

0000612

Dr. Snow/Capt. Goodermote
May 24, 1990
Page Three

may lie within the inundation area from a tsunami or seiche, and may also be impacted by strong currents. The Final EIS should address the potential impacts to the proposed project from a tsunami, seiche, and strong currents. Methods of mitigating should be addressed.

N-4

If you have any questions regarding these comments, please contact Zoe McCrea, Division of Mines and Geology Environmental Review Officer, at (916) 322-2562.


Dennis J. O'Bryant
Environmental Program Coordinator

DJO:KC:skk

Zoe McCrea, Division of Mines and Geology
Kit Custis, Division of Mines and Geology

References:

Anderson, J.G., Rockwell, T.K., and Agnew, C., 1989, Past and Possible Future Earthquakes of Significance to the San Diego Region, Earthquake Spectra, vol. 5, no. 2, pgs. 299-335.

Wesnousky, S.G., 1986, Earthquakes, Quaternary Faults, and Seismic Hazard in California, Journal of Geophysical Research, vol. 91, no. B12, pgs. 12,587-12,631.

0000013

CALIFORNIA COASTAL COMMISSION

631 HOWARD STREET, 4TH FLOOR

SAN FRANCISCO, CA 94105-3973

(415) 543-8555

Hearing Impaired/TDD (415) 396-1825



June 8, 1990

Captain W. K. Goodermote
Department of the Navy
Naval Facilities Engineering Command Detachment
Broadway Complex
555 W. Beech Street, Suite 101
San Diego, CA 92101-2937

RE: Comments on Draft Environmental Impact Statement (EIS) and draft consistency determination for the Broadway Complex Project, City of San Diego

Dear Captain Goodermote:

Thank you for submitting the Draft EIS and consistency determination for the Broadway Complex project in advance of the official submittal of the consistency determination for that project. We have reviewed both of those draft documents and are generally pleased with the the concept of developing the site for Navy uses provided that the project includes provisions for public use of the area. The Commission staff supports those alternatives (alternatives A and F) that include large open-space areas, because we believe that creating a shoreline park should be a high priority for developing this site. Even though all of the alternatives would improve public use of the site, the Commission staff has some concerns about the project's consistency with the California Coastal Management Program (CCMP).

C-1

PUBLIC TRUST

Neither the draft EIS nor the draft consistency determination discuss the relationship between the proposed project and the public trust. The proposed project would be located on historic tidelands. These tidelands may have a public trust easement attached to them. This easement would require the land to be used to support only limited uses, such as navigation, commerce, or fishing. The Commission has adopted policy guidance for projects involving lands that may have a public trust easement attached to them. The Commission's Public Trust guidelines, adopted May 3, 1977, state that "development proposals that may involve present or historic tidelands, submerged lands, and public trust lands should be permitted only if consistent with the public trust." Therefore, in order for the Commission to evaluate the project's consistency with the CCMP, the status of the public trust easement on the Broadway Complex property must be resolved. If there is a public trust easement attached to the property, the Commission staff is concerned that the construction of commercial office space could be inconsistent with that easement. The Navy should coordinate with the State Lands Commission to resolve this issue.

C-2

RECREATIONAL RESOURCES

The proposed project is located adjacent to San Diego Bay. Section 30221 of the Coastal Act promotes recreational use of oceanfront land. That section

C-3

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JUNE 8, 1990

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

In the draft consistency determination, the Navy concludes that Section 30221 of the Coastal Act does not apply because the property is not oceanfront land. The Commission staff disagrees with this conclusion. The project site is located 200 feet from the bay on historic tidelands. Only a road exists between the project site and the bay. In reviewing past projects, the Commission has not limited oceanfront land to areas immediately adjacent to the shoreline. Therefore, the Commission staff believes that the project site should be considered as oceanfront and the Navy must evaluate the project for consistency with Section 30221 of the Coastal Act.

The Commission staff believes that the project should be designed to improve public use of the site by maximizing the amount of open space. Two of the alternatives considered in the EIS, alternatives A and F, include significant amount of open space. Even though the Commission staff recognizes that most of the alternatives would open up the site for public use, the construction of high rises on this site may conflict with the need to protect the property for recreational uses. However, the development of a large open-space area may mitigate the impact of development of the site for non-recreational uses. The staff would consider recommending that the Commission concur with a consistency determination that includes non-recreational development, if the Navy demonstrates that present and future demand for coastal recreation is already adequately provided for in the area or would be provided by the proposed recreational uses of the property.

Finally, on page 4-119 of the EIS, the Navy concludes that park facilities in the area would not be affected by the project, because it does not include any residential units. The Commission staff disagrees with this conclusion. Since the proposed project would replace an existing office building and warehouse with two high-rise office buildings and two high-rise hotels, the project would increase the number of people visiting this part of San Diego Bay. It is reasonable to assume that these people would use existing recreational facilities in the area during their visit. Thus, the project would place an additional burden on existing recreational facilities in the area.

COASTAL-DEPENDENT ACTIVITIES

Section 30255 of the Coastal Act identifies coastal-dependent and coastal-related development as priority uses of oceanfront land. The section provides that:

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JUNE 8, 1990

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

Section 30101 provides that:

"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Section 30101.3 provides that:

"Coastal-related development" means any use that is dependent on a coastal-dependent development or use.

The two alternatives considered in the consistency determination include the construction of two office buildings and two hotels. Since the hotels are visitor-serving uses, they provide some recreational benefit. Thus, they may be considered a high priority use. However, the Commission staff is concerned that both the Naval and private office buildings are not coastal-dependent or coastal-related, and thus they may not be high priority uses for this property. In order for the Commission to find that these office buildings are consistent with the CCMP, the Navy must demonstrate that those uses are either coastal-dependent or coastal-related (see Sections 30101 and 30101.3 of the Coastal Act for definitions of coastal-dependent and coastal-related developments). Since it is unlikely that either of these buildings can be defined as coastal-dependent, the Navy must demonstrate that both of these buildings are coastal-related. If the Navy cannot demonstrate that those uses are coastal-related, the proposed uses may still be consistent with the Coastal Act if the Navy can show that there are no appropriate coastal-dependent or coastal-related uses for this property.

ALTERNATIVES

The Broadway Complex project has been designed to allow for the construction of Naval Office space at little or no cost to the Navy. In order to accomplish this goal, the Navy would lease the property to a private developer to construct the two hotels, the private office building, and the Navy office building. The economic return from the hotels and the private office building would enable the developer to construct the Naval office building at little or no cost to the Navy. This method of construction appears to encourage a density of development that is higher than necessary to support military activities. The Commission staff is concerned that this project may be a precedent for high density military/private development on urban waterfronts.

The Commission staff believes that the Navy should consider reducing the density of the development in order to emphasize recreational uses in a manner

PAGE 4
JUNE 8, 1990

that is consistent with surrounding development. The Navy should evaluate a scaled down alternative that includes some private development and a greater contribution of federal funds by the Navy. That alternative would still allow the Navy to have its office space at less than full cost and would improve recreational uses of the area.

O-8

If the range of alternatives is limited to those that have been identified in the draft EIS, then the Commission staff believes that the Navy should give additional consideration to alternative F. The alternatives evaluated in the consistency determination are limited to alternative A, which includes 1.9 acres of open space, and alternative B, which includes 0.5 acre of open space. However, alternative F, as described in the EIS, includes 3.5 acres of open space. That alternative would allow for more open space by reducing the number of high-rises from four buildings to three. That alternative would maintain the same amount of square footage as alternative A because the height of the remaining buildings would be increased.

O-9

As described above, the Coastal Act encourages the maximum amount of public recreational use of the waterfront areas. Alternative F would create a large shoreline park, and thus increase the amount of recreational opportunities provided by the project. It appears that alternative F was not chosen as the preferred alternative, because the increased height of three remaining buildings would increase the visual impact of the project. The Commission staff believes that the Navy should reconsider that alternative because the increase in height and greater visual impact may be mitigated by the reduction in the number of buildings. In addition, that alternative does not include a building devoted entirely to commercial office use, and thus that alternative may have less conflicts with the public trust easement and Sections 30221 and 30255 of the Coastal Act.

COST

As described above, the purpose of the two hotels and the private office space is to allow the construction of Naval office space at little or no cost to the Navy. In the coastal-dependent section of the Navy's consistency determination, the Navy argues that the private office space is consistent with that section of the CCMP because it is integral to the project's financial feasibility. In order for the Commission staff to evaluate this conclusion, the Navy needs to produce evidence to support that conclusion. The Navy should include, as part of the consistency determination, an economic analysis that discusses the following issues:

O-10

1. Demonstrate that the two hotels and the private office space are necessary to fund the Navy office space.
2. Can the Navy contribute federal funds to reduce the intensity of development or eliminate the non-priority uses?
3. Will the project remain feasible if the private office building is not constructed?

O-11

3. Will the project remain feasible if the private office building is not constructed?
4. Is there sufficient demand for the proposed private development in the San Diego area?
5. If the City of San Diego does not contribute money to the project, can the Navy still develop alternative A or F and consider the increase in cost as mitigation for intensity and non-priority development issues?

C-11

ESTUARINE RESOURCES

On page 4-151 of the EIS, the Navy states that:

The project site contributes urban runoff to this area through storm water flows that exit the site via storm drains that empty into the bay. Although not conclusive, it can be assumed that runoff from the site does not substantially affect the marine habitat of San Diego Bay because the habitat value in this area is considered rich and diverse.

C-12

If the estuarine habitat in the area is considered rich and diverse, why does the Navy assume that the urban runoff would not be significant? The Commission staff does not believe that the Navy should make this assumption. If the proposed project would increase urban runoff in a manner that significantly affects the estuarine habitat, then the Navy should mitigate that impact.

LOCAL COASTAL PROGRAM

The Local Coastal Program (LCP) for the City of San Diego has been incorporated into the CCMP. While Chapter 3 of the Coastal Act remains the substantive standard for evaluating federal projects, the LCP provides guidance for interpreting Chapter 3 policies in light of local circumstances. Therefore, the Navy's consistency determination should include an analysis of the project's consistency with the relevant portions of the LCP. The Commission staff is particularly concerned about the project's consistency with the transportation policies of the LCP. In its consistency determination, the Navy should include an analysis of the project's individual and cumulative traffic impacts and their consistency with the Centre City segment of the City of San Diego's LCP.

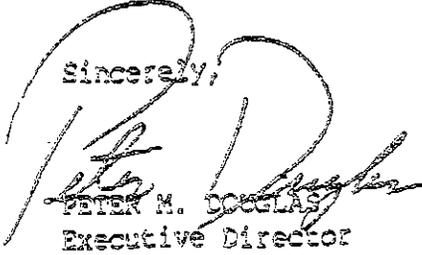
C-13

PAGE 6
JUNE 8, 1990

0000013

Once again thank you for the opportunity to comment on the draft EIS and consistency determination for the proposed project. If you have any questions, please contact Jim Raives the Commission staff.

Sincerely,



PETER M. DOUGLAS
Executive Director

cc: Deborah Lee

JRR/PMD
0001p

225 Broadway
Suite 1100
San Diego, California 92101-5074
619/236-7101

Centre City
Development
Corporation

John G. Davies
PRESIDENT
Gil R. Ontai
VICE PRESIDENT
Philip C. Blair
SECRETARY
Janay P. Kruger
TREASURER

DIRECTORS
Thomas F. Carter
Patrick Kruer
Henri S. Lagatella

Pamela M. Hamilton
EXECUTIVE VICE PRESIDENT

0000014

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June 13, 1990

Mr. Louis Misko
Director of Planning
Officer in Charge
BROADWAY/NAVY COMPLEX
555 West Beech Street, #101
San Diego, CA 92101

Subject: Intersection Configurations - Pacific Highway

Dear Mr. Misko:

My understanding of the preferred configuration of the streets intersecting Pacific Highway, including "E", Broadway and "C" street as illustrated on page 4-67, is that no double left-hand turn movements from Pacific Highway onto intersecting streets have been recommended. Conversely, in the event that a full two block plaza is created at the terminus of Broadway, double left-turn lanes are recommended at the intersection of Broadway and "C" streets as illustrated on page 4-68.

P-1

With respect to northbound traffic on Pacific Highway, I recommend against a right-hand turn at the intersection of Broadway. I also question the need to provide a double left-hand turn from Broadway, southbound onto Pacific Highway.

These recommendations will negatively impact the design of off-site improvements adjoining the proposed development of the Santa Fe Center on the south side of Broadway and the future development of the Santa Fe Properties located on the north side of Broadway.

In addition, the implementation of right-of-way improvements at Broadway and Pacific Highway may be regarded as a standard for other intersections between Market and Grape streets. Which if followed, will reduce the quality of Pacific Highway as a landscaped boulevard.

P-2

Louis Misko
June 13, 1990
Page 2

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For this reason, I am anxious that the circulation improvements balance the traffic needs of the City and adjoining development with the street as an important landscaped entrance to the City and waterfront area.

P-3

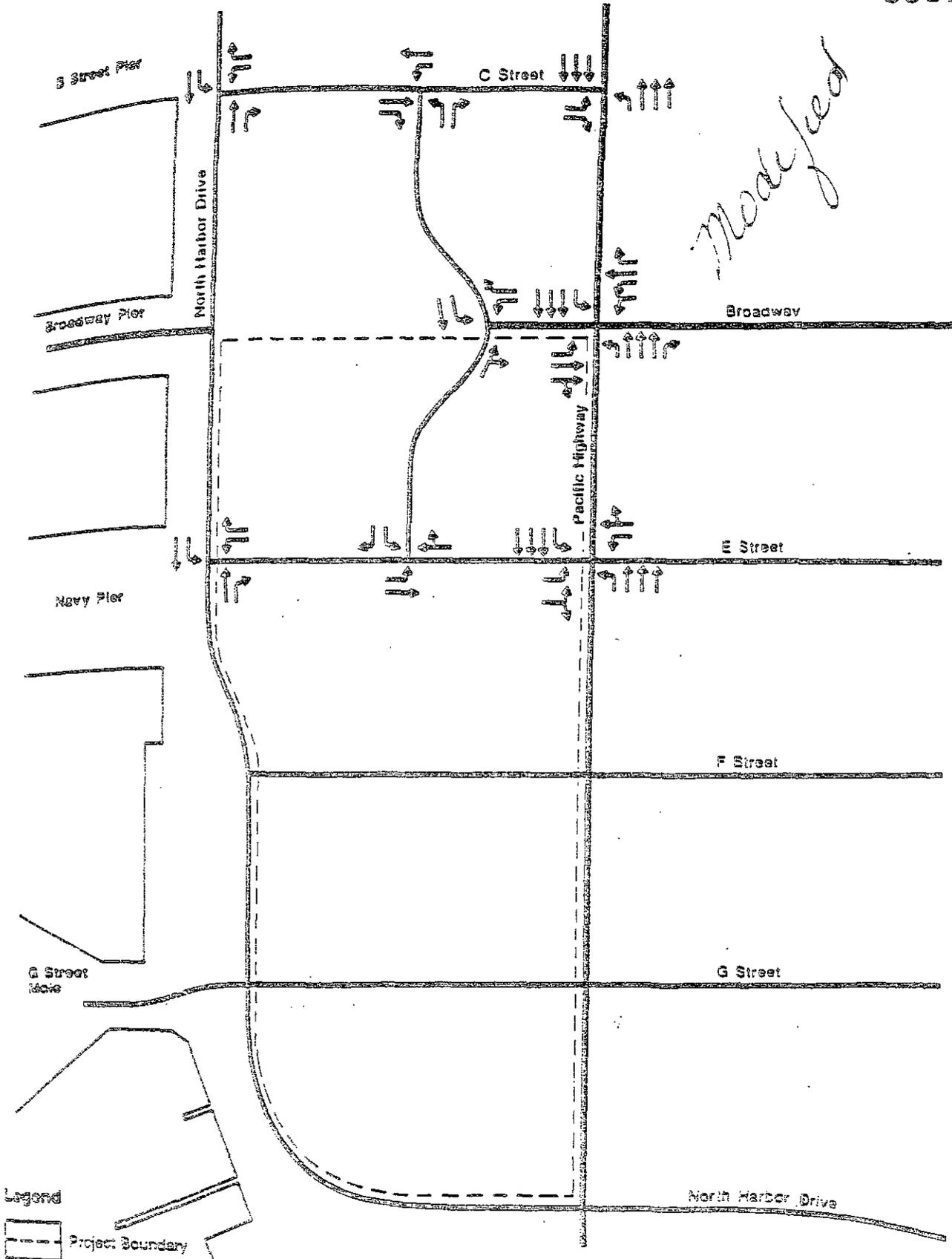
I would appreciate your response to my concerns in the review of the draft EIR for the Broadway Complex.

Max
MAX SCHMIDT
ASSISTANT VICE PRESIDENT

enc.

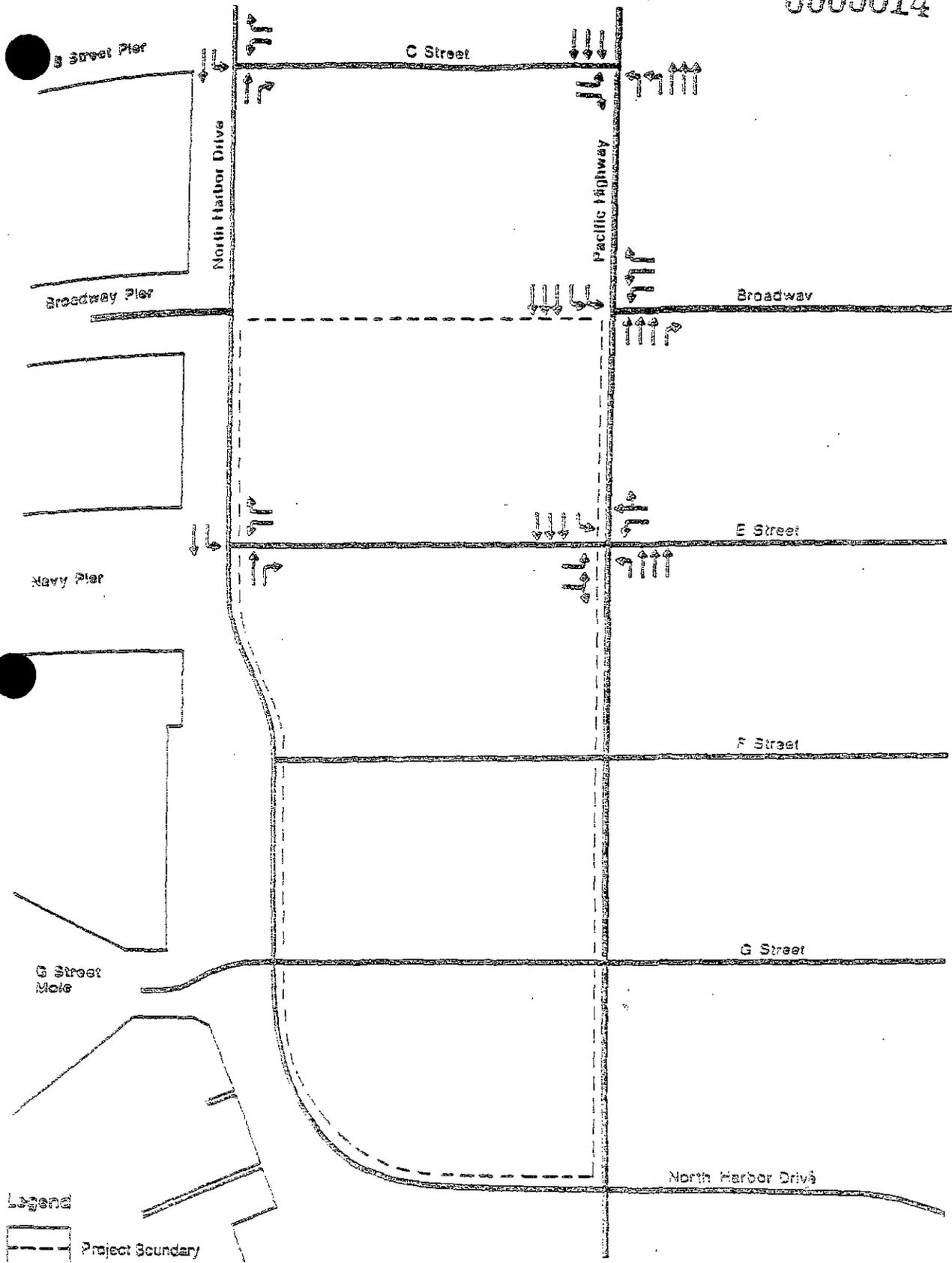
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cc: Mike Stepner
Allan Holden



Future Intersection Configurations
 Alternative A
 Navy Broadway Complex Project

0000014



Future Intersection Configurations
 Alternative F
 Navy Broadway Complex Project

364001 1/50

Not to Scale

NORTH

Figura 4-19

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 9
 1225 MISSION STREET
 SAN FRANCISCO, CA 94103

15 JUN 1990

Captain W. K. Goodermote, CEC, USN
 Office in Charge - Navy Broadway Project
 Western Division
 Naval Facilities Engineering Command Detachment
 Broadway Complex
 555 W. Beech Street - Suite 101
 San Diego, CA 92101-2937

Dear Captain Goodermote:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) titled NAVY BROADWAY COMPLEX PROJECT, City and County of San Diego, California. The City of San Diego has issued a Draft Environmental Impact Report (DEIR) which incorporates by reference the Navy's Broadway DEIS. Our comments on the DEIS/DEIR are provided pursuant to the National Environmental Policy Act, Section 309 of the Clean Air Act, and the Council on Environmental Quality's Regulations for Implementing NEPA (40 CFR 1500-1508).

The proposed Broadway project would centralize and consolidate the Navy's administrative activities for the San Diego region at a new facility on approximately 13.6 acres in downtown San Diego near the waterfront. The site is proposed for redevelopment through a public/private partnership. The Navy requires approximately one million square feet of office space. Additional multi-use private development (hotel, office, retail) on-site would be included to offset the cost of the Navy-occupied site, thereby reducing the cost to the taxpayer. The Navy and the City of San Diego intend to conclude a development agreement as the mechanism for approval and control of the site's development.

Q-1

We have rated this DEIS as Category EC-1, Environmental Concerns - Adequate (please see Enclosure 1, "Summary of Rating Definitions and Follow-up Actions"). We encourage the adoption of water conservation and solid waste recycling measures and measures to protect air quality. We also request that the final Environmental Impact Statement (EIS) contain additional information and mitigation measures on several project features regulated under the Resource Conservation and Recovery Act (RCRA), as amended by the 1984 RCRA amendments; the Comprehensive Environ

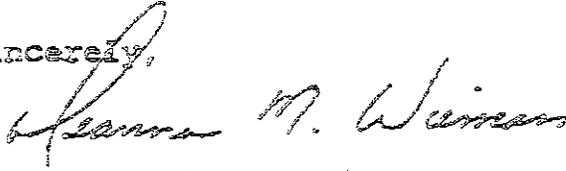
15 JUN 1990

mental Response, Compensation and Liability Act (CERCLA), as amended in 1986; and the Toxic Substances Control Act (TSCA). Detailed comments are provided in Enclosure 2.

Q-1

We appreciate the opportunity to comment on this DEIS. Please send us three copies of the FEIS when it is officially filed with the EPA's Washington, D.C. office. If you have any questions, please call me at 415-556-6383 or have your staff contact Mr. David Tomovic at 415-556-5092.

Sincerely,



Deanne M. Wisman, Director
Office of External Affairs

Enclosures: 2 (EIS comments; EIS rating sheet)

cc: San Diego Air Pollution Control District
Regional Water Quality Control Board
City of San Diego Planning Department

10—Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

11—Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

12—Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

13—Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact StatementCategory 1—Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2—Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3—Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

From: EPA Manual, 1040, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Adopted by EPA, Oct. 1984

15 JUN 1990

GENERAL COMMENTS - WATER CONSERVATION

The DEIS states that "None of the alternatives would significantly affect the ability of the City to provide water service; therefore, no mitigation measures are necessary" (DEIS, page 4-121). We urge the Navy and the City of San Diego to use this opportunity to develop a facility that is a model for water conservation. We recommend you consider adopting a broad range of mitigation measures to reduce the amount of water which the proposed project would consume, especially for its operational phase. Examples of water conservation measures include:

- * installation of water-saving shower heads or flow restrictors in the hotel rooms,
- * installation of water conservation features on toilets,
- * periodic checks for leaks in pipes, hoses, faucets and couplings,
- * planting drought-resistant trees and plants for landscaping features,
- * use of efficient sprinklers or drip systems rather than hand watering of lawns, trees and plants,
- * use of "gray water" to water lawns, plants and shrubs, and
- * watering vegetation after dusk or before sunrise to reduce evaporation, especially during hot months.

Q-2

AIR QUALITY - CLEAN AIR ACT

As the DEIS notes, the San Diego Air Basin is designated as a nonattainment area for several pollutants. "The western half of the Basin is designated as nonattainment of state and national carbon monoxide standards and state nitrogen dioxide standards" (DEIS, page 4-156). Because of this, the Navy and the City should undertake every feasible effort to ensure that proposed project activities do not result in further deterioration of air quality in the air basin under both the Federal and State Clean Air Acts.

We support the adoption of the two mitigation measures to reduce the project's air quality impacts: fugitive dust control during construction and long-term air emissions reduction through a Travel Demand Management (TDM) program (DEIS, pages 4-172 and 4-173). We encourage the Navy and the City to commit to adoption of all the TDM elements identified in the DEIS, including "improved transit use through better service and accessibility, increased ridesharing through provision of reserved carpool spaces, and development of shared parking through a mix of land uses" (DEIS, page 4-61). We encourage the Navy and the City to work closely with the San Diego Air Pollution Control District for the life of the project (construction/operation) to ensure that it does not contribute to deterioration of San Diego's air quality.

Q-3

HAZARDOUS SUBSTANCES - COMPREHENSIVE ENVIRONMENTAL RESPONSE,
COMPENSATION AND LIABILITY ACT, AS AMENDED BY SUPERFUND AMEND-
MENTS AND REAUTHORIZATION ACT (CERCLA/SARA)

15 JUN 1990

EPA's December 1988 scoping letter to the Navy requested that the DEIS identify potential toxics contamination and certain toxics mitigation. We appreciate the chapter that discusses potential toxics contamination and the mitigation which the Navy will adopt to reduce/eliminate impacts to public health and the environment. We request that the toxics mitigation identified in the DEIS be adopted in full by the Navy in its FEIS and Record of Decision.

Q-4

It appears likely from several statements that CERCLA hazardous substances, pollutants or contaminants are present onsite. Examples include the "oily surface spill" outside Building 106; "high acidity" due to sulfuric acid previously stored in Building 106; and "higher than normal levels of some priority pollutant metals" in soil samples (DEIS, pages 4-214 and 4-215). The FEIS should clarify whether any such materials are present. If they are present, the selection of a remedy by the Navy would need to follow the process set forth in CERCLA and the National Contingency Plan (NCP), including a remedial investigation to determine the extent of CERCLA hazardous substances contamination, a risk assessment and an ecological assessment.

Q-5

We agree with the conclusion in the DEIS that several areas require more investigation to determine the extent of toxics contamination and to identify appropriate remedial work (DEIS, page 4-216). At least four areas have been identified:

- * a source of black, hydrocarbon-discolored soil encountered in three hand-augured borings near Building 7,
- * a former hazardous waste storage area located in Building 8,
- * soil around the forklift area, and
- * oil with lighting ballasts and transformers with potential PCB concentrations. If high concentrations are found, remediation would be recommended to reduce future onsite soils contamination (page 4-216).

Q-6

We request that the Navy closely coordinate its Broadway developments with the California Department of Health Services, the Regional Water Quality Control Board and local health and environmental agencies to ensure that the proposed project is not in conflict with Federal or State environmental restoration requirements.

RESOURCE CONSERVATION AND RECOVERY ACT - RCRA

1. Hazardous Waste Volume. We were unable to find any discussion concerning the types and quantities of hazardous materials or hazardous waste as defined under the Federal RCRA and/or State of California law, which the Broadway Project may use or generate. The project's construction may generate a variety of hazardous wastes (e.g., ignitable paint wastes and spent solvents). Hazardous wastes may be generated during the project's operational phase from hotel laundromat/dry cleaning

Q-7

operations and other actions such as landscaping operations (pesticides). We request that the FEIS identify the types and estimated quantities of hazardous waste which may be generated during construction and operation.

Q-7

2. Hazardous Waste Minimization. We encourage the Navy and the City to make hazardous waste minimization, as required by the 1984 RCRA amendments, an integral component of the Broadway Project in both construction and operation. Hazardous waste minimization should be included as a mitigation measure in the FEIS and ROD.

Q-8

3. Recycling. The DEIS states that, "As no significant impacts to solid waste would result from any of the alternatives, no mitigation measures are necessary" (page 4-128). EPA is very concerned with the nation's solid waste problem, including the problems associated with siting new sanitary landfills and/or permitting alternatives such as incinerators. Recycling reduces the need for raw materials and helps to conserve natural resources. It helps to minimize landfill use and extend the expected life of existing sanitary landfills. We thus encourage the Navy and the City to vigorously pursue a program to recycle solid wastes, especially paper, glass, plastics and aluminum cans. We recommend that a solid waste recycling program be included as a mitigation measure in the FEIS and ROD.

Q-9

4. Solid Waste Management Units (SWMUs)/Corrective Action.

The FEIS should discuss whether any RCRA SWMUs are located onsite. Various sources of contamination may constitute RCRA SWMUs (e.g., Building 8 hazardous waste storage area, the forklift/drum storage area, contaminated soil near Building 7). If the Navy determines that RCRA SWMUs are onsite, the FEIS should discuss whether the proposed project could affect RCRA corrective actions onsite or at adjacent areas.

Q-10

TOXIC SUBSTANCES CONTROL ACT - TSCA

The DEIS (page 4-222) notes that fluids in transformers and other electrical units will be tested by the Navy prior to construction to determine if the fluids contain PCBs. If PCBs are found, the Navy will dispose of the fluids and the units at an approved waste disposal facility. We request that the FEIS address the PCB spill cleanup policy requirements under 40 CFR 761.120 of the PCB regulations, developed under authority of the TSCA. The FEIS should note that the removal and disposal of PCB-contaminated materials is governed under the TSCA.

Q-11

1 DEPARTMENT OF THE NAVY

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In Re:)
)
NAVY BROADWAY COMPLEX PROJECT)
DRAFT ENVIRONMENTAL IMPACT STATEMENT)

San Diego City Administration Building
12th Floor Committee Room
202 "C" Street
San Diego, California 92101

Wednesday,
May 16, 1990
7:00 p.m.

1 PANEL MEMBERS

2 CAPTAIN WAYNE GOODERMOTE
3 Officer in Charge, Western Division
4 Naval Facilities Engineering Command Detachment,
5 Broadway Complex
6 555 West Beech Street, Suite 101
7 San Diego, California 92101-2937

8 W.M. ROBINSON, JR.
9 Executive Director
10 Western Division
11 Naval Facilities Engineering Command Detachment,
12 Broadway Complex
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14 San Diego, California 92101-2937

15 CURTIS E. ALLING, AICP
16 Vice President, Environmental Services
17 2530 Red Hill Avenue
18 Santa Ana, California 92705

19 LIEUTENANT COMMANDER JAMES C. HAUG, CEC, USN
20 Assistant Officer in Charge
21 Western Division
22 Naval Facilities Engineering Command Detachment,
23 Broadway Complex
24 555 West Beech Street, Suite 101
San Diego, California 92101-2937

LOUIS MISKO, Director of Planning
Officer in Charge, Western Division
Naval Facilities Engineering Command Detachment,
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9 DANIEL JACOBS
10 Albert C. Martin & Associates
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22 BOB BREWSTER
Turner Construction
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San Diego, California 92101

24

25

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14 Michael Brandman Associates
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23 San Diego, California 92107

24 WILLIAM UMSCHIED
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Note: Provided below is public testimony commenting on the Draft EIS.²²
The Navy's presentation of the project elements, pages 5 through 21 of
1 this transcript, repeats the contents of the Draft EIS, so is not included
here.

2 Our first speaker will be Colleen Cronin.

3 PRESENTATION BY MS. COLLEEN CRONIN

4 NATIONAL SAFETY ASSOCIATES

5 MS. CRONIN: Good evening ladies and gentlemen, my
6 name is Colleen Cronin; I'm a sales coordinator with a
7 company called National Safety Associates. We're located at
8 7710 Balboa, Suite 216E, San Diego, California 92111.

9 Our primary focus is environmental products,
10 specifically water and air filtration systems. As you are
11 probably aware, there is a growing concern about the quality
12 of our indoor air.

13 We offer a solution to this problem. We have an air
14 unit which removes 95 percent of these indoor contaminants
15 down to 0.1 microns.

16 This includes smoke, pollen, dust, spores, gases,
17 odors, about half of all known viruses and all bacteria.

18 Areas of application might be rooms with blueprint
19 machines, computer rooms, lounges, poorly ventilated rooms,
20 and areas with high concentrations of employees.

21 Our units are very energy efficient costing only
22 pennies a day to operate. Most importantly, our units have
23 an unprecedented three year warranty.

24 If used properly, these filters should greatly reduce
25 your employee absenteeism due to illnesses contracted at the

1 work place, better known as, sick building syndrome.

2 We also offer a variety of water filtration systems
3 designed to remove chlorine and chlorine compounds. Our
4 units consist of a granular activated carbon filter which is
5 impregnated with silver to prevent bacteria from growing
6 within the unit.

7 Approximately one third of all Californians are
8 drinking bottled water and are paying anywhere from 25 cents
9 to \$1.50 per gallon. We offer bottle quality water for only
10 three cents a gallon.

11 One of our newest editions is our bottle less water
12 cooler; it has a lease-to-own option, which most companies
13 do not offer. At the end of three years, based on the HA-1
14 number of coolers needed, you could literally save thousands
15 of dollars in this area alone.

16 Additional hidden costs with other companies include
17 bottle storage, loss of employee time to change bottles, and
18 interruptions from bottle delivery. Our system alleviates
19 these problems.

20 I want to thank you for the opportunity to present our
21 products to you, and we look forward to working with you.

22 Thank you.

23 CAPT. GOODERMOTE: Thank you very much.

24 Mr. Wood.

25 //

1 PRESENTATION BY MR. DON WOOD

2 C-3 AND THE BAYFRONT COALITION

3 MR. WOOD: My name is Don Wood; we've been working
4 together for I don't know how many years now on this, here
5 at the original public charrettes that the Navy held when
6 Bruce Boland was the Admiral.

7 We've been involved in the waterfront for a long time;
8 C-3 is represented on the Broadway Complex Coordinating
9 Group, and also has representation on the Center City
10 Planning Committee.

11 We're going to be providing written comments, but I
12 thought I want to get a few onto the record, especially if
13 this turns out to be the only public hearing associated with
14 the EIR.

HB-1

15 We applaud the Navy for an active effort to involve
16 the community, get community input, and provide public
17 review of this project. I'm sorry we don't have more people
18 down here tonight. It's certainly a breath of fresh air
19 compared to the Navy Hospital fiasco in Balboa Park. I
20 think its been a mere opposite to that, and I want to thank
21 Wayne and a lot of his staff for that behavior.

22 We applaud that the proposals having to do with
23 opening of the east to west streets through the site,
24 waterfront, E, F and G Streets.

25 We think that's very positive and we certainly support

1 the park proposal to put Broadway included in I believe
2 alternative F.

HB-1

3 We have some concerns I'd like to see addressed in the
4 final EIR. We support what you're trying to do so far.
5 We're still wrestling with, how does this project set a
6 precedent for the land between Pacific Highway and Harbor
7 Drive.

8 How do we support this proposal, and some of the
9 heights proposed on some of the buildings here, and yet then
10 refuse to support or oppose Port projects being proposed on
11 sites on tidelands property north of Broadway.

HB-2

12 We're trying to set up some equity and we're realizing
13 this is a precedent, and so we want to work with the Navy
14 and other interested parties to try and get some clear
15 agreement on how this is going to be, especially since the
16 Port has not agreed to abide by the BOCG proposals, or the
17 design standards.

18 What is the potential impacts on the site related to
19 the recently reported in the paper the Mission Bay fault,
20 which runs down runway 31 at Lindbergh Field, through it
21 looks like the Solar site, the County Administration Center
22 and the Santa Fe site.

HB-3

23 Does that fault run under or near this site? What are
24 the potential impacts of an earthquake along the fault?
What would the impact on this site be? What steps are being

1 taken to identify those potential impacts due to the
2 potential earthquake? What mitigations propose to avoid or
3 lessen these impacts? HB-3

4 Third point I'd like to make is how this project
5 relates to Pacific Highway. We've seen a lot of photos, or
6 a lot of overheads of the building from the west, I'd like HB-4
7 to see a schematic or an illustration, or a concept drawing
8 showing the east side front of the project, and trying, if
9 this is possible, to relate it to projects on the west side
10 of the Pacific Highway.

11 And I realize that the Navy doesn't have a crystal
12 ball about what CCDC and the City is going to allow on the
13 east side. We would like to see how this complex relates to HB-5
14 what is conceptually a major public promenade running along
15 Pacific Highway north and south, and how the east side of
16 the project relates to that.

17 And those are the three concerns we have at this
18 point, other concerns will be brought up in our written
19 comments. And we thank you for your time and your
20 cooperation and help on the project.

21 CAPT. GOODERMOTE: Thank you. I appreciate your
22 cooperation and support, and your patience in working with
23 us.

24 One comment on your comment, if I may. Really I think
25 that the purpose of that four year process with the Broadway

1 Complex Coordinating Group under SANDAG was to really work
2 out the interface of our project with surrounding projects.

3 And really I think that was the intent in the plan
4 that came out in the form of the Central Bayfront Design
5 Guidelines, that came forth on the 22nd of September of last
6 year.

7 Thank you very much. Anybody else that has any
8 comments?

9 Well, this concludes the public hearing on the Draft
10 Environmental Impact Statement for the Navy Broadway Complex
11 project. I thank each of you for attending this evening. I
12 know it's somewhat of a hardship to come out at this hour of
13 night, but I do appreciate your attendance very much.

14 Thank you and have a good evening.

15 (Whereupon, at 7:35 p.m., the above-entitled matter
16 was concluded.)

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SECTION 3

RESPONSES TO COMMENTS

In accordance with both the NEPA and the CEQA, responses are provided to each substantive comment raised on the contents of the DEIS (and, by reference, the DEIR). Responses need not be provided to comments that strictly state the opinion of the commentator on the merits of the project or to comments that do not address the specific contents of the DEIS.

3.1 TOPICAL RESPONSES

A number of issues were raised by several commentators. Provided herein are responses to those comments. Wherever the subject is raised by an individual commentator, the response is referenced to the appropriate topical response. Topical responses, are identified as "TR", followed by the appropriate number.

TR-1: Military Construction Financing and Design Constraints

A number of comments were raised on the military construction alternative (DEIS Alternative E) focusing on two primary issues:

1. Why is the project not being constructed with traditional Congressionally appropriated military construction funding?
2. Why can't the military construction alternative concentrate the development on one or two blocks and allow the rest of the site to be developed with other community uses?

Military Construction Funding

In 1987, the United States Congress passed Public Law 99-661 (see Appendix A of the DEIS). By passing this legislation, Congress established the objective of obtaining Navy office space at the Navy Broadway Complex and to do so utilizing the value of the Navy land through a public/private venture. The current five-year defense program contains no project to accomplish the consolidation or co-location of Navy administrative facilities in the San Diego area by military construction. In view of current federal budget reductions and the likelihood of even more severe constraints in the future, Congress has acknowledged that direct funding is not available for this project by authorizing the project through a public/private venture.

The Navy Broadway Complex is not "surplus" property. Retention of the Navy Broadway Complex site reflects a national defense requirement to maintain a mobilization capability directly adjacent the Navy Pier, which has a direct rail connection. During periods of national emergency, the mobilization and demobilization of supplies, heavy equipment and weapons platforms with accompanying personnel becomes a critical factor. The hotel, commercial office, and open space envisioned for the redevelopment of the Navy Broadway Complex could be used to augment Navy space during these periods. These complementary uses provide convertible space adjacent to the pier, which will remain as a strategic location for staging of support personnel and equipment with the key rail/waterfront linkage.

Military Construction Alternative Design

Even though military construction (MILCON) funding of the project is not available, the alternative of MILCON funding was considered in the DEIS (as Alternative E) to provide decision-makers one measure by which to compare the impacts of the project. P.L. 99-661 requires that the public/private venture development be more advantageous, i.e. less costly, to the United States than the most economical military construction. As such, Alternative E accurately reflects the standard of development achievable if appropriated funds were available for use.

Buildings 1 and 12, the two largest buildings currently located on the Navy Broadway Complex, are retained and rehabilitated in this alternative to provide the maximum feasible square footage. This would leave an unmet need for 148,000 square feet of office to reach the necessary 1 million square feet. Thus, an additional office building would be developed. As shown on DEIS Figure 3-13, these three buildings would use approximately 1/2 of three blocks each, or approximately 5.2 acres of the 15.6-acre site. This would leave 10.4 acres for parking and other uses.

One million square feet of office would create a need for 1,230 parking spaces (at 1.23 spaces per 1,000 square feet of Navy office). Using NAVFAC Manual P-80 "Facility Planning Criteria for Navy and Marine Corps Shore Installations" (October 1982), a "multilevel parking garage may be planned...only where justified by land restrictions and economic considerations. Allow (360 square feet) for each passenger vehicle." Using these standards, 10.2 acres would be required to provide surface parking onsite. With 10.4 acres not dedicated to building uses, there would be sufficient area to provide necessary surface parking on Federal property. As there would be no land restrictions or other economic factors (cost) inhibiting surface parking, a multi-level parking garage would not be justified. Virtually the entire site would therefore be devoted to buildings and surface parking.

TR-3: Project Economics/Financing

As discussed in topical response TR-1, funding for the project is not included within the five year defense program, and, given current and likely future federal budget reductions, Congress (with the passage of Public Law 99-661) has acknowledged that the only funding source available for this project is a public/private venture. The public/private venture concept requires that development of the Navy Broadway Complex include compatible private land uses sufficient to offset the cost of development of the necessary Navy office space. The process of formulating alternatives for the type and intensity of development on the site, therefore, integrated consideration of compatibility with surrounding development, specific environmental issues and the financial feasibility of potential alternatives.

To evaluate the economic requirements of the public/private venture, the Navy engaged the firm of Williams Kuebelbeck & Associates (WK&A) to make an independent financial feasibility analysis. A market assessment was performed to determine the potential types of uses which could be developed on the site without adversely affecting the absorption of similar development planned in the Centre City San Diego. The marketable development program was refined from a City planning perspective, considering urban design guidelines, massing, viewsheds, access and traffic, and significantly reduced in total scope. The reduced density was further analyzed on a financial pro forma basis to determine the overall return from the commercial land uses and the residual cash flow and present value attributable to the long term ground lease provided to the developer by the Navy. The financial analysis tested these cash flows and values against the estimated construction cost of Navy office space and the value of the leased land. The financial

confirmed the amount of development and mix of uses, including commercial office, necessary to feasibly implement the Navy's objectives in a manner consistent with Congressional authorization.

The enabling federal legislation mandates the selection of the developer for the redevelopment through a competitive process. The financial analysis performed by WK&A forms the basis of the government estimate to be used in the evaluation of competitive proposals submitted for award of the redevelopment. The WK&A study is therefore proprietary solicitation information which, in accordance with federal procurement regulations, cannot be published in order to protect the integrity and competitiveness of the selection process. The selected developer, the WK&A financial feasibility study, and the actual financial proposal from the developer are subject to review by the Congress, prior to award, in accordance with the authorizing legislation.

Alternative B meets many of the community planning objectives in terms of density, massing, urban design, and viewsheds and includes open space. The City of San Diego, however, desires a larger public open space at Broadway than would be provided by Alternative B. This larger area could be combined with adjacent lands owned by the Port District to create the significant open space envisioned in the Central Bayfront Design Principles and incorporated into the Preliminary Centre City Plan and Interim Development and Design Ordinance. The City has proposed that the Port District cooperate in making this additional land available and in the improvement of the open space. The estimated current cost of the open space improvements including road realignments and existing building demolition is approximately \$7.1 million.

Port District has not agreed to make available the land or fund any of these improvements. However, on December 5, 1989, the Board of Commissioners of the Port District adopted a Memorandum of Understanding (MOU) with the City which provides:

"Port and City agree to cooperate in design of improvements and identification of resources needed to develop the significant public plaza area at the foot of Broadway.

The parties to this Memorandum agree that it is a common objective to create a significant public plaza at the foot of Broadway. The public plaza should consist of lands made available by the Navy, by the Port, and reduction in the width of Harbor Drive and closing of Broadway (subject to appropriate studies and required public hearing).

Port and City recognize that Navy may require assistance to compensate for loss of Building 1 area as a contribution to the public plaza. Port and City agree to cooperate in negotiations with Navy to identify acceptable assistance to offset this loss."

In order to obtain this larger open space, as shown in Alternative A, the City has undertaken the identification of funds for infrastructure (road and landscaping) improvements associated with the Navy Broadway Complex Project to offset the reduction in density and commensurate revenue loss. The current estimated cost of improvements to Pacific Highway, Harbor Drive, and the E, F, and G Street rights-of-way is \$8.1 million. This is additional to the open space improvement costs described above.

Navy Broadway Complex now generates no property or other taxes for the City. The property tax increment derived from the private portion of the redevelopment will more than offset the total cost of both the open space and infrastructure improvements as reflected in the

fiscal analysis (see DEIS pages 4-141 and 4-142, as revised by response to comment G-27). In accordance with California redevelopment laws, the property tax increment from the project is available to the Redevelopment Agency of the City of San Diego for expenditure in connection with projects of this type. The staff of Centre City Development Corporation (CCDC) (an advisory body to the Redevelopment Agency) has suggested that the Port District participate in the improvements to Harbor Drive and E, F, and G Streets because the Port District owns land underlying Harbor Drive, E, and F Streets and because of the favorable impact of the opening of these streets on adjoining Port District waterfront properties, especially the G Street Mole. The Port District has not agreed to such participation.

TR-3: Parking Supply and Transportation Demand Management (TDM)

The provision of on-site parking for the Navy Broadway Complex was addressed in the DEIS (Section 4.2) and in the supporting Transportation Study for the Navy Broadway Complex. The analysis of current parking demand in the surrounding blocks used an industry standard indicating facilities are effectively at capacity at 90 percent occupancy levels. Off-street lots and structures within 15 minutes' walking time from the project site average 74 percent occupancy, while on-street spaces average 83 percent occupancy. The study acknowledges that one of the largest off-street public parking lot facilities in this area, adjacent to the Santa Fe Station, will be removed upon its development in 1992. Therefore the long-term parking conditions scenario (at build-out) focuses on provision of an adequate on-site supply and accommodation of a portion of demand in alternative transportation modes.

Standard estimation techniques were used to forecast parking demand for the project. The parking demand totals, without TDM, were based on demand rates that do not consider the increased use of alternative transportation modes (transit, carpooling, shared parking, etc.) that occurs in urbanized downtown areas. The parking supply rates for the project were based on surveys conducted by Wilbur Smith and Associates for typical supply levels provided in recent Centre City projects.

Table 14 of the Transportation Study addresses the proportion of on-site demand that is projected to be satisfied by on-site parking, and by diversion of single-occupant auto trips to other modes. Without a TDM program, Alternative A, provides that 80 percent of parking demand will be accommodated onsite assuming a 15 percent transit mode share; 20 percent of spaces would be provided offsite. The transit share is a reasonable assumption given that the current average proportion of employees in the Centre City who take transit to work is 15 percent, according to surveys by Commuter Computer, San Diego. This may be a conservative estimate for the project given the availability of two LRT lines in the vicinity of the project.

The addition of a TDM program to the seven project alternatives provides a scenario where the full parking needs of the project are provided onsite, based on the diversion of a proportion of trips by alternative modes. For Alternative A, 24 percent of office workers were projected to commute by alternative modes. For hotel workers and retail workers, 15 percent of demand would be diverted due to alternative mode use. This is also a reasonable assumption of the proportion of employee trips that would be diverted to alternative modes based on current travel patterns. According to Commuter Computer, approximately 24 percent of all Centre City employees carpool or arrive by alternative modes. An additional 15 percent take transit. Since office workplaces are among the easiest to implement ridesharing programs, the full existing percentage was used to estimate project ridesharing for office. Much lower percentages were assumed for hotel and retail, reflecting the nature of these workplaces.

Statewide experience shows that federal, state, and local employees achieved ridesharing rates of 30 percent or more. For example, survey data for County of San Diego Courthouse employees show that less than half drive alone (48 percent); more than half rideshare or take transit, and the transit ridership is very high at 39 percent. The above data is consistent with rates seen statewide and summarized in the Metropolitan Transportation Commission's "Commute Alternatives Program Evaluation" study (January 1984), which evaluated ridesharing programs in six northern California counties. The study indicated that standard employer coordination and minimal benefits resulted in ridesharing levels of up to 31 percent for Contra Costa County employers.

The projected mode splits with TDM are intended to provide a reasonable forecast of commuter modes and the resulting parking needs for typical Centre City uses. In all cases, the mode splits with TDM are comparable with existing patterns in San Diego and the Central Business Districts of other major metropolitan areas in California.

Therefore, the assumption of parking demand reductions due to TDM are reasonable. They do not represent a statement of goals for the project, but a reasonable estimate of TDM-related parking demand reductions expected for a project of this size, given standard TDM program measures that are commonly implemented by employers in the Centre City area, according to the regional ridesharing agency. The listed TDM measures approximate the types of employee TDM program measures implemented by Centre City employers. An actual program should be tailored to the employee population and is expected to be coordinated onsite.

4: Project Planning in the Context of the Central Bayfront and Centre City

Comments on the EIS which assert the project is not consistent with the City's planning direction for the waterfront do not appear to recognize the most recent community plan. Since the release of the Draft EIS in April 1990, the Centre City Planning Committee (CCPC), appointed by the City Council, has completed the Preliminary Centre City San Diego Community Plan and Interim Development and Design Ordinance, both dated July 1990. The plan incorporates the Central Bayfront Design Principles that were adopted by the Broadway Complex Coordinating Group (BCCG) in September 1989. The community plan updates the city's land use and development policy for the Centre City. The CCPC, Centre City Development Corporation, and Planning Commission recommended adoption of the plan and ordinance to the City Council. The City Council concurred and recently adopted the plan and ordinance (first reading).

The project site is located within the Commercial/Office District of the plan where professional office, retail, restaurant, hotel, motel, and multifamily or single-room residential uses are emphasized. Inclusion in this district is important to note, because it recognizes the appropriateness of the office, hotel, and retail uses proposed for the Navy Broadway Complex. The designation as a commercial/office district reflects the importance of the project site as a complementary part of the downtown core, rather than a location of unplanned competition for development opportunity with the downtown. (This is also confirmed by the market analysis prepared for the project. Please see Response TR-2.)

Guidance for the intensity of uses and principles for the urban design of development have been unified in the preliminary community plan. Intensity is governed by maximum floor area ratios (FAR) designated for each city block with the highest intensities in the downtown core and along the Broadway spine. For the Navy Broadway Complex the FAR designations are highest next to Broadway (7.0 on Block 1) and diminish to the south (5.5 on Block 2 and 5.5 on Blocks 3 and 4).

The urban design guidance in the waterfront area consists of the Central Bayfront Design Principles prepared by the BCCG. The principles include objectives for stepped down intensity and scale from the most intense along the Broadway corridor to lesser intensities north and south of Broadway, and toward the waterfront. A mixed-use bayfront is encouraged. Important public spaces are recommended for the bayfront, including one at the foot of Broadway. Recommended street improvements include the enhancement of Pacific Highway as the primary vehicular route in the Central Bayfront and extension of the street grid through the site for E, F, and G, Streets.

The Navy Broadway Complex Project's preferred Alternative A was developed in coordination with the formulation of the Central Bayfront Design Principles and the preliminary community plan. It is consistent with the FAR designations for building intensity and with the urban design guidance for the bayfront with its opening of streets, scaled down building heights to the west and south, and inclusion of the 1.9 acre open space at the foot of Broadway. The project is a mixed-use development as directed by the plan. The 1.9 acres on Block 1 would substantially contribute to the large open space desired at the foot of Broadway. The continuous esplanade and extension of the street system could be accomplished, as needed on the project site. The community plan specifically indicates that it encourages the development of the Navy Broadway Complex with proposed commercial office and hotel uses (page 84 of the plan). The Navy conducted a planning process for the project and participated extensively in the Centre City planning activities specifically to formulate a development concept that would reflect the City's objectives for the Central Bayfront area. The planning process was conducted with substantial opportunity for public input and numerous discussions with local residents, groups, and agencies.

TR-5: Tidelands Trust

Representatives of the Office of the State Attorney General and counsel for the State Lands Commission have claimed that language in the deeds from the City of San Diego to the United States conveying the several parcels constituting the Navy Broadway Complex restrict the use of that property to those uses that can be generally described as "military in nature." They have also claimed that the property is subject to the tidelands trust and cannot be used for purposes that are inconsistent with general tidelands trust theories. Attorneys for the Navy and the U.S. Department of Justice disagree with the State's contentions.

The Navy asserts that: (1) The restrictions of the tidelands trust were removed by action of the California Legislature in 1929; (2) the deeds from the City of San Diego to the United States contain no language of reversion and, therefore, do not limit the Navy's use of the property; and (3) since the proposed commercial development of the Navy Broadway Complex is to be undertaken solely for the purpose of providing the means whereby the Navy will obtain office space, the entire development is consistent with the deed restrictions the State claims exist.

Since the State Lands Commission letter of December 22, 1982, was written, there has been a considerable amount of correspondence between representatives of the State and the Navy, as well as a number of meetings, in an effort to arrive at a mutually satisfactory resolution of the conflicting views. Several proposals for settlement of the dispute have been made. All proposals

contemplate that the Navy Broadway Complex project would proceed as planned. The latest proposal of the State Lands Commission staff communicated to the Navy by the California Attorney General would require the Navy to relinquish a parcel of property it uses under long-term lease from the San Diego Unified Port District in return for, among other matters, the termination of the tidelands trust claimed by the State to exist on these parcels within the Navy Broadway Complex to be used for commercial office space. This proposal was unacceptable to the Navy because it presently makes intensive use of the leased land.

If the Navy and the State are unable to conclude a mutually acceptable settlement of this legal dispute, any adverse title claims of the State will be extinguished by appropriate court action which the Navy has initiated by request to the United States Department of Justice. However, the evaluation of alternatives on an environmental basis need not await final resolution of the legal issues.

A. Robert S. Joe, United States Department of Army, Corps of Engineers, May 22, 1990

A-1. Section 3 of the DEIS describes all of the alternatives being considered for development. As discussed and shown in a number of figures (see for example, Figure 3-4 on page 3-7), no elements of the project are proposed to encroach on San Diego Bay. No other waters of the United States are on or near the site. See, also, page 4-152 of the DEIS for a discussion of biological resource impacts of the proposed alternatives.

A-2. Compliance with Section 106 of the National Historic Preservation Act has been vigorously pursued throughout the planning and environmental process for the Navy Broadway Complex Project. The Navy has determined that Buildings 1, 11, and 12 together are eligible for the National Register of Historic Places as a district under Criterion C. Other structures and archaeological resources have been determined to not be eligible for the National Register. The State Historic Preservation Officer (SHPO) concurred with these determinations in a letter dated October 3, 1989.

As described in the EIS, the proposed project would have an adverse effect on the eligible resources, so a mitigation approach was prepared and submitted to SHPO, with advisement to the Advisory Council on Historic Preservation, as the basis for a two-party Memorandum of Agreement (MOA). The MOA was signed by SHPO on August 14, 1990 and accepted by the Advisory Council on Historic Preservation on August 28, 1990. The MOA between the Navy and SHPO requires that historic information from the affected buildings be recorded according to the standards of the Historic American Buildings Survey as mitigation for their alteration or demolition.

Kenneth W. Holt, M.S.E.H., United States Department of Health and Human Services, May 24, 1990

B-1. The commentator agrees with the findings and conclusions of the DEIS. No response is necessary.

C. Montague D. Griffin, May 25, 1990

- C-1. The commentator's opinion that each of the alternatives considered in the DEIS has substantial liabilities is noted. These "liabilities" have been evaluated in the DEIS as environmental impacts.
- C-2. Please see topical response TR-1.
- C-3. The financial feasibility of the project has been thoroughly considered. (See TR-2.) However, execution of the project will be based on competitive proposals from developers. If the proposals indicate that the project is not feasible, that the development will not meet the necessary timeframes, or that the undertaking is not as cost-effective as military construction, then the development will not be undertaken. The assertion that the project will cost the taxpayers more than with MILCON funding is inconsistent with the DEIS, and lacks sufficient specificity to warrant further response.
- C-4. The commentator's opinion is noted. Please see topical response TR-1.
- C-5. The commentator's opinion is noted. Please see topical response TR-1.
- C-6. The commentator's opinion is noted. Please see topical response TR-1.
- C-7. The commentator's preference for Alternative F over Alternative A is noted. No further response is warranted.
- C-8. The DEIS contains extensive analytical material related to the project's impact on aesthetics and viewshed. Please see pages 4-74 through 4-114 of the DEIS. The conclusionary comment that the project alternatives are detrimental to Bayfront aesthetics fails to suggest that either the methodology or analysis of the DEIS on this issue is inadequate.
- C-9. The shadows depicted in Figures 4-52 (page 4-112) and 4-53 (page 4-113) accurately describe the shadowing effect of the project, based on sun angles at the specific times noted. The commentator's disagreement with the conclusions on page 4-114 with respect to shading are noted.
- C-10. The water consumption estimates shown on page 4-122 of the DEIS are based on water consumption rates typical for the uses proposed, as provided by the City of San Diego Water Utilities Department. Nevertheless, in view of the generally constrained water supply throughout California, the following is added to page 4-121 under "Mitigation Measures":
- "Although the project would not significantly affect the ability of the City of San Diego to supply water service, the following design features will be incorporated into the proposed project:
- Low-flow shower and faucet fixtures will be provided in all buildings.

- Drought-tolerant landscaping will be used on all areas of the site except where grass-intensive uses (such as in open space areas) are located.

C-11. The only "toxic" or "hazardous materials" that would be used on site are those that are associated with normal operations of hotels and office buildings. The Navy and project site lessees would be required to comply with all laws and regulations that establish the methods and procedures for the use, storage, and disposal of toxic or hazardous materials.

C-12. An evaluation of site geology and geologic hazards was made in the previous geotechnical investigation by Woodward-Clyde Consultants (1988) (which is included in the Hirsch and Company report referenced in the draft EIS). Supplemental information regarding site geology, seismicity, evaluation of faulting, and liquefaction is presented in the report entitled "Additional Geologic, Seismic, and Geotechnical Studies. Navy Broadway Complex, San Diego, California," dated September 5, 1990 and prepared by Woodward-Clyde Consultants. This report is included in this appendix as Section 4. Additional test borings extending below proposed foundation depths will be required for design level geotechnical investigations, but the current borings are adequate for the current planning and environmental level investigations.

C-13. While it is true that open space uses may attract and be beneficial to certain bird species, the intent of the DEIS is to identify substantial adverse impacts of the proposed action and provide mitigation measures and alternatives to avoid these impacts.

C-14. In areas characterized by long rows of tall buildings and in areas of already high wind speed (e.g., Chicago), a wind tunnel effect can be created whereby wind is directed through narrow passageways and somewhat accelerated. The project area is not characterized by these conditions, especially with respect to wind speeds. As shown on page 4-155 of the DEIS, the mean wind speed in the project area is 6.6 miles per hour (mph), and wind speeds exceed 12 mph only 10 percent of the time. The site is adjacent to San Diego Bay, with no major structures between it and the bay to accelerate the relatively moderate winds that do traverse the site. The project would have the effect of moderately blocking bay breezes to areas immediately adjacent to the inland side of buildings, but normal wind flow would return rapidly, such that it is approximately the prevailing speed within a block of the site. The project would not have the effect of substantially reducing breezes to residential areas east of Kettner Street.

C-15. This comment reiterates comment C-8. Please see response to comment C-8.

C-16. The second sentence on page 4-142 is hereby revised to read as follows:

"Alternatives E and G do not generate tax revenues to the city, as they include only Navy facilities."

C-17. The legend on page 4-208 of the DEIS is hereby revised to indicate that the description of each identified property is found on pages 4-207 and 4-209 of the DEIS.

D. Don L. Nay, Port of San Diego, May 31, 1990

D-1. Please see topical response TR-2 concerning the economics and financing of the proposed project, as well as possible financing alternatives for infrastructure improvements. The financing alternatives discussed therein are not inclusive of all potential financing options that may be considered in the implementation of the project. The EIS assumes that financing for necessary infrastructure improvements will occur. Note that the intent of the EIS is to evaluate the environmental impacts of the proposed project. The financing of the project is not a factor in the extent and type of impacts that the project would create. If various infrastructure improvements can not be financed, and the lack of such improvements result in environmental impacts, then the findings of the EIS would need to be changed, with such changes disclosed in environmental documents circulated to the public.

With respect to the museum, as noted on page 3-6 of the DEIS, up to 55,000 square feet of unimproved space would be made available to a community-sponsored organization for a museum. The draft development agreement with the City of San Diego provides that the organization's qualifications are to include reasonable initial capital and operating reserve requirements. Public subsidies, if any, would be minimized. The agreement further provides that if no such organization is willing or able to undertake such a venture, the space would be utilized by the Navy or publicly-oriented commercial uses. The cost of providing the museum has not been determined, but the cost would not alter the potential environmental impacts of the project.

D-2. The Navy notified the Federal Aviation Administration (FAA) that it proposed to construct buildings that would encroach into FAA-determined imaginary surfaces. It is the FAA's responsibility to review plans for each new development and to determine if there would be a hazard to air navigation. The FAA considers a number of factors when making this determination, including existing and proposed (that the FAA has considered) buildings that are in the area.

As discussed on page 4-221 of the DEIS, the FAA reviewed the plans for Alternative A. The FAA issued a Determination of No Hazard to Air Navigation and indicated the alternative would not adversely affect air navigation. Any future building in the overlay zone would undergo the same evaluation by the FAA, including an evaluation of cumulative impacts.

D-3. The seven study alternatives provide a range of scenarios that allow for the identification of impacts both with and without the closure of Broadway between Pacific Highway and Harbor Drive. The potential closure of Broadway is discussed in both the DEIS (Section 4.5) and the supporting Transportation Study. Through these documents, the DEIS provides a comprehensive discussion of the impacts both with and without the street closure.

The development of open space at the foot of Broadway, as identified in Alternatives A and F, could result in a closure of Broadway between Pacific Highway and Harbor Drive, if adjoining lands are made available for open space. Alternative A provides an internal route through the open space that would connect the intersection of Broadway/Pacific Highway to Harbor Drive via a new connection to Harbor Drive

north of Broadway (i.e., B Street or C Street) and E Street, and would require a partial vacation of Broadway. The open space shown in Alternative F is bounded by Pacific Highway, E Street, Harbor Drive, and the new connection to Harbor Drive north of Broadway (i.e., B Street or C Street). The resulting alignments and traffic diversions were shown in Figures 4-18 and 4-19 of the DEIS.

The draft EIS and Transportation Study indicates that either the B Street or C Street alignment could be used to provide a connection between Pacific Highway and Harbor Drive to the north of Broadway. Finally, it should be noted that the project would result in an increased level of access from the core area to Harbor Drive and the adjacent shoreline by providing through links at E, F, and G Streets.

D-4. Please see topical response TR-3.

D-5. The figures shown in the DEIS are illustrative and show a concept that could be developed in conjunction with the proposed project. It is not the intent of the Navy to dictate the land uses outside of the boundaries of the Navy Broadway Complex. Clear project boundaries are shown in each of these figures.

It is further clarified that the proposed project covers the area located within the boundaries shown on several figures in the EIS (see particularly Figure 3-3 on page 3-4). Any proposed open space or other uses outside the boundaries of the Navy Broadway Complex are conceptual and are shown for illustrative purposes. The actual uses outside of these boundaries are subject to proposals and approvals of agencies other than the Navy. Also, please see topical response TR-2.

D-6. The comment refers to a figure that is replicated from the CCDC's Urban Design Plan for the Centre City. This figure is discussed on pages 4-9 and 4-12. The figure does not imply Navy jurisdiction, and is referenced to the City of San Diego (see page 4-11). Figure 4-5a, which is replicated from the Port of San Diego's Master Plan, is included in response to this comment. This figure depicts planned port facilities in the vicinity of the project site. A "park/plaza" is shown along Harbor Drive along the frontage of the project site and extending to Grape Street, approximately 1/2 mile to the north. The Precise Plan within the Master Plan describes this as a landscaped promenade. The project (Alternative A) would allow for development of a 25-foot-wide sidewalk along the project frontage, which is sufficient area to accommodate the port's plans.

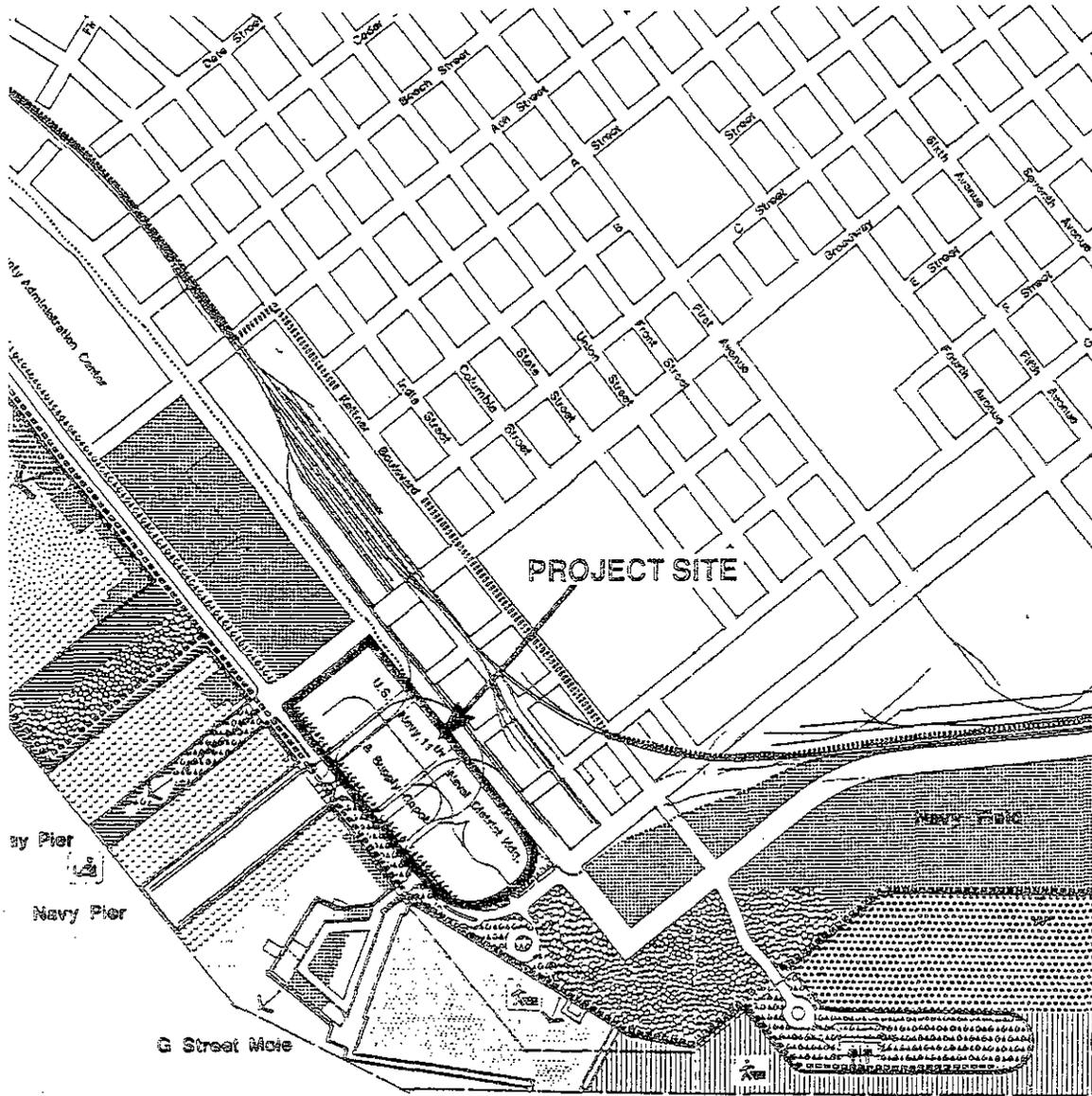
D-7. The commentator's clarification of the California Coastal Commission's review responsibilities within the Port of San Diego jurisdiction is acknowledged. The commentator's description more accurately reflects the commission's role than the Draft EIS discussion on page 4-20, first paragraph.

E. James T. Cheshire, State of California, Department of Transportation, June 1, 1990

E-1. The programmed improvements along I-5, SR 163, and I-8 that are cited on page 4-47 of the DEIS are based on a list of projects identified in SANDAG's 1987 "Five-Year Regional Transportation Improvement Program". This plan cited a number of planned improvements on the state highway system that were included in Caltrans' 1987 PSTIP (proposed State Transportation Improvement Program). Based on conversations with Caltrans, these projects were subsequently rejected for consideration in the STIP. As such, the first paragraph on page 4-47 of the DEIS is hereby omitted.

E-2. The DEIS (page 4-54) and the accompanying Transportation Study evaluate the long-term conditions at four interchanges serving the Centre City. The conclusion of the analysis is that "there is adequate capacity to serve anticipated demand under the long-term scenario". The assessment included a review of future operating conditions at the ramp junction of I-5 with Front/Second and Hawthorn that serve the Pacific Highway corridor in the northwest quadrant of the Centre City.

The discussion of ramp conditions is documented on page 4-54 of the DEIS and pages 25 through 31 in the Transportation Study. Peak hour volumes and service levels are shown for the four ramp junctions that were studied in Table 9 (page 30) of the Transportation Study. As the analysis presented in the DEIS concludes that there is no significant impact from the additional traffic generated by either the project or cumulative development at the I-5 ramps adjacent to Pacific Highway, no mitigation measures are required.



Legend

Public Recreation

PARK/PLAZA

PROMENADE

OPEN SPACE

PUBLIC ACCESS

VISTA AREA

HISTORIC FEATURE

OPEN BAY

PUBLIC FISHING PIER

8640001- July 1990



NORTH

Figure 4-5a

San Diego Port District
 Master Plan
Navy Broadway Complex Project

Michael J. Stepner, City Of San Diego, City Architect, May 31, 1990

- F-1. This comment is consistent with the discussions in Sections 4.1.4 and 4.1.5 of the DEIS.
- F-2. Above-grade parking is discussed in response to comment F-3. Air quality mitigation measures are discussed in response to comment F-4.
- F-3. The commentator's desire to reduce the amount of above-grade parking is noted. The Navy, in developing the project design, utilized the Central Bayfront Design Principles (referenced to BCCG in the comment). Page 5 of the design principles states that "(T)wo levels of parking must be accommodated below-grade prior to accommodating parking above-grade." Parking is provided below-grade on all four blocks of the project site. Only Block 2 includes above-grade parking, but only after the requisite 2 below-grade levels are provided. Thus, the project is consistent with the objectives of the referenced BCCG plans.

Please see topical response TR-4 with respect to the relationship between the BCCG plans and Central City Planning Committee (CCPC) plans. As discussed in that response, Central Bayfront Design Principles have been included in the Preliminary Centre City Community Plan Interim Development and Design Ordinance, which states:

- "1. All parking spaces shall be enclosed in a structure. All such parking structures shall be architecturally integrated and incapsulated into the development and shall conform to all other requirements of the Preliminary Centre City San Diego Community Plan and Interim Centre City San Diego Development and Design Ordinance.
2. Two levels of parking must be accommodated below grade prior to accommodating parking above grade with the following exceptions:
 - a. For parcels of 10,000 square feet or less, below grade parking is not required. All other parking requirements apply.
 - b. For development infilled on sites or blocks which contain designated historic sites, an exception to below grade parking requirements may be permitted by the City Architect. All other parking requirements apply.
 - c. For development on sites proven to be significantly impacted by the water table, the provision of below grade parking may constitute unnecessary hardship upon the property owner. However, where parking is permitted above grade, special attention shall be given to its architectural treatment and encapsulation. All other parking requirements apply."

The proposed parking is therefore consistent with the standards now proposed for the Centre City.

The Navy concurs that simply limiting the number of onsite parking spaces is not a sufficient means by which to mitigate air quality impacts. The Navy will be adopting an extensive transportation demand management (TDM) plan, which will include

utilizing alternative modes of transportation, as part of the project. Please see page 4-60 of the DEIS, as well as topical response TR-3 for more details on the TDM program.

F-5. Please see responses to comments F-3 and F-4.

G.
G-1. Craig Adams, June 3, 1990

The DEIS necessarily limits the alternatives discussions to those that focus on the collocation concept funded through a public/private venture. Section 2 of the EIS discusses the purpose and need for the collocation of Navy activities. The objective of the proposed action, to accomplish the acquisition of facilities through a public/private venture at the Navy Broadway Complex, was established by the authorizing legislation. The DEIS necessarily discusses alternatives having the minimum financially feasible commercial development required to achieve the project objective, as well as military construction and no action alternatives. Please also see the topical responses TR-1 and TR-2 for further discussions of the military construction alternative, the project economics, and the continuing military contingency requirements for retention of the entire site.

G-2. Please see topical responses TR-1 and TR-2.

G-3. The Navy's preferred Alternative A has been developed in coordination with the formulation of the Central Bayfront Design Principles, adopted by the Broadway Complex Coordinating Group in September 1989, and the Preliminary Centre City San Diego Community Plan. It is consistent with the types and intensities of uses included in those local planning documents. Please see Topical Response TR-4.

The Navy is required by the Federal Coastal Zone Management Act to conduct its activities "in a manner which is, to the maximum extent practicable, consistent with approved state management programs." The Navy has determined that Alternative A is consistent with California's approved coastal management program, i.e. the California Coastal Act. The evaluation supporting this coastal consistency determination examined applicable coastal resources management policies in detail. It has been submitted to the California Coastal Commission for its review and is available for examination at the Navy Broadway Complex Project office.

Regarding the influence of State land use planning policies on Federal property, such as the Navy Broadway Complex, it should be noted that strict adherence to State coastal land use policies, to the extent that they dictate specific uses of Federal property, is not required for two reasons. First, these policies are limited in their application to the land in the coastal zone (and the Navy Broadway Complex is not with the coastal zone). Second, even if the site was within the coastal zone, the basic land use planning decision underlying the redevelopment of the Navy Broadway Complex has already been made by Congress. The Property Clause of the Constitution provides that "Congress shall have Power to make all needful Rules and Regulations respecting...Property belonging to the United States." (U.S. Const., Art. IV, Section 3, Clause 2). When Congress enacts legislation respecting such property pursuant to the Property Clause, such as P.L. 99-661, the legislation necessarily overrides conflicting State laws under the Supremacy Clause. Consequently, the State coastal management policies directing land use decisions cannot override Federal land use decisions. Please also see Topical Response TR-6 regarding the State tidelands trust.

Notwithstanding this issue regarding Federal land use planning decisions, the Navy's coastal consistency evaluation indicated that the project is a master planned, multi-use development of high priority coastal uses that is consistent with coastal

management program policies. The high priority coastal uses of the project consist of commercial recreation (hotels, specialty retail, restaurants, and museum), public access and recreation features (opening of E, F, and G Streets; pedestrian facilities, galleries, and open space), and coastal-related Navy uses (office support for the supply function of the Navy Pier and mobilization assets in the office and hotel/restaurant uses adjacent to a transshipment point at the pier). These high priority, coastal uses constitute over 90 percent of the ground-level use area of the project. The non-priority, commercial office use is a financially essential component of the overall master planned project.

The coastal uses along the Central Bayfront that are in State-approved local land use plans emphasize public and commercial recreation opportunity. The proportion of ground-level use area (74 percent) devoted in Alternative A to public and commercial recreation uses, both of which are given priority for a coastal location, exceeds the proportion of land area (54 percent) devoted to these purposes in the land use plan for the surrounding waterfront, the Centre City/Embarcadero Precise Plan of the Port Master Plan, a plan which has been certified by the California Coastal Commission as complying with the California Coastal Act. Consequently, the allocation of uses by the Navy Broadway Complex Project would appear to be consistent with the coastal planning decisions made by local and State agencies for the Central Bayfront. The Navy's Coastal Consistency Determination also addresses this issue in more detail.

- G-4. The issues raised in this comment are similar to the topics in Comment G-3. Please see Response G-3, and Topical Responses TR-4 and TR-5.
- G-5. The DEIS and supporting Transportation Study systematically address the potential impacts on the freeway ramp system to the downtown area. This includes an analysis of the following on-ramps and off-ramps that provide direct access to the western portions of the Centre City.

Off-ramps:

- Interstate 5 at Front/2nd (southbound)
- Interstate 5 at J Street (northbound)
- State Route 94 (westbound)
- State Route 163 (southbound)

On-ramps:

- Interstate 5 at Hawthorn (northbound)
- Interstate 5 at J Street (southbound)
- State Route 94 (eastbound)
- State Route 163 (northbound)

A discussion of the future conditions on these ramps is provided on page 4-54 of the DEIS and pages 25 through 31 in the Transportation Study. Peak hour volumes and service levels are shown for the four ramp junctions that were studied in Table 9 (page 30) of the Transportation Study.

The following analysis of the freeway system serving the Centre City is provided as a basis for identifying potential impacts. This includes a discussion of the following freeway segments based on forecasts from the City's CCTAP model for the various project alternatives. The projected pm peak hour volumes and volume/capacity ratios are provided in the following table, which is hereby added as Table 4.2-7b of the EIS. A review of the volume/capacity ratios at the five freeway locations indicate that there would be no significant impact generated by any of the six project alternatives, in comparison to the no-build scenario (Alternative G).

TABLE 4.2-7b of the EIS

FREEWAY MAINLINE VOLUME/CAPACITY (V/C) ANALYSIS
PM Peak Hour - Peak Direction

Location	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
SR 94 east of I-5							
Volumes	9,330	9,060	9,340	9,160	9,340	9,330	9,040
V/C ^a	1.30	1.26	1.30	1.27	1.30	1.30	1.26
SR 163 north of I-5							
Volumes	4,460	4,500	4,400	4,430	4,400	4,460	4,370
V/C ^a	1.24	1.25	1.22	1.23	1.22	1.24	1.21
I-5 near Laurel							
Volumes	7,970	7,840	7,790	7,570	7,790	7,970	7,470
V/C ^a	.89	.87	.87	.84	.87	.89	.83
I-5 near Imperial							
Volumes	6,300	6,350	6,290	6,160	6,290	6,300	6,060
V/C ^a	.70	.71	.70	.68	.70	.70	.67
I-5 northbound on-ramps							
Elm/First	34,000	32,600	32,200	31,300	32,300	34,000	34,900
V/C ^a	1.70	1.63	1.61	1.57	1.62	1.70	1.75

^a Volume to capacity (V/C) where 1.00 is full capacity.

The freeway segments along SR 94 and SR 163 would exceed capacity in the peak direction during the peak hour under the cumulative build-out scenario, as discussed in the 1985 Centre City Transportation Action Program (CCTAP) report. The CCTAP report notes that these volumes "may be interpreted such that heavy traffic will prevail for well in excess of one hour, and that the peak period will likely "spread" on these facilities." This extension of the peak hour on freeway facilities is typical of urbanized downtown areas. The project's increase would not be significant (as evidenced by comparisons between Alternative G (no-build) and the other alternatives).

- G-6. Please see response to comment G-1. Note that it is implicit that the project was "weighed" along with other projects, and was determined to be of sufficient priority to warrant specific Congressional legislation authorizing pursuit of the project. With over 400,000 SF of existing office space onsite and a continuing military contingency requirement, Alternative G accurately reflects the use of the property if collocation is not achieved through a public/private venture. A new EIS would be required to evaluate the relocation of some or all of these activities and alternative land uses if the proposed project is not undertaken and a future military construction project is pursued in lieu thereof.
- G-7. Please see topical response TR-1.
- G-8. This comment inaccurately portrays the site as "surplus" to the Navy's needs. Retention of the Navy Broadway Complex reflects a national defense requirement to maintain a mobilization capability directly adjacent to the Navy Pier, which has a direct rail connection to the waterfront. During periods of national emergency, the mobilization and demobilization of heavy equipment and weapons platforms with accompanying personnel becomes a critical factor. Please see topical response TR-1.
- The need of the project is well established, as discussed in response to comment G-1. The only current means by which it could be developed is through the proposed public/private venture contemplated in the EIS. Please see topical response TR-2 concerning project economics and financing. Alternative D provides the onsite development level necessary to support moving nearly the entirety of the Navy office uses off the Navy Broadway Complex. Alternative C provides a lower density alternative that can still meet financial requirements for development of the site. Substantial economic and financial analysis performed for this project (see topical response TR-2) has shown that the tradeoff in providing additional open space in a lower density development would render the proposed Navy offices financially infeasible.
- G-9. The issues raised in this comment are similar to the topics introduced in Comment G-3. Please see Response G-3 and Topical Response TR-4.
- G-10. The Navy's preferred Alternative A includes approximately 5 acres of ground-level uses devoted to public open space, including the 1.9-acre open space on Block 1, pedestrian facilities, and galleries. This area is 32 percent of the total ground-level use area of the project site. By comparison, the surrounding waterfront is planned to provide 17 percent of land area devoted to these types of public recreation uses (40.4 acres of the total 231.8 acres in the Centre City/Embarcadero Precise Plan of the Port Master Plan). It is apparent from this information that the proposed project would not only provide sufficient public space for its own employees and visitors, but also would enhance the availability of such space for the broader Central Bayfront. Please see Response G-3 and Topical Response TR-4.
- G-11. The issues raised in this comment are similar to the topics introduced in Comment G-3. Please see Response G-3 and Topical Response TR-4.
- G-12. Please see Response G-21 and Topical Response TR-4.

- G-13. The issues raised in this comment are similar to the topics introduced in Comment G-3. Please see Response G-3, and Topical Responses TR-4 and TR-5.
- G-14. Please see response to comment G-4.
- G-15. From a transportation planning standpoint, the fact that a site is located within a given area designated as the central core of the downtown does not guarantee that it is the most appropriate location for a high density project. Proximity to major transit lines such as the Bayfront LRT line, San Diego Transit Corporation (SDTC) bus lines, AMTRAK, and commuter rail lines are more meaningful criteria in determining whether a specific project is compatible with the overall development goals of the Centre City. The Navy Broadway Complex is located within one block of the Bayfront LRT line and the AMTRAK terminal at the Santa Fe station. In addition, a total of ten SDTC bus lines provide access to within two blocks of the project site. As such, the size of the project appears to be compatible with the concept of developing large scale projects near the major transit corridors within the downtown area.
- G-16. This comment is noted. Page 1-3 of the DEIS states only that the City and the Navy will enter into a development agreement for the future development of the project site. The actual development is not specified in the referenced memorandum, and the DEIS makes no presumption that a specific development plan has been already approved. Nowhere does the DEIS indicate prior approval by the City of San Diego of a specific development.
- G-17. Please see topical response TR-2 regarding the disclosure of the financial analysis utilized to define the type and level of development. In addition, note that a residential development alternatives was also undesirable in view of the contingency requirement for the property. Unlike commercial office and hotel uses, residential uses are not readily convertible to high priority military uses in the event of mobilization. Please see response to comment G-8.
- G-18. The floor area ratios (FAR) described in the EIS are based upon land area held by the Navy in fee. This is a standard methodology for calculating FARs. If the FAR for the preferred alternative were calculated without the G Street right-of-way (approximately 0.9 acre) as the commentator suggests, the FAR of the preferred alternative would be approximately 5.8, rather than the 5.45 described in the document. It should be noted, however, that under either calculation, the amount of density indicated in the preferred alternative (3.25 million square feet) is less than the overall density of 3.4 million square feet that would be allowed for the property under the density provisions set forth in the BCCG Central Bayfront Design Principles plan and the Preliminary Centre City San Diego Community Plan.
- G-19. Please see topical response TR-1.
- G-20. Please see Responses G-3, M-5, M-8, and Topical Responses TR-4 and TR-5.
- G-21. The commentator's interpretation of the "step-down" concept recommended in the Centre City Community Plan differs from the interpretation in the EIS. The preliminary community plan and Central Bayfront Design Principles indicate that the concept of "stepped intensity and scale" will be implemented through floor area ratios

(FAR) and building heights will be controlled through Federal Aviation Administration (FAA) regulations. The FARs designated for the site in the draft plan are 7.0 for Block 1, 6.5 for Block 2, and 5.5 for Blocks 3 and 4 (as shown in Figure 14 of the plan). The lowest operational imaginary surface relevant to FAA regulations is 500 feet mean sea level (msl) for a circling area for missed approaches from Lindbergh Field. Non-operational imaginary surfaces cross at lower heights (see pages 4-217 and 219 in the Draft EIS).

With the exception of Alternative F with its 500-foot tower on Block 2, the project alternatives are consistent with the overall FAR designations of the preliminary community plan, which reflects the stepping down of building heights to the south from the block adjacent to the Broadway spine. Building heights are also designed to step down from the landward (east) to the bayward (west) side of the project site. Again with the exception of 500-foot tower in Alternative F (which would reach 510 feet msl, or 10 feet above the 500-foot surface), none of the buildings in the project alternatives encroach into the operational imaginary surfaces for aviation safety, which is consistent with the building height control guidelines of the plan. While encroachment into non-operational surfaces occurs with Alternatives A, B, C, and D, the FAA has issued a Determination of No Hazard for Alternative A, with a 400-foot tower on Block 1 indicating that compliance with FAA regulations can be achieved. Consequently, the project alternatives, except Alternative F, appear to be consistent with the step-down concept and building height controls envisioned in the preliminary Centre City San Diego Community Plan.

- G-22. The commentator's request to note the updated Centre City Community Plan is acknowledged. The now current version of the plan (as of August 1990), is the July 1990 preliminary Centre City San Diego Community Plan. The plan supports the Navy Broadway Complex Project as being compatible. The City Council recently adopted the plan and ordinance (first reading).
- G-23. Please see response to comment G-5.
- G-24. Please see topical response TR-3.
- G-25. The views included for analysis within the DEIS (Section 4.3) depict key public views and vistas that would be affected by the project. Views from the G Street Mole back to the downtown would not be negatively affected by the proposed project. Rather, views directly east to the downtown would be enhanced by removing existing onsite Building 9 and the opening up of G Street and the creation of a 120-foot-wide landscaped open space and street. Currently, downtown views from the Mole to the northeast are significantly obstructed by Buildings 1 and 12 within the Navy property. Development of the property per Alternative A would not significantly change these views because of the foreground dominance of Building 12 which is proposed for possible retention. The view to the northeast would be marginally improved by the removal of Building 1 for the creation of a major open space.

Views north and south along the waterfront Embarcadero would not be negatively affected by the proposed project. Again, Building 1 and 12 and the existing warehouse structures to the south currently create a strong eastern edge to the Embarcadero corridor. The view from the south from the vicinity of Seaport Village to the north

would continue to be framed on the east by Building 12 and new development of a similar height proposed to the south. The removal of Building 1 would introduce additional open space along the corridor and would alter this southern view marginally. Views from the north from the vicinity of the B Street Pier to the south along the Embarcadero would be opened up considerably by the removal of Building 1 and the introduction of open space, but the retention of Building 12 and the introduction of new development to the south would maintain the strong edge condition that currently exists along this view corridor.

- G-26. It is noted that, as with many cities, the costs of providing police and fire protection comprise the two largest expenditures in the General Fund Budget for the City of San Diego. The police department's methodology for allocating and projecting current and future expenditures has historically relied upon both: (1) calls for service, and (2) estimated costs per capita. Recently, however, the department has been estimating its cost requirements based primarily upon per capita multipliers, utilizing population projections provided by the San Diego Association of Governments (SANDAG). Moreover, both the police and fire department staffs have indicated that the existing facilities, manpower, and equipment are anticipated to be adequate to provide the project site and surrounding area with a sufficient level of protection services, if any of the alternatives are developed. Nevertheless, an analysis of this nature must necessarily account for the incremental costs of providing service to the subject site under the respective development alternatives. For purposes of this study, both departments indicated that a per capita approach (based upon current daytime population figures) provides a conservative, yet reasonable, estimate of cost requirements appropriate for this level of analysis.

Other categories of ongoing City operating revenues and expenditures were allocated to those land uses which generate them, based on a calculation of average per acre multipliers. General government costs (public services and city support services) were averaged across all land uses, assuming each contributes its "share" to these costs.

While this provides a relatively simplistic approach to estimating the public service costs, the unique set of public service needs of the proposed project were considered and discussed with city staff and incorporated in the analysis where appropriate. Moreover, based on our review of the reliability, accuracy, data availability, and resources required to conduct various methods of fiscal impact assessment, it was determined that the methodology used in this study provides a sufficient level of statistical accuracy upon which to base current public policy decisions.

- G-27. There was an error in the presentation of the "business taxes" on Tables 13 through 20 of the technical fiscal report. While the balance of the figures on these tables was stated in thousands of dollars, the projections of business tax revenues were in actual dollars, which subsequently resulted in an overstatement of the net annual and cumulative fiscal benefits to the City. A revised and corrected technical report has been placed on file at the Naval Facilities Engineering Command Detachment, Broadway Complex, 555 West Beech Street, Suite 101, San Diego, CA 92101-2937.

It should be noted that the basic findings of the analysis remain unchanged, in that Alternatives A, B, C, D, and F are still projected to generate net annual operating surpluses to the City by the year 1994 and would generate significant cumulative surpluses by the end of the 30-year projection period. In addition to the technical report, Table 4.5-8 on page 4-142 of the EIS is revised as shown on the following page.

Also, the first paragraph on the page 4-143 of the EIS is revised to read as follows:

- By the year 30 of the proposed project (2021), Alternatives A, B, C, D, and F would generate cumulative surpluses to the City of San Diego of \$268.0 million, \$325.2 million, \$302.7 million, \$425.2 million, and \$325.3 million, respectively. Conversely, Alternatives E and G would yield cumulative deficits of \$72.4 million and \$25.6 million, respectively.

TABLE 4.5-3 of the EIS

PROJECTED NET AND CUMULATIVE FISCAL IMPACTS OF PROJECT
(in Thousands of Dollars)

Development Alternative	Net Annual Fiscal Impact in 2005 ^a	Cumulative Fiscal Impact in 2005 ^a	Net Annual Fiscal Impact in Year 20	Cumulative 30-Year Fiscal Impact
A	\$9,365	\$46,072	\$18,867	\$268,042
B	11,722	66,619	21,062	325,239
C	10,697	56,297	20,659	302,650
D	15,041	96,253	26,627	425,235
E	-2,138	-19,325	-4,667	-72,435
F	11,314	72,539	20,771	325,355
G	-697	-8,248	-1,521	-25,554

a At full development stabilized occupancy.

Source: Williams-Kuebelbeck & Associates, Inc., 1990.

H. Dwight E. Sanders, State of California, State Lands Commission, June 4, 1990

H-1. The commentator's preference that the EIS and EIR be one document instead of two is noted. The two documents were physically circulated together (in the same envelope) so that they could be reviewed together. The DEIR incorporates the DEIS by reference (see DEIR Preface). The DEIR presents a summary of the conclusions of the DEIS. This complies with the intent of Section 15150 of the State CEQA Guidelines. In addition, Section 15221 of the State CEQA Guidelines clearly allows an EIS to be used in place of an EIR, so long as it complies with the provisions of the CEQA guidelines. The EIS does this. Thus, even if the EIS was not incorporated by reference into an EIR, CEQA clearly allows the EIS to be used in place of an EIR. That both an EIS and an EIR incorporating the EIS are provided together simply means that the basic requirements of CEQA were met and exceeded.

Additional summarization or other characterization of the EIS, given that it constitutes the EIR, would be inappropriate and would be inconsistent with the general policy to reduce the size of EIRs.

H-2. Please see response to comment H-1.

H-3. Please see response to comment G-8 and topical response TR-5.

H-4. Please see topical response TR-2 and EIS Table 4.5-8 (revised by response to comment G-27) which indicates cumulative fiscal surpluses to the City of San Diego ranging from \$258 to \$125 million for the various public/private venture alternatives. Note that, irrespective of who pays for infrastructure improvements, the cost of improvements and the party that pays for them is not an environmental issue. This is described in Section 15131 of the State CEQA Guidelines, which states in part that the "(E)conomic and social effects of a project shall not be treated as significant effects on the environment." The only environmental issue in this respect is whether mitigation measures are implemented. If infrastructural improvements cannot be financed, the findings of the EIS with respect to the level of significance for certain impacts would be changed and the EIS would be recirculated for public review. It is noted that the cost figures referenced in this comment differ from the current dollar cost figures discussed in topical response TR-2, possibly reflecting an escalation in this comment to future years/dollars with additional contingency.

H-5. Please see response to comment H-4.

H-6. The "draft" urban design guidelines for the project are drafts because they have not been adopted by the City of San Diego and would not be adopted prior to project approval. However, the guidelines were created to conform with the objectives of the Central Bayfront Design Principles (see topical response TR-4) and staff of the City has agreed to the draft guidelines.

The guidelines are not expected to be substantially changed during project approval, if the project is approved. However, as with any other component of this or any other project under NEPA and CEQA, if changes are made by decision makers that would create significant impacts not previously addressed in the EIS, then the EIS would need to be revised to address these impacts.

A-7. The Federal environmental process requires consultation with the State Historic Preservation Officer during the development of cultural resources mitigation measures. Specifically, the consultation process determines the actions necessary to mitigate the adverse impact on the cultural resources that are eligible for the National Register of Historic Places. Consultation conducted to satisfy the specific requirements of Section 106 leads to mandatory mitigation of the significant cultural resources impacts described in the EIS. As described in response to comment A-2, this process has been completed and a Memorandum of Agreement between the Navy and SHPO stipulating mitigation has been signed.

H-8. Establishing standards for construction of buildings in earthquake-prone regions is appropriate and necessary for hazard mitigation, yet building codes generally provide minimum standards and do not necessarily ensure building integrity from damaging earthquakes or other geologic hazards. However, buildings designed according to modern building codes generally have fared well during strong earthquakes (Housner and Jennings 1982). Furthermore, The City of San Diego Municipal Code requires evaluation of geologic hazards and liquefaction potential. Although the code is not applicable to the rehabilitation and expansion of Building 12, the Navy will require the developer to perform such an evaluation for all development at the Navy Broadway Complex. Measures to mitigate geologic/seismic hazards are discussed in Section 4 of this appendix. More specifically, all new or rehabilitated buildings constructed on the site will be designed in accordance with Uniform Building Code Seismic Zone 4 criteria, which are in excess of current City of San Diego building code requirements.

H-9. Please see response to comments H-6, H-7, and H-8 regarding the effectiveness of specific mitigation measures identified as inadequate by the commentator. The commentator does not provide any other mitigation measures that may be ineffective, so no other response is warranted.

H-10. Section 5 describes specific cumulative impacts to which the project contributes. Page 5-1 refers to Table 4.1-2 (page 4-7) and Figure 4-3 (page 4-8) for a description of the projects considered cumulatively with the proposed project including the Seaport Village expansion and the Hyatt Hotel. The commentator is referred to pages 5-1 through 5-4 of the DEIS for a complete discussion of cumulative impacts.

H-11. The commentator misinterprets Section 15126(d) of the State CEQA Guidelines. In particular, Section 15126(d)(2) states, in full:

The specific alternative of "no project" shall also be evaluated along with the impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

The guidelines do not indicate that the proposed alternative cannot be the environmentally superior alternative among the other alternatives. In fact, it is the intent of CEQA to provide for the least environmentally-damaging development, if development is to occur. CEQA encourages that projects are designed to minimize environmental harm. The DEIS examines seven alternatives, including the proposed project and the no project alternative. Of the seven alternatives, Alternatives A (the

proposed project), B, and D, are environmentally superior development alternatives. Alternative G, the no project, is the environmentally superior alternative, but it meets none of the basic project objectives. Alternative A includes a substantially larger open space area at the foot of Broadway than Alternatives B and D. This is an environmentally superior component of this alternative because it more closely (than Alternatives B and D) meets the goals of recently adopted plans intended to guide development in the area. There are three environmentally superior alternatives. Alternative A is superior among the three.

It is noted that there are no alternatives capable of meeting the basic objectives of the project while avoiding the significant impact to cumulative air quality associated with Alternative A (and the other five development alternatives). This is the only unmitigated significant impact of Alternative A, so an environmentally superior alternative (to Alternative A) capable of meeting project objectives is not possible.

- H-12. The commentator's opinion that the DEIS does not analyze all alternatives to the same level of detail is noted. The commentator does not substantiate this comment, so no response can be provided. The DEIS evaluates each of the seven alternatives, fully identifies the impacts of each, and provides mitigation measures pertinent to each.
- H-13. The intent of the notice of intent (NOI) and the notice of preparation (NOP) is for responsible agencies and interested individuals to identify at an early time in the process potentially significant environmental impacts, mitigation measures, and alternatives that should be addressed in the EIS and EIR. Direct responses to NOI/NOP comments Pages 1-15 through 1-18 of the DEIS summarize the NOI/NOP comments by topical area in which they are addressed in the EIS. Please refer to this discussion. A copy of all NOI/NOP comments has been provided to the commentator.
- H-14. Measures to mitigate significant environmental impacts are discussed along with the mitigation measure in the summary table. Each significant impact for which there are mitigation measures is identified as "(S/M)" in the table, (see pages 1-20 through 1-48 of the DEIS).
- With regard to placing "significance criteria used to rank the impacts" in the summary section, the specific analysis is presented in the non-summary sections of the DEIS, particularly Section 4. The summary section is not intended to repeat the analysis of environmental impacts, but instead is intended to summarize the environmental impacts of the project. Thus, the "significance criteria" and other details pertinent to determining the project's environmental impacts are not repeated in the summary.
- H-15. Please see topical response TR-3.
- H-16. No residential uses are proposed with this project; therefore, residential parking demand rates are not relevant to this project.
- H-17. Please see response to comment H-6. Also, regarding the statement that the conclusions regarding design guideline compliance are not supported, the commentator is referred, particularly, to figures 4-23, 4-26, 4-29, 4-32, 4-35, 4-38, 4-41, 4-44, 4-47, and 4-50 in the DEIS. These ten figures depict simulated views of Alternative A from ten viewpoints. Alternative A is consistent with the draft design guidelines. The

conclusion that compliance with the guidelines would mitigate aesthetic impacts is based on the evidence shown in these figures and discussed on pages 4-108 through 4-111 of the DEIS. Aside from actually constructing the project and then evaluating its aesthetic impacts, the DEIS relies on the best possible evidence available to draw its conclusions.

H-18. The City of San Diego Police Department was consulted to determine if the proposed alternatives would in any way adversely affect police service, including every day situations and emergency circumstances. The department indicated that the project would not have an adverse effect. Page 5-2 of the DEIS indicates that this public agency would not be adversely affected by cumulative development. The opinion of the affected agency would appear to be the best possible evidence one could draw on for this conclusion. It is noted that the proposed project would provide long-term fiscal surpluses to the City of San Diego. This conclusion considers police department costs. (Please see response to comments G-26 and G-27.) Thus, even if it was found that the project did significantly affect police resources (although no adverse effect was found), sufficient revenues would be available associated with the project to offset these costs.

H-19. Page 6-1 of the DEIS refers to Section 4.5 of the DEIS for a discussion of growth associated with the project (including regional immigration). Please refer to that discussion.

H-20. The availability of water is a concern of statewide significance, especially in light of the ongoing drought that has affected several areas of the state, some more substantially (e.g., Santa Barbara) than others. The water situation in San Diego, as a result of the drought, is not nearly as severe as other areas of the state, and sufficient regular and emergency supplies are available. Nevertheless, San Diego has requested voluntary water use reductions and has seen an approximate 10 percent reduction in use compared with last year. Water conservation measures are not yet mandatory, but may become so if the drought persists for another year. According to the City of San Diego Water Utilities Department, the proposed project, if completed today, is not of sufficient magnitude to cause an acceleration of the need to impose any water conservation measures in the city. Further, the City has no plans now, or in the foreseeable future, to restrict water hookups in the project area (Wageman, pers. comm. 1990). The proposed project is within the densities planned on the project site and is consistent with regional growth projections used to plan for long-term water usage. Also, please see comment C-10.

The first phase of the proposed development is currently planned to be completed in 1994. If drought conditions persisted up to that time, water availability in San Diego and throughout the state could be severely restricted. The likelihood that the drought would persist even another year or two, or that current water shortages would persist, is statistically remote. If drought conditions do persist, the results in large areas of California could be severe. Development in areas of California still affected by drought would likely be reexamined. However, consideration and analysis of such a remote possibility, with implications much more far-reaching than the proposed project, is highly speculative and is beyond the purview of an EIS examining the potential impacts of a mixed-use urban development.

- H-21. The commentator disagrees on the significance of the project with the opinions of the City of San Diego Water Utilities Department, the Regional Water Quality Control Board, and the Environmental Protection Agency, whose opinions are based on estimates of project wastewater generation. The commentator provides no evidence to substantiate this disagreement. Nevertheless, this difference of opinion is noted.
- H-22. Page 4-126 of the DEIS indicates that the project would significantly affect sewer conveyance facilities. Without mitigation, local sewer lines would have insufficient capacity. This could result in health implications as well as cause poor sewage conveyance. Correcting this problem by installing greater conveyance capacity would avoid this potentially significant impact. Thus, it is a mitigation measure. Please see response to comment H-21 regarding wastewater treatment impacts.
- H-23. Landfill capacity constraints are regional problems that have surfaced throughout the state, and they require regional solutions that are beyond the control of any individual project. San Diego County is currently in the process of pursuing new landfill areas to accommodate regional needs. The project would not significantly reduce the life of any landfill and would therefore not have a significant environmental impact. Nevertheless, in recognition of the statewide solid waste problems, the following mitigation measure is added to page 4-128 of the EIS:
- Receptacles will be provided within each office building to allow for the separation of all recyclable paper material. The lease for each office building will require that white paper and computer paper recycling receptacles are provided, and that the lessee will participate to the maximum extent applicable in any local ordinance-implemented recycling program for other recyclable materials.
- H-24. Please see response to comment H-4. Also, it is noted that the Port, if it decides to contribute funding, would do so to the extent such expenditures are consistent with its legal and financial activities.
- H-25. The geotechnical investigation performed by Woodward-Clyde Consultants (1988) indicates the area soils are able to support properly designed foundations. The previous geotechnical investigation also indicates that below ground construction for underground parking is feasible. Construction of two-levels of underground parking will require: construction dewatering, pile foundations, and a structural floor system to support building loads. Because permanent dewatering systems with discharges to San Diego Bay are no longer allowed (please see the 1990 Woodward-Clyde report in Section 4 of this appendix, particularly 4.2 and 4.3), the floor and walls below the water table will have to be designed to resist water pressures and will have to be waterproofed. Authorization for construction dewatering will require application to the Regional Water Quality Control Board. The project dewatering will be required to comply with specific discharge limitations.
- H-26. The bay deposits and hydraulic fill underlying the site are considered potentially liquefiable, and the previous geotechnical investigation by Woodward-Clyde Consultants indicates that potential effects from liquefaction should be considered for project design. The City of San Diego Building Code requires that an evaluation be made for areas identified on the Seismic Safety Element of the General Plan as being susceptible to liquefaction. There is a range of possible measures to reduce potential

liquefaction-related damage to existing and new facilities. Some of those measures are listed in Sections 3.3 and 3.3.1 of the 1990 Woodward-Clyde report, in Section 4 of this appendix.

H-27. Page 4-176 of the DEIS provides City of San Diego noise/land use compatibility criteria. As shown, hotels are considered compatible in areas up to 65dB CNEL and offices are considered compatible in areas up to 70 dB CNEL. As discussed on pages 4-181 through 4-186, the 65 dB CNEL would extend onto the site, which would have an adverse effect on hotels. Thus, mitigation is necessary to provide for sufficient interior noise level reductions.

The 70 dB CNEL would only encroach on the edges of the site along Broadway, Harbor Drive, and Pacific Highway where offices are proposed. Normal sound attenuation provided by building materials (with windows open) is 12 to 15 dBA. Through the use of standard building materials, no additional attenuation would be necessary to reduce noise levels to office buildings to a less than significant level.

H-28. As indicated on page 5-4 of the DEIS, a new substation would be required to serve cumulative development in the project area.

H-29. The comments presented above (comments H-1 through H-28) do not change any of the findings of the EIS with respect to growth-inducing impacts or unavoidable impacts. Therefore, no revisions to the respective discussions of these issues is made.

H-30. This comment is noted. Please see response to comments H-1 through H-29.

I. Harry E. Wilson, June 1, 1990

- I-1. The commentator's preference for Alternative A is noted. The comment is not specific to the environmental impacts of the project, so no other response is warranted.
- I-2. While adding the rail lines to these subject figures may help orient the plan, the lines are shown in a sufficient number of figures (e.g., figures 3-5, 3-9, 3-10, 3-11, etc.) to be able to cross reference. No environmental information presented in the EIS would be changed by adding the rail lines to these figures.
- I-3. Please see topical response TR-3. Note that the number of parking spaces proposed onsite is restricted below normal demand rates to encourage the use of mass transit, car pools, etc.
- I-4. The response time provided is based on estimates provided by the individual fire stations.
- I-5. Please see response to comment H-23. It is not known how much recycling the Navy would be able to achieve through this program.
- I-6. The correct number of service occupation employees in San Diego County is 211,100. Table 4.5-1 on page 4-131 of the EIS is hereby revised to reflect this number.
- I-7. It is not known how many personnel would immigrate to the San Diego area as a result of the proposed project. Because the number of non-military employment opportunities created by the proposed project would be small in comparison to the region (less than 1.5 percent of the city and less than 1 percent of the county) and in comparison with regional growth estimates, the associated immigration would be easily absorbed and was therefore not calculated.
- I-8. A properly designed temporary dewatering system will allow excavation of soil below the water table for below grade construction. The dewatered soils (which are composed primarily of sands) should not be in a very wet condition and should not require special trucks. Soils could be exported from the site to other grading projects. Any soils considered contaminated with petroleum products or other potential contaminants would require special treatment.
- I-9. This comment is noted. The conclusions of the DEIS with respect to runoff would not be altered by this comment.
- I-10. Dewatered groundwater during construction will require authorization from the Regional Water Quality Control Board (please see Section 4 of this appendix, particularly 4.2 and 4.3 thereof), and if application conditions are met, it may be possible to discharge to storm drains.
- I-11. Pages 4-162 through 4-165 of the DEIS considers air quality effects during construction, and page 4-181 of the DEIS considers noise effects during construction. Please refer to these discussions.

Norman W. Hickey, County of San Diego Chief Administrative Office, June 1, 1990

- J-1. The proposed project would provide sufficient onsite parking to satisfy the needs of the project, and there would be no need for related offsite parking. Please see topical response TR-4 for a detailed discussion of parking.
- J-2. The Navy would only utilize one space for 1,000 square feet of Navy office for active employee parking. The additional 0.23 spaces per 1,000 square feet that would be provided are for the parking of Navy official vehicles.
- J-3. This comment is noted. No other response is necessary.

- K. Frederick M. Marks, Citizens Coordinate for Century 3, June 4, 1990
- K-1. This comment lacks sufficient specificity to allow formulation of a specific response. Please see topical responses TR-1 and TR-2.
- K-2. Please see topical responses TR-1 and TR-2.
- K-3. Please see topical responses TR-1 and TR-2.
- K-4. Please see topical response TR-2 regarding project financing. Please see response to comment G-17 for additional discussion concerning residential uses.
- K-5. Please see response to comments H-4 and H-24. Also, please see page 3-6 of the DEIS. As described therein, the provision of open space outside the boundaries of the project site is not a part of the proposed project.
- K-6. Please see topical response TR-1. Irrespective of the cost of the proposed project in comparison to the U.S. Military Construction budget, the proposed project is not currently included in Military Construction budgets, so it would not proceed without the proposed public/private venture financing alternative.
- K-7. The comment that the DEIS is not sufficiently objective is noted. Without greater specificity, however, no further response is possible.

Robert P. Martinez, State of California, Office of Planning and Research, June 4, 1990

L-1. This comment is not specific to the contents of the DEIS, so no response is necessary.

M. **Gordon F. Snow, Ph.D., State of California Resources Agency, June 4, 1990**

M-1. It is noted that the Resources Agency coordinated review with the referenced agencies. The Department of Transportation commented in comment letter E. The State Lands Commission commented in comment letter H. The California Coastal Commission commented in comment letter M. The California Air Resources Board, Department of Fish and Game, the Department of Parks and Recreation, and the San Diego Regional Water Quality Control Board did not comment on the DEIS or DEIR.

N. Dennis J. O'Bryant, State of California, Department of Conservation, May 24, 1990

- N-1. As described in response to comment C-12, a supplemental study of the potential geotechnical hazards at the project site was conducted by Woodward-Clyde Consultants, and is included herein as Section 4 of this appendix. Please refer to that section. A copy of the geotechnical report prepared by Woodward-Clyde Consultants (1988) for Hirsch and Company has been provided to the commentator.
- N-2. Please see the 1990 Woodward-Clyde report in Section 4 of this appendix for a response to this comment, particularly 3.2 and 3.2.1 thereof.
- N-3. Please see the 1990 Woodward-Clyde report in Section 4 of this appendix for a response to this comment, particularly 3.3 and 3.3.1 thereof.
- N-4. Please see the 1990 Woodward-Clyde report in Section 4 of this appendix for a response to this comment, particularly 3.4 and 3.4.1 thereof.

- O. Peter M. Douglas, California Coastal Commission, June 8, 1990
- O-1. The commentator indicates that Commission staff is generally pleased with the concept of development of the site for Navy uses provided that provisions for public use of the area are made. The Commission staff supports Alternatives A and F which include "large open space areas". These comments are noted and no response is needed.
- O-2. Please see topical response TR-5.
- O-3. This comment addresses the California Coastal Commission's review of the Coastal Consistency Determination (CCD), a document with a review process that is separate from the EIS. Although the Navy disagrees that the Navy Broadway Complex is "oceanfront land," discussion about the consistency of the project with Section 30221 has been elaborated in the CCD (Section 4.1.2). The discussion indicates that present and future recreational needs are fulfilled in the Central Bayfront area around the Navy Broadway Complex and that the project contributes important additional public and commercial recreation opportunity which is specifically designed to complement its Central Bayfront setting. As a result, the Navy has determined that the project is consistent with this coastal policy. Please refer to Response O-4.
- O-4. This comment addresses the California Coastal Commission's review of the Coastal Consistency Determination (CCD), a document with a review process that is separate from the EIS. Although the comment is not directed to the EIS, a response is provided to explain how present and future recreation demand is accommodated in the Central Bayfront vicinity of the project and how the project contributes to coastal recreation opportunity.

Accommodation of Present and Future Demand For Recreation

The Central Bayfront area of Centre City San Diego contains a very substantial concentration of existing and planned public and commercial recreational opportunities. These opportunities are extremely varied and emphasize the role of the bayfront as a primary visitor destination and recreation area for both visitors and city residents. Existing recreational opportunities within the vicinity of the Navy Broadway Complex (from north to south within approximately 0.5 mile) include the following:

<u>Recreation Opportunity</u>	<u>Type of Use</u>
Embarcadero (North of Broadway)	Pedestrian Promenade
County Administrative Center West Lawn	Public Open Space
Maritime Museum	Public Museum
Holiday Inn/Restaurants	Commercial Recreation
B Street Pier	Recreational Cruises, Pedestrian Areas
Broadway Pier	Plaza, Viewing Areas
Harbor Excursion Boats	Bay Cruising and Dining
Harbor Promenade (South of Navy Pier)	Landscaped Promenade
G Street Mole	Park, Viewing Area, Restaurant

Seaport Village

Embassy Suites

Marina Linear Park

Embarcadero Marina Park

Embarcadero Marina

Marriott Hotel

Convention Center

Commercial Recreation, Specialty
Shopping, Street Entertainment,
Promenade, Viewing Areas

Commercial Recreation

Park, Trail, Fishing Pier

Park, Picnic Area

Commercial Recreational Marina

Commercial Recreation

Major Visitor Destination

Local coastal planning has fulfilled the demand for commercial and public recreational activity in the allocation of substantial land resources to restaurants, hotels, shopping, attractions, promenades, plaza areas, and open space. Table 1 (page 3-40) describes the allocation of land use in the Centre City Embarcadero Precise Plan of the Port Master Plan. The majority (54 percent) of the land area is devoted to either commercial or public recreation area. (Additionally, a number of developments adjacent to the coastal zone also provide commercial recreation opportunities that support visitation to the Central Bayfront.) Excluding streets, which account for 21 percent of the land, non-recreation land uses constitute 25 percent of the plan area.

The Port Master Plan is an approved local coastal plan, so its allocation of land to recreation opportunity has been approved by the California Coastal Commission, recognizing the presence of the Navy Broadway Complex as non-recreational, Federal land proximate to the waterfront. In consideration of the variety of recreation opportunities, the amount of land area devoted to recreation in the Centre City Embarcadero Precise Plan around the project site, and the prior Commission approval of the Port Master Plan containing the precise plan, it is evident that present and foreseeable demand for public and commercial recreation have been accommodated in the area of the waterfront near the Navy Broadway Complex.

Project Contribution to Public and Commercial Recreation

The project, as defined by the Navy's preferred Alternative A, contributes important additional public and commercial recreation resources that have been specifically designed to complement its Central Bayfront setting. Commercial recreation opportunity would be provided in the hotels, specialty retail, and attendant uses on the southern blocks (3 and 4) where they can best support visitation to the nearby Seaport Village. Wide pedestrian facilities along E, F, and G Streets provide public recreation opportunity and connection to important waterfront open space areas along the promenade and G Street Mole. The maritime museum would establish a recreation destination in the project that complements the character of the waterfront. The 1.9-acre open space at the foot of Broadway would serve as a prominent recreation use area with excellent association with and vistas to the bay.

TABLE 1
ALLOCATION OF LAND FOR RECREATION OPPORTUNITY

Type of Use	Centre City/ Embarcadero Precise Plan		Navy Broadway Complex Project	
	Acres	%	Acres	%
Commercial Recreation	85.7 ^a	37%	6.56 ^b	42%
Public Recreation	40.4 ^c	17%	4.97 ^d	32%
Total Recreation Area	126.1	54%	11.53	74%
Streets	47.6	21%	1.89	12%
Other Non-Recreation Land Uses	58.1	25%	2.19	14%
Total Non-Recreation Land Area	105.7	46%	4.08	26%
TOTAL LAND AREA	231.8	100%	15.62^e	100%

^a Includes Commercial Recreation and Specialty Shopping (page 82, Port Master Plan, San Diego Unified Port District, 1980).

^b Includes hotel, restaurant, retail, and museum uses (with service, parking, and support areas).

^c Includes Park/Plaza, Promenade, and Open Space (page 82, Port Master Plan, San Diego Unified Port District, 1980).

^d Includes pedestrian facilities, gallerias, and open space.

^e This area constitutes the land held in fee and leased by the Navy (15.62 acres). Acreage of uses for the project is based on ground-level use.

The original concept for the project was to develop sufficient square footage of commercial space to support the Navy office space with no financial assistance and to accommodate the demand for open space and recreation opportunity generated by the project. As a result, a concept that included 3,500,000 SF of mixed-use development (including commercial recreation) and 0.5 acre of open space at the foot of Broadway was formulated. Local officials requested that a larger area of the site be devoted to open space, instead of commercial development, to serve the needs of a broader area of the waterfront. The current project was designed to address this request by increasing the size of the open space at the foot of Broadway to 1.9 acres and diminishing the commercial development by 250,000 SF.

The proportion of land area, based on ground-level uses, devoted to recreation by the Navy Broadway Complex Project exceeds that allocated in the Centre City/Embarcadero Precise Plan area of the Port Master Plan, as shown in Table 1. Total recreation area constitutes 74 percent of the project's ground-level uses compared to 54 percent of the Port's precise plan land area. The proportion of commercial recreation land and public recreation land in the Navy Broadway Complex Project both exceed that allocated in the Port's precise plan area. This demonstrates that not only is the project meeting the demand for its own recreation needs, but it also is enhancing the opportunities for public and commercial recreation for the greater Central Bayfront. In addition, the table also demonstrates that the ground-level use area designated for non-recreation, commercial use in the project represents a very small proportion of land along the waterfront (less than one percent), considering the total area of the Centre City/Embarcadero Precise Plan area and Navy Broadway Complex.

Open space and recreation area objectives of the Centre City San Diego Community Plan focus on providing a ceremonial open space as a "grand public place" at the foot of Broadway and a system of small open spaces, such as vest pocket parks, in the downtown area. The specific need for the latter is identified as six new, vest pocket parks in the Centre City (on page 77 of the plan). This identified need is limited and reflects, among other things, that the open space and recreation area in parts of the Centre City, including the waterfront, already accommodates the needs of the area. The design of the project is tailored to contribute to the major objective of the ceremonial open space at the foot of Broadway, so it is consistent with the latest community planning for open space and recreation areas in Centre City.

In conclusion, the project provides substantial public and commercial recreational facilities on the majority of the site (i.e., part of Block 1, pedestrian ways along new streets, and Blocks 3 and 4), and present and foreseeable demand for coastal recreation use is accommodated in the immediate vicinity. With the accommodation of recreation demand by current and future development, the small ground-level use area proposed for non-recreation uses (office) on the Navy Broadway Complex can be provided in a manner that is consistent with coastal policy.

- O-5. The commentator is correct in that the proposed office and hotel uses would increase the employee and visitor population of the area, creating additional demand for use of recreation facilities along the waterfront. The preliminary Centre City Community Plan (page 77) indicates the need for 0.7 to 8.4 acres of additional, open space improvements in six vest pocket parks to satisfy the requirements for the buildout of the Centre City. The Navy Broadway Complex Project alone, in Alternative A, would

provide an open space of 1.9 acres at the foot of Broadway (as well as other pedestrian facilities). The demand for recreation use of the waterfront would involve activities, such as strolling, jogging, bay viewing, and use of open space or plaza areas. As indicated in Response O-4, the project would provide substantial additional recreation opportunity in a greater proportion (based on ground-level uses) than allocated in land area within the Centre City/Embarcadero Precise Plan of the Port Master Plan, the approved coastal land use plan for the surrounding waterfront. The proposed recreational facilities (i.e., pedestrianways, open space on Block 1, waterfront museum, restaurants, and other commercial recreation) would accommodate the waterfront recreation use from the project's employees and visitors, and would contribute recreational resources over and above the project's requirements.

- O-6. This comment addresses the California Coastal Commission's review of the Coastal Consistency Determination (CCD), a document with a review process that is separate from the EIS. The issue of priority uses in the coastal zone has been discussed in the CCD (Section 4.1.5) and also presented herein as a response to this comment.

Section 30255 is intended to direct land use planning decisions in the coastal zone to ensure that certain uses are given priority. It is important to emphasize that the project is not within the State coastal zone and that land use planning policies of the State coastal management program cannot override Federal land use decisions. Therefore, consistency with Section 30255 is not required; however, an evaluation of the project confirms that it would be consistent with this policy, as discussed below.

Master Planned Development of High Priority Coastal Uses

The proposed project is predicated on providing a mix of coastal-related and visitor-serving uses with a complement of other uses that support the project as a whole. The majority of the ground-level uses in Alternative A are devoted to public or commercial recreation uses, both visitor serving, which are high priority for a coastal location.

The Navy Pier adjacent to the project is a coastal-dependent facility that is essential for the Navy's supply activities in San Diego Bay. It is also essential to the national security as a mobilization asset for the Navy. The supply function of the Navy Pier is dependent on the presence of supporting administrative office space, so the Navy office use proposed for the project is coastal-related. Also, the mobilization function of the pier relies on adjacent space to process supplies and personnel for transshipment. Consequently, the hotels and restaurants, which would support personnel preparing for departure, and the offices, which support mobilization processing, are also coastal-related in the event of mobilization. These coastal-related functions of the project are unique because the property is adjacent to the pier and would remain in Navy ownership. This further reinforces the fact that the project is an integrated development of high priority, coastal uses.

Commercial office use is not considered a coastal-related (except to the extent that maritime businesses occupy it) or visitor-serving use, but it is integral to the project's financial feasibility (discussed below) and completes a unified master plan of development that provides substantial coastal benefits. It is emphasized that if the project is not financially feasible, it would not proceed and the substantial open space, access, and recreation benefits described above would not be available to the public.

Because the mix of uses determines the project's viability, the commercial office component is essential to the success of the whole project. Since the large majority of the ground-level use area (90 percent) in Alternative A supports high priority uses, the primary concept of the project involves a master planned, multi-use high priority coastal development. This concept for the whole development would be consistent with coastal policy accommodating coastal-related developments within reasonable proximity to the coastal-dependent uses they support. The presence of (non-priority) commercial office use would not conflict with this policy in light of the facts that it is financially essential for the success of the public/private venture authorized by Congress and will not adversely affect this policy or land uses within the coastal zone.

Essential Financial Role of the Multi-Use Approach

The five-year defense program contains no appropriations to accomplish the consolidation and collocation of Navy administrative facilities in the San Diego area with military construction funds. In view of current Federal budget reductions and the likelihood of even more severe constraints in the future, Congress has acknowledged that direct funding is not available for this project by authorizing redevelopment of the Navy Broadway Complex through a public/private venture in P.L. 99-661.

The public/private venture concept requires that development of the Navy Broadway Complex include compatible private land uses sufficient to offset the cost of development of the necessary Navy office space. The process of formulating alternatives for the type and intensity of development on the site, therefore, integrated consideration of compatibility with surrounding development, specific environmental issues, and the financial feasibility of potential alternatives.

To evaluate the economic requirements of the public/private venture, the Navy engaged the firm of Williams Kuebelbeck & Associates (WK&A) to make an independent financial feasibility analysis. A market assessment was performed to determine the potential types of uses which could be developed on the site without adversely affecting the absorption of similar development planned in the Centre City San Diego. The marketable development program was refined from a City planning perspective, considering urban design guidelines, massing, viewsheds, access and traffic, and significantly reduced in total scope. The reduced density was further analyzed on a financial pro forma basis to determine the overall return from the non-Federal land uses and the residual cash flow and present value attributable to the long term ground lease provided to the developer by the Navy. The financial analysis tested these cash flows and values against the estimated construction cost of Navy office space and the value of the leased land. The financial tests confirmed the amount of development and mix of uses, including commercial office, necessary to feasibly implement the Navy's objectives in a manner consistent with Congressional authorization.

The enabling federal legislation mandates the selection of the developer for the redevelopment through a competitive process. The financial analysis performed by WK&A forms the basis of the government estimate to be used in the evaluation of competitive proposals submitted for award of the redevelopment. The WK&A study is therefore proprietary solicitation information which, in accordance with Federal procurement regulations, cannot be published so as to protect the integrity and

competitiveness of the selection process. The selected developer, the WK&A financial feasibility study, and the actual financial proposal from the developer are subject to review by the Congress, prior to award, in accordance with the legislation.

No Appropriate Coastal-Dependent Uses for the Property

Although it is the Navy's position that the project is consistent with the policies related to placement of high priority uses near the waterfront, it is also important to understand that there are no other appropriate coastal-dependent uses for the property. The Port Master Plan certified by the Commission has distributed coastal-dependent uses along the San Diego Bay waterfront portion of the coastal zone. The Centre City/Embarcadero Precise Plan addressing the waterfront around the Navy Broadway Complex focuses on coastal-related, primarily visitor-serving and recreational uses for the land area of the plan. No major coastal-dependent uses are designated for the land in the vicinity of the Navy Broadway Complex, except for the existing piers. The arrangement of land uses in the plan demonstrates that there is no unmet need for additional land to be allocated to coastal-dependent uses along this part of the waterfront, because such a large proportion is designated for other, non-coastal-dependent uses. The majority of coastal-dependent uses in the port's coastal zone is located in the maritime industry areas around the Tenth Avenue Marine Terminal and National City Bayfront, as would be expected. The character of the Central Bayfront from the Convention Center to the north end of the promenade is oriented to public and commercial recreation uses, rather than coastal-dependent development. Therefore, incorporating coastal-dependent uses in the Navy Broadway Complex would not be needed or appropriate.

Coastal-Related Uses Are Fully Accommodated

The emphasis for coastal-related uses in the Centre City Embarcadero area is placed on public and commercial recreation opportunity. It has been explained previously in Response O-4 that the present and foreseeable need for public and commercial recreation in this part of the waterfront is accommodated, in part by the Navy Broadway Complex Project. In addition, the market study commissioned by the Navy identified the mix of uses that could be supported by the forecasted demand and found that commercial recreation use beyond that already planned by others and included in the project could not be supported during the buildout period of the project. Essentially, the Navy Broadway Complex Project, in an effort to meet financial requirements of the public/private venture and be consistent with the policies of the California Coastal Act maximized the amount of commercial recreation (i.e. hotel, restaurant, and retail) space that could be feasibly developed. Therefore, the addition of still more coastal-related, commercial recreation area, instead of the financially necessary commercial office space, would not be appropriate. Recognizing this market reality, the commercial office space proposed for the project is an appropriate, as well as necessary, use.

- O-7. The intensity of development and mix of uses proposed for the Navy Broadway Complex are necessary to achieve the Congressional mandate of providing the Navy office space "without compensation or at substantially below market value" (P.L.99-561), which has been interpreted by recent Office of Management and Budget directives to mean obtaining the space at no cost. The five-year defense program

contains no project to accomplish the collocation of Navy administrative facilities with military construction funds, so additional Federal funding is not available. In view of the current Federal budget reductions and the likelihood of even more severe constraints, the prospect of future appropriations is extremely remote. Therefore, generation of sufficient revenue stream and equity from the public/private venture concept is necessary for the feasibility of the project. Please see Response O-6 for a discussion of the financial analysis conducted for the project.

The density of the Navy Broadway Complex Project was considered in the development of the preliminary Centre City San Diego Community Plan recently adopted by the City Council. The Navy's preferred alternative is consistent with the overall floor area ratios designated by the plan for the project site and with the step-down design approach described in the plan. Therefore, the density of the proposed action appears to be appropriate for the city's concept of development along the Central Bayfront. (Please also see Response O-4 for a discussion of consistency with coastal land use planning in the Central Bayfront area).

- O-8. The reduced density alternative suggested by the commentator would not yield sufficient residual cash flow to support the objectives of the Congressional mandate. The financial analyses performed by the Navy have confirmed that the amount and mix of development necessary for financial feasibility is represented in Alternative B, assuming no local government financial support. (Alternative A's reduced density relies on local government financial assistance for certain infrastructure improvements.) Consequently, a substantially reduced density alternative would not be feasible. See Responses O-4 and O-6 for discussions of the relationship of local coastal plans and the financial feasibility requirements of the project.

The proportion of ground-level use area in the Navy's preferred Alternative A devoted to commercial and public recreational use already exceeds the proportion of land area so designated in the approved Port Master Plan for the surrounding waterfront, so a reduced density alternative emphasizing recreation use would not be needed to maintain the planned allocations of land to these uses. This issue is discussed in detail in Response O-4.

- O-9. The commentator's explanation of support for Alternative F is noted. Please refer to Responses O-4 and O-7 for discussion of how Alternative A meets the needs for public and recreation opportunity in the Central Bayfront and proposes the mix of uses necessary to meet the objectives of the project.

- O-10. Please see topical response TR-2.

- O-11. Please see topical response TR-2 concerning project economics and market demand. Note that the proposed project was determined after review of a variety of land use combinations, including combinations that included no commercial office development. Concerning Navy funding contributions, topical response TR-1 addresses the prospect of providing Military Construction funding for this project.

- O-12. The statement identified by the commentator is an explanation of the existing setting of the project site. The site is currently, and for many years has been, fully covered with impervious surfaces. The development of the alternatives reduce the extent of

impervious surface, and attendant runoff, with the implementation of landscaped open space. Therefore, no increase in urban runoff would occur with any of the alternatives, and a decrease would occur with alternatives that include open space (Alternatives A, B, D, and F.)

- O-13. This comment addresses the California Coastal Commission's review of the Coastal Consistency Determination (CCD), a document with a review process that is separate from the EIS. The issue of relationship between local coastal plans and the project has been discussed in the CCD (Section 4.2.2) and in Response O-4. Consistency of the project with local plans for transportation and parking is discussed in Section 4.2 of the EIS.

Max Schmidt, Centre City Development Corporation, June 13, 1990

- P-1. Section 4.5 of the DEIS identifies the potential impact of cumulative and project traffic and suggests improvement programs to mitigate those impacts. The DEIS suggests a combination of traffic reduction measures (e.g., TDM program) and physical roadway improvements that would mitigate the long-term traffic conditions. The northbound right turn lane and second westbound left turn lane are needed to mitigate the impacts of project and cumulative traffic at the Broadway/Pacific intersection. It should be noted that the open space plan and streetscape requirements established in the draft urban design guidelines for the Navy Broadway Complex provide a substantial increase in landscaping and amenities for pedestrians in the study area.
- P-2. The suggested improvements at study area intersections along the Pacific Highway corridor are necessary to mitigate the impacts of project and cumulative traffic. In all cases, the mitigation measures that are suggested in the EIS are at intersections that are the junction of major intersections based on traffic projects and do not necessarily establish a precedent for the widening of crossings of Pacific Highway by minor streets located between these junctions. As such, it would appear that many of the landscaping improvements suggested for the corridor between major intersections could be accommodated.
- P-3. Please see response to comments N-1 and N-2. Note that the proposed Urban Design Guidelines, in conjunction with a major 1.9-acre open space plaza at the foot of Broadway, were developed to meet a longstanding City goal of making Broadway the waterfront entrance to the City of San Diego.

Q. Deanna M. Wieman, United States Environmental Protection Agency, June 15, 1990

Q-1. Comment Q-1 is a summary of agency concerns that are presented elsewhere in more detail and the determination of the rating of the EIS as "Adequate". Responses to the environmental concerns are provided below where the more detailed comments are discussed. The rating of the EIS as adequate is noted.

Q-2. Incorporation of appropriate water conservation measures into the project is a valid suggestion. The requirement to include water conservation features will be stated in the request for development proposals. The specific list of measures will be presented in the development bids and will include the water-saving devices mentioned in the comment for showers, toilets, plumbing maintenance, landscaping, and irrigation.

Q-3. The Navy will commit to the implementation of the air quality mitigation measures recommended by the EPA and discussed in the EIS Section 4.8.3 as part of the Record of Decision.

Q-4. The Navy will adopt the hazardous materials mitigation measures discussed in the EIS Section 4.11.3 as part of the Record of Decision.

Q-5. The hazardous materials investigation conducted for the project, including soil borings, identified the potential for contamination. This information is presented in the Draft EIS. Estimates of specific types and quantities of hazardous substances to be remediated would be made as part of remedial investigations prior to site development. As described in the mitigation discussion in Section 4.11.3 of the EIS, all applicable requirements of the Comprehensive Emergency Response Compensation and Liability Act (CERCLA) will be implemented if hazardous materials regulated by it are found. Commitment is also made to follow the process required by CERCLA and the National Contingency Plan, if remediation of hazardous waste is determined to be needed.

Q-6. The measures recommended by the EPA are consistent with the mitigation presented in the EIS, Section 4.11.3. These measures will be adopted as part of the Record of Decision.

Q-7. As a commercial office, hotel, and retail development, the Navy Broadway Complex Project would not be expected to use or generate substantial amounts of hazardous materials or wastes. As an example, a dry cleaning operation is not anticipated as part of the retail or hotel uses within the project. Landscape maintenance could use pesticides, so storage of small quantities on site may occur. Other activities normally found in office buildings, retail shops, and hotels that may use hazardous substances have not been conceived at this time. Consequently, although it is possible to conceptualize that limited use and generation of hazardous substances would occur, it is premature to estimate the specific potential types and quantities. Specific uses will be defined when the development bids are received following completion of the EIS. All tenants of the project will follow regulations regarding the generation, use, handling, disposal, and disclosure of hazardous materials in full compliance with the law.

8. The comment suggests an appropriate mitigation measure to incorporate into the project. The following measure is added to Section 4.11.3 of the EIS:
- Waste minimization practices, as required by the 1984 RCRA amendments, will be incorporated into the project construction and operation.
- Q-9. The Navy accepts the EPA's recommendation to include the implementation of a solid waste recycling program in the Record of Decision. Please also refer to Response H-23.
- Q-10. Based on the investigation of potential hazardous waste on the Navy Broadway Complex conducted by the Navy for the EIS, there are no SWMU's on the site. Consequently, RCRA corrective actions are not anticipated.
- Q-11. The comment stating that the removal of PCB's is governed by the Toxic Substance Control Act (TSCA) is noted. The Navy has an ongoing PCB removal program for the site, and other facilities in the San Diego naval complex, which is conducted in full compliance with Federal regulations.

HA. Colleen Cronin, National Safety Associates, May 16, 1990 (Public Hearing)

HA-1. This comment does not address the contents of the DEIS. No response is necessary.

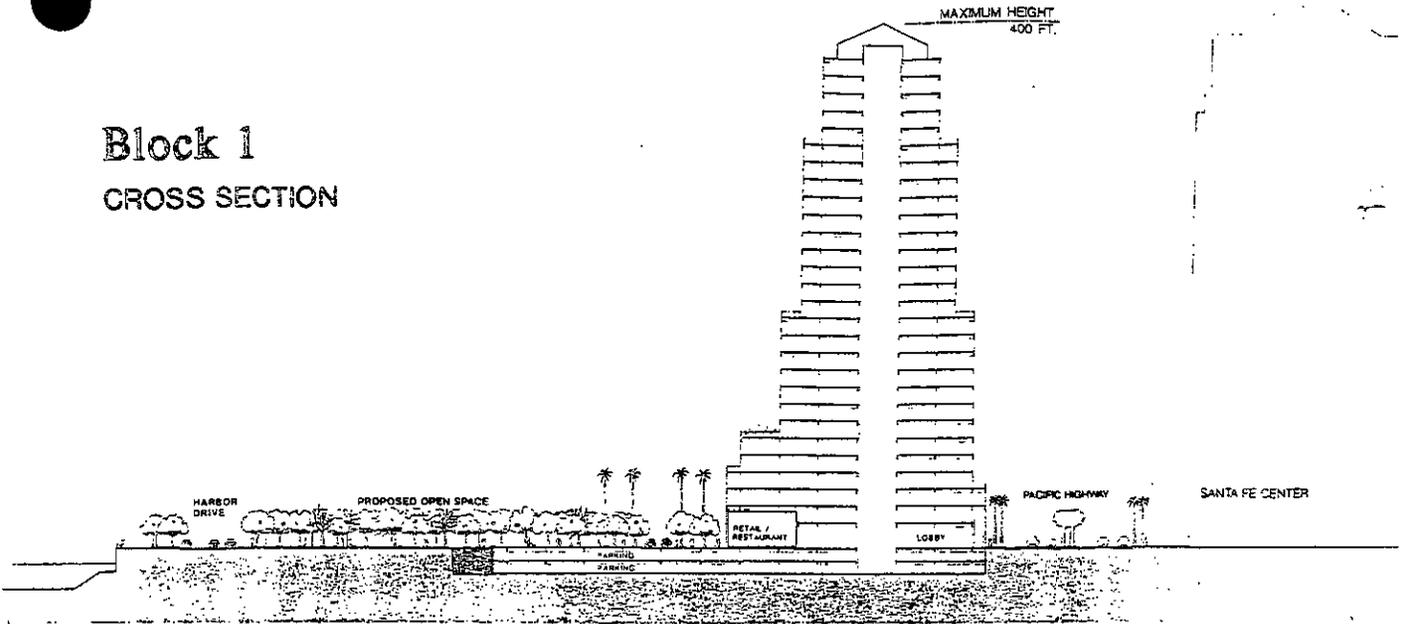
HB. Don Wood, C-3 and the Bayfront Coalition, May 16, 1990 (Public Hearing)

- HB-1. The commentator's support for certain features of the project and for open space included in Alternative F is noted. The comments are not specific to the environmental impacts of the project, so no other response is provided.
- HB-2. The commentator's concern that this project may set a development intensity precedent for the area between Pacific Highway and Harbor Drive is noted. The proposed project was designed to be consistent with the Central Bayfront Design Principles, which provide standards for other development in a broader area to the north and south. The proposed project fits within the context of development intended to be provided along the project area. Whether the San Diego Unified Port District complies in its developments with these same guidelines is beyond the control of the Navy.
- HB-3. The Mission Bay fault is considered a strand of the Rose Canyon Fault Zone. Like several faults in this zone, the Mission Bay Fault is often projected southwards towards San Diego Bay and downtown San Diego (please see the 1990 Woodward-Clyde report in Section 4 of this appendix, particularly 2.3). The faults suspected to extend into the downtown area (Kennedy 1975) are typically mapped as "inferred or concealed," hence their specific location is not known. Based on previous fault investigations in the west part of downtown San Diego by Woodward-Clyde Consultants (Schug 1989) and others, it appears unlikely that a significant fault like the Mission Bay fault extends under or near this site.
- HB-4. In response to this comment, Figures 3-8b and 3-8c have been developed to show the relationship between existing/proposed development on the east side of Pacific Highway and the proposed project on the west side of Pacific Highway. As shown, the project is visually consistent with the proposed or existing adjacent development, stepping down from the east at Blocks 1, 2, and 4, and rising before stepping down to the waterfront at Block 3. Future development at Block 2 reflects FARs for that area.
- HB-5. Figure 3-6 of the DEIS (page 3-10) depicts design guidelines for the project. As shown, buildings would be set back along Pacific Highway to provide a minimum 17-foot-wide sidewalk.

NOTE: BUILDING DESIGNS INDICATED ARE FOR ILLUSTRATIVE PURPOSES AND REPRESENT ONLY ONE POSSIBLE SOLUTION.

420 FT

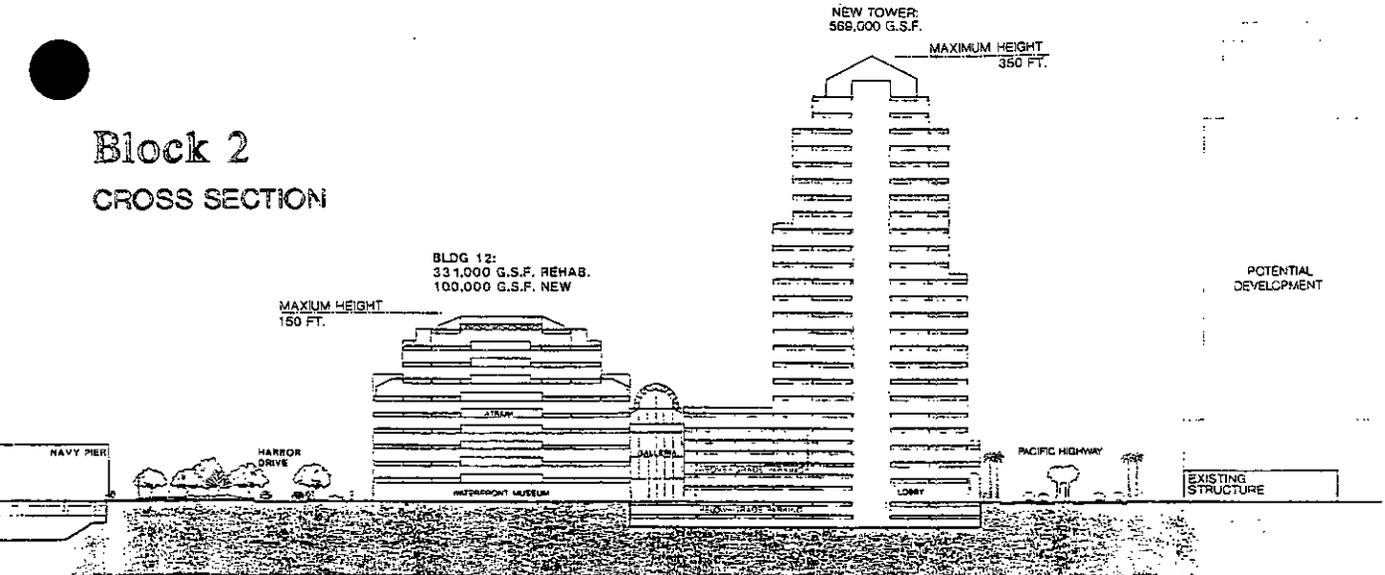
Block 1
CROSS SECTION



BLOCK 1 : OFFICE 650,000 G.S.F.

400 FT

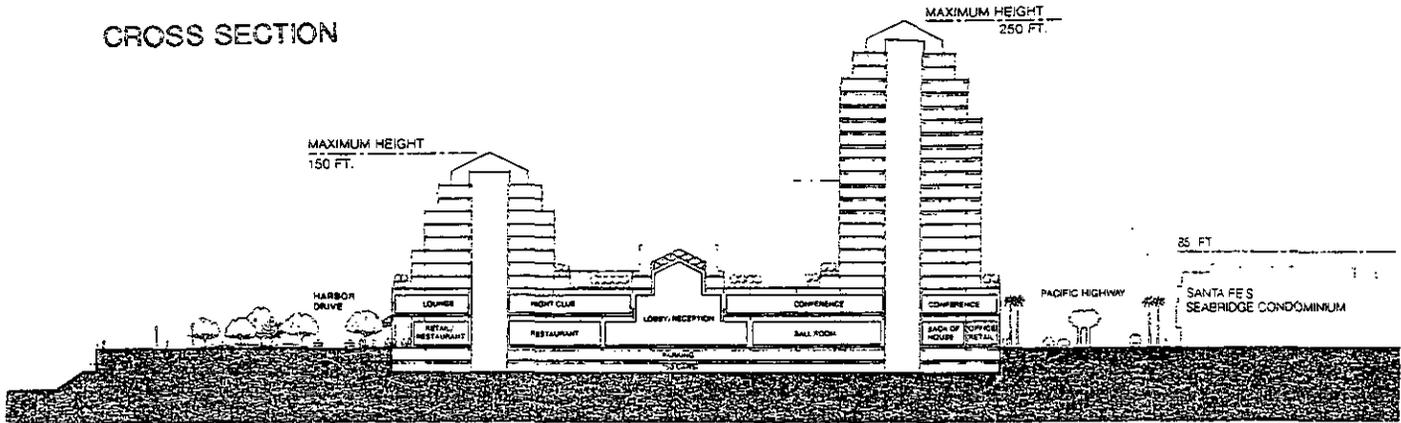
Block 2
CROSS SECTION



BLOCK 2 : OFFICE 1,000,000 G.S.F.
WATERFRONT MUSEUM 55,000 G.S.F.

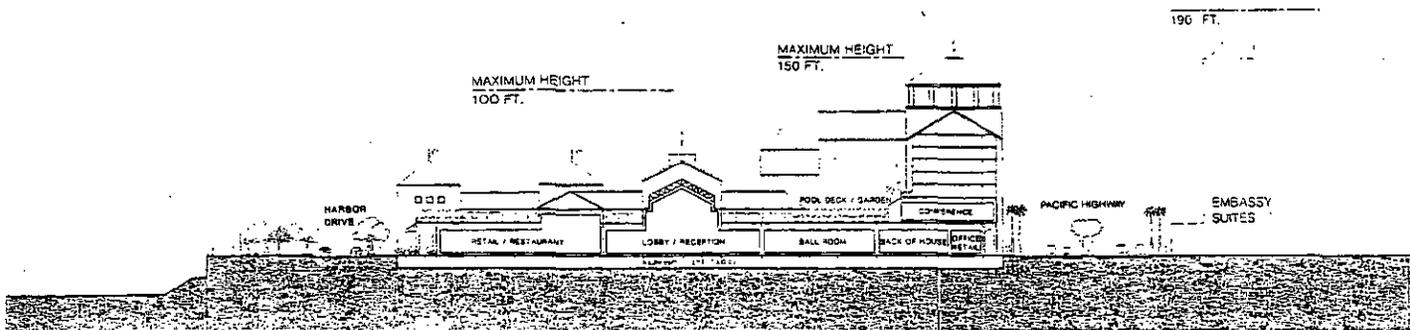
NOTE: BUILDING DESIGNS INDICATED ARE FOR ILLUSTRATIVE PURPOSES AND REPRESENT ONLY ONE POSSIBLE SOLUTION.

Block 3 CROSS SECTION



BLOCK 3: BUSINESS HOTEL 745,000 G.S.F./1,000 ROOMS

Block 4 CROSS SECTION



BLOCK 4: LUXURY HOTEL 475,000 G.S.F./500 ROOMS
RETAIL/RESTAURANT 25,000 G.S.F.

SECTION 4
SEISMIC STUDY

In response to comments on the geologic analysis in the draft EIS, Woodward-Clyde Consultants prepared "Additional Geologic, Seismic, and Geotechnical Studies. Navy Broadway Complex, San Diego, California." This report is presented in its entirety as Section 4 of this appendix.

ject No. 9051207D-GE01

Woodward-Clyde Consultants

ADDITIONAL GEOLOGIC, SEISMIC
AND GEOTECHNICAL STUDIES
NAVY BROADWAY COMPLEX
SAN DIEGO, CALIFORNIA

Prepared for:

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San Francisco, California 94109

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Woodward-Clyde Consultants

September 5, 1990
Project No. 9051207D-GE01

Roma Design Group
1420 Sutter Street
San Francisco, California 94109

Attention: Mr. Jim Adams

ADDITIONAL GEOLOGIC, SEISMIC
AND GEOTECHNICAL STUDIES
NAVY BROADWAY COMPLEX
SAN DIEGO, CALIFORNIA

Gentlemen:

Woodward-Clyde Consultants is pleased to provide the accompanying report, which presents the results of our geotechnical investigation for the project. This study was performed in accordance with our proposal dated July 11, 1990 and the Government Scope of Work dated July 16, 1990.

This report presents our additional geologic/geotechnical studies for the Navy Broadway Complex. The geologic and seismic information presented in this report is intended to supplement the DEIS/DEIR as well as to address review comments that concern geological issues and dewatering.

If you have any questions or if we can be of further service, please give us a call.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

David L. Schug

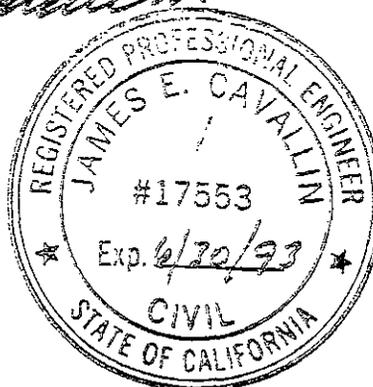
David L. Schug
C.E.G. 1212

DLS/JEC/kah (a/dls8)



James E. Cavallin

James E. Cavallin
R.E. 17553



Consulting Engineers, Geologists
and Environmental Scientists

Offices in Other Principal Cities

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ADDITIONAL GEOLOGIC, SEISMIC AND GEOTECHNICAL STUDIES
NAVY BROADWAY COMPLEX
SAN DIEGO, CALIFORNIA

1.0 INTRODUCTION AND PURPOSE

This report presents the results of Woodward-Clyde Consultants' (WCC) additional geologic/geotechnical studies for the Navy Broadway Complex. The purpose of this study is to provide additional geologic and seismic hazards information to supplement the project DEIS/DEIR as well as to address review comments that concern geological issues and dewatering. We have also been asked to provide an updated discussion of site dewatering for use of a hydrostatic resistant mat-type foundation for subsurface construction.

1.1 Background

The project area encompasses four blocks in west downtown San Diego between North Harbor, Broadway and Pacific Highway (Figure 1). Current plans for the Navy Broadway Complex are generally as described in "Alternative A" in the DEIS/DEIR prepared by Michael Brandman Associates. Woodward-Clyde Consultants conducted a preliminary geotechnical investigation for the site; a copy of our report entitled "Geotechnical Investigation for the Proposed Navy Broadway Complex, San Diego, California," prepared for Hirsch Company, dated February 4, 1988 is on file at the Navy Broadway Complex Detachment.

We have been provided with and have reviewed the memorandum dated May 24, 1990 prepared by California Division of Mines and Geology (CDMG). We have also addressed specific comments from other agencies and individuals. Responses to comments are being provided in a separate document.

1.2 Scope of Study

Our studies have been based upon review of published geologic information and review of our previous geotechnical investigations for the site and other sites in the vicinity of the

Navy Broadway Complex. Additional geotechnical analyses were performed utilizing information from our previous test borings and geotechnical laboratory analyses. No new subsurface explorations were performed for this study.

We have organized the following sections of this report as follows:

- Section 2 & 3: Responses to CDMG Comments
- Section 4: Geotechnical Considerations

2.0 SEISMICITY

The following paragraphs present an overview of site seismicity and local/regional faults.

2.1 Tectonic Setting

The tectonic setting of the San Diego area is influenced by plate boundary interaction between the Pacific and North American lithospheric plates. This crustal interaction occurs along a broad zone of northwest-trending predominantly right-slip faults that span the width of the Peninsular Ranges and extend offshore into the California Continental Borderland Province. At the latitude of San Diego, this zone extends from the San Clemente Fault Zone, located approximately 60 miles west of San Diego to the San Andreas fault, located about 90 miles east of San Diego.

Geologic, geodetic and seismic data indicate that the faults along the eastern margin of the plate boundary, including the San Andreas, San Jacinto and Imperial Faults along with their associated branches, are currently the most active and appear to be dominant in accommodating the motion between the two adjacent plates. A smaller portion of the relative plate motion is being accommodated by northwest-trending faults to the west including the Elsinore Fault, Rose Canyon fault, San Miguel fault, Agua Blanca fault, and offshore faults including the Coronado Bank, San Diego Trough, and San Clemente fault zones. Major regional faults of tectonic significance are shown on Figure 2.

2.2 Historical Seismicity

The locations of earthquakes in the vicinity of San Diego are shown on Figure 3. The historical pattern of seismicity in coastal San Diego (since about the 1930s) has generally been characterized as a broad scattering of small earthquakes; whereas the surrounding regions of Southern California, northern Baja California and the nearby offshore regions are characterized by a high rate of seismicity, where many moderate to large earthquakes (magnitudes up to 6.5) have occurred during the past 50 years or so (Simons, 1977; Anderson and others, 1989). The record of historical earthquakes (magnitude 6 or larger earthquakes) available for San Diego is probably as complete as any other region in California dating back to the early mission days in the late 1700s (Anderson and others, 1989). San Diego has not had a local damaging earthquake since becoming a major population center.

San Diego has experienced strong shaking and minor damage from several local and distant earthquakes, but none have been very destructive (Agnew, 1979; Topozada and others, 1981). Most of these earthquakes apparently originated at long distances from San Diego, generally from locations in the Imperial Valley or northern Baja California. Earthquakes in 1800, 1862 and 1892 are believed to have produced the strongest felt intensities in the downtown area. The location of the 1800 earthquake (which is estimated to have Modified Mercalli intensity VII¹ in San Diego) is thought to have been somewhere between San Juan Capistrano and San Diego because of the damage it caused at both missions (Topozada and others, 1981). Anderson and others (1989) suggest that the 1862 earthquake seems to have produced the strongest shaking and to have been located closer to the San Diego metropolitan area than other earthquakes (see Figure 4). During the 1862 earthquake, shaking of an estimated intensity of VI to VII on the Modified Mercalli scale was felt in San Diego based on reported damage that included cracking of adobe buildings and upsetting of small objects (breaking of dishes, etc.). The epicenter for the 1862 earthquake is not known; based on an evaluation of felt reports by Topozada and others (1981), it is

¹ Prior to the installation of seismographs in California in the early 1900's and the development of the Richter magnitude scale, earthquakes were described based upon their ground shaking effects on man-made structures and natural features and felt reports. These descriptions were incorporated into an intensity scale of which the present version most commonly used is the Modified Mercalli (MM) (Table 1).

suggested the event could have been in or near San Diego Bay. Topozada and others estimated the magnitude of the 1862 earthquake at M 5.9. The 1892 earthquake is believed to have been located in northern Baja California, Mexico, about 100 to 150 km east from San Diego (Strand, 1980). This earthquake caused widespread minor damage in San Diego; shaking intensity VI to VII is estimated for downtown San Diego (Anderson and others, 1989).

Seismographs were established in San Diego in the early 1930s. Since then, San Diego Bay has been the location of repeated "swarms" of small to moderate magnitude earthquakes. A 1985 series of earthquakes (largest event M4.7) was centered generally within about 0.6 miles (1.0 km) south of the San Diego - Coronado Bay Bridge. A similar series of small earthquakes in 1964 was also generally located beneath southern San Diego Bay. In July, 1986 a M = 5.3 earthquake ("Oceanside Earthquake") occurred about 40 miles (70 km) offshore and northwest of San Diego; the area offshore from Oceanside has experienced an abundance of small aftershocks since 1986. Although the 1986 Oceanside earthquake was felt strongly in many areas of San Diego, it did not cause significant damage in downtown San Diego. The recent increase in seismicity offshore from Oceanside and in San Diego Bay is considered significant by some researchers compared to the relative seismic quiescence over the past several decades. Heaton (1989) compares the increase in earthquake activity in San Diego to other areas of California, where increases in seismic activity has preceded large earthquakes; although Heaton also points out there are also many examples of large earthquakes for which seismicity increases did not occur.

There are differences of opinion regarding the lack of damaging earthquakes in the San Diego area. Despite the fact that the historical record (at least for large earthquakes) dates back some two hundred years, it is important to note that the historical record is typically very short compared to the average interval, or return period between large, potentially damaging earthquakes. Therefore, based only on the historical record of earthquake activity, seismic hazard in San Diego is, in our opinion, difficult to quantify.

2.3 Significant Faults

The Rose Canyon fault zone is the closest major fault zone to the downtown San Diego area and the project site; it extends on land from La Jolla generally through parts of the downtown area, to San Diego Bay, and beyond to the south (see Figure 5). The zone is complex and is comprised of many related fault segments and associated folds. In the offshore areas near San Diego Bay, Holocene age sediments are displaced by faults associated with the Rose Canyon fault zone (Kennedy, 1975, 1980); whereas onshore, localized evidence also exists for Holocene faulting (Patterson and others, 1986; Rockwell, 1989). The locations of significant strands of the Rose Canyon fault zone are not well documented in many areas of downtown San Diego, largely because of the extensive early urban development.

In the vicinity of San Diego Bay and the project site, the Rose Canyon fault zone has been mapped (Kennedy, 1975) as being comprised of several fault strands which include: the Old Town fault, Spanish Bight fault, Coronado fault and Silver Strand fault. The Mission Bay fault is also considered a strand of the Rose Canyon fault zone and, like several faults in the zone, the Mission Bay fault is often projected southwards towards San Diego Bay and the downtown San Diego area. The faults suspected to extend into the downtown area (e.g., Kennedy, 1975) are typically mapped as "inferred" or "concealed" hence their specific location is not known. Because of the uncertainty in regard to fault locations, the project site is considered to be located about 0.5 to 1.0 miles from significant strands of the Rose Canyon fault zone. Collectively, the main faults comprising the Rose Canyon fault zone are considered capable of a maximum M7 earthquake (Woodward-Clyde Consultants, 1986).

The eastern-most branch of the Rose Canyon fault zone is considered to be the Old Town fault. The Old Town fault displaces late Pleistocene sedimentary deposits near Mission Valley. Southeast of the Old Town area, the location and characteristics of the Old Town fault are not known with confidence; however, it is suspected by Kennedy and others (1975) to extend into the downtown area. The Old Town fault is located about 2 miles north-northwest of the project site.

The Spanish Bight fault is another important strand of the Rose Canyon fault zone that is mapped about 1 mile (1.6 km) west of the site in San Diego Bay (Figure 6). Based on marine geophysical studies in and around the Bay, the Spanish Bight fault is believed to displace Holocene sediments (Kennedy and Welday, 1980). Prior to dredging and the hydraulic filling operations, the Spanish Bight fault had prominent expression across North Island and may have partly created the channel (Spanish Bight) that formerly separated North Island and Coronado.

The Coronado fault is mapped as extending northerly across the Bay where it appears to project on land about 0.5 mile to the east of the project area (see Figure 6). Although the fault is suspected to extend beyond the Bay onland (Treiman, 1984) its location in the downtown area (east of the site) is not known.

The Silver Strand fault extends from Coronado south to the offshore area west of the U.S./Mexico International Border (Kennedy and Welday, 1980). Based on marine geophysical profiling, the Silver Strand fault is located about 2 miles south of the project area where it appears to die out in San Diego Bay.

2.4 Distant Seismic Sources

The La Nacion fault is mapped about five miles to the east of the downtown area; it extends from Mission Valley south to Otay Mesa (Figure 2). The Coronado Bank fault zone extends roughly parallel to the coastline about 14 miles offshore from downtown. The Elsinore fault zone is about 42 miles northeast of downtown. Each of the above mentioned fault zones, as well as more distant fault zones further to the east, offshore and in Baja California, are considered capable of producing large ($M > 6 \frac{1}{2}$) earthquakes (Woodward-Clyde Consultants, 1986)

3.0 GEOLOGIC AND SEISMIC HAZARDS

3.1 Fault Surface Rupture

The project site, like all of the downtown area, is considered to generally lie within the Rose Canyon fault zone. Some fault strands within this zone are considered active (WCC, 1985, 1986; Rockwell, 1989), and therefore present surface rupture hazards. Although portions of the Rose Canyon fault zone are being evaluated by the State Geologist and are to be included in an Alquist-Priolo Special Studies Zone², the west downtown San Diego area (and the project site) is not currently being considered for zonation. The City of San Diego Municipal Code includes a geologic hazards ordinance which requires geologic hazards investigations for new buildings over two stories in height in all of downtown San Diego.

The southern reach of the Rose Canyon fault zone appears to widen and become more complex in the vicinity of San Diego Bay. Within the Bay, and in the immediate offshore areas, the Rose Canyon fault zone has been interpreted to be comprised of several subparallel strands which include the Spanish Bight, Coronado, and Silver Strand faults (Kennedy and Welday, 1980). However, the eastern extent of the Rose Canyon Fault Zone on land through the downtown area is not well-defined. Reconnaissance geologic logging during the excavation of an east-west, mile-long sewer interceptor (WCC, 1981) that extended west on Broadway to the intersection of Kettner and "E" Streets encountered a single fault in the vicinity of Front and First Streets about 0.5 mile east of the site. This fault is not considered active. Most often, interpretations of possible locations of faults within downtown areas have either projected the Old Town fault to the southeast (e.g., Kennedy, 1975), or have been landward projections of offshore faults.

The faults shown on Figure 6 that are located in San Diego Bay were mapped (Kennedy and Welday, 1980) by marine geophysical surveys that included traverses located generally parallel to the bay margins. These marine geophysical surveys conducted to date have not identified significant faults in the bay that appear to project through the Broadway Complex

² Alquist-Priolo Zones are established by the State Geologist along active faults and regulates certain development within the zone (CDMG Special Publication 42).

area. Kennedy and Welday (1980) mapped a short, apparently discontinuous fault extending generally between Coronado and the Broadway Pier (location "A" on Figure 6). This feature was not considered to be prominent on their subbottom reflection profiles and it apparently dies out in the bay and does not extend on land into the Broadway Complex area.

Other portions of the Rose Canyon fault zone are suspected to extend into the downtown area on land (Kennedy, 1975). In addition to the geologic logging of the sewer interceptor excavation along Broadway (ending at Kettner and "E" streets), WCC conducted site-specific fault investigation for several downtown blocks east of the Broadway Complex along Pacific Highway and several blocks to the east. Previous geologic investigations by Woodward-Clyde Consultants and others at these nearby sites immediately east of the Broadway Complex did not encounter significant faults. Therefore, it is believed that previously unrecognized, major active faults do not appear to extend through the west downtown area (Schug, 1989).

Based on previous geologic investigation conducted in San Diego Bay (Kennedy and Welday, 1980 and others) and land areas near the Broadway Complex, it appears unlikely that the site is traversed by a fault that would present a significant fault rupture hazard. Although it is our opinion that it is unlikely the site is traversed by a significant fault, the possibility of on-site faulting cannot be precluded based on the available geologic information.

3.1.1 Remedial Measures

The project site area is underlain by hydraulic fill soils placed over natural bay deposits. The geologically recent bay deposits extend down to elevations below Mean Sea Level (MSL), whereas groundwater typically occurs within several feet above MSL in the project area. Therefore, site subsurface and groundwater conditions generally preclude using typical geologic exploration methods such as trench excavations to evaluate possible faults. Other geologic investigative techniques are possible (such as geophysical profiling and/or deep, closely spaced test borings) which have been used to evaluate suspected faults at nearby project sites and adjacent areas of the bay. However, these methods are somewhat

indirect and can be inconclusive. Also, at other nearby sites it has been possible to make confirmational geologic observations in the several story deep basement excavations (which extended into Pleistocene materials).

As indicated in our previous geotechnical investigation for the Navy Broadway Complex, the floor level for a two-story basement will be in bay deposits. Without being able to directly observe Pleistocene (Bay Point Formation) materials in below ground excavations, it is unlikely that a fault will be discovered on the site during construction. If a fault were observed in construction excavations or discovered during future investigations, it will be necessary to evaluate its recency of past displacements and surface rupture potential. If evaluation of the fault indicates a significant likelihood for renewed movement within the expected project lifetime, and in particular, if the fault was considered "active"³ it would be inconsistent with current engineering and geologic practice to site structures directly across the fault. Therefore, development options would likely include relocating structures so that they are not sited across the fault.

3.2 Seismic Ground Shaking

Southern California is a seismically active region and the potential that local strong ground shaking could occur in the San Diego area as a result of an earthquake on the Rose Canyon or other nearby fault system has been recognized for many years. Thus, significant ground shaking in response to nearby or distant earthquakes should be anticipated during the typical design life of structures. Earthquake ground motions are possible from a number of active fault zones, including the Rose Canyon, fault zones in northern Baja California, areas offshore from San Diego, and the Imperial Valley. Table 2 includes a summary of

³ An "active fault", as defined by the California Division of Mines and Geology, is a fault that has "had surface displacement within Holocene time (about the last 11,000 years)" (California Division of Mines and Geology Special Publication 42). "Potentially active" faults are defined as those that have evidence of activity during the Pleistocene (last 2 to 3 million years but not within the last 11,000 years).

For planning and siting purposes, the potential for surface fault rupture is generally considered to exist along "active" and, to a lesser degree, along "potentially active" faults. Those faults that have been most recently active, and particularly those faults that have been repeatedly active during the Holocene, are considered to have the greatest potential for future displacements.

significant local and regional seismic sources, their estimated maximum magnitudes and distance from the site.

Because of its proximity, and recognized potential to produce a large earthquake, the Rose Canyon fault zone is considered a significant seismic hazard to downtown San Diego. Estimates of the maximum earthquake for the Rose Canyon fault zone range from M 6 1/2 to 7 1/4 (Woodward-Clyde Consultants, 1986) with a maximum M 7 earthquake typically considered in local seismic hazard evaluations. A maximum M7 earthquake on the Rose Canyon fault zone is also generally consistent with studies by others including Wesnousky, 1986. The maximum earthquake (or "maximum credible earthquake") is generally considered to be the largest earthquake which may ever be expected at the site within the known geologic framework. An earthquake of M7 on the Rose Canyon fault occurring at an approximate distance on the order of 0.5 to 1.0 miles from the study area can be considered the maximum earthquake for this site. Based on attenuation relationships such as Joyner and Boore, 1988, this maximum earthquake could result in peak ground accelerations in the Navy Broadway Complex area ranging from 0.45 g to 0.60 g. This estimate is in general agreement with peak ground accelerations reported by Mualchin and Jones (1987).

It is important to note that the estimated maximum earthquake generally represents a rare seismic event with a very low probability of occurrence. Because the site is close to an active fault, it is generally considered unrealistic to design for seismic events considered to have a very low probability of occurrence (such as the maximum earthquake occurring on the closest reach of the fault). For a local seismic source such as the Rose Canyon or La Nacion fault zones, there is an approximate probability of occurrence of the maximum earthquake of 1 to 2 percent within a 50-year period (WCC, 1986 and on-going in-house studies).

Regional studies have included probabilistic evaluation of seismic hazards in San Diego. For example, Anderson and others (1989) report that peak accelerations of 0.10 to 0.20 g are "expected about once every 100 years". Earthquake resistant design of important or critical structures in settings such as downtown San Diego more commonly considers results of site-specific probabilistic seismic hazard analysis. For sites near downtown San

Diego (and within about 1 mile from the Rose Canyon fault zone) current studies for sites near the Broadway Complex indicate that there is about a 10% probability that an earthquake will occur in a 50-year period that will generate peak ground accelerations that exceed about 0.35 g. This estimate includes the combined contributions of the Rose Canyon, La Nacion, Coronado Bank and Elsinore faults and for all earthquakes of M5 and greater. In our opinion, this estimate can generally be considered the "maximum probable earthquake" for this site.

The estimates of seismic ground shaking discussed above are intended to provide a general assessment of the site seismic hazard and are not intended for design purposes.

3.2.1 Remedial Measures

The coastal zone of San Diego, including the downtown area, is currently assigned to UBC Seismic Zone 3. Based on our recent conversations with the Structural Engineers Association of San Diego, strong consideration is being given to changing coastal San Diego from Zone 3 to Zone 4. The U.S. Navy has historically considered San Diego to be Zone 4.

The maximum earthquake on the Rose Canyon or other nearby fault, if it were to occur, would likely result in strong ground shaking, in excess of local building codes, over much of coastal San Diego. However, buildings designed and built in accordance with modern building codes typically have greater earthquake resistance than indicated by the code design and typically have fared well under relatively strong ground shaking conditions (Housner and Jennings, 1982).

Like any other important structure in downtown San Diego, design studies for future projects should consider the likelihood of strong seismic shaking within the design life of structures. Earthquake resistant design, utilizing results of site-specific seismic hazard analyses (typically including seismic ground motion information, seismic response spectra, and characteristic site period), would reduce potential damage from earthquakes. Even so, it is generally considered economically unfeasible to build a totally earthquake-resistant project; therefore it is possible that a large or nearby earthquake could cause damage at the

site. In this regard, the seismic hazard associated with the Navy Broadway Complex project is not considered appreciably different than nearby areas of downtown San Diego and most of coastal San Diego County.

3.3 Liquefaction

Seismically induced liquefaction is a phenomenon in which loose, saturated granular materials develop high porewater pressure and lose strength due to ground vibrations induced by earthquakes. Soil liquefaction can result in ground settlements and increased lateral and uplift pressures on underground structures. Buildings supported on soils that have liquefied often settle and tilt; light-weight structures may float upwards to the ground surface and foundations may displace laterally causing structural failure.

The City of San Diego Municipal Code requires an evaluation of liquefaction potential for building sites that lie within areas identified on the City of San Diego Seismic Safety Study as being susceptible to liquefaction. The City of San Diego Building Code (Section 91.02.2905) includes the criteria for a liquefaction evaluation. The Broadway Complex site lies within Geologic Hazard Category No. 31 (as identified on the City Seismic Safety Study) in which potential ground failure associated with liquefaction is considered "relatively high", and therefore a liquefaction evaluation is required by the Code.

Using information from our previous geotechnical investigation, we have made a preliminary evaluation of liquefaction susceptibility based on penetration resistance blow counts of the sampler on the technique outlined by Seed and Idriss (1982), and Section 91.02.2905 of the City of San Diego Building Code. We have converted the blow counts obtained by a Modified California Sampler to corrected blow count values $(N_1)_{60}$ by using the appropriate correction factors for the type of sampler used, the influence of overburden pressure, drill rod length, and grain size. The Seed and Idriss analysis method evaluates susceptibility to liquefaction using empirical relationships between the corrected blow count values and the stress conditions for a design peak ground acceleration and earthquake magnitude. Section 91.02.2905 (g) in the Building Code specifies that liquefaction susceptibility analyses be performed using a minimum Magnitude 6 earthquake with a peak ground acceleration of approximately 0.19 g and 0.23 g for structures with occupancy

importance factors⁴ of 1.0 and 1.25, respectively. For this evaluation, it was assumed that either occupancy importance factor may apply to the site.

The results of our analysis are presented in Figure 7. Blow counts for the hydraulic fill soils above the water table at the time of drilling are not presented. Critical blow count values $(N_1)_{60}$ falling to the left of lines of calculated critical values $(N_1)_c$ for peak ground accelerations of 0.19 g and 0.23 g indicate soils that are potentially liquefiable under the assumed conditions. Figure 7 indicates that approximately 45 percent of the granular hydraulic fill, bay deposits and Bay Point formation between elevations of approximately +3 feet and -30 feet MSL are equal to or smaller than the $(N_1)_c$ values for a peak ground acceleration of 0.19 g. It is our opinion that the relatively denser and/or more cohesive soils of the Bay Point Formation below -15 feet have a low potential for liquefaction, so as not to constitute a potential liquefaction hazard.

The potentially liquefiable bay deposits underlie the entire site with a general thickening of the layer to the south. The consequences of liquefaction, should it occur at this site, probably would be manifested in the form of localized sand boils, differential ground settlements and increased lateral earth pressures on retaining structures. Based on the analyses by Tokimatsu and Seed (1987), we estimate that the total and differential settlements on the order of perhaps 2 to 7 inches could occur during the seismic ground shaking associated with the San Diego Building Code. A more severe earthquake could produce more extensive liquefaction.

3.3.1 Remedial Measures

Because of the potential for liquefaction at the site, we recommend that deep pile foundations, or structural mats designed for the anticipated settlements, be used to mitigate or reduce potential structural damages to buildings.

⁴ Occupancy importance factors are defined in the Uniform Building Code. Any building where the primary occupancy is for assembly use for more than 300 persons (in one room) has an importance factor of 1.25; all others are 1.0 except for essential facilities which are 1.5.

Quay wall failure in the event of liquefaction is possible. The effects of a failure would be lateral spreading and settlement of the soil contained behind the existing quay wall which would result in disruption of local street and rail traffic and damage to below ground utilities. The zone of impact could extend for several hundred feet behind the quay wall. To mitigate the potential damages due to quay wall failure, the quay wall design should be reviewed and modified or reconstructed as necessary to withstand effects of liquefaction and ground motion associated with a design earthquake.

3.4 Tsunamis/Seiches

A tsunami is a sea wave generated by a submarine earthquake, landslide or volcanic action which travels over the ocean. Earthquakes generated either locally or at great distances are considered to be the primary mechanisms capable of generating a tsunami. A seiche is an earthquake-induced wave in a confined body of water such as San Diego Bay. Hazards from tsunami and seiche inundation in the San Diego Bay area are difficult to assess because of the relatively short historical record and the lack of detailed studies in the subject area.

Tsunamis travel across the ocean as a powerful wave up to 50 miles long, 1 to 2 feet high, and at speeds up to 500 mile per hour. As the tsunami waves approach the coastline, the shallow bottom topography and configuration of the coastline can transform the waves into very high and potentially damaging waves and strong currents. Most damaging tsunamis are associated with vertical tectonic displacements and earthquakes with a magnitude of 6.4 or greater (Iida, 1963). The threat to San Diego of tsunamis generated from remote earthquakes appears to be minor since the offshore topography of Southern California would act as a diffuser and reflector (Joy, 1968). The primary horizontal movement of the local offshore faults minimizes the potential for a locally generated tsunami. Houston and Garcia (1978) predicted that the inner San Diego Bay would be protected by the shoaling effect of the local coastline. The San Diego Coast Regional Commission (1974) presented an opposing view by stating that the offshore area is insufficiently studied to make statements on the configuration of the bay.

Historical data from the past 170 years indicates that wave heights and run-up elevations experienced along the Southern California coast as a result of distant tsunamis have fallen within the normal range of the tides (Joy, 1968). Five of the greatest tsunamis representing all of the major generating zones of the Pacific produced minimal or no damage along the San Diego coastline. Only two or three tsunamis generated off of Southern California have been recorded and all were barely noticeable in San Diego. The largest recorded tsunami to reach San Diego was caused by the 1960 earthquake in Southern Chile and measured at 4.6 feet in height. Recorded tsunamis that produced waves at San Diego greater than one foot is presented in Table 3. Houston and Garcia (1974) estimate the 100-year and 500-year runup from tsunamis as being 7.4 feet and 14.5 feet (above Mean Sea Level), respectively, for the San Diego Bay area near the Broadway Complex.

There has been no reported occurrence of significant seiches within the San Diego area. Strong, local earthquakes on the Rose Canyon fault or Coronado Bank fault zone could produce a seiche with significant run-up and unusually high water levels.

3.4.1 Remedial Measures

The hazard from tsunamis and seiches in San Diego Bay is considered low. To our knowledge, coastal structures in and around San Diego Bay do not include design considerations for tsunamis nor seiches. An extreme tsunami or seiche resulting from a strong local earthquake could damage existing coastal facilities and also result in strong currents and/or waves overtopping quay walls with some associated flooding. However, these possible events are not likely to produce substantial damage to facilities located several hundred feet back from the shoreline. Therefore, special design considerations for tsunamis or seiches do not appear warranted for the Navy Broadway Complex.

4.0 GEOTECHNICAL CONSIDERATIONS

Preliminary foundation alternatives were evaluated in our previous geotechnical investigation for the Broadway Complex. In the following paragraphs we present an updated discussion of possible foundation types and dewatering.

4.1 Soil Conditions and Subsurface Construction Options

The existing ground surface at the site is relatively flat with surface elevations +9 to +12 feet (MSL). The groundwater levels at the site are tidally influenced, but typically are in the elevation range of 1/2 to 2 1/2 feet above MSL Datum. The soil profile typically consists of fill over bay deposits over Pleistocene marine terrace materials. The Pleistocene materials are competent bearing material for deep foundations or shallow footings. This bearing strata is typically encountered at elevation of -10 to -15 feet MSL. The overlying materials are potentially liquefiable and moderately compressible, but have and are supporting one- and two-story structures.

Construction of a single level below grade can probably be accomplished with little or no dewatering, with support of the buildings on pilings and use of a structural floor system. Construction of two levels below grade will require construction dewatering, pile foundations and structural floor system to support building loads and to resist uplift water forces on the order of 7 to 10 feet. Waterproofing of floors and walls will be required. It will probably take a 3 level below grade structure to completely penetrate all loose compressible and liquefiable soil. At this depth and at greater depths, dewatering will be needed during construction and a very strong mat or structural floor system will be required to resist 16 to 20 feet of uplift force. Waterproofing of walls and floor will be required.

We have prepared an order-of-magnitude estimate relative to cost differences for various foundation treatments. At depths of one and two levels below grade, the pile foundations and structural floor slab costs are probably roughly equivalent to a hydrostatic mat (assuming a five or six level structure and basement floor slab good for 500 psf loading). At a depth of three levels below grade (where bearing capacity of the soils is sufficient to support the structure on spread footings and could permit use of a 6-inch thick, unreinforced floor slab) the hydrostatic mat is on the order of 6 to 7 times more expensive than the cost of spread footings, a floor slab, and the capital cost of installing a permanent dewatering system.

4.2 Dewatering

As discussed above, construction of two levels below grade will require dewatering for construction purposes. However, permanent dewatering systems with discharges to San Diego Bay are no longer allowable. Temporary dewatering for construction purposes could also potentially impact adjacent off-site areas. Therefore the effects of construction dewatering should be limited to on-site areas as closely as possible. Based on our experience on previous projects along and near the bay, the following are general considerations and possible options for construction dewatering:

- Deep wells have been used on similar sites to do construction dewatering and appear feasible for the Broadway Complex site.
- It may be possible to use well points and ground sumps and/or pumps for localized areas which could reduce potential off-site impacts.
- Some groundwater contamination is known at nearby areas. Any encountered contaminated groundwater would require treatment of water removed.
- A perimeter cutoff with slurry wall would significantly reduce inflow to dewatering system. It appears possible to use sheetpile to shore excavations and to provide perimeter cutoff of groundwater on a temporary basis (i.e. during construction). The sheetpiles need to be driven deep and the interlocks grouted.
- ReInjection wells to put groundwater back into ground and maintain groundwater levels around the outside of the construction area was only marginally successful at other sites along the bayfront. If this method is proposed to mitigate potential consolidation settlement at nearby sites, the design, construction and generation of reinjection wells needs careful attention and special expertise.

4.3 Permitting

4.3.1 Dewatering Discharge During Construction

On April 23, 1990 the Regional Water Quality Control Board - San Diego Section (RWQCB) adopted Order Number 90-31 (Order). This Order defines the general requirements for groundwater dewatering discharges to San Diego Bay (and its tributaries). This Order also establishes a ban on all new permanent dewatering systems which would discharge to San Diego Bay. However, the Order does not prohibit construction dewatering provided specific guidelines and requirements of the Order are complied with.

New construction projects which require dewatering will be required to submit an application to the RWQCB requesting authorization for discharge under authority of the National Pollution Discharge Elimination System (NPDES) Permit No. CA0108707. The application is to be prepared in the form of a letter, specifically addressing each item presented in RWQCB Order No. 90-31. In brief, the Order requires the applicant to comply with the following:

- Acknowledgement that the specific discharge prohibitions will be complied with;
- Development of a treatment system, or adequately demonstrate compliance with specific discharge effluent limitations;
- Adequate justification supporting compliance with limitations (water quality objectives) on impact and affect to receiving waters;
- Acknowledgment of specific provisions in the Order with a statement of compliance to achieve those provisions (i.e., by-pass conditions, upset conditions, documentation, etc.);
- A program to fulfill specified monitoring and reporting requirements; and

- A letter signed by a licensed engineer certifying the adequacy of the treatment system to achieve compliance with the Order, including required manuals, contingency plans, and monitoring programs.

Subsequent to submittal of the above described applications, RWQCB staff will review the information for its completeness relative to the Order and if satisfactory, staff will issue a letter authorizing discharge of groundwater for a specific construction period. Factors important to receipt of the authorization letter include the following:

- Maximum groundwater discharge flowrate;
- Accurate estimate of dewatering period (length of time);
- Certification that contaminant mass loads⁵ will comply with the Ocean Plan and the San Diego Basin Plan; and
- Reasonable, practicable contingency plans.

Based on Woodward-Clyde Consultant's experience (San Diego Convention Center), a project of this size (approximately 16 acres) and proximity to the bayfront may require at or near 250 gallons per minute of groundwater discharge for each of the 4 city blocks to adequately dewater the area during construction.

4.3.2 Soil Removal

Excavation and removal of soil could be addressed by the excavation contractor in two phases. As necessary, Phase I would address those areas contaminated with hazardous and/or petroleum hydrocarbon waste material. If soil is found at this site contaminated with hazardous materials (i.e., RCRA listed or characteristic waste material as defined in the Code of Federal Regulations, Chapter 40, Subpart C & D and/or California Waste identified in the California Code of Regulations, Title 22), the soil must be treated to meet

⁵ A contaminant mass load is equivalent to the actual cumulative mass of contaminant being discharged per unit time (i.e., pounds of petroleum hydrocarbons per 24 hours).

current Federal and State and disposal requirements and disposed of at an appropriately licensed landfill. If the soil is contaminated with petroleum hydrocarbons, the excavation contractor may select one of several alternatives, including the following:

- Bioremediate the petroleum hydrocarbon contamination under approval from the County Department of Health Services (CDOHS) and dispose off-site at a landfill whose operator has been informed of the nature of the contamination and the resultant characteristics of the treated soil;
- Arrange for other suitable CDOHS approved on-site treatment and off-site disposal;
- Contract for off-site treatment and disposal with a licensed treatment facility.

Phase II soil removal would address non-contaminated soil. The excavation contractor would be required to identify off-site users of excavated soils and arrange for processing (spreading out the material for sun-drying, mechanical discing and/or other appropriate soil processing techniques) prior to alternative use. Phase II may not require CDPHS approval, rather it is dependant on the requirements of those parties purchasing and/or accepting the fill material.

5.0 REFERENCES

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TABLE 1

ABRIDGED MODIFIED MERCALLI INTENSITY SCALE
INTENSITY VALUE AND DESCRIPTION*

- I) Not felt except by a few under especially favorable circumstances. (I Rossi-Forel Scale).
- II) Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing. (I to II Rossi-Forel Scale).
- III) Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibration like passing of truck. Duration estimated. (III Rossi-Forel Scale).
- IV) During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably. (IV to V Rossi-Forel Scale).
- V) Felt by nearly everyone, many awakened. Some dishes, windows, and so on broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop. (I Rossi-Forel Scale).
- VI) Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster and damaged chimneys. Damage slight. (VI to VII Rossi-Forel Scale).
- VII) Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars. (VIII Rossi-Forel Scale).
- VIII) Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving cars disturbed. (VIII+ to IX Rossi-Forel Scale).
- IX) Damage considerable in specially designed structures; well designed frame structures thrown out of plumb; damage great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken. (IX+ Rossi-Forel Scale).

* Wood and Neumann, 1931.

- X) Some well built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks. (X Rossi-Forel Scale).
- XI) Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
- XII) Damage total. Waves seen on ground surface. Lines of sight and level distorted. Objects thrown into the air.

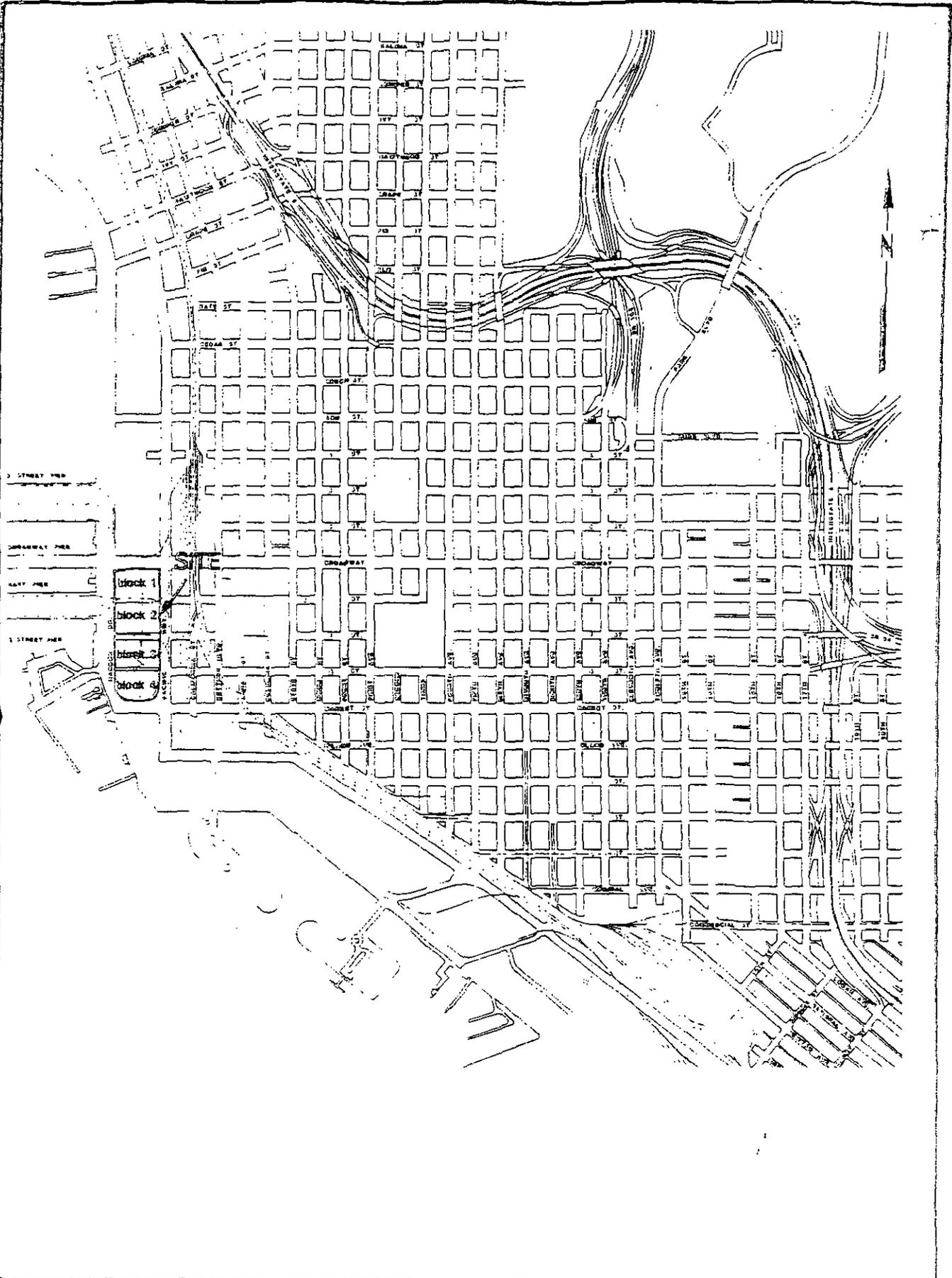
TABLE 2
SEISMIC SOURCES SUMMARY

Source Name	Primary Displacement	Estimated Length, miles	Closest Distance From Site, miles	Slip Rate mm/yr	Estimated Maximum Magnitude
Rose Canyon	Strike-Slip and Oblique	50	0.5 - 1.0	1.2-1.9	7
La Nacion	Normal	16	7	0.05	6 1/2
Coronado Bank	Strike-Slip	156	13	3.0	7 3/4
San Diego Trough	Strike-Slip	156	24	1.0	7 1/2
SCOZD	Strike-Slip	43		0.5	7
Elsinore	Strike-Slip	194	41	5.0	7 1/2
San Jacinto	Strike-Slip	160	60	8.0	7 1/2
San Andreas (South Segment)	Strike-Slip	>200	90	25.0	8
Agua Blanca	Strike-Slip	90	60	4.0-6.0	7 1/2
San Miguel	Strike-Slip	60	90	0.5-2.0	7

TABLE 3
TSUNAMIS RECORDED AT SAN DIEGO

Earthquake Magnitude	Date	Epicenter	Approximate Height at San Diego
(?)	Aug. 13, 1868	N. Chile; So. Peru	1.0 ft.
8.3	Nov. 10, 1922	Atacama, No. Chile	1.3 ft.
8.3	Feb. 4, 1923	Kamchatka	1.3 ft.
7.4	Apr. 1, 1946	Aleutian Islands	1.3 ft.
8.25	Nov. 5, 1952	Kamchatka	2.3 ft.
8.0-8.5	Mar. 9, 1957	Aleutian Islands	1.5 ft.
8.25-8.5	May 22, 1960	So. Chile	4.6 ft.
8.4	Mar. 27, 1964	Alaska	3.7 ft.

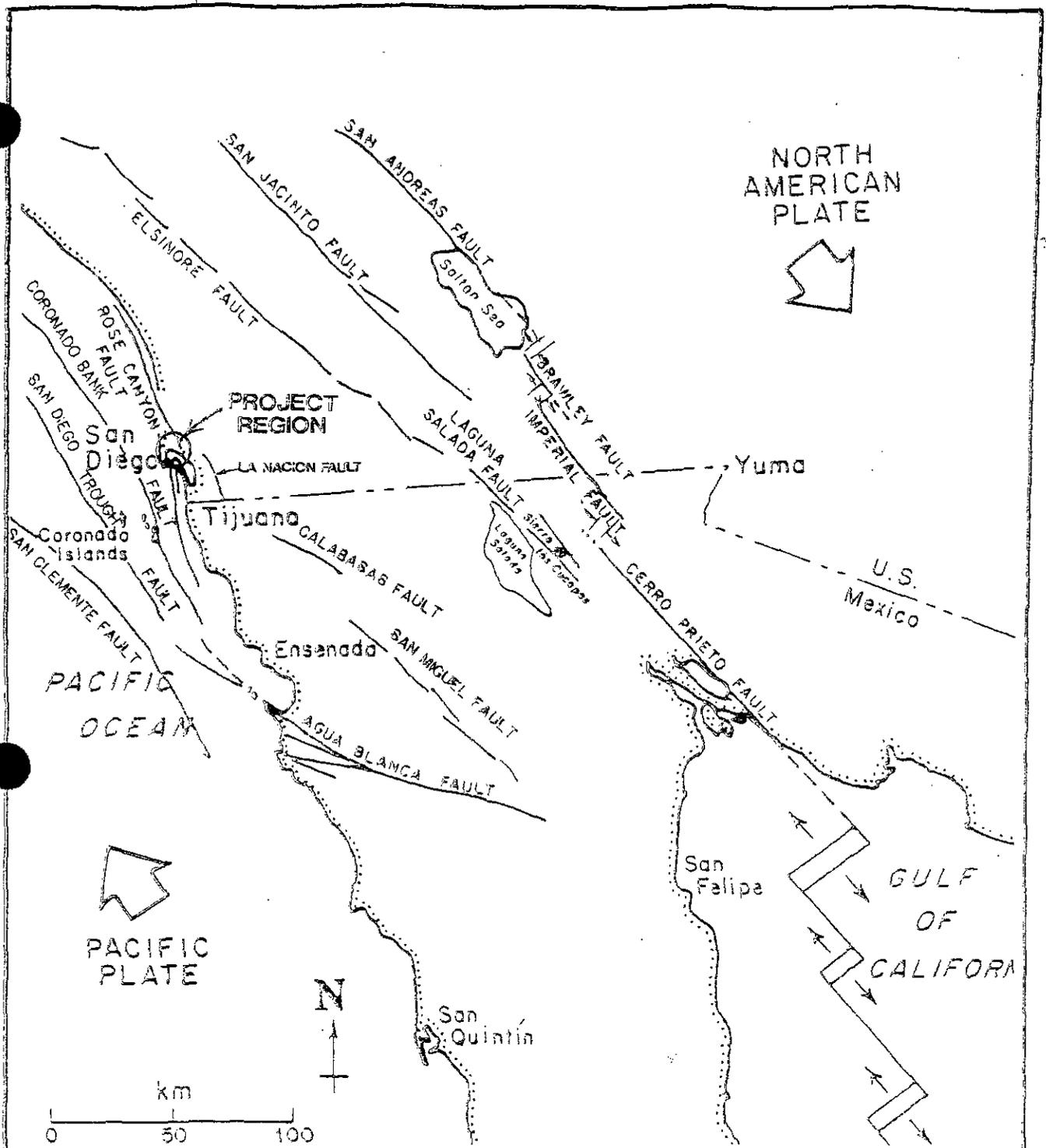
Source: Joy, 1968



VICINITY MAP
NAVY BROADWAY COMPLEX

DRAWN BY: <i>cm</i>	CHECKED BY: <i>ds</i>	PROJECT NO: 9051207D-GE01	DATE: 8-24-90	FIGURE NO: 1
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WOODWARD-CLYDE CONSULTANTS



(Modified after Brune and Simons, 1979)

GENERALIZED REGIONAL FAULT MAP
NAVY BROADWAY COMPLEX

DRAWN BY: cb	CHECKED BY: LA	PROJECT NO. 9051207D-GEO1	DATE: 8-24-90	FIGURE NO: 2
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WOODWARD-CLYDE CONSULTANTS

The earthquake data are from California Division of Mines and Geology
 Pre-1900 and 1900-1974 files and California Institute of Technology
 1975-June 1985 file. Base fault map compiled by CDMG and UCSD (1984)

SCALE: 1" = approximately 12 miles
 1cm = 7.5 km

PROJECT REGION

MAGNITUDES

	- 3.0
	- 4.0
	- 5.0
	- 6.0
	- 7.0
	- 8.0

REGIONAL FAULT AND EARTHQUAKE
 EPICENTER MAP

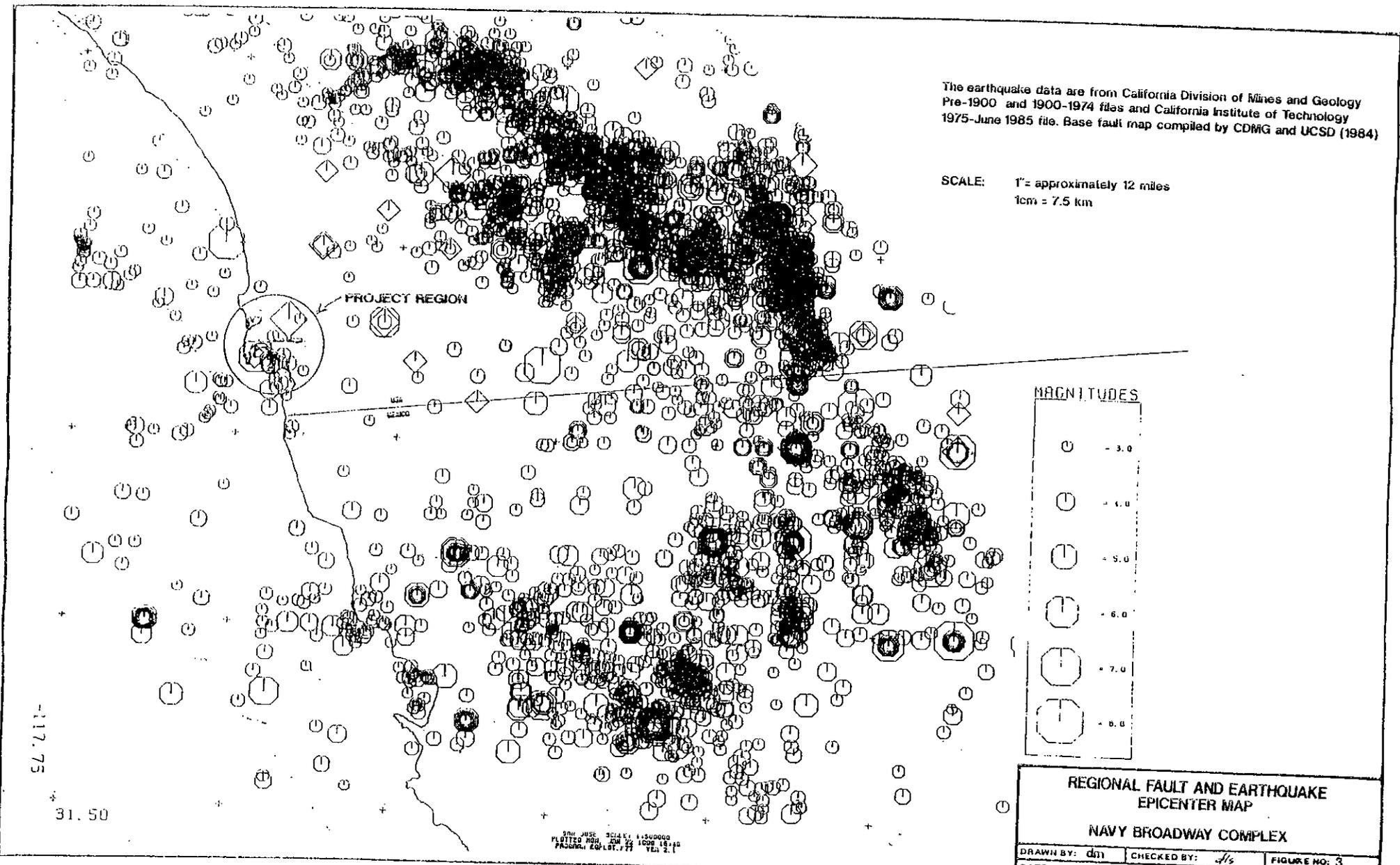
NAVY BROADWAY COMPLEX

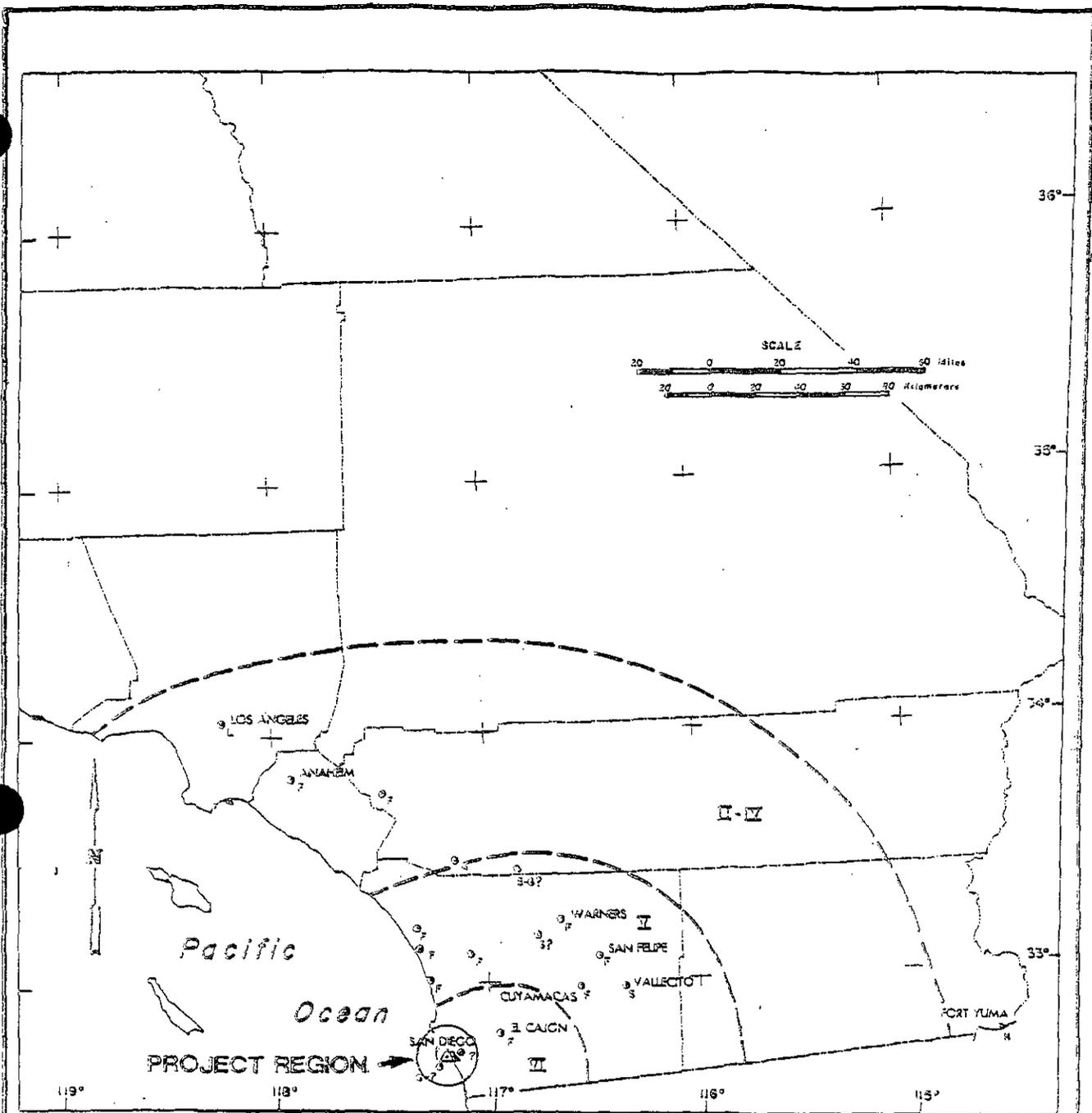
DRAWN BY: dm	CHECKED BY: J/S	FIGURE NO: 3
DATE: 8-24-90	PROJECT NO: 9051207D-GE01	

WOODWARD-CLYDE CONSULTANTS

SINUS JOSE SCALE: 1:500000
 PLOTTED BY: JIM W 1000 10-88
 PROGRAM: EQLST.J77 TEL: 2.1

-117.75
 31.50





- ₅ Site reporting intensity 5 effects
 - _N Reported not felt
 - Ⅴ Zone of intensity 5 effects
 - △ Estimated epicenter
 - _F Felt
 - _L Light
 - _H Heavy
 - _S Severe
- } Indeterminate intensity

----- Smoothed isoseismal line, dashed where data is lacking

From: Toppozada and others, 1981

**MODIFIED MERCALLI ISOSEISMAL MAP
1862 EARTHQUAKE
NAVY BROADWAY COMPLEX**

DRAWN BY: cb CHECKED BY: [Signature] PROJECT NO: 9051207D-GE01 DATE: 8-20-90 FIGURE NO: 4

WOODWARD-CLYDE CONSULTANTS

LEGEND:

- Faults: dashed where location uncertain dotted where inferred
- Faults inferred to be principal strands of Rose Canyon Fault Zone

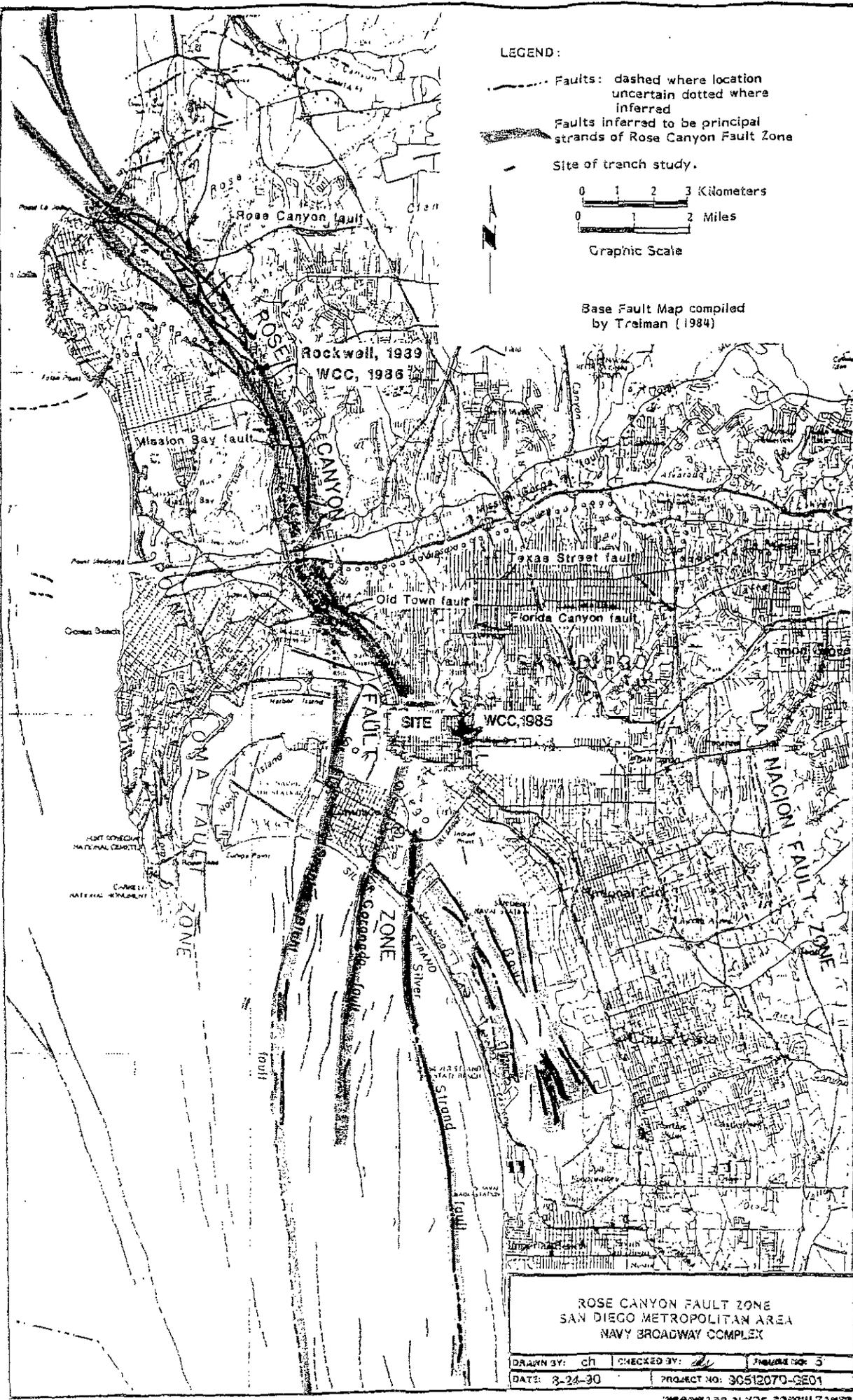
Site of trench study.

0 1 2 3 Kilometers

0 1 2 Miles

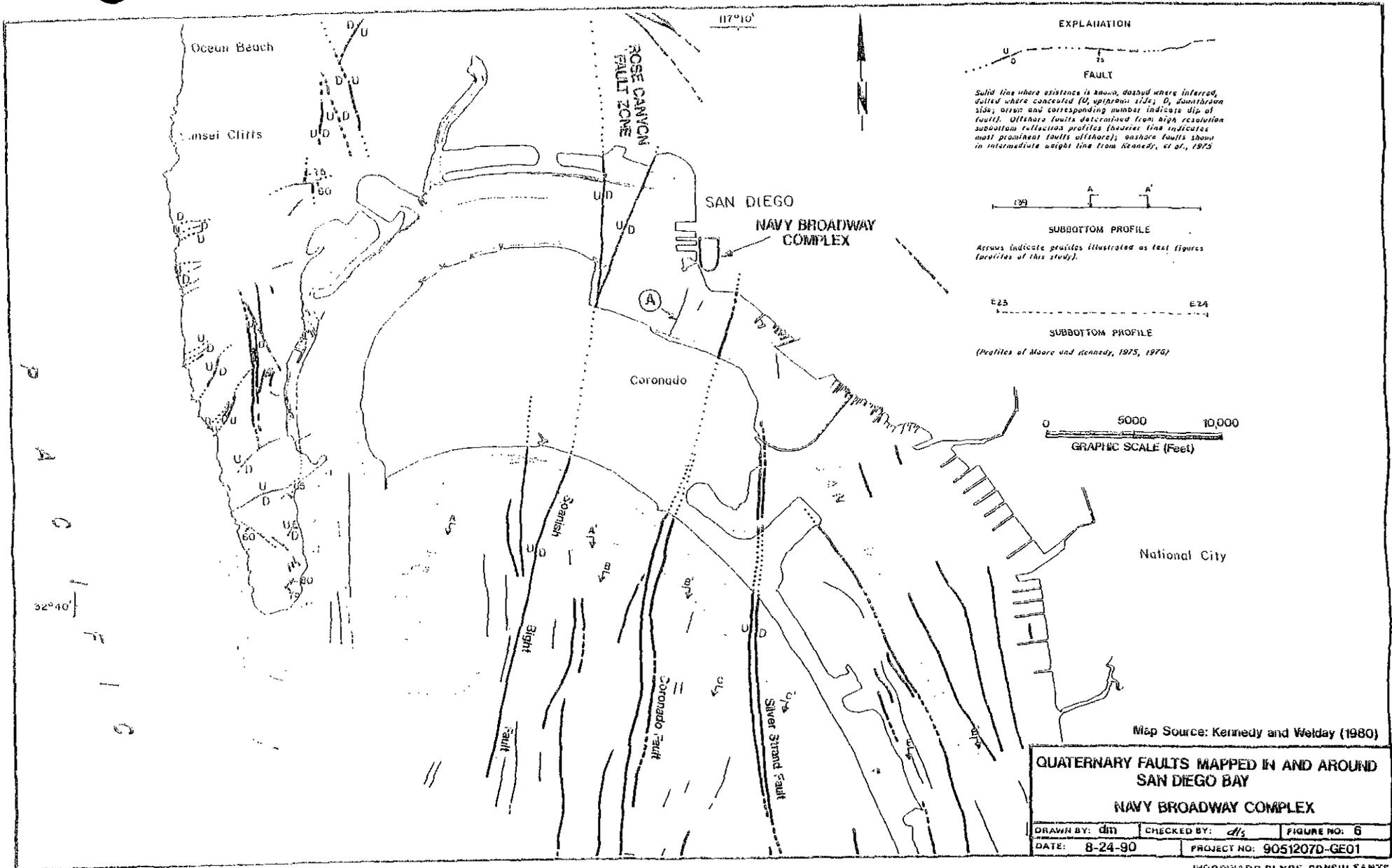
Graphic Scale

Base Fault Map compiled by Treiman (1984)



ROSE CANYON FAULT ZONE
 SAN DIEGO METROPOLITAN AREA
 NAVY BROADWAY COMPLEX

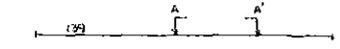
DRAWN BY: ch CHECKED BY: [Signature] FIGURE NO: 3
 DATE: 8-24-90 PROJECT NO: 30512070-GE01



EXPLANATION

FAULT

Solid line where existence is known, dashed where inferred, dotted where concealed (U, upthrown side; D, downthrown side); arrow and corresponding number indicate dip of fault). Offshore faults determined from high resolution subbottom reflection profiles (Source: line indicates most prominent faults offshore); offshore faults shown in intermediate weight line from Kennedy, et al., 1975



SUBBOTTOM PROFILE

Arrows indicate profiles illustrated as text figures (profiles of this study).



SUBBOTTOM PROFILE

(Profiles of Moore and Kennedy, 1975, 1976)



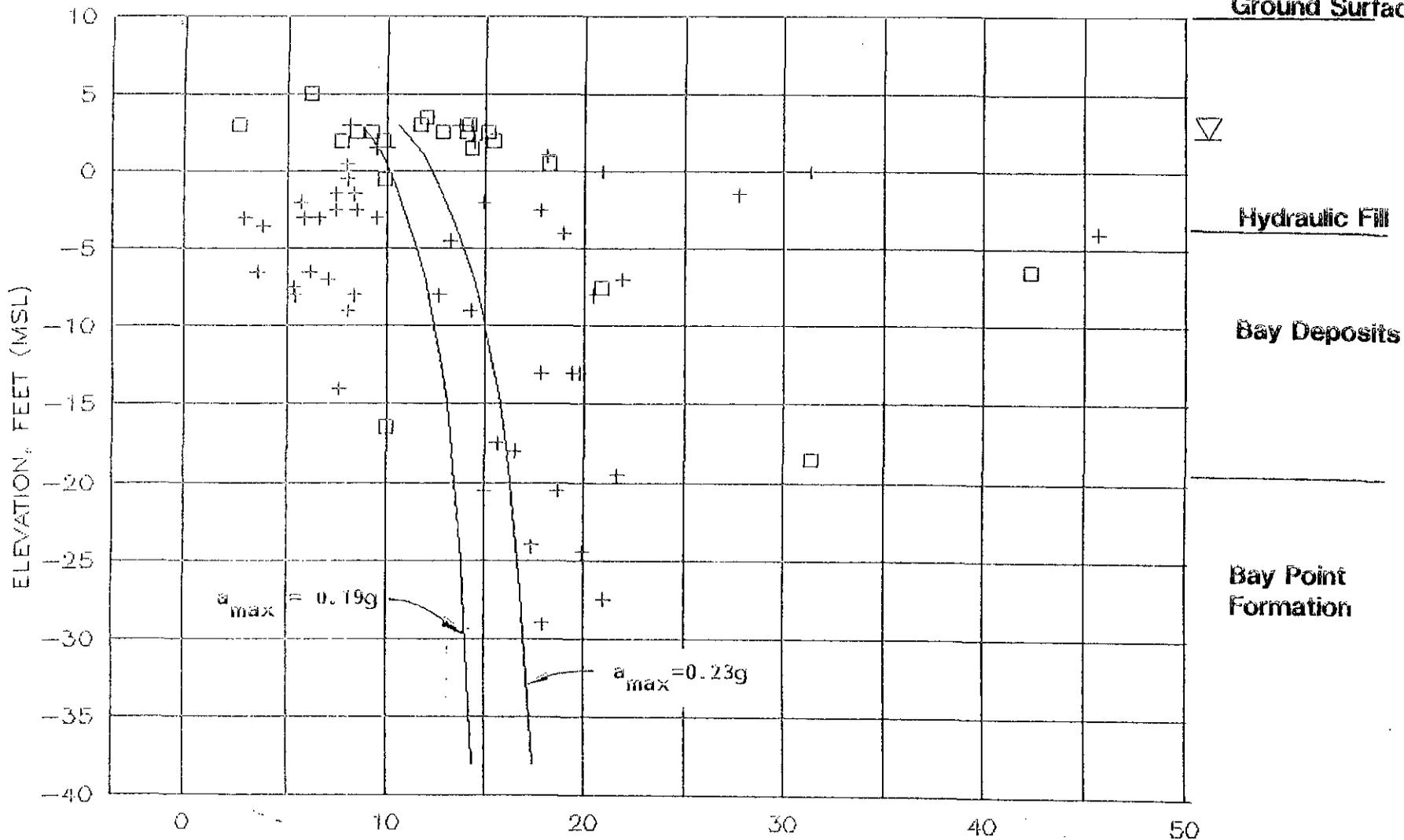
Map Source: Kennedy and Welday (1980)

**QUATERNARY FAULTS MAPPED IN AND AROUND
 SAN DIEGO BAY
 NAVY BROADWAY COMPLEX**

DRAWN BY: dm	CHECKED BY: ds	FIGURE NO: 6
DATE: 8-24-90	PROJECT NO: 9051207D-GE01	

WOODWARD-CLYDE CONSULTANTS

TYPICAL GEOTECHNICAL
PROFILE
Ground Surface



LEGEND:

SOIL TYPES

- SP, SP-SM
- + SM, SW, ML, SM-ML

CORRECTED BLOW COUNT, (N1)

(Data from geotechnical investigation by WCC, 1988)

SUMMARY OF EVALUATION OF LIQUEFACTION POTENTIAL
NAVY BROADWAY COMPLEX

DRAWN BY: cb

CHECKED BY:

PROJECT NO: 9051207D-GE01

DATE: 8-17-90

FIGURE NO: 7

SECTION 5

ADDITIONAL RECIPIENTS OF THE DRAFT AND FINAL ENVIRONMENTAL IMPACT STATEMENTS

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SECTION 6
ADDITIONAL REFERENCES

Section 4 of the appendix provides references used to prepare the additional geologic, seismic, and geotechnical studies for the project. In addition to those references, the following references were used in preparation of this appendix:

San Diego, City of. 1990. Interim Centre City San Diego Development and Design Ordinance.

San Diego, City of. 1990. Preliminary Centre City San Diego Community Plan.