

**ADAPTIVE REUSE FEASIBILITY STUDY FOR
ANCILLARY MARITIME SUPPORT (AMS) ACTIVITIES
PORT PRIORITY USE AREA
EAST GATEWAY
FORMER OAKLAND ARMY BASE
PORTIONS OF BUILDINGS 804, 805, 806, 807 AND 808**

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City of Oakland Community & Economic Development Agency

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With reliance on past reports compiled by Woodruff Minor (*Feasibility Study for Adaptive Reuse for Auto Dealership Activities*, October 2006 and *Architectural Salvage Assessment Contributing Buildings Oakland Army Base Historic District*, December 2006) and Nancy Stoltz (*Oakland Army Base Historic Building Reuse Alternatives Report*, April 2002)

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1. INTRODUCTION AND SUMMARY

REPORT PURPOSE

This report has been prepared for the City of Oakland's Community & Economic Development Agency (CEDA) to study the technological feasibility of reusing the "800-series" historic warehouse buildings on the former Oakland Army Base (OARB) for Ancillary Maritime Support (AMS) activities, with a specific focus on distribution center, warehouse, produce market, office, and truck parking activities. This report is an outgrowth of the OARB Area Redevelopment Plan Environmental Impact Report (EIR) (certified July 2002), and is meant to partially satisfy Mitigation Measure 4.6-14 which in relevant part states that:

"...Demolition or deconstruction of contributing structures to the OARB Historic District necessary for redevelopment activity within the Gateway development area (except as necessary for the protection of public health and safety, including hazardous material or waste remediation) shall not occur until such time as actual development projects are proposed and permits for their construction have been approved. No such permits shall be approved until such development projects can demonstrate that they have considered adaptive reuse of historic structures, but that adaptive reuse is found to be infeasible..."

This report builds on the two previous OARB historic reuse reports (*Oakland Army Base Historic Building Reuse Alternatives Report*, prepared April 2002, and the *Feasibility Study of Adaptive Reuse for Auto Dealership Activities*, prepared October 2006) which evaluated the feasibility of reusing the OARB warehouses for Flexible Alternative and auto dealership land uses, respectively, and should be considered by the Oakland Redevelopment Agency prior to determinations affecting the OARB historic warehouses. A third report (*Architectural Salvage Assessment*, prepared in December 2006) addresses the salvage and reuse of historically-significant architectural features.

ANCILLARY MARITIME SUPPORT AND THE ADAPTIVE REUSE STUDY AREA

The OARB Final Reuse Plan (July 2002) stipulated that the former Army Base be divided into the Port of Oakland Development Area and the City of Oakland Gateway Development Area. The City's Gateway Development Area was further subdivided into the North Gateway, Central Gateway, East Gateway, West Gateway, and Park subareas, as shown in Figure 1.

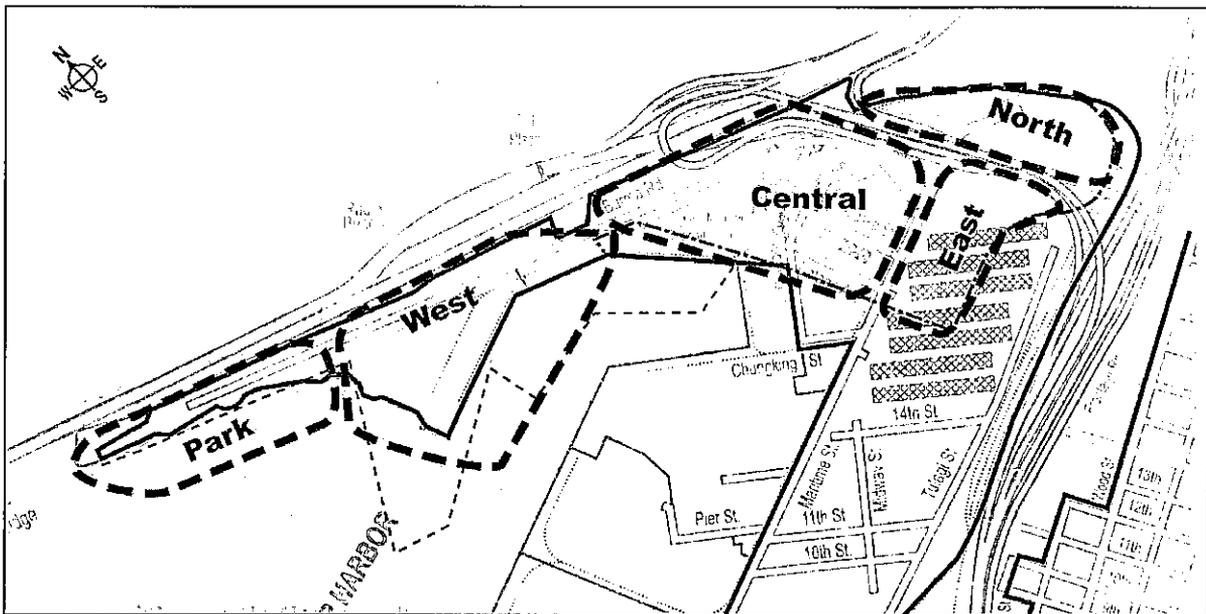


Figure 1. Gateway Development Subareas

The San Francisco Bay Conservation and Development Commission (BCDC), which has authority over development on San Francisco Bay, exerted its authority through its regulatory program and two planning documents: the *San Francisco Bay Area Seaport Plan* (developed jointly with the regional Metropolitan Transportation Commission) and the *San Francisco Bay Plan* (“*Seaport Plan*” and “*Bay Plan*”, respectively). These plans designate certain areas for Port Priority Use only. As per the *Seaport Plan* (p.9):

“Port Priority Use Areas” are reserved for regional maritime port use and include within their premises marine terminals and directly related ancillary activities such as container freight stations, transit sheds and other temporary storage, ship repairing, support transportation uses including trucking and railroad yards, freight forwarders, government offices related to the port activity, chandlers and marine services.

These “directly related ancillary activities” are referred to as Ancillary Maritime Support (AMS) uses.

A 15-acre parcel within the City’s Gateway Development Area has been designated a Port Priority Use Area in the *Bay Plan* and *Seaport Plan* and is intended to be developed with AMS uses. This 15-acre parcel in the East Gateway is the adaptive reuse study area for this report.

The study area contains portions of five buildings contributing to the Oakland Army Base Historic District. These buildings--804, 805, 806, 807 and 808--are known as the “800-series” warehouses; they are seven in total, virtually identical structures arranged in a row. Built in 1941 and 1942, each is nearly 1,300 feet long and each building encloses 233,640 square feet.

The OARB Reuse Plan, as supported by a Memorandum of Agreement between the City and the Port (2003), specifies which portions of the former Base will be developed by the Oakland Redevelopment Agency and by the Port of Oakland, respectively. A section of the jurisdictional boundary line between these two development areas passes through the five buildings listed above. The City has control of only those portions of the 800-series warehouses located on the City Gateway Development Area side of the boundary. Planned development of a rail facility by the Port on the adjacent property to the east would necessitate partial demolition of the 800-series warehouses, leaving only a portion available for reuse, as shown in Figure 2.

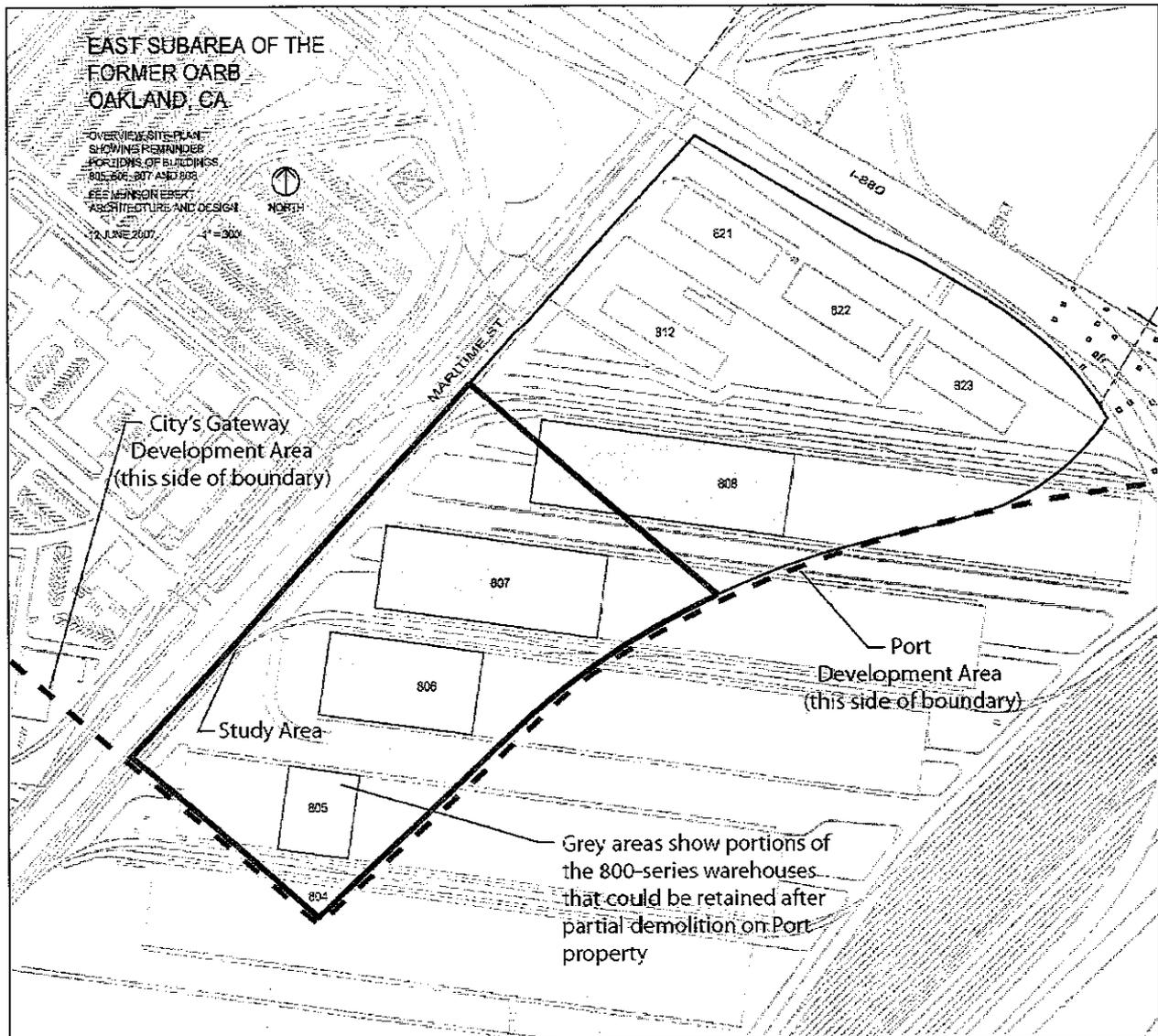


Figure 2. 800-Series Warehouse Remnants Within the City's Gateway Development Area

Reuse options have only been evaluated for those portions of the buildings in City control and focus upon the following land use activities as directed by the Oakland Redevelopment Agency:

- Distribution Center

- Warehouse
- Produce Market
- Office

It is presumed that any of these reuse options could be combined with a truck parking facility on the remaining land area. The total amount of truck parking that could be accommodated on site along with reuse of the building or buildings has been calculated. The amount of truck parking that would be devoted to the building tenant would vary by tenant. Therefore, the entire amount of truck parking has been shown where only some portion of that area could be made available as a truck parking facility.

Also, in the event the Redevelopment Agency elects to redevelop the study area without adaptive reuse of any existing structures, a truck parking reuse option has been evaluated.

As described above, AMS is a broad category of uses that directly support maritime operations at the Port of Oakland. Based on the eight-year public planning process for the Gateway Development Area, and based on discussions with BCDC, the Port, and other governmental and community stakeholder groups, it appears that the most appropriate uses for this AMS area include the following AMS uses: Distribution Center, Trucking, and Warehouse. In addition, there has been significant discussion within the West Oakland community about the desire to relocate trucking uses to the Gateway Development Area, as a way to improve health and safety in West Oakland. On May 15, 2007, the Redevelopment Agency Board voted unanimously to issue a RFP for development of the AMS Area, with the RFP targeted specifically for the development of trucking uses. For purposes of this analysis, the Agency has requested that the following uses be studied: Warehouse, Distribution Center, Office, Produce Market and Truck Parking. Note that “Office” and “Produce Market” uses are also studied in an attempt to look at as broad a range of uses as possible and that BCDC has the final interpretation over whether a use would qualify as an AMS use allowed in a Port Priority Use Area.

AGENCY GOALS AND RATIONALE FOR DEVELOPMENT

The Redevelopment Agency is seeking to achieve several goals through development of the study area:

- Retain and create high quality jobs in trucking, logistics, and/or other related sectors
- Play a role in the overall modernization, expansion, and transformation of the Port of Oakland into a major national and regional logistics center
- Relocate existing trucking uses out of residential areas, in order to improve the quality of life for West Oakland residents
- Fulfill BCDC’s requirement to provide space for Ancillary Maritime Support uses
- To the extent feasible, accommodate adaptive reuse of historic buildings and/or reuse deconstructed materials salvaged from the historic buildings

SUMMARY OF FINDINGS

In summary:

1. Portions of four of the five 800-series warehouse that are located partially within the City's East Gateway sub-area-- Buildings 808, 807, 806, 805-- could potentially be retained and adaptively reused for AMS uses. The fifth structure, Building 804, lies primarily within Port jurisdiction and is also expected to be removed for the above-referenced Port project. The small remnant of the building within Agency jurisdiction (5,600 square feet, or 2 percent of the total floor area) is not expected to be independently structurally viable.
2. One of these five buildings, Building 808, also straddles the boundary between the 15-acre Port Priority Use study area and the remainder of the East Gateway sub-area. The portion in the study area would not be expected to be independently structurally feasible. The site boundary could potentially be adjusted to eliminate the necessity for partial demolition of the western end of Building 808 at this time, but such a boundary adjustment would result in a loss of efficiency on the site.
3. From an architectural design perspective, none of these buildings would be suitable for reuse as office space because the width/depth of these buildings is too large for a modern office.
4. The remnant of Building 805 is not feasible for reuse as a warehouse or distribution center because it is too small. Additionally, necessary partial demolition on both ends of the building would likely increase the cost of reuse of this relatively small space to prohibitive levels. However, a conceptual site plan for reuse has been prepared under the supposition that this remnant may be able to be used as a subsidiary building for a truck parking facility, possibly with bathroom facilities and limited office/food service.
5. From an architectural design perspective, two of these buildings may be suitable for reuse individually or together as warehouses, distribution centers, or a Produce Market, including the remnant of Buildings 806 and 807. These buildings were originally built as supply warehouses, have largely remained in that use, and could relatively easily be rehabilitated for a continued similar use.
6. Because the study area is designated a Port Priority Use Area by BCDC and restricted to AMS uses, consideration must be given to whether a potential reuse option would qualify, or whether the Port Priority Use designation would need to be relocated.
7. Truck parking is a high priority AMS use, so the relative amount of truck parking has been identified under each conceptual reuse option. Any option that seeks to reuse portions of the 800-series warehouses would reduce the amount of land that could otherwise be made available for truck parking.

These findings are illustrated in Tables 1 and 2 below.

TABLE 1. REUSE FEASIBILITY FOR LAND USE ACTIVITY				
BUILDING (SQUARE FEET)	DISTRIBUTION CENTER	WAREHOUSE	PRODUCE MARKET	OFFICE
Building 804 (5,600 sf)	None. Reuse is impractical because only a portion (5,600 sq) of the side of the building is within Agency jurisdiction and the Port plans demolition of the vast majority of this structure. The portion remaining in the study area, being less than one complete segment of the building, would not be expected to be structurally viable after this demolition.			
Building 805 (27,720 sf)	None. However, possible reuse as a subsidiary building to a truck parking facility, although because the remaining portion is from the center of the building, the cost of two new end walls would likely be prohibitive. Reuse as one of the targeted uses is impractical because the remaining portion (27,720 sq) is too small for any modern distribution center, warehouse, or the Produce Market and is too wide for a modern office.			
Building 806 (59,400 sf)	Either of these buildings could function as a Distribution Center but has limitations due to non-standard structural elements within the structure.	Either of these buildings could function as a warehouse alone or in conjunction with the other, but have limitations due to non-standard structural elements within the structure.	The Produce Market would be expected to require reuse of both these buildings together.	Possible, but modern offices typically require a max. 100' depth, whereas these buildings have an 180' depth and variable widths.
Building 807 (87,120 sf)	Because retention of adjacent buildings would preclude use of facing docks, it is not considered feasible to retain more than one of these buildings if reused as a Distribution Center.	While inability to use facing docks may decrease efficiency, it would not be expected to do so to a level that would preclude warehouse reuse of both these buildings.	Efficiency could be increased by raising the aisle between the buildings so that facing docks could be used for loading/unloading of smaller trucks.	
Building 808 (13,395 sf)	None. Reuse is impractical because only a portion (13,395 sq) of the corner of the building is within the study area. The portion located in the study area, being less than one complete segment of the building, would not be expected to be structurally viable on its own.			
	Because development on the study site as defined would likely necessitate partial demolition of Building 808, an alternative boundary for the study site has been proposed that would exclude Building 808 in its entirety and allow for its potential reuse outside of the study area.			

The 800-series warehouses have non-standard structural elements that will reduce their efficiency for reuse as a warehouse or distribution center (including a Produce Market) while not reducing their function to a point that such reuse would be considered infeasible. These non-standard structural elements include:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet
- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Variable but limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet

The truck parking opportunities associated with each of these activities, as well as that for a single-use trucking parking development, are shown in Table 2, below, along with the square footage of the buildings that could be preserved:

TABLE 2. REUSE OPTIONS SUMMARY COMPARISON						
	Bldg 806	Bldg 807	Bldg 806 & 807	Bldg 806 & 807	Bldg 805	Removal of Bldgs 805-808
Proposed Use	Warehouse/ Distribution	Warehouse/ Distribution	Warehouse	Produce Market	Subsidiary Truck Parking Bldg	Truck Parking
Projected Building Size	59,400 sf	87,120 sf	146,520 sf	146,520 sf	27,720 sf	---
Number of Docks	39	55	37	37 (plus 32 limited use)	0	---
Total On-site Truck Parking *	333	296	203	203	390	463

* This number represents the total amount of truck parking that could be accommodated on the site along with reuse of the building or buildings. The amount of truck parking that would be devoted to the building tenant would vary by tenant. Therefore, the entire amount of truck parking has been shown where only some portion of that could be made available as a truck parking facility.

The analysis process by which these conclusions were generated is detailed in subsequent chapters of this report. As previously stated, these findings are intended to assist the Redevelopment Agency in its considerations of the disposition of the OARB historic warehouses.

2. HISTORIC CONTEXT

HISTORY OF THE OAKLAND ARMY BASE

Development of the Oakland Army Base began in 1941, prior to the Japanese attack on Pearl Harbor. It was one of four major military facilities operated as a sub-port of the San Francisco Port of Embarkation (SFPE), headquartered at Fort Mason in San Francisco, becoming its largest single cargo terminal upon its completion in 1943. Its facilities integrated various transportation modes, facilities and functions, encompassing rail marshalling yards, wharves with deepwater berths for the largest cargo ships, a dry dock and marine repair shops, wharf-side transit sheds, and immense warehouses capable of holding the stockpiles of materiel destined for the Pacific theater. The entire operation was linked by a rail system and overseen by onsite administrators and support staff operating out of a sprawling office facility. It was the only complete Army port installation of its kind in the nation.

Among the several divisions of the SFPE housed at the Base were the Oversea Supply Division, the Transportation Division, the Water Division, and the Training Division. The immense warehouses east of Maritime Street were built to house supplies of the Technical Services Division. In addition to these specialized divisions, the base included Camp John T. Knight, a support facility and training camp for troops. The camp's cantonment structures were standard designs widely employed on World War II era Army bases. More specialized structures and cargo-handling facilities were developed at the northern end of the base, while Camp Knight occupied the area generally to the south of the warehouses, on either side of Maritime Street.

The firm of Bechtel-McCone-Parsons, of Los Angeles, was selected as the Architect-Engineer for the proposed Port of Embarkation and General Depot Facilities at Oakland, working under the direction of the Office of the Constructing Quartermaster of the Army. In its Engineering Report dated December 1, 1941, Bechtel-McCone-Parsons described the principal facilities planned for the Port of Embarkation and the General Depot, which would eventually become known as the Oakland Army Base. The Port of Embarkation facilities were principally "ships' berths, apron wharves, transit sheds, storage sheds" and support services and utilities located west of Maritime Street. Distinct from these were the facilities of the General Depot, which were to consist "principally of single-story permanent warehouses for the storage of Quartermaster, Engineer, Medical, Signal, Ordnance Corps, C.W.S and other supplies." These seven warehouses, commonly referred to as the "800-series" warehouses, constituted the principal facilities of the General Depot.

The work of constructing the Base was begun under the direction of the Construction Division of the Quartermaster Corps and was overseen by the constructing quartermaster. The Quartermaster Corps was one of two construction divisions in the Army at that time and had been explicitly charged by the War Department with the bulk of barracks construction at the cantonments needed to house troops during training, as well as building facilities for the Army Air Corps. On

December 1, 1941, all war construction was turned over to the Army Corps of Engineers, and the two Construction Divisions of the Army were essentially consolidated.

THE OAKLAND ARMY BASE HISTORIC DISTRICT

A historic district potentially eligible for inclusion in the National Register of Historic Places (NRHP) was first identified by the California Department of Transportation (CalTrans) in 1990 as part of its evaluation of alternatives for reconstruction of Interstate-880. The Oakland Army Base Historic District was subsequently evaluated and determined eligible for the NRHP based on a significant contribution to American History during World War II but has not been formally listed on the register.

The Oakland Army Base Historic District currently contains 21 contributing resources—18 buildings and three wharves—constructed during World War II or earlier, divided generally between a warehousing area east of Maritime Street and an administrative/support sector west of Maritime Street, bordering the shoreline (see Figure 3). The study area is included in the historic district and contains portions of 5 contributing building, all 800-series warehouses described below.

The *Oakland Army Base Historic Reuse Alternatives Report* was prepared in 2002¹ (the “Stoltz Report”) following the closure of the base and development of a plan for its reuse. The Stoltz Report found that preservation of the contributing structures on areas controlled by the Port of Oakland was infeasible and that loss of these 14 structures would result in the loss of NRHP eligibility of the district. While none of the remaining resources have been determined to be individually eligible as historic resources, the City of Oakland adopted a mitigation measure from the 2002 Oakland Army Base Redevelopment Area EIR requiring analysis of the feasibility of reuse before any contributing structures on their properties could be removed.

The *Architectural Salvage Assessment, Contributing Buildings Oakland Army Base Historic District* (2006) documented and assessed the architectural features and building components of the contributing buildings within the OARB Historic District.² That report addresses the requirements of the OARB Redevelopment Area EIR Mitigation Measures 4.6-9 and 4.6-15, which refer to salvage and reuse measures for historically-significant building components.

¹ This study was prepared in 2002 for the Oakland Base Reuse Authority by Nancy E. Stoltz, project manager; Ripley Architects, consulting architects; Rutherford & Chekene, structural engineers; Moffatt & Nichol, marine engineers; and Davis Landon Adamson, cost estimators.

² This study was prepared for the City of Oakland Community & Economic Development Agency and the Port of Oakland Environmental Planning and Permitting Department by architectural historian Woodruff Minor as part of the City and Port Joint Program for Cultural Resources Mitigations.

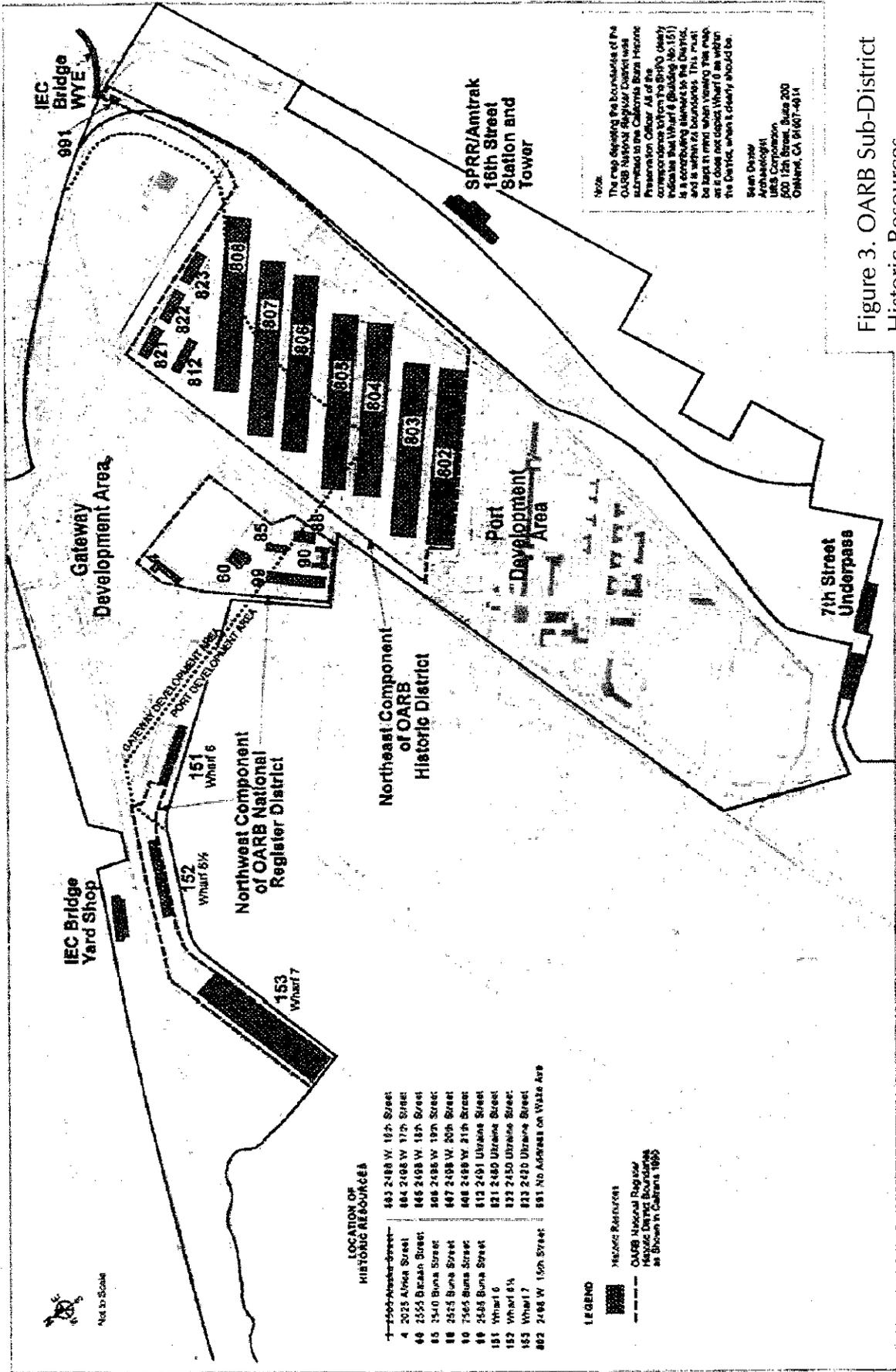


Figure 3. OARB Sub-District Historic Resources

BUILDINGS 802, 803, 804, 805, 806, 807, AND 808

Included in the historic district and considered contributing buildings are seven large warehouses. These seven “800-series” warehouses were completed in two stages, according to the Army Port Contractor’s records. Construction began at the south end, with Buildings 802—805 completed between November 11, 1941, and February 2, 1942. The other three warehouses (Buildings 806—808), were completed in June of 1942, according to Army Real Property Records. The buildings were constructed by the Army Port Contractors but they were evidently designed by Bechtel-McCone-Parsons Corporation, which also designed the Administration Building and the Cafeteria on the base. These buildings were designed for use as warehouses and for the most part have remained in that use.

Due to jurisdictional boundaries between the Port of Oakland and the City’s Redevelopment Agency, only a portion of the warehouses in the City’s Gateway Development Area could potentially be preserved (see General Considerations in Chapter 4).

The Stoltz Report concluded that loss of 50 percent or more of an 800-series warehouse would cause it to lose eligibility as a contributing structure to the historic district and focused on Building 808 as the only warehouse that could retain at least that portion after partial demolition on the Port’s property. The Stoltz Report had the following to say about partial retention (p3-4):

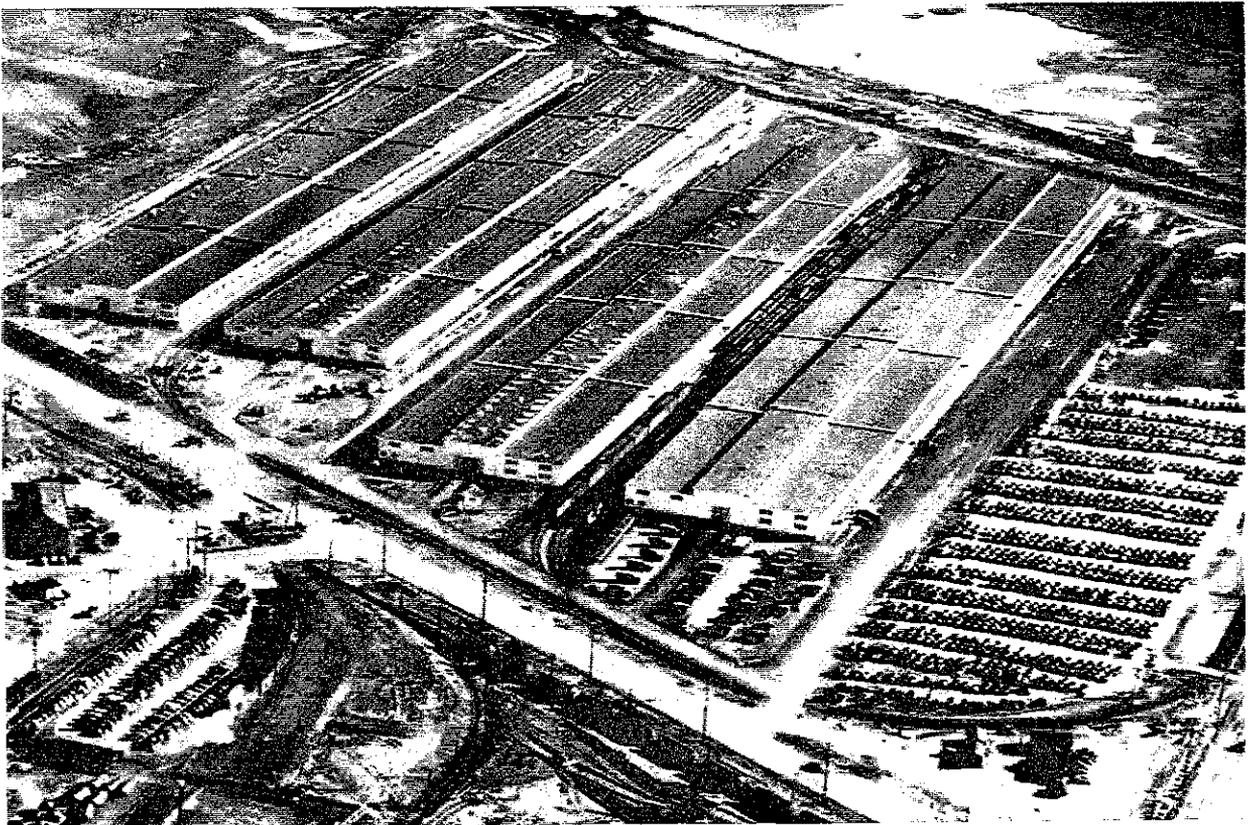
Partial demolition of an historic resource clearly results in a loss of historic fabric, and depending on the extent of the demolition, can also result in a loss of integrity. If a portion of the building is demolished to the extent that the building’s form, plan, spatial organization, scale and materials are substantially altered or lost, it would no longer retain integrity of design and/or materials. Loss of substantial portions of a building would also adversely affect its associative values that link it with important historic events. All of these attributes, particularly its grand scale, are essential physical features of Building 808.

With the understanding that the 800-series warehouse remnants would not be eligible as historic resources, the City of Oakland has directed that their preservation be explored while also considering overreaching goals for redevelopment.

3. PROPERTY DESCRIPTION

STUDY SITE

The 800-series warehouses are seven identical or mirror-image plan warehouse buildings located east of Maritime Street and south of the West Grand Avenue intersection. The seven warehouses (Buildings 802—808) are sited parallel to one another and oriented southeast—northwest, with Building 808 northernmost in the row. Alternating warehouses in the row are identical in plan, i.e., the even-numbered warehouses (Buildings 802, 804, 806, and 808) have identical plans, while the odd-numbered warehouses (Buildings 803, 805, and 807) have a mirror-image plan. Since the standardized building design is essentially symmetrical, the buildings appear identical from the exterior. Rail access was provided on one side of each building and truck access on the opposite, so the mirror-image arrangement allowed for shared use of rail lines between alternating buildings. At the ends of each building, a pair of rolling doors provides access to the interior.



Aerial View of the “800 Series” Warehouses in mid-1942. The warehouses shown (from right to left) are Buildings 802, 803, 804, and 805. The final three warehouses in the row (Buildings 806, 807, and 808) were completed later that year. (Source: Port of Oakland Archives)

The study area comprises a portion of the East Gateway sub-area in the City's Gateway Development Area of the former Oakland Army Base and has been designated a Port Priority Use Area under BCDC. As such, the property is limited to certain maritime-related uses. This 15-acre study area includes portions of five of the 800-series warehouses, as discussed in Chapter 1 of this document.

It is assumed that the Port of Oakland will proceed with plans to remove their portions of the 800-series warehouses to enable construction of a modern, efficient intermodal facility. The Stoltz Report concluded that preservation of structures on the Port Development Area was infeasible as it would prevent the Port from adhering to the Bay Plan and Seaport Plan and meeting necessary projected cargo throughput capacity. Both the Port and the City found the development of an intermodal facility at this location to be of such importance that its benefits outweighed the adverse impacts to historic resources.

It is unknown at this time when construction of the Port's intermodal facility will begin. Any necessary partial demolition of portions of the 800-series warehouses in the City Gateway Development Area could proceed before, after or concurrently with demolition/partial demolition in the Port Development Area. Through prior discussions with the Port, however, it has been agreed that should the Redevelopment Agency desire to retain its portions of the structures for reuse, the Port would deconstruct its portions of the warehouses in a manner that preserves, to the maximum feasible extent, the structural capacity of the remaining building area for the Agency's subsequent reuse.

800-SERIES WAREHOUSE BUILDINGS

The Stoltz Report notes that the 800-series warehouses have been altered little since their construction (p.2-25) and proceeded to more fully analyze Building 808. The following observations/conclusions are largely sourced from the Stoltz Report and are representative of all the 800-series warehouses.

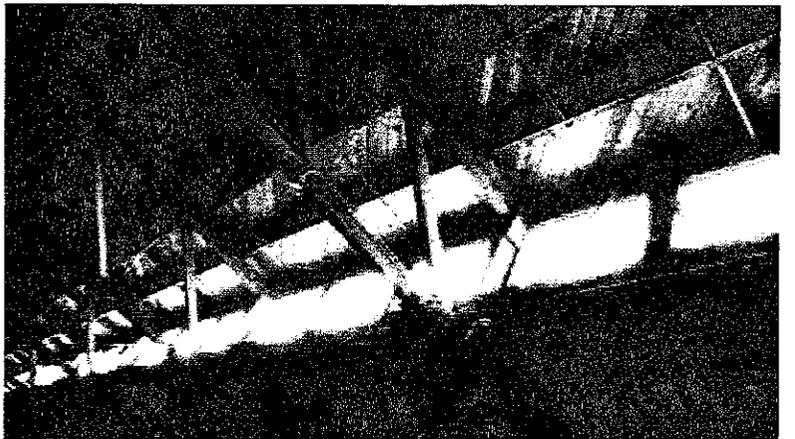
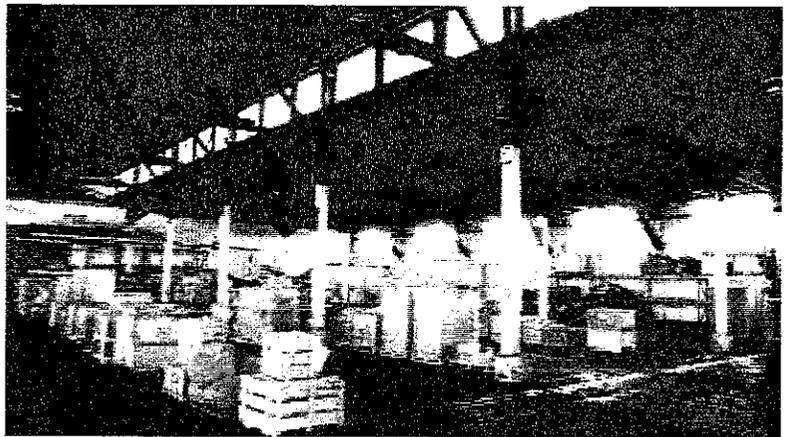
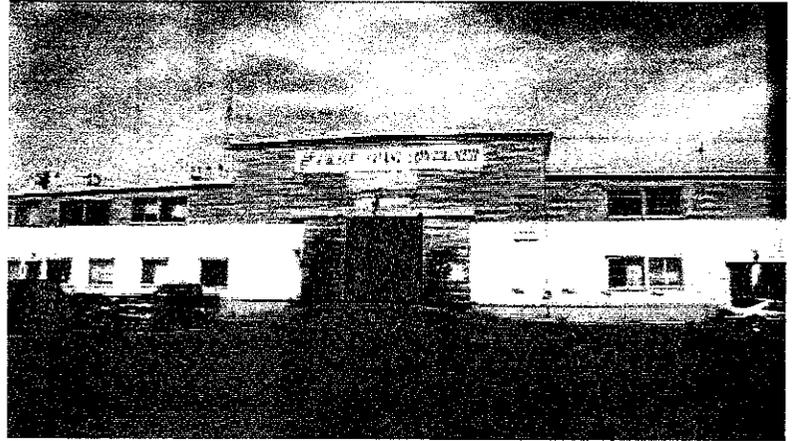
The structure of each warehouse is nearly 1,300 feet long, just short of a quarter-mile, and encloses 233,640 gross square feet of space, providing over 5.3 acres of protected storage area. The 800-series warehouses were the largest structures built at the original sub-port. All were built from a single set of drawings and were designed symmetrically about both axes. Raised loading docks were provided along each side, providing access to a raised concrete floor at the same height. A set of sliding doors provides access at either end of the building. Access along the length of the building is provided on both sides by pairs of exterior mounted sliding doors. Originally, rail access was provided on one side and truck access on the opposite, but the rail spurs are no longer in use. The locations of the truck and rail docks were reversed at alternate buildings so that they could be paired to group and segregate rail spurs from truck-loading docks and maneuvering areas. Projecting overhead canopies provide shelter at both docks.

The approximately 32-foot tall single-story building is divided internally into five transverse sections. The two sections at either end of the building have twelve bays each, while the central

section is only eleven bays in length. These internal divisions are expressed externally on the building by the firewalls that project through the roof. A wide central bay extends down the length of each structure and is expressed on the exterior by the line of continuous clerestory windows that bring light into the 52-foot wide central bay. The flanking side "aisles" of the building are each composed of two bays, each measuring 32 feet across, giving the building an overall width of approximately 180 feet, exclusive of the loading docks. Vertical clearance from the floor is approximately 18 feet at the side bays, allowing for stacking of goods within.

The horizontal siding appears to be redwood, as does the original window sash. The high, central clerestory windows form a continuous band, while those above the freight doors and at the east and west elevations are paired. At ground floor level, only the offices originally located at the west end of each building were provided with windows, which were operable. They were double hung sash; all other windows were fixed sash.

Some of the buildings have had the sash and glazing in the south side clerestory windows removed or covered with translucent corrugated plastic panels. There have been no significant changes to the building form, exterior materials, basic loading dock configuration and overhanging canopies. Most of the large freight doors appear to be intact and functional. Few changes have been made to the interiors, which still convey a strong sense of the vastness and openness of each building. Even the original fire doors that separate the five areas within are still present and functional if needed.



Photos of Building 808, one of the nearly identical 800-series warehouses. (Source: Feasibility Study of Adaptive Reuse for Auto Dealership Activities, October 2006)

4. ADAPTIVE REUSE OPTIONS & ANALYSIS

PROCESS

ADAPTIVE REUSE OPTIONS

This study analyzes reuse opportunities for the following land use activities,

- **Distribution Center:** A facility that operates a relatively high-throughput³ receipt and dispatch of cargo involving the consolidation, stuffing, stripping or reworking of containers. The necessary throughput of a distribution center would be such that it would require a maximum number of loading docks. To qualify as an AMS activity the distribution center would have to directly handle containers going to/from the Port.
- **Warehouse:** "Warehouse" is differentiated from a distribution center by its relatively lower throughput, which translates to an ability to work with fewer loading docks. The general activities (receipt and dispatch of cargo involving the consolidation, stuffing, stripping or reworking of containers) are the same as a distribution center, but with potentially more temporary storage. To qualify as an AMS activity the warehouse would need to directly handle cargo/containers going to /from the Port.
- **Office:** A building in which professional and/or clerical duties are performed. These buildings are usually compartmentalized into individual work stations or smaller offices in addition to common areas such as restrooms, break rooms, copy rooms, and meeting rooms. To qualify as an AMS activity the office use would have to be directly related to Port shipping and receiving activities.
- **Produce Market:** A collection of produce wholesalers who receive and break down shipments of produce then sell/ship portions to grocery stores and markets, restaurants and caterers, and other wholesalers.

It is presumed that any of these reuse options could be combined with a truck parking facility on the remaining land area. The total amount of truck parking that could be accommodated on site along with reuse of the building or buildings has been calculated. The amount of truck parking that would be devoted to the building tenant would vary considerably by tenant. Therefore, the entire amount of truck parking has been determined and presented where only some portion of that area could be made available as a truck parking facility.

³ Throughput is a term referencing the relative volume of materials that can be processed within a certain amount of time.

- **Truck Parking (in the event the Redevelopment Agency elects to redevelop the study area without utilizing the existing structures):** An outdoor area for parking of container trucks. While reuse of historic buildings would not preclude truck parking on the remaining portion of the site, the number of parking spaces generated would vary depending on which structures were retained and by the specific use of the structures. This report indicates the number of parking spaces that could be developed both in conjunction with each of the above-specified activities, as well as that for a single-use truck parking development.

AMS is a broad category of uses that directly support maritime operations at the Port of Oakland. Based on the eight-year public planning process for the Gateway Development Area, and based on discussions with BCDC, the Port, and other governmental and community stakeholder groups, it appears that the most appropriate uses for this AMS area include the following AMS uses: Distribution Center, Trucking, and Warehouse. In addition, there has been significant discussion within the West Oakland community about the desire to relocate trucking uses to the Gateway Development Area, as a way to improve health and safety in West Oakland. On May 15, 2007, the Redevelopment Agency Board voted unanimously to issue a RFP for development of the AMS Area, with the RFP targeted specifically for the development of trucking uses. For purposes of this analysis, the Agency has requested that the following uses be studied: Warehouse, Distribution Center, Office, Produce Market and Truck Parking. Note that “Office” and “Produce Market” uses are also studied in an attempt to look at as broad a range of uses as possible and that BCDC has the final interpretation over whether a use would qualify as an AMS use allowed in a Port Priority Use Area.

GENERAL CONSIDERATIONS

The 800-series warehouses are identical or mirror images of each other so discussions of the reuse feasibility of one specific building from an architectural perspective can largely be applied to any of the buildings. However, the buildings differ in their position within the study area and relative to other buildings, which affects usability of the building and efficiency of on-site circulation and parking.

The location of a particular building vis-à-vis the Agency-Port jurisdiction boundary affects the amount of structure remaining within the study area, which in turn affects reuse opportunities.

Because of these jurisdictional issues, site constraints, and other concerns, some of the 800-series buildings are not feasible or suitable for reuse as part of development in the study area, as itemized below:

1. Buildings 802 and 803 are not within Agency jurisdiction. They are situated entirely within the Port of Oakland’s Development Area and are expected to be removed for construction of the Port’s intermodal terminal; they are therefore not available for Agency reuse.
2. Building 804 lies primarily within Port jurisdiction and is also expected to be removed for construction of a new intermodal terminal. The small remnant of the building within Agency

jurisdiction (5,600 square feet, or 2 percent of the total floor area) is not expected to be independently structurally viable.

3. Building 808 straddles the boundary between the study area and the remainder of the East Gateway subarea as well as the Port boundary. The small remnant of the building within the study area (13,399 square feet, or 6 percent of the total floor area) would not be expected to be independently structurally viable. Full development of the study area would necessitate partial demolition of the western portion of Building 808. While not proposed for reuse in the study area, a discussion of the possibility of moving that boundary so that development in the study area would not necessitate such partial demolition of Building 808 has been included in this report.
4. The distance separating Buildings 806 and 807 is not adequate to accommodate use of facing docks. The separation distance should be 200' between facing docks to accommodate today's larger trucks but is only about 65' between these buildings as this area had been designed for parallel rail access rather than truck docking. This limits reuse options involving retention of adjacent buildings as facing docks will be unusable.
5. All other contributing resources in the OARB Historic District are situated outside the boundaries of the study area.

As a result, only three of the structures, Buildings 807, 806, and 805, are viable candidates for reuse in the study area for the activities under consideration in this study. While these buildings have structural and compositional similarities, their location in relation to study area boundaries and each other affects their relative usability. Therefore, reuse of each of these buildings individually or in conjunction with each other has been analyzed.

Prior to any demolition/deconstruction, the Port of Oakland and the Oakland Redevelopment Agency (acting on behalf of the City of Oakland) are required, per mitigation measures previously adopted pursuant to the 2002 OARB Redevelopment Area EIR, to salvage architectural elements and building components of any contributing structure within the OARB Historic District (or portions thereof), that will be removed, to the maximum extent feasible.

FEASIBILITY ANALYSIS PROCESS

Architectural Analysis

As a first step for analysis of reuse potential, the building area that could be saved within the City's jurisdiction was determined. A minimum setback of 60' from the site boundary was presumed for accommodation of site circulation. It was assumed that the buildings would be preserved to the last remaining complete 22' column bay. Once the amount of usable square footage usable was determined, a conceptual level analysis of the architectural adequacy of that remaining portion of the buildings to house the targeted activities was performed.

Traffic Analysis

Adaptive reuse of existing warehouses will require planning for access for motor vehicles and other modes of transportation. Site circulation and parking plans were created. Full traffic analysis was not completed, but all of the proposed reuse options would be expected to be feasible from a traffic perspective. The OARB Auto Mall Supplemental Environmental Impact Report (certified December 2006) anticipated the necessity of limiting this site to one major driveway on Maritime Street due to the proximity of the Maritime Street / East Grand Avenue intersection and spacing between access points for other parcels. The site's access point on Maritime Street is anticipated to be signalized to allow all turning movements. Access plans for driveway(s) will require approval from the City's Transportation Services Division (TSD).

Industry Input

To provide a practical perspective about the feasibility of adaptive reuse options for AMS uses, the project team consulted with the following representatives:

- Jeff Starkovitch, Managing Partner at the Oakland Office of BT Commercial Company, formerly in charge of leasing the 800-series warehouses and knowledgeable of the constraints and assets of the structures for a warehouse/distribution uses
- Don Jones of Jones Development Companies, knowledgeable of the building needs of the local produce market industry

Cost of Rehabilitation

This report does not address economic feasibility; cost estimates for the reuse, or partial reuse of Buildings 805, 806, and 807 have not been generated as part of this study. Detailed building plans would be necessary to generate actual cost estimates. Probable estimates based upon detailed renovation plans for each targeted building can be generated at some future date, should the Oakland Redevelopment Agency so direct.

With input from the architect and others regarding the quality and quantity of the specific materials and finishes desired, the conceptual designs for those buildings could then be evaluated by a reputable cost-estimating firm. The underlying assumptions about pre-existing conditions in Building 808 could be extrapolated from the analysis contained in the previously referenced *OARB Historic Buildings Reuse Alternatives Report (2002)*, as this building was evaluated in detail in that study. Though Buildings 805, 806 and 807 were not evaluated in the earlier study, they are similar in construction to Building 808. For this reason, it may be possible for a cost estimator to provide a probable cost range for rehabilitation and reuse for these two buildings, based on the estimates developed for Building 808.

The adaptive reuse of buildings generally costs as much, if not more, than new construction. It should be noted, however, that rehabilitation costs vary widely from building to building. It is not possible to draw definitive conclusions about the financial feasibility of reusing portions of the 800-series warehouses without further detailed study.

5. ANALYSIS RESULTS

INFEASIBLE REUSE OPTIONS

Upon consideration of the factors described in the preceding chapter, the following reuse option was determined to be infeasible:

OFFICE DEVELOPMENT

A modern office building has a normal maximum width of about 100' to ensure occupants reasonable access to a window line. The width of the 800-series warehouses is approximately 180'. The remaining portion of Building 805, the smallest of the remaining portions at 180' by 160', would still be too wide for office use. While it would be possible to remove/reconstruct a wall to reduce the depth to 100', it would likely be cost-prohibitive to do so and therefore not considered feasible for any of the buildings on the study site.

POTENTIALLY FEASIBLE REUSE OPTIONS

The following have been determined to be potentially feasible reuse options:

1. **Building 806: Warehouse/Distribution Center.** An option reuse of Building 806 only for Warehouse or Distribution Center use.
2. **Building 807: Warehouse/Distribution Center.** An option for reuse of Building 807 only for Warehouse or Distribution Center use.
3. **Building 806 and Building 807: Warehouse.** An option for reuse of Building 806 in conjunction with Building 807 for Warehouse or Produce Market use.
4. **Building 806 and Building 807: Produce Market.** An option for reuse of Building 806 in conjunction with Building 807 for Produce Market use.
5. **Building 805: Subsidiary Truck Parking Building.** An option for reuse of Building 805 only as a subsidiary building for a truck parking facility.
6. **No Reuse: Truck Parking.** An option showing no reuse of the historic structures and instead a truck parking facility on the site is included for purposes of comparisons.

The evaluation of each of these potentially feasible options is presented on the following pages; a summary comparison of these options is shown in Table 2 below (repeated from page 7). Detailed analysis of feasibility from a financial perspective has not been completed, which is why these options are categorized only as *potentially* feasible at this time.

TABLE 2. REUSE OPTIONS SUMMARY COMPARISON

	Bldg 806	Bldg 807	Bldg 806 & 807	Bldg 806 & 807	Bldg 805	Removal of Blgs 805-808
Proposed Use	Warehouse/ Distribution	Warehouse/ Distribution	Warehouse	Produce Market	Subsidiary Truck Parking Bldg	Truck Parking
Projected Building Size	59,400 sf	87,120 sf	146,520 sf	146,520 sf	27,720 sf	---
Number of Docks	39	55	37	37 (plus 32 limited use)	0	---
Total On-site Truck Parking *	333	296	203	203	390	463

* This number represents the total amount of truck parking that could be accommodated on the site along with reuse of the building or buildings. The amount of truck parking that would be devoted to the building tenant would vary by tenant. Therefore, the entire amount of truck parking has been shown where only some portion of that could be made available as a truck parking facility.

OPTION #1. BUILDING 806: WAREHOUSE/DISTRIBUTION CENTER

DESCRIPTION

A 59,400 square foot portion of Building 806 could be preserved within the study area with approximately 39 total usable docks (with enough maneuvering room within the site boundary for docking) on both sides of the building. Full use of these docks would require demolition of adjacent Buildings 805 and 807, which has been presumed for this reuse option.

A conceptual plan is shown in Figure 4.

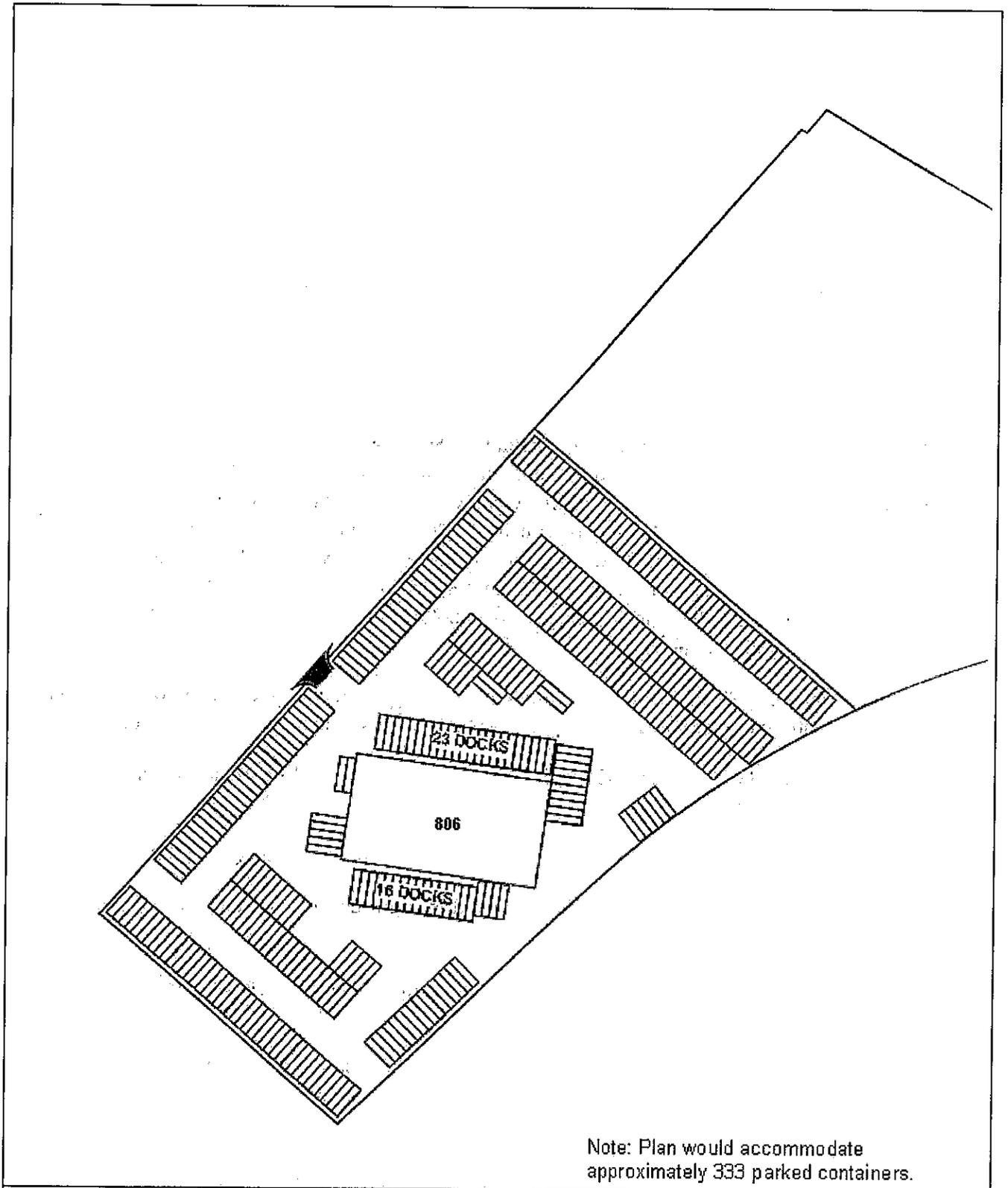
ANALYSIS

Built originally as a supply warehouse, Building 806 could be reused as a warehouse or distribution center with minimal need for significant code mandated upgrades or other changes to the building, excepting construction of a new end wall and restoration to the original historical character. However, it is important to note that industry standards have since changed. The structure of the building, specifically the spacing of the columns, vertical clearance and flooring, does not meet standards for modern warehouses/distribution centers and could result in inefficiencies. However, these inefficiencies would not be of an extent that reuse for this purpose would be considered infeasible.

Depending on what is being stored, the building would likely be very inefficient compared to a modern warehouse or distribution center due to non-standard structural elements, including:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet
- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet.

The awkward angle of Building 806 compared to the boundaries of the site results in some circulation/parking inefficiencies. In conjunction with reuse of Building 806, parking for approximately 333 trucks could be accommodated on the remainder of the site. This is approximately 72% the amount of truck parking than could be accommodated in the study area in conjunction with reuse of Building 807, as compared to a truck parking only plan.



Note: Plan would accommodate approximately 333 parked containers.

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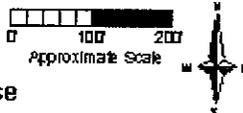


Figure 4
REUSE BUILDING 806 & TRUCK PARKING
CONCEPTUAL SITE PLAN

OPTION #2. BUILDING 807: WAREHOUSE/DISTRIBUTION CENTER

DESCRIPTION

An 87,120 square foot portion of Building 807 could be preserved within the study area with approximately 55 total usable docks (with enough maneuvering room within the site boundary for docking) on both sides of the building. Full use of these docks would require demolition or partial demolition of adjacent Buildings 806 and 808, which has been presumed for this reuse option.

A conceptual plan is shown in Figure 5.

ANALYSIS

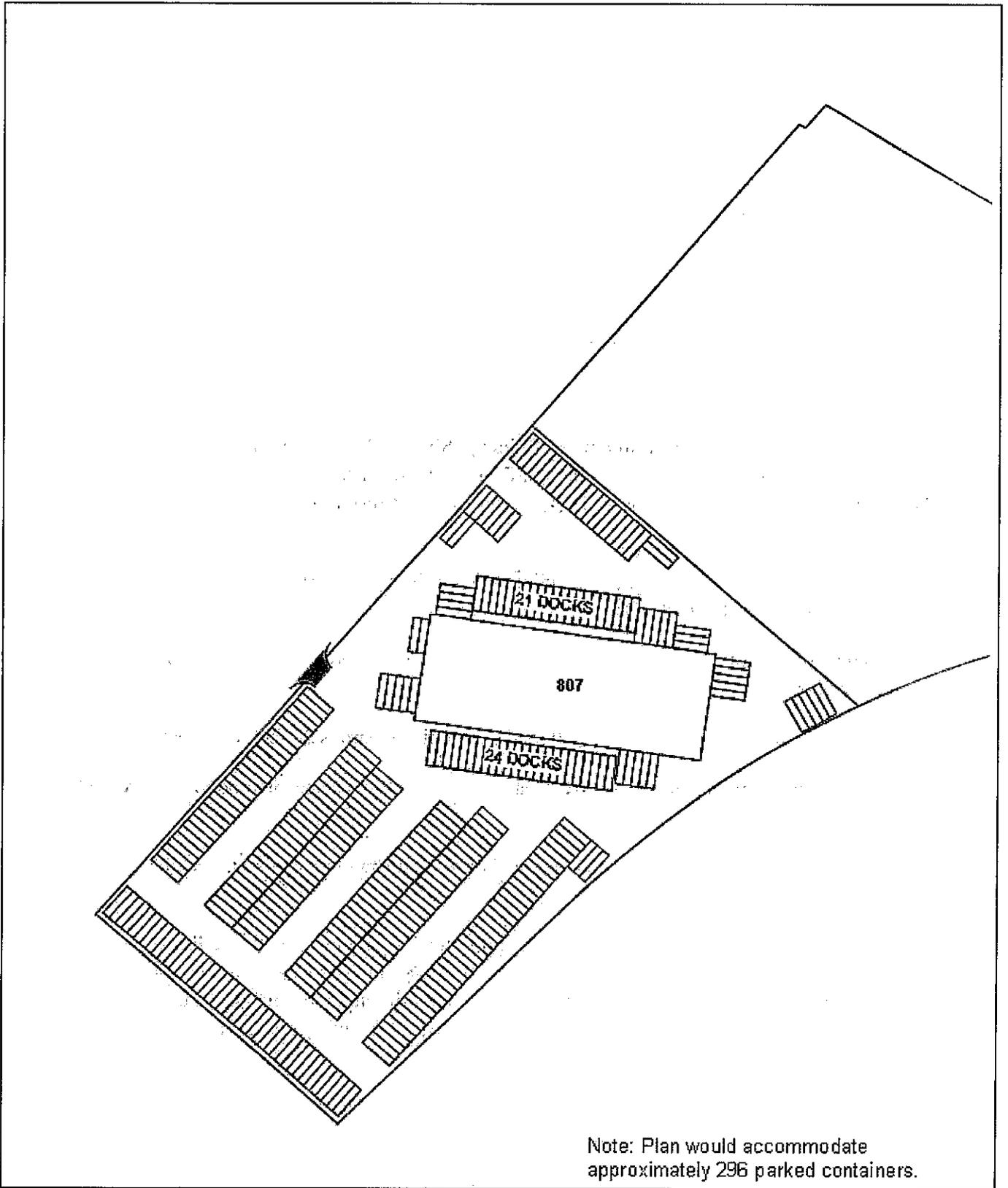
Built originally as a supply warehouse, Building 807 could be reused as a warehouse or distribution center with minimal need for significant code mandated upgrades or other changes to the building, excepting construction of a new end wall and restoration to the original historical character.

Depending on what is being stored, the building would likely be very inefficient compared to a modern warehouse or distribution center due to non-standard structural elements, including:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet
- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet.

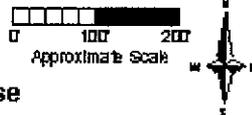
Building 807 would have the largest remaining portion of any building on the study site so would be the first priority for preservation. The structure of the building, specifically the spacing of the columns, does not meet standards for modern warehouses/distribution centers, which could result in inefficiencies. However, these inefficiencies would not be of an extent that reuse for this purpose would be considered infeasible.

The awkward angle of Building 807 compared to the boundaries of the site results in some circulation/parking inefficiencies. In conjunction with reuse of Building 807, parking for approximately 296 trucks could be accommodated on the remainder of the site. This is approximately 63% the amount of truck parking than could be accommodated in the study area in conjunction with reuse of Building 807, as compared to a truck parking only plan.



Note: Plan would accommodate approximately 296 parked containers.

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Figure 5
BUILDING 807 REUSE & TRUCK PARKING
CONCEPTUAL SITE PLAN

OPTION #3. BUILDINGS 806 AND 807: WAREHOUSE

DESCRIPTION

A total of 146,520 square feet could be preserved from Buildings 806 and 807 (59,400 and 87,120 square feet respectively) within the study area. Facing docks would be unusable, leaving approximately 21 usable docks on the north side of Building 807 and 16 usable docks on the south side of Building 806. Full use of these docks would require demolition of adjacent Buildings 805 and 808, which has been presumed for this reuse option.

A conceptual plan is shown in Figure 6.

ANALYSIS

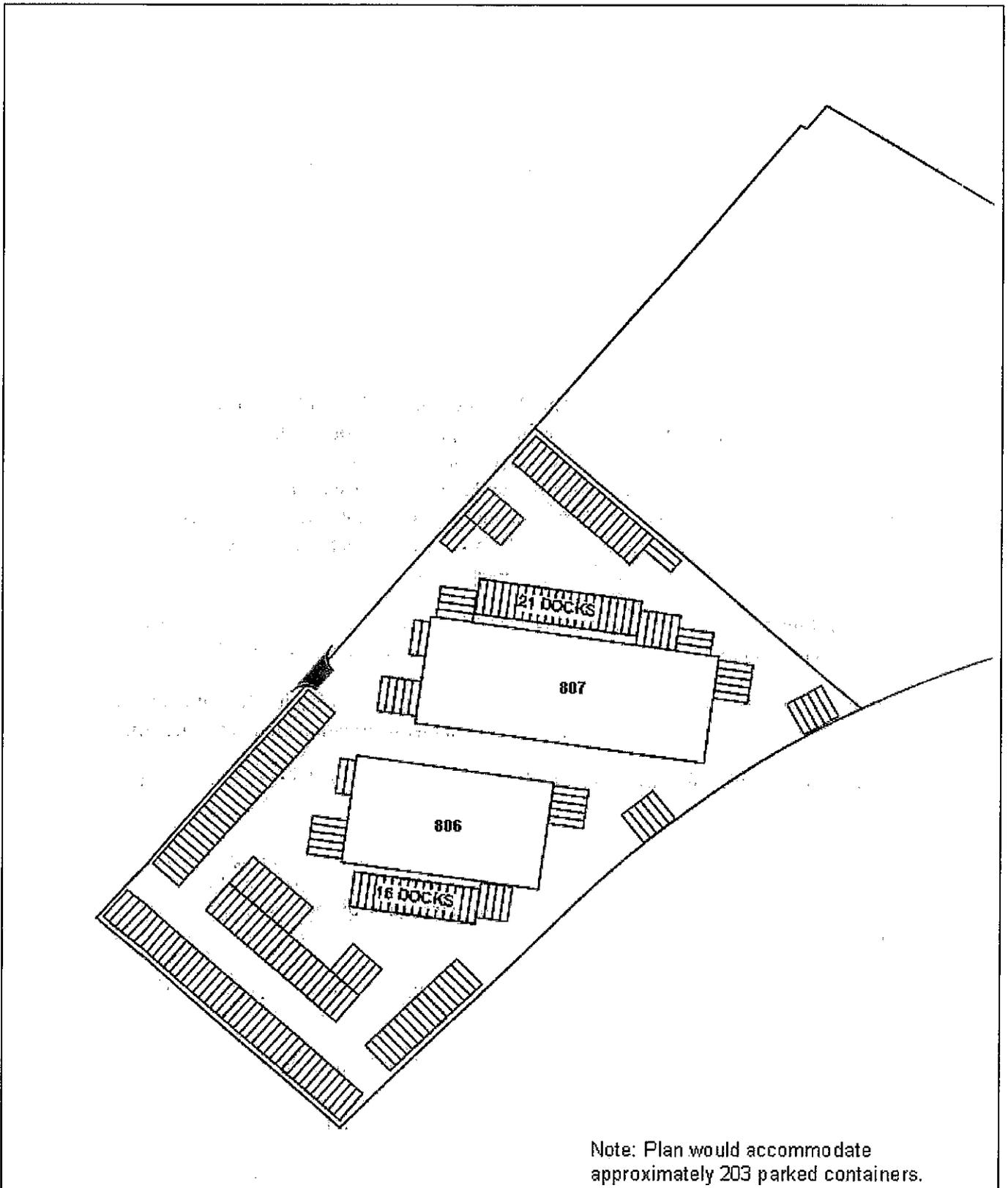
Built originally as a supply warehouse, Buildings 806 and 807 could be reused as warehouses with minimal need for significant code mandated upgrades or other changes to the buildings, excepting construction of new end walls and restoration to the original historical character. However, it is important to note that industry standards have since changed. The structure of the buildings, specifically the spacing of the columns, does not meet standards for modern warehouses and could result in inefficiencies. However, these inefficiencies would not be of an extent that reuse for this purpose would be considered infeasible.

Due to the limited number of usable docks, it is presumed higher-throughput uses like a distribution center could not be accommodated if both buildings were preserved.

Depending on what is being stored, the building would likely be very inefficient compared to a modern warehouse or distribution center due to non-standard structural elements, including:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet
- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet.

The awkward angle of Buildings 806 and 807 compared to the boundaries of the site results in some circulation/parking inefficiencies. In conjunction with reuse of Buildings 806 and 807, parking for approximately 203 trucks could be accommodated on the remainder of the site. This is approximately 44% of the amount of truck parking than could be accommodated in the study area in conjunction with reuse of Buildings 806 and 807, as compared to a truck parking only plan.



Note: Plan would accommodate approximately 203 parked containers.

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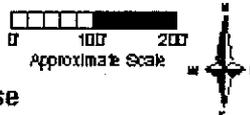


Figure 6
REUSE BLDG 806 & 807 & TRUCK PARKING
CONCEPTUAL SITE PLAN

OPTION #4. BUILDINGS 806 AND 807: PRODUCE MARKET

DESCRIPTION

The buildings would be the same in this option as in the warehouse reuse of Buildings 806 and 807, discussed above and shown in Figure 6.

While the Produce Market could be considered a specialized distribution center, it is not expected to make full use of truck docks because many different truck types and sizes are used for shipping and receiving that may not be able to use the standard truck docks. In order to increase usability of the buildings for a Produce Market, the area between Buildings 806 and 807 would be filled with concrete to the level of the docks approximately 4 feet above grade, which is also the level of the floor of the warehouses. Approximately 40-foot long ramps would be constructed at both ends of the raised aisle so that trucks could access this higher level. This would create an approximately 65-foot wide aisle flush with the level of the docks and floor of the warehouses from which non-standard trucks could be easily loaded and unloaded. Raising the aisle height just in the area where the buildings face each other (not the entire length of the buildings) would result in usability of approximately an additional 32 docks in this manner.

ANALYSIS

The building square footage in this reuse option would approximate the targeted minimum for a relocated Produce Market and on a conceptual level, the reuse option would seem to meet Produce Market needs. Built originally as a supply warehouse, Buildings 806 and 807 could be reused as a Produce Market with minimal need for significant code mandated upgrades or other changes to the buildings, excepting construction of new end walls, raising the aisle as discussed above, and restoration to the original historical character. It is important to note, however, that industry standards have since changed. The structure of the buildings, specifically the spacing of the columns, does not meet modern standards and could result in inefficiencies, though the Produce Market would be expected to be less sensitive to the non-standard spacing of the column than other warehouse or distribution center uses as the Produce Market historically deviates from industry standards. The inefficiencies would not be of an extent that reuse for this purpose would be considered infeasible.

The efficiency of the Produce Market would be reduced by non-standard structural elements. However, the Produce Market does not generally rely on warehousing industry standards so may be better able to work within the constraints of the buildings than other distribution center uses. The non-standard structural elements include:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet

- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet.

In conjunction with reuse of Buildings 806 and 807, it would be possible to provide parking for approximately 203 trucks on the remainder of the site, however, it would be anticipated that most if not all of the site would need to be used for the Produce Market, with little or no additional truck parking.

The 4 feet of concrete fill between buildings would cost approximately \$100,000 to \$125,000 to increase efficiency by increasing the number of usable docks and access options for trucks that cannot use docks. In itself, this would not be seen to make this option financially infeasible.

The awkward angle of Buildings 806 and 807 compared to the boundaries of the site results in some circulation/parking inefficiencies. Approximately 44% the amount of truck parking could be accommodated in the study area in conjunction with reuse of Buildings 806 and 807, as compared to a truck parking only plan, however, it is possible that all of the site would be devoted to Produce Market-related uses and that none of this area would be reserved for Port-related truck parking.

It is also important to note that the Produce Market may not qualify as an AMS use allowed in a Port Priority Use Area. Feasibility of this option may be dependant on transferring the Port Priority Use Area designation fully or partially to another location.

OPTION #5. BUILDING 805: SUBSIDIARY TRUCK PARKING BUILDING

DESCRIPTION

A total of 27,720 square feet could be preserved from Building 805 within the study area, a length of approximately 154 feet with the building width of 180 feet. Due to the building's relationship to the Agency/Port jurisdictional boundary, this portion would be from the building's center, requiring partial demolition to both the east and west of this portion and new end caps on either side.

It is anticipated this small portion could be used as a subsidiary building to a truck parking facility, possibly with bathroom facilities and limited office/food service uses.

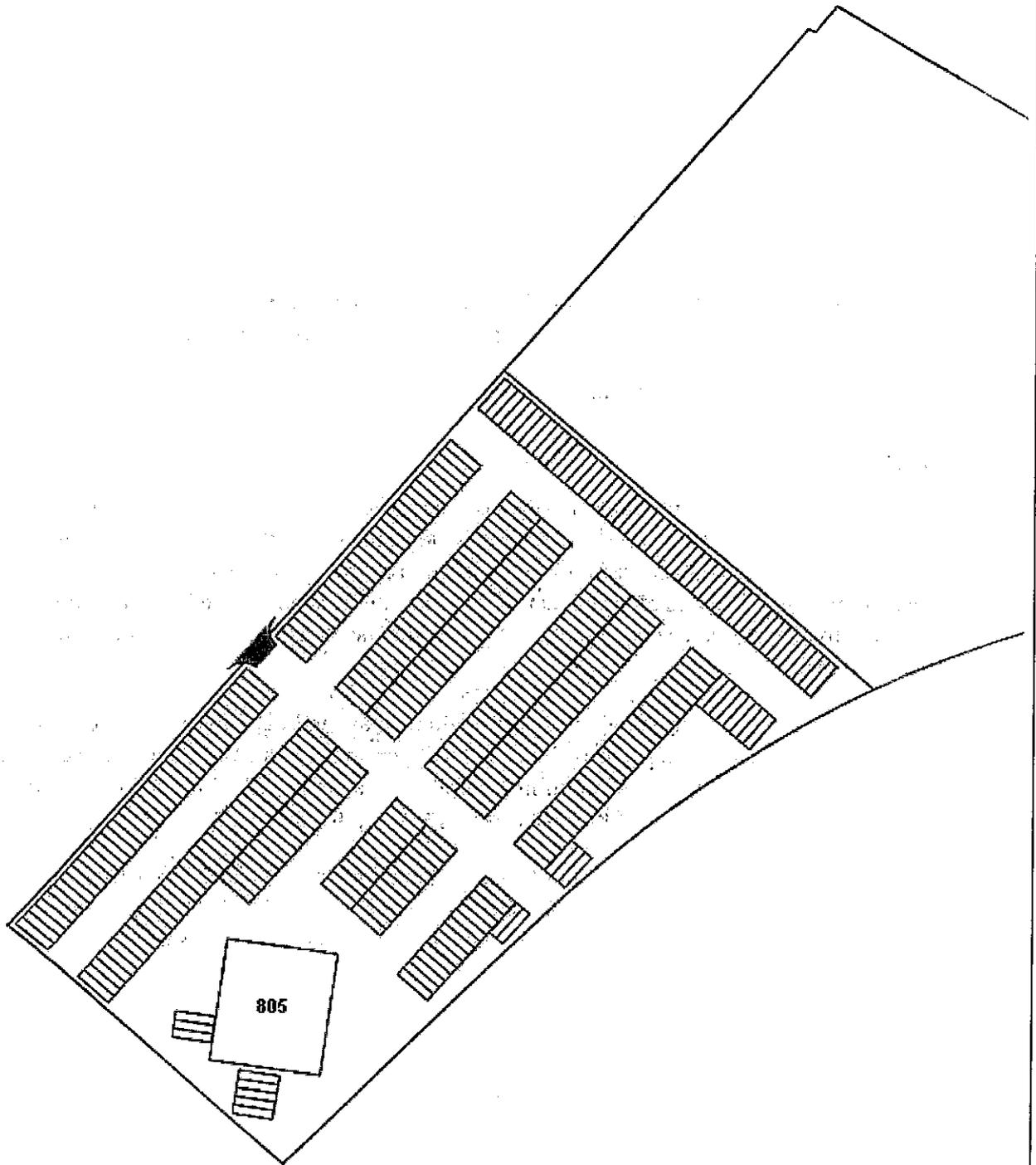
A conceptual plan is shown in Figure 7.

ANALYSIS

This small building remnant would not be considered feasible for any of the targeted uses: its small size limits reuse as a warehouse or distribution center, and its wide width is inappropriate for modern offices. However, retention of this building remnant would allow for reuse while otherwise maximizing available truck parking on the site. It is anticipated the building could be used for activities subsidiary to a truck parking facility, such as bathroom facilities and limited office/food service.

The cost for partial demolition to both sides of this remnant and need for two new end caps may be prohibitively expensive for reuse of such a small portion. If a small portion is to be reused in this manner, it may be more feasible to instead preserve a similar sized portion of Building 806 or 807 at its western end to avoid the cost of a new end cap for that end.

In conjunction with reuse of Building 805, parking for approximately 390 trucks could be accommodated on the remainder of the site. This is approximately 84% the amount of truck parking that could be accommodated in the study area with no building reuse.



Note: Plan would accommodate approximately 390 parked containers.

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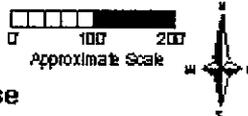


Figure 7
REUSE BUILDING 805 & TRUCK PARKING
CONCEPTUAL SITE PLAN

OPTION #6. NO BUILDING REUSE: TRUCK PARKING

DESCRIPTION

Development of the entire site for truck parking would necessitate removal of all the structures on site with no historic preservation/reuse. Based on analysis of aerial photographs of nearby truck parking facilities, the following criteria were used to design the truck parking provisions:

- Parking spaces 60' long by 13' wide
- Aisles 60' wide to allow for adequate maneuvering

A conceptual plan is shown in Figure 8. While the design of a truck parking facility can vary significantly depending on the specifics of the trucks to be parked there and how the operation will be run, the conceptual plan for this option provides a comparable estimate of truck parking provisions that could fit on the site.

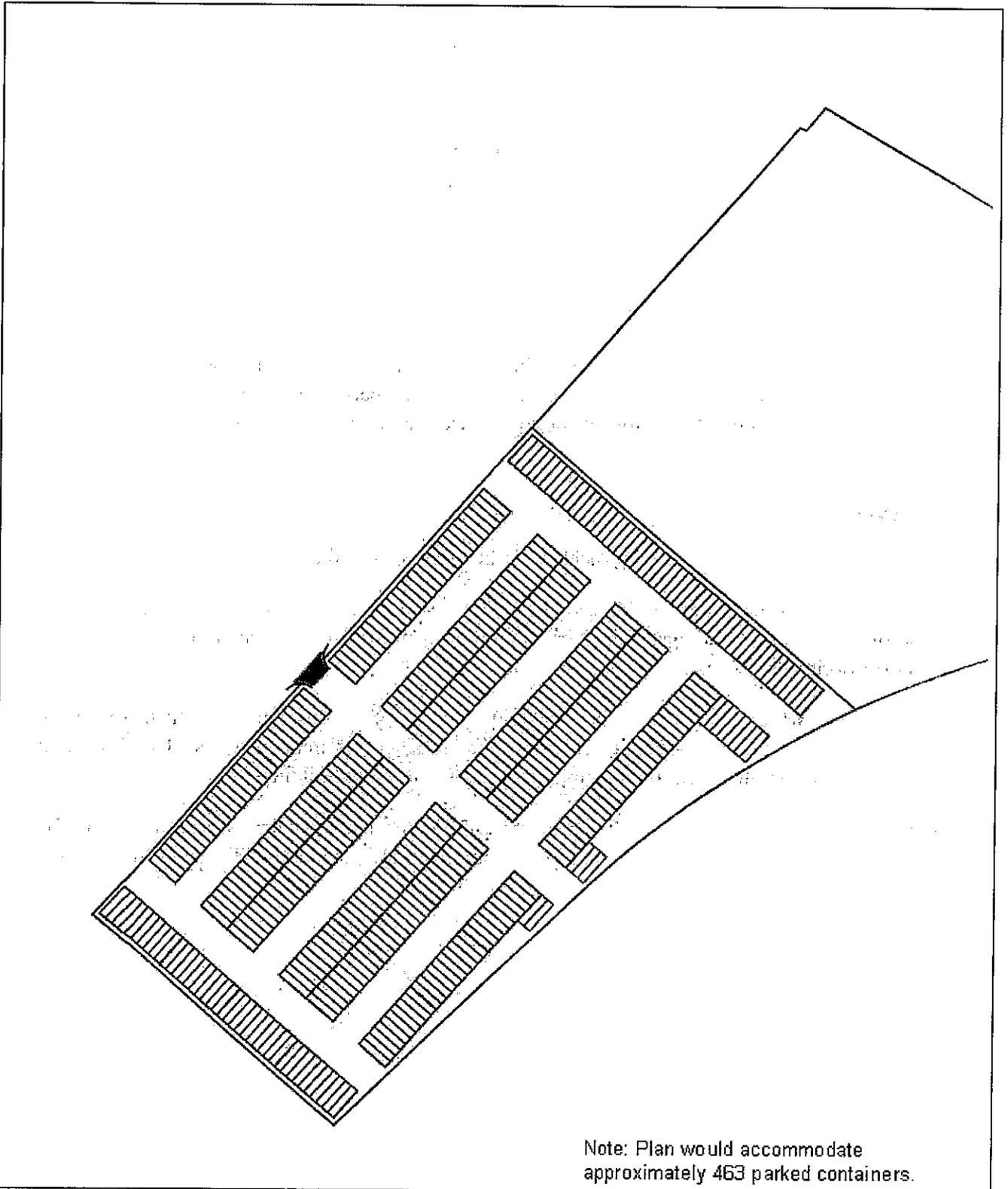
ANALYSIS

Parking for a total of 463 container trucks could be accommodated on site.

This option would best meet the Agency goal to relocate trucking uses, but would not include reuse of any historic buildings. BCDC has identified truck parking as a high priority AMS use for Port Priority Use Areas.

Due to the awkward angle of the buildings on the site, this option, which presumes deconstruction of the buildings, will be considerably more efficient in terms of parking and circulation than any that incorporate preservation of one or more buildings.

A more detailed plan would better approximate the number of container trucks that could be parked on site and would include appropriate buffering for potentially conflicting uses to the north.



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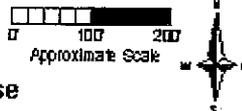


Figure 8
TRUCK PARKING ONLY
CONCEPTUAL SITE PLAN

SITE BOUNDARY ADJUSTMENT FOR PRESERVATION OF BUILDING 808

The reuse options examined in this report are based on the site boundary of the study area defined as the 15-acre area that has been designated by BCDC for Port Priority Use. This site is located in the southernmost portion of the City's East Gateway subarea and the boundary between the study area and the remainder of the City's East Gateway sub-area runs through Building 808, leaving only a corner of Building 808 within the study area.

Reuse of this small portion of Building 808 would not be structurally feasible. Instead, it is presumed for all the reuse options in this report that the portion of Building 808 in the study site would need to be removed. After partial demolition of the western end of Building 808 (as well as partial demolition of the eastern end not within the City's jurisdiction), approximately 56,000 square feet of Building 808 could potentially be retained for reuse at a future date on the northern portion of the East Gateway, outside of the study area. While not fully analyzed in this report as it is outside the study area, the relatively smaller remaining portion of Building 808, coupled with the need for construction of new end caps on both the east and west ends of the building, could make reuse financially infeasible.

Alternatively, adjustment of the site boundary could be considered at this time to eliminate the necessity for partial demolition of the western end of Building 808. With partial demolition of the portion outside the City's jurisdiction only, 99,000 square feet of Building 808 could be retained. Figure 9 shows a conceptual site boundary that would still maintain a 15-acre site while avoiding Building 808. In this concept, a mutual access easement would be necessary at the site boundary to ensure adequate circulation around Building 808.

Retention of Building 808 in conjunction with retention of Building 807 would mean reduced access to docks as the buildings are only about 95 feet apart and facing docks would be expected to be usable only at 200 feet or more. Only 12 docks would be usable on the northern side of Building 807 if Building 808 is also retained.

Adjustment of this site boundary, from a straight line to an uneven line, would reduce the efficiency of the site for parking and circulation, with an expected loss of approximately 20-30 parking stalls (approximately 5% to 15% of the total) as compared to the reuse options shown.

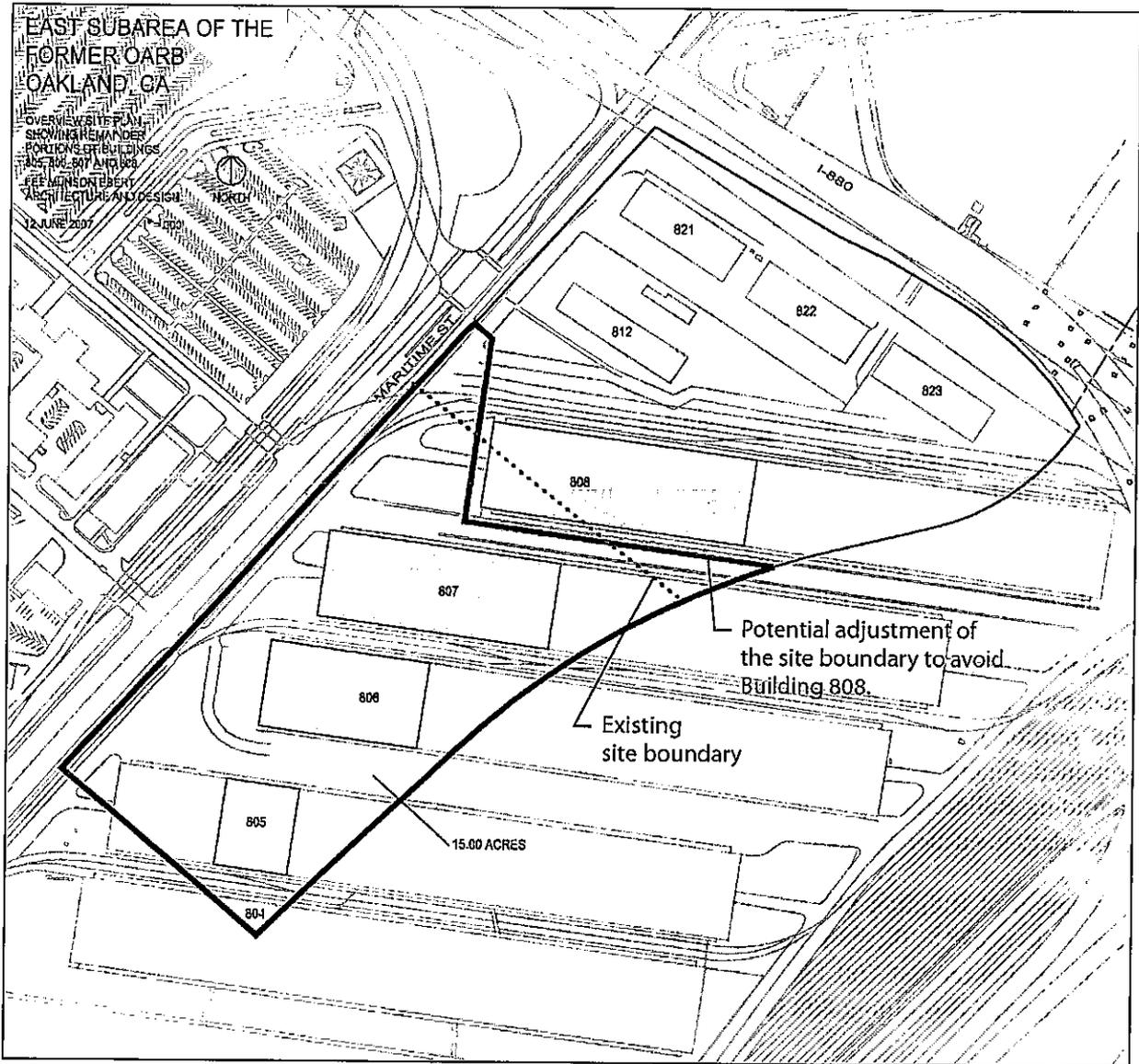


Figure 9. Conceptual Site Boundary Adjustment to Preserve Building 808

6. INDUSTRY INPUT

WAREHOUSE/DISTRIBUTION

Jeff Starkovitch, Managing Partner at the Oakland Office of BT Commercial Company, had previously been in charge of leasing the 800-series warehouses on a temporary basis after closure of the base. Mr. Starkovitch was contacted for his intimate knowledge of the limits and opportunities presented by these buildings relative to warehouse/distribution uses.

The following comments are summaries of a phone conversation:

Mr. Starkovitch stated that the buildings were used before and could be used again but conceded that may not be the best use of the site. He listed numerous reasons the existing buildings and site were problematic including the closeness of the buildings and non-standard elements such as asphalt floors, close column spacing, minimal clearance height, limited to no staging area, and sprinkler systems not up to code.

He stated that tenants could be identified who could make the space work, such as companies involved in transloading (the transfer of a material from one bulk packaging to another), but that the space was not efficient.

He asserted that the small size of the reusable portion of Building 806 (under 60,000 square feet) would not be too small to find a tenant, and that while preservation of only one building would remove obstacles created by the closeness of the buildings (inadequate room for docking, maneuvering, and staging), it would not bring the building to a level of efficiency that could be anticipated with modern construction.

PRODUCE MARKET

Don Jones of Jones Development Companies was contacted because of his knowledge of the building needs of the local produce market industry.

The following comments are summaries of a phone conversation conducted prior to availability of specific reuse options (so address generalities rather than a specific reuse option):

Mr. Jones indicated that while the efficiency of the building(s) and site would be considerations, from a conceptual perspective the Produce Market would need at least approximately 150,000 square feet of building space on a site of at least 11 acres. The lack of adequate dock-high truck docks is a limitation at their current site though a mixture of dock-high and at-grade docks would be preferable to accommodate the mixed fleet that services the Produce Market. While the constraints of the existing warehouses would not necessarily be ideal for a modern Produce Market, they are expected to be workable.

7. CONCLUSION — THE POTENTIAL OF ADAPTIVE REUSE

In summary, the feasibility of reusing the warehouses within the 15-acre Port Priority Use Area of the East Gateway is as follows:

1. Portions of four of the five 800-series warehouse that are located partially within the City's East Gateway sub-area-- Buildings 808, 807, 806, 805--could potentially be retained and adaptively reused for AMS uses. The fifth structure, Building 804 lies primarily within Port jurisdiction and is also expected to be removed for the above-referenced Port project. The small remnant of the building within Agency jurisdiction (5,600 square feet, or 2 percent of the total floor area) is not expected to be independently structurally viable.
2. One of these five buildings, Building 808, also straddles the boundary between the 15-acre Port Priority Use study area and the remainder of the East Gateway sub-area. The portion in the study area would not be expected to be independently structurally feasible. The site boundary could potentially be adjusted to eliminate the necessity for partial demolition of the western end of Building 808 at this time, but such a boundary adjustment would result in a loss of efficiency on the site.
3. From an architectural design perspective, none of these buildings would be suitable for reuse as office space because the width/depth of these buildings is too large for a modern office.
4. The remnant of Building 805 is not feasible for reuse as a warehouse or distribution center because it is too small. Additionally, necessary partial demolition on both ends of the building would likely increase the cost of reuse of this relatively small space to prohibitive levels. However, the Agency has directed a conceptual site plan for reuse be created under the supposition this remnant may be able to be used as a subsidiary building for a truck parking facility, possibly with bathroom facilities and limited office/food service.
5. From an architectural design perspective, two of these buildings may be suitable for reuse individually or together as warehouses, distribution centers, or a Produce Market, including the remnant of Buildings 806 and 807. These buildings were originally built as supply warehouses, have largely remained in that use, and could relatively easily be rehabilitated for a continued similar use.
6. Because the study area is designated a Port Priority Use Area by BCDC and restricted to AMS uses, consideration must be given to whether a potential reuse option would qualify, or whether the Port Priority Use designation would need to be relocated.
7. Truck parking is a high priority AMS use, so the relative amount of truck parking has been identified under each conceptual reuse option. Any option that seeks to reuse portions of the 800-series warehouses would reduce the amount of land that could otherwise be made available for truck parking.

These findings are illustrated in Table 1 and Table 2 below (repeated from pages 6 and 7 of this document).

TABLE 1. REUSE FEASIBILITY FOR LAND USE ACTIVITY				
BUILDING (SQUARE FEET)	DISTRIBUTION CENTER	WAREHOUSE	PRODUCE MARKET	OFFICE
Building 804 (5,600 sf)	None. Reuse is impractical because only a portion (5,600 sq) of the side of the building is within Agency jurisdiction and the Port plans demolition of the vast majority of this structure. The portion remaining in the study area, being less than one complete segment of the building, would not be expected to be structurally viable after this demolition.			
Building 805 (27,720 sf)	None. However, possible reuse as a subsidiary building to a truck parking facility, although because the remaining portion is from the center of the building, the cost of two new end walls would likely be prohibitive. Reuse as one of the targeted uses is impractical because the remaining portion (27,720 sq) is too small for any modern distribution center, warehouse, or the Produce Market and is too wide for a modern office.			
Building 806 (59,400 sf)	Either of these buildings could function as a Distribution Center but has limitations due to column spacing within the structure.	Either of these buildings could function as a warehouse alone or in conjunction with the other, but have limitations due to column spacing within the structure.	The Produce Market would be expected to require reuse of both these buildings together.	Possible, but modern offices typically require a max. 100' depth, whereas these buildings have an 180' depth and variable widths.
Building 807 (87,120 sf)	Because retention of adjacent buildings would preclude use of facing docks, it is not considered feasible to retain more than one of these buildings if reused as a Distribution Center.	While inability to use facing docks may decrease efficiency, it would not be expected to do so to a level that would preclude warehouse reuse of both these buildings.	Efficiency could be increased by raising the aisle between the buildings so that facing docks could be used for loading/unloading of smaller trucks.	
Building 808 (13,395 sf)	None. Reuse is impractical because only a portion (13,395 sq) of the corner of the building is within the study area. The portion located in the study area, being less than one complete segment of the building, would not be expected to be structurally viable on its own. Because development on the study site as defined would likely necessitate partial demolition of Building 808, an alternative boundary for the study site has been proposed that would exclude Building 808 in its entirety and allow for its potential reuse outside of the study area.			

The 800-series warehouses have non-standard structural elements that will reduce their efficiency for reuse as a warehouse or distribution center (including a Produce Market) while not reducing their function to a point that such reuse would be considered infeasible. These non-standard structural elements include:

- Column spacing of 22 feet by 32 feet in the loading bays where the current standard is 44-50 feet by 52-60 feet
- Vertical clearance height of 18 feet where the current standard is 28 feet to 35 feet
- Uneven asphalt floor with lower than standard strength expected of modern concrete slab flooring
- Limited square footage where modern warehouses/distribution centers can enclose multiple millions of square feet.

TABLE 2. REUSE OPTIONS SUMMARY COMPARISON

	Bldg 806	Bldg 807	Bldg 806 & 807	Bldg 806 & 807	Bldg 805	Removal of Bldgs 805-808
Proposed Use	Warehouse/ Distribution	Warehouse/ Distribution	Warehouse	Produce Market	Subsidiary Truck Parking Bldg	Truck Parking
Projected Building Size	59,400 sf	87,120 sf	146,520 sf	146,520 sf	27,720 sf	---
Number of Docks	39	55	37	37 (plus 32 limited use)	0	---
Total On-site Truck Parking *	333	296	203	203	390	463

* This number represents the total amount of truck parking that could be accommodated on the site along with reuse of the building or buildings. The amount of truck parking that would be devoted to the building tenant would vary by tenant. Therefore, the entire amount of truck parking has been shown where only some portion of that could be made available as a truck parking facility.

Discussions with industry representatives suggest these reuse options, while not ideal, could be feasible. Constraints of the now non-standard architecture of the 800-series warehouses makes their reuse inefficient for modern warehouse or distribution center (including Produce Market) uses. Additionally, the angle of the buildings on the site leads to inefficiencies in parking and circulation around the building(s) and contributes to constraints on use of the docks as does the nearness of the buildings. However, the square footage available on a relatively large site with close proximity to the Port is anticipated to outweigh these constraints and make reuse options feasible.