OLD BUSINESS
Item #1

AGENDA ITEM

BUSINESS OF THE CITY COUNCIL
City of Des Moines, WA

SUBJECT: Draft Resolution 07-037 Adoption of the Marina Master Plan.

ATTACHMENTS:
1. Draft Resolution 07-037
2. Draft Copy – Updated Comprehensive Marina Master Plan

FOR AGENDA OF: May 10, 2007
DEPT. OF ORIGIN: Marina

DATE SUBMITTED: April 30, 2007
CLEARANCES:
[X] Marina
[X] Legal

APPROVED BY CITY MANAGER

FOR SUBMITTAL:

A. Purpose & Recommendation

The purpose of this agenda item is to present the final draft of the Updated Comprehensive Marina Master Plan to the City Council along with the Municipal Facilities Committee's recommended plan for funding the projects identified in the Master Plan. The staff is also asking the Council to consider passing Draft Resolution 07-037, adopting the Updated Marina Master Plan for the Des Moines Marina.

Suggested Motion: "I move that the City Council adopt Draft Resolution 07-037, adopting the Updated Marina Master Plan for the Des Moines Marina."

B. Background

The Comprehensive Marina Master Plan was developed over a period of time between mid 1998 and the end of 2000. The plan was formally adopted by the City Council in June of 2001. When the plan was being written the boat repair yard and the restaurant were both in the middle of long-term leases and the dry sheds were full with a substantial wait list. No significant changes were recommended for the central part of the Marina in the original plan.

Late in 2004, the owners of CSR South, Inc., the operators of the boat yard asked the staff to consider enlarging and/or reconfiguring the boat repair yard and building a larger shop building for the yard. The staff was also beginning to analyze the dry shed operation at that time. It was apparent that the dry sheds, which were built as part of the original Marina facility would soon need some major renovations. Although demand for the sheds had been consistent, the staff had not been able to increase rental rates significantly for several years without creating vacancies.

Also, the staff determined that some of the sheds were not being used for active boating, but rather boat storage and storage of other personal property, probably because the rental rates are low compared to those of other nearby storage facilities.

In addition, in 2005, the ownership of the small restaurant attached to the boat repair building changed and the staff was investigating a proposal received from a national marine hardware retailer who wanted to site one of their stores on the Marina floor. All of these developments raised some questions with the staff about the ultimate use of the area of the Marina floor from the boat yard to the Marina office, which had not been addressed in the original Master Plan.

The staff discussed these issues with the Municipal Facilities Committee, and the Committee felt that the best thing to do would be to up date the Comprehensive Master Plan to include the boat yard/restaurant/dry shed area. The staff took their recommendation to the full Council and in early 2005; the Marina retained Moffatt & Nichol Engineers as the lead consultant for the Update to the Marina Master Plan Project.

The goal of this project was to update the market information in the Master Plan and to develop a long-range plan for the area of the Marina that is occupied by the boatyard, the dry sheds and the Marina office. The project was expanded to include the retail site north of the Marina office that was proposed in the original Master Plan. In their proposal for performing the Master Plan Update Moffatt & Nichol Engineers and their sub-consultants planned to:

1. Update the Market analysis for the Marina, including some information about potential retail activity.
2. Generate three potential site development concepts for the project area. The effort will include a basic site/facility program for each use including the identification of the facility and operational requirements.
3. Identification of the most appropriate use of the existing Marina office building including the adjacent restroom.
4. Possible relocation and/or reconfiguration and expansion of the existing boatyard.
5. Siting of a marine hardware retail store, (or other compatible use).
6. Development of a site for a commercial building north of the existing Marina office building.
7. Siting of a potential passenger ferry dock and the related upland infrastructure.

The delivered product was to include;

- A project description of the potential site development capacity based on zoning and land use constraints.
- A summary of potential (planning level) project development costs based on the construction of similar projects.
- A site development plan drawing illustrating site development, circulation, and building site potentials.
- A brief summary of key opportunities or constraints affecting the site; i.e., zoning or environmental regulations or similar issues.

In June of 2005, the staff and consultants met with the Municipal Facilities Committee to review the draft of the Market Analysis for the Marina and the site development concepts. The results of the Committees work were reviewed by the full Council at a retreat in September of 2005. At that meeting the Council discussed several policy questions, including;

- What is the appropriate level of commercial activity on the Marina floor?

- Given what we know now, should we still plan to expand the guest moorage area?
- Should the Marina phase out of the sling launch business?

The Committee met two more times in 2005 to discuss incorporating the full Council's ideas into the draft update of the Master Plan.

In January of 2006, the Mayor appointed two new Council Members to the Municipal Facilities Committee. The Committee met three times in January, February and March to review the work done by the previous committee and to further develop alternatives to take to the full Council for consideration.

At a Retreat on May 13, 2006 the members of the Municipal Facilities Committee briefed the full Council on the progress of the Marina Master Plan Update Project. The ideas and comments from that meeting were incorporated into a draft plan that was presented to the Council at their regular meeting on September 28, 2006.

At subsequent meetings, the committee worked on the Marina Rate Study Project, which resulted in a three-year moorage rate plan that was adopted by the City Council on January 25, 2007. With the new rate structure in place, the staff was able to complete the final chapter of the updated Master Plan document, the schedule of projects and financing plan.

On February 15, 2007, the full Council reviewed the Updated Marina Master Plan and the staff's recommendations for funding the capital projects identified in the plan. Because the staff's recommendations for funding included rate increases that were greater than were in the rate plan adopted by the Council on January 25, 2007, the Council directed the staff and the Municipal Facilities Committee to further review the funding options and bring another recommendation back to the full Council.

The staff and the Municipal Facilities Committee met on March 23, 2007 and reviewed several options, including increasing the Marina's cash flow by reducing the transfer to the general fund, reducing the cost of replacing the seawall by using armored slopes instead of vertical sheet pile bulkheads, eliminating some projects and using other sources of capital funds to help fund the projects. The Committee is recommending a combination of using other sources of funding to pay for projects that are for the benefit of the general public and eliminating one of the larger projects which was the construction of a commercial building. Instead of building for a prospective tenant, the strategy will be to find an appropriate business that wants to lease a building site and build their own building.

This recommendation has been included in the Draft Updated Master Plan attached to this agenda item.

At a subsequent meeting on April 20, 2007, the Committee discussed the design guide lines in Chapter 5 of the Draft Updated Marina Master Plan. Some of the design guide lines found in Chapter 5 are from the original Master Plan and some are from the preliminary design and engineering work done on the bulkhead replacement and the expanded guest moorage area proposal. Currently, there are two efforts underway to create design guide lines for the for the downtown and Marina area. The first is the Downtown Design Guide Lines Project that is managed by the City's Planning, Building and Public Works Department and the second is the Store Front Studio Project that is being conducted by the University of Washington's Department of Urban Planning and Architecture. Because these projects are scheduled for completion in the

near future, the Committee is recommending that the guide lines in Chapter 5 be deleted from the draft, with the exception of the road and sidewalk cross sections and that the new guide lines be developed after the two projects are completed to ensure that the Marina and downtown design guide lines complement each other. The Committee expects that the downtown projects will be completed and the new Marina design guidelines will be developed before June of 2008.

C. Discussion - Major Elements of the Updated Master Plan

The following is a list of the major elements of the Updated Master Plan.

- South Marina Park – The Park will remain in its current configuration including the parking lot.
- South Parking Lot – The South Parking lot will be reconfigured as shown in the original master plan, including the new restroom.
- Floating Docks, (not including guest moorage) – The recommendation for the reconfiguration of the floating docks that is in the original master plan is retained, with the addition of a "32 foot conversion" that could be implemented as an interim step. This conversion would create more 32 foot slips without building new docks and would not impact the future build-out to the slip configuration shown in the original Master Plan.
- Boat Repair Yard & Site for Commercial Use – The Updated Master Plan includes a larger, (50 ft x 80 ft) building that would be built on the east side of the repair yard and the existing building would be demolished. A new travel-lift pier would be built in the M-N Dock fairway and the existing pier demolished. The yard would be reconfigured into a rectangular shape and a pad for a future commercial land lease would be created. The existing restaurant building would be demolished.
- Dry Sheds – The dry sheds will be phased out in favor of open storage for larger boats that would be launched with a travel lift at the new pier.
- Marina Office – The Plan calls for remodeling the Marina office to include a customer service area and restrooms on the first floor. The maintenance activities would be moved to a building to be sited at the foot of the bluff south of the storage yard.
- Public Boat Launch, Commercial Site & Bulkhead Replacement – The Marina will phase out the public boat launch and create a site for commercial use north of the Marina office. The preferred use would be a restaurant with a space that could be used for open – air dining during the summer. The bulkhead will be replaced in phases, using the criteria developed in the preliminary design done by Moffatt & Nichol.
- North Parking Lot – The North parking lot would be reconfigured for single vehicle parking.
- Guest Moorage Expansion – The decision on the expansion of the guest moorage will be delayed until the plans for the Beach Park are finalized and more is known about the future of the proposed passenger ferry system.

Capital Improvements

A complete list of the recommend projects and their costs can be found in attached spread sheets titled Des Moines Marina – Master Plan Update & CIP Program. The projects are grouped into eleven "phases".

The first phase projects would relocate the utilities in front of the Marina Office, replace the bulkhead from the Office to the north end of the public launcher, demolish the launcher,

reconfigure the parking lot, install the first section of the "Promenade" and create a site for a restaurant north of the Office. The second phase projects would provide a new building for the Marina maintenance operations, remodel the Marina Office, and dredge the entrance channel. The third phase projects would replace the bulkhead from the Office to near K and L Docks, install more of the "Promenade", replace the South tenant restroom and replace the travel lift pier. The fourth phase would relocate utilities in the South lot, reconfigure the boat yard and rewire two more docks. The remaining phases would continue to replace the bulkhead, install the promenade and recondition the floating docks. The staff estimates that the first three phases could be completed by 2010. Progress on the remaining phases will be dependent on financing.

D. Financial Impact

The Marina's current debt schedule, the new rate plan and conservative revenue projections suggest that the Marina can carry up to twelve million dollars in bonded debt, phased in over the next three or four years. This would provide enough capital to complete the first three phases of the Master Plan Projects. The Municipal Facilities Committee is recommending that other revenue sources such as the real estate excise tax be used to help fund the projects in the Marina that are obviously for the benefit of the general public. This strategy would allow the City to complete more phases of the Master Plan for the amount of bonded debt the Marina is able to carry.

Obviously, a top priority for the staff will be to look for sources of grant money. Some possibilities are state and federal grants for boating infrastructure, like the IAC grant for the Redondo project. These grants are project specific and will be applied for as suitable projects come up. Also, the staff is working with our State Legislators to see if there are any funds for infrastructure of economic development that the Master Plan projects may be eligible for.

E. Recommendation/Concurrence

The Municipal Facilities Committee and the Finance Director concur with the recommendation for financing the projects in the Updated Master Plan.
The legal department has reviewed and approved the Resolution.

CITY ATTORNEY'S FIRST DRAFT, 4/10/2007

DRAFT RESOLUTION NO. 07-037

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DES MOINES, WASHINGTON, adopting the Updated Marina Master Plan for the Des Moines Marina.

WHEREAS, the Des Moines City Council, by Resolution No. 906, adopted the Comprehensive Marina Master Plan in June of 2001, and

WHEREAS, The City Council found in January of 2005 that conditions in the Marina had changed enough to warrant updating the Comprehensive Marina Master Plan, and

WHEREAS, the Municipal Facilities Committee, with assistance by Administration and several consultants, oversaw the preparation of the draft Updated Marina Master Plan, and presented the draft Plan to the full Council and the general public on September 28, 2006, and

WHEREAS, the City's SEPA responsible official reviewed this proposed non-project action and issued a determination of nonsignificance (DNS) on April 2, 2007, and

WHEREAS, the public comment period for the DNS concluded on April 17, 2007 and the appeal period ended on April 27, 2007 without appeal, and

WHEREAS, the City reaffirmed commitment to conduct phased environmental review for the projects listed in the Plan as allowed by chapter 197-11 WAC, and

WHEREAS, the updated plan was presented to the Council at its regular meetings on February 15, 2007 and on March 23, 2007; now therefore,

THE CITY COUNCIL OF THE CITY OF DES MOINES RESOLVES AS FOLLOWS:

Sec. 1. The 2007 Updated Marina Master Plan for the Des Moines Marina, containing ___ pages, plus ____ pages of appendices, is hereby adopted.

Sec. 2. The Updated Marina Master Plan augments the findings and recommendations of 2001 Comprehensive Marina Master Plan, which is included within the appendix of the 2007 Updated

Master Plan, and supersedes all previous master plans for the Des Moines Marina.

ADOPTED BY the City Council of the City of Des Moines, Washington this ____ day of _____, 2007 and signed in authentication thereof this ____ day of _____, 2007.

_____
M A Y O R

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk

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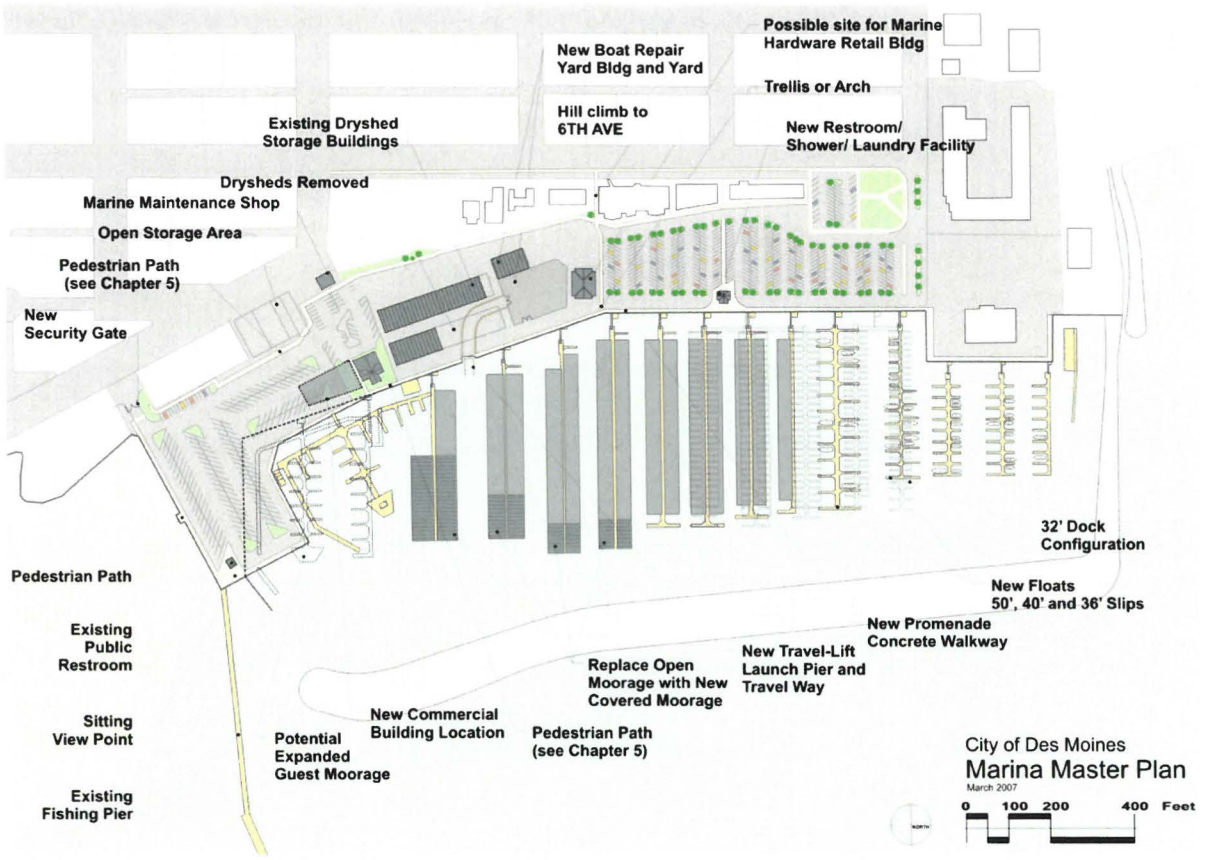

Figure 1. Proposed Des Moines Marina Long-Range Master Plan

Executive Summary

The Des Moines Marina—owned and operated by the City of Des Moines—has served the community well since its construction in 1970. Now, because of the corrosive saltwater environment, economic conditions, changing public interest, and age, some facilities within the Marina are in need of repair and replacement. The seawall, for example, has been repaired numerous times and will need to be reconstructed entirely. Meanwhile, boating activities and trends have changed since the Marina's inception. Salmon fishing is severely restricted and pleasure boating has become increasingly popular. Studies have found that boaters are "trading up" to larger boats, and family boating has replaced fishing as the dominant activity on the water. As debt for the original construction of the Marina is retired in 2008, revenue can be earmarked for improvements that will provide another 30 years of community benefit and civic pride.

Over the course of several months, the Des Moines City Council's Municipal Facilities Committee studied existing conditions at the Marina, future repair needs, boating trends, and numerous options for facility upgrades. Statistical, financial, and policy analysis was provided by City Administration and consultants. This Comprehensive Marina Master Plan summarizes and synthesizes the conclusions and recommendations of the Municipal Facilities Committee.

This Comprehensive Marina Master Plan provides guidance regarding the services to be offered by the Marina in the future. Proposed changes in service may require the construction of new improvements, the removal of existing facilities, or only a minor change in daily operations. In general terms, in-water projects are intended to help the Marina maintain a competitive advantage in attracting moorage tenants and guests. Upland improvements will support in-water activities and make the Marina more attractive and pedestrian friendly. The Comprehensive Marina Master Plan responds to the Marina's primary purpose and function as a boating facility while simultaneously promoting the Marina as a premier destination for those arriving by automobile, bicycle, or on foot.

Some projects called for by the Comprehensive Marina Master Plan would be implemented in the "near term" (in 1 to 5 years) while others are for the "long term" (5 to 15 years). Environmental analysis, engineering, and permitting for the near-term projects would begin in early 2007.

Master Plan recommendations include:

Near-Term Capital Improvements

1. Continued upgrades to the Marina infrastructure, specifically power and water systems.
2. Replacing approximately 800 feet of the bulkhead, including construction of pedestrian amenities, raised concrete sidewalks, and new landscaped areas.
3. Reconfiguration of vehicular circulation areas to improve safety and efficiency.
4. Construction of a new travel-lift pier.
5. Upgrade of electrical services on the docks.
6. Preparation of a site for a commercial building immediately north of the Harbormaster's office.
7. Replacing the existing office/shop building at the boat repair yard and reconfiguring the outdoor work area.
8. Dredge the entrance channel to the boat basin
9. Relocation of Marina Maintenance operations to a new facility and remodel the Harbormaster Building
10. Reconstruction of the south public restroom building.

Long-Term Capital Improvements

11. Replacement of the remaining parts of the original seawall.
12. Along the seawall, construction of pedestrian amenities, such as benches and raised concrete sidewalks.
13. Reconfiguration of moorage slips and covered moorage.
14. Improved pedestrian connections/pathways between Beach Park, Des Moines Creek Trail, and the Marina.

Parking

The number of parking spaces within the Marina generally accommodates present demand. Existing on-site parking is located as follows:

South of Boat Yard	338	single vehicle spaces
	18	vehicle-trailer spaces
North of Boat Yard	82	single vehicle spaces
	84	vehicle-trailer spaces
Total Existing Parking	522	spaces

Recommendation

The Master Plan proposes reconfiguring the existing parking area to increase the number of single-vehicle spaces. Vehicle-trailer combination spaces will no longer be required since the public sling launcher will be demolished. At the same time, the construction of new commercial spaces and potential enlargement of the guest moorage will increase the need for single-vehicle parking. Reconfiguration of trailer parking areas will yield the following number of spaces:

South Parking Lot	467	single vehicle spaces
	0	vehicle-trailer spaces
North Parking Lot	156	single vehicle spaces
	0	vehicle-trailer spaces
Total Proposed Parking	623	spaces

The above recommendation is based upon estimates using information available at this master planning stage. As more detailed site plans are prepared, the exact number of each type of parking space can be determined. The requirements for off-street parking, according to the Des Moines Municipal Code (Chapter 18.44 DMMC), are as follows:

Use	Parking Requirement
Boat Moorage	1 space per 2 slips
Retail	1 space per 350 square feet
Office with Customer Service	1 space per 350 square feet
Office without Customer Service	1 space per 800 square feet
Restaurant	1 space per 125 square feet
Boat Repair	1 space per 600 square feet
Dry Storage	None specified
Public Boat Launch	None specified
Fishing Pier	52 spaces (IAC Agreement)
Shared-Use Allowance	20 percent reduction

The on-site parking proposed by the draft site plan satisfies Code requirements. Based on a parking utilization survey conducted on Saturday, September 12, 1998, this parking allowance would be adequate to accommodate demand.

The pedestrian path along the bulkhead in the south parking lot is paved with asphalt and separated from vehicular traffic by extruded concrete curbing. In the north parking lot, there is a raised concrete sidewalk along the seawall. Although many people walk along the east edge of the Marina, there are no pedestrian facilities there.

Recommendations

Pedestrian space is a premium asset within the Marina and needs to be protected. The Master Plan recommends improving the pedestrian facilities and amenities within the Marina, including:

- The bulkhead promenade will be reconstructed when the seawall is replaced. The new concrete promenade will be 10 to 12 feet wide and approximately six inches higher than the adjacent automobile areas. New light fixtures, hanging baskets, benches, and planters will enhance the pedestrian experience. Although separate bike lanes are not included, traffic speeds will be slow enough to allow bicyclists to safely ride in vehicular travel lanes.

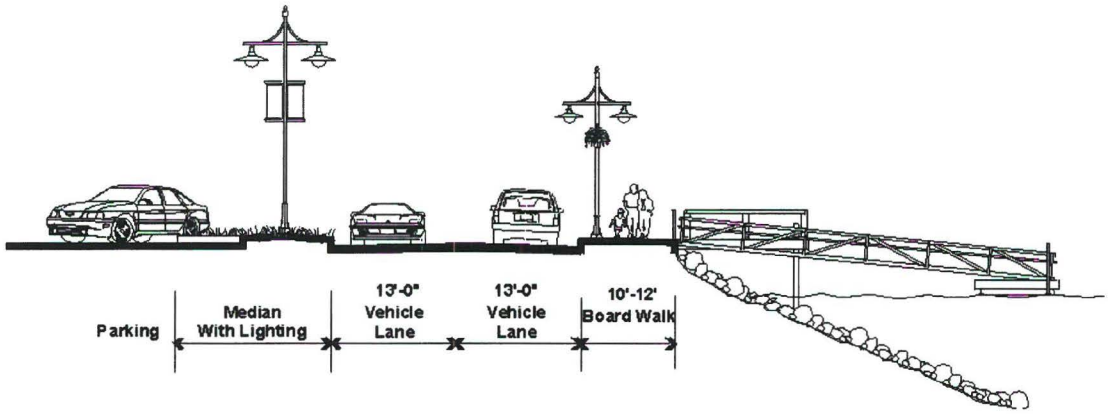

Figure 4-7. Proposed Seawall Promenade

- The pathway along the east property line will only be 6-8 feet wide since it is not a primary pedestrian route. It will be raised approximately six inches above the adjacent roadway. A railing may be added to further separate automobiles from trail users. Bicyclists will be encouraged to ride in vehicle travel lanes since traffic volumes are low in this part of the Marina. Eventually this path may be connected with the Des Moines Creek Trail, which reaches the shoreline at Beach Park, directly to the north.
- East-west pedestrian access in the north portion of the Marina will be improved. The Master Plan makes no specific recommendation regarding how this access is to be provided, but it acknowledges improved access as a goal.
- To improve access and safety, pedestrian routes to the seawall from the eastern access path will be upgraded. These pathways will be located at 227th Street and at the 6th Avenue stairway. They will be constructed of concrete, at grade in crosswalks and raised in other areas, where appropriate, to maximize pedestrian safety and comfort.
- Separate from the Master Plan, the design, character, and utility of Cliff Avenue, and possibly 5th Avenue, warrant further study. These roadways provide access to Des Moines' most prominent recreational facilities—Beach Park and the Marina—and deserve careful consideration.

Upland Circulation and Parking

Vehicular Circulation

Vehicular access to the Marina is from South 227th Street and Cliff Avenue. Internal traffic lanes provide access to the various Marina facilities. The primary north-south roadway (formerly Dock Street) connects the north and south entrances. This roadway is near the east property line and is not always clearly delineated from adjacent parking areas and pathways. The internal connection of the two entrances exacerbates weekend "cruising" through the Marina. Speeding along this route led to the installation of numerous speed bumps.

Recommendations

The Marina was designed to accommodate visitors and patrons arriving by automobile. The Master Plan acknowledges and preserves this critical access while recommending improved pedestrian and bicycle access.

In particular, the Master Plan recommends the following:

- Vehicular circulation and parking modifications will be required in the north Marina if / when the new commercial building is constructed. Site specific modifications will be worked out when the project goes to construction.
- In the south parking lot, north-south traffic will be limited to the east area of the Marina. A new, centrally sited restroom building will be located between the parking and the bulkhead promenade. This will allow for vehicular access to parking and businesses, but will discourage automobile traffic adjacent to the bulkhead.
- In the south parking lot, curbing, landscaped areas, and a raised sidewalk/bike path will define the north-south roadway near the east property line. This will give the roadway an appearance similar to a public street.
- Presently, a security gate at the north entrance is closed and locked at 10:00 p.m. each evening. The Master Plan recommends this gate be replaced with an electronic gate that will allow after-hours access by residents of the Des Moines Mariner Condominiums.

Pedestrian Circulation

The Marina is located within Des Moines' downtown, and walkers regularly "loop" through the Marina. Many pedestrians enjoy the sights and activities of the Marina all year around. It is also a focal point for the community and an important open space.

Sidewalks exist along both South 227th Street and Cliff Avenue and provide pedestrian access to the Marina at both entrances. A new pedestrian route is included within the WestPointe Condominium development at approximately 6th Avenue South and 225th Street.

Public Restrooms

There are three public restrooms within the Marina, all of which are outdated and should be improved. When making decisions about travel itineraries and moorage, boaters place high importance upon marina amenities such as restrooms and laundry facilities.

Recommendations

There are plans to demolish and rebuild the south restroom as part of, or following, replacement of the seawall. Preliminary plans include a unisex restroom for use by the general public as well as restroom, shower, and laundry facilities reserved for Marina tenants. These plans will be refined as construction nears.

Renovation of existing restrooms adjacent to the Harbormaster building is not an economically viable alternative due to the facility's age and condition. It is therefore recommended that the first floor of the Harbormaster building be renovated (following maintenance shop relocation) to include public restrooms, showers, and laundry facilities for guest moorage users.

The north restroom is a masonry building and is structurally sound. Historically, this restroom has been the target of regular vandalism. However, the most recent improvements have enhanced the building's appearance and vandalism is now less frequent. This area of the Marina would be redesigned if the guest moorage is expanded into the north parking lot. A decision on the future of the existing restrooms will be made when and if the area is reconstructed.

Figure 4-6. Proposed Site Plan for South Restroom

South Marina Park

Although changes to the South Marina Park are not funded in this plan, in the future it may be appropriate to replace some of the parking lot with a more pedestrian friendly "hardscape" to enhance community use of the facility. With the exception of large public events like the 4th of July fireworks show, the park's parking lot has historically been under utilized. Recently, the lot has been the site of the Des Moines Waterfront Farmers Market. The Des Moines Arts Commission is also planning a mural project on the retaining wall along the east end of lot.

Marine Retail

Opportunities may exist to open a small scale marine retail / hardware store to support Marina's boating community. Real estate is available for this use south of the boatyard.

Recommendation

Locating a marine hardware business along the Marina waterfront would be a positive addition. A new marine hardware retail building is therefore recommended on the waterfront immediately south of the expanded boat yard being proposed. The proposed 4,000 square foot building is a one-story prefabricated steel/CMU structure with store front and loading dock. The project includes parking lot improvements and landscaping.

Financing options for the new marine retail building require additional analysis to identify the best option for the City. The City could construct and lease the building or undertake a ground lease with a private developer who would construct and lease the building. Advantages of entering into a ground lease include lower capital requirements for the City and better financial performance.

Marina Maintenance Shops

Marina maintenance shops are currently located on the ground floor of the Harbormaster building. This function does not need to be located on the central waterfront and is a poor use of this space.

Recommendation

The Master Plan recommends constructing a new marina maintenance shop on the Quartermaster Parcel located against the bluffs at the back of the Marina within the existing 223rd Street right-of-way. A 1,050 square foot, one-story maintenance building with mezzanines would meet maintenance shop needs. Relocation of the maintenance function will allow a more appropriate use to occupy the first floor of the Harbormaster building.

Large Boat Storage Yard

There is an opportunity to provide a dry boat storage yard where the current dry shed buildings are located. Boats up to 50 feet long could be stored on trailers within the secured storage yard. Demand for this type of "moorage" is increasing both around the Puget Sound and nationally. Depending on the size of the boats and the type of trailers or dollys used to store the boats on, the area could accommodate 24 to 36 large boats. The travel lift that was purchased through the Federal surplus Property Program could be used to retrieve and launch boats from the new travel lift pier that is proposed for the M – N Dock water way. Site improvements such as water lines, electric power boxes and thicker pavement for the travel lift's travel path to accommodate the heavy wheel loads would be necessary.

Recommendation

Continue to explore opportunities for upland boat storage as other improvements are implemented on the Marina floor.

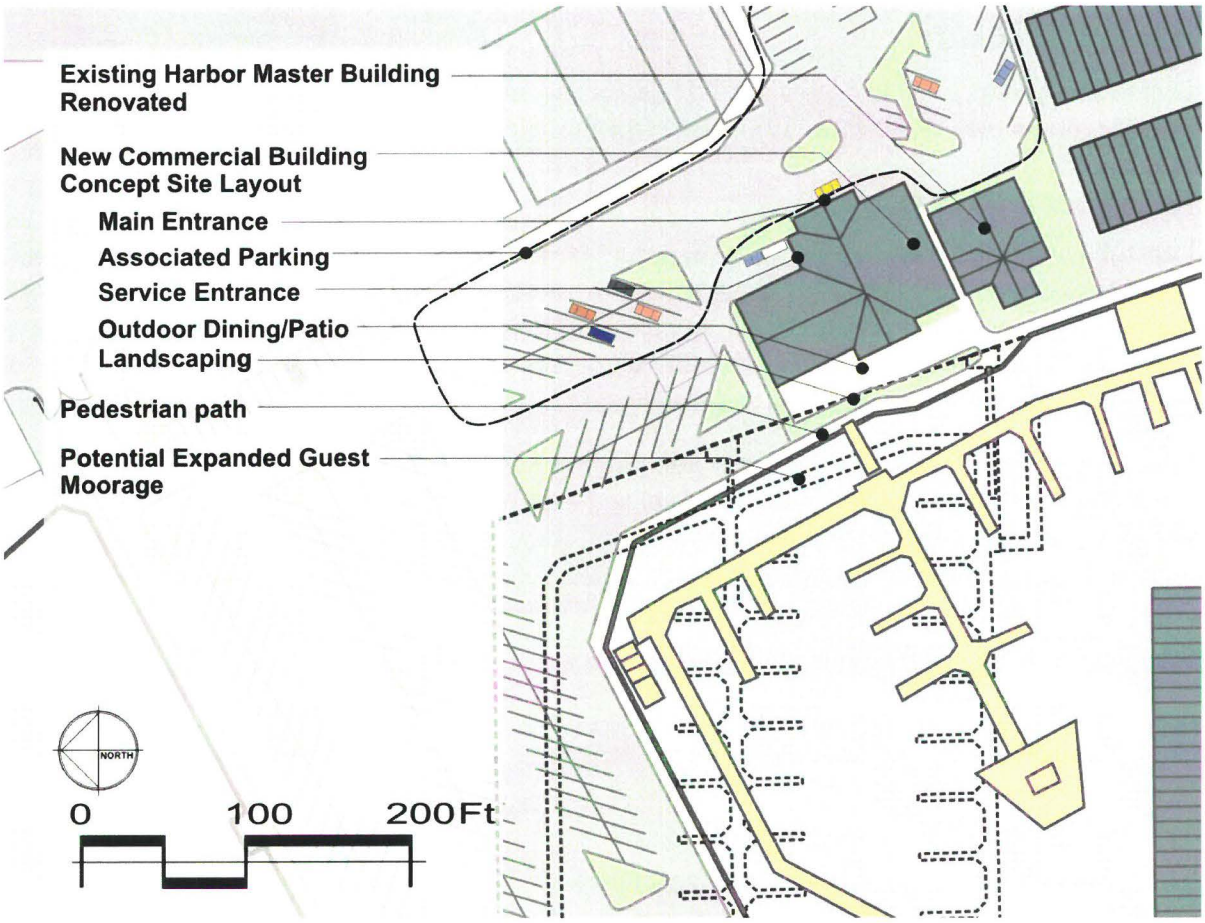

Figure 4-5. Potential Site Plan for New Commercial Building

Boat Yard

CSR Marine is constrained by the size of their boat yard and travel lift pier. They have expressed an interest in expanding their current business to accommodate larger boats, possibly up to 60 feet in length.

Recommendation

The Master Plan recommends construction of a new and expanded boat yard near the existing facility. The new building will be approximately 4,000 square feet. A temporary boat yard will be sited to the south of the existing yard so that the business can remain in operation during construction. Upon completion, the outdoor yard will be approximately 18,000 square feet. A new travel lift launch pier is also included, as described above.

Commercial Building

Several options have been explored for the construction of a new commercial building to the area north of the Harbormaster building. These options were developed to capitalize on growing opportunities for increased commercial development on the Marina floor.

Recommendation

A new commercial building is recommended on the waterfront immediately north of the Harbormaster building. Further analysis is required, but at this time the structure is being sized as a one-story building with a footprint of approximately 6,000 square feet. Possible uses include a restaurant or a deli / small scale grocer. The project provides the building and site improvement, as well as a 1,500 square foot deck area that uses the existing bulkhead alignment fronting the building. Associated parking requirements can be accommodated within the existing north parking lot. Options for connecting the new structure to the Harbormaster building should also be explored to provide the Harbormaster offices with elevator access.

Financing options for the building require additional analysis to identify the best option for the City. The City could construct and lease the building or undertake a ground lease with a private developer who would construct and lease the building. Advantages of entering into a ground lease include lower capital requirements for the City and better financial performance.

Upland Recommendations

Launching Facilities

There are currently three boat launching facilities maintained by the Marina, including the public sling launcher, the dry shed sling launcher, and the boat yard travel lift launch. All three facilities are nearing the end of their useful life and require some level of repair.

Recommendation

The Master Plan recommends the following actions concerning launch facilities at the Marina.

- **Public Sling Launcher.** Demolish the public sling launcher and eliminate public launch functions at the Marina. The Redondo Boat Ramp will continue to operate as a public launch in the City of Des Moines. Parking areas adjacent to the sling launcher can be restriped from car/trailer spaces to car only spaces or converted to an alternate use.
- **Dry Shed Sling Launcher.** The dry shed launcher will continue to operate in its current capacity for the foreseeable future, providing launch capabilities for both dry shed tenants and Marina maintenance boats. As the dry sheds reach the end of their useable life this area of the Marina may be redeveloped. At that time the dry shed launcher may be eliminated.
- **Travel Lift Launch.** Demolish the existing travel lift launch and construct an expanded facility for use by the boat yard capable of accommodating boats up to 55 feet in length. The new travel lift pier would be located between Docks M and N (existing travel lift is between Docks L and M) and would be aligned with the fairway to facilitate launch operations. This location was selected because it would allow the existing travel lift to remain in operation while the new facility is built. This is an operational necessity for the boat yard. Impacts to the inside slips would be minimized by setting the launch slightly back into the shoreline. Approximately one-quarter of the dry sheds would be demolished to provide necessary maneuvering space. Demolition of these sheds and bulkhead preparations for the new travel lift launch are included under Phase I of the bulkhead replacement project.

Harbormaster Building

The Harbormaster Building currently houses the Harbormaster offices and Marina Maintenance Shops. Given the building's location on the central waterfront it is an extremely valuable asset for the Marina.

Recommendation

The Master Plan recommends relocation of the Marina Maintenance Shops to an alternate location, remodeling the Harbormaster offices, and relocating public restroom facilities to the first floor. Laundry / shower facilities would also be incorporated.

Passenger Only Ferries

Since the original Master Plan was adopted in 2001 there has been a renewed interest by both public and private parties in the development of a passenger-only ferry system. Initially, the interest was motivated by the desire to provide more access to island communities like Vashon Island and the San Juan Islands, or by the need to connect communities on the west side of the Sound with employment centers in Seattle, Bellevue, and Redmond. However, recent advances in boat-building technology have made moving people on the water much faster and more reliable. The advent of this new generation of passenger carrying vessels has some leaders in the public sector discussing the possibility of using passenger ferries to alleviate congestion in the land-based north-south transportation corridors.

Most of the discussions to date have included the Des Moines Marina as a potential terminal site because of it's proximity to other modes of transportation such as Sea-Tac airport, light rail, State Highway 509, and Interstate 5. A feasibility study conducted by the Puget Sound Regional Council is scheduled for completion in 2008.

Recommendation

At this time the Master Plan recommends that any changes to the Marina entrance or the guest moorage area consider the potential for a future passenger ferry terminal and that nothing be done that would preclude such a possibility.

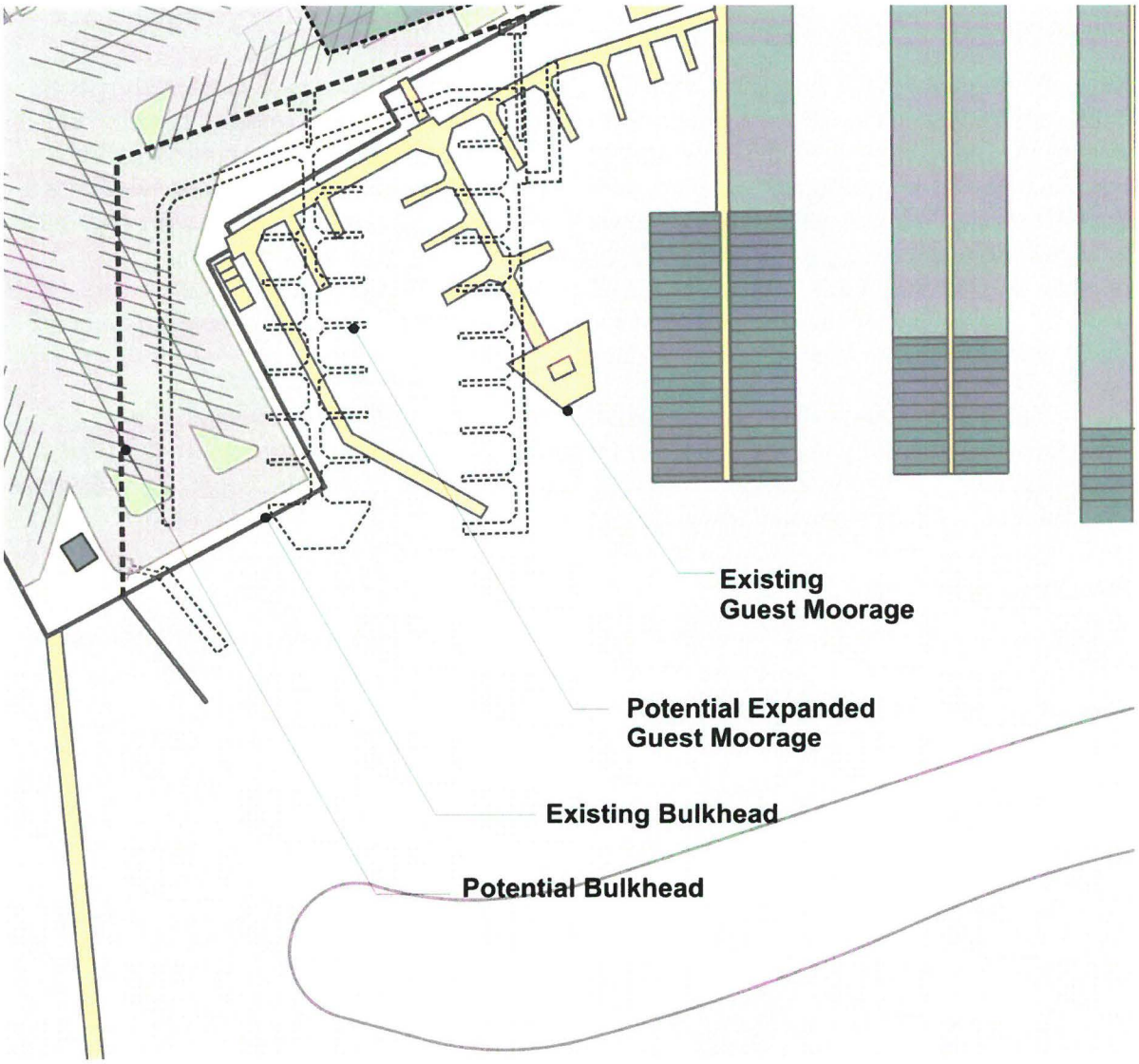

Figure 4-4. Recommended Changes to Guest Moorage, 2001 Marina Master Plan

Recommendation

Since completion of the 2001 Master Plan the guest moorage program has experienced a significant decrease in utilization and revenue due to the continued decline in recreational salmon fishing in the Puget Sound. Improving future utilization of the guest moorage will require the Marina to more aggressively target organizations/clubs, individual or family cruisers, and other similar groups, all of which have the potential to keep the guest moorage viable. In fact, new opportunities are emerging for possibly expanding in-water guest moorage space by excavating uplands at the north end of the Marina (Figure 4-4). Given these conditions, expansion of the guest moorage program requires further economic analysis to ensure it is still a viable alternative for the Marina.

Guest Moorage Facility

The 2001 Master Plan explored options for expanding the guest moorage program by converting existing uplands at the north end of the Marina into new in-water moorage space. In 2001 the program was generating significant revenue for the Marina and was usually operating over capacity during summer months, making expansion a viable option for the Marina. Since that time guest moorage activity has declined by 35 percent, falling from a high of 9,367 boat nights in 2001 to 5,789 boat nights in 2005. Expansion options therefore require additional analysis to validate the economic benefits.

2001 Master Plan Recommendation

Boating trends in 2001 indicated that there would be increasing demand among boaters for larger and more comfortable guest moorage facilities. By adjusting internal operations and by expanding marketing efforts, the Marina found that it could attract more families and boating clubs to the guest moorage. To better take advantage of boating trends, the guest moorage area could be expanded to increase its capacity, convenience, and desirability.

Extensive study of the guest moorage facility produced a design that enlarged the guest moorage space and retained a public boat launch. Specifically, the layout for Marina: 1) expands the guest moorage area from 1,800 to 3,200 lineal feet; 2) rotates the guest moorage floating docks so that they are parallel to the permanent moorage docks; 3) creates ample in-water queuing area for dry shed, dry stack, and public launching activity; 4) provides upland space for a reconstructed public boat launch; and 5) creates new open space areas to the east and north of the guest moorage. Presently, the guest moorage area can accommodate approximately 70 boats. As planned, the capacity of the guest moorage would increase to approximately 130 boats. The 2001 Marina Master Plan recommended this alternative.

Partial funding for guest moorage improvements may be available from the Interagency Committee for Outdoor Recreation (IAC) Boating Facilities Program. In addition, the expanded guest moorage project may be eligible for funds from the U.S. Department of Fish and Wildlife's Boating Infrastructure Grant Program. Marina staff would aggressively pursue all grant opportunities available as a way to effectively leverage Marina funds.

In addition to the annual revenues offered by an expanded guest moorage, popular boating destinations generate positive financial impacts for the community as a whole. Local shops, restaurants, service stations, and other businesses benefit from being close to a busy marina. Des Moines residents benefit from having local businesses that are successful. As mentioned previously, the 1990 study by the Washington State Parks and Recreation Commission suggests that boaters will spend approximately $115 in local establishments each time they visit the Des Moines Marina.

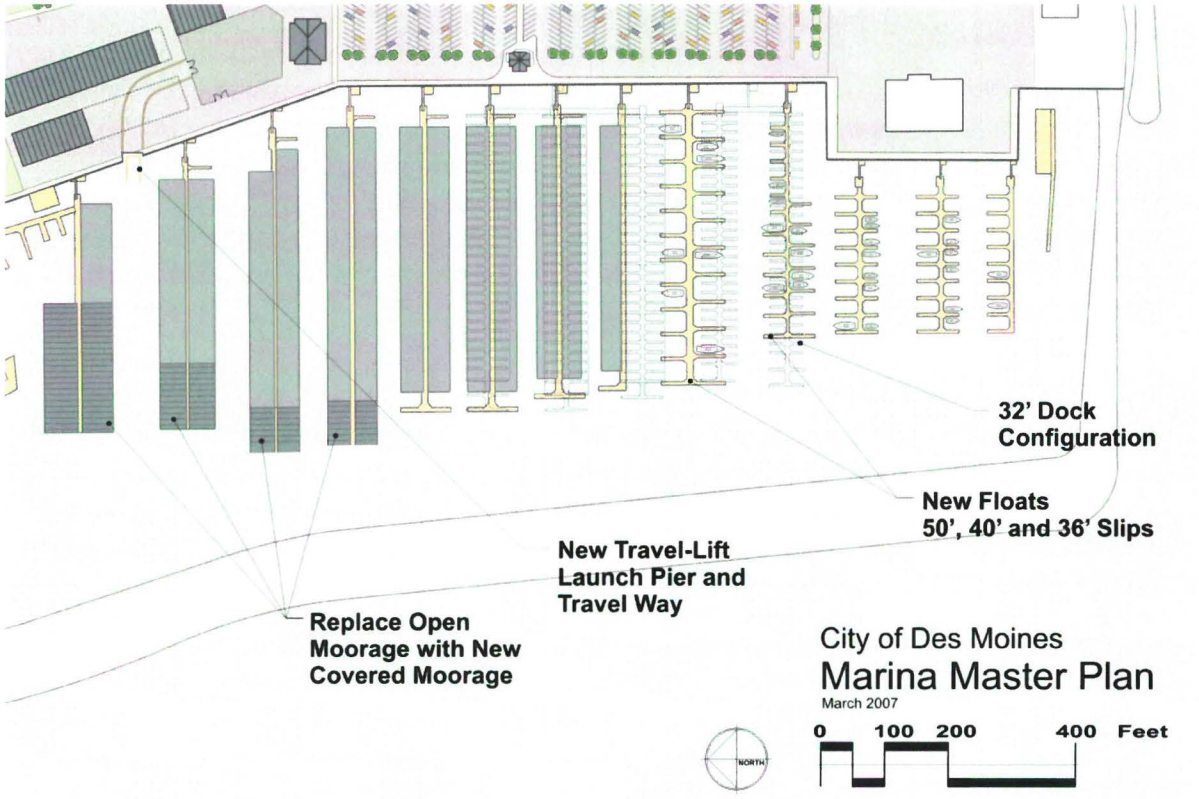

Figure 4-3. Permanent Moorage Reconfiguration Alternative

To move the docks, the existing creosote treated piling would be removed and new steel piling would be installed to keep the floating docks in their new locations. Also, the ramps would need to be moved or combined with "head docks" to provide access to the docks in their new locations. [Note: Depending on the final spacing of the docks in the "interim" configuration, it may be possible to replace the 20 and 24 foot open slips on the north side of D Dock with 28 foot open slips.]

To get to the final configuration called for in the Master Plan, all or part of F Dock would have to be removed to allow D Dock to be moved to the north. D Dock would be rebuilt with 40 – 50 foot open slips which would allow the open moorage at the ends of K, L, M, and N to be converted to 32 – 50 foot covered moorage, depending on the dock.

Table 4-1. Comparison of Potential Type and Number of Slips

Slip Size (feet)	Covered Slips			Uncovered Slips		
	Current	*Proposed*	*Difference*	*Current*	*Proposed*	*Difference*
20	29	0	-29	13	1	-12
24	141	29	-112	48	4	-44
28	166	166	0	105	105	0
32	50	60	+10	18	8	-10
36	40	49	+9	30	43	+13
40	26	51	+25	38	43	+5
50	11	25	+14	18	30	+12
65	0	0	0	0	0	0
	463	380	-83	270	234	-36

Recommendation

The Master Plan recommends that the docks, as they are replaced, be reconfigured as much as possible to meet projected market demand (Figure 4-3). Although the Marina continues to experience an increase in demand for larger slips, the demand for the smaller slips is not decreasing as fast as expected. To take advantage of this development the Master Plan Update recommends splitting the reconfiguration of the floating docks into two phases. The first phase would involve eliminating some 20 and 24 foot slips, (E Dock), and shifting the remaining docks to the south to increase the spacing between the 28 foot docks, (I & J). This would allow most of the 28 foot slips to be converted to 32 foot moorages while maintaining some 24 foot slips. The slip mix on the reconfigured docks would be:

Table 4-2. Comparison of Potential Type and Number of Slips

Dock	South Configuration	North Configuration
F Dock	24' Open & Covered	24' Open & Covered
G Dock	28' Open & Covered	28' Open & Covered
H Dock	28' Open & Covered	32' Open & Covered
I Dock	32' Open & Covered	32' Open & Covered
J Dock	32' Open & Covered	32' Open & Covered

Permanent Moorage

The future of the fourteen floating docks is an important issue since in 2005 they generated $1.974 million (50%) of the Marina revenues. The costs involved in their replacement will be a substantial investment. It appears that the floating docks can be kept in serviceable condition until 2010 or beyond, but the anticipated future expenses and impacts are so significant that a discussion of the long-range replacement alternatives should be part of this process.

For their age, the floating docks and roof structures are in generally good condition. The major problems are loss of floatation in some areas and loss of structural integrity in a small number of the guide pilings. Also, the electrical distribution system on the larger docks is not adequate to supply the service demand of newer boats.

Although current environmental regulations strongly discourage the construction of new covered moorage on Puget Sound, existing covered moorage can be maintained, reconstructed, and relocated within the Marina. The primary drawbacks to rebuilding covered moorage involve structure height and cost. In order to minimize shadow impacts upon the water, environmental regulations will require new covered moorage structures to be higher than the existing structures.

The Municipal Facilities Committee, consultant, and staff examined several replacement alternatives for the permanent moorage docks to determine the potential slip mix and the construction and operating costs. The goal in analyzing these alternatives was to stay as close as possible to the current number of slips and to maintain current revenue levels without large rate increases. Another constraint was the amount of debt that can be carried by the Marina. The Master Plan recommends that total debt be kept below $10 million at any given time.

2001 Master Plan Preferred Alternative

The preferred alternative included expansion of existing covered moorage and replacement of some docks. Variations of this alternative were the most attractive because of cost and the possibility of keeping the total number of slips close to current levels. In this alternative, which is referred to as **Alternative #5B** in the 2001 Master Plan, the open slips at the end of K, L, M and N Docks are replaced with new covered moorage and some of the smaller docks are replaced with new 36- to 50–foot open moorage. A caveat of this alternative is that the exact number of each slip size won't be determined until the project is undertaken.

This alternative adjusts the existing slip mix to better reflect projected market changes. It reconfigures several docks as large-slip docks (with 40-foot and 50-foot slips) and has the potential ability to convert the open moorage at the ends of existing piers to covered moorage. The following tabulation compares the number and type of slips that could be provided by the preferred alternative with the current Marina configuration:

In-Water Recommendations

Bulkhead

The bulkhead is an essential part of the Marina infrastructure. Although the bulkhead's condition is moderate [Reid Middleton, Inc. Feb 2000], its rate of deterioration is a point of concern and it requires replacement.

Recommendation

The Master Plan recommends that the existing bulkhead be replaced in six phases following the current alignment (see Figure 4-2). The top of the north-facing (most exposed) parts of the bulkhead wall will be raised by approximately one foot relative to its existing elevation to offset the relative sea level rise anticipated in the next 50 years. These areas are already subject to overtopping by large waves, meaning a rise in relative sea level would exacerbate the problem. The bulkhead along the perimeter of the marina basin would only be raised by 0.5 feet since these areas are more sheltered and not subject to significant overtopping.

- **Phase I:** Replace approximately 320 feet of the bulkhead from the Marina Office to the north end of the public launch structure. Work includes providing new gangway access to the guest moorage basin.
- **Phase II:** Replace approximately 555 feet of bulkhead from Marina Office to K-L Dock. Work includes removal of some dry sheds and reconfiguration of bulkhead for new travel-lift pier.
- **Phase III:** Replace approximately 420 linear feet of wall along the north end of the Marina.
- **Phase IV:** Replace approximately 540 linear feet of wall in front of Guest Moorage Side Tie Dock and the Touch-N-Go dock, replace the timber inner breakwater structure, and remove the tide grid.
- **Phase V:** Replace approximately 400 linear feet of wall between Docks H thru K.
- **Phase VI:** Replace approximately 370 linear feet of wall fronting docks D thru G.
- **Phase VII:** Replace approximately 510 linear feet of wall fronting docks A thru C.

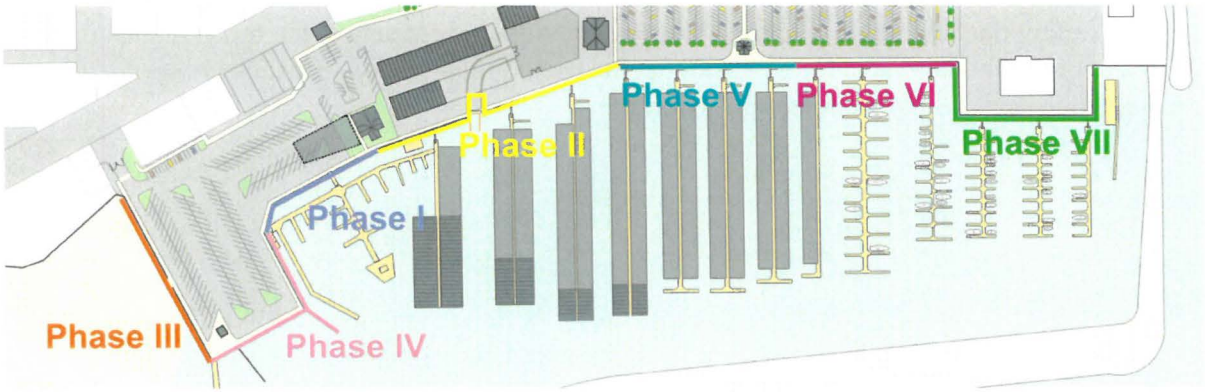

Figure 4-2. Bulkhead Replacement Phasing

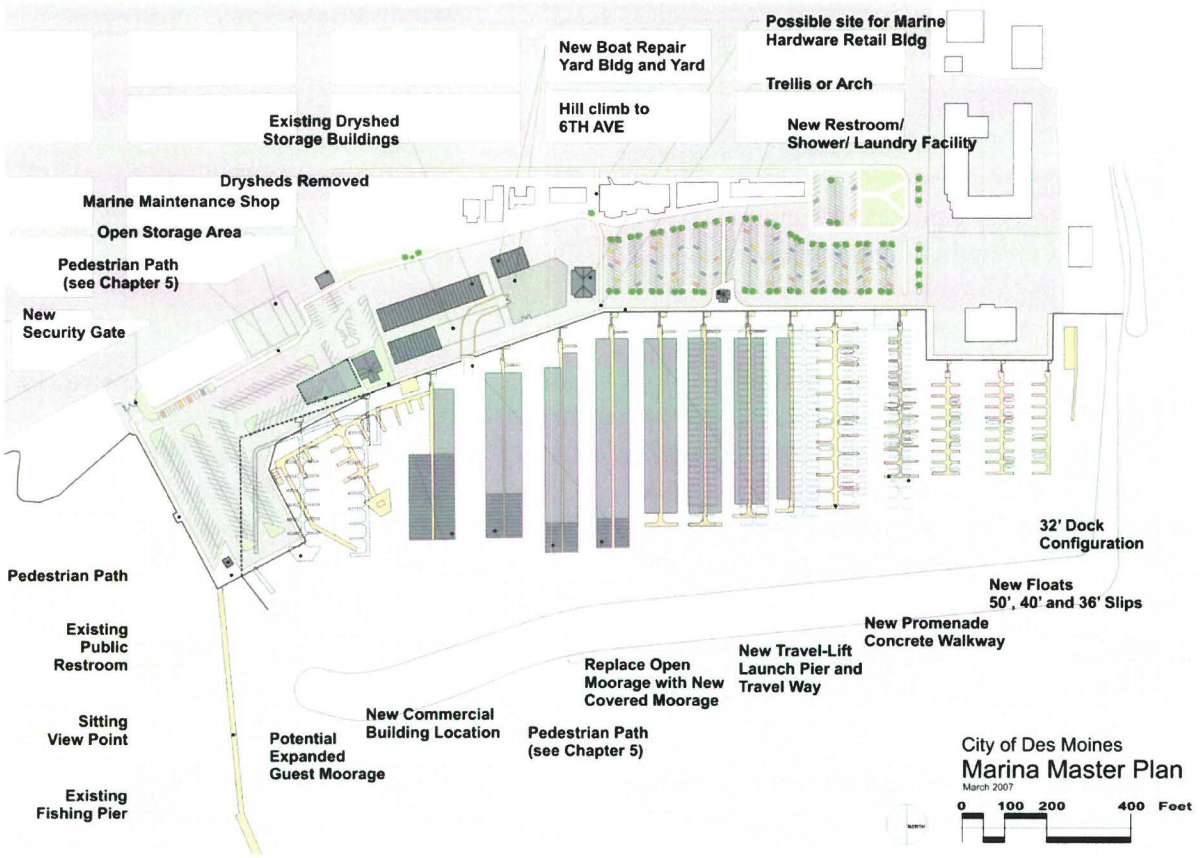

Figure 4-1. Des Moines Marina Master Plan Recommendations

4. Master Plan

Since completion of the previous Master Plan in 2001 economic conditions in the Des Moines and Puget Sound boating communities have changed, creating new opportunities for in-water and upland facilities at the Marina. In response to market projections, a series of recommendations have been developed as a means for the Marina to capitalize on these new opportunities. The sections that follow describe the Master Plan recommendations for the Marina's individual elements. Figure 4-1 above provides a summary of the recommendations and can also be found as an 11 x 17 foldout at the back of this section. Cost estimates for all recommended actions can be found in Chapter 5.

Boat Ramp and Launcher

Future utilization of the boat ramp and launcher depends on several factors, including the number of trailerable boats, fishing opportunities, usage fees, and the availability of storage facilities for small boats. The Des Moines City Council has determined that the continued operation of the public launcher is not favorable to the community, allowing for the function to be phased out as the asset reaches the end of its usable life.

Upland Facilities

Dry Shed Storage

Utilization of the dry sheds is driven by small vessel use, rental rates, and the availability of launch facilities. At the moment the sheds are relatively underutilized (14% vacancy rate including non-boat usage) even though the current rate structure is low compared to other area storage facilities.

The sheds have an expected life of 3 to 5 more years. It is therefore recommended that the City reevaluate the financial performance of the dry sheds within the next few years to determine if dry storage is the optimal use for this location.

Boat Yard

CSR Marine, the boat yard operator, is constrained by the size of the yard and launch pier they lease from the City. CSR has expressed an interest in handling boats up to 47 feet, which is currently a challenge due to the narrow lift pier and configuration of the yard.

The boatbuilding and repair business is a target industry for economic development, generating approximately $500 million in sales and 3,500 employees in King County and $36 million in sales and 327 employees in Pierce County in 2004. Since CSR is currently the only boat yard between south Seattle and Tacoma, opportunities should be explored for expanding and/or reconfiguring the yard within the Des Moines Marina.

Marine Retail

Between 1997 and 2003 real per capita expenditures in Washington State have increased for boats (+110%), boating accessories (+100%), and outboard engines (+33%). Marine supply firms have indicated an interest in building an express store at the Des Moines Marina to capitalize on this market opportunity. Express stores are typically 2,500 square feet and stock a limited range of high-demand products. It's estimated that a small marine store could generate approximately $650,000 in sales per year, which equates to approximately $5,250 in taxes to the City of Des Moines (based on 0.85% retail sales tax rate). The Marina would also realize a financial benefit from the lease.

In the Marina staff's opinion, the updated market data and the demographics of the Marina's primary and secondary market areas still supports a moderate shift to larger slips, but not as soon as originally planned. BST Associates' analysis of the Marina's vacancy data in the most current update shows that the impact from vacancies in the smaller moorages can still be managed through changes to the rate structure, such as seasonal pricing, and that replacing the 20 and 24 foot moorages can be delayed beyond what was recommended in the 2001 Master Plan. It should be noted that BST did not perform a sensitivity analysis to increases in moorage rates for the smaller slips. The point at which the moorage rates will start to drive the vacancy rate up in the smaller slips still needs to be determined.

Guest Moorage

Among other factors, the forecast for guest moorage depends upon overall boating activity on Puget Sound, fishing opportunities for local boats, and the perceived attractiveness of the Des Moines Marina relative to competing facilities. As noted previously, the prospects for growth in fishing appear to be relatively limited and will likely limit Marina use by local boats. However, the increase in cruising is encouraging more marinas to become destination stopovers for non-local boats. Opportunities for attracting non-local boats appear favorable since Des Moines Marina is considered an attractive marina by boaters.

Although boating activity in Puget Sound is expected to remain steady, Des Moines will face strong competition from other area marinas, particularly those in Tacoma, Gig Harbor, and Seattle. To remain competitive marina operators throughout the region are providing more guest services, supplies, dining, and other amenities. Fortunately, the Marina does have some advantages for attracting local and non-local boaters. These include:

- Fuel prices are favorable at Des Moines, which continues to attract boaters.
- Efforts to improve economic development in the downtown retail core along with the potential for additional marine retail on the Marina floor would help increase guest moorage.
- The City has instituted a marketing campaign to attract boaters, which is beginning to show signs of success.

The market opportunity for guest moorage has two distinct elements: the individual or family cruiser and organizations/clubs. Attracting these segments of the recreational boating industry presents the best opportunity for future revenue growth. Individual or family cruisers are looking for an available slip, fuel, restrooms with showers, laundry facilities, nearby supplies, restaurants, and activities. Clubs and organizations offer a second opportunity and tend to look for the same amenities the individual or family cruiser wants, but they also want a guaranteed group moorage. Occasionally they will need extra tables, chairs, or the use of a picnic/barbecue facility or dining hall. Even though they need more services, they are willing to make reservations well in advance. There are about 100 active boating organizations on Puget Sound.

Any marina that provides more than the basic level of services will get some individual or family cruise business. Getting the club business requires marketing and facility management. Clubs need to be contacted regularly so they know the marina wants their business. Marinas in Port Orchard, Oak Harbor, and Poulsbo are very successful at attracting and serving boating clubs, due largely to their successful marking programs.

Demand Forecasts

This section provides demand forecasts for both in-water and upland facilities at the Marina. The information was taken from the September 2006 Demand Assessment, which can be found in its entirety in Appendix B.

In-Water Facilities

Permanent Moorage

The primary and secondary markets at the Des Moines Marina fall primarily in Pierce and King Counties. The future number of boats for this area was projected by BST Associates using regression analysis, which projects future boat ownership based upon growth in population, non-agricultural employment, and real personal income. Based on this approach, BST Associates projects that the recreational fleet for boats over 12 feet in length will grow from 69,784 boats in 2004 to 78,810 boats in 2015, for an annual growth rate of 1.1 percent per year. Growth is expected to be fastest for larger boats, as is the case with current trends.

Determining the optimal future slip mix for the Marina is an ongoing process that matches the demand for slips with the best design for the marina. Based on existing data the optimal slip mix would provide more 32 foot and larger slips, and fewer slips under 28 feet. Table 3-2 below summarizes BST Associates' recommendations for the future slip mix at Des Moines Marina.

Table 3-2. Wet Moorage Slip Mix Forecast

Slip Length	Existing Slips	Existing Ratio	Future Slips (Optimal)	Future Ratio
20'	42	6%	24	4%
24'	189	26%	91	15%
28'	269	37%	140	23%
32'	70	9%	67	11%
36'	70	9%	104	17%
40'	65	9%	97	16%
50' and Over	27	4%	91	15%
Total	732	100%	614	100%

To summarize, boat ownership in the Marina's total market area has increased, with almost all of the growth in the secondary market area. This can be seen as a positive trend because a growing group of boat owners views the Des Moines Marina as an attractive moorage option. Further, the length distribution of the boats in the Marina's primary and secondary market areas is very similar to the length distribution of the slips in the Marina, illustrating that there is still a significant "small boat" component to the market area. In other words, most boats are currently less than 36 feet in length.

Marina Facilities – What the Future Boater Wants

Boat owners are changing the way they use their boats, and they are demanding new services from marinas. The desire for safety, security, and a clean facility— the primary items desired by boaters—will increase in significance as the age of boat owners increases. Marinas must anticipate the needs of "active seniors" and provide assistance with the routine chores of boat ownership, such as dismounting and storing dinghies. Marinas must also accommodate vendors hired by boaters to perform maintenance, installations, and other services. Although transient moorage customers will have many of the same needs, they will also desire services such as transportation to shopping and having groceries and gear loaded onto their boats.

Trends in Marina Facilities

Many marinas in the Northwest are filling the void left by declining fishing opportunities by changing to meet the needs of the new "typical boater." The most significant trends are the following:

- *Marinas are retrofitting existing slips to accommodate wider and longer boats.* The demand for moorage for small boats (less than 20 feet) will decrease. Small boat owners will store their boats out of the water. Dry sheds and boathouses may see increases in demand but will be impacted by increasing waterfront land values.
- *Marinas are upgrading utilities, especially electricity.* Some larger vessels will require 50 amp services, but the norm will be 30 amp services, even for the smaller boats. The demand for "landline" telephone service is disappearing with the growing usage of cell phones. While the demand for cable television has not materialized as expected, many marinas are installing wireless internet to serve their permanent tenants and guest moorage customers.
- *Marinas are expanding and retrofitting their facilities to meet the needs of the destination boater.* Fuel, clean and modern restrooms, a store for groceries and basic supplies, restaurants, and laundry facilities are common upgrades that many marinas are providing to their clients.

Impacts on the Community

In 1990, the positive financial impacts of popular destination marinas were documented in a study commissioned by the Washington State Parks and Recreation Commission and the Washington Public Ports Association. While no similar study in the Puget Sound region has been done recently, the study's predictions for changes in boater demographics and activities proved to be accurate. In that study, 568 boaters were given expense logs to complete each time they visited ports. In 604 visits, the boaters spent an average of $78.73 per visit. Adjusted for inflation, that number would be approximately $115 today (2001 dollars). Restaurants and miscellaneous retail businesses were among the beneficiaries. Others included grocery stores and recreational businesses. Of course, for the marina itself, the benefits are moorage revenues and fuel sales.

Table 3-1. Annual Increases in Boat Length, 1990 - 2004

Length of Vessel	Annual Growth Rate	Total Boats 1990	Total Boats 2004
0' - 20'	0.6%	61,329	66,938
21' - 30'	1.2%	12,275	14,483
31 – 40'	1.7%	3,401	4,329
41' - 50'	3.1%	1,038	1,599
51' - 60'	3.7 %	178	297
Over 60'	7.5%	68	188

Source: BST Associates, Washington State Department of Licensing

At the same time, the beam and height of recreational boats is also increasing, placing additional strain on marinas like Des Moines that were built 30+ years ago for a smaller boating fleet. These fundamental changes in length, beam, and height have rendered some berths in older marinas unusable for the existing recreational fleet.

Boater Use Characteristics

Most of the major marinas on Puget Sound were built in the 1960's when salmon returns were strong and fishing was a popular recreational activity. Since that time the number of salmon returning to Puget Sound has fallen, leading to harvest restrictions, limited catch opportunities, and an overall decline in the popularity of fishing.

The marinas (and launch facilities) that catered to the recreational fishing fleet, such as the Des Moines Marina, were all designed with a large number of slips in the low 20 foot range since this was the typical size for recreational fishing boats. With the decline of fishing, the primary boating activity has shifted toward cruising, and with this shift the average boat has grown longer and wider. In 2001, fishing was the primary activity of 58 percent of boaters and cruising was the primary activity of 19 percent of boaters. By 2010, fishing will be down to 40 percent and cruising will increase to 25 percent. This fact, along with the declining number of saltwater-only fishing licenses, indicates that fishing boats are no longer a strong market for the Des Moines Marina.

Demographics of Boat Owners

The Washington State Office of Financial Management expects that the state's population will grow from 6.1 million today to about 8.3 million by 2030, with the most rapid growth occurring for persons over the age of 65 years. These "boomers" will have a significant impact on marinas throughout the region since the length of the boat typically increases with the age of the boater. In fact, most of the boaters who own boats 40 feet and longer are over 40 years of age. Ownership of boats over 65 feet in length is highest among boaters that are in their 60s.

Figure 3-1. Des Moines Marina Today

3. Future Considerations

The following section provides an overview of the boating trends currently affecting operations at the Des Moines Marina, as well as a demand forecast for in-water and upland facilities. The information was taken from the Des Moines Marina Master Plan Update Demand Assessment, which was prepared by BST Associates in September 2006. A complete copy of the report is provided in Appendix B.

Trends in Recreational Boating

The boating trends summarized below are having a significant impact on operations at the Des Moines Marinas, as well as other marinas throughout the region. Responding to these trends will play a major role in the future success of the Marina.

Boat Size

The total number of registered boats in King and Pierce Counties grew from 78,289 boats in 1990 to 87,834 in 2004 (includes boats of all lengths), for an annual growth rate of 0.8 percent. However, the trends in growth were substantially different for boats less than 30 feet in length compared to those over 30 feet, indicating that in general the average length of recreational boats is increasing. In 1987, 57 percent of all registered boats were less than 16 feet long. By 2010 that figure will decline to 47 percent. Annual growth rates in King and Pierce Counties for boats of various lengths between 1990 and 2004 are summarized below.

- A 160 ft. long seasonal floating breakwater was installed in front of the ramp to provide some protection from the northwesterly waves that occur frequently during the boating season.

Future plans include upgrading the restrooms and, beginning in 2007, providing for full-time staffing by Marina personnel during the boating season. The staff person on duty will be responsible for managing the parking lot and launching ramp, writing parking tickets, and selling bait and ice. Staff will also perform some janitorial and landscaping tasks. Plans call for purchasing a small booth type structure that can be set up at the Redondo facility during the boating season to serve as a place to secure a cash register and keep bait and ice for resale.

Parking

The number of parking spaces within the Marina generally accommodates present demand. Existing on-site parking includes the following:

South of Boat Yard	338	single vehicle spaces
	18	vehicle-trailer spaces
North of Boat Yard	82	single vehicle spaces
	84	vehicle-trailer spaces
Total Existing Parking	522	spaces

Travel-Lift Pier

The travel-lift pier located between Docks L and M is utilized by CSR Marine. The pressure treated cross bracing on the support piling has been replaced two times in the last 10 years, while the original decking has been replaced several times over the years. In 2005, two of the support pilings were removed and replaced with steel piling sleeves. Overall, the launch is in poor condition and is at the end of its useful life. It is sized to accommodate boats up to 14.5 feet in width, which is a limiting factor for boat yard operations. CSR Marine has expressed an interest in handling larger and wider boats.

Dry Shed Launcher

The dry shed tenants launch their boats with the small sling hoist located at the north end of the boat shed area just south of the Harbormaster Building. Marina personnel also utilize the launch for marina maintenance purposes.

The dry shed launcher pier is a timber piling-supported structure. The pilings were evaluated during a visual inspection in August 2006 and found to be in fair condition, while previous inspections found that the deck planks need to be replaced. The two 6,000-pound capacity slings are suspended from heavy timbers and are also believed to be in fair condition.

Redondo Boat Ramp

The City of Des Moines assumed responsibility for the ramp at Redondo when that area was annexed in 1997. The Marina Master Plan adopted in 2001 recognized the need for extensive renovations at the Redondo facility with projects to increase capacity and make the launching ramp safer for boaters. Those projects were the first to be funded with the initial bond issue. With the exception of some minor realignment of the floating breakwater planned for 2007, the Redondo project is now complete and includes the following improvements:

- The parking lot was completely demolished and rebuilt with a new ramp entrance and queuing lane. A separate area was provided for single-vehicle parking. New landscaping and a new irrigation system were also installed.
- The storm drainage system was completely rebuilt and an oil-water separator was installed to bring the facility into compliance with the City's surface water codes.
- A new pay-station and the software for a parking management system were installed.
- New raised sidewalks were installed along with a concrete surfaced crosswalk area.
- A new 5 ft. wide by 180 ft. long heavy-duty timber boarding float string was installed on the south side of the ramp. It is held in place by six new galvanized steel pilings and a new concrete approach wedge.
- A 5 ft. wide by 72 ft. long extension was added to the existing timber boarding float string on the north side of the ramp. The existing creosote pilings were replaced with six galvanized steel piles.
- The existing concrete plank ramp extensions were removed and replaced by a concrete matt.

Public Boat Launch Utilization

Over the years, the largest user group of the public boat launch has been recreational salmon fishermen. Launch utilization and associated revenues have been steadily declining due to limitations on fishing, which will continue to impact small boat operations for the foreseeable future. As Table 2-4 indicates the total number of launches decreased by over 36 percent between 1998 and 2004. The launch fee has not been increased and the hours of operation have not been changed significantly for 5 years, but the use of the facility has continued to decline each year.

Table 2-4. Public Hoist Usage, by Length

Year	Under 24 ft	Share	24 ft – 27 ft	Share	Total
1998	5,669	91%	579	9%	6,248
1999	4,477	88%	606	12%	5,083
2000	4,115	88%	563	12%	4,678
2001	4,259	88%	563	12%	4,822
2002	3,755	87%	567	13%	4,322
2003	4,237	87%	643	13%	4,880
2004	3,429	86%	544	14%	3,973
2005	2,989	86%	499	14%	3,488
Change 98 - 05	(2,680)		(80)		(2,760)
Percent Change	(47%)		(14%)		(44%)

Public Launch Operating Expenses

The public boat launch is a labor-intensive service. The Marina is open from 6:00 a.m. to 9:00 p.m. during the season, requiring two staff shifts per day. Four temporary service employees are needed to staff the launch and fuel dock during the season, and as many as four temporary maintenance employees are needed each summer to do routine maintenance tasks because regular staff members are also needed at the launcher and fuel dock.

Labor is the largest operating expense for the launching service. Determining the exact number of service-hours that should be assigned to the hoists is difficult because some of the workers move back and forth between the launcher deck and the other services. The Marina staff approached this problem from an annualized perspective. An annual work schedule for a scenario that did not include the launch service was developed and compared to the existing annual work schedule. The comparison showed that operation of the launch service requires one full-time employee and four seasonal employees, resulting in labor costs of about $70,000 per year. When combined with other maintenance requirements, the total annual cost to operate the launch is estimated at $80,000.

Boat Yard

The City of Des Moines leases approximately 20,000 square feet of centrally located uplands to CSR Marine. CSR is the only provider of repair services in the Des Moines area and performs all types of recreational boat repairs. The lease includes a 3,725 square foot building and a 16,500 square foot paved yard area. CSR operates a 35-ton travel-lift with a beam capacity of 14'-6".

CSR is currently constrained by the size of their facility. Both the building and yard are inefficiently laid out for the operations that occur in them, while the launch pier size limits the size of boat that can be repaired.

Figure 2-9. Boat Yard

Public Boat Launch

The Marina has operated a public small boat launch for over 30 years. Built in 1969-70, the two-lane sling launcher handles trailered boats from 15 to 27 feet long with a maximum weight of 8,000 pounds. The north, central, and part of the south parking lots are designated as vehicle-trailer parking.

The launchers are basically traveling overhead cranes that require a high level of service since they both lift and travel. Labor and Industries (L & I) regulations require regular routine maintenance and annual load testing. The hoists are being rebuilt every four to six years at a cost of approximately $8,000 to $10,000 per hoist. A visual inspection with internal spot checks was conducted in August 2006 to evaluate the condition of decking, stringers, pile caps, and pilings. In general, the inspection found that the facility is in fair condition and should remain serviceable for an estimated five to ten years. The timber wale along the base of the bulkhead was noted to be severely damaged, however, with several sections being completely hollow.

Figure 2-10. Public Boat Launch

Dry Sheds

The Marina has 108 dry sheds built in 1969 that can house boats up to 21 feet long. Each space in the one-story building is 25 feet long by 10 feet wide and opens onto the parking lot via a garage door. Many of the existing shed doors require replacement, with an estimated cost of approximately $1,500 per door. The dry shed tenants launch their boats with the small sling hoist located at the north end of the shed area. Based on current conditions, the estimated remaining useful life of the sheds is between 3 and 5 years.

Dry Shed Utilization

Like the small slips, the sheds have seasonal vacancies and very short waiting lists. A survey of the sheds in the spring of 2005 showed that they are used for a variety of storage purposes. The results from this survey are summarized in Table 2-3 below.

Table 2-3. Dry Storage Utilization

Use of Shed	Number	Percentage
Vacant	3	2.8
Marina Use	2	1.9
Dinghy Storage Program	1	0.9
Boats used on regular basis	63	58.3
Boats not used regularly	15	13.9
Boats not being used at all	14	13.0
Sheds used for general storage	10	9.3
Total tenants	108	100

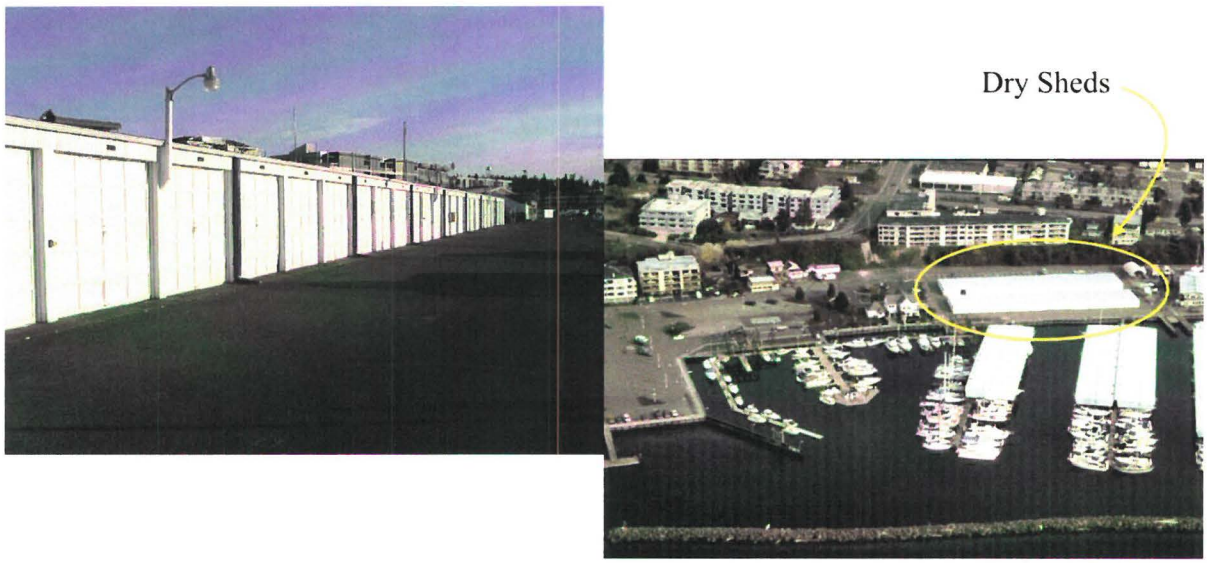

Figure 2-8. Dry Sheds

Upland Facilities

Several upland facilities support various Marina activities and operations. These facilities are described below.

Harbormaster Building

The 2,500 square foot Harbormaster Building is a two-story wood frame building constructed in the early 1970s. The ground floor is 1,300 square feet and is currently occupied by the Marina Maintenance Shop. Utilization by the Maintenance Shop may not represent the highest and best use for this facility given its valuable location on the central waterfront. Harbormaster offices are located on the second floor and occupy a total of 1,200 square feet.

Figure 2-7. Harbormaster Building

Restrooms

There are three public restrooms within the Marina. The northern two are open to the general public, while the southern restroom is reserved for Marina tenants. Shower facilities are provided in the southern restroom and the restroom near the Marina office.

The Marina's public restrooms are outdated and should be improved. When making decisions about travel itineraries and moorage, boaters place high importance upon marina amenities such as restrooms and laundry facilities. There are currently no laundry facilities at the Marina. The restrooms adjacent to the Harbormaster's office are in poor condition and in need of significant repairs. Considering the structure's state of deterioration, complete demolition and replacement is considered the most economically viable alternative.

Fishing Pier

The 670-foot fishing pier was constructed in 1980 with funding from the Interagency Committee for Outdoor Recreation and Community Development Block Grant Funding for King County and is an ideal complement to the Des Moines Marina. The pier has an artificial reef to encourage diverse sea life. Designed with the help of several consultants, including oceanographer Jacque Cousteau's eldest son Jean-Michel, the reef was constructed with over 36,000 tires, 30 barge loads of concrete, and over 200 porcelain items including toilets, bathtubs, and sinks. The pier provides excellent opportunities for fishing, walking, and sightseeing.

The concrete piling and pile caps that support the pier were damaged by the Nisqually earthquake in 2001. The pier experienced significant motion during the event and the pilings and pile caps were cracked in several places. During the summer of 2002 the pier was repaired by removing the concrete in the damaged areas and filing in the damaged areas with epoxy/concrete patching compound.

Some of the support pilings that were more seriously damaged were fitted with steel reinforcing jackets and some sections of the railing were removed and refitted with stronger connection plates. At this time the pier is in good condition and remains a popular facility.

Figure 2-6. Fishing Pier

Guest Moorage Utilization

Historically, boaters using the guest moorage have been recreational salmon fishermen who also utilize the public launch. As fishing opportunities in the Puget Sound have decreased over recent years, the number of public launches has declined, resulting in a decrease in guest moorage utilization as well. Between 2001 and 2005 the number of boats using overnight moorage fell from a high of 9,367 boat nights in 2001 to 5,789 boat nights in 2005. This represents a decline of 38 percent. Boats 25 feet long or less are the primary customer of guest moorage, accounting for 73 percent to 81 percent of all overnight moorage between 2000 and 2004 [Des Moines Master Plan Update Demand Assessment, September 2006].

Future utilization of the guest moorage will depend heavily on successfully marketing the Marina to alternate users. With the continued decline in recreational salmon fishing, the Marina will look to target organizations/clubs, individual or family cruisers, and other similar groups to keep the guest moorage viable.

Fuel Dock

The fuel dock sells gasoline, diesel, propane, lubricants, and drinking water. In an effort to promote compliance with State Regulations regarding Clean Water Standards, the Marina also offers a free service at the fuel dock for the pumping of all vessel holding tanks. The Marina staff actively surveys marine fuel prices around Puget Sound to keep the price of fuel in the bottom 10 percent of the price range.

Figure 2-5. Fuel Dock

The original wood fuel dock float was replaced with a concrete float in 1988 when the guest moorage area was rebuilt. The fuel dock has three fueling stations that can dispense gasoline or diesel. Two of the stations can easily accommodate boats up to 65 feet in length, while the other station is usually used by smaller boats up to 26 feet long. The fuel float and office building require very little maintenance, but the fuel delivery system itself requires a significant amount or repairs and/or maintenance each year.

Guest Moorage

The City of Des Moines Marina has 1,800 lineal feet of guest moorage docks. The guest moorage area has five 30-foot slips, four 32-foot slips, seven 40-foot slips, and eight 50 foot slips. The remaining 800 feet is side-tie.

During the summer season (April 1 – September 30) guest moorage slips are rented based on a daily rate. In the last three years the Marina has shifted from a "first come-first serve" operation to a "reservations accepted" model, similar to other marinas in the Puget Sound with strong guest moorage businesses. The Marina will accept reservations for individual boats 36 feet or larger or for groups of five or more vessels. During the winter season (October 1 – March 31) guest moorage space is available for rent on a monthly basis. Summer and winter guest moorage rates are summarized in Table 2-2 below.

Table 2-2. Guest Moorage Rates - 2006

Summer Moorage		Winter Moorage	
Length of Vessel	**Price per Day**	**Length of Vessel**	**Price per Month***
0' - 20'	$13.00	0' - 20'	$135.00
21' - 25'	$15.00	21' - 25'	$175.00
26' - 30'	$18.00	26' - 30'	$225.00
31' - 35'	$21.00	31' - 35'	$290.00
36' - 40'	$24.00	36' - 40'	$380.00
41' - 45'	$27.00	41' - 45'	$420.00
46' - 50'	$30.00	46' - 49'	$485.00
51' - 55'	$33.00	50' - 54'	$522.00
56' - OVER	$40.00	55' - 62'	$620.00

** Monthly winter moorage rates have been rounded and include a 12.84% leasehold tax.*

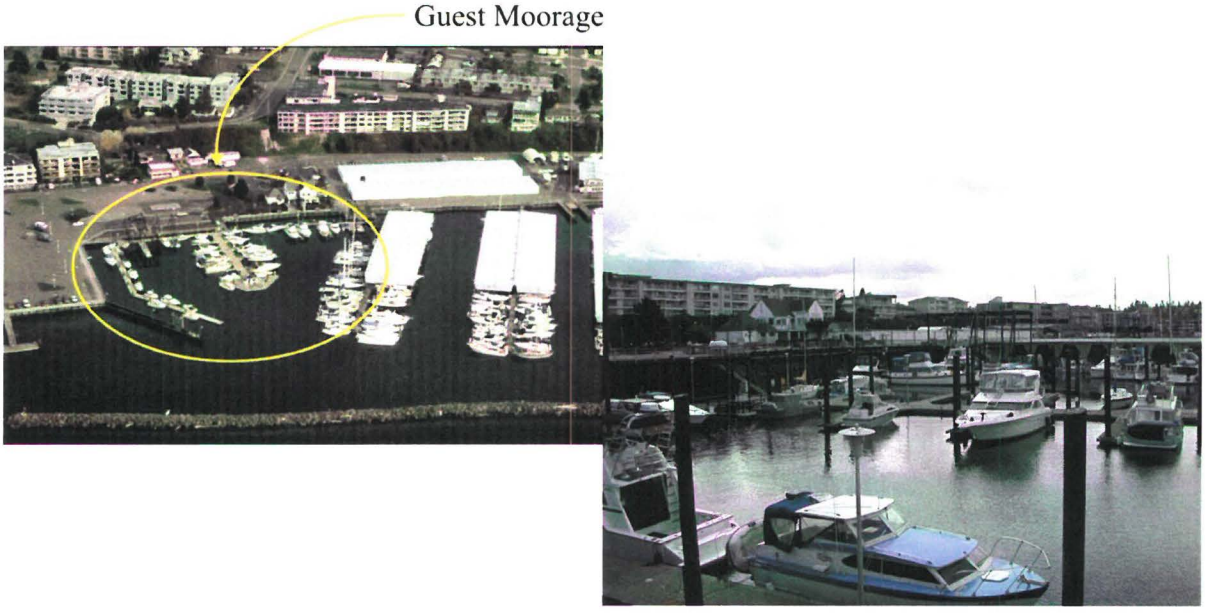

Figure 2-4. Guest Moorage

Permanent Moorage Utilization

Overall, slip utilization at the marina during the past few years has declined but is still relatively strong, with vacancies at 4 percent per year for covered slips and 2 percent for open slips. There is a general trend that indicates growth in the vacancy rate, particularly among some slip sizes. However, the trend is much less than at other marinas in the Puget Sound area.

At this time, there are approximately 300 people on the various waiting lists. In 2001, when the Master Plan was adopted, there were about 650 people on the lists. This significant decrease is mainly due to the implementation of a $20 annual waiting list fee in 2003. Waiting times for 20 – 24 foot open and covered slips range from 0 to 4 months, depending on the time of the year. The wait for 28 foot covered slips is 1 to 3 months and the wait for 28 foot open slips is consistently around 8 months. The only waiting list in the larger slips (32 – 50 foot) that is consistently under 1 year is the 40 foot open slip. Wait lists for the rest of the larger slip sizes range from 1 to several years.

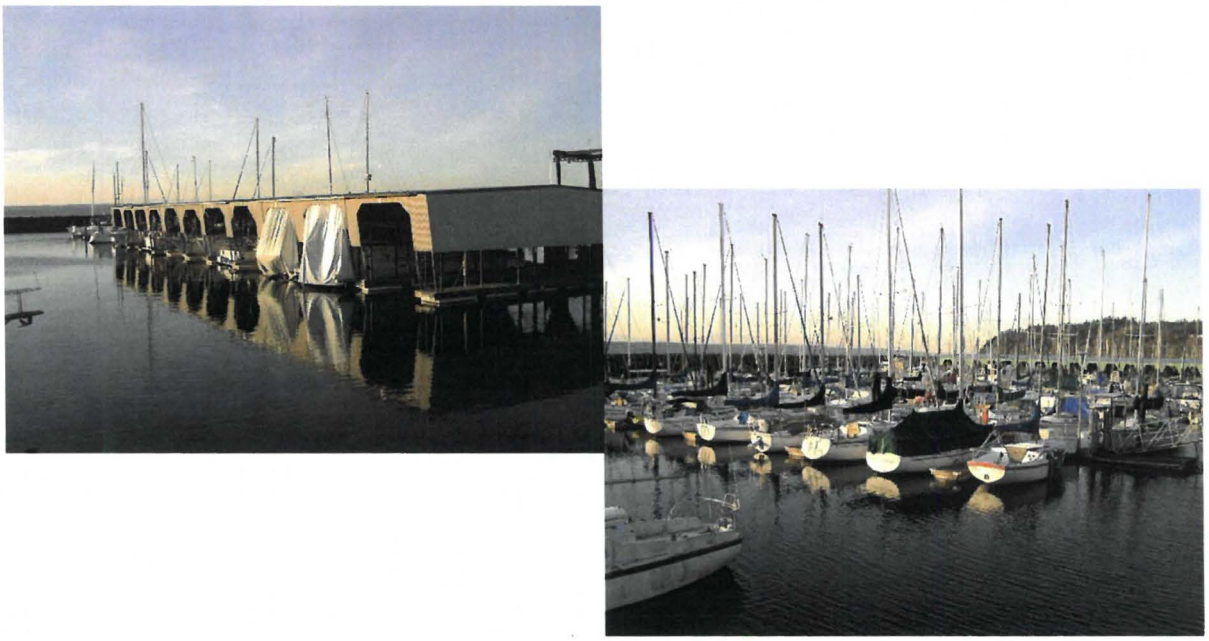

Figure 2-3. Covered and Uncovered Permanent Moorage

With the exception of some portions of the waler, the bulkhead appears to be in moderate condition [Reid Middleton, Inc. Feb 2000]. There is some evidence of loss of fill and subsiding pavement near the foot of the public fishing pier, as well as some broken tieback cables. Although the bulkhead has been stabilized and selected repairs have been undertaken, it will need to be replaced, starting as soon as possible. The condition of the remaining tiebacks and the potential deterioration of the wall's wood components are points of concern. Marina staff, with consultation from Reid Middleton Engineers, developed an on-going inspection program for the bulkhead shortly after the tie-back failure in the North Lot. The program included periodic measurements to see if the bulkhead was moving outward, and posting vehicle weight limits within 30 feet of the wall to protect the tie-back cables.

In 2004, Moffatt & Nichol, acting as the City's engineer and consultant, examined several methods for replacing the bulkhead. All the information regarding the bulkhead and the consultant's recommendation is contained in the "Guest Moorage and Bulkhead Replacement Preliminary Design Report".

Permanent Moorage

Most of the revenue generated by Marina operations comes from permanent moorage. In 2005, permanent moorage revenues were $1.974 million, or 50 percent of total revenues. The Marina has 732 permanent moorage slips, including 462 (63%) covered and 269 (37%) uncovered. Slips range in size from 20 feet to 50 feet, with 68% of the slips less than 30 feet long. Table 2-1 provides a summary of the permanent wet moorage asset.

Table 2-1. Permanent Moorage Assets

	Number of Slips			
Length (ft.)	Covered	Uncovered	Total	Percent
20	29	8	37	5.1%
24	141	47	188	25.8%
28	166	98	261	35.9%
32	52	19	71	9.8%
36	40	30	70	9.6%
40	26	39	65	8.9%
50	11	17	28	3.8%
54	0	2	2	0.3%
62	0	3	3	0.4%
Total	465	263	728	
Percent	64%	36%		

Breakwater

The existing rubble rock breakwater that provides wave protection is in good condition. However, the timber breakwater near the Marina entrance shows signs of deterioration.

Timber Pile Bulkhead

The timber-pile bulkhead surrounding the upland area has undergone several recent stabilization programs. In 1988, the bulkhead around the perimeter of the north parking lot and the north side of the guest moorage area was reinforced with concrete bags and additional rock. Between 1988 and 1994, the portion of the bulkhead extending north from the Yacht Club launching ramp to I Dock was repaired by adding another layer of pressure-treated planks to the outer face. The remainder of the bulkhead from I Dock to the guest moorage area was reinforced with concrete bags and rock in 1998.

Each piling in the bulkhead is attached to a concrete block buried under the pavement about 30 feet behind the wall. Late in 1997, the steel cables holding seven of the pilings along the north side of the guest moorage area failed, letting the wall lean out about six inches. These tiebacks were repaired in April, 1998.

The bulkhead is strengthened by the addition of a large timber waler bolted to the outside of the pilings. Generally, the waler is in good condition, although six of the thirty-foot sections of the waler located near the public fishing pier and under the sling launcher have been damaged by wood rot and will need to be replaced.

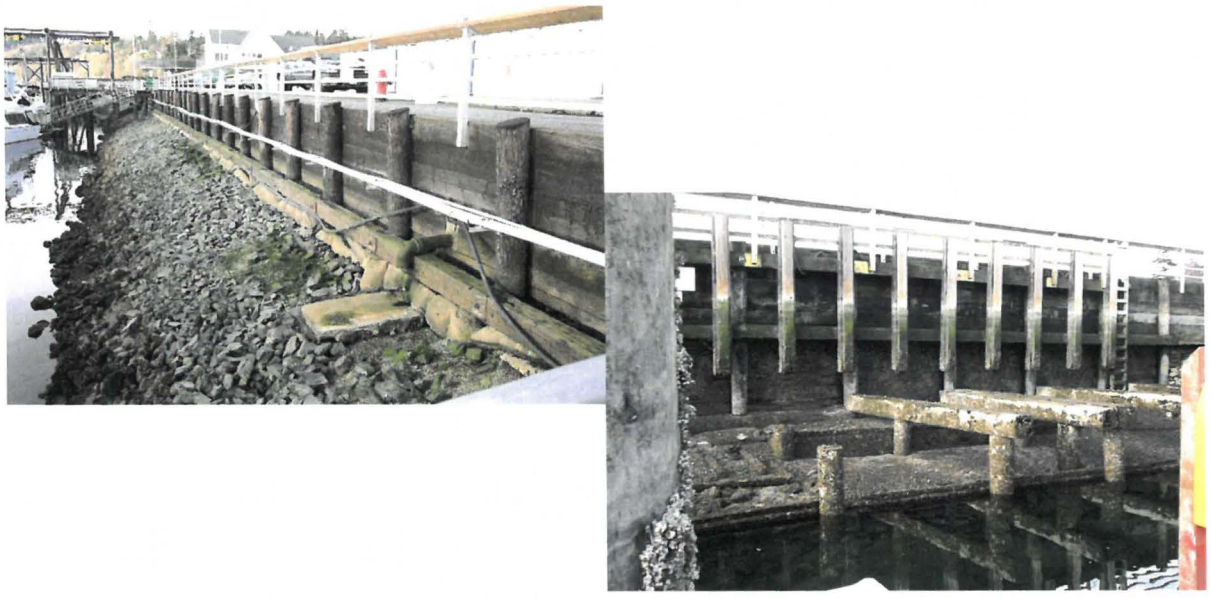

Figure 2-2. Timber Pile Bulkhead

Decking

Replacing the original untreated decking with treated boards is part of regular maintenance. Overall, the decking is in good condition.

Utilities

Following adoption of the 2001 Master Plan, Marina staff began a program of upgrading the Marina's utility infrastructure. In the first phase, A, B, and C Docks were reconditioned and all utilities were replaced, including the shore power boxes and the main distribution panels. In early 2003, the City hired Wood/ Harbinger Inc, an electrical engineering firm, to design a new medium voltage distribution system. As part of that project, the firm conducted an assessment of the Marina's entire electrical system and developed alternatives and cost estimates for replacing the system. This report, titled "City of Des Moines Marina Electrical Upgrade Study", is included in Appendix A.

The first section of the new electrical distribution system was built in 2005. This project included a new service entrance with sectionalizers located at the bottom of the 6th Ave Stairway, a new duct bank from the service entrance to another vault with sectionalizer switches located at the bottom of the bluff below Overlook Park, and another duct bank from that vault to a new transformer and distribution cabinet near the Marina Office. The project also included duct banks for power from the distribution cabinet to M and N Docks. In early 2006, N Dock was completely rewired with new step-down transformers, panels, and shore power boxes. The project also included new duct banks for phone, cable TV, the gate security system and the security camera system.

Roof Support Structure

The main problem area is where the 4 x 4 columns that support the roof connect to the floats. This connection has weakened over time due to wood shrinkage. In addition, some of the 4 x 4 columns are split and some have dry rot damage. Damaged 4 x 4 columns are replaced as needed under the regular maintenance program.

Steel Truss Joists

The roof structure's trusses are generally in good condition, with strength and serviceability still at 100 percent. Cleaning and painting trusses is an ongoing effort.

Metal Roofing

The metal roofing does not show signs of significant deterioration. In 2003, all of the fasteners on the roofs were checked and resealed.

In-Water Facilities

The City of Des Moines Marina consists of an assortment of in-water assets, including both permanent and guest moorage, a fuel dock, a fishing pier, and a breakwater. The following section provides a summary of their capacities, condition, and other operational considerations.

General Infrastructure

A general description of the infrastructure that supports in-water operations is provided below.

Pilings

In 1988, only 11 of the Marina's pilings (out of 902) were found to be beyond repair. Another 116 were classified as having "some damage." In 1995-96, a re-inspection of a sample of the pilings that had been classified as having some damage found that they had not gotten significantly worse [Facility Master Plan, July 1996].

The floating docks were designed with 33 percent more pilings than they actually need to withstand normal loading. Because the pilings in the timber breakwater were driven much closer together they are not as critical, although that structure has to withstand a much greater load than the rest of the seawall.

Past experience with treated timber pilings shows that deterioration will accelerate with time. It is probable that the percentage of unserviceable pilings will increase in the next five years.

Floatation System

- *Open Moorage.* Most of the open moorage float systems are concrete and in good condition. The open moorages on M dock (40 ft. slips) and N Dock (mostly 50 ft. slips) are the original wood floats and there are some isolated areas with deteriorating decks and pressure-treated walers. The wood open moorage floats on M and N Docks require more maintenance due to their exposure.
- *Covered Moorage.* Random measurements of foam floatation blocks show some loss of floatation. Areas of concern are where otters have removed the foam to make nests or the foam has deteriorated due to contact with chemicals in the water. There are approximately 2,250 exposed foam floatation blocks under the covered moorage docks. The staff has developed a system for replacing the original foam blocks with encapsulated blocks that will be less vulnerable to physical and chemical deterioration. As the docks are refurbished, the blocks that are no longer serviceable will be replaced.

Pressure-Treated Stringers

The walkways and finger piers of the covered moorages are constructed of heavy creosote-treated 2 x 6 and 3 x 6 lumber, covered by untreated 2 x 6 decking. Random inspections of all covered moorages and an extensive investigation of L Dock during the 1996 storm repair project show that the treated substructures of all covered moorages are still in good condition. Further inspections of K, L, M, and N docks during installation of the fire suppression stand pipes showed that the stringers are still in good condition.

2. Existing Conditions

The existing Marina is 36 years old, and many of its facilities are at or near the end of their design life. This section summarizes the condition and operational considerations of existing Marina facilities and assets.

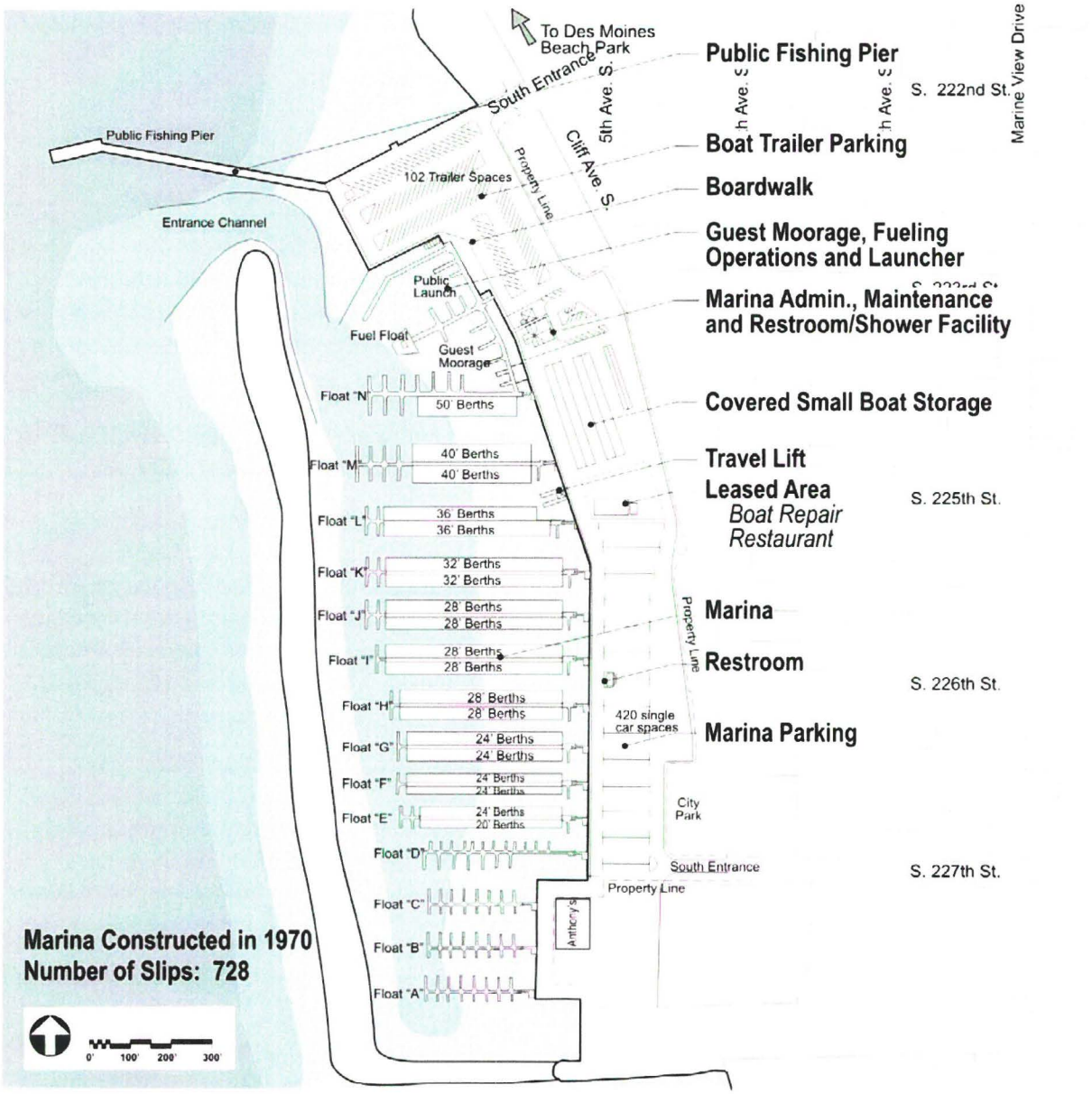

Figure 2-1. Existing Marina Conditions

Goals

From the outset, the primary goal in this planning process was to focus on the Marina's core business activities and develop a plan to keep the facilities and services in high demand with recreational boaters. In keeping with the new Marina vision as a place for the general public, a second goal was to develop long-range plans for improving facilities used by non-boating visitors. Four tasks were identified to accomplish these goals.

- Develop a strategic investment plan for the Marina.
- Determine when and how each of the Marina's major assets will be managed, replaced, upgraded, or demolished.
- Develop a plan for the Marina uplands that slows vehicle traffic, provides adequate parking, creates safe and inviting pedestrian areas, and identifies facilities and amenities that serve the general public.
- Identify the highest and best use for Marina uplands so that the facility will be well positioned as community conditions evolve and new opportunities emerge.

Planning and Analysis Process

This update draws heavily on the work completed under the original 2001 Master Plan, including public outreach efforts, regular meetings with the City Council's Municipal Facilities Committee, interviews with Marina staff, and a variety of special studies. All background reports and information are available at the Marina office.

Several new studies have also been completed since 2001 and have been incorporated with this update. New studies and reports include the following.

- *Des Moines Marina Guest Moorage & Bulkhead Replacement Preliminary Design Report Draft.* The Design Report provides a detailed plan for the in-water expansion of guest moorage facilities and replacement of the timber bulkhead. The draft report was completed in June 2004 by Moffatt & Nichol.
- *Des Moines Marina: Commercial Development Feasibility Study.* The Feasibility Study evaluates the potential for commercial development on the Marina floor. The study was completed in August 2004 by Ravenhurst Development, Inc.
- *Des Moines Marina Master Plan Update Demand Assessment.* The Demand Assessment includes an analysis of market conditions and trends, as well as demand forecasts for in-water and upland facilities. The study was completed in September 2006 by BST Associates.
- *Public and Dry Storage Launch Evaluation.* The report evaluated the condition of two Marina boat launches. It was completed in August 2006 by Moffatt & Nichol.
- *City of Des Moines Electrical Upgrade Study.* This report evaluated the condition of the Marina's electrical distribution system. It was completed in June of 2003 by Wood/Harbinger Inc.

1. Introduction

Background

Late in 1996, the Des Moines City Council adopted the *Marina Facility Master Plan*. The purpose of this plan was to determine what major repairs and capital replacements would be needed to keep the facility operating in its current configuration. Although the plan identified some long-term needs, its intent was to focus on what would be needed between 1996 and 2008, when the original bonds would be retired. At the same time, the Council also adopted a new rate plan that included a capital component to help fund the improvements. The major projects completed under that plan included replacement of the underground fuel tanks and delivery system, the repair of several hundred feet of the seawall, and the purchase of the quartermaster property.

In 1998, the Council directed the Marina staff to begin looking at longer-term capital needs. Since the recreational boating industry had changed significantly since the Marina began operation in 1970, the staff was directed to analyze the services and facilities offered to see if they matched both current and future boater needs. The result of the analysis was the *2001 Comprehensive Marina Master Plan*, which included elements of a long-term business plan for the Marina as well as a plan for replacing major capital assets. A significant element of the Plan included expanding the in-water guest moorage facilities at the Marina's north end and reconfiguration of the permanent moorage to accommodate larger boats.

In June 2004 a *Draft Preliminary Design Report* was prepared for the expanded guest moorage. Later that summer a *Commercial Development Feasibility Study* completed for the City of Des Moines illustrated the potential for commercial development immediately adjacent to the proposed guest moorage expansion. Based on the study's findings that some commercial development would be viable, it was decided to hold on the guest moorage expansion until upland development alternatives had been more fully evaluated.

This document represents an update to the *2001 Comprehensive Marina Master Plan*. It includes a preferred commercial development option based on changing conditions within the boating community and newly emerging opportunities to improve upland facilities and increase revenue streams, as well as further refinement of the permanent moorage reconfiguration options.

Marina Vision: When the Marina began operations in 1970 it primarily served the local boating public. However, as the community of Des Moines developed around the Marina, it has become a significant public asset for the downtown area and a place where the entire community can enjoy the unique qualities and character of Des Moines.

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5. Design Guidelines

The Marina will have a nautical theme and design guidelines. Specific guidelines will be developed by June 2008.

Figure 5-1. Marina Office Building

Landscaping

The predominant visual images within the Marina are large expanses of asphalt and dissimilar building types and styles. Upland areas not protected by the jetty from wave action are subjected to saltwater spray and a limited number of plant species can thrive in the environment.

Master Plan Recommendations

Appropriate landscaping can improve the visual appearance of the Marina, identify and delineate pedestrian areas, enhance views, and minimize the visual impact of the automobile. The Master Plan calls for additional landscaped islands within the parking areas, along the pedestrian paths, and along the east property line. All landscaping recommendations reflect the intent to beautify the Marina without blocking views.

A list of recommended plants appropriate for use within the Marina is included in Appendix C. The Marina Plant List lists specific recommendations for landscape materials at the Marina. This plan's major planting concepts include:

- Vehicular Streets.
  - *Street Trees.* Landscape street edges and median areas with deciduous trees with a round, branching pattern to promote visual appeal and allow views under the tree canopy.
  - *Ground Cover Plantings.* Use low-maintenance ground covers at street edges and medians. (Lawns are not recommended.)
- *Parking Areas.* Trees and ground cover plantings similar to those used for the vehicular streets are recommended. Care should be taken to select small to medium-sized trees for use throughout the Marina to avoid unnecessary view blockage.
- *Pedestrian Pathway at the Water's Edge.* Landscaping in these areas should be primarily shrubs, groundcovers, and flowers. Planting areas may include planting beds at grade and those in pots, planters, and hanging baskets.

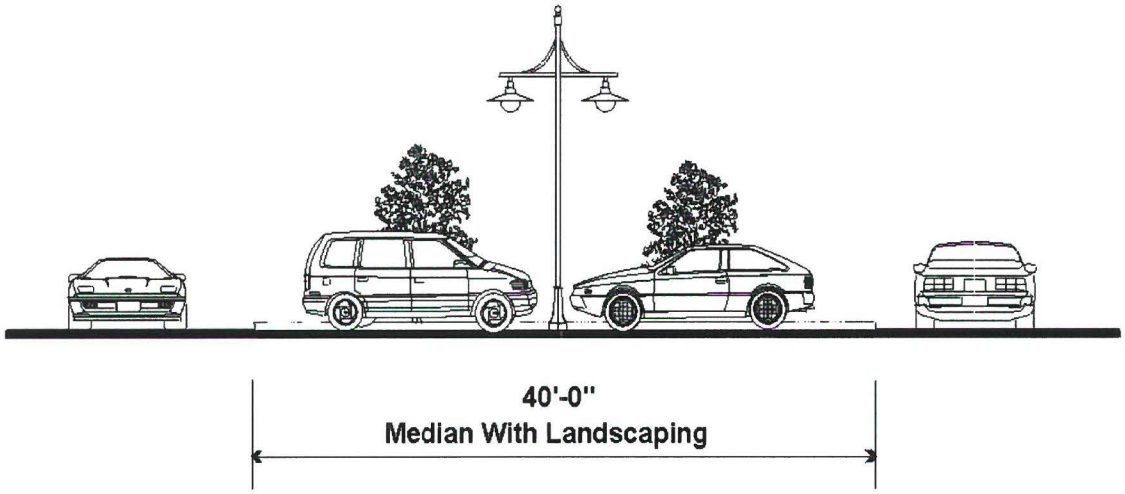


Figure 5-2. Typical Landscape Island Within Parking Area

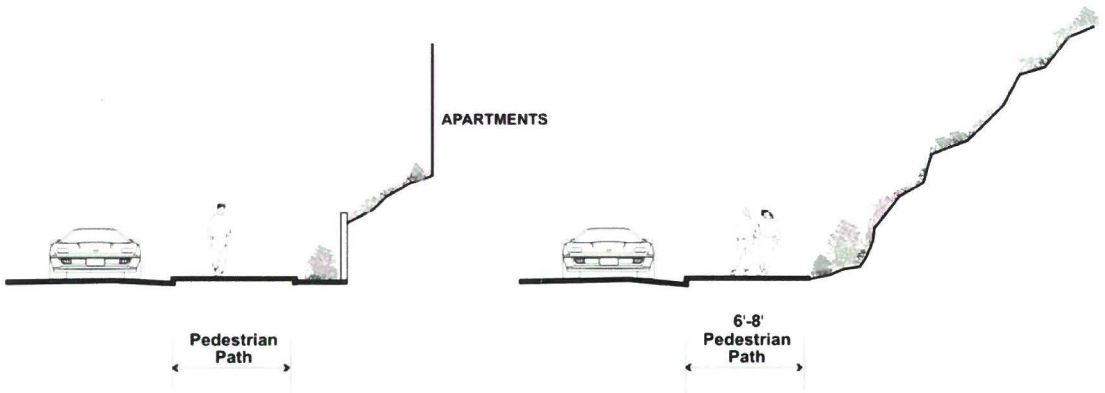


Figure 5-3. Typical Landscaping Along East Property Line

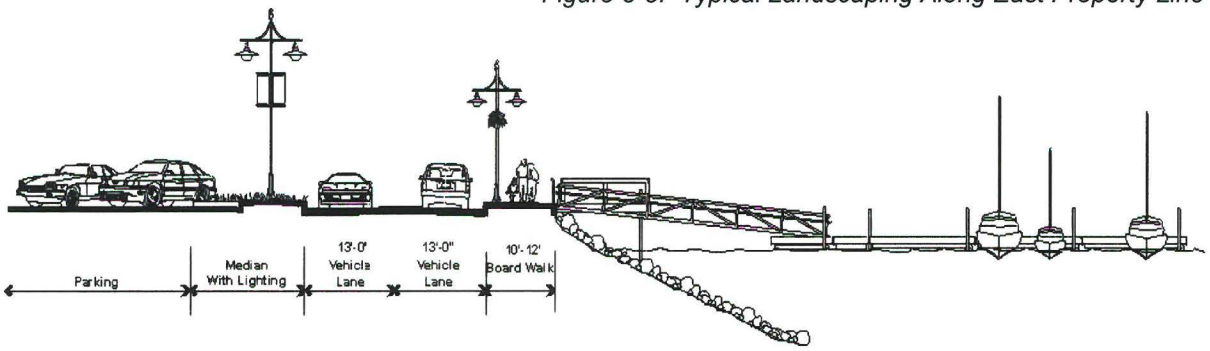


Figure 5-4. Typical Landscaping Along Seawall Promenade

Figure 6-1. Marina Office Building

6. Schedule and Financing

The primary goal of this planning process is to focus on the core business activities of the Marina and develop strategies that will maintain Marina facilities and keep services in high demand. This Master Plan contains business strategies that require both capital and service improvements.

Financial Summary

Gross Revenue

Marina revenue is generated by a variety of activities, including the leasing of moorage space, fuel sales, dry shed rentals, launch activities, and upland commercial leases. Total gross revenue between 2003 and 2005 is summarized below.

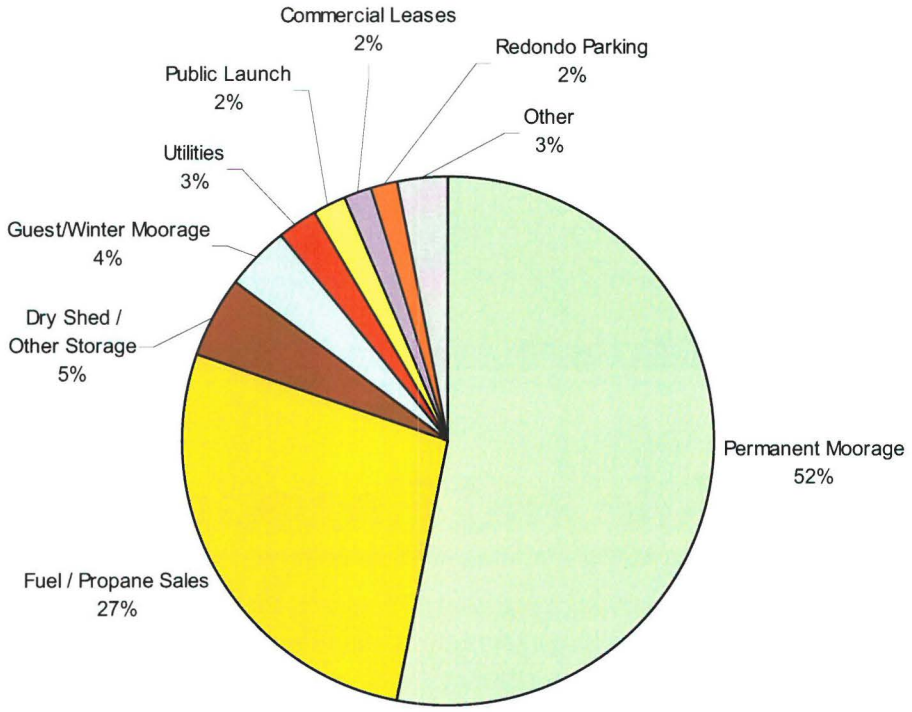


Figure 6-2. 2005 Marina Revenue Summary

Table 6-1. Marina Revenue, 2003 - 2005

	2003	2004	2005	Total
Permanent Moorage	$1,727,815	$1,768,297	$1,819,656	$5,315,768
Fuel / Propane Sales	$557,382	$715,004	$924,662	$2,197,048
Dry Shed / Other Storage	$153,663	$170,725	$168,619	$492,977
Guest / Winter Moorage	$151,203	$139,243	$135,373	$425,819
Utilities	$84,564	$84,406	$86,178	$255,148
Public Launch	$100,557	$83,435	$71,000	$254,992
Commercial Leases	$63,113	$52,826	$54,472	$170,411
Redondo Parking	$20,332	$29,461	$51,985	$101,778
Other	$80,532	$73,473	$108,829	$262,834
Total	**$2,939,131**	**$3,116,870**	**$3,420,774**	

Sources: Des Moines Master Plan Update Demand Assessment, September 2006 and/or BST Associates

Expenses

Marina expenses for the three year period between 2003 and 2005 are summarized below.

Table 6-2. Marina Expenses, 2003 - 2005

	2003	2004	2005	Total
Cost of Goods Sold [1]	$565,703	$709,445	$916,960	$2,192,107
Expenses [2]	$958,039	$1,046,602	$1,108,122	$3,112,764
Interfund Transfer [3]	$687,375	$490,000	$550,000	$1,727,375
Total	**$2,211,118**	**$2,246,047**	**$2,575,082**	

[1] *Cost of goods sold includes all items purchased and resold by the Marina; fuel is the primary contributor*

[2] *Expenses include all labor and expenses in the Marina Department*

[3] *The interfund transfer represents funding transferred from the Marina to the City in exchange for basic service, such as police, finance, etc.*

Sources: Des Moines Master Plan Update Demand Assessment, September 2006 and/or BST Associates

Net Profit

Net profit is a function of gross revenue and total expenses, as identified above. The net profit for the three year period between 2003 and 2005 summarized below.

Table 6-3. Net Profit, 2003 - 2005

	2003	2004	2005
Gross Revenue	$2,939,131	$3,116,870	$3,420,774
Expenses	$2,211,118	$2,246,047	$2,575,082
Net Profit	**$728,013**	**$870,823**	**$845,692**

Figure 6-3. Bulkhead Replacement Phasing

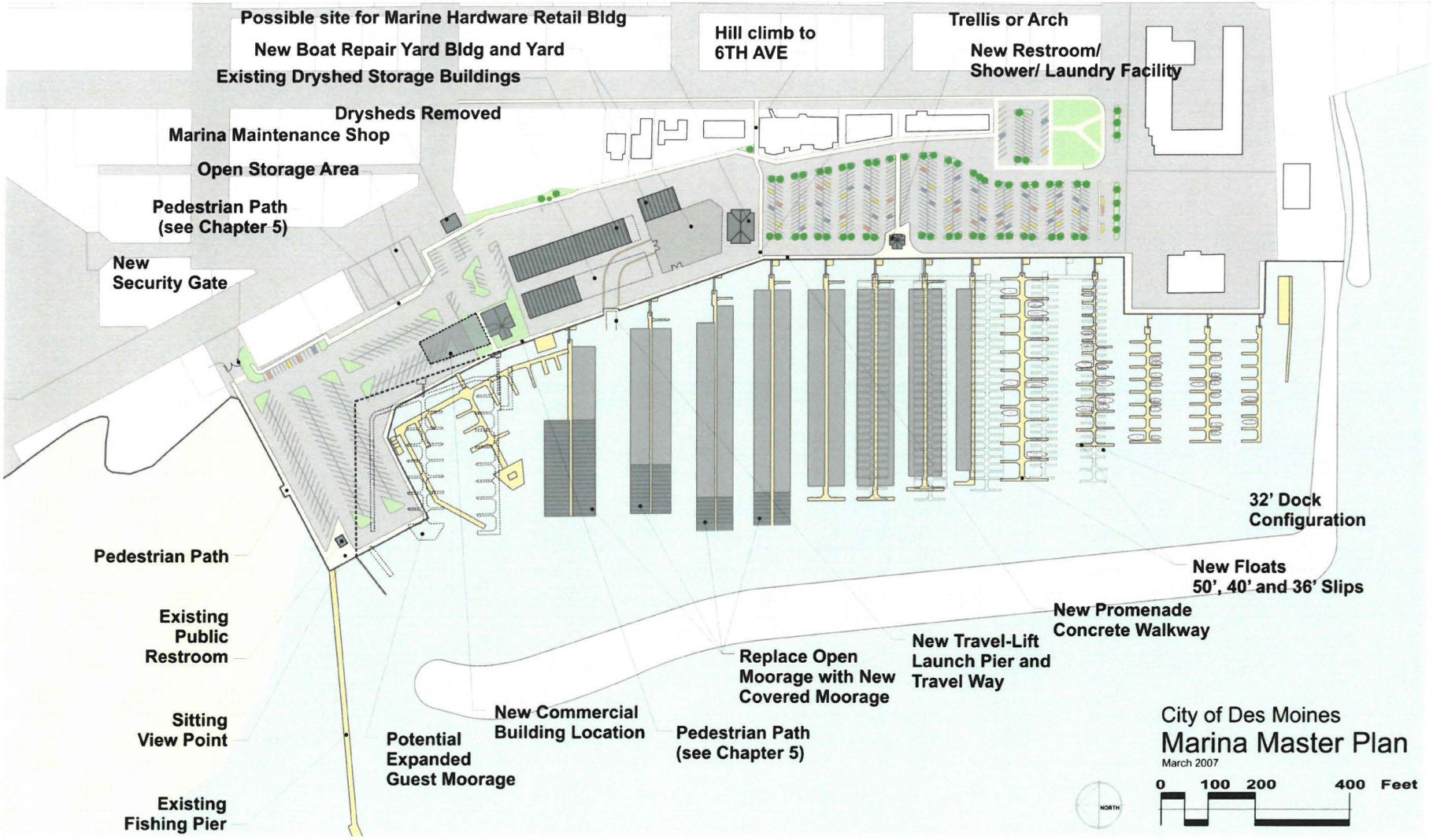


Figure 4-8. Des Moines Marina Master Plan Recommendations

DES MOINES MARINA UPDATED MASTER PLAN PROJECT LIST AND OPINON OF CONSTRUCTION COSTS

Phase	Element	TOTAL (2006$)	Total Cost per Phase (2006$)
I	**Relocate Water Main** Move 8" water main from the parking lot and the area in front of the Marina Office to Dock Ave.	$ 216,000	
	Relocate 12.5kV Power Lines Install new duct bank from switch near office to Cliff Ave. and transformer in north lot. Abandon 12.5 kV lines in area of office and new bldg site	$ 330,729	
	Dredging Project Survey, Design and Permit process (includes sampling and testing)	$ 180,000	
	Demo Public Launch/ Parking Lot Restripe Demo public sling launch. Restripe Parking Lot from car/trailer spaces to cars.	$ 304,848	
	Replace Bulkhead I Replace about 320 linear feet of wall, in area of future 6,000 SF commercial bldg and Guest Moorage basin. Work includes providing new gangway access to existing guest moorage docks at north side of guest moorage docks (near existing gangway location).	$ 1,847,165	
	Sidewalk and Railing I Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.	$ 201,600	
	Reconfigure Parking Lot Reconfigure parking lot and road areas near Harbormaster Office and new commercial bldg site. Install new O/W separator in storm drain system.	$ 216,000	
			$ 3,296,342
II	**Provide New Harbor Maintenance Bldg** Provide New Harbor Maintenance Bldg in Quartermaster Parcel, within existing 223rd Street ROW	$ 281,232	
	Remodel Marina Office/Relocate Maintenance Div to New Bldg Remodel marina office, including restrooms; relocate maintenance div to new bldg	$ 423,360	
	6000 SF Commercial Bldg Provide bldg, foundation and site improvements	$ -	
	Deck for 6000 SF Commercial Bldg/Promenade over Water Provide outdoor deck area (approx 50' x 30') using existing bulkhead alignment fronting building	$ 32,400	
	Dredging Project Dredge basin; quantity based on survey conducted in Phase I	$ 750,000	
			$ 1,486,992
III	**Replace Bulkhead II**	$ 3,732,984.00	
	Replace bulkhead from new travel lift pier to K Dock		
	Sidewalk and Railing II	$ 332,424	

Phase	Element	TOTAL (2006$)	Total Cost per Phase (2006$)
	Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.		
	Travel Lift Pier for Boatyard	$ 871,200	
	Construct new travel lift launch pier to replace existing. Accommodate boats up to 55 feet. Locate new pier between Docks M and N.		
	New Tenant Restroom Replace existing tenant restroom with additional space for a public restroom and small laundry facility.	$ 468,000	
			$ 5,404,608
IV	**J Dock Transformer**	$ 387,606	
	Extend duct bank from service entrance at the foot of the 6th Ave stairway to area near foot of J Dock. Install transformer. Extend duct bank north along bulkhead to K & L docks and new commercial bldg		
	Reconfigure Boat Yard / Build New 50' x 80' Bldg	$ 728,106	
	Construct new 50' x 80' bldg along east side of yard; provide temporary boatyard to the south of existing so that business could continue while demolition of existing shop bldg and paint shed occurs; pave boatyard area for permanent occupancy; remove temporary facilities.		
	4000 SF Commercial Bldg Prepare site for 4000 square foot commercial building, including landscaping and utility extensions.	$ 69,500	
	L Dock - Utiliites & floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required	$ 288,000	
	K Dock - Utilities & floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required	$ 288,000	
			$ 1,761,212
V	**Replace Bulkhead III** Replace about 420 linear feet of wall, along north end of marina	$ 1,973,664	
	Sidewalk and Railing III Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.	$ 332,424	
	J Dock - Utilities & Floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required (decide about Guest Moorage or not. The following are based on no expansion of the Guest Moorage; wall alignment to follow existing.	$ 288,000	
			$ 2,594,088
VI	**Replace Bulkhead IV / Replace Inner Breakwater** Replace about 560 linear feet of wall, in front of Guest Moorage Side Tie Dock and the Touch-N-Go dock; replace about 150 linear feet for Inner Breakwater structure	$ 3,082,608	
	Sidewalk & Railing IV	$ 364,792	

Phase	Element	TOTAL (2006$)	Total Cost per Phase (2006$)
	Cast-in-place sidewalk behind new bulkhead. Salvage & resuse existing railing.		
	I Dock - Utilities & Floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required	$ 288,000	
			$ 3,735,400
VII	**Replace Bulkhead V** Replace about 400 linear feet of wall, along Docks H thru K	$ 1,971,648	
	Sidewalk and Railing V Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.	$ 279,936	
	H Dock - Utilities & Floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required	$ 288,000	
			$ 2,539,584
VIII	**Replace Bulkhead VI** Replace about 370 linear feet of wall, fronting docks D thru G	$ 1,888,272	
	Sidewalk and Railing VI Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.	$ 258,941	
	G Dock - Utilities & Floatation Replace/upgrade utilities on dock including electric shore power and water. Replace floatation blocks where needed. Install new fire stand pipe system and new decking where required	$ 288,000	
			$ 2,435,213
IX	**Reconfigure Docks D thru I** Remove Docks E and F, partial demo of D and G. Construct new, larger slips.	$ 2,097,706	
	Replace Bulkhead VII Replace about 510 linear feet of wall, fronting docks A thru C	$ 1,976,472	
	Sidewalk and Railing VII Cast-in-place sidewalk behind new bulkhead. Salvage and re-use existing railing.	$ 356,918	
	Reconfigure South Parking lot Move roadway to east side of Marina, (including curb, gutter and 5 foot wide sidewalk), and reconfigure parking lot to create more parking. Includes asphalt overlays.	$ 432,000	$ 4,863,096
X	**Upland Boat Storage** Demolish Dry Shed Buildings; pave area for an upland boat storage area.	$ 451,872	$ 451,872
XI	**Convert Open to Covered Docks K thru N**	$ 2,199,600	

If the decision to construct an expanded guest moorage occurs between Phases IV and V:

Phase	Element	TOTAL (2006$)	Total Cost per Phase (2006$)
	Guest Moorage Improvements	$ 5,060,160	$ 7,259,760
	Work would include demolition of a portion of the bulkhead in Stage I, excavation of the larger basin, construction of bulkhead wall along new alignment for the basin, installation of floating docks, misc utility work.		
			$ 32,747,824

FINANCING PLAN

The financing plan for the updated Comprehensive Marina Master Plan proposed improvements will require approximately $18 million in funding sources for the first three phases. Phase four will require approximately $3.8 million. Table 6-X below provides the funding sources needed to complete the Marina improvements through phase four.

Table 6-X. Marina Master Plan Financing Plan

Item	PHASES 1 - 3				PHASE 4	Phases 1-4
	2007	2008	2011	Total	2015	Total
Bond Issuance:	$ 5,795,000	$ -	$ 6,200,000	$ 11,995,000	$ 2,510,000	$ 14,505,000
Costs of Issuance	93,482	-	102,491	195,973	47,129	243,102
Debt Reserve (Use Cash for Bal of 2007 Rsvr)	100,000	-	504,840	604,840	206,200	811,040
Net Bond Proceeds	$ 5,601,518	$ -	$ 5,592,669	$ 11,194,187	$ 2,256,671	$ 13,450,858
For Years:	**2007**	**2008-2010**	**2011-2014**	**Total**	**2015-2016**	**Total**
Project Costs	$ 2,131,232	$ 7,707,012	$ 8,229,115	$ 18,067,359	$ 3,842,637	$ 21,909,996
Funding Sources:						
Balance of 2002 Bond Proceeds	$ 1,499,050	$ -	$ -	$ 1,499,050	$ -	$ 1,499,050
Use of 2007-2011 Bond Proceeds	-	-	3,324	3,324	2,878	6,203
Marina Capital Contributions from Operations		1,530,000	1,570,000	3,100,000	810,000	3,910,000
City Contributions for Public Amenities	-	555,000	370,000	925,000	690,000	1,615,000
Interest Earnings	173,000	483,000	696,000	1,352,000	88,000	1,440,000
Bond Proceeds	459,182	5,139,012	5,589,791	11,187,985	2,251,759	13,439,744
Total Funding Sources	$ 2,131,232	$ 7,707,012	$ 8,229,115	$ 18,067,359	$ 3,842,637	$ 21,909,996

Funding sources include approximately $12 million in debt financing for phases one through three, and $$2.5 million for phase four. Other funding sources through phase four include capital contributions from the Marina of $3.9 million, City contributions of $1.6 million, interest earnings on unspent bond proceeds of $1.4 million, and $1.5 million in unspent bond proceeds from the 2002 bond issuance.

The financing plan assumes revenues from operations to grow at a 3.5% rate after 2009, operating expenses to increase at a 3% rate, and the General Fund transfer to increase at a 2% rate. These assumptions provide the resources needed to increase cash from operations to allow the Marina to pay the annual debt service on the bonds, to maintain cash balances for debt reserve requirements, and to provide capital contributions. Table 6-X identifies the increased capacity generated by revenues increasing at a higher rate than operating expenses.

Table 6-X shows the cash from operations before debt service compared to annual debt service expenses. In 2014, the cash from operations is sufficient to cover the debt service, but does not allow for any excess cash available. Additional resources could be made available from restricted cash reserved for operations if the revenue and expense assumptions result in lower than expected cash.

Table 6-X provides the cash projections resulting from the financing plan. The cash projections show that the Marina's operating results are sufficient in generating cash to afford the improvements detailed in the updated Comprehensive Marina Master Plan.

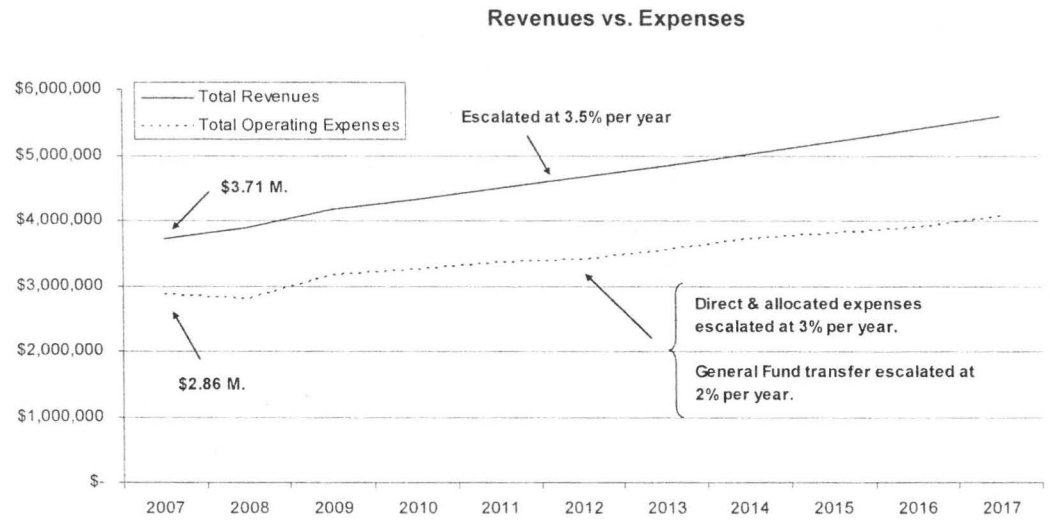


Table 6-X

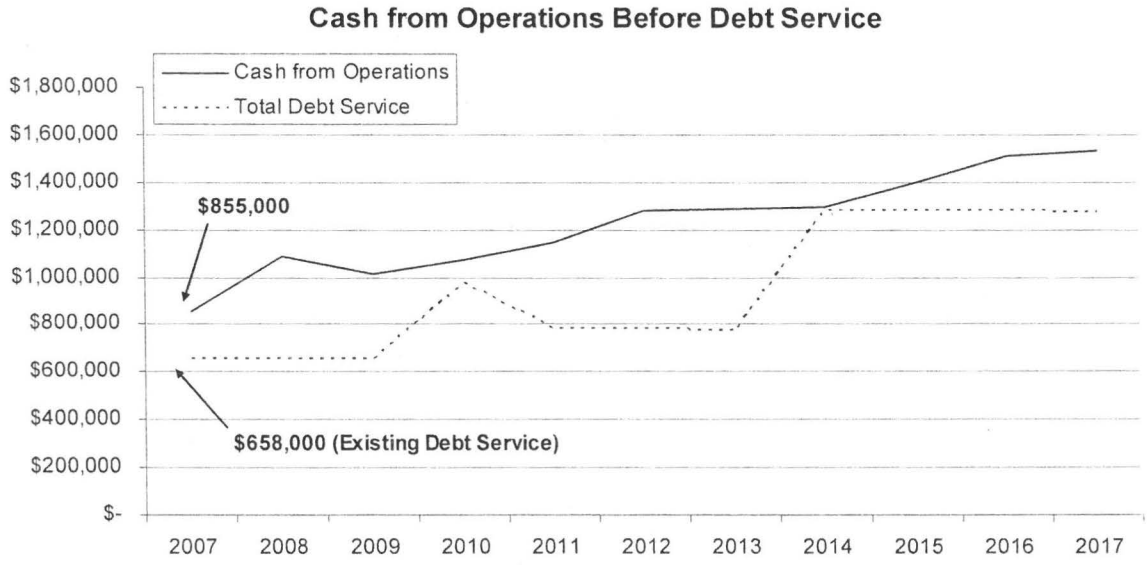
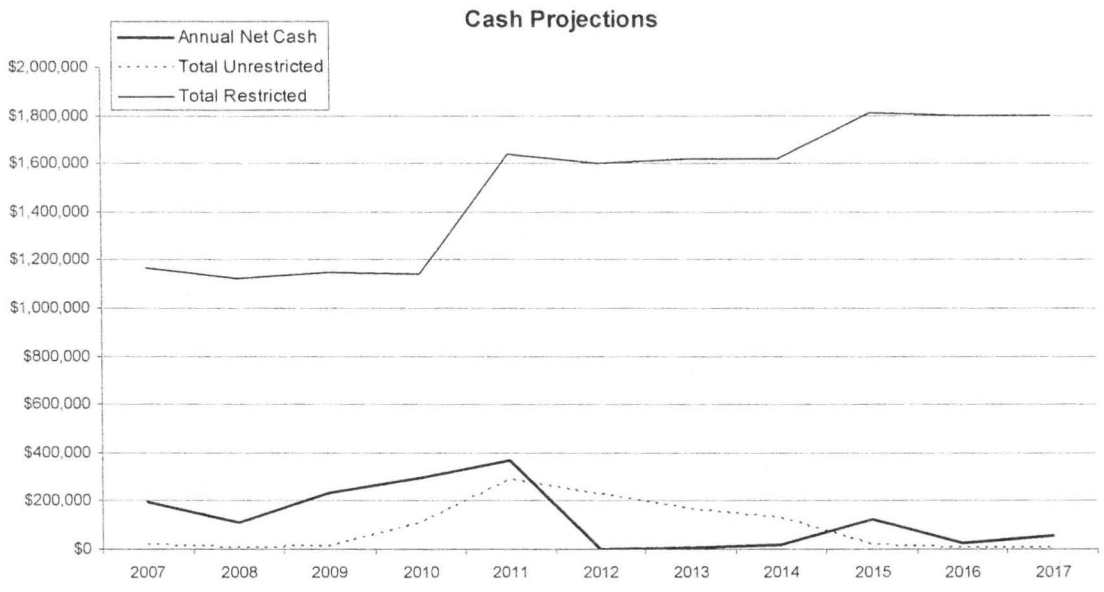


Table 6-X


Cash Projections
Annual Net Cash
Total Unrestricted
Total Restricted
$2,000,000
$1,800,000
$1,600,000
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017

Marina

Appendices

a. City of Des Moines Marina Electrical Upgrade Study

b. Des Moines Marina Master Plan Update Demand Assessment

c. Marina Plant List

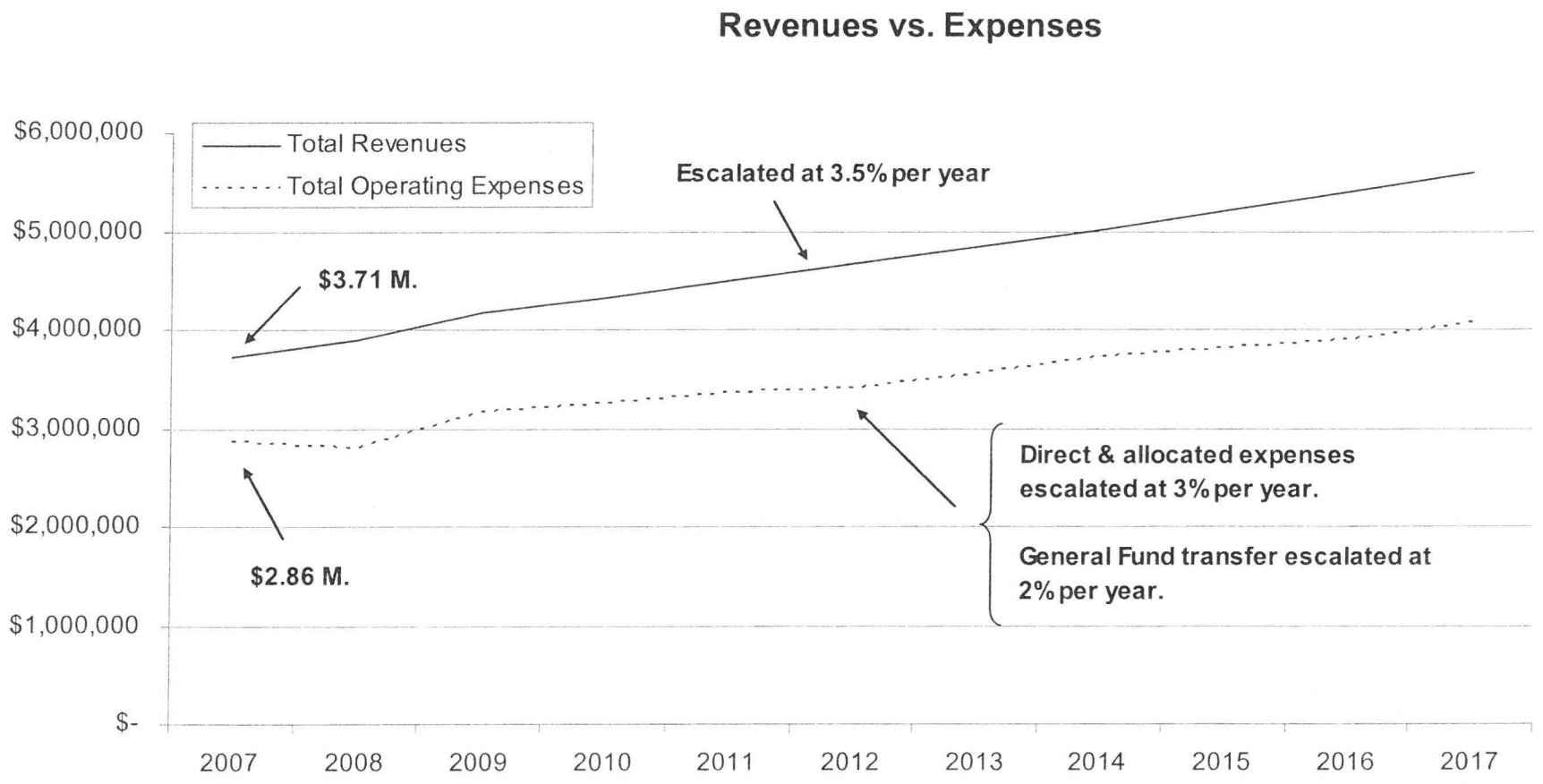
City of Des Moines

Marina Master Plan Update
Financing Assumptions

Marina Master Plan Update
Financing Assumptions

- Annual increases in moorage revenue of 3.5% after 2009
- Increases in other revenue sources based on historical patterns
- Annual increases in expenditures of 3% except for GF transfer at 2%

Marina Master Plan Update
Financing Assumptions



Marina Master Plan Update
Financing Assumptions

- Need approximately $21.9 million in resources to fund projects in PH 1-4
- Approx $12 million in GO bond issuance for 1st three phases/4th phase $2.5 million
- Unspent bond proceeds from 2002 issue - $1.5 million
- Marina capital contributions - $3.9 million
- Other capital contributions or grants - $1.6 million
- Interest earnings - $1.4 million

Table

Marina Master Plan Update
Financing Assumptions

Item	PHASES 1 - 3				PHASE 4	Phases 1-4
	2007	2008	2011	Total	2015	Total
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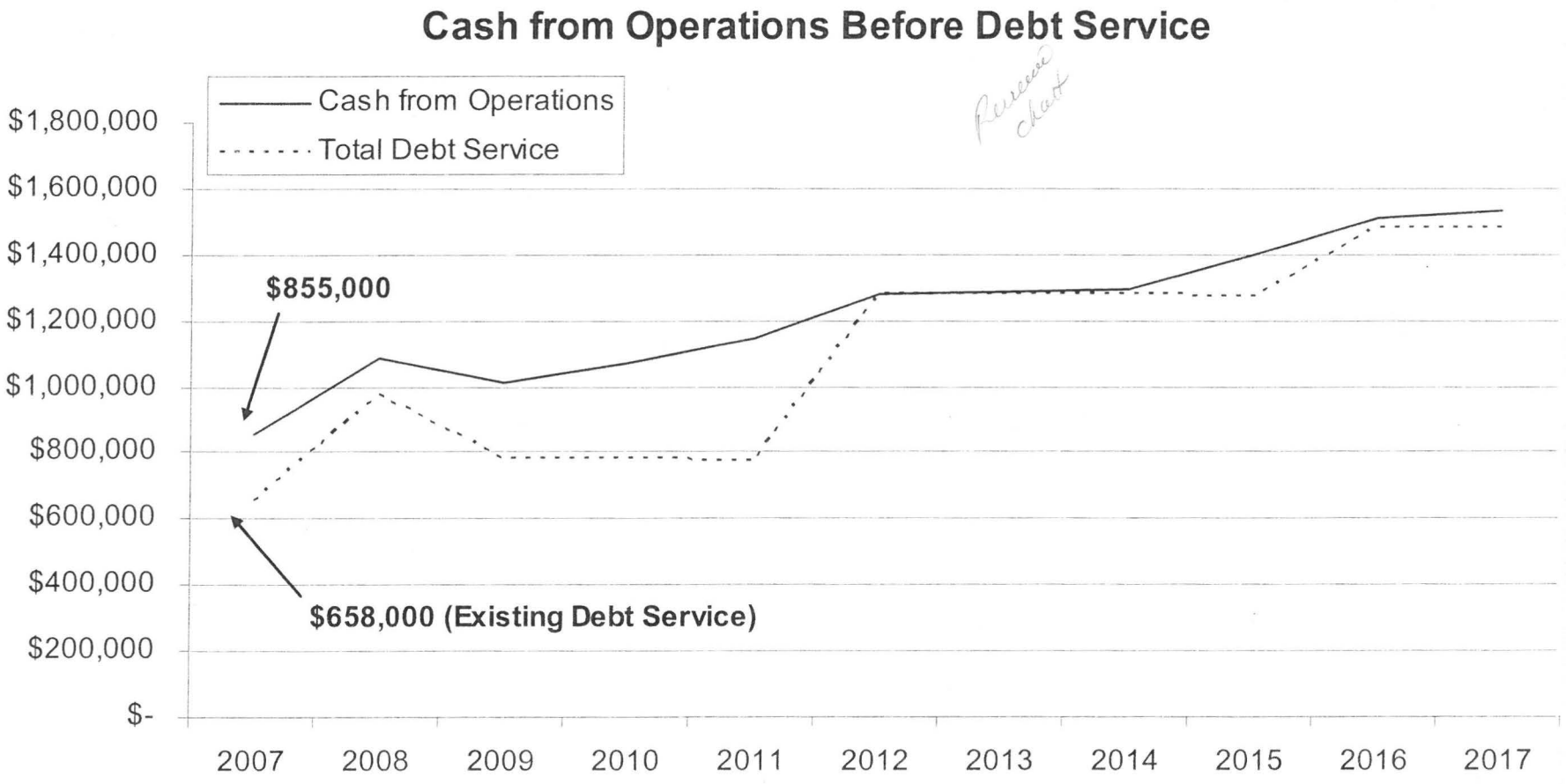
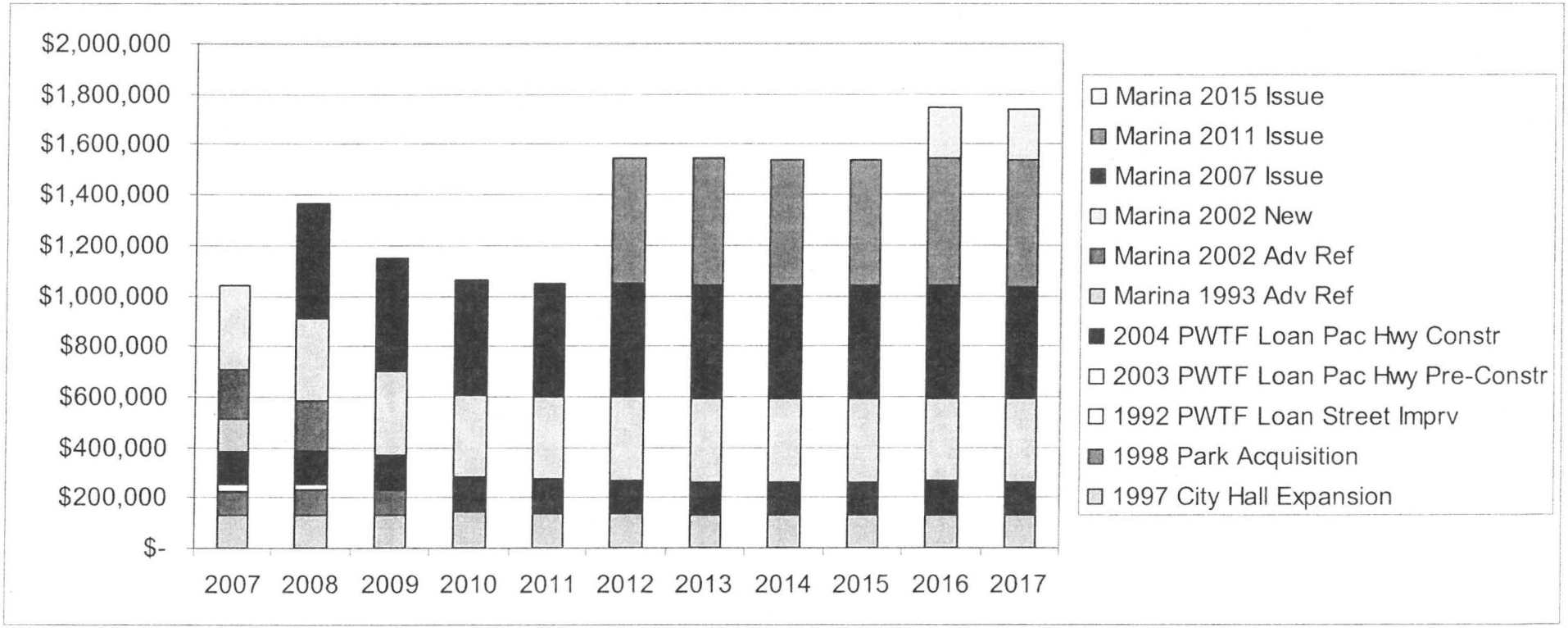
Total Funding Sources	$ 2,131,232	$ 7,707,012	$ 8,229,115	$ 18,067,359	$ 3,842,637	$ 21,909,996

Marina Master Plan Update
Financing Assumptions

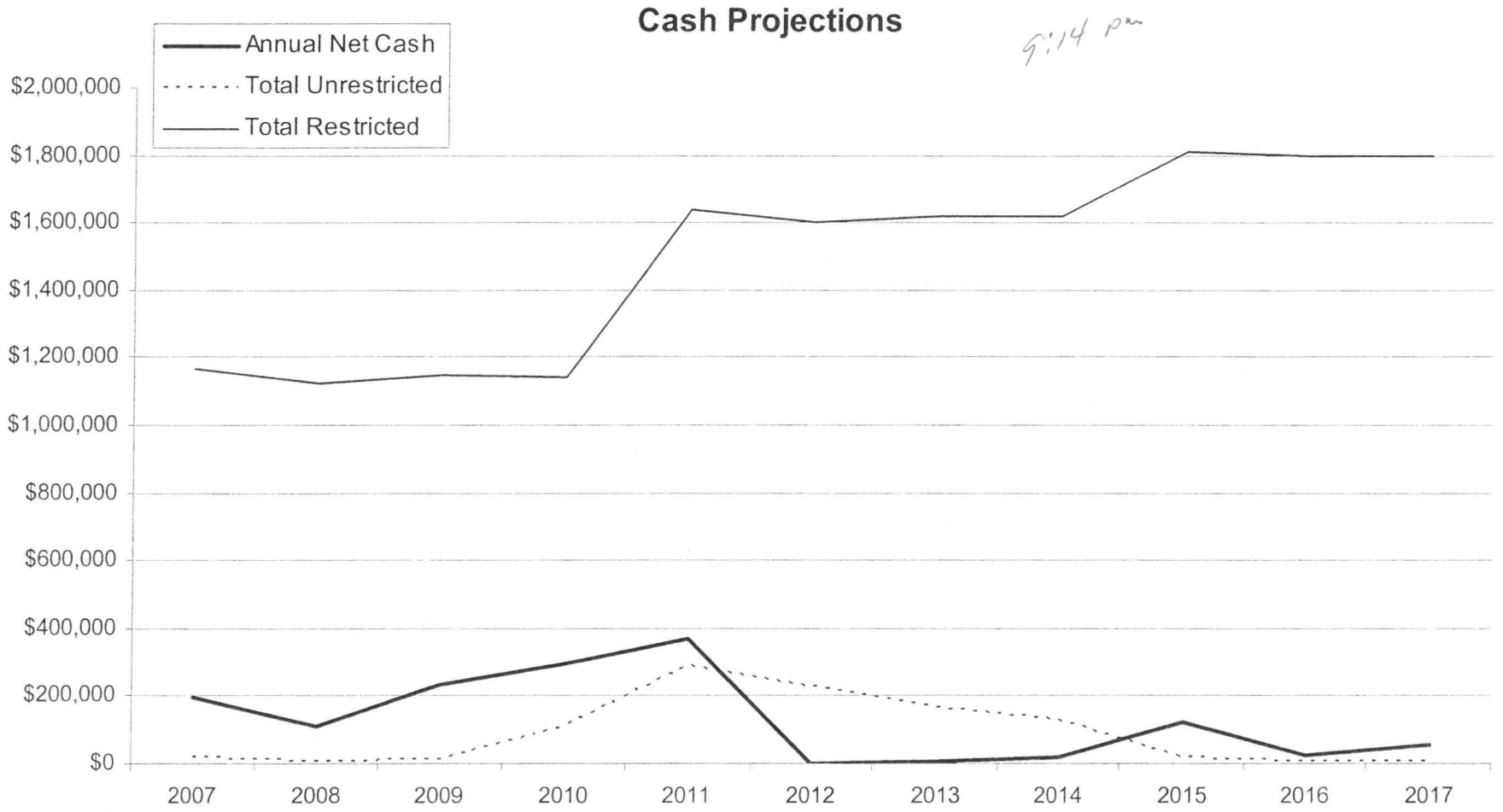


Marina Master Plan Update
Financing Assumptions

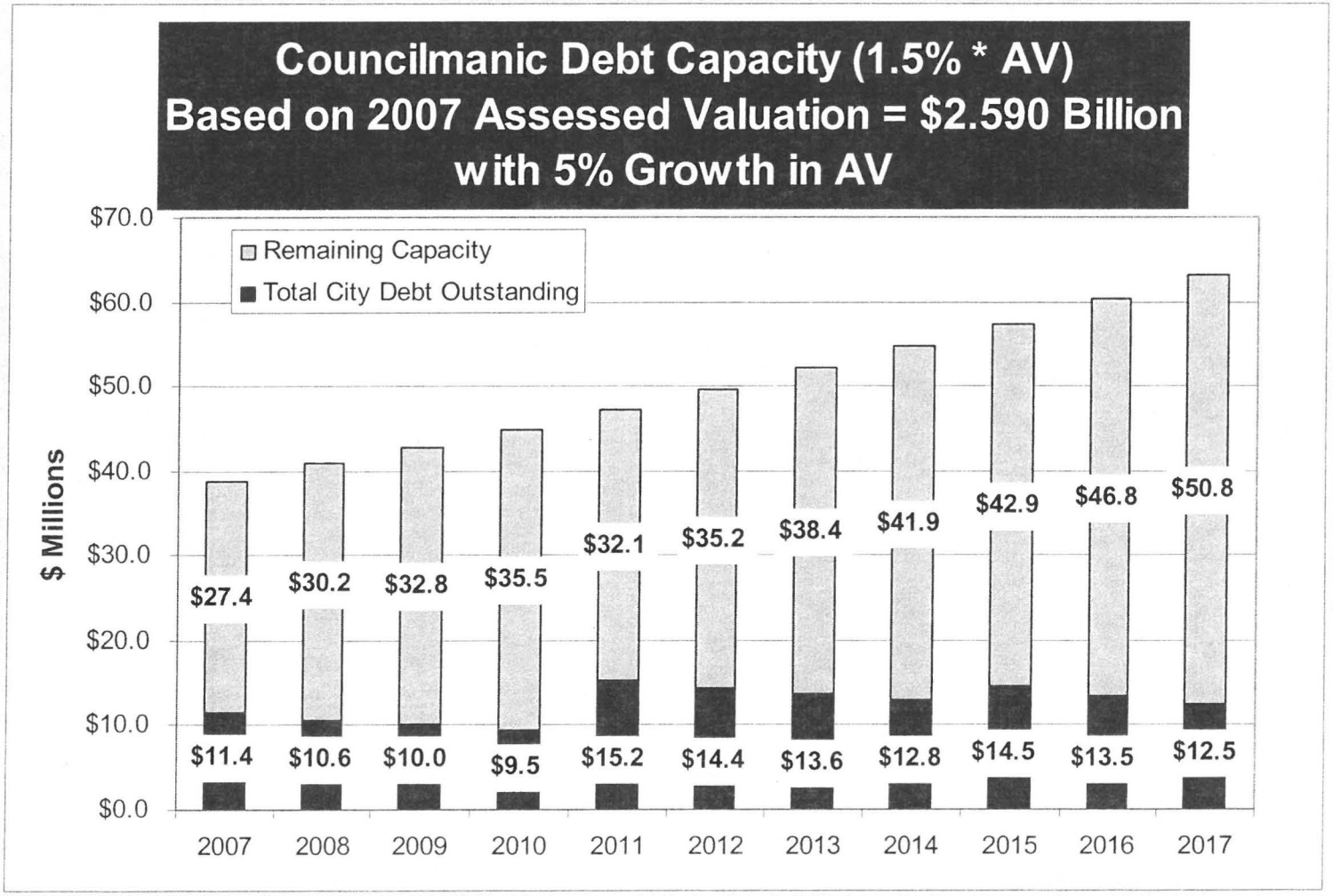
- Citywide annual debt service grows to $1,748,000 in 2016



Marina Master Plan Update
Financing Assumptions



Marina Master Plan Update
Financing Assumptions



COUNCIL PRESENTATION

Thursday, May 10, 2007

INTRO.

Good evening Mayor Sheckler and Council Members. The last time we discussed the Marina Master Plan with the full Council was at the regular meeting on February 15. The major concern raised in that discussion was about the funding strategy for the proposed capital projects. At that time, the Council directed the staff to work with the Municipal Facilities Committee to develop another funding plan. The staff and Committee have completed that task and the Finance Director and I are here tonight to tell you about the results. In addition we will also tell you about some minor changes to the draft document, mainly in the illustrations, and about the Committee's recommendation for some changes to the language in Chap. 5, regarding design guide lines.

To start, I would like to give you some information about the materials included in Chap 6, of the draft document, titled Schedule and Financing. The material in this section has not been formatted to match the rest of the document, but it includes all of the information that staff plans to put in the final version.

- First there is a brief discussion of the Marina's current revenues and expenses.
- Second there is a plan view map showing the different phases of the bulkhead replacement.
- Third there is a list of the proposed projects with cost estimates.
- Fourth, there is a section on Financing that the Finance Director will discuss with you.

Dans question

Next, I will point out the changes in the Draft document.

- Plan View of the Marina Floor.
  - Sidewalks/227th st. entrance Displayed map outlining details
  - South Marina Park
  - Travel Lift Pier and travel – way shown to scale
  - More detailed drawing of the area north of the Marina Office. - added detail commercial structure

Changes to Chapter 5, Design Guidelines. The staff and Committee discussed the design guidelines in Chapter 5 at the last committee meeting. After a lot of discussion, the Committee recommending that the guidelines be left out of the draft document because currently, Currently, there are two efforts underway to create design guide lines for the for the downtown and Marina area. The first is the Downtown Design Guide Lines Project that is managed by the City's Planning, Building and Public Works Department

and the second is the Store Front Studio Project that is being conducted by the University of Washington's Department of Urban Planning and Architecture. Because these projects are scheduled for completion in the near future, the Committee is recommending that the guide lines in Chapter 5 be deleted from the draft, with the exception of the road and sidewalk cross sections and that the new guide lines be developed after the two projects are completed to ensure that the Marina and downtown design guide lines complement each other. The Committee expects that the downtown projects will be completed and the new Marina design guidelines will be developed before June of 2008.

Questions

Financing Chap.

Closing

Meeting on 18th to discuss first phase of bulkhead replacement.

- High value space
- Construction is difficult.
- Management representatives of a regional restaurant chain
- Discuss space needs, separations, parking, etc.

Next project will be water line relocation and new duct banks.

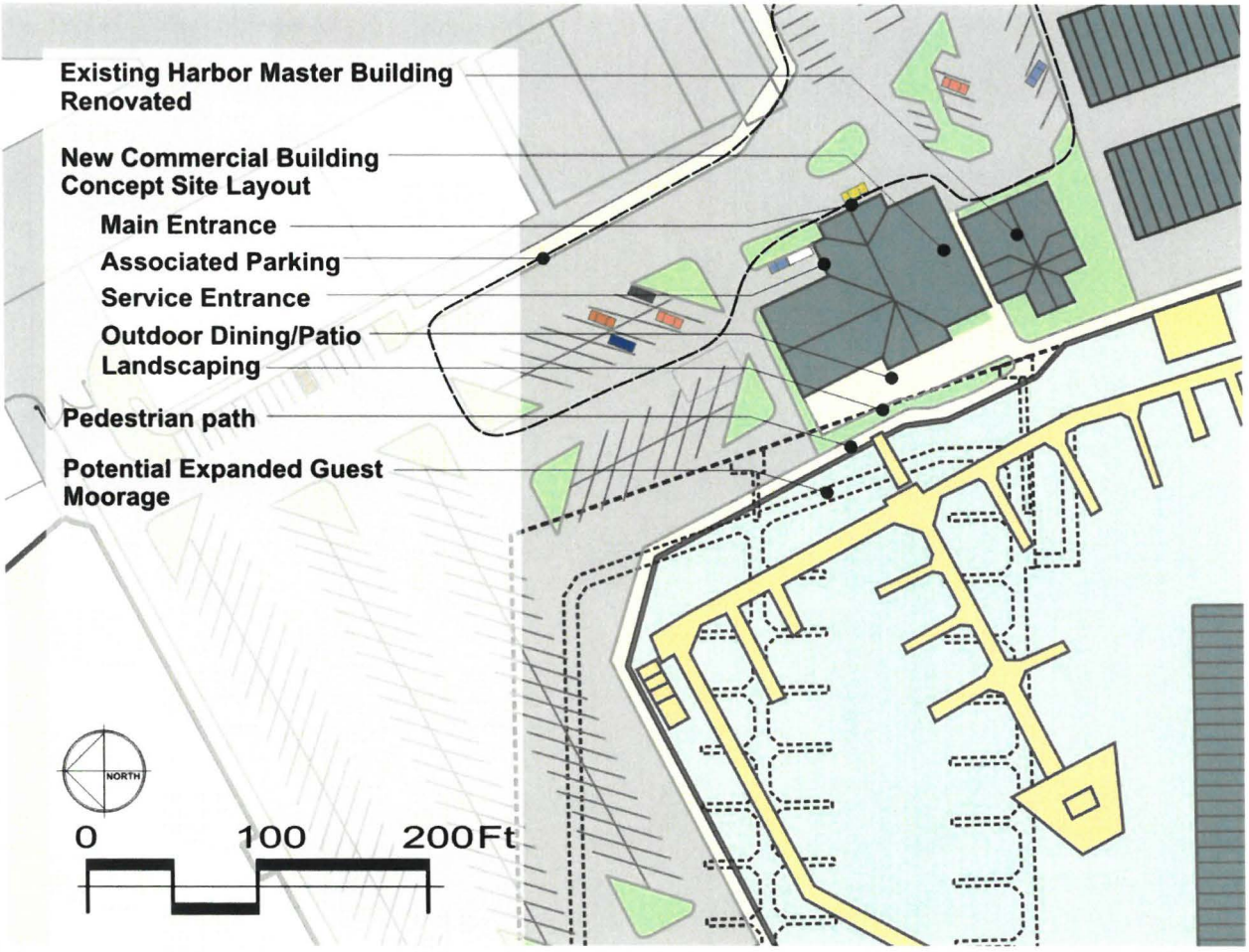


Figure 4-5. Potential Site Plan for New Commercial Building