

Appendix B
Basis for Location of Proposed New Intermodal Rail Facility at OARB

**BASIS FOR LOCATION OF PROPOSED
NEW INTERMODAL RAIL FACILITY
AT OAKLAND ARMY BASE**

**Prepared by Port of Oakland Staff
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Executive Summary: The Oakland Army Base (OARB) is currently going through the Base Reuse and Conversion process. This paper addresses the question of whether preservation of any of the 800-series warehouse buildings at OARB is consistent with provisions of applicable regional plans for maritime development necessary to satisfy future capacity demands. Federal actions taken as a part of that process, including Federal conveyance of the OARB, are required under the Federal Coastal Zone Management Act to be consistent to the maximum extent practical with the San Francisco Bay Conservation and Development Commission's (BCDC) Bay and Seaport Plans. The original base reuse plan proposed by the Oakland Base Reuse Authority (OBRA) was inconsistent with the Seaport Plan because it did not adequately accommodate the forecast growth of seaborne commerce through San Francisco Bay. A subsequent plan proposed by OBRA and the Port of Oakland (Port) allows for mixed-use development by the City and accommodates forecast growth of the Port that is consistent with the Seaport Plan. The central element of this plan is the expansion of marine terminals in the Outer Harbor area and the new intermodal rail facility (NIF) in the eastern part of the OARB. These elements create the capacity for the Port to effectively handle container growth through the year 2020. The design of the NIF must accommodate a minimum of 575,000 container lifts per year. The NIF, as proposed in the plan (see attached drawing¹), meets this minimum requirement. Any reduction in the footprint of the NIF will result in an inadequate throughput capacity to meet the requirements of the Seaport Plan. Accordingly, the configuration of the NIF cannot be altered to accommodate reuse of contributing buildings in the Oakland Army Base historic district because the design has already been pared down to the minimum that will fit into the available acreage and remain able to satisfy the provisions of BCDC's Bay and Seaport Plans, including the projected 2020 maritime container throughput demand.

Background/Chronology: The Port has been designated as the regional port for San Francisco Bay under BCDC's Seaport Plan. As such, the Port is expected to provide the capacity to handle all future container growth in the San Francisco Bay Area (to minimize damage and fill in the Bay). In order to meet these needs, the Seaport Plan calls for a total of 1000 acres of container terminals at the Port of Oakland.

OBRA was created to guide the community's planning effort for the closure and reuse of the Oakland Army Base. OBRA's planning effort culminated in the 1998 Base Reuse Plan and reflected the community's preferred development scenario at that time. However, it became

¹ The attachment is taken the Knight Yard JIT Alternatives Reconnaissance Study, prepared by the Parsons Transportation Group for the Port of Oakland, May 2000. The study examined alternative intermodal terminal layouts given operational requirements and physical constraints of the Oakland Army Base property.

apparent that the *entire* Oakland Army Base was subject to BCDC's port priority use designation as delineated in its Bay and Seaport Plans. BCDC staff subsequently expressed concern that the Base Reuse Plan was inconsistent with the Bay and Seaport Plans, which use regional cargo forecasts to manage seaport expansion and minimize bay fill. BCDC staff did not believe that BCDC would be able to concur with the Army's consistency determination, then pending before BCDC, for Army conveyance in accordance with OBRA's 1998 Base Reuse Plan.

In order to meet the BCDC mandate and ensure consistency of the Army's conveyance actions with the Federal Coastal Zone Management Act, OBRA and the Port developed an alternative plan that would meet BCDC's forecast capacity needs at the Port and provide the opportunity for non-maritime City of Oakland development at OARB. This alternative plan calls for the creation of additional marine terminal capacity and the development of the NIF. The combination of these developments would give the Port the opportunity to accommodate the growth of waterborne commerce through 2020, which demonstrated to BCDC that the port priority use designation could be removed from most of the OARB upland areas west of Maritime Street and northerly portions of the Base including the former Baldwin Railyard and the Subaru Lot.

New Intermodal Rail Facility: As stated earlier, in order to meet BCDC's 2020 throughput capacity forecast, approximately 1,000 acres of Harbor area within proximity of deepwater would need to be devoted to Marine Terminal. Only by locating the NIF site at OARB, and assuring that the NIF would have adequate capacity, was BCDC persuaded to reduce the port priority footprint. The Port performed engineering studies to develop several alternative configurations, which would be functional and still fit within the OARB footprint. All but one of these alternatives, which did not even come close to meeting the throughput capacity requirements, necessitated removal of the 800-series warehouses.

The total track length and track geometry for a minimally functional intermodal rail yard are dictated by many factors. Typical design criteria and considerations include the following:

- Available acreage
- Railroad track curvature/geometry
- Necessary track length
- Estimated number of container lifts per track foot per year
- Mainline railroad track access
- Highway access
- Roadway curvature/geometry/speed limits
- Physical constraints (freeway columns, BART, grade separation etc.)
- Minimum commercially viable cargo throughput capacity
- Storage area for cargo parking, gates, buildings, facilities
- Operations and maintenance
- Public Utility Commission and Federal Railroad Administration regulations
- RR and terminal operational safety (crossings etc.)
- Proximity to Marine Terminals

Based on Port engineering analysis and consultant studies, the minimum throughput of the NIF requires approximately 28,000 lineal feet of working (loading and unloading) track and an additional 26,000 feet of storage track. In addition, approximately 1600 storage spaces for containers adjacent to the working tracks are necessary. This results in a minimum footprint of approximately 160 acres. To maintain efficiency of cargo movement, enough track length must be provided in order to avoid splitting trains while cargo is loaded and unloaded. The track in the planned NIF is designed to provide approximately 575,000 container lifts² per year. This is the absolute minimum number of lifts that would meet the BCDC forecasts for container movement at the Port of Oakland. Reductions in any of the above elements would result in significant loss of throughput capacity by limiting the number of railcars that can be handled and loss of operational efficiencies.

The NIF links to the mainline rail system through a narrow throat at the north end of the site. This throat is already heavily constrained, due to the location of the Cypress Freeway, The East Bay Municipal Utility District Wastewater Treatment Facility and the Union Pacific Railyard. At an absolute minimum, the planned width between the location of the NIF westerly boundary and the OAB easterly boundary is required to provide room for the rail lines to merge and simultaneous ingress and egress. OBRA's rail and transportation consultant, Trans Systems (formerly Vickerman, Zachary and Miller - VZM) carefully reviewed the design criteria and configuration of the NIF. TransSystems' findings confirmed that the design of the NIF was the minimum necessary for a functional facility.

Conclusion: The design for the NIF is based on the physical and regulatory constraints of the OARB site and operational requirements. Construction of the NIF and new marine terminal facilities will require the removal of all or portions of the 800-series warehouse buildings. Redesign of the NIF in order to avoid Building 808, the northernmost warehouse (or any of the other 800-series buildings), would reduce the footprint of the NIF, which cannot be reduced any further and remain consistent with the BCDC Seaport Plan.

² A "lift" is the movement of a cargo container from a train to a truck or vice versa.

