

# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

Compiled by  
TranSystems Corporation

November 21, 2007



**EXPERIENCE** | Transportation

# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement



Prepared for

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Thank you to the following County staff who participated in the marina study and development of the Concept Plan:

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Jesse Gilley, Ranger IV  
Ed Hallet, Assistant Harbor Master  
Peter Clausen, Ranger II  
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# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

## Executive Summary

### Introduction

San Mateo County Parks Department contracted with TranSystems Corporation to review the Coyote Point Marina, and provide a conceptual plan for future improvements of the marina based on current boating trends in the San Francisco Bay Area coupled with projected marina needs. Our work is based on the needs expressed by the County in the attached Project Description.

Dock 29, comprising the longest berths (50 feet in length) in the Coyote Point Marina, is currently in a much-deteriorated condition. The County has applied to the State of California Department of Parks and Recreation, Division of Boating and Waterways for a loan to allow replacement of the Dock 29 facilities in the near future. A portion of Dock 29 is now out of service due to its deteriorated condition. The replacement of Dock 29 and a long-term plan following the general trend in boat berthing requirements moving toward larger boats, will allow the County to proceed with Marina improvements in the most cost effective manner. With the trend for berthers moving to larger boats comes the need to provide such facilities. The Coyote Point Marina has many smaller berths that incur a high vacancy rate due to lower needs for the smaller berths than was previously required. Reconfiguration of the marina toward larger berth sizes translates to higher occupancy and revenue for the County plus meeting public demand for larger berths. In order to facilitate the increase in occupancy and revenue, some of the changes proposed in the following report are necessary.

Our work included surveying several Bay Area marinas for pertinent information relating to what amenities are offered by similar marinas as well as the respective fees charged in the surveyed marinas. We present the information gathered and our recommendations for future maintenance and replacement of the Coyote Point Marina facilities in this report.

### Summary of tasks performed

- Survey Bay Area marinas for berthing and related facilities provided.
- Survey Bay Area marinas for fees charged for berthing and related facilities.
- Analysis of boating trends in the San Francisco Bay Area and the State of California as these trends impact current and anticipated use and berthing at Coyote Point Marina (current existing studies and research may be utilized)
- Analysis of Coyote Point Marina berthing/dock configuration (size of berths, layout of berths, types of boats accommodated, occupancy rates, etc.)
- Review and report on the physical conditions of the Coyote Point Marina
- Recommendations for berthing/dock improvements including, but not limited to, reconfiguration of docks, berth size mix, increase or decrease in number of specific berth sizes, accommodation of changing vessel types, anticipated occupancy rate impacts, and other Marina berth and/or dock changes

### Concept Plan for the Coyote Point Marina berthing – Key elements

1. Executive Summary
2. Project Description

#### Executive Summary-1

3. Survey of Marina Facilities in San Francisco Bay
4. Map of the Bay Area showing the approximate locations of the 18 marinas surveyed.
5. Comparison chart of Available Berthing at the surveyed marinas, including the Coyote Point Marina.
6. Comparison chart of Berthing Rates charged at the respective surveyed marinas, including the Coyote Point Marina.
7. Existing Coyote Point Marina revenue chart.
8. Proposed Coyote Point Marina revenue charts based on the conceptual layout plans provided herein depicting several possible marina berthing layouts.
9. Survey of Conditions of Coyote Point Marina Docks.
10. Tabular format of Survey of Conditions of Coyote Point Marina Docks. This tabular information includes some basic recommendations for repairs and replacement of certain facilities as well as some order of magnitude dock replacement costs.
11. Plans showing existing Coyote Point Marina layout, and four possible reconfiguration scenarios.

### Conclusion

The goal of this study was to consider dock repair and replacement needs, boating trends and trade-offs to maximize the use and revenue potential of the marina. In keeping with the goals of the study, our survey of nearby marinas in the Bay Area, along with our review of the existing conditions of the Coyote Point Marina docks resulted in this Coyote Point Marina Concept Plan. Analyzing the information gathered, and consulting with County staff, provided the information needed to complete this Concept Plan.

Of the five Marina dock configuration plans considered, Plan E is recommended as the preferred alternative based on it meeting the goals of immediate dock replacement needs, anticipating regional boating trends, and maximizing revenue generated to fund future Marina capital needs. Plan E has been identified in two phases:

#### PHASE 1:

Immediate needs which includes replacement of docks 27, 28, and 29 to facilitate larger boats and address immediate dock repair and replacement needs within the next one to five years.

#### PHASE 2:

Longer term needs of replacing dock 13 to facilitate larger boats, and replacing the guest and fuel dock, which provide for better use of the marina and a higher level of service delivery to Marina users. We recommend that this plan be reevaluated within the next three to five years after docks 27, 28 and 29 are replaced.

The implementation of recommended dock repairs and replacement will allow the County to continue to provide a high level of service to the community while allowing the Marina's revenue to continue to be able to support the Marina operational costs.

### Executive Summary-2

# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

## Project Description

The following Project Description prepared by the County clearly states the County's needs and provided the basis of Transystems' study of the Coyote Point Marina:

"Currently the Marina berths are 80% occupied and consist of mostly smaller boats ranging from 20-40 feet in length. Approximately 70% of the Marina has been dredged over the past 3 years to design depths for 20 to 50 foot boats. It appears the public current demand is for larger boats; however, the Marina will need phased reconfiguration of the docks as they are replaced to be able to facilitate this apparent change to larger boats and enhance occupancy.

Dock 29, which handles the largest boats in the Marina currently, needs immediate replacement as do docks 20/21, 26, 27 and 28 in the near future. Dock 29 currently is located at the most windward side of the Marina. This dock location may need to be modified to address the issues or may better serve berthing boats of a smaller size for a number of reasons:

- 1) Weather/Wave Attenuation – Because this dock is located at the windward side of the Marina is subjected to the nearly constant northwest wind, which blows daily at 20+ knots. Having the largest power/sail boats in this location puts the dock under much more load due to their higher freeboards and greater displacement. Wave impact occurs daily when the tide reaches its maximum flood velocity. During this time, a groundswell rolls up the channel and hits Dock 29 first.
- 2) Large Boats – Large boats do not have maneuver ability of smaller vessels. Coupled to this the added ambience of being out of the wind or "in the lee" as well as being closer to the Yacht Club which people that pay the highest per boat per foot cost tend to support relocating Dock 29 from it's current location. Relocating this dock would facilitate removal and redesign of Basin II. Docks 20-21 are rapidly approaching the end of their life cycle, which fits in well with placing the large boat dock, or docks (trend is for bigger boats) in this area; however, the south side of Basin I is not beyond consideration.

How docks should be reconfigured as they are replaced is something that requires direction as to how improvements should occur in a phased way over a period of 10 to 30 years. Consideration should be given to what current and anticipated future boating demand is, the ease of maintenance dredging, whether turning fairways are adequate, and how occupancy can be increased.

### Background

Coyote Point Marina, which is owned and operated by the County of San Mateo, lies approximately 15 miles south of downtown San Francisco on the San Francisco Bay. The Marina is managed as a self-sufficient Enterprise Fund. The Marina has 565 berths, a Harbormaster's Office, Yacht Club, fuel dock, a three-lane boat ramp, and a pump out facility. The Marina also has restrooms, and designated recreational areas for public use.

The natural harbor that encompasses Coyote Point Marina has been used by small craft since the late 1940's and probably many years before that. During the 1950's, the inner berm between Basins I and II were constructed and

Project Description-1

provided some wave protection for berths in Basin I. In 1961 and 1962, approximately 75,000 cubic yards of sediment was dredged from Basin II and was used to construct the outer berm. This berm has acted as a breakwater for Basins I and II.

From 1961 to 1967, the surface of the inner berm was paved to provide parking and restrooms were constructed. The breakwater on the north end of the Marina was constructed during this same period to provide additional protection. Between 1967 and 1970, the "Dog Leg" was added to the north breakwater at the entrance of the Marina to provide protection for the channel entrance and the Marina.

When the old San Mateo Bridge was demolished in 1967 – 1968, the concrete rubble was brought to its present location, approximately 1300 feet east of the outer berm of Basin II. This material was expected to be the foundation for a future breakwater needed to provide protection for a proposed third basin in the Marina.

The current marina docks were installed as noted below:

1976 / 1977 Basin II Improvements:

Docks 1, 6, 7 and 8 in Basin II were removed and replaced with new concrete docks re-numbered as Docks 20, 21, 24, 25, 26, 27, 28 & 29

1979 Basin I Improvements:

Docks A, B, C, D & E in Basin I were removed and replaced with new concrete docks re-numbered as Docks 11, 12 & 13

1984 Improvements

Installation of new concrete Docks 22 and 23

Installation of new wood Dock 10

1987 Launch Ramp ADA Improvements

Launch Ramp replaced with Grant from the Department of Boating and Waterways to meet ADA requirements

An area approximately 400 foot wide between the proposed Basin III and existing Basin II was set aside for construction of a new berm. This berm was to provide additional land area for new Marina facilities.

In 1971, a mud dike was constructed around this area and set aside as a dredge disposal site. It was anticipated that approximately 260,000 cubic yards of dredged materials from the new basin 3 would be discharged to this area and used as the foundation for the new facilities. In 1972, approximately 20,000 cubic yards of sediment dredged from the Marina was discharged to the northern and western portions of this area.

Breaching of the eastern levees occurred sometime after 1978 and over the years, the eastern levee deteriorated due to wave and wind attack ultimately allowing tidal inundation that were submerged during high tides.

Project Description-2

In 1987, maintenance dredging was conducted in Basins I and II the entrance and outer approach channels. Use of the clamshell bucket dredge prevented dredging beneath the docks. Additionally docks 27 and 28 were not dredged because the fairway was too narrow to allow dredge equipment access. Approximately 77,000 cubic yards of material were dredged by clamshell bucket and transported by scow to the Alcatraz disposal site (SF11).

After the 1989 Loma Prieta Earthquake, the Harbormaster noticed berm material sloughing into the navigable waterways. In 1994, the northern portions of Basin I and II and the main northern inner harbor channel were clamshell dredged. Approximately 118,750 cubic yards of material were taken by barge to the Alcatraz disposal site.

In 2000 the northern breakwater was rebuilt. Previously placed concrete and rebar was removed, the outer berm's northern end was rock reinforced, surfaced with geo web, and additional materials were added to increase its strength.

In 2003, the Approach Channel, the Entrance Channel, Docks 27, 28, and 29, and parts of Basin I and II were clamshell dredged. Approximately 100,800 yards of material were taken by barge to the Alcatraz disposal site.

In 2006 the Marina was dredged and approximately 30,000 cubic yards of material were removed from Basin 1 Fairway, Docks 10, 11, 12, and 13, and the Guest dock, and Docks 24, 25, 26, and 27 in Basin II.

The Draft Coyote Point Master Plan, which addressed the Coyote Point Marina, was approved in concept by the Board of Supervisors October 5, 2006. Marina improvements identified in the Coyote Point Master Plan include:

- 1) Temporary Harbor Master Office to replace former Concessionaire building as permanent Harbor Master Office is removed in 2005 due to safety concerns.
- 2) Dock 29 at Marina will be replaced in 2008.
- 3) Restroom at Marina will be refurbished in 2008.
- 4) Special Study Areas will include: The San Francisco Bay Access Trail launch ramp and camping improvements proposed near Yacht Club, and potentially a third basin at the Marina."

### Project Description-3

Coyote Point Marina Concept Plan  
For Dock Reconfiguration and Replacement  
San Mateo, CA  
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November 21, 2007

## Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

### Survey of Marina Facilities in San Francisco Bay

The marinas surveyed in this study lie within the San Francisco Bay portions of the counties of Marin, San Francisco, San Mateo, Santa Clara, Alameda and Contra Costa.

#### Total Population

2000	2010	2020	2030
5,879,392	6,271,937	6,760,056	7,320,957

This shows a total population increase of 19.17% in these counties from 2000 to 2030. Department of Boating and Waterways figures and Department of Motor Vehicles registrations indicate approximately 2.45 boats per 100 people and that approximately 10% of those boats will require wet berthing. This would indicate approximately 3,500 new wet berths will be needed over the 30 year period from 2000 to 2030.

The larger the boat (greater than 40 feet), the less available berths exist within the market area. Demand in the 50 to 60 foot market can be somewhat latent in that buyers will not buy a boat without knowing vacant boat berths exists for that boat. A suggested larger average berth size would capture that demand.

The attached spreadsheet pages provide existing available berthing information (Berthing Rate Section) from San Francisco Bay (Bay) marinas for consideration in the reconfiguration and possible refurbishment of the Coyote Point Marina dock system. The important comparative design criteria to be considered at this planning stage, in addition to surveying marinas of similar size, are; the existing berth vacancies by size and number; the size and number of berths in demand/wait-listed and, the prevailing fee structure for the range of berth sizes. Relative to these criteria are the data shown on the spreadsheets.

The survey includes 18 marinas within a radius of approximately 22 miles around the Coyote Point Marina, in the central and southern Bay, as shown on the accompanying map. Thirteen of these marinas are within 14 miles of Coyote Point. The marinas range in capacity from 40 to 985 boat berths. TranSystems staff in telephone interviews with respective harbor master offices conducted the survey. Most of these marinas were cooperative in providing what information they had at hand. The information is considered valuable for determining a potential reconfiguration/refurbishment direction for the proposed project.

#### General Indications Regarding Marina Occupancy

- Despite the relatively large number of berths at individual marinas surveyed, many of these berths are for smaller boats, generally 30 feet or less in length.
- Berths, generally over 50 feet in length, and at least 18 feet in width, are limited in number or availability.
- In a few instances, larger berths are not wide enough to accommodate newer, wider craft. Vacancies occur in these berths. (The Marina Bay Harbor is an exception; vacancies in larger berths are said to be a symptom of the marina's Richmond location).

Survey - 1

- Vacancies in mid-size to smaller berths (generally below 40 feet in length) are prevalent at most facilities, partly due to increased ability to trailer these sized boats, and that many are stored at home during the off-season.
- Most boats listed for sale in marinas are in the 30' +/- range, and there are more of these for sale than there are potential buyers.
- Some marinas wish to eliminate smaller berths, indicating, that in addition to vacancies, many small boats and berthing areas are not well maintained by boat tenants in this size range.
- Some marinas do not keep a wait list due to the lengthy time it normally takes for vacancies to occur in larger sized berths.
- Most transient berthing is on a berth-available basis, rather than berths/mooring set aside for that purpose.
- Most marinas have capability for end-tie and side-tie mooring to accommodate larger boats.

### General Indications Regarding Berth Rental Rates

Coyote Point Marina rates for 50' and 45' berths are approximately \$30 - \$40 higher than the average for the other marinas surveyed that use monthly rate schedules; approximately \$20 less than the average for 40' berths; about the same for 36' berths; approximately \$25 less than the average for 32' berths; approximately \$7 less than the average for 28' berths, and; approximately \$13 less than the average for 24' berths; only one marina also with 22' berths charges about twice as much. We averaged the rates of the other marinas surveyed (those with monthly rates) respective to the berth rate categories at Coyote Point. We compared these to averages of the respective monthly berth rates at Coyote Point. In the 45' and 50' categories, the monthly rates calculate to be about \$33 and \$43 higher, respectively, at Coyote Point than the average for the other marinas in these two rate categories. All the other (below 45') Coyote Point berth rates were similar to, or below the averages for the other marinas.

- Rates in the marinas included in our study are approximately in the \$7.00 to \$8.50/foot/month for an average 40' berth. Considering access, location, and amenities, the Coyote Point Marina should be able to demand a \$9.00 foot/month rate after the dock system is reconfigured, and other amenities added.
- Our survey indicates that nearly all marinas have, or are having electric meters installed, to facilitate charging their customers for electricity. Coyote Point Marina does not have individual electric meters at the berths. This may be a factor of higher rates at Coyote Point, which includes electricity in the berth rental rate, but this does not seem to hold true when compared to the rates of berths that are below 45'. For future dock replacements, the Marina may want to meter electric usage at each berth to allow charging each boat owner for their individual usage.
- All of the marinas surveyed provide water at no additional charge to the stated berth rental rates.
- Although parking costs were not surveyed for the subject marinas, we are not aware of any marina that charges for tenant parking in the Bay Area.

Survey - 2

- Berthing fees at the marinas surveyed are fairly evenly split between charging by the month and linear feet. Some marinas convert monthly rates to linear feet.
- Guest docking at side tie or end tie locations is normally charged by linear feet.
- Most marinas rent vacant berths to guests at a reduced rate per linear feet. A few marinas charge a flat rate per night.
- Fees in marinas with a high percentage of sailboats vary dependant upon berth location relative to prevalent wind direction, upwind rates being somewhat higher.

### **General Indications Regarding Marina Infrastructure and Amenities**

In addition to comparative design criteria to be considered for dock reconfiguration, additional information is presented on the spreadsheets for the first eight marina entries (within a 14 mile radius of Coyote Point), and summarized below. These are the most immediate Coyote Pt. competitors for berthing in the southerly portion of San Francisco Bay. Included is an inventory regarding docks, marine services, and landside amenities that should be considered as part of a refurbishment project to attract marina tenants and other marina users.

- The Coyote Point Marina has important on-site amenities to be maintained and/or augmented, absent at some marinas, such as, a launch ramp, boat fueling facility, and pump out station.
- A few marina dock systems are of wood construction, or are a combination of wood and newer concrete construction. Replacement docks are primarily concrete vs. steel/wood, steel/concrete, pressure-treated wood, glue-laminated timber, or fiberglass.
- Only one marina dock system has fiberglass dock construction (20 years old), while none reported steel/wood or steel/concrete combinations.
- Average age of docks is approximately 20 to 25 years.
- Most of the marinas have dockside head/bilge pump-out facilities, or provide mobile service.
- Nearly all of the marinas have, or are having electric meters installed, providing 30 and 50-amp electrical service to each berth.
- All of the marinas have dockside water service.
- None of the marinas has haul-out or dry dock facilities.
- Only one marina has facilities for comprehensive boat repairs.
- One-half of the marinas have boat launch ramps on-site.
- Less than one-half of the marinas have a boat fueling dock.

Survey - 3

- Only two of the marinas have boat rentals.
- Only two of the marinas have party boat charter operations.
- Less than half of the marinas have dry storage for boats.
- Only two of the marinas do not have a laundry facility, in addition to restrooms and showers.
- Only two of the marinas carry marine supplies, groceries, and bait/tackle.
- Less than half of the marinas have restaurants or snack bars on-site.
- Half of the marinas have some sort of fishing access on-site, shoreline or pier.
- Over half of the marinas have a yacht club on site.
- Less than half of the marinas have yacht brokers on-site.



**COYOTE POINT MARINA CONCEPT PLAN  
FOR DOCK RECONFIGURATION & REPLACEMENT**  
Survey of Marina Facilities in San Francisco Bay



NOVEMBER 21, 2007 1 inch equals 4 miles

### **Areas of Consideration for Dock Reconfiguration and Refurbishment Based on Survey Findings**

- Reduce quantity of mid-size and smaller berths (below 35' in length).
- Construct longer, wider berths to accommodate larger boats (generally 40' + in length, and 18+ feet in width).
- Locate side-tie guest docking at appropriate locations in the marina for mooring larger boats.
- Maintain guest berthing on an as-available basis.
- Consider marina berth locations for ease of sailboat access to the Bay; adjust berth rental rates (for upwind or downwind), accordingly.
- Add a low float boarding float for launching human powered and beachable sail craft (e.g. kayaks, rowboats, dragon boats, windsurfers, kite boards).
- Consider dry storage for human powered and beachable sail craft, in conjunction with providing access to the proposed San Francisco Bay Water Trail.
- Consider convenient location of grocery and bait/tackle facilities, as most marinas do not have this service.

### **For Future Consideration**

- Consider additional research on the demand for and economic feasibility of installing a boat hoist or haul-out facility, as none of the other eight nearest marina competitors has this service.
- Live aboards. In the past, BCDC (Bay Conservation and Development Commission) has allowed up to 10% of the berths for live aboards. These boaters tend to add to dock security and can be an influence on creating a "local neighborhood" on the docks. These berths also bring in additional revenue.

**COYOTE POINT MARINA CONCEPT PLAN FOR DOCK RECONFIGURATION AND REPLACEMENT**

**AVAILABLE BERTHING**

Facility Name	Location	Total Covered Berths	No. Vacancies for Covered Berths	Total Open Berths	Size of Open Berths Vacant	No. Vacancies for Open Berths	Wait List Fee	No. of People on Wait List	Wait List Boat Lengths (ft)
Coyote Point Marina	San Mateo	-	-	565	LST	2	None	None	-
					ST	10			
					24	5			
					28	20			
					32	31			
					36	2			
					40	23			
					45	-			
50	-								
Redwood City Yacht Harbor	Redwood City	-	-	185	30'	3	\$25	No Number	40
					35'	1			
					-	-			
Redwood Landing Marina	Redwood City	-	-	40	25'-30'	12	None	None	-
					-	-			
Bair Island Marina	Redwood City	-	-	95	40'	10	None	None	-
					45'	1			
					35'	10			
Pete's Harbor	Redwood City			220	<35'	40	None	No Number	36-60
Oyster Point Marina	South San Francisco	-	-	600	30'-36'	140	None	None	None
Oyster Cove Marina	South San Francisco	-	-	235	30'	5	None	4	40
					32'	4		3	44
					36'	1		3	> 50
Brisbane Marina	Brisbane	-	-	580	36'; 50' plus	No Number	\$25	No number	30' and 34'
San Leandro Marina	San Leandro	11	0	451	24'	28	-	-	60'
					28'	63			
					32'	58			
Ballena Isle Marina	Alameda	-	-	515	22'-70'	Total: 100 (1/2 are 24')	\$150	-	24'
Alameda Marina	Alameda	50	None	480	24'	6	None	20	>30'
Fortman Marina	Alameda	31	None/\$8.50/LF	466	20'-30'	70	None	None	42'-60'
					30'-40'	22			
					40'-60'	3			
Marina Village Yacht Harbor	Alameda	-	-	750	28'-72'	None	None	-	-
South Beach Harbor	San Francisco	-	-	675	26'	7	\$80	6 yr wait	38'-50'
SF Marina Yacht Harbor	San Francisco	-	-	686	20'	9	\$75	-	-
					25'	24			
					-	-			
Emery Cove Marina	Emeryville	-	-	430	30'-60'	None	None	None	All Sizes
Clipper Yacht Harbor	Sausalito	-	-	700	20'	10	None	25	40'
Berkeley Marina	Berkeley	-	-	985	20' 24' 26'	8; 4; 6	\$40	65 for 30'-40'; 65 for 41'-50'; 4 for 60'	See other column.
Marina Bay Yacht Harbor	Richmond	-	-	850	30'	68	None	None	-
					42'	23			
					44'	9			
					40'	5			
					45'	16			

**COYOTE POINT MARINA CONCEPT PLAN FOR DOCK RECONFIGURATION AND REPLACEMENT  
BERTHING RATES**

Facility Name	Slip Size (ft)	Downwind Rate	Upwind Rate	Monthly Rate	Berth Rent Per LF	No. of Guest Spaces	Size of Guest Space (LF)	Cost for Guests	
Coyote Point Marina	LST (flat rate)	-	-	\$68.00	-	Various	Various	\$0.30 per foot per night, length varies as is available	
	ST (22' flat rate)			\$85.00	-				
	24			\$152.00	\$6.33				
	28			\$177.00	\$6.32				
	32			\$203.00	\$6.34				
	36			\$264.00	\$7.33				
	40			\$293.00	\$7.33				
	45			\$391.00	\$8.69				
	50			\$436.00	\$8.72				
Redwood City Yacht Harbor	30	-	-	-	\$6.40	-	-	-	
	35				\$6.75				
	> 40				\$7.50				
	Side/Ends				\$8.20/\$6.00				
Redwood Landing Marina	25	-	-	-	\$7.50 (All)	-	-	-	
	30								
	35								
Bair Island Marina	26-35	-	-	-	\$6.75	-	-	-	
	36-45				\$7.00				
	End Ties				\$8.75				
Pete's Harbor	26	-	-	-	\$162.50	-	Two ends for up to 100' boats.	\$15-\$25	
	28				\$182.00				\$6.50
	30				\$202.50				\$6.75
	32				\$216.00				
	33				\$222.75				\$7.00
	34				\$238.00				
	36				\$261.00				\$7.25
	38				\$285.00				\$7.50
	39				\$292.50				
	40				\$300.00				
	42				\$315.00				
	45				\$337.50				\$7.75
	46				\$356.50				
	48				\$384.00				\$8.00
	50				\$412.50				\$8.25
	55				\$467.50				\$8.50
60	\$525.00	\$8.75							
65	\$585.00	\$9.00							
> 70	-	\$9.50							
Oyster Point Marina	<22' - Double Finger	-	-	-	\$100.00	-	-	\$ .65/LF-Day	
	26				\$190.00				
	30				\$220.00				
	36				\$265.00				
	40				\$305.00				
	45				\$345.00				
	50				\$380.00				
	60				\$460.00				
	<22' - Single Finger				\$100.00				
	26				-				
	30				\$210.00				
	36				\$255.00				
	40				\$295.00				
	45				\$330.00				
	50				\$365.00				
60	\$440.00								
Oyster Cove Marina	30-60	\$7.65	-	-	-	-	-	-	
	Side Ties	\$5.75							

**COYOTE POINT MARINA CONCEPT PLAN FOR RECONFIGURATION AND REPLACEMENT  
BERTHING RATES**

Facility Name	Slip Size (ft)	Downwind Rate	Upwind Rate	Monthly Rate	Berth Rent Per LF	No. of Guest Spaces	Size of Guest Space (LF)	Cost for Guests	
San Leandro Marina	24'			\$159.60	-	-	up to 59'	\$15	
	28'			\$186.20				over 60'	\$30
	32'			\$212.80					
	36'			\$239.40					
	40'	covered berth: \$346		\$266.00					
	44'			\$292.60					
	48'	covered berth: \$415.20		\$319.20					
	60'	covered berth: \$519.00		\$399.20					
Brisbane Marina	30' Single	-	-	\$177.00	\$5.90 to \$6.48	-	270' Guest Dock	<35': \$10/day >45': \$20/day	
	30' Double			\$194.40					
	34' Single			\$200.60					
	34' Double			\$220.32					
	36' Single			\$212.40					
	36' Double			\$233.28					
	38' Single			\$224.20					
	40' Single			\$236.00					
	44' Single			\$259.60					
	46' Single			\$271.40					
	46' Double			\$298.08					
	48' Single			\$283.20					
	50' Single			\$295.00					
	50' Double			\$324.00					
	54' Single			\$318.60					
56' Single	\$330.40								
56' Double	\$362.88								
60' Single	\$354.00								
66' Single	\$389.40								
Ballena Isle Marina	Side Ties	-	-		\$7.70/month	-	-	\$1/LF-Day; \$30 min	
	22			\$170.00					
	24			\$186.00					
	28			\$234.00					
	30			\$259.00					
	32			\$283.00					
	36			\$354.00					
	40			\$409.00					
	44			\$466.00					
	46			\$494.00					
	48			\$523.00					
	50			\$554.00					
	55			\$621.00					
	60			\$707.00					
65	\$823.00								
70	\$902.00								
Alameda Marina	22-25	-	-	-	\$6.00	-	-	\$25/night	
	26-29				\$6.00				
	30-36				\$6.00				
	37 +				\$6.00				
	End and Side Ties				\$6.25				
	East Berths				\$7.00				
	West Covered Berths				\$7.00				
	East Covered Berths				\$7.00				

**COYOTE POINT MARINA CONCEPT PLAN FOR RECONFIGURATION AND REPLACEMENT  
BERTHING RATES**

Facility Name	Slip Size (ft)	Downwind Rate	Upwind Rate	Monthly Rate	Berth Rent Per LF	No. of Guest Spaces	Size of Guest Space (LF)	Cost for Guests
Fortman Marina	24	-	-	\$150.00	\$6.25	-	-	-
	26			\$162.50	\$6.25			
	28			\$175.00	\$6.25			
	30			\$193.50	\$6.45			
	32			\$206.40	\$6.45			
	36			\$246.60	\$6.85			
	40			\$300.00	\$7.50			
	45			\$364.50	\$8.10			
	50			\$405.00	\$8.10			
	60			\$445.50	\$8.10			
Marina Village Yacht Harbor	<= 28'	-	-		\$8.50	2	80'-100'	?
	<size<= 72'				\$12.00			
South Beach Harbor	50' (qty 34)	-	-	\$555 for 50'	-	20	-	\$2/LF-Day
	46' (qty 44)			\$411.00				
	42' (qty 87)			\$358.00				
	38' (qty 92)			\$289.00				
	34' (qty 198)			\$237.00				
	30' (qty 200)			\$237.00				
	26' (qty 20)			\$202.00				
	End Tie			\$11.55/ft				
SF Marina Yacht Harbor	0'-25'	-	-	-	\$7.10	-	0'-40'	0.6
	26'-35'				\$7.20		41'-59'	0.9
	36'-45'				\$8.74		60'-100'	1.2
	46'-60'				\$8.93		-	-
	61'-90'				\$9.12		-	-
Emery Cove Marina	35'	\$280.00	\$297.50	-	\$8-8.50 Downwind and \$8.50-9 for Upwind	-	40 (qty 15)	\$25/35 /night
	36'	-	\$306.00					
	40'	\$320.00	\$340.00					
	40' xtra wide	\$330.00	\$350.00					
	45'	\$371.25	\$393.75					
	45' xtra wide	-	\$405.00					
	50'	\$412.50	\$437.50					
	50' xtra wide	\$425.00	\$450.00					
55'	\$453.75	\$481.25						
60'	-	Market Rate						
Clipper Yacht Harbor	20'-30'	-	-	-	\$9.25-11.50	-	-	\$1/LF-Day
	30'-60'				\$12.65-13.25			
Berkeley Marina	20-21	-	8% added to base rate	-	\$6.54	-	-	-
	22-24				\$6.93			
	25-29				\$7.35			
	30-39				\$7.80			
	40-49				\$8.26			
	50-59				\$8.76			
	60-69				\$9.29			
	70-79				\$9.84			
80-89	\$10.43							
Marina Bay Yacht Harbor	20 - 36'	-	-	-	\$8.25	-	-	-
	40				\$8.50			
	42				\$8.75			
	45+				\$9.25			
	Side				\$6.99			

## Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

### Marina Revenue and Construction Costs

The following charts represent various dock configurations and their representative potential revenue amounts and estimated order of magnitude construction cost estimates. The proposed revenues are related to the layout plans as noted below. A summary of the Preliminary Order of Magnitude Dock Replacement Costs follows the revenue charts.

#### Plan A – Berth Layout (Existing)

This chart presents the current potential revenue of the existing marina dock configuration based on 2007 berth rental rates and assumes 100% berth occupancy. This chart also includes a proposed fee structure and potential increased revenue if an increased fee structure is implemented and occupancy were 100%.

#### Plan B – Berth Layout (New Docks 12, 13 and 29)

This chart presents the potential revenue based on 2007 berth rental rates and assumes 100% berth occupancy for the Plan B configuration, new docks 12, 13 and 29. This chart also includes a proposed fee structure and potential increased revenue if an increased fee structure is implemented and occupancy were 100% for the Plan B configuration.

#### Plan C – Berth Layout (Entire New Layout)

This chart presents the potential revenue based on 2007 berth rental rates and assumes 100% berth occupancy for the Plan C configuration, an entire marina dock reconfiguration. This chart also includes a proposed fee structure and potential increased revenue if an increased fee structure is implemented and occupancy were 100% for the Plan C configuration.

#### Plan D – Docks 13, 29, Guest and Fuel

This chart presents the potential revenue based on 2007 berth rental rates and assumes 100% berth occupancy for the Plan D configuration, new docks 13, 29, guest dock and fuel dock. This chart also includes a proposed fee structure and potential increased revenue if an increased fee structure is implemented and occupancy were 100% for the Plan D configuration.

#### Plan E – Docks 27, 28, 29, Guest and Fuel

This chart presents the potential revenue based on 2007 berth rental rates and assumes 100% berth occupancy for the Plan E configuration, new docks 27, 28, 29, guest dock and fuel dock. This chart also includes a proposed fee structure and potential increased revenue if an increased fee structure is implemented and occupancy were 100% for the Plan E configuration.

**Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement  
Proposed Revenue**

**PLAN A BERTH LAYOUT (EXISTING)**

**Existing Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Current Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$6.33	\$8,659
28	130	\$6.32	\$23,005
32	134	\$6.34	\$27,186
36	38	\$7.33	\$10,027
40	96	\$7.33	\$28,147
45	13	\$8.69	\$5,084
50	13	\$8.72	\$5,668
Side tie (each)	84	\$68.00	\$5,712
<b>Total</b>	<b>565</b>		<b>\$113,000</b>

**Proposed Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Proposed Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$7.25	\$9,918
28	130	\$7.25	\$26,390
32	134	\$7.25	\$31,088
36	38	\$8.25	\$11,286
40	96	\$8.25	\$31,680
45	13	\$9.00	\$5,265
50	13	\$9.00	\$5,850
Side tie (each)	84	\$100.00	\$8,400
<b>Total</b>	<b>565</b>		<b>\$130,000</b>

**Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement  
Proposed Revenue**

**PLAN B BERTH LAYOUT**

**Existing Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Current Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$6.33	\$8,659
28	130	\$6.32	\$23,005
32	134	\$6.34	\$27,186
36	20	\$7.33	\$5,278
40	59	\$7.33	\$17,299
45	33	\$8.69	\$12,905
50	39	\$8.72	\$17,004
Side tie (Each)	48	\$68.00	\$3,264
<b>Total</b>	<b>520</b>		<b>\$115,000</b>

**Proposed Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Proposed Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$7.25	\$9,918
28	130	\$7.25	\$26,390
32	134	\$7.25	\$31,088
36	20	\$8.25	\$5,940
40	59	\$8.25	\$19,470
45	33	\$9.00	\$13,365
50	39	\$9.00	\$17,550
Side tie (Each)	48	\$100.00	\$4,800
<b>Total</b>	<b>520</b>		<b>\$129,000</b>

**Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement  
Proposed Revenue**

**PLAN C BERTH LAYOUT**

**Existing Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Current Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
28	69	\$6.32	\$12,210
30	55	\$6.34	\$10,461
36	58	\$7.33	\$15,305
40	84	\$7.33	\$24,629
42	28	\$7.33	\$8,620
45	26	\$8.69	\$10,167
50	40	\$8.72	\$17,440
Side tie (Each)	0	\$68.00	\$0
<b>Total</b>	<b>360</b>		<b>\$99,000</b>

**Proposed Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Proposed Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
28	69	\$7.25	\$14,007
30	55	\$7.25	\$11,963
36	58	\$7.25	\$15,138
40	84	\$8.25	\$27,720
42	28	\$8.25	\$9,702
45	26	\$9.00	\$10,530
50	40	\$9.00	\$18,000
Side tie (Each)	0	\$100.00	\$0
<b>Total</b>	<b>360</b>		<b>\$107,000</b>

**Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement  
Proposed Revenue**

**PLAN D BERTH LAYOUT**

**Existing Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Current Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$6.33	\$9,000
28	119	\$6.32	\$21,058
32	134	\$6.34	\$27,186
36	33	\$7.33	\$8,708
40	59	\$7.33	\$17,299
45	16	\$8.69	\$6,257
50	16	\$8.72	\$6,976
60	11	\$8.72	\$5,755
Side tie (Each)	66	\$68.00	\$4,488
<b>Total</b>	<b>511</b>		<b>\$107,000</b>

**Proposed Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Proposed Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$7.25	\$10,000
28	119	\$7.25	\$24,157
32	134	\$7.25	\$31,088
36	33	\$7.25	\$8,613
40	59	\$8.25	\$19,470
45	16	\$8.25	\$5,940
50	16	\$9.00	\$7,200
60	11	\$9.00	\$5,940
Side tie (Each)	66	\$100.00	\$6,600
<b>Total</b>	<b>511</b>		<b>\$119,000</b>

**Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement  
Proposed Revenue**

**PLAN E BERTH LAYOUT**

**Existing Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Current Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$6.33	\$8,659
28	86	\$6.32	\$15,219
32	118	\$6.34	\$23,940
36	33	\$7.33	\$8,708
40	45	\$7.33	\$13,194
45	17	\$8.69	\$6,648
50	40	\$8.72	\$17,440
60	10	\$8.72	\$5,232
Side tie (Each)	61	\$68.00	\$4,148
<b>Total</b>	<b>467</b>		<b>\$103,000</b>

**Proposed Fee Structure**

<b>Berth Length</b>	<b>Number</b>	<b>Proposed Fee per Foot</b>	<b>Total Potential Monthly Revenue (Assuming 100% Occupancy)</b>
24	57	\$7.25	\$9,918
28	86	\$7.25	\$17,458
32	118	\$7.25	\$27,376
36	33	\$7.25	\$8,613
40	45	\$8.25	\$14,850
45	17	\$8.25	\$6,311
50	40	\$9.00	\$18,000
60	10	\$9.00	\$5,400
Side tie (Each)	61	\$100.00	\$6,100
<b>Total</b>	<b>467</b>		<b>\$114,000</b>

# COUNTY OF SAN MATEO

## Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

### PRELIMINARY ORDER OF MAGNITUDE BUDGET ESTIMATE OF PROBABLE COST OF CONSTRUCTION

Prepared by Greg Mailho  
November 21, 2007

	<u>Construction in 2007 Dollars</u>	<u>Total Including Soft Costs</u>
<b>Plan A</b> (all docks, current configuration)	\$17.5M	\$23.6M
<b>Plan B</b> (docks - 12 partial, 13 and 29)	\$4.0M	\$5.4M
<b>Plan C</b> (all Docks, new configuration)	\$17.5M	\$23.6M
<b>Plan D</b> (Docks - Fuel, Guest, 13 and 29)	\$4.9M	\$6.5M
<b>Plan E</b> (Docks - Fuel, Guest, 13, 27, 28 and 29)	\$6.2M	\$8.3M
<b>Plan E PHASE 1</b> (Docks - 27, 28 and 29)	\$2.5M	\$3.3M
<b>Plan E PHASE 2</b> (Docks - Fuel, Guest and 13)	\$3.9M	\$5.3M

# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

## Survey of Conditions

### Summary of Marina Dock Conditions

We reviewed the marina docks for general conditions, installed fixtures and general serviceability. The results are tabulated in the Existing Dock Condition charts included in this report. Based on our review, the approximate suggested replacement phasing is as indicated on the attached Proposed Replacement Schedule plan. In addition to the attached chart of conditions, some general comments are as follows:

#### General Comments:

1. All gatehouses and gangways appear to be in reasonably good condition.
2. Most gatehouse fixed piers appear to be supported by pressure treated timber piles. While the condition of the piles was not assessed, the age of the piles would indicate there could be some deterioration in the intertidal zone as is typical for old timber piles. We suggest cleaning and wrapping of the piles with a plastic pile wrap to attenuate any deterioration caused by marine borer activity, and to prolong the useful life of the piles. While this repair will not restore the piles to their original structural capabilities, current conditions can be maintained for an extended period.
3. All gangways predate the current building code handrail and guardrail requirements. Consideration should be given to replacement of the current gangways with up-to-date prefabricated aluminum or similar gangways.
4. No accessible gangways exist at the current marina configuration. Future dock replacement should include one or more accessible gangway (approximately 80 feet long).

#### Fuel Dock:

1. This dock is comprised of a wood float at the gangway, and a wood and concrete float system at the fuel dispensers and storage building area.
2. The docks are in fair condition with a combination of steel and timber piles.
3. Consideration should be given to protect the timber piles in a manner similar to the fixed pier pile recommendations above.
4. Arched steel transition plates between the dock sections do not appear to meet building code/accessibility standards. Consideration should be given to replace the transition plates with new fixtures to provide better access.
5. Full replacement of the fuel dock, and adjacent Dock 10 and visitors' dock, including providing an accessible gangway would appear to be worth consideration in the near future.

Conditions-1

#### Guest Dock:

1. This dock is comprised of a wood float construction that is in fair condition. The dock/finger configuration is not optimum considering the varying lengths of visiting craft.
2. Full replacement of the fuel dock, and adjacent Dock 10 and visitors' dock, including providing an accessible gangway would appear to be worth consideration in the near future.
3. Attached conceptual plans show a possible reconfiguration to a longitudinal dock allowing large boats to berth parallel to the dock when necessary.
4. An existing sanitary pump out facility is appropriate on or near the fueling dock. This should remain here or be included in any fuel dock/visitor dock reconfiguration in the future.

#### Restroom Facilities:

1. Berther restrooms appear to be somewhat modest in size/number/location for the marina. Future dock rehabilitation should include an assessment of the restroom facilities with possible increases in the facilities provided.
2. The existing restrooms predate current accessibility codes, and as such should be improved to meet the latest access codes when restroom facilities are considered for renovation/replacement.

#### Electrical Utilities:

1. Electrical distribution panels (main switchboards) appear to be generally in good repair.
2. When dock systems are reconfigured/upgraded in the future, the respective electrical distribution systems will likely require increases in capacity to serve larger/modern boat slips.

#### Water Utilities:

1. Water service to the current docks appears to be a combined domestic and fire suppression system.
2. Existing water service lines to the docks are generally a two-inch size to each separate dock area.
3. Future dock reconfiguration projects should include separation of the domestic and fire suppression systems to each dock. Increases in the capacity of water service to the docks may be necessary.
4. Fire suppression systems on the docks will require coordination with the serving Fire Department to assure compliance with their requirements.

#### Telephone Utilities:

1. Telephone service appears to be available at all of the current monthly rental docks.

#### Conditions-2

2. In keeping with our recent marina experience, we noted very low usage/connection of telephones in our survey. The advent of cellular telephones has limited the need for telephone connections in Marinas. Live-aboards may more often require connection.
3. We recommend future marina reconfigurations continue to provide telephone service.

Cable Television Utilities:

1. Currently no cable television service is provided to the docks.
2. The County should consider if the need/demand for cable television will exist in future marina reconfigurations, but is likely to not be a necessity. New dock systems can be designed to include vacant conduit for such possible future needs.

Dock 10 through Dock 29:

1. The attached Existing Dock Condition chart indicated the results of our survey of those facilities.

# Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

## Marina Configuration Plans

The following plans represent various dock configurations for the Coyote Point Marina including the present layout through several possible conceptual layouts. The various conceptual layouts, Plan B through Plan E, show several possible dock configurations. Possible future reconfiguration plans for the marina could include various dock configurations shown on the suggested plans in this report, or a combination of aspects from one or more of the plans. The plans are as noted below:

### Plan A – Existing Conditions

Plan A depicts the current Coyote Point Marina dock configuration. The plan includes a Berth Summary that indicates the existing quantities of respective length berths currently available at the marina.

### Plan B – Docks 12, 13 and 29

Plan B shows revisions to two areas of the marina to incorporate larger berths in both Basin 1 and Basin 2. The plan Berth Summary indicates the revised quantities of respective length berths that would be available if the Plan B scenario is used.

### Plan C – Entire Marina

Plan C shows an entire marina dock reconfiguration. This plan shows a possible scenario that includes current marina berth trends for an entire marina layout. This plan represents starting from a “clean slate” for the dock layouts without concern of working around the limitations of partially remaining docks and facilities.

This is a very aggressive plan, and does not reflect phasing or funding availability, but is a reference for comparison of the less involved scenarios to assess the partial or phased renovations of other plans with an up to date overall layout. The plan Berth Summary indicates the revised quantities of respective length berths that would be available if the Plan C scenario is used.

### Plan D – Docks 13, 29, Guest and Fuel

Plan D shows revisions to three areas of the marina to incorporate larger berths in both Basin 1 and Basin 2, and improve the guest dock and fuel dock areas. This plan is similar to Plan B, but does not affect dock 12. This is a somewhat simpler approach to Basin 1 to increase the length of available berths while maintaining the moderate length berths in the Dock 12 area.

The improvements at the guest and fuel docks will improve the overall appearance, safety and usability of the more public areas of the marina. Possible future access by party-type cruise boats could be incorporated at the longer, more accessible guest dock area. The outboard side of the proposed Dock 29 could also serve the cruise boat uses if desired.

The plan Berth Summary indicates the revised quantities of respective length berths that would be available if the Plan D scenario is used.

## Configuration Plans - 1

### Plan E – Docks 27, 28, 29, Guest and Fuel

Plan E shows revisions to three areas of the marina to incorporate larger berths in both Basin 1 and Basin 2, and improve the guest dock and fuel dock areas. This plan is similar to Plan E, except it includes replacing Docks 27, 28 and 29 with two new docks of larger berth sizes.

The improvements at the guest and fuel docks will improve the overall appearance, safety and usability of the more public areas of the marina. Possible future access by party-type cruise boats could be incorporated at the longer, more accessible guest dock area. The outboard side of the proposed Dock 29 could also serve the cruise boat uses if desired.

Plan E is noted as the preferred alternative considering all of the plans discussed in this report. Plan E also has the ability to be constructed in a phased approach as funding becomes available. Phase 1 is envisioned as the Dock 27, 28 and 29 work, with Basin 1 areas as part of a Phase 2 project.

The plan Berth Summary indicates the revised quantities of respective length berths that would be available if the Plan E scenario is used.



CONSULTANTS:

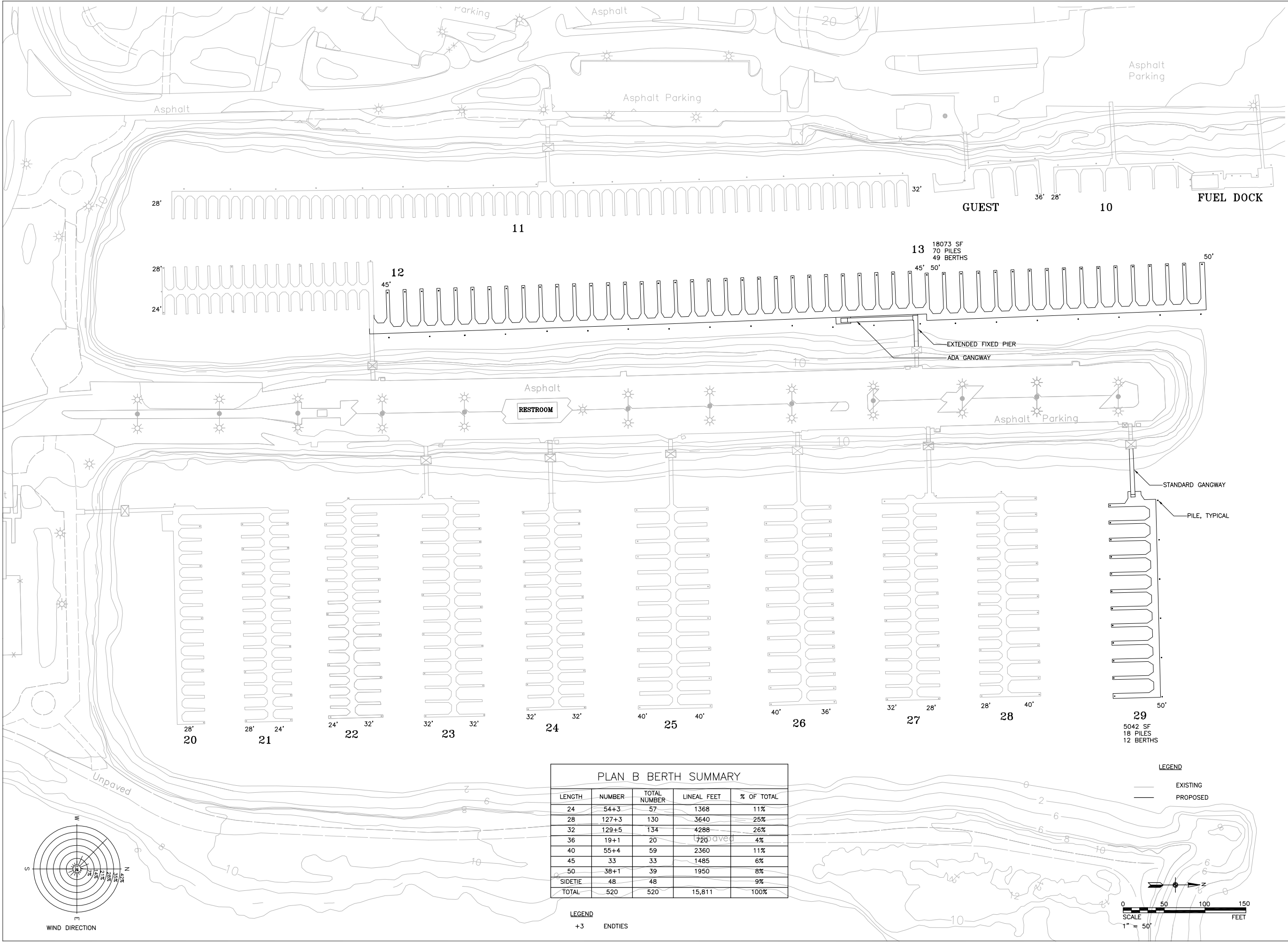
COYOTE POINT MARINA CONCEPTUAL PLAN

REVISIONS:	MARK	DATE	DESCRIPTION

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 SCALE: AS SHOWN  
 DATE: 11/21/2007  
 DESIGNED BY: GM  
 DRAWN BY: SYU/JSY  
 CHECKED BY:

SHEET TITLE:  
**PLAN B**

SHEET NO.  
**C-102**  
 SHEET 2 OF 6



**PLAN B BERTH SUMMARY**

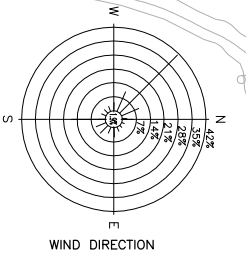
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24	54+3	57	1368	11%
28	127+3	130	3640	25%
32	129+5	134	4288	26%
36	19+1	20	720	4%
40	55+4	59	2360	11%
45	33	33	1485	6%
50	38+1	39	1950	8%
SIDETIE	48	48		9%
<b>TOTAL</b>	<b>520</b>	<b>520</b>	<b>15,811</b>	<b>100%</b>

LEGEND  
 +3 ENDTIES

**LEGEND**

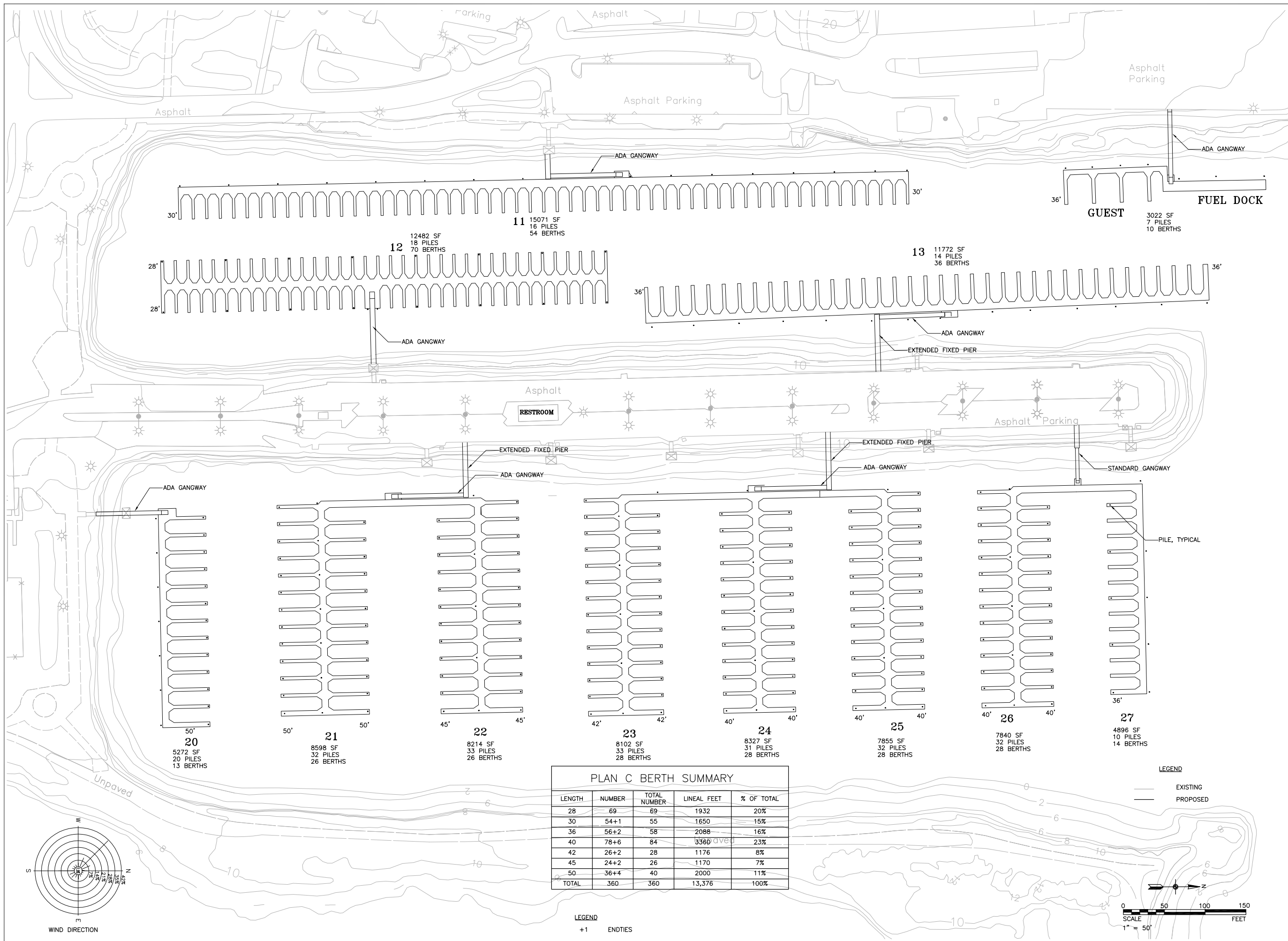
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 — PROPOSED

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 1" = 50'  
 FEET



CONSULTANTS:

COYOTE POINT MARINA CONCEPTUAL PLAN



11 15071 SF  
16 PILES  
54 BERTHS

12 12482 SF  
18 PILES  
70 BERTHS

13 11772 SF  
14 PILES  
36 BERTHS

20 5272 SF  
20 PILES  
13 BERTHS

21 8598 SF  
32 PILES  
26 BERTHS

22 8214 SF  
33 PILES  
26 BERTHS

23 8102 SF  
33 PILES  
28 BERTHS

24 8327 SF  
31 PILES  
28 BERTHS

25 7855 SF  
32 PILES  
28 BERTHS

26 7840 SF  
32 PILES  
28 BERTHS

27 4896 SF  
10 PILES  
14 BERTHS

3022 SF  
7 PILES  
10 BERTHS

**PLAN C BERTH SUMMARY**

LENGTH	NUMBER	TOTAL NUMBER	LINEAL FEET	% OF TOTAL
28	69	69	1932	20%
30	54+1	55	1650	15%
36	56+2	58	2088	16%
40	78+6	84	3360	23%
42	26+2	28	1176	8%
45	24+2	26	1170	7%
50	36+4	40	2000	11%
<b>TOTAL</b>	<b>360</b>	<b>360</b>	<b>13,376</b>	<b>100%</b>

**LEGEND**  
— EXISTING  
— PROPOSED

**LEGEND**  
+1 ENDTIES

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SCALE  
1" = 50'  
FEET

REVISIONS:

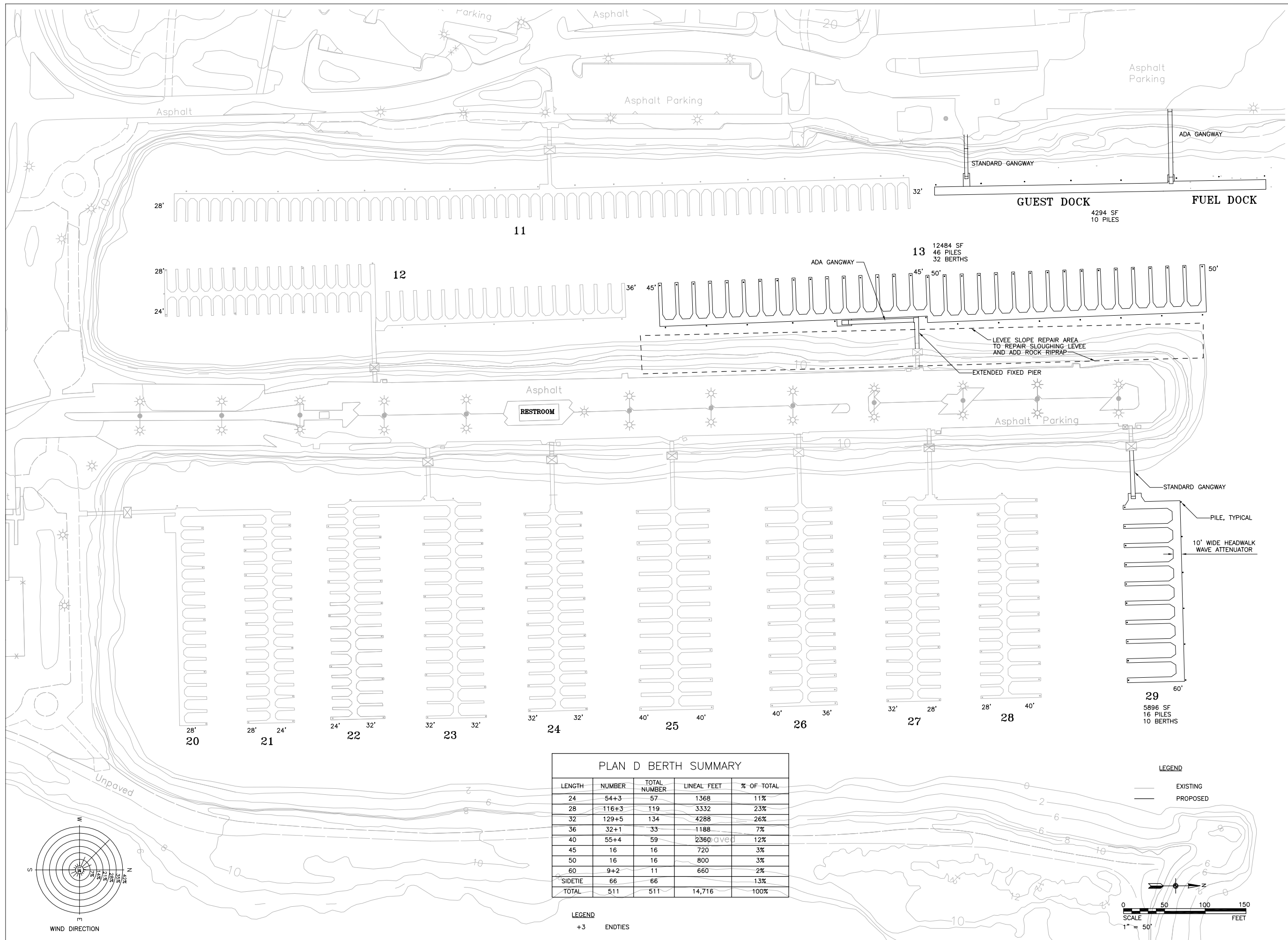
MARK	DATE	DESCRIPTION

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DATE: 11/21/2007  
DESIGNED BY: GM  
DRAWN BY: SYU/JSY  
CHECKED BY:

SHEET TITLE:  
**PLAN C**

SHEET NO.  
**C-103**

SHEET 3 OF 6



PLAN D BERTH SUMMARY

LENGTH	NUMBER	TOTAL NUMBER	LINEAL FEET	% OF TOTAL
24	54+3	57	1368	11%
28	116+3	119	3332	23%
32	129+5	134	4288	26%
36	32+1	33	1188	7%
40	55+4	59	2360	12%
45	16	16	720	3%
50	16	16	800	3%
60	9+2	11	660	2%
SIDETIE	66	66		13%
TOTAL	511	511	14,716	100%

LEGEND  
+3 ENDTIES

LEGEND

— EXISTING  
— PROPOSED

REVISIONS:	MARK	DATE	DESCRIPTION

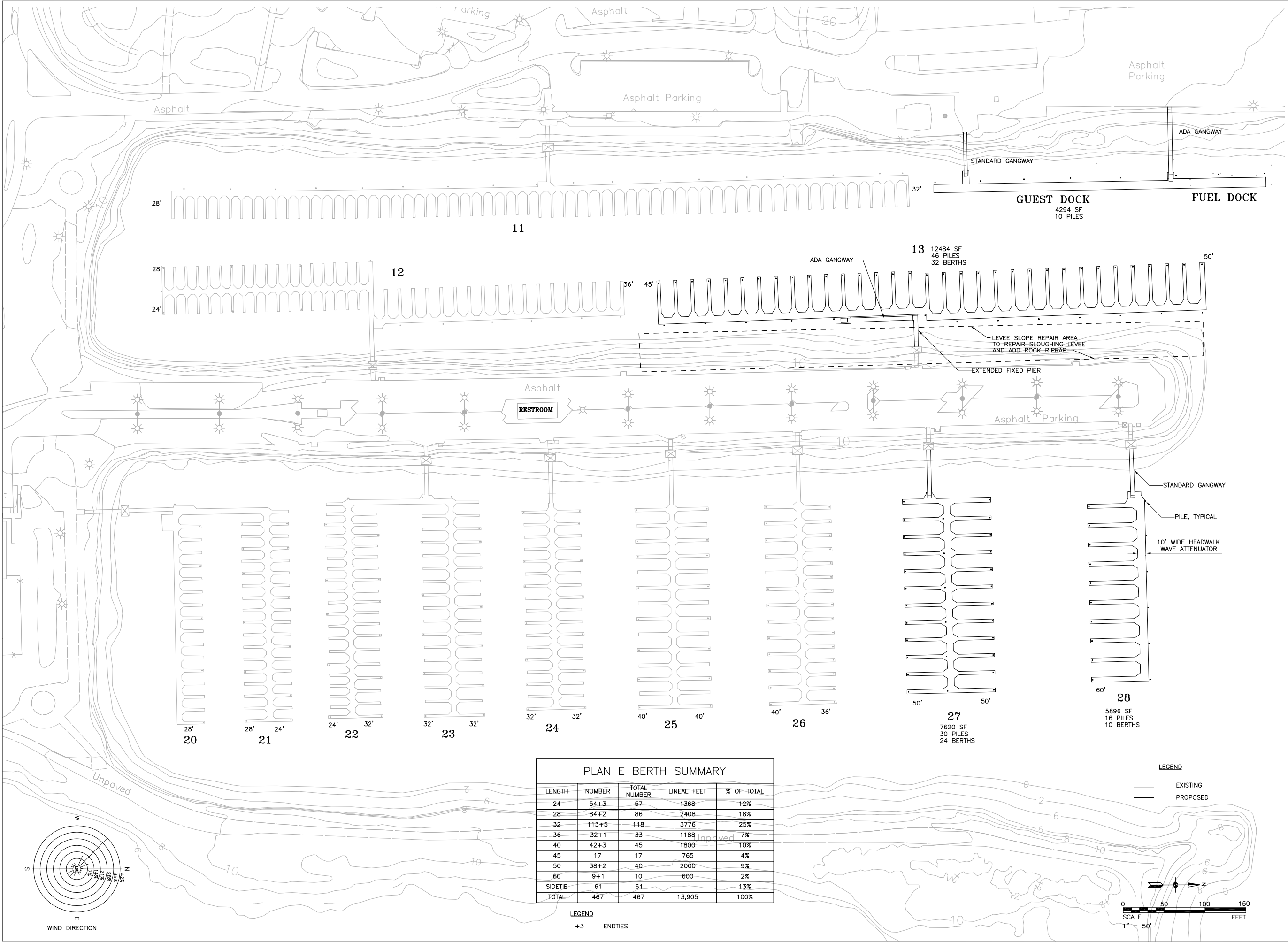
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CHECKED BY:

SHEET TITLE:  
**PLAN D**

SHEET NO.  
**C-104**  
SHEET 4 OF 6

CONSULTANTS:

COYOTE POINT MARINA CONCEPTUAL PLAN



PLAN E BERTH SUMMARY

LENGTH	NUMBER	TOTAL NUMBER	LINEAL FEET	% OF TOTAL
24	54+3	57	1368	12%
28	84+2	86	2408	18%
32	113+5	118	3776	25%
36	32+1	33	1188	7%
40	42+3	45	1800	10%
45	17	17	765	4%
50	38+2	40	2000	9%
60	9+1	10	600	2%
SIDETIE	61	61		13%
<b>TOTAL</b>	<b>467</b>	<b>467</b>	<b>13,905</b>	<b>100%</b>

LEGEND  
 +3 ENDTIES

LEGEND  
 — EXISTING  
 — PROPOSED

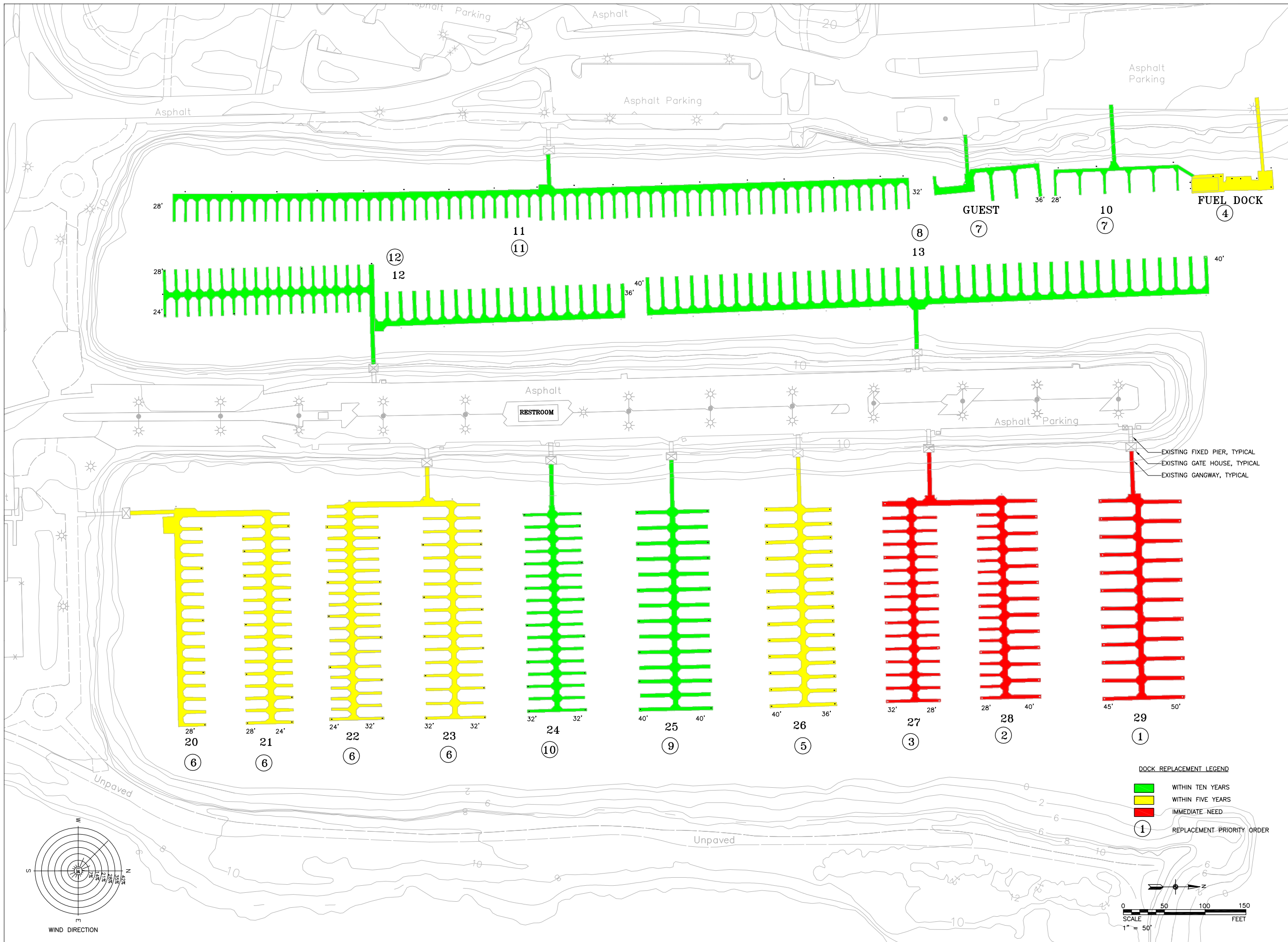
SCALE  
 1" = 50'  
 0 50 100 150  
 FEET

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO: P501070102  
 SCALE: AS SHOWN  
 DATE: 11/21/2007  
 DESIGNED BY: GM  
 DRAWN BY: SYY/JSY  
 CHECKED BY:

SHEET TITLE:  
**PLAN E**

SHEET NO.  
**C-105**  
 SHEET 5 OF 6



CONSULTANTS:

COYOTE POINT MARINA CONCEPTUAL PLAN

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO: P501070102  
 SCALE: AS SHOWN  
 DATE: 11/21/2007  
 DESIGNED BY: GM  
 DRAWN BY: SYY/JSY  
 CHECKED BY:

SHEET TITLE:  
**PROPOSED REPLACEMENT SCHEDULE**  
 SHEET NO.  
**C-106**  
 SHEET 6 OF 6

**DOCK REPLACEMENT LEGEND**

- WITHIN TEN YEARS
- WITHIN FIVE YEARS
- IMMEDIATE NEED

**①** REPLACEMENT PRIORITY ORDER

**COYOTE POINT MARINA CONCEPT PLAN FOR DOCK RECONFIGURATION AND REPLACEMENT**

**EXISTING DOCK CONDITIONS**

DOCK NUMBER		FUEL	GUEST	10	11	12	13
ELECTRICAL SERVICE		100A, for fuel service (120/240)	100A, 240V	100A, 240V	150A, 240V	400A, 240V	150A, 240V
WATER SERVICE		2" 1.5" FS (1 cabinet)	2" 1.5" FS (1 cabinet)	2" combined, 3" standpipe FDC at gate	2"	2"	2"
GATEHOUSE		Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, square concrete piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, square concrete piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, square concrete piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, square concrete piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, square concrete piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, concrete piles
G A N G W A Y	TYPE	Hallsten old style with open rails, one light at midpoint.	Hallsten old style with open rails, one light at midpoint.	Hallsten old style with open rails, one light at midpoint.	Hallsten old style with open rails, one light at midpoint.	Hallsten old style with open rails, one light at midpoint.	Old Hallsten design
	LENGTH (Approx.)	45'	32'	45'	40'	40'	36'
	WIDTH (Approx)	4'	4'	4'	4'	4'	4'
	MATERIAL	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum.	Aluminum
	CONDITION	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.
DOCK STYLE/FLOATATION		Blue polystyrene not covered; wood dock at gangway. 2 concrete (large), at fuel dock, transition plate, to gangway float; not to code, storage building (12' X 30')	Wood dock with floatation. Styrene.	Wood; 4' wide headwalk; 2x6 PT deck	Western Dock concrete	Western Dock concrete	Western Dock concrete
DECKING		wood	2x6 PT Wood	2x6 PT Wood	"tile" patten surface	Concrete	6' headwalk, 4' fingers
WALERS		N/A, rear wood front	2x10 PT Wood	2x6 PT Wood	2x4 flat	2x4 flat	2x4 flat
DOCK BOXES		1 small	1 unbolted	no	Yes w/ power centers and lights	Yes w/ power centers and lights	
POWER CENTERS		N/A	3 with 2 30A plugs, and hose bib	Low mount w/ CFL	On dock boxes (metal power centers) 2-30A	On dock boxes (metal power centers) 2-30A	
CLEATS		10" and 12"	10" HD & LD mix	8" light duty	4" dia. rings side and end ties and 10" LD cleats fingers	4" dia. rings side and end ties and 10" LD cleats fingers	
SLIP DETAILS		N/A	4' wide fingers 5' headwalk	3' fingers 2x6 PT deck, house bib , galvanized steel pipe, 6" high	3' fingers some loose at knee, headwalk curved 6' wide, gaps at finger to headealk connection	3' fingers some loose at knee, headwalk curved 6' wide, gaps at finger to headealk connection	
PILES		5 steel, 3 timber	12" SQ CONC, SQ ANGL iron frame, 4 rollers; 2 14" timber piles at pump out	Timber w/ pipe rings no rollers	12" square concrete w/ 4 rollers	12" square concrete w/ 4 rollers	12" square concrete w/ 4 rollers
ADDITIONAL INFORMATION		diesel & 87 octane (2 dispensers total) ; no sewer pumpout; 1 hose bib	Sewage pumpout 20A 2P in ground pump out system (lift station) 4" out let 3HP 230V aboveground pump, 4' dia wet well.		Misc. gaps in concrete dock sections. Loose finger to headwalk. Piles in good condition.	Misc. gaps in concrete dock sections. Loose finger to headwalk. Piles in good condition.	Misc. gaps in concrete dock sections. Loose finger to headwalk. Piles in good condition.
R E C O M M E N D A T I O N S	REPAIR	1. Wrap timber piles to protect.	1. Wrap timber piles to protect. 2. Install new pile rings with rollers	1. Wrap timber piles to protect. 2. Install new pile rings with rollers	1. Repair gaps in deck. 2. Repair loose connection of fingers to headwalk.	1. Repair gaps in deck. 2. Repair loose connection of fingers to headwalk.	1. Repair gaps in deck. 2. Repair loose connection of fingers to headwalk.
	REPLACEMENT	1. 6x40, 4x30, 3x30 wood floats at waterside need replacement. 2. Replace gangway with code compliant unit. 3. Replace transition plates.	1. Replace gangway with code compliant unit		1. Replace gangway with code compliant unit.	1. Replace gangway with code compliant unit.	1. Replace gangway with code compliant unit.

**COYOTE POINT MARINA CONCEPT PLAN FOR DOCK RECONFIGURATION AND REPLACEMENT**

**EXISTING DOCK CONDITIONS**

DOCK NUMBER		20	21	22	23	24	25
ELECTRICAL SERVICE		Unknown	Unknown	150A, 240V	150A, 240V	Unknown	300A, 240V
WATER SERVICE		2"	2"	2"	2"	2"	2"
GATEHOUSE		Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles
G A N G W A Y	TYPE	Old Hallsten design	Old Hallsten design	Old Hallsten design	Old Hallsten design	Old Hallsten design	Old Hallsten design
	LENGTH (Approx.)	39'	39'	32'	32'	37'	39'
	WIDTH (Approx)	4'	4'	4'	4'	4'	4'
	MATERIAL	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum. 1 light.
	CONDITION	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.
DOCK STYLE/FLOATATION		20' Old Western Dock, no pattern, fair condition	20' Old Western Dock, no pattern, fair condition	Old western dock, no pattern on most of Dock 22, pattern on Dock 23	Old western dock, no pattern on most of Dock 22, pattern on Dock 23	Newer Western Dock with pattern	Newer Western Dock with pattern
DECKING						"tile" pattern surface	"tile" pattern surface
WALERS		2x4 flat	2x4 flat	2x4 flat	2x4 flat	2x4 flat	2x4 flat
DOCK BOXES						Rusting knee screws and bolts some rotten knee plywood	Rusting knee screws and bolts some rotten knee plywood
POWER CENTERS		GE, steel 30, 30 60A metal	GE, steel 30, 30 60A metal	RMP Marketing Corp., Costa Mesa, plastic 30, 30	RMP Marketing Corp., Costa Mesa, plastic 30, 30	Unicorn plastic 30, 30, light every other box, one side	Unicorn plastic 30, 30, light every other box, one side
CLEATS		8" LD	8" LD	8"LD	8"LD	10" LD	
SLIP DETAILS		3' fingers, 6' headwalk	3' fingers, 6' headwalk	3' fingers, 6' headwalk	3' fingers, 6' headwalk		4' fingers, 6' headwalk
PILES		12' square concrete	12' square concrete	12' square concrete	12' square concrete	12' square concrete	12' square concrete
ADDITIONAL INFORMATION		Fair to poor condition 2120 broken headwalk	Fair to poor condition 2120 broken headwalk	Fair condition, headwalk fair to poor condition. Typical. Gaps, loose fingers. Knee plywood okay, but rusting nails on Dock 22.	Fair condition, headwalk fair to poor condition. Typical. Gaps, loose fingers. Knee plywood okay, but rusting nails on Dock 22.	Loose fingers, but overall fair condition.	Loose fingers, but overall fair condition.
R E C O M M E N D A T I O N S	REPAIR	1. Wrap timber piles to protect.	1. Wrap timber piles to protect. 2. Replace broken headwalk	1. Wrap timber piles to protect. 2. Repair gaps tighten loose fingers, replace rusting fasteners on knee panels.	1. Wrap timber piles to protect. 2. Repair gaps tighten .oose fingers, replace rusting fasteners on knee panels.	1. Wrap timber piles to protect. 2. Tighten loose fingers	1. Wrap timber piles to protect. 2. Tighten loose fingers
	REPLACEMENT	1. Replace gangway with code compliant unit	1. Replace gangway with code compliant unit	1. Replace gangway with code compliant unit	1. Replace gangway with code compliant unit	1. Replace gangway with code compliant unit	1. Replace gangway with code compliant unit

**COYOTE POINT MARINA CONCEPT PLAN FOR DOCK RECONFIGURATION AND REPLACEMENT**

**EXISTING DOCK CONDITIONS**

DOCK NUMBER		26	27	28	29
ELECTRICAL SERVICE		Unknown	150A, 240V	150A, 240V	200A, 240V
WATER SERVICE		2"	2"	2"	2"
GATEHOUSE		Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles	Wood/steel typical good condition, fixed pier needs rail upgrade, wood deck good condition, timber piles
G A N G W A Y	TYPE	Old Hallsten design	Old Hallsten design	Old Hallsten design	Old Hallsten design
	LENGTH (Approx.)	39'	36"	36"	36"
	WIDTH (Approx)	4'	4'	4'	4'
	MATERIAL	Aluminum. 1 light.	Aluminum. Old Hallsten design, 1 light.	Aluminum. Old Hallsten design, 1 light.	Aluminum. Old Hallsten design, 1 light.
	CONDITION	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.	Good overall. Rails not to code.
DOCK STYLE/FLOATATION		Old Western Dock concrete, no surface pattern	Old Western Dock concrete, no surface pattern	Old Western Dock concrete, no surface pattern	Old Western Dock concrete, no surface pattern
DECKING			Mix 3' and 4' fingers	Mix 3' and 4' fingers	Poor condition
WALERS		2x4 flat	2x4 flat	2x4 flat	2x4 flat
DOCK BOXES					
POWER CENTERS		30, 30, 60A main	30, 30, 60, 2P main	30, 30, 60, 2P main	Metal 30, 30, 60, 2P
CLEATS			8" LD	8" LD	
SLIP DETAILS		4' fingers	Several twisted and bowed up middle fingers, similar to 2809/2811	Several twisted and bowed up middle fingers, similar to 2809/2811	
PILES		12' square concrete	12" square concrete w/ 4 rollers	12" square concrete w/ 4 rollers	12" square concrete w/ 4 rollers
ADDITIONAL INFORMATION		Fingers not level/bowed/twisted/loose	Dock, decking, walers, condition fair to poor, need replacement.	Dock, decking, walers, condition fair to poor, need replacement.	50% of Dock 29 is currently unusable due to poor condition.
R E C O M M E N D A T I O N S	REPAIR	1. Wrap timber piles to protect.	1. Wrap timber piles to protect	1. Wrap timber piles to protect	1. Wrap timber piles to protect
	REPLACEMENT	1. Replace gangway with code compliant unit	1. Replace entire dock system. 2. Replace gangway with code compliant unit	1. Replace entire dock system. 2. Replace gangway with code compliant unit	1. Replace entire dock system. 2. Replace gangway with code compliant unit

## Coyote Point Marina Concept Plan for Dock Reconfiguration and Replacement

### Marina Condition Photographs

The following photographs represent various typical dock conditions noted during our field review of the Marina.

Photos - 1



Fuel Dock – Non-standard transition plates.

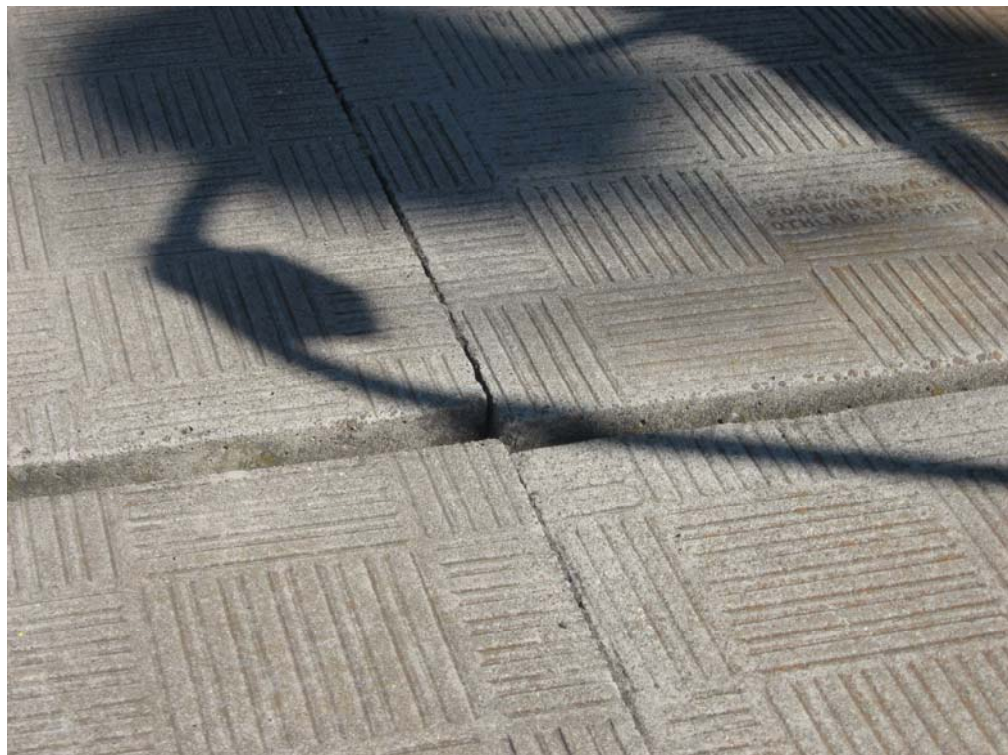


Fuel Dock – Unstable wood dock at utility building

Photos - 2



Guest Dock – Timber pile needing wrapping and new pile guide with rollers



Dock 11 – Deck gaps

Photos - 3



Dock 11 – Deck gaps



Dock 12 – Non-standard gangway toe plate

Photos - 4



Dock 13 – Deteriorated knee brace plywood decking

Photos - 5



Typical old style gangway, sturdy but railing not meeting current codes

Photos - 6

Coyote Point Marina Concept Plan  
For Dock Reconfiguration and Replacement  
San Mateo, CA  
P501070102  
November 21, 2007



Typical timber piles at gatehouse – wrap timber piles for long term protection



Dock 29 – Deterioration and damage

Photos - 7



Dock 29 – Deterioration and damage

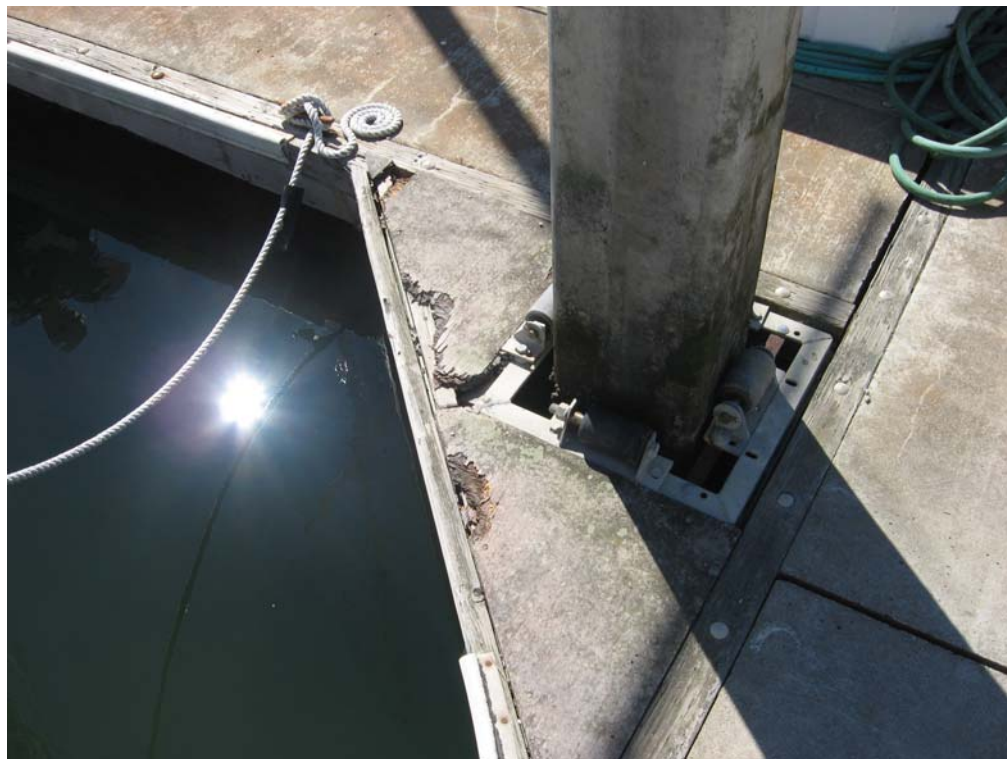


Dock 29 – Deteriorated concrete finger float

Photos - 8



Dock 27 – Deteriorated dock surfaces



Dock 28 – deteriorated knee brace plywood

Photos - 9



Dock 27 – Deteriorated concrete finger float



Dock 77 – Deteriorated concrete finger float

Photos - 10



Dock 26 – Gaps in decking



Dock 26 – Deteriorated concrete finger float

Photos - 11



Dock 26 – Gaps in decking



Dock 25 – Gaps in decking

Photos - 12



Dock 25 – Deteriorated knee brace plywood



Dock 22 – Gaps in decking

Photos - 13



Dock 22 – Broken deck and gaps