



**Joint Work Session Agenda**  
**Warrenton City Commission**  
**Marina Advisory Committee**  
**Tuesday, March 11, 2025 – 4:30 pm**  
**City Hall, 225 S. Main Warrenton, OR 97146**

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\*\*\*The meeting will be broadcast via Zoom at the following link\*\*\*

<https://us02web.zoom.us/j/5332386326?pwd=VHNVVXU5blkxbDZ2YmxlSWpha0dhUT09#success>

Meeting ID: 533 238 6326 | Passcode: 12345 | Dial-in Number: 253-215-8782

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1. Call to order
2. Roll Call
3. Warrenton & Hammond Marina Redesign – Presentation and Discussion
4. Adjourn



## City Commission Agenda Memo

Meeting Date: March 11, 2025  
 From: Jessica McDonald, Harbormaster  
 Subject: Warrenton & Hammond Marina Redesign Work Session

### Summary:

With support and direction from the Warrenton City Commission and City Manager Esther Moberg in 2023 and 2024, staff began a comprehensive review of the critical aging infrastructure in the Warrenton and Hammond Marinas.

In FY 2023-2024, staff contracted HDR Engineering, Inc. to conduct a full assessment of the Warrenton Inner Basin, which estimated that a full replacement would cost approximately \$40 million. In response, maintenance staff immediately prioritized the most critical areas for renovation and repair, while administrative staff partnered with North Coast Civil Design to develop redesign plans for both marinas. These redesigns aim to address infrastructure issues and establish a long-term, phased approach for full dock replacements. This strategy ensures that the marinas remain operational while balancing the need for future infrastructure improvements.

### Warrenton Marina Redesign Goals:

- Review the 2010 Master Plan to identify opportunities for phased implementation of its goals and dock layouts.
- Ensure that no slips are under 30 feet to better accommodate modern vessels.
- Develop realistic phased improvements that align with the marina's limited budget.
- Evaluate best construction materials for the region and intended use while providing cost estimates.

### Hammond Marina Master Plan Review & Goals:

After reviewing the 2005 Master Plan for the Hammond Marina, the redesign focuses on:

- Creating a cohesive layout that improves traffic flow, safety, and congestion at the launch ramp and Iredale Street.
- Address boat launch congestion issues with improvements to C Dock and ensure no slips under 30 feet.
- Enhancing marina facilities, including restrooms, fish cleaning stations, and crab cooking areas.
- Exploring potential layouts for a future recreational fishing pier, ensuring it integrates effectively with traffic and overall marina design.

These efforts will help modernize and enhance both marinas while maintaining their operational capacity and ensuring long-term sustainability.

### Recommendation/Suggested Motion:

*NA discussion review of Warrenton & Hammond Redesigns*

**Alternative:**

Other action as deemed appropriate by the City Commission and Marinas Advisory Board  
**OR**  
None recommended

**Fiscal Impact:**

Redesigns will allow staff to explore funding options and begin planning for the full fiscal impacts on the Warrenton and Hammond Marinas. This proactive approach ensures that future infrastructure improvements are financially sustainable while maintaining essential marina operations.

**Attachments:**

- Presentation from North Coast Civil Design

Approved by City Manager: \_\_\_\_\_

A handwritten signature in blue ink, appearing to read "Catherine McVey", is written over a horizontal line.

# WARRENTON\_HAMMOND MARINA ELEMENTS – VISION 2025



JESSICA McDONALD-HARBORMASTER

# LOOKING AT WARRENTON MARINA FIRST - ELEMENTS:

- *INCREASE 30'+ SLIPS IN WARRENTON MARINA*
- *MARINA RECONFIGURATION – WALKER-MACY MASTER PLAN, 2010*
- *SHOWING TYPICAL LAYOUTS*
- *LOOKING AT DECKING MATERIALS*
- *COSTS*

# Modern Marina Layout & Design

*Certain characteristics of recreational boats — mainly beam and draft — heavily influence slip layout and basin dredging depth criteria in marina design.*

DUNCAN C. MELLOR

The perception exists that new recreational boats are enclosing more volume in a given length, with greater beams, higher superstructures and more draft. Is this situation really occurring, or are marina operators simply putting the largest boats possible into marina slips?

Figures 1 and 2 illustrate how a marina operator, tempted by higher revenue, can squeeze oversize boats into slips designed for smaller vessels. These overlength boats extend far beyond the slip fingers, restricting the fairway width for other boats. The boat shown in Figure 2 does not have sufficient slip width clearance, and fenders barely fit between the finger docks and hull. Note that there are exhaust appendages near the waterline on either side of the hull, increasing the beam of this vessel. It is not surprising that the skipper of this boat had to wedge the boat into the slip bow first.

Despite the evidence of some slip overloading, a comparison of boat dimensions from the past few decades does indicate a trend toward increasing beam and draft for powerboats and sailboats.

With boat beam and draft increasing, do existing marina design guidelines need revising? To check existing guidelines and to extract additional marina design information, two databases were recently compiled for recreational powerboats and sailboats of lengths likely to be found in a marina. Data on the critical dimensions and other key features of many different recreational powerboat and sailboat designs were compiled from magazine advertisements, boat brochures and sales listings both in this country and overseas. These characteristic boat dimensions, and their relationship to dock layout, are illustrated in Figures 3 and 4. Boat or slip length is given as  $L$ ; slip width (clear width) is given as  $W$ .

The powerboat database consists of 1,500 different designs of boats from 6.1 m (20 ft) to 65 m (213 ft) in length. Such features as overall length, beam, draft, displacement, standard fuel type and capacity were recorded, if available.

A similar sailboat database was compiled from 1,100 designs of boats from 2.4 m (8 ft) to 48.5 m (159 ft) in length. Sailboat information included overall length, waterline length, beam, minimum and maximum drafts (with available keel options), and fuel capacity.

## EXAMPLE OF REFERENCE USED FOR MARINA LAYOUT & APPURTENANCES



Layout & Design Guidelines for  
**Boat Launching Facilities**



CALIFORNIA DEPARTMENT  
OF PARKS AND RECREATION  
DIVISION OF  
BOATING AND WATERWAYS



**2021**

**ANOTHER EXAMPLE OF  
REFERENCE MATERIAL TO  
DETERMINE MARINA LAYOUT –  
APPURTENANCES**

**NEWER BOATS NEED  
LARGER SLIPS – LARGER  
SLIPS MEAN MORE USE  
OF MARINA!**

166 PAGES!

## FAIRWAYS - CRITICAL

SLIP COUNT SCHEMATICS/CROSS SECTIONS BY  
NORTH COAST CIVIL DESIGN, INC.,

ARTWORK FROM WALKER/MACY  
MASTER PLAN, PAGE 59

SKIPANON RIVER

### NOTES:

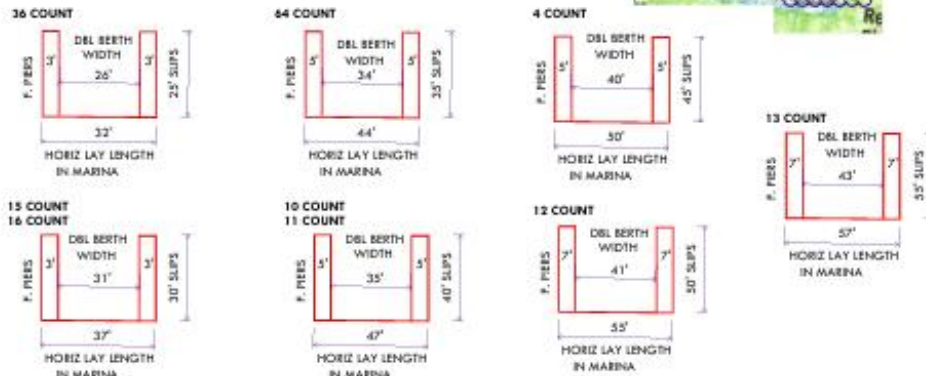
THERE ARE 4 CRITICAL FAIRWAYS.  
IT APPEARS THAT THE PREFERRED  
FAIRWAY WIDTH (1.75L) CAN BE  
OBTAINED IN THESE FAIRWAYS.  
HOWEVER, PRIOR TO SETTING THE  
NEW GANGWAYS, THE CALCS SHOULD  
BE CHECKED TO ASSURE THAT WE MEET  
THE PREFERRED CRITERIA WITH THE SEP-  
ARATION OF THE WALKWAYS.

FIELD SURVEY REQUIRED TO SET FAIRWAYS

DRAFT



### SLIP COUNTS USING X-SEC BELOW: (ODD COUNTS MAY REQUIRE ADJ.)



11/7/24/JGF/NP

## ANOTHER EXAMPLE OF REFERENCE MATERIAL TO DETERMINE MARINA LAYOUT – APPURTENANCES

WHATEVER THE LAYOUT IS  
FINALIZED TO BE – **THE  
FAIRWAYS ARE CRITICAL  
TO BOAT MANEUVERING!**

EXAMPLES OF FAIRWAYS – THERE ARE 4 SHOWN HERE  
(LAYOUT IS FROM WALKER-MACY MASTER PLAN, 2010)  
BIGGER BOATS = BIGGER FAIRWAYS  
NOTE THE SINGLE GANGWAY/SINGLE DOCKS



## SLIP COUNTS AS MEASURED IN FIELD

SLIP COUNT SCHEMATICS/CROSS SECTIONS BY  
NORTH COAST CIVIL DESIGN, INC.,

ARTWORK FROM WALKER/MACY  
MASTER PLAN, PAGE 59

### NOTES:

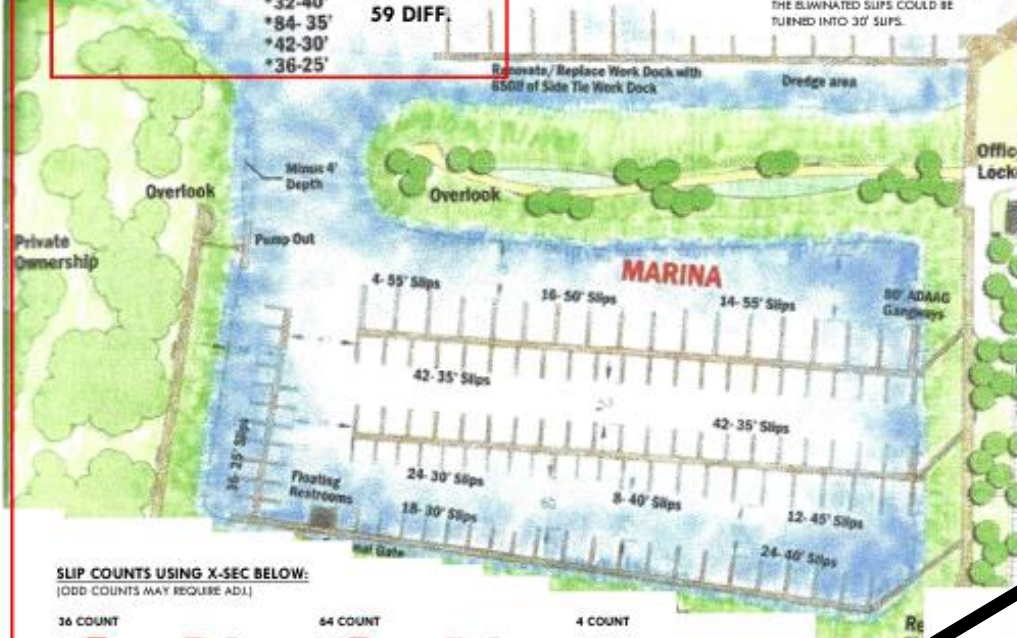
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THE PREFERRED CRITERIA WITH THE SEP-  
ARATION OF THE WALKWAYS.

USING THE SCHEMATIC CROSS  
SECTIONS BELOW, THERE APPEAR TO  
BE ROOM FOR 181 SLIPS +/-...  
WE CAN:

1. ELIMINATE SOME/ALL 5.5' SLIPS
2. ELIMINATE SOME/ALL 50 SLIPS  
THE ELIMINATED SLIPS COULD BE  
TURNED INTO 30' SLIPS.

**Marina Slip Count- 234 Total**  
**\*18-55' 240 M. PLAN**  
**\*12-45' -181 IN-FIELD**  
**\*32-40' 59 DIFF.**  
**\*84-35'**  
**\*42-30'**  
**\*36-25'**

234 MAY NOT BE POSS-  
IBLE; ALSO, MISSING THE  
16-30' SLIPS



### SLIP COUNTS USING X-SEC BELOW: (ODD COUNTS MAY REQUIRE ADJ.)

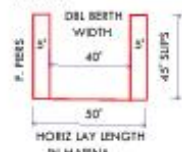
#### 36 COUNT



#### 64 COUNT



#### 4 COUNT



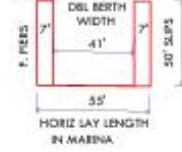
#### 15 COUNT 16 COUNT



#### 10 COUNT 11 COUNT



#### 12 COUNT



#### 13 COUNT



11/7/24/JGF/NCCD

THE RED SCHEMATIC  
DRAWINGS REPRESENT THE  
“LAY-LENGTH” IN THE  
MARINA, THAT EACH SIZE  
OF BOAT WOULD TAKE UP,  
IN A GENERAL SENSE –  
ALSO CONSIDERING THE  
LENGTH OF THE FAIRWAYS  
INCREASING WITH THE  
LENGTH OF THE BOATS

NEXT SLIDE SHOWS  
TYPICAL ANALYSIS

ULTIMATELY – THE DECISION WAS TO LEAVE THE MARINA LAYOUT “AS IS” AND FOCUS ON RE-BUILDING THE “C” DOCK, (+/-56 BERTHS) WITH SLIGHTLY LARGER BERTHS – **MIN. 30’ – AS PHASE 1.**



ONE OF THE KEYS TO DECISION:

HUGE COST SAVINGS TO USE ORIGINAL GANGWAY LOCATIONS \_NOT TO HAVE TO BUILD NEW ENTRANCES.

WALKER-MACY MP HAD 3 NEW GANGWAY ENTRANCES ON THE EAST SIDE OF THE MARINA, CROSSING THE “M” DOCK LOCATION.

8 BERTHS

20 BERTHS

18 BERTHS

= APPROX 46 – 32' BERTHS

NEW BERTHS

**CAUTION: CALCULATE FAIRWAYS!**

# PRELIMINARY/ESTIMATED COSTS

PLEASE NOTE THAT NC CIVIL CANNOT BE RESPONSIBLE FOR DOCK CONSTRUCTION METHODS OR OPERATIONAL PROCEDURES. WE ARE MERELY PROVIDING A SERVICE TO OUR CLIENTS FOR TYPES OF IMPROVEMENTS AND COSTS. THE SKETCHES AND COST ESTIMATES ARE ONLY PROVIDED FOR THE CITY OF WARRENTON AND THEIR MARINAS FOR THIS PROJECT - NO ONE ELSE.

# WARRENTON MARINA RENOVATION - EXISTING C DOCK REPLACEMENT

## POTENTIAL COST ESTIMATION @ PRLIM LEVEL

BY: JGF REV BY: \_\_\_\_\_

DATE: 11/11/24

**DRAFT**



### PHASE 1 - EXISTING C DOCK REPLACEMENT

| BID ITEM | ITEM DESCRIPTION  | UNIT                                     | QUANTITY | UNIT PRICE | TOTAL |
|----------|---|--|----------|------------|-------|
| 1        | MOBILIZATION, DEMOB, BONDING                                | LS                                       | 1        |            |       |
| 2        | GEOTECHNICAL/DRILLING/EST. BOTTOM CONDITIONS                | LS                                       | 1        |            |       |
| 3        | SURVEY WORK (EXISTING PILINGS, DOCKS, DIKE X SEC)           | LS                                       | 1        |            |       |
| 4        | PROJECT SIGN (FUNDING AGENCY)                               | LS                                       | 1        |            |       |
| 5        | DEMOLITION, EXISTING DOCKS, PILINGS (CRANE/BARGE)           | LS                                       | 1        |            |       |
| 6        | WASTEHAUL DEMOLITION MATERIALS TO CITY SITE/DUMP            | CY                                       | 160      |            |       |
| 7        | R & R GANGWAYS (REUSE) CRANE SVC                            | LS                                       | 2        |            |       |
| 8        | F&I SHORESIDE WATER METER, PER PLANS, COMPLETE              | LS                                       | 1        |            |       |
| 9        | F&I SHORESIDE WATER CONN. + FDC, COMPLETE                   | EA                                       | 1        |            |       |
| 10       | F&I NEW FLOAT WALKWAY PILINGS, INCL CAPS                    | EA                                       | 22       |            |       |
| 11       | F&I NEW FINGER FLOAT PILINGS, INCL CAPS                     | EA                                       | 38       |            |       |
| 12       | F&I NEW FLOAT WALKWAY MAIN (840" x 7")                      | EA                                       | 22       |            |       |
| 13       | F&I NEW LIGHT TRANSMISSIVE DECKING FOR WALKWAY (7' X 840")  | SF                                       | 5880     |            |       |
| 14       | F&I NEW FINGER FLOATS                                       | EA                                       | 22       |            |       |
| 15       | F&I NEW GANGWAY LANDING FLOATS (15' X 32')                  | EA                                       | 2        |            |       |
| 16       | F&I NEW LIGHT TRANSMISSIVE DECKING, FINGER F. ((5'X32')X22) | SF                                       | 3520     |            |       |
| 17       | F&I NEW DOCK(S) WATER SYSTEM (W/DDDC VALVING)               | LS                                       | 16       |            |       |
| 18       | F&I NEW FIRE HYDRANTS (W/SIGNAGE/HOSE C.)                   | EA                                       | 2        |            |       |
| 19       | F&I NEW ELECTRICAL & LIGHTING SYSTEM, DOCKS                 | LS                                       | 1        |            |       |
| 20       | F&I ELEC. CABINET, GFIC LOOPS, SHORESIDE, INSTALL CONDUITS  | LS                                       | 1        |            |       |
| 21       | F&I NEW LIFE-RINGS & SAFETY LADDERS (PACKAGE)               | LS                                       | 2        |            |       |
|          |   | <i>estimated sub-total &gt;</i>          |          | \$         | -     |
|          |   | <i>contingency @ 10% &gt;</i>            |          | \$         | -     |
|          |   | <i>Engineering/Const Mgmt @ 15% &gt;</i> |          | \$         | -     |
|          |   | <b>ESTIMATED PHASE COST &gt;</b>         |          | \$         | -     |

### PRELIMINARY PHASE COSTS >

#### NOTES

- 1 FIRE DEPARTMENT SHOULD REVIEW & APPROVE PLANS PRIOR TO CONSTRUCTION
- 2 CITY PUBLIC WORKS SHOULD REVIEW & APPROVE METER(S) TO DOCK(S)
- 3 PERMITTING - DSL, ENVIRONMENTAL, CITY/MARINA RESPONSIBILITY
- 4 WATER QUALITY TESTING - CITY/MARINA RESPONSIBILITY
- 5 MAY REQUIRE ELEC AND WTR SCHEMATIC FOR DOCKS A, B, G, H. ADDER=\$150K EST.

**NOTES ARE  
ESPECIALLY  
IMPORTANT!**

**EXAMPLES OF TYPICAL  
COSTS FOR "C" DOCK  
APPROXIMATELY \$2.2M**

**WHILE WE TRY TO  
BE CURRENT WITH  
COSTS, THEY FLUXUATE  
GREATLY. THEREFORE SOME  
PLACEHOLDERS ARE USED**

**WHAT DOES THE  
NEW DOCK LOOK  
LIKE?**





HDPE PIPE/STYROFOAM FILLED LINEAR FLOATS  
WOOD CLADDING ABOVE WATER-W/RUB STRIP  
FIBERGRATE\_FISH FRIENDLY GRATING





TYPICAL FINGER FLOATS OFF OF WALKWAY  
NOTICE THE EATON POWER/UTILITY STANDARDS

WITH THE “C” DOCK DONE – AND THE UTILITY UP-GRADES OR SCHEMATIC BLOCK UPGRADES – THERE IS AN ECONOMY OF SCALE. (REMEMBER SLIDE 7 – POTENTIAL PHASING)

CAN UP-GRADE EITHER THE A, B OR THE G, H. HOWEVER, WE WOULD RECOMMEND UP-GRADING THE G, H AND THE M,N, WORKING OR “PAINTING” YOUR WAY OUT OF THE BASIN.

BY DOING THIS, THE PILE DRIVING BARGES, THE WORK BARGE CAN OPERATE FREELY, WITHOUT HAVING TO MAKE COSTLY CHANGES TO THE METHOD OF DRIVING

WALKER-MACY ONLY HAD ONE DOCK PER GANGWAY THEREFORE NO CROSSING OVER OR REDOING WORK

END OF WARRENTON PORTION OF THE PRESENTATION

# INTERMISSION/QUESTIONS

BEGIN THE HAMMOND PRESENTATION

# HAMMOND MARINA – VISION 2025 ELEMENTS

*IMPROVEMENTS TO “C” DOCK & FINGER PIERS*

*ADDITION OF 2 COVERED FISH/CRAB CLEANING STATIONS*

*HARD SURFACE WALKING PATH BETWEEN CLEANING STATION AND ADA*

*ADDITION OF ONE ADA FISHING PIER ON EASTERN JETTY*

*WIDENING IREDALE STREET 10'-12' TO SOUTH*

*ADDITION OF BOLLARDS/CHAIN FOR PEDESTRIAN/VEHICLE PROTECTION*

*ADDITION OF 2 RESTROOMS, ONE ON WEST SIDE, ONE ON EAST AS SHOWN*

CITY/MARINE BOARD/TO SET PRIORITIES/FUNDING



**JESSICA McDONALD, HARBORMASTER**



1. IMPROVEMENTS TO THE "C" DOCK
2. ADDED 3 FISHCAB CLEARING PORTALS
3. HARD SURFACE WALKING PATH BETWEEN CLEANING STATIONS
4. WIDEN LAKE ROAD
5. ADD BOLLARDS FOR VEHICLE AND PEDESTRIAN RESTRAINTS
6. ADD A REEF/ROCK ON THE WEST SIDE, NEAR FARMING FOR CATCHING

- BICYCLES - BIKES - PORTABLES
- CREDIT CARDS - 3 ON REDUCE ST.
- BILLIARDS - WHEELS - FREESTAMP - FREESTAMP ST.
- HARD SURFACE WALKWAY ALONG MARLB.
- REDUCE ST. WIDENING (APPROXIMATELY 10')
- RESTROOMS

RENTING PLATFORMS, PERS AND PARKING MUST COMPLY WITH THE AMERICAN WITH DISABILITIES ACT. THE ADA ACCESSIBILITY GUIDELINES (ADAAG) IS THE STANDARD APPLIED TO BUILDINGS AND FACILITIES. RECREATIONAL FACILITIES, INCLUDING RENTING PERS AND PLATFORMS, ARE AMONG THE FACILITIES REQUIRED TO COMPLY WITH THE ADA.

NOTE THAT THIS VERSION PLAN, BOTH ADA AND STANDARD PARKING AND ACCOMMODATED FOR THE BENEFIT OF THOSE WITH DISABILITIES.



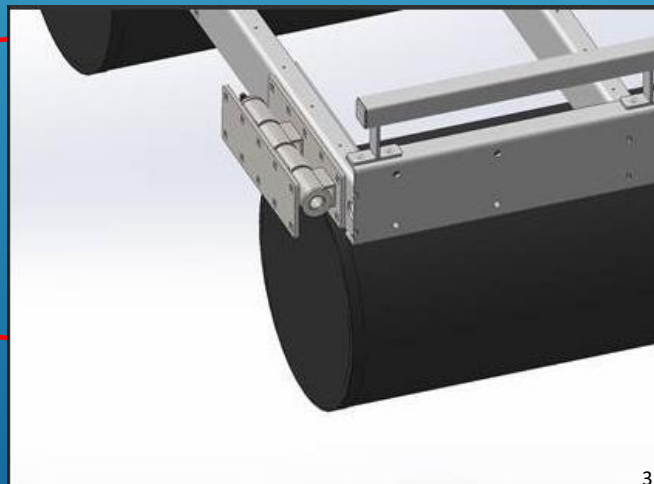
## IMPROVEMENTS TO C DOCK AND FINGER PIERS



NO UTILITIES ON WALKWAYS  
OR FINGER PIERS

MAY NOT HAVE  
QUITE AS MANY  
FINGER PIERS AS  
SHOWN

MAY REQUIRE  
LOCALIZED  
DREDGING ON  
WEST END



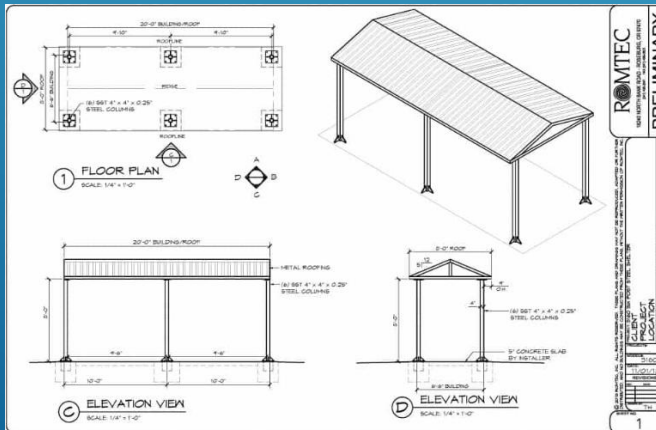
## COST TO RE-PLACE AND EXPAND “C” DOCK: APPROX \$1.0M

| LINE ITEM              | ITEM DESCRIPTION  | UoM | QUANTITY | UNIT PRICE | EXTENSION |
|------------------------|---|-----|----------|------------|-----------|
| 1                      | MOBILIZATION/DEMOBILIZATION/BONDING   | EA  | 1        |            |           |
| 2                      | GEOTECHNICAL SERVICES   | LS  | 1        |            |           |
| 3                      | DEBRIS CONTROL BOOMS/WATER QUALITY + PERMIT REPORTS, TIME & MATERIALS BASIS | EA  | 1        |            |           |
| 4                      | SHORESIDE CRANE SERVICE, W/CREW   | WKS | 1        |            |           |
| 5                      | MARINE BARGE CRANE SERVICE/PILE DRIVING, W/CREW                             | WKS | 1        |            |           |
| 6                      | DEMO/REMOVE AND WASTEHAUL EXISTING PILINGS (INCLUDES BROKEN PILINGS)        | EA  | 7        |            |           |
| 7                      | F&I NEW 12" STEEL PILINGS (MAY REQUIRE 16"-18")                             | EA  | 11       |            |           |
| 8                      | DEMO AND WASTEHAUL FLOATING DOCKS/FINGER PIERS, COMPLETE REMOVAL            | SF  | 2,650    |            |           |
| 9                      | F&I NEW WALKWAY FLOATS - COMPLETE/W/PILING HOOP ATTACHMENTS (1.5 MULTI)     | EA  | 8        |            |           |
| 10                     | F&I NEW FINGER PIERS/FLOATS - COMPLETE/W/PILING ATTACHMENTS, STRONGARMS     | EA  | 7        |            |           |
| 11                     | F&I WALKWAY SAFETY EQUIP, SIGNAGE, LADDER, LIFE RINGS, PER PLANS            | LS  | 1        |            |           |
| 12                     | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)           | LS  | 1        |            |           |
| <b>BASE BID TOTAL:</b> |   |     |          |            | \$ -      |

NO UTILITIES  
AND MAY  
REQUIRE  
LOCALIZED  
DREDGING

TYPICAL QUESTvBID WORKSHEET – ELECTRONIC BIDDING

## ADDITION OF 2 COVERED FISH/CRAB CLEANING STATIONS



(STEEL SHELTERS-COURTESY OF ROMTEC)

# COST TO ADD 2 FISH/CRAB CLEANING STATIONS: APPROX \$0.6M

| ITEM            | ITEM DESCRIPTION  | UoM  | QUANTITY | UNIT PRICE | EXTENSION |
|-----------------|---|------|----------|------------|-----------|
| 1               | MOBILIZATION/DEMOBILIZATION/BONDING   | EA   | 1        |            |           |
| 2               | CONSTRUCTION STAKING OF BUILDING PAD & BUILDING   | LS   | 1        |            |           |
| 3               | EROSION CONTROL, PER PLANS  | LS   | 1        |            |           |
| 4               | CLEARING, GRUBBING, ROUGH GRADING (50x50) PRELIMINARILY   | LS   | 1        |            |           |
| 5               | STRUCTURE EXCAVATION AND BACKFILL, COMPLETE PER PLANS   | EA   | 1        |            |           |
| 6               | F&I BASE AGGREGATE, (3/4"-0") PER PLANS, COMPACTED, 50x50x1, COMPLETE PER PLANS                           | TONS | 60       |            |           |
| 7               | F&I FISH CLEANING SHELTER PACKAGE, CONCRETE BASE, PLUMBING, ELECTRICAL/WATER, POST/ROOF FRAMING, COMPLETE | EA   | 1        |            |           |
| 8               | F&I 2" WATER MAIN TO CLEANING STATION (INCL FREEZE PROTECTION)  | LF   | 100      |            |           |
| 9               | F&I WATER METER/RP DEVICE, COMPLETE PER PLANS   | LS   | 1        |            |           |
| 10              | F&I ELECTRICAL EQUIPMENT, COMPLETE, INCL TRENCHING, PER ELEC/CIVIL PLANS                                  | LS   | 1        |            |           |
| 11              | F&I NEW LUMINAIRES, INCLUDING BASE/ELEC CONNECTIONS, COMPLETE   | EA   | 2        |            |           |
| 12              | F&I STAINLESS STEEL (MIN316SS) FISH CLEANING TABLE, 6' x 10' W/HOSE CONN, COMPLETE                        | EA   | 1        |            |           |
| 13              | STORM SEWER CONN. ALLOWANCE, INCL TRENCHING, PIPE, CONNECTIONS, COMPLETE PER PLANS                        | LS   | 1        |            |           |
| 14              | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)   | LS   | 1        |            |           |
| 15              | SHIPPING OF BUILDING PACKAGE TO HAMMOND (EST)   | LS   | 1        |            |           |
| BASE BID TOTAL: |   |      |          | \$         | -         |

**NOTE: DOES NOT INCLUDE  
ENGINEERING, CONTINGENCY  
OR PERMITTING – THIS  
SPREADSHEET IS ONLY A  
MATERIALS ESTIMATION.**

BE SURE TO DOUBLE BASE BID TOTAL FOR 2 SHELTERS

## TYPICAL QUESTvBID WORKSHEET – ELECTRONIC BIDDING



## **HARD SURFACE WALKING PATH BETWEEN CLEANING STATION AND ADA FISHING PIER**



**COST FOR WALKING PATH – WITH ADA APPROACHES: \$80K-90K  
NOTE THAT THIS INCLUDES CONTINENTAL CROSS-WALKS, NEXT  
SLIDE.**

**MATERIALS:  
ASPHALT, CONCRETE RAMPS (3)ADA, LANDINGS  
(NOT ILLUMINATED-ADDS COST)**



## HARD SURFACE WALKING PATH (ADA) BETWEEN CLEANING STATIONS

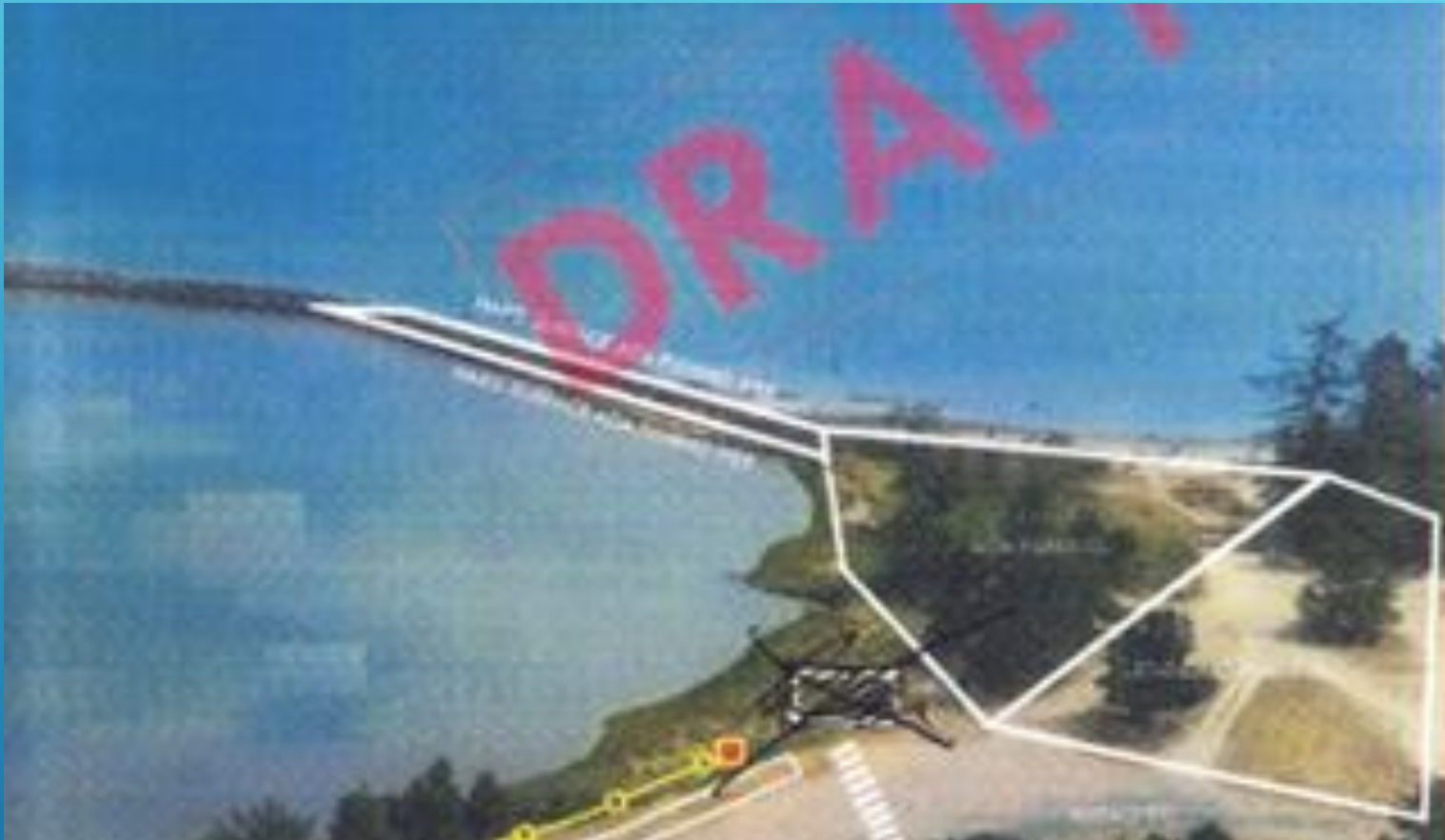
|            |  |      |      |  |      |
|------------|--|------|------|--|------|
| 1          | MOBILIZATION/DEMOBILIZATION/BONDING  | 1    | EA   |  |      |
| 2          | CONSTRUCTION STAKING OF PATHWAY  | 1    | LS   |  |      |
| 3          | EROSION CONTROL, PER PLANS   | 1    | LS   |  |      |
| 4          | CLEARING, GRUBBING, ROUGH GRADING (500x20) PRELIMINARILY   | 0.23 | AC   |  |      |
| 5          | PATHWAY EXCAVATION AND BACKFILL, COMPLETE PER STAKING & PLANS (500x20x.5)                                | 1    | LS   |  |      |
| 6          | F&I BASE AGGREGATE, (3/4"-0") PER PLANS, COMPACTED, (500x20x0.25), COMPLETE PER PLANS                    | 120  | TONS |  |      |
| 7          | F&I ASPHALT SURFACING, 3" COMPACTED, LEVEL 2, COMPLETE PER PLANS (500x10)                                | 97   | TONS |  |      |
| 8          | F&I ASPHALT SURFACING, ADA LANDING, BOTH ENDS, FORM PER PLANS, COMPLETE                                  | 3    | EA   |  |      |
| 9          | F&I SHOULDER AGGREGATE, (3/4"-0") PER PLANS, COMPACTED   | 25   | TONS |  |      |
| 10         | F&I CONTINENTAL CROSS WALKS, 2' WHITE LINE, STAGGERED, PER PLANS, COMPLETE (TORCHDOWN) OPTAMARK OR EQUAL | 3    | EA   |  |      |
| 11         | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)  | 1    | LS   |  |      |
| subtotal > |  |      |      |  | \$ - |

**DOES NOT INCLUDE ENGINEERING, CONTINGENCY OR PERMITTING – THIS SPREADSHEET IS ONLY A MATERIALS ESTIMATION.**

**HARD SURFACE INCLUDES THE 3 CONTINENTAL CROSS WALKS AS SHOWN – ADA RAMPS OFF HARD SURFACE**

**COST EST.: HARD SURFACE, ADA AND CONTINENTAL X-WALKS, \$80K-\$90K**

## ADDITION OF ONE ADA FISHING PIER ON EASTERN JETTY + PARKING



**COST: BUDGETARY ESTIMATE - \$1.8M - \$2.0M**

## ADDITION OF ONE ADA FISHING PIER ON EASTERN JETTY + PARKING

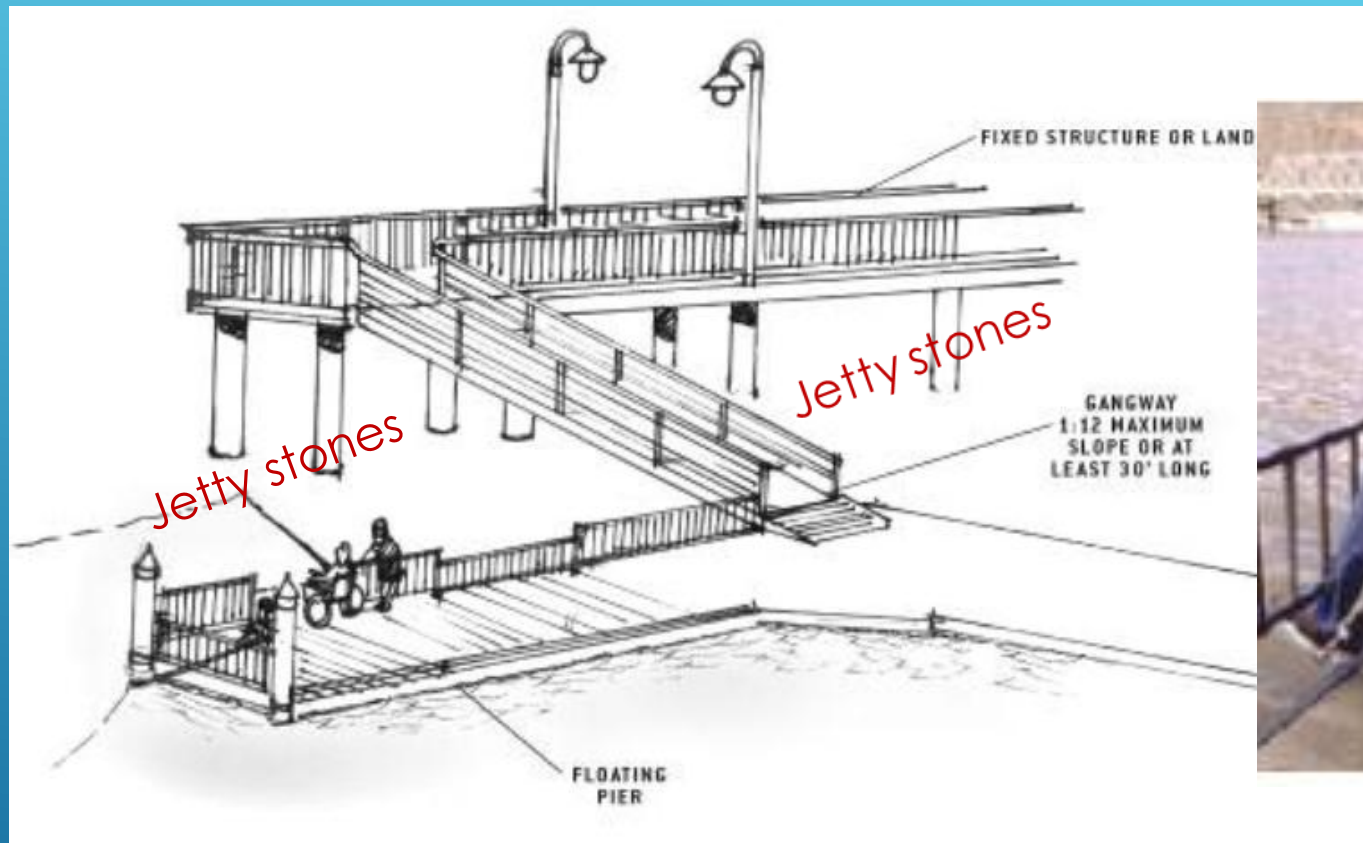
| ITEM             | ITEM DESCRIPTION  | UoM  | QUANTITY | UNIT PRICE | EXTENSION |
|------------------|---|------|----------|------------|-----------|
| 1                | MOBILIZATION/DEMOBILIZATION/BONDING   | EA   | 1        |            |           |
| 2                | GEOTECHNICAL SERVICES   | LS   | 1        |            |           |
| 3                | DEBRIS CONTROL BOOMS/WATER QUALITY + PERMIT REPORTS, TIME & MATERIALS BASIS                         | EA   | 1        |            |           |
| 4                | SHORESIDE CRANE SERVICE, W/CREW   | WKS  | 4        |            |           |
| 4                | MARINE BARGE CRANE SERVICE/PILE DRIVING, W/CREW   | WKS  | 2        |            |           |
| 5                | F&I NEW 12" STEEL PILINGS (MAY REQUIRE 16"-18")   | EA   | 28       |            |           |
| 6                | F&I NEW HOT-DIPPED GALVANIZED DECKING - COMPLETE W/PILING ATTACHMENTS, ADAAG                        | EA   | 1        |            |           |
| 7                | F&I NEW HOT-DIPPED GALVANIZED GUARD RAIL SYSTEM - COMPLETE W/DECK ATTACHMENTS                       | EA   | 1        |            |           |
| 8                | F&I NEW HOT-DIPPED GALVANIZED TOE/KICK - COMPLETE W/DECK ATTACHMENTS                                | EA   | 1        |            |           |
| 9                | F&I NEW GANGWAY - COMPLETE W/DECK AND BASE ATTACHMENTS, ADAAG                                       | EA   | 1        |            |           |
| 10               | F&I NEW GANGWAY LANDING, BASE, INCLUDING GUARD-RAILS, COMPLETE, ADAAG                               | EA   | 1        |            |           |
| 11               | F&I NEW LUMINAIRES, INCLUDING BASE/ELEC CONNECTIONS, COMPLETE, ADA                                  | EA   | 6        |            |           |
| 12               | F&I ELECTRICAL EQUIPMENT, COMPLETE PER ELEC/CIVIL PLANS   | LS   | 1        |            |           |
| 13               | F&I 2" WATER MAIN TO MAIN WALKWAY FISH CLEANING (INCL. FREEZE PROTECTION)                           | LF   | 100      |            |           |
| 14               | F&I WATER METER/IRP DEVICE, COMPLETE PER PLANS  | LS   | 1        |            |           |
| 15               | F&I BASE AGGREGATE, PER PLANS, COMPACTED, 90x50x0.5, (BASE FOR ADA HARD SURFACE COMPLETE PER PLANS) | TONS | 108      |            |           |
| 16               | F&I AC HARD SURFACE, TO DRAIN, ADA PAINT/PER PLANS (FED ADAAG)                                      | TONS | 75       |            |           |
| 17               | F&I CONCRETE HARD SURFACE, TO DRAIN, ADA PAINT/PER PLANS (FED ADAAG)                                | CY   | 11       |            |           |
| 18               | F&I WALKWAY SAFETY EQUIP, SIGNAGE (4), LADDER, LIFE RINGS, HOSE KEEPER, PER PLANS                   | LS   | 1        |            |           |
| 19               | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)                                   | LS   | 1        |            |           |
| BASE BID TOTAL > |   |      |          | \$         | -         |

ADA FISHING PIER - DOES NOT INCLUDE ENGINEERING, CONTINGENCY OR PERMITTING – THIS SPREADSHEET IS ONLY A MATERIALS ESTIMATION.

SHOULD EXPECT PLANNING INVOLVEMENT FOR THIS STRUCTURE

NOTE THE REQUIREMENTS FOR ADAAG CONSTRUCTION – CONTRACTORS MUST BE PRE-QUALIFIED

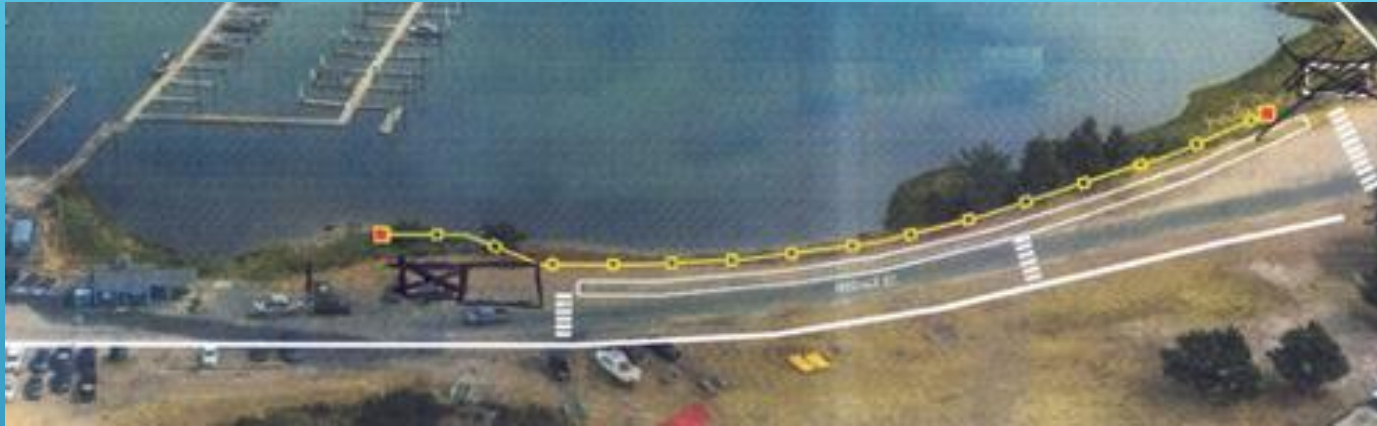
## ADDITION OF ONE ADA FISHING PIER ON EASTERN JETTY



FROM: USA PUBLICATION: "Guide to the ADA Accessibility Standards"

# WIDENING IREDALE STREET 10'-12' TO SOUTH

NOTE THAT THIS IS DONE FOR MORE EFFICIENT MOVEMENT OF TRAFFIC



| ITEM       | ITEM DESCRIPTION  | UoM  | QUANTITY | UNIT PRICE | EXTENSION |
|------------|---|------|----------|------------|-----------|
| 1          | MOBILIZATION/DEMObILIZATION/BONDING   | EA   | 1        |            |           |
| 2          | CONSTRUCTION STAKING OF WIDENING  | LS   | 1        |            |           |
| 3          | EROSION CONTROL, PER PLANS  | LS   | 1        |            |           |
| 4          | CLEARING, GRUBBING, ROUGH GRADING (750x20, 10' EA SIDE) PRELIMINARILY                 | AC   | 0.34     |            |           |
| 5          | F&I BASE AGGREGATE, (3/4"-0") PER PLANS, COMPACTED, (750x20x0.25), COMPLETE PER PLANS | TONS | 181      |            |           |
| 6          | F&I ASPHALT SURFACING, 3" COMPACTED, LEVEL 2, COMPLETE PER PLANS (750x20)             | TONS | 292      |            |           |
| 7          | F&I SHOULDER AGGREGATE, (3/4"-0") PER PLANS, COMPACTED                                | TONS | 36       |            |           |
| 8          | F&I EMULSIFIED AC FOG/SEA COAT, COMPLETE PER PLANS (\$2.00/SF) (750Lx45W=37,350SF)    | SF   | 37350    |            |           |
| 9          | F&I STRIPING, 4" DOUBLE YELLOW CENTER LINE (THERMOPLASTIC SPRAYED)                    | LF   | 1500     |            |           |
| 10         | F&I STRIPING, 4" WHITE, SHOULDER, EACH SIDE (THERMOPLASTIC SPRAYED)                   | LF   | 1500     |            |           |
| 11         | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)                     | LS   | 1        |            |           |
| subtotal > |   |      |          | \$         | -         |

**WIDENING - DOES NOT INCLUDE  
ENGINEERING, CONTINGENCY OR  
PERMITTING – THIS SPREADSHEET IS  
ONLY A MATERIALS ESTIMATION.**

## COST ESTIMATION, \$200K-\$250K

GO TO BOLLARDS AND CHAIN



## ADDITION OF BOLLARDS/CHAIN FOR PEDESTRIAN/VEHICLE PROTECTION



(PHOTOS COURTESY OF OROVILLE DAM ASSOCIATION)

WORLD'S TALLEST EARTH FILL DAM

**+/- 650 LINEAL FEET – APPROX \$50K-\$60K**

GO TO RESTROOMS

## ADDITION OF 2 PUBLIC RESTROOMS, WEST AND SOUTH



NOTE THAT THESE ARE GENERAL LOCATIONS FOR THE RESTROOMS

WHAT WILL THEY LOOK LIKE?





(COURTESY OF PUBLIC RESTROOM COMPAY)



(COURTESY OF ROMTEC)



## BREAKDOWN OF ESTIMATED PARTS FOR ONE PUBLIC RESTROOM – 6 STALLS PER

| ITEM | ITEM DESCRIPTION   | UoM  | QUANTITY | UNIT PRICE | EXTENSION |
|------|--|------|----------|------------|-----------|
| 1    | MOBILIZATION/DEMOBILIZATION/BONDING  | EA   | 1        |            |           |
| 2    | CONSTRUCTION STAKING OF BUILDING PAD & BUILDING                                    | LS   | 1        |            |           |
| 3    | EROSION CONTROL, PER PLANS   | LS   | 1        |            |           |
| 4    | CLEARING, GRUBBING, ROUGH GRADING (50x50) PRELIMINARILY                            | LS   | 1        |            |           |
| 5    | STRUCTURE EXCAVATION AND BACKFILL, COMPLETE PER PLANS                              | EA   | 1        |            |           |
| 6    | F&I BASE AGGREGATE, (3/4"-0") PER PLANS, COMPACTED, 50x50x1, COMPLETE PER PLANS    | TONS | 60       |            |           |
| 7    | F&I BUILDING PACKAGE, CONCRETE BASE, PLUMBING, ELECTRICAL/WATER, FRAMING, COMPLETE | EA   | 1        |            |           |
| 8    | F&I 2" WATER MAIN TO RESTROOM (INCL FREEZE PROTECTION)                             | LF   | 100      |            |           |
| 9    | F&I WATER METER/RP DEVICE, COMPLETE PER PLANS                                      | LS   | 1        |            |           |
| 10   | F&I ELECTRICAL EQUIPMENT, COMPLETE, INCL TRENCHING, PER ELEC/CIVIL PLANS           | LS   | 1        |            |           |
| 11   | F&I AC HARD SURFACE, TO DRAIN, ADA PAINT/PER PLANS                                 | TONS | 100      |            |           |
| 12   | F&I NEW LUMINAIRES, INCLUDING BASE/ELEC CONNECTIONS, COMPLETE                      | EA   | 2        |            |           |
| 13   | SAN SEWER CONN. ALLOWANCE, INCL TRENCHING, PIPE, CONNECTIONS, COMPLETE PER PLANS   | LS   | 1        |            |           |
| 14   | STORM SEWER CONN. ALLOWANCE, INCL TRENCHING, PIPE, CONNECTIONS, COMPLETE PER PLANS | LS   | 1        |            |           |
| 15   | FURNISH RECORD DRAWINGS (REQUIRED COMPLETE BY PROJECT COMPLETION)                  | LS   | 1        |            |           |
| 16   | SHIPPING OF BUILDING PACKAGE TO HAMMOND (EST)                                      | LS   | 1        |            |           |
|      |  |      |          | subtotal > | \$ -      |

NOTE THE REQUIREMENTS FOR ADAAG CONSTRUCTION – THIS ESTIMATION OF MATERIALS DOES NOT INCLUDE ENGINEERING, CONTINGENCY OR PERMITTING – THIS SPREADSHEET IS ONLY A MATERIALS ESTIMATION.

ADAAG CONSTRUCTION WILL REQUIRE BIDDER PREQUALIFICATION

**COSTS FOR 2 – 6-STALL RESTROOMS: APPROX \$2.4M**

AFTER WE RECEIVE YOUR WRITTEN COMMENTS ON THE VISIONING PROCESS SHOWN HERE, WE WILL TURN THIS VISUAL PRESENTATION INTO 2 SHORT, WRITTEN REPORTS, AS OUR PROPOSALS STATE, FOR YOUR USE IN PLANNING AND POSSIBLE FUNDING SCHEDULES.

WE KNOW THAT THESE IMPROVEMENTS COST A GREAT DEAL OF MONEY – AND ARE LONG-TERM OR MANY YEARS TO FULFILL, BUT THESE MARINAS DESERVE YOUR ATTENTION AND COMMITMENT.



THIS IS POINT ROBERTS (ONE OF THE MOST NORTHWESTERN POINTS IN WASHINGTON STATE) LOOKING SOUTH – INTO VANCOUVER ISLAND



**END OF PRESENTATION –  
QUESTIONS?**



WISH TO THANK:



JESSICA  
McDONALD/HARBORMASTER



WARRENTON CITY COMMISSION



WARRENTON MARINA BOARD