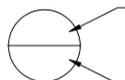


INDEX TO BRIDGE PLANS

SHEET NO.	TITLE
S001	GENERAL PLAN
S002	DECK CONTOURS
S003	ROCK SLOPE PROTECTION DETAILS
S004	FOUNDATION PLAN
S005	ABUTMENT LAYOUT
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S007	ABUTMENT DETAILS NO.2
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CALTRANS STANDARD PLANS DATED MAY 2006

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B7-1	BOX GIRDER DETAILS

 CALTRANS STANDARD PLAN SHEET NO.
 DETAIL NO.

CONTRACTOR TO VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.



ISSUE	DATE	DESCRIPTION
B	02-10-2010	60% SUBMITTAL - PROGRESS SET
A	11-2009	30% SUBMITTAL - PRELIMINARY DESIGN

DESIGNED BY	J. NAUMAN
CHECKED BY	
DRAWN BY	J. TAI
APPROVED BY	
PROJECT NUMBER	115958

**60% SUBMITTAL
NOT FOR
CONSTRUCTION
OR
RECORDING**



**CITY OF HERCULES
CALIFORNIA
TRANSIT LOOP DRIVE**

**Figure 2.2-15: Transit Loop Bridge
GENERAL PLAN**


 CAUTION: THIS DRAWING MAY BE REDUCED

FILENAME	S001.dwg	SHEET
SCALE	AS SHOWN	S001

Feb 09, 2010 - 4:28pm C:\Working\MCS_EXPORT\2010-02-09_Submittal\CAD\S001.dwg - S001 mlegal

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Cafe / Transit Annex



Civic Plaza

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Project Construction and Operation

Construction

Construction of the Hercules ITC would proceed in phases over approximately 24 months. The initial phase would include John Muir Parkway extension, Bayfront Boulevard extension, upstream portions of Refugio Creek restoration, North Channel, and Bayfront Bridge. Construction of the rail platform, track relocation, signals, railroad bridge, Transit Loop and temporary surface parking lot, and station building is anticipated to begin in 2011, with the intention that the train station and bus terminal could be completed in late 2012 to early 2013 with operation commencing late 2013. No schedule has been established at this time for the construction of the permanent parking structure. Timing of these facilities would depend on funding, economic conditions, and the development phasing of the surrounding the HB development.

Grading and demolition occurred on much of the project site between 2002 and 2007. In general, grading included removal and reworking of existing fills and buried subsurface debris, abandonment of pile elements (cut off in place to an elevation 5 feet below existing grade), environmental remediation under the observation of the California Department of Toxic Substance Control, and installation of wick drains and placement of surcharge fills imported from various sites. East of Refugio Creek, construction of Phase I surcharge fills was completed in the summer of 2009. West of Refugio Creek, surcharge fills were placed and monitored based on existing fill load conditions. An existing sanitary sewer pump station has since been constructed at this site. This work was completed in conjunction with the development of the adjacent residential development.

John Muir Parkway and Bayfront Boulevard Extensions

The proposed John Muir Parkway and Bayfront Boulevard extensions would include standard earthmoving equipment (e.g., bulldozers, excavators), plus specialized equipment (e.g., backhoes) to be used adjacent to Refugio Creek for construction. Approximately 40,000 cubic yards (cy) of soil surcharge about 6 to 8 feet in height was previously placed on portions of the project site to consolidate the underlying bay mud. A portion of this material would need to be removed from the vicinity of the parkway.

Bayfront Bridge

The Bayfront Bridge would include standard earthmoving equipment (e.g., bulldozers, excavators), plus specialized equipment (e.g., backhoes) adjacent to Refugio Creek.

Union Pacific Railroad Track Relocation and Bridge Replacement (Option A)

The UPRR track relocation and railroad bridge replacement would be constructed in three stages. The project would include standard earthmoving equipment (e.g., bulldozers, excavators), pile driving equipment (e.g. cranes, hammers), plus specialized equipment (e.g., backhoes and long reach excavator) near Refugio Creek.

Stage 1. Stage 1 would necessitate that rail traffic to remain on the existing tracks. The site would initially be rough graded. Retaining walls would be constructed in areas where required track clearances can be maintained. The foundation for the Hercules Point Bridge and the landside and platform Station Building would be constructed.

The Kinder Morgan and Shell Oil pipelines currently within the UPRR ROW would be relocated outside of it. Directional drilling under the creek (25 feet below bottom) would be used to relocate the pipelines. Qwest, Comcast, and MCI level 3 fiber optic lines would remain within the ROW, but would be relocated to the south.

Next, the southern portion of the railroad bridge over the realignment of Refugio Creek would be constructed. Piles would be driven and timber lagging would be placed at Refugio Creek to support the rail ballast and shoofly tracks⁵ for Stage 2 (see below). Portions of the existing culvert would be removed and replaced with a new culvert.

The remaining retaining walls that do not conflict with the shoofly track would then be constructed, and the south portion of the Station Platform and corresponding station utilities would be constructed. The portion of the existing railroad bridge over Refugio Creek would be removed.

The structural frame for the landside and platform sections of the Station Building would be completed, and the pedestrian bridge connecting the two sections would be constructed. Once the bridge and framing are complete, building glazing clear of rail traffic would be erected.

The shoofly alignment not in conflict with the existing tracks would be constructed. Rail traffic may need to be temporarily suspended or consolidated when shoofly tracks are tied into the existing tracks and train operation is redirected onto the shoofly tracks.

Stage 2. During Stage 2, active rail traffic would utilize the shoofly tracks for approximately 12 months. The northern portion of the railroad bridge would be constructed over the realignment of Refugio Creek. The remaining portion of the Station Platform and corresponding utilities would then be constructed, and the Station Building would be constructed within the limits of the Station Platform. The northernmost Station Building and the pedestrian bridge between the platform and northernmost Station Building would be constructed. The Station Building would be constructed on piles.

Excavation would begin on the south side of the railroad bridge to tie into the existing alignment of Refugio Creek to prepare for creek realignment. This would be followed by excavation on the north side of the railroad bridge and tie into San Pablo Bay to complete realignment of the creek. The existing railroad bridge and culverts over Refugio Creek would be removed. The creek would be backfilled to its new alignment.

The portion of the final track alignment would be constructed. Rail traffic may need to be temporarily suspended or consolidated onto one track during the period while the track tie-in is

⁵ Shoofly track is a temporary track of minimum standards, which is used as a detour around a construction area such as a bridge replacement.

constructed. The waterside shoofly track (temporary tracks used for detours) would be shifted for the final alignment of track MT-02 immediately prior to the next stage of construction.

Stage 3. At the end of Stage 3, UPRR traffic would be placed on its ultimate alignment. To accomplish this, the shoofly tracks and other track work not required for the ultimate alignment would be removed. The south portion of the train bridge over Refugio Creek that was needed for the shoofly tracks would be removed.

The final (northernmost) portion of the railroad bridge over Refugio Creek would be constructed. The remaining portion of the retaining wall would be constructed. The remaining elements of the Station Buildings and corresponding utilities would be constructed. Railroad bridge work would be completed prior to diverting the creek into the realigned segment.

Union Pacific Railroad Track Relocation and Bridge Replacement (Option B)

Stage 1: In this phase, traffic on existing main lines (MT1 and MT2) is maintained as is without interruption. Implementation would require some limited work within 25 feet of the existing track. Due to the proximity of live traffic, UPRR or its contractor would construct the new railroad bridge under MT1 and MT2 existing tracks, and separately under the proposed platform area and new station track track. The contractor would then install pile foundations for the landside station structure, center (platform) station structure and foundation for center platform.

The contractor then would construct the main ITC station building, pedestrian overcrossing from Civic Plaza to the center platform, retaining walls, pipeline and fiber optic relocations, bike path and part of center platform including ramps, stairs.

Stage 2: UPRR or its contractor would construct the new station track, realign MT1, MT2 and install crossovers and signals. This effectively provides three tracks through the station site allowing construction staging flexibility while maintaining two tracks in operation. Currently, three tracks exist along the UPRR corridor along the southwest portion of the project near the Chelsea Wetlands. Construction of the new tracks would require minor improvements to the existing ballast elevations and upgrading of the storage track to support regular freight traffic.

Along the northeastern portion of the UPRR corridor, construction of the new track would require the placement of new ballast to support the track and widening the railroad envelope by approximately 20 feet. Prior to the placement of the new ballast, the area would be excavated and prepared by placing sub-ballast and compacting prior to the placement of new ballast. This new and wider corridor would require an expansion of the drainage crossing located in the northeast section of the corridor.

Stage 3: The passing track, MT1 (Figure 2.2-6), would then be used as the primary route through the construction site. The contractor could construct the ferry terminal station structure concurrently with the railroad bridge construction.

Track Option A and B would accommodate the same train traffic volumes and speeds. By constructing the dedicated station and passing tracks (Track Option B) in place of the double

track shoofly (Track Option A), the project could realize the benefit of several other significant cost savings that would not be feasible otherwise, and combined, reduce overall project capital costs.

By constructing Track Option B, the project could realize the benefit of several other significant cost savings that would not be feasible otherwise, and combined, reduce the overall project capital costs by approximately \$11 million.

If implemented, Track Option B could offer the following additional benefits to the Hercules ITC over Track Option A:

- Significantly shorten the overall construction duration: potentially by as much as by six to nine months less than anticipated 30 months for Track Option A.
- Simplify the construction staging therefore minimizing possible delays.
- Reduce net project costs (through combination of reduced construction duration, improved design and lower risk to the contractor).
- Eliminate the temporary shoofly tracks that would be needed to detour train traffic around the station construction area.
- Potentially reduce the number of piles required, substantially reducing local disruption and noise experienced by nearby residents during the construction period.
- Reduce impacts to Refugio Creek by eliminating the need to extend the existing culverts at Refugio Creek and reducing the period of disturbance in the area.
- Reduce the temporary noise and vibration impacts associated with diverting train traffic closer to residential areas during use of the shoofly tracks.
- Improve train operations by reducing delay caused by passenger-freight operations conflicts.

Station Building, Pedestrian Bridge, Plaza, and Platform

A pile foundation system would be used to support the Station Building and Pedestrian Bridge. Two foundation options have been recommended.

- Option 1 consists of the incorporation of lightweight fills under Station Building and Plaza. The Station Plaza area would be graded to an elevation dependent on the loading and fill to near design grade with lightweight foam concrete slurry fill. The Station Building and Pedestrian Bridge would be supported on pile foundations. Piles would be designed for downdrag⁶ forces induced by the lightweight fill loads. The lightweight retail structure would be supported on shallow foundations.

⁶ Downdrag is a downward force exerted on a drilled shaft, pile, or other structural element by settling soil. It is sometimes called “negative skin friction.”

- Option 2 consists of the incorporation of cement deep soil mixing ground improvement. The east side of the southern Station Building pad (adjacent to Refugio Creek) would be filled with lightweight, low-strength foam concrete. Shoring would be required at Refugio Creek. Deep soil mix columns would be installed throughout the plaza extending to the bottom of the Young Bay Mud to provide support of fills and reduce settlement of the plaza. The Station Building and pedestrian bridge would be supported on soldier pile foundations.

The passenger platform and main tracks on the land side would require minor grading for the roadbed, installation of tracks, placement and compaction of ballast, drainage facilities, utility relocation, and installation of security fencing.

Transit terminal including the Station Building, the Pedestrian Bridge Crossing, Station Plaza, and Platform work would include site clearing, demolition, grading, and construction of the Station Building, pedestrian plaza, and access driveways; this work would be carried out from the land side of the railroad tracks to minimize and/or avoid the need to cross the tracks during construction.

The Ferry Plaza foundation would be constructed on a concrete mat supported by piles. Approximately 250 cubic yards of concrete would be placed within the Bay to construct the foundation.

Bay Trail at Bio-Rad

The portion of the Bay Trail near Bio-Rad is hilly, steep, and approximately 40-feet higher in elevation than the adjacent tracks. As a result, the area is subject to landslides. During construction, design cut slope areas containing adverse conditions, such as dip slope conditions, water seepage, intensely sheared materials, and unconsolidated sandy materials, may be exposed. Such adverse conditions could lead to potentially unstable situations and slope failures. Therefore, as part of construction, the existing landslides would be mitigated by earthwork repair, stabilization using soldier piles, and stabilization using drilled piers. In order to mitigate for removal of the entire landslide debris of postulated landslides, the following measures would be required: (1) excavation of keyways;⁷ (2) installation of subdrains; and (3) reconstruction of the cut slopes within the landslide limits. The modifications of the slope gradient downhill of the proposed trail would modify the slope to a 2:1 ratio (horizontal:vertical).

Remainder of Bay Trail and Waterfront Promenade

The remainder of the Bay Trail and the Waterfront Promenade would be constructed according to ABAG and East Bay Regional Park District standards.

Creekside Trail

The Creekside Trail would be constructed according to City of Hercules standards. The trail width will vary from 8 to 20 feet and would likely be paved with asphalt.

⁷ Keyway is an excavated trench into competent earth material beneath the toe of a proposed fill slope.

Refugio Creek and North Channel Restoration

The proposed Refugio Creek Restoration would include standard earthmoving equipment (e.g., bulldozers, excavators), plus specialized equipment (e.g., backhoes) to be used near Refugio Creek. Within the Refugio Creek corridor area, approximately 16,381 cy of material would be cut and approximately 2,524 cy would be filled to implement the Refugio Creek restoration component of the project. This grading activity would generate 13,587 cy of export material that would be used within the currently undeveloped portion of the waterfront area as surcharge materials, or moved to an off-site storage area within the City limits.

Restoration and realignment of Refugio Creek will require dewatering during construction to minimize erosion and sedimentation and allow for excavation in dry conditions. Cofferdams or a similar dewatering technique would be installed at upstream and downstream locations to dewater Refugio Creek to enable constructing in dry conditions. The contractor will construct cofferdams approximately fifteen feet upstream and downstream of the proposed work limits. The cofferdams will be constructed of clean sand bags, washed gravel; sheet metal, or water inflated cofferdam method (such as AquaDam). If necessary, the temporary fill used to construct the cofferdam will occupy the minimum footprint possible. Water will be pumped from the upstream location to the downstream location via a temporary flexible pipe. At the discharge location, to minimize the potential for erosion, the water flows from the pipe will be discharged via one of two alternative methods: 1) a T-pipe to reduce velocities over a riprap apron or 2) into a containment area between two cofferdams adjacent to San Pablo Bay. The riprap apron and containment area will be constructed over visquine or similar material to facilitate clean-up and removal of materials. Upon completion of construction, all temporary fill and material associated with the dewatering including sandbags, sheet metal piling, and/or rock will be removed and the area restored to preconstruction contours. Additionally, the cofferdam would be used to restrict tidal flow into the construction area.

Effectively, the entire channel from the upstream project boundary to the bay side edge of the UPRR ballast will be filled and a new meandering channel will be constructed. Approximately 2,400 cubic yards of clean fill will be required to fill in the existing channel. Stream crossings at the UPRR, Transit Loop, and Bayfront Bridges would be constructed so that the bridges completely span the new creek channel and footings/abutments are placed outside of the channel. However, the new UPRR will require supporting piles that will be placed in the middle of the channel under the UPRR where the channel widens before it enters the Bay. The Transit Loop and UPRR Bridges will also require rock slope protection and armor placed in the channel bed to prevent scour. Approximately three feet of rock slope protection will be keyed in and placed within the channel bed.

Restoration of Refugio Creek may be completed in one or in multiple phases depending on seasonal variation and construction progress. Under either condition, phases of construction would be planned to be completed within a construction season to ensure that channel construction and modification does not occur during the wet season or to adversely affect protected flora or fauna. Restoration of Refugio Creek would be timed with the construction of other project elements to ensure efficient construction timelines as well as to minimize potential impacts and adverse effects. Construction the new UPRR bridge would likely be constructed either prior or concurrent to the realignment of Refugio Creek at this reach. However, the

restoration of Refugio Creek may be constructed prior to or concurrent with the construction of the Bayfront and/or Transit Loop bridges.

Erosion control measures including wattles, jute netting, mulching, and seeding would be installed throughout the restoration area to stabilize disturbed soils and minimize erosion when the cofferdams are removed. When the primary channel grading and restoration work is completed and the bridge installed, the cofferdams would be removed and Refugio Creek would be allowed to flow naturally through the newly constructed channel.

Constructing the new mouth of Refugio Creek in San Pablo Bay would be done using a long reach excavator from the shore. Excavation work within the Bay would be done during low tide.

Creek excavation work is anticipated to be done from the landside. The mouth of Refugio Creek can most likely be excavated from the landside, but excavation may require an excavator be placed on pontoons. The creek channel would be continued into San Pablo Bay for approximately 200 feet to provide an initial unobstructed tidal connection. Excavation would be done during low tide. Silt curtains would be installed for work in open water. Long-term maintenance is not expected to be required.

The tidal wetlands would be constructed by excavating and widening the steep banks of the existing creek into a gradually sloped, floodplain to allow tidal influence. The water sources for the wetlands would be tidal flows from San Pablo Bay, influenced by freshwater flows from upstream runoff, sheetflow, and stormwater discharge from adjacent developed areas.

Chelsea Wetlands Restoration

Construction of the proposed restoration work at the Chelsea Wetlands would include standard earthmoving equipment (e.g., bulldozers, excavators) and specialized equipment (e.g., backhoes) to be used near Pinole Creek. Approximately 50,000 cy of material would be excavated to create the necessary elevations to establish the necessary hydrology by providing tidal influence. If completed concurrent with the development of the Hercules ITC, this excavated material could be used as project fill within the project footprint of the Hercules ITC, or moved to an off-site storage area within the City limits.

Transit Loop and Bridge

In order to prepare the site to begin earthwork activities, areas to be developed would be cleared of all surface and subsurface deleterious materials, including: existing building foundations; slabs; buried utility and irrigation lines; pavement; debris; and designated trees, shrubs, and associated roots. Excavations extending below the planned finished site grades would be cleaned and backfilled with suitable compacted material. Following clearing, the site would be stripped to remove surface organic materials. Organic materials would be stripped from the ground surface to a depth of at least 2 to 3 inches below the surface. Strippings would be removed from the site or, if considered suitable by the landscape architect and owner, they would be used in landscape fill in other parts of the Hercules ITC.

Approximately 20 piles, approximately 60 to 80 feet deep, would be driven to construct the single-span bridge over Refugio Creek. Driven piles would be used instead of drilled piles due to

shallow groundwater and soft/loose deposits that are anticipated to make vertical excavations problematic. Piles would be driven into the banks and adjacent areas. Equipment would be staged adjacent to the creek beginning on the east side and would be completed on the west side of the creek.

Ground improvement such as cement deep soil mixing would be implemented for Transit Loop Drive as protection against roadway and bridge/road interface differential settlement. Deep soil mix columns would be installed throughout the bus facility extending toward the Young Bay Mud to provide support and reduce settlement of the roadway.

Creekside Park and Plaza

The Creekside Park and Plaza would be built at grade and would be an open space park. The Creekside Park would be approximately 17,000 sf (0.4 acre) and would be landscaped with a variety of local plant species as well as non-invasive ornamentals and turf for active recreation areas. Approximately, 4,400 sf would include impervious surfaces such as pavers, concrete and asphalt for walkways and the Creekside Trail. The remainder of the park and plaza would be comprised of pervious planted areas including lawn, trees, a bio-infiltration area, and some ornamental planting. The creek corridor would be planted with local and California native drought resistant vegetation.

Café/Transit Annex Building

The Café/Transit Annex Building would be built at approximately nine feet above existing grade. The structures would likely be placed on driven piles.

Transit/Civic Plaza

The Transit/Civic Plaza would be built at approximately nine feet above existing grade by placement of lightweight fills. The plaza open space would be a combination of impervious hardscape and softscape areas planted with vegetation.

Railroad Plaza

The Railroad Plaza would be built on surcharge fills approximately ten feet above original grade and five feet below anticipated settled finish ground. The plaza would be an open space planted with vegetation.

Operation

The Train Station would not be staffed. Maintenance would be performed by Amtrak and the City's Public Works Department.

The Café/Transit Annex Building would be privately operated. Outside maintenance would be performed by the City's Public Works Department.

Maintenance of Refugio Creek and the various trails and plazas would also be performed by the City's Public Works Department.

2.2.2. Alternative 2: East of Refugio Creek Location

Alternative 2 would provide the same public transportation benefits as Alternative 1 described above. The primary differences between the two action alternatives is that the configuration of Alternative 2 would reroute vehicle traffic, provide pedestrian access to the transit facility at the eastern end of the train platform, and place the transit-related features, including the parking structure, east of Refugio Creek. In addition, the future ferry terminal would be moved east of the mouth of Refugio Creek (**Figure 2.2-18**). Development of Alternative 2 would be phased similarly as Alternative 1 described above, and the components would be similar.

Alternative 2 would route bus traffic through a transit loop located within the Hercules ITC development area and would consequently not require construction of the Transit Loop and Bridge (Figure 2.2-18). The transit-related facilities would be located east of Refugio Creek on the planned John Muir Parkway extension near its intersection with Bayfront Boulevard. A looped driveway from John Muir Parkway would provide separate vehicle access for commuter bus/paratransit drop-off and turnaround, and for passenger vehicle drop-off. A three-level parking structure would be located along John Muir Parkway, adjacent and east of the proposed Transit Center. Additional parking spaces would be provided for buses, taxis, and short-term automobile parking along the passenger vehicle access driveway, for a total of about 400 spaces.

Proposed Facilities

The main difference between the two action alternatives would be that Alternative 2 would not require construction of the Transit Loop Bridge and the transit-related facilities would be located east of Refugio Creek. Alternative 2 facilities that are different from Alternative 1 are described below.

Station Building and Bus Turnaround

Under Alternative 2, the Station Building would be located east of Refugio Creek on the planned John Muir Parkway extension near its intersection with Bayfront Boulevard (Figure 2.2-18). The Station Building would be a one-story structure maintaining similar architectural elements as Alternative 1 with an area of approximately 3,600 sf. The Station Building would be situated within an elevated pedestrian plaza constructed one level above grade, allowing passengers to enter the building at a level several feet above the rail line grade. This would serve to reduce the height of the ramps/stairs needed to reach the pedestrian overpass to the rail platform. Access to the train platform would be similar to that described for Alternative 1, with a combination of ramps, stairs, or elevators connecting to the proposed pedestrian overpass above the rail line.

A looped driveway from John Muir Parkway would provide vehicle access for commuter bus/paratransit drop-off and turnaround and for passenger vehicle drop-off. The driveway would slope upward from the street to the pedestrian plaza. Landscaped areas would be located between the Station Building and the drop-off areas; these would also slope upwards from street level to the plaza and include ADA-compliant sidewalks and paths for pedestrian access to the plaza and Station Building.

In addition to the Station Building, a small retail building could be developed in the plaza area. The retail building would have one story and an area of about 3,000 sf, and would also provide

space for a security office or police substation. Possible tenants would include small neighborhood businesses such as a café or retail shop.

Parking

A three-level parking structure, consisting of approximately 385 spaces, would be located along John Muir Parkway, adjacent and east of the proposed Station Building. The main entry and top floor of parking would be at the level of the station plaza, with two floors of parking below extending beneath the proposed Station Building, conference/banquet facility, and plaza. Access to the garage would be provided by a separate driveway from the extension of Bayfront Boulevard east of John Muir Parkway. The parking structure would provide parking for train and bus patrons as well as for conference/banquet facility users. Additional parking spaces would be provided for buses, taxis, and short-term automobile parking along the passenger vehicle access driveway, for a total of about 400 spaces.

Station Platform and Emergency Vehicle Access

Under Alternative 2, the proposed passenger platform would be identical to that in Alternative 1. Pedestrian access to the platform would be provided from the pedestrian overpass through a combination of stairs, ramps, or elevators; these would also be covered or enclosed for weather protection. Under Alternative 2, the pedestrian overpass would be located at the easternmost end of the platform connecting to the transit center station and the Ferry Plaza structure located on the bay side of the UPRR.

Construction of Alternative 2 would also require the construction of an EVA that would be located in the same location as in Alternative 1. Within Phase 1, the EVA crossing would not extend to the east (parallel) with the UPRR tracks. The ferry EVA connection would be completed in the future if the ferry is approved and constructed (Phase 5).

The EVA would be 20 feet wide by 129 feet long within the UPRR ROW, and 20 feet wide by 230 feet long south of the UPRR ROW. The future connection to the ferry is planned to be 20 feet wide by approximately 720 feet long north of the UPRR ROW. This additional length would require an additional bridge to cross the mouth of Refugio Creek. The bridge would be approximately 80 feet long; bridge footings and abutments would be constructed outside of the bed and banks of Refugio Creek.



Legend

- Project Boundary
- Retaining Wall
- Gas Line
- Bay Trail
- Creekside Trail
- Emergency Vehicle Access
- Interim Transit Parking Lot
- John Muir Parkway, Bayfront Blvd, and Bridge
- Landside Ramp
- Long Term Parking
- North Channel Restoration/Wetland Mitigation Area
- Parking, Conference, and Banquet
- Point Pedestrian Bridge
- Pointside Viewing Platform
- Railroad Plaza
- Refugio Creek Restoration
- Station Building
- Station Platform

1 in = 500 ft (at tabloid layout)

0 62.5 125 250 Meters

0 250 500 1,000 Feet

Figure 2.2-18: Alternative 2

City of Hercules
 Hercules Intermodal Transit Facility
 Contra Costa County, California

Data Sources: Map information was compiled from the best available sources. No Warranty is made for its accuracy or completeness. Topographic Base Map, Aerial photography from ESRI ArcGIS Online; Hydrography from National Hydrography Dataset; NWI Data from U.S. Fish and Wildlife Service and soils data from USDA NRCS Soil Survey. Data is State Plane Feet, NAD83 Zone 3

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2.2.3. Alternatives Considered and Withdrawn

Alternative 3: Rodeo Station Location

In the 1990s, the West Contra Costa Transportation Advisory Committee (WCCTAC) performed a screening process of potential Capitol Corridor station sites between Martinez and Richmond and narrowed the selection down to two: Hercules and Rodeo. A site analysis was performed using CCJPA Policy on Train Stations criteria (adopted October 14, 1998) and WCCTAC requirements (Korve Engineering 1999). These criteria included travel measures, site design measures, land use/environmental consideration, institutional viability, and cost measures.

The evaluation of land use, policy, and environmental considerations revealed constraints associated with both the Hercules and Rodeo sites; however, neither site had a fatal flaw that would render it infeasible for locating a train station (Korve Engineering 1999). The Hercules site was strongly supported by the General Plan and the intensity of future development. The Rodeo site was envisioned as a catalyst for downtown redevelopment; however, the location was not supported by Contra Costa County's General Plan. In addition, ridership projections indicated that the Hercules site would have a higher patronage potential than the Rodeo site.

The proposed Hercules station site is more centrally located with respect to the densely populated areas of west Contra Costa County. The proposed development in Hercules would have a greater pedestrian market area (4,400 pedestrians) than Rodeo (1,300 pedestrians). The transit ridership potential from Hercules would be three times that of Rodeo. At Rodeo, the surrounding property is mostly developed, thus limiting expansion; the site at Hercules is vacant and the development design would provide for future expansion. Environmental constraints for both Hercules and Rodeo were similar. In every category except cost, the Hercules site was rated superior to the Rodeo site (Korve Engineering 1999).

Additionally, the 2003 WTA Program EIR included analysis for a "Hercules/Rodeo" site, but did not include a site-specific analysis of a Rodeo location. While a potential ferry terminal could be sited at the existing Rodeo Marina (**Figure 2.2-19**), to serve as a multi-modal transit station and facilitate alternative modes of travel, a train station and potential future ferry terminal would be better served if constructed at a location within Hercules. For these reasons, this alternative was not carried forward for detailed analysis.

Alternative 4: Hercules Point Location

This alternative would locate the future ferry terminal on Hercules Point, with the ferry pier located on the north or west side of the point (Figure 2.2-19). A new vehicle and pedestrian bridge would be required to cross the UPRR tracks and provide access to the point. Roadways and parking areas would be constructed on Hercules Point near the future ferry terminal. The new train station would be constructed in the same location as proposed under Alternatives 1 and 2 and, under Alternative 5 discussed below. There would be no direct physical connection between the ferry terminal and the transit station/bus terminal. Buses, private vehicles, and pedestrians/cyclists would gain access to the ferry terminal by way of the separate rail overcrossing.

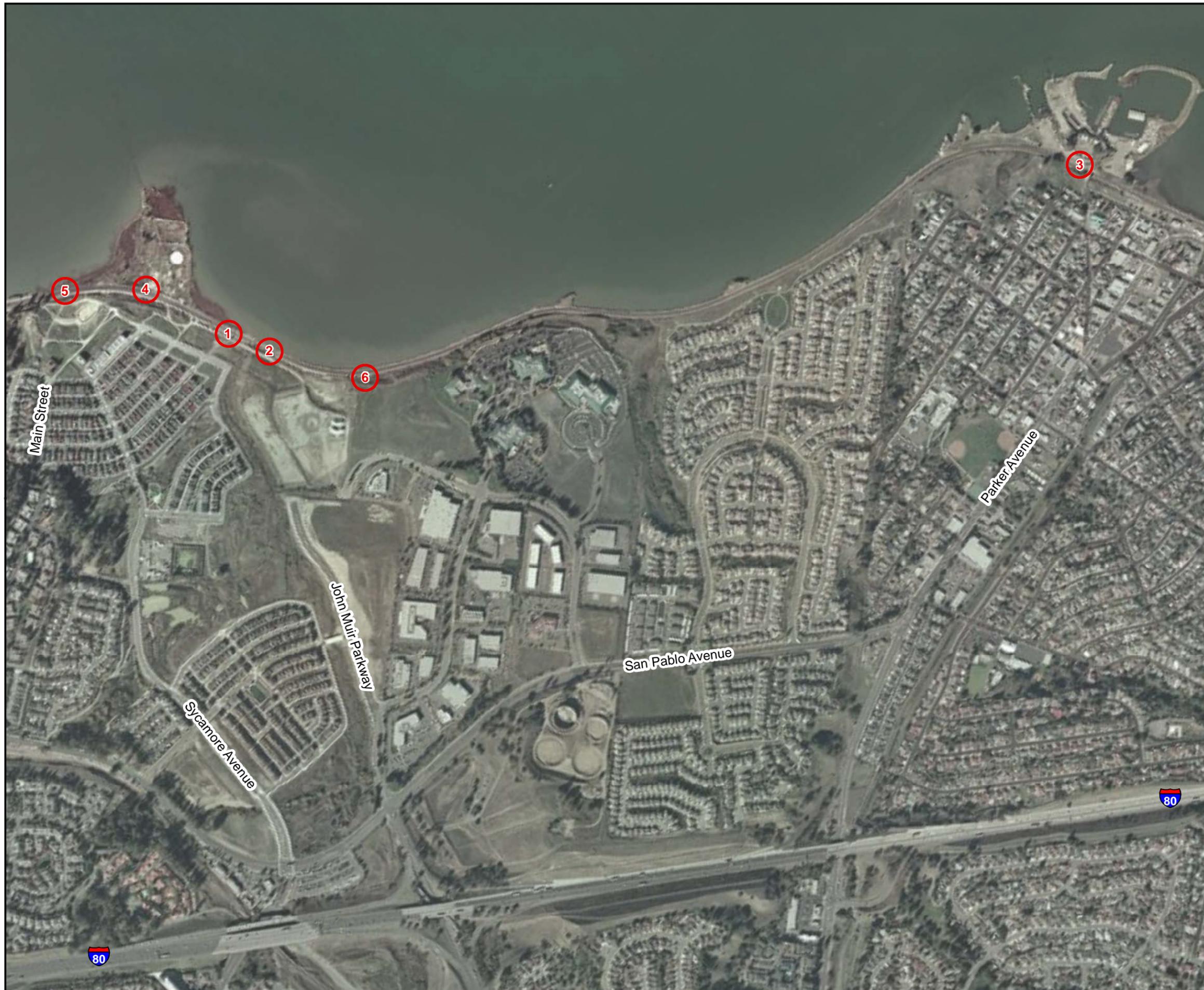
This alternative would achieve some of the objectives of the Hercules ITC and, in the future, could reduce ferry terminal initial and maintenance dredging, dredge spoils generation, and associated costs. However, this alternative would require construction of a highly visible vehicle bridge over the train tracks, at significant cost. In addition, the geotechnical and hazard (soil contamination) conditions on Hercules Point make this location less suitable for development of the bridge, ferry terminal, and other necessary improvements. Impacts related to these issues would be greater than those of the project alternatives. The Hercules Point location would not meet the objectives of providing easy connections among existing and planned ground transit facilities as effectively as Alternatives 1 and 2. This alternative would be inconsistent with the General Plan, as amended by the Waterfront Initiative, and the Waterfront District Master Plan, as amended by the Waterfront Initiative, which designate Hercules Point for open space and recreational uses. Additionally, Hercules Point is within the jurisdiction of the BCDC and siting the facility on the Point would require parking facilities which would be an incompatible use with BCDC guidelines relating to the promotion of visual resources and public access. For these reasons, this alternative was not carried forward for detailed analysis.

Alternative 5: Main Street Location

This alternative would locate the train station on the UPRR at a location southwest of Hercules Point at a location extending Main Street towards San Pablo Bay (Figure 2.2-19). Primary access to the train station would be via John Muir Parkway and Sycamore Avenue. As described above, there would be no direct physical connection between the ferry terminal and the transit station/bus terminal. Buses, private vehicles, and pedestrians/cyclists would gain access to the ferry terminal by way of a separate rail overcrossing. This location would not provide a convenient location to a future ferry terminal. Additionally, immediately adjacent to the proposed location is an existing open space area owned by the California State Lands Commission and leased to the East Bay Regional Parks, which inhibits development potential. Most importantly, design restrictions require a minimum length of 800 feet for the construction of a passenger platform and be located on tangent track, that is straight and without curve (Capitol Corridor Joint Powers Authority 2006). Locating a train station at this location would not provide the minimum geometry necessary to meet the design standards established by UPRR, Amtrak and the CCJPA. For these reasons, this location was not carried further for detailed analysis.

Alternative 6: Business Park Location

This alternative would locate the train station on the UPRR at a location northeast of Refugio Creek near the Bio-Rad facility (Figure 2.2-19). Primary access to the train station would be via John Muir Parkway. This area was not studied further due to the severe elevation differential between the railroad mainline and adjoining property. There is no feasible or practicable way to construct the station and transit improvements and connect with a passenger loading platform in the right-of-way. Additionally, similar to Alternative 5, locating a train station at this location would not provide the minimum geometry necessary to meet the design standards established by UPRR, Amtrak and the CCJPA. For these reasons, this location was not carried further for detailed analysis.



Legend

- 1 - West of Refugio Creek Location
- 2 - East of Refugio Creek Location
- 3 - Rodeo Station Location
- 4 - Hercules Point Location
- 5 - Main Street Location
- 6 - Business Park Location

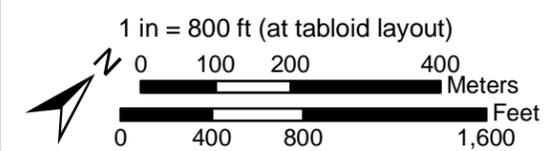


Figure 2.2-19: Alternatives Evaluated

City of Hercules
 Hercules Intermodal Transit Facility
 Contra Costa County, California

Data Sources: Map information was compiled from the best available sources. No Warranty is made for its accuracy or completeness. Topographic Base Map, Aerial photography from ESRI ArcGIS Online; Hydrography from National Hydrography Dataset; NWI Data from U.S. Fish and Wildlife Service and soils data from USDA NRCS Soil Survey. Data is State Plane Feet, NAD83 Zone 3.

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