

Subject Property

EXHIBIT NO. 2

APPLICATION NO.

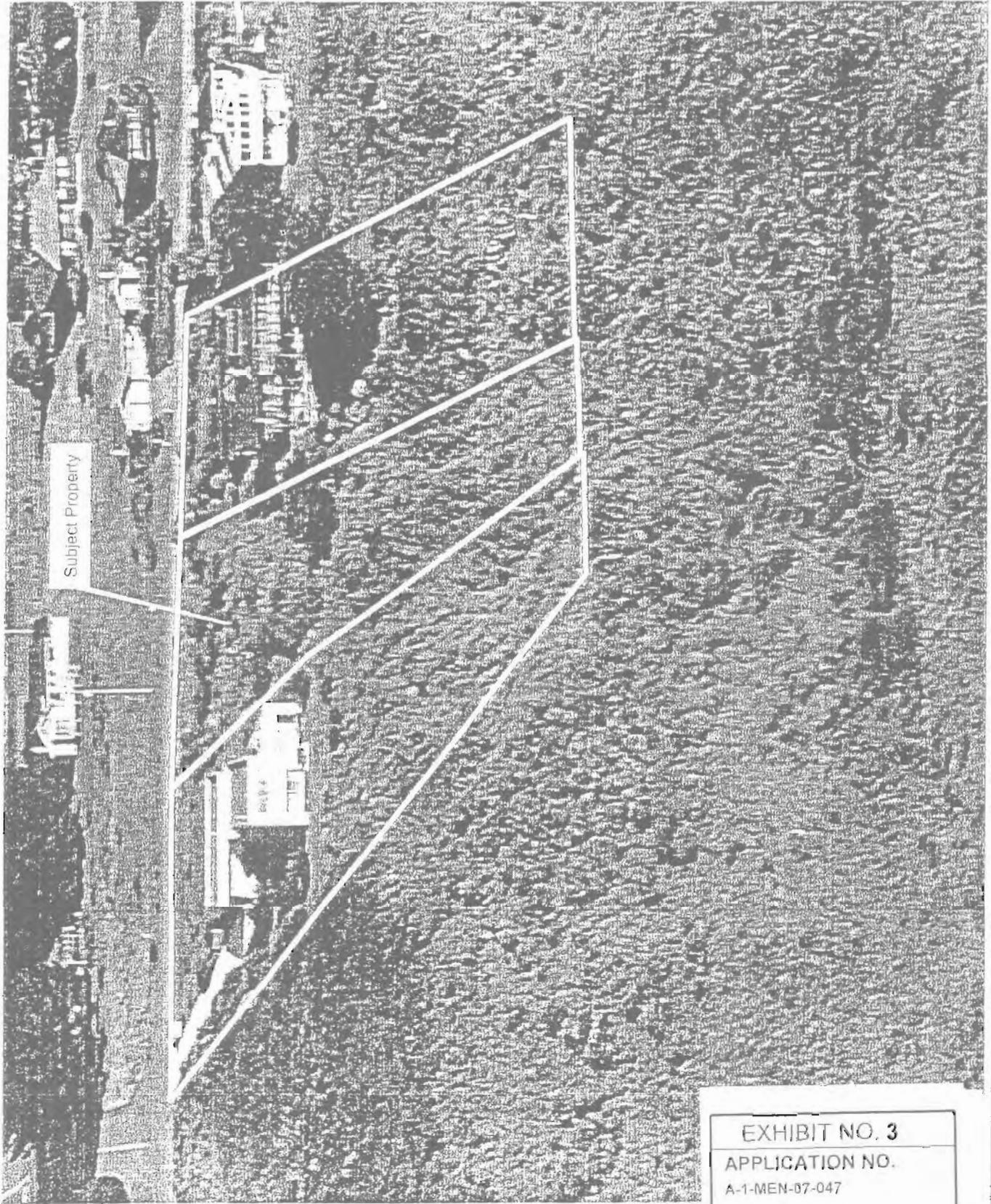
A-1-MEN-07-047

McCONNELL

TOPOGRAPHIC MAP

OWNER: McCONNELL
CASE: CDP 76-2006
APIN: 132-020-05





Subject Property

EXHIBIT NO. 3
APPLICATION NO.
A-1-MEN-07-047
McCONNELL
AERIAL PHOTOGRAPH

OWNER: McCONNELL, William & Marcia
AGENT: ROBERTS, Phillip
CASE: CDP 76-2006
APN: 132-020-05

COASTAL RECORDS PROJECT
Copyright © 2002 Kenneth & Gabrielle Adelman, All rights reserved.

Parcel lines are approximate. Parcel lines on this map are NOT SURVEY LINES. No other claims, easements, or other rights are shown.

17C

CALTRANS ROADSIDE TURNOUT

Note: Subject parcel is located on the urban side of the urban/rural boundary.

EVERYTHING WEST OF HIGHWAY ONE IS DESIGNATED A HIGHLY SCENIC AREA

EXCLUDED FROM THE HIGHLY SCENIC AREA



Subject property

TREE REMOVAL

EXHIBIT NO. 4
APPLICATION NO.
A-1-MEN-07-047 - McCONNELL
SUBJECT PARCEL WITHIN THE IRISH BEACH SUBDIVISION AS SHOWN ON CERTIFIED LUP MAP NO. 22

EXCLUDED FROM THE HIGHLY SCENIC AREA

IRISH GULCH SHORELINE ACCESS
EVERYTHING WEST OF HIGHWAY ONE IS DESIGNATED A HIGHLY SCENIC AREA



ROBERTS AND ASSOCIATES
ARCHITECTURE
P. O. BOX 188
207 765-8214
SAN FRANCISCO, CALIFORNIA 94133



NEW RESIDENCE
BILL & MARCIA MCCONNELL
14820 NAVARRO WAY
MANCHESTER, CALIFORNIA
94551-1074

DATE	REVISION
JAN 88	PROJ. #
JUL 88	NO. REVISED
DRAWN BY	P.L.C.
CHECKED BY	P.L.C.
SHEET NO.	A-1

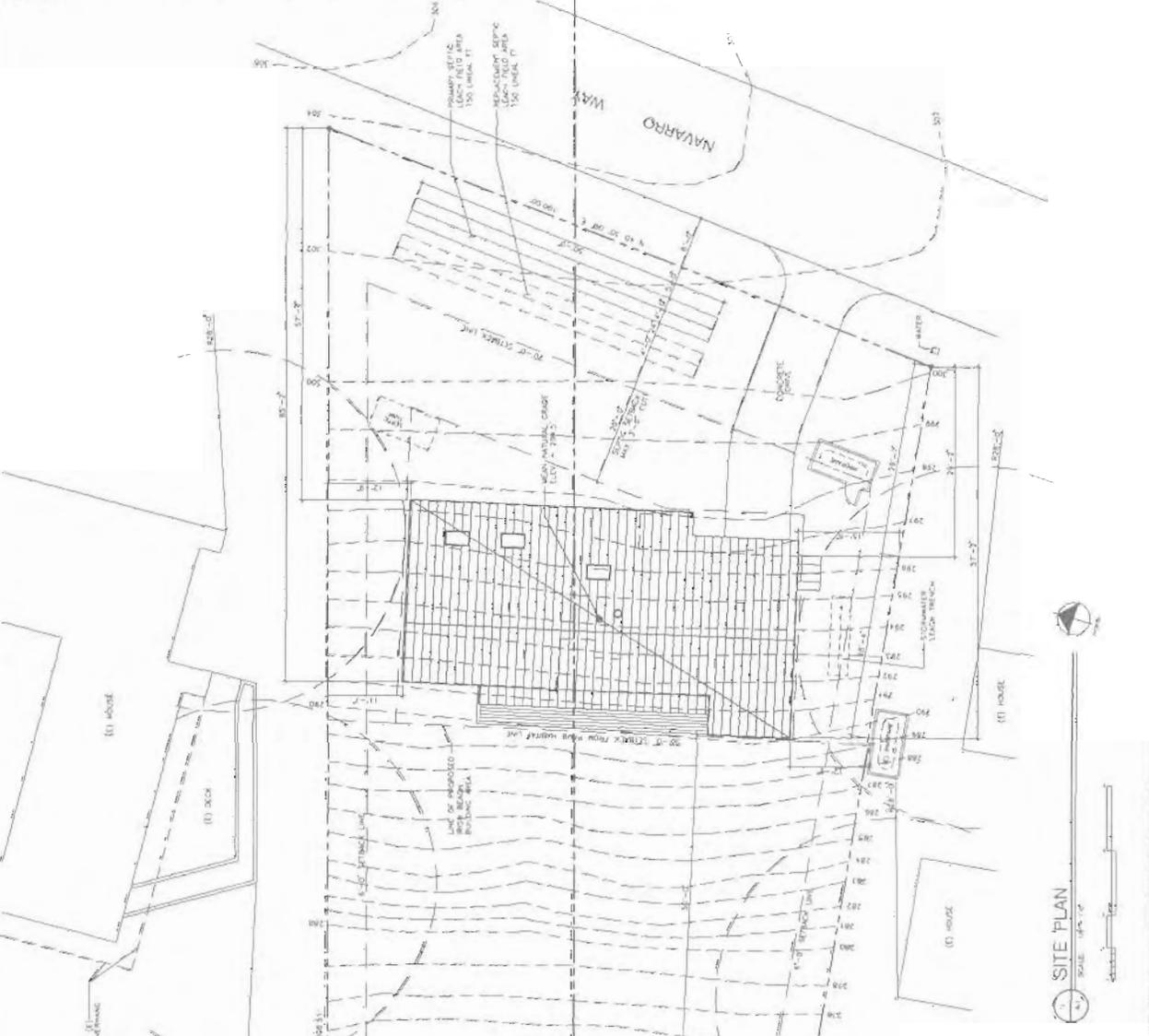
- IRISH BEACH DESIGN REVIEW
PHASE 2 - BUILDING WORKSHEET
(SHEET 1 OF 2)
1. BUILDING WORKS AND ELEVATIONS
 2. ELEVATIONS OF THE IMPROVED FLOORING
 3. ELEVATIONS OF THE IMPROVED FLOORING
 4. ELEVATIONS OF THE IMPROVED FLOORING
 5. ELEVATIONS OF THE IMPROVED FLOORING
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 14. ELEVATIONS OF THE IMPROVED FLOORING
 15. ELEVATIONS OF THE IMPROVED FLOORING
 16. ELEVATIONS OF THE IMPROVED FLOORING
 17. ELEVATIONS OF THE IMPROVED FLOORING
 18. ELEVATIONS OF THE IMPROVED FLOORING
 19. ELEVATIONS OF THE IMPROVED FLOORING
 20. ELEVATIONS OF THE IMPROVED FLOORING



AREA TABULATION

GARAGE	314.00 SQ. FT.
CONDITIONED LIVING AREA	1,200.00 SQ. FT.
TOTAL AREA	1,514.00 SQ. FT.
REAR DECK	270.00 SQ. FT.
COVERED PORCH	43.00 SQ. FT.

PREPARED AND SUBMITTED BY:
DAVID L. POWELL, P.E.
232 OAKVIEW DRIVE
SAN FRANCISCO, CALIF. 94116
JULY 1988, REVISED OCTOBER 1988



SITE PLAN
SCALE: 1/8" = 1'-0"

EXHIBIT NO. 5
APPLICATION NO.
A-1-MEN-07-047
MCCONNELL
PROPOSED SITE PLAN



ROBERTS AND ASSOCIATES
ARCHITECTURE
P. O. BOX 188
DUALA, CALIFORNIA 95418
707 788-8188



NEW RESIDENCE
BILL & MARCIA MCCONNELL
14820 MANAYAO WAY
DANFORTH, CALIFORNIA
94511-1103

DATE	1/11/08
JOB NO.	17-1108
SCALE	AS SHOWN
DRAWN BY	P.K.
CHECKED BY	P.K.
SHEET NO.	A-2

SYM	SIZE (WxH)	TYPE
①	3'-4" x 2'-8"	ANNING
②	7'-0" x 8'-0"	COLUMBIAN W/ IRIS
③	3'-0" x 8'-0"	COLUMBIAN
④	8'-0" x 8'-0"	COLUMBIAN W/ IRIS
⑤	3'-0" x 3'-0"	ANNING

SYM	SIZE	TYPE
①	3'-0" x 8'-0"	FRENCH SWING
②	7'-0" x 8'-0"	SLIP OVERHEAD
③	3'-0" x 8'-0"	FRENCH SWING
④	8'-0" x 8'-0"	SLIP
⑤	3'-0" x 8'-0"	FRENCH SWING
⑥	8'-0" x 8'-0"	SLIP
⑦	5'-0" x 8'-0"	PANEL SWING
⑧	2'-0" x 8'-0"	POCKET
⑨	2'-0" x 8'-0"	PANEL SWING
⑩	2'-0" x 8'-0"	PANEL SWING
⑪	2'-0" x 8'-0"	PANEL SWING
⑫	2'-0" x 8'-0"	PANEL SWING
⑬	2'-0" x 8'-0"	PANEL SWING
⑭	2'-0" x 8'-0"	PANEL SWING
⑮	2'-0" x 8'-0"	PANEL SWING
⑯	2'-0" x 8'-0"	PANEL SWING
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㊾	2'-0" x 8'-0"	PANEL SWING
㊿	2'-0" x 8'-0"	PANEL SWING

AREA	1,351 SF
POOR	344 SF
DAMAGE	1,344 SF
TOTAL	3,039 SF
CEILING	378 SF
CONCRETE FLOOR	148 SF

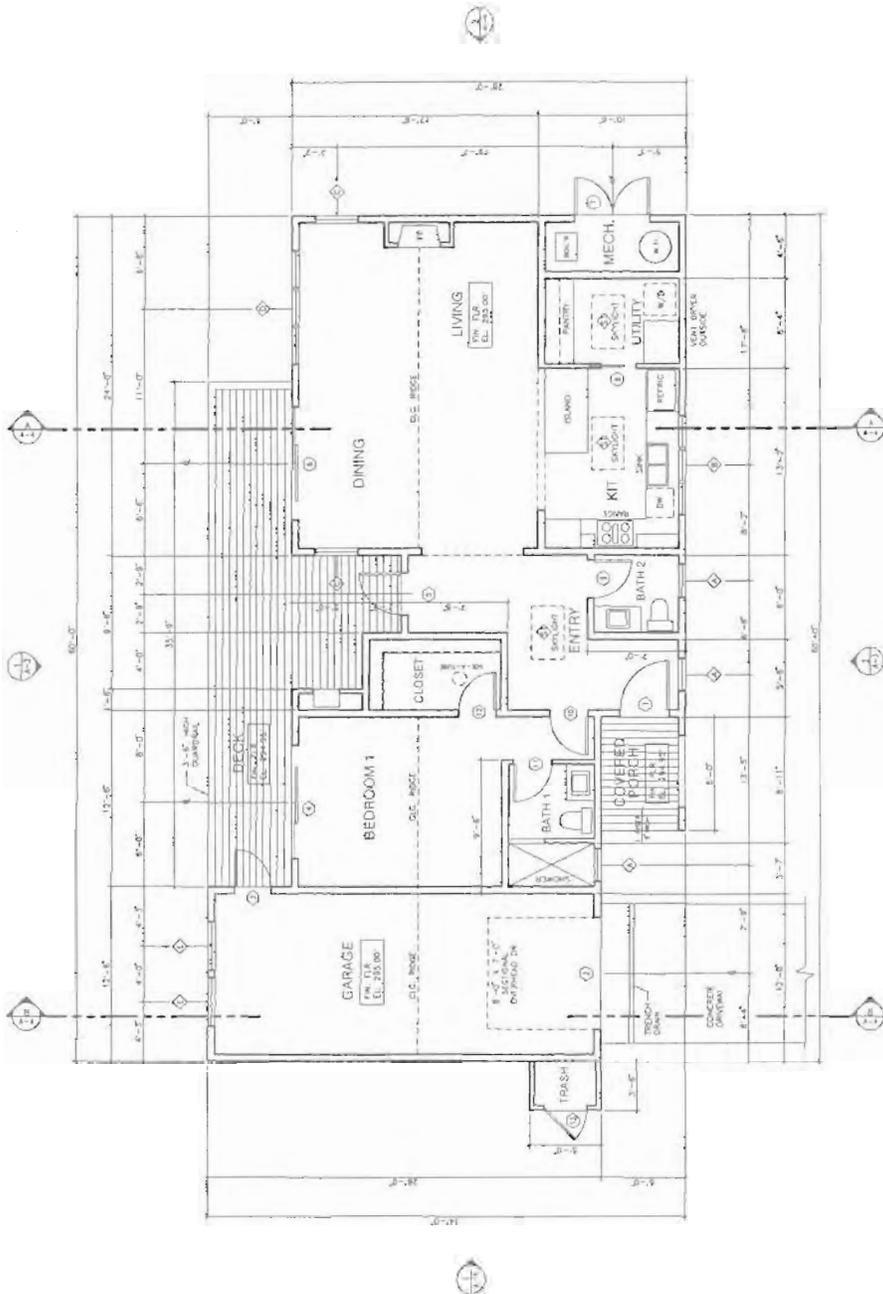


EXHIBIT NO. 6
APPLICATION NO.
 A-1-MEN-07-047
 McCONNELL
 PROPOSED FLOOR PLAN &
 ELEVATIONS (1 of 3)

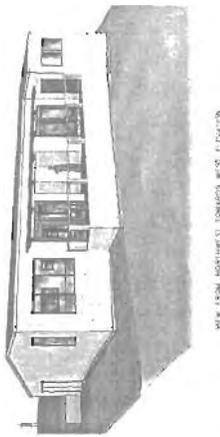


ROBERTS AND ASSOCIATES
ARCHITECTURE
P. O. BOX 1589
DUBLIN, CALIFORNIA 94568
TEL. 783-7938

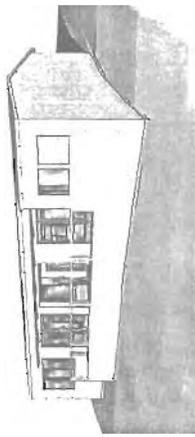


NEW RESIDENCE
BILL & MARCIA MCCONNELL
1820 WILLOW AVE
MANTHUA, CALIFORNIA 94551

DATE	11-10-78
BY	JK
CHECKED BY	JK
SCALE	AS SHOWN
SHEET NO.	A-3

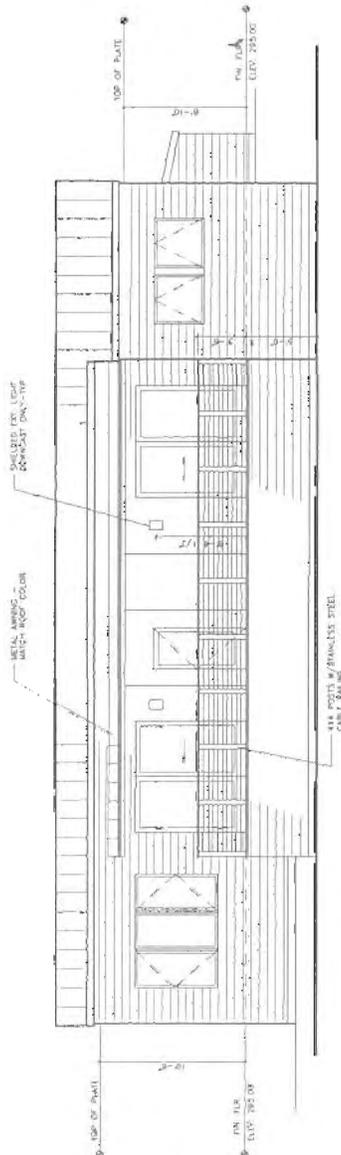


VIEW FROM NORTHWEST TOWARDS WEST ELEVATION

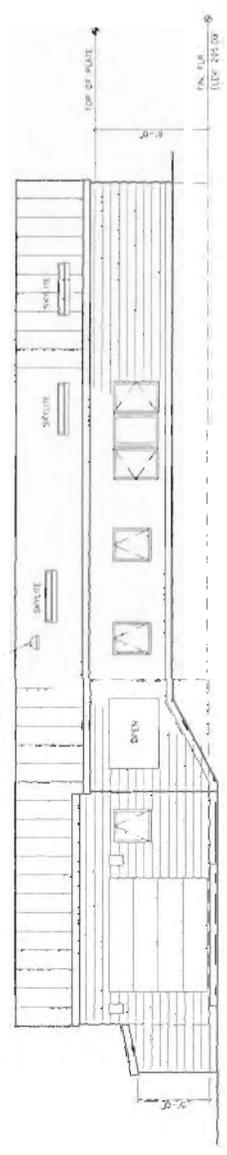


VIEW FROM SOUTHWEST TOWARDS WEST ELEVATION

EXTERIOR FINISH SCHEDULE	
1	ROOF - STANDING SEAM METAL - COLOR - MATCH EXTERIOR SIDING
2	FASIA - 1" x 4" FREE CLEAR BOARD
3	EXTERIOR SIDING - 1" x 6" SHINGLES
4	WINDOWS - ALUM. EXC. WOOD - 2" X 6" - VENEER BROWN
5	WOODWORK - 1 1/4" x 1 1/4" NEW CLAYD BOARD
6	DECKS - 2" x 4" COMPOSITE DECKING - COLOR
7	FLASHING - 18 OZ COPPER FOR FLOOR JOISTS
8	WALL-CO-WALL & WALL-TO-ROOF FLASHINGS
9	CHIMNEY - 18 OZ COPPER
10	PAINTS - ALL EXTERIOR SURFACES - PAINTED ACCORDING TO ARCHITECT'S SPECIFICATIONS



WEST ELEVATION
SCALE 1/8" = 1'-0"



EAST ELEVATION
SCALE 1/8" = 1'-0"

293



ROBERTS AND ASSOCIATES
ARCHITECTURE
P.O. BOX 1988
DUALA, CALIFORNIA 92445
714-785-7118

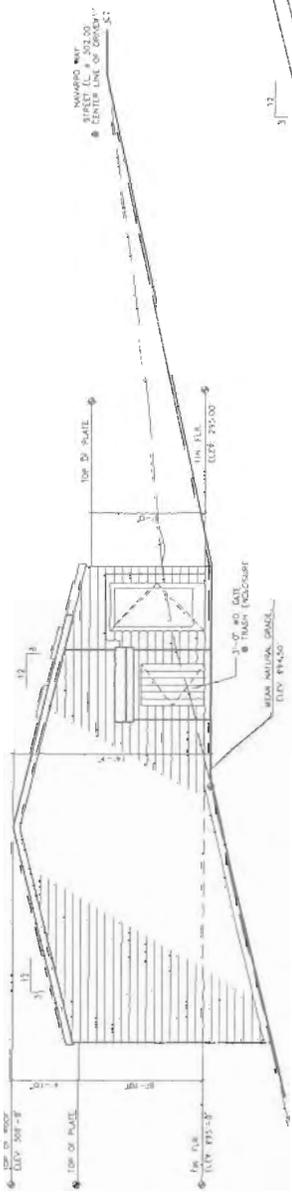


NEW RESIDENCE
BILL & MARJORIE MCCONNELL
MANCHESTER, CALIFORNIA
1/21/74

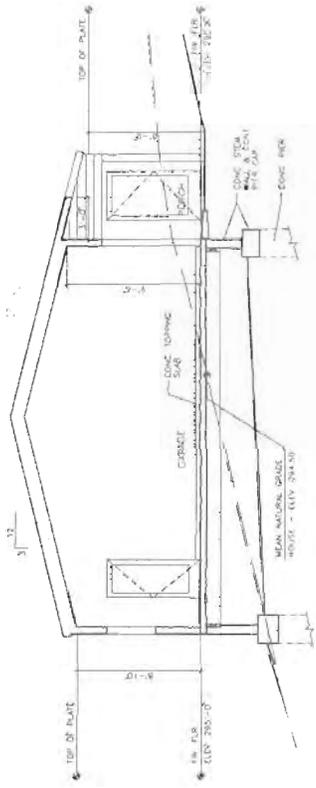
DATE	1/21/74
SCALE	AS SHOWN
BY	B.M.
CHECKED BY	P.L.
DATE	
NO.	A-4

EXTERIOR FINISH SCHEDULE

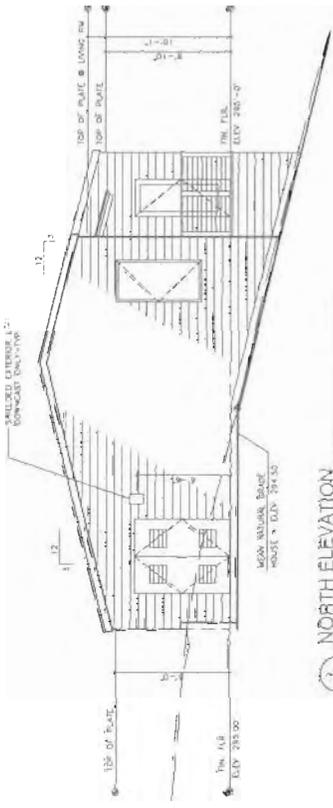
- 1 ROOF STANDING SEAM METN - COLOR WEATHERED COPPER
- 2 FACIA 2" PINE SHUNT BOARD
- 3 EXTERIOR SONG - PINE SHUNT DIMPLES
- 4 WINDOWS - ALUM. CLAD - COLOR - VEGEYAN BROWN
- 5 WINDOW COVER TRIM - 1/2" PINE - COLOR - BROWN
- 6 FLOOR - 1" COMPOSITE DECKING - POLAR
- 7 FLOORING - 1" OZ. COPPER - 100% COVERAGE
- 8 WALL TO-WALL & WALL-TO-ROOF FLASHINGS
- 9 OUTLETS & SWITCHES - 1" OZ. COPPER
- 10 CHIMNEY PIPE - 1/2" ALUMINUM
- 11 APPLIANCE & PLUMBING FITS - PAINTED ALUMINUM OR BLACK PANT. RUBBER/PLASTIC



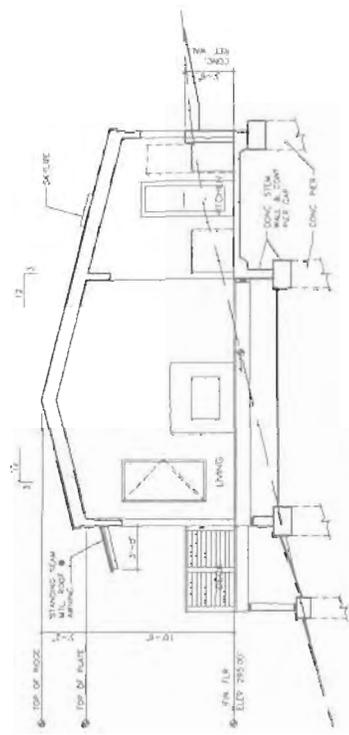
SOUTH ELEVATION
SCALE 1/4" = 1'-0"



SECTION A-A
SCALE 1/4" = 1'-0"



NORTH ELEVATION
SCALE 1/4" = 1'-0"



SECTION B-B
SCALE 1/4" = 1'-0"

393



ROBERTS AND ASSOCIATES
ARCHITECTS
7 CL. BOX 1888
GUALTERA, CALIFORNIA 94428
407 285-3318



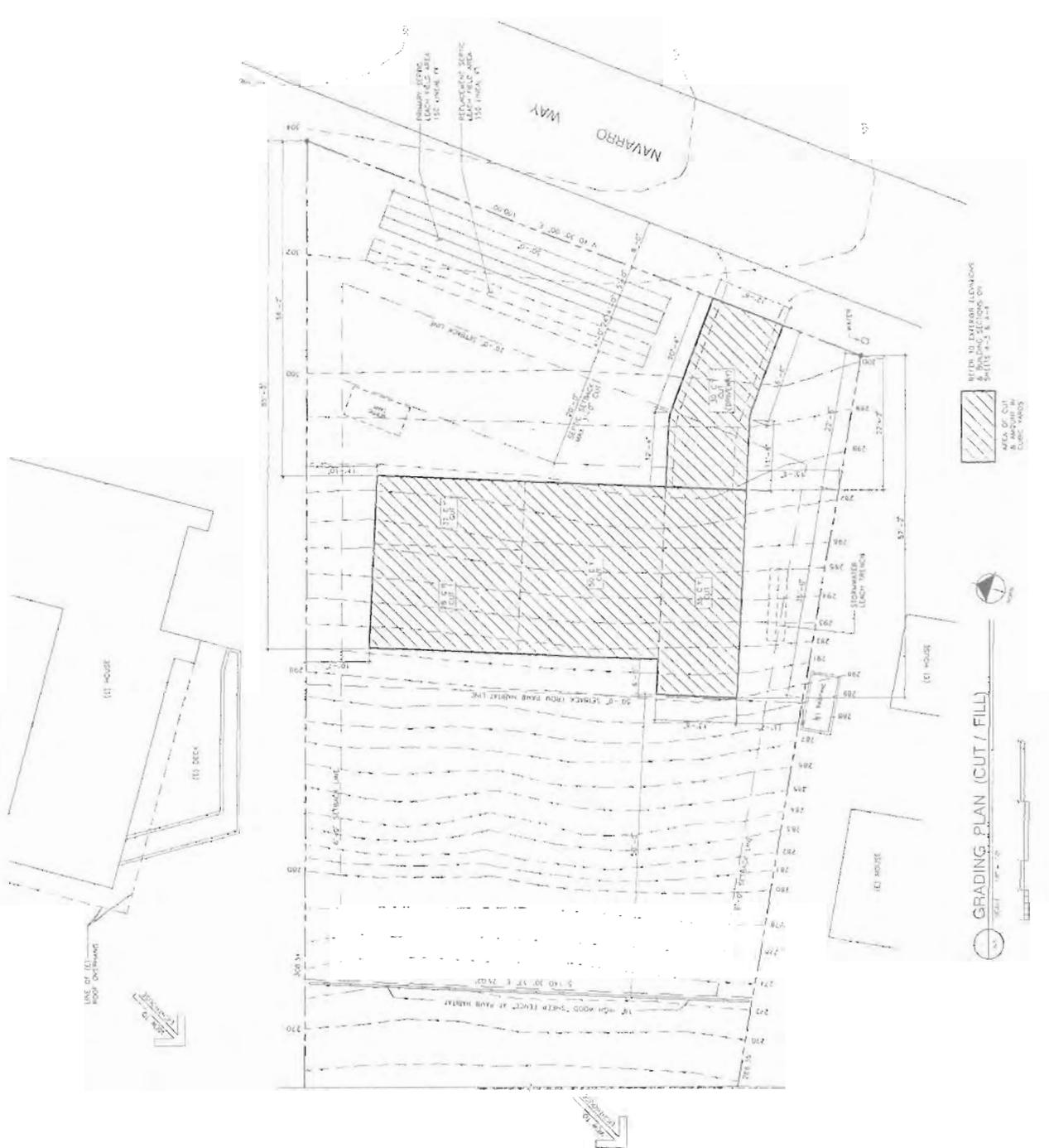
NEW RESIDENCE
BILL & MARCIA MCCONNELL
1400 NAVARRO WAY
MANCHESTER, CALIFORNIA
LINE 1 LOT 34

DATE	1/10/07
SCALE	AS SHOWN
PROJECT NO.	A-5
DATE	1/10/07
BY	BM
CHECKED BY	BM
APP. NO.	

EXHIBIT NO. 7
APPLICATION NO.
A-1-MEN-07-047
McCONNELL
PROPOSED PRELIMINARY
GRADING PLAN

SITE CUT TABULATION	4" CUT TO
HOUSE & GARAGE	30' ON W
DRIVEWAY	1" ON E
TOTAL CUT	0' ON W
TOTAL FILL	0' ON W

DATE: 1/10/07
BY: BM
CHECKED BY: BM
APP. NO.:
PROJECT NO.: A-5



REFER TO EXHIBIT ALONGS
& GRADING SECTIONS ON
SHEETS A-1 TO A-5 & A-6



GRADING PLAN (CUT / FILL)
SCALE: 1/8" = 1'-0"

GEOTECHNICAL INVESTIGATION
AND GEOLOGIC RECONNAISSANCE

PLANNED MC CONNELL RESIDENCE
14820 NAVARRO WAY
IRISH BEACH, MANCHESTER,
MENDOCINO COUNTY,
CALIFORNIA

12132.1

prepared for

William Mc Connell
25755 Josefa Lane
Los Altos Hills, CA 94022

prepared by

BACE Geotechnical
A Division of Brunsing Associates, Inc.

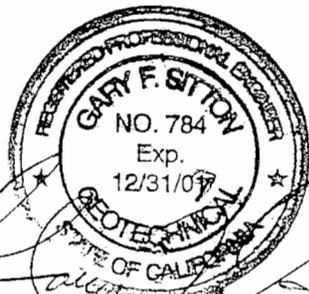
EXHIBIT NO. 8
APPLICATION NO.
A-1-MEN-07-047 - McCONNELL
EXCERPTS OF GEOTECHNICAL INVESTIGATION BY BACE GEOTECHNICAL DATED 12/9/08 (1 of 24)

5468 Skylane Blvd. Suite 201
Santa Rosa, CA 95403
(707) 528-6108



Sarah C. Lockwood
Geologist In Training - 232

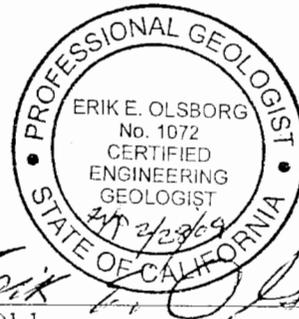
December 9, 2008



Gary F. Sifton
Geotechnical Engineer - 784



Keith A. Colorado
Civil Engineer - 69011



Erik E. Olsborg
Engineering Geologist - 1072



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1.0 INTRODUCTION

This report presents the results of the Geotechnical Investigation and Geologic Reconnaissance that BACE Geotechnical (BACE), a division of Brunsing Associates, Inc., performed for the planned McConnell Residence at 14820 Navarro Way, Irish Beach, Manchester, Mendocino County, California. The property, A.P.N. 132-020-05 is located on an ocean bluff on the west side of Navarro Way in the Irish Beach Development, about 4 miles north of the community of Manchester, as shown on the Vicinity Map, Plate 1.

Based on correspondence with Philip Roberts, Architect, we understand that the planned residence will consist of a single-family dwelling with one-story living areas and attached garage. The planned structures will be built upon raised-wood floors, with minimal grading (cuts and fills estimated less than 5 feet). A topographic survey by Dave Paoli (with BACE data added), showing the planned new buildings, is presented as our Site Plan, Plate 2. Using surveyed topography and our field data, BACE prepared a subsurface profile, presented herein as Geologic Cross Section A-A' on Plate 3.

1.1 Previous Investigations

A Geologic Site Investigation of the subject property was performed by David Paoli, P.E., in 1995. An updated letter report, dated September 21, 2007, was submitted by Mr. Paoli to the Mendocino County Board of Supervisors to address certain points related to geologic issues on the subject property. We understand that other update letters were also written by Mr. Paoli in the interim, however we did not have an opportunity to review them.

BACE previously performed Engineering Geologic Reconnaissance's for two northerly neighboring properties, 14776 and 14790 Navarro Way. The results of the study at 14776 Navarro Way were presented in a letter dated March 3, 2005. No report was issued for the study at 14790 Navarro Way. Mr. Olsborg, the undersigned, provided consultation during a real estate transaction for 15170 Irish Beach Drive, in 2007. During this investigation, we reviewed geologic reports by J. Riley Jones, Registered Consulting Geologist, dated October 1978, and by Kleinfelder, dated March 4, 1994, for that property (15170 Irish Beach Drive). We are currently performing a geotechnical investigation for a southerly neighboring property, 14870 Navarro Way.

1.2 Current Investigation

The purpose of our investigation was to evaluate the geologic conditions at the subject property, primarily bluff stability, erosion rate, and subsurface soil and rock conditions, in order to determine a suitable location for the planned residence, as well as foundation recommendations for the planned new construction. This report is intended to satisfy the Geotechnical Analysis requirements for the California Coastal Commission (CCC) *de novo* review regarding the proposed construction at the subject property. To that end, we



reviewed the CCC Staff Report Appeal #A-1-MEN-047 and its accompanying documents, including previous geologic site reviews (by others) and correspondence.

The scope of our services, as outlined in our Service Agreement dated October 4, 2007, consisted of researching published geologic maps and BACE's previous file data on the subject property, field reconnaissance of the property, bluff face, and bluff toe, subsurface investigation, laboratory testing, and engineering and geologic analyses, in order to provide conclusions and recommendations regarding:

- Potential geologic hazards (primarily slope stability);
- Documentation of aerial photograph data used in our retreat rate analysis;
- Computer slope stability analysis data and results;
- Bluff retreat (erosion) rate based on the results of our research, field exploration, aerial photograph studies and computer analysis;
- Discussion of USGS Open File Report 2007-1133 bluff retreat rates presented for the site vicinity;
- Classification of soil and rock types encountered;
- Suitable foundation type(s) with design criteria and estimated settlement behavior;
- Seismic design criteria per California Building Code, 2007 edition;
- Site grading;
- Support of concrete slabs-on-grade, as appropriate;
- Lateral earth pressures and drainage requirements for retaining walls, as appropriate;
- Site drainage;
- Geologic setback criteria based on bluff stability analysis;
- Anticipated geotechnical construction problems, if appropriate.
- Additional Geotechnical Services, as needed.

2.0 INVESTIGATION AND LABORATORY TESTING

2.1 Published Map and Reference Research

As part of our investigation, we initially reviewed the following published geologic maps and references:

- California Division of Mines and Geology (CDMG), 1983, Geology and Geomorphic Features Related to Landsliding, Mallo Pass Creek 7.5 Minute Quadrangle, Mendocino County, California: California Division of Mines and Geology Open File Report (OFR) 84-13.
- CDMG with the Structural Engineers Association of California Seismology Committee, 1998, Maps of Active Fault Near-Source Zones in California and Adjacent Parts of Nevada: International Conference of Building Officials.



- CDMG. 1960, Ukiah Sheet: California Division of Mines and Geology Geologic Map of California.
- Hapke, C. J., and Reid, D., 2007, National Assessment of Shoreline Change, Part 4: Historical Coastal Cliff Retreat along the California Coast: United States Geological Survey (USGS), Open File Report (OFR) 2007-1133.
- Johnsson, M., 2003, Establishing Development Setback from Coastal Bluffs: Proceedings, California and the World Ocean '02.
- Lawson, A.C., *et al*, 1908, The California Earthquake of April 18, 1906: State Earthquake Investigation Commission, vol. 1 of 2.
- Merritts, D., and Bull, W., 1989 Interpreting Quaternary Uplift rates at The Mendocino Triple Junction, from Uplifted Marine Terraces: Geological Society of America, *Geology*, v. 17, no. 11, p. 1020-1024.
- Slosson, J.E., 1974, State of California Special Studies Zones: California Division of Mines and Geology (CDMG), Mallo Pass Creek 7.5-minute Quadrangle.

2.2 Aerial Photograph Studies

Our investigation was augmented by studying vertical aerial photographs of the site dated June 30, 1963, June 23, 1981, and April 2, 2000. The photographs were each enlarged from the vendors' negatives, to an approximate scale of one inch equals 200 feet. For our analysis, BACE determined relatively accurate photograph scales by comparing field survey measurements between various physical features in the site vicinity (such as house corner to house corner, and the distance between street centerline intersections) that are also shown on the photographs. BACE then compared the field measurements with scaled distances of the same physical features on the photographs in order to calculate the photograph scales. The results of our photograph studies are presented in Section 5.4 of this report, Bluff Retreat. Reproductions of the aerial photographs are presented on Plates 4, 5, and 6.

In addition to reviewing vertical aerial photographs, we also obtained oblique-angle aerial photographs from the California Coastal Records Project (www.californiacoastline.org). We qualitatively compared oblique aerial photographs of the site from 1972, 1979, 1987, 2002, and 2005. The 1972, 1987 and 2005 photographs are presented herein as our Coastline Oblique Aerial Photographs A, B and C, on Plates 7, 8 and 9, respectively.

2.3 Field Reconnaissance

BACE's Staff Geologist performed the field reconnaissance on July 7, 2008. Our field reconnaissance consisted of examination of bedrock and soil exposed on the bluff face, and interpretation of geomorphic expressions on the entire bluff face within the property and vicinity. Our Staff Engineer also hiked down to the beach to observe and photograph the bluff toe within the property and vicinity. Site Photographs A through H on Plates 10 through 14, respectively, show the property, bluff face, and bluff toe near the property.



2.4 Field Exploration

Our subsurface drilling exploration was conducted on July 7 through 9, 2008, and consisted of drilling, logging, and sampling three exploratory test borings, Borings B-1 through B-3. The approximate test boring locations are shown on Plate 2. The test borings were drilled to depths of approximately 35 to 41.5 feet below the ground surface (bgs). The borings were advanced with a portable drill rig utilizing 4-inch diameter solid stem flight auger equipment. The portable drilling equipment was powered from a track-mounted engine via hydraulic hoses.

We understand from communication with the property owner that this part of the Mendocino County Coast in general, and the subject property in specific, is host habitat to a Federally-listed Endangered Species, the Point Arena Mountain Beaver (PAMB). The PAMB habitat area is shown on Plate 2 (west of the "sheep fence"). Our field exploration was conducted outside of the known PAMB breeding season (December 15 to July 1). During drilling and sampling of Boring B-1, care was taken to cause as little disturbance as possible within the habitat necessary to acquire soil and rock samples for our slope stability analysis.

Our Staff Geologist and Staff Engineer made a descriptive log of each test boring and obtained relatively undisturbed tube samples of the soil and rock materials encountered for visual classification and laboratory testing. The relatively undisturbed samples were obtained from the test borings using a 3-inch outside diameter Modified California split-barrel sampler, or in some cases a 2.5-inch outside diameter sampler, each driven by a 140-pound drop hammer falling 30 inches per blow. The inside of the 3-inch sampler barrel contained 2.4-inch inside diameter liners for retaining the soil materials; the 2.5-inch sampler contained 1.9-inch inside diameter liners. Hammer blows required to drive the 3-inch sampler were converted to Standard Penetration Test (SPT) blow counts for correlation with empirical test data, using a conversion factor of 0.64. Blow counts for the 2.5-inch sampler were converted using a factor of 0.79. Sampler penetration resistance (blow counts) provides a relative measure of soil consistency and strength, and is utilized in our engineering analyses. Selected samples were also obtained using a 2-inch outside diameter, SPT sampler containing 1.4-inch inside diameter liners.

Graphic logs of the borings, showing the various soil types encountered and the depths of the samples taken, are presented on Plates 15 through 17. The soils are classified in accordance with the Unified Soil Classification System outlined on Plate 18. The various descriptive properties used to describe the soils are listed on Plate 19, and rock characteristics are listed on Plate 20.

2.5 Laboratory Testing

Selected samples obtained during our subsurface exploration were tested in our subcontractor's laboratory to determine their pertinent geotechnical, engineering characteristics. Laboratory testing consisted of grain-size classification, moisture



content-dry density, and unconsolidated-undrained triaxial compression tests. The test results are presented opposite the samples tested on the test boring logs (see Key to Test Data on Plate 19). In addition, grain size distribution test data are presented on Plate 21, direct shear test data are presented on Plate 22, and triaxial compression test data are presented in Appendix A.

3.0 SITE CONDITIONS

The property is located on the west side of Navarro Way, just south of the intersection of Navarro Way and Sea Cypress Drive. The bluff-top property occupies the edge of a near-level, elevated marine terrace that locally extends from the coastline to the base of the foothills on the east side of Highway One. The property is bordered to the west by the bluff face and ocean, and to the north and south by properties occupied by existing residences (Site Photograph A, Plate 10).

Within the property, the bluffs face generally west, and are slightly concave. The ocean bluffs bordering the terrace at the property are approximately 280 feet in vertical height. On the uppermost part of the lot between Navarro Way and approximately the planned house footprint, the property slope gradient is about 6H:1V. Approximately 100 feet west of Navarro Way, the gradient temporarily increases to about 3H:1V for about 30 feet, then becomes slightly less steep for about 30 feet, before reaching the steady, steep gradient of the main bluff face in general (Site Photograph B, Plate 10).

The upper, approximately two thirds of the main bluff face have an average slope gradient of approximately 1.5 to 1.8 horizontal to one vertical (1.5 – 1.8H:1V), with locally steeper areas. About two-thirds of the way down the bluff face is a gently-sloping to near-level bench approximately 180 feet wide (Site Photograph C, Plate 11). Below the western edge of the bench, the bluff face is about 1.5H:1V to near-vertical. A narrow, cobble and boulder beach borders the bluff toe. Large piles of rubble from past rock falls are strewn along the beach (Plates 4, through 9).

An old, graded road descends the bluff face toward the bench from the south. In the 1963 aerial photograph, the road can be seen traversing across the bench and down to the beach (Plate 4). Remnants of the road are still visible today (Plates 11 and 14). Open File Report (OFR) 84-13 indicates that the entire bluff face in this area has been sculpted by debris slides, which can typically produce bench-type features. Although some of the bluff face below the bench is comprised of hard rock, there are also large areas with boulders floating in a matrix of cobbly debris and talus (Site Photograph F, Plate 13).

No buildings exist on the subject property or on the bluff face below. However, a few isolated piles of old lumber and a section of aluminum pipe were found scattered around on the upper bluff. A few piles of loose soil, presumably from old test pits, were also observed (Plate 2).



The western face of the lower slide block is a talus-covered slope with no vegetation. The bench and main part of the bluff face are covered with thick brush, poison oak, and other shrubs. The building area on the property has a moderate cover of seasonal grasses, with isolated chapparal.

No surface water was observed on the terrace during our exploration. Soils within the site and on the bluff face are generally dry. Water seepage was observed on the lowest section of bluff face within the loose soil and rock talus.

4.0 SITE GEOLOGY AND SOIL CONDITIONS

4.1 Regional Geologic and Seismic Setting

The bedrock of this part of the Mendocino County coastal area, east of the San Andreas Fault, is comprised of the Tertiary-Cretaceous Coastal Belt Franciscan Complex. Locally, the Franciscan Complex includes well-consolidated sedimentary rocks such as sandstone, shale, and occasional conglomerate, and is highly sheared in some places.

The blufftop property occupies a gently-sloping marine terrace underlain by the Franciscan Complex bedrock. The terrace was formed during the Pleistocene Epoch, when periods of glaciation caused sea level fluctuations, which created a series of steps, or terraces, cut into the coastal bedrock by wave erosion. Shallow marine sediments (Pleistocene terrace deposits) were deposited on the wave-cut, bedrock platforms while they were submerged beneath the ocean during interglacial sea-level high stands. Some of these marine deposits have been locally eroded as the terraces began to emerge from the ocean due to uplift associated with the San Andreas Fault Zone during the middle and late Pleistocene. Present sea levels were achieved about 5,000 to 7,000 years ago.

The seismicity and tectonics of the Mendocino and Sonoma Counties coastal region are controlled by a network of generally northwest-trending strike-slip faults of the San Andreas Fault system. The active San Andreas Fault (north coast segment) is located offshore, approximately 1.4 miles (2.3 kilometers [km]) southwest of the site. Future, large magnitude earthquakes originating on this, or other nearby faults are expected to cause strong ground shaking at the site.

4.2 Site Geology and Soils

The two main geologic units at the site are the Tertiary-Cretaceous Period Franciscan Complex bedrock and the Pleistocene terrace deposits. Bedrock was encountered in the building area between approximately 4 and 5 ½ feet below the ground surface (bgs) in our test borings. The upper bedrock observed in our borings consists of light orange to yellow brown sandstone that is generally crushed to intensely fractured, sheared, low to moderate in hardness, and deeply weathered. At approximately 13 feet below ground surface (bgs), we encountered dark gray sandstone that is generally crushed, low in



hardness to hard, and moderately to little weathered. Hardness generally increased, and weathering generally decreased with depth.

We encountered intermittent, pervasively sheared zones within the bedrock that were generally weaker than the non-sheared intervals. In addition, in Boring B-1, downslope of the building area we sampled through a soft zone (4 SPT blows per foot) at about 25 feet bgs. This depth correlates with the projection of an old landslide slip plane in this area.

A thin layer, 4 to 5.5 feet in thickness, of unconsolidated (well-indurated in some places) Pleistocene marine terrace deposits mantle the bedrock at the site. The terrace deposits consist of beach or shallow marine sediments that are typically comprised of sands with some silt, gravel and clay, along with incorporated rock fragments from the underlying bedrock platform. The terrace deposits were deposited in lenses that are generally flat, with local undulations caused by the variable-energy nature of the depositional environment. Small outcrops of well-indurated gravels (terrace deposits) were observed near the northwest corner of the planned building envelope, along the property line (Plate 2). These outcrops appear relatively erosion-resistant. As observed in our borings, the marine terrace deposits generally consist of light brown, silt-sand-gravel mixtures that have a medium dense consistency. In some areas, the terrace deposits are covered with a thin veneer of brown silty sand to sandy silt topsoil. The topsoil is generally porous, has a loose/soft to medium dense/medium stiff consistency, and contains roots.

No bedrock outcrops were observed within the upper part of the property. Isolated outcrops of the Franciscan Complex bedrock were observed on the bluff face, just below the property, and generally consist of gray to light brown shale and sandstone that is massive, intensely fractured, occasionally sheared, low to moderate in hardness, and deeply weathered.

We observed a topographic horseshoe-shaped scarp near the western edge of the planned building envelope. It appears to be at least approximately 4 feet in height, however, it is not well-expressed on the topographic contours, presumably due to the thick, tall, vegetative cover in that area. The lateral extent of the scarp feature appears to be confined within the property (Plate 2). Below the scarp is a small, nearly-level area or bench, within the bowl defined by the scarp. This type of topography is generally indicative of a landslide or slump (Site Photograph E, Plate 12).

On the bluff face below the rock outcrops, most of the surface soils are obscured by thick vegetation. However, the surface soils we observed are generally comprised of silty sand with angular gravels derived from the bedrock below. These soils are generally loose and form bare talus and scree slopes where not held in place by vegetation. In general, the behavior of the surface deposits on the bluff face is that of a debris-slide slope. However, no large cracks, scarps, or other signs of incipient, large-scale sliding were observed on this section of the bluffs.



The wide bench at the toe of the bluff face appears to be a large, old, dormant slide block. No signs of cracking or incipient failure were observed on the level area or near the break in slope with the steep bluff face above. However, large soil cracks and developing scarps were observed along the western and southwestern edges of the bench (Site Photograph D, Plate 11). As viewed from the beach, the bench is comprised of large blocks of rock amid a matrix of loose talus and soil that is experiencing ongoing surficial sloughing and scree-slides of varying intensity (Site Photograph F, Plate 13).

We observed recent, ongoing and incipient landslides and rock falls along the edge and face of the bluff in this area (Plates 11, 13, and 14). As noted in OFR's 84-13 and 2007-1133, the entire bluff face below Navarro Way is a debris slide slope, a geomorphic feature characterized by steep, partially vegetated slopes that have been sculpted by numerous debris slide events. The vegetated slopes are partially disrupted by shallow slope creep deposits. The slope creep deposits are relatively shallow masses of soil and broken, weathered rock materials up to a few feet in thickness. These deposits support vegetation, but can also periodically move slowly or rapidly downslope, primarily during, or shortly after periods of rain, or a strong seismic event.

The bluffs at Irish Beach are uplifted higher than bluffs to the south of Alder Creek (see Plate 1). The uplift is likely a result of local compression associated with the northerly bend of the San Andreas Fault.

No sea caves were observed in the bluff toe below the property. We did not observe evidence of active faulting at the property. No faults are shown on or trending toward the property on any of the published references we reviewed for this investigation. However, because of the proximity of the site to the San Andreas Fault Zone, and the nature and origin of the Franciscan Complex bedrock, ancient (inactive) faults within the coastal bedrock and bluffs are very common.

5.0 DISCUSSIONS AND CONCLUSIONS

5.1 General

Based on the results of our reconnaissance and subsurface exploration, we conclude that the site is geologically and geotechnically suitable for the proposed residence. The main geotechnical considerations affecting the proposed construction are loose and porous near-surface soils, potential settlement, bluff stability, landslides, bluff erosion/retreat rate, and strong seismic shaking from future earthquakes. These considerations and their possible mitigation measures are discussed below.

5.2 Loose/Porous Surface Soils

The upper approximately 4.5 to 5.5 feet of surface soils at the site contain roots and have a weak, porous consistency. These soils are susceptible to collapse and consolidation under light to moderate loads, and are not suitable for support of foundations or slab-on-



grades in their current condition. Recommendations for deepening of foundations below this weak soil zone are presented in the Section 6.0 of this report.

5.3 Settlement

Assuming foundations are designed and constructed in accordance with our recommendations, we estimate that the maximum post-construction settlement due to foundation loads will be less than 1/2 inch. We judge that post-construction differential settlement will be less than 1/4 inch between adjacent foundations.

5.4 Bluff Retreat

5.4.1 Previous Bluff Retreat Studies

During our previously mentioned reconnaissance at 14776 Navarro Way in 2005, BACE estimated an average retreat rate of approximately 4 to 6 inches per year. BACE interpreted the bluff edge to be within that subject property, west of Navarro Way, at a prominent break in slope. The behavior of the bluff face as that of a debris slide slope, and the presence of the dormant slide block at the base of the bluffs, were noted. In their previously mentioned 1994 report for 15170 Irish Beach Drive, Kleinfelder noted "little or no changes of the top of the bluff, as interpreted from aerial photographs," and estimated a very low retreat rate of less than one inch per year. However, the slide-prone nature of the middle and lower bluff face was acknowledged.

5.4.2 Current Bluff Retreat Study

For our analysis, we used measurements on the 1963, 1981, and 2000 vertical aerial photographs as well as qualitative comparisons of the 1972, 1979, 1987, 2002, and 2005 oblique aerial photographs. We also reviewed correspondence between David Paoli and Dr. Mark Johnsson regarding the location of the bluff edge at the subject property. According to Dr. Johnsson, per the CCC's regulations (summarized in the above-referenced 2003 report by Dr. Johnsson), "the bluff edge is very near the position of Navarro Way." We also reviewed the above-referenced USGS OFR 2007-1133, which, for the subdivision of Irish Beach, states (emphasis added): "Measurements indicate that the average rate of retreat here is over 1 m/yr [meter per year], and that the *cliff top* has eroded nearly 75 m in ~ 70 years."

We find the USGS's description and estimate of "cliff top" retreat to be problematic for the following reasons. First, the position of the CCC-defined bluff edge along Navarro Way is visible in the 1963 vertical aerial photograph (Plate 4). This photograph shows the area before Navarro Way was cut and graded along the bluff edge. The 1972, 1981, 2000 and 2005 photographs show Navarro Way and subsequent construction along both sides of the road (Plates 5, 6, 7 and 9). Each of the residences visible in the 1972 and 1981 photograph, plus others, are also visible in the 2005 photograph.



If, as the USGS report states, the “cliff top” has eroded 75 meters in the last 70 years, it should have, on average, eroded more than 37 meters in the last 37 years (approximate span of our photograph analysis). Clearly, that is not the case, if we hold to the CCC definition of the “bluff edge” or “cliff top” being sited at Navarro Way. Navarro Way and nearby residences would have been removed by rapid bluff edge retreat, during the 37-year time frame. Furthermore, the rough-graded beach access road is still there (although somewhat eroded and/or covered by vegetation), except for the lower portion that failed (destroyed by landslides) between 1963 and 1972.

Second, at the scales of our aerial photographs, an average retreat of 37 meters between 1963 and 2000 (1 m/yr) would be evident as approximately 0.5 to 0.6 inches on the photographs. “Retreat” of the broadly rounded bluff edge below Navarro Way is clearly not occurring at that scale.

It should be noted that the authors of OFR 2007-1133 used recently-developed, 1998-2002 Length Detection and Ranging (Lidar) data to locate the cliff edge. The authors then compared this highly accurate cliff edge data with the cliff edge shown on 1920 to 1934 NOS T-sheets. The T-sheets were rectified with datum corrections before the T-sheets were digitized. No example of one of the used T-sheets was shown on OFR 2007-1133. It appears to BACE that the authors were comparing good, new data with old, questionably accurate data.

The upper bluff edge along Navarro Way has not changed at all since Navarro Way was constructed between 1963 and 1972. Perhaps a more applicable discussion for the Navarro Way area would be that of “bluff face erosion.” Erosion of surface soils and loose rock is occurring at varying rates all along the steep slopes below the Irish Beach subdivision. As noted in OFR’s 84-13 and 2007-1133, the entire bluff face below Navarro Way is a debris slide slope, a geomorphic feature characterized by steep, partially vegetated slopes that have been sculpted by numerous debris slide events. Individual slide areas are periodically re-activated on the bluff face, some of which were noted and described in Section 4.0 of this report.

The aerial photographs show that some noticeable erosion has occurred since 1963 along the toe of the bluff below the site, on the western face of the dormant slide block. Our site reconnaissance and quantitative review of aerial photographs indicate an *average* bluff retreat (erosion) rate along the western face of the slide block is about 3 inches per year (we calculated rates as high as 5.5 inches per year and as low as ½ inch per year in this area). At this average rate, the bluff toe block could erode back approximately 18.75 feet over the next 75 years.

Sloughing, rock falls, and scree slides are expected to continue on the western face of the dormant slide block, as it remains very steep, unvegetated, and has little protection from direct wave attack at its base. However, ongoing erosion of this lower block of earth is not anticipated to impact the stability of the upper bluffs as a whole.



Periodic slides on the steep bluff face below the property (above the bluff-toe block) will, over time, create steep scarps and intervening, less steep areas, as the slope approaches its angle of repose (the maximum slope or angle at which loose material remains stable). This process could eventually lead to instability at the uppermost part of the bluffs, along Navarro Way, due to oversteepening. However, such dramatic reshaping of the bluff face is likely to occur over geologic time, rather than within the economic life span of the planned structure (considered to be 75 years by the CCC). In addition, other than the mapped dormant slide immediately below the planned building area (described in Section 4.2 of this report), no indications of incipient, large scale slumps or slides, such as ground fractures or developing scarps, were observed on the steep bluff face above the lower bench/dormant slide block.

Our qualitative comparison of the vertical and oblique aerial photos shows no discernable gross changes to the bluff edges at the site, such as large slumps or rockfalls. Several bare-soil areas and scarps that are visible on the bluff face south of the subject property in the 1972 photograph become increasingly vegetated over the span of the photographs. However, we observed ground fractures in the field at many of those same locations, indicating ongoing creep along the old slide scars.

5.5 Bluff Stability Analysis

Our bluff stability analyses were performed to correspond, as a minimum, to the guidelines by Dr. Mark J. Johnsson, Staff Geologist, California Coastal Commission, "Establishing Development Setbacks from Coastal Bluffs", Proceedings, California and the World Ocean '02, in which he suggests a factor of safety greater than or equal to 1.5 for static conditions and 1.1 for seismic conditions, permanent displacement of less than 50mm, and horizontal seismic coefficient of 0.15g.

Our bluff stability analyses was also performed in accordance to Special Publication 117 Guidelines for Evaluation and Mitigating Seismic Hazards in California 2008, by the California Geological Survey. This report suggest slopes that have a pseudo-static factor of safety greater than 1.0 using a seismic coefficient derived from the screening analysis procedure can be considered stable.

The location of Cross Section A-A' used for our stability analysis is shown on attached Plate 2. Partial cross section A-A' is shown on Plate 3.

Six soil/rock "units", with different density and strength parameters, were delineated within the bluff for our stability analysis. Unit "1" is the upper, relatively thin deposit of loose to medium dense, silty sand or gravel Pleistocene terrace deposits. Unit "2" is the upper deeply to moderately weathered sandstone beneath the terrace deposits. Unit "3" is the lower, moderately weathered, sandstone. Unit "4" is the hard to very hard and little weathered sandstone. Unit "5" is the upper existing landslide, and Unit "6" is the lower existing landslide zone. Soil/rock properties and strengths used in our analysis are shown in the table below.



Table – Strength Parameters

	Wet Density (pcf)	Cohesion (psf)	Friction Angle (degrees)
Unit 1	120	500	0
Unit 2	135	1400	0
Unit 3	140	3200	0
Unit 4	145	8700	0
Unit 5	120	50	19
Unit 6	120	400	33

Our slope stability analysis indicates that the bluff is stable within the planned building area, as shown in Appendix B.

5.6 Seismicity and Faulting

As is typical of the Mendocino County area, the site will be subject to strong ground shaking during future, nearby, large magnitude earthquakes originating on the active San Andreas Fault, or possibly other, more distant fault systems. The intensity of ground shaking at the site will depend on the distance to the causative earthquake epicenter, the magnitude of the shock, and the response characteristics of the underlying earth materials. Generally, wood-frame structures founded in supporting materials and designed in accordance with current building codes are well suited to resist the effects of ground shaking.

No evidence of recent faulting was observed by BACE or shown in the site vicinity on the published geologic maps that we reviewed for this investigation. The presence of ancient faults within the coastal bluffs is common, and should not impact the proposed residence due to their inactivity. Therefore, the potential for fault rupture at the site is considered low.

5.7 Tsunami/Storm Waves

As typical of the Mendocino coastal area, the bluffs below the site could be subject to large storm waves or tsunami waves. In February 1960, the Point Cabrillo Light House was damaged by an approximately 60 feet high storm wave. Since the property bluffs are approximately 280 feet in vertical height, tsunami/storm wave inundation is not considered a geologic hazard for this site.



6.0 RECOMMENDATIONS

6.1 Geologic Setback

The CCC has resolutely identified the location of the bluff edge in this area to be at Navarro Way. The entire subject property, including the proposed building area, is therefore located over the bluff edge, on the uppermost, broadly rounded, gently-sloping bluff face. Therefore, a bluff edge setback, which is typically given for bluff-top properties, is not applicable to this project. Instead, based on our site reconnaissance and slope stability analyses, we have determined a geologic setback from the headscarp of the old landslide on the property.

In the stability analysis, incorporating the designed pier foundation (described in Section 6.2.3 below), the bluff face within the building area was stable under both static and seismic conditions, including the appropriate factors of safety. In our aerial photograph studies, no long-term erosion was detected along the true bluff edge, and negligible changes were discernable along the uppermost bluff face. Therefore, using the methodology described in Mark Johnsson's above-referenced report, we recommend a geologic setback of 30 feet from the old landslide headscarp, in order to meet minimum slope stability standards. We recommend this geologic (landslide scarp) setback for all future improvements, including leachfields.

Some areas of the bluff may have localized failures, involving a few feet of lost material, during an occasional, severe storm season. Care should be taken to avoid saturation of site soils due to over-watering or improper diversion of site drainage, especially near the old landslide scarp (Plate 2). Recommendations regarding site drainage are presented below.

6.2 Site Grading

6.2.1 Clearing and Stripping

Areas to be graded should be cleared of existing vegetation, rubbish, and debris. After clearing, surface soils that contain organic matter should be stripped. In general, the depth of required stripping will be about 4 to 6 inches; deeper stripping and grubbing may be required to remove isolated concentrations of organic matter or roots. The cleared materials should be removed from the site; however, strippings can be stockpiled for later use in landscape areas.

6.2.2 Structural Area Preparation

As used in this report, "Structural Areas" refers to the foundation and slab areas and the areas extending five feet beyond their perimeters. Within concrete slab areas, the upper approximately 3 feet of existing weak soils should be removed. After the recommended excavations, a BACE representative should observe the exposed soils. These soils should



then be scarified to about six inches deep, moisture conditioned to at or near optimum moisture content (OMC) and compacted to at least 90 percent relative compaction (RC) as determined by the ASTM D 1557 test procedure, latest edition. These moisture conditioning and compaction procedures should be observed by BACE to determine that the soil is properly moisture conditioned and the recommended compaction is achieved.

Fill material, either imported or on-site, should be free of perishable matter and rocks greater than six inches in largest dimension, and should be approved by a representative of BACE before fill placement. We anticipate that the existing on-site soils to be excavated, in a "cleaned" condition (i.e., less any organics and debris) are satisfactory for reuse as compacted fill. Isolated lenses of clay, if encountered, should be thoroughly mixed with sandy soils prior to use as fill. Imported fill for use in structural areas should be of relatively low expansion potential (i.e., Expansion Index of 30 or less).

Low-expansive engineered fill, on-site or imported, should be placed in thin lifts (six to eight inches depending on compaction equipment), moisture conditioned to near OMC, and compacted to at least 90 percent RC, to achieve planned grades.

Alternatively, the underslab excavations may be backfilled with a thickened layer of clean, free-draining gravel or crushed rock (see specifications for underslab gravels in "Concrete Slab Floor Support" below). Gravel backfill should be vibrated into place in thin lifts (six to eight inches). BACE should be retained to observe and probe the compacted gravel layer for interlock prior to placement of concrete.

6.3 Foundation Support

6.3.1 General

As encountered in our test borings, most of the building area is underlain by approximately 8 feet of weak soils and weathered bedrock. These soils are unsuitable for foundation support in their current state. Structure foundations and concrete slabs placed directly upon weak or porous soils could undergo damaging differential settlement due to porous soil collapse when loaded in a saturated condition. Foundation-supporting elements must penetrate through these upper, weak soils, such as cast-in-place concrete (CIPC) drilled piers. Our recommendations pertaining to drilled piers are presented below.

6.3.2 Cast-in-Place Concrete Drilled Piers

Support for the proposed residence and garage can be obtained using a drilled, CIPC pier and grade beam foundation system. Piers should be a minimum of 24 inches in diameter and spaced no closer than three pier diameters, center to center. Support for the deck, detached from the residences can be obtained using CIPC piers with a minimum diameter of 12 inches. The piers should penetrate a minimum of ten feet into supporting materials (bedrock), as identified by BACE personnel. The weak terrace deposits and upper,



deeply weathered bedrock should be neglected for support (8 feet at our test Borings B-2 and B-3). The average pier depth is anticipated to range from about 18 to 20 feet below the existing ground surface.

The drilled piers should be designed to gain support from skin friction, within supporting material, using a value of 600 pounds per square foot (psf) of shaft area for dead plus live loads. For total downward loads, including wind or seismic forces, the pier capacity can be increased by one-third. Uplift frictional capacity for piers should be limited to 2/3 of the allowable downward capacity.

Resistance to lateral loads can be obtained using passive earth pressure of 800 psf plus 180-psf per foot of depth (trapezoidal distribution) within supporting bedrock. Passive pressures can be projected over two pier diameters and should be limited to depths above 7 times the pier diameter, and should be neglected in porous soil zones.

When final pier depths have been achieved, as determined by BACE in the field, the bottoms of the pier holes should be cleaned of loose material. Final clean out of the pier holes should be observed by BACE. If necessary, pier holes should be dewatered prior to placement of reinforcing steel and concrete. Alternatively, concrete can be tremied into place with an adequate head to displace water or slurry if groundwater has entered the pier hole. Concrete should not be placed freefall in such a manner as to hit the sidewalls of the excavation.

6.4 Seismic Design Criteria

The proposed structures should be designed and constructed to resist the effects of strong ground shaking in accordance with current building codes. The California Building Code, 2007 edition, indicates that the following seismic design parameters are appropriate for the site:

Site Class = D

Mapped Spectral Response Acceleration at 0.2 sec $S_s = 2.132g$

Mapped Spectral Response Acceleration at 1.0 sec $S_1 = 1.183g$

Design Spectral Response Acceleration at 0.2 sec $S_{DS} = 1.422g$

Design Spectral Response Acceleration at 1.0 sec $S_{D1} = 1.183g$

Seismic Design Category = E

6.5 Concrete Slab Floor Support

A structural concrete slab should be used (i.e., the slab is supported by and able to span between, interconnecting foundation elements without gaining support from underlying soil). Because the concrete slab will gain support from the pier and grade beam foundation system, over-excavation of the near-surface weak soil zone is not required. However, topsoils containing organics should be removed beneath the planned slab (as much as four inches to six inches in depth below existing ground surface).



The weak soils in their present condition are not suitable for slab support. Concrete slab-on-grade floors not supported by foundation elements should be supported on properly compacted fill soils placed in accordance with our recommendations previously presented in section 6.1 Site Grading.

During foundation and utility trench construction, previously compacted subgrade surfaces may be disturbed. Where this is the case, the subgrade should be moisture conditioned as necessary, and re-rolled to provide a firm, smooth, unyielding surface compacted to at least 90 percent RC before construction of slabs-on-grade.

Concrete slab floors, in contact with the ground surface, including garage areas, should be underlain by at least four inches of clean, free-draining gravel or crushed rock, graded in size from 1-1/2 or 3/4 inches maximum to 1/4 inches minimum, to act as a capillary moisture break. Within traffic or vibratory loaded areas, crushed material should be used to provide a tight interior lock for the aggregates. An underslab drain should be installed as shown on the attached Plate 23. If a soil-supported slab is used, shrinkage cracks in the sub-grade soils should be closed (by wetting) before placement of gravel or rock. Where migration of moisture through the floor slab would be detrimental to its intended use, the installation of a vapor retarder membrane should be considered. The membrane should be at least 10-mils thick and should be overlapped a minimum of 2 feet between adjoining sheets. However, construction of vapor retarders does not guarantee the prevention of moisture moving through slabs.

6.6 Retaining Walls

Retaining and subsurface walls should be provided with permanent back drainage to prevent buildup of hydrostatic pressure. Drainage and backfill details are presented on Plate 24. Quality, placement and compaction requirements for backfill behind subsurface walls are the same as previously presented for select fill. Light compacting equipment should be used near the wall to avoid overstressing the walls.

Retaining walls should be designed to resist the lateral earth pressures presented on Plate 25. These pressures do not consider additional loads resulting from adjacent foundations, vehicles, or other downward surcharge loads. BACE can provide consultation regarding surcharge loads, if needed.

In addition to static loads, the retaining walls should also be designed to resist potential seismic loads, in accordance with new California Building Code requirements. For seismic loads, a pressure increment equivalent to an inverted triangular distribution is recommended, varying from 0 (zero) pounds per square foot (psf) at the bottom of the wall to $26H$ psf at the top of the embedded portion, where "H" is the height of the embedded portion (resultant dynamic thrust act at $0.6H$ above the base of the wall). The resultant distribution of both static and seismic pressures will thus be trapezoidal.



6.7 Site Drainage

Because surface and/or subsurface water is often the cause of foundation or slope stability problems, care should be taken to intercept and divert concentrated surface flows and subsurface seepage away from the building foundations and the old slide scarp area. Roof runoff water should be directed away from the residence and dispersed, as much as practical, across the lot. Drainage across the lot should be by sheet-flow. Surface grades should maintain a recommended three percent gradient away from building foundations.

If a raised wood floor is used, the area under the floor should be graded to drain towards an under house drain with a conduit outlet(s) through the footings/stem walls. Two-inch or four-inch PVC sleeves, or equivalent should be placed within the forms, at or slightly below ground level, prior to concrete placement.

Irrigation near the old slide area should be kept to a minimum. Saturation of these weak soils, or excess seepage along their base, could cause sloughing and re-activation of the slide plane. Care should be taken to avoid concentrated surface flow of runoff along the bluff face.

7.0 ADDITIONAL SERVICES

Prior to construction, BACE should review the final grading and foundation plans, and soil related specifications for conformance with our recommendations. During construction, BACE should be retained to provide periodic observations, together with the appropriate field and laboratory testing during site preparation, subdrain installations, and placement and compaction of fills. Foundation excavations (pier drilling) should be reviewed by BACE while the excavation operations are being performed. Our reviews and tests would allow us to check that the work is being performed in accordance with project guidelines, confirm that the soil and rock conditions are as anticipated, and to modify our recommendations, if necessary.

8.0 LIMITATIONS

This geotechnical investigation and engineering geologic reconnaissance of the ocean bluff property were performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report. Our conclusions are based upon reasonable geological and engineering interpretation of available data.

The samples taken and tested, and the observations made, are considered to be representative of the site; however, soil and geologic conditions may vary significantly between test borings and across the site. As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the



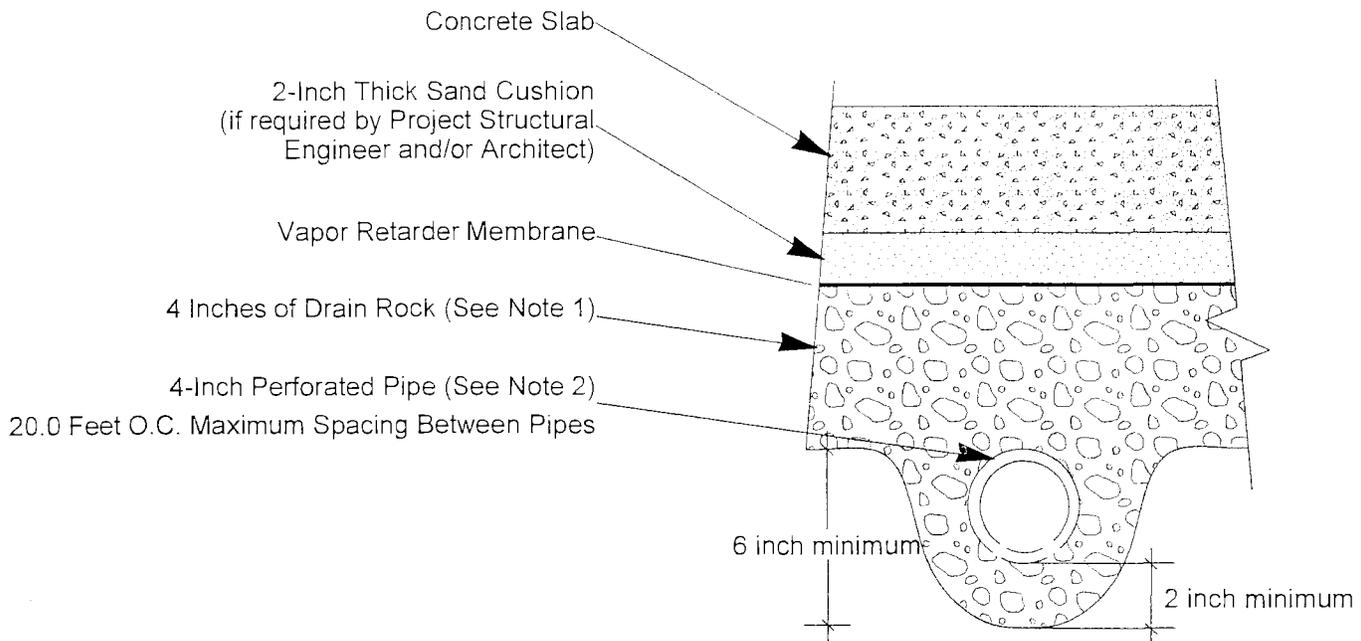
changed conditions must be evaluated by BACE, and revised recommendations be provided as required.

This report is issued with the understanding that it is the responsibility of the Owner, or his/her representative, to insure that the information and recommendations contained herein are brought to the attention of all other design professionals for the project, and incorporated into the plans, and that the Contractor and Subcontractors implement such recommendations in the field. The safety of others is the responsibility of the Contractor. The Contractor should notify the owner and BACE if he/she considers any of the recommended actions presented herein to be unsafe or otherwise impractical.

Changes in the condition of a site can occur with the passage of time, whether they are due to natural events or to human activities on this, or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, this report may become invalidated wholly or partially by changes outside of our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The recommendations contained in this report are based on certain specific project information regarding type of construction and building location, which have been made available to us. If conceptual changes are undertaken during final project design, we should be allowed to review them in light of this report to determine if our recommendations are still applicable.





NOT TO SCALE

NOTES:

1. Drain rock should be clean, free-draining material graded in size between the No.4 and 3/4 or 1-1/2 inch sieves.
2. Pipe should be SDR 35 or equivalent, placed with perforations down, sloped at 1% to gravity outlet, or sump with automatic pump.
3. A clean-out pipe with cap should be installed at the up-slope end of perforated pipe.

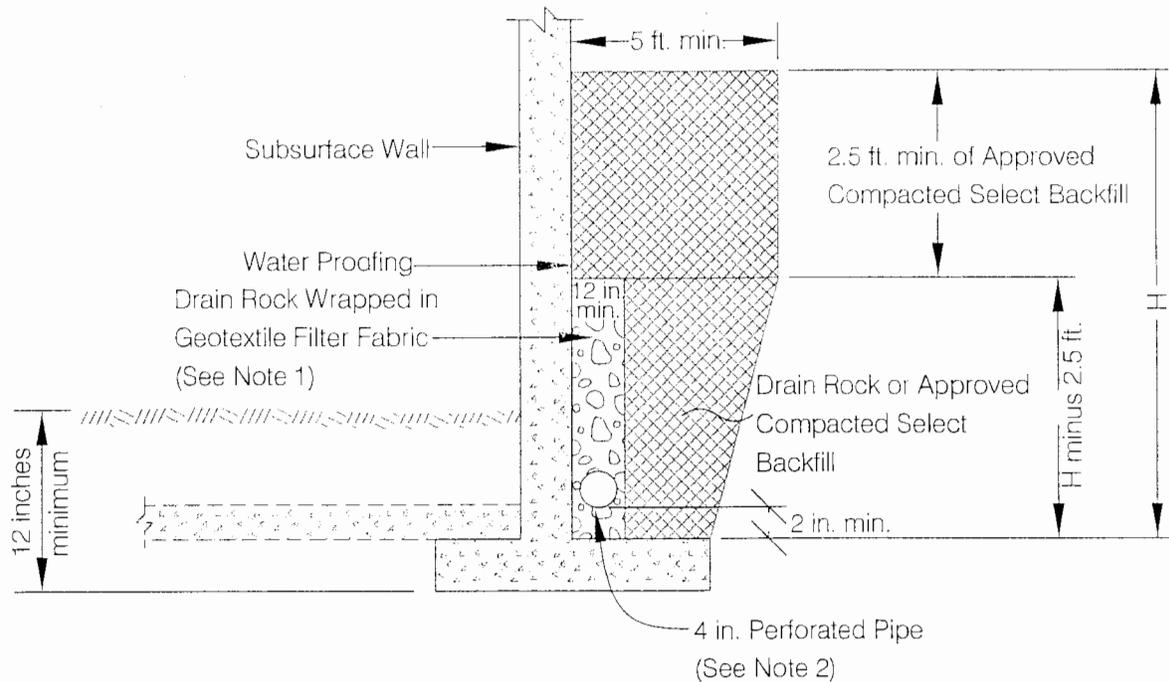


BACE GEOTECHNICAL
a division of
Brunsing Associates, Inc.
(707) 528-6108

Job No.: 12132.1
Appr.: *EED*
Date: 12/09/08

UNDERSLAB DRAINAGE DETAILS
McCONNELL RESIDENCE
14820 Navarro Way
Irish Beach, Manchester, California

PLATE
23



SUBSURFACE WALL DRAINAGE DETAIL

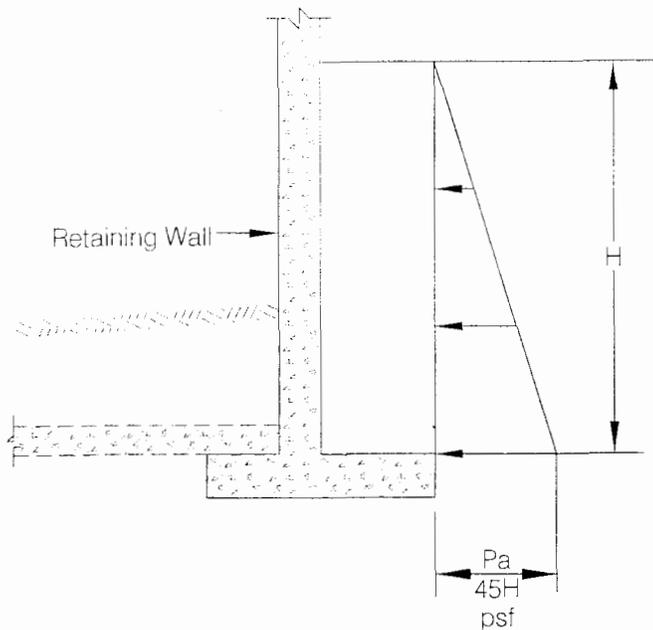
(Not to Scale)

NOTES:

- (1) Drain rock should be clean, free-draining and meeting the requirements for Class 1, Type B, Permeable Material, Section 68, Caltrans Standard Specifications, latest edition and should be wrapped in geotextile filter fabric (Mirafi 140 or equivalent).
- (2) Pipe should be SDR 35 or equivalent, placed with perforations down, and sloped at 1% to drain to gravity outlet or sump with automatic pump.
- (3) A clean-out pipe with cap should be installed at the up-slope end of perforated pipe, and pipe elbows should be 45 degrees or less (for "snake" access).

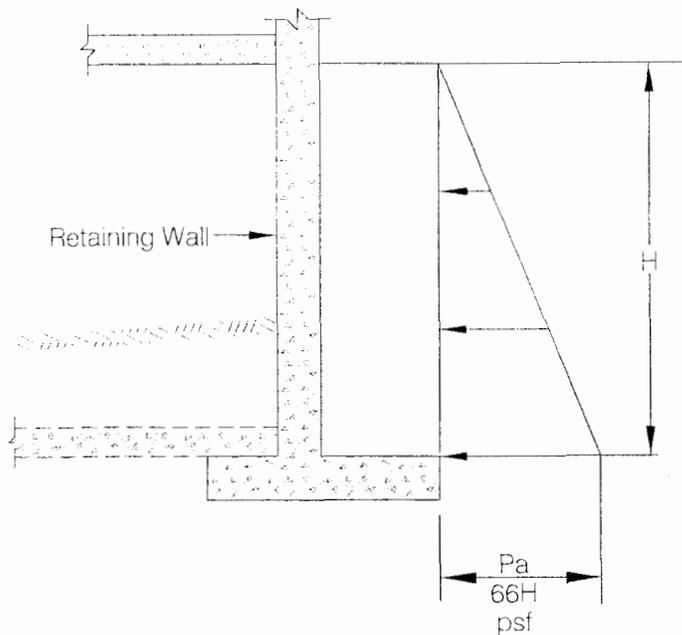
23 of 24

	<p>BACE GEOTECHNICAL a division of Brunsing Associates, Inc. (707) 528-6108</p>	<p>Job No.: 12132.1 Appr.: <i>EEO</i> Date: 12/09/08</p>	<p><u>RETAINING WALL DRAINAGE DETAIL</u> McCONNELL RESIDENCE 14820 Navarro Way Irish Beach, Manchester, California</p>	<p>PLATE 24</p>
------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------	----------------------------



ACTIVE SOIL PRESSURES DIAGRAM

For walls that are free to yield slightly (See Note 2)



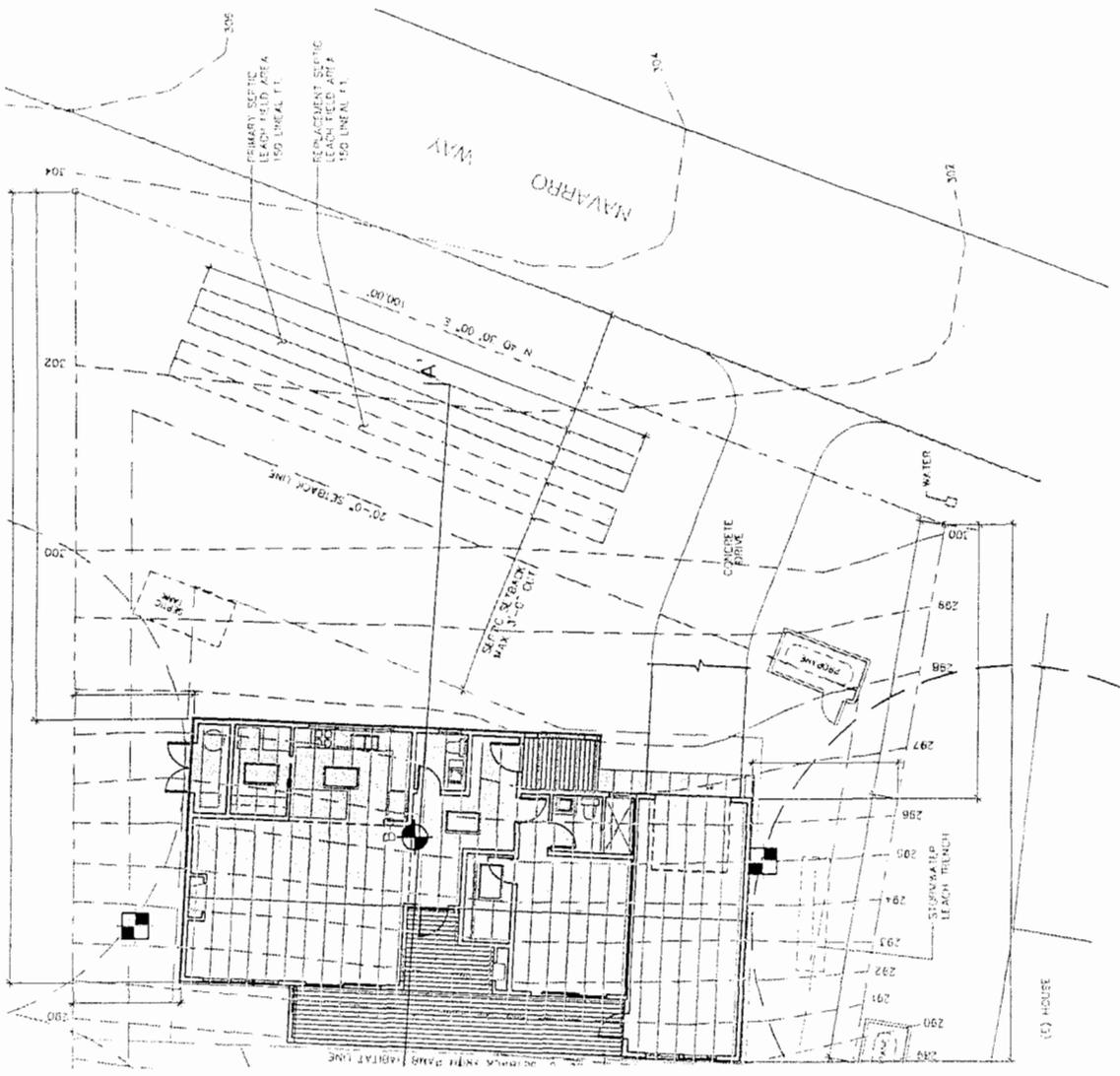
AT-REST SOIL PRESSURES DIAGRAM

For braced walls of substantial rigidity (See Note 2)

NOTES:

- (1) The above are soil pressures only and do not include lateral loads resultings from such as traffic, floor loads, adjacent foundations or other vertical loads.
- (2) If the wall, at surface of the backfill, cannot yield about 0.1% of its' height, the wall should be considered as a braced wall and the at-rest soil pressures should be used.
- (3) The above pressures assume a drained condition. See Plate 24 for drainage and backfill details.
- (4) The above pressures should be used where backfill slope is flatter than 3 horizontal to 1 vertical (3H:1V). Where backfill slope is between 3H:1V and 1.5H:1V, use active pressure of 55H psf and at-rest pressure of 87H psf.
- (5) For seismic pressures see Retaining Wall Section in the investigation report.

	BACE GEOTECHNICAL a division of Brunsing Associates, Inc. (707) 528-6108	Job No.: 12132.1 Appr.: <i>EEO</i> Date: 12/09/08	RETAINING WALL LATERAL EARTH PRESSURES McCONNELL RESIDENCE 14820 Navarro Way Irish Beach, Manchester, California	PLATE 25



245

BACE Geotechnical
 a division of
 Bruning Associates, Inc.
 (707) 528-6108

Job No.: 12132.1
 Appr.: **EEO**
 Date: 12/09/08

PLATE
2

SITE PLAN
 McCONNELL RESIDENCE
 14820 Navarro Way
 Irish Beach, Manchester, California

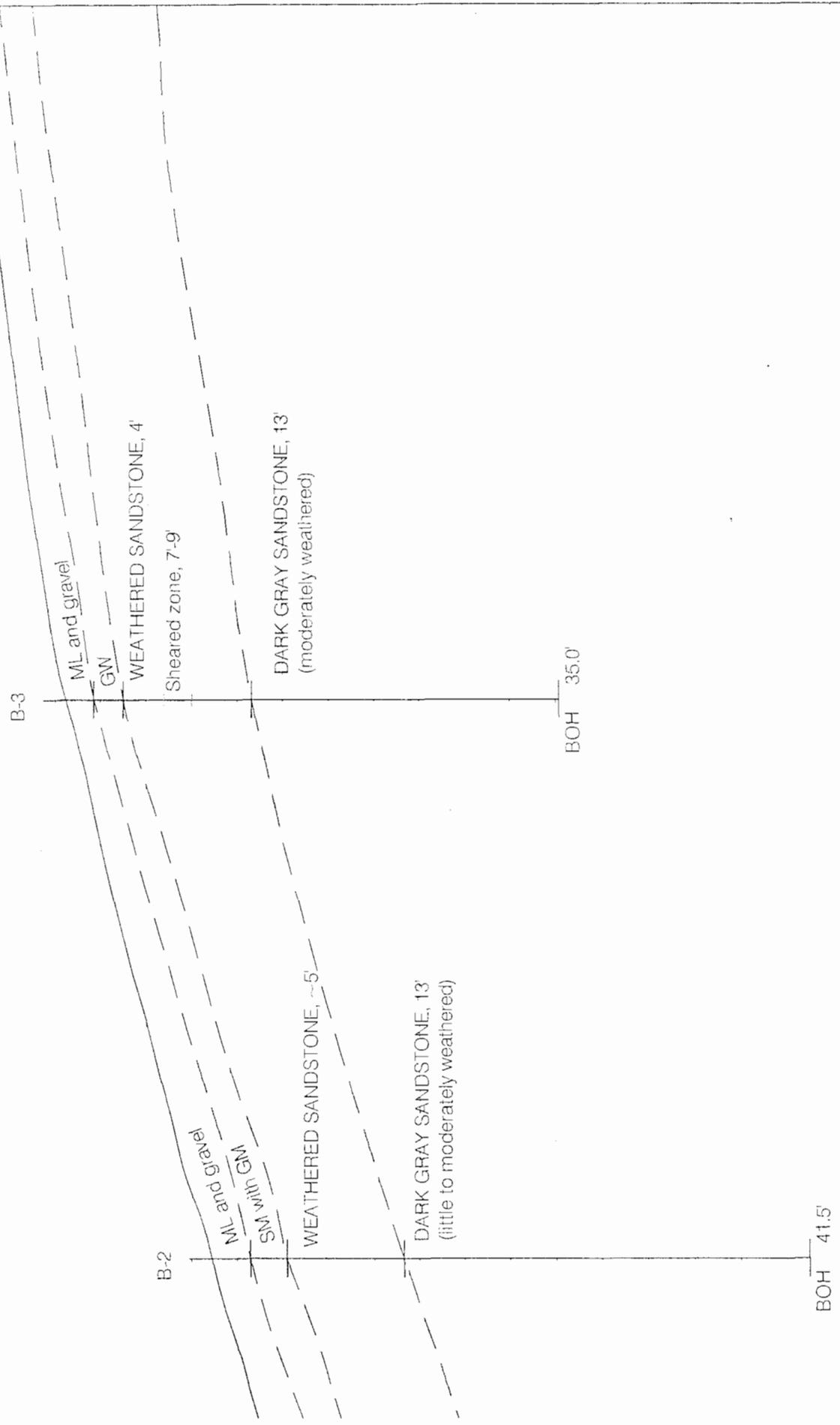


395

A'
East

Planned Leach Field

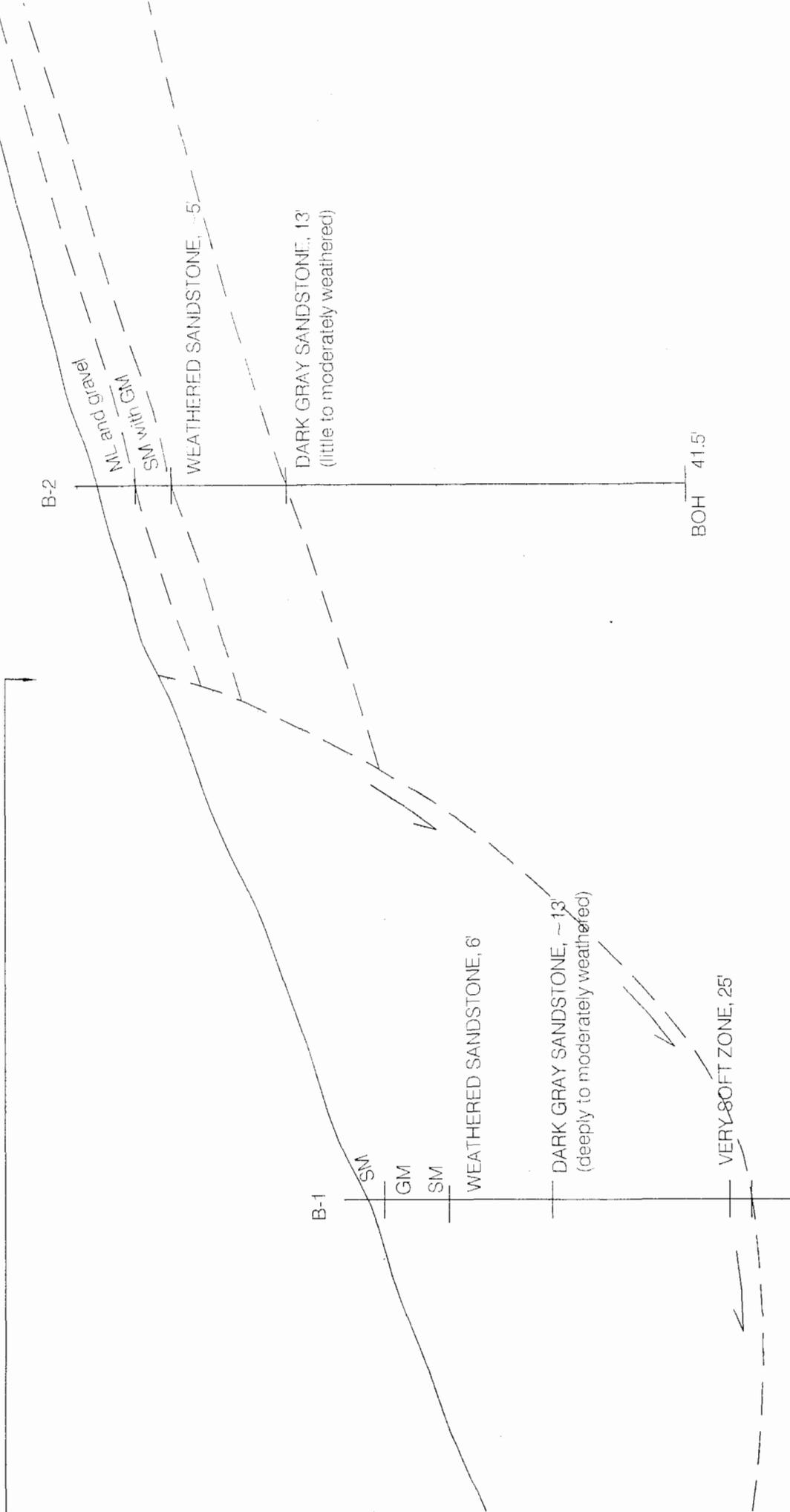
Planned Building Envelope



495

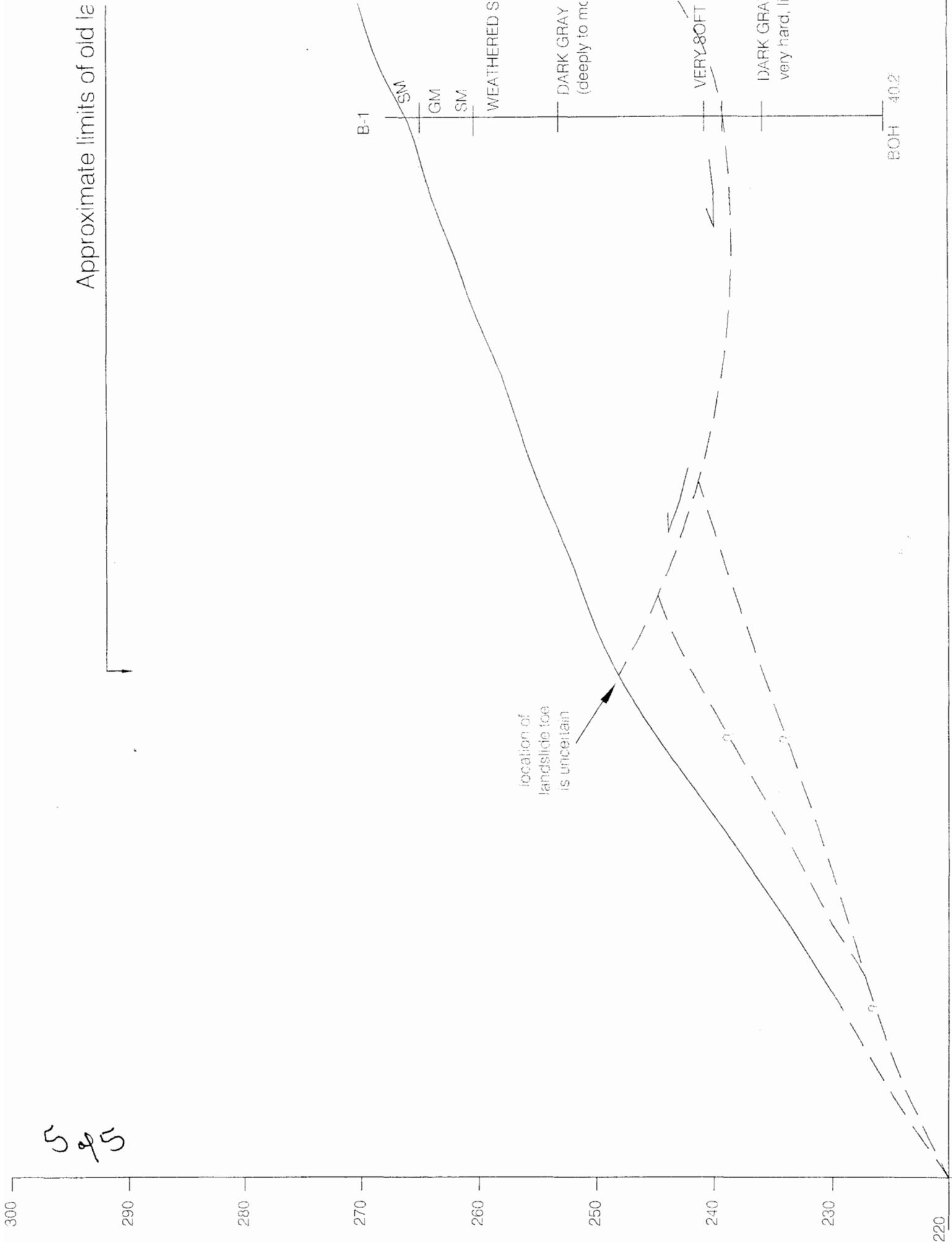
Planned Buildir

Approximate limits of old landslide



595

Approximate limits of old le





RECORDING REQUESTED BY:

Fidelity National Title Company of California
Escrow No.: 06-230100740-AP
Locate No.: CAFNT0923-0923-0001-0230100740
Title No.: 06-230100740-CT

2006-11795
Recorded at the request of
FIDELITY NATIONAL TITLE CO
06/15/2006 03:38P
Fee: 10.00 No of Pages: 2

**When Recorded Mail Document
and Tax Statement To:**

William H. McConnell and Marcia E.
McConnell, Trustees of the McConnell Living
Trust
25755 Josefa Lane
Los Altos, CA 94022

OFFICIAL RECORDS
Marsha A Wharff, Clerk-Recorder
Mendocino County, CA

APN: 132-020-05

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

	\$20.00 PAID
X	PCO FILED
	Exempt

The undersigned grantor(s) declare(s)
Documentary transfer tax is \$522.50

- computed on full value of property conveyed, or
- computed on full value less value of liens or encumbrances remaining at time of sale,
- Unincorporated Area City of **Manchester**,

/Joseph Kelada also known as

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Joe Kelada, an unmarried man

hereby **GRANT(S)** to William H. McConnell and Marcia E. McConnell, Trustees of the McConnell Living Trust

the following described real property in the City of **Manchester**, County of **Mendocino**, State of **California**:
SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

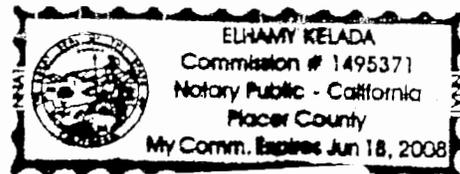
DATED: June 6, 2006

STATE OF CALIFORNIA)
COUNTY OF Placer)

Signature on File
Joseph Kelada / AKA Joe Kelada

ON June 13 2006 before me,
notary public, Elhamy Kelada, notary public
(here insert name and title of the officer), personally
appeared Joseph Kelada aka Joe Kelada

personally known to me (or proved to me on the basis of
satisfactory evidence) to be the person(s) whose name(s)
is/are subscribed to the within instrument and
acknowledged to me that he/she/they executed the same
in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s),
or the entity upon behalf of which the person(s) acted,
executed the instrument.



Signature on File

Witness my hand and official seal.

Signature Signature on File

MAIL TAX STATEMENTS AS DIRECTED ABOVE

EXHIBIT NO. 10
APPLICATION NO.
A-1-MEN-07-047 - McCONNELL
DEED RESTRICTION
RECORDED UNDER
AGREEMENT BETWEEN
APPLICANT'S & U.S. FISH &
WILDLIFE SERVICE (1 of 2)

Escrow No.: 06-230100740-AP
Locate No.: CAFNT0923-0923-0001-0230100740
Title No.: 06-230100740-CT

EXHIBIT "A"

The land referred to herein is situated in the State of California, County of Mendocino, Unincorporated Area, and is described as follows:

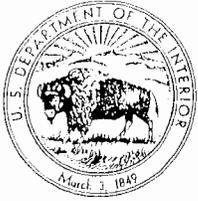
Lot 34, as numbered and designated upon the Map of "Unit One, Mendocino Coast Subdivision", filed June 1, 1965, in Map Case 2, Drawer 4, Page 23, Mendocino County Records.
APN: 132-020-05

The above described land is subject to the following described Conservation Easement and Deed Restrictions as follows:

That portion of the parcel to be considered the designated Point Arena mountain beaver (*Aplodontia rufa nigra*) habitat area is described as beginning at the southwest corner of said Lot 34; thence along the westerly lot line, North 4° 00' 00" West, 46.99 feet to the northwest corner; thence along the northerly lot line, North 73° 00' 00" East, 167.74 feet, more or less, to a ½ inch rebar with plastic cap stamped RCE 18341; thence leaving the northerly lot line and bearing South 14° 30' 37" East, 75.02, more or less to a ½ inch rebar with plastic cap stamped RCE 18341, said point on the southerly line of Lot 34; thence along said southerly lot line and bearing South 82° 30' 00" West, 177.43 feet, more or less, to the Point of Beginning. Within the designated habitat area there shall be a complete prohibition on any vegetation alteration or removal, ground disturbance, or any rodent control activities. All reasonable efforts shall be made to exclude domestic pets from the designated habitat area. A temporary barrier between the designated habitat area and the remainder of the parcel shall be constructed prior to, and maintained during, all construction activities, followed by the construction of a permanent fence or other barrier within six months after the initiation of construction activities. The permanent fence or barrier shall be at least 18 inches tall and be constructed of rock, wood, or other durable material. With suitable forewarning to the property owners, the U.S. Fish and Wildlife Service shall have access to the designated habitat area for the sole purpose of research or monitoring of Point Arena mountain beavers.

2 of 2





United States Department of the Interior



FISH AND WILDLIFE SERVICE

Arcata Fish and Wildlife Office

1655 Heindon Road

Arcata, California, 95521

Phone: (707) 822-7201 FAX: (707) 822-8411

In Reply Refer To:

AFWO File # 8-14-TA-2006-2898.4

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SEP 26 2008

SEP 24 2008

William McConnell
25755 Josefa Lane
Los Altos Hills, CA 94022

CALIFORNIA
COASTAL COMMISSION

Subject: Response to Request for Technical Assistance Regarding APN 132-020-05,
Construction of Residence, Irish Beach Subdivision, Mendocino County, California

Dear Mr. McConnell:

In correspondence dated June 7, 2006, January 3, 2007, and January 11, 2008, the U.S. Fish and Wildlife Service (Service) has provided input to your proposal to construct a residence on APN 132-020-05 located at Irish Beach Subdivision, Mendocino County, California. This lot is also identified as Irish Beach Lot 34-1 and as 14820 Navarro Way, Manchester, California. Based on the project description you provided, we previously determined that the proposed project would not be likely to result in unauthorized take of Point Arena mountain beaver (*Aplodontia rufa nigra*) (PAMB), and could proceed if all protective measures were implemented as proposed. One such measure was the complete prohibition on any vegetation alteration or removal or ground disturbance within the designated PAMB habitat area. We consider our determinations of no take to be valid only if all aspects of the proposed project remain the same as those reviewed and authorized by us.

The Service was notified on August 19, 2008, that recent vegetation removal and soil excavation had occurred within the designated PAMB habitat area on APN 132-020-05. On September 17, 2008, Mr. John Hunter of my staff visited the site and confirmed that the ground had been disturbed and vegetation removed within the designated PAMB habitat area. Accordingly, we have determined that your project is at risk of unauthorized take of PAMB, and that a Coastal Development Permit should not be issued for the parcel until the damage to PAMB habitat can be rectified. Specifically, we recommend that with our assistance and review, you develop and implement a plan to restore the site to as close to preexisting conditions as possible. Provided that all other aspects of the proposed project remain unchanged, we can reissue a determination of no take for your project at some point in the future when we have determined there is a reasonable certainty that the proposed restoration will be effective.

EXHIBIT NO. 11

APPLICATION NO.

A-1-MEN-07-047 - McCONNELL
U.S. FISH & WILDLIFE SERVICE
LETTER & RESTORATION
PLAN FOR 2008 IMPACTS TO
DEED RESTRICTED PAMB
HABITAT (1 of 12)

If you have questions regarding this correspondence, please contact Mr. John Hunter of my staff at the above letterhead address or at (707) 822-7201.

Sincerely,

Acting
Gen

A handwritten signature in black ink, appearing to read "Michael M. Long". The signature is written in a cursive style with a long horizontal stroke at the end.

Michael M. Long
Field Supervisor

cc: California Coastal Commission, Eureka, CA (Atten: Bob Merrill)
Mendocino County Department of Planning and Building Services, Fort Bragg (Atten:
Teresa Spade)

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CALIFORNIA
COASTAL COMMISSION

Restoration Plan

For

William McConnell Coastal Development Permit: 76-2006, 14820 Navarro Way,
Manchester (APN) 132-020-05
October 2008

In an effort to restore the northern coastal scrub/PAMB habitat impacted during the geotechnical analysis conducted by BACE Geotechnical, Inc., a restoration plan has been requested by USFWS. The goal of this plan is to restore the impacted areas back to pre-existing topography and ecological functioning PAMB habitat.

The basic premise of this plan is to allow the site to re-grow naturally and to monitor the process with monthly photo-documentation. Specific elements of the plan include limited soil re-grading, invasive plant removal, monitoring, and implementation of erosion control measures.

The Plan has been designed with input from John Hunter and Teresa Spade (Mendocino County Planning staff); the specific elements are as follows:

1. Assist new growth

Hand-water the areas of disturbance until the on-set of the rainy season in order to assist the natural re-growth process. Continue watering as necessary if any dry periods occur.

2. Delineate the Designated PAMB Habitat Area

A two-page conservation deed restriction was recorded with the County of Mendocino with the dates of June 6, and June 15, 2006. Although the Designated PAMB Habitat Area has been officially surveyed, there are no apparent stakes or markings in the field to delineate the Designated PAMB Habitat Area from the rest of the parcel. This task must be completed by a professional surveyor with stakes and flagging that clearly delineate the Designated PAMB Habitat Area, in accordance with the measurements given in Exhibit A of the deed restriction that was accepted by the USFWS per their letter of January 3, 2007. This visual demarcation will assist in evaluating the success of the restoration plan and serve as a guide for the placement of exclusionary fencing.

3. Monitor

The areas of disturbance are to be photo-documented monthly using a clearly marked yardstick or equivalent to record the rate and amount of re-growth. At each site several photo points shall be established; at each point photos of different angles (including a view directly down so % cover can be calculated directly from the photos) will be taken. This photo-documentation and a description of the re-growth rate and percent cover of species present shall be submitted to John Hunter of USFWS and will continue until USFWS staff has assessed the re-vegetation process as a success.

4. Remove invasive plants

During each photo session the areas of disturbance shall be examined for the presence of invasive plants. All non-native plants shall be removed with minimal disturbance using hand tools and disposed of at an appropriate off-site location. A small on-site ice plant patch will be eradicated using hand pulling and removal of all shoot segments to prevent re-sprouting.

5. Implement erosion control measures

If necessary, geotextile (organic and biodegradable) jute or coir roll shall be staked downslope of each area of disturbance to prevent soil erosion into the Designated PAMB Habitat Area.

6. Restore natural grade

Test holes shall be filled in with soil and returned to natural grade with hand tools. The entire westernmost geo-technical test site will require re-contouring with hand tools to restore the natural slope.

7. Success criteria

USFWS staff will evaluate the success of the Plan based upon sufficient re-growth of the coastal scrub community with plant species that constitute suitable PAMB habitat. The key criterion will be achievement of 95% ground cover consisting of known PAMB forage or cover species. Qualifying plants include, but are not necessarily limited to thimbleberry (*Rubus parviflorus*), western poison oak (*Toxicodendron diversilobum*), cow parsnip (*Heracleum lanatum*), Douglas's iris (*Iris douglasiana*), hedge nettle (*Stachys ajugoides* var. *rigida*), angelica (*Angelica hendersonii*), coyote brush (*Baccharis pilularis*), figwort (*Scrophularia californica*) and California blackberry (*Rubus ursinus*); all of which were documented to occur on-site prior to the vegetation disturbance. It is anticipated that sufficient re-growth to achieve the success criteria will occur early in the spring growing season of 2009.

Restoration Plan

Photo-documentation Summary October 2008

For

William McConnell Coastal Development Permit: 76-2006, 14820 Navarro Way,
Manchester (APN) 132-020-05

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NOV 13 2008

CALIFORNIA
COASTAL COMMISSION

INTRODUCTION

Following an unauthorized Point Arena mountain beaver (*Aplodontia rufa nigra*) (PAMB) habitat removal incident, the USFWS rescinded a No-Take Letter dated January 3, 2007, which had been issued for the William McConnell Project (CDP 76-2006) located at 14820 Navarro Way, Manchester. The incident took place during the course of a geotechnical analysis conducted by BACE Geotechnical, Inc. in mid July 2008. Subsequently, the USFWS requested that a Restoration Plan be developed and implemented to restore the site to pre-existing topography and ecological functioning habitat for PAMB.

BioConsultant LLC has submitted several previously completely reports in conjunction with this application titled: *Point Arena Mountain Beaver Survey; McConnell Project* (April 2006), *Botanical Survey; William McConnell* (May 2006), and *Addendum to Botanical Survey; William McConnell April 2006* (June 2007). For further detailed information refer to the original reports.

On October 22, 2008 BioConsultant LLC initiated the monitoring element of the Plan by conducting the first photo-documentation session. On the same date, David Paoli staked and flagged the PAMB Habitat Line that separates the Designated PAMB Habitat Area from the rest of the parcel, in accordance with the measurements given in Exhibit A of the deed restriction accepted by the USFWS in their letter of June 3, 2007.

METHODS

Kim Fitts and Derek Marshall of BioConsultant LLC examined a single test pit located west of the PAMB Habitat Line and within the Designated PAMB Habitat Area. Although the test pit itself is rather small measuring approximately 3ft x 6ft., the total area of habitat disturbance (Site of Disturbance) is approximately 10ft x 13ft. at the widest area. Some intact vegetation encroaches into the area reducing the width at the ends to 8ft. or 9ft. BioConsultant LLC established two photo point (PP) areas within this generally rectangular-shaped Site of Disturbance by dividing the 13ft. length into two 6.5ft. sections and placing a PP stake in the center of each section (at 3.25ft. for PP #I and 9.25ft. for PP #II). Orange pin flags were placed at the four corners representing the habitat disturbance limits of each of the PP areas.

To monitor and document the vegetation re-growth, a series of photographs were taken at each PP. The first photo is a view of the entire PP area, the second is a close up view of the ground surface on the west side of the PP stake, and the third is the close up view of the ground surface on the east side of the PP stake. A view of the Site of Disturbance from the north and one from the south were also taken. This series will constitute the standard for the remaining photo-documentation sessions.

At each PP, all plant species were listed with an estimation of total % re-growth cover, and representative plants were measured to obtain a mean height of the re-growth.

Following the sampling, a shovel was used to fill in the test pit and return the site to its pre-existing grade. A large ice plant patch in the southeast section of the parcel was flagged for removal according to the Plan. The 2-person site visit duration totaled 4 hours.

RESULTS

Examination of the Site of Disturbance showed that while the test pit itself was dug down to a depth of 9" at the lowest point and was completely devoid of any vegetation, the majority of the Site of Disturbance was more or less trampled and perhaps scraped of vegetation. What remained was a fairly thick layer of thatch consisting of broken and bent thimbleberry stalks, de-leafed blackberry vines, and dried grasses. This debris was not removed as it seemed to provide some protection for the seedlings.

Within the Site of Disturbance three plant species represented the re-growth: thimbleberry (*Rubus parviflorus*), hedge nettle (*Stachys ajugoides* var. *rigida*), and California blackberry (*Rubus ursinus*). All three are known PAMB habitat components. The total % of re-growth was estimated to be 1-2% cover.

Measurements of representative re-growing plants ranged from >0.05" to 5.5" (Photos 1 and 2). The mean plant height was 2".

No invasive plants were observed.

The following photographs represent the October photo-documentation:



Photo A: View of Site of Disturbance from the South shows the test pit prior to re-grading and final PP stake placement. The yard stick demarks the separation between PP #I and PP #II.



Photo B: View of PP #I prior to re-grading. Note three of the orange pin flags are not in view.



Photo C: View of ground surface on the west side of the PP #1 stake. Note the only re-growth is native blackberry.

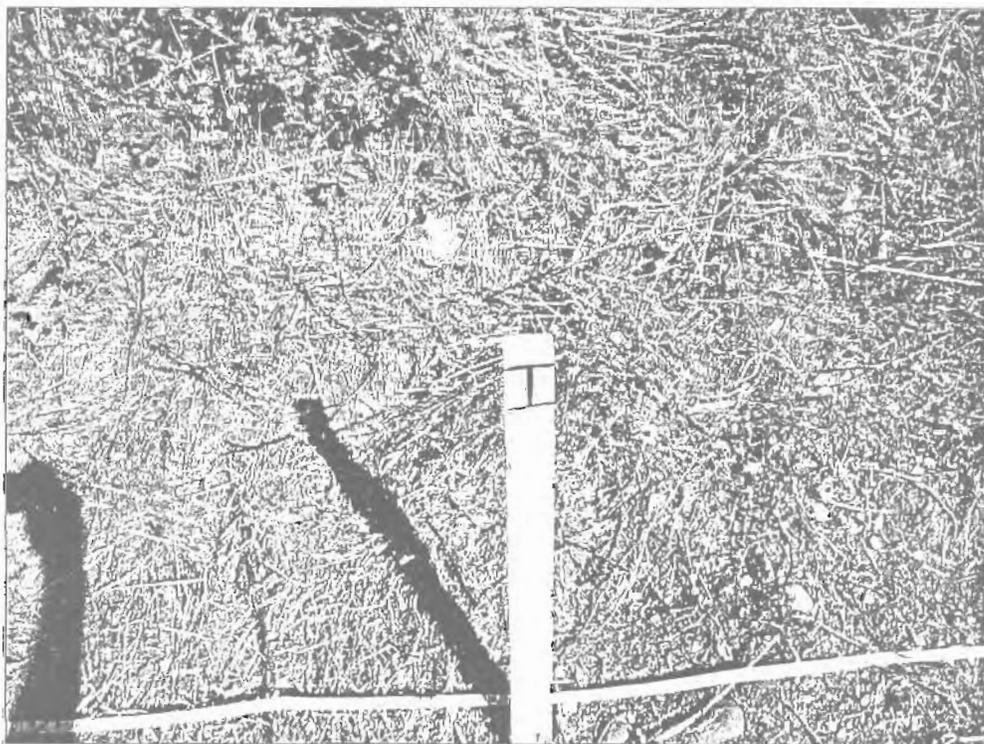


Photo D: View of ground surface on the east side of the PP #1 stake. Note all three plants representing re-growth are seen here - blackberry, hedge nettle and thimbleberry.

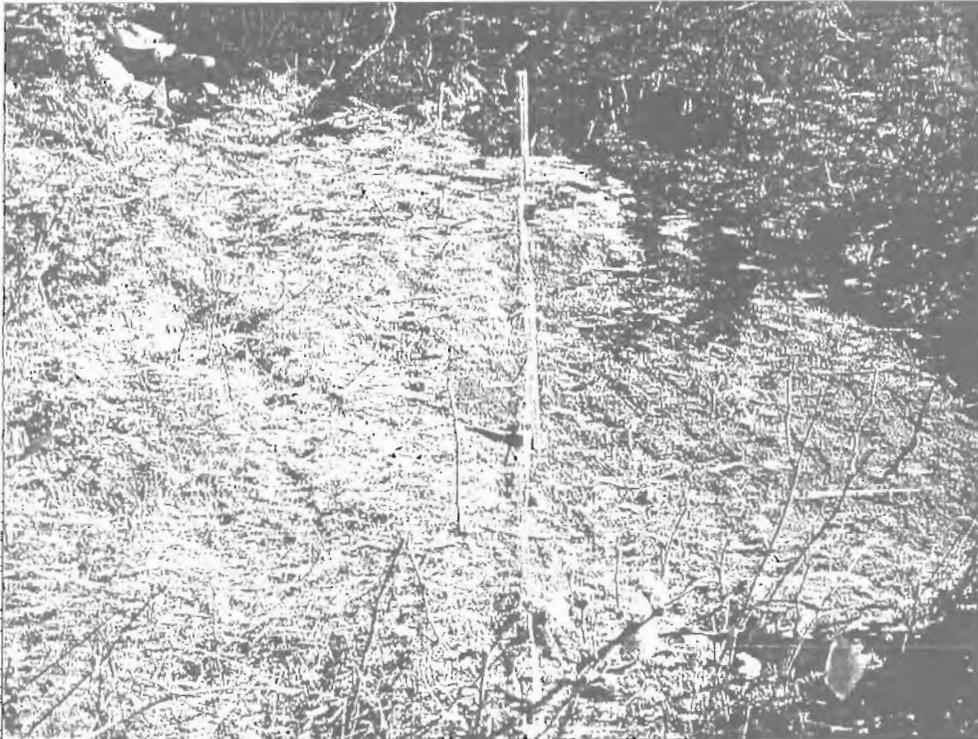


Photo E: View of Site of Disturbance from the north shows the test pit after grading. All four pin flags can be seen in this view.

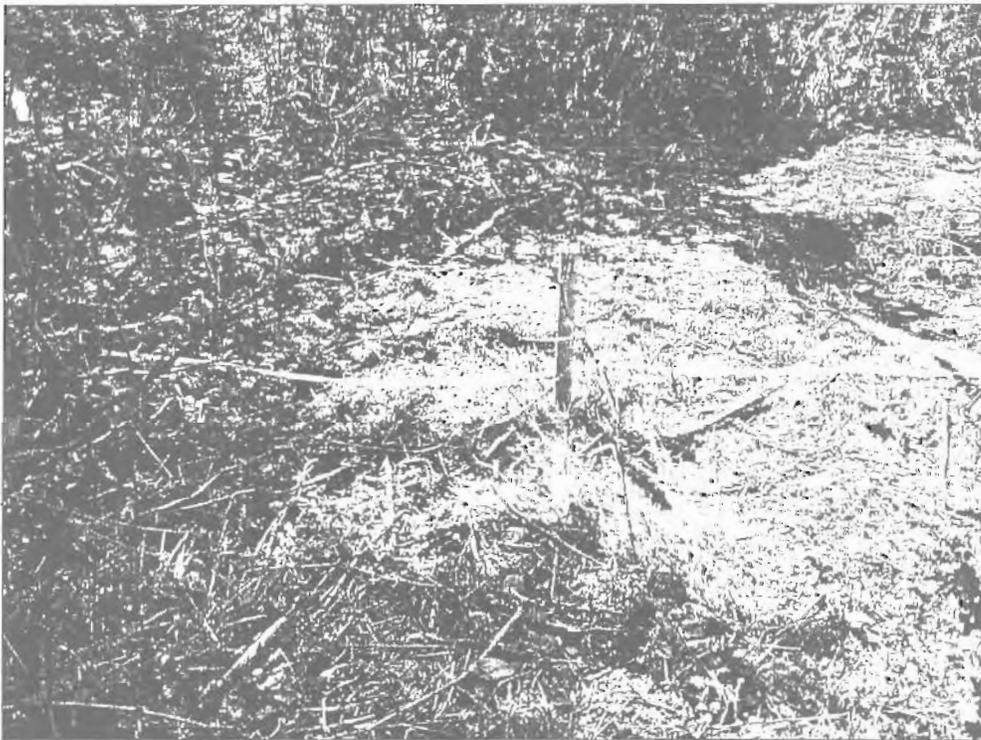


Photo F: View of PP #11. Shading obscures much of the ground, but the layer of thatch with some re-growth can be seen.



Photo G: View of ground surface on the west side of the PP #II stake. Note the only re-growth is native blackberry.

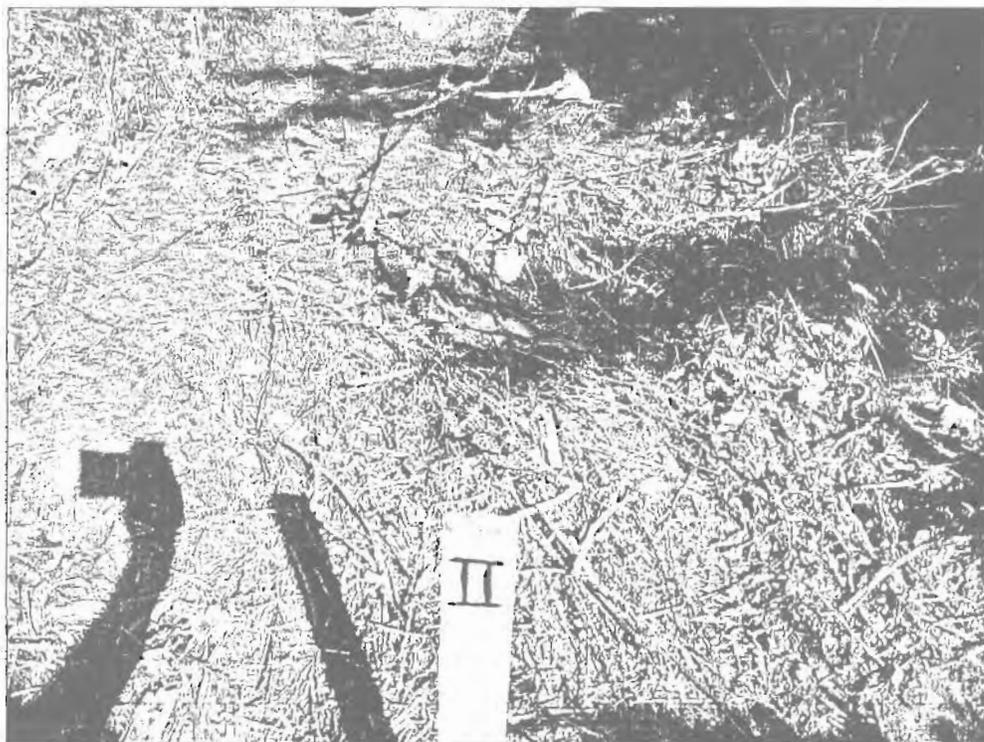


Photo H: View of ground surface on the east side of the PP #II stake. Although all three plants noted above are represented, only the predominant thimbleberry is clearly visible.

CONCLUSIONS

Within the Site of Disturbance very little re-growth was noted. While only three plant species represented the total re-growth, all are known components of preferred PAMB habitat and meet the requirements for qualifying plants as set forth in the success criterion. Due to the re-grading necessity a few small blackberry seedlings were covered with soil but these are likely to survive and grow up through the soil.

Other elements of the Plan that have either been completed or are in progress are summarized below:

1). Assist new growth – In progress

Mr. McConnell is in the process of borrowing a neighbor's hose and hiring a local gardener to complete this task (hand-watering).

2). Delineate the Designated PAMB Habitat Area – Completed

David Paoli delineated the PAMB Habitat Line with 9' stakes and bright orange flagging on October 22, 2008.

3). Monitor – In progress

BioConsultant LLC staff completed the first photo-documentation session and this report summarizes the results.

4). Remove invasive plants – In progress

The Site of Disturbance was examined for the presence of invasive plants. The ice plant has been flagged for removal. This task will be completed by the local gardener.

5). Implement erosion control measures – In progress

Will be re-evaluated during the November session and if deemed necessary will be completed.

6). Restore natural grade – Completed

The test pit and surrounding area was returned to natural grade.

7). Success criteria – In progress

The three species that constitute the re-growth are qualifying plants that comprise known PAMB habitat either as forage or cover species.

SUPPORTING PHOTOGRAPHS FOR MCCONNELL RESTORATION PLAN



Photo 1: Two inch tall native blackberry growing in the test pit at PP#1 prior to re-grading.



Photo 2: Re-growth occurring on a broken thimbleberry stalk (5.5")- east side of PP#11. The view also shows the new growth of hedge nettle and intact native blackberry vines.



Environmental Consulting

January 17, 2008

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FEB 21 2008

CALIFORNIA
COASTAL COMMISSION

William & Marcia McConnell
25755 Josefa Lane
Los Altos Hills, CA 94022

Dear Mr. McConnell,

This letter report provides a habitat analysis as requested by the California Coastal Commission for Appeal No. A-1-MEN-07-047 for the William McConnell Coastal Development Permit: 76-2006, at 14820 Navarro Way, Manchester (APN) 132-020-05.

In conjunction with the coastal development permit, BioConsultant LLC has submitted three earlier reports titled: *Point Arena Mountain Beaver Survey; McConnell Project* (April 2006), *Botanical Survey; William McConnell* (May 2006), and *Addendum to Botanical Survey; William McConnell-April 2006* (June 2007).

These reports describe the subject parcel as supporting Point Arena mountain beaver (PAMB) in the high quality northern coastal scrub habitat contained in the western portion of the parcel, and that the eastern portion of the parcel had received some mowing and shrub removal that modified the habitat from a coastal scrub community with characteristic scattered grassy openings to introduced grassland interspersed with coastal scrub remnants. A single inactive burrow was discovered in the area of shrub removal; the burrow was located 48ft. west of the edge of Navarro Way.

The Coastal Commission has requested:

“... a delineation and description of the area on the eastern end of the parcel that constituted the extent of the PAMB habitat before modification of the habitat. The delineation and habitat description should quantify the amount of previously suitable PAMB habitat that was modified and include an assessment of the habitat value of the area prior to its modification.”

EXHIBIT NO. 12

APPLICATION NO.

A-1-MEN-07-047

McCONNELL

DELINEATION & DESCRIPTION
OF MODIFIED PAMB ESHA
(1 of 6)

A quantitative analysis of the amount and quality of the altered habitat prior to BioConsultant LLC's first site visit in April 2006 is not possible; therefore, the following evaluation will use personal knowledge of PAMB habitat preferences and requirements, field notes, and an examination of a series of photographs spanning 30 years.

The attached color aerial photos of the coastline (www.californiacoastline.org) dating from 1972 show that significant and ongoing habitat alterations have occurred at the Irish Beach Subdivision for several decades. Close examination of the subject parcel over time confirms that considerably more coastal scrub habitat was present in the past.



Environmental Consulting

It is apparent that a significant number of shrubs in the eastern section of the parcel were removed sometime between 2002 and 2005. However, the current issue is the amount of vegetation alteration that occurred in the 6-month period between October 2005 and April 2006. When a photo taken by BioConsultant LLC in April 2006 is compared to the October 2005 photo, it is evident that the more recent modification was less significant in terms of numbers of shrubs removed.

In both of the close up aerial photos (2002 and 2005) a grassy region can be seen extending from Navarro Way to the east edge of the coastal scrub; this grass area would not be considered suitable habitat.

As reported in the Point Arena Mountain Beaver report (April 2006), the subject parcel had been recently mowed and a quantity of coyote brush (*Baccharis pilularis*) was either removed or cut and left in place. The eastern area still contained an assemblage of preferred forage plants including cow parsnip (*Heracleum lanatum*), angelica (*Angelica hendersonii*), coast manroot (*Marah oreganus*), California blackberry (*Rubus ursinus*), hedge nettle (*Stachys ajugoides var. rigida*), and Douglas iris (*Iris douglasiana*). A few moderately sized coyote brush and lupine (*Lupinus arboreus*) shrubs also remained. All of these plants are documented important components of good quality PAMB habitat (USFWS 1998, Fitts 2002).

Therefore, prior to the removal of shrubs that would have provided the necessary protective cover over the herbaceous understory, it should be assumed that the area was suitable habitat for PAMB. Indeed, the presence of the burrow confirms that PAMB were utilizing the area. Moreover, the coastal scrub habitat would have been essentially contiguous with the coastal bluff of Irish Beach where PAMB have been documented since 1981 (USFWS 1998).

Using this information, a fairly accurate delineation of the lost suitable habitat could be approximated by extending a line positioned 3ft. east of the single burrow location (at 48ft.) across the parcel and calculating the area between the line at 45ft. and the current suitable habitat line at 110ft. (Figure 1). This provides an approximate area of 6,000sf of modified suitable PAMB habitat.

Although dense mesic northern coastal scrub is the preferred habitat type of the PAMB, slope, aspect, the amount and composition of herbaceous and shrub cover species influences the quality of the habitat (Fitts 2002). Prior to the development of the Irish Beach Subdivision, the whole western bluff area, include the subject parcel, was likely to contain good to excellent quality PAMB habitat. Taking this in to account, the large amount of shrub removal that took place between 2002 and 2005 resulted in the most significant reduction of habitat quantity and quality. The single burrow was most likely created and used during this time period (2002-2005) and abandoned after the shrub removal occurred.

2 of 6



Environmental Consulting

The quality of the altered habitat during the time in question (October 2005 to April 2006) was likely to have been marginally suitable or low quality, due largely to the lack of protective shrub cover, nominal slope, and the behavior of PAMB, which utilize the edges of suitable habitat less frequently than the center.

In summary, my assessment is that the 6,000sf of lost suitable habitat was of low quality and unlikely to have been occupied by PAMB after the significant vegetation removal that occurred between 2002 and 2005.

I hope this information was helpful and if you require additional information or have any comments, please feel free to contact me.

Sincerely,

Kim Fitts

Kim Fitts
BioConsultant LLC
Wildlife Specialist

REFERENCES

Fitts, K., S. Flowers, R. Jackson, D. Marshall, R. Meetenmeyer and P. Northern. 2002. Point Arena mountain beaver habitat protection and restoration plan for Manchester State Park. California Department of Parks and Recreation, Mendocino, CA.

U.S. Fish and Wildlife Service (USFWS). 1998. Recovery Plan for the Point Arena Mountain Beaver *Aplodontia ruff nigra* (Rafinesque). Portland, Oregon.

_____. 2001. Draft Point Arena Mountain Beaver Standard Protection Measures for No-take Determinations. Unpublished document on file at the Arcata Fish and Wildlife Office, Arcata, California.

_____. 2002. Draft Guidelines for Project-Related Habitat Assessments and Surveys for Point Arena Mountain Beaver (*Aplodontia ruff nigra*). Unpublished document on file at the Arcata Fish and Wildlife Office, Arcata, California.

3 of 6

REF. A-1-MCN-07-0001

Aerial Photos from www.californiacoastline.org- APN132-020-05



Oct. 4, 2005

Note the "line of shrubs" seen in the 2002 photo has been noticeably reduced.



Nov. 14, 2002

A line of shrubs composed of coyote brush and bush lupine can be seen in eastern section of the parcel.

4 of 6

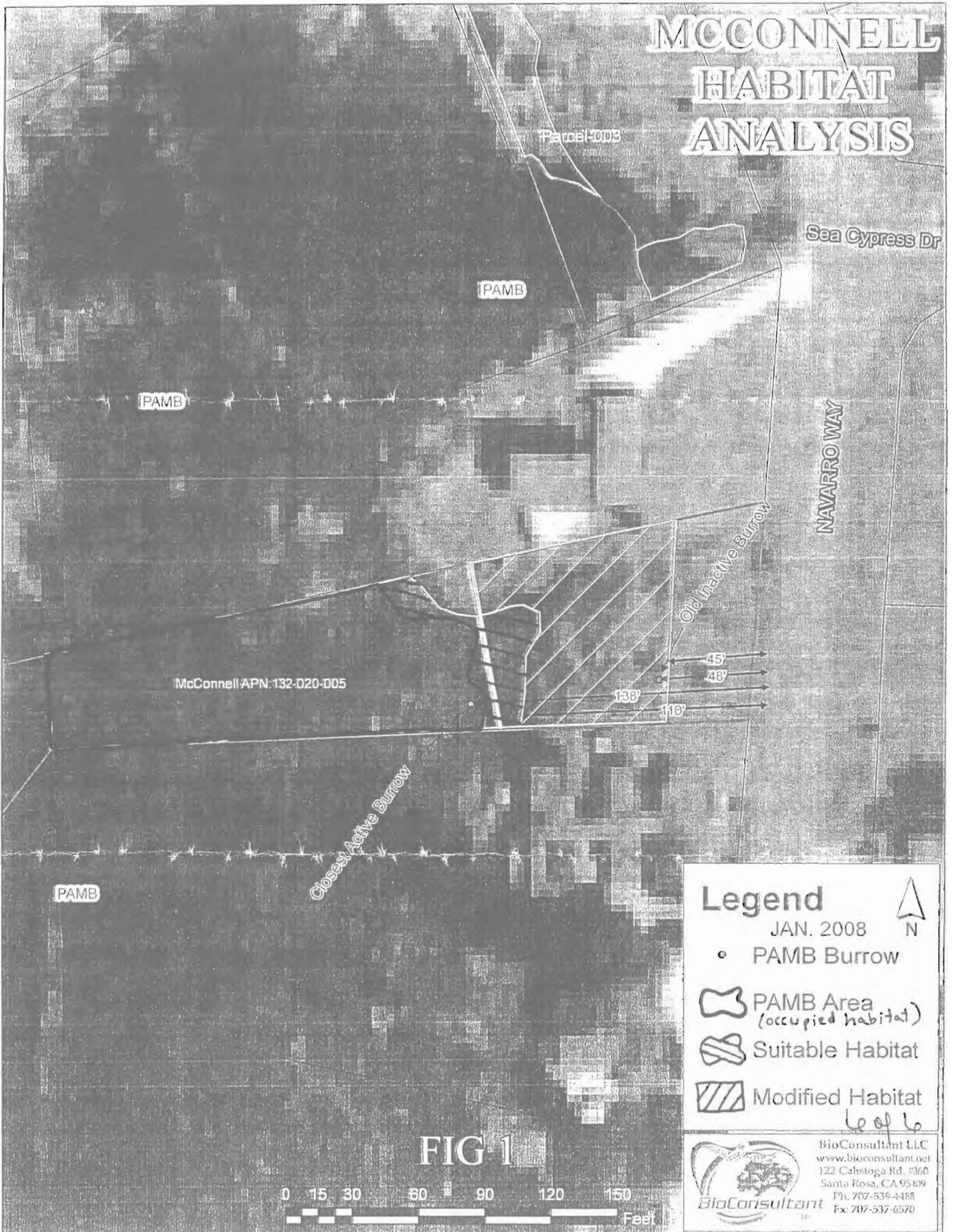


April, 2006

A view of the eastern section of the parcel where mowing and shrub removal occurred. The dried brown vegetation is dead coyote brush that was cut and left in place. Cut stalks of shrubs were also observed in the general area.

5 of 6

MCCONNELL HABITAT ANALYSIS



Legend

JAN. 2008



• PAMB Burrow

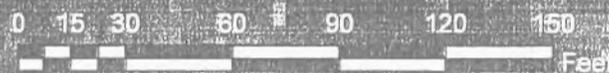
PAMB Area
(occupied habitat)

Suitable Habitat

Modified Habitat

leaf 6

FIG 1



BioConsultant LLC
www.bioconsultant.net
122 Calistoga Rd. #360
Santa Rosa, CA 95409
Ph: 707-539-4488
Ex: 707-537-6570

DMC CONSULTING SERVICES
P.O. BOX 247
WILLITS, CA. 95437

(707) 459-5831
March 14, 2008

RECEIVED

MAR 21 2008

CALIFORNIA
COASTAL COMMISSION

Bill & Marcia McConnell
25755 Josefa Lane
Los Altos Hills, Ca. 94022

Re: 14820 Navarro Way, Manchester AP# 132-020-05

In response to your request, I visited this site on February 29, 2008 in company with Dave Jensen REHS County of Mendocino Environmental Health to evaluate CDP Alternative Layout of the house and septic system locations.

Samples taken from the designated leach field area on that plan consisted of conglomerate rock of gravels and coarse sands that are cemented to the degree that prevents slaking and presumably leach effluent from properly being absorbed. A 24 hour slake test was performed on five random samples. All five samples failed.

Based on my observations to date, I can not justify placement of a leach field in this area.

Sincerely,



David Miller

c: Dave Jensen MCEH FB

EXHIBIT NO. 13

APPLICATION NO.

A-1-MEN-07-047 - McCONNELL

EVALUATION OF SOIL
SUITABILITY FOR SEPTIC
SYSTEM AT ALTERNATE
LEACH FIELD LOCATION

INTEROFFICE MEMORANDUM

TO: CALIFORNIA COASTAL COMMISSION
FROM: ANN MORA, FE BRAGG PBS
SUBJECT: MCCONNELL NOTICE OF FINAL ACTION
DATE: 10/17/2007

RECEIVED
OCT 23 2007
CALIFORNIA
COASTAL COMMISSION

Enclosed please find the Notice of Final Action, action sheet and agenda summary for the following item:

CDP #76-2006 (McConnell)

This item was heard on June 28, 2007 and was denied by the Coastal Permit Administrator. The owners appealed the denial to the Mendocino County Board of Supervisors. At the October 2, 2007 BOS meeting, the Supervisors overturned the CPA's denial and approved the permit with conditions.

EXHIBIT NO. 14

APPLICATION NO.

A-1-MEN-07-047

McCONNELL

NOTICE OF FINAL LOCAL
ACTION AND COUNTY STAFF
REPORT (1 of 31)



MENDOCINO COUNTY BOARD OF SUPERVISORS
AGENDA SUMMARY

ORD AGENDA # 7d2

RECEIVED
OCT 10 2007

Agenda Summaries must be submitted no later than noon Monday, 15 days prior to the meeting date

TO: Board of Supervisors

PLANNING DATE: September 12, 2007

FROM: Planning and Building Services

AGENDA DATE: October 2, 2007

DEPARTMENT Frank Lynch PHONE: 463-4281 Present On Call
RESOURCE/CONTACT:

Consent Regular Agenda Est. Time for Item: 1 hour Urgent Routine

■ AGENDA TITLE: Discussion and possible action regarding appeal of Coastal Permit Administrator decision on Coastal Development Permit #76-2006 (McConnell)

■ PREVIOUS BOARD OR BOARD COMMITTEE ACTIONS: None

■ SUMMARY: On June 28, 2007, the Coastal Permit Administrator denied Coastal Development Permit 76-2006 to construct a 1,336± sq. foot single-story single-family residence with a maximum average height of 20± feet above finished grade, with 327± sq. feet of decks and 85± sq. feet of covered porch, and a detached 305± sq. foot garage with a maximum average height of 13± feet above finished grade. Associated development includes 1,200± sq. feet of concrete driveway, installation of an underground propane tank, a 24± sq. foot trash enclosure, on-site septic and connect to utilities and community water. Located at 14820 Navarro Way, in the Irish Beach Subdivision (APN 132-020-05).

Major issues with the project include a failure to meet safety standards set forth in the Hazards section of the Coastal Zoning Code, and failure to adequately protect a Federally Endangered animal species habitat according to Coastal Act requirements.

According to the Coastal Commission definition of a bluff edge, the bluff edge is located approximately in the vicinity of Navarro Way relative to the project, therefore the proposed project would be located entirely over the bluff edge. This fails to comply with Section 20.500.020(B) of the Mendocino County Coastal Zoning Code (Section 20.500.020(B)(1)) which states that "New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (seventy-five (75) years)."

The project also fails to meet the minimum 50 foot buffer to the Federally Endangered species (*Aplodontia rufa nigra* - the Point Arena Mountain Beaver) Environmentally Sensitive Habitat Area as required by Chapter 20.496 of the Mendocino County Coastal Zoning Code. Of note, one of the stated reasons for placing the structure in its proposed location is that it would comply with local CC&Rs for protection of private views. While acceptable in its location for that purpose, the building envelop conflicts with other planning policies as cited above, therefore less environmentally damaging alternatives exist, and all feasible mitigation measures capable of reducing or eliminating project impacts have not been adopted.

This summary of reasons for denial is not comprehensive; a full list of findings for denial is contained in the staff report.

BOARD ACTION 2 of 31

Date of Action _____

- 1) Approved _____
- 2) Referred to _____
- 3) Other Approved COP NO. 76-2006 w/conditioning (per CPA 18) - see minutes

RECEIVED
OCT 05 2007
BY
PLANNING & BUILDING SERVICES
Ukiah, CA 95482



MENDOCINO COUNTY BOARD OF SUPERVISORS
 AGENDA SUMMARY

BOARD AGENDA # _____

■ ALTERNATIVES: The Board may uphold the decision made by the Coastal Permit Administrator and deny the project, approve the project as conditioned, or approve the project with alternate and/or new conditions.

■ WILL PROPOSAL REQUIRE ADDITIONAL PERSONNEL? Yes* Number _____ No

*If yes, has this been through the Personnel Process? Yes No

FISCAL IMPACT:			
Source of Funding	Current F/Y Cost	Annual Recurring Cost	Budgeted in Current F/Y
N/A	N/A	N/A	Yes <input type="checkbox"/> No <input type="checkbox"/>

■ RECOMMENDED ACTION/MOTION: That the Board of Supervisors deny the appeal and uphold the action of the Coastal Permit Administrator denying Coastal Development Permit #76-2006.

■ CEO REVIEW (NAME): *Paul Taylor* PHONE: 463-4441

RECOMMENDATION: Agree Disagree No Opinion Alternate Staff Report Attached

BOARD ACTION _____ Date of Action _____
 1) Approved _____ 2) Referred to _____
 3) Other _____



COUNTY OF MENDOCINO

DEPARTMENT OF PLANNING AND BUILDING SERVICES

790 SOUTH FRANKLIN · FORT BRAGG · CALIFORNIA · 95437

RAYMOND HALL, DIRECTOR
notice mcconnell
Telephone 707-964-5379
FAX 707-961-2427
pbs@co.mendocino.ca.us
www.co.mendocino.ca.us/planning

RECEIVED

JUN 20 2007

CALIFORNIA
COASTAL COMMISSION

June 15, 2007

**PUBLIC NOTICE OF PENDING ACTION
STANDARD COASTAL DEVELOPMENT PERMIT**

The Mendocino County Coastal Permit Administrator, at a regular meeting to be held Thursday, June 28, 2007 in the Planning and Building Services Conference Room, 790 South Franklin Street, Fort Bragg, at 10:00 a.m. or as soon thereafter as the item may be heard, will hear the below described project that is located in the Coastal Zone.

CASE #: CDP #76-2006
DATE FILED: 12/14/2006
OWNER: William & Marcia McConnell
AGENT: Phillip H. Roberts
REQUEST: Construct a 1,336± sq. foot single-story single-family residence with a maximum average height of 20± feet above finished grade. The residence would have 327± sq. feet of decks and 85± sq. feet of covered porch. Build a detached 305± sq. foot garage with a maximum average height of 13± feet above finished grade. Associated development includes 1,200± sq. feet of concrete driveway, installation of an underground propane tank, 24± sq. foot trash enclosure, on-site septic and connect to utilities and community water.

LOCATION: In the Coastal Zone, in the Irish Beach Subdivision, 4± miles north of the town of Manchester, on the south side of Navarro Way (CR 553), 250± feet southwest of its intersection with Highway 1, at 14820 Navarro Way (APN 132-020-05).

PROJECT COORDINATOR: Teresa Beddoc

As you are an adjacent property owner and/or interested party, you are invited to appear at the hearing, or to direct written comments to this office at the above address. If you would like to be notified of the Coastal Permit Administrator's action, please submit a written request to this office. All correspondence should contain reference to the above noted case number.

The decision of the Coastal Permit Administrator shall be final unless a written appeal is submitted to the Board of Supervisors with a filing fee within 10 calendar days thereafter. If appealed, the decision of the Board of Supervisors to approve the project shall be final unless appealed to the Coastal Commission in writing within 10 working days following Coastal Commission receipt of a Notice of Final Action on this project.

If you challenge the above case in court, you may be limited to raising only those issues described in this notice or that you or someone else raised at the public hearing, or in written correspondence delivered to the Coastal Permit Administrator at or prior to, the public hearing.

Additional information regarding the above noted case may be obtained by calling the Planning and Building Services Department at 964-5379, Monday through Friday.

Raymond Hall, Coastal Permit Administrator

STAFF REPORT FOR COASTAL DEVELOPMENT
STANDARD PERMIT

CDP# 76-2006 (McConnell)
June 28, 2007
CPA-1

OWNERS/APPLICANTS: William & Marcia McConnell
25755 Josefa Lane
Los Altos Hills, CA 94022

AGENT: Phillip H. Roberts
P.O. Box 1588
Gualala, CA 95445

REQUEST: Construct a 1,336± sq. foot single-story single-family residence with a maximum average height of 20± feet above finished grade. The residence would have 327± sq. feet of decks and 85± sq. feet of covered porch. Build a detached 305± sq. foot garage with a maximum average height of 13± feet above finished grade. Associated development includes 1,200± sq. feet of concrete driveway, installation of an underground propane tank, a 24± sq. foot trash enclosure, on-site septic and connect to utilities and community water.

LOCATION: In the Coastal Zone, in the Irish Beach Subdivision, 4± miles north of the town of Manchester, on the south side of Navarro Way (CR 553), 250± feet southwest of its intersection with Highway 1, at 14820 Navarro Way (APN 132-020-05).

APPEALABLE AREA: Yes – Blufftop Lot

PERMIT TYPE: Standard

TOTAL ACREAGE: 21,050± Sq. Feet

GENERAL PLAN: RR-5-PD [SR-12,000-PD]

ZONING: RR: L-5-PD [SR: L-12,000-PD]

EXISTING USES: Undeveloped

ADJACENT ZONING: North, East & South: RR: L-5-PD [SR: L-12,000-PD]
West: Open Space

SURROUNDING LAND USES: North, East & South: Residential
West: Bluff Face

SUPERVISORIAL DISTRICT: 5

CA COASTAL RECORDS PROJECT: Image 200503792

ENVIRONMENTAL DETERMINATION: Based on Staff Recommendation: Statutory Exemption per Section 15270 (a) - (Projects which are Disapproved).

Alternative Motion: The project is categorically exempt from CEQA, Class 3(a)

OTHER RELATED APPLICATIONS/DOCUMENTS:

Deed Restriction 2006-11795 recorded for Map of "Unit One, Mendocino Coast Subdivision," in Map Case 2, Drawer 4, Page 23, Mendocino County Records. Exhibit A outlines a conservation easement and deed restriction as follows (pertinent part):

Within the designated habitat area there shall be a complete prohibition on any vegetation alteration or removal, ground disturbance, or any rodent control activities. All reasonable efforts shall be made to exclude domestic pets from the designated habitat area. A temporary barrier between the designated habitat area and the remainder of the parcel shall be constructed prior to, and maintained during, all construction activities, followed by the construction of a permanent fence or other barrier within six months after the initiation of construction activities. The permanent fence or barrier shall be at least 18 inches tall and be constructed of rock, wood or other durable material. With suitable forewarning to the property owners, the U. S. Fish and Wildlife Service shall have access to the designated habitat area for the sole purpose of research or monitoring of Point Arena mountain beavers.

Septic Permit application ST 22861

PROJECT HISTORY: While the subject parcel is on a west facing slope near the ocean, the parcel is not actually a bluff top lot, as a lot designated as Open Space exists between the subject lot and the ocean. According to the CC&R variance request the applicants submitted to the Irish Beach Architectural Design Committee, the applicants "call for a relatively small house to be used primarily as a vacation retreat (Roberts & Associates 2006)." The parcel increasingly slopes westward, from a gentle slope near the adjacent road, to a 70% slope for the majority of the westward half of the parcel. Approximately half of the parcel, the westward half, is Point Arena mountain beaver (*Aplodontia rufa nigra*) habitat. In 1991, the Point Arena mountain beaver was listed by the U.S. Fish and Wildlife Service as endangered under the Endangered Species Act of 1973. Just prior to the Coastal Development Permit process, that portion of the parcel was put into a deed restricted conservation easement by the property owners in an agreement with the U.S. Fish and Wildlife Service; this agreement was made outside any County process. The applicants have indicated that "the desire to visually connect with the westerly ocean views is paramount (Roberts & Associates 2006)." To that effect, prior to the Coastal Development Permit process, the applicants requested and received the following five CC&R variances from the Irish Beach Architectural Design Committee:

1. Height variance of 2'4" above the 16 foot limit.
2. North side yard setback variance.
3. No stepped foundation on a steeply sloped lot.
4. Roof pitch of 3:12 instead of 4:12.
5. Single car garage instead of two car garage.

PROJECT DESCRIPTION: The applicants request to construct a 1,336± sq. foot single-story single-family residence with a maximum average height of 20± feet above finished grade. The residence would have 327± sq. feet of decks and 85± sq. feet of covered porch. The residence would be located on the

steepest and most westerly portion of the parcel that is outside the Point Arena mountain beaver deed restricted habitat area, and would be set back from that habitat area approximately 15 feet. The applicants request to build a detached 305± sq. foot single car garage with a maximum average height of 13± feet above finished grade. The garage would be located approximately five feet upslope from the residence, and a walkway would connect the residence to the garage. A concrete driveway would extend along the north property line westward (downhill) approximately 80 feet, and would then crosscut the parcel in a southward direction, extending to the garage, located just southeast of the center of the portion of the lot outside the Pamb habitat. A 3 foot high retaining wall would be located along the perimeter of much of the driveway area. There would be approximately 1,200± sq. feet of concrete driveway, which appears sufficient to allow parking for at least one additional vehicle (in addition to the proposed one-car garage). The septic leach fields would be located on the flattest, easternmost portion of the parcel, adjacent to Navarro Way. The septic pumps and tanks would be located approximately 88 feet west (downhill) from the proposed leach area, approximately 5 feet from the Point Arena mountain beaver habitat area. The applicants would install an underground propane tank approximately 17 feet west (downhill) from the leach fields, install a 24± sq. foot trash enclosure, and connect to utilities and community water.

LOCAL COASTAL PROGRAM CONSISTENCY RECOMMENDATION: The proposed project is not consistent with the applicable goals and policies of the Local Coastal Program as described below. Staff therefore recommends denial of the project as proposed. Special Conditions have been included in this report in the event that the Coastal Permit Administrator approves the project.

Land Use

The parcel is classified on the Coastal Plan Map as Rural Residential Five Acres Minimum with an alternate zoning of Suburban Residential 12,000 sq. foot minimum. The parcel is similarly zoned; RR:L-5 [SR: L-12,000]. The Suburban Residential zoning designation applies, as the parcel is under an acre in size and located within the Irish Beach Water District. The proposed single family residence and associated development are permitted uses within the Suburban Residential Zoning District, and are consistent with the Suburban Residential land use classification.

The required yard setbacks for a parcel in an SR zone are 20 feet from front and rear property lines, and 6 feet from side property lines. A corridor preservation setback of 25 feet applies along Navarro Way, resulting in a front yard setback of either 45 feet from the road corridor centerline or 20 feet from the property line, whichever is greater. As shown on the Site Plan, the structures comply with setbacks required by the County Zoning Code.

The site is not within a designated Highly Scenic Area, therefore the height limit is 28 feet above average finished grade. The proposed 20± foot height of the residence and 13± foot height of the garage comply with the height limit.

Maximum lot coverage in an SR zone is 50%. Lot coverage is the percentage of the gross lot area covered by structures, including roads. The lot is approximately 0.48 acre, or 21,050 square feet. The Site Plan shows approximately 3,650 square feet of coverage, or 17%. The project complies with lot coverage limits.

The parcel is located in a Planned Unit Development Combining District (PD). The intent of the PD is outlined in Section 20.428.005 of the Mendocino County Coastal Zoning Code (MCCZC) as follows:

The Planned Unit Development Combining District (PD) is intended to require sensitive development of selected sites where standard residential and commercial and industrial design would be inappropriate to the unique or highly visible nature of the site, and to encourage imaginative development incorporating cluster development and the maximization and preservation of open space and views from public roads. Development on parcels entirely within areas of pygmy vegetation shall be reviewed for mitigation measures to prevent impacts to this resource consistent with all applicable policies of the land use plan and development standards of this Division. (Ord. No. 3785 (part), adopted 1991)

Dwelling units in the Planned Unit Combining District are to be specifically reviewed to best preserve open space, protect views from public roads, and provide for resource protection. **The project is inconsistent with Section 20.428.005 of the Mendocino County Coastal Zoning Code in that the proposed project does not adequately provide for resource protection. The project fails to meet even the minimum required County ESHA setback to Point Arena mountain beaver habitat present on the property.**

Public Access

The project site is located west of Highway 1, but is not designated as a potential public access trail location on the LUP maps. There is no evidence of prescriptive access on the developed site. The project would have no effect on public access to the coast.

Hazards

Geologic Background

The applicant requests the construction of a single-family residence on a lot which slopes steeply toward the ocean¹. A lot exists between the subject lot and the ocean, which is shown on land use maps as zoned Open Space. The Open Space zoned lot appears to be located such that it is inaccessible to the public due to steep slopes and lack of an access trail (see Exhibit B and the online California Coastal Records Project image indicated on page CPA-2). When the applicant submitted for the project, included was an updated geotechnical report for the subject parcel dated March 24, 2006 by David Paoli of Paoli Engineering and Surveying. The update states that an earlier update occurred in 1995 by David Paoli, who did his first evaluation of the project area in 1983, in cooperation with Wessley Paulsen, Registered Geologist and Consulting Engineer. The March 24, 2006 update concludes:

The building site is still stable, the new construction should not push further west than the two existing houses are sited, the foundation should still be based on bedrock or on a concrete pier/grade beam foundation that extends into bedrock, roof runoff should be directed away from the building site, graded areas should be replanted with native vegetation, driveway should be paved (Paoli 2006).

None of the provided reports indicate the location of the bluff edge or the 75 year erosion and cliff retreat. Staff requested this information from the agent, and additionally requested assistance from the Coastal Commission staff geologist Dr. Mark Johnson. David Paoli responded in a letter to staff dated March 5, 2007 that the bluff edge is located west of the subject parcel, and that the proposed development is approximately 350 feet east of the 75-year setback line. The letter includes a profile of the subject lot and lot to the west, and assigns the bluff top edge near the westernmost edge of the western lot. Staff

¹ In a letter from the Architect Phillip Roberts to dated March 6, 2007, Mr. Roberts indicates that the slope in the vicinity of the proposed residence is 20 percent for approximately 100 feet, and then transitions to a 40 percent slope for approximately 30 feet.

continued to have concerns because the relatively flat lower area shown to span approximately 350 feet on Mr. Paoli's profile (Exhibit C) is not at all apparent on the California Coastal Records Project image (<http://www.californiacoastline.org/cgi-bin/captionlist.cgi?searchstr=200503792>). Additionally, the location of the bluff edge differs for the residence adjacent to the north (APN 132-020-04), which was approved by the Coastal Commission in 1991² (see Figure 1.). The site plan for the adjacent residence shows the bluff edge as located approximately 57 feet south of the existing residence.

Staff received an email response from Dr. Mark Johnsson, (Appendix A), Staff Geologist for the Coastal Commission on April 23, 2007. Dr. Johnsson reviewed the reports provided by Mr. Paoli and visited the site on January 31, 2007, and summarized in his email as follows:

It is my opinion that the coastal bluff at this site is approximately 300 feet high, is broadly rounded near the top, and levels off very nearly at the location of Navarro Way. Applying the definition from section 13577 of the Commission's regulation, the entire lot would thus be on the bluff face, and the bluff edge is very near the position of Navarro Way.

Given the opinion of Dr. Johnsson, the entire lot is over the bluff edge, therefore it is not possible to designate a place for a proposed residence that would assure safety from bluff erosion and cliff retreat as outlined in Section 20.500.020(B)(1) of the Mendocino County Coastal Zoning Code.

Mr. Paoli responded to Dr. Johnsson's opinion on May 25, 2007 by providing the County with a summary of a slope survey from Navarro Way along the northern property boundary extending through the subject and westerly parcel to the ocean (see Exhibit E). Mr. Paoli summarizes:

When I compare this profile with the one I included with the March 5, 2007 letter to you, I see a very close correspondence, except the height of the flat on Lot 28 is about 100 feet above the ocean instead of the 60 feet show on the 1983 profile. However my basic conclusion is still the same: there is a substantial bench on Lot 28 that separates the ocean bluff and its issues of blufftop erosion from the McConnell lot.

The May 25, 2007 summary report by Mr. Paoli was sent to Dr. Johnsson at the California Coastal Commission for response. Dr. Johnsson responded by stating that his opinion remains the same; the bluff edge is located very near the position of Navarro Way.

The proposed residence placement is in line with existing residences to the immediate north and south of the parcel. According to assessor's records, the residence to the immediate south (APN 132-020-06) has been in existence since 1972, predating the Coastal Act. The residence to the immediate north (APN 132-020-04) was approved by the Coastal Commission in 1991 (permit 1-91-55). The project was approved with a 50 foot geological setback requirement. The residence was to be set back approximately 57 feet from the bluff edge, which was determined at that time to be approximately 176 feet south of Navarro way on the property line adjacent to the subject parcel (see Figure 1).

² Coastal Commission permit application number 1-91-55 – staff report is located in the project file.

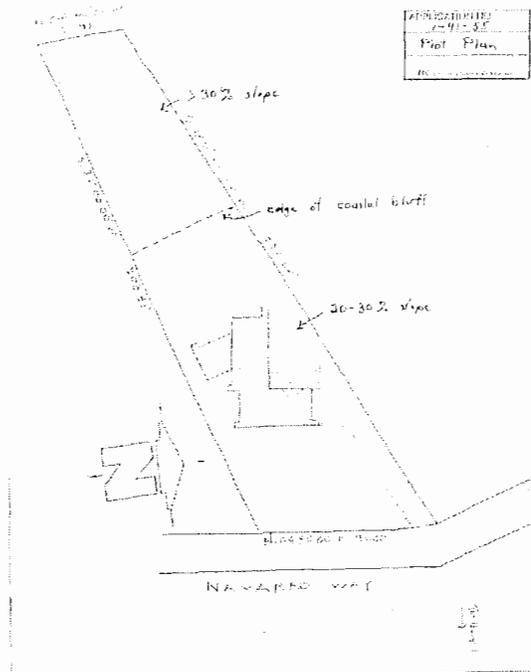


Figure 1. Bluff edge as approved for the northerly adjacent parcel in 1991.

Relative to the subject project, this bluff line would be located approx. 50 feet from the proposed residence (see Figure 2.).

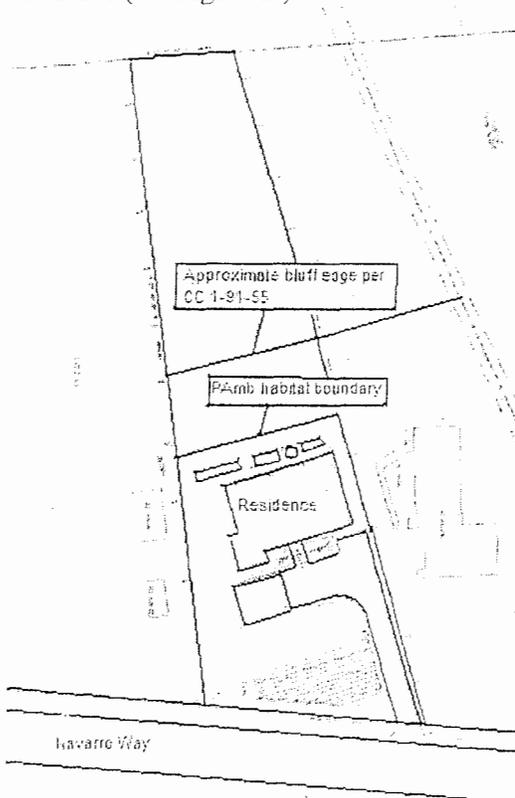


Figure 2. Map modified by staff showing approximate location of bluff edge as approved by CC 1-91-55.

Staff spoke with Dr. Johnsson regarding the inconsistency between the bluff line approved by the Coastal Commission in 1991 for the adjacent parcel and his assertion that the bluff line is closer to Navarro Way. Dr. Johnsson explained that his determination regarding the bluff line location is based on application to the specific parcel of the Coastal Commission definition from the California Code of Regulations, Title 14, Section 13577:

- (h) *Coastal Bluffs. Measure 300 feet both landward and seaward from the bluff line or edge. Coastal bluff shall mean:*
- (1) *those bluffs, the toe of which is now or was historically (generally within the last 200 years) subject to marine erosion; and*
 - (2) *those bluffs, the toe of which is not now or was not historically subject to marine erosion, but the toe of which lies within an area otherwise identified in Public Resources Code Section 30603(a)(1) or (a)(2).*

Bluff line or edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge. The termini of the bluff line, or edge along the seaward face of the bluff, shall be defined as a point reached by bisecting the angle formed by a line coinciding with the general trend of the bluff line along the seaward face of the bluff, and a line coinciding with the general trend of the bluff line along the inland facing portion of the bluff. Five hundred feet shall be the minimum length of bluff line or edge to be used in making these determinations.

Staff observes the bluff edge determination as provided by Dr. Johnsson because protection of public welfare is assured by taking the most conservative approach, and because the determination appears to be based on the application of an appropriate definition.

Geologic Hazards

Faults -

There are no known active faults on or in the near vicinity of the project site. The closest active fault, the San Andreas Fault, is located off shore approximately one mile southwest as shown on Land Use Maps. Seismic safety issues are addressed as part of the Building Permit process. Standard Condition Number 5 is included to require that the Coastal Permit be subject to acquisition of the Building Permit.

Bluffs -

The purpose of Chapter 20.500 of the Mendocino County Coastal Zoning Code (MCCZC), Hazard Areas, is outlined in Section 20.500.010 as follows:

(A) *The purpose of this section is to insure that development in Mendocino County's Coastal Zone shall:*

- (1) Minimize risk to life and property in areas of high geologic, flood and fire hazard;*
- (2) Assure structural integrity and stability; and*
- (3) Neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (Ord. No. 3785 (part), adopted 1991)*

Section 20.500.015(2) requires a geologic investigation and report as follows:

In areas of known or potential geologic hazards such as shoreline and blufftop lots and areas delineated on the hazard maps, a geologic investigation and report, prior to development approval, shall be required. The report shall be prepared by a licensed engineering geologist or registered civil engineer pursuant to the site investigation requirements in Chapter 20.532.

Regarding geologic hazard requirements for bluffs, the MCCZC states in Section 20.500.020(B) as follows:

(1) New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (seventy-five (75) years). New development shall be setback from the edge of bluffs a distance determined from information derived from the required geologic investigation and the setback formula as follows:

$$\text{Setback (meters)} = \text{structure life (75 years)} \times \text{retreat rate (meters/year)}$$

Note: The retreat rate shall be determined from historical observation (aerial photos) and/or from a complete geotechnical investigation.

- (2) Drought tolerant vegetation shall be required within the blufftop setback.*
- (3) Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff.*
- (4) No new development shall be allowed on the bluff face except such developments that would substantially further the public welfare including staircase accessways to beaches and pipelines to serve coastal-dependent industry. These developments shall only be allowed as conditional uses, following a full environmental, geologic and engineering review and upon a finding that no feasible, less environmentally damaging alternative is available. Mitigation measures shall be required to minimize all adverse environmental effects.*

Section 20.500.020(B)(4) of the MCCZC states that no new development be allowed on the bluff face except developments substantially furthering the public welfare including staircase accessways to beaches and pipelines to serve coastal dependant industry. Therefore the proposed development is not allowed in the proposed location. The intent of the hazards chapter of the MCCZC, as outlined above (Section 20.500.010), is to minimize risk to life and property, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The project is inconsistent with hazard policies relative to coastal bluffs as outlined in Section 20.500.020(B)(4) of the Mendocino County Coastal Zoning Code which states (emphasis added): “no development be allowed on the bluff face except developments substantially furthering public welfare including staircase accessways to beaches and pipelines to serve coastal dependant industry. The project is also inconsistent with Section 20.500.020(B)(1) of the Mendocino County Coastal Zoning Code which requires (emphasis added): “New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (seventy-five (75) years).

Tsunami --

The proposed development is not located in a tsunami inundation zone as shown on the Mendocino County General Plan Geotechnical Hazard Zones map. The project area is located approximately 250 feet above sea level and is therefore relatively safe from tsunami threats.

Landslides --

David Paoli, California Registered Civil Engineer of Paoli Engineering & Surveying, stated in his March 24, 2006 report that two slides occurred during the winter of 2005/2006 approximately 100 feet west of the project site. Mr. Paoli states that the sliding “is far enough away from the building site that it is not a threat,” however, he recommends “planting native grasses and shrubs on and near the slides in an attempt to stabilize them and minimize erosion.” He recommends that a professional landscaper be consulted. The slide area Mr. Paoli describes is located within the designated Point Arena mountain beaver habitat area and the deed restriction (2006-11795 recorded on June 15, 2006 in Mendocino County) completely prohibits “vegetation alteration, removal, ground disturbance, or any rodent control activities” within these areas. Special Condition Number 1 is recommended, should the project be approved, to ensure compliance with Mr. Paoli's recommendations within the deed restriction allowance.

Erosion --

Regarding erosion hazards, Section 20.500.020(E) of the Mendocino County Coastal Zoning Code requires as follows (applicable part):

(1) Seawalls, breakwaters, revetments, groins, harbor channels and other structures altering natural shoreline processes or retaining walls shall not be permitted unless judged necessary for the protection of existing development, public beaches or coastal dependent uses. Environmental geologic and engineering review shall include site-specific information pertaining to seasonal storms, tidal surges, tsunami runups, littoral drift, sand accretion and beach and bluff face erosion. In each case, a determination shall be made that no feasible less environmentally damaging alternative is available and that the structure has been designed to eliminate or mitigate adverse impacts upon local shoreline sand supply and to minimize other significant adverse environmental effects.

(2) The design and construction of allowed protective structures shall respect natural landforms, shall provide for lateral beach access and shall minimize visual impacts through all available means.

(3) All grading specifications and techniques will follow the recommendations cited in the Uniform Building Code or the engineer's report and Chapter 20.492 of this Division.

It is the policy of the Coastal Commission and the County to require recordation of a deed restriction as a condition of development on blufftop parcels, prohibiting the construction of seawalls and requiring that permitted improvements be removed from the property if threatened by bluff retreat. The restriction also requires that the landowner be responsible for any clean up associated with portions of the development that might fall onto a beach. Special Condition Number 2 is recommended to address this issue, should the development be approved.

Fire Hazards

The property is in an area that has a "moderate" fire hazard severity rating as determined by the California Department of Forestry and Fire Prevention. The project site is less than one acre in size and is exempt from CDF's fire safety regulations. Fire safety issues are addressed as part of the building permit process.

Flood Hazards

As shown on Land Use Maps, the parcel is not located in a 100-Year Flood Zone.

Grading, Erosion and Runoff

Grading

Section 20.492.010(B) of the Mendocino County Coastal Zoning Code requires as follows:

Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so the grading is kept to an absolute minimum.

The applicant proposes to place the residence on the steepest and most westward portion of the parcel outside of the deed restricted habitat area. The maximum slope in the proposed residential location is approximately 41.5 percent for approximately 15 feet, as field checked by staff (see memorandum dated June 11, 2007 in the project file). Additionally, a steep driveway which includes a three foot retaining wall on its the east side is proposed to provide access to a detached garage. The septic leach field is to be located on the flattest portion of the parcel, near the road. The development has not been designed to best fit the topography and soils. Grading would be greatly reduced if the residential and garage structures were to be located near the road, and the leach field were to be located west of the structures. In speaking with David Jensen of the Division of Environmental Health, he agreed that the project appeared to be designed "backwards," and that it appeared as though the design would work better if the septic system were located downhill (west) of the structures. He expressed additional concerns regarding the proposed three foot high retaining wall, to be located approximately 22 feet downslope of the leach fields, and the proposed underground propane tank, to be located approximately 18 feet downslope of the proposed leach fields. Mr. Jensen explained that the design looked troublesome, and that DEH generally likes to see at least 50 feet between leachfields and downslope cuts.

The project application indicates that grading is planned, however an estimate in cubic yards has not been provided. The proposed driveway would be approximately 125 feet in length and approximately 12 feet in width. A retaining wall is indicated on the uphill side of the proposed driveway. Elevations of the residential structures indicate that the applicant plans to follow existing ground contours when building the residence and garage, and little grading is indicated relative to these structures. Although staff is not recommending approval of the project at this time, Special Condition Number 3 is included to require that

the applicant submit a grading plan prior to approval of the Coastal Development Permit, should the Coastal Permit Administrator approve the project.

The project is inconsistent with grading policies as outlined in Section 20.492.010(B) of the Mendocino County Coastal Zoning Code which states that (emphasis added): "Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so the grading is kept to an absolute minimum."

Erosion Control

Regarding erosion control, Section 20.492.015 of the MCCZC states in pertinent part:

(A) The erosion rate shall not exceed the natural or existing level before development.

(B) Existing vegetation shall be maintained on the construction site to the maximum extent feasible. Trees shall be protected from damage by proper grading techniques.

(C) Areas of disturbed soil shall be reseeded and covered with vegetation as soon as possible after disturbance, but no less than one hundred (100) percent coverage in ninety (90) days after seeding; mulches may be used to cover ground areas temporarily.

(E) To control erosion, development shall not be allowed on slopes over thirty (30) percent unless adequate evidence from a registered civil engineer or recognized authority is given that no increase in erosion will occur.

The applicant proposes development on slopes over 30%. According to information initially supplied by the applicant, and as field checked by staff, 40% slopes are present in the vicinity of the proposed residence for a distance of approximately 15 length feet.

On June 11, 2007, Mr. Paoli submitted an erosion control plan, requested by staff to achieve compliance with Section 20.492.015(E) of the Mendocino County Coastal Zoning Code as outlined above. Mr. Paoli provided his own slope estimates for ground slope in the vicinity of the proposed residence and detached garage. While Mr. Paoli's methods and estimates differ from those of staff, Mr. Paoli nonetheless finds slopes in the vicinity of both the proposed residence and garage to exceed 30%. Therefore compliance with Section 20.492.015(E) of the Mendocino County Coastal Zoning Code is needed.

Mr. Paoli lists the following nine points in his comprehensive erosion control plan which he states are "largely a recapitulation of recommendations found in earlier reports and letters that are meant to minimize and control erosion." His points are outlined as follows with staff comments following:

1. Concrete pier and grade beam foundations are to be used, which will eliminate soils creep and erosion within the building envelope.
2. The septic system is located on the least steep part of the lot. Shallow leach lines that emit low volumes of effluent will be used and replanting with hardy native vegetation will be done.
3. All cut and fill slopes will be replanted with erosion-controlling vegetation. Present practice is to hydro-seed with a mixture approved by Mendocino County Transportation Department. A professional landscaper should be consulted for the exact planting design.
4. The driveway will be paved with concrete to eliminate erosion on the roadway surface.

5. Runoff from the driveway and roofs will be collected in a storm drain and disposed of in a leaching trench west of the house. This is an area of very rapid leaching, as discussed in previous reports. All water will rapidly percolate downward.
6. During construction, silt fences need to be placed to prevent loose soils from moving west of the construction site. The fences should be placed no farther than 3 feet from the cut or fill.
7. Any excavated material that is not to be used as backfill or as topsoil must be removed from the lot. This material must be surrounded by a silt fence until it is removed. Temporary storage on site is east of the garage.
8. No earthwork should take place on rainy days. Stockpiled material should be covered with tarps.
9. The restrictions on access, disturbance and construction time periods related to nearby Point Arena Mountain Beaver Habitat will tend to minimize human activity and human induced erosion on this lot.

Special Condition Number 3 is included, with added seasonal constraints, should the Coastal Permit Administrator find the submitted comprehensive erosion control plan adequate and approve the development.

Stormwater Runoff

The project proposes a decrease in permeable surfaces and an increase in stormwater runoff due to proposed roof and impermeable paved areas. Water flows would therefore be in excess of natural flows.

Regarding stormwater runoff, Section 20.492.025 of the MCCZC states in pertinent part:

(A) Water flows in excess of natural flows resulting from project development shall be mitigated.

(C) The acceptability of alternative methods of storm water retention shall be based on appropriate engineering studies. Control methods to regulate the rate of storm water discharge that may be acceptable include retention of water on level surfaces, the use of grass areas, underground storage, and oversized storm drains with restricted outlets or energy dissipaters.

(D) Retention facilities and drainage structures shall, where possible, use natural topography and natural vegetation. In other situations, planted trees and vegetation such as shrubs and permanent ground cover shall be maintained by the owner.

(E) Provisions shall be made to infiltrate and/or safely conduct surface water to storm drains or suitable watercourses and to prevent surface runoff from damaging faces of cut and fill slopes.

The comprehensive site plan provided by Roberts and Associates (Exhibit C) shows a drainage plan indicating that stormwater runoff would be directed from driveway roof runoff areas and would be collected in a stormwater leach trench. The project complies with stormwater runoff requirements.

Visual Resources

The project site is located in the Iversen Beach Subdivision, a moderately built out subdivision which is not located within a designated Highly Scenic Area. Therefore it is not subject to the policies within the Coastal Element relating to visual resources, except for Policy 3.5-1, which applies to all parcels within the Coastal Zone:

The scenic and visual qualities of Mendocino County coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to

and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas designated by the County of Mendocino Coastal Element shall be subordinate to the character of its setting.

The proposed structures would be single-story. The proposed residence would have an average maximum height of 20 feet above grade, and the proposed detached garage would have an average maximum height of 13 feet above grade. The project proposes three skylights, each approximately two by four feet in size, to adorn the east facing residential roof. The skylights are proposed as "Model FS" skylights, shown on the submitted information sheets as flat surface skylights. The proposed residence and accessory structure would be clad in the following exterior materials and colors:

Table 1. Proposed exterior materials and colors.

	Material	Color
Siding	Cedar	Sherwin Williams - Chestnut
Trim	Cedar	Sherwin Williams - Chestnut
Chimney	Copper	Copper
Roofing	Composition Shingles	Sablewood
Window Frames /Doors	Metal Clad Wood	Tuscany Brown (Dark)
Fencing/Retaining Walls	Cedar	Sherwin Williams - Chestnut

As proposed, exterior materials and colors would be visually compatible with surrounding development and the surrounding environment.

Section 20.504.035 of the Coastal Zoning Code (Exterior Lighting Regulations) states:

(A) *Essential criteria for the development of night lighting for any purpose shall take into consideration the impact of light intrusion upon the sparsely developed region of the highly scenic coastal zone.*

(2) Where possible, all lights, whether installed for security, safety, or landscape design purposes, shall be shielded or shall be positioned in a manner that will not shine light or allow light glare to exceed the boundaries of the parcel on which it is placed.

(5) No lights shall be installed so that they distract motorists.

Exterior lighting is proposed as wall mounted fixtures and "soffit" lighting. Although Staff is not recommending approval, Special Condition Number 4 is recommended in the event that the Coastal Permit Administrator approves the project to allow the Coastal Permit Administrator to review the exterior light choices for conformance with downcast and shielded requirements. As conditioned, the project would not adversely impact visual resources.

Natural Resources

The subject parcel is roughly 1/2 acre in size and located on a hillside in a moderately built out residential subdivision, west of the westernmost local road, and overlooking the ocean. Residentially developed parcels are located directly adjacent to the north and south, and a steeply sloping parcel zoned Open Space is located to the west, approximately 250 feet down a predominantly 70% slope - the Open Space parcel is situated between the subject parcel and the ocean. The westernmost half of the subject parcel is

very steep endangered animal species habitat, reserved from development and disturbance by deed restriction for the federally endangered Point Arena mountain beaver (*Aplodontia rufa nigra*). Slopes in the easternmost portion of the parcel range from 20 to 40 percent.

Biological and botanical surveys were conducted in April and May of 2006 respectively, by BioConsultant LLC, and survey reports were provided with the application. According to BioConsultant reports, plant communities present include Introduced Grassland, composed primarily of non-native grasses and located in the upper portion of the parcel, and Northern Coastal Scrub³, covering the 20 to 40 degree slopes of the lower two thirds of the parcel. In the vicinity of the proposed residence, the plant profile transitions from the Introduced Grassland⁴ to the Northern Coastal Scrub. BioConsultant notes that native Coastal Terrace Prairie⁵ indicators such as yarrow (*Achillea millefolium*) and California poppy (*Eschscholzia californica*) are present within the Introduced Grassland.

The County of Mendocino Coastal Element describes an Environmentally Sensitive Habitat Area (ESHA) as follows:

Any areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

The Environmentally Sensitive Habitat Area found onsite during BioConsultant surveys is occupied Point Arena mountain beaver habitat. The Point Arena mountain beaver is a Federally endangered species protected by the Endangered Species Act and overseen by the U. S. Fish and Wildlife Service.

The U. S. Fish and Wildlife Service has been consulted regarding potential impacts of the proposed project on the Point Arena mountain beaver, and mitigation measures have been designed to avoid incidental take of Point Arena mountain beavers. Measures include the recordation of a deed restriction protecting the habitat area from vegetation removal or alteration, ground disturbance, and rodent control activities. The deed restriction requires a temporary barrier to be erected prior to construction, between the designated habitat area and the remainder of the parcel, to remain in place during all construction activities. A permanent fence or other barrier is to be constructed within six months after initiation of construction activities. The permanent fence or barrier is to be at least thirty six (36) inches tall and constructed of rock, wood, or other durable material. With prior notice, the U. S. Fish & Wildlife Service is to have access to the habitat area for research and monitoring. An additional requirement set forth by the U. S. Fish & Wildlife Service is that all construction on the parcel would be conducted outside the Point Arena mountain beaver breeding season. Should the Coastal Permit Administrator approve the project, Special Condition Number 5 is included to ensure the Environmentally Sensitive Habitat Area is protected in perpetuity, and to require the measures outlined in the recorded habitat area deed restriction as well as recommendations by the biologist.

Chapter 20.496 and Section 20.532.060, et. seq. of the MCCZC contain specific requirements for protection of ESHAs and development within the buffer area of an ESHA. A sufficient buffer area is

³ California Natural Diversity Database element code CTT31100CA, rarity ranking status - Imperiled: At high risk of extinction due to a very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

⁴ California Natural Diversity Database element code CTT42200CA, rarity ranking status - Apparently secure; uncommon but not rare.

⁵ California Natural Diversity Database element code CTT41100CA, rarity ranking status - Imperiled: At high risk of extinction due to a very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

required to be established and maintained to protect ESHAs from disturbances related to proposed development. Section 20.496.020(A)(1) of the MCCZC states:

The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width.

The applicant proposes a five foot setback from the nearest development (septic tanks) to the Environmentally Sensitive Habitat Area. As the ESHA buffer shall be a minimum of 100 feet, and shall not be less than 50 feet in width if California Department of Fish and Game and Planning Staff concur, development, including at minimum nearly the entire residence, would be located within the ESHA buffer. Consequently, a reduced buffer analysis was requested by staff in order to meet requirements set forth in Section 20.496.020 of the Mendocino County Coastal Zoning Code. The reduced buffer analysis was provided by BioConsultant and is included as Appendix B. The reduced buffer analysis is designed as a matrix to be used to establish the appropriate setback from development to Environmentally Sensitive Habitat Areas (Section 20.496.020(A)(1)(a-g)). Staff notes that the biologist appears to consider feasibility of development in establishing the appropriate buffer width. Feasibility of development is not one of the listed criteria for buffer reduction, and should not be included as a consideration. The biologist suggests that a 5 foot buffer to septic holding tanks, and a 15.5 foot buffer to the residential structure, as proposed, is appropriate. As the Mendocino County Coastal Zoning Code allows 50 feet as the minimum buffer size, and that is allowed only with agreement from Planning and DFG staff, a 50 foot buffer has been considered by Planning and DFG staff and has been found sufficient (see email dated June 15, 2007, to Tracie Nelson, located in the project file). Therefore the buffer size is 50 feet, the minimum size allowed, and substantial developments, including the bulk of the residence, are proposed within the buffer area. Section 20.496.020(A)(4)(a-j) of the Mendocino County Coastal Zoning Code outlines a matrix to be used to analyze proposed development within the buffer area. Staff does not agree with biologist analysis specific to 20.496.020(A)(4)(b,c,e and f) of this section. The biologist writes that "The narrow configuration of the parcel plus the PAMB ESHA that occupies the steep western portion of the parcel offers no other site for the proposed house site." Staff finds that there is in fact a feasible site available on the parcel for structures. Staff finds that structures can and should be limited to the flatter, easternmost portion of the parcel, and that the septic system should be located downslope from the structures, thus reducing the need for driveway areas and the extensive leachfield setback area. The leachfield could be closer to the structures, and a 50 foot setback between the leachfield area and the ESHA would then be possible. The biologist writes that "Due to the fossorial habits of the PAMB and the porosity of the soil, the placement of the leach fields furthest away from the PAMB habitat is the best design to prevent degradation of the PAMB ESHA." In speaking to David Jensen of the Division of Environmental Health, he explained that a leachfield area 50 feet from the Point Arena mountain beaver habitat area would have no impact on the habitat area; that the materials would percolate downward into the soil, and would not come anywhere near the habitat area. In addition to Mr. Jensen's comments, as shown on Exhibit 4 of CC 1-91-55 (located in the project file), on the adjacent northerly parcel, the leach field is located west of the residence, and within 50 feet of PAMB habitat. Staff finds that placement of the leach field approximately 50 feet away from PAMB habitat would not impact PAMB. Staff finds the proposed development fails to minimize impervious surfaces, and fails to minimize the alteration of natural landforms. If redesigned with the structures in the flattest and most easterly part of the lot, the applicant could significantly minimize impervious surfaces by omitting a large portion of the proposed driveway, and could minimize alterations of landforms by greatly reducing the amount of needed grading.

Therefore staff finds that the proposed project is inconsistent with Sections 20.496.020(A)(4)(b,c,e, and f) of the Mendocino County Coastal Zoning Code in that the structures are located within the buffer area, and a feasible alternative exists.

Archaeological/Cultural Resources

The project was reviewed by the Northwest Information Center of the California Historical Resources Inventory at Sonoma State University. The Information Center responded that the project area has the possibility of containing unrecorded archaeological sites and recommended a study. The application was reviewed by the Mendocino County Archaeological Commission on April 11, 2007, which determined that no survey was necessary. Standard Condition Number 8 is recommended, advising the applicant of the requirements of the County's Archaeological Ordinance (Chapter 22.12 of the Mendocino County Code) in the event that archaeological or cultural materials are unearthed during site preparation or construction activities.

Groundwater Resources

The site is located within an area designated as a Marginal Water Resources area (MWR) as shown in the 1982 Coastal Groundwater Study prepared by the Department of Water Resources. The applicant indicates that domestic water would be supplied by the community water system. The Irish Beach Water District was notified regarding the application and did not respond with comments. Although staff is not recommending approval of the project at this time, Special Condition Number 6 is included to require a letter from the Irish Beach Water District stating ability and willingness to serve the project, prior to issuance of the building permit, should the Coastal Permit Administrator approve the project.

The application proposes a new on-site sewage disposal system. The project was referred to the Division of Environmental Health (DEH). Craig Rivera of DEH commented that the project appears to be consistent with the revised septic design (ST-2286), which is sized for a two bedroom single-family residence. Mr. Rivera additionally commented that because the leach fields are to be located upslope from the proposed residence construction, no equipment is to be driven over the leach field areas, and no grading cut of over three feet or foundation French drain is to be located within 50 feet down slope of the leach fields. The proposed underground propane tank, to be located approximately 18 feet west (downslope) of the leach fields, would therefore not be acceptable in that location. Although staff is not recommending approval of the project at this time, Special Condition Number 7 is included to assure compliance with DEH recommendations, should the Coastal Permit Administrator approve the project.

As conditioned, no adverse impacts to groundwater resources are anticipated.

Transportation/Circulation

The project proposes a new encroachment onto Navarro Way (CR 553). The application was referred to the Mendocino County Department of Transportation for comment. DoT found the plans acceptable and submitted a recommended condition of approval for encroachment improvements to be constructed within the County road right-of-way. The Department's recommended condition is included as Special Condition Number 8.

The project will contribute incrementally to traffic volumes on local and regional roadways, however such incremental increases were considered when the Local Coastal Plan land use designations were assigned to the site.

Zoning Requirements

The project as proposed does not comply with the zoning requirements for the Rural Residential District set forth in Division II of Title 20 of the Mendocino County Code as set forth in the discussions above.

RECOMMENDED MOTION: Pursuant to the provisions of Chapter 20.532 and Chapter 20.536 of the Mendocino County Code, staff recommends that the Coastal Permit Administrator deny the proposed project, based on the following findings:

FINDINGS FOR DENIAL: The project as proposed fails to comply with the intent of the Planned Unit Development Combining District of the Mendocino County Coastal Zoning Code (Section 20.428.005), in that the proposed project does not adequately provide for resource protection; the project as proposed fails to comply with requirements set forth in the Geologic Hazards – Siting and Land Use Restrictions, Bluffs section of the Mendocino County Coastal Zoning Code (Section 20.500.020(B)(4)) which states that “no development be allowed on the bluff face except developments substantially furthering public welfare including staircase accessways to beaches and pipelines to serve coastal dependant industry..”; the project as proposed fails to comply with requirements set forth in the Geologic Hazards – Siting and Land Use Restrictions, Bluffs section of the Mendocino County Coastal Zoning Code (Section 20.500.020(B)(1)) which requires that “New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (seventy-five (75) years)”; the project is inconsistent with grading policies as outlined in Section 20.492.010(B) of the Mendocino County Coastal Zoning Code which states that “Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so the grading is kept to an absolute minimum”; the project fails to comply with natural resources protection policies as outlined in Sections 20.496.020(A)(4)(b,c,e, and f) of the Mendocino County Coastal Zoning Code in that the project fails to adequately protect natural resources and alternatives exist. Therefore, the following findings can be made:

1. The proposed development is not in conformity with the certified Local Coastal Program; and
2. The proposed development is inconsistent with the purpose and intent of the applicable zoning district, as well as all other provisions of Division II, and preserves the integrity of the zoning district; and
3. The structures are proposed within the ESHA buffer; and
4. There is a feasible less environmentally damaging alternative; and
5. All feasible mitigation measures capable of reducing or elimination project related impacts to natural resources have not been adopted.

ALTERNATIVE MOTION: Should the Coastal Permit Administrator choose to approve the proposed project, the following findings and conditions are required, and the following special conditions are recommended:

FINDINGS FOR APPROVAL OF COASTAL DEVELOPMENT PERMIT:

1. The proposed development is in conformity with the certified Local Coastal Program; and
2. The proposed development will be provided with adequate utilities, access roads, drainage and other necessary facilities; and
3. The proposed development is consistent with the purpose and intent of the applicable zoning district, as well as all other provisions of Division II, and preserves the integrity of the zoning district; and
4. The proposed development, if constructed in compliance with the conditions of approval, will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act; and
5. The proposed development will not have any adverse impacts on any known archaeological or paleontological resource; and
6. Other public services, including but not limited to, solid waste and public roadway capacity have been considered and are adequate to serve the proposed development.
7. The proposed development is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act and Coastal Element of the General Plan.

STANDARD CONDITIONS:

1. This action shall become final on the 11th day following the decision unless an appeal is filed pursuant to Section 20.544.015 of the Mendocino County Code. The permit shall become effective after the ten working day appeal period to the Coastal Commission has expired and no appeal has been filed with the Coastal Commission. The permit shall expire and become null and void at the expiration of two years after the effective date except where construction and use of the property in reliance on such permit has been initiated prior to its expiration.
2. The use and occupancy of the premises shall be established and maintained in conformance with the provisions of Division II of Title 20 of the Mendocino County Code.
3. The application, along with supplemental exhibits and related material, shall be considered elements of this permit, and that compliance therewith is mandatory, unless an amendment has been approved by the Coastal Permit Administrator.

4. This permit shall be subject to the securing of all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction.
5. The applicant shall secure all required building permits for the proposed project as required by the Building Inspection Division of the Department of Planning and Building Services.
6. This permit shall be subject to revocation or modification upon a finding of any one or more of the following:
 - a. The permit was obtained or extended by fraud.
 - b. One or more of the conditions upon which the permit was granted have been violated.
 - c. The use for which the permit was granted is conducted so as to be detrimental to the public health, welfare or safety, or to be a nuisance.
 - d. A final judgment of a court of competent jurisdiction has declared one or more conditions to be void or ineffective, or has enjoined or otherwise prohibited the enforcement or operation of one or more such conditions.
7. This permit is issued without a legal determination having been made upon the number, size or shape of parcels encompassed within the permit described boundaries. Should, at any time, a legal determination be made that the number, size or shape of parcels within the permit described boundaries are different than that which is legally required by this permit, this permit shall become null and void.
8. If any archaeological sites or artifacts are discovered during site excavation or construction activities, the applicant shall cease and desist from all further excavation and disturbances within one hundred (100) feet of the discovery, and make notification of the discovery to the Director of the Department of Planning and Building Services. The Director will coordinate further actions for the protection of the archaeological resources in accordance with Section 22.12.090 of the Mendocino County Code.

SPECIAL CONDITIONS:

1. Prior to issuance of the building permit, a landscape plan, designed by a California licensed landscape architect, shall be submitted for approval by the Coastal Permit Administrator. In compliance with the Point Arena mountain beaver deed restriction, the landscape plan shall assure that no existing vegetation is altered or removed, and in compliance with the recommendations of the consulting engineer, planting shall consist of local native grasses and shrubs known to the Northern Coastal Scrub plant community. The intent of the planting is to help stabilize the ground in the vicinity of recent slides, in order to minimize erosion. This plan shall be reviewed and approved by the engineer of record prior to submission to the County. Prior to final clearance of the building permit, planting shall be installed.
2. Prior to the issuance of the Coastal Development Permit, the applicant as landowner shall

execute and record a deed restriction, in a form and content acceptable to the Coastal Permit Administrator which shall provide that:

- a) The landowner understands that the site may be subject to extraordinary geologic and erosion hazards and the landowner assumes the risk from such hazards;
 - b) The landowner agrees to indemnify and hold harmless the County of Mendocino, its successors in interest, advisors, officers, agents and employees against any and all claims, demands, damages, costs, and expenses of liability (including without limitation attorneys' fees and costs of the suit) arising out of the design, construction, operation, maintenance, existence or failure of the permitted project. Including, without limitation, all claims made by any individual or entity or arising out of any work performed in connection with the permitted project;
 - c) The landowner agrees that any adverse impacts to the property caused by the permitted project shall be fully the responsibility of the applicant;
 - d) The landowner shall not construct any bluff or shoreline protective devices to protect the subject single-family residence, garage, septic system, or other improvements in the event that these structures are subject to damage, or other erosional hazards in the future;
 - e) The landowner shall remove the house and its foundation when bluff retreat reaches the point where the structure is threatened. In the event that portions of the house, garage, foundations, leach field, septic tank, or other improvements associated with the residence fall to the beach before they can be removed from the blufftop, the landowner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The landowners shall bear all costs associated with such removal;
 - f) The document shall run with the land, bind all successors and assigns, and shall be recorded free of all prior liens and encumbrances, except for tax liens.
3. Prior to the issuance of the Coastal Development Permit, the applicant shall submit for the approval of the Coastal Permit Administrator, a grading plan approved by a California licensed architect or engineer, which clarifies the total amounts and locations of proposed cut and fill, and erosion control measures proposed in association with grading. Development shall strictly adhere to the erosion control measures outlined in the Erosion Control Plan by David Paoli dated June 11, 2007, located in the project file and outlined on page CPA-9. The grading plan shall specify the location of the approved fill-disposal area. All ground disturbing activities shall occur between July 1 and October 31.
 4. Prior to issuance of the building permit, the applicant shall submit an exterior lighting plan and design details or manufacturer's specifications for all the exterior lighting fixtures. Exterior lighting shall be kept to the minimum necessary for safety and security purposes and shall be downcast and shielded in compliance with Section 20.504.035 of the MCCZC.

5. The Point Arena mountain beaver (PAMB) habitat area is hereby a designated Environmentally Sensitive Habitat Area (ESHA), and shall be protected in perpetuity from development and disturbance. Additionally, no development or disturbance, other than that approved by the County, shall occur in the 50 foot buffer area to the designated ESHA. All construction on the parcel shall occur outside of the PAMB breeding season (the PAMB breeding season is from December 15 to June 30); non-ground disturbing construction shall occur only between July 1 and December 14. Ground disturbing construction shall be limited to between July 1 and October 31. No vegetation alteration or removal, ground disturbance, or rodent control activities shall occur within the ESHA. All reasonable efforts shall be made to exclude domestic pets from the designated habitat area. With suitable forewarning to property owners, the U.S. Fish and Wildlife Service shall have access to the designated habitat area for the sole purpose of research or monitoring of the PAMB population. Prior to issuance of the building permit, a temporary barrier shall be placed between the designated habitat area and the remainder of the parcel, and shall remain in place during all construction activities. The purpose of the temporary fence shall be to ensure construction activities and materials remain outside the ESHA habitat area. A permanent fence or barrier at least thirty six (36) inches tall shall be constructed within six months after the initiation of construction activities, and shall be maintained in perpetuity. Prior to final clearance of the building permit, the permanent fence shall be inspected to ensure compliance with this condition. If developments are delayed until after October 2008, PAMB surveys in the identified suitable habitats shall be repeated. If new surveys indicate an expansion of occupied habitat such that the proposed development would directly or indirectly impact PAMB habitat, this permit shall require modification to ensure protection of PAMB and PAMB habitats.
6. Prior to issuance of the building permit, the applicant shall submit to the Planning and Building Services Department a letter from the Irish Beach Water District stating an ability and willingness to serve the project.
7. Prior to issuance of the building permit, the applicant shall install temporary fencing around the leach field areas. The intent is to prevent construction equipment from driving over the leach field areas. No grading cut of over three (3) feet, and no foundation French drain shall be located within fifty (50) feet downslope of the leach fields. Prior to issuance of the building permit, the applicant shall submit a revised site plan, showing relocation of the proposed underground propane tank to comply with this requirement.
8. Prior to commencement of construction activities for the residence, applicant shall obtain an encroachment permit from the Mendocino County Department of Transportation and construct appropriate improvements to protect the County road during the construction phase of the project. Prior to final occupancy, applicant shall complete, to the satisfaction of the Department of Transportation, two standard private driveway approaches onto Navarro Way (CR 553), each to a minimum width of ten (10) feet, area to be improved fifteen (15) feet from the edge of the County road, to be surfaced with surfacing comparable to that on the County road.
9. A copy of the staff report and coastal permit for CDP 76-2006 must be provided to the contractor and all sub-contractors conducting the work, and must be in their possession at the work site. This requirement is intended to ensure that the project construction is done

STAFF REPORT FOR COASTAL DEVELOPMENT
STANDARD PERMIT

CDP# 76-2006 (McConnell)
June 28, 2007
CPA-22

in a manner consistent with the submitted application and all other supplemental information contained in the staff report.

Staff Report Prepared By:

June 15, 2007
Date

Teresa Beddoe
Teresa Beddoe
Planner I

Attachments: Exhibit A Location Map
Exhibit B Zoning Display Map
Exhibit C Profile of Lot
Exhibit D Rarefind Map
Exhibit E Site Plan
Exhibit F Comprehensive Site Plan
Exhibit G Floor Plans
Exhibit H Elevations -- West & South
Exhibit H Elevations -- North & East

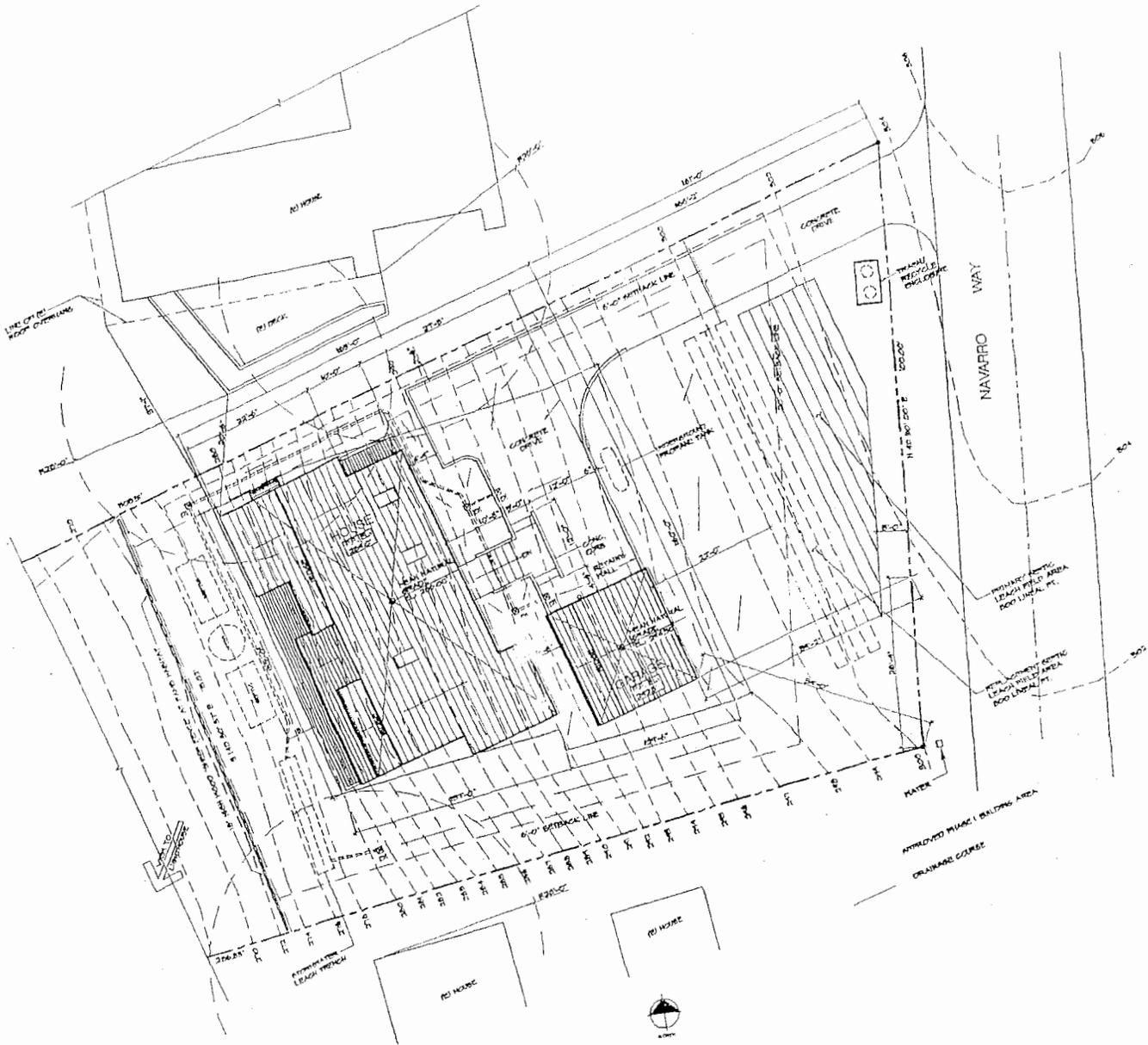
Appendix A Determination of Bluff Edge, Dr. Johnsson
Appendix B Reduced Buffer Analysis

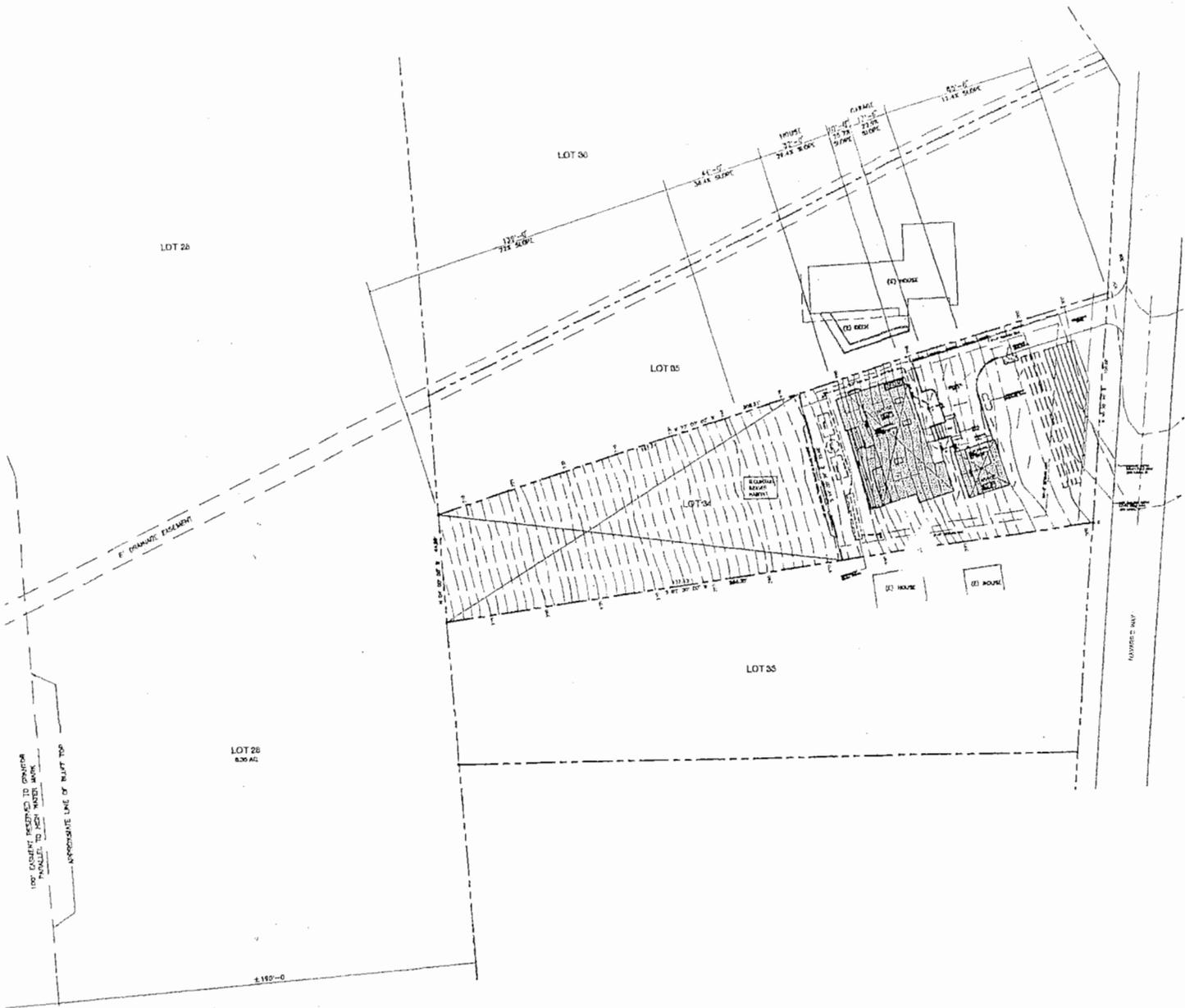
Appeal Period: Ten calendar days for the Mendocino County Board of Supervisors, followed by ten working days for the California Coastal Commission following the Commission's receipt of a Notice of Final Action from the County.

Appeal Fee: \$795 (For an appeal to the Mendocino County Board of Supervisors.)

SUMMARY OF REFERRAL AGENCY COMMENTS:

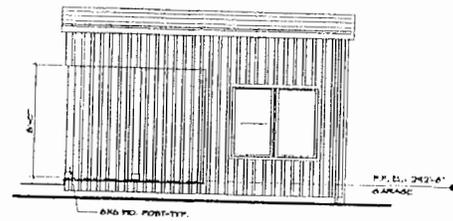
Planning – Ukiah	No comment.
Department of Transportation	Need encroachment permit and to construct a standard private driveway.
Environmental Health – Fort Bragg	Consistent with septic design (ST 2286). No equipment to be driven over leach field areas – no grading/cut/foundation/French drain within 50 feet downslope of leach fields.
Building Inspection – Fort Bragg	Calif. Licensed Architect or Engineer may be required for this project.
Assessor	No response.
Friends of Schooner Gulch	No response.
Department of Fish & Game	No response.
Coastal Commission	Has project applicant provided a biological assessment of project impacts/mitigations on P&A habitat?
Coastal Commission (staff geologist)	Project area is located on bluff face.
Dept. of Parks & Recreation	No response.
Irish Beach Water District	No response.
U.S. Fish & Wildlife Service	No response.
SSU	Archaeological study needed.



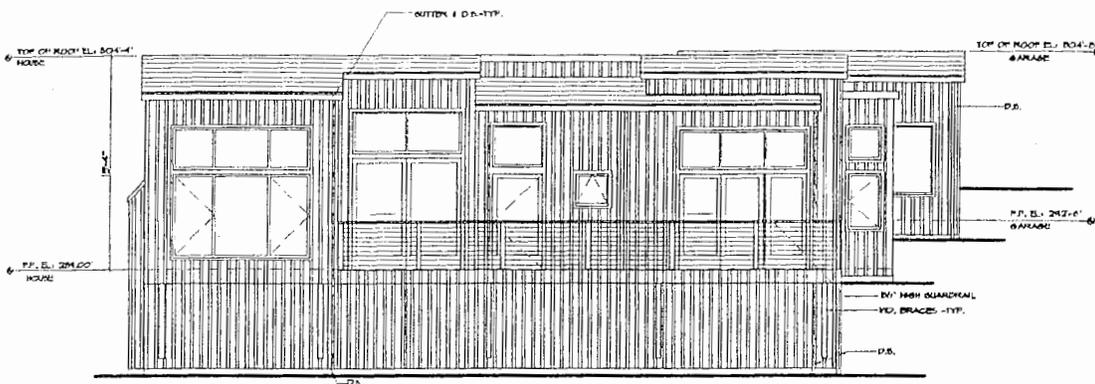


10% EASEMENT REQUIRED TO PROVIDE
PARALLEL TO HIGH WATER MARK
APPROXIMATE LINE OF BLUFF TOP

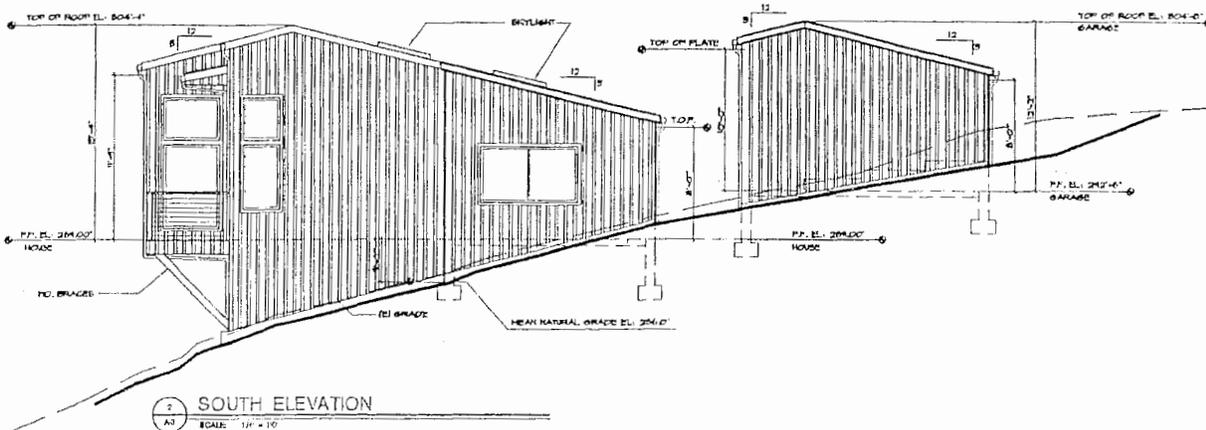




WEST ELEVATION @ GARAGE

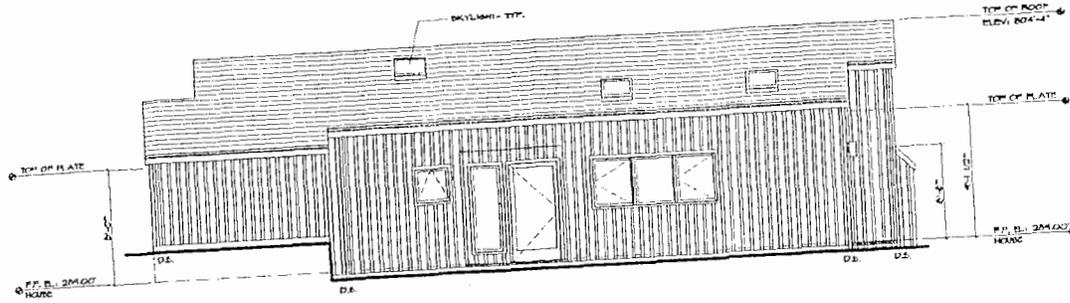


WEST ELEVATION

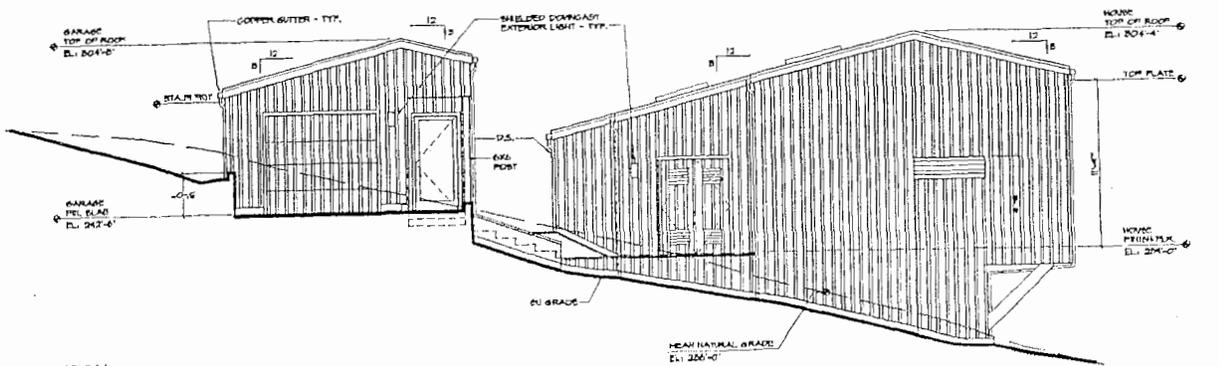


SOUTH ELEVATION

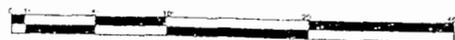




1 EAST ELEVATION
AA



2 NORTH ELEVATION
AA



CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE
 710 E. STREET, SUITE 200
 EUREKA, CA 95501
 VOICE (707) 445-7833 FAX (707) 445-7877

**APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT**

Please Review Attached Appeal Information Sheet Prior To Completing This Form.

SECTION I. Appellant(s)

Name: See Attachment A

Mailing Address:

City:

Zip Code:

Phone:

SECTION II. Decision Being Appealed

1. Name of local/port government:

Mendocino County

2. Brief description of development being appealed:

Coastal Development Permit #76-2006 for construction of a 1,336-square-foot single-story single family residence with a maximum average height of 20 feet above finished grade; 327 square feet of decks; 85 square feet of covered porch; a 305-square-foot detached garage with a maximum average height of 13 feet above finished grade; 1,200 square feet of concrete driveway; installation of an underground propane tank, 24-square-foot trash enclosure, and an on-site septic system; and connection to utilities and community water.

3. Development's location (street address, assessor's parcel no., cross street, etc.):

In the Irish Beach Subdivision, approximately four miles north of the town of Manchester, on the south side of Navarro Way (CR 553), approximately 250 feet southwest of its intersection with State Highway 1, on a west-facing slope near the ocean, at 14820 Navarro Way (APN 132-020-05).

4. Description of decision being appealed (check one.):

- Approval; no special conditions
- Approval with special conditions:
- Denial

EXHIBIT NO. 15

APPLICATION NO.

A-1-MEN-07-047

McCONNELL

APPEAL (1 of 19)

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

RECEIVED

NOV 06 2007

CALIFORNIA
 COASTAL COMMISSION

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE

710 E STREET, SUITE 200

EUREKA, CA 95501

VOICE (707) 445-7833 FAX (707) 445-7877



TO BE COMPLETED BY COMMISSION:

APPEAL NO: A-1-MEN-07-047

DATE FILED: 11/16/07

DISTRICT: North Coast

2419

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 2)

5. Decision being appealed was made by (check one):

- Planning Director/Zoning Administrator
- City Council/Board of Supervisors
- Planning Commission
- Other

6. Date of local government's decision: October 2, 2007

7. Local government's file number (if any): CDP 76-2006

SECTION III. Identification of Other Interested Persons

Give the names and addresses of the following parties. (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:

William & Marcia McConnell
25755 Josefa Lane
Los Altos Hills, CA 94022

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearing(s). Include other parties which you know to be interested and should receive notice of this appeal.

(1) Phillip H. Roberts
P.O. Box 1588
Gualala, CA 95445

(2)

(3)

(4)

3419

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 3)

SECTION IV. Reasons Supporting This Appeal

PLEASE NOTE:

- Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section.
- State briefly **your reasons for this appeal**. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)
- This need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

See Attachment B

4 of 19

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

Page 4

State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

See Attachment B

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Signed: _____ Signature on File

Appellant of _____

Date: 11/6/07

Agent Authorization: I designate the above identified person(s) to act as my agent in all matters pertaining to this appeal.

Signed: _____

Date: _____

ATTACHMENT A

SECTION I. Appellant(s)

1. Patrick Kruer
The Monarch Group
7727 Herschel Avenue
LaJolla, CA 92037

Phone: (858) 551-4390

2. Sara J. Wan
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Phone: (415) 904-5201

ATTACHMENT B

APPEALABLE PROJECT:

After certification of Local Coastal Programs (LCPs), the Coastal Act provides for limited appeals to the Coastal Commission of certain local government actions on coastal development permits (Coastal Act Section 30603). Section 30603 states that an action taken by a local government on a coastal development permit application may be appealed to the Commission for certain kinds of developments, including developments located within certain geographic appeal areas, such as those located between the sea and the first public road paralleling the sea, or within 300 feet of the inland extent of any beach, or of the mean high tide line of the sea where there is no beach, or within 100 feet of any wetland or stream, or within 300 feet of the top of the seaward face of any coastal bluff, or those located in a sensitive coastal resource area. Furthermore, developments approved by counties may be appealed if they are not designated the "principal permitted use" under the certified LCP. Finally, developments which constitute major public works or major energy facilities may be appealed, whether approved or denied by the city or county. The grounds for an appeal are limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program and, if the development is located between the first public road and the sea, the public access policies set forth in the Coastal Act.

The subject development is appealable to the Commission pursuant to Section 30603 of the Coastal Act because the approved development is located (1) between the sea and the first public road paralleling the sea, and (2) within 300 feet of the top of the seaward face of a coastal bluff.

REASONS FOR APPEAL:

The County of Mendocino approved Coastal Development Permit #76-2006 for construction of a 1,336-square-foot single-story single family residence with a maximum average height of 20 feet above finished grade; 327 square feet of decks; 85 square feet of covered porch; a 305-square-foot detached garage with a maximum average height of 13 feet above finished grade; 1,200 square feet of concrete driveway; installation of an underground propane tank, 24-square-foot trash enclosure, and an on-site septic system; and connection to utilities and community water.

The approved development is located in the Irish Beach Subdivision, approximately four miles north of the town of Manchester, on the south side of Navarro Way (CR 553), approximately 250 feet southwest of its intersection with State Highway 1, on a west-facing slope near the ocean, at 14820 Navarro Way (APN 132-020-05).

The approval of CDP #76-2006 by Mendocino County is inconsistent with the policies and standards of the certified Local Coastal Program (LCP) including, but not limited to, policies and standards regarding (1) environmentally sensitive habitat areas (ESHA), (2) geologic hazards, and (3) grading, erosion, and runoff.

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1. **LCP Policies on Environmentally Sensitive Habitat Areas:**

Environmentally Sensitive Habitat Areas (ESHA) are defined in Section 3.1 of the Mendocino County Land Use Plan (LUP) as follows:

Any areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Coastal Zoning Code (CZC) Section 20.496.010 “*Environmentally Sensitive Habitat and other Resource Areas—Purpose*” states the following (emphasis added):

...Environmentally Sensitive Habitat Areas (ESHA's) include: anadromous fish streams, sand dunes, rookeries and marine mammal haul-out areas, wetlands, riparian areas, areas of pygmy vegetation which contain species of rare or endangered plants and habitats of rare and endangered plants and animals.

LUP Policy 3.1-7 states the following (emphasis added):

A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from significant degradation resulting from future developments. The width of the buffer area shall be a minimum of 100 feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning Staff, that 100 feet is not necessary to protect the resources of that particular habitat area and the adjacent upland transitional habitat function of the buffer from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the environmentally sensitive habitat areas and shall not be less than 50 feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent environmentally sensitive habitat area and must comply at a minimum with each of the following standards:

1. *It shall be sited and designed to prevent impacts which would significantly degrade such areas;*
2. *It shall be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity; and*
3. *Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting riparian vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.*

LUP Policy 3.1-18 states the following (emphasis added):

Public access to sensitive wildlife habitats such as rookeries or haulout areas shall be regulated, to insure that public access will not significantly adversely affect the sensitive resources being protected.

Development within buffer areas recommended by the California Department of Fish and Game to protect rare or endangered wildlife species and their nesting or breeding areas shall meet guidelines and management practices established by the Department of Fish and Game, and must be consistent with other applicable policies of this plan.

CZC Section 20.496.020 "Environmentally Sensitive Habitat and other Resource Areas--
Development Criteria" states the following (emphasis added):

(A) Buffer Areas. A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from degradation resulting from future developments and shall be compatible with the continuance of such habitat areas.

(1) Width. The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent Environmentally Sensitive Habitat Area.

Standards for determining the appropriate width of the buffer area are as follows:

(a) Biological Significance of Adjacent Lands. Lands adjacent to a wetland, stream, or riparian habitat area vary in the degree to which they are functionally related to these habitat areas. Functional relationships may exist if species associated with such areas spend a significant portion of their life cycle on adjacent lands. The degree of significance depends upon the habitat requirements of the species in the habitat area (e.g., nesting, feeding, breeding, or resting).

Where a significant functional relationship exists, the land supporting this relationship shall also be considered to be part of the ESHA, and the buffer zone shall be measured from the edge of these lands and be sufficiently wide to protect these functional relationships. Where no significant functional relationships exist, the buffer shall be measured from the edge of the wetland, stream, or riparian habitat that is adjacent to the proposed development.

(b) Sensitivity of Species to Disturbance. The width of the buffer zone shall be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination shall be based on the following after consultation with the Department of Fish and Game or others with similar expertise:

- (i) *Nesting, feeding, breeding, resting, or other habitat requirements of both resident and migratory fish and wildlife species;*
- (ii) *An assessment of the short-term and long-term adaptability of various species to human disturbance;*
- (iii) *An assessment of the impact and activity levels of the proposed development on the resource.*

(c) Susceptibility of Parcel to Erosion. The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.

(d) Use of Natural Topographic Features to Locate Development. Hills and bluffs adjacent to ESHA's shall be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from ESHA's. Similarly, bluff faces should not be developed, but shall be included in the buffer zone.

(e) Use of Existing Cultural Features to Locate Buffer Zones. Cultural features (e.g., roads and dikes) shall be used, where feasible, to buffer habitat areas. Where feasible, development shall be located on the side of roads, dikes, irrigation canals, flood control channels, etc., away from the ESHA.

(f) Lot Configuration and Location of Existing Development. Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance shall be required as a buffer zone for any new development permitted. However, if that distance is less than one hundred (100) feet, additional mitigation measures (e.g., planting of native vegetation) shall be provided to ensure additional protection. Where development is proposed in an area that is largely undeveloped, the widest and most protective buffer zone feasible shall be required.

(g) Type and Scale of Development Proposed. The type and scale of the proposed development will, to a large degree, determine the size of the buffer zone necessary to protect the ESHA. Such evaluations shall be made on a case-by-case basis depending upon the resources involved, the degree to which adjacent lands are already developed, and the type of development already existing in the area...

(2) Configuration. The buffer area shall be measured from the nearest outside edge of the ESHA (e.g., for a wetland from the landward edge of the wetland; for a stream from the landward edge of riparian vegetation or the top of the bluff).

(3) Land Division. New subdivisions or boundary line adjustments shall not be allowed which will create or provide for new parcels entirely within a buffer area.

11/19

(4) Permitted Development. Development permitted within the buffer area shall comply at a minimum with the following standards:

(a) Development shall be compatible with the continuance of the adjacent habitat area by maintaining the functional capacity, their ability to be self-sustaining and maintain natural species diversity.

(b) Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel.

(c) Development shall be sited and designed to prevent impacts which would degrade adjacent habitat areas. The determination of the best site shall include consideration of drainage, access, soil type, vegetation, hydrological characteristics, elevation, topography, and distance from natural stream channels. The term "best site" shall be defined as the site having the least impact on the maintenance of the biological and physical integrity of the buffer strip or critical habitat protection area and on the maintenance of the hydrologic capacity of these areas to pass a one hundred (100) year flood without increased damage to the coastal zone natural environment or human systems.

(d) Development shall be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity.

(e) Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting riparian vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.

(f) Development shall minimize the following: impervious surfaces, removal of vegetation, amount of bare soil, noise, dust, artificial light, nutrient runoff, air pollution, and human intrusion into the wetland and minimize alteration of natural landforms.

(g) Where riparian vegetation is lost due to development, such vegetation shall be replaced at a minimum ratio of one to one (1:1) to restore the protective values of the buffer area.

(h) Aboveground structures shall allow peak surface water flows from a one hundred (100) year flood to pass with no significant impediment.

(i) Hydraulic capacity, subsurface flow patterns, biological diversity, and/or biological or hydrological processes, either terrestrial or aquatic, shall be protected.

(j) Priority for drainage conveyance from a development site shall be through the natural stream environment zones, if any exist, in the development area. In the drainage system design report or development plan, the capacity of natural stream environment zones to convey runoff from the completed development shall be evaluated and integrated with the drainage system wherever possible. No structure shall interrupt the flow of groundwater within a buffer strip. Foundations shall be situated with the long axis of interrupted

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impermeable vertical surfaces oriented parallel to the groundwater flow direction. Piers may be allowed on a case by case basis.

(k) If findings are made that the effects of developing an ESHA buffer area may result in significant adverse impacts to the ESHA, mitigation measures will be required as a condition of project approval. Noise barriers, buffer areas in permanent open space, land dedication for erosion control, and wetland restoration, including off-site drainage improvements, may be required as mitigation measures for developments adjacent to environmentally sensitive habitats. (Ord. No. 3785 (part), adopted 1991)

Discussion:

The approximately western half of the 0.48-acre subject parcel is designated Point Arena mountain beaver (*Aplodontia rufa nigra*) habitat. Point Arena mountain beaver (PAMB) is a federally-listed endangered species. The County staff report notes that a deed-restricted conservation easement was established over the PAMB habitat on the property in an agreement with the U.S. Fish and Wildlife Service in 2006. The deed restriction prohibits certain activities within the PAMB habitat on the parcel, including vegetation alteration or removal, ground disturbance, and rodent control. The deed restriction also requires that a barrier be established between the designated habitat area and the remainder of the parcel to prevent domestic pets and other disturbance from impacting the PAMB habitat.

According to the applicant's biological report, the eastern half of the parcel at the site of the approved development consists of Introduced Grassland, Northern Coastal [Bluff] Scrub, and potentially Coastal Terrace Prairie habitats. Northern Coastal Bluff Scrub and Coastal Terrace Prairie meet the definition of "environmentally sensitive habitat area" (ESHA) per LUP Section 3.1 and CZC Section 20.496.010. Both are ranked by the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB) as "imperiled" at both the global and state levels.

As cited in the policies above, CZC Section 20.496.010 defines environmentally sensitive habitat areas (ESHA) and includes habitats of rare and endangered species. Therefore, as ESHA, endangered species habitat is subject to the ESHA buffer requirements of LUP Policy 3.1-7 and CZC Section 20.496.020. According to these policies, a buffer area of a minimum of 100 feet shall be established adjacent to all ESHAs, unless an applicant can demonstrate, after consultations and agreement with the CDFG that 100 feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The policies state that in that event, the buffer shall not be less than 50 feet in width. CZC Section 20.496.020 states that the standards for determining the appropriate width of the buffer area are the seven standards of subsections (a) through (g) of subsection (A)(1) of that section, including (a) the biological significance of adjacent lands, (b) sensitivity of species to disturbance, (c) susceptibility of parcel to erosion, (d) use of natural topographic features to locate development, (e) use of existing cultural features to locate buffer zones, (f) lot configuration and location of existing development, and (g) the type and scale of the development proposed. LUP Policy 3.1-7 and CZC Section 20.496.020(A)(4)(b) further require that development permitted within an ESHA buffer area shall generally be the same as those uses

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permitted in the adjacent ESHA, and that structures are allowable within the buffer area only if there is no other feasible site available on the parcel. LUP Policy 3.1-18 states, in applicable part, that development within buffer areas recommended by the CDFG to protect rare or endangered wildlife species and their nesting and breeding areas shall meet guidelines and management practices established by the Department, and must be consistent with other applicable policies of this plan.

The approval of the subject development is inconsistent with the ESHA policies of the certified LCP including, but not limited to, LUP Policies 3.1-7, 3.1-18 and CZC Section 20.496.020, because (a) the development would be constructed adjacent to (within 5 feet of) endangered species ESHA (PAMB habitat) without maintaining a minimum 50-foot buffer, (b) the County did not consider feasible alternative sites or configurations for the development that would avoid locating development within the ESHA buffer, and (c) the County has not demonstrated that the approved development complies with any guidelines and management practices established by the CDFG for the protection of the endangered PAMB. The County's approval is based on the attachment of Special Condition No. 5, which states in part that "no development or disturbance, other than that approved by the County, shall occur in the 50 foot buffer area to the designated ESHA" (emphasis added). Yet in its findings for approval of the project, the County fails to address the consistency of the project with the ESHA buffer requirements of LUP Policies 3.1-7 and 3.1-18 and CZC Section 20.496.020, including how a buffer less than the minimum of 50 feet required by LUP Policy 3.1-7 and CZC Section 20.496.020(A)(1) is allowable under the LCP and conforms with CDFG requirements.

LUP Policy 3.1-7 and CZC Section 20.496.020(A)(1) allow for development to be permitted within a buffer area if the development is for a use that is the same as those uses permitted in the adjacent environmentally sensitive habitat area, and if the development complies with specified standards as described in subsections (1)-(3) of LUP Policy 3.1-7 and 4(a)-(k) of Section 20.496.020. The LCP sets forth uses permitted in wetland and riparian ESHAs, but is silent with regard to allowable uses within rare plant ESHA, and thus allowable uses within the endangered species buffer.

Nonetheless, even if a single family home was considered an allowable development in an endangered species buffer, LUP Policy 3.1-7 and CZC Section 20.496.020(A)(4) require permitted development within an ESHA buffer to comply with several standards. These standards include that structures be allowed within a buffer area only if there is no other feasible site available on the parcel, and that the development be sited and designed to prevent impacts that would significantly degrade the ESHA. The County's findings do not analyze alternative sites or project designs or demonstrate that the project as approved was sited and designed on the parcel in a manner that would best protect the ESHA. Furthermore, the findings do not address what CDFG guidelines and management practices apply to protect the PAMB ESHA and how the approved project conforms with these guidelines and practices, as required by LUP Policy 3.1-18

Thus, because (1) ESHA buffers are not allowed to be reduced to less than 50 feet, (2) development is allowed within a buffer area only if it is demonstrated that there is no other feasible site available on the parcel, and (3) the development has not been demonstrated to

conform with CDFG guidelines and practices for the protection of endangered PAMB habitat, the project, as approved by the County, is inconsistent with the ESHA protection provisions of the certified LCP including, but not limited to, LUP Policies 3.1-7 and 3.1-18 and CZC Section 20.496.020.

2. LCP Policies on Hazards:

LUP Policy 3.4-7 states the following (emphasis added):

The County shall require that new structures be set back a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years). Setbacks shall be of sufficient distance to eliminate the need for shoreline protective works. Adequate setback distances will be determined from information derived from the required geologic investigation and from the following setback formula:

$$\text{Setback (meters)} = \text{Structure life (years)} \times \text{Retreat rate (meters/year)}$$

The retreat rate shall be determined from historical observation (e.g., aerial photographs) and/or from a complete geotechnical investigation.

All grading specifications and techniques will follow the recommendations cited in the Uniform Building Code or the engineering geologists report.

LUP Policy 3.4-10 states the following (emphasis added):

No development shall be permitted on the bluff face because of the fragility of this environment and the potential for resultant increase in bluff and beach erosion due to poorly-sited development. However, where they would substantially further the public welfare, developments such as staircase accessways to beaches or pipelines to serve coastal-dependent industry may be allowed as conditional uses, following a full environmental, geologic and engineering review and upon the determinations that no feasible less environmentally damaging alternative is available and that feasible mitigation measures have been provided to minimize all adverse environmental effects.

CZC Section 20.500.010 states the following (emphasis added):

(A) The purpose of this section is to insure that development in Mendocino County's Coastal Zone shall:

- (1) Minimize risk to life and property in areas of high geologic, flood and fire hazard;*
- (2) Assure structural integrity and stability; and*
- (3) Neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (Ord. No. 3785 (part), adopted 1991)*

CZC Section 20.500.020 states the following (emphasis added):

(B) Bluffs.

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- (1) New structures shall be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans [seventy-five (75) years]. New development shall be setback from the edge of bluffs a distance determined from information derived from the required geologic investigation and the setback formula as follows:

$$\text{Setback (meters)} = \text{structure life (75 years)} \times \text{retreat rate (meters/year)}$$

Note: The retreat rate shall be determined from historical observation (aerial photos) and/or from a complete geotechnical investigation.

- (2) Drought tolerant vegetation shall be required within the blufftop setback.
- (3) Construction landward of the setback shall not contribute to erosion of the bluff face or to instability of the bluff.
- (4) No new development shall be allowed on the bluff face except such developments that would substantially further the public welfare including staircase accessways to beaches and pipelines to serve coastal-dependent industry. These developments shall only be allowed as conditional uses, following a full environmental, geologic and engineering review and upon a finding that no feasible, less environmentally damaging alternative is available. Mitigation measures shall be required to minimize all adverse environmental effects.

Discussion:

The development approved by the County would be located on a bluff face, on the seaward side of the bluff edge, according to the bluff-edge determinations of both Dr. Mark Johnsson, the Coastal Commission's staff geologist, and County planning staff. Approval of development on a bluff face is inconsistent with LUP Policy 3.4-10 and CZC Section 20.500.020(B)(4), which prohibit development on bluff faces, except for developments that would substantially further the public welfare such as staircase accessways to beaches or pipelines to serve coastal-dependent industry. Furthermore, LUP Policy 3.4-7 and CZC Section 20.500.020 require that new structures be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years). According to Dr. Johnson and County planning staff, the bluff edge on the subject property is located very near the position of Navarro Way near the eastern property boundary. This bluff edge determination is based on the definition of bluff edge found in Section 13577(h) of the Commission's regulations, which states the following, in applicable part (emphasis added):

(h) *Coastal Bluffs. Measure 300 feet both landward and seaward from the bluff line or edge. Coastal bluff shall mean:*

- (1) *those bluffs, the toe of which is not or was historically (generally within the last 200 years) subject to marine erosion; and*

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(2) those bluffs, the toe of which is not now or was not historically subject to marine erosion, but the toe of which lies within an area otherwise identified in Public Resources Code Section 30603(a)(1) or (a)(2).

Bluff line or edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge. The termini of the bluff line, or edge along the seaward face of the bluff, shall be defined as a point reached by bisecting the angle formed by a line coinciding with the general trend of the bluff line along the inland facing portion of the bluff. Five hundred feet shall be the minimum length of bluff line or edge to be used in making these determinations.

Dr. Johnson concluded that because the coastal bluff at the subject site is broadly rounded near the top and levels off very nearly at the location of Navarro Way, applying the definition of Section 13577(h), the entire lot is on the bluff face.

The County's approval is presumably based on the attachment of Special Condition No. 2, which requires that prior to permit issuance the applicant execute and record a deed restriction for the subject property. The deed restriction shall provide that, among other things, the landowner agree not to construct any bluff or shoreline protective device to protect the approved development in the event that the development is subject to damage or other erosional hazards in the future, and the landowner shall remove the house and its foundation when bluff retreat reaches the point where the structure is threatened. Yet in its findings for approval of the project, the County fails to address the project's consistency with both (1) LUP Policy 3.4-7 and CZC Section 20.500.020(B)(1), as the approved building site does not assure safety from bluff erosion and cliff retreat for the economic lifespan of the approved development, as well as (2) LUP Policy 3.4-10 and CZC Section 20.500.020(B)(4), as the approved development is located on the bluff face and is not a type of development that would substantially further the public welfare such as staircase accessways to beaches or pipelines to serve coastal-dependent industry. The project as approved includes development seaward of the bluff edge and is therefore inconsistent with LCP policies regarding geologic hazards including, but not limited to, LUP Policies 3.4-7 and 3.4-10 and CZC Sections 20.500.010 and 20.500.020.

3. LCP Policies on Grading, Erosion, & Runoff:

CZC Section 20.492.010(B) states the following:

...
(B) Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so that grading is kept to an absolute minimum.
...

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Discussion:

The approved development is inconsistent with CZC Section 20.492.010(B), as the development has not been designed to best fit the topography, soils, and other conditions of the site. Rather than locating the development on the least steeply sloping portions of the site where grading would be minimized and development would better fit the topography, the approved residence will be located on the steepest and most westward portion of the parcel outside of the deed-restricted PAMB habitat area. According to County planning staff, the maximum slope in the approved development area is over 41 percent for approximately 15 feet. The approved driveway to access the detached garage will be steep and will include a 3-foot retaining wall on its east side. The approved septic fields will be located on the flattest portion of the parcel, near the road. As discussed in the County staff report, the County Division of Environmental Health (DEH) expressed concern that the retaining wall and propane tank would be located 22 feet and 18 feet, respectively, downslope of the leach fields, as DEH generally recommends at least 50 feet between leach fields and downslope cuts. Furthermore, the amount of necessary grading would be greatly reduced if the residential and garage structures were to be located near the road and the leach fields were to be located west of the structures, as the approved driveway will be approximately 125 feet long and 12 feet wide and will necessitate a retaining wall on its uphill side.

The County's approval of the project is based on the attachment of Special Condition No. 3, which requires, among other things, that prior to permit issuance the applicant submit a grading plan approved by a licensed architect or engineer, which clarifies the total amounts and locations of cut and fill. The condition also requires that development adhere to the erosion control measures outlined in the erosion control plan prepared by the applicant's consultant David Paoli. Although providing the information required by Special Condition No. 3 and adhering to the erosion control plan as required by the condition would provide helpful information and help reduce erosion from the approved development, satisfying the requirements of Special Condition No. 3 does nothing to ensure the project's consistency with CZC Section 20.492.010(B), which requires that development be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so that grading is kept to an absolute minimum. Therefore, the project, as approved, is inconsistent with the LCP policies and standards regarding grading, erosion, and runoff including, but not limited to, CZC Section 20.492.010(B).

CONCLUSION:

The project, as approved by Mendocino County, is inconsistent with the policies of the certified LCP including, but not limited to, the following:

- LUP Policies 3.1-7 and 3.1-18 and CZC Section 20.496.020, which require that a buffer area of a minimum width of 50 feet be established around environmentally sensitive habitat areas, that development permitted within an ESHA buffer area shall generally be the same as those uses permitted in the adjacent ESHA, that structures are allowable within the buffer area only if there is no other feasible site available on the parcel, and that development conform with Department of Fish and Game guidelines and practices for the protection of endangered wildlife habitat;

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- LUP Policy 3.4-7 and CZC Section 20.500.020(B)(1), which require that new structures be setback a sufficient distance from the edges of bluffs to ensure their safety from bluff erosion and cliff retreat during their economic life spans (75 years);
- LUP Policy 3.4-10 and CZC Section 20.500.020(B)(4), which prohibit development on the bluff face, except for developments that would substantially further the public welfare such as staircase accessways to beaches or pipelines to serve coastal-dependent industry; and
- CZC Section 20.492.010(B), which requires that development be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so that grading is kept to a minimum.

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The area subject to open space restrictions pursuant to Special Condition No. 6 of Coastal Development Permit No. A-1-MEN-07-047 includes all areas of the subject property (APN 132-020-05) west of the approved building footprint.



See detail, next page.

EXHIBIT NO. 16

APPLICATION NO.

A-1-MEN-07-047 - McCONNELL

AREA SUBJECT TO OPEN
SPACE RESTRICTIONS
PURSUANT TO SPECIAL
CONDITION NO. 6 (1 of 2)

100 50 0 100 Feet



