th Street is completed. Thus, 7th Street must still be closely coordinated with berm plans and improvements.

In order to separate 7th Street as a discrete remediation area, a significant number of documents would have to be completed and approved by DTSC. Document preparation and DTSC review and approval would commence in 1998 and last through the year 2000. In the year 2001, the existing levee would be taken down within the 7th Street alignment, and the entire 7th Street corridor would be remediated. Retaining walls at the berm location would be constructed and tied to the existing levée with temporary berms, as in Alternative 2. Flood gates would be affixed to the retaining walls. The entire length of the road would then be constructed, with completion expected in late 2001 or early 2002.

All of the incremental work tasks associated with Alternative 2 would apply to Alternative 3. In addition, the documentation required to create a separate operable unit would result in considerable costs.

A more detailed list of additional cost items is attached as Exhibit G.

### **Infrastructure**

A number of infrastructure improvements - some of them temporary - are required to accelerate construction of 7th Street. These improvements fall into two categories: mainline crossing and roadway improvements, and drainage improvements. A brief description of the required improvements is provided below.

#### **Mainline Crossing/Roadway Improvements**

The Railyards Specific Plan calls for relocation of the UP mainline to the north of the Railyard area, on top of the planned berm. Since the berm will not be completed until the year 2003, a vehicular crossing of the mainline is a fundamental component of all of the 7th Street acceleration alternatives.

The elevation of the mainline is approximately eight feet higher than the elevation at the current terminus of 7th Street (at F Street). Thus, the roadway must be raised to cross the mainline, which would require construction of a retaining wall along the east side of 7th Street. Rail crossing arms and signal equipment must be installed at the mainline on both sides of 7th Street.

#### **Drainage**

The Railyards Specific Plan contains plans for an interim detention basin to be located approximately west of the 7th Street extension intersection with the mainline. This interim detention basin must be installed with construction of the first new building on the Railyards site. A pump station and force main must be installed when building occurs on the northerly portion of the site, in the vicinity of the berm's intersection with 7th Street. These facilities would, under the Specific Plan, provide drainage for 7th Street, and are estimated to cost approximately \$2.3 million. Because they may not be installed when the 7th Street extension occurs, alternative drainage improvements will be required. A plan for 7th Street drainage improvements has been prepared by Public Works staff. The plan includes draining the roadway in a northerly direction to an existing interceptor at North 7th and North B streets. Due to conflicts with existing utilities in North B Street, a pump station in the vicinity of the berm would be required to deliver the drainage to the interceptor.

#### **Approval of a Grade Crossing of the UP Mainline**

All of the alternatives for acceleration of 7th Street construction are predicated upon obtaining approval by the Public Utilities Commission of an application for a roadway crossing of the mainline. The railroad is entitled to protest PUC approval of the application. In addition to PUC approval, the City and Union Pacific would require an agreement regarding implementation and operation of the crossing. Staff understands that PUC approval of an at-grade crossing may be difficult to achieve, and that such approval is unlikely to occur without the active cooperation and support of the railroad. The staff has requested that UP inform the City of its position on this matter.

#### **Financing**

The cost of the two-lane road extension and related infrastructure, as described herein, is estimated to be about \$7.1 million. Of this amount, approximately \$2.1 would be spent on temporary improvements, such as at-grade crossing measures and interim drainage improvements, and raising the roadway to the elevation of the UP mainline. In addition, about \$1 million in costs would be incurred to remove or move the

temporary improvements. Increases in remediation costs associated with the three alternatives have not yet been identified.

Potential sources of funding for the project include development fees generated in accordance with the Railyards/Richards/Downtown Financing Plan and Measure A funds (\$5 million) previously allocated to the project. Staff will report back on financing matters once total costs have been estimated and additional funding sources have been explored.

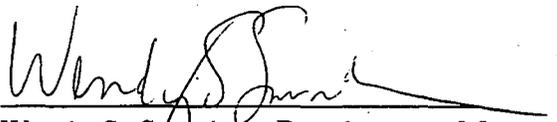
**ENVIRONMENTAL ISSUES:** This report is presented for information purposes only. Environmental considerations will be thoroughly considered as a part of any subsequent staff recommendation on this project.

**FINANCIAL CONSIDERATIONS:** This report is presented for information purposes only. Financial considerations will be thoroughly considered as a part of any subsequent staff recommendation on this project.

**POLICY CONSIDERATIONS:** This report is presented for information purposes only. Policy considerations will be thoroughly considered as a part of any subsequent staff recommendation on this project.

**MBE/WBE:** N/A

Respectfully submitted,



Wendy S. Saunders, Development Manager  
Downtown Department

RECOMMENDATION APPROVED:



WILLIAM H. EDGAR  
City Manager

APPROVED:



Thomas V. Lee  
Deputy City Manager

**Exhibit A**  
**7th Street Task Force Members**

Community and stakeholder representatives:

Steve Ayers	Armour Steel	(Capital Station District Inc.)
Michael Casey	Union Pacific	
Ray Enos	Downtown Ford	(Capital Station District Inc.)
Ivan Gennis	Ivan Gennis Consulting	(Union Pacific)
William Ishmael	Nolte and Associates	(Union Pacific)
Greta Lacin	Lacin Kent Media Services	(Capital Station District Inc.)
Jim Levy	Union Pacific	
Roy Brewer	Hunter, Richey, D. & Brewer	(Union Pacific)
Cleve Livingston	Pillsbury Madison & Sutro	(Grove Investments)
Connie Miottel	Capital Station District Inc.	
Ernie Gallardo	Grove Investments	
Johan Otto	Carson Development	(Capital Station District Inc.)
John Pitalo	Morton and Pitalo	(Grove Investments)
Ben Leslie-Bole	ERM West	(Union Pacific)

City/State Staff and Consultants:

Tom Lee	City of Sacramento	
Wendy Saunders	City of Sacramento	
Paul Blumberg	City of Sacramento	
Tim Mar	City of Sacramento	
Karen Grehm	City of Sacramento	
Cindy Unmack	Heather Fargo's Office	
Peter Russell	Russell Resources	(City of Sacramento)
Fran Anderson	State Department of Toxic Substances Control	
Mark Melani	State Department of Toxic Substances Control	
Tim Yeomans/Joe Chinn	Econ. Planning Systems	
Bruce Barboza	City of Sacramento	
Phyllis Fox	Russell Resources	(City of Sacramento)
Ted Splitter	Levine-Fricke-Recon	(City of Sacramento)

**Exhibit B**  
**7th Street Acceleration Project**  
**Meeting Schedule - February 17, 1997**

<b>Meeting</b>	<b>Date</b>	<b>Time</b>	<b>Location</b>
<u>7th Street Task Force</u> - Kick-off Meeting <i>Remediation and infrastructure issues defined</i>	10/31/97	8:30 am <sup>(1)</sup>	CH <sup>(2)</sup> , 3rd fl
<u>Infrastructure Subcommittee</u> <i>Infrastructure issues and possible solutions</i>	11/06/97	1:30 pm	CH, 1st fl
<u>Remediation Subcommittee</u> <i>Remediation issues and possible solutions</i>	11/20/97	10:00 am	CH, 1st fl
<u>Infrastructure Subcommittee</u> <i>Potential solutions and preliminary cost estimates</i>	12/02/97	1:30 pm	CH, 1st fl
<u>7th Street Task Force</u> <i>Report back on infrastructure and remediation subcommittee progress</i>	12/04/97	10:00 am	RB <sup>(3)</sup>
<u>Infrastructure Subcommittee</u> <i>Solutions and cost estimates</i>	12/18/97	1:30 pm	CH, 1st fl
<u>Infrastructure Subcommittee</u> <i>Refine solutions and cost estimates</i>	01/06/98	1:30 pm	CH, 1st fl
<u>Remediation Subcommittee</u> <i>Draft alternative remediation schedules; identify alternatives for cost analysis; draft cost analysis for alternative remediation schedules</i>	01/08/98	9 - 1 pm	RB
<u>Remediation Subcommittee</u> <i>Draft alternative remediation schedules; identify alternatives for cost analysis; draft cost analysis for alternative remediation schedules</i>	01/16/98	10 - 1 pm	RB
<u>7th Street Task Force</u> <i>Progress report: infrastructure and remediation subcommittees; identify preferred remediation approach; identify implementation issues (infrastructure/remediation); identify incremental costs</i>	01/20/98	10:00 am	RB

<u>Finance Subcommittee</u> <i>Review infrastructure costs and cost spread assumptions</i>	01/26/98	3:00 pm	RB
<u>Remediation Subcommittee</u> <i>Review assumptions for remediation alternatives</i>	02/05/98	9 - 12 noon	RB
<u>Remediation Subcommittee</u> <i>Review draft remediation cost estimates</i>	02/19/98	10 - 1 pm	RB
<u>7th Street Task Force</u> <i>Review Remediation Subcommittee progress; prepare for Council report</i>	02/26/98	10 - 1 pm	RB
<u>Remediation Subcommittee</u> <i>Review final remediation cost estimates</i>	03/04/98	10 - 1 pm	RB
<u>Finance Subcommittee</u> <i>Review financing alternatives for incremental infrastructure and remediation costs</i>	03/11/98	10 - 1 pm	RB
<u>Finance Subcommittee</u> <i>Review financing alternatives for incremental infrastructure and remediation costs</i>	03/17/98	1:30 pm	RB
<u>7th Street Task Force</u> <i>Review financing alternatives; develop Council recommendations</i>	04/02/98	10 - 1 pm	RB (tentative)

**Sacramento City Council Meetings**

<i>Progress report</i>	03/03/98	7:00 pm	
Council Workshop	04/28/98	2:00 pm	(tentative)
Council recommendation	05/12/98	7:00 pm	(tentative)

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- (1) All meetings scheduled for 2 hours (exceptions - Jan 8, Jan 16, Feb 5, Feb 19)  
(2) City Hall, 915 I Street  
(3) Roy Brewer's office, 801 K Street, 23rd floor

# 7th Street Extension Site Map

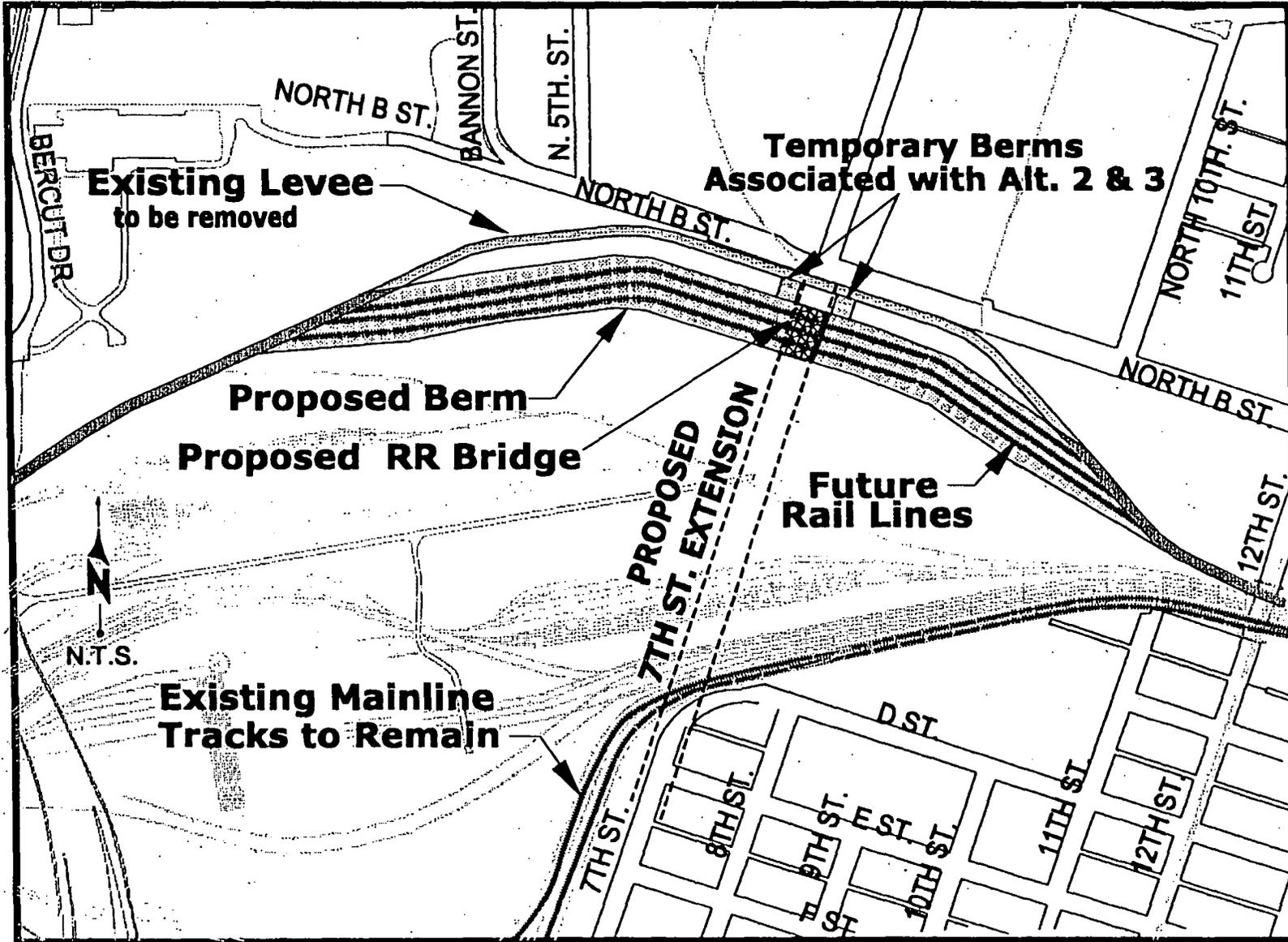


Exhibit C  
Site Plan

Exhibit D

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# BASELINE PROJECT SCHEDULE SACRAMENTO RAILYARD BERM CONSTRUCTION

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1998

1999

2000

2001

2002

2003

2004

- Berm Design (18 Month Duration; Start 6/98)
- Densification Pilot Study
- Begin Moving Operations Off-Site
- Geotech Field Work (Design Support)
- Design Retaining Walls, Abutments
- Complete RAP, DTSC Approval
- Finalize Alignment and Base Grade for Berm
- Design Internal Drainage
- Design Liner/Wall Interface
- Soil Management Plan
- Resolve Real Estate Issues
- Resolve Levin Metals

- Complete Building Demolition
- Complete Well Abandonment
- Conduct Densification
- Abandon Utilities
- Build Soil Treatment Areas
- Abandon Tracks (Not Mainline)
- Complete Design
- Regulatory Approval of Design
- Remove High-Pressure Gas Line (by 6/99)
- Complete Real Estate Issues
- Complete Removal of Drum Storage and Pond and Ditch Remediation Systems

- Bid Design (Complete by 4/1/00)
- Excavate Lagoon
- Begin Treatment of Lagoon Soils
- Remove & Screen Debris in Levee
- Grade for Wall Construction
- Build Forms, Drive Piles, Pour Concrete, Complete Wall Construction
- Base Grade & Drainage
- Resolve Archaeology Issues
- Prepare Soil for Placement in 2001
- Begin Non-Berm Remediation

- Excavate Pb Soil for Berm
- Screen, Sample, Classify, Stockpile
- Install Liner
- Place Soil into Center Portion of Berm
- Compact Soil
- Complete Wall at Levin Metals
- Install Interim Drainage System
- Close Liner by 10/1 (Stop Operations), Sort, Screen, Stockpile as Weather Permits
- Maintain Flood Protection with Existing Levee
- Assume Pre-Tested Soil Remediation Conducted Concurrently for Major Streets and Housing

- Excavate Pb Soil for Berm
- Demo Remaining Levee
- Screen, Sample, Classify, Stockpile
- Continue Liner Installation
- Place Soil at East and West Ends
- Complete Pb Soil Placement
- Close Liner by 10/1
- Install Flood Gates by 10/1
- Place Cover Soil as Weather Permits
- Supplement Interim Drainage
- Report to DTSC on Confirmation Sampling

- Complete Soil Cover.
- Complete Asphalt Cover
- DTSC Cert. 7th St. & Berm
- Build 7th Street - Open by 12/31

- Conduct Post-Remediation Grading
- Restore Ground Water Remediation Systems
- Install Ground Water Monitoring Network

**Exhibit E  
Alternative 1**

**DRAFT**

**Potential Additional Cost Items Associated with Alternative 1- Road Completion 2002**

- Cost of modifying RAP, HRA, CEQA and implementing documents to incorporate the early construction of 7<sup>th</sup> Street.
- Cost associated with early DTSC certification including surveying and preparing reports.
- Measures required to move affected soil across 7<sup>th</sup> Street after certification.
- Cost of moving soil from east of 7<sup>th</sup> Street to treatment or off-site disposal facilities after 6/30/2002 when road construction may impede free flow of construction traffic.
- Potential cost associated with moving soils across of 7<sup>th</sup> for completion of berm construction and soil cover.
- Need for 40 hour trained workers to construct 7<sup>th</sup> Street.
- Cost of possible measures required for implementing and maintaining health and safety protection for 7<sup>th</sup> Street construction workers.
- Cost of enhanced dust control while 7<sup>th</sup> Street is open and soil remediation is being performed.
- Increased costs associated with road construction on a site in proximity to an active remediation project.
- Cost of acceleration of 7<sup>th</sup> Street and pump station construction.
- Cost of winterization if road construction extends past October 15<sup>th</sup>.
- Additional construction management costs to coordinate construction.
- Cost of a temporary fence to separate 7<sup>th</sup> Street from the rest of the site.

**Exhibit F  
Alternative 2**

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**Potential Additional Cost Items Associated with Alternative 2- Road Completion 2001**

- Cost of modifying RAP, HRA, CEQA and implementing documents to incorporate the early construction of 7<sup>th</sup> Street.
- Cost associated with compressing the roadway construction.
- Potential cost associated with acceleration of soil remediation in the 7<sup>th</sup> Street alignment. These costs could include:
  1. Bringing on a separate crew to perform the remediation in parallel
  2. Need for additional construction equipment
  3. Mobilization/demobilization costs
  4. Building new or larger soil treatment/stockpile areas
- Cost of moving soil from east of 7<sup>th</sup> Street to treatment or off-site disposal facilities after 6/30/2000 when road construction will impede free flow of construction traffic.
- Cost associated with moving soil, and equipment across of 7<sup>th</sup> for completion of berm construction and soil cover.
- Cost of acceleration of 7<sup>th</sup> Street and pump station construction.
- Potential costs associated with having separate operations on either side of 7<sup>th</sup> Street not already addressed.
  1. Increased cost for duplicate equipment, and personnel.
  2. Increased construction management costs.
  3. Increased support zone costs.
- Need for 40 hour trained workers to construct 7<sup>th</sup> Street.
- Cost of possible measures required to implement and maintain health and safety protection for 7<sup>th</sup> Street construction workers.

- Cost of enhanced dust control while 7<sup>th</sup> Street is open and soil remediation is being performed.
- Cost associated with early DTSC certification including surveying and preparing reports.
- Design and construction management costs for temporary berms.
- Cost of temporary berm construction.
- Cost of temporary berm removal.
- Potential cost of remediating retaining wall and temporary berm areas early in construction season (2000).
- Costs associated with construction of the two berm closure strips in the area of the retaining walls.
- Potential costs associated with membrane construction associated with additional closure cells.
- Cost of a screening area east of 7<sup>th</sup> Street
- Potential costs associated with decontamination of construction equipment prior to crossing 7<sup>th</sup> Street.
- Increased costs associated with road construction on a site in proximity to an active remediation project.
- Cost of winterization if road construction extends past October 15<sup>th</sup>.
- Additional construction management costs to coordinate construction not already addressed.
- Cost of a temporary fence to separate 7<sup>th</sup> Street from the rest of the site.

**Exhibit G  
Alternative 3**

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**Potential Additional Cost Items Associated with Alternative 3- Street Separate Operable Unit**

- Cost of developing operable unit agreement with DTSC.
- Cost of preparing separate documents (RI, FS, HRA, CEQA, RAP, RDIP and RDD).
- Cost of preparing bid documents for remediation.
- Costs associated with bidding the remediation project.
- Cost of modifying RAP, HRA, and CEQA documents to incorporate the early construction of 7<sup>th</sup> Street.
- Potential cost associated with acceleration of soil remediation in the 7<sup>th</sup> Street alignment. These costs could include:
  1. Bringing on a separate crew to perform the remediation in parallel
  2. Need for additional construction equipment
  3. Mobilization/demobilization costs
  4. Building new or larger soil treatment/stockpile areas
- Cost of moving soil from east of 7<sup>th</sup> Street to treatment or off-site disposal facilities after 6/30/2001 when road construction will impede free flow of construction traffic.
- Cost associated with moving soil, and equipment across of 7<sup>th</sup> for completion of berm construction and soil cover.
- Potential costs associated with having separate operations on either side of 7<sup>th</sup> Street not already addressed.
- Need for 40 hour trained workers to construct 7<sup>th</sup> Street.
- Cost of possible measures required for health and safety protection for 7<sup>th</sup> Street construction workers.

- Cost of enhanced dust control while 7<sup>th</sup> Street is open and soil remediation is being performed.
- Design and construction management costs for temporary berms.
- Cost of temporary berm construction.
- Cost of temporary berm removal.
- Potential cost of remediation retaining wall and temporary berm area early in construction season (2001).
- Costs associated with construction of the two berm closure strips in the area of the retaining walls.
- Potential costs associated with membrane construction associated with additional closure cells.
- Cost of a sorting area east of 7<sup>th</sup> Street
- Potential costs associated with decontamination of construction equipment prior to crossing 7<sup>th</sup> Street.
- If on-site soils are used for temporary berms, additional investigation and analytical testing of temporary berm soils may be needed.
- Increased costs associated with road construction on a site in proximity to an active remediation project.
- Cost of winterization if road construction extends past October 15<sup>th</sup>.