

## **Opportunity to Contribute**

### **Moving Whirley Crane CW 3204 to Shipyard 3**

**A project of the City of Richmond, National Park Service and Rosie the Riveter Trust**



**June 11, 2005**

The single whirley crane remaining in Richmond from the Kaiser Shipyard days of World War II is a magnificent reminder of the conflux of industrial might that once built 749 ships and set an all-time record for speed in shipbuilding.

The Rosie the Riveter/World War II Home Front National Historical Park was established by Act of Congress signed by President Clinton on October 24, 2000.<sup>1</sup> The legislation authorized the National Park Service, among other things, to “enter into cooperative agreements with interested persons for interpretation and technical assistance with the preservation of ... Whirley Cranes associated with shipbuilding in Richmond.”



Whirley crane CW 320-4 was built for Mason-Walsh-Atkinson-Kier Co. by Clyde Iron Works, Inc., of Duluth, MN and shipped for construction of the Grand Coulee Dam on January 23, 1935. It was relocated to Todd California Shipbuilding Corp. in Richmond, California, in August 1941, where it is still located today at what is now Levin Richmond Terminal.

There are two whirley cranes remaining in Richmond, both of which are located at Levin Richmond Terminal. The one of the two cranes that dates to the World War II shipyard era is owned by Levin-Richmond Terminal Corporation, 402 Wright Avenue, Richmond, CA, which

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<sup>1</sup> H.R. 4063 / Public Law 106-352, Rosie the Riveter/World War II Home Front National Historical Park Establishment Act of 2000 (Oct. 24, 2000; 114 Stat. 1370; 4 pages) -CITE-16 USC Sec. 410ggg 01/02/01s-Expcite-Title 16 – Conservation, Chapter 1 - National Parks, Military Parks, Monuments, And Seashores, Subchapter Lix-Ee - Rosie The Riveter/World War Ii Home Front, National Historical Park, Sec. 410ggg. Rosie the Riveter/World War II Home Front National Historical Park

has agreed to donate it to either the city of Richmond or the National Park Service for relocation and display at former Shipyard 3, where the Red Oak Victory is currently moored.

The City of Richmond, the National Park Service and the Rosie the Riveter Trust have collaborated to move the crane.<sup>2</sup>

During World War II, each of the four Kaiser shipyards employed thousands of workers in a complex technological system. Workers wielded varied kinds of tools and performed numerous skills to transfer steel plate and structural shapes into ships. One of the tools or pieces of equipment that was integral to the technological system was the whirley crane. Each shipyard had several shipways, and each shipway had several whirleys. Alone, a whirley could hoist large pieces of steel and move them to the pre-assembly areas. Then working together, the whirley cranes could hoist giant pre-assembled units and move them to the shipways, where erection of the hull took place.

Whirley crane CW-3204 was constructed by Clyde Iron Works, Inc.,<sup>3</sup> sold originally to Mason Walch Atkinson Kier Co. and shipped to Coulee Dam in Coulee City, Washington, in January 1935. CW-3204 was relocated to Todd California Shipbuilding Corp. in Richmond, California, in August 1941. The original sales price was about \$32,000 each. The boom length is 110 feet and the total weight 229,999 lbs. The machines are model 28s, which means that the turntable bearing assembly on which the crane is mounted is 28 feet in diameter, a measure of the crane's capacity, with a standard lifting capacity of 166,000 lbs.<sup>4</sup>

The cost of the move to Shipyard 3 is anticipated to cost over \$150,000 and is all being paid for with donations from companies and individuals primarily located in Richmond. Donations for all expenses have been committed except for approximately \$18,000 of materials needed to construct the foundation for one of the rails. The rails at Shipyard 3 are approximately 4 feet narrower spaced than those the crane currently sits on.

Donations can be made to Rosie the Riveter Trust, a 501(c)3 non-profit corporation, as follows:

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<sup>2</sup> See Appendixes A and A for resolutions of the Richmond City Council authorizing the move and transfer of ownership to the City of Richmond.

<sup>3</sup> AmClyde is the successor of two long-standing companies involved in Designing and building large marine and shipyard cranes... American Hoist and Derrick Company (of "American Revolver" fame, St. Paul, Minnesota) and Clyde Iron (of "Whirley" fame, Duluth, Minnesota). Until their merger in 1987, both American and Clyde were the top two US manufacturers of these large cranes, and both had factories working two and three shifts during the war years, churning out record numbers of gantry cranes and stiffleg derricks for the major shipyards, and also producing anchor winches that were installed on many of the ships being built at those shipyards. Today AmClyde still produces shipyard gantry cranes, and in fact has a reputation as the provider of the world's largest fleet of marine cranes, producing custom-engineered floating cranes from 27 ton lifting capacities up to the world's largest revolving marine cranes, rated at 7,000 metric ton lifting capacity. AmClyde is also listed in the Guinness Book of Records as the provider of twin cranes that have lifted the largest load in the world (10,750 metric tons, or 23.7 million lbs., an oil platform topsides package in the North Sea in 1991). AmClyde still provides field service, replacement parts and has retrofitted many of the shipyard cranes that were used during WWII, converting some from steam boiler to electric power.

<sup>4</sup> Email dated December 15, 2000, from Terrie Thompson, Senior VP, AmClyde Engineered Products, Inc., St. Paul, MN, [t.thompson@amclyde.com](mailto:t.thompson@amclyde.com). ment parts and has retrofitted many of the shipyard cranes that were used during WWII, converting some from steam boiler to electric power.

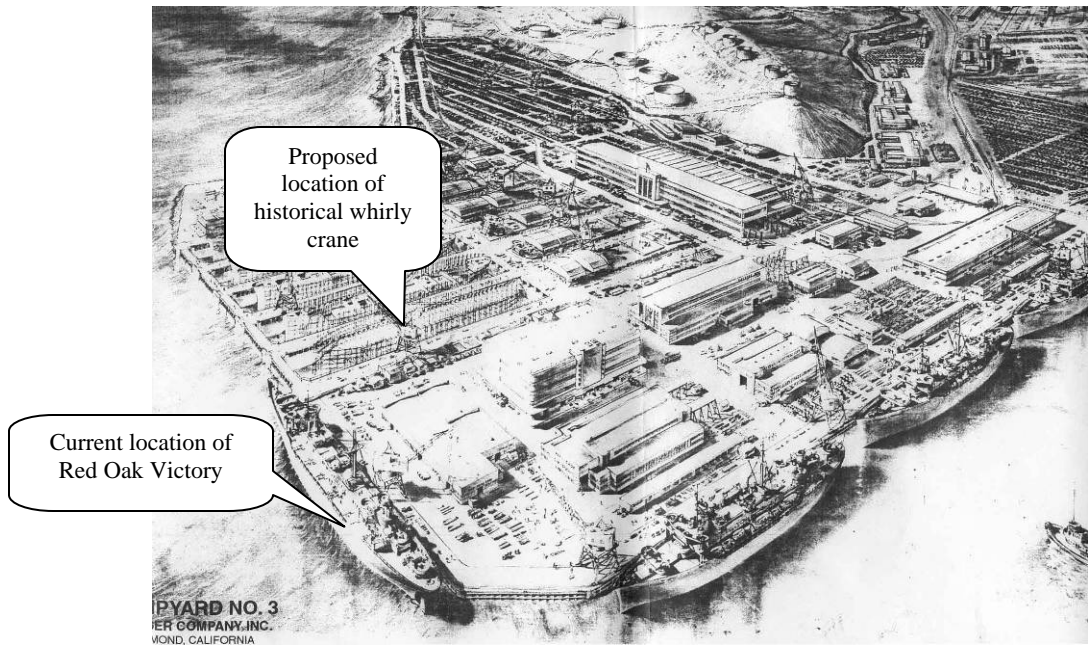
Rosie the Riveter Trust  
 Tom Butt, President  
 117 park Place  
 Richmond, CA 94801  
 510/236-7435  
 Fax 510/232-5325  
 Email [tom.butt@intres.com](mailto:tom.butt@intres.com)

Estimate of Moving Costs for Whirley Crane CW 3204  
 and  
 Donations Already Secured

Construction Item	Value of Material or Service (\$)	Secured Donor
Whirley Crane	40,000	Levin-Richmond Terminal Corporation 402 Wright Avenue Richmond, CA 94804 (510) 232-4422
Transportation	40,000	Manson Construction Co, 200 Cutting Boulevard Richmond, CA 94804 (510) 232-6319
Foundation Construction Labor	30,000	Mark Howe MSH Group 801 Chesley Avenue Richmond, CA 94801-2135 (510) 932-4435
Architecture/Structural Design for Foundation	14,000	Interactive Resources 117 Park Place Richmond, CA 94801 510/236-7435
Insurance and Miscellaneous	10,000	National Park Service San Francisco Maritime National Historical park (415) 561-7020
Rebar	4,000	
Concrete	4,617	
Epoxy	1,400	
Nozzle Man	800	
Compressor Rental	400	
Concrete Pump	1,200	
Miscellaneous	1,000	
Anchor Bolts	280	
All Thread	280	
Forming Lumber	3,500	
<b>TOTAL</b>	<b>\$151,477</b>	



Approximate destination for whirley crane at Shipyard 3



Shipyard 3 during World war II



One of our self-propelled "trucks" that carry the whirly crane on a pair of steel rails



The gallery at Shipyard 3 under the area to which the whirly crane will be relocated and in which a new foundation will be constructed to support the relocated rail

**APPENDIX A**

The following was adopted June 17, 2003 (Item M-3) by the City Council, the Minutes reading as follows:

In the matter to consider the feasibility and costs associated with moving, housing, preserving, and issuing relocation and preservation of Whirley Crane #2 from the Levin-Richmond Terminal. There was no discussion from the audience. On motion Councilmember Belcher, seconded by Councilmember Griffin approved the feasibility and costs by the unanimous vote of the Council.

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RICHMOND,  
CALIFORNIA AUTHORIZING THE CITY MANAGER TO FACILITATE  
ACQUISITION, TRANSPORTATION AND RELOCATION OF WHIRLEY CRANE #2  
FOR INTERPRETIVE USE IN THE ROSIE THE RIVETER WORLD WAR II HOME  
FRONT NATIONAL HISTORICAL PARK**

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WHEREAS, The Whirley cranes at former shipyard 1 (now Levin-Richmond Terminal) are considered historic structures and are specifically listed in the legislation creating Rosie the Riveter WW II Home Front National Historical Park (Section 3(b)(2)):

(b) Cooperative Agreements.--

(2) Limited agreements.--The Secretary may consult and enter into cooperative agreements with interested persons for interpretation and technical assistance with the preservation of--

- A) the Ford Assembly Building;
- (B) the intact dry docks/basin docks and five historic structures at Richmond Shipyard #3;
- (C) the Shimada Peace Memorial Park;
- (D) Westshore Park;
- (E) the Rosie the Riveter Memorial;
- (F) Sheridan Observation Point Park;
- (G) the Bay Trail/Esplanade;
- (H) Vincent Park; and
- (I) the vessel S.S. RED OAK VICTORY, and **Whirley Cranes associated with Shipbuilding in Richmond.**

and,

WHEREAS, the two cranes at Levin Terminals are Serial numbers CW-3204 and CW-3205. Both were sold originally to Mason Walch Atkinson Kier Co. and shipped to Coulee Dam in Coulee City, Washington in January 1935. CW-3204 was relocated to Todd California Shipbuilding Corp. in Richmond, California in August 1941, and CW-3205 was relocated to Parr-Richmond Terminal Co. in Richmond, California in September 1963, and,

WHEREAS, the Richmond General Plan includes provisions for preserving and protecting historic resources:

- LU-A.5: Preserve and enhance existing cultural<sup>5</sup> and artistic artifacts and resources in the City (Same as Community Facilities Element Policy CF-K.2).<sup>6</sup>
- CF-K.2: Preserve and enhance existing cultural and artistic artifacts and resources in the City (Same as Land Use Element Policy LU-A.5).<sup>7</sup>
- OSC-E.2 Protect notable **historic, archaeological and cultural** sites from destruction.<sup>8</sup>

and,

WHEREAS, on July 27, 1999, the City Council unanimously passed Resolution 129-99 expressing support for the proposed Rosie the Riveter WW II Home Front National Historical Park and committing the City of Richmond and the National Park Service to a partnership, and,

WHEREAS, on May 2, 2001, the Richmond Historic Preservation Advisory Committee forwarded to the Richmond City Council a recommendation that the Whirley cranes be designated a Richmond Historic Resource. A public hearing was held June 5, 2001, and,

WHEREAS, in a letter dated June 5, 2001, Gary Levin of Levin-Richmond Terminal Corporation wrote to Judy Hart, Superintendent of the Rosie the Riveter WW II Home Front National Historical Park offering to donate crane #2 to the National Park Service to be used as a display at the Rosie the Riveter WW II Home Front National Historical Park. Crane #2 has more intact original components than the other remaining crane, No. 3, and,

WHEREAS, because of the commitment from Levin-Richmond to donate the cranes to the National Park Service, the City Council, at Levin's request, held off on designating the cranes as Richmond Historic Resources, and,

WHEREAS, crane #2 became available for transfer in late 2002, but the implementation of a relocation plan has faltered due to a failure of all the involved parties (Levin, City of Richmond Port and City Attorney, National Park Service and Manson Construction) to agree on such things as transfer location, insurance and indemnities, and,

WHEREAS, The City of Richmond has an opportunity to work proactively with the National Park Service, Levin-Richmond Terminal, Hanson Construction and others to relocate and preserve Whirley crane #2.

THEREFORE, BE IT RESOLVED that the City Council of the City of Richmond authorizes the City Manager to facilitate an agreement among the parties that would result in successful relocation of Whirley Crane #2 for use as an interpretive exhibit in the Rosie the Riveter World War II Home Front National Historical park

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<sup>5</sup> In this usage, the term "cultural" pertains to human involvement, as opposed to "natural." A "cultural resource" is something created by humans, as opposed to a "natural resource," such as a creek or ecosystem.

<sup>6</sup> Ibid, LU-18

<sup>7</sup> Ibid CF-10

<sup>8</sup> Ibid, OSC-7

I certify that the foregoing Resolution was passed and adopted by the Members of the City Council of the City of Richmond at a regular meeting held on \_\_\_\_\_ by the following vote:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

## APPENDIX B

The following was adopted May 18, 2004 by the City Council, the Minutes reading as follows:

In the matter to consider authorizing placement of Whirley Crane No. 2 at the Point Potrero Terminal. The following individual spoke on the matter: Vice Mayor Griffin, seconded by Councilmember Viramontes adopted **Resolution No. 80-04** authorizing placement of Whirley Crane No. 2 at the Point Potrero Terminal by the unanimous vote of the Council.

### **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RICHMOND, CALIFORNIA AUTHORIZING THE RELOCATION OF WHIRLEY CRANE #2 FOR INTERPRETIVE USE IN THE ROSIE THE RIVETER WORLD WAR II HOME FRONT NATIONAL HISTORICAL PARK**

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WHEREAS, The Whirley cranes at former Shipyard 1 (now Levin-Richmond Terminal) are considered historic structures and are specifically listed in the legislation creating Rosie the Riveter WW II Home Front National Historical Park (Section 3(b)(2)):

(b) Cooperative Agreements.--

(2) Limited agreements.--The Secretary may consult and enter into cooperative agreements with interested persons for interpretation and technical assistance with the preservation of--

- A) the Ford Assembly Building;
- (B) the intact dry docks/basin docks and five historic structures at Richmond Shipyard #3;
- (C) the Shimada Peace Memorial Park;
- (D) Westshore Park;
- (E) the Rosie the Riveter Memorial;
- (F) Sheridan Observation Point Park;
- (G) the Bay Trail/Esplanade;
- (H) Vincent Park; and
- (I) the vessel S.S. RED OAK VICTORY, and **Whirley Cranes associated with Shipbuilding in Richmond.**

and,

WHEREAS, the two cranes at Levin Terminals are Serial numbers CW-3204 and CW-3205. Both were sold originally to Mason Walch Atkinson Kier Co. and shipped to Coulee Dam in Coulee City, Washington in January 1935. CW-3204 was relocated to Todd California Shipbuilding Corp. in Richmond, California in August 1941, and CW-3205 was relocated to Parr-Richmond Terminal Co. in Richmond, California in September 1963, and,

WHEREAS, the Richmond General Plan includes provisions for preserving and protecting historic resources:

- LU-A.5: Preserve and enhance existing cultural<sup>9</sup> and artistic artifacts and resources in the

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<sup>9</sup> In this usage, the term “cultural” pertains to human involvement, as opposed to “natural.” A “cultural resource” is something created by humans, as opposed to a “natural resource,” such as a creek or ecosystem.

City (Same as Community Facilities Element Policy CF-K.2).<sup>10</sup>

- CF-K.2: Preserve and enhance existing cultural and artistic artifacts and resources in the City (Same as Land Use Element Policy LU-A.5).<sup>11</sup>
- OSC-E.2 Protect notable **historic, archaeological and cultural** sites from destruction.<sup>12</sup>

and,

WHEREAS, on July 27, 1999, the City Council unanimously passed Resolution 129-99 expressing support for the proposed Rosie the Riveter WW II Home Front National Historical Park and committing the City of Richmond and the National Park Service to a partnership, and,

WHEREAS, on May 2, 2001, the Richmond Historic Preservation Advisory Committee forwarded to the Richmond City Council a recommendation that the Whirley cranes be designated a Richmond Historic Resource. A public hearing was held June 5, 2001, and,

WHEREAS, in a letter dated June 5, 2001, Gary Levin of Levin-Richmond Terminal Corporation wrote to Judy Hart, Superintendent of the Rosie the Riveter WW II Home Front National Historical Park offering to donate crane No. 2 to the National Park Service to be used as a display at the Rosie the Riveter WW II Home Front National Historical Park. Crane #2 has more intact original components than the other remaining crane, No. 1, and,

WHEREAS, because of the commitment from Levin-Richmond to donate the cranes to the National Park Service, the City Council, at Levin's request, deferred designating the cranes as Richmond Historic Resources, and,

WHEREAS, crane No. 2 became available for transfer in late 2002, but the implementation of a relocation plan has faltered due to a failure of all the involved parties (Levin, City of Richmond Port and City Attorney, National Park Service and Manson Construction) to agree on such things as transfer location, insurance and indemnities, and,

WHEREAS, The City of Richmond has an opportunity to work proactively with the National Park Service, Levin-Richmond Terminal, Hanson Construction and others to relocate and preserve Whirley crane No. 2, and

WHEREAS, the Richmond City Council on June 17, 2003, unanimously adopted item M-3, a resolution "authorizing the City Manager to facilitate acquisition, transportation and relocation of Whirley crane #2 for interpretive use in the Rosie the Riveter World War II Home Front National Historical Park, as recorded in the Minutes:"

In the matter to consider the feasibility and costs associated with moving, housing, preserving, and issuing relocation and preservation of Whirley Crane #2 from the Levin-Richmond Terminal. There was no discussion from the audience. On motion Councilmember Belcher, seconded by Councilmember Griffin approved the feasibility and costs by the unanimous vote of the Council.

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<sup>10</sup> Ibid, LU-18

<sup>11</sup> Ibid CF-10

<sup>12</sup> Ibid, OSC-7

WHEREAS, The City Manager has succeeded in creating an ad hoc committee consisting of representatives of the Port of Richmond, Levin Terminals, Richmond Chamber of Commerce and the National Park Service who have conceived a plan to move Whirley Crane No. 2 to Point Potrero Marine Terminal at a location in the southeast corner of the easternmost former drydock, and such plan shall be carried out at no expense to the City of Richmond.

THEREFORE, BE IT RESOLVED that the City Council of the City of Richmond authorizes the City of Richmond to provide a location for the permanent installation of Whirley Crane No. 2 at Point Potrero Marine Terminal and to take possession of the crane for use as an interpretive exhibit in the Rosie the Riveter World War II Home Front National Historical Park

I certify that the foregoing Resolution was passed and adopted by the Members of the City Council of the City of Richmond at a regular meeting held on \_\_\_\_\_ by the following vote:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

\_\_\_\_\_  
Clerk of the City of Richmond

Approved:

\_\_\_\_\_  
Mayor

Approved as to form:

\_\_\_\_\_  
City Attorney

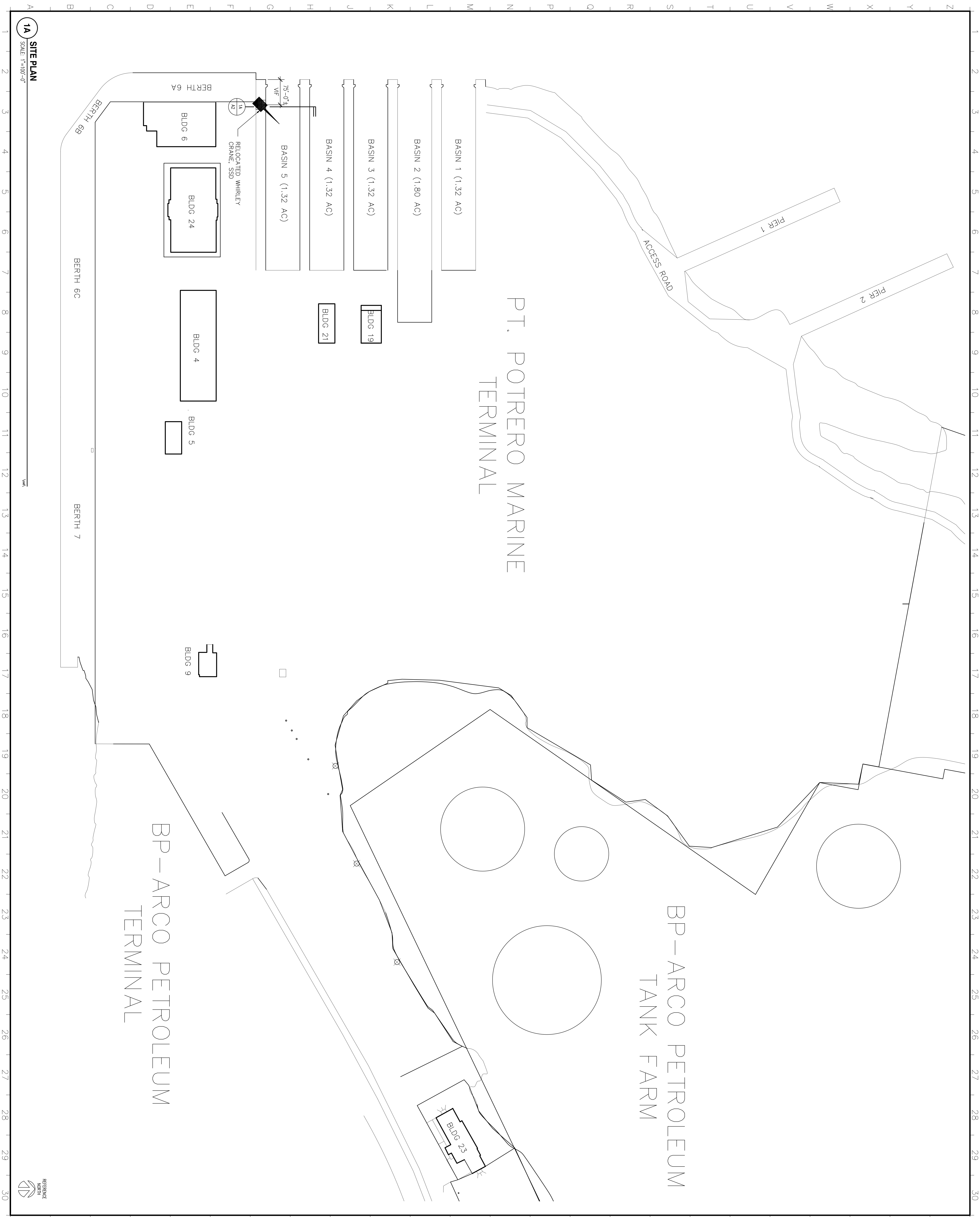
\_\_\_\_\_  
Clerk of the City of Richmond

Approved:

\_\_\_\_\_  
Mayor

Approved as to form:

\_\_\_\_\_  
City Attorney

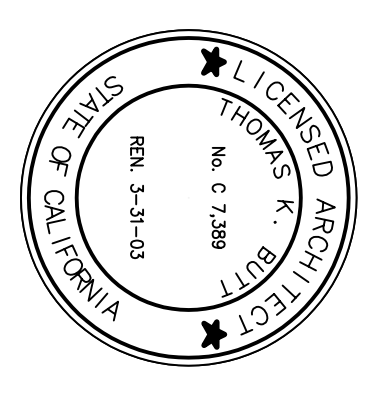


1A  
SCALE: 1"=100'-0"

PT. POTRERO MARINE  
TERMINAL

BP-ARCO PETROLEUM  
TANK FARM

BP-ARCO PETROLEUM  
TERMINAL



ISSUED FOR PROGRESS REVIEW  
ISSUED FOR PLAN CHECK  
ISSUED FOR PERMIT  
ISSUED FOR BID  
ISSUED FOR CONSTRUCTION  
SCALE

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**WHIRLEY CRANE  
RELOCATION**  
Rose the Riveter WWII/  
Home Front National  
Historical Park Shipyard No. 3  
Richmond, California  
Contra Costa County

SHEET TITLE:  
**SITE PLAN**  
PROJ. NO. 2004-047.01  
PREPARATION AND REVIEW  
DRAWN BY JF  
DESIGNED BY JF  
CHECKED BY JF  
PEER REVIEW  
SHEET NUMBER

REFERENCE  
SHEET  
A1  
OF

REVISION DESCRIPTION INITIAL DATE

