STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

Tu 15a

STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	**CD-113-99**
Staff:	MPD-SF
File Date:	11/22/1999
45th Day:	Extended
60th Day:	1/21/2000
Commission Meeting:	1/11/2000

FEDERAL AGENCY: **U.S. Army Corps of Engineers**

DEVELOPMENT LOCATION: Beneath Broadway St., between Pacific Ocean and just northeast of Beach St., downtown Laguna Beach, Orange County (Exhibits 1-3).

DEVELOPMENT DESCRIPTION: Improvements to existing flood control channel, consisting of construction of 14 ft. by 10 ft. concrete box culvert (Exhibits 3-5)

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers ("Corps") proposes to improve an existing flood control channel by constructing a 14 ft. by 10 ft. concrete box culvert, located underneath Broadway St., between the Pacific Ocean and just northeast of Beach St., in downtown Laguna Beach, Orange County. Downtown Laguna Beach experiences severe flooding and extensive property damage on a recurring basis, and the improvements are needed to protect existing development in the downtown area and to accommodate increased storm flows. The project has been designed to contain a 10-year storm. The project also includes an energy dissipator at its outlet.

The downtown portion of the Laguna Canyon flood control channel has already been fully channelized. The proposed improvements would simply expand the flood flow containment capacity, and the improvements are necessary for public safety and to protect existing development in downtown Laguna Beach. Therefore the project is consistent with the Coastal Act's stream alteration policy (Section 30236). Also because the area is already channelized, the project would not affect riparian habitat, environmentally sensitive habitat, or marine resources. Therefore the project is consistent with Sections 30240 and 30230 of the Coastal Act. Marine water quality impacts will be further minimized as the Corps has incorporated agreements to include best management practices during construction to protect water quality. The project is therefore consistent with Section 30231 of the Coastal Act. The project would be underground and, except for temporary construction impacts, would not have any adverse effects on public views. Traffic and visual impacts would be minimized as the construction period would avoid the peak recreational season. The project is therefore consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. The U.S. Army Corps of Engineers (Corps) proposes to improve an existing flood control channel by constructing a 14 ft. by 10 ft. concrete box culvert, located underneath Broadway St., between the Pacific Ocean and just northeast of Beach St., in downtown Laguna Beach, Orange County. The existing flood control system, located slightly to the south, is between Broadway and Ocean Ave (Exhibit 2). Downtown Laguna Beach experiences severe flooding and extensive property damage on a recurring basis, and the improvements are needed to protect existing development in the downtown area and to accommodate anticipated storm flows.

The project has been designed to accommodate flood flows up to 2,400 cubic feet per second (cfs), which means it would contain a 10-year storm. The current channel capacity is 800 cfs at Pacific Coast Highway and 1,100 cfs at Beach St. The project also includes an energy dissipator at its outlet (Exhibit 5). The Corps describes these features in its Environmental Assessment (EA) as follows:

> *1.6 **Project Design.** Project design discharge for the alternatives is 2400 cubic feet per second (cfs)(67.9 cubic meters/second); the proposed RCB [reinforced concrete box] channel improvement for Laguna Canyon Channel is 14 ft x 10 ft (4.3m x 3.0m) ... The 2400 cfs corresponds to an approximate 10-year recurrence interval storm runoff. As part of the design, an energy dissipator will be designed to control the discharge at the outlet. In choosing a dissipator, several alternatives were analyzed. Additional design parameters were chosen to facilitate initial/control conditions. The downstream control water surface elevation used for design of the energy dissipator was minus 2.76 feet (-.84m) mean sea level (msl) which corresponds to 0.00 feet mean lower low water (mllw). The proposed (14 ft x 10 ft) RCB outlet invert elevation would be –2.46 feet*

(-.75m). The downstream tail water depth for the dissipation basin alternative was assumed to be 0.30 feet (0.09m) below the RCB outlet invert. The upstream water surface elevation was assumed to be 24.15 feet msl (7.36m) at Station 14+85.17 (4+52.68m) which is the approximate upstream end of the proposed channel improvements.

A staging area would be located on the south side of Laguna Canyon Rd., a short distance inland of the beginning of the flood control improvements (Exhibit 6). Construction would take approximately six months, and is scheduled to begin in October 2000 and last until April 2001. The City of Laguna Beach and Orange County Flood Control District will be responsible for maintaining the structure.

II. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the CCMP, it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The City of Laguna Beach's LCP has been certified by the Commission but has not been incorporated into the CCMP.

III. Federal Agency's Consistency Determination. The Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

MOTION: **I move that the Commission agree with consistency determination CD-113-99 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).**

STAFF RECOMMENDATION:

Staff recommends a ***YES*** *vote on the motion. Passage of this motion will result in an agreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.*

RESOLUTION TO AGREE WITH CONSISTENCY DETERMINATION:

The Commission hereby agrees with the consistency determination by the Corps of Engineers, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

V. Findings and Declarations:

The Commission finds and declares as follows:

A. Stream Alteration/Flood Control. Section 30236 of the Coastal Act provides that:

> *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

The Laguna Canyon watershed is about 8 sq. miles in area (approx. 5,000 acres), which is completely developed in the lower reaches (the project area), and predominantly undeveloped in its upper reaches. In recent history, Laguna Canyon has flooded approximately every 7-10 years, most recently in early 1988. Severe flooding in the downtown area occurred in 1995. Concerning the need for the project, the Corps states:

> *1.3 Purpose and Need for Proposed Action.*
>
> *Laguna Canyon Channel floods approximately every seven to ten years, on the average. The latest severe flooding of the canyon occurred in late 1997 and early 1998[, ...o]n December 6, 1997, and again on February 23, 1998. In early January, 1995, the downtown area of Laguna Beach experienced severe flooding, with runoff overtopping the channel at Beach Street and inundating City streets and parking lots to a depth of 1 to 2 feet in the project area. Despite major City and business establishment efforts at sandbagging, significant public and private property damages occurred with these storms.*
>
> *The proposed action to alleviate the flooding problems in downtown Laguna Beach is to provide interim drainage improvements to Laguna Canyon Channel from Fourth Avenue to the Pacific Ocean, and to thereby improve the overall public safety.*

Given the historic flooding in downtown Laguna Beach, which is essentially caused by the limited capacity of the lowest reach of the flood control system, the Commission agrees with the Corps that the project is necessary for public safety and to protect existing development. Turning to the next test of Section 30236, determining whether other methods for protecting existing structures in the floodplain are feasible, entails looking at alternatives. The Commission further agrees with the Corps that the extent of channelization and development in downtown Laguna Beach effectively limits the range of feasible alternatives.

Aside from the "no project" alternative, which the Corps rejected as it would not provide needed public safety improvements, the only alternatives studied by the Corps were relatively minor alignment variations. Accordingly the Corps only looked at alternatives involving construction of a reinforced concrete box (RCB) and associated improvements. The alternative alignments studied would traverse along either Broadway or Ocean Avenue (Exhibit 3). Aside from the proposed alternative, the Corps considered the following:

> ***Alternative 2, Broadway through Forest Avenue.*** *This alternative is the longest of the five channel alignments. It is similar to Alternative (1)[i.e., the proposed alternative], except that the RCB will tie in to the existing channel at Forest Avenue. This alternative consists of a single 4.267m x 3.048m (14 ft x 10 ft) RCB along the center of Broadway Avenue with a transition back to the existing channel through City-owned property north of Forest Avenue. This alternative is the only channel alignment requiring a third bend; the other four can be connected to the existing channel utilizing two bends. The extra bend is necessary to maintain the channel alignment within the street right-of-way along Broadway Avenue. The total length of the proposed improvements is 615.8 meters (2,020 feet). Since the proposed improvement transition back to the existing channel is through City-owned property, no right-of-way acquisition is required; however, by being the longest channel, it also is the most costly, and is therefore eliminated from further consideration in the EA.*
>
> ***Alternative 3, Broadway with 90-Degree Bends.*** *This alternative alignment is the same as Alternative (2) above, except that the RCB would tie in to the existing channel at Beach Street. This alternative would also require the use of two 90° bends (one at Broadway and one along the existing channel alignment). However, review of the Corps memorandum for the record (MFR) dated 4 October 1999 (see* ***Appendix B*** *[of the EA][ ), states that there are too many hydraulic uncertainties that related to the 90-degree bends. Further, it states that although model studies may provide better details, they would be costly, and there still may be*

unforeseen hydraulic complications. As a result, the study team collectively decided not to pursue alternative (3) and (4) in National Economic Development (NED) plan. Therefore, this alternative will not be further evaluated in this EA.

Alternative 4, Ocean Avenue with 90 Degree Bends. *For this alternative, the channel route would be along Ocean Avenue instead of Broadway Avenue. This alternative alignment would consist of constructing 328.7 meters (1,078 feet) of a double 3.048m x 3.048m (10 ft x 10 ft) RCB. 90-degree bends would be constructed to transition the RCB from Ocean Avenue to Beach Street and then to join the existing channel. Approximately 40.85 square meters (440 ft^2) of right-of-way would need to be acquired from the parcel on the north side of Beach Street and east of the channel to accommodate the curves. Extensive shoring is required to protect the building on the west side of the channel (north of Beach Street), since the improvements would be constructed immediately adjacent to the structure. Also, like alternative (3) above, this alternative would produce too many hydraulic uncertainties related to the 90-degree bends and prove to be costly. As a result, the study team collectively decided not to pursue alternative (3) and (4) in National Economic Development (NED) plan. Therefore, this alternative will not be further evaluated in this EA.*

Alternative 5, Ocean Avenue through Parking Lot. *This alternative alignment is the same as alternative (4) above, except that the RCB would angle under the Wild Oats Market parking lot and tie in to the existing channel at Beach Street, alleviating the need for any 90° bends. The proposed improvements consist of 316.0 meters (1,037 ft) of a double 3.048-m x 3.048-m (10 ft x 10 ft) RCB. This alternative would require 823.8 square meter (8,868 ft^2) of additional right-of-way through a parking lot, thereby making this alternative very costly. Therefore, this alternative will not be further evaluated in this EA.*

Given the extent of development in the lower reaches and downtown area, and for the reasons discussed above given by the Corps concerning the design and cost detriments of the other structural alternatives analyzed, the Commission agrees with the Corps that the project is the least environmentally damaging feasible alternative. Finally, as discussed in the following section, mitigation measures have been provided which enable the Commission to find that the "best feasible mitigation measures" test of Section 30236 has been met. The Commission concludes that the project meets the requirements of and is consistent with Section 30236 of the Coastal Act.

B. Water Quality/Environmentally Sensitive Habitat/Marine Resources. The Coastal Act provides:

> *Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*
>
> *Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment....*
>
> *Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.*

Addressing sensitive habitat and marine resources, the Corps states:

> ***4.4 Biological Resources.*** *Impacts of the proposed action on biological resources would be minor.*
>
> *The proposed action is not expected to affect biological resources upstream of the proposed modifications. Possible effects on terrestrial biological life in the proposed project area would occur only for the Alternative (2). This would involve inundation and possible clearing of riparian and possibly other natural habitats. Much of the area adjacent to the channel could be disturbed. This alternative has been eliminated from further evaluation.*
>
> *Intertidal and subtidal biological resources could be affected in the event of relocation and increased capacity of the channel outlet. Channel outlet relocation would transfer the output of fresh water approximately 145 feet*

northwest (Broadway Avenue outfall alternatives, including proposed Action) or southeast (Ocean Avenue outfall alternatives) along the shore. Construction may have minor impacts to intertidal organisms such as burrowing invertebrates, shore birds, and gulls. However, the effect on birds would probably be minimal since Main Beach is not nesting ground for any avian species, and the large degree of human activity would preclude high levels of feeding activity except at night and in the early morning.

A relocated freshwater plume with higher volume could impact offshore (subtidal) rocky reef or sandy bottom benthic organisms and fish, primarily during storm events when a freshwater plume might extend out from the beach. A freshwater plume would either cause organisms to move away from the area or directly cause mortality for some organisms unable to relocate or tolerate the temporary inflow of fresh water (i.e. many benthic invertebrates); however, the area affected by the existing outfall would no longer be subject to the fresh water inflow. Since rocky reef habitat is not found within at least 200 feet of shore, no impact to the more valuable rocky reef habitat and associated organisms is anticipated. Although the outfall for the proposed action would be approximately 145 feet closer to the visible rocky reef habitat located at the northwest end of Main Beach, this habitat is still at least 850 feet up the coast and beyond the influence of the fresh water outfall. Increased sedimentation during and after construction could affect sandy bottom habitat, primarily by burial and interference with filter feeding of sessile invertebrates such as clams and worms. The impact would not be significantly greater than that which occurs under existing conditions.

The proposed action would have little or no effect on marine mammals either migrating up or down the coast or otherwise swimming in the offshore waters.

Threatened and Endangered Species. The proposed action would not affect any species listed or proposed as Threatened or Endangered under the Federal Endangered Species Act. Although the brown pelican is found in the project area, the project would not affect the ability of this species to fly over the site, to feed offshore, or to perch on existing structures.

Because the area is already channelized, the project would not adversely affect riparian habitat or any other environmentally sensitive habitat, or marine resources. Therefore the project is consistent with Sections 30240 and 30230 of the Coastal Act. Marine water quality impacts

will be further minimized as the Corps has incorporated agreements to include best management practices (BMPs) during construction to protect water quality. Addressing this issue, the Corps states:

> *4.2 **Water Resources.** It is anticipated that the proposed project will have no long-term impacts on water resources in the project area. Although it is anticipated that construction sedimentation in storm runoff to the ocean would increase, significant changes to water quality impacts are not anticipated. Any increased sedimentation would occur only during storm events. Secondly, it is anticipated that increased sediments would settle over time, eventually returning ocean water to existing conditions. Therefore, given the relatively short duration of the project construction and the recommended measures in the City's EIR to mitigate the anticipated impacts, these items are reduced to a level of insignificance after mitigation.*
>
> *Construction of the improved flood control channel will serve to alleviate flood problems in downtown Laguna Beach, but it will not reduce available sources of groundwater or alter natural patterns of drainage further up in the watershed. Furthermore, flooding causes water to pick up additional pollutants from submerged streets and parking lots as it passes to the ocean. This represents an additional pollutant input into the ocean. This effect would be eliminated or reduced by containing floodwaters within the proposed box culvert.*
>
> *No 401 permit is necessary because the proposed alternatives do not affect any new habitat nor cause a significant degradation in current water quality.*
>
> *No long-term impacts are anticipated after the channel completion. During operations of the proposed project, overall water quality of runoff discharged from the proposed channel would be similar to water quality for the existing channel.*

In addition, at the request of the Commission staff, that the Corps has agreed that, prior to commencement of construction, it will submit the following plans for Commission staff review and approval to ensure that appropriate BMPs will be implemented: (1) an erosion and sediment control plan for the construction phase; and (2) a chemical control plan for the construction phase. With these commitments, the Commission finds the project's water quality impacts will be minimized and that the project is consistent with Section 30231 of the Coastal Act.

C. Public Access and Recreation. Section 30210 of the Coastal Act provides, in part, that:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30212 provides:

> *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*
>
> *(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,*
>
> *(2) adequate access exists nearby, or,*
>
> *(3) agriculture would be adversely affected. ...*

Laguna Beach is an extremely popular visitor destination area, which receives serious traffic congestion during summer months. The Corps has committed to undertaking the project construction during a time of year that would avoid adverse impacts on peak period summer recreational traffic and would minimize impacts on visitor serving establishments along Broadway Ave. Pacific Coast Highway will remain open during construction, and at least two lanes of Broadway Ave. will remain open during construction, thereby further minimizing traffic disruption on recreational routes. The flood control structure will be completely buried under the sand during summer months and will thus not affect beach use during peak periods (Exhibit 7). Finally, for construction activities in the beach area seaward of Pacific Coast Highway, again the construction period minimizes adverse effects by avoiding the peak summer season. The Commission therefore finds the project consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

VI. SUBSTANTIVE FILE DOCUMENTS:

1. Draft Environmental Assessment/Initial Study and Finding of No Significant Impact (FONSI), Laguna Canyon Channel Improvements, Section 205, City of Laguna Beach, Orange County, California, U.S. Army Corps of Engineers, November 1999.

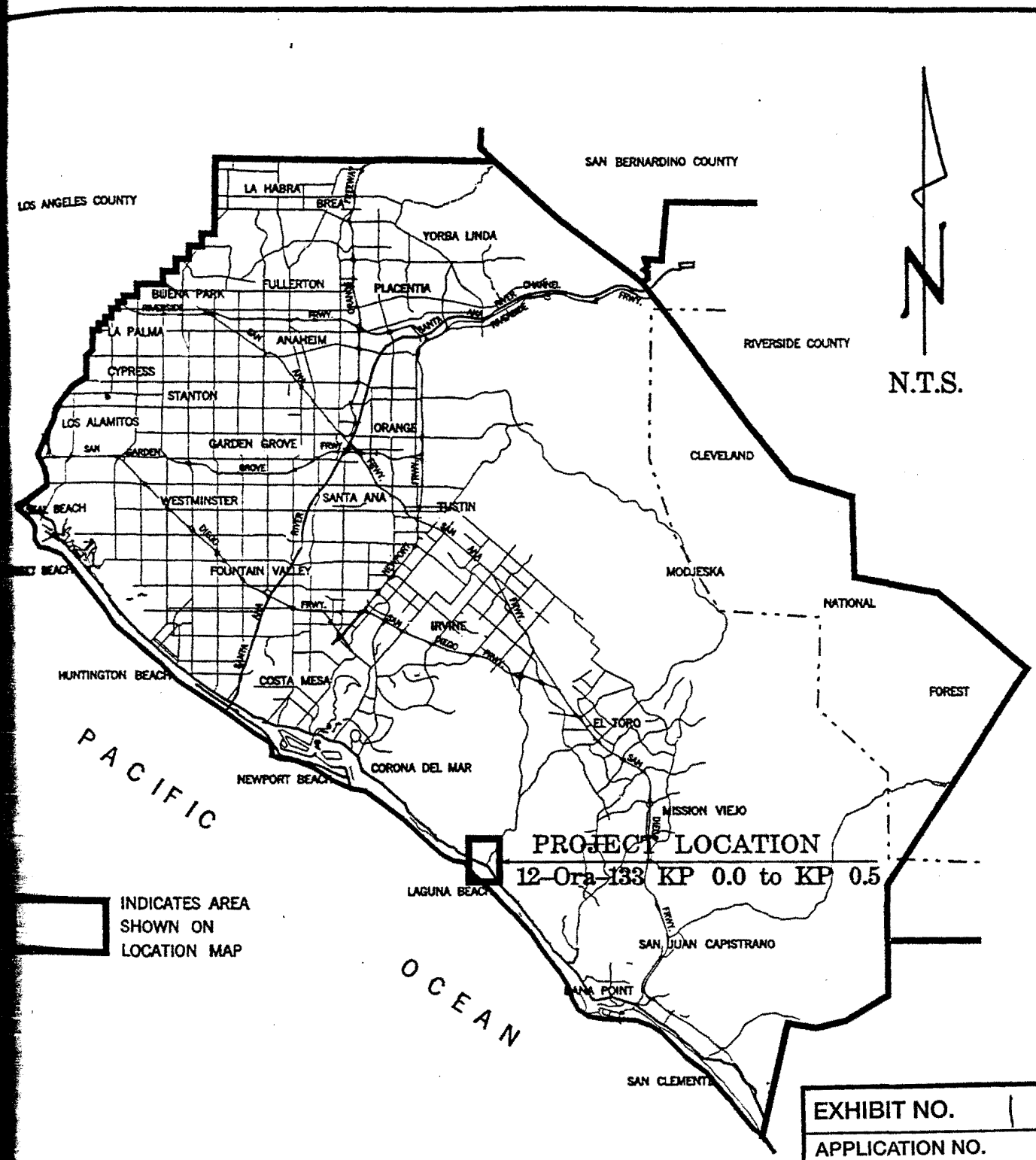


EXHIBIT NO.	1
APPLICATION NO.	
CD-113-99	

VICINITY MAP

Improvements on Rte. 133
From Rte. 1 to Forest Ave.
12-Ora-133 KP 0.0 to 0.5

SCALE N.T.S.	SURVEYED	DRAWN

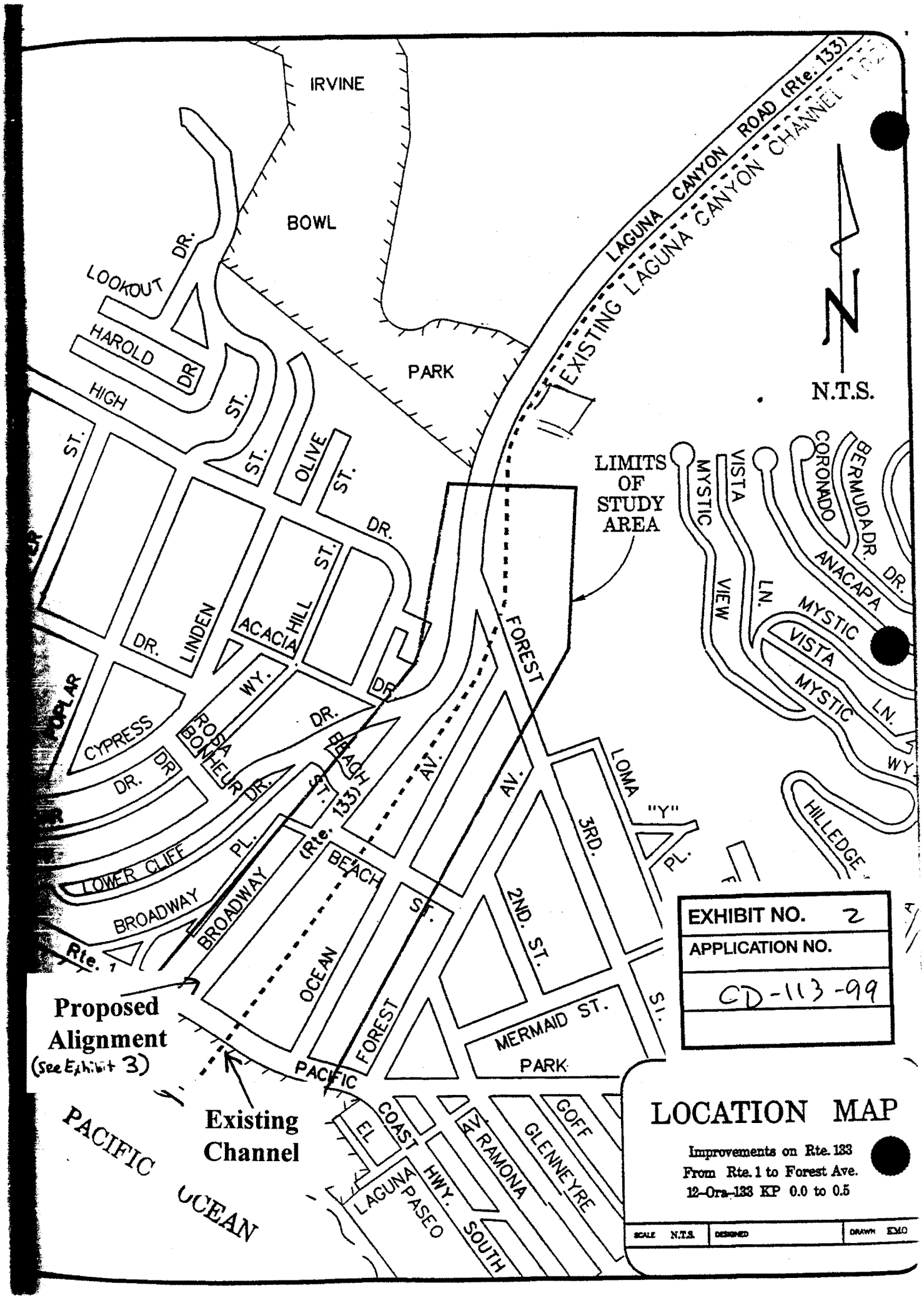


EXHIBIT NO. 2
APPLICATION NO.
CD-113-99

LOCATION MAP

Improvements on Rte. 133
From Rte. 1 to Forest Ave.
12-Ora-133 KP 0.0 to 0.5

SCALE N.T.S.	DESIGNED	DRAWN EMO

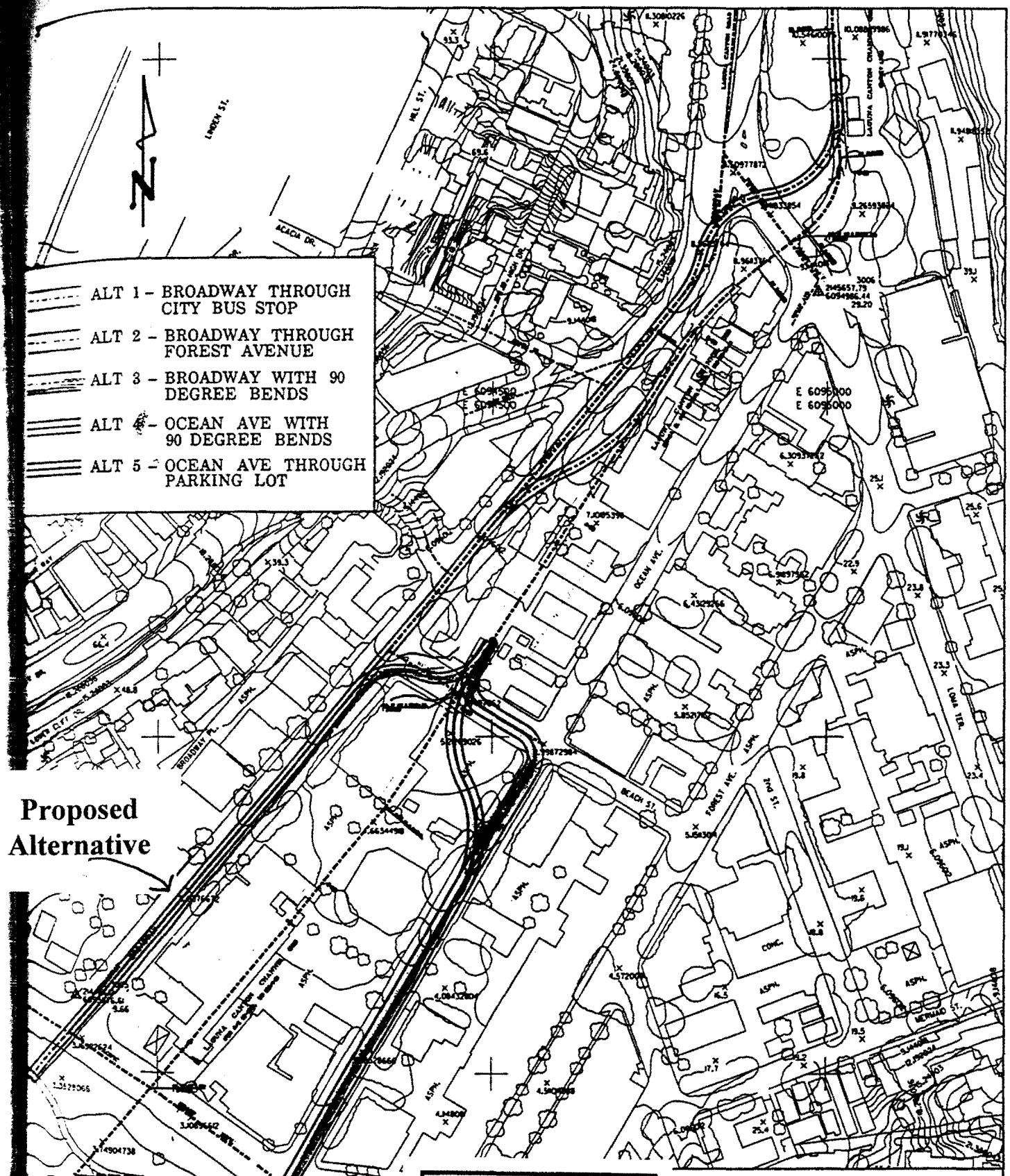


EXHIBIT NO. 3
APPLICATION NO.
CD-113-99

LAGUNA CANYON CHANNEL (I02)

ALTERNATIVE ALIGNMENTS

PACIFIC OCEAN
TO
U/S OF FOREST AVENUE

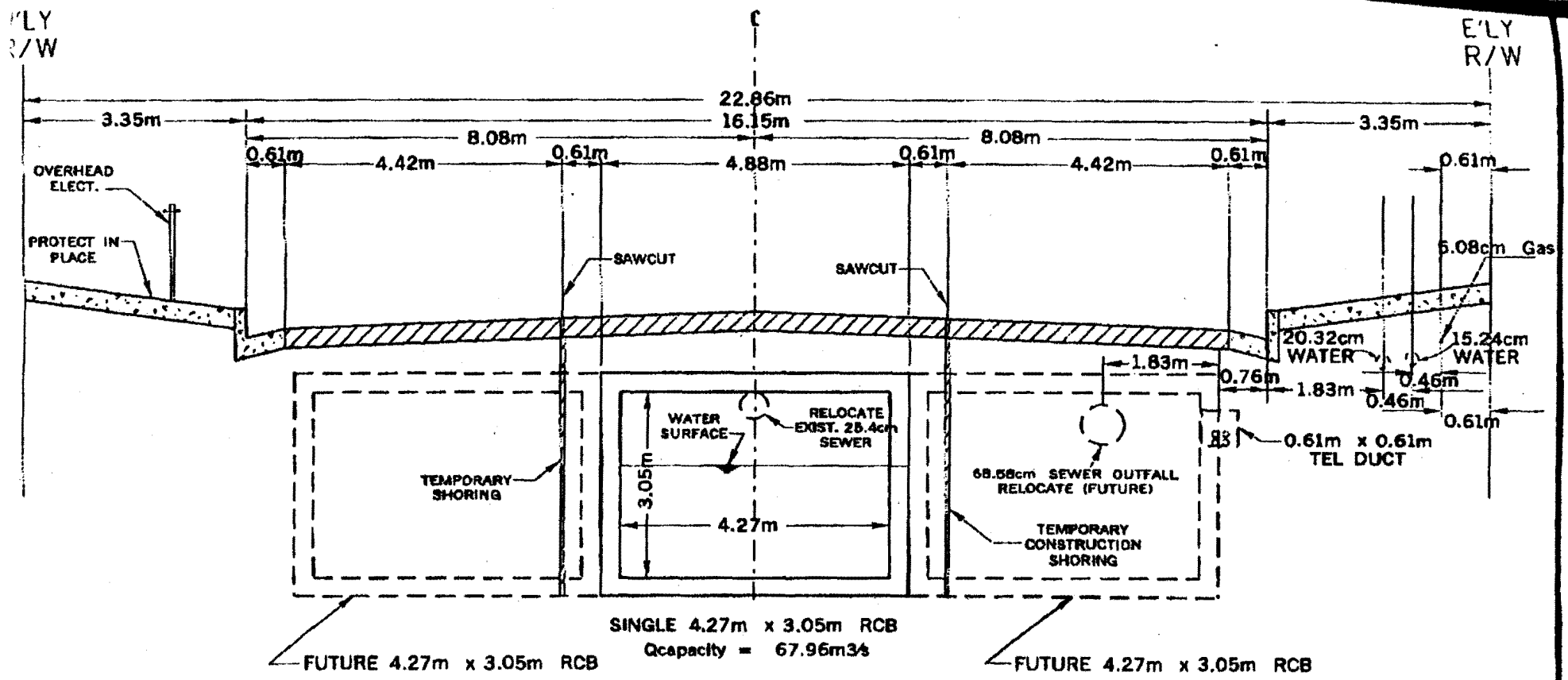
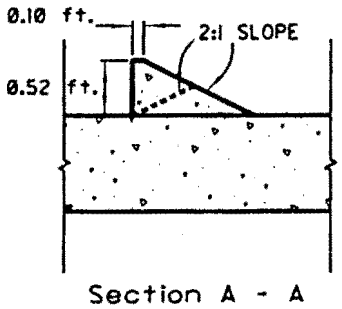


EXHIBIT NO. 4
APPLICATION NO. CD-113-99

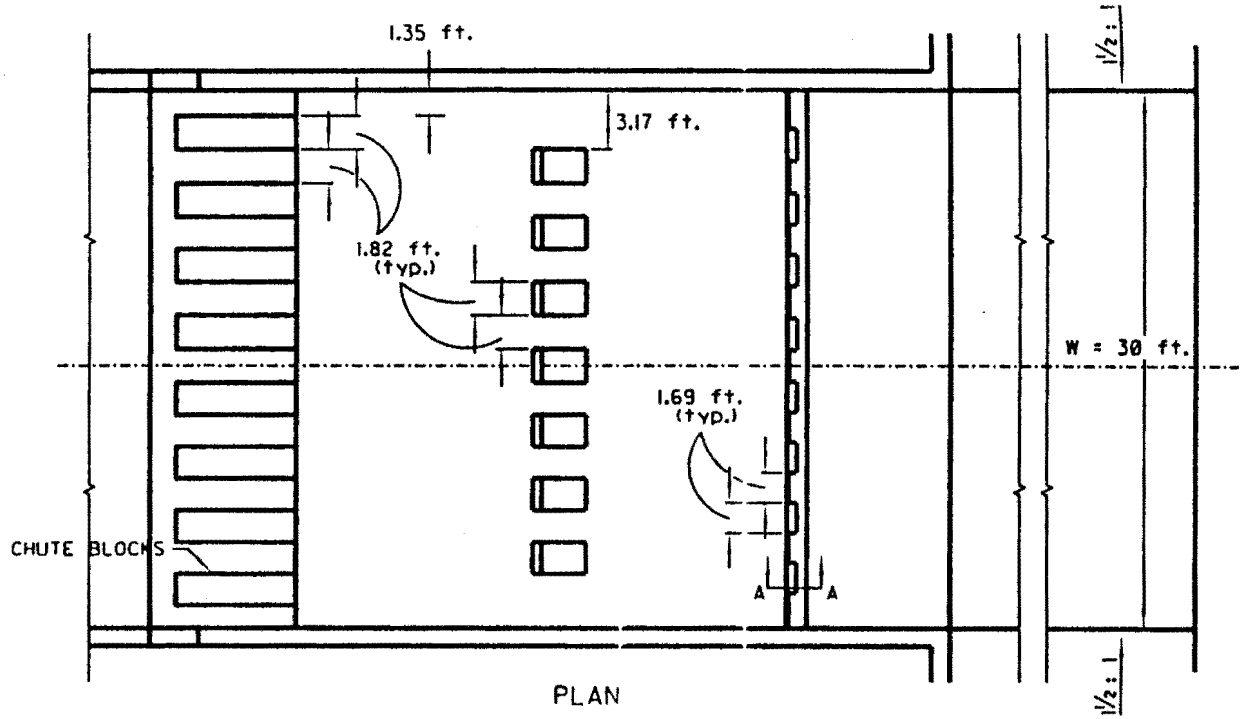
BROADWAY AVE. (ROUTE 133)
(LOOKING UPSTREAM)

TYPICAL BROADWAY CROSS SECTION

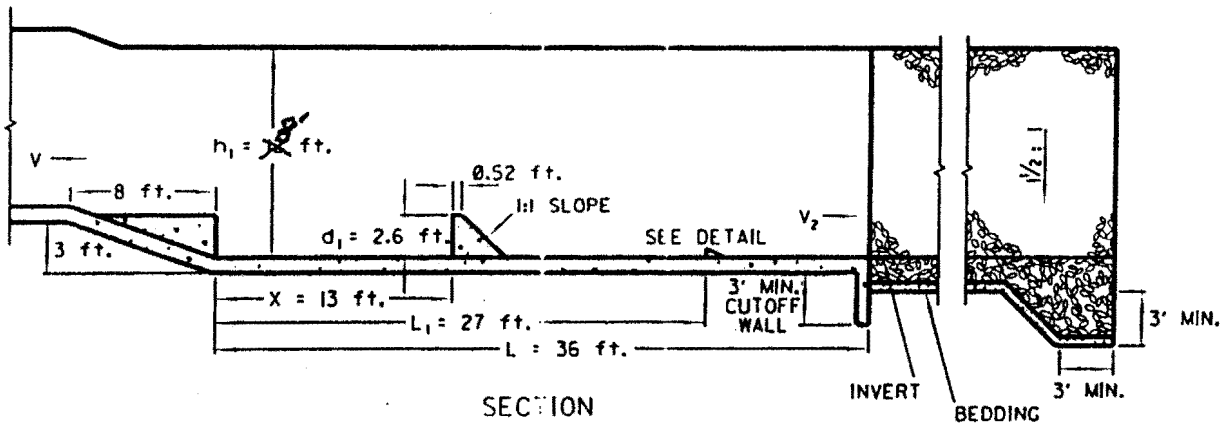
DIMENSIONS FOR ALTERNATIVE LOW FROUDE NUMBER STILLING BASIN



Section A - A



PLAN



SECTION

EXHIBIT NO. 5
APPLICATION NO.
CD-113-99

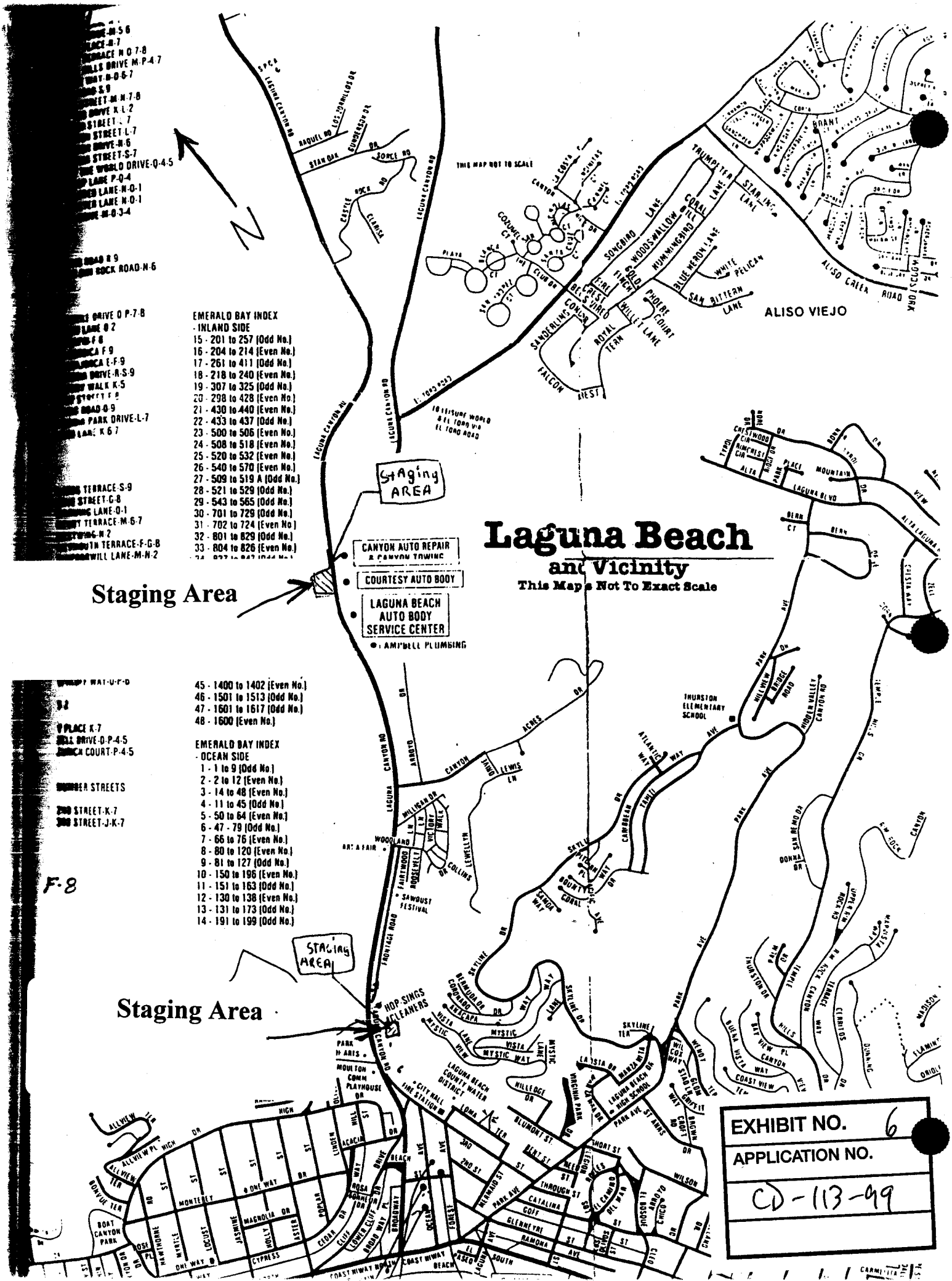
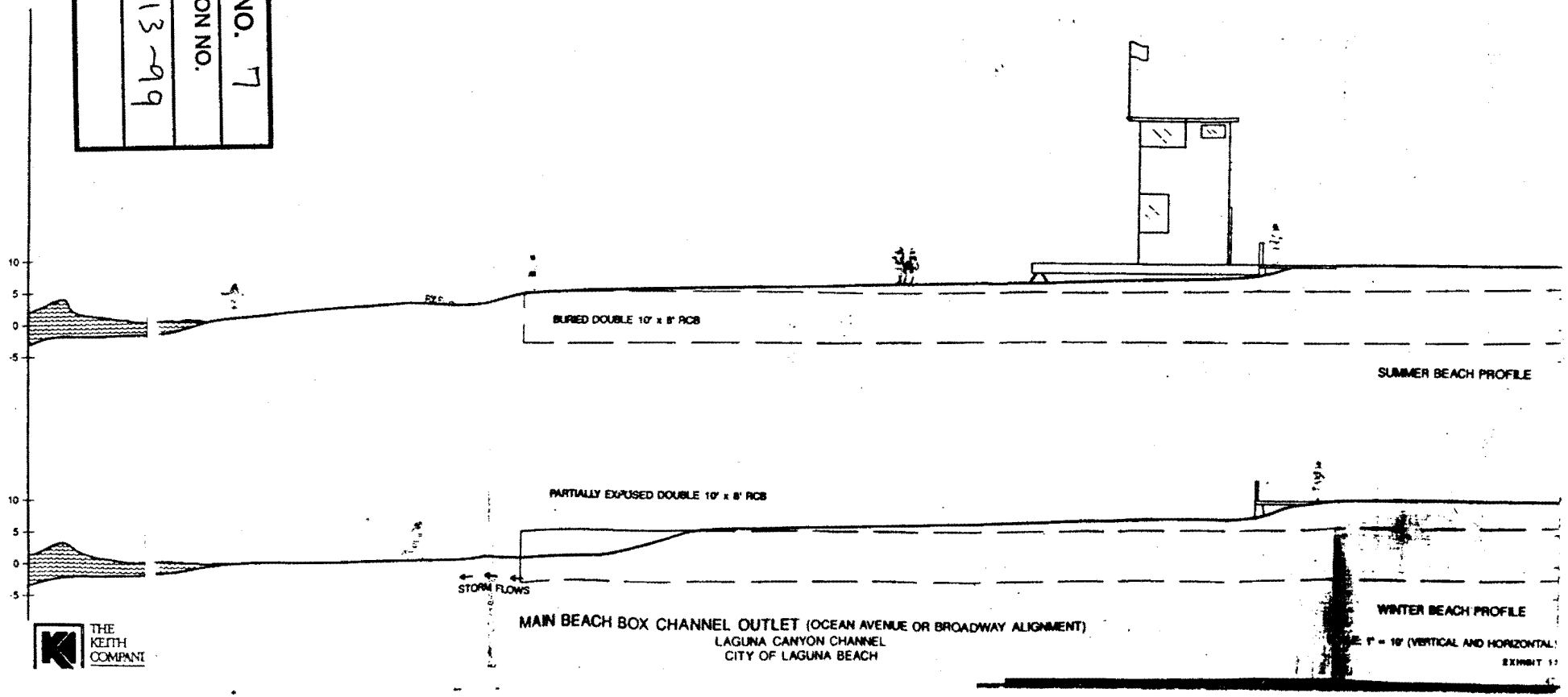

Laguna Beach
and Vicinity
This Map is Not To Exact Scale
Staging Area
Staging Area
Staging Area
ALISO VIEJO
EMERALD BAY INDEX
- INLAND SIDE
15 - 201 to 257 (Odd No.)
16 - 204 to 214 (Even No.)
17 - 261 to 411 (Odd No.)
18 - 218 to 240 (Even No.)
19 - 307 to 325 (Odd No.)
20 - 298 to 428 (Even No.)
21 - 430 to 440 (Even No.)
22 - 433 to 437 (Odd No.)
23 - 500 to 506 (Even No.)
24 - 508 to 518 (Even No.)
25 - 520 to 532 (Even No.)
26 - 540 to 570 (Even No.)
27 - 509 to 519 A (Odd No.)
28 - 521 to 529 (Odd No.)
29 - 543 to 565 (Odd No.)
30 - 701 to 729 (Odd No.)
31 - 702 to 724 (Even No.)
32 - 801 to 829 (Odd No.)
33 - 804 to 826 (Even No.)
EMERALD BAY INDEX
- OCEAN SIDE
1 - 1 to 9 (Odd No.)
2 - 2 to 12 (Even No.)
3 - 14 to 48 (Even No.)
4 - 11 to 45 (Odd No.)
5 - 50 to 64 (Even No.)
6 - 47 - 79 (Odd No.)
7 - 66 to 76 (Even No.)
8 - 80 to 120 (Even No.)
9 - 81 to 127 (Odd No.)
10 - 150 to 196 (Even No.)
11 - 151 to 163 (Odd No.)
12 - 130 to 138 (Even No.)
13 - 131 to 173 (Odd No.)
14 - 191 to 199 (Odd No.)
45 - 1400 to 1402 (Even No.)
46 - 1501 to 1513 (Odd No.)
47 - 1601 to 1617 (Odd No.)
48 - 1600 (Even No.)
CANYON AUTO REPAIR
COURTESY AUTO BODY
LAGUNA BEACH AUTO BODY SERVICE CENTER
AMPBELL PLUMBING
THIS MAP NOT TO SCALE
LAGUNA CANYON RD
LAGUNA CANYON RD
STAGING AREA
STAGING AREA
CANYON RD
FRONTAGE ROAD
PARK AVE
PARK AVE
SKYLINE DR
SKYLINE TER
MYSTIC VISTA WAY
LAGUNA BEACH COUNTY WATER DISTRICT
CITY HALL
FIRE STATION
THURSTON ELEMENTARY SCHOOL
LAGUNA BEACH HIGH SCHOOL
PARK AVE
ART A FAIR
SAWDUST FESTIVAL
HOP-SINGS CLEANERS
MOULTON COMM PLAYHOUSE
LAGUNA BLVD
ALISO CREEK ROAD
EXHIBIT NO. 6
APPLICATION NO.
CD-113-99

EXHIBIT NO. 7
APPLICATION NO.
5-99-113



THE KEITH COMPANY

MAIN BEACH BOX CHANNEL OUTLET (OCEAN AVENUE OR BROADWAY ALIGNMENT)
LAGUNA CANYON CHANNEL
CITY OF LAGUNA BEACH

E: 1" = 10' (VERTICAL AND HORIZONTAL)

EXHIBIT 1