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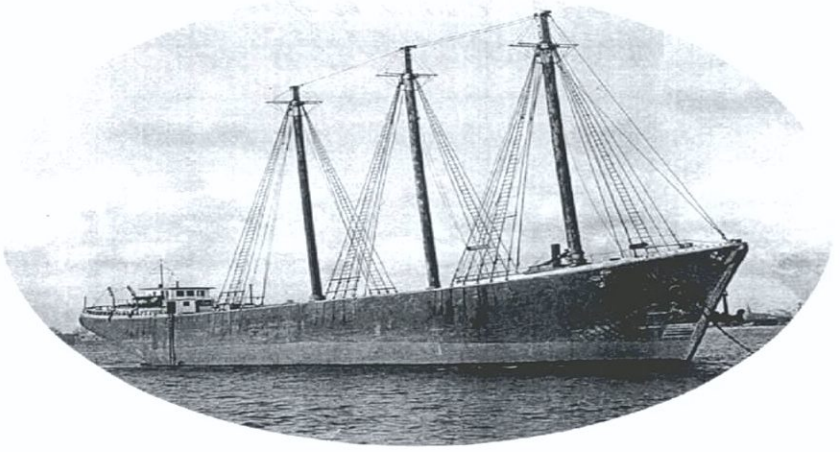
Contract No. DACW51-01-D-0015-8a
Delivery Order No. 0023

U.S. Army Corps of Engineers
New York District

RECORDATION OF SIX (6) VESSELS IN CONNECTION WITH THE NEW YORK AND NEW JERSEY HARBOR NAVIGATION STUDY UPPER AND LOWER BAY PORT OF NEW YORK AND NEW JERSEY STATEN ISLAND, RICHMOND COUNTY, NEW YORK ELIZABETH, UNION COUNTY AND BAYONNE, HUDSON COUNTY, NEW JERSEY



PREPARED FOR:
U.S. Army Corps of Engineers
New York District
New York, New York

UNDER SUBCONTRACT TO:
Matrix Environmental and
Geotechnical Services, Inc.
East Hanover, New Jersey

PREPARED BY:
Panamerican Consultants, Inc.
Memphis, Tennessee

VOLUME II: APPENDICES
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Authored by:
Andrew Lydecker

Prepared for:
U.S. Army Corps of Engineers,
New York District

Contract No. DACW51-01-D-0015
Delivery Order No. 0023

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FEBRUARY 2008

TABLE OF CONTENTS

APPENDIX A: SCOPE OF WORK

Scope of Work
and
Request for Proposal
For
Recordation of Six (6) Vessels
In Connection with the
New York and New Jersey Harbor Navigation Study
Upper and Lower Bay
Port of New York and New Jersey
Staten Island, Richmond County, New York
Elizabeth, Union County and Bayonne, Hudson County, New Jersey

I. Introduction

The New York District, U.S. Army Corps of Engineers (Corps), is proceeding with studies in connection with the New York and New Jersey Harbor Navigation Study. As per stipulation I (A) of the signed Memorandum of Agreement (MOA) a remote sensing survey was conducted along the channel edge of the Ambrose, Anchorage, Kill Van Kull, Arthur Kill And Newark Bay Channels. The remote sensing survey identified 93 magnetic anomalies and 24 sidescan sonar images (Lydecker and James 2003a). Of those targets, just 28 magnetic anomalies and 11 sidescan images were determined to be potential cultural resources. The nature and National Register of Historic Places (NRHP) eligibility of the 39 targets were evaluated through a diving survey and five vessels were determined to be eligible resources. Vessel SS16b was not initially considered eligible but based on a request by the New York State Historic Preservation Office to reconsider the evaluation this vessel was also determined significant bringing the total to six eligible vessels. Due to the nature of this project these resources cannot be avoid through project redesign and mitigation must be undertaken. Based on recommendations offered in the evaluation report, a Standard Mitigation Agreement was developed that outlines the mitigation measures the Corps must undertake (Attachment 1). This scope of work addresses those mitigation measures.

As reflected in this scope of work, the Corps' will record the six vessels determined to be NRHP eligible (Attachment 2). This mitigation will be accomplished by recording each vessel through diving, if necessary, or recording the vessels at low tide, by an experienced maritime archaeologist. Also included in this scope is the task to determine if portions of Vessel SS16b, based on research and field investigations, are suitable for salvaging and curating for display in a maritime museum. If determined appropriate for salvaging, recommendations will be made as to the parts to be salvaged and conserved. Preliminary plans and associated costs will be developed to undertake a salvage and conservation effort.

II. Project Background

A. Project Area

The overall plan is to deepen the main channels in the Harbor to 50 feet. To do so will require widening of the channels. This action has the potential to impact any shipwrecks that might be located along the current channel edges. The widening is anticipated to be approximately 30 feet on each side of the channel but 100 feet on each side of channel was surveyed for cultural resources. Dredging in Ambrose Channel will extend to 2500 feet east of the channel's current terminus. Two eligible resources, Shooters Island V2 and Shooters Island SS16b, are located on Shooters Island. The remaining resources, KVK V33, KVK V36, KVK V37 and KVK V38 are located on the Kill Van Kull shoreline of Staten Island. Only Vessel Shooters Island V2 is located in the waters of the State of New Jersey, the rest lie within New York State.

III. Previous Research

The six vessels to be recorded under this scope of work were evaluated through an underwater survey by Panamerican Consultants, Inc. in the summer of 2003 (Lydecker and James 2003b). Vessels KVK V33, KVK V36 and KVK V37 were also surveyed as part of the Corps' Collection and Removal of Drift Project and were determined significant (Raber, et al, 1996; James 1999). Vessel KVK38 was not evaluated through the previous surveys. Shooters Island V2, a floating dry dock, was evaluated in the late 1970s and early 1980s (Brouwer 1981; Kardas and Larabee 1985) and was at that time determined not significant, but as twenty years have passed, the vessel was reevaluated and determined significant. Shooters Island SS16b was not previously studied.

The remote sensing survey that identified the potential resources later examined through diving was conducted in 2002 along all channels considered for deepening. In most locations, the survey area covered from channel edge to 100 feet landward of the edge. In certain areas the 100-foot coverage was not possible due to shallow water depth or the presence of moored vessels. Two small areas, one near the Bayonne Bridge and the other at the entrance to Newark Bay, were not surveyed at all due to on going blasting by the Corps that presented a safety issue. The report containing the results of the remote sensing work is listed below. The report also includes a summary of previous work conducted in the Harbor, in particular cultural resource studies that were conducted as part of the Corps' Collection and Removal of Drift Project.

Brouwer, Norman
1981 Survey of Cultural Resources in the Form of Derelict Ships and Barges, Area II (Completion) of Shooters Island, New Jersey and New York Harbor Collection and Removal of Drift Project.

Kardas, Susan and Edward Larabee
1985 Historic American Buildings Survey/Historic American Engineering Record Level Recordation at the Ships Graveyards at Shooters Island, Staten Island, Richmond County, New York and Bayonne, Elizabeth, Hudson and Union Counties, New Jersey.

Lydecker, Andrew D.W. and Stephen R. James, Jr.
2003a Remote Sensing Survey in Connection with the New York and New Jersey Harbor Navigation Study, Upper and Lower Bay, Port of New York and New Jersey, Kings, Queens and Richmond Counties, New York; Essex, Hudson, Monmouth and Union Counties, New Jersey.

Lydecker, Andrew D.W. and Stephen R. James
2003b Target Investigations in Connection with the New York and New Jersey Harbor Navigation Study, Upper and Lower Bay, Port of New York and New Jersey, Kings, Queens and Richmond Counties, New York; Essex, Hudson, Monmouth and Union Counties, New Jersey. Draft Report.

Raber, Michael S., T.R. Flagg, Gerald Weinstein and Norman Brouwer
1996 Cultural Resources Reconnaissance of the Kill Van Kull Reach: New York Harbor Collection and Removal of Drift Project.

IV. Contractor Services and Required Investigations

A. The general services to be provided under this contract are those required to conduct, in the timetable and areas specified below, recording of six historic vessels located along the Staten Island and Shooter's Island shorelines, New York and New Jersey Harbor to satisfy the Corps' Section 106 requirements.

B. The Contractor shall be responsible for conducting in the manner prescribed, the investigation detailed below. Failure to fully meet the fieldwork and reporting requirements of this Scope of Work may be cause for termination of work for default of the contract, or for an evaluation of unsatisfactory upon completion of the project.

C. This Work Order requires the completion of the following tasks:

Task 1. - Background Research:

The Contractor shall conduct background archival research on the six (6) resources under study. This research shall be conducted to ascertain the history of the individual vessel as well as a history of the vessel type to determine how the example under study fits within a historic context. This work may include consulting with individual knowledgeable about maritime resources such as staff at the South Street Seaport Museum.

Task 2. - Develop a Dive Plan and Health and Safety Plan:

a. The Dive Plan and Health and Safety Plan shall serve as a safety plan and research strategy for the underwater water work as well as the work on vessels accessible at low tide. The Dive Plan and all diving will comply with Regulation No. 385-1-93 of the Safety Contract Diving Operations Requirements (Corps 1991; Appendix A), Occupations Safety and Health Standards 29 CFR 1910, EM 385-1-1, "Safety and Health Requirements Manual" dated 3 November 2003 (Section 30 and Appendix O) and the

U.S. Diving Manuals, Volume I and II, and all other applicable regulations and guidelines.

b. The Dive Plan will be reviewed by the District's Agency Diving Coordinator (ADC) and the Health and Safety Plan will be reviewed by the District's Health and Safety Officer. **District acceptance of the Dive Plan and Health and Safety Plan must be obtained before any fieldwork is undertaken.**

c. Both Plans will also indicate the location of the resources to be recorded and provide an overall research strategy for conducting the work.

Task 3. - Recordation of Vessels:

This task includes the mobilization and demobilization for the survey.

I. The vessels to be recorded, and level of recordation, are as follows:

a. KVK Vessel 33. Menhaden Fishing Trawler. Accessible only by water and best at low tide, it is recommended that Vessel 33 receive complete recordation. Architectural documentation should include the profile, the plan view of the deck, and the longitudinal cross section of the vessel, all of which can be obtained during low tide by non-diving personnel. Diving aspects of the recordation should include recordation of the stern, including rudder and propulsion, and the bow. Photo documentation in the form of 35 mm and video should also be undertaken. Archival research specific to Vessel 33 should also be included.

b. KVK Vessel 36. Wooden Hydraulic Dredge. Accessible only by water and best at low tide, it is recommended that Vessel 36 receive partial recordation. Architectural documentation should include recordation of basic dimensions. Photo documentation in the form of 35 mm and video.

c. KVK Vessel 37. *Paul E. Thurlow.* Four-Masted Schooner. Accessible only by water and best at low tide, it is recommended that Vessel 37 receive complete recordation. Architectural documentation should include a plan view of the hull outline, deck stanchions, and holds. Diving aspects of the recordation should include recordation of the stern, including rudder, and the bow. Photo documentation in the form of 35 mm and video should also be undertaken.

d. KVK Vessel 38. Floating Drydock. Accessible only by water and best at low tide, it is recommended that Vessel 38 receive complete recordation. Architectural documentation should include major dimensions, a plan view of the remaining hull, deck stanchions, bulkheads, framing, and the location of any remaining machinery. Since most of the original deck planking is no longer in place, thus allowing access to the internal structure of the pontoon, at least one cross section including internal strengthening of the pontoon should be included. Photo documentation in the form of 35 mm and video should also be undertaken.

e. Shooters Island Vessel 2. Floating Drydock. Accessible only by water, it is recommended that Vessel 2 receive complete recordation. Architectural documentation should include the profile, the plan view of the deck, and longitudinal cross sections of the vessel along both the centerline and through at least one of the wings. Also, at least one cross section should be obtained including both wings and the location of internal bracing, and remaining machinery, if safe access is possible. Most of the above documentation should be obtainable by non-diving personnel. Photo documentation in the form of 35 mm and video should also be undertaken.

f. Shooters Island Vessel SS16b: Unidentified Type; Composite Construction. Accessible only by water, it is recommended that Vessel SS16b should be fully recorded. Photo documentation in the form of 35 mm and video should also be undertaken.

Task 4. – Prepare Salvage and Conservation Plan:

Should research and field investigations undertaken as per Tasks 1 and 3 conclude that Shooters Island Vessel SS16b in fact represents a unique and innovative technology as suggested by evidence so far, the Corps will undertake an effort to identify a repository interested in curating selected portions of the vessel, if found to be salvageable through further field investigations. The Contractor shall determine if any portions of the vessel, such as propeller or section of the composite construction, are worthy of salvage. If such sections are identified, the sections should be clearly marked on drawings. A verbal description of the sections shall be included and justification as to why the pieces should be saved. Based on field conditions a plan should be developed to guide the salvaging and storage of such pieces. A plan should also be developed that describes the process and time needed to conserve the selected pieces and provides a range of costs associated with the conservation effort.

Task 5. – Data Analysis:

Conduct data analyses in order to synthesize the results of the recordation.
In addition to discussions in the text of the report, the data will be presented as follows:

a. A project area base map, outlining clearly and accurately, the inspection area on the appropriate portion of the relevant USGS 7.5' topographic quad sheet, with the name of the quad sheet clearly indicated in the map title and year of issue.

b. Base map(s), delineating the location of all underwater inspections conducted, and the project baseline.

c. Drawings of all vessels shall be presented at a scale appropriate to convey the required detail and information Photographs of the vessels shall include overview shots as well as close-up views of key features.

d. An exact navigational record of the location and water depth of the targets will be made.

Task 6. - Report Preparation

a. The Contractor will prepare a detailed draft and final report to the standards specified in Section V below. The New York District's Environmental Analysis Branch will be provided with four copies of the draft report for review. The draft reports should include scanned or digital photographs. The District, New Jersey Historic Preservation Office (NJHPO), New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP), and New York City Landmarks Preservation Commission (NYCLP) will review the draft report. All comments on the report will be transmitted to the Contractor for incorporation into the final report. The Contractor will submit (fifteen) 15copies of the final report, including five copies, with original photographs (one copy with original photographs will be unbound), the photographic negatives and a list identifying each, a copy of all notes and data, and any reports provided by the New York District to the Contractor. If digital photography is employed, CD ROMs containing files of all images must be included in a pocket bound to three (3) copies of the final report.

CD ROMs containing files of all DRAWINGS and PHOTOGRAPHS must be included in a pocket bound to three (3) copies of the final report.

b. The Dive Plan and Health and Safety Plan, prepared as Task 2, and the interim report, prepared as Task 3(f), will be included in the Draft and Final Reports as Appendices.

c. The draft reports will be reviewed by the New York District, NJHPO, NYSOPRHP and NYCLPC. All comments will be provided to the Contractor, who will make revisions to the Draft. The Final Report will address all comments received from the District.

Task 7. – Project Management:

Project Management will ensure that all requirements of this Scope of Work are fulfilled and that there is timely submission of all reports.

D. The Contractor will provide a safe working environment for all persons in his/her employ as prescribed by 29 CFR 1910 EM 385-1-1, "Safety and Health Requirements Manual" dated 3 November 2003; the U.S. Navy Diving Manuals, Volumes I and II; and applicable U.S. Army Corps of Engineers regulations. The Contractor will be responsible for all damages to persons and property that occur in connection with the work and services under this Contract, without recourse against the Government. The Contractor is responsible for having adequate insurance coverage for all activities required under this Contract. The dates for the dives must be coordinated with the New York District. A New York District Dive Coordinator may be required to be on site during the investigations.

E. The Contractor will provide the Corps with an interim report upon conclusion of the underwater investigations. This update will summarize the results of the investigations based upon field observations and brief the District on the data gathered by this

fieldwork. This interim report should include the evaluation of the feasibility of salvaging portions of vessel SS16b.

V. Report Format and Content

A. The draft and final reports will have the following characteristics:

1. Draft and final copies of the report of investigations shall reflect and report the analysis outlined in the Required Investigations section above (Section IV). They shall be suitable for publication and be prepared in a format reflecting contemporary organizational and illustrative standards of professional archaeological journals. The draft report will be revised to address all review comments.

2. The report produced by a cultural resources investigation is of potential value not only for its specific recommendations, but also as a reference document. To this end, the report must be a scholarly statement that can be used as a basis for any future cultural resource protection.

B. The draft and final reports shall contain the following components:

1. The **Title Page** of the report will state the title of the cultural resource study and the study level as indicated in the title of this Scope. The report title will specify whether the report is draft, revised draft, or final. The **Title Page** will also bear an appropriate inscription indicating authorship, the name and organizational affiliation of the Principal Investigator, and that the report was prepared for the U.S. Army Corps of Engineers, New York District. The source of funds used to conduct the reported work, the title and number of the contract and work order, and the date (month, year) the report was submitted will also be inscribed.

2. If the report has been written by someone other than the contract Principal Investigator, the cover and title page of the publishable report must bear the author's name and organizational affiliation as well as the inscription "**Prepared Under the Supervision of (Name), Principal Investigator**". The Principal Investigator is required to sign the original copy of the report. In addition, the Principal Investigator must at least prepare a forward describing the overall research context of the report, the significance of the work, and any other related background circumstances relating to the manner in which the work was undertaken.

3. A **Management Summary** of the findings, conclusions and recommendations of the study, appearing in front of the report and suitable for publication as an abstract. This should consist of a brief, quotable summary useful for informing the technically-oriented professional public of what the author considers to be the contributions of the investigations. The summary will also include the project name, type, location [county(ies) and municipality(ies) involved], and size as well

as the review authority. The location of the report copies should also be indicated. This will minimally be the files of U.S. Army Corps of Engineers, New York District, New Jersey State Historic Preservation Office, the New York State Office of Parks, Recreation and Historic Preservation, and the New York City Landmarks Preservation Commission.

4. A **Table of Contents,** including lists of all figures, plates, and tables presented in the report.

5. An **Introduction** stating the purpose of the cultural resources investigation and containing a general statement as to the type of evaluation conducted, regulatory authorities, and a summary of the findings and recommendations.

6. **Background Research** sufficient to assess potential eligibility and provide an historic context for wrecks. This section will include, but not be limited to the following elements:

> a. A **Brief Description of the Environmental Setting,** relating specifically to historic or environmental factors affecting the location of submerged objects, such as military ordinance or shipwrecks, in the project area.
>
> b. A **Critical Review of Documentary and Background Research,** including a brief summary of relevant historic events and sites in the project area vicinity and previous archaeological and historical research conducted in this area.

7. **Research Design,** which will include a description of the objectives and theoretical context, and any specific research questions. The Dive Plan will be referenced in this section.

8. **Methods,** which will make explicit the manner in which data were collected and analyzed and the identifications of any problems encountered during the investigations.

9. **Field Results** synthesizing all findings and the results of analyses. To the extent possible, the reasons for further investigation of a resource should be stated. If cultural resources are located which are not worthy of additional investigation to the National Register, then these reasons should also be stated.

10. **Recommendations** discussing the need for, or lack of need for, further cultural resources assessment, and the appropriate means of performing that assessment.

11. **Sources** section listing all references, citations, and consulted sources both within the text and within any appendices. This list must be in the format used by

professional North American archaeological journals (i.e. *American Antiquity*). Primary sources, personal communications, and other pertinent sources shall be annotated.

12. **Appendices** consisting of the Dive Plan, Health and Safety Plan, the interim report, instrument logs, and relevant field records.

C. The draft and final reports shall comply with the following format requirements:

1. Page size and format. Each report shall be produced on 8 1/2 x 11 inch paper, single spaced, with double spacing between paragraphs.

2. All text pages, figures, tables, and appendices must be consecutively numbered.

3. The text print must be letter quality printed on archivally stable paper.

4. Graphic presentation format:

a. All pages, including graphic presentations, will be numbered sequentially. All figures, maps, tables, etc., will follow their reference in the text.

b. All tables shall have a number, title, appropriate explanatory notes and a source note.

c. All figures shall have a title block containing the name of the project, county, and state.

d. All maps shall display a north arrow, title, graphical scale, year of publication (and year of revision, if appropriate) and key, whenever applicable.

e. All graphic presentation, including maps, charts, and diagrams, shall be referred to as "Figures". All figures must be numbered and cited by number within the body of the text. All figures, etc., will follow their references within the text.

f. Graphic presentations will include, but not be limited to,

1. a portion of the appropriate U.S.G.S. quadrangle showing the limits of the project area; and

2. sketch drawings and photographs showing the visible targets as they appear.

5. **Photographs** will be glossy black and white prints, no smaller than 5 x 7 inches. Photographic illustrations should be securely mounted by use of an archivally stable mounting medium. They should be fully captioned on the reverse in case they should be removed from the report. Photographs should appear on the facing page of the subject they illustrate. Photographs should be counted as "Figures" in a single running series of illustrations.

VI. Project Schedule

A. The Contractor will contact the New York District upon official notice of work order award. The Contractor shall submit the dive plan to the New York District ten working days after the award of the work order is issued. Fieldwork will begin within ten working days of the Districts' approval of the dive plan. The Contractor shall furnish three copies of the interim report to the District ten working days after the completion of the underwater inspections. This report will briefly detail the results of this work and include an analysis of the feasibility of salvaging portions of SS16b.

B. Four copies of the draft report, complete with all necessary maps and figures shall be submitted 90 working days after the Contractor's receipt of the approval of the dive plan.

C. The draft report will be reviewed by the New York District, NJHPO, NYSOPRHP, and the NYCLPC. Comments from these agencies shall be returned to the Contractor, along with any comments pertinent to textual changes or deficiencies. Upon receipt of review comments from the New York District, the Contractor will have 30 working days to incorporate the comments into the final report.

D. The Contractor will submit (fifteen) 15copies of the final report, including five copies, with original photographs (one copy with original photographs will be unbound), the photographic negatives and a list identifying each, a copy of all notes and data, and any reports provided by the New York District to the Contractor. If digital photography is employed, CD ROMs containing files of all images must be included in a pocket bound to three (3) copies of the final report. CD ROMs containing files of all DRAWINGS must be included in a pocket bound to three (3) copies of the final report.

VII. Fiscal Arrangements

A. Partial payment of the total amount allocated will be dispersed upon the receipt and acceptance of invoices. Invoices will be submitted monthly and with the Dive Plan, the Interim Report and the Draft Report. The total amount of these invoices shall not total more than 90% of the agreed work order amount. The remaining 10% of the agreed work order amount shall be paid upon the receipt and approval of the final report, photographs, original figures, etc. and the receipt of the final invoice.

B. Payments will be made in accordance with the "Prompt Payment" section in the base contract.

C. Scheduled completion date for the work specified in this Scope of Work is 30 September, 2004.

VIIL Additional Work Order Requirements

A. Agencies, institutions, corporations, associations, or individuals will be considered qualified when they meet the minimum criteria given below. In addition to the cost proposal, vitae for the Principal Investigator and main supervisory personnel must be submitted in support of their academic and experiential qualifications for their intended positions, if they have not been included in the original contract proposal.

1. **Archaeological Project Director or Principal Investigator (PI).** For investigations required by this Scope, the Principal Investigator position must be filled by an archaeologist who specializes in underwater/nautical archaeology as defined below. Persons in charge of an archaeological project or research investigation contract, in addition to meeting the appropriate standards for archaeologist, must have a doctorate or an equivalent level of professional experience as evidenced by a publication record that demonstrates experience in project formulation, execution, and technical monograph reporting. Suitable professional references may also be made available to obtain estimates regarding the adequacy of prior work. If prior projects were of a sort not ordinarily resulting in a publishable report, a narrative should be included detailing the proposed project director's previous experience along with references suitable to obtain opinions regarding the adequacy of this earlier work. The Principal Investigator must have at least one (1) year supervisory experience in underwater archaeology.

2. **Underwater/Nautical Archaeologists.** In addition to meeting the formal qualifications for an underwater or nautical archaeologist specified here, individuals filling this position must also meet the qualifications for divers as defined below. The underwater/nautical archaeologist will have at least one (1) year of supervised experience in marine archaeology, including extensive underwater training. The individual must have a demonstrated knowledge and at least six (6) months experience in the methods, techniques, and use of equipment required for archaeological survey and data recovery at submerged shipwreck sites. The minimum formal qualifications for individuals practicing archaeology as a profession are a B.A. or B.S. degree from an accredited college or university, followed by 2 years of graduate study with a concentration in anthropology and specialization in archaeology during one of these programs, and at least two summer field schools or their equivalent under the supervision of an archaeologist of recognized competence; a Master's thesis or its equivalent in research and publications is highly recommended, as is the Ph.D. degree. Individuals lacking such formal qualifications may present evidence of a publication records and references from archaeologists who do meet these qualifications.

3. **Standards for Consultants.** Personnel hired or subcontracted for their special knowledge and expertise must carry academic and experiential qualifications in their own

fields of competence. Such qualifications are to be documented by means of vitae attachments to the proposal or at a later time if the consultant has not been retained at the time of proposal.

4. **Institutional or Corporation Qualifications.** Any institution, organization, etc., obtaining the contract, and sponsoring the Principal Investigator meeting the previously given requirements, must also provide, or demonstrate access to the following capabilities:

a. Adequate field equipment necessary to conduct whatever operations are defined in this Scope.

b. Adequate facilities necessary for proper analysis and storage of records likely to be obtained from the project.

C. Principal Investigators shall be responsible for the validity of material presented in their reports. In the event of a controversy or court challenge, the Principal Investigators shall be required to testify on behalf of the Government in support of findings presented in their records. An equitable adjustment will be negotiated at that time, if warranted.

D. Neither the Contractor nor his representatives shall release any sketch, photograph, report, or other data, or material of any nature obtained or prepared under this contract without the specific written approval of the New York District prior to the time of final acceptance of the government.

E. The Contractor shall furnish all labor, transportation, instruments, diving equipment, boats and other associated materials to perform the work required by this Scope.

APPENDIX B: SALVAGE AND CONSERVATION PLAN FOR SS16B

September 30th, 2004

Ms. Lynn Rakos
Environmental Analysis Section
U.S. Army Corps of Engineers
New York District
Jacob K. Javits Federal Building
26 Federal Plaza
New York, New York 10278-0090

RE: Contract No. DACW51-01-D-0015, Delivery Order No. 0023
Recordation of Six (6) Vessels in Connection with the New York And New Jersey Harbor Navigation Study Upper and Lower Bay, Port of New York and New Jersey Staten Island, Richmond County, New York, and Elizabeth, Union County and Bayonne, Hudson County, New Jersey.

Dear Ms. Rakos:

The following summary discusses the feasibility of artifact and/or hull and machinery component recovery and conservation pursuant to vessel SS16B as part of the above-referenced project.

INTRODUCTION

From September 15th - 21st, 2004, Panamerican Consultants, Inc. (PCI) of Memphis, Tennessee conducted an underwater archaeological investigation of Shooter's Island vessel SS16B, as part of our response to the U.S. Army Corps of Engineers Scope of Work for the above-referenced project. This investigation was performed in accordance with Section 110 of the National Historic Preservation Act of 1966, as amended through 1992, and the Advisory Council on Historic Preservation Guidelines for the Protection of Cultural and Historic Properties (36 CFR Part 800). The purpose of this investigation was to record the extant remains of SS16B and to determine the feasibility of recovering and conserving portions of the machinery and framing. Vessel SS16B was determined during previous investigations (Lydecker and James 2002) to be a 70 foot long vessel of composite construction (wooden hull planking and iron framing) with a five-bladed propeller. Recommendations of the original 2002 study did not include further work for SS16B. However, during subsequent discussions with Mark Peckham of the New York SHPO, it was determined that SS16B represents a potentially significant vessel whose construction represents a transition between wooden and iron hull types. Also, it was suggested that the five-bladed propeller might represent a possible European influence on local shipbuilding, as that type of propeller is not common on locally built vessels.

PRELIMINARY STUDY RESULTS

The study examined the vessel in its entirety, evaluating both construction methods and general condition. Specific attention was paid initially to the existing machinery and the condition of the

hull and framing. The vessel has deteriorated considerably, and very little framing exists above the turn of the bilge. What little framing remains exposed is considerably concreted, and has deteriorated to the point where it is easily broken by hand (Figure 1). The same is true for the outer hull planking; what is exposed above the bottom is heavily damaged by marine borers (Figure 2). There is no exposed portion of the framing with hull planks attached that is intact enough to warrant recovery. It is possible that portions of the vessel that remain buried are in better condition, but it is not likely that the effort required to recover buried remains is justifiable given the historical value of the hull structure. The vessel's machinery was also examined. Very little remains of what was probably a steam powerplant, reduced basically to a portion of the drive shaft and the propeller. The propeller was examined, and determined to have four blades, not five as was originally determined. There are two reasons for the original misidentification. 1) The propeller was considerably more exposed during the 2004 investigation. In 2002, the aft end of the vessel was covered by a greater amount of debris than in 2004, and three blades were fully exposed in 2004 versus two blades in 2002. 2) The visibility was considerably greater in 2004, being at least three feet for most of the investigation. Visibility was near zero during the 2002 project. The condition of the propeller was also assessed, and it was found to be in less than desirable condition, with eight to twelve inches of two exposed blades broken off (Figure 3).

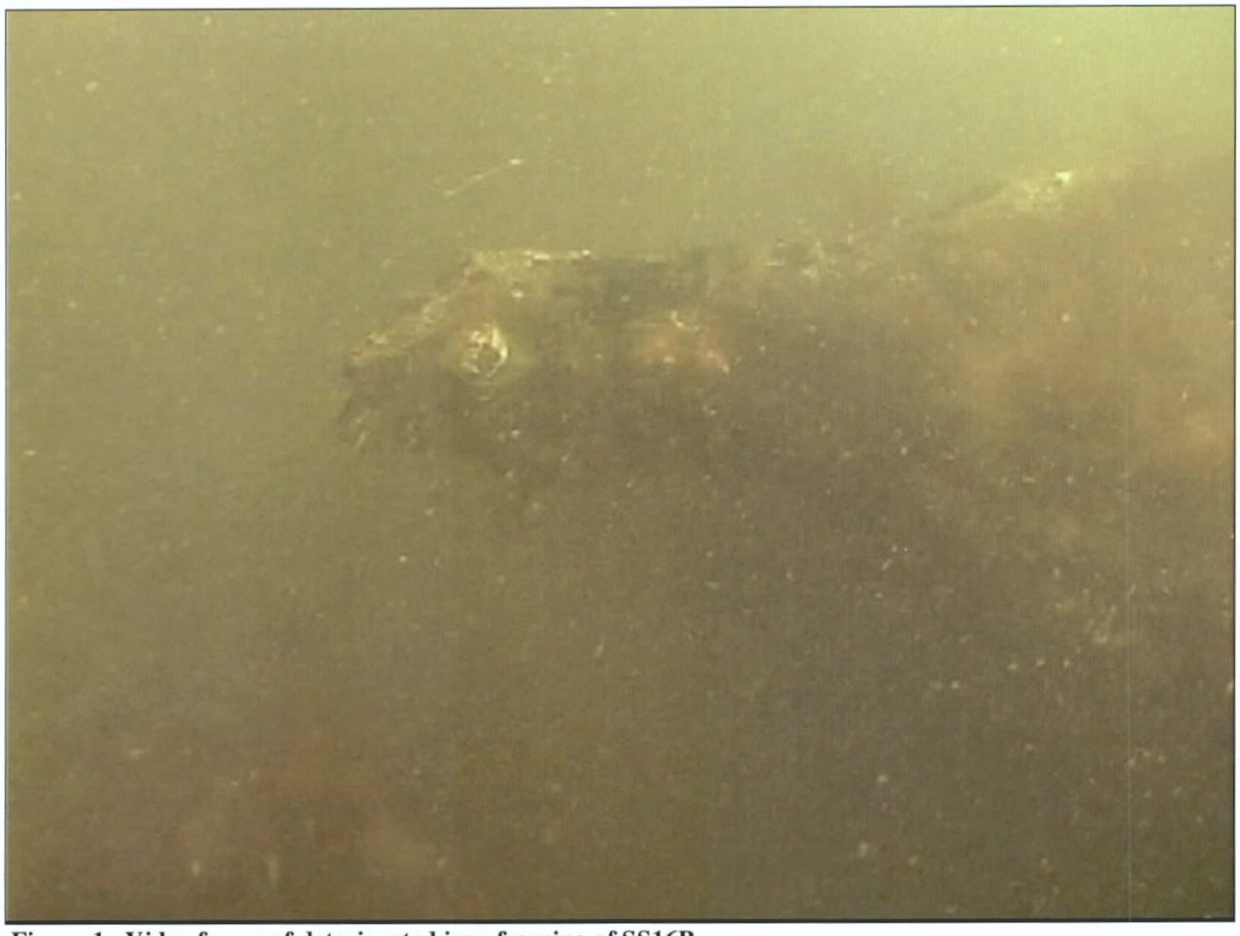


Figure 1. Video frame of deteriorated iron framing of SS16B.

Figure 2. Video frame showing deteriorated hull planking.

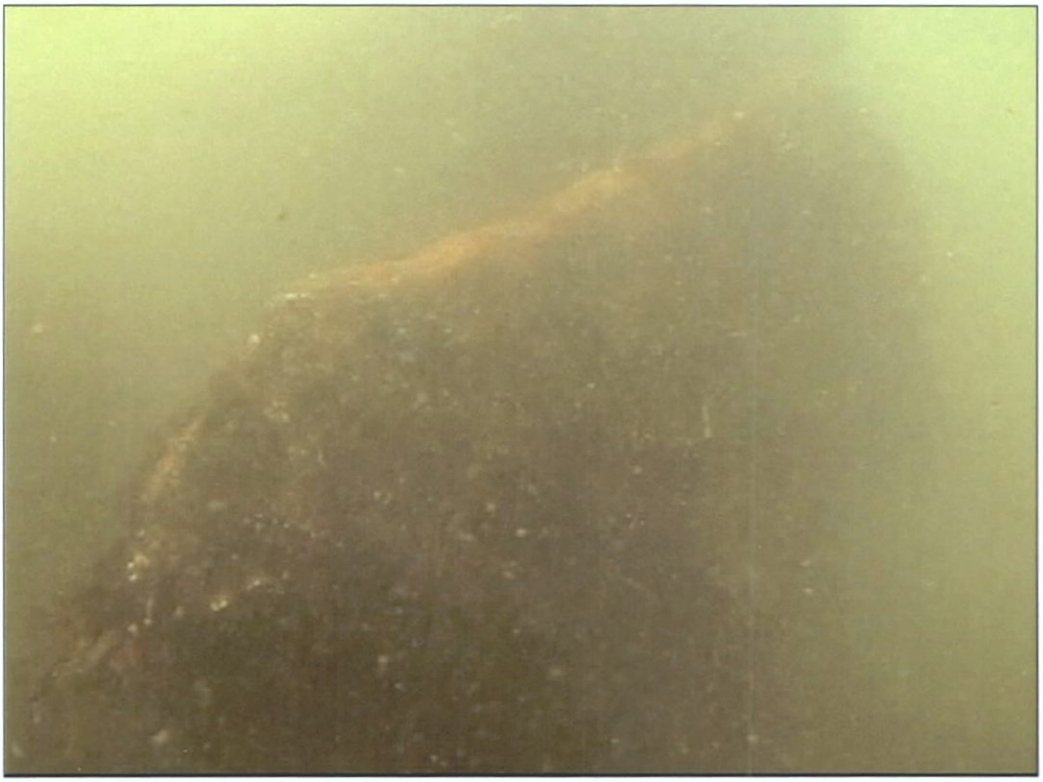


Figure 3. Video frame showing broken end of propeller.

While the structure of the vessel and machinery is less than ideal from a recovery and conservation standpoint, there are artifacts present which could be of interest to a local museum. Specifically, the project recovered three fire bricks (Figure 4) of interesting design which can be conserved with minimum expense. Preliminary discussions with the Haverstraw Brick Museum, in Haverstraw, New York, indicated that institution showed an interest in the bricks.

Three bricks were recovered from the wreck. Two are of the tongue and groove type and have LEMB-A-PAT'D pressed into the top (Figure 4), while the third is a standard 9 inch fire brick with MONARCH pressed into the top (Figure 4). It is possible that neither brick type is associated with SS16B, as the only place on the wreck that would have fire brick is the boiler bas, and it is primarily constructed of iron and mortar. At least one other vessel nearby has a brick boiler base, although additional diving will be required to confirm that the bricks on either vessel are identical to these. No company has yet been associated with the first bricks, but according to Gurcke (1987:266), a Monarch brick was manufactured by the North American Refractories Company from 1930 to 1935. This date further suggests that the bricks are intrusive, as the late date seems to postdate this type of vessel. With that said, there were a large number of brick companies, and it is certainly possible that a common name like Monarch has been used more than once. For now, the origin of the bricks remains inconclusive.

Figure 4. Tongue and groove brick recovered from SS16B.

Given the condition of both machinery and hull, it is the opinion of the Principal Investigator that there are no sections of hull or pieces of machinery whose historical value justifies the expense of recovery and conservation. In all, taking both the condition of the wreck structure, and the recovered bricks, the maximum return on effort has been acquired through the complete recordation of the vessel accomplished during the project and no further recovery is recommended.

Once the vessel's condition was determined and the potential for artifact recovery had been assessed, recordation efforts began. A base line was laid, with BL 0:0 (Baseline 0' 0") at the stern and the bow at BL 71:6 (Baseline 71' 6"). A site plan was created, showing the locations of key remaining vessel features (Figure 5). Several interesting features were noted, including the aforementioned drive shaft and propeller, along with the mounting base for the engine, the fire resistant base for the boiler, several athwartships bulkheads, and several fuel and/or water bunkers. Also noted were additional details on the composite construction. It was determined that the keelson and ceiling planks were of wood, and the hull was double planked, making the actual frames the only apparent portion of the hull constructed of iron.

Among the remaining vessel components was the drive shaft and propeller. Beginning at the stern and extending to 16:2 on the baseline, the shaft is eight inches in diameter and appears to be cut at the forward end. Several shaft bearings and pieces of support structure are extant at BL 6:0 and 7:0, while at BL 14:6 is a heavily concreted object which is probably the thrust block.

Beginning at BL 18:11 and ending at BL 22:0 is what appears to be the bed plate for a steam engine. While nothing else remains of the engine, which was likely salvaged, the base consists of a rectangular iron box measuring 6' 4" wide, 3' 1" long, and one foot tall, with sides measuring six inches thick (Figure 6). Midships and in line with the drive shaft are two round bottom grooves of a similar inner diameter to the drive shaft. These likely represent the bearing seats of the engine's crankshaft. Given the size and shape of the bed plate, it is likely that the engine was a single cylinder upright marine of the type discussed by Hawkins (1904:400). Such an engine was used in small pleasure craft and harbor tugs due to its greater economy and smaller floor space.

Several items lead to the conclusion regarding the size and type of the engine. The size of the bed plate, with its inner chamber being roughly a foot wide, contains room for a crank with only one journal. Also, the boiler is large in size compared to the engine, but according to Hawkins, single cylinder upright marine engines of the type used in this boat require more steam than a compound engine of similar horsepower (1904:400):

> "These engines require very little floor space in the boat, but on account of their greater steam consumption, need a larger boiler than compound engines." (Hawkins 1904:400)

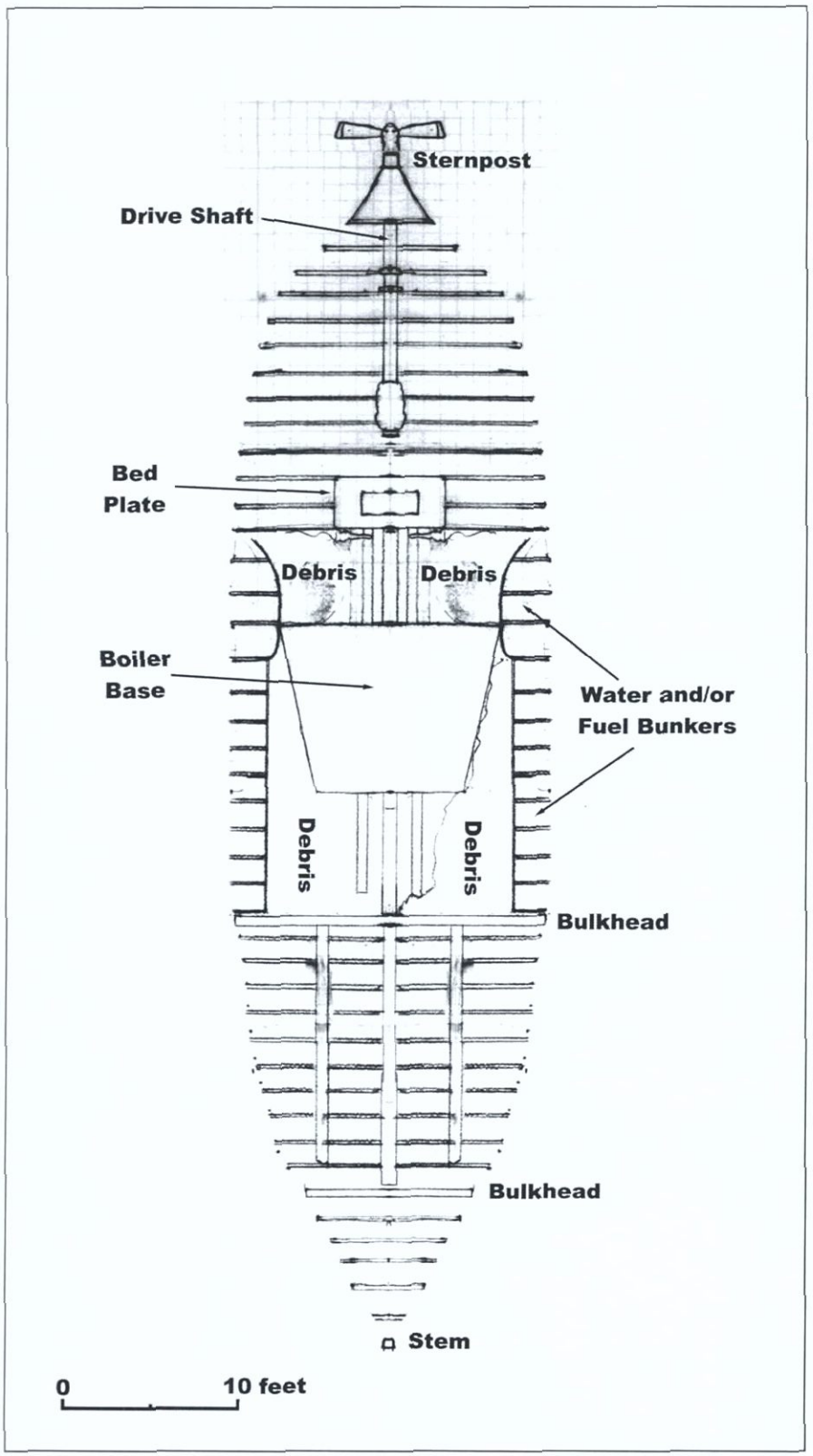


Figure 5. Preliminary site plan of SS16B

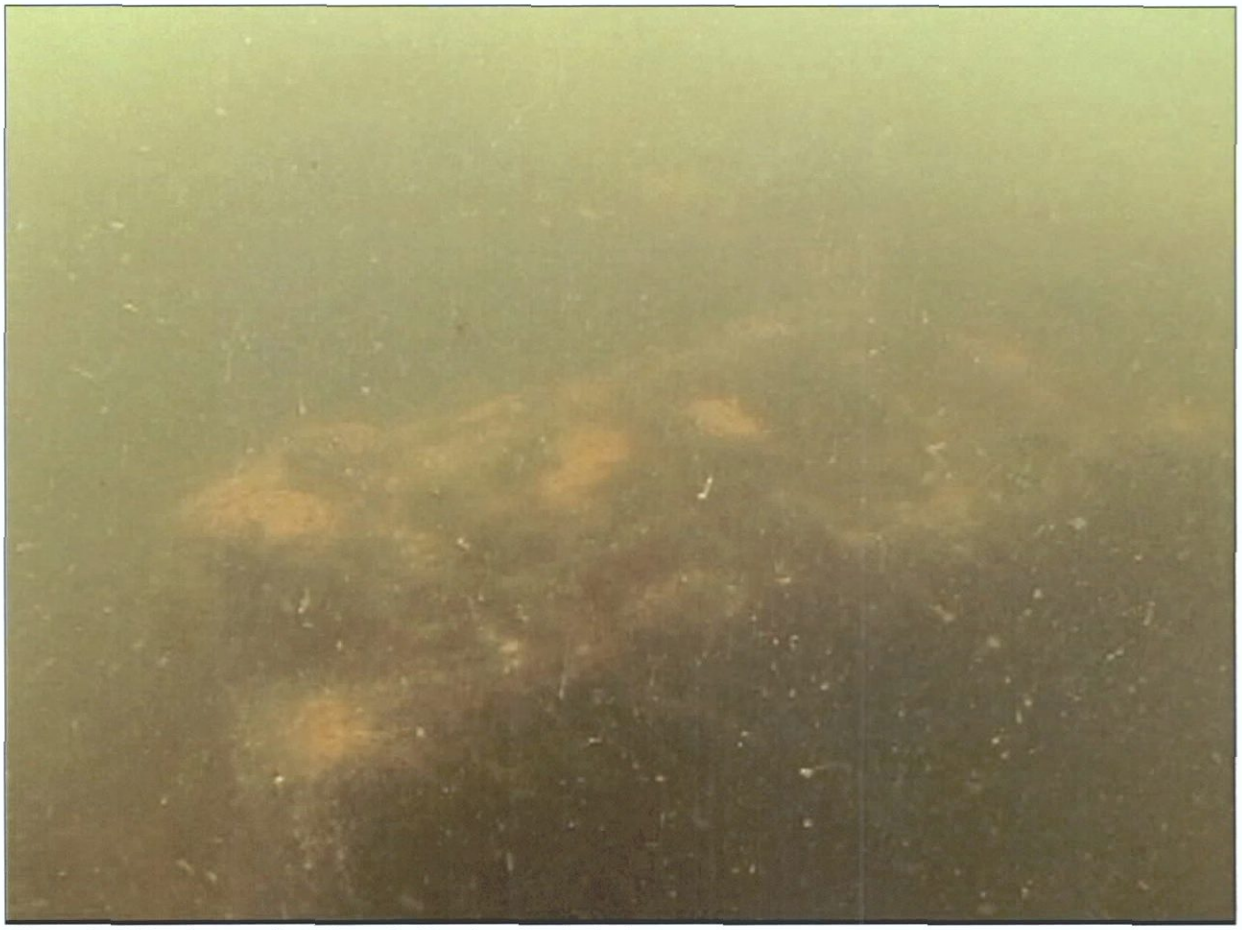


Figure 6. Video frame of starboard side of engine bed plate.

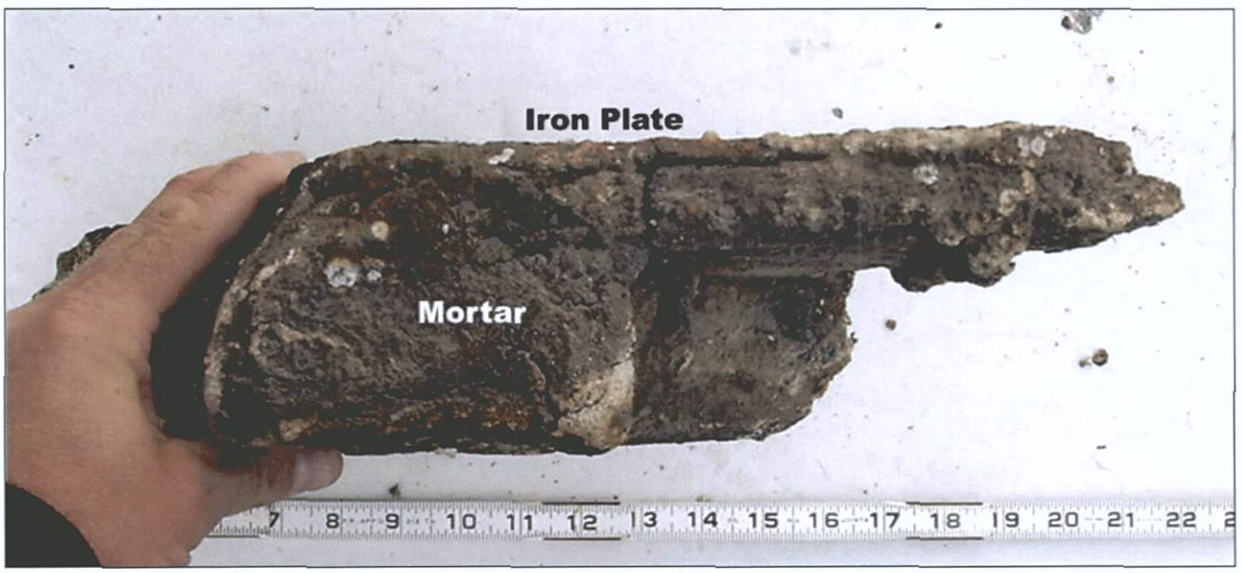


Figure 7. Section of boiler base showing top iron plate and mortar or concrete composition. Void on right side of section contained a brick.

The case for the engine being a single cylinder vertical engine is further strengthened:

> "In small pleasure boats and small harbor tugs, which have to stop and start at short intervals, there is not much advantage to using a compound engine, as many times live steam has to be admitted to the low pressure cylinder in starting, which decreases their economy, and the single engine...would be most desirable, their first cost being much lower than the compound, and they are of extreme simplicity" (Hawkins 1904:400)

The use of such engines in harbor tugs and other small harbor craft is well documented. The 19th century wooden hulled tug boat documented at Huchinson Island in Savannah, Georgia in 1992 is an example (Watts 1992). Examination of the site plan of this 77-foot-long vessel (Figure 8) shows a very similar layout to that of SS16B, including the size and placement of the boiler base, steam engine, thrust block, and shaft bearings. Also, description of the remaining steam engine (Figure 9) indicated a striking similarity to that of SS16B. An important difference was noted in the placement of the condenser and air pump cylinder and lever, which were mounted on the port side of the Huchinson Island vessel. While the condenser and air pump cylinder are absent from SS16B, the remains of what appear to be the pivot for the air pump and other control levers are present on the forward side of the bed plate. The difference between the two vessels can easily be accounted for by a difference in steam engine design.

Forward of the engine bed plate and stretching between BL 28:0 and 38:0, is the base that supported the boiler. It consists of a large flat iron plate mounted atop a composite brick and concrete structure (Figure 7), the whole of which is supported by a wooden frame.

Immediately outboard of the boiler base on each side of the vessel is what appears to be a series of fuel or water bunkers. Heavily deteriorated, they stretch from BL 22:0 to BL 45:3 and are approximately 2 feet wide at ceiling plank level. The inner bulkhead is vertical, and the outer bulkhead is formed by the outer hull. The entire bunker area apparently was divided into three sections, as the remains of two inner bulkheads were noted at BL 36:0 and BL 30:0. The aft compartment of the bunker appears to be a separate entity, as it is wider and the inner bulkhead has a different shape than the forward bunker. The forward bunker corresponds in location to the side coal bunkers illustrated in Paasch (Plate 44), (Figure 10). Its location also makes sense from a functional standpoint, as coal would have been added to the forward end of the boiler. The aft bunker, being different in construction and location is likely a tank holding water for the boiler although no plumbing or other evidence exists to indicate such.

Forward of the boiler base, between BL 28:0 and BL 45:6, is an area of partially exposed keelson and ceiling. The keelson measures 0:8 sided while the molded dimension is unknown, but likely the same. The ceiling planks are 0:5 to 0:6 sided and probably 0:3 molded, although this was not directly confirmed. Ceiling planks are exposed approximately 3:0 to either side of the keelson, where they become covered with gravel and debris.

The remains of two athwartships bulkheads were recorded at BL 46:0 and BL 62:6. Both bulkheads have similar construction of wood timber fastened to the iron framing (Figure 11). remains of both extend only 8-12 inches up from the floors.

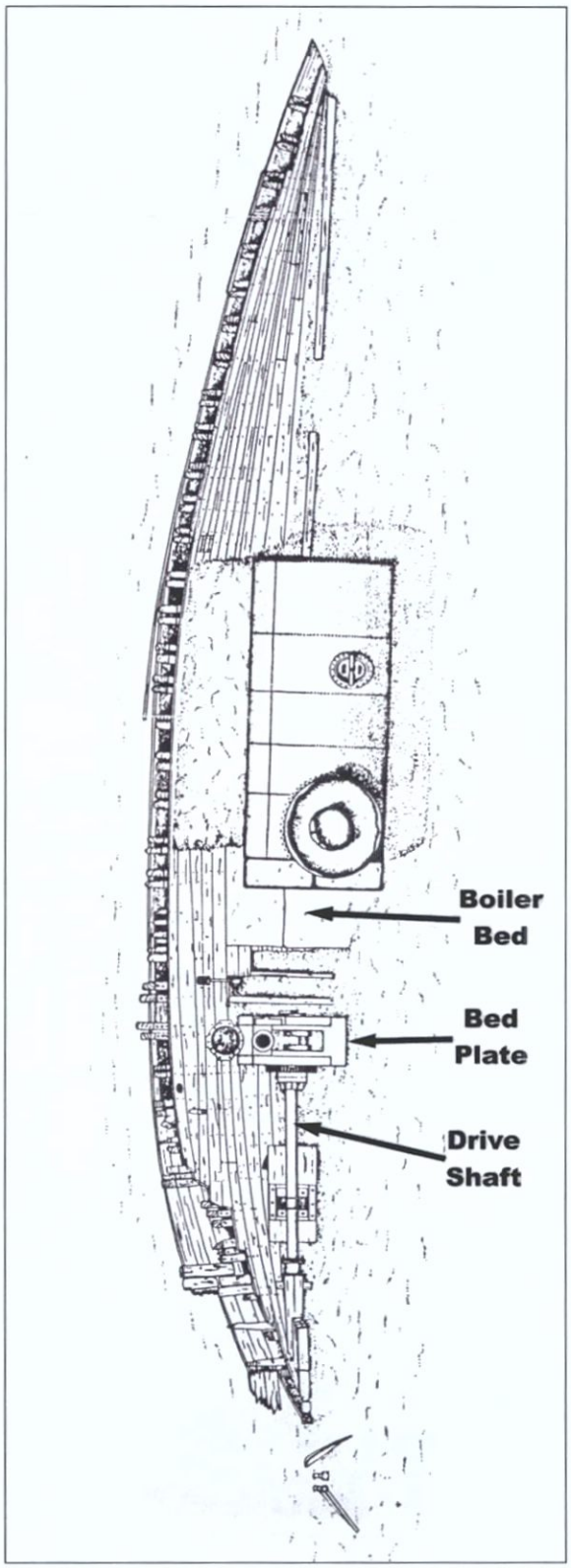


Figure 8. Site plan of Hutchinson Island tug wreck (as presented in Watts 1992)

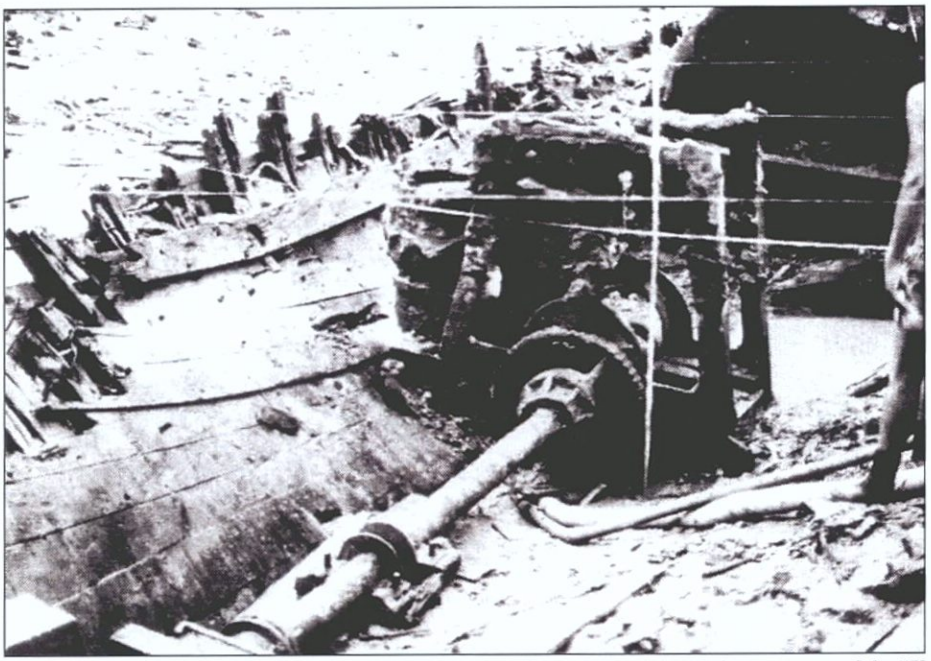


Figure 9. Boiler and bed plate on Hutchinson Island tug wreck (as presented in Watts 1992).

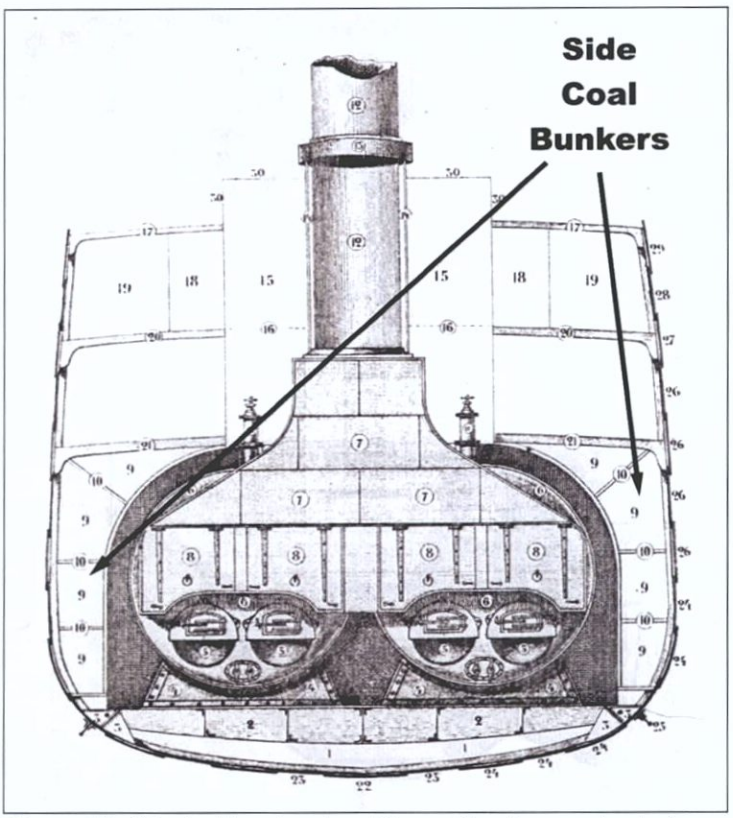


Figure 10. Illustration showing side coal bunkers on typical steamship (after Paasch 1890:Plate 44)

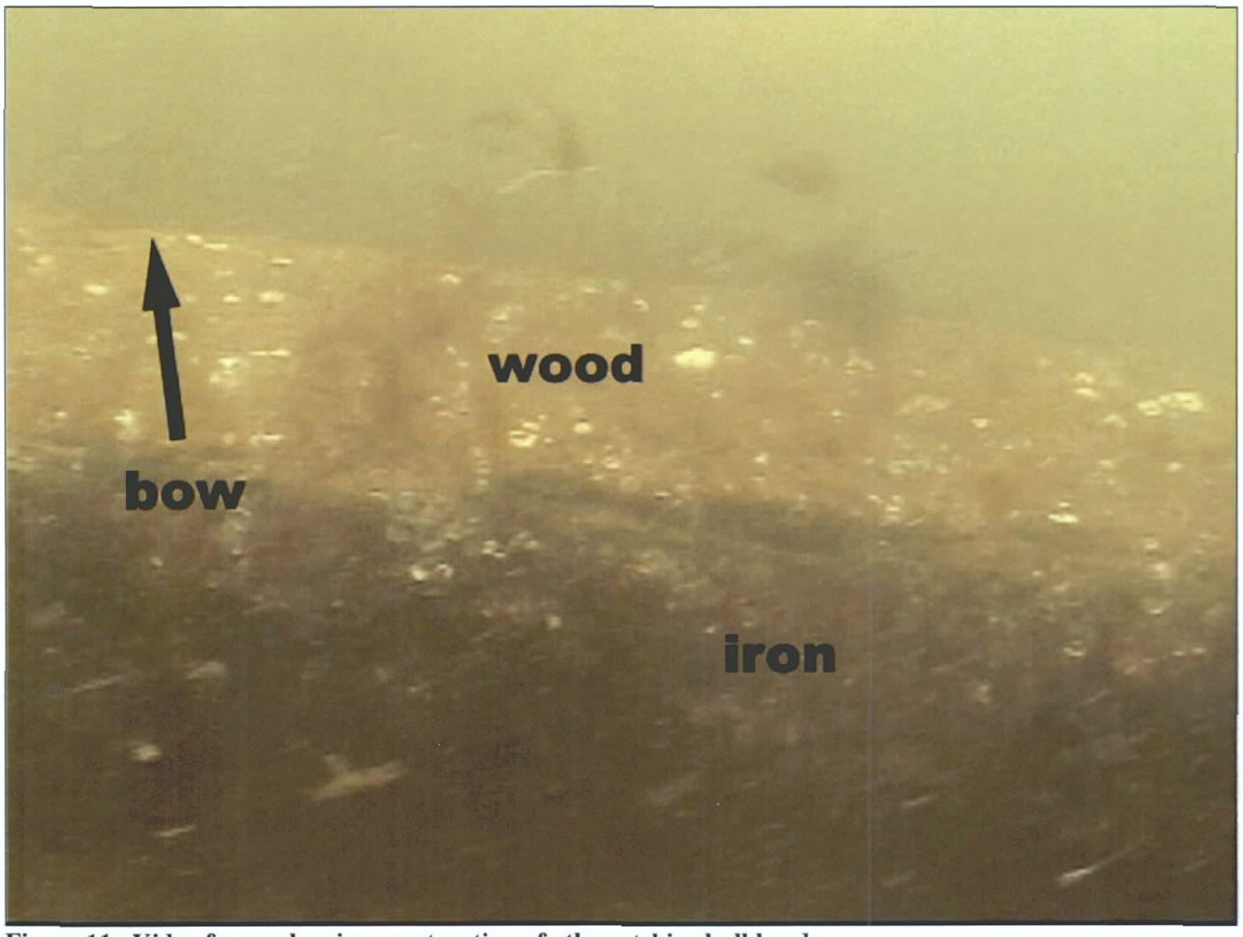


Figure 11. Video frame showing construction of athwartships bulkheads.

The stem consists of a wooden timber of 8 inch sided and 8 inch molded dimensions, and extends to approximately three feet off the bottom.

As previously mentioned, outer hull planking is highly deteriorated, with very little being both in good shape and attached to the framing. Much of the intact hull planking is at the bow and stern of the vessel, and has parted from the vessel frames and is either lying on the bottom next to the vessel or is attached on one or two frames only. Enough is extant for some basic observations to be taken, including scantlings. The hull appears to be truely double planked as opposed to initially single planked with sacrificial planking or repairs added later. Although highly eroded, scantlings appear to be 8 inches sided and 3 inches molded, while the outer planking is 8 inches sided and 2 1/2 inches molded.

Interesting details of the framing construction were noted. Initially thought to consist of I-beams, the frames were discovered to consist of a combination of sheet and angle iron fastened with rivets. Such construction is illustrated by Paasch (1890:Plate 38, Plate 29)(Figure 12), with the only difference being the use of a wooden keelson in place of the iron keelsons shown in the illustration. In addition to the framing shown in Paasch Plate 38, framing exposed at the stern of SS16B revealed side girders like those shown in Paasch Plate 29 (Figure 13). Both the side girders and the frames followed the Z-bar pattern (Paasch Plate 29-Z, Figure 13). Two-inch rivets were used to fasten the framing components. One important difference between the Paasch illustrations and SS16B is the existence of an additional longitudinal stringer placed across the frames directly above the side girder. This stringer was of composite wood and

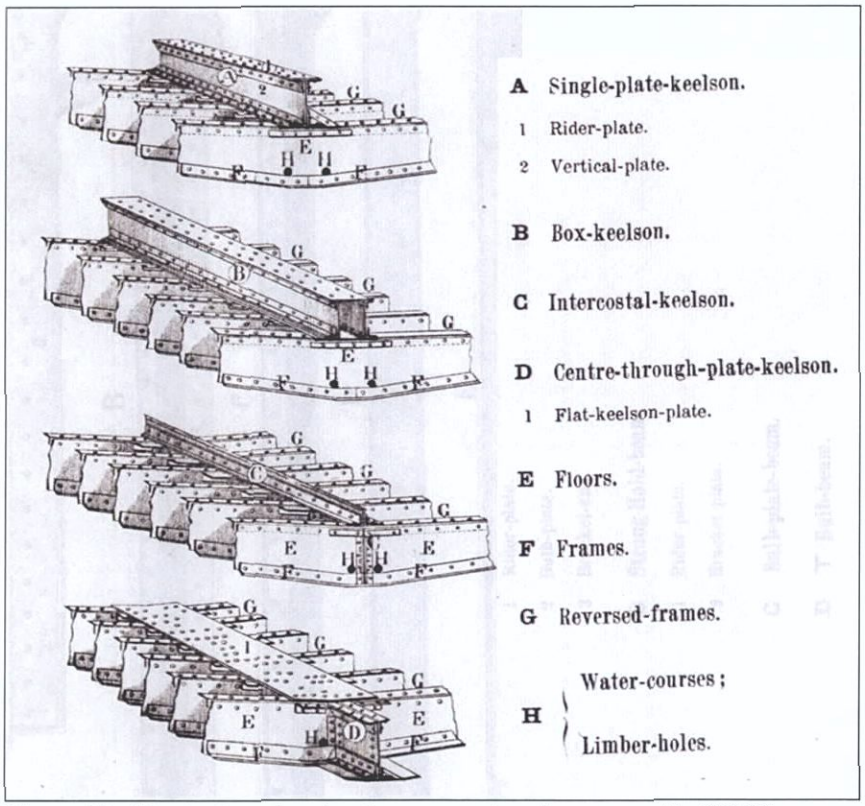


Figure 12. Illustration showing frame construction present in SS16B (after Paasch 1890 Plate 38)

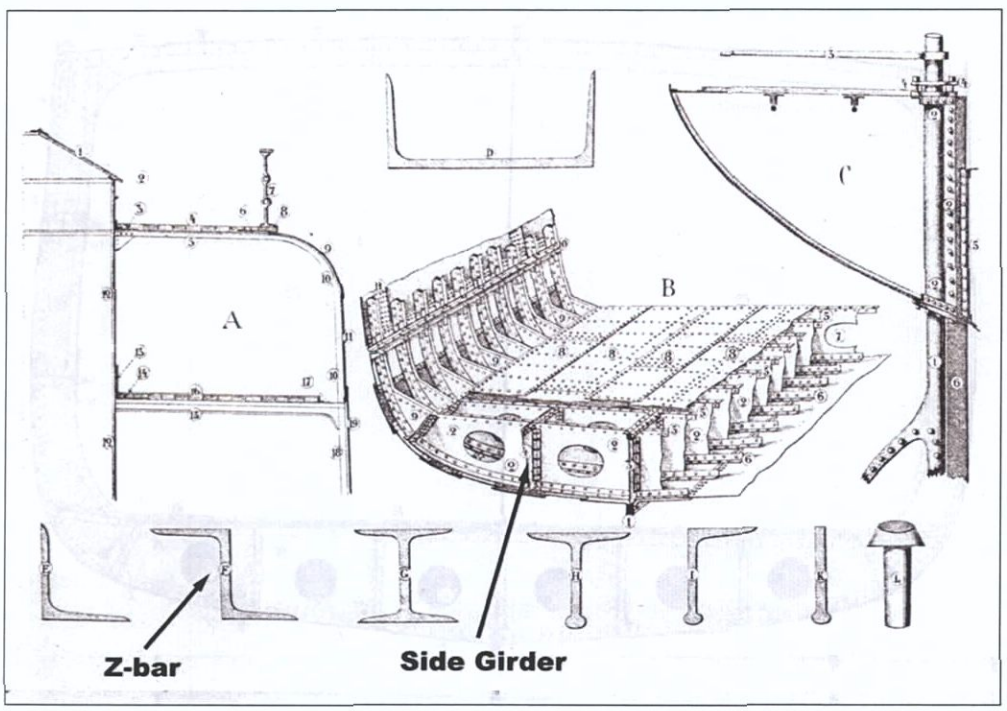


Figure 13. Illustration showing side girder framing and Z-bar like that found on SS16B (after Paasch 1890 Plate 29)

concrete construction, consisting of two 8 inch molded and 6 inch sided timbers with two inches of concrete sandwiched between. This stringer ran from BL 3:8 to BL 15:0 where it disappeared under debris. A similar stringer was noted on the starboard side.

Evidence of repairs to the fabric of the vessel in the form of a number of lead patches was also noted. These patches averaged 2 feet by 6-12 inches and were fastened to the inner side of the outer hull planking with fasteners of undetermined material. Many of the fasteners were missing or had been removed.

While considerable work has been completed on vessel SS16B, there is still data that need to be collected, including a number of cross sections as well as a profile of the wreck site. Also, the origin of the bricks discovered on the wreck needs to be further investigated. These will be accomplished as fieldwork progresses.

With regard to the recovery of hull sections and/or machinery components, it is the opinion of the Principal Investigator that, given the deteriorated condition of the hull and machinery, the historical value of the salvaged components would not justify the expense of recovery and conservation. Further archival research regarding composite construction tugs in general and this vessel in particular, as well as documentation of the extant remains of the vessel will serve to obtain the greatest amount of historical information for the time spent.

Sincerely,

Andrew D. W. Lydecker

cc: Steven R. James, Jr., Underwater Projects Manager
Dennis Petrocelli

APPENDIX C: MEMORANDUM OF AGREEMENT

STANDARD MITIGATION AGREEMENT
AMONG
THE U. S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER
AND
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER
REGARDING
SIX HISTORIC VESSELS
NEW YORK AND NEW JERSEY HARBOR NAVIGATION PROJECT
RICHMOND COUNTY, NEW YORK AND UNION COUNTY, NEW JERSEY

WHEREAS, a Programmatic Agreement (PA) was executed on 12 April 2000 among the United States Army Corps of Engineers, New York District (New York District), the New Jersey State Historic Preservation Officer (NJSHPO) and the New York State Historic Preservation Officer (NYSHPO) for the New York and New Jersey Harbor Navigation Study (Study) and an amendment to the PA was executed on 21 April 2003 which now defines the study as the New York and New Jersey Harbor Navigation Project (Project); and

WHEREAS, the New York District has identified six (6) historic wrecks eligible for the National Register of Historic Places (NRHP) (Vessel KVK 33, KVK 36, KVK37, KVK38 and Shooters Island V2 and SS16b); within the Area of Potential Effects (APE) through investigations conducted under the Stipulation I (A) of the original PA; and

WHEREAS, Vessels KVK 33, KVK 36, KVK 37 and KVK 38 are on the Staten Island shoreline in New York State and Shooters Island Vessel SS16b is located just within the state line of New York State; and Shooters Island Vessel 2 is located just within the state line of New Jersey; and

WHEREAS, the New York District cannot re-design the Project to avoid the historic resources; and

WHEREAS, all parties have determined that additional measures shall be carried out;

NOW, THEREFORE, the New York District, the NJSHPO, and the NYSHPO agree that the undertaking shall be administered in accordance with the following stipulations to satisfy the New York District's responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended.

STIPULATIONS

I. The New York District shall ensure that the mitigation for the impact to these six historic vessels is undertaken as follows:

a. KVK Vessel 33. Menhaden Fishing Trawler. Accessible only by water and best at low tide, it is recommended that Vessel 33 receive complete recordation. Architectural documentation should include the profile, the plan view of the deck, and the longitudinal cross section of the vessel, all of which can be obtained during low tide by non-diving personnel. Diving aspects of the recordation should include recordation of the stern, including rudder and propulsion, and the bow. Photo documentation in the form of 35 mm and video should also be undertaken. Archival research specific to Vessel 33 should also be included.

b. KVK Vessel 36. Wooden Hydraulic Dredge. Accessible only by water and best at low tide, it is recommended that Vessel 36 receive partial recordation. Architectural documentation should include recordation of basic dimensions. Photo documentation in the form of 35 mm and video. Archival research specific to Vessel 36 should also be included.

c. KVK Vessel 37. *Paul E. Thurlow*. Four-Masted Schooner. Accessible only by water and best at low tide, it is recommended that Vessel 37 receive complete recordation. Architectural documentation should include a plan view of the hull outline, deck stanchions, and holds. Diving aspects of the recordation should include recordation of the stern, including rudder, and the bow. Photo documentation in the form of 35 mm and video should also be undertaken. Archival research specific to Vessel 37 should also be included.

d. KVK Vessel 38. Floating Drydock. Accessible only by water and best at low tide, it is recommended that Vessel 38 receive complete recordation. Architectural documentation should include major dimensions, a plan view of the remaining hull, deck stanchions, bulkheads, framing, and the location of any remaining machinery. Since most of the original deck planking is no longer in place, thus allowing access to the internal structure of the pontoon, at least one cross section including internal strengthening of the pontoon should be included. Photo documentation in the form of 35 mm and video should also be undertaken. Archival research specific to Vessel 38 should also be included.

e. Shooters Island Vessel 2. Floating Drydock. Accessible only by water, it is recommended that Vessel 2 receive complete recordation. Architectural documentation should include the profile, the plan view of the deck, and longitudinal cross sections of the vessel along both the centerline and through at least one of the wings. Also, at least one cross section should be obtained including both wings and the location of internal bracing, and remaining machinery, if safe access is possible. Most of the above documentation should be obtainable by non-diving personnel. Photo documentation in the form of 35 mm and video should also be undertaken. Archival research specific to Vessel 2 should also be included.

f. Shooters Island Vessel SS16b: Unidentified Type; Composite Construction. Accessible only by water, it is recommended that Vessel SS16b should receive archival research and be fully recorded. Photo documentation in the form of 35 mm and video should also be undertaken.

II. Public access to the information generated from this project is desired and as such the report generated through the recordation described in Stipulation I shall be distributed to local repositories. A list of up to 10 appropriate repositories will be generated by the New York District and will be provided to the NY and NJ SHPO for review and approval. The New York District shall distribute this document to the repositories on the approved list.

III. Should research and field investigations undertaken as per Stipulation I conclude that Shooters Island Vessel SS16b in fact represents a unique and innovative technology as suggested by evidence so far, the Corps will undertake an effort to identify a repository interested in curating selected portions of the vessel, if found to be salvageable through further field investigations. This effort will include contacting up to 10 appropriate institutions. A list of such institutions will be generated by the Corps and submitted to the NY and NJ SHPO for review and approval. If an institution willing to accession such item(s) is found, the Corps will salvage and conserve up to two diagnostic artifacts such as the propeller and possibly a section of the frame with attached wood planking and provide them to the institution for their collection.

IV. The New York District shall ensure that qualified professionals meeting the National Park Service professional qualifications for the appropriate discipline [National Park Service Professional Qualification Standards, Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44738-39)] are used to complete this work.

V. TERMINATION

Any signatory to this Standard Mitigation Agreement may terminate it by providing thirty days notice to the other parties, provided that the parties will consult during the period prior to termination by certified mail to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the New York District will comply with 36 CFR Parts 800.4 through 800.6 with regard to individual undertakings covered by this Agreement.

VI. SUNSET CLAUSE.

This SMA will continue in full force and effect until the construction of the Project is complete and all terms of this SMA are met, unless the Project is terminated or authorization is rescinded.

Execution and implementation of this SMA evidences that the New York District has satisfied its Section 106 responsibilities for all individual Project undertakings stipulated in this agreement, and that the New York District has afforded the Council and the SHPO an opportunity to comment on the undertaking and its effects on historic properties.

NEW JERSEY STATE HISTORIC PRESERVATION OFFICE

By: _____ Date: _____
Dorothy P. Guzzo, Deputy State Historic Preservation Officer

NEW YORK STATE HISTORIC PRESERVATION OFFICE

By: _____ Date: _____
Bernadette Castro, Deputy Commissioner for Historic Preservation

U.S. ARMY CORPS OF ENGINEERS

By: _____ Date: _____
John B. O'Dowd
Colonel, Corps of Engineers
District Engineer

APPENDIX D: DIVE LOGS AND FIELD NOTES

6 vessels/24242-MAR
SS16B

Panamerican Consultants
P.O. Box 050623 Tuscaloosa, Al. 35405

Project 6 MS Sea
Location Skaggs SS166
Vessel Submariner

Dive # 1
Date 9/15/2004

DIVE LOG

DIVER D.F.
Dives in 12 Hr. Period 1
STANDBY DIVER Rhodes
PURPOSE assess current condition of SS166

ENVIRONMENTAL CONDITIONS:
Current Slkt -
Visibility 0
Temperature 73
Bottom Type silt/clay
Other

MODE AND EQUIPMENT:
SSA
Tank type T

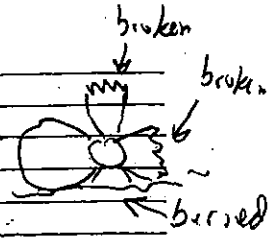
TENDER Elliott
LEAVE SURFACE 12:48
RISE SURFACE 2:23
TOTAL TIME 1:35
MAXIMUM DEPTH 80'

OTHER DIVERS DOWN:
N/A

MAXIMUM PLANNED TIME AND DEPTH
TANK PRESSURE START 2500
TANK PRESSURE RETURN
TOTAL AIR USED

TIMEKEEPER Lydecker
ONE-HOUR CHECKBACK OK

WORK ACCOMPLISHED AND REMARKS:
- found wreck 6 min in - diver on stern
- carving blades - might be 4 bladed
- 2 broken blades
heavily encrusted, but solid



- leaning forward
- rudder not intact - pieces on bottom possibly ends of rudder
- nothing clearly definable as rudder
- possible skeg
- possible stern post is wood
- hull planks deteriorated - next to stern post is better
- seperated hull planks on bottom
- only 2 courses of hull planks on frames
- solidness of concrete fills space to end of stern to 3'7" fwd - drive shafts goes through concrete
end face of concrete is iron plate

Panamerican Consultants
P.O. Box 050623 Tuscaloosa, Al. 35405

Project Chesters
Location P-55166
Vessel Robin Yonkel

Dive # 2
Date 9/16/2004

DIVE LOG

DIVER Elliott
Dives in 12 Hr. Period 1
STANDBY DIVER Rhodes
PURPOSE log baseline, take measurements

ENVIRONMENTAL CONDITIONS:
Current <1 kt
Visibility 0
Temperature 73°
Bottom Type silt/debris
Other

MODE AND EQUIPMENT:
SSA
Tank type T 320 ft²

TENDER Duff
LEAVE SURFACE 9:38
RISE SURFACE 11:01
TOTAL TIME 1:23
MAXIMUM DEPTH 8'

OTHER DIVERS DOWN:
N/A

MAXIMUM PLANNED TIME AND DEPTH 2hr/110 ft
TANK PRESSURE START 1900
TANK PRESSURE RETURN 600
TOTAL AIR USED 700

TIMEKEEPER Lydecker
ONE-HOUR CHECKBACK OK

WORK ACCOMPLISHED AND REMARKS:
See attached sheet

9/16/2004

Dive 2

1300 psi in
60.0 psi out
9:38 in
11:01 out

Diver - Elliott
Tender - Duff
Safety - Rhodes
Timekeeper - Lydecker

~~Objectives~~
- video if possible
- place baseline

Dive 10, head to wreck. Placing baseline to stern post. Checking weight belt placed 9/L ~~bow~~ stern stem to bow. Boat approx 70' long

Bricks swap
Oct 18th

LEMB-A-PAT

Bricks
~~Hangover Shoals~~

Emiline

Left Left
Engine
Port

Wed -
Sat -
Sun -

Sat Lunch 10:45

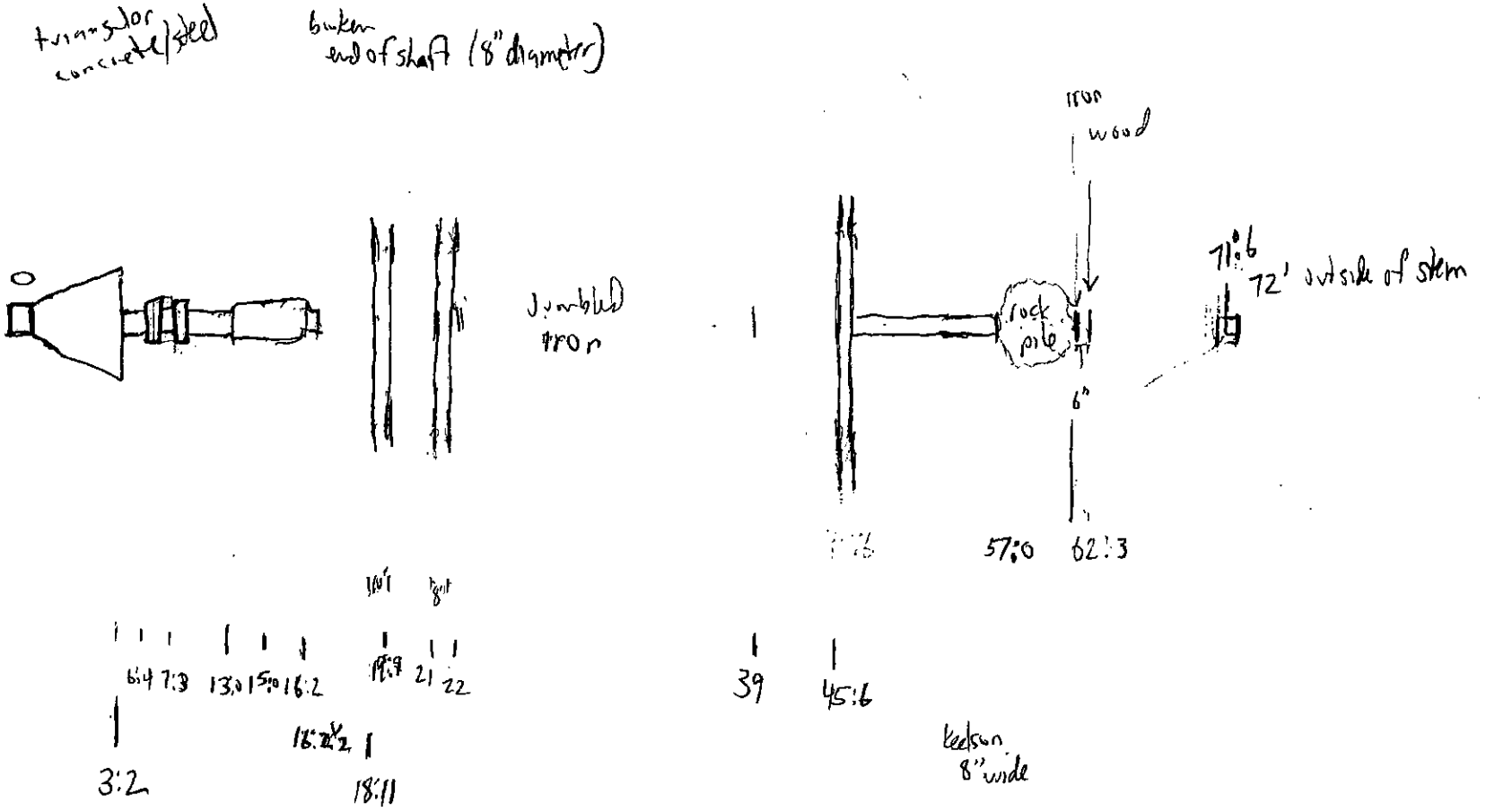
Paul
732 928 4519

Nancy Brighton
212-264-2198

Haverstraw Brick Museum
12 Main St.
845 947 3505

Pat Gordon

9/16/2004
A. Lackey
ME//10th - DNR



Panamerican Consultants
P.O. Box 050623 Tuscaloosa, Al. 35405

Project 6 Vessels
Location SS 16 B
Vessel Southern Yankee

Dive # 3
Date 9/16/04

DIVE LOG

DIVER Lybecker
Dives in 12 Hr. Period 0

STANDBY DIVER Rhodes
PURPOSE offset measurements

ENVIRONMENTAL CONDITIONS:
Current <1/4
Visibility 3ft
Temperature 73°
Bottom Type silt/debris
Other

MODE AND EQUIPMENT:
SSA

Tank type T - 320 ft³

TENDER DSF
LEAVE SURFACE 12:00
RISE SURFACE 2:00
TOTAL TIME 2:00
MAXIMUM DEPTH 8'

OTHER DIVERS DOWN:
N/A

MAXIMUM PLANNED TIME AND DEPTH 2 hour 110 ft
TANK PRESSURE START 600 TANK PRESSURE RETURN 1950 to 1600
TOTAL AIR USED 1150

TIMEKEEPER Elliott ONE-HOUR CHECKBACK OK

WORK ACCOMPLISHED AND REMARKS:
see attached sheet

Date 9/16/04
Dive 3

6 vessels

Diver - Hardacker
Tender - Outt
Safety - Rhodes
Timekeeper - Elliott

Objective - measure offsets / possible video

600 PSI start switched @ 300 PSI @ 1235pm New Bottle 2500 PSI
PSI finish 1950 PSI Bottle 2

Time in - 12:00
Time out - 2:06

38ft - wood framing Brick & B.P. CL

68ft 2ft 4in to outer Hull frame
66ft 8in - 2ft 9in to outer Hull
64ft 4ft 4in Frame to outer Hull
62ft 5in - 5ft to outer Hull
62ft 5in - Foreward Bulkhead transverse
60ft - 6ft 7in to outer Hull Hull
55ft - 8ft 3in to outer Hull
45ft 6in - 9ft 3in to outer Hull
45ft 6in - Edge of Bulkhead
30ft - Stringer makes 90° turn to port
38ft - 5ft Edge of B.P. to outer Hull
38ft - 4ft 5in port Edge of B.P.
38ft - Fore Edge of Boiler Plate
29ft 10in 3ft 4in stringer to outer Hull
27ft 10in 6ft 2in to Long stringer
27ft 10in - start of Boiler plate

21ft 10in - End of Iron box
22ft 8in - athwart ships timber
22ft 8in
21ft 9in - 9ft 2in outer hull planking offset
21ft 9in - 3ft 7in outboard Edge of Box
21ft - 1ft 7in
19ft 8in - 1ft 7in inboard side of Hole
19ft - 3ft 2in outboard Edge of Box
16ft 10in - frame 9ft 1in TOB
9ft 1in - 2ft 10in stringer TOB
9ft 1in - frame 4ft 5in stringer
7ft 7in Long stringer turn of Bilge 2ft 6in
7ft 7in - Frame Longitudinal stringer 4ft 2in
6ft 2in - Longitudinal Frame 3ft 9in
6ft 2in - frame - 5ft 9in turn of bilge
4ft 7in - 4ft Hull planking
4ft 7in - frame
3ft 1in - frame
3ft - 2ft 7in Hull planking

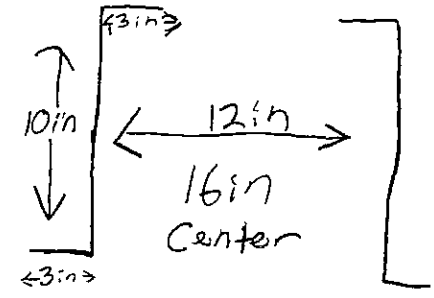
Baseline -

TOB - Turn of Bilge
BP = Boiler plate

60ft ⇒ outer Hull planking 3in & 2nd outer later 2½ thick

Double Later outer Hull planking

ROOM & SPACE
- 3 to 4in - Frame



Frame count
43 @ 68ft 4in
39 @ foreward transverse Bulk Head
1-26 uniformalth spaced 16in center
1-3ft 1in -
Frames

P

S

Panamerican Consultants
P.O. Box 050623 Tuscaloosa, Al. 35405

Project 6 Wells
Location 55/6B
Vessel Southern Mariner

Dive # 4
Date 9/20/2004

DIVE LOG

DIVER Duff
Dives in 12 Hr. Period 1
STANDBY DIVER Elliott
PURPOSE examine stern

ENVIRONMENTAL CONDITIONS:
Current Calm
Visibility 3ft
Temperature 73°
Bottom Type Sand/silt
Other

MODE AND EQUIPMENT:
SSA
Tank type T

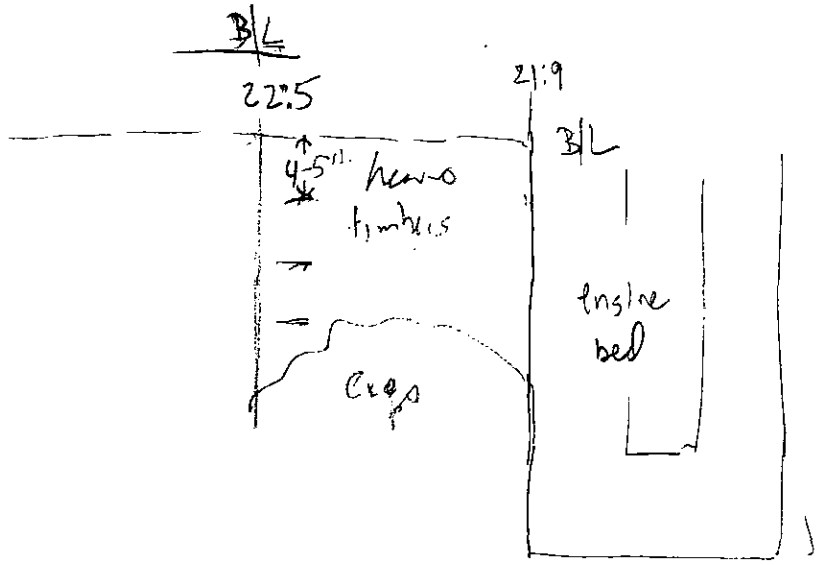
TENDER Knight
LEAVE SURFACE 956
RISE SURFACE 1244
TOTAL TIME 2:48
MAXIMUM DEPTH 8'

OTHER DIVERS DOWN:
N/A

MAXIMUM PLANNED TIME AND DEPTH 2hrs/80ft
TANK PRESSURE START 2350
TANK PRESSURE RETURN 1000
TOTAL AIR USED 1350

TIMEKEEPER Lockett
ONE-HOUR CHECKBACK OK

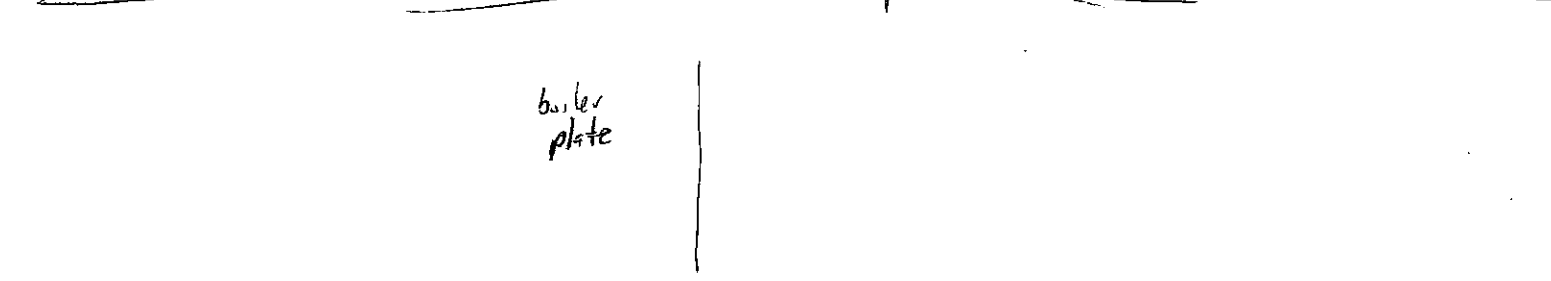
WORK ACCOMPLISHED AND REMARKS:
Examine stern and prop

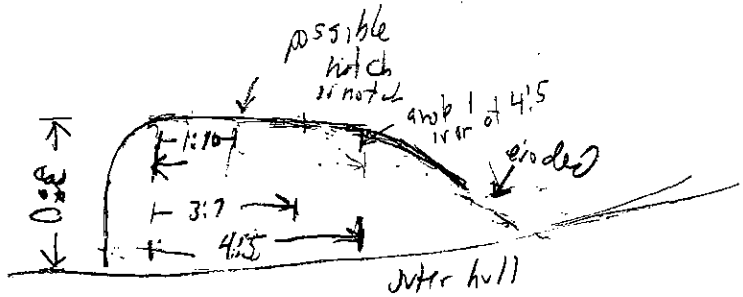


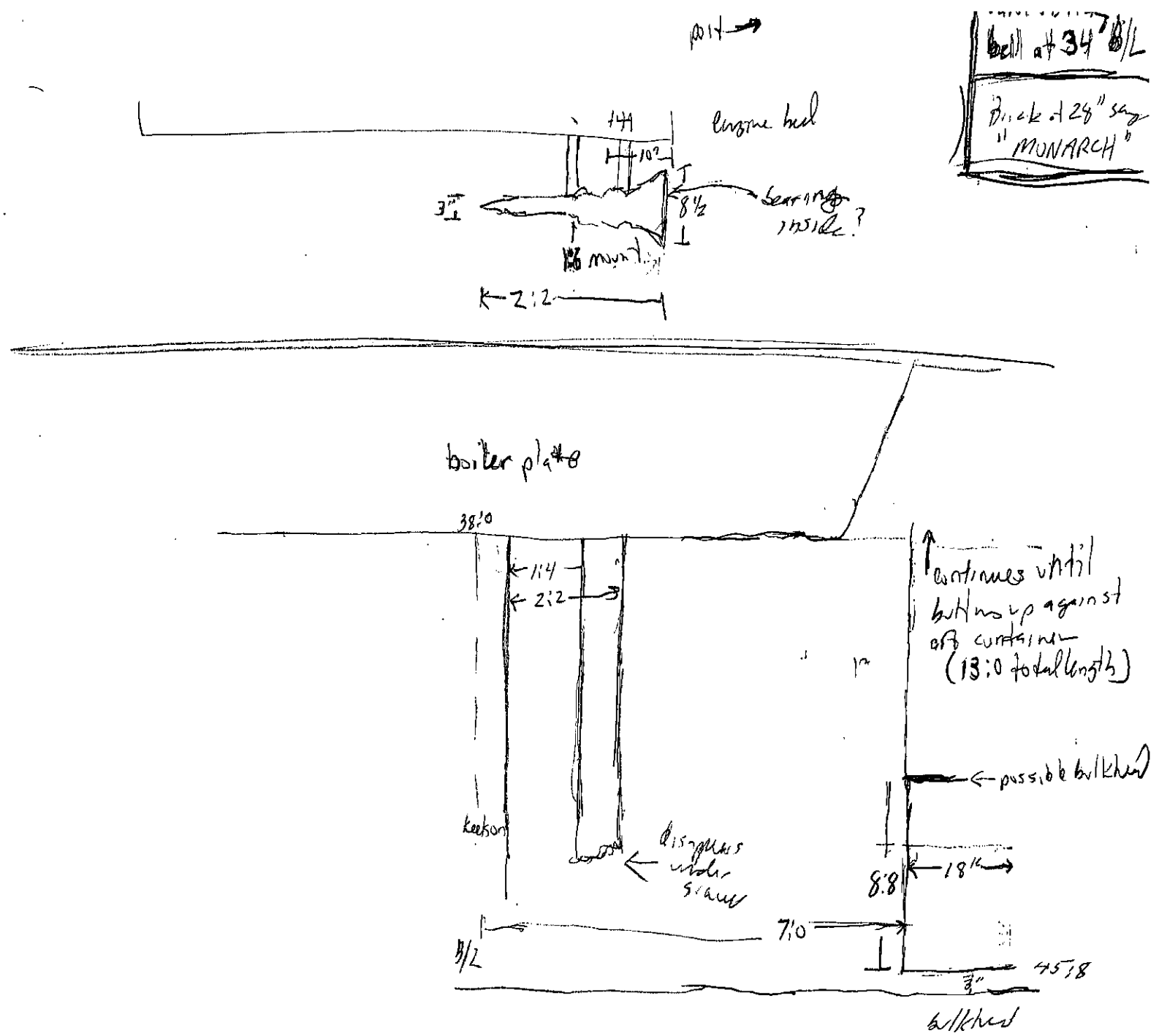
brick @ 23"

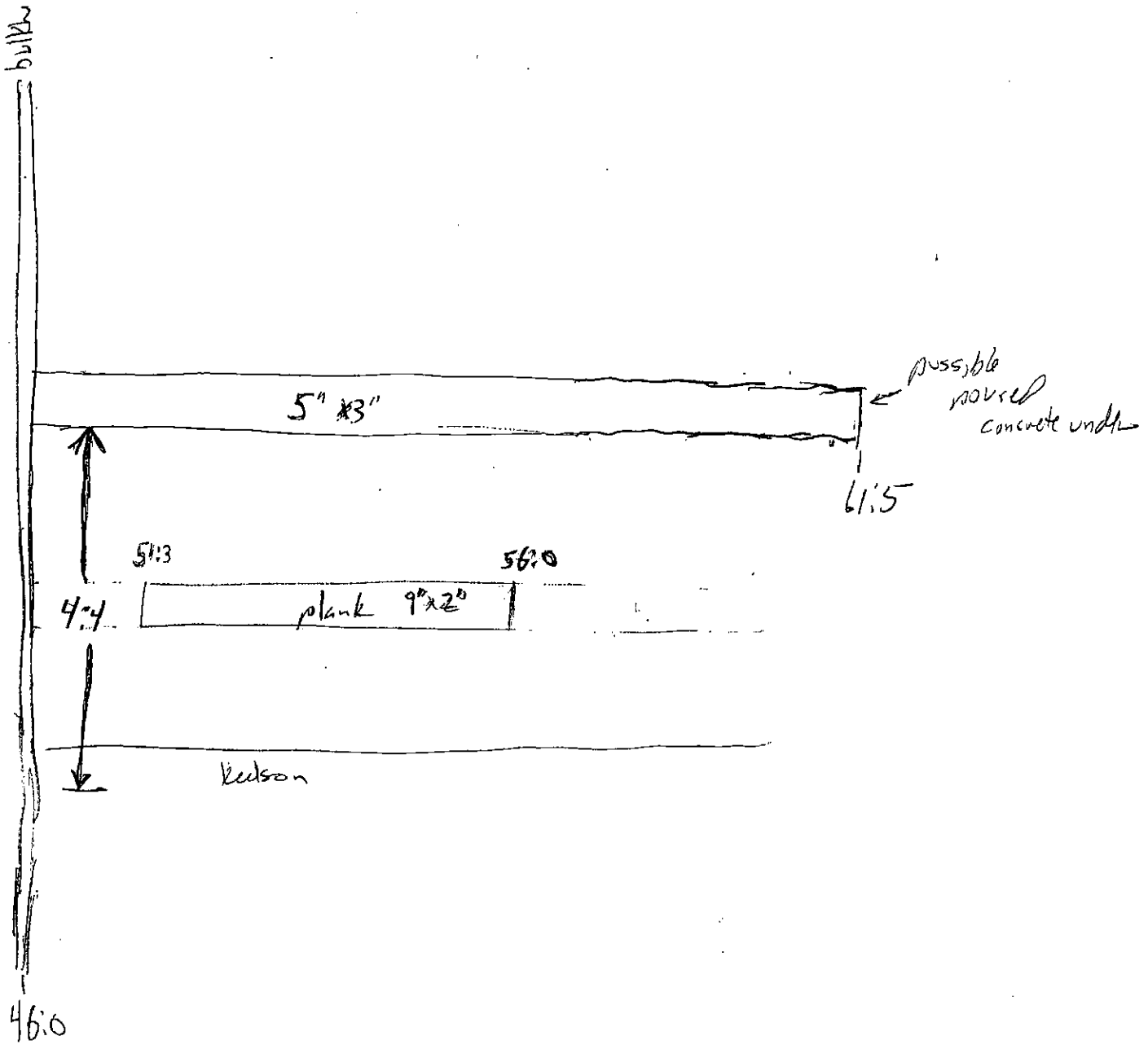
engine bed sitting on heavy timber base

23'0





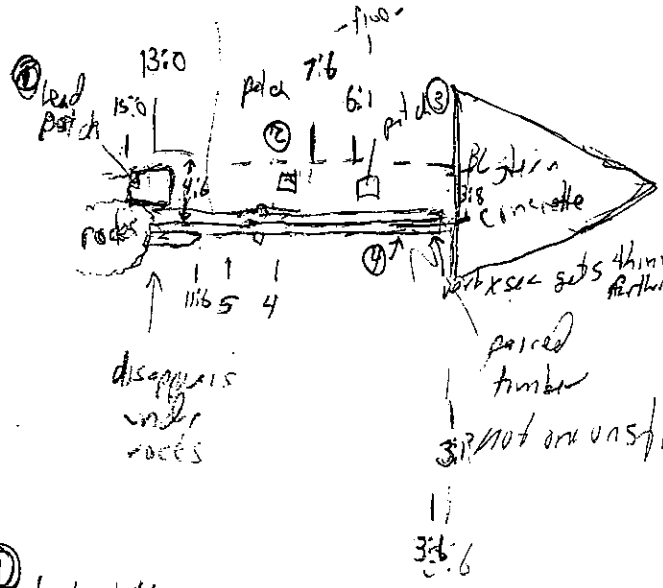

bell at 34' 8/L
Back at 28" sag
" MONARCH "
port
engine bed
14
10"
3"
8½
bearing inside?
1½ mount
2:2
boiler plate
38:0
1:4
2:2
continues until butts up against aft curtain (13:0 total length)
possible bulkhead
keelson
disappears under stern
8:8
18"
7:0
3/2
45:8
3"
bulkhead

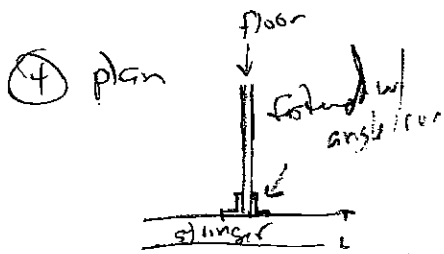


Span under B/L at 45:3

aft stringer detail

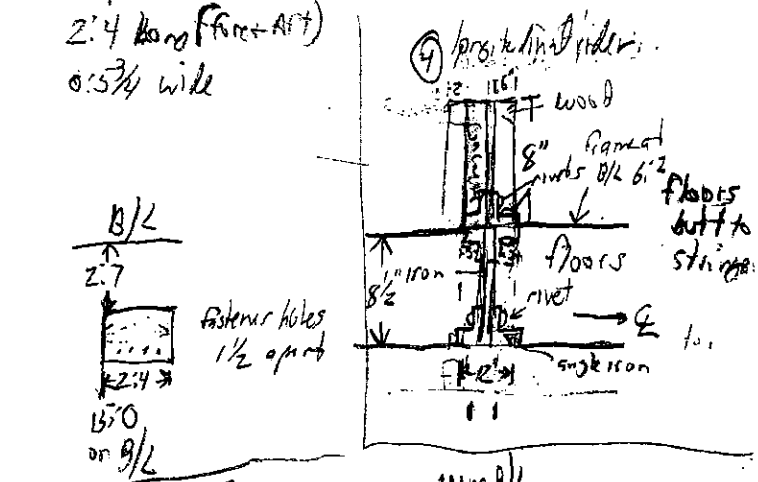
rider / frame construction





④ plan

- top stringer is composite of angle iron, iron plate in center, wood inboard & concrete outboard
- all angle iron appears to be 3"
- frame is riveted



Panamerican Consultants
P.O. Box 050623 Tuscaloosa, Al. 35405

Project 040525
Location 5516B
Vessel Silver Eagle

Dive # 5
Date

DIVE LOG

DIVER Faught
Dives in 12 Hr. Period
STANDBY DIVER Elliott
PURPOSE Video, Last Training week

ENVIRONMENTAL CONDITIONS:
Current <1kt
Visibility 3ft
Temperature 72°
Bottom Type Silt/debris
Other

MODE AND EQUIPMENT:
SSA
Tank type 7

TENDER Rhodes
LEAVE SURFACE 9:28
RISE SURFACE 10:52
TOTAL TIME 1:24
MAXIMUM DEPTH 8'

OTHER DIVERS DOWN:
N/A

MAXIMUM PLANNED TIME AND DEPTH
TANK PRESSURE START 950/1900 TANK PRESSURE RETURN 200/1400
TOTAL AIR USED 1200

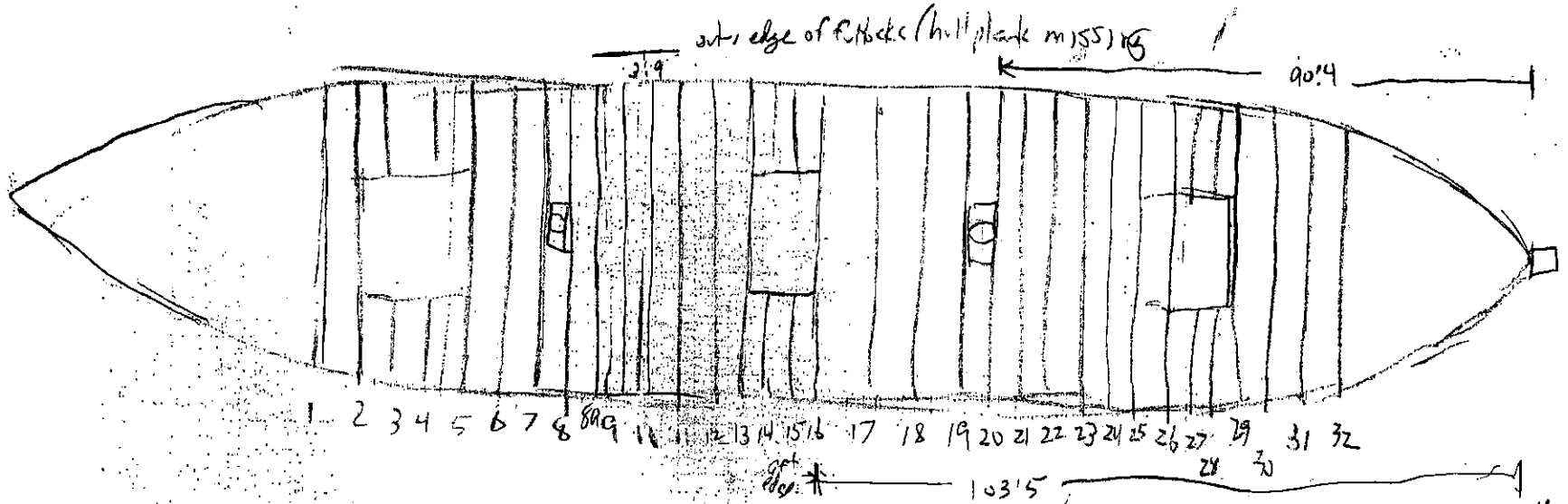
TIMEKEEPER Kubicka ONE-HOUR CHECKBACK

WORK ACCOMPLISHED AND REMARKS:
Examine Wreck
remove artifacts
video aft stbd quarter & port bulkhead/boilers/tanks
review baseline

running deck beam measurements

beam	mass id	OC full sheer deck beam
1		
2	3	
3	8:9	
4	13:1	
5	17:5	
5a	18:10	
6	23:2	
7	27:5	
8	31:6	
8a		
9	38:7¼	
10	41:5	
11	44:3	
12	47:5	
13	50:6	
13a	51:11½	
14	56:3¾	
15	60:7½	
16	64:11½	
16a	66:4	
17	69:6	
18	72:7½	
19	75:10½	
20	80:1	
21	83:5½	
22	86:11	
23	90:5½	
24	94:0	
25	97:5½	
25a	101:0¼	
26	102:5	
27	106:9½	
28	111:1⅔	
29	115:6	
30	119:5¾	
30a	120:11	
31	123:4½	
32	128:7½	

6 masts
V3?
Schooner th.
Hull?



deck beam	inner width
11	35
20	35:2
18	35:2
14	35:1
8	35
6	35:2
4	35:1
1	34:7

possibly subt 2A?

deck beam	width
2	34:4
25	33:9½
27	33:2⅛

double deck beams

2, 5, 13, 16, 26, 29

h:06

147 Length

scantlings 10/28/04

V-37-

Deck Beams - 42in centers 12X12in Beams

Futtocks - 9in SPACE
2ft ROOM

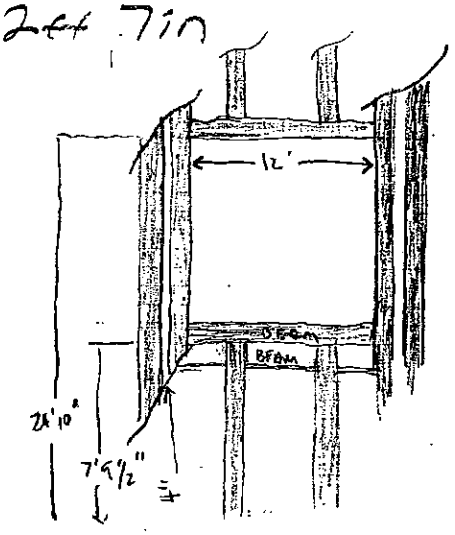
Futtocks to centerline - 20ft -
Beam = 40 ft

Mast Hole Platform - 7ft wide - @ 79ft on Fore End port side @ 16 1/2 ft from outside Futtock

Mast Hole 2ft 7in

DECK BEAM - OPENING
- FROM FORWARD

7' 9 1/2"
24' 10"



Oct 29

Port side Futtocks + Frames

	Fore	Aft
1	6ft 6in	7ft 6in
2	7ft 8in	8ft 7in
3	8ft 10in	9ft 10in
4	10ft	11ft
5	11ft 2in	12ft 4in
6	12ft 6in	13ft 6in
7	14ft	15ft 2in
8	15ft 5in	16ft 6in
9	16ft 9in	18ft
10	(18ft 2)	(19ft 2in)
11	19ft 4in	20ft 7in
12	21 ft 2in	22ft 3in
13	22ft 9in	24ft 1in
14	24ft 4in	25ft 6in
15	26ft 2in	27ft 2in
16	27ft 6in	28ft 5in
17	29ft 1in	30ft 3in
18	30ft 6in	31ft 8in
19	32ft 2in	33ft 3in
20	33ft 7in	34ft 8in
21	?	?
22	37ft 2in	?
23	39ft 10in	40ft 10in
24	41ft 7in	42ft 7in
25	42ft 11in	43ft 11in
26	44ft 7in	45ft 7in
27	45ft 10in	46ft 10in
28	47ft 8in	48ft 8in
29	48ft 11in	49ft 10in
30	50ft 7½in	51ft 6½in
31	51ft 9in	52ft 7½in
32	53ft 2in	54ft 3in
33	54ft 6in	55ft 6in
34	56ft 3in	57ft 2in
35	57ft 5in	58ft 5in
36	59ft	60ft
37	60ft 4in	61ft 3in
38	62ft	63ft
39	63ft 4in	64ft 3in
40	64ft 8in	65ft 8½
41	65ft 11in	66ft 11in

	FORE	AFT
42	67ft 10in	68' 8"
43	68' 10"	69' 9"
44	70' 6"	71' 5"
45	71' 8"	72' 6"
46	73' 6"	74' 5"
47	74' 9"	75' 6"
48	76' 2"	77' 2"
49	77' 4"	78' 4"
50	79' 2"	80' 1"
51	[redacted]	[redacted] MISSING
52	82' 4"	83' 0"
53	83' 4"	84' 2"
54	85'	86'
55	86' 2"	87' 2"
56	87' 11"	88' 9"
57	89' 0"	90' 1"
58	90' 10"	91' 9"
59	92'	92' 10"
60	93' 8"	94' 6"
61	94' 10"	95' 9"
62	96' 6"	97' 5"
63	97' 10"	98' 6" ?? ERASED
64	99' 6"	~~100' 3½"~~
65	100' 6½"	101' 5"
66	102' 4"	103' 3"
67	103' 6"	104' 5"
68	105' 2"	106' 0"
69	106' 4"	107' 2"
70	108' -	108' 10"
71	[redacted]	[redacted] MISSING
72	~~110' 8"~~	111' 8"
73	111ft 11in	112' 9"
74	113' 8"	114' 7"
75	114' 9"	115' 7"
76	116' 8"	117' 6"
77	117' 8"	118' 7"
78	49' 6"	120' 3"
79	[redacted]	121' 7½"
80	122' 4"	123' 2"
81	123' 5½"	124' 4½"

★ = Frame Set

✱ = Cant Frame

▢ = Futtock missing

(= Frame set

Oct 29
Port side Futtocks & Frames

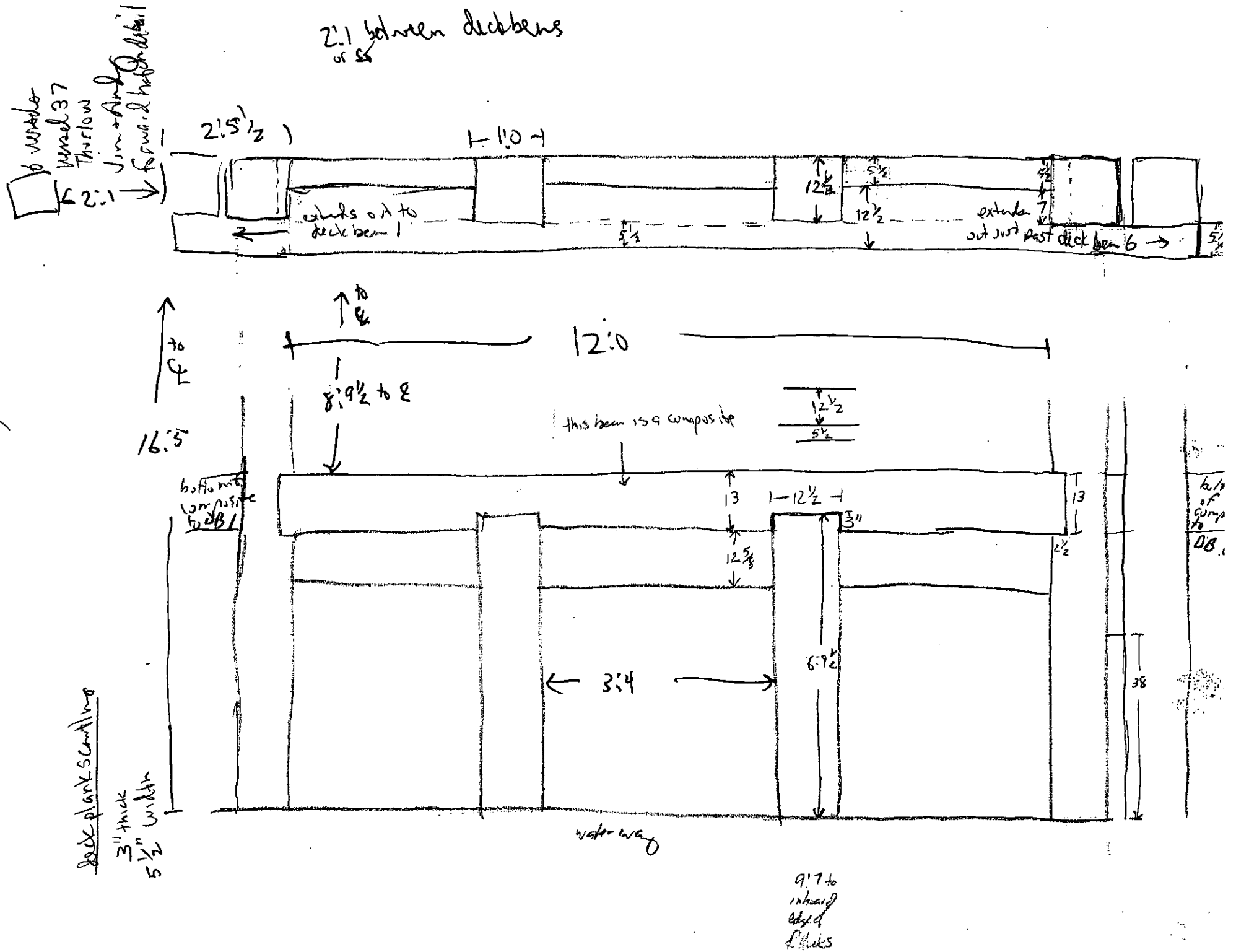
		Fore	Aft
35	82	125ft 2in	126ft 2in
	83	126ft 4in	127ft 2in
36	84	128ft	128ft 9in
	85	129ft 2in	129ft 10in
37	86	130ft 11in	131ft 8in
	87	132ft	132ft 9in
38	88	133ft 6in	134ft 4in
	89	134ft 9in	135ft 8in
39	90	136ft 2in	137ft 1in
	91	137ft 4in	138ft 4in
40	92	139ft 4in	140ft
	93	140ft 4in	141ft 2in
41	94	142ft 11in	143ft 1in
	95	143ft 2in	144ft 11in
42	96	144ft 9in	145ft 7in
	97	145ft 11in	146ft 9in
43	98	147ft 8in	148ft 5in
	99	148ft 8in	149ft 7in
44	100	150ft 9in	151ft 8in
	101	151ft 11in	152ft 9in
45	102	153ft 8in	154ft 6in
	103	154ft 11in	155ft 9in
46	104	156ft 4in	157ft 2in
	105	157ft 8in	158ft 6in
47	106	159ft 2in	159ft 11in
	107	160ft 2in	161ft 1in
48	108	162ft	162ft 10in
	109	163ft 2in	164ft
	110	164ft 7in	165ft 5in
	111	165ft 11in	166ft 7in
	112	167ft 8in	168ft 6in
	113	168ft 9in	169ft 6in
	114	170ft 6in	171ft 4in
	115	?	?
	116	173ft 5in	174ft 3in
	117		
	118		
	119		
	120		

Deck Beams 31 & 32
additional mast Hole

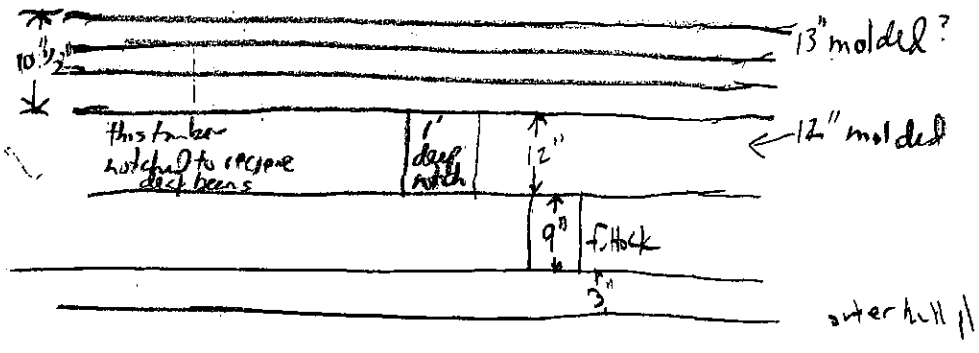
Deck Beam 31 128ft 5in
The futtocks are missing
from this point aft

C

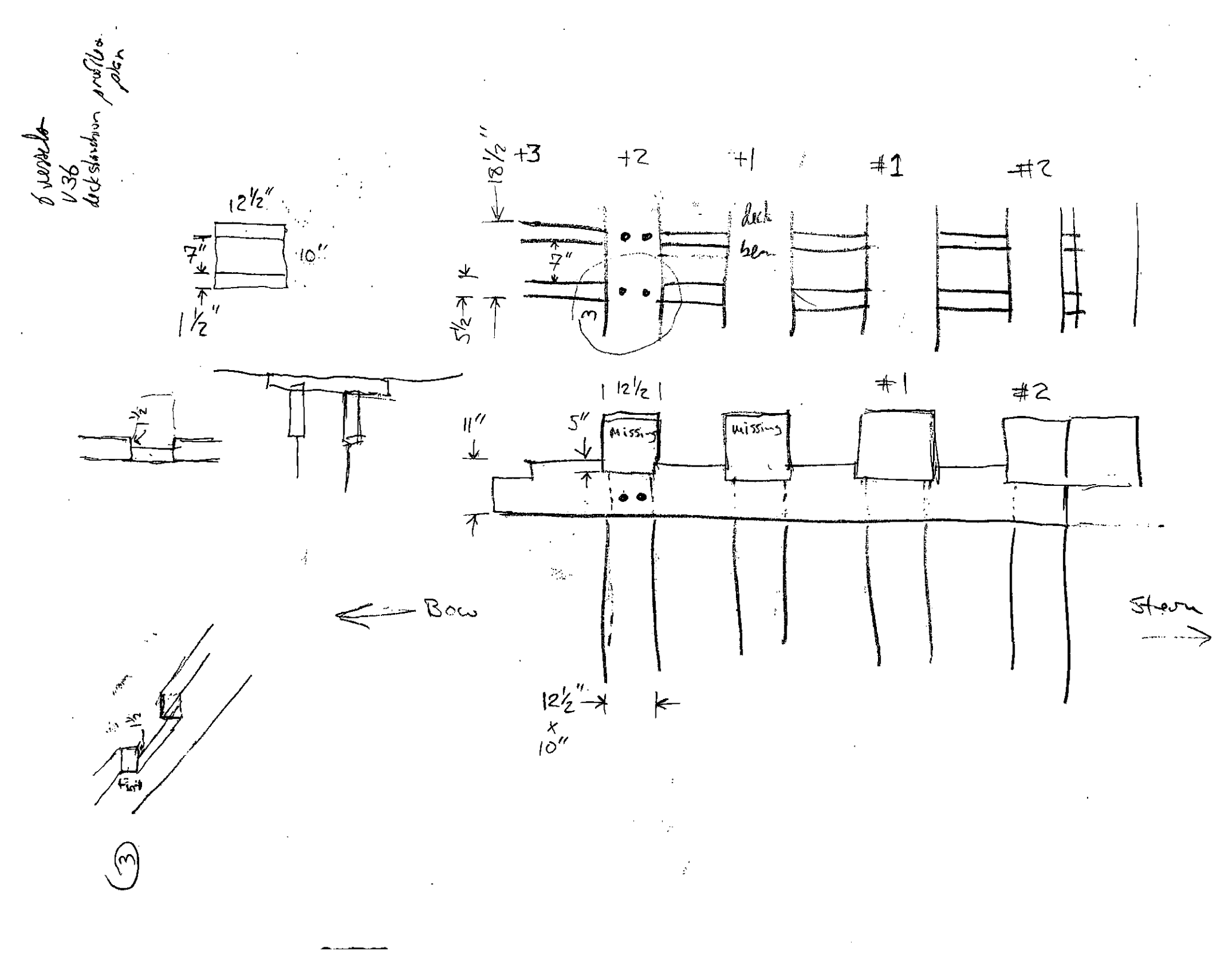
? = missing


2:1 between deckbeams
2:1
2:5½
1-1:0-
extends out to deckbeam 1
12½
5½
12½
extends out just past deckbeam 6
12:0
8:9½ to ℄
16:5
this beam is a composite
12½
5½
13
1-12½-
13
12⅝
3:4
6:9½
38
2½
water line
9:7 to inboard edge of decks
deck plank scantling
3" thick
5½" width

Wood 37 transom
at Jim-Andy
Aft end of deck shelf
outer hull plank



taken at Deck Beam 3


12½"
7"
10"
1½"
18½"
+3
+2
+1
#1
#2
7"
5½"
deck beam
3
½
11"
5"
12½
Missing
Missing
#1
#2
Bow
Stern
12½"
10"
½
(3)

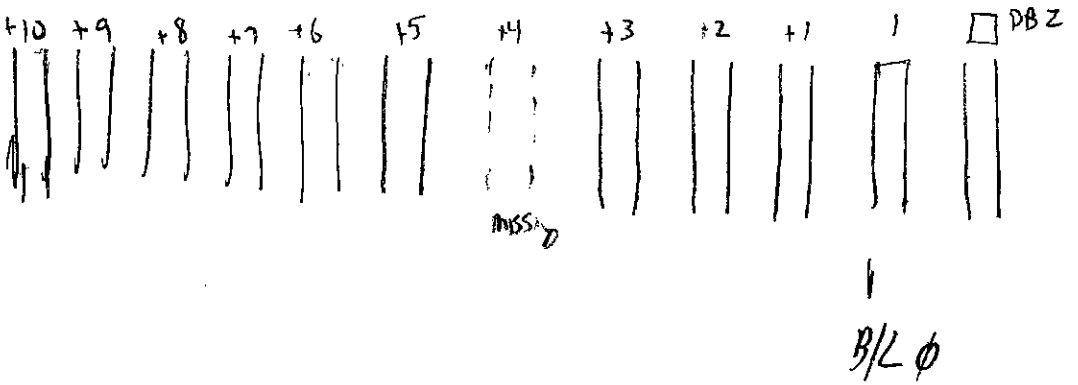
29 Oct 04

Deck Crown Measurements

	6"	8½"
	8'	6"
Center	17'1"	4½"
	26'	5½"
	33'	7½

	6"	7¼"
2nd	8'	5"
set	17'1"	4"
	26'	5¼"
	33'	7½"
	33'6"	Total Span

forward stanchion profile



SIX VESSELS -
11/01/04

AL
MKF
JMC

4 MASTED SCHOONER

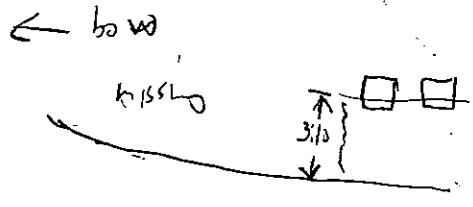
CROSS SECTION FROM FRAME 5 (FIVE) AND FRAME 1
FROM EDGE OF WATERWAY ON PORT SIDE:

FRAME	@	DEPTH	
5	0	14' 2"	
	1'2"	14' 7"	
	2' 1"	14' 8 1/2"	
	3' 1"	14' 9"	
	4'	SKIP	
	5'3"	12' 3 1/2	RIDER / KEELSON ?
	8' 10"	15' 1 1/2"	
	10' 10"	15' 6"	
	13'	13' 7"	SISTER OR KEELSON
NOTE:	12'	15' 5 1/2"	
	14' 11"	12' 6"	KEELSON ?
	16'	12' 5 1/2	
	17' 1"	15' 9"	

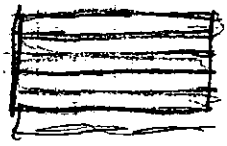
SEDIMENTS = ≈ 5' IN THE VESSEL HOLD

FRAME	@	DEPTH	
1	-1'	11' 4 1/2"	
	0'	13' 8 1/2"	
	0' 11"	14' 1"	
	2' 9"	15' 7"	
	4' 2"	15' 2"	
	6' 1"	15' 7"	
	7' 11"	16' 6 1/2"	(POSSIBLE 15')
	10' 3"	15 6 1/2"	
	12' 3"	15' 7"	
	14' 2"	11' 10"	
	15'	11' 6"	PROB TOP KEELSON

FRAME



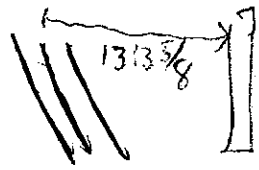
3'10 below 2nd deck level



hull width taken from ceiling plank

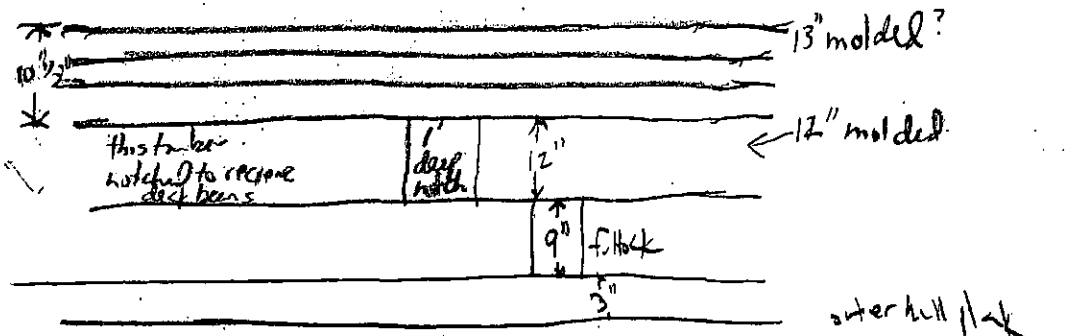
26th back from inside edge of stem	4':5
1st extra f.Hook	10':5
1st extra f.Hook at 3:D below bottom of deck beam	11':6
3rd f.Hook	13':8 3/4
5th f.Hook	14':11 1/2
7th f.Hook	16':~~7~~ 7 1/4
9th f.Hook	17'11 3/4
10 1/2 f.Hook	21':8 1/4
13th	23':8
16th	25':5 3/4 at forward bulkhead
18th	26':9 3/4
20	29':2 3/4
7th f.Hook back from DB 1	16':9 3/4 to port side of upper deck stanchion

13':3 5/8 from inside of outside stem to 1st deck stanchion



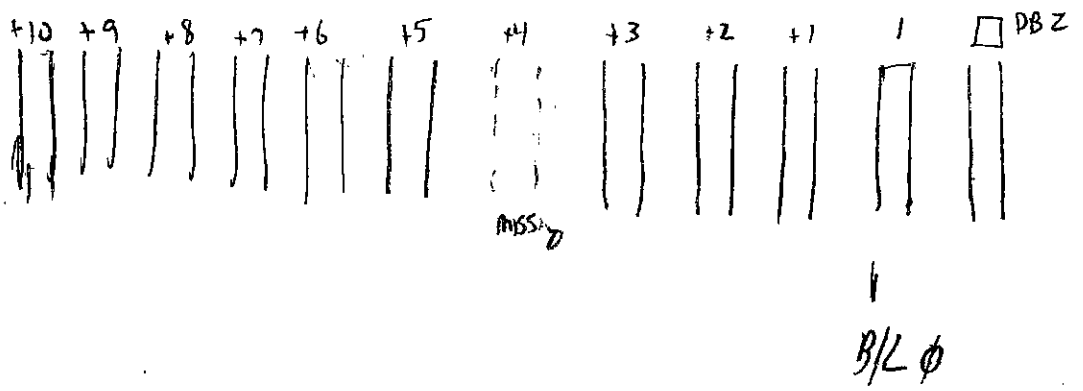
P.T. S/U fax

☒



taken at Deck Beam 3

forward stanchion profile



29 Oct 04

Deck Crown Measurements

	6"	8½"
	8'	6"
Center	17'1"	4½"
	26'	5½"
	33'	7½

	6"	7¼"
2nd	8'	5"
Set	17'1"	4"
	26'	5¼"
	33'	7½"
	33'6"	Total Span

14 / Length

scantlings 10/28/04

V-37-

Deck Beams - 42in centers 12X12in Beams

Futtocks - 9in SPACE
2ft ROOM

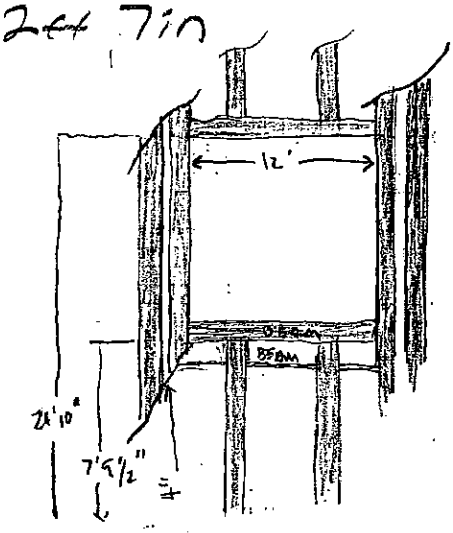
Futtocks to centerline - 20ft -
Beam = 40 ft

Mast Hole platform → @ 79ft on Fore End outside
- 7ft wide - port side @ 16 1/2 ft from Futtock

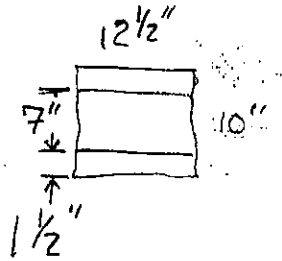
Mast Hole 2ft 7in

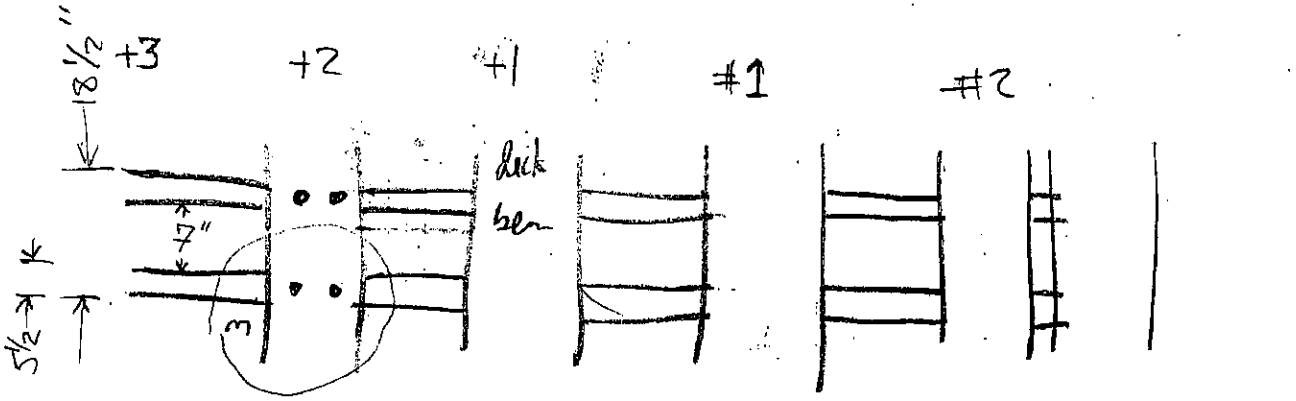
DECK HATCH - OPENING
- FROM FOREMAST

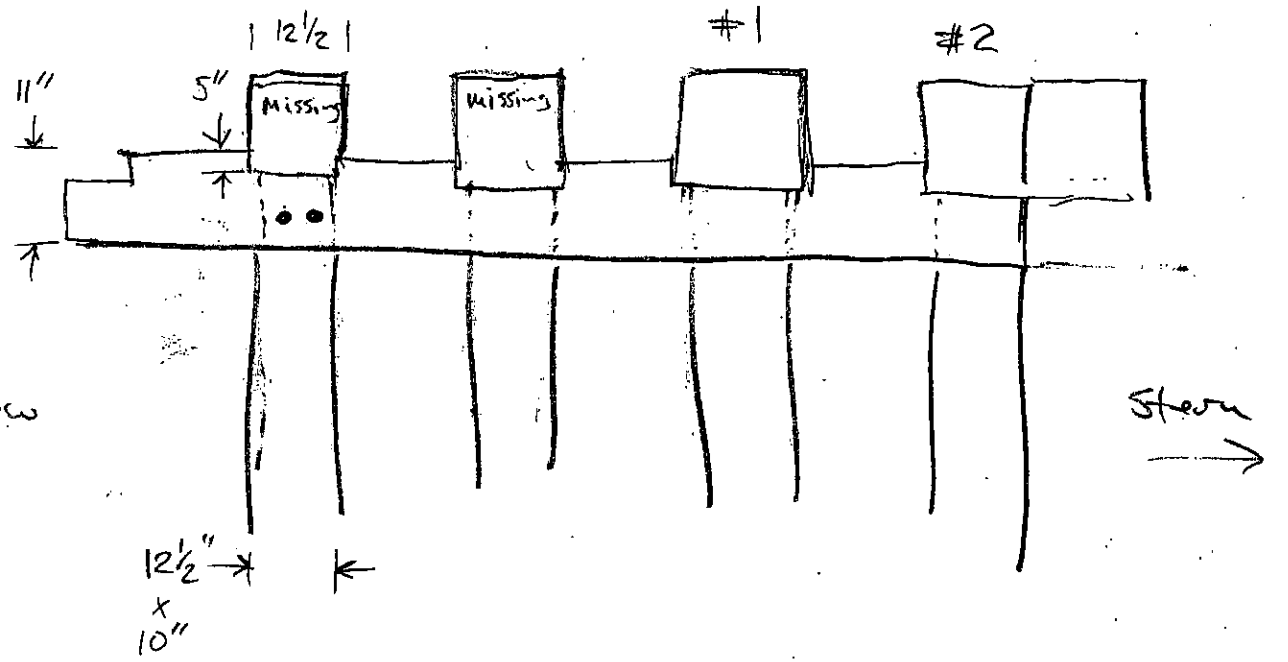
7'9 1/2"
24' 10"

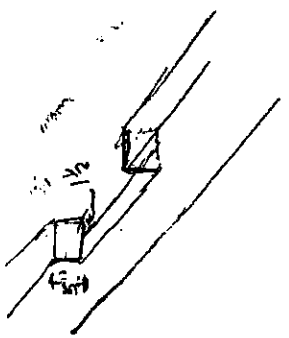


8 versions
V36
deck standing profile
plan







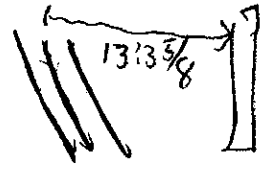


(3)

hull width distance from ceiling plate to ceiling plank

2nd hook from inside edge of stem	4':5
1st extra fillhook	10:5
1st cedar fillhook at 3:00 below bottom of deck beam	11:6
3rd fillhook	13:8 3/4
5th fillhook	14:11 1/2
7th fillhook	16:~~8~~ 7 1/4
9th fillhook	17'11 3/4
10th fillhook	21:8 1/4
13th	23:8
16th	25:5 3/4 at forward hatch end
18th	26:4 3/4
20	29:2 3/4
7th fillhook back from DB 1	16:9 3/4 to port side of upper deck stanchion

13:3 5/8 from inside of outside stem to 1st deck stanchion



P.T. Siu fax

Oct 29

Port side Futtocks + Frames

	Fore	Aft
1	6ft 6in	7ft 6in
2	7ft 8in	8ft 7in
3	8ft 10in	9ft 10in
4	10ft	11ft
5	11ft 2in	12ft 4in
6	12ft 6in	13ft 6in
7	14ft	15ft 2in
8	15ft 5in	16ft 6in
9	16ft 9in	18ft
10	(18ft 2)	(19ft 2in)
11	19ft 4in	20ft 7in
12	21ft 2in	22ft 3in
13	22ft 9in	24ft 1in
14	~~24ft~~ 4in	25ft ~~4~~in
15	26ft 2in	27ft 2in
16	27ft 6in	29ft 5in
17	29ft 1in	30ft 3in
18	30ft 6in	31ft 8in
19	32ft 2in	33ft 3in
20	33ft 7in	34ft 8in
21	? ☐	? ☐
22	37ft 2in	? ☐
23	39ft 10in	40ft 10in
24	41ft 7in	42ft 7in
25	42ft 11in	43ft 11in
26	44ft 7in	45ft 7in
27	45ft 10in	46ft 10in
28	47ft 8in	48ft 8in
29	48ft 11in	49ft 10in
30	50ft 7½in	51ft 6½in
31	51ft 9in	52ft 7½in
32	53ft 2in	54ft 3in
33	54ft 6in	55ft 6in
34	56ft 3in	57ft 2in
35	57ft 5in	58ft 5in
36	59ft	60ft
37	60ft 4in	61ft 3in
38	62ft	63ft
39	63ft 4in	64ft 3in
40	64ft 8in	65ft 9½
41	65ft 11in	66ft 11in

	FORE	AFT	
42	67ft 10 in	68' 8"	
43	68' 10"	69' 9"	
44	70' 6"	71' 5"	
45	71' 8"	72' 6"	
46	73' 6"	74' 5"	
47	74' 9"	75' 6"	
48	76' 2"	77' 2"	
49	77' 4"	78' 4"	
50	79' 2"	80' 1"	
51	☐	☐	MISSING
52	82' 4"	83' 0"	
53	83' 4"	84' 2"	
54	85'	86'	
55	86' 2"	87' 2"	
56	87' 11"	87' 9"	
57	89' 0"	90' 1"	
58	90' 10"	91' 9"	
59	92'	92' 10"	
60	93' 8"	94' 6"	
61	94' 10"	95' 9"	
62	96' 6"	97' 5"	
63	97' 10"	98' 6" ?	ERASED
64	99' 6"	100' 3½"	
65	100' 6½"	101' 5"	
66	102' 4"	103' 3"	
67	103' 6"	104' 5"	
68	105' 2"	106' 0"	
69	106' 4"	107' 2"	
70	108' -	108' 10"	
71	☐	☐	MISSING
72	110' 8"	111' 8"	
73	111ft 11in	112' 9"	
74	113' 8"	114' 7"	
75	114' 9"	115' 7"	
76	116' 8"	117' 6"	
77	117' 8"	118' 7"	
78	119' 6"	120' 3"	
79	120' 7"	121' 7½"	
80	122' 4"	123' 2"	
81	123' 5½"	124' 4½"	

☆ = Frame Set

✱ = Cant Frame

☐ = Futtock missing

(= Frame set

Oct 29
Port side Futtocks & Frames

		Fore	Aft
35	82	125ft 2in	126ft 2in
	83	126ft 4in	127ft 2in
36	84	128ft	128ft 9in
	85	129ft 2in	129ft 10in
37	86	130ft 11in	131ft 8in
	87	132ft	132ft 9in
38	88	133ft 6in	134ft 4in
	89	134ft 9in	135ft 8in
39	90	136ft 2in	137ft 1in
	91	137ft 4in	138ft 4in
40	92	139ft 4in	140ft
	93	140ft 4in	141ft 2in
41	94	142ft 1in	143ft 1in
	95	143ft 2in	144ft 1in
42	96	144ft 9in	145ft 7in
	97	145ft 11in	146ft 9in
43	98	147ft 8in	148ft 5in
	99	148ft 8in	149ft 7in
44	100	150ft 9in	151ft 8in
	101	151ft 11in	152ft 9in
45	102	153ft 8in	154ft 6in
	103	154ft 11in	155ft 9in
46	104	156ft 4in	157ft 2in
	105	157ft 8in	158ft 6in
47	106	159ft 2in	159ft 11in
	107	160ft 2in	161ft 1in
48	108	162ft	162ft 10in
	109	163ft 2in	164ft
	110	164ft 7in	165ft 5in
	111	165ft 11in	166ft 7in
	112	167ft 8in	168ft 6in
	113	168ft 9in	169ft 6in
	114	170ft 6in	171ft 4in
	115	?	?
	116	173ft 5in	174ft 3in
	117		
	118		
	119		
	120		

Deck Beams 31 & 32
additional mast Hole

Deck Beam 31 128ft 5in
The futtocks are missing
from this point aft

(? = missing

SIX VESSELS -
11/01/04

AL
MKF
JMC

4 MASTED SCHOONER

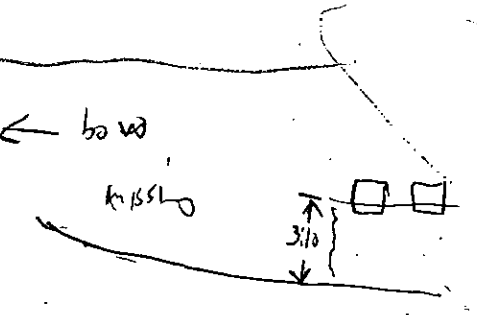
CROSS SECTION FROM FRAME 5 (FIVE) AND FRAME 1
FROM EDGE OF WATERWAY ON PORT SIDE:

FRAME	©	DEPTH	
5	0	14' 2"	
	1'2"	14' 7"	
	2' 1"	14' 8½"	
	3' 1"	14' 9"	
	4'	SKIP	
	5' 3"	12' 3½	RIDER/KEELSON ?
	8' 10"	15' 1½"	
	10' 10"	15' 6"	
	13'	13' 7"	SISTER OR KEELSON
NOTE:	12'	15' 5½"	
	14' 11"	12' 6"	KEELSON ?
	16'	12' 5½	
	17' 1"	15' 9"	

SEDIMENTS = ≈ 5'
IN THE VESSEL
HOLD

FRAME	©	DEPTH	
1	-1'	11' 4½"	
	0'	13' 8½"	
	0' 11"	14' 1"	
	2' 9"	15' 7"	
	4' 2"	15' 2"	
	6' 1"	15' 7"	
	7' 11"	16' 6½"	(POSSIBLE 15')
	10' 3"	15 6½"	
	12' 3"	15' 7"	
	14' 2"	11' 10"	
	15'	11' 6"	PROB TOP KEELSON

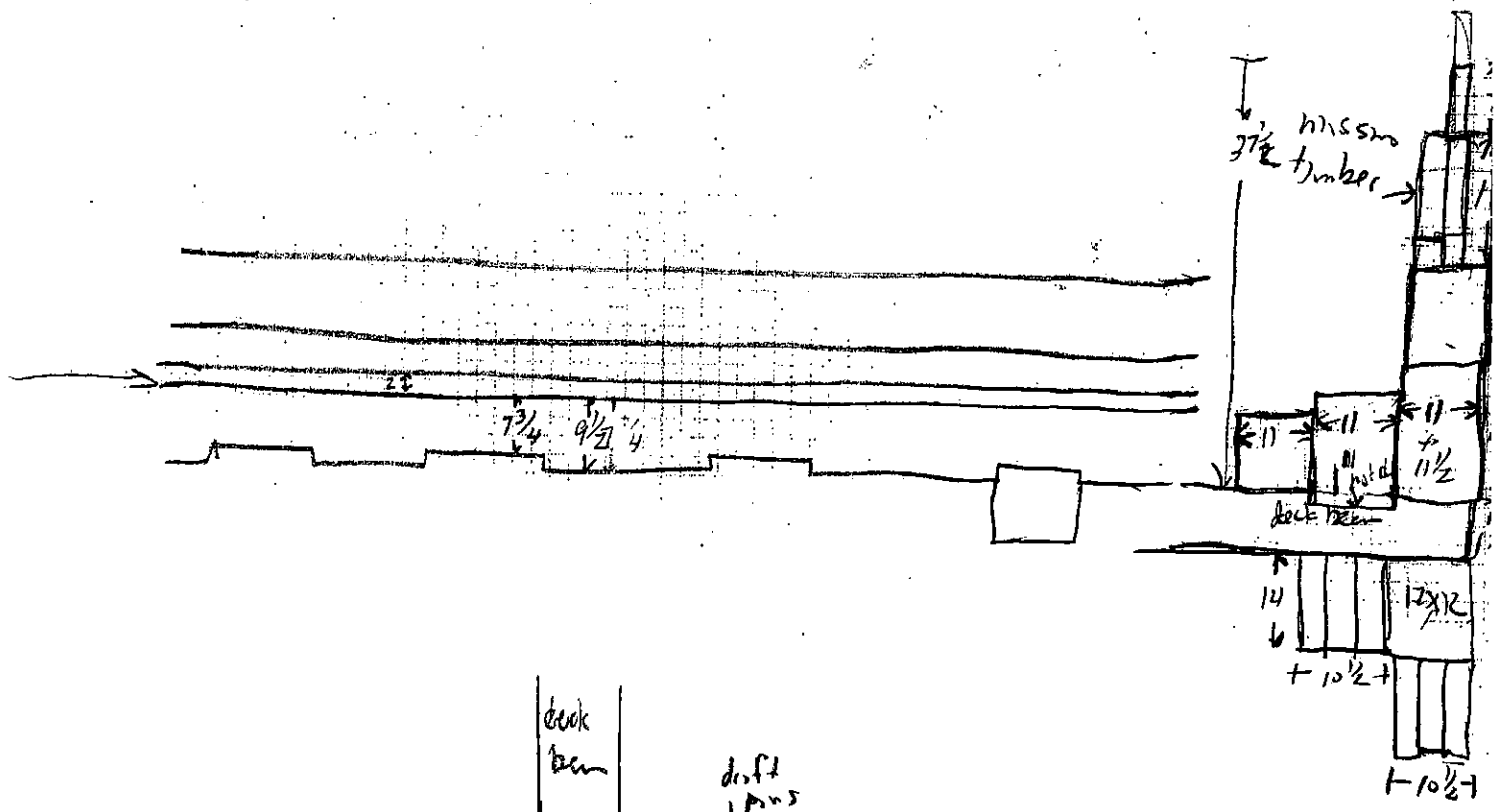
FRAME



3'10 below 2nd deck level

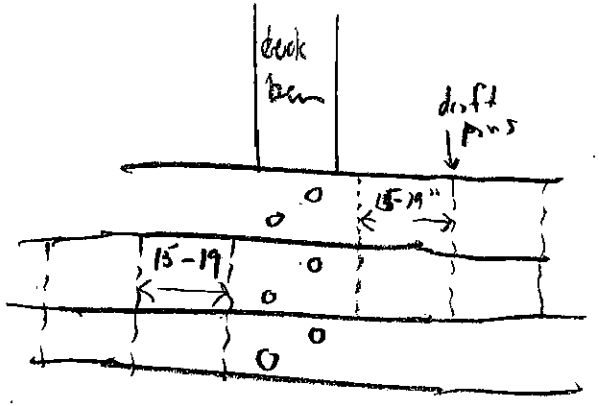
Mid Morning

frame 13



Deck Beam 8a is missing - appears to have been smaller perhaps 9x9

for all main hatches are identical in size



Main Brewer Tugboat Enthusiasts Site

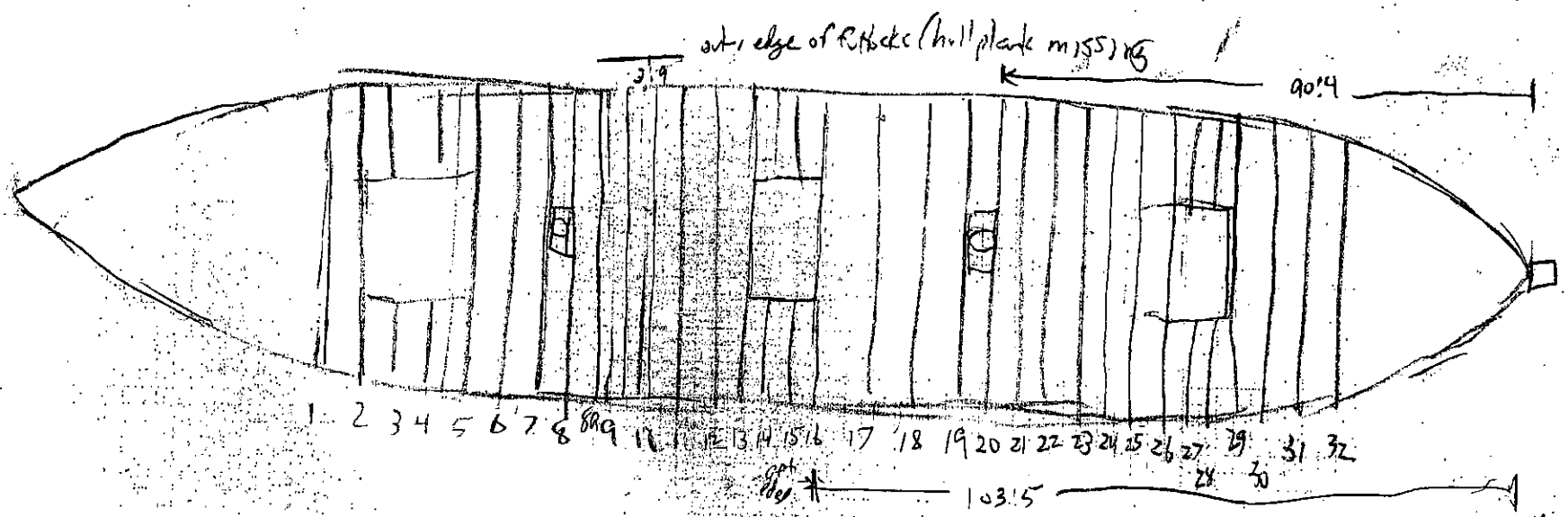
Fish Hawk possibly owned by Smith plant in Belfield

Morania towing bought Fish Hawk for parts ca 1986

inner deck beam measurements

beam	measure	LOC	fwd aft of bulkhead
1	ⓓ		
2	3		
3	6:9		
4	13:1		
5	17:5		
5a	18:10		
6	23:2		
7	27:5		
8	31:6		
9	38:7¼		
10	41:5		
11	44:3		
12	47:5		
13	50:2		
13a	51:11½		
14	56:3¾		
15	60:7½		
16	64:11½		
16a	66:5¾		
17	69:6		
18	72:7½		
19	75:10½		
20	80:1		
21	83:5½		
22	86:11		
23	90:5½		
24	94:0		
25	97:5½		
25a	101:0¼		
26	102:5		
27	106:9½		
28	111:1½		
29	115:6		
30	119:5¾		
30a	120:11		
31	123:7½		
32	128:7½		

6 mast step
V36
Schooner th
Ruby



double deck beams

2, 5, 13, 16, 26, 29

deck beam	inner width
11	35
20	35:2
18	35:2
14	35:1
8	35
6	35:2
4	35:1
1	34:7

possibly split 2 ?

deck beam	width
2	34:4
25	33:9½
27	33:2⅛

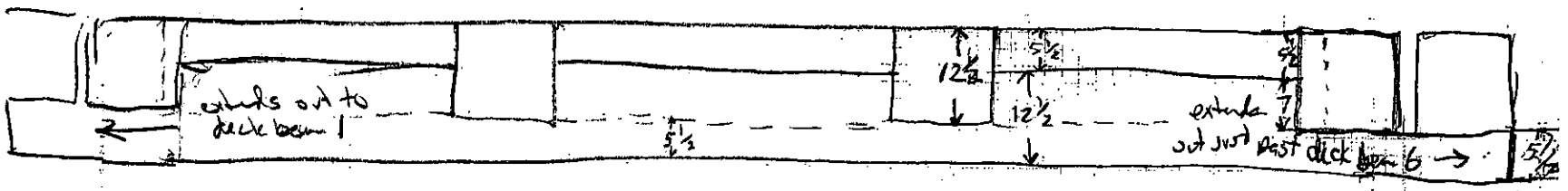
h:06

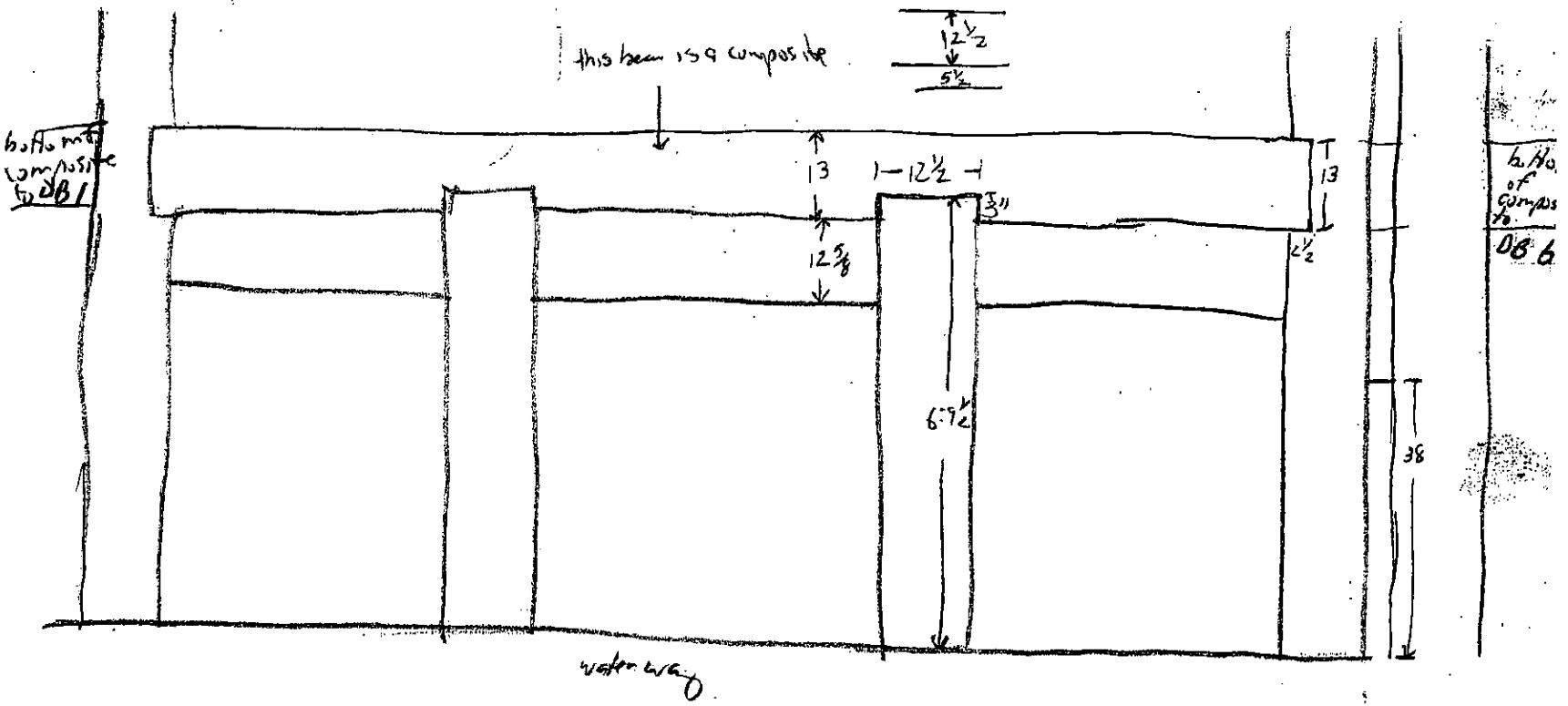
reel

- recheck room + space on deck beams
- recheck measurements on hatches & mast steps
- recheck deck beam count, esp at aft hatch
- more width measurements to aft
- measurements from forward deck beam to stem

- hull lines - midship X sec
- deck widths for each aft

6 verticals
Vessel 37
Thurlow
Jim + Andy
Fgwd. hatch addition





deck planks comp
3" thick
5½" width

9'7 to inboard edge of Hooks

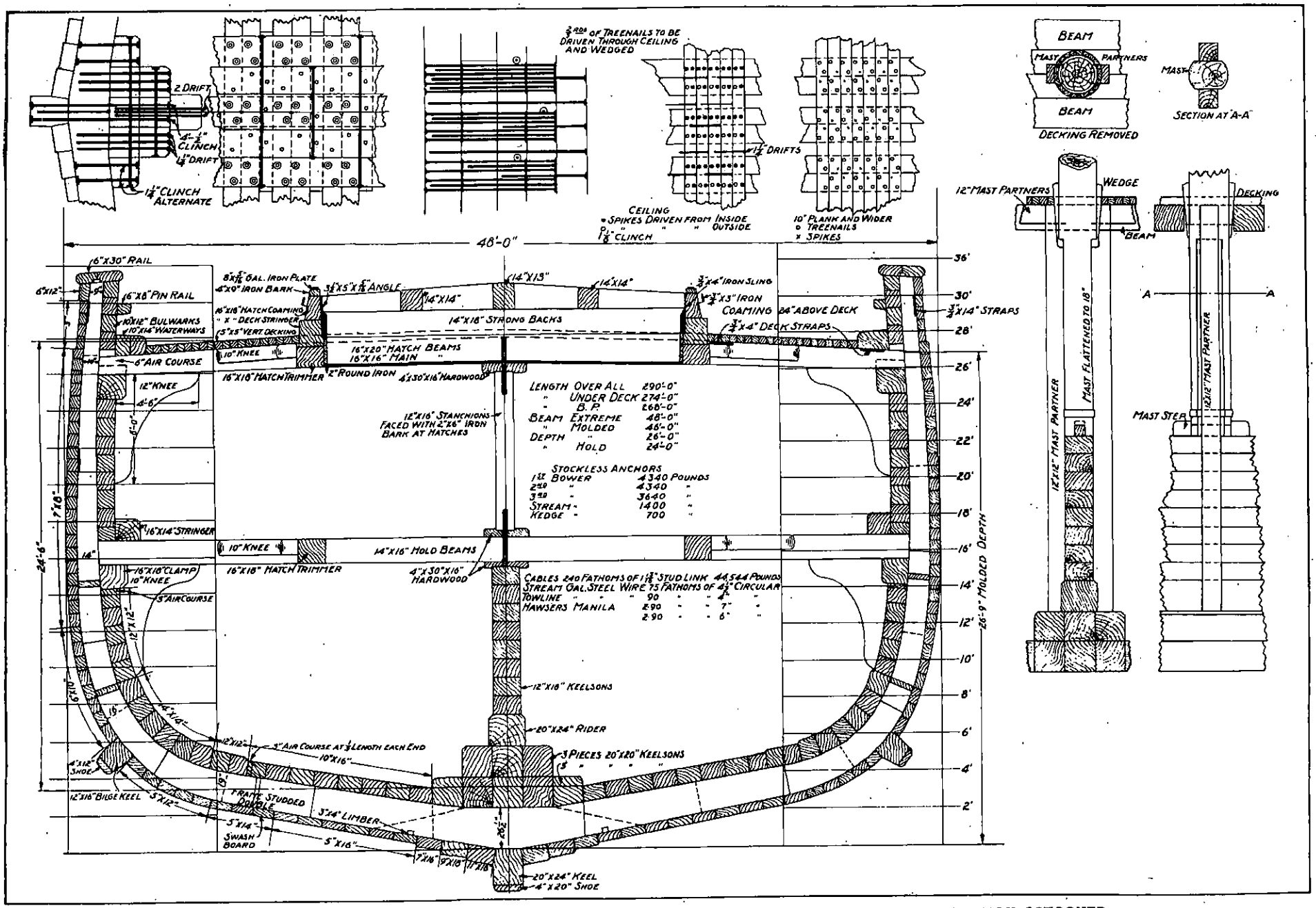


FIG. 36—MIDSHIP SECTION AND CONSTRUCTION DETAILS OF A 290-FOOT, 5-MASTED TOPMAST AUXILIARY SCHOONER

Midship Framing

Frame 13

Deck Beam 8a is missing - appears to have been smaller perhaps 9x9

for and main hatches are identical in size

Main Beamer
Tug Boat Enthusiast Soc.

Fish Hawk
possibly owned by Smith
plant in Belfield

Morgania town
bought Fish Ha
for parts ca 1

V37 Paul Thurlow levels

(3) Deck beams orange

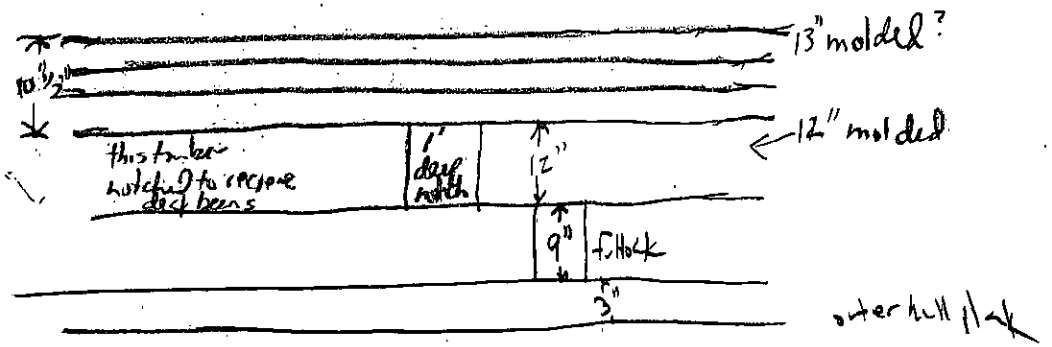
(3) CL

(12) outer hull

(2) Deck plank blue

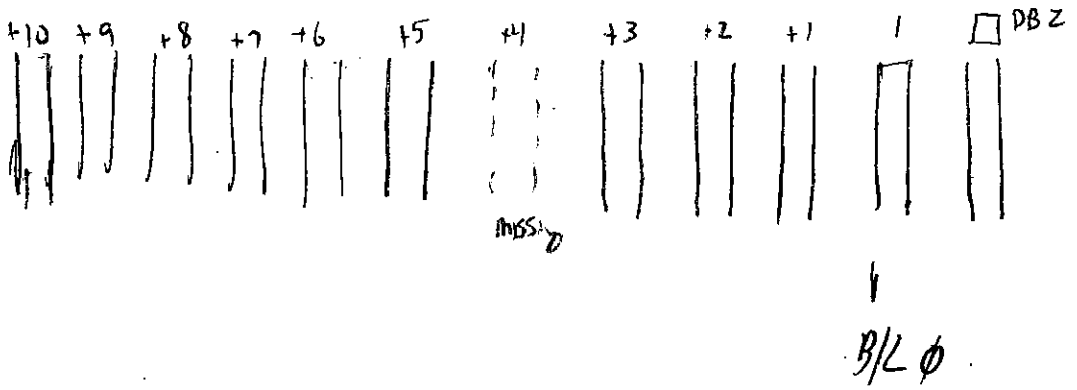
(63) offset lines

(14) stanchions



taken at Deck Beam 3

forward stanchion profile



29 Oct 04

Deck Crown Measurements

	6"	8½"
	8'	6"
Center	17'1"	4½"
	26'	5½"
	33'	7½

	6"	7¼"
2nd	8'	5"
Set	17'1"	4"
	26'	5¼"
	33'	7½"
	33'6"	Total Span

14 / Length

scantlings 10/28/04

V-37-

Deck Beams - 42in centers 12X12in Beams

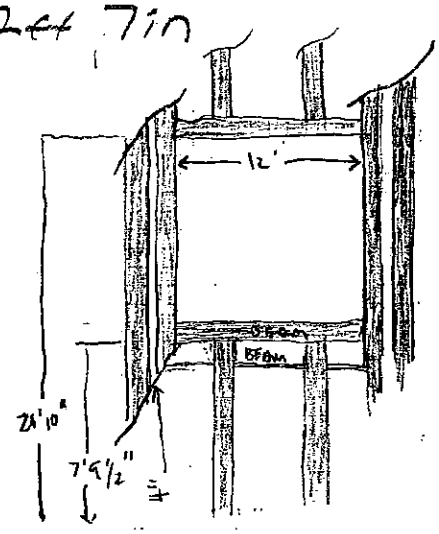
Futtocks - 9in SPACE
2ft ROOM

Futtocks to centerline - 20ft -

Beam = 40 ft

Mast Hole platform → @ 79ft on Fore End outside
- 7ft wide - port side @ 16 1/2 ft from Futtock

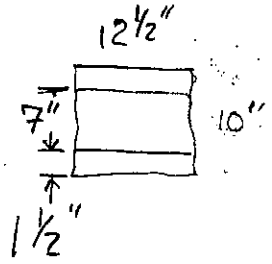
Mast Hole 2ft 7in

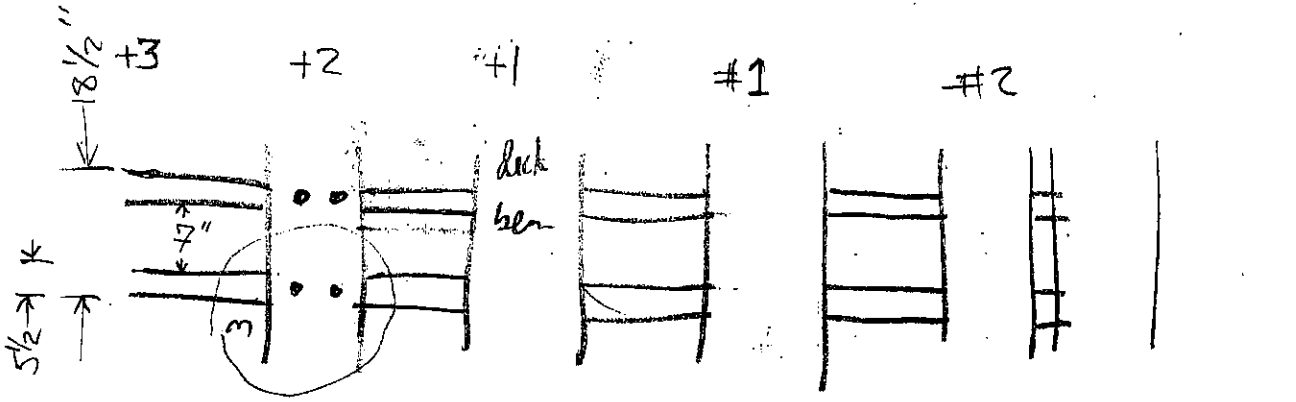


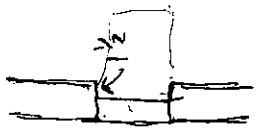
DECK HATCH - OPENING
- FROM FORWARD

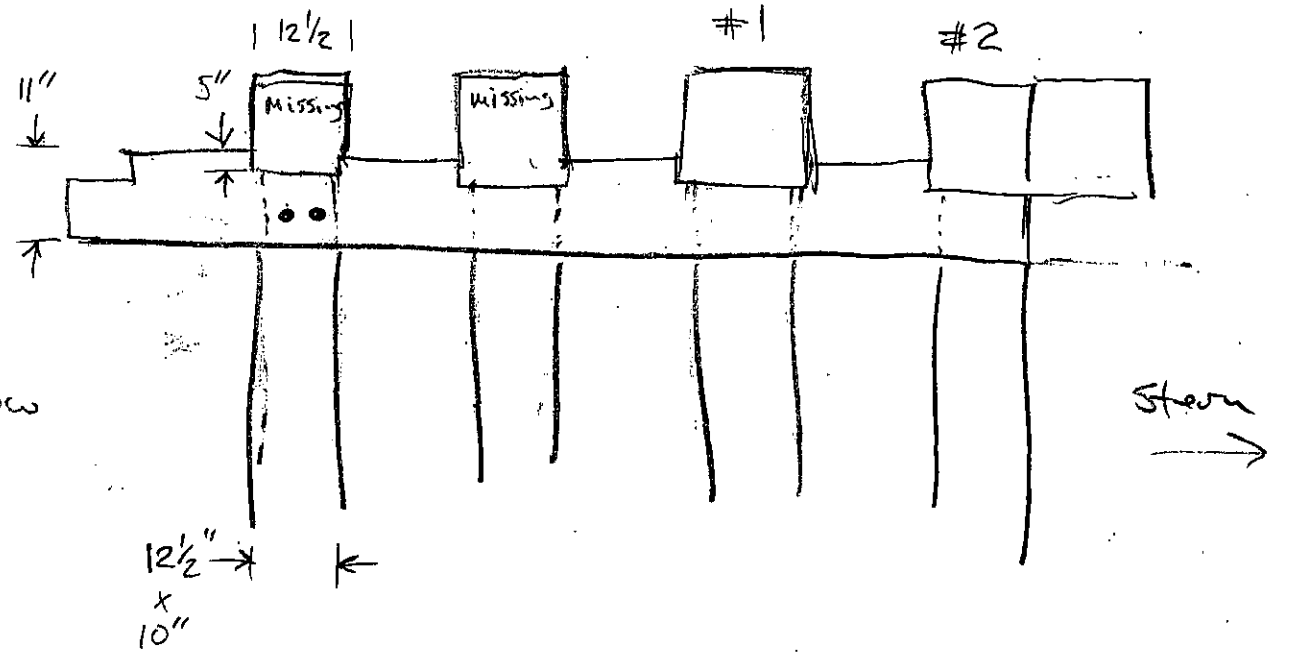
7'9 1/2"
24' 10"

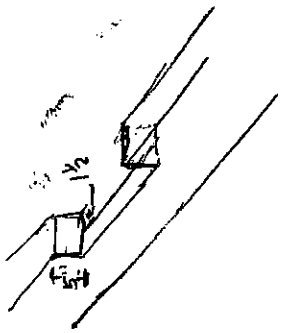
6 versions
V36
deck station profile
plan











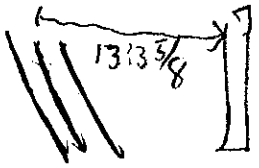
(3)

[redacted]

hull width dimensions from ceiling plank to ceiling plank

26th back from inside edge of stem	4:5
1st extant f. frame	10:5
1st extant frame at 3:0 below bottom of deck beam	11:6
3rd f. frame	13:8 3/4
5th f. frame	14:11 1/2
7th f. frame	16:7 1/4
9th f. frame	17:11 3/4
10th f. frame	21:8 1/4
13th	23:8
16th	25:5 3/4 at forward hillhead
18th	26:9 3/4
20	29:2 3/4
7th f. frame back from DB 1	16:9 3/4 to port side of upper deck stanchion

13:3 5/8 from inside of outside stem to 1st deck stanchion



P.T. Siu fax

Oct 29

Port side Futtocks + Frames

	Fore	Aft
1	6ft 6in	7ft 6in
2	7ft 8in	8ft 7in
3	8ft 10in	9ft 10in
4	10ft	11ft
5	11ft 2in	12ft 4in
6	12ft 6in	13ft 6in
7	14ft	15ft 2in
8	15ft 5in	16ft 6in
9	16ft 9in	18ft
10	(18ft 2)	(19ft 2in)
11	19ft 4in	20ft 7in
12	21 ft 2in	22ft 3in
13	22ft 9in	24ft 1in
14	24ft 4in	25ft 4in
15	26ft 2in	27ft 2in
16	27ft 6in	29ft 5in
17	29ft 1in	30ft 3in
18	30ft 6in	31ft 8in
19	32ft 2in	33ft 3in
20	33ft 7in	34ft 8in
21	?	?
22	37ft 2in	?
23	39ft 10in	40ft 10in
24	41ft 7in	42ft 7in
25	42ft 11in	43ft 11in
26	44ft 7in	45ft 7in
27	45ft 10in	46ft 10in
28	47ft 8in	48ft 8in
29	48ft 11in	49ft 10in
30	50ft 7½in	51ft 6½in
31	51ft 9in	52ft 7½in
32	53ft 2in	54ft 3in
33	54ft 6in	55ft 6in
34	56ft 3in	57ft 2in
35	57ft 5in	58ft 5in
36	59ft	60ft
37	60ft 4in	61ft 3in
38	62ft	63ft
39	63ft 4in	64ft 3in
40	64ft 8in	65ft 8½
41	65ft 11in	66ft 11in

	FORE	AFT	
15 (42)	67ft 10 in	68' 8"	
(43)	68' 10"	69' 9"	
16 (44)	70' 6"	71' 5"	
(45)	71' 8"	72' 6"	
17 (46)	73' 6"	74' 5"	
(47)	74' 9"	75' 6"	
18 (48)	76' 2"	77' 2"	
(49)	77' 4"	78' 4"	
19 (50)	79' 2"	80' 1"	
(51)	[ ]	[ ]	MISSING
20 (52)	82' 4"	83' 0"	
(53)	83' 4"	84' 2"	
21 (54)	85'	86'	
(55)	86' 2"	87' 2"	
22 (56)	87' 11"	87' 9"	
(57)	89' 0"	90' 1"	
23 (58)	90' 10"	91' 9"	
(59)	92'	92' 10"	
24 (60)	93' 8"	94' 6"	
(61)	94' 10"	95' 9"	
25 (62)	96 6"	97' 5"	
(63)	97' 10"	98' 6" ??	ERASED
26 (64)	99' 6"	100' 3½"	
(65)	100' 6½"	101' 5"	
27 (66)	102' 4"	103' 3"	
(67)	103' 6"	104' 5"	
28 (68)	105' 2"	106' 0"	
(69)	106' 4"	107' 2"	
29 (70)	108' -	108' 10"	
(71)	[ ]	[ ]	MISSING
30 (72)	110' 8"	111' 8"	
(73)	111ft 11 in	112' 9"	
31 (74)	113' 8"	114' 7"	
(75)	114' 9"	115' 7"	
32 (76)	116' 8"	117' 6"	
(77)	117' 8"	118' 7"	
33 (78)	119' 6"	120' 3"	
(79)	120' 7"	121' 7½"	
34 (80)	122' 4"	123' 2"	
(81)	123' 5½"	124' 4½"	

★ = Frame Set

✱ = Cant Frame

[ ] = Futtock missing

(= Frame set

Oct 29
Port side Futtocks & Frames

		Fore	Aft
35	82	125ft 2in	126ft 2in
	83	126ft 4in	127ft 2in
36	84	128ft	128ft 9in
	85	129ft 2in	129ft 10in
37	86	130ft 11in	131ft 8in
	87	132ft	132ft 9in
38	88	133ft 8in	134ft 4in
	89	134ft 9in	135ft 8in
39	90	136ft 2in	137ft 1in
	91	137ft 4in	138ft 4in
40	92	139ft 4in	140ft
	93	140ft 4in	141ft 2in
41	94	142ft 1in	143ft 1in
	95	143ft 2in	144ft 1in
42	96	144ft 9in	145ft 7in
	97	145ft 11in	146ft 9in
43	98	147ft 8in	148ft 5in
	99	148ft 8in	149ft 7in
44	100	150ft 9in	151ft 8in
	101	151ft 11in	152ft 9in
45	102	153ft 8in	154ft 6in
	103	154ft 11in	155ft 9in
46	104	156ft 4in	157ft 2in
	105	157ft 8in	158ft 6in
47	106	159ft 2in	159ft 11in
	107	160ft 2in	161ft 1in
48	108	162ft	162ft 10in
	109	163ft 2in	164ft
	110	164ft 7in	165ft 5in
	111	165ft 11in	166ft 7in
	112	167ft 8in	168ft 6in
	113	168ft 9in	169ft 6in
	114	170ft 6in	171ft 4in
	115	?	?
	116	173ft 5in	174ft 3in
	117		
	118		
	119		
	120		

Deck Beams 31 & 32
additional mast Hole

Deck Beam 31 | 128ft 5in
The futtocks are missing
from this point aft

(

? = missing

SIX VESSELS -
11/01/04

AL
MKF
JMC

4 MASTED SCHOONER

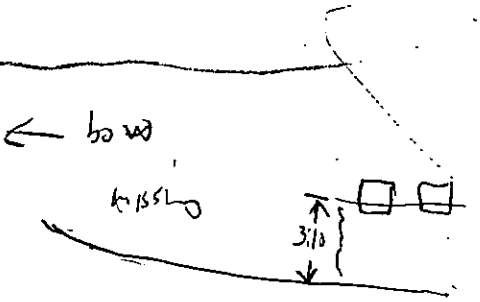
CROSS SECTION FROM FRAME 5 (FIVE) AND FRAME 1 FROM EDGE OF WATERWAY ON PORT SIDE:

FRAME	@	DEPTH	
5	0	14' 2"	
	1'2"	14' 7"	
	2' 1"	14' 8 1/2"	
	3' 1"	14' 9"	
	4'	SKIP	
	5'3"	12' 3 1/2	RIDER/KEELSON ?
	8' 10"	15' 1 1/2"	
	10' 10"	15' 6"	
	13'	13' 7"	SISTER OR KEELSON
NOTE:	12'	15' 5 1/2"	
	14' 11"	12' 6"	KEELSON ?
	16'	12' 5 1/2	
	17' 1"	15' 9"	

SEDIMENTS = ≈ 5' IN THE VESSEL HOLD

FRAME	@	DEPTH	
1	-1'	11' 4 1/2"	
	0'	13' 8 1/2"	
	0' 11"	14' 1"	
	2' 9"	15' 7"	
	4' 2"	15' 2"	
	6' 1"	15' 7"	
	7' 11"	16' 6 1/2"	(POSSIBLE 15')
	10' 3"	15 6 1/2"	
	12' 3"	15' 7"	
	14' 2"	11' 10"	
	15'	11' 6"	PROB TOP KEELSON

FRAME



3'10 below 2nd deck level

Mystic Seaport

Hull Frame 13

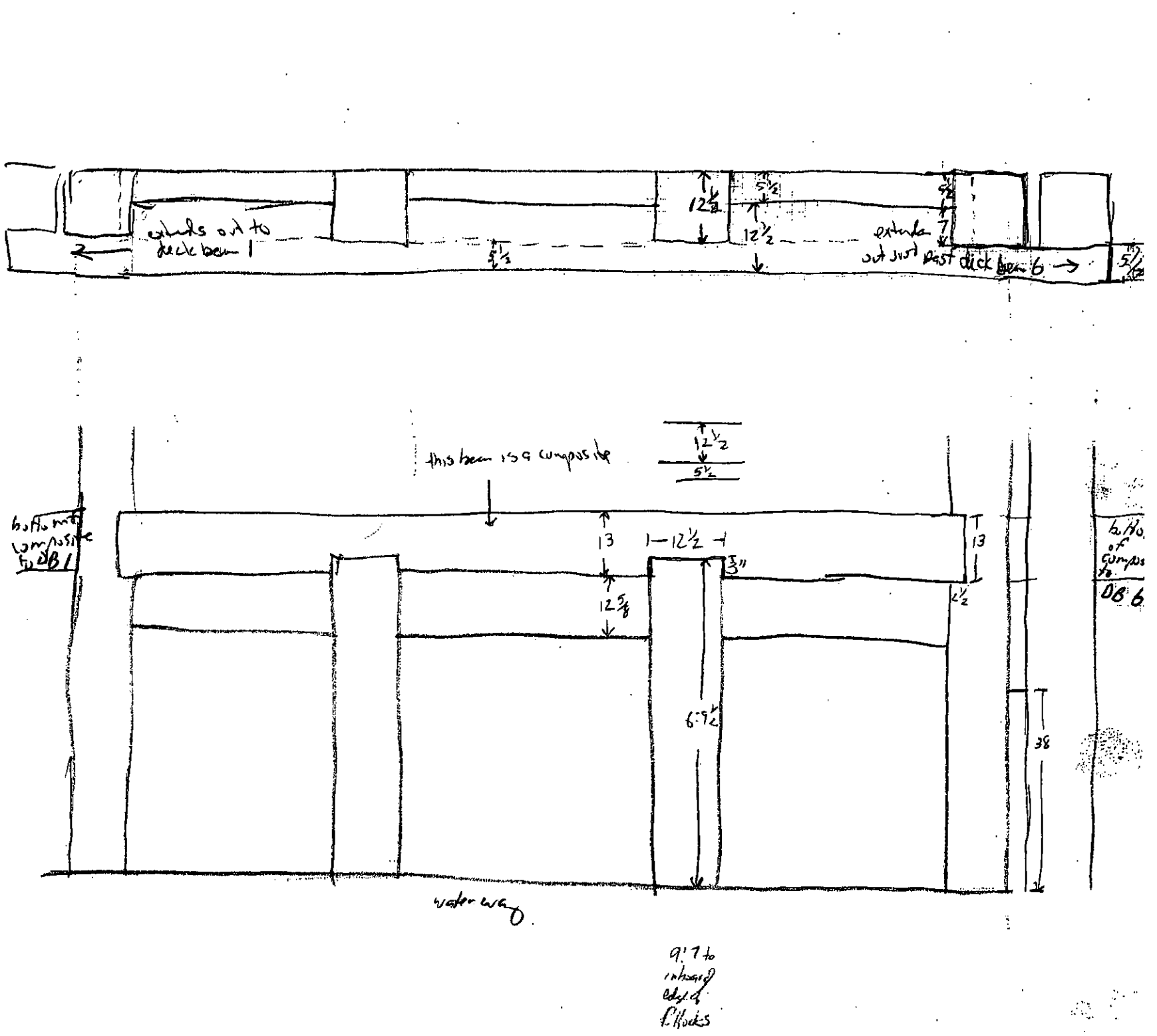
Deck Beam 8a is missing - appears to have been smaller perhaps 9x9

for all deck beam hatches are identical in size

Mim Brouwer
Tugboat Enthusiasts Soc.

Fish Hawk
possibly owned by Smith
plant in Belfield

Morgan Towing
bought Fish Hawk for parts ca. 1960



deck planking
3" thick
5½" width

V33 Deckplan-dgn levels

(1) Main deck
white

(3) Deck framing, main
orange

(2) Deck planking
Blue

(4) Baseline

(5) Centerline

(6) Deck fittings

(8) Deck Framing, quarter deck

10 Sub deck framing

(40) Trilat locations
red

(63) offset lines
Magenta

(58) Unused lines

Total Station

1. Setup & level gun

delete collector

2- pt 1 where prism will sit 5000, 5000 100 create
3 pt 2 Back stn 5010 both pts
(edit coords) 5010 5000 100

4. pace out 10 m, set prism on gun - set horizontal
menu : ~~F3~~ : set : HZ
"zeroing gun"
must do this everytime set up

level prism in place

5. Plug bluetooth collector in, turn on
6. Open edit existing job (H)

HI = 0.0
HR = 0.0

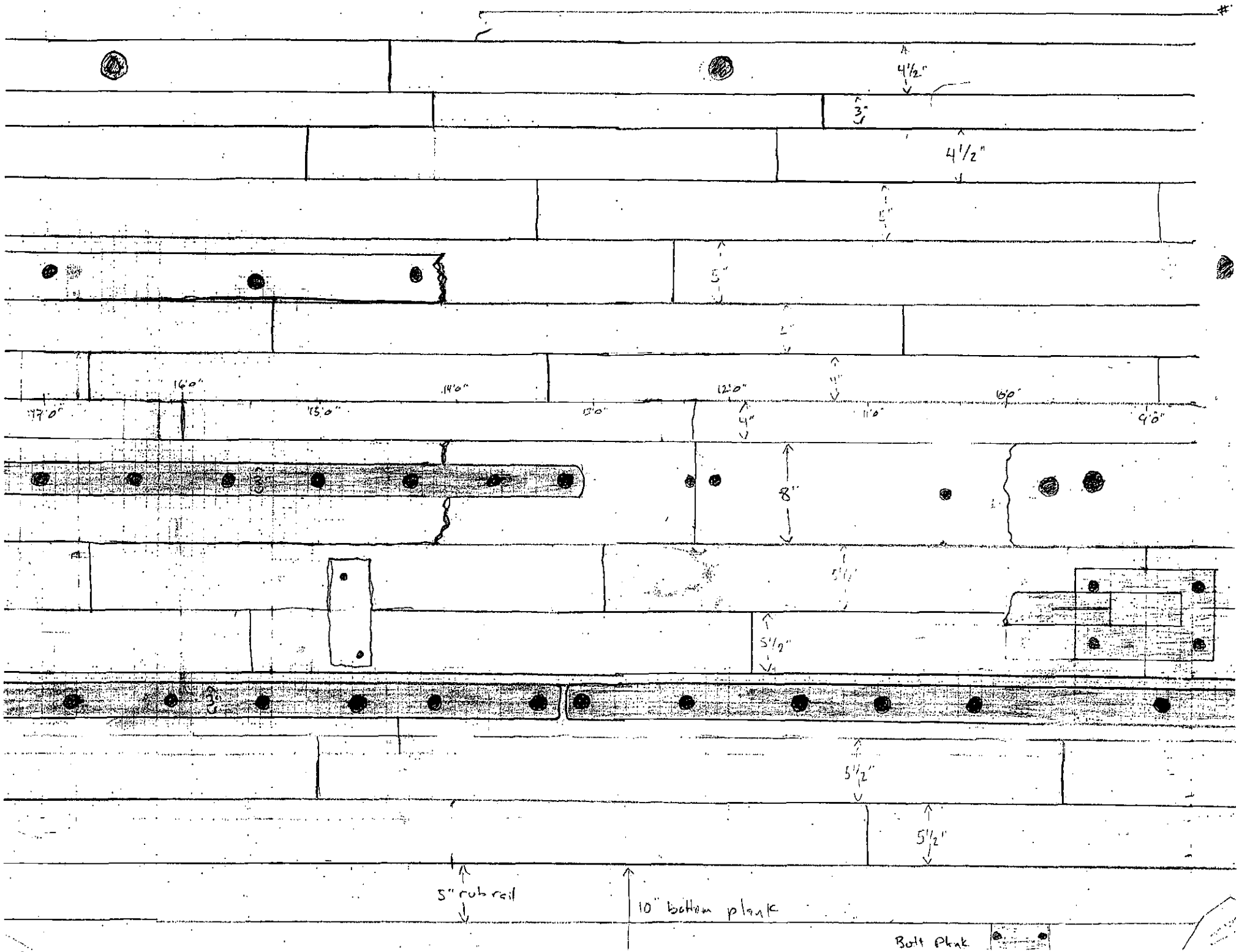
Screen saver 10 min click on

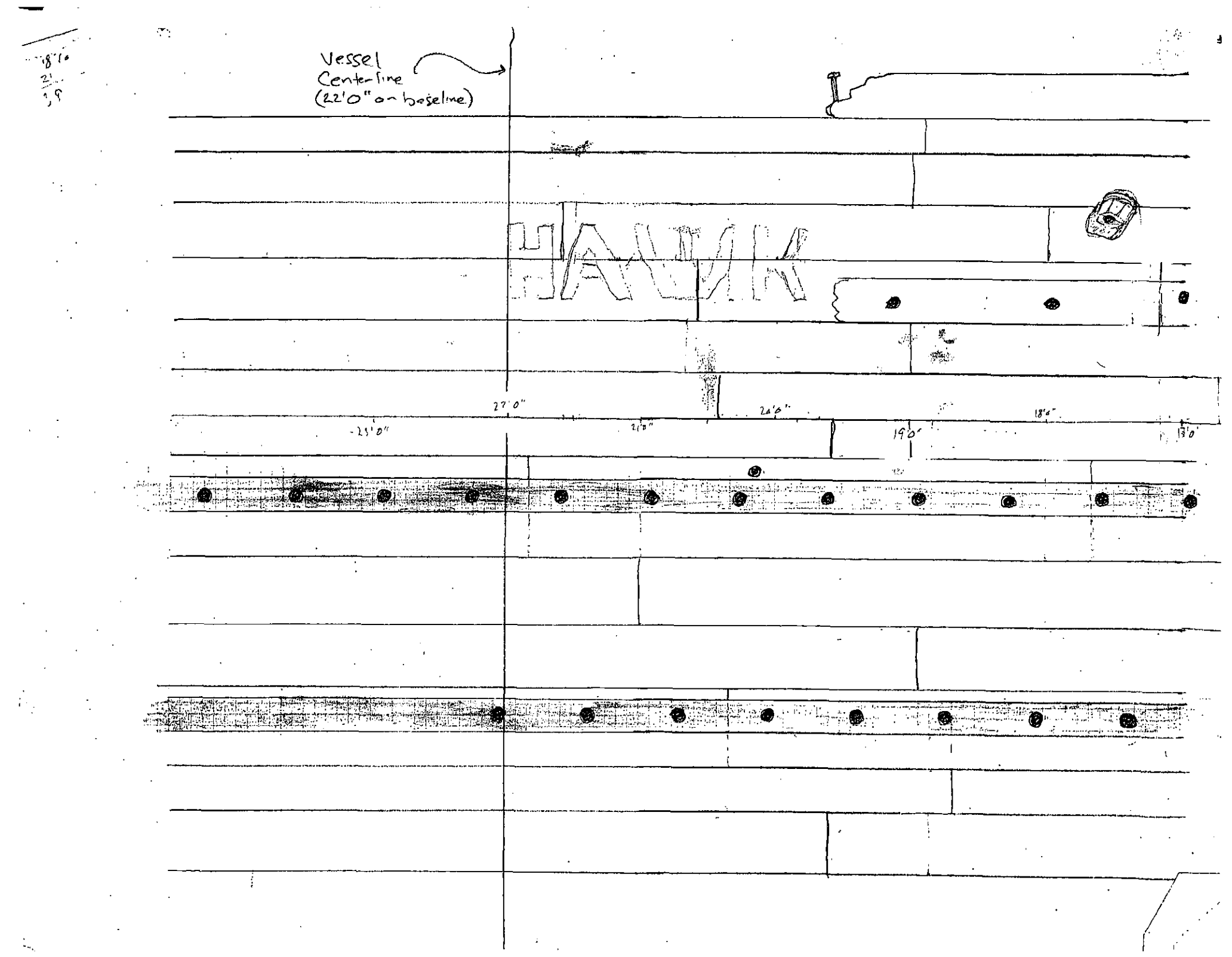
push solve - gun will take reading
- after solve, will continue with other menu options

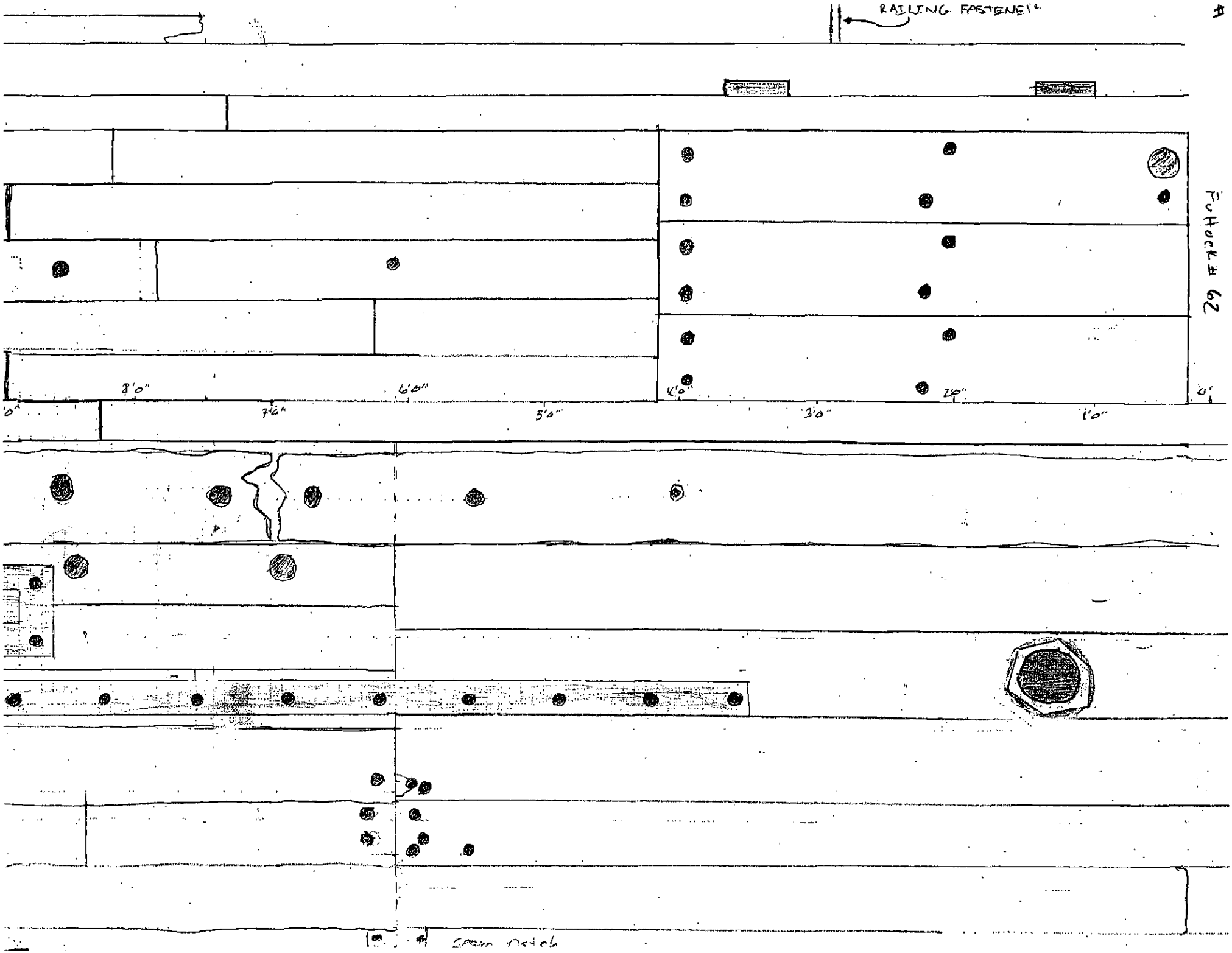
hit J - traverse/side shot -
push side, gun will take a shot - create pt 3 → same location as 4
name point procedure

pt taking procedure

~~go back to traverse/side shot~~ with
do backsight to pt 3 - occupying pt 1
J - traverse/side shot - go take points!


4½"
3"
4½"
5"
5"
16'0"
14'0"
12'0"
16'0"
17'0"
15'0"
13'0"
11'0"
9'0"
4"
8"
5½"
5½"
3"
5½"
5½"
5" rub rail
10" bottom plank
Bolt Plank

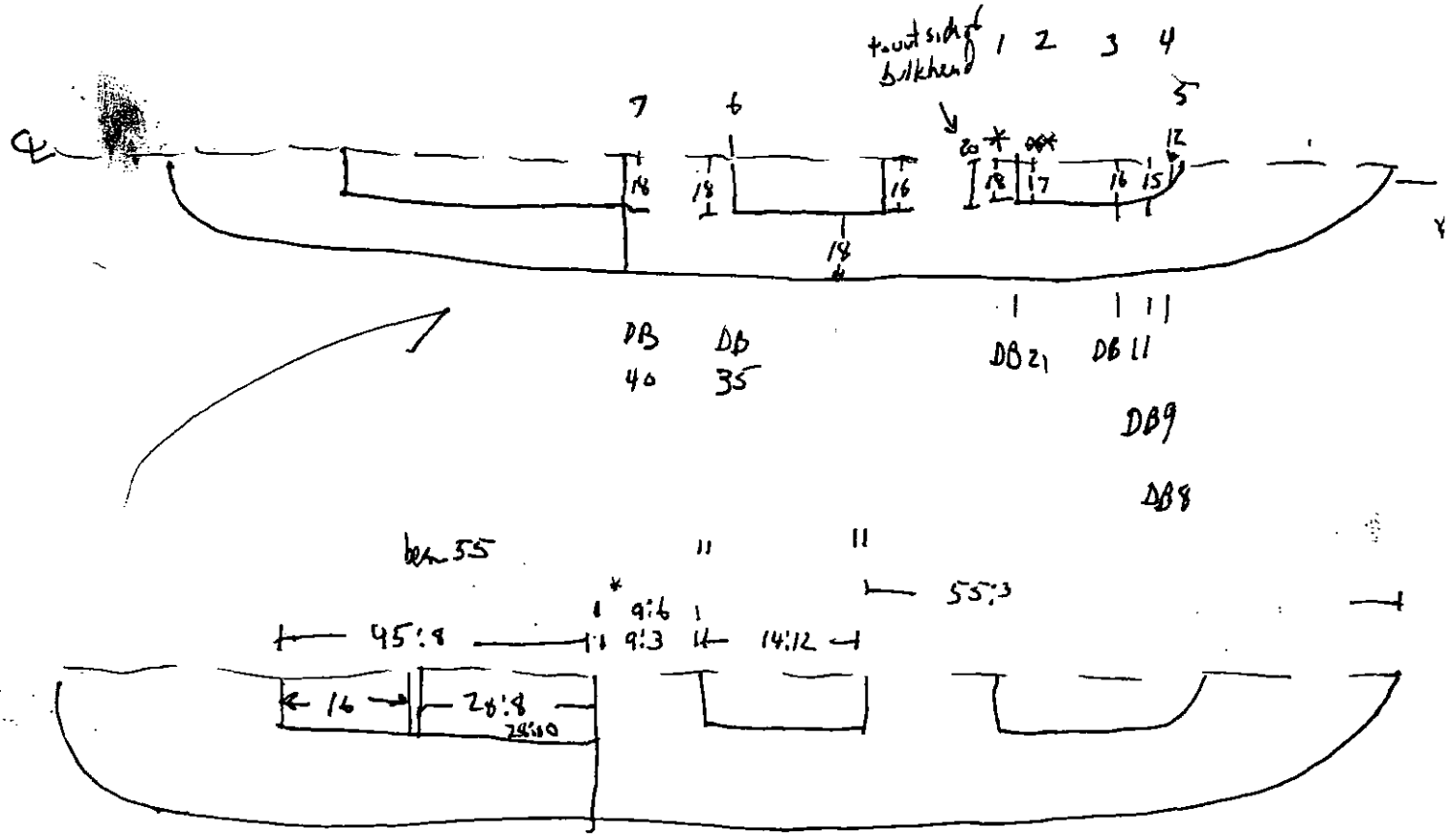

Vessel
Centerline
(22'0" on baseline)
HAWK
27'0"
24'0"
18'6"
25'0"
21'0"
19'0"
13'0"


RAILING FASTENER
8'0"
6'0"
4'0"
2'0"
7'6"
5'0"
3'0"
1'0"
0'
Pu Hock # 62

55:8 84:9 140:6

Lydekker
6 vessels
V33
8/27/2004

deck plank arrangement, fwd



* one measured under quarter deck lip

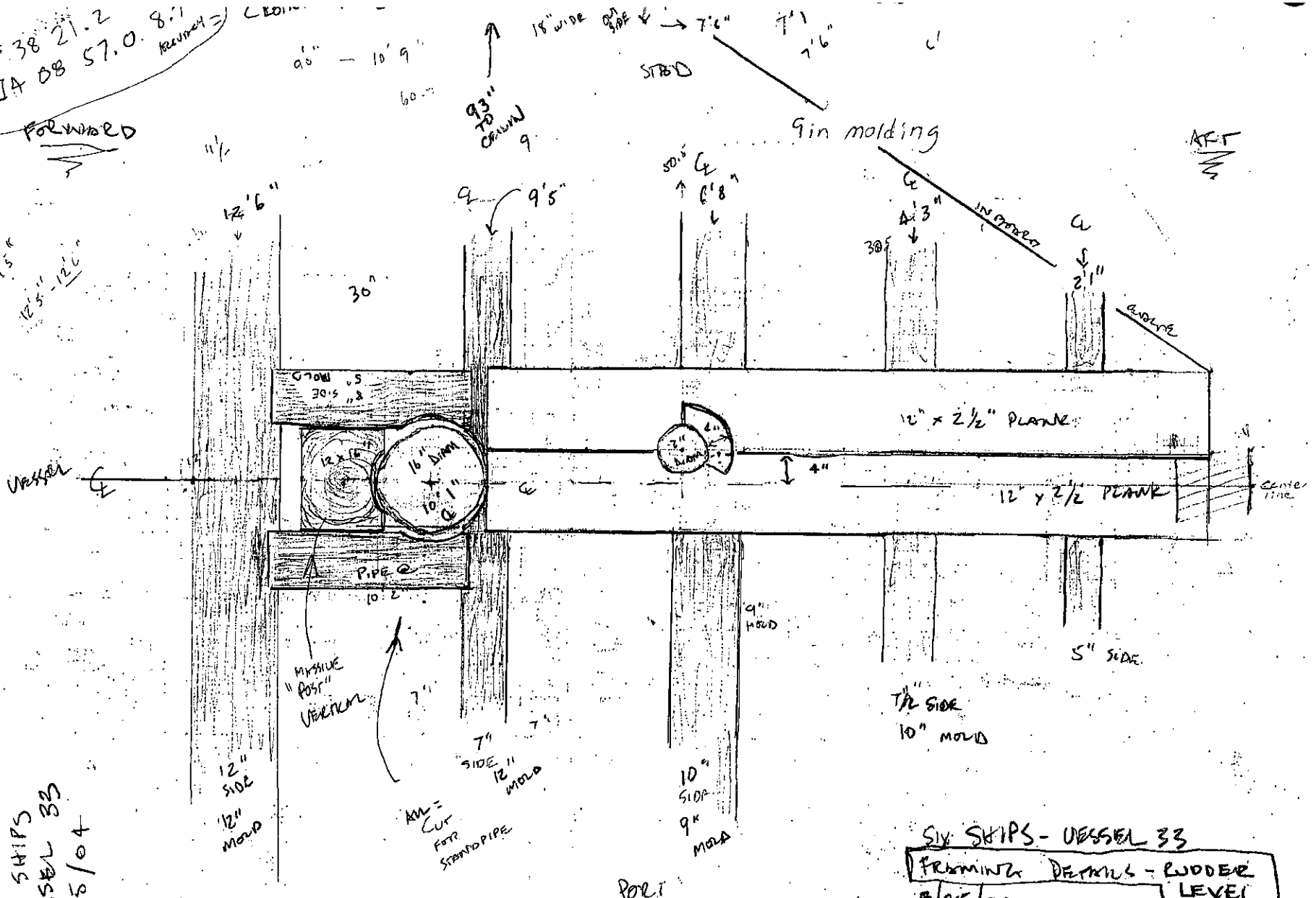
* includes #16 outfrom keno planks which is smaller — see detail drawing

** same width as 1, but ~~plank~~ planks at ~~**~~ cabin bulkhead widder

55:3
15:10
9:6
~~28:4~~
45:8

3
55:3
15:0
9:6
45:8
124:17

125:5


N 40° 38' 21.2
W 74° 08' 57.0" 8.1
FORWARD
BEAMS
AFT
9'5"
12'5" - 12'6"
12'6"
9'5"
30"
93" TO CROWN
9'
18" WIDE
7'6"
STBD
7'1"
7'6"
9in molding
6'8"
4'3"
2'1"
IN CENTER
12" x 2½" PLANK
4"
12" x 2½" PLANK
VESSEL
16" Diam
12" x 16"
10'1"
PIPE
10'2"
MISSILE "POST" VERTICAL
7"
7" SIDE
12" MOLD
12" SIDE
12" MOLD
KM = CUT FOR STANDPIPE
10" SIDE
9" MOLD
9" MOLD
7½" SIDE
10" MOLD
5" SIDE
PORT
SIX SHIPS
VESSEL 33
8/25/04
SIX SHIPS - VESSEL 33
FRAMING DETAILS - RUDDER LEVEL
8/25/04
MKF / ME

SIX SHIPS -
VESSEL 33
8/23/04
AFT END STEERING MECHANISM

52" CENTER TO OUTSIDE
3 "ARMS" SPOKES

6" = ARC
7" BUCKLE W 2" BOLTS
BENT ARM

4" WIDE SPOKES

7'3"

DETAIL RUDDER POST → AFT

RUDDER SHIM 12" x 3"

4"

6"

12"

12

7' ON ℄ FROM STERN

AFT →

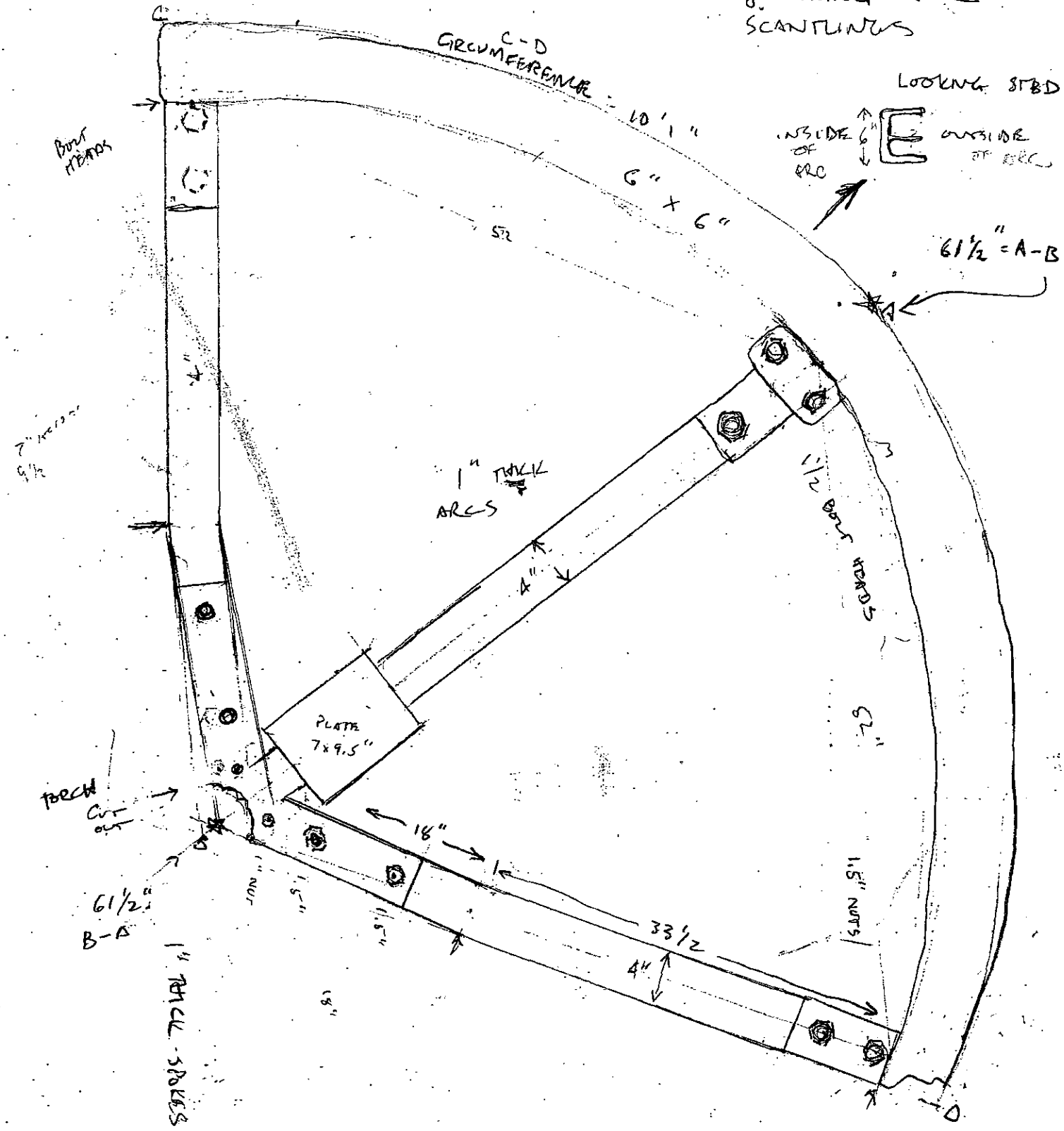
25781 9 =

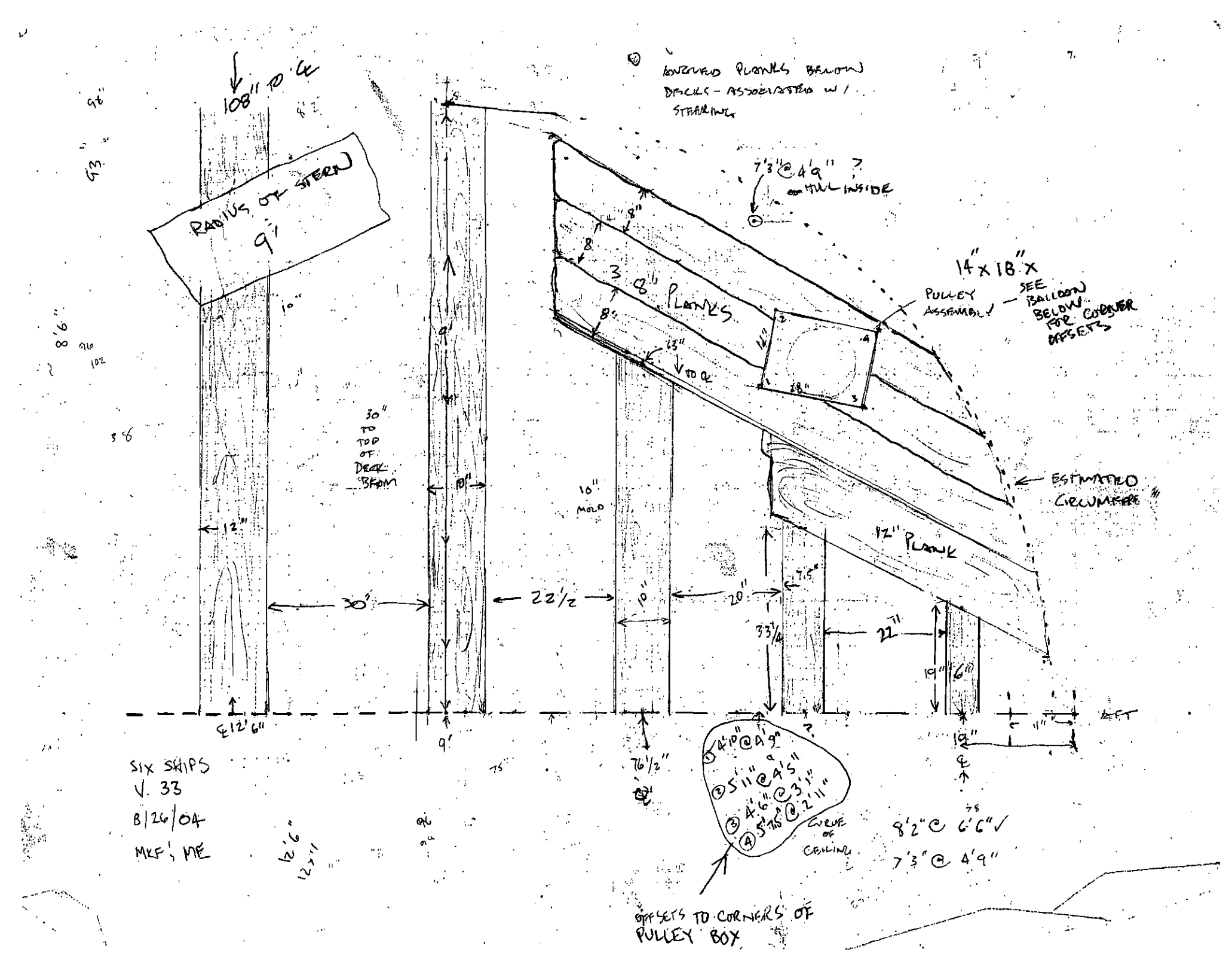
CHORUS

SIX SHIPS
VESSEL 33
8/23/04 8/24/04
MHE ; MKF

56"

STEERING ARC SCANTLINGS




108" TO ℄
RADIUS OF STERN 9"
BEVELED PLANKS BELOW DECKS - ASSOCIATED W/ STEARING
7'3½" @ 4'9" ? HULL INSIDE
3 8" PLANKS
14" x 18" X
PULLEY ASSEMBLY
SEE BALLOON BELOW FOR CORNER OFFSETS
ESTIMATED CIRCUMFERE
12" PLANK
30" TO TOP OF DECK BEAM
10" MOLD
12"
30"
22½
10"
20"
7.5"
33¼
22"
19"
6"
℄ 12'6"
9'
76½"
4'10" @ A'9"
5'11" @ 4'5"
4'6" @ 3'1"
5'7½" @ 2'11"
CURVE OF CEILING
OFFSETS TO CORNERS OF PULLEY BOX
8'2" @ 6'6" ✓
7'3" @ 4'9"
SIX SHIPS
V. 33
8/26/04
MKF; MF

STERN - DEPTHS

℄ FROM STERN	OFFSET	DEPTHS
℄ 9'	25" STBD	7'2" FROM FLOOR TO TOP OF DECK BEAM
(*) ℄ 9'	LOWER FRAME TOP TO TOP OF DECK BEAM 31"	
℄ 7'	25" STBD	7'1"
℄ 5'	25" STD	6'6" FROM FROM FLOOR TO DECK BEAM
℄ 3'	25" STBD	5'7" "

STEERING FRMES TO DECK FRAMES - ELEVATIONS - TOP TO TOP

FROM STBDM 1 33

2 30 - 30.5

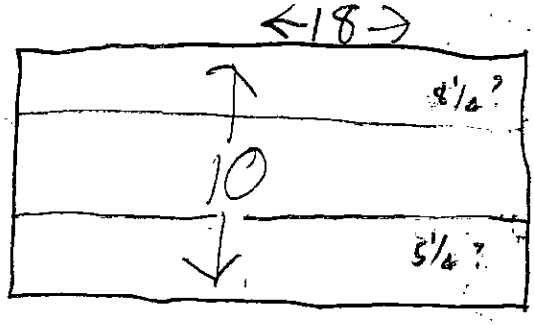
3 27½

4 29½

5 26½

SIX SHIPS
VESSEL 33
8/20/04
NLF & MF
DEPTH TO FOUR MEASURES

MEASURE FROM STERN	↔ OFFSET
↕ 6'3"	9 1/2 in outside edge of starboard steering Deck
7.5" 6'3"	62 in inboard " " " "
9ft 7'10"	69 1/2 in inboard edge of steering planking
7'8"	99 in. outboard corner of steering Deck
9'4	9ft Timber under Frame 66 (#4)
2'1"	64 in 1st Deck Beam



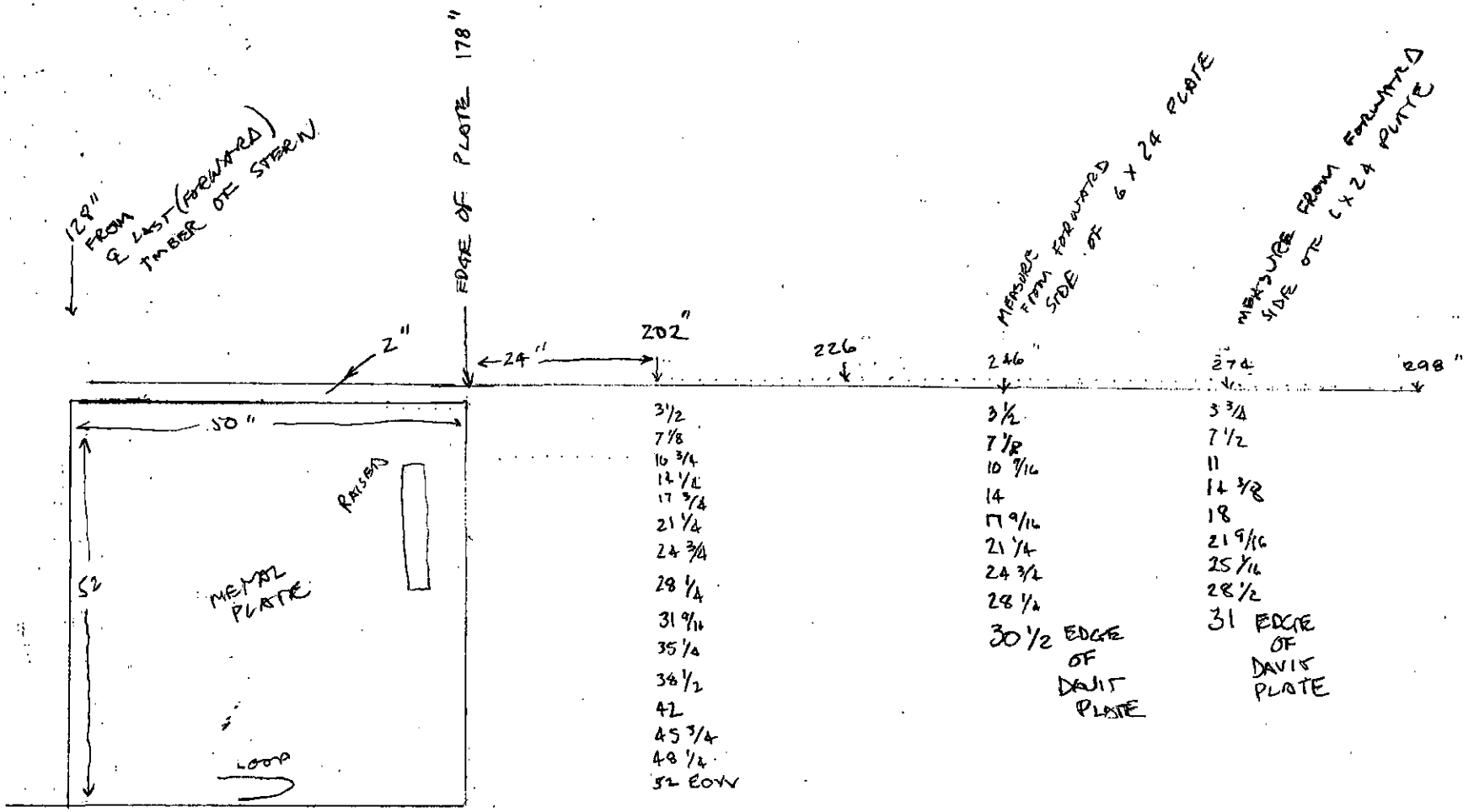
8 in

8 in

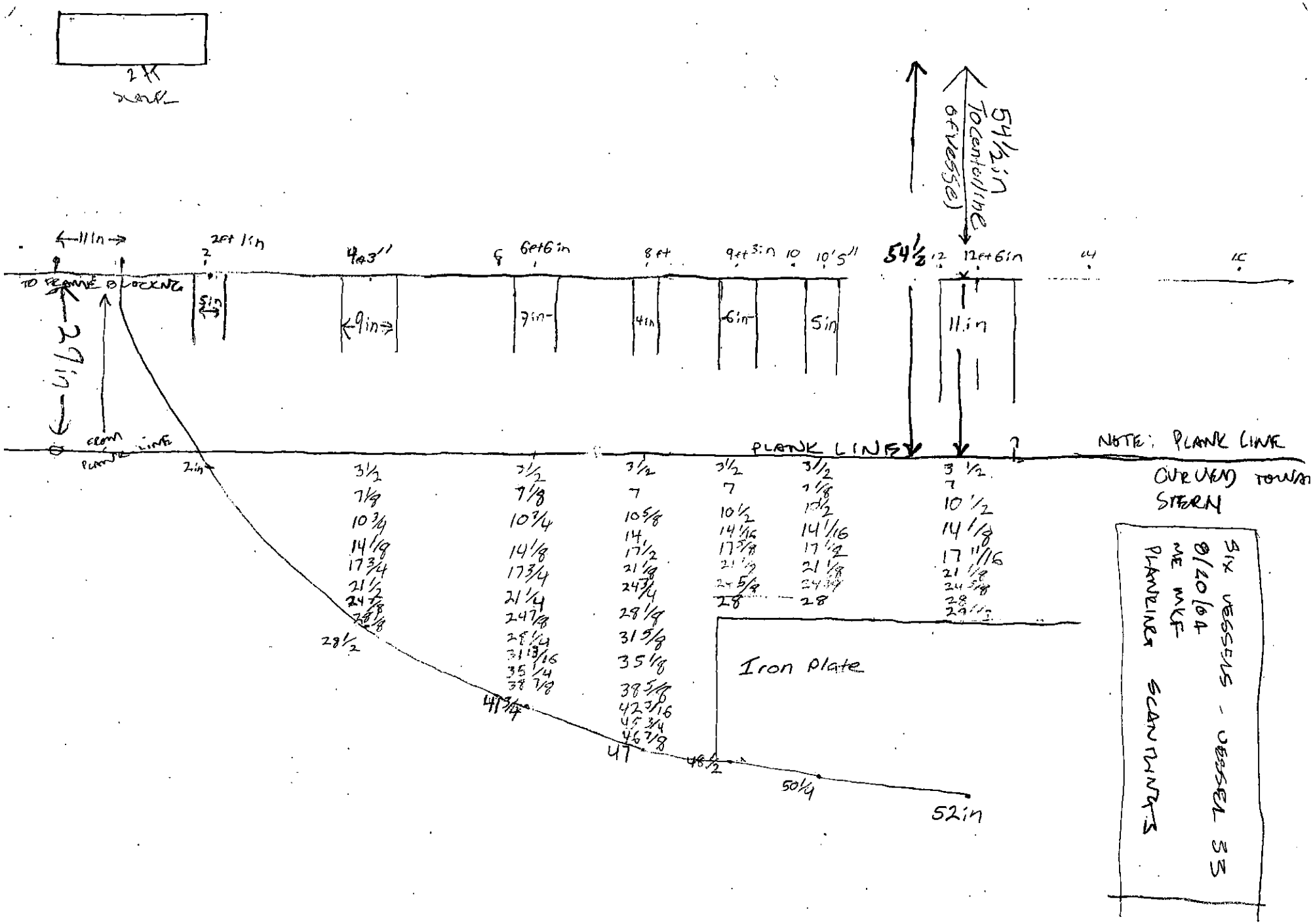
8 in

12 in

SIX SHIPS
VESSEL 33
8/26/04
MKF; ME
STEERING MECH PLATFORM
SCANTLINGS

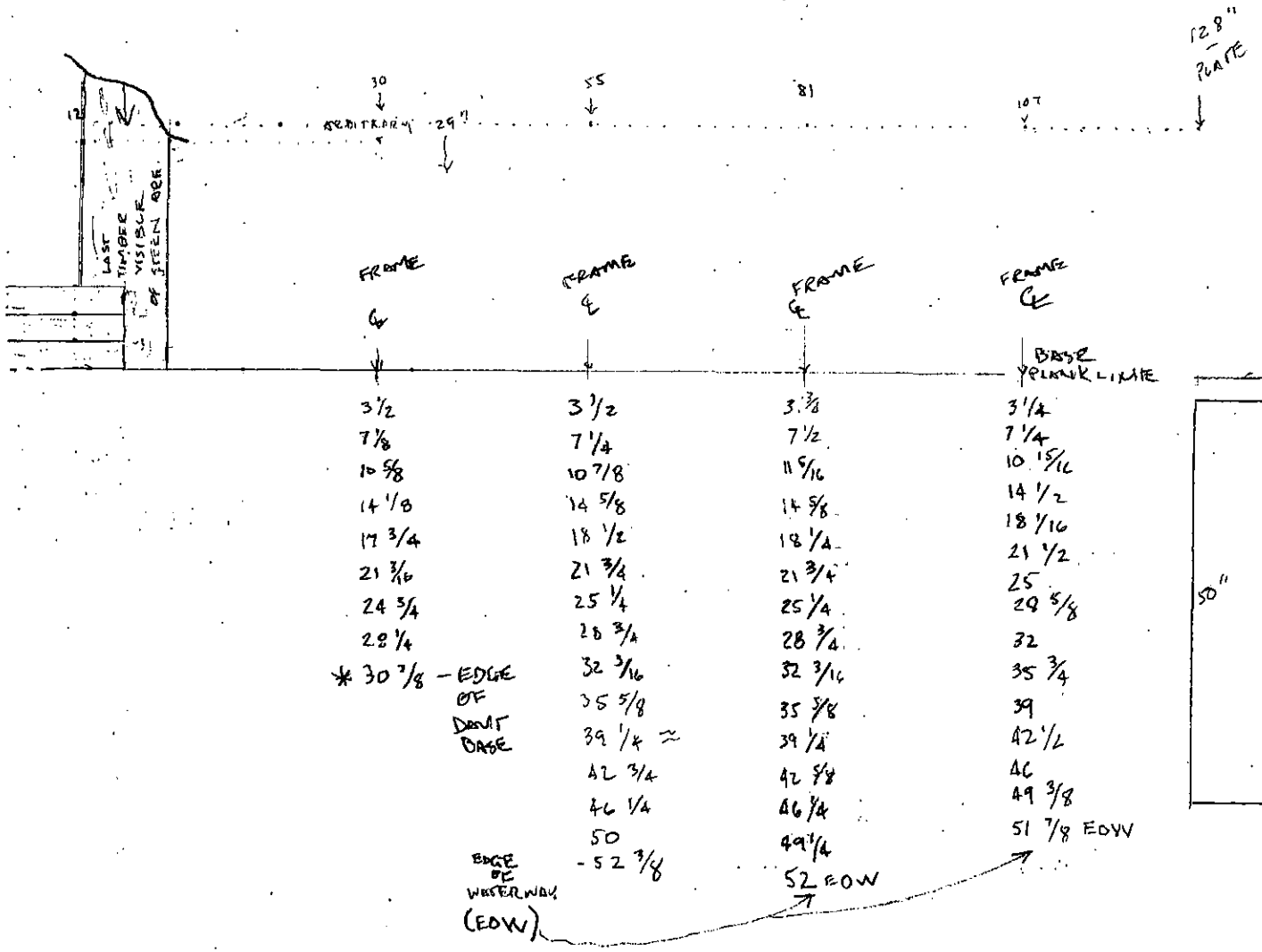

129" FROM ℄ LAST (FORWARD) TIMBER OF STERN
EDGE OF PLATE 178"
2"
24"
202"
226
246"
274
298"
MEASURE FROM FORWARD SIDE OF 6 x 24 PLATE
MEASURE FROM FORWARD SIDE OF 6 x 24 PLATE
50"
52
RAISED
METAL PLATE
LOOP
3 1/2
7 1/8
10 3/4
14 1/4
17 3/4
21 1/4
24 3/4
28 1/4
31 9/16
35 1/4
38 1/2
42
45 3/4
48 1/4
52 EOW
3 1/2
7 1/8
10 9/16
14
17 9/16
21 1/4
24 3/2
28 1/4
30 1/2 EDGE OF DAVIT PLATE
3 3/4
7 1/2
11
14 3/8
18
21 9/16
25 1/16
28 1/2
31 EDGE OF DAVIS PLATE

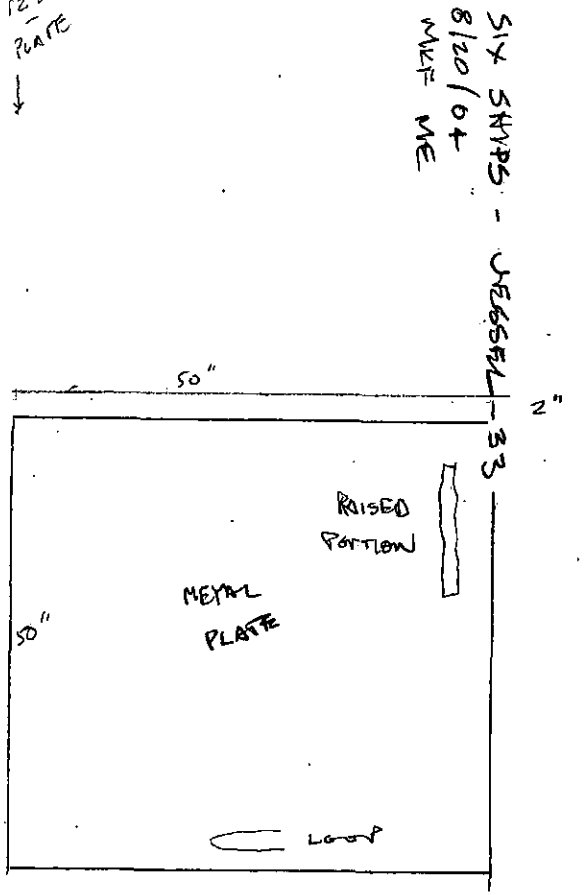
Stern Framing Pattern: Deck Beams
Deck Beam 2'1"
Deck Beam 4'3"
Deck Beam 6'8"
Deck Beam 9'4"
Deck Beam 10'4"
Missing Member
Strand Pipe Base
Bore for 5" Strand Pipe 30 x 3
Forward
Aft
Six Ships
Vessel 33
8/24/04


2 ft
SCALE
54½ in
To centerline of vessel
11in
2ft 1in
4ft 3"
6ft 6in
8ft
9ft 3in
10
10'5"
54½
12
12ft 6in
14
16
TO FRAME BLOCKING
20 in
5in
9in
7in
4in
6in
5in
11.in
CROWN PLANK LINE
2in
PLANK LINE
NOTE: PLANK LINE OVERHEAD TOWARD STERN
3½ 7⅛ 10¾ 14⅛ 17¾ 21½ 24⅞ 28⅛
28½
3½ 7⅛ 10¾ 14⅛ 17¾ 21¼ 24⅞ 28¼ 31 13/16 35¼ 38⅞
41¾
3½ 7 10⅝ 14 17½ 21⅛ 24¾ 28¼ 31⅝ 35⅛ 38⅝ 42 3/16 45¾ 46⅞
47
3½ 7 10½ 14 1/16 17⅝ 21 24⅝ 28
48½
3½ 7⅛ 10½ 14 1/16 17½ 21⅛ 24 3/4 28
50¼
3½ 7 10½ 14⅛ 17 11/16 21⅛ 24⅝ 28 29⅛
52in
Iron plate
SIX VESSELS - VESSEL 33
8/20/04
ME MKF
PLANKLINES SCANTLINGS

30" & FRAMES AFTER STERN AREA
55"
81"
107"
128 1/2 PLATE

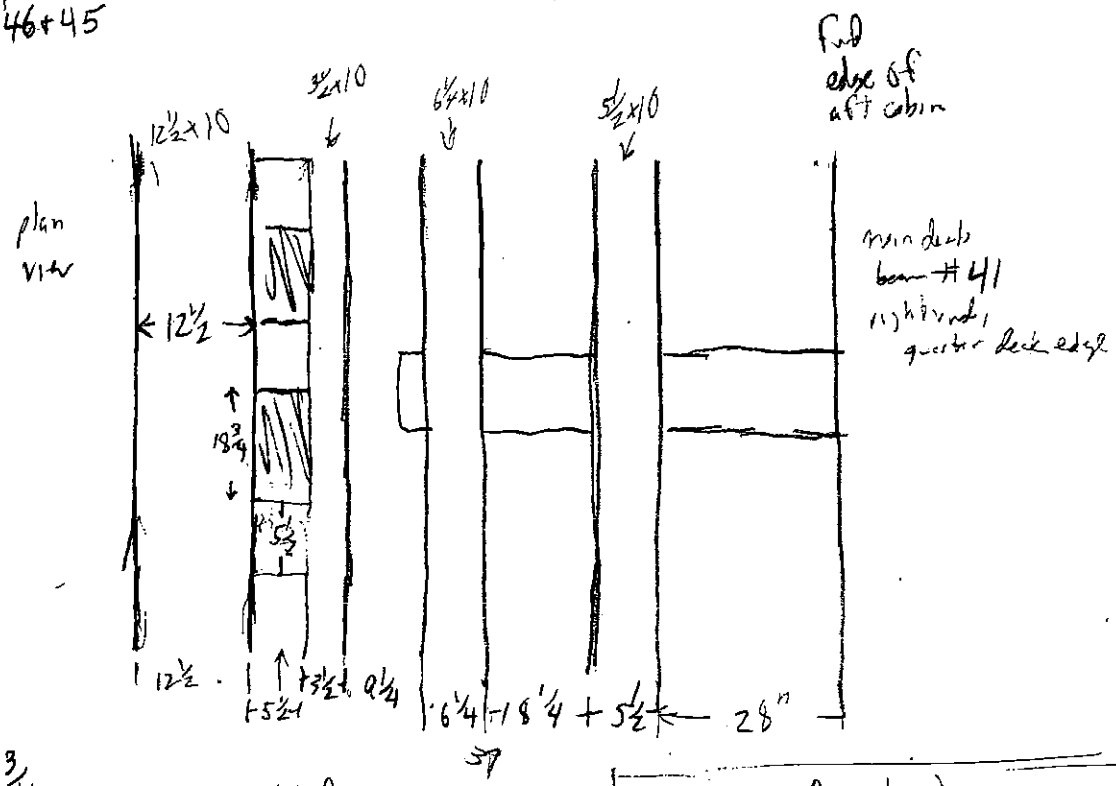
PLANKS = ~3 1/4 x 3 1/2"





Deck plan

details on main deck level bulkhead located b/n frs 46+45



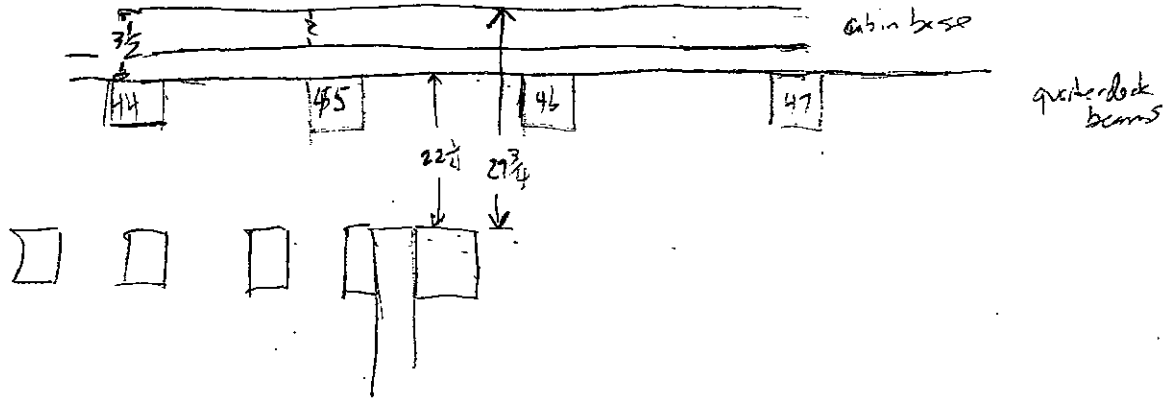
60¾
2'
88¾

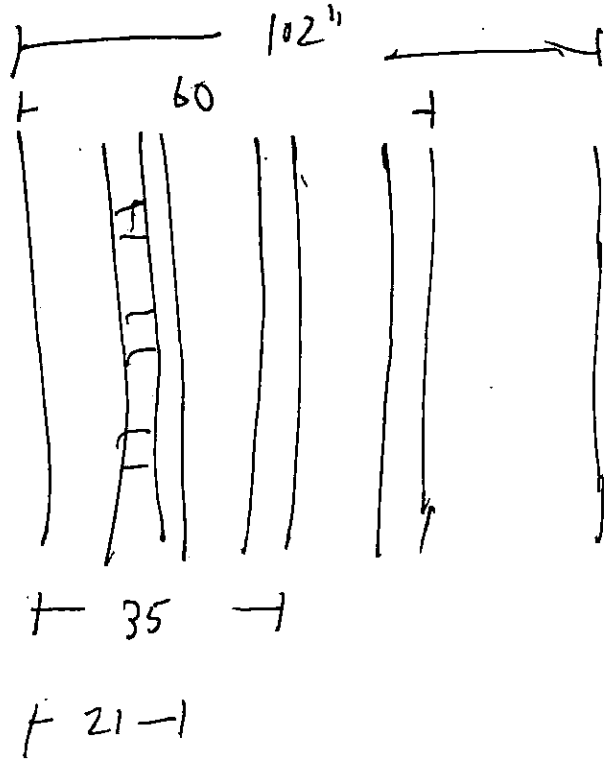
bulkhead hgts separated:
room is 5½,
stanchion is 4" deep

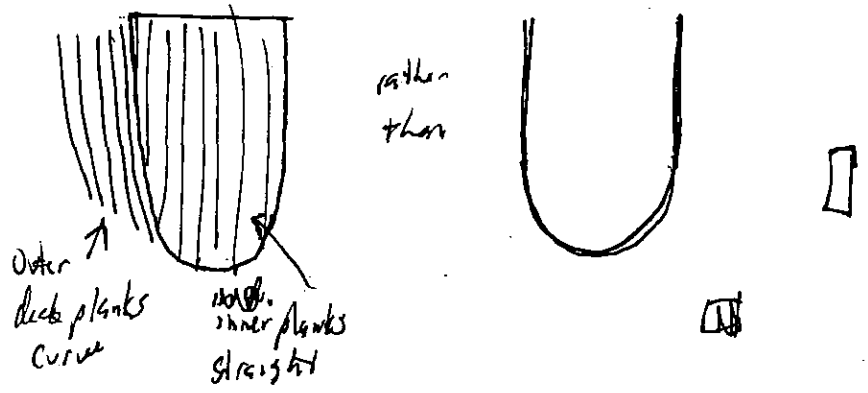
engine location
45:5 to 37 on B/L

boiler or fuel tank location
B/L 25 to 13

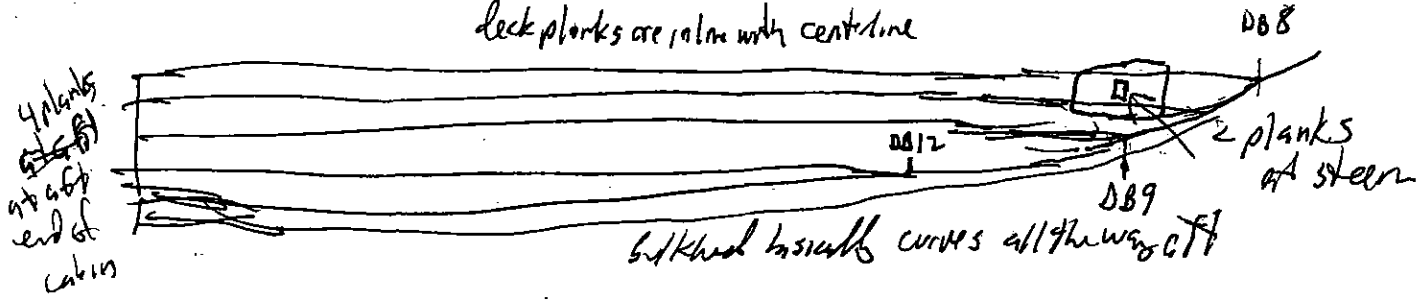
this beam located 13" forward of ⊕ beam 46
center to center
B/L 50'9 to beam center







deck planks are inline with centreline



bulkhead basically curves all the way CF

curve of sides and deck parallel approx at CF end of deckhouse

SIX SHIPS
8/23/04
VESSEL 33
MFE/MKF

℄ OF DECK BEAMS

DECK BEAM - CL FROM FASTNER PATTERN

DECK PLANKING INCLUDES WIDE ONES OUT BOARD TO FRAME 11

1. 138' 3"	21 96' 11"		46 49'6"	
2. 136'	22. 94' 11		47 47'8"	
3. 133' 5.5"	23. 92' 6"		48 45'6"	
4. 131' 2"	24. 90' 8"		49 43'6"	
5 129' 3"	25 88'10'	34 PLANKS	50 41'8"	- 15 PLANKS ACROSS
6 127	26 87' 1"		51 39'5"	
7 125' 1"	27. 84' 8"		52 37'5"	
8 123' 1"	28 82' 10"		53 35' 1"	
9 121' 1"	29 80' 10"		54 33'0"	
10 119' 1"	30 78' 10"		55 31' 4"	
11 117' 1"	31 76' 11"		56 29'5"	
12. 115' 15"	32 74' 8"		57	
13. 113' 15"	33 72' 11"		58	COVERED BY METAL PLATE
14. 110' 7"	34 70' 11"		59	
15. 108' 7"	35 68'		60 21' 9"	
16. 106' 8"	36 67' 2"		61 19' 8"	
17. 104' 8"	37 65' 2"		62 17' 3"	
18 102' 8"	38 63' 1"		63 15' 1"	
19. 100' 8"	39 61' 2"		64 12' 7"	- stern section -
20 98' 8" 33.	40 59' 6"	Transverse Fore end of Quarter Deck	65 10' 6"	
	✱41 59' 0"	1st Beam on Fore end of Quarter Deck	66 9' 4"	
	42 57' 0"		67 8'	
	43 55' 1"		68 6' 7"	
	44 53' 5"		69 4' 3"	
	45 51' 8"		70 2' 1"	

INCLUDES DECK HOUSE DECK

15 PLANK

* DECK BEAM @ 6 = 5 3/4 SIDE × 8 3/4 MOLD PAINTED ORANGE

DECK BEAM @ 11 = 6" MOLDED NO SIDE

DECK BEAM @ 24 = 5 1/4 SIDE 10" MOLDED

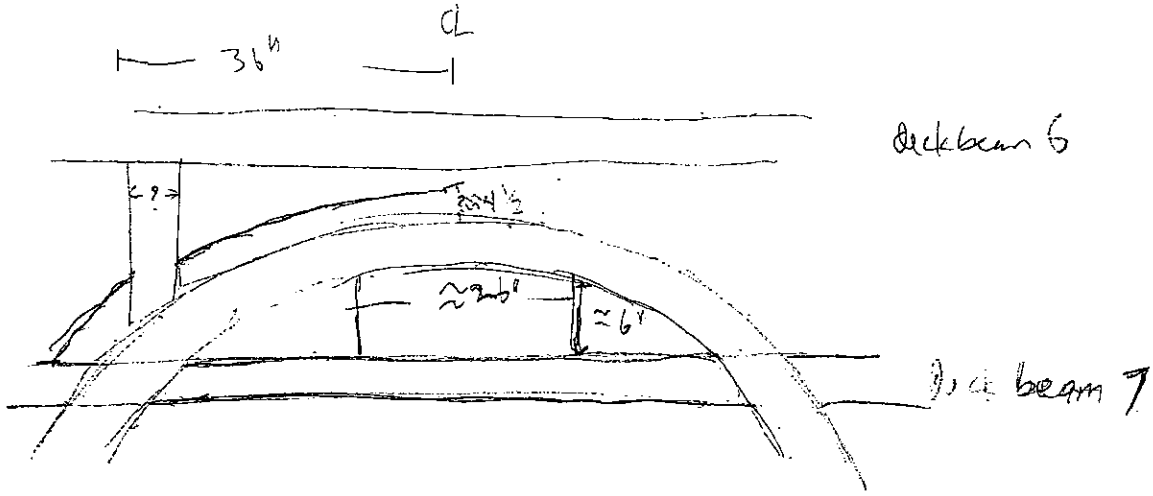
DOUBLE PICKLE PLANK @ 32 8 3/4 MOLD × 8" SIDE

Below Deck framing

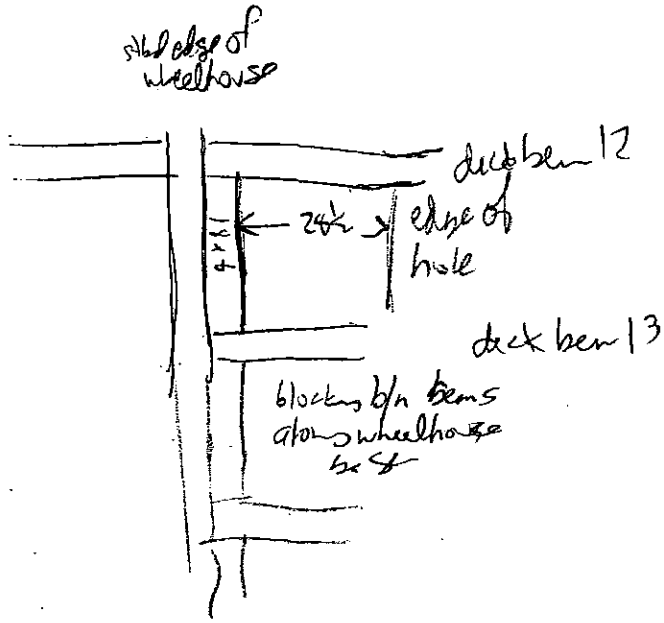
Lubecker
Gussb
1/33 8/24/2004

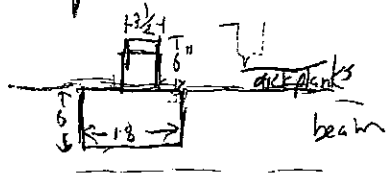
Sept 18th
Estuaries Day

Forward cabin (forward) ~~from~~ deck framing detail



≈ measurements based on fastener pattern





Athwartships bulkhead at ⑤ deck beam 18

Scantlings

bulkhead planks

7½" x 2"

bulkhead stanchions

6½ x 6

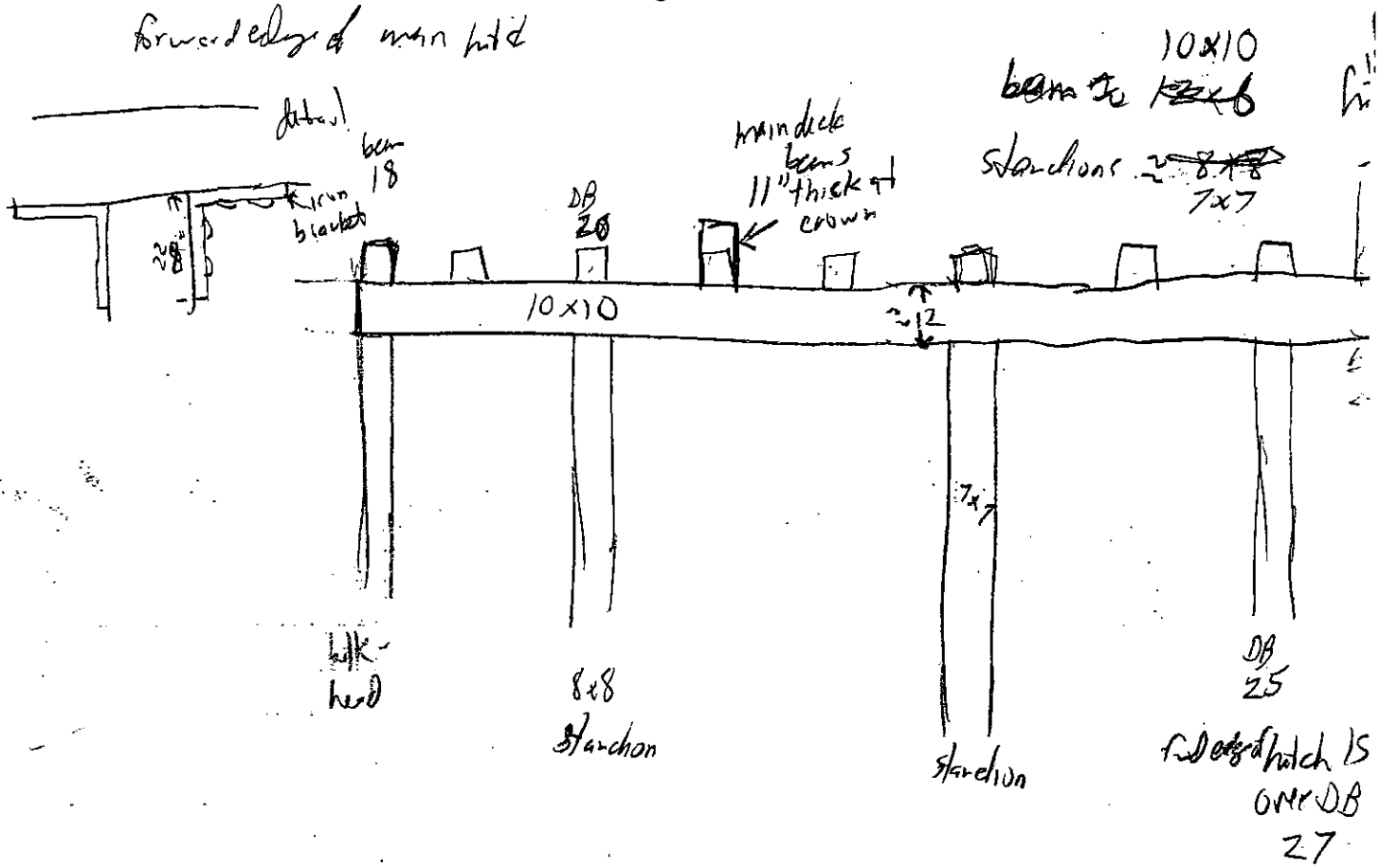
fathwart

6½ Long.

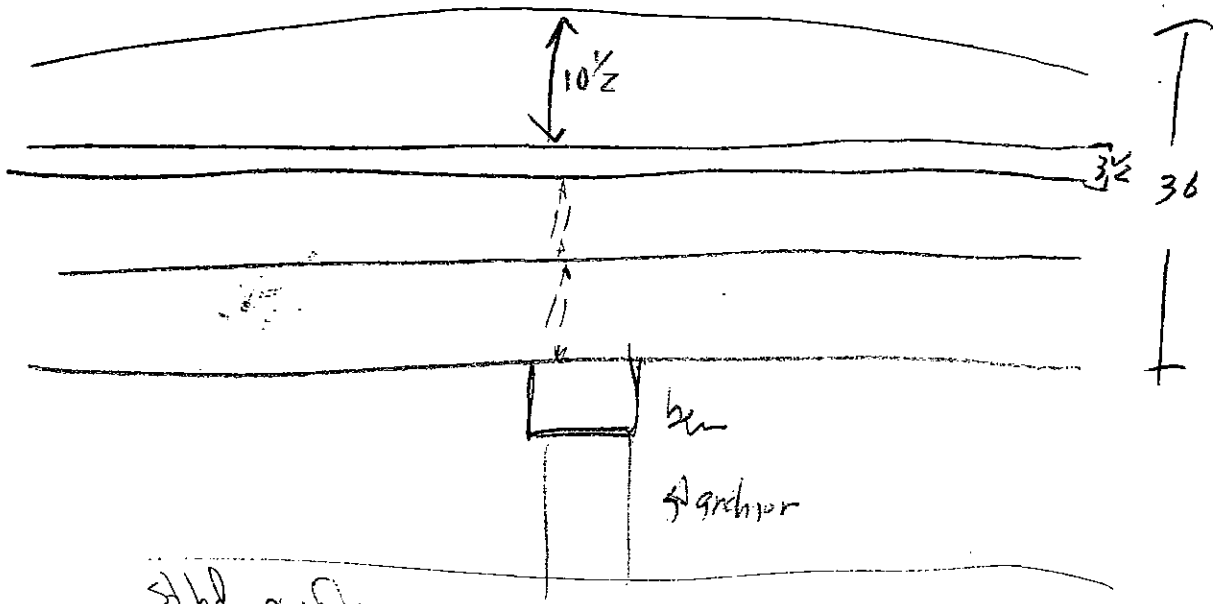
bulkhead anchor rod and spacing varies. Nine stanchions, including ones attached to sides of vessel

Centerline beam at stanchions

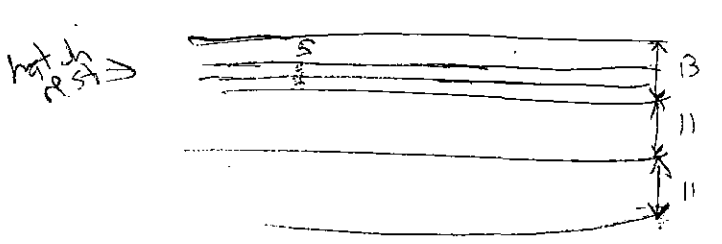
starts at bulkhead (beam 18) running aft to forward edge of main hatch

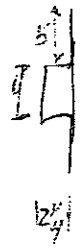


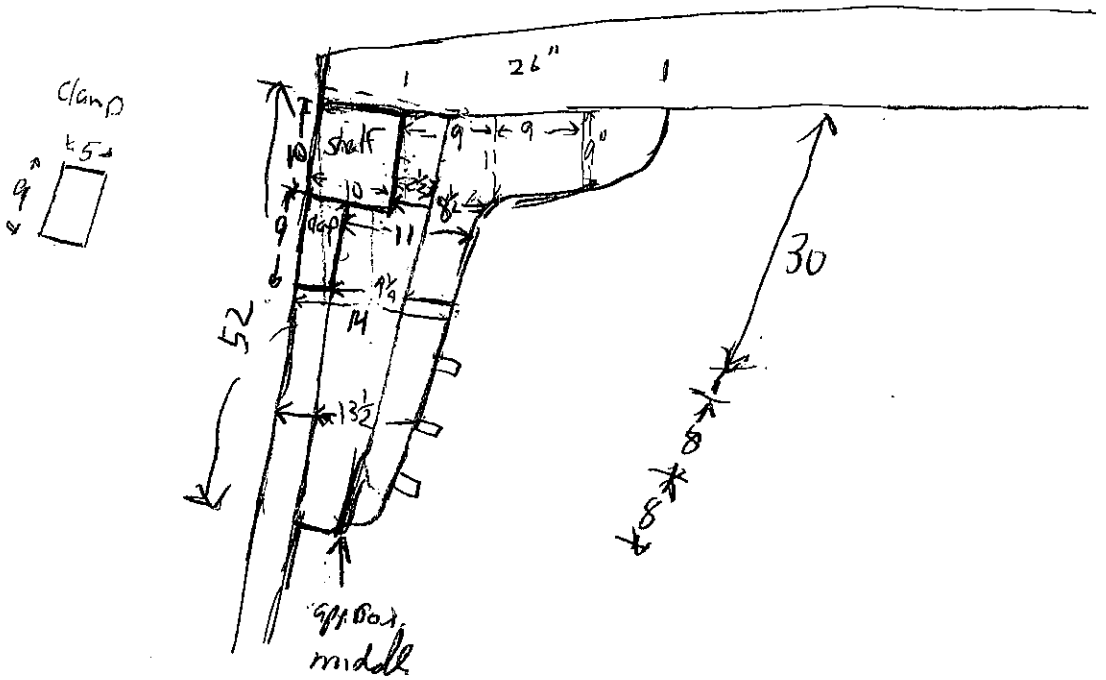
main hatch coaming detail
aft ~~side~~ of ~~fwd~~ end, facing bow



~~Stbd~~ profile
~~Stbd~~ side, looking stbd main hatch







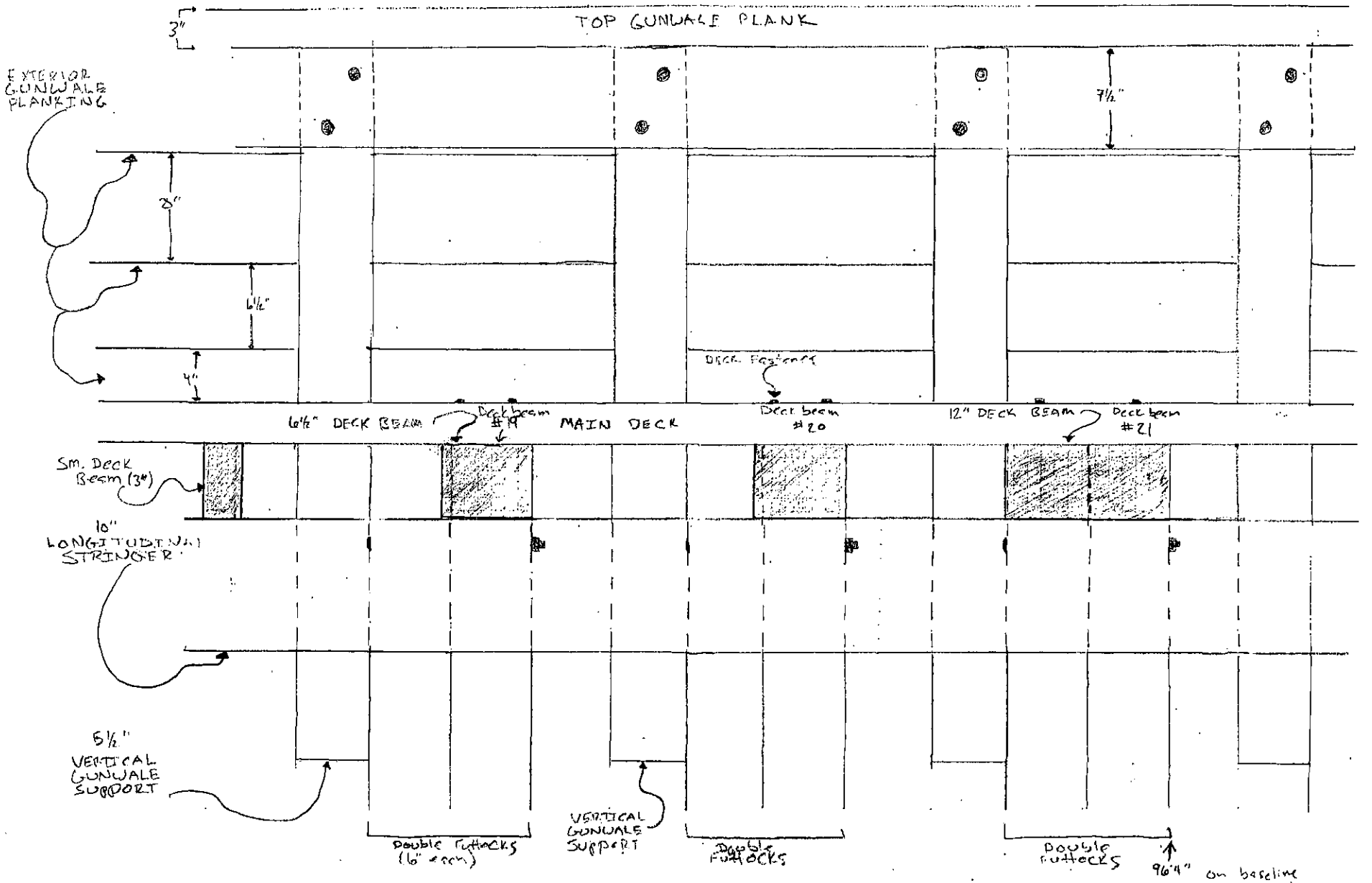
hanging tree at
dock bar 30 31

tree is cut from tree limb

clamp santi
5x9

shelf
10x10

V33 (MENHADEN TRAWLER): Futtock / Main Deck Configuration

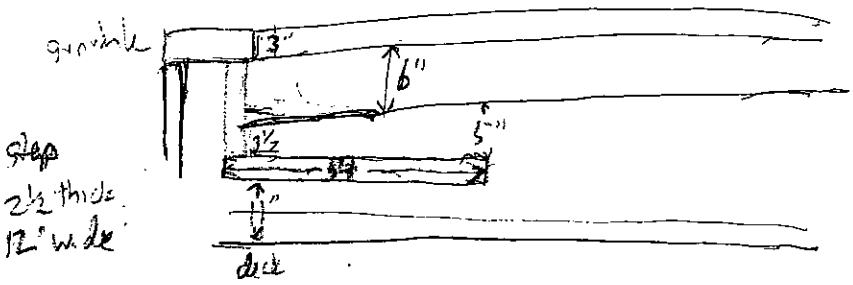


8-20-04
MCK

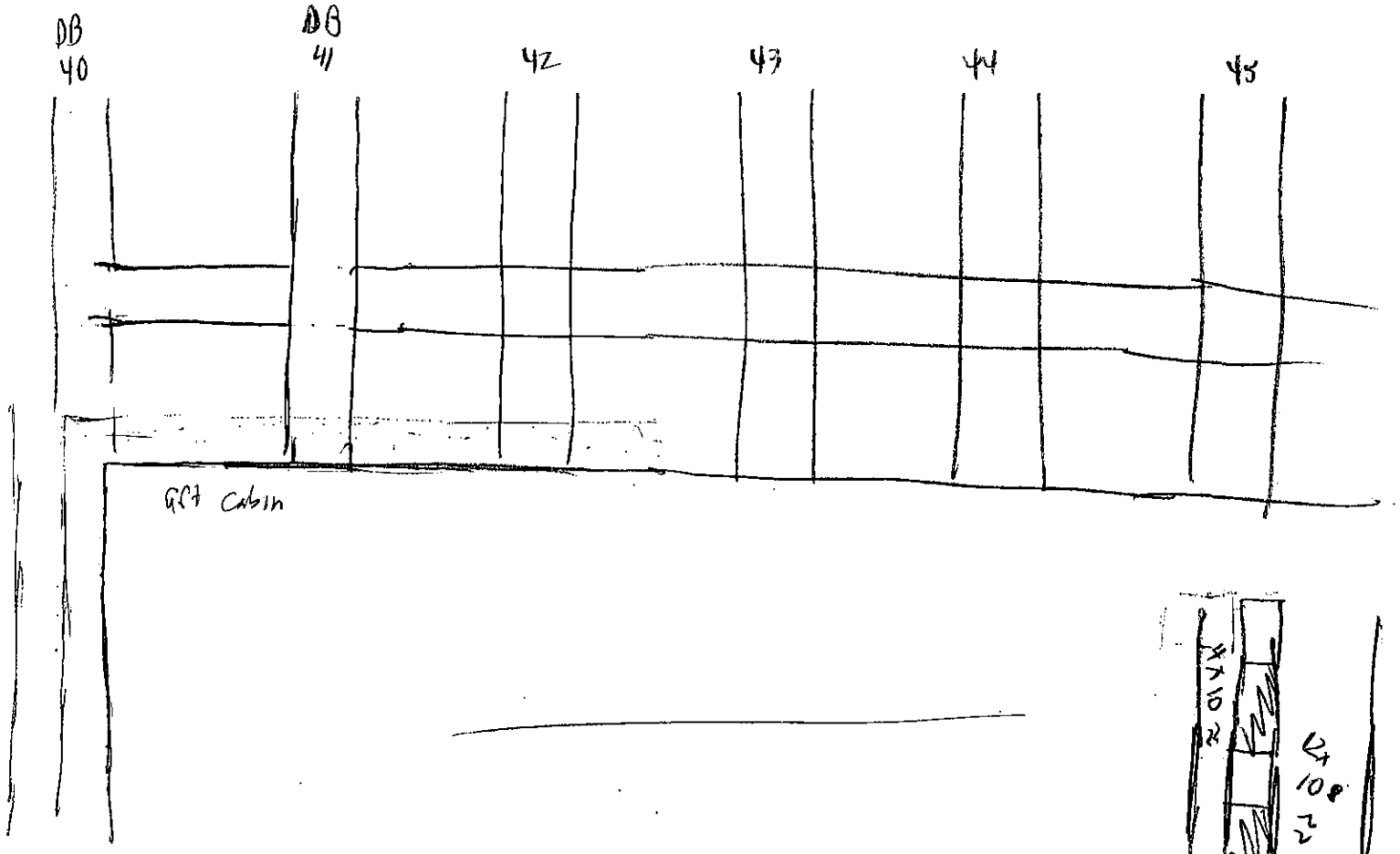
top gunwale (quarterdeck

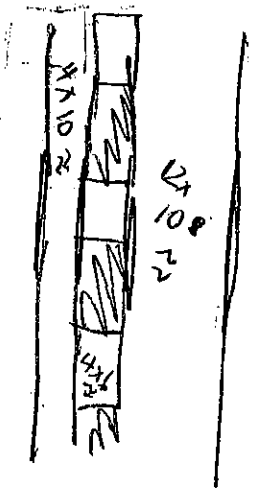
4" molded
6" sided

quarterdeck planking
3½ sided
3½ molded



this [illegible] appears
to be directly above
main deck beams, which continue through 45, which appears to be a bulkhead

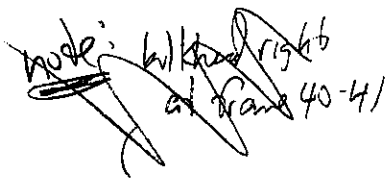




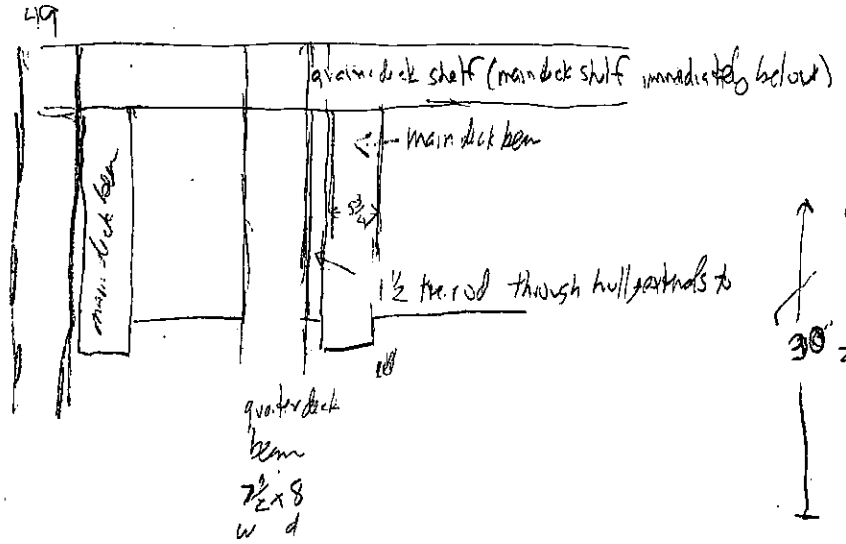
Guitar Deck beam 56 11 x 11 [illegible] athwartships

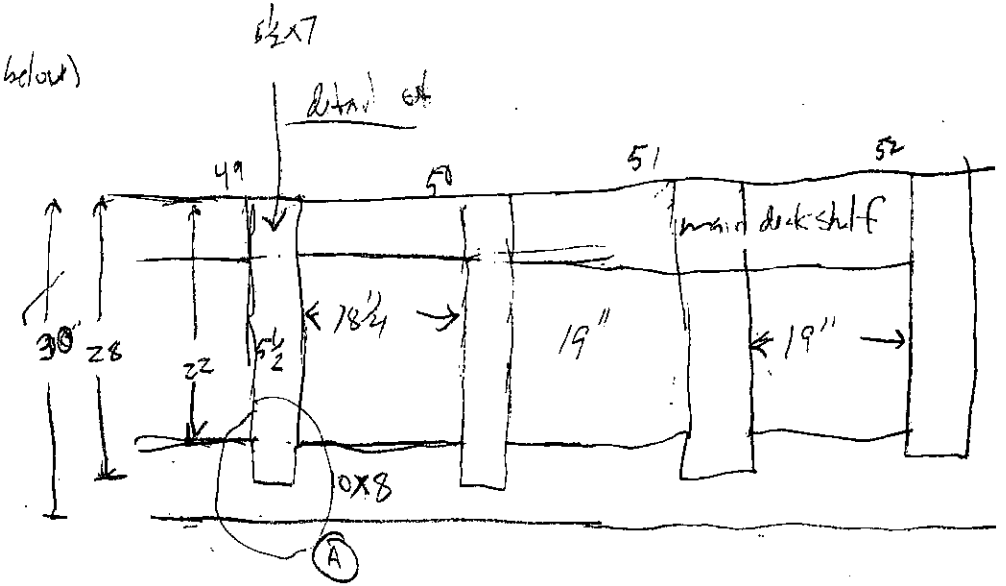
Bottom quarter deck detail

taken at frame 50

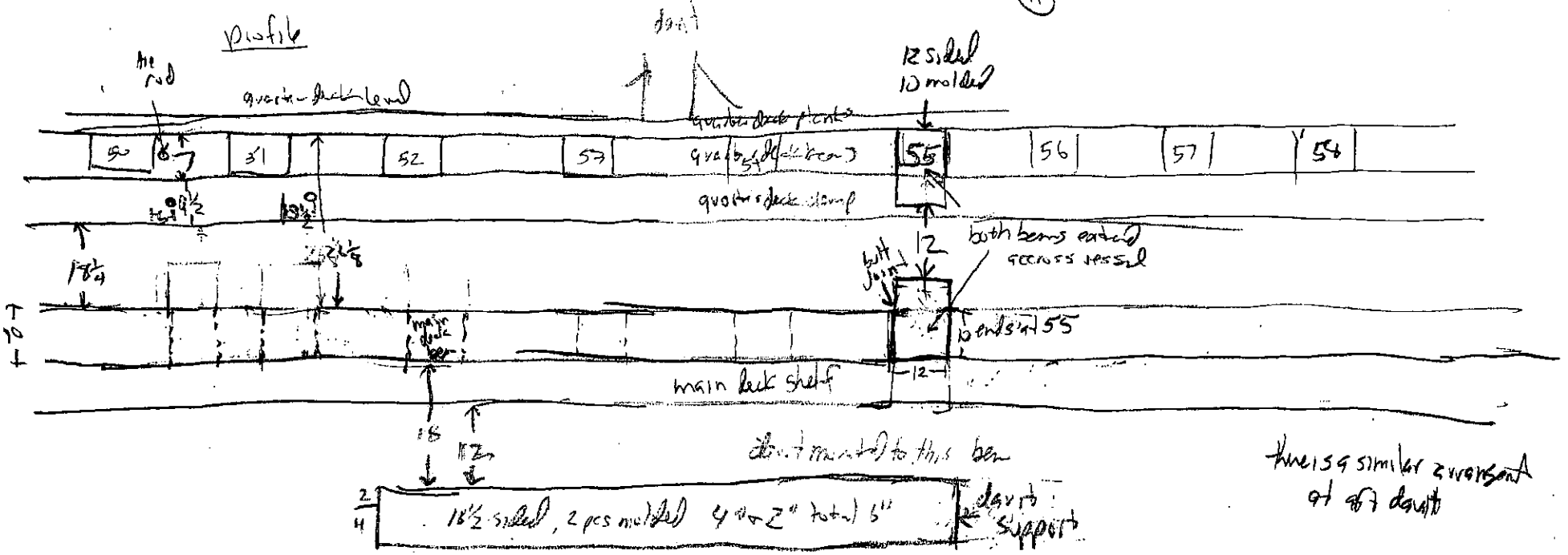


plan view frame 50

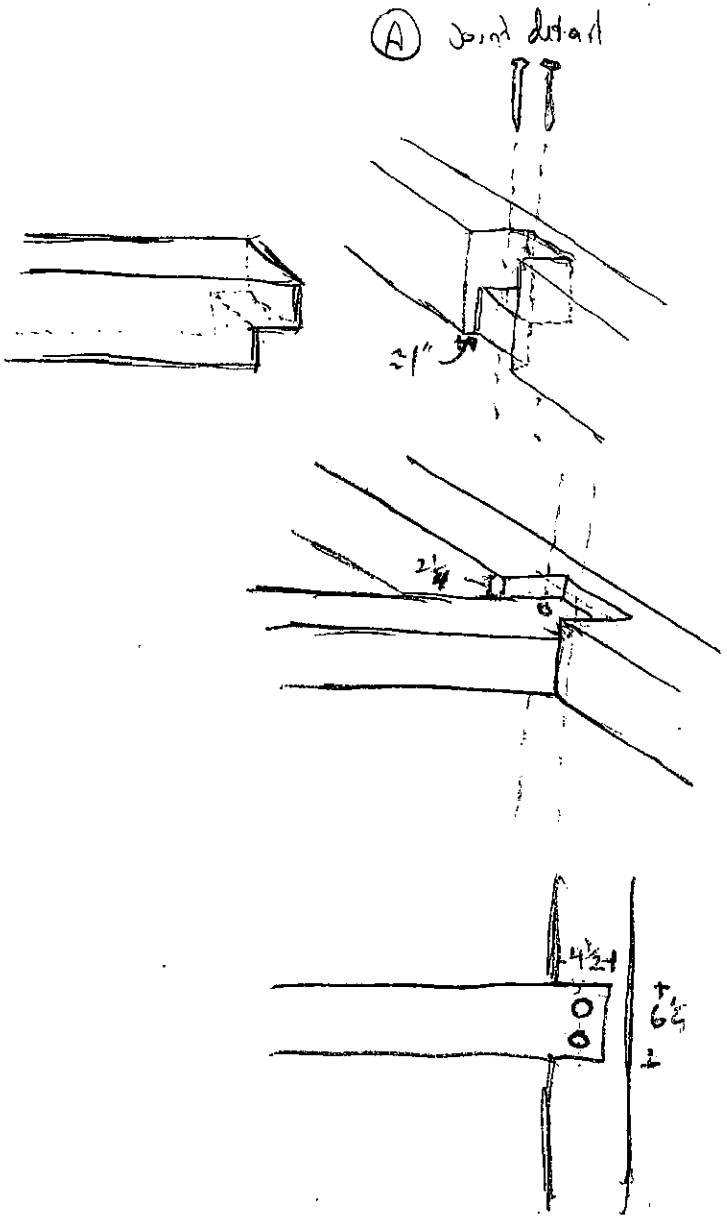




Profile

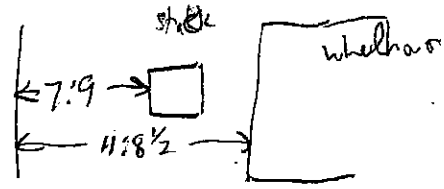


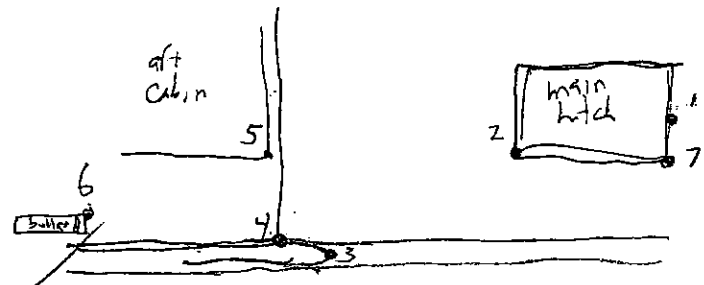
three is a similar arrangement at aft davit


A
Joint detail
≈1"
2¼
6
4½
6½

B/L loc'n	feature	dist
2nd keel corner aft	1 aft stbd corner of cabin	6:10
≈ 92'6	2 deck stem 25	10:9
	3 base of transom [illegible]	9:0½
	4 [illegible]	10:11
stbd outer keel plank, forward end of [illegible]	1	13:0
	2	9:8
	3	4:7
stbd forward corner of main hatch	4	8'9

Location of
aft stack, stair
8' 10½ to 11' 6¾
aft stack
9:5 to 10 8½





from	to	Dist
stbd aft corner main hatch 1	aft stbd corner main hatch 2	16:6½
1	3	24:7
1	4	26:8½
1	5	26:1½
1	6	32
2	1	16:11
2	3	23:2½
2	4	25:6
2	5	25:9
2	6	31:2
2	5	9:9½
2	4	
2	3	8:4½
2	4	10:3
2	6	35:6
5	3	5:7
5	4	4:2¾
5	6	6:2½
4	6	5:10
3	6	8:5½
3	4	12:6½

aft stem curve

from	to	dist
1	2	3:7 ~~8~~ 2½
1	3	3:6
1	4	2:2¼
1	5	7:10¾
1	6	8:1½
1	7	9:5½
1	8	9:3¼
1	9	10:6
1	10	10:1½
11	10	4:3
11	9	2:8
11	8	7:5½
11	7	9:8½
11	1	~~8~~ 1:0
11	5	~~8~~ 12:2
11	4	11:0
11	3	13:2
11	2	16:9½
11	1	~~8~~ 11'3¼

① stbd fore corner of aft mast plate

② fore inboard corner of aft davit pad

③ aft stbd corner of aft cabin

④ aft corner aft davit pad

5 frame ~~68~~ at ~~[illegible]~~ sunwale

6 ~~68~~ 67

7 67 68

8 ~~68~~ 69

9 where plank alignment

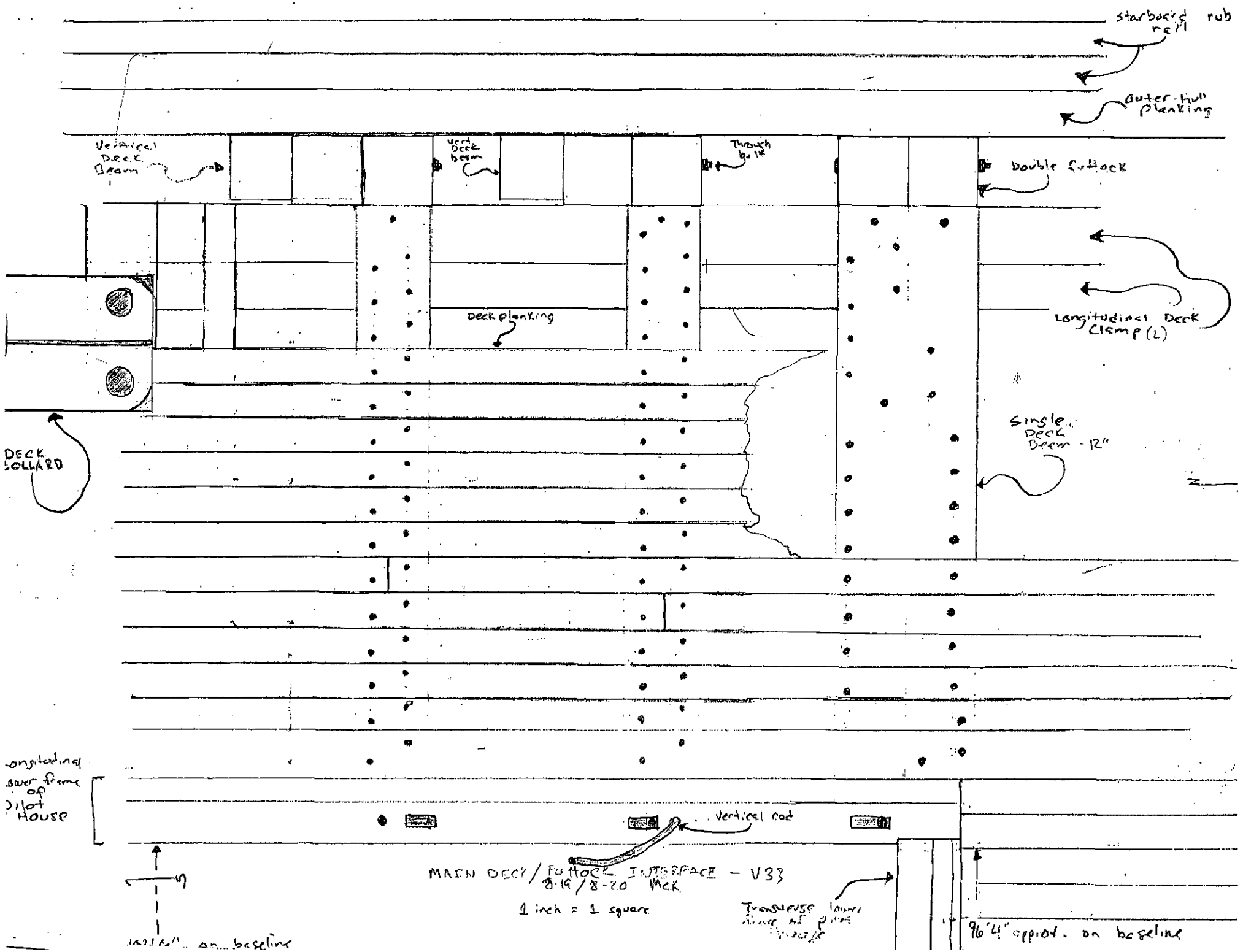
18 stem ~~68~~ 70

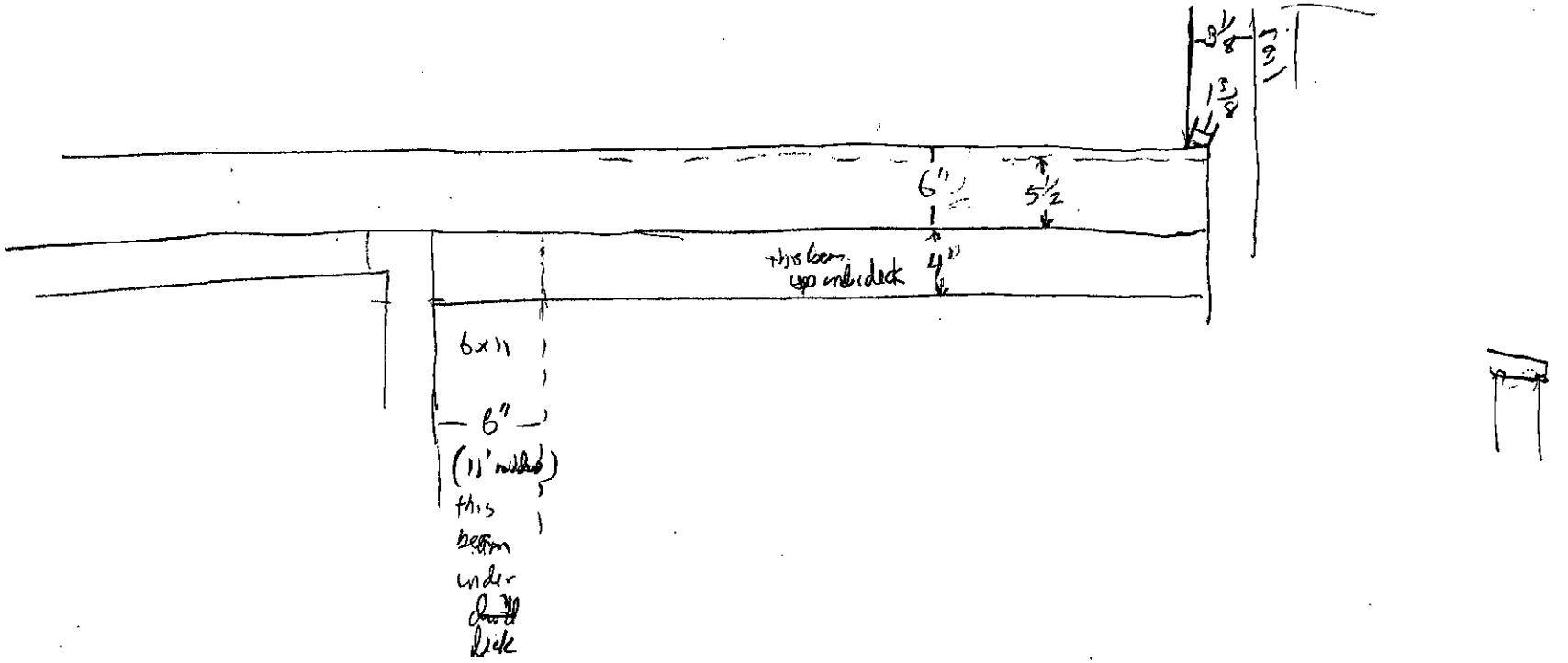
11 ⊗ pl on B/L

48" b/l to aft corner aft cab

b/l is 8" stbd of centerline at stern

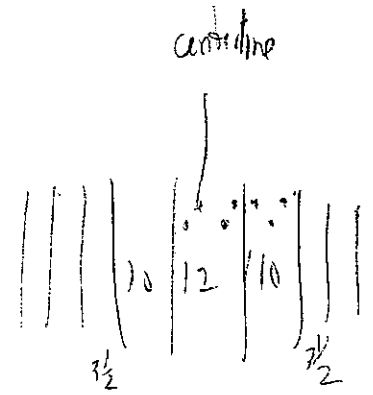
78½" from aft corner aft cabin to waterway


starboard rub rail
Outer hull planking
Vertical Deck Beam
Vert Deck beam
Through bolt
Double Cutlock
Deck planking
Longitudinal Deck Clamp (2)
DECK BOLLARD
Single Deck Beam - 12"
Vertical rod
MAIN DECK/PILOT HOUSE INTERFACE - V33
8.19/8.20 Mck
1 inch = 1 square
Transverse lower face of pilot house
96'4" approx. on baseline


6"
5½
this beam up embed deck
4"
6x11
6"
(11' wide)
this beam under deck

main deck

scantling
deck plank — molded 3" sided 3½
outboard of cabin — sided 3" molded 3"

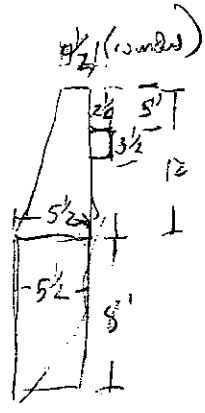


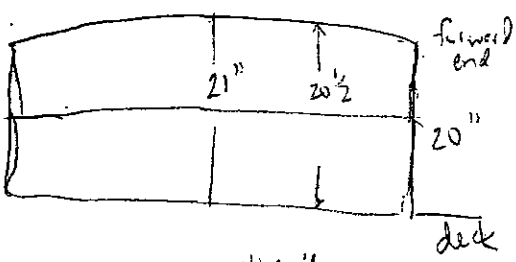
deck beams

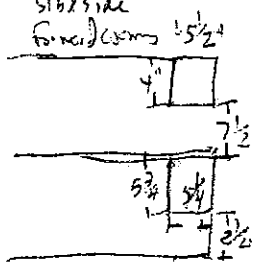
≈ 2 ft centers

forward hatch

coaming
12" high

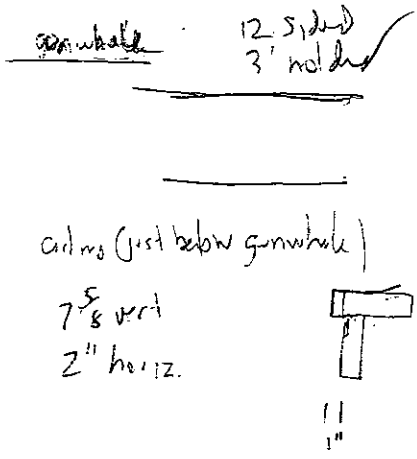






bulwarks

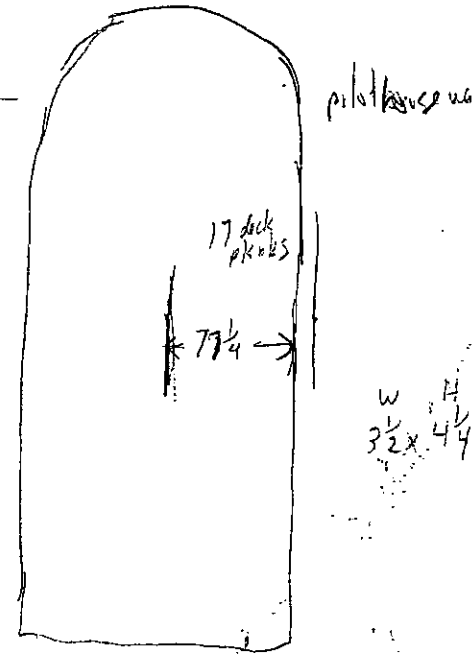
gunwhale — 12 sided 3" molded

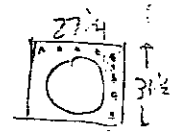


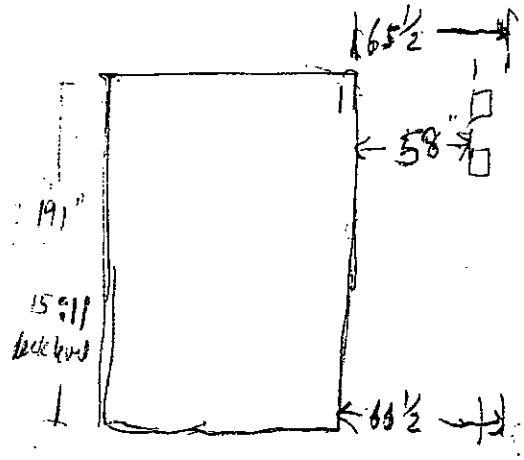
frames

molded	5½
sided	5½
room	5½
space	18½

height to bottom of cap 22"

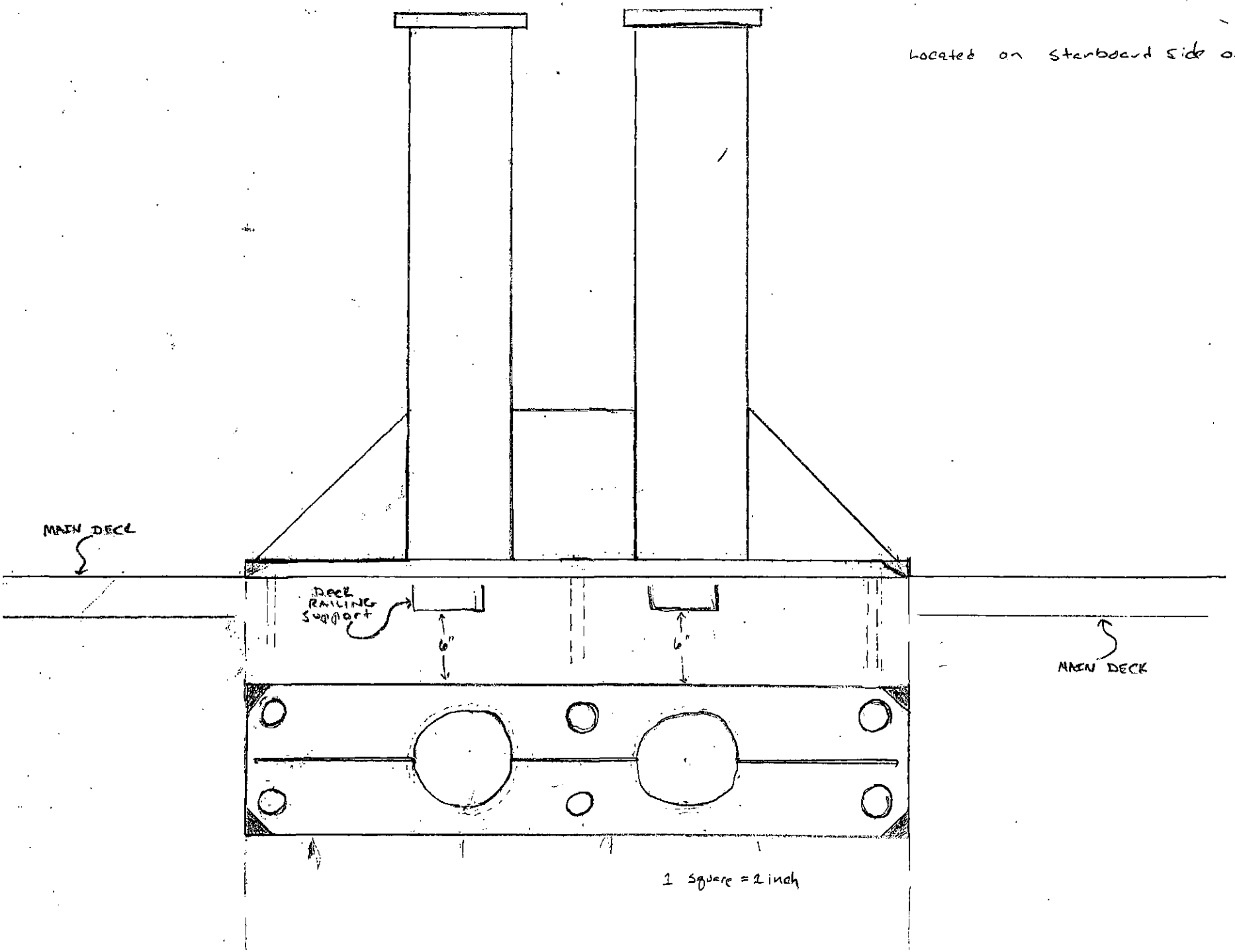


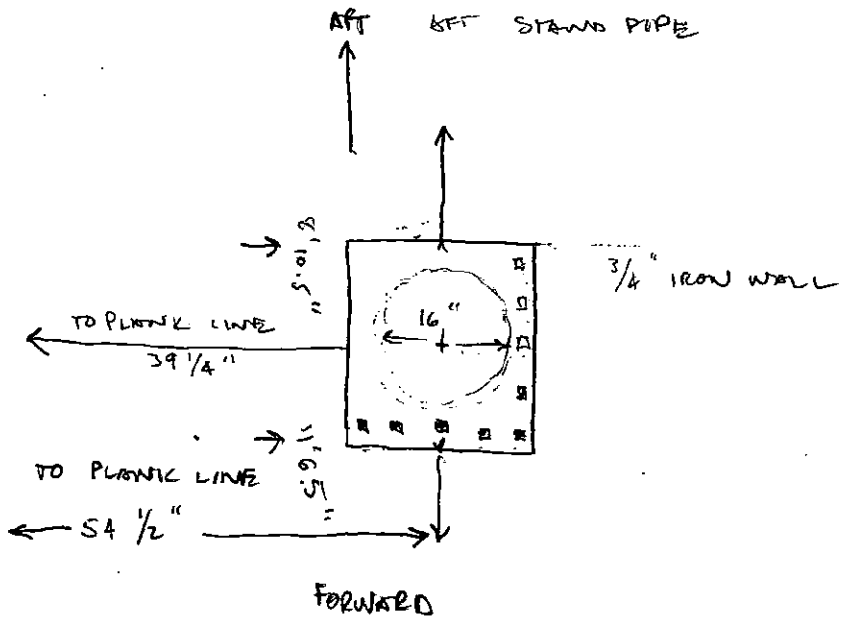


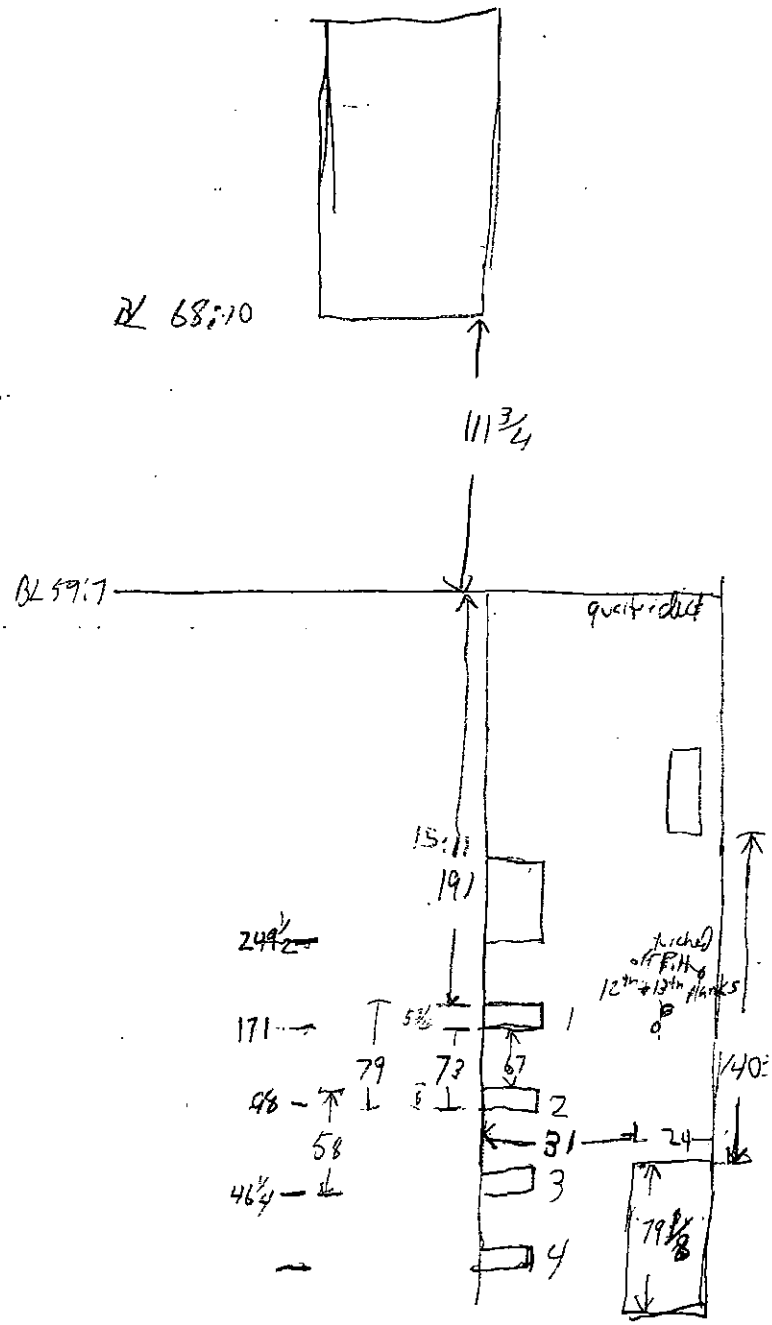


DECK BOLLARD-VESSEL 33
(MANHADEN TRAWLER)
8-19-04 MCL

Located on Starboard side of V33




AFT
6FT STAND PIPE
3/4" IRON WALL
16"
TO PLUNK LINE
39 1/4"
TO PLUNK LINE
54 1/2"
FORWARD


℄ 68:10
111 3/4
℄ 59:7
quarter circle
15:11
191
249 1/2
171
79
73
67
98
58
46 1/2
1
2
3
4
31
24
140
79 3/8
5 1/2
8
Arched off Fifth & 12th & 13th Planks

SIX SHIPS - JESSEL 33 MENHADEN TRAWLER

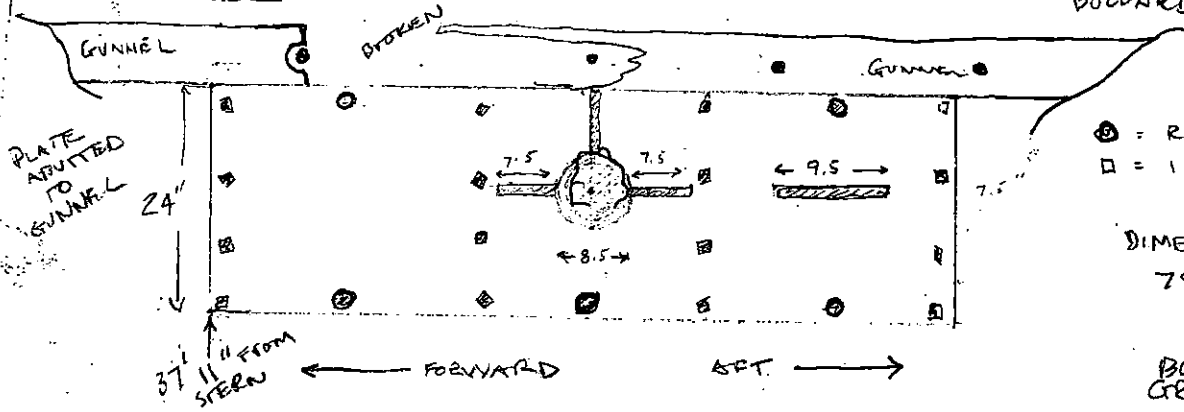
8/19/04

MKF

6x3.5 PLAN

⅝ = 2" APPROX

2ND STARBOARD "BOLLARD" - 2ND FROM STERN

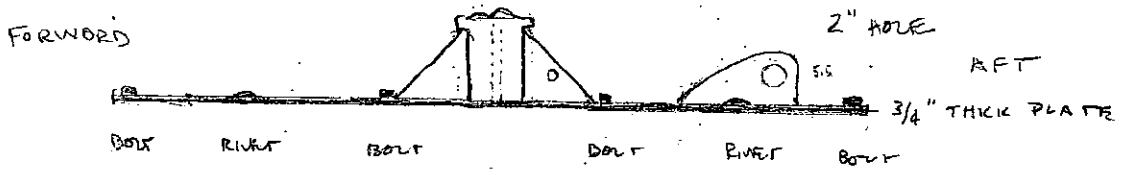


● = RIVET
□ = 1" BOLT HEAD

DIMENSIONS = 79" x 24"

BLUE GRAY PAINT CHIPS SEEN ON BOLLARD PLATE

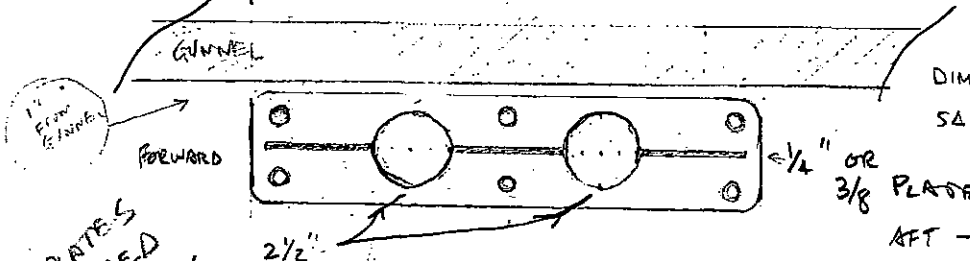
SECTION LOOKING STARBOARD (WEST)



TOP OF BOLLARD SHOWS WELDING SCARS - OR POSSIBLE TORCH CUT AS IF SOMETHING REMOVED

54'2" FROM STERN

3RD "BOLLARD"



DIMENSIONS 54" x 12"

ROUND HEAD 2" BOLT HEADS x 6 ONLY FLAT HEADS

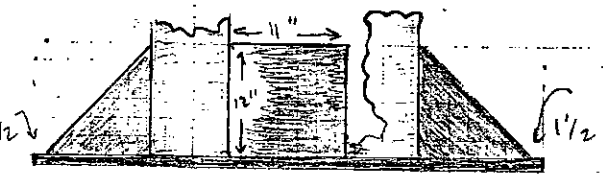
PLATES WELDED TO CYLINDERS

2½" FROM EDGE TO CYLINDER

1" ON WEST (GUNNEL) SIDE

CYLINDERS VERY THIN WALLS

SAME AS FORWARD SET @ BOW



1" THICK PLATE BASE

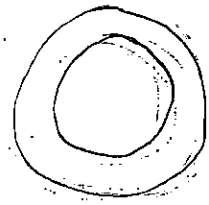
¼ TO ⅜" PLATE REINFORCING

SIX VESSELS - VESSEL # 33 - MENHADEN TRAWLER

8/19/04

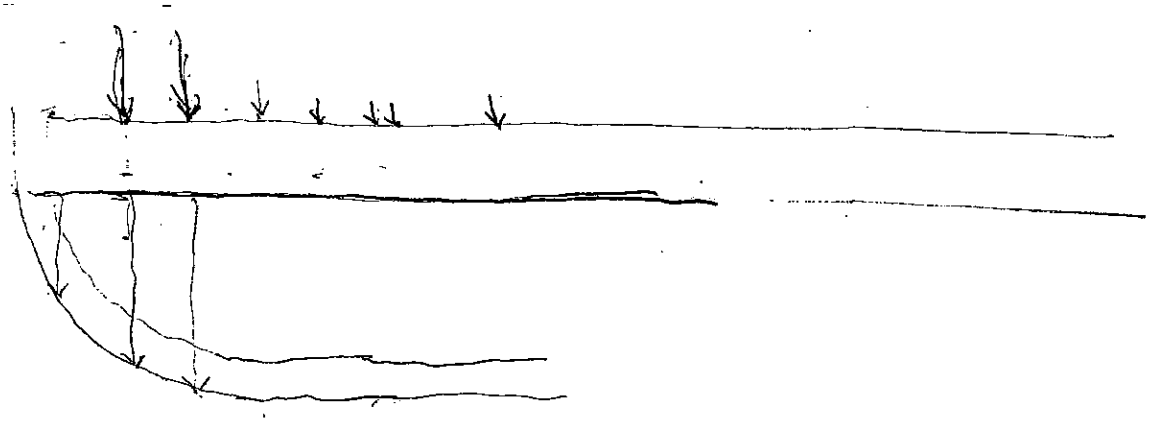
MKF

CIRCULAR MAN HOLE



26 1/2" OVERALL

20 1/2" ØPENING

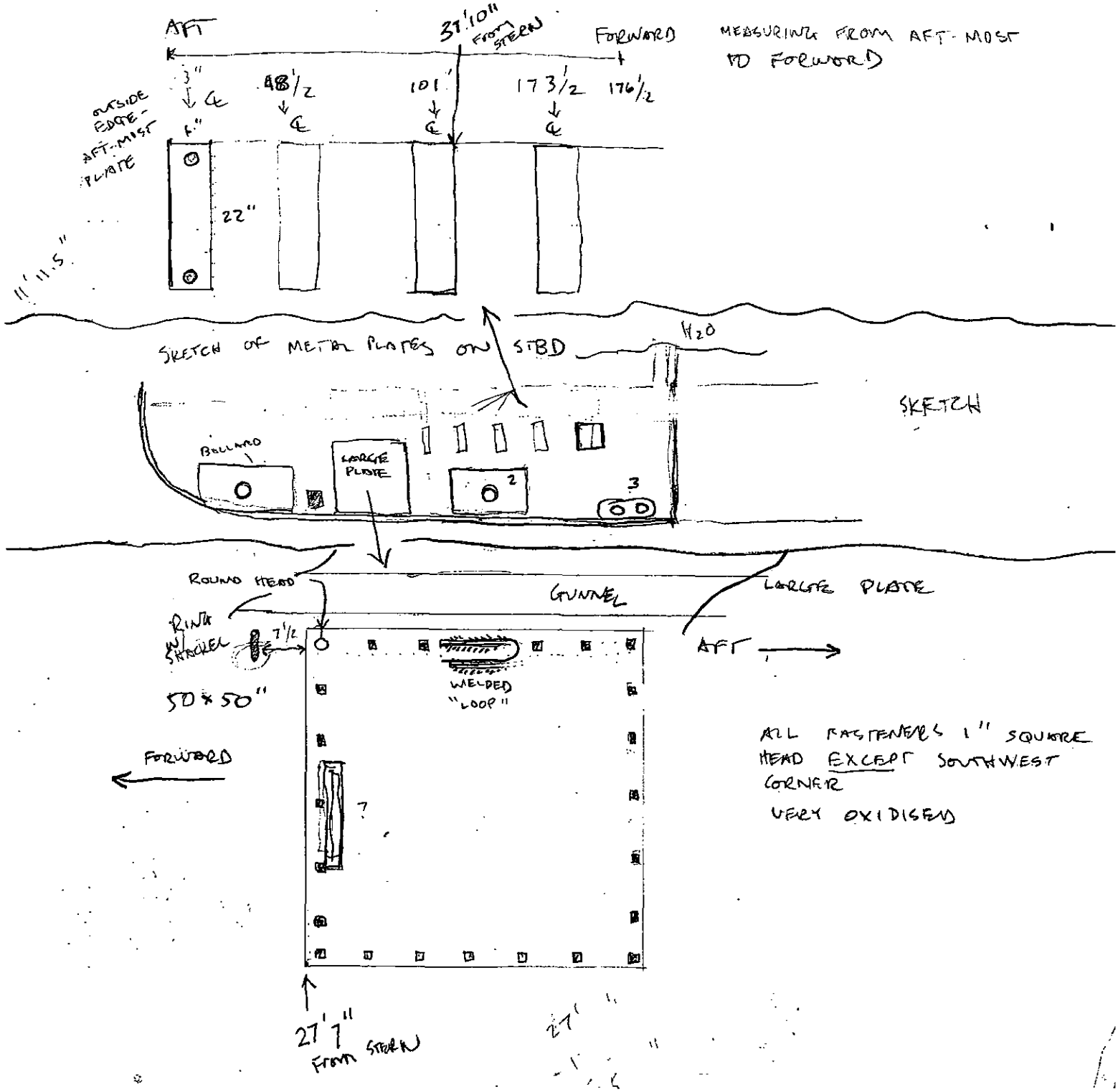


143 1/2"

SIX VESSELS
8/18/2004

NMFF
VESSEL # 33 (MENHADEN TRAWLER)

STARBOARD DECK PLATES x 4 PLUS
6" x 22" - 2 BOLT PATTERN



ALL FASTENERS 1" SQUARE HEAD EXCEPT SOUTHWEST CORNER
VERY OXIDISED

Deck plan

offsets measured from stbd edge of king planks

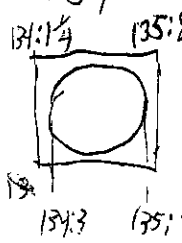
B/L	feature	offset
140:6	stem	0
138	seam	1 3/4
	seam	5 1/2
	seam	9 7/8
	"	14
	"	14 1/4
	" crack	23 1/4
138	bulwark	~~30 1/4~~
136		1 3/4
		5 1/4
		9
		12 3/8
		16
		19 1/2
		26
		33 1/2
136	bulwark	45
134	seam	2 1/2
		6
		9 1/2
		13 1/8
		16 1/4
		20 3/8
		24
		27 1/2
		31
		34 3/4
		43
		54 3/4
		65 1/2
134	bulwark	71

B/L	feature	offset
131	seam	1 3/8
		5 1/8
		9
		13 3/4
		18 1/2
		22
		25 3/8
		28 3/4
		32 1/4
		35 1/2
		39
		42 1/2
		45 3/4
		49
		52 1/4
		60 3/4
		71 1/2
		82
131	~~seam~~ bulwark	86 1/2
129		3/4
		4 5/8
		8 7/8
		12
		16
		19 3/4
		25 5/8
		31 1/8
		34 1/2
		38
		41 1/4
		44 1/2
		48
		51 1/2
		54 3/4
		58
		61

139:6 outer port deck plank meets longitudinal king deck plank

140:6 ~~meets~~ to

1st king post



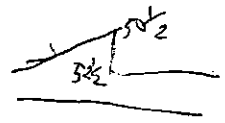
B/L	feature	offset
		64 1/2
		73 1/4
		82 1/4
		92
129	BW	95 1/2
127	seam	4 3/4 wide box
		10 1/4
		14 1/8
		17 7/8 narrow
		21 3/4
		25 3/4
		26 3/8
		35 5/8
		41
		44 1/4
		47 5/8
		51
		54 1/2
		57 3/8
		60 3/4
		64
		67 1/4
		70 1/2
		73 1/2
		82
	seam	88

photos

B/L	feature	offset
125	sem	3½
		7
		10½
		14
		17½
	bulkhead	19
	B/h	29
125	sem	29
		32⅝
		36½
		41¼
		46¼
		49⅞
		53
		56½
		59⅞
		63
		66
		69¼
		72¼
		75½
		78½
		81¾
		89½
		96½
	sem	102¾
125	bulwark	105¼
123	sem	3½
		7
		10½
		14
		17⅝
		21⅛
		24¾
		28¼
		31¾
		35¼
		38¾
		42½
	bulkhead	43

B/L	feature	offset
123	bulkhead	49¾
	sem	50½ corrugated
	seam	52½
	sem	56¾
		59¾
		62⅞
		66
		69⅛
		72¼
		75½
		78⅝
		81¾
		85
		88
		95
		100¾
		105¾
123	sem	108
121		3½
		7
		10½
		14
		17½
		21
		24⅝
		28¼
		31⅝
		35⅛
		38¾
		42¼
		45¾
		49¾
	bulkhead	57¼
	"	58½
	sem	61⅜
		64½
		67½
		71½

Fwd cabin Bulkhead
B/L 126:3



heater mechanism
start 121:5½
end 120:9

B/L	feature	offset
121	sem	73½
		77
		79¾
		82⅞
		86
		89
		92⅛
		98⅜
		103
	bulwark	109¼
	sem	110¼
119 (118.3)	sem	3½
		7
		10½
		14
		17½
		21
		24½
		28
		31½
		35
		38½
		42
		45½
		49
		53
	bulkhead	55
		60½
		64½
		67½

119 aft cabin bulkhead in cabin 2½" thick

B/L	feature	offset
		70½
		73½
		76½
		79½
		82½
		86
		89⅛
		92⅛
		95¾
		100¾
		104⅝
		108½
	bulwark	110
119	sem	113

B/L	feature	offset
115	seam	7½
		7
		10½
		14
		17½
		21⅛
		24⅝
		28¼
		31⅞
		35¼
		38⅞
		42⅜
		45⅞
		49⅞
		52½
		60
	bulkhead	61¼
	bulkhead	66½
	seam	71¼
		74⅛
		77⅛
		80¼
		83¼
		86¼
		89⅞
		92½
		95½
		98½
		101½
		105¼
		108¾
115		113¾

B/L	feature	offset
113	coaming	26¼
	"	29
	coaming	53
	bulkhead	59
	bulkhead	65
	bulwark	110
107	bulkhead	60½
	"	63¼
	"	65½
	bulkhead	94½
	bulkhead	106
	bulwark	112⅞
97	~~bulwark~~	61½
	bulkhead	65
	bulkhead	67
97		113½
~~92:8~~ 92:6	deck fitting	26
	deck fitting cable	34
	deck fitting	40½
		43¾
	deck fitting	53
		55½
	deck hatch	80½
	inboard edge	
	else is s/n	
	~~92~~ 92+94	
92:6	bulwark	111½

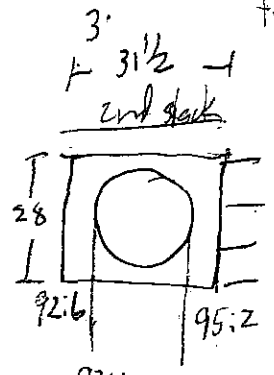
b/l features

b/l		
115 to 113	97½	hatch
	113½	fwd end

hatch @ 113

hatch added after construction

fits exactly b/n two deck beams



deck beams

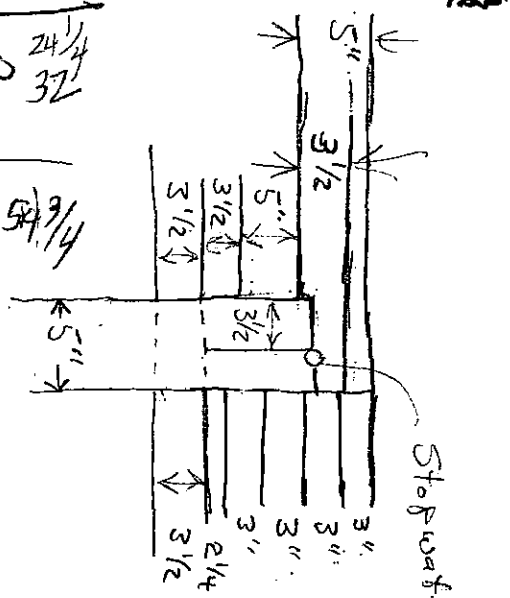
notched	10
sided	6

hatch?

fwd ~~deck~~ bulk at ~~96~~ 95 from b/l

B/L	feature	offset
90:8	deck fitting	25¼
		33
		52¾
		56
	bulwark	111½

aft stbd corner of ~~cockpit~~ hatch



B/L		
88:10	deck fitting	24¼
		32
84:3	mid deck hatch	54¾
84:8½		

Deck plank scarfs
19:7 6 1/2
17:7 1/2

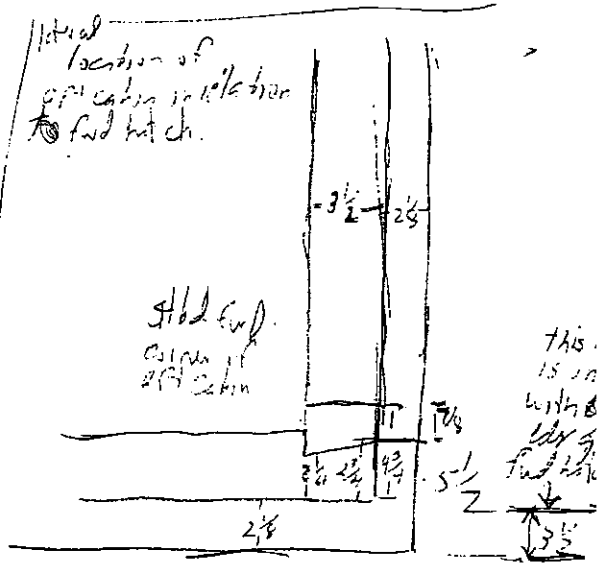
14 deck planks from aft's cabin
& thin plank aft's gunwale

~~forward edge of forward hatch~~
55 to edge of coaming
113 to gunwale

aft edge of fwd hatch
52 to edge of coaming
58 from coaming to gunwale

55

Vertical location of aft cabin in relation to fwd hatch.

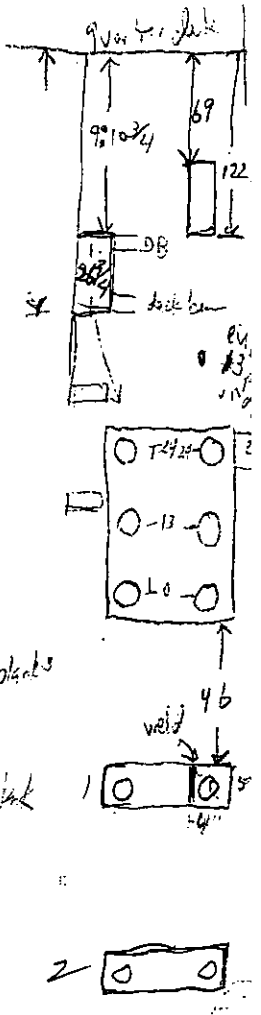


B/L	Feature	offset
59:7	edge of gunwale	
59:0	coaming ungunwale	
56:10	fwd edge of coaming	
55:6 1/2	aft edge of coaming	
59	fwd edge of aft cabin	71 1/2
55	seam	3 1/2
		7
		10 1/2
		14
		17 1/2
		21
		24 1/2
		28
		31 1/2
		35
		38 1/2
		42
		45 3/4
		49 1/4
		51 3/4
		54 1/2

B/L is on edge of middle king plank

from B/L from cabin

B/L	Feature	offset
53	inside bulkhead	40 3/4
	1/2 of 3 sill bulkhead	
	gunwale	54 3/4
48 58:10	outer edge of iron plate	19 3/4
	inside bulkhead	41
		54 1/4
43:10	outer edge of deck plate	22 1/2
	gunwale	55
41:8		butt joint plank 5, 7, 9, 12
39:6		butt joint plank 1, 10



38

davit 31
gunwale 55

B/L	feature	offset fr
77:7	hatch	25 offset
		51½ from hatch
	b/walk	59½ coaming

68:0 51½

b/walk 110 b/walk

fore 65:0 stack -3

stack 15

b/walk 110

61:10 hatch 73¾

hatch coaming 76¾

100½

1— 28½ —

21

hatch detail

68:10 edge of coaming hatch

63:8 64:7¼

63:3 64:10 64:11

stack

quarterdeck

59:7 forward

58:6½

59:6½ 59:7

aft cabin

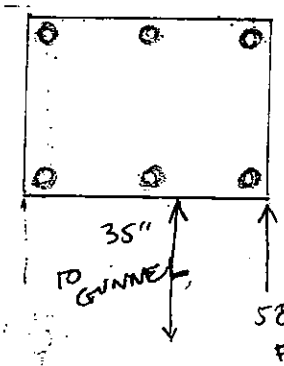
54¼ aft cabin

SIX VESSELS - VESSEL # 33
8/19/04
MKF

26 1/2 X 19 1/2

SMALL PLATE

1/2" THICK STOCK



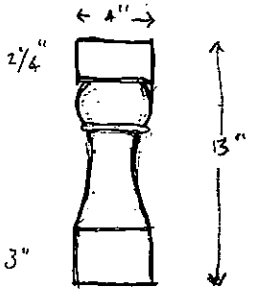
ALL ROUND HEADED BOLTS

AFT

FORWARD

54'

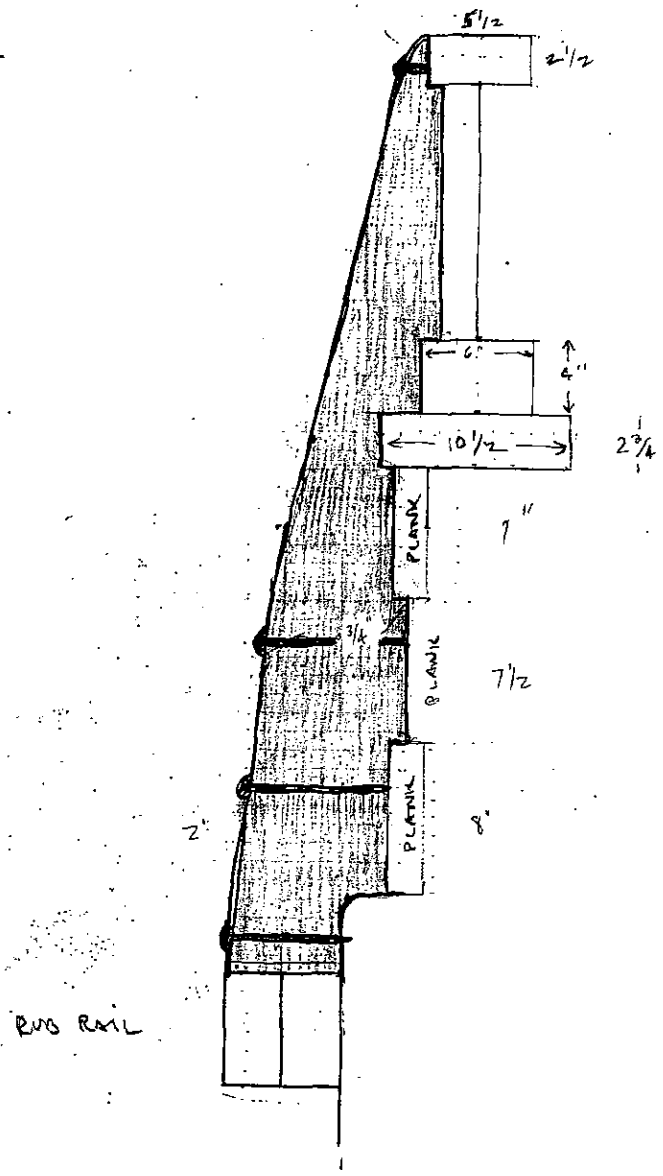
58' 1"
FROM STERN



STANCHION DETAIL

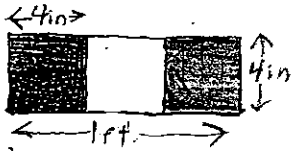
SIX VESSELS
VESSEL 33
8/20/04
MKF & ME

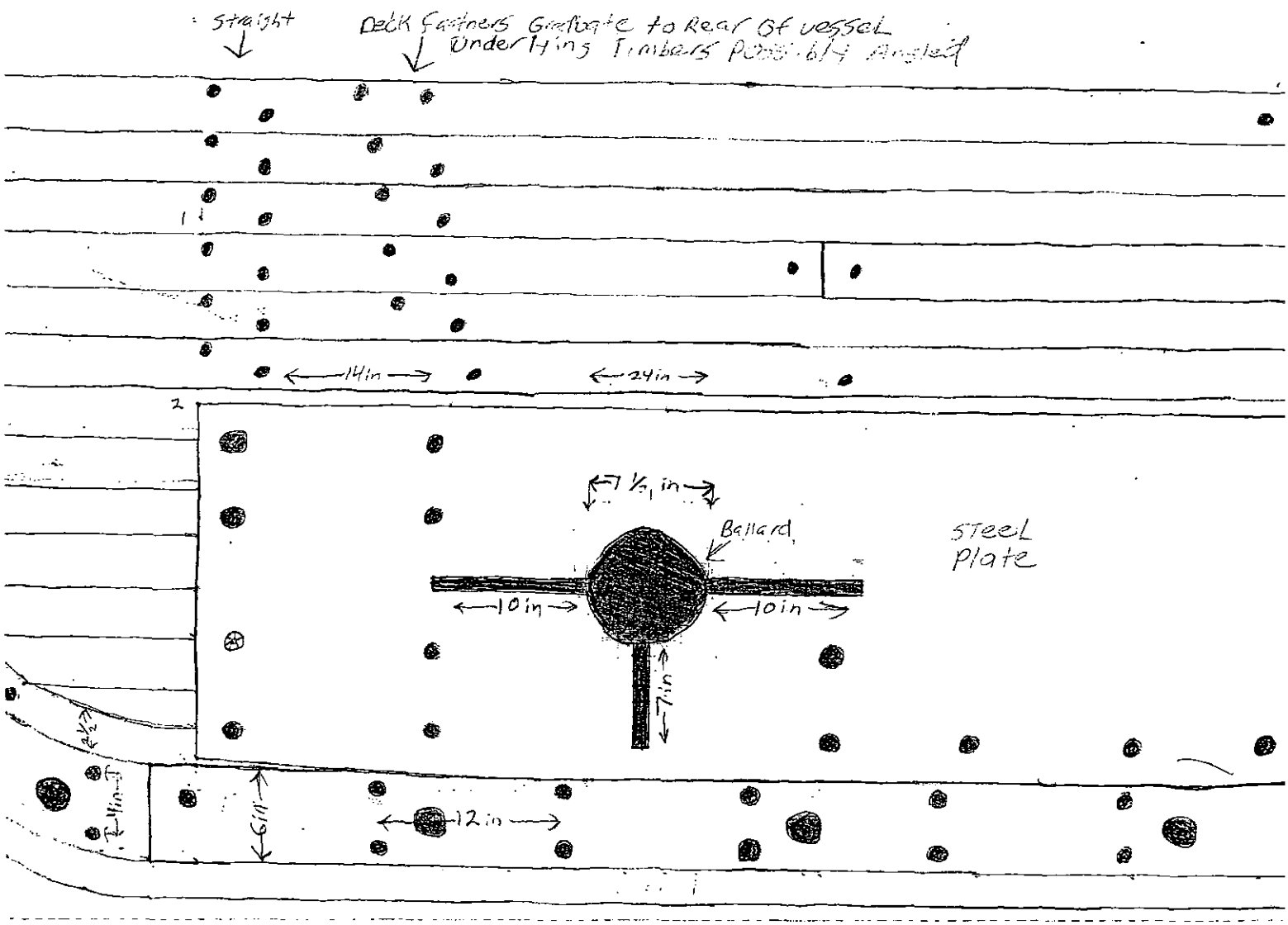
SECTION



TOP RAIL

Vessel 33
8/19/04 MWE
Ballard & Deck Plate on Starboard Stern Plan View
plate is 1in Thick - Ballard is 10in High
Top of Ballard must have been Removed





9ft 4in
from Stern

75 in
Length of Plate

24in wide @ center
23in @ Stern End

quarterdeck rail stanchion locations

from	to	dist
1	3	16'5
1	4	22'3
1	5	30'0
1	6	35'10
1	7	42'0
1	8	36' 1½
1	2	46'6
2	7	11'6¼ 6'11¾
2	6	12'1¾
2	5	17'7¾
2	8	11'6¼
2	4	25'5
2	3	31'3¾

distances measured from aft to fore inboard corner of stanchion

① forward stbd corner of aft cabin
② aft stbd corner aft cabin

3	stanchion
4	"
5	"
6	"
7	"
8	aft stbd corner Grey deck plate

Stbd. Side of Aft Cabin Beam 6" Sided
11" molded

Sits on top of 2nd
notch is 1¾" Deep

deck beam count

B/L	Beam
138	1

27 beams to fwd edge of fwd hatch

35 beams to aft edge of fwd hatch

40 to quarter deck

48 to 1st small deck plate

51 to large deck plate

54 to aft end of large with hatch deck plate

68 to almost aft of vessel

Deck crown

offset	vertical
3"	4½
1:0	9
1:3	9¼
← 54"	
5'	13⅛"
6'	13⅝"
7'	14½"
8'	14½"

subtract ½ inch from offset measure for actual measure to gunwale frame

add 1¼ to get to gunwale frame

25 3/4
26"
= 26"

measurement to deck = 26"

outer hull

Vessel 33 24 August 2004

85'3" on Baseline Vertical measurements to bottom of Hold

℄ = 10' 5"
10" = 10' 7"
23" = 11' 5"
28" = 11' 5"
44" = 10' 4"
60" =

↓ Distance Stb of ℄

℄ = 10' 7" from bottom of Top Hatch combing timber
10" = 10' 11"
24" = 11' 6"
34" = 11' 11½"
49" — Appears to have stringer
49" = 10' 4"
57" 10' ½"
62" 10' 9"

At fwd face of Deck Beam #24 at 64" Stb of ℄
= 11' 3/4" from top of Deck Planks
9' 11" from bottom of Deck Beam

At Fwd face of Deck Beam # 22 at 102" Stb of ℄
= 10' 10" from top of Deck Planks
= 10' 8" " bottom of Deck Beam

At # 22 122" Stb of ℄
= 7' 8" top of Deck Planks
= 6' 11" Bottom of Deck Beam

At Fwd Face of Deck Beam # 20 @ 107" Stb of ℄
= 10' 1¾" top of Deck Planks
= 9 4" Bottom of Deck Beams

At Aft face of Deck Beam # 21 130" Stb of ℄ Between Futtocks
= 82" top of Deck Planks
= 74' Bottom of Deck Beam

136"

= 61 3/4 top of Deck Planks
= 53 3/4 Bott of Deck Beam

Vessel 33 24 Aug 2004 Vertical Measurements to Hull Interior/Ceiling

At Aft face of Deck Beam #20 (98'4" B.L.) @ 29" Stb of ℄ (Hole in Deck)
= 11' 2" from Top of Deck Planks
= 9' 11" Bottom of Deck Beam

At Aft face of Deck Beam #13 (112'8" B.L.) @ 46" Stb of ℄ (Deck Hatch)
= 13' Ø" from top of Deck Planks
= 11' 9½" Bottom of Deck Beam
Aft face of Deck Beam #13 @ 68" Stb of ℄
= 10' Ø" Top of Deck Planks
= 9' Ø" Bottom of Deck Beam

At Fwd face of Deck Beam #14 (110'8" B.L.) @ 46" Stb of ℄
= 13' 2" from Top of Deck Planks
= 12' Ø" Bottom of Deck Beam
Fwd face of Deck Beam #14 @ 68" Stb of ℄
= 9' 11" from Top of Deck Planks
= 9' 3" Bottom of Deck Beam

At Fwd face of Deck Beam #13 @ 123" Stb of ℄
= 6' 5" from top of Deck Planks
= 5' 8" Bottom Deck Beam

At Fwd face of Deck Beam #13 @ 129" Stb of ℄
= 5' 6" from top of Deck Planks
= 4' 8" Bottom Deck Beam

At Fwd face of Deck Beam #13 @ 139" Stb of ℄ Betw Futtocks
= Ø from Bottom of Deck Beam

Aft face of Deck Beam #12 @ 112" Stb of ℄
= 6' 3" from top of Deck Planks to Stringer
5' 7" Bottom of Deck Beam
Aft #12 @ 118" Stb of ℄
= 5' 6" from top of Deck Planks
= 4' 9" Bottom of Deck Beam

Aft face of Deck Beam #5 @ 91" Stb of ℄
= 3' 11" from top of Deck Planks
= 2' 11" Bottom of Deck Beam

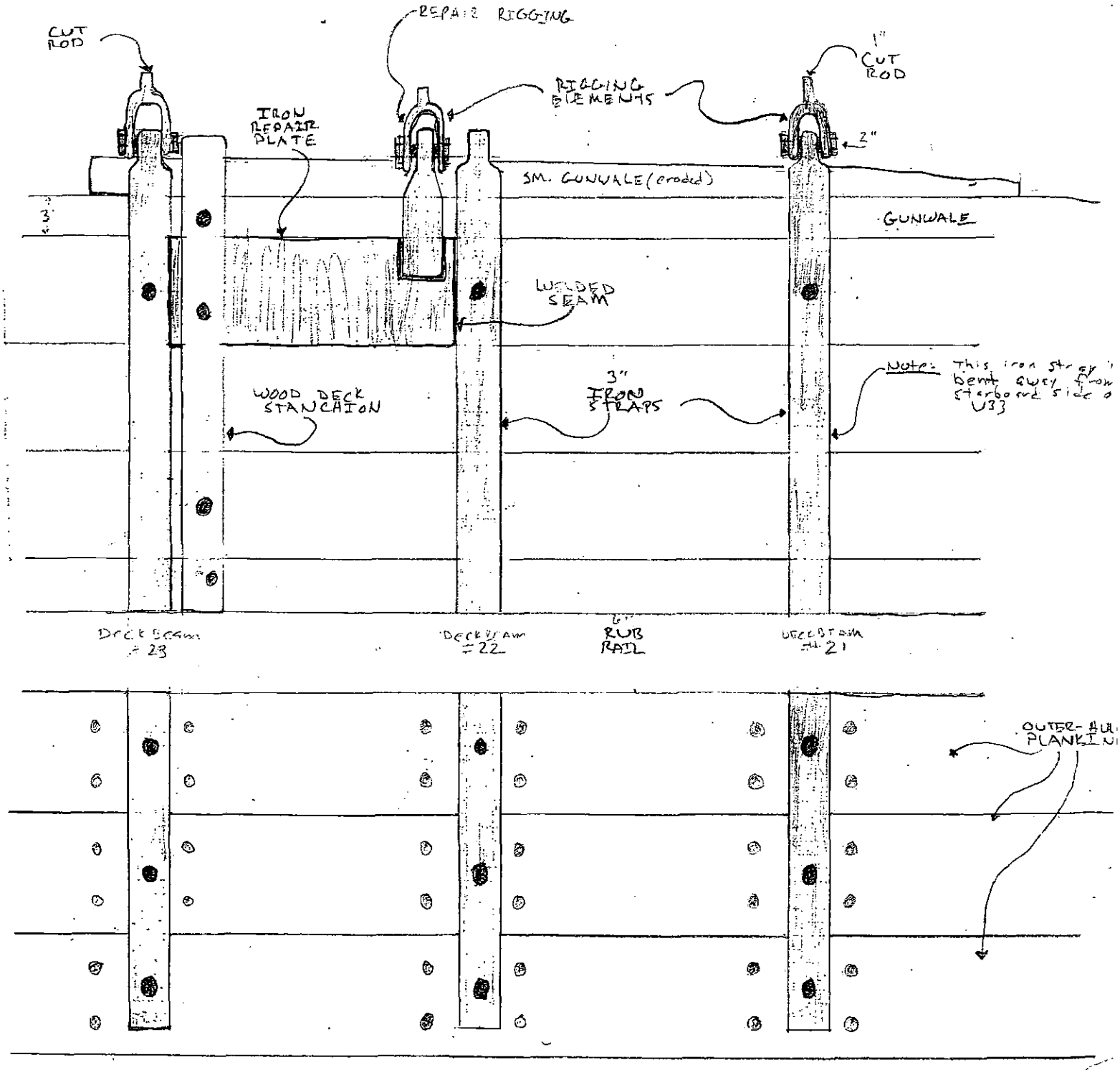
Vessel # 33 24 Aug 2004 Vertical Meas. to Hull Interior

At Fwd Face of Deck Beam # 7 @ 46" Port of ℄
= 8'9" from top of Deck Planks

At Fwd Face of Deck Beam # 7 @ 63" Port of ℄
= 6'3" from top of Deck Planks

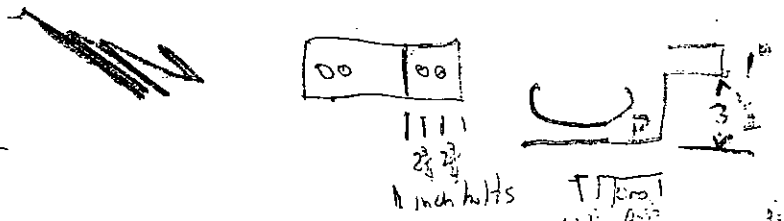
RIGGING ELEMENTS - U33
STARBOARD SIDE

MCK
1 inch = 1 square

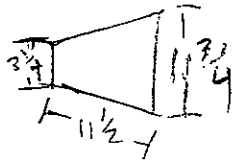


Lydia
Vessel V33
8/19/2011

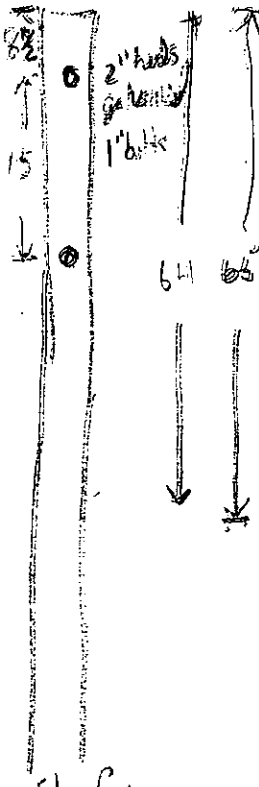
Scantlings



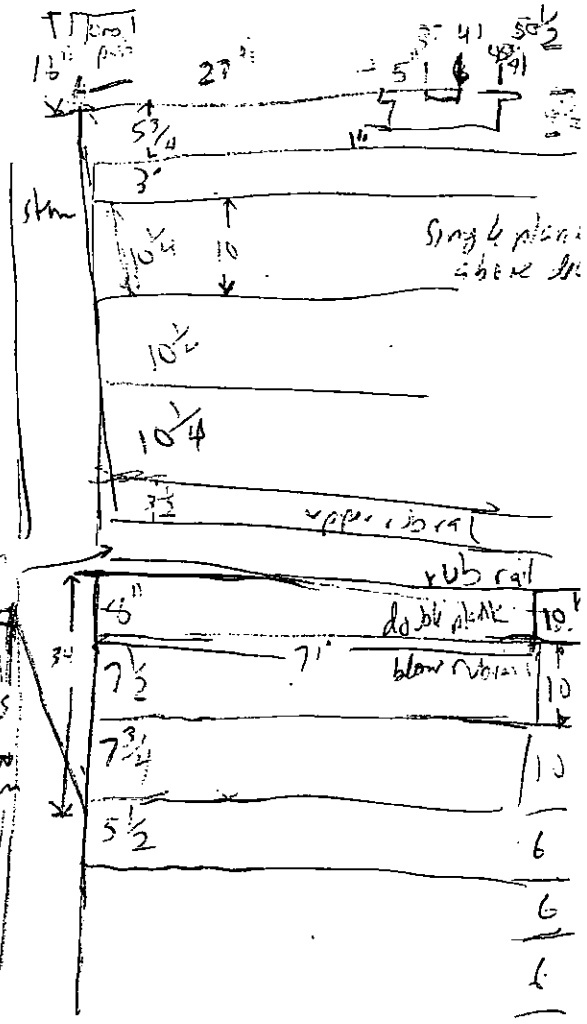
stem
1½ molded
3¼ sided fore



gunwale cap?
5¾ molded



gunwale
3" molded



outer hull planks ei [illegible]

1 10½ molded 2" sided
2 10½ " 2" "
3 10½ " 2" "

lower hull planks

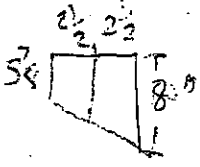
3½ total
1¾ each plank sided
molded varies

upper rib rail

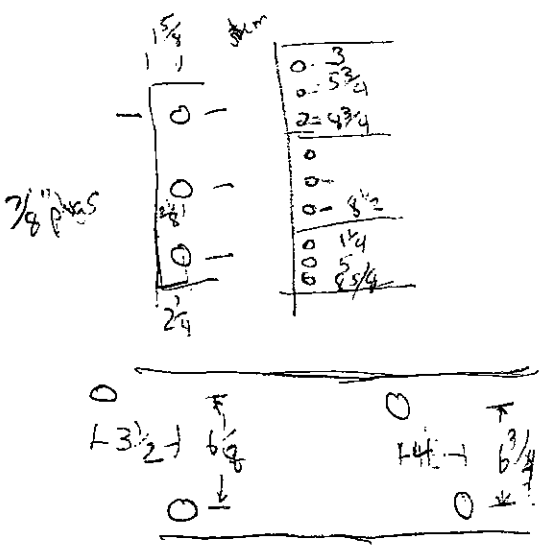
3½ molded 3½ sided

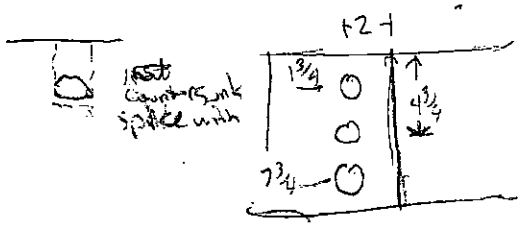
rub rail

2 pieces each
2½ sided
5⅞ molded front
10 molded back

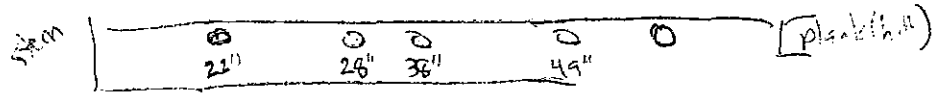


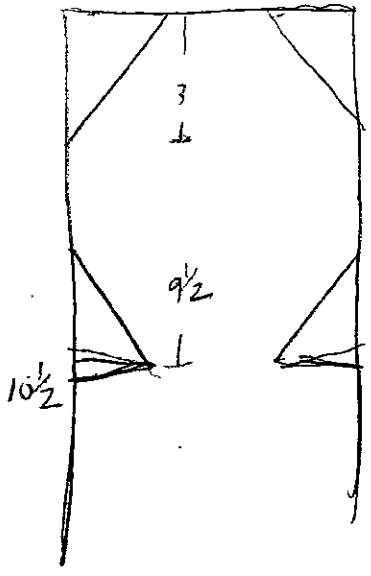
hull plank fastener pattern





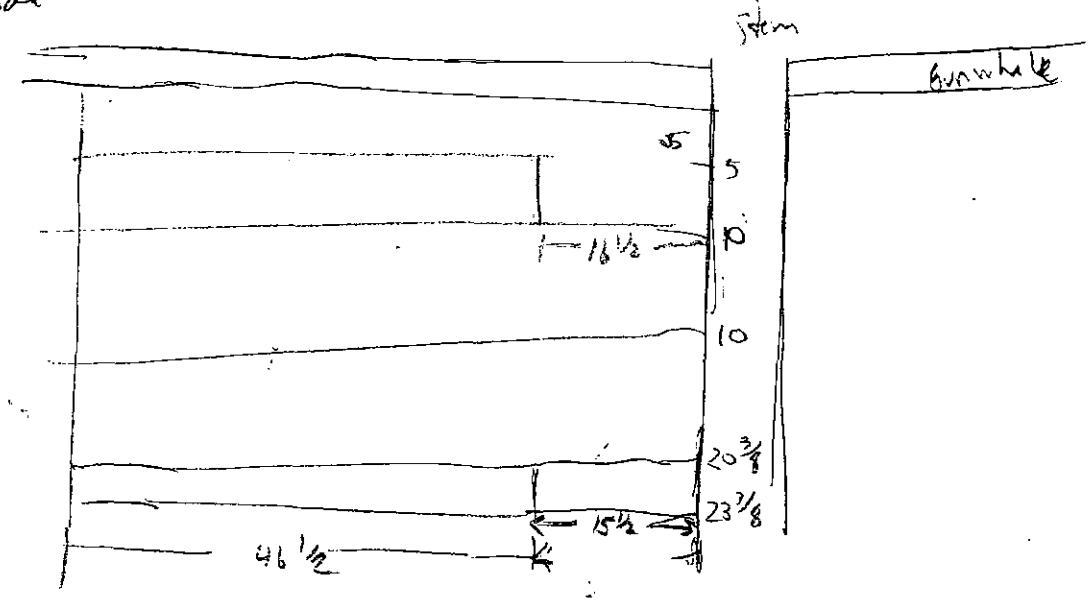
fastener pattern rub rail
plus fastener





rub rail cap detail

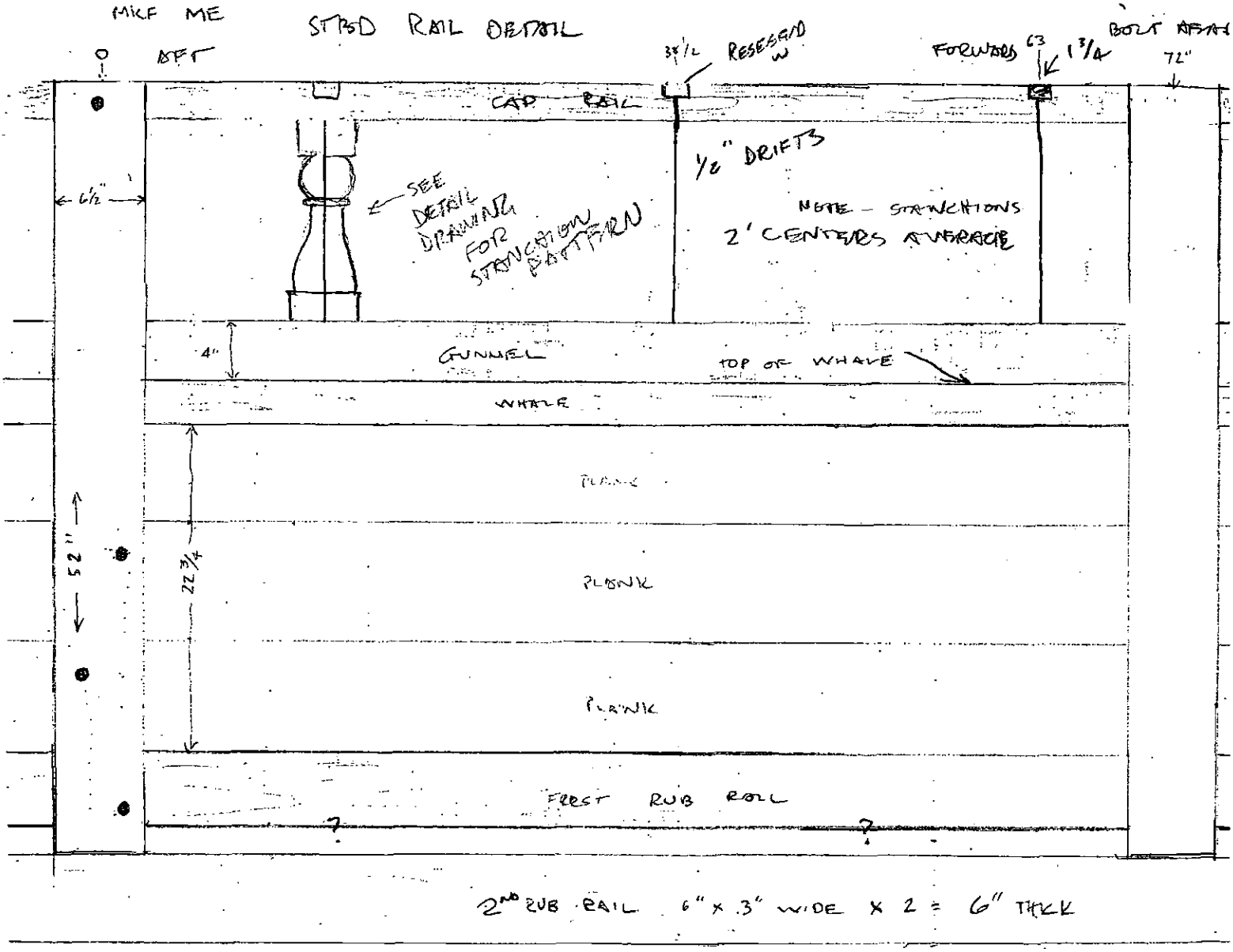
Sweepers
Stbd side



SIX VESSELS
VESSEL 33 (FISH HAWK)
8/20/04
MIKE ME

LOOKING FORST - TOWARD PORT

STBD RAIL DETAIL

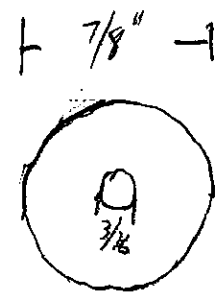


2ND RUB RAIL 6" x 3" WIDE x 2 = 6" THICK

REINFORCING SUPPORTS - STARBORD SIDE AFT SECTION

FROM	
0	43' 2"
6 FT.	37' 2"
14 FT	29' 2"
19' 10"	23' 2"
26'	17'

- FRONT OF KEELSON
- CENTERS OF BUTTRESSES

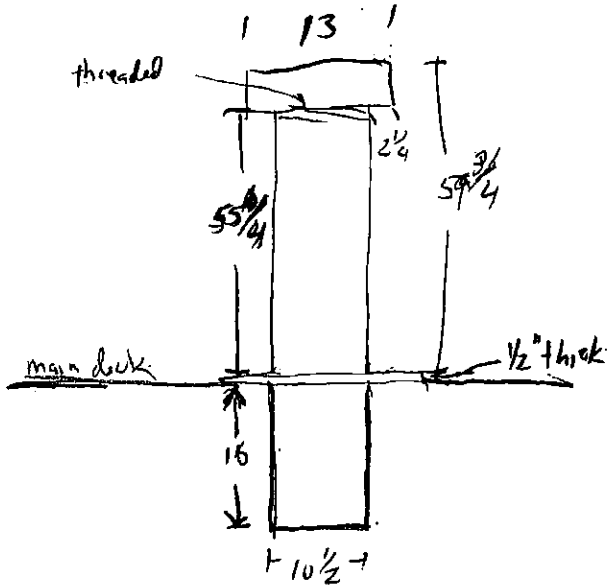


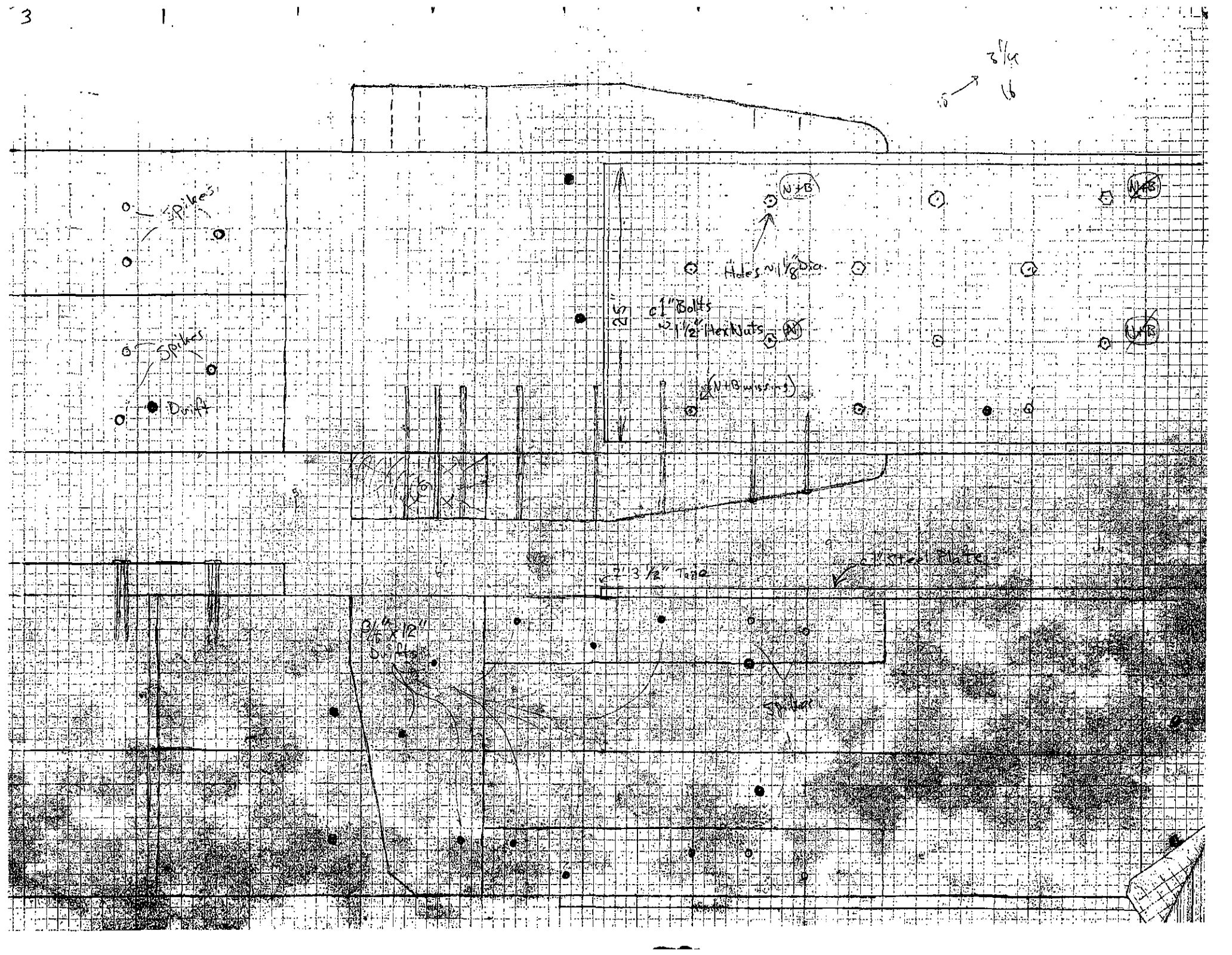
fastener hole
drilled, countersunk, no fastener
ever driven

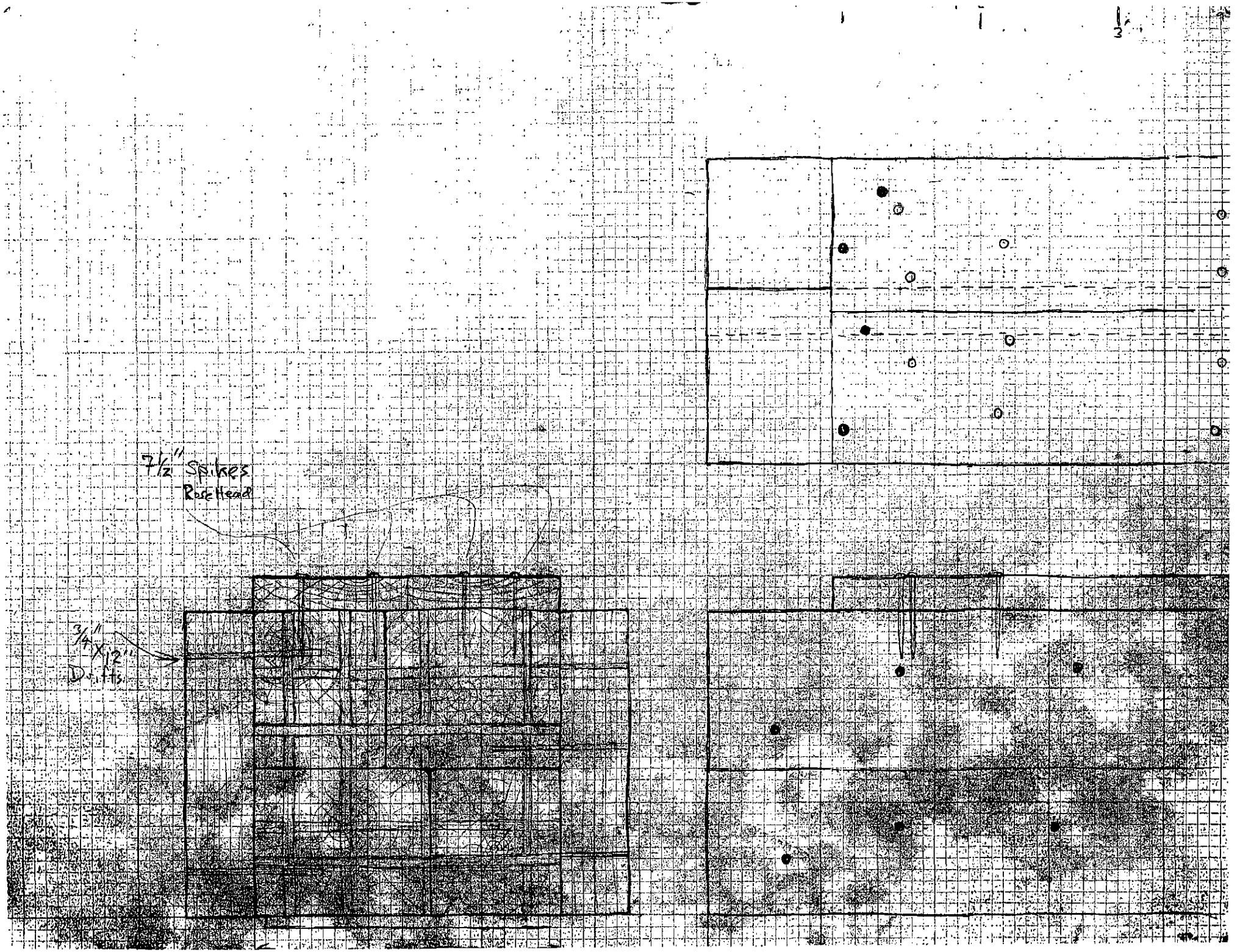
Ca deck beam 36
inboard side of
sunwale

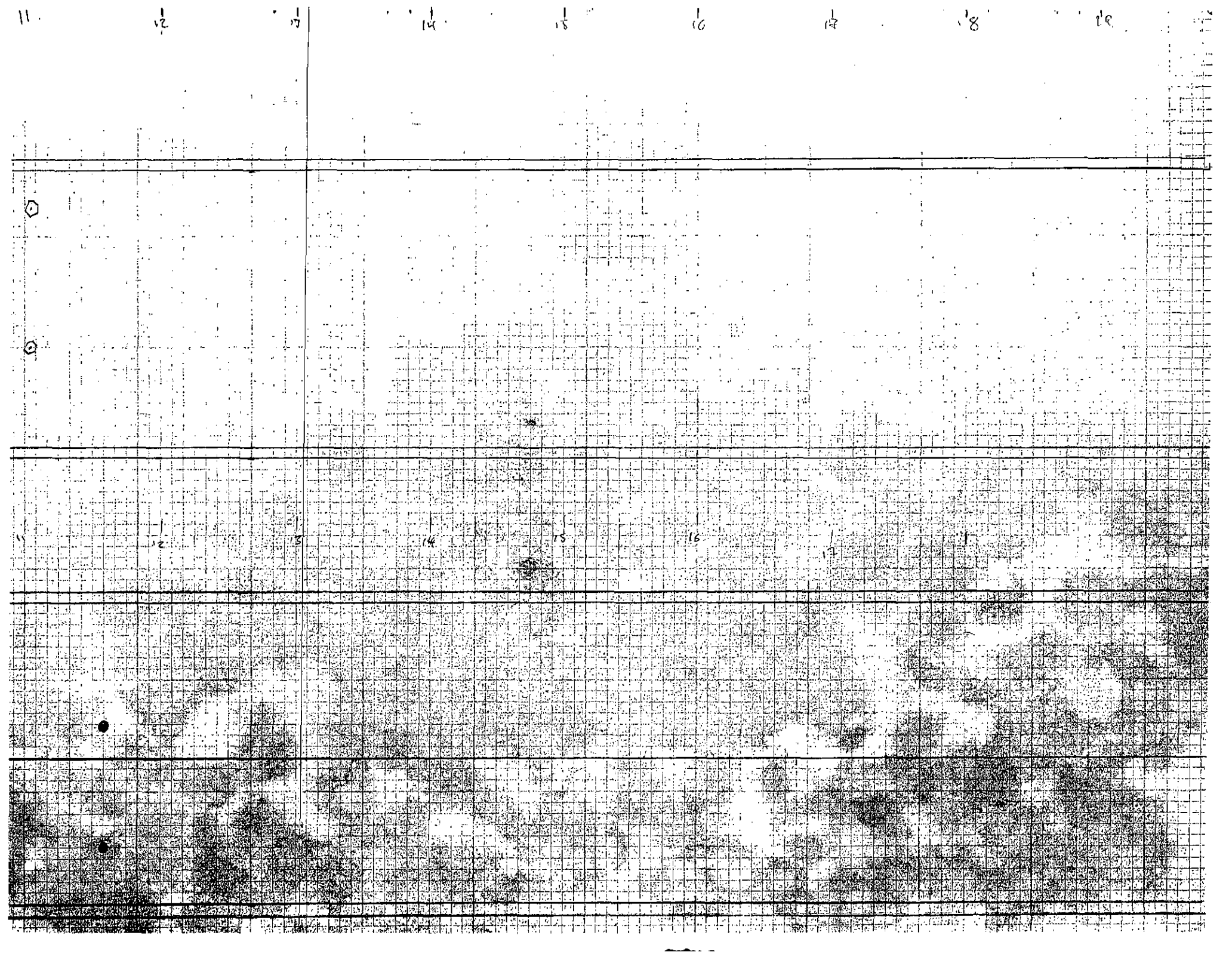
STBD vent stack

port stack mirror image (assumed identical)

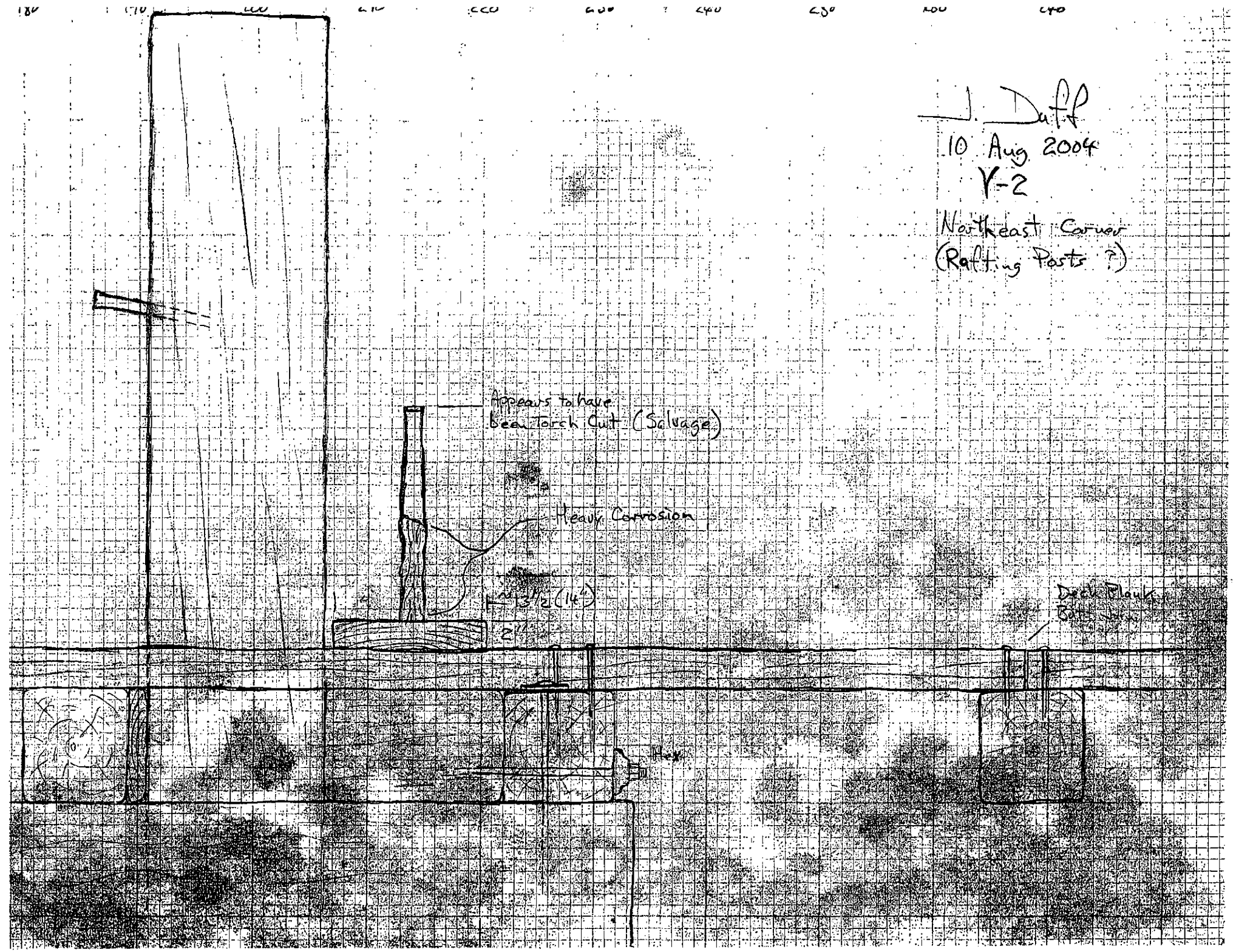


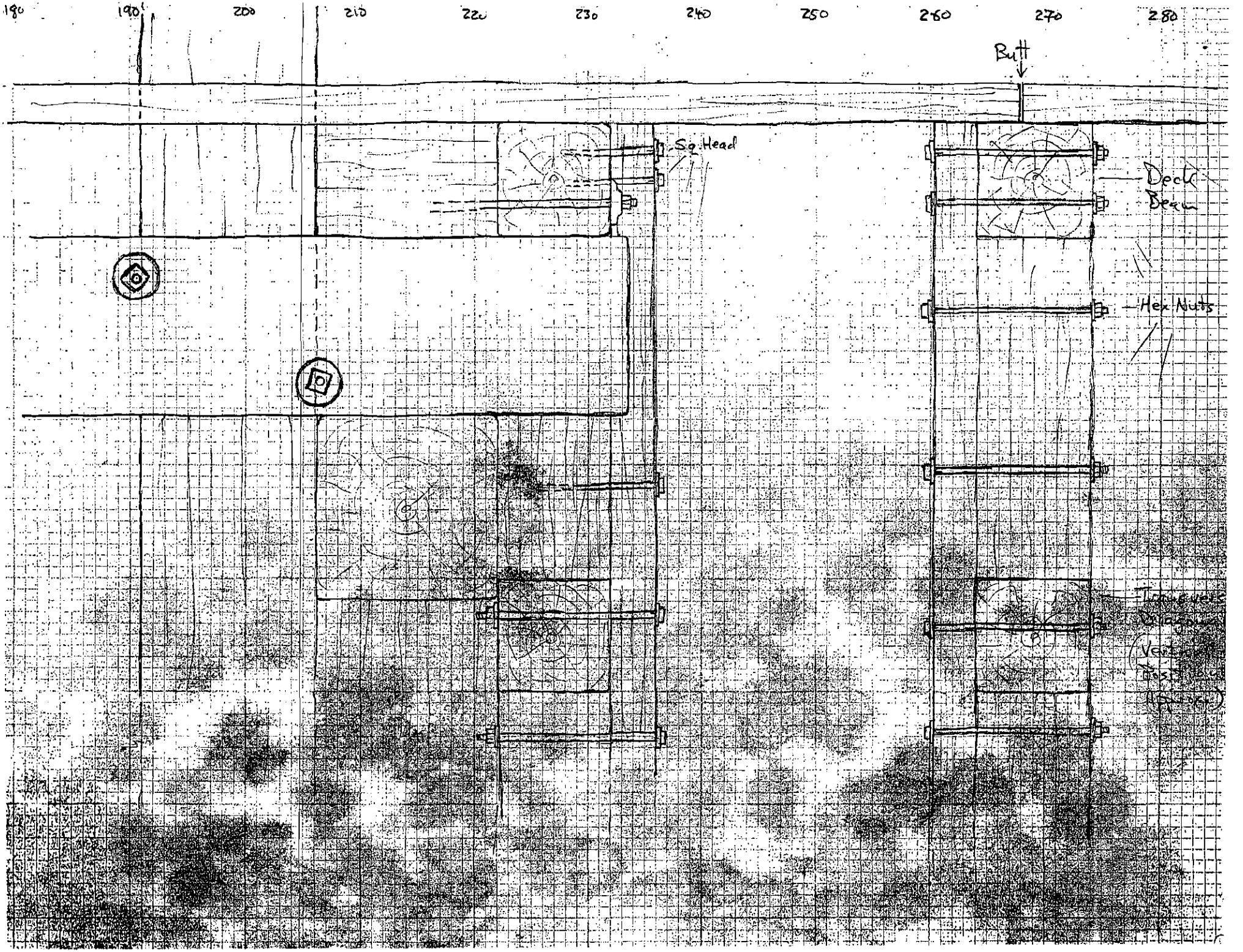

3
1
3 1/4
16
Spikes
Spikes
Drift
N+B
Holes @ 1 1/8" Dia.
c/ 1" Bolts
w/ 1 1/2" Hex Nuts
(N+B missing)
2'-3 1/2" Taper
1" Steel Plate
Spikes

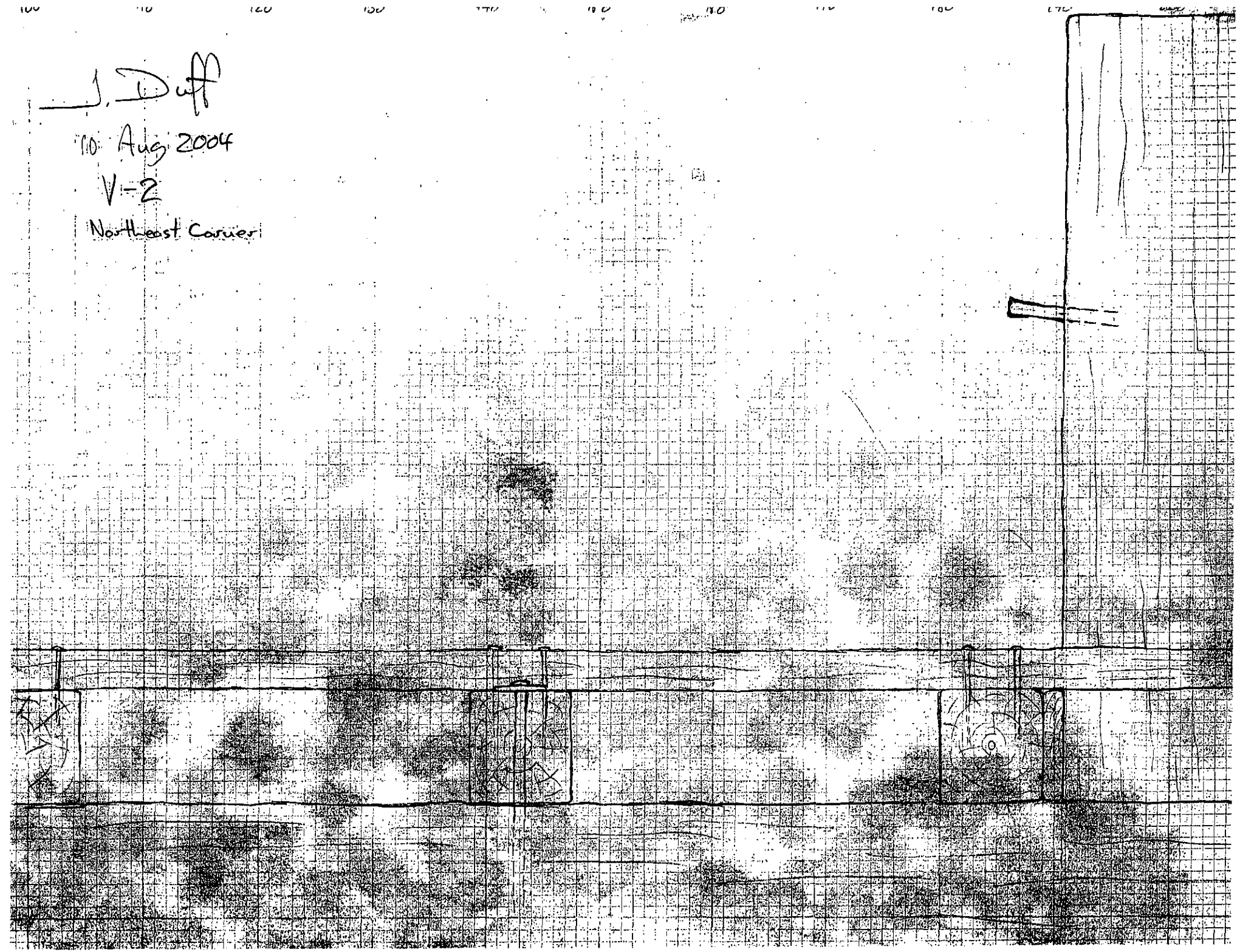

7½" Spikes
Rose Head
¾" X 12"
Drifts

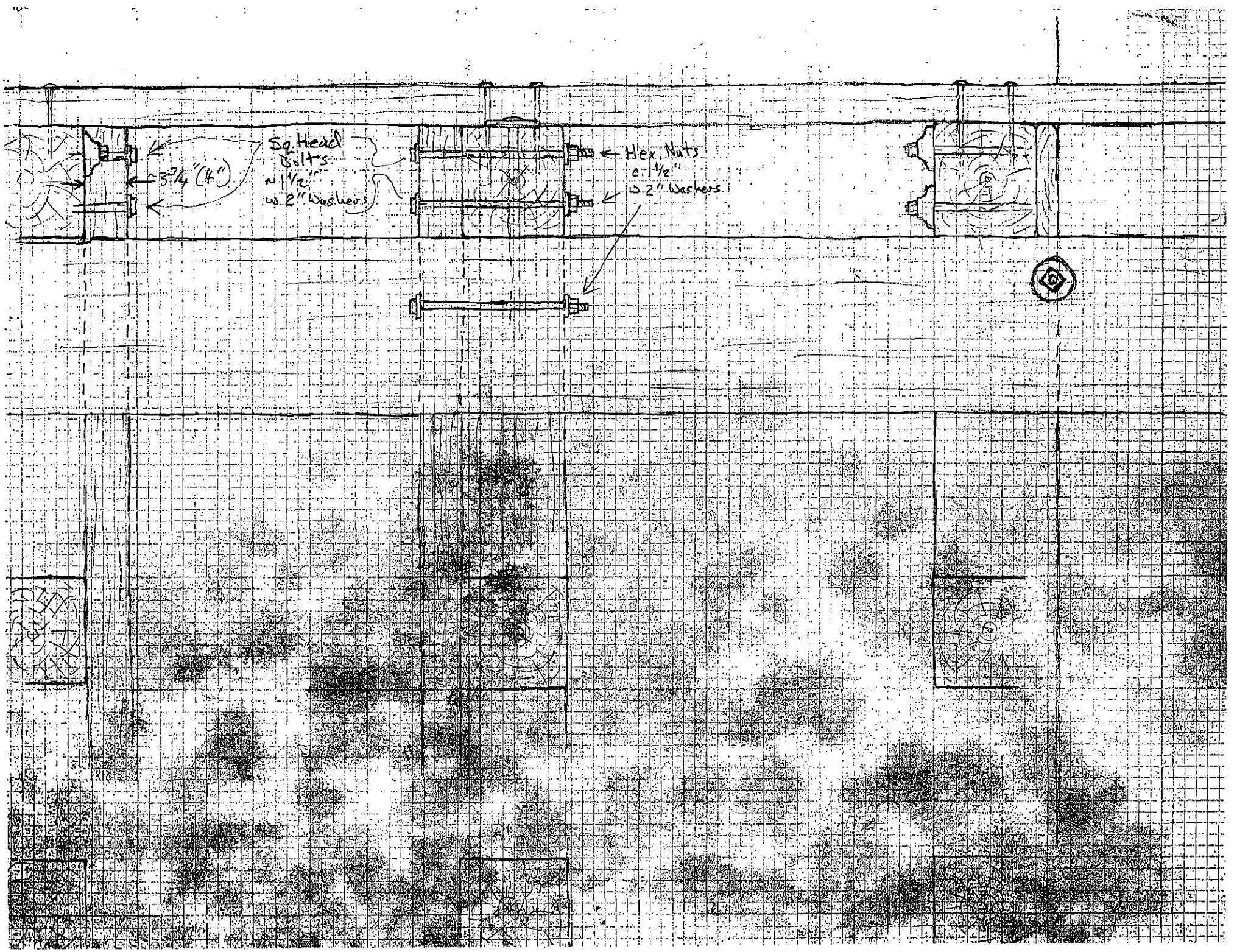



~2" Threaded Bolt
3" Hex Nut


J. Duff
10 Aug 2004
Y-2
Northeast Corner
(Rafting Posts ?)
Appears to have
been torch cut (Salvage)
Heavy Corrosion
1 = 13½ (14")
2"
Deck Planks
Bolt
Hex


180
190
200
210
220
230
240
250
260
270
280
Butt
Sq Head
Deck Beam
Hex Nuts


J. Duff
10 Aug 2004
V-2
Northeast Corner


3 3/4" (4")
Sq. Head Bolts
w 1 1/2"
w. 2" Washers
Hex. Nuts
@ 1 1/2"
w 2" Washers

J. Duff

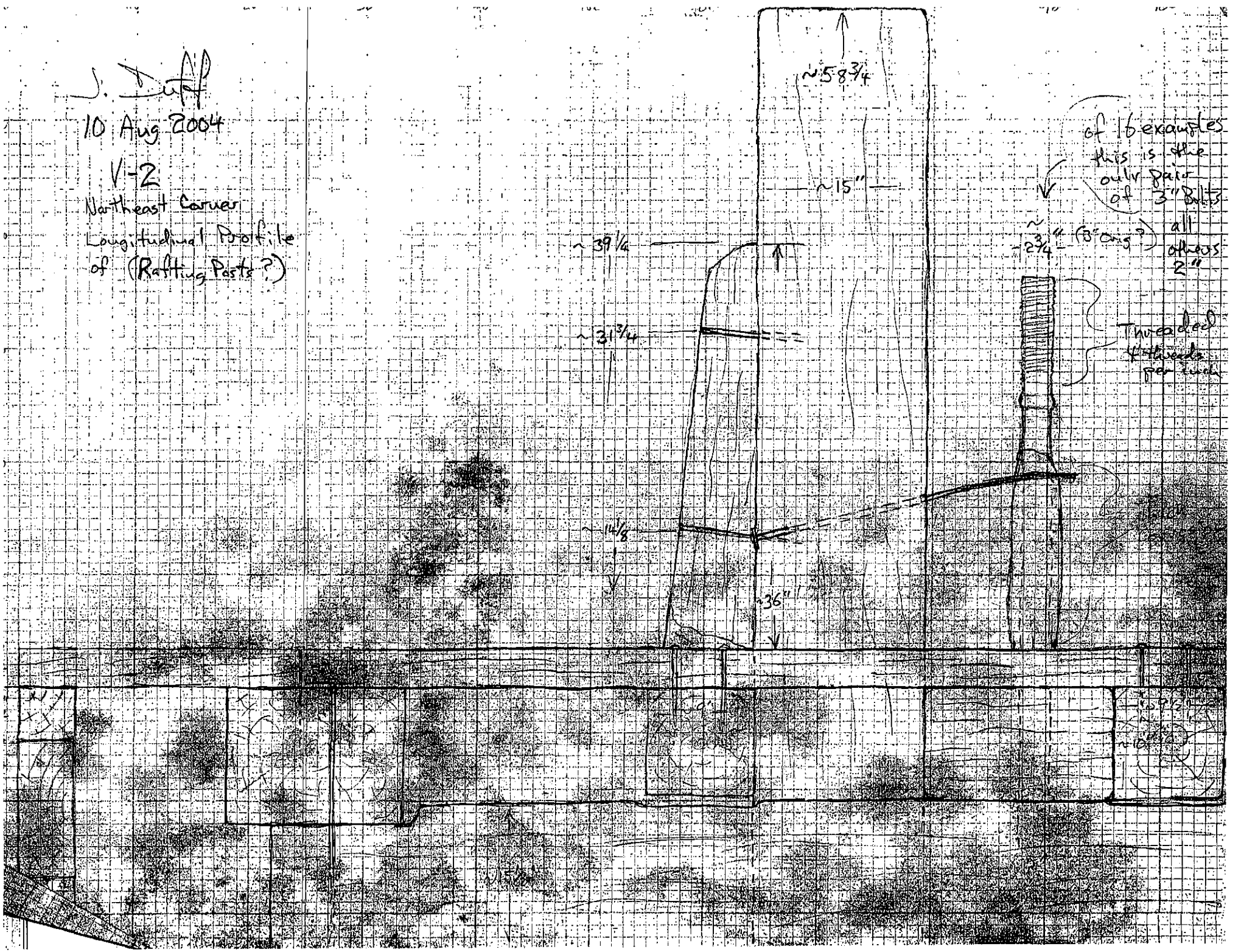
10 Aug 2004

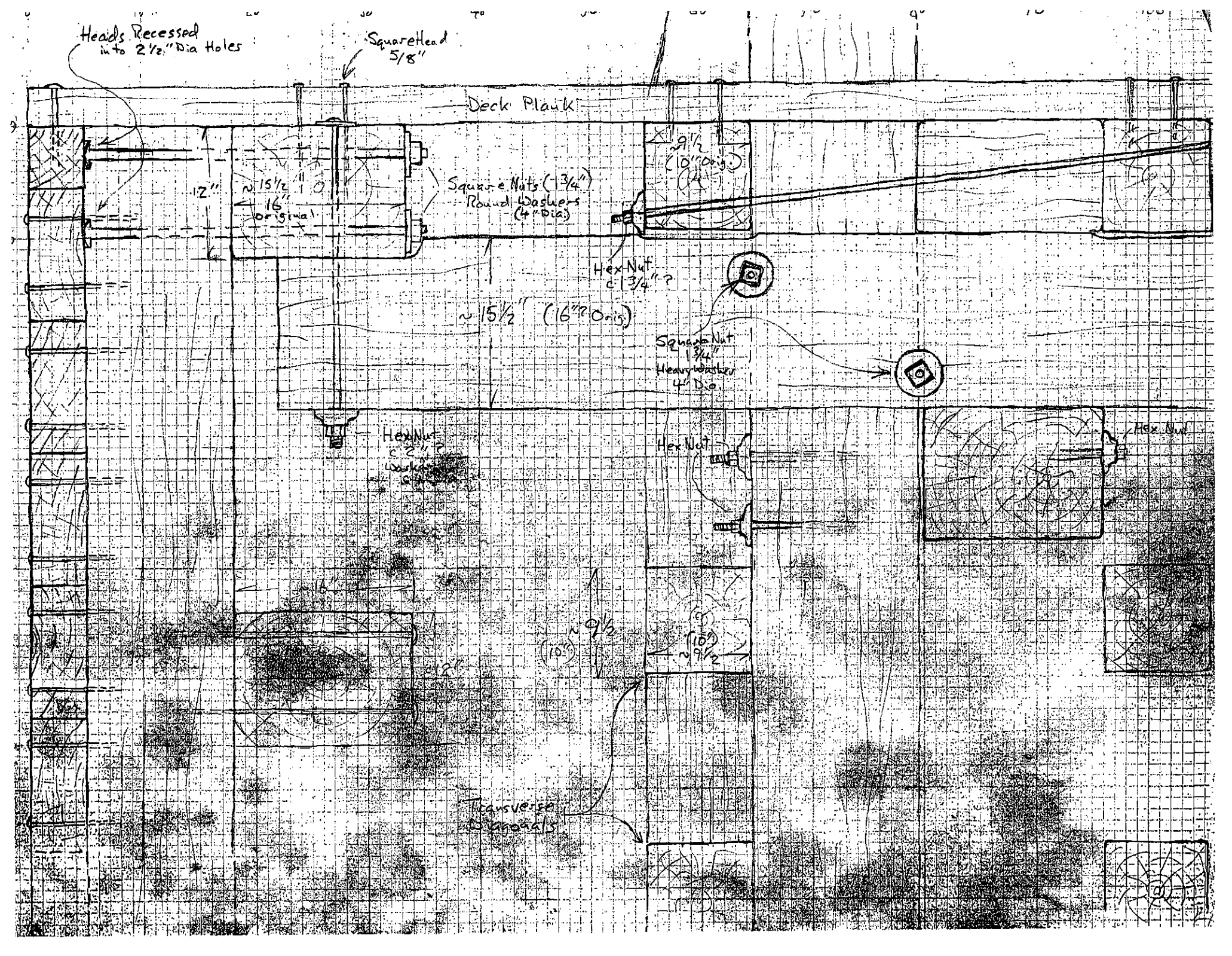
V-2

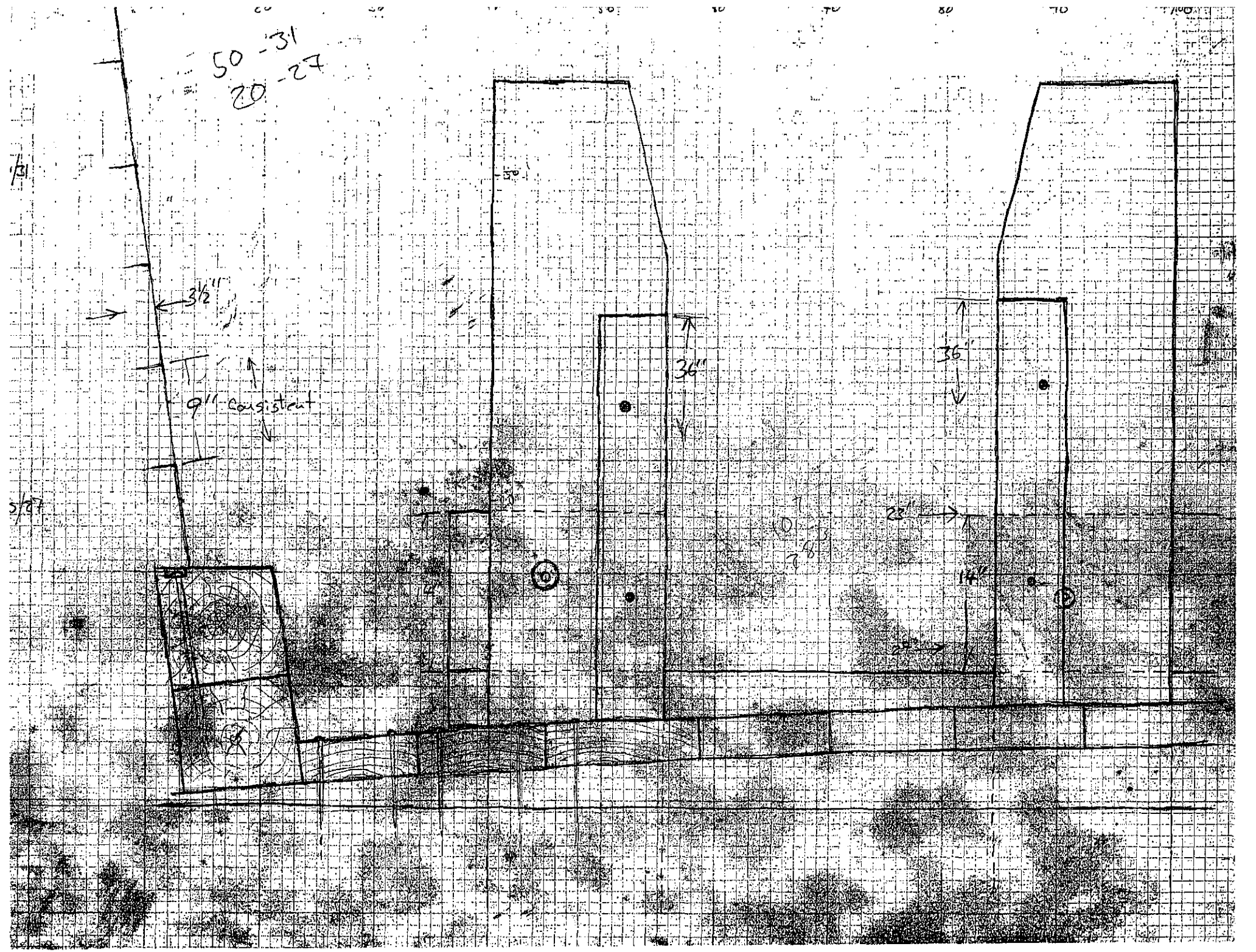
Northeast Corner

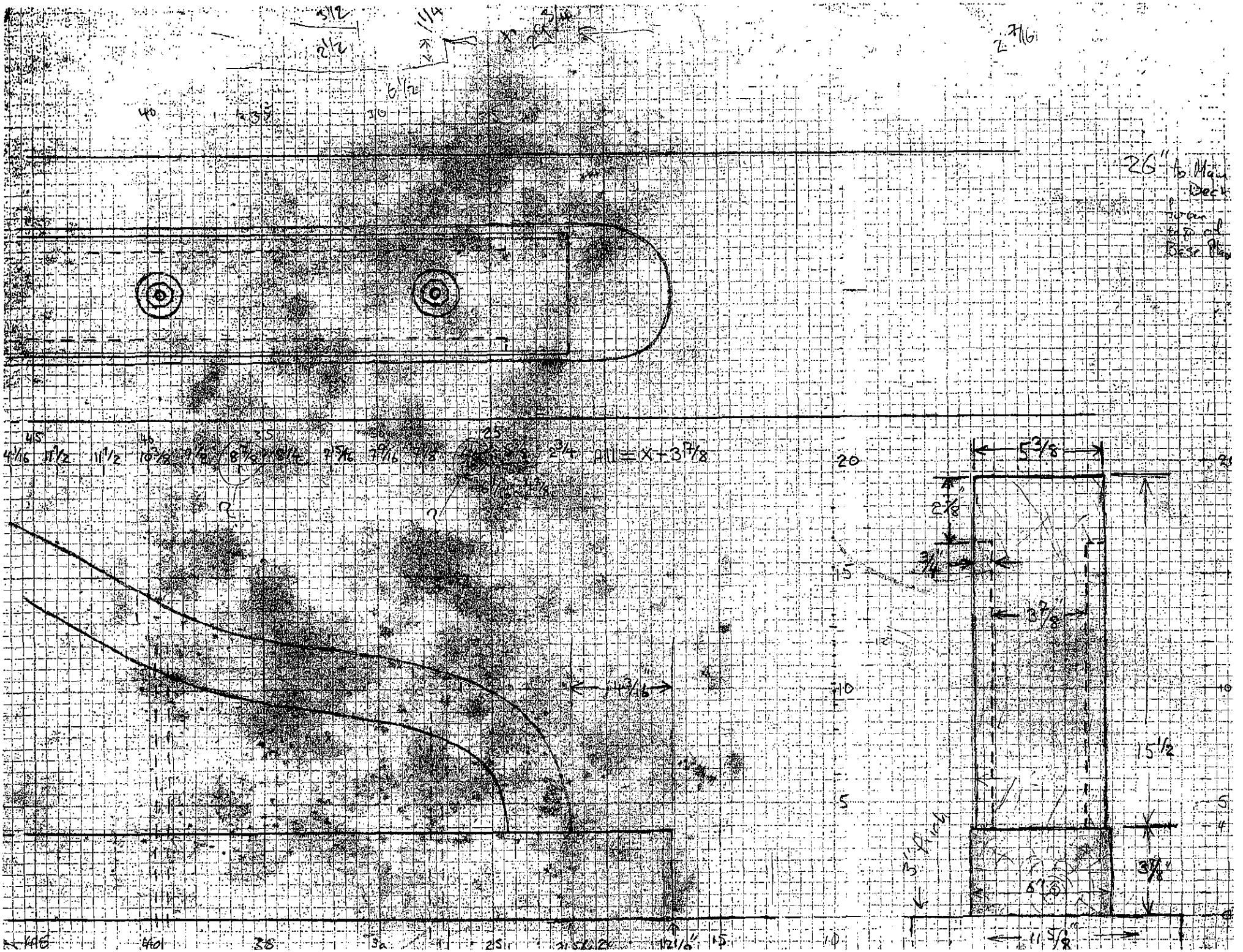
Longitudinal Profile

of (Rafting Posts?)




Heads Recessed into 2½" Dia Holes
Square Head 5/8"
Deck Plank
12"
~15½"
16" original
Square Nuts (1¾")
Round Washers (4" Dia)
~9½"
(10" orig.)
Hex Nut c 1¾"?
~15½" (16"? orig.)
Square Nut 1¾"
Heavy Washer 4" Dia
Hex Nut c 2"?
Hex Nut
Hex Nut
16"
12"
~9½"
(10")
~9½"
Transverse Diagonals


50 - 31
20 - 27
3½"
9" Consistent
36"
36"
23"
14"
23"


26" to Main Deck
ALL = X + 3 7/8
5 3/8
2 7/8
3/4
3 7/8
15 1/2
3 5/8"
11 5/8"

Bottom Hook Ends/Both at 100"

Aft End Stem Piece
85 1/8"

Blue Paint Line
Begins at 84 1/2"

Aft end of Keel
top at 60 3/4"

Spikes in Bottom Keel
Staggered/Alternating

Outside	Inside
2 3/8	6 1/2
16 1/8	21 1/2
28 3/8	34
41 3/8	52
53 3/8	
64 7/8	
76 1/4	76 1/2
87 1/2	
98 1/2	98 1/2
102 5/8	102 5/8
120 1/2	121 1/8

3 Spikes 2" apart

Mid Keel
Pairs
26" side by side
38" 3 3/4 Blue Centers
51 1/2
63 3/8
75 3/8
87 3/4
100 1/4
119 3/8
Aft + 3/8

1 1/4 1 1/2 Sides
1 Layer 1/2 Deep
Spikes
Shaft
3/8" Sq
Rose Head 1 1/4
3/4" Dia. 5/16
3/8" Sq on top
cooked to Shaft
Hole for
Setting
7/8" Dia

B/L	Elevation	
22	2 3/4	
23	4 1/8	
24	5 1/2	
25	6 7/8	
27	8 1/2	
29	10 1/8	
31	11 1/2	
33	12 3/4	
36	13 7/8	
38	14 1/2	
40	14 7/8	
42	15 1/4	
44	15 1/2	
46	15 1/2	
47	14 1/2	
48	14 1/8	
49	13 1/4	
52	12 1/2	

2" Diam Holes for Bolt Heads/Recess

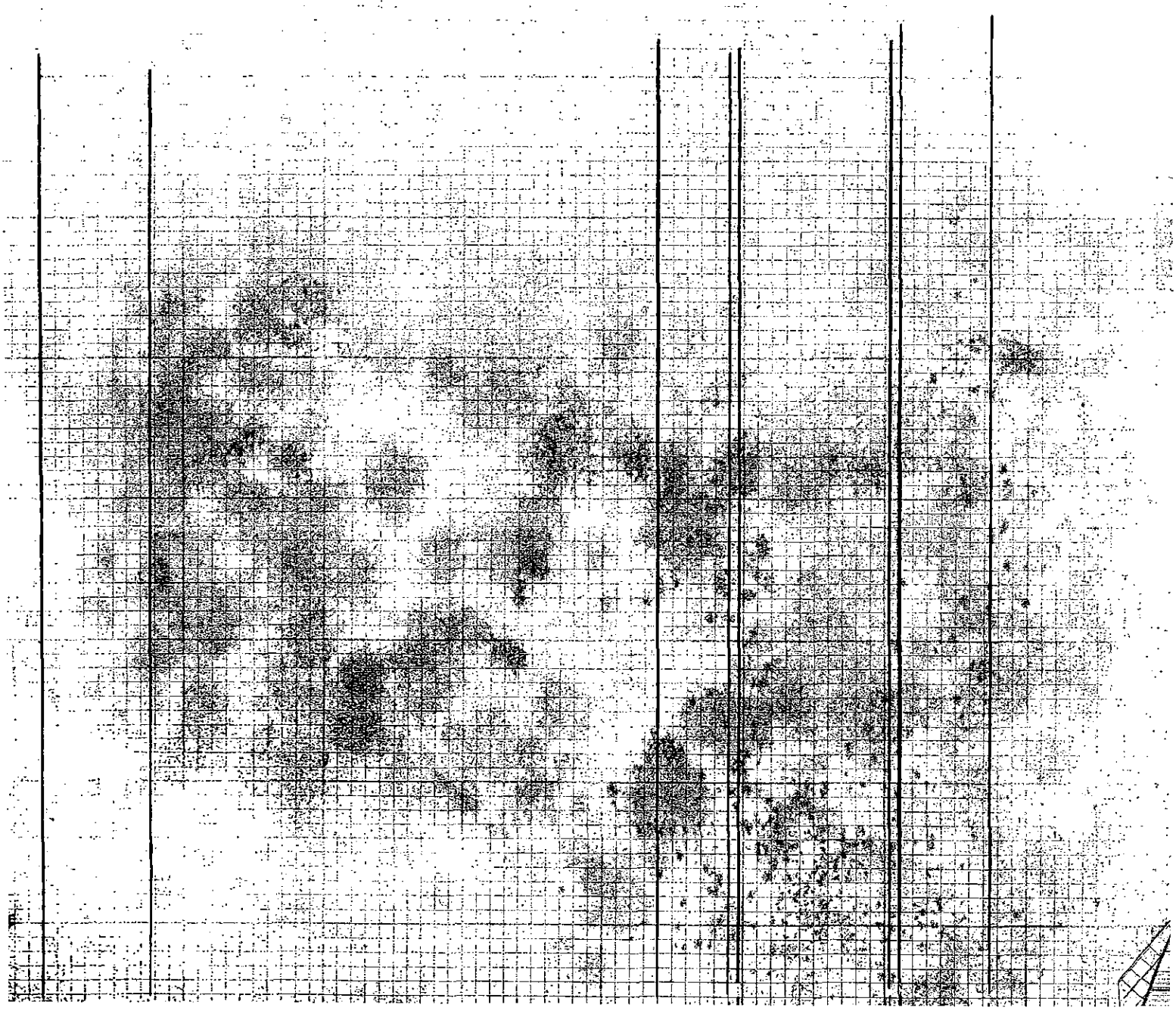
All +3/8" Bolts

3/4" Carriage 48 1/2 B/L
27 Hex 26 3/4 B/L
39 1/8 Hex 38 1/8 B/L
✓ Carriage 57 1/2 B/L
✓ Bolt 64 1/4 B/L
79 1/4 Bolt 80 B/L

85 3/4 Hex Nut
110" Hex Nut Turned Stile

Hex Bolts
Nut 1 1/8"
to 1 7/8" Washer
5/8" Dia Bolt

Outfits/Rove Bolts
Set in 2" Dia Holes
Down 1 1/2" Deep
Washers ø 2" Dia
Head 1" Dia



V²XSec Levels

63 depth lines
61 depth lines

50 end framing
45 end planking

1 framing cross section

8/18/04

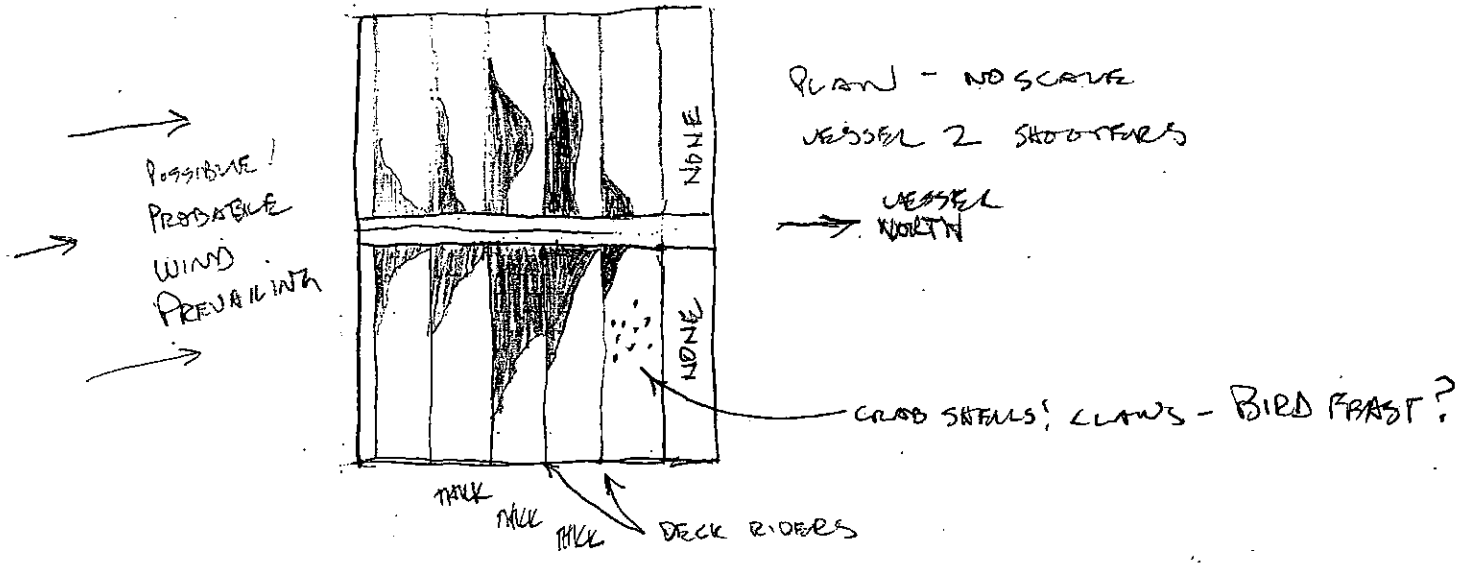
NOTES ON THE DISTRIBUTION OF LOOSE FITTINGS ON THE DECK VESSEL # 2

NOTED 8 PULLEY WHEELS - AT LEAST ONE PULLEY HOUSING - #10 McMILLAN PULLEYS ON VESSEL 2

METAL CONDITION - FRAGMENTARY PIECES RECOGNIZABLE SHAPES, LOTS OF "RUST STAND", AND CONCRETIONS

NOTE - CONCRETIONS - SPARKLERS - ALSO AROUND FAKE BOX DRAINS - (SEE DRAWING DETAIL DONE 1ST OR 2ND DAY)

DISTRIBUTION OF RUST PILES



METAL PILES

WEST WING - PILES OF METAL DEBRIS BY LARGE HATCH ON WEST WING - DOOR W/ HINGES RAILING AND LARGE STANCHION ML BRACKET ⌐¬ - SMALL DEBRIS PILE IN FRONT OF SMALL HATCH TO SOUTH - POSSIBLE RAILING STANCHIONS

EAST WING - PILES OF METAL DEBRIS BY LARGE HATCH ON EAST WING - MAINLY HINGES LEFT - POSSIBLE SOLENOID OF DOOR -

PAINT - RED & WHITE ON RUBBER SEALS AROUND HATCHES WHITE FIRST

WHITE - RED - PINK ON PLANKS JUST SOUTH OF LARGE HATCH ON EAST SIDE

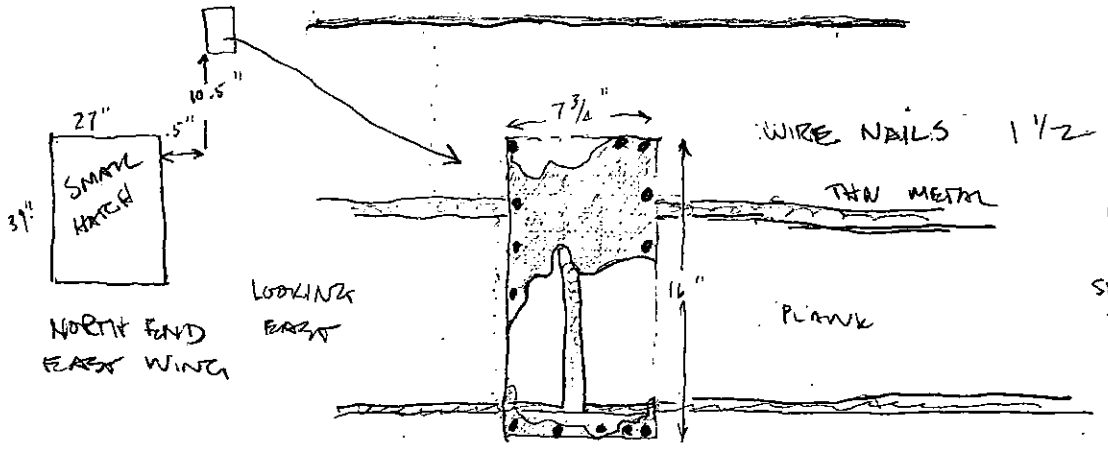
WIRE COILED @ BIT BLOCK - SE CORNER

8/18/04

MKF

EVIDENCE OF REPAIRS - WINGS:

① REPAIR OF PLANKING ON EAST WING - ABOVE & SOUTH OF SMALL HATCH TO NORTH



PROBABLY NOT REPAIRS

② (BRASS) BOLT ON SMALL HATCH EAST WING NORTH

③ - BRASS BOLT ON SMALL HATCH EAST WING NORTH

④ - NO BOLTS ON SOUTH HATCH WEST WING

⑤ BRASS BOLTS ON LARGE ~~HATCH~~ WEST WING X 2

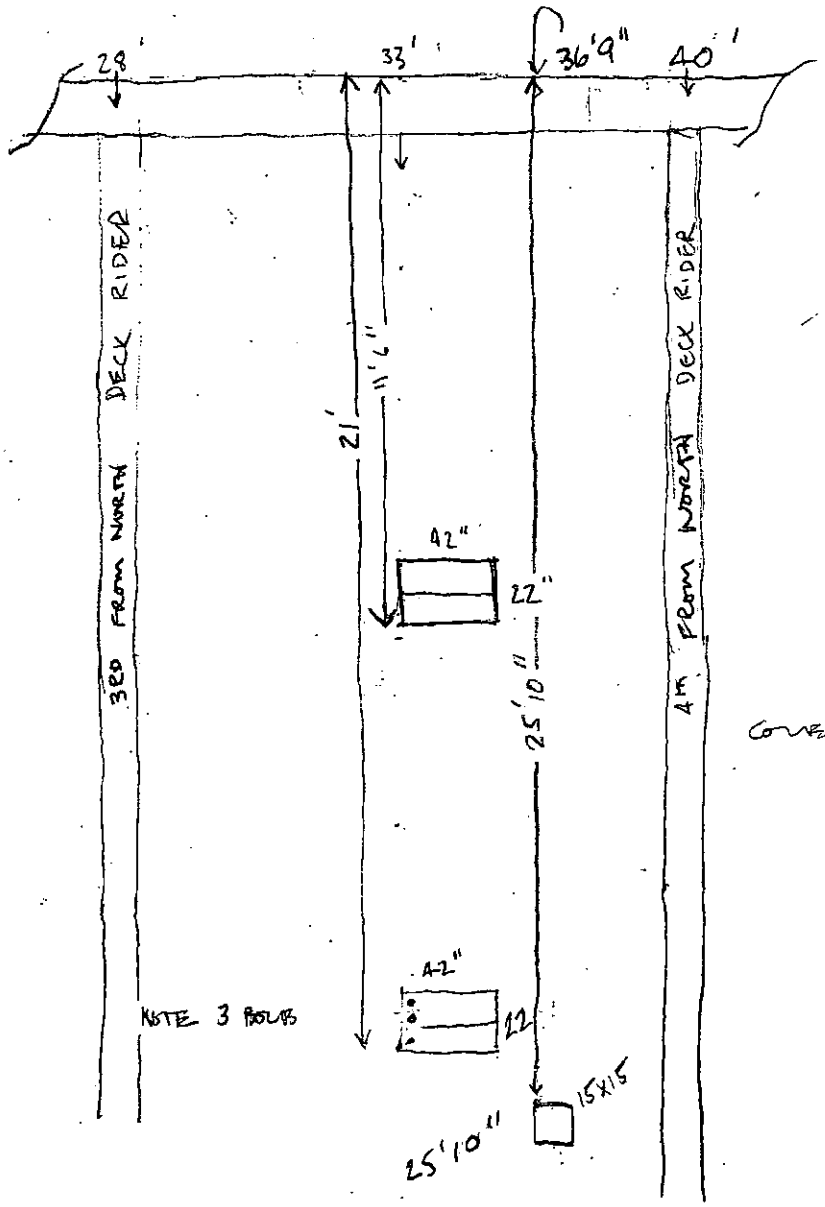
⑥ BRASS BOLT ON SMALL HATCH WEST WING NORTH - 1 BRASS BOLT UPPER HINGE
NONE ON LOWER HINGE

NOTE LARGE THREADED BOLTS ON NE RAPTING BIT COULD BE REPLACEMENTS

8/18/2006

MKF

EVIDENCE OF DECK REPAIRS VESSEL 2 SHOOTERS



BOTH 42x22" REPAIRS @ 33' ALONG ℄

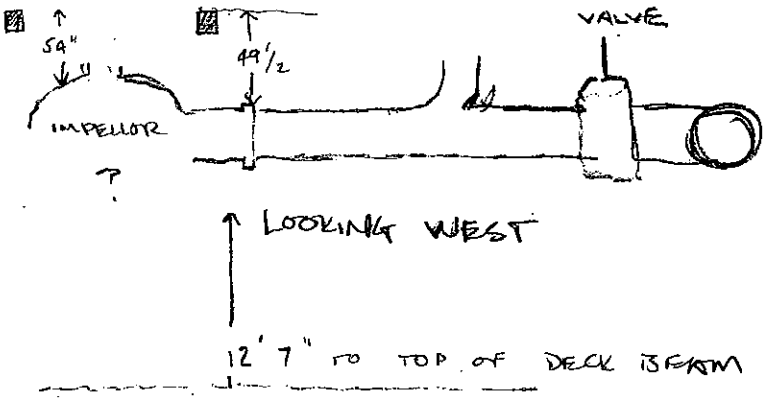
42" x 22

15 x 15

8/17/04 MKF ME

DETERMINING THE DEPTH OF HOLD - DEPTH OF FLOOR FROM TOP OF DECK BEAM @ 46' 6" FROM VESSEL ℄ 12' 7"

PROFILE SKETCH



8/10/2004 - MKF VESSEL 2 SHOOTERS

WEST HOLE

FOTO TAKEN 1ST OR 2ND DBY

"REPAIR" OR "ACCESS" BETWEEN 5 & 6 DECK RIDERS

25' 10" @ 57' 10" - NE CORNER - 22 x 44 - COVERED

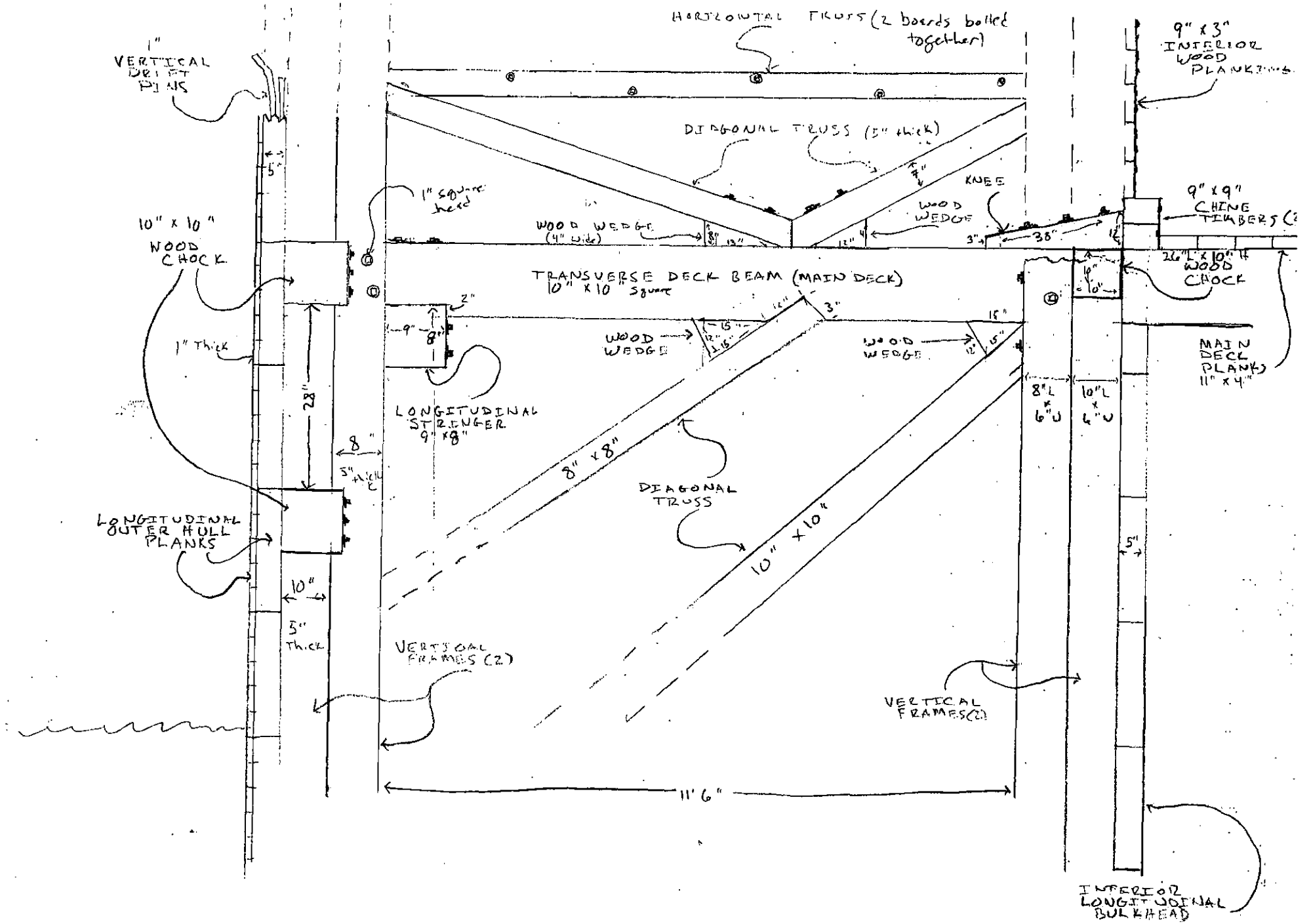
21' 10" @ 57' 10" - NE CORNER - 22 x 44 - NOT COVERED

NOTE THERE ARE 3 MORE "ACCESS" HOLES ON THE EASTERN HALF OF THE VESSEL -

2 BETWEEN RIDERS 3 & 4
1 BETWEEN " 6 & 7

ALL ARE NOT COVERED

REPAIR OF PADEYE SETUP @ 6TH DECK RIDER - SOUTH SIDE WHERE IT MEETS THE CENTER "KEEL"

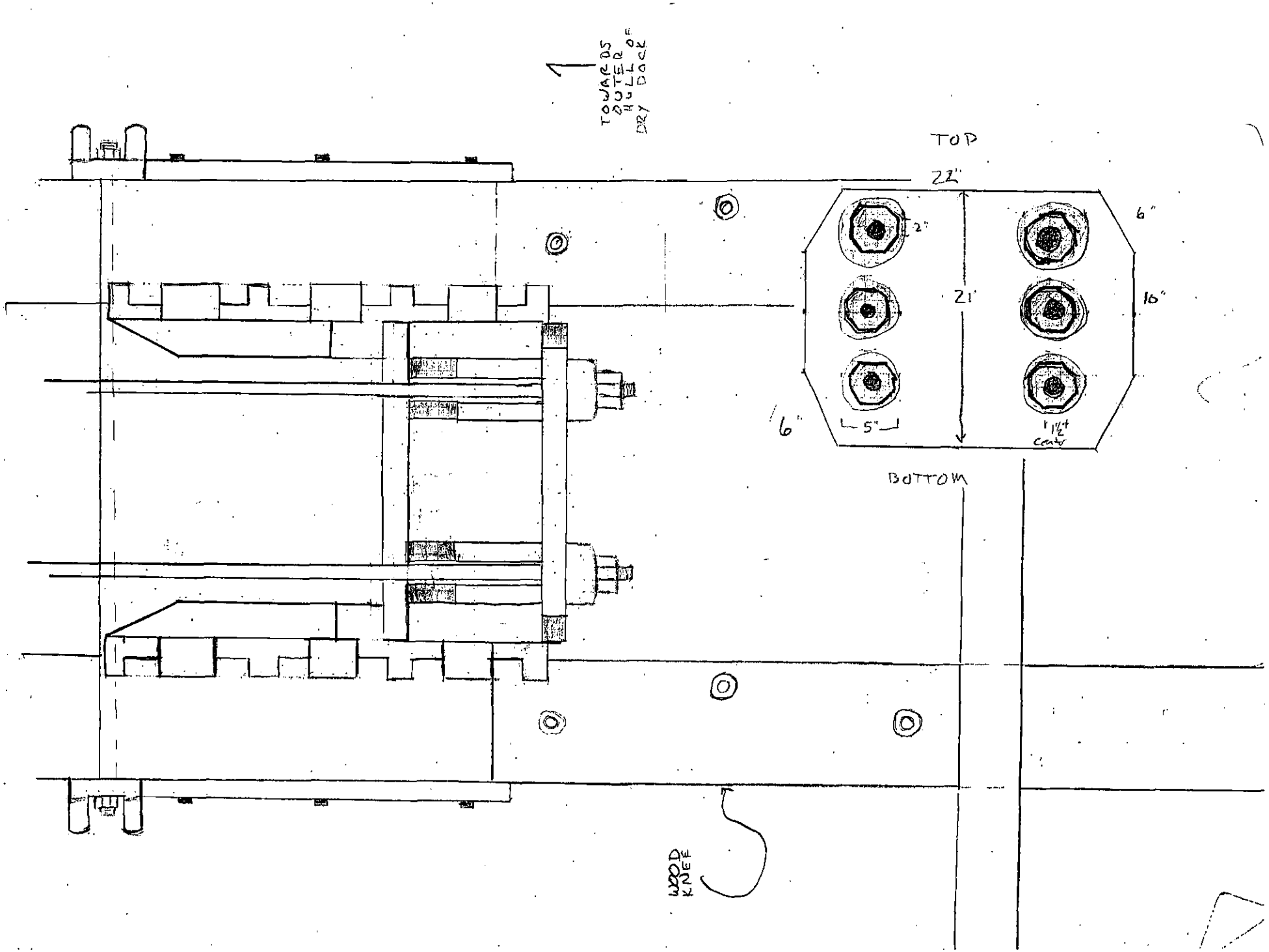


DRAWING NOT TO SCALE

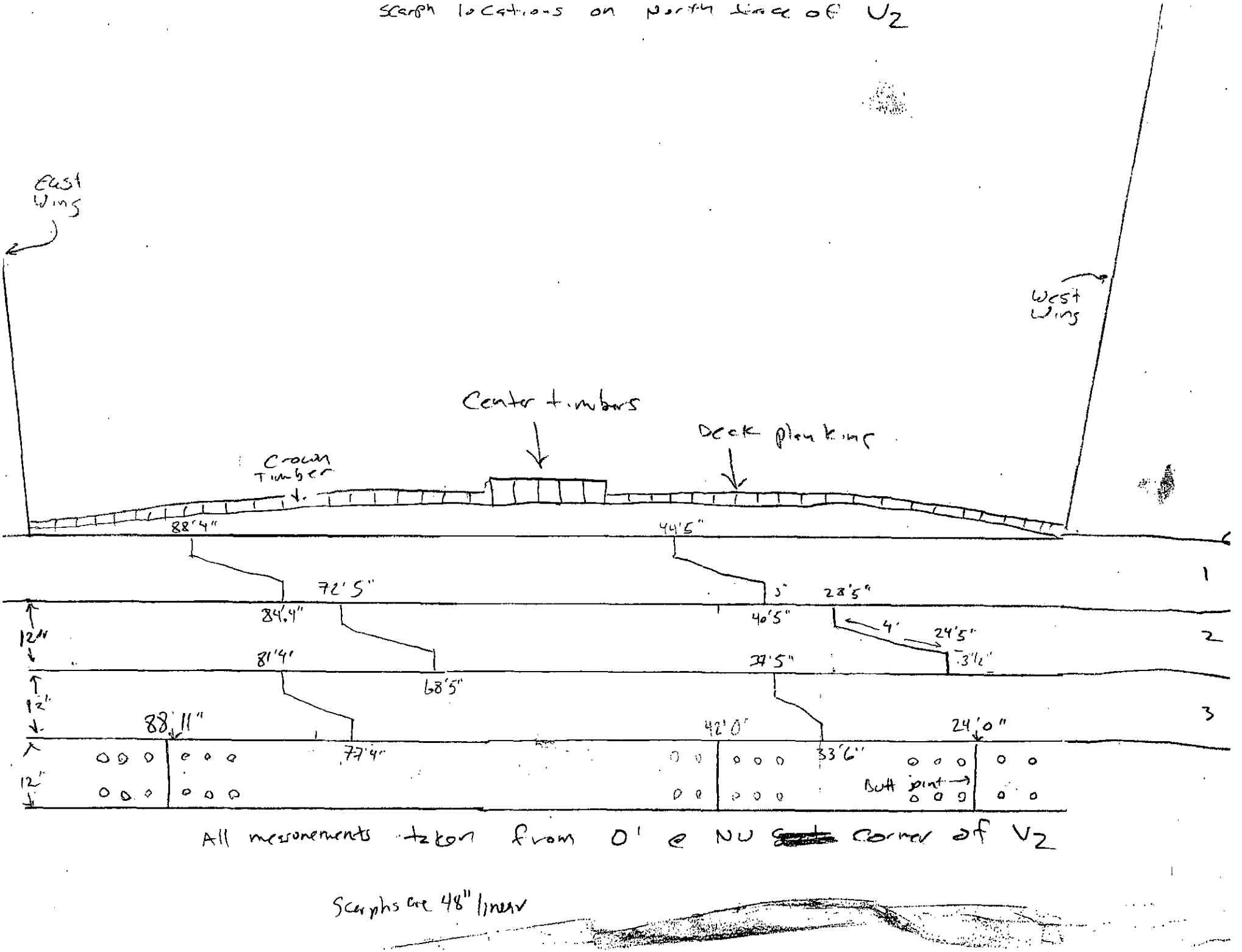
X-14-2004 MCK

MCK

1 square = 1 inch



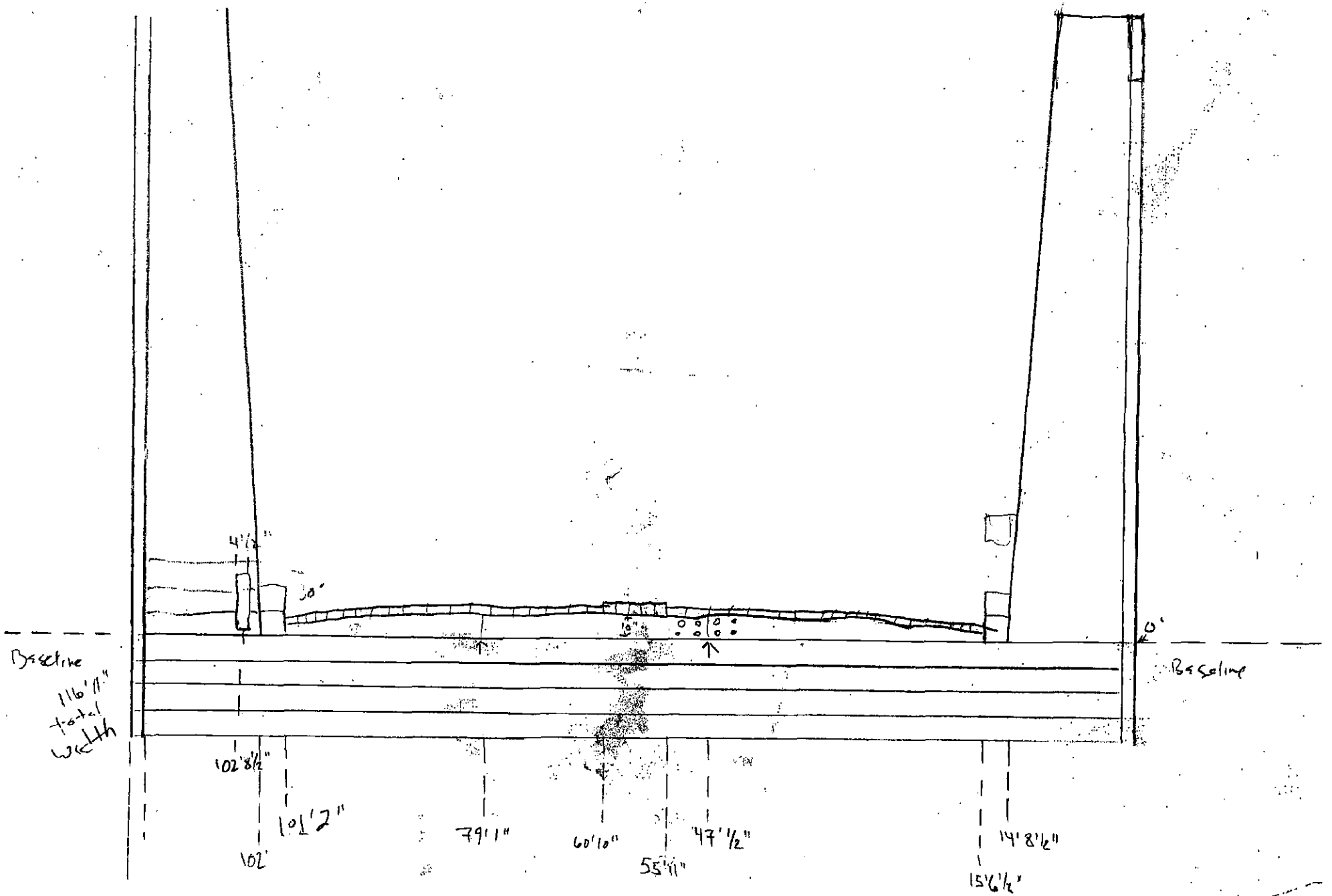
Scarph locations on North line of U_2



All measurements taken from 0' @ NW ~~South~~ corner of U_2

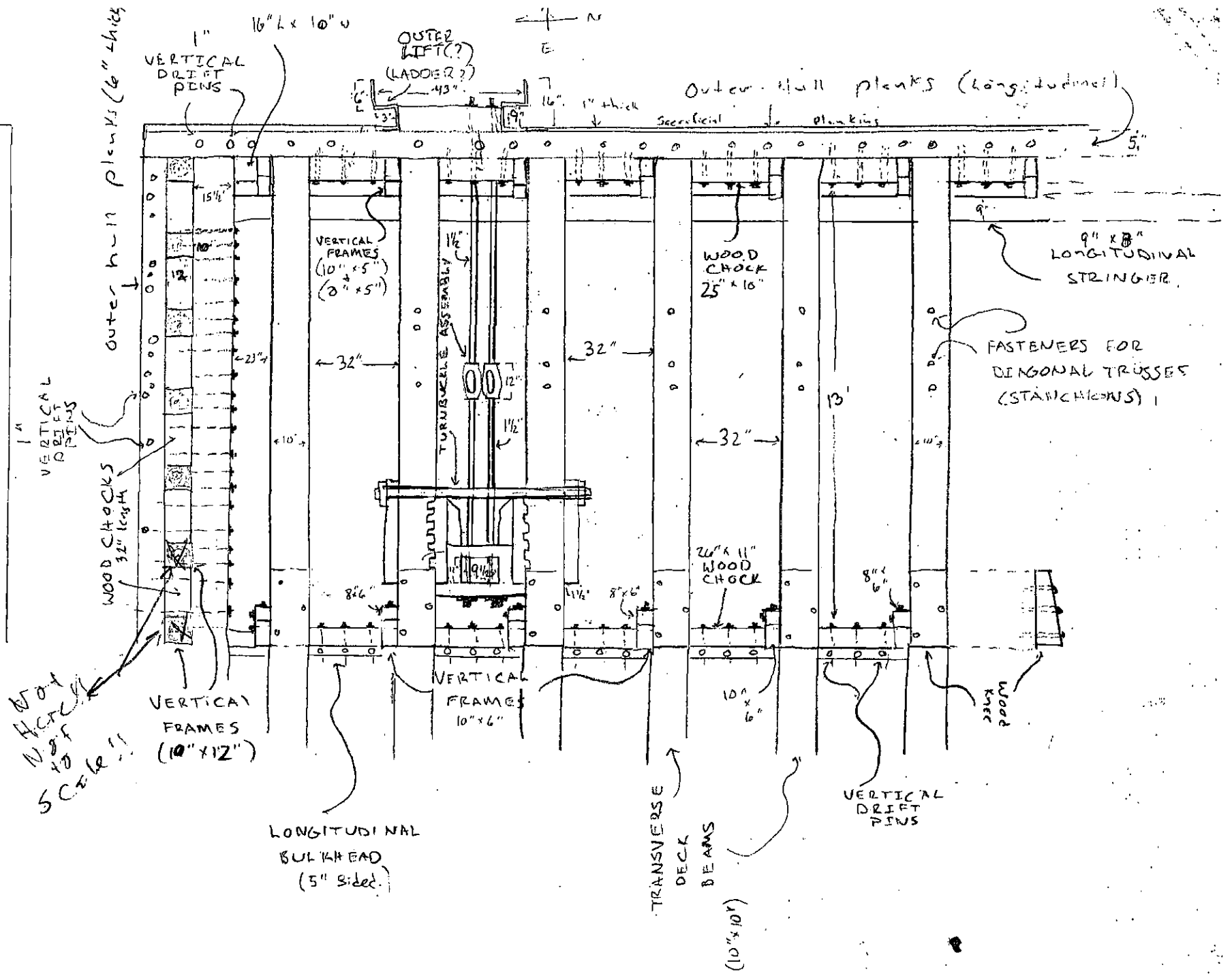
Scarphs are 48" linear

205-248 8739
ch'n Linda

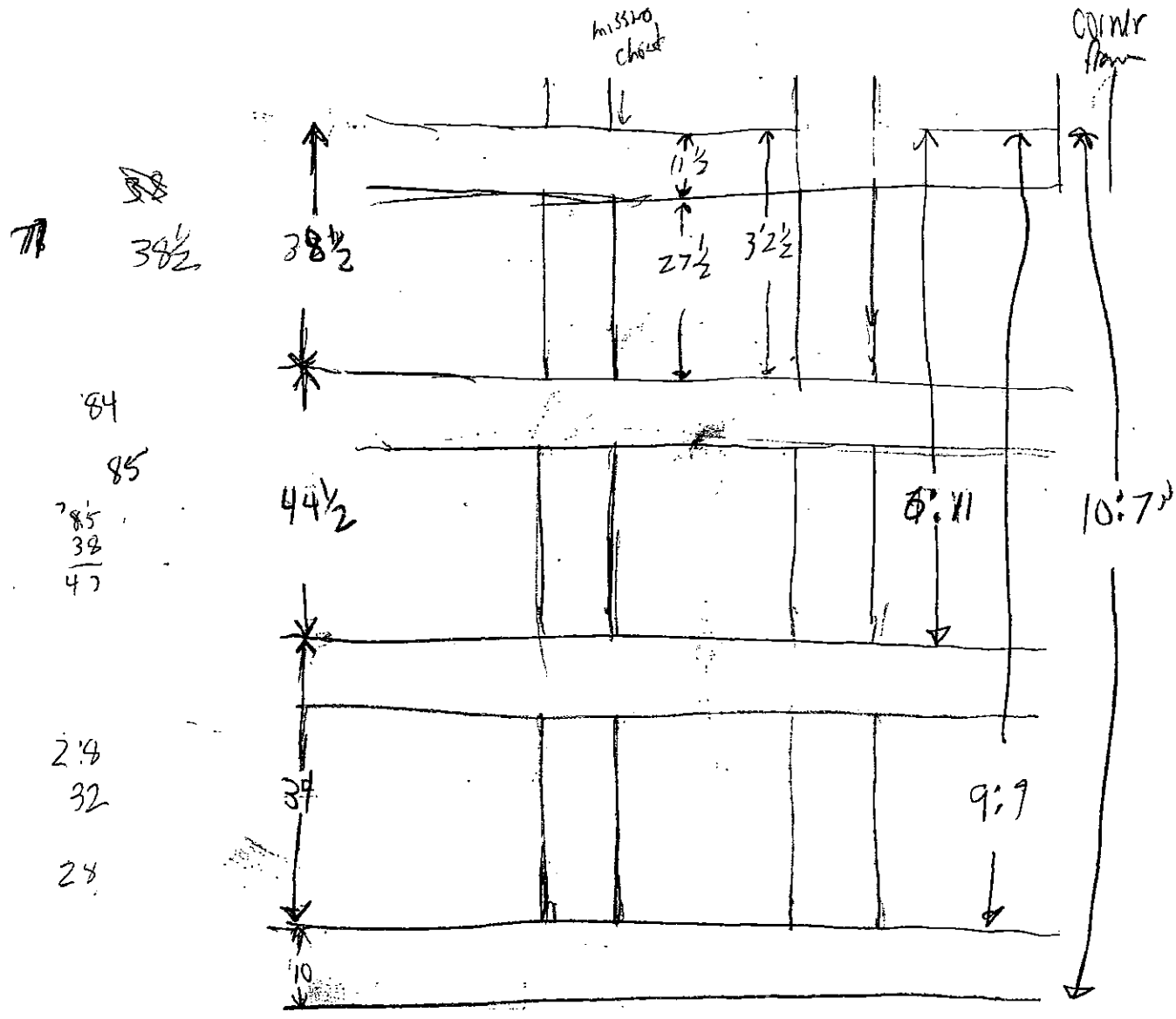


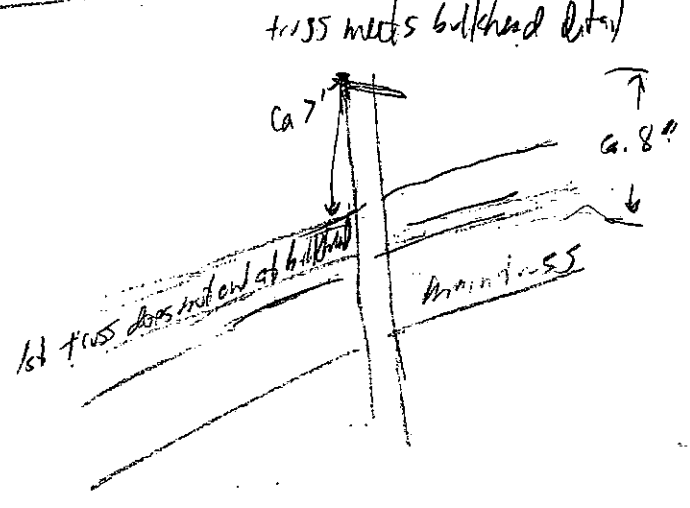
2-11-04
M. KRIVOR

MAIN WING (CONSTRUCTION)

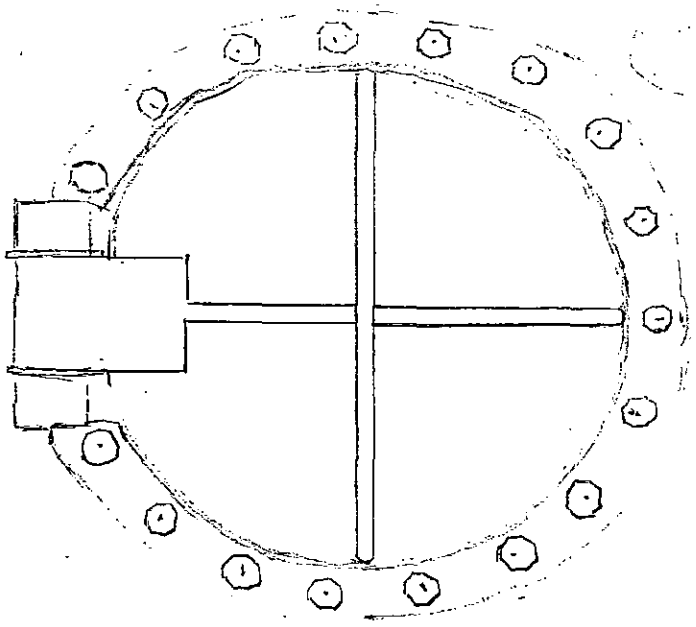


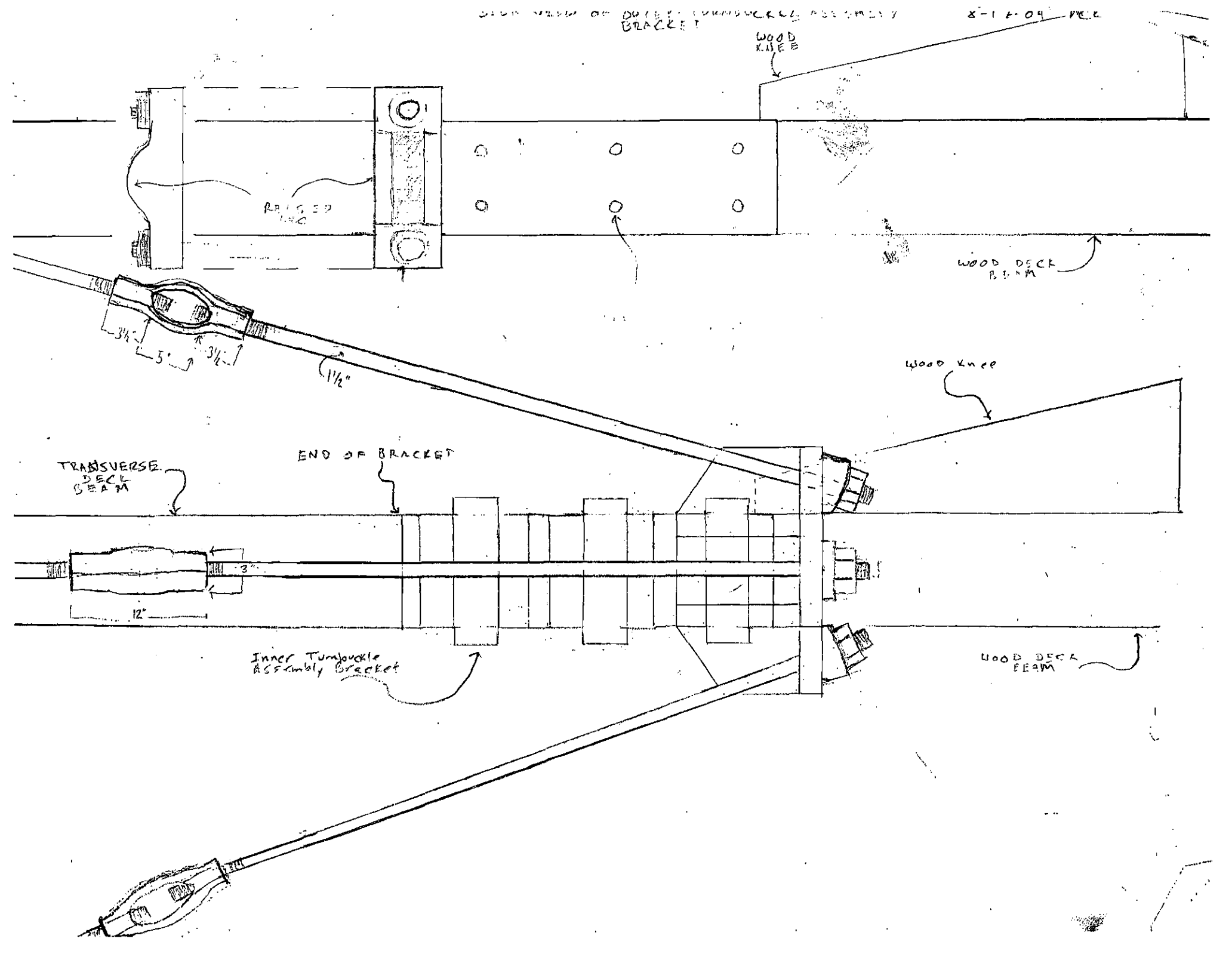
Lyd Gressler
8/15/2004 V2
forward end, looking forward (north)

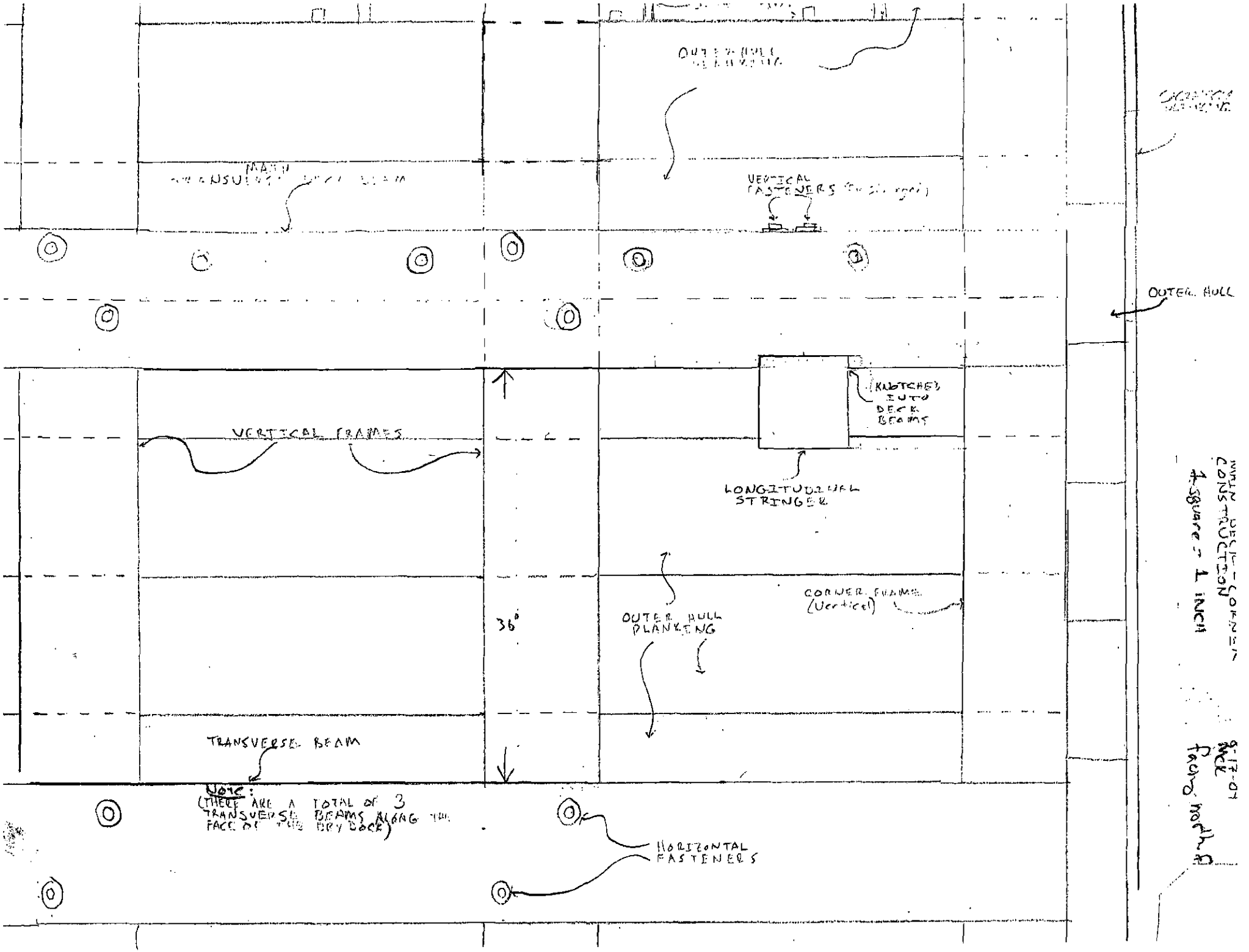




6 Vessels
V2
M. Krivor
8/17/2004
Stbd side outlet nozzle



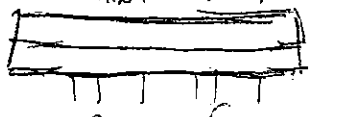

WOOD KNEE
WOOD DECK BEAM
3¼"
5"
3½"
1½"
Wood Knee
TRANSVERSE DECK BEAM
END OF BRACKET
3"
12"
Inner Turnbuckle Assembly Bracket
WOOD DECK BEAM

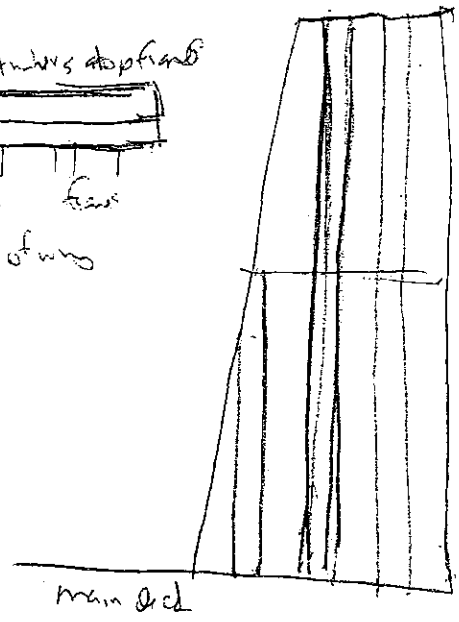

OUTER HULL
VERTICAL FASTENERS
OUTER HULL
KNOTCHED INTO DECK BEAMS
VERTICAL FRAMES
LONGITUDINAL STRINGER
36"
OUTER HULL PLANKING
CORNER FRAME (Vertical)
TRANSVERSE BEAM
Note:
(THERE ARE A TOTAL OF 3 TRANSVERSE BEAMS ALONG THE FACE OF THE DRY DOCK)
HORIZONTAL FASTENERS
1 square = 1 INCH

Lydecker
6 vessels
V2 general list
8/17/2004

wing end frame detail

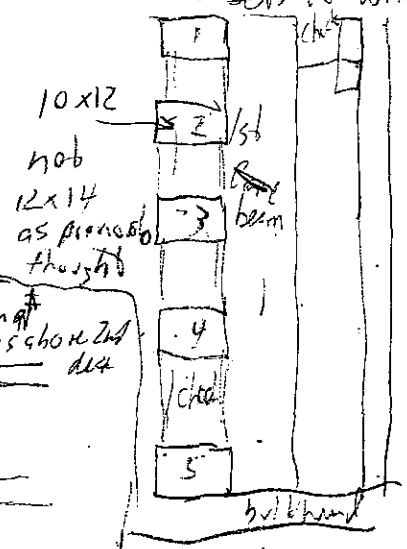
beams go at least to main deck beam,

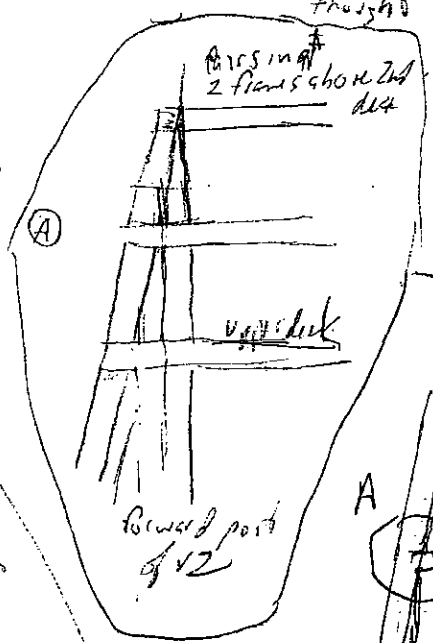




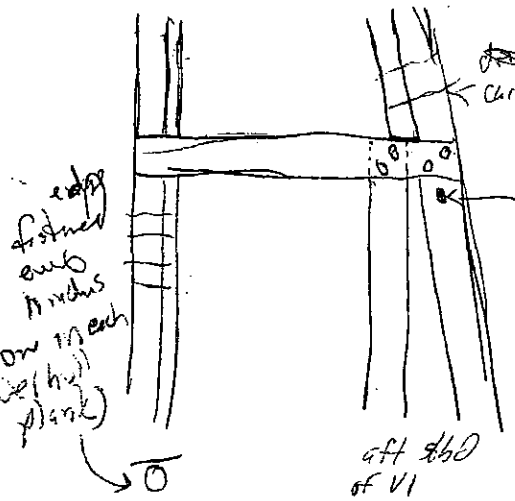
end framing

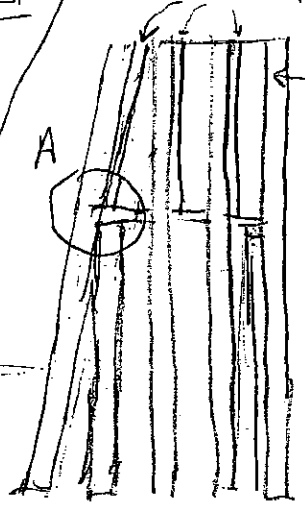
5 sets to wing bulkhead





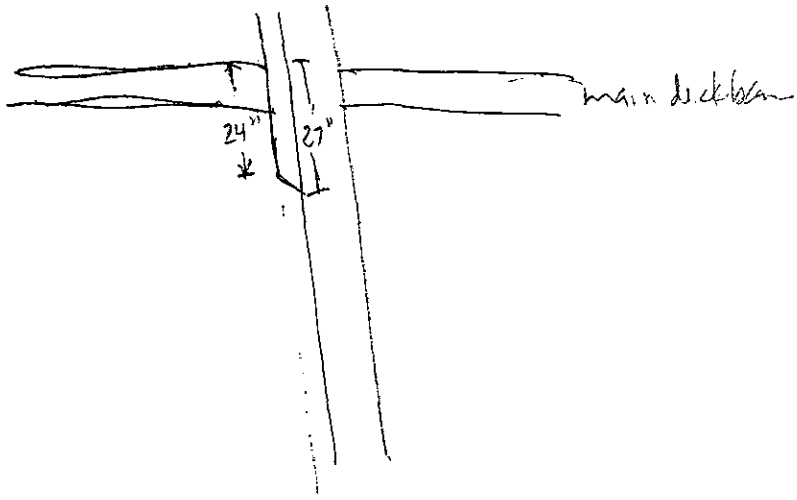
detail A this is different from V2





frame 1 doubles up 90° from 2+3 & 5
4 feels of upper deck
double in line with 2+3 & 5 below main deck

wing frame detail

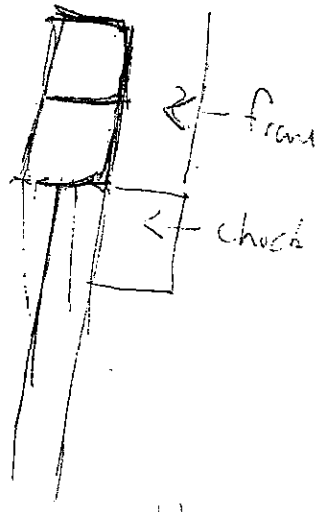


chocks b/n frames

~~cut~~ cut to b/n frames

4 @ 5"

on both sides of wing

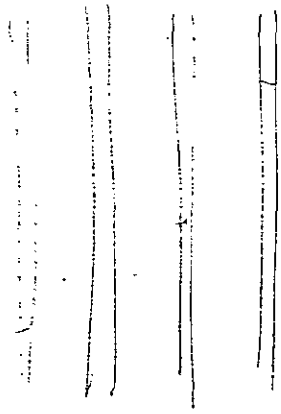


end frames

appear to double up stanchions and bulwarks

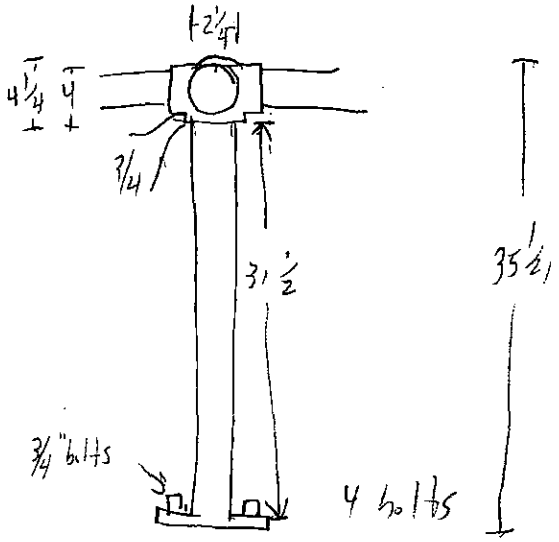
even spacing between stanchions

8x10 end frames



top deck railing

1 7/8" diameter pipe



1-5

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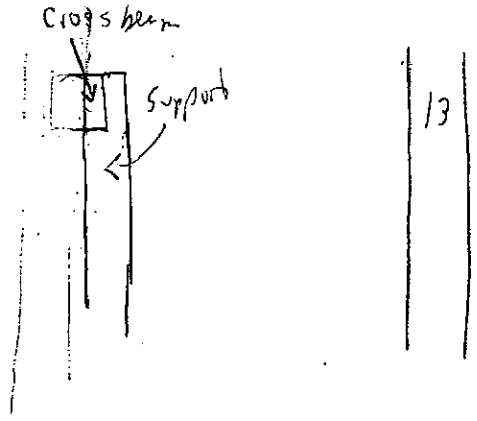
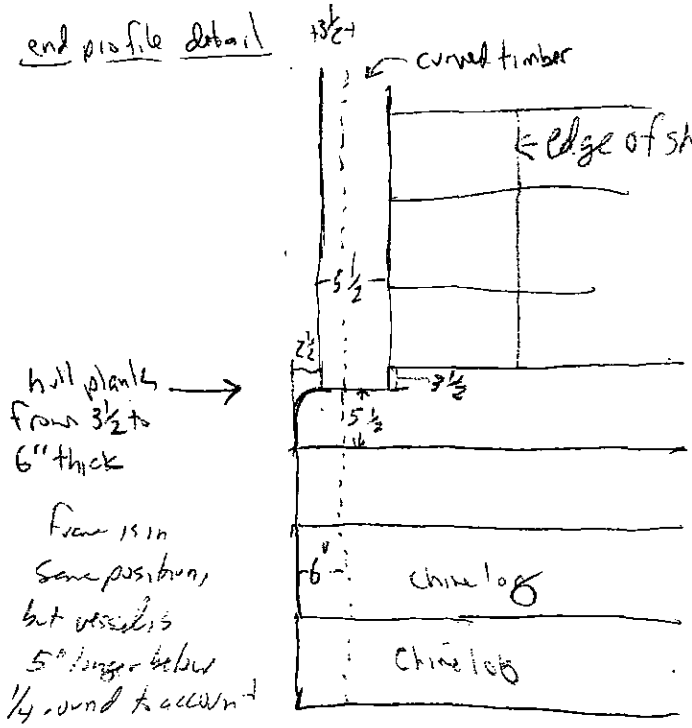
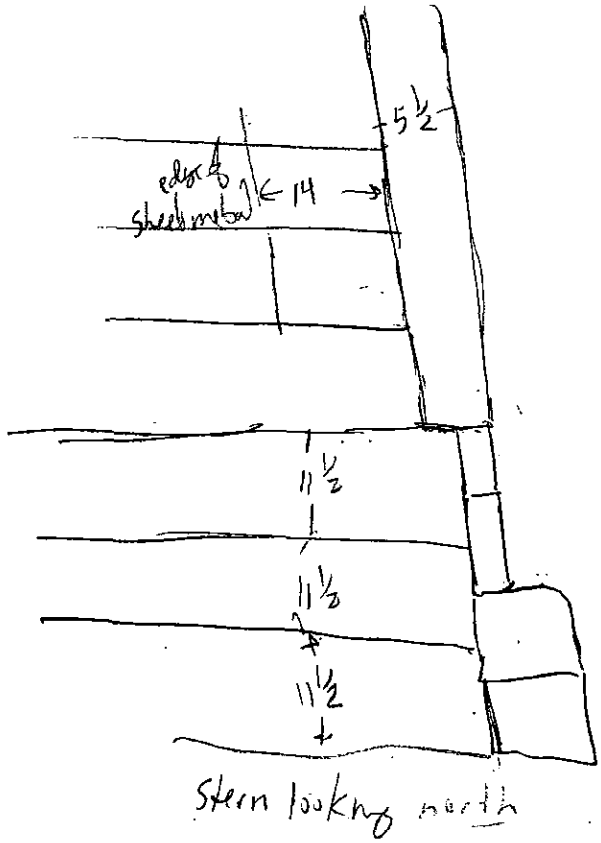
outlet pipe flange location detail

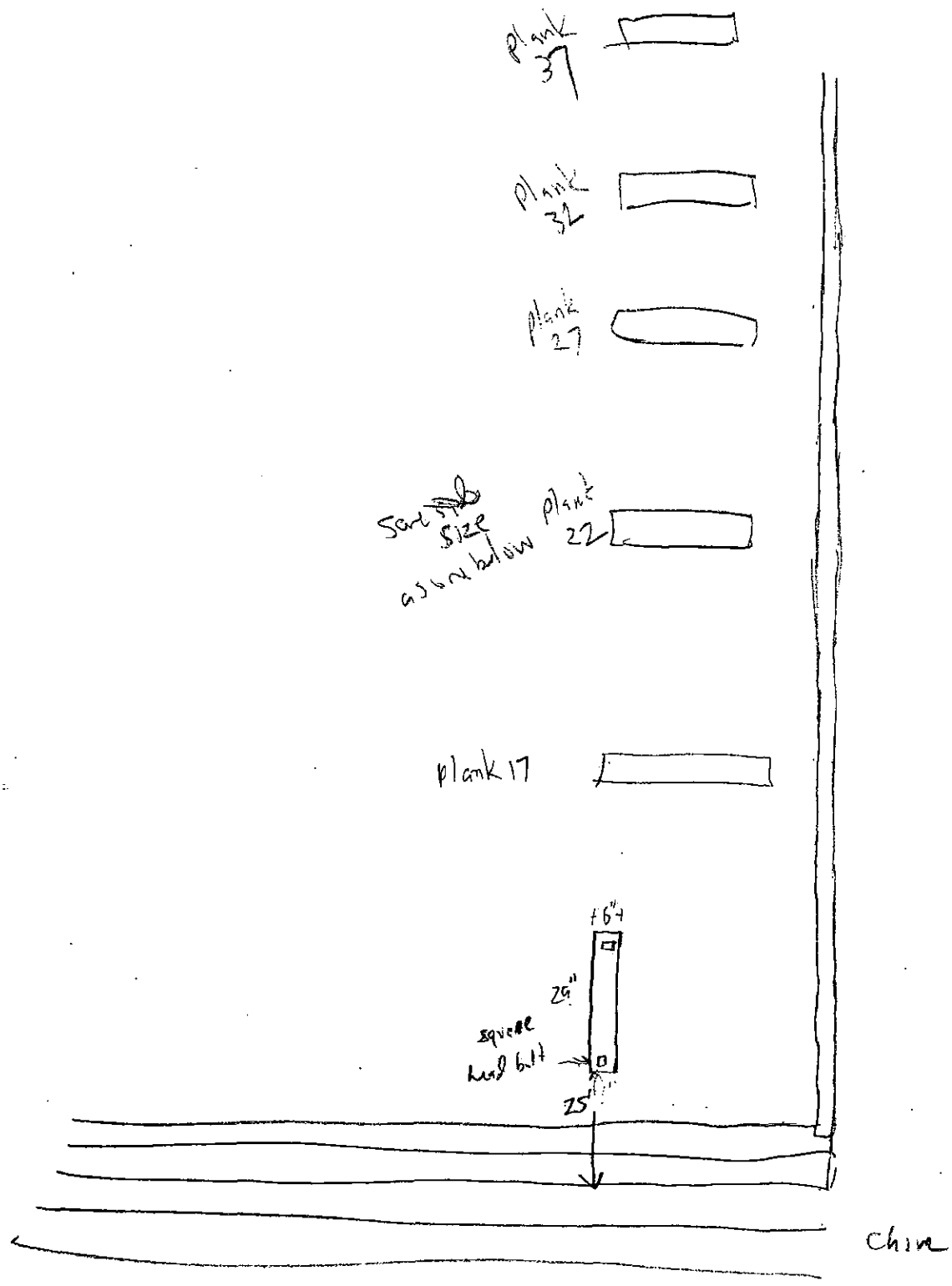


end profile detail

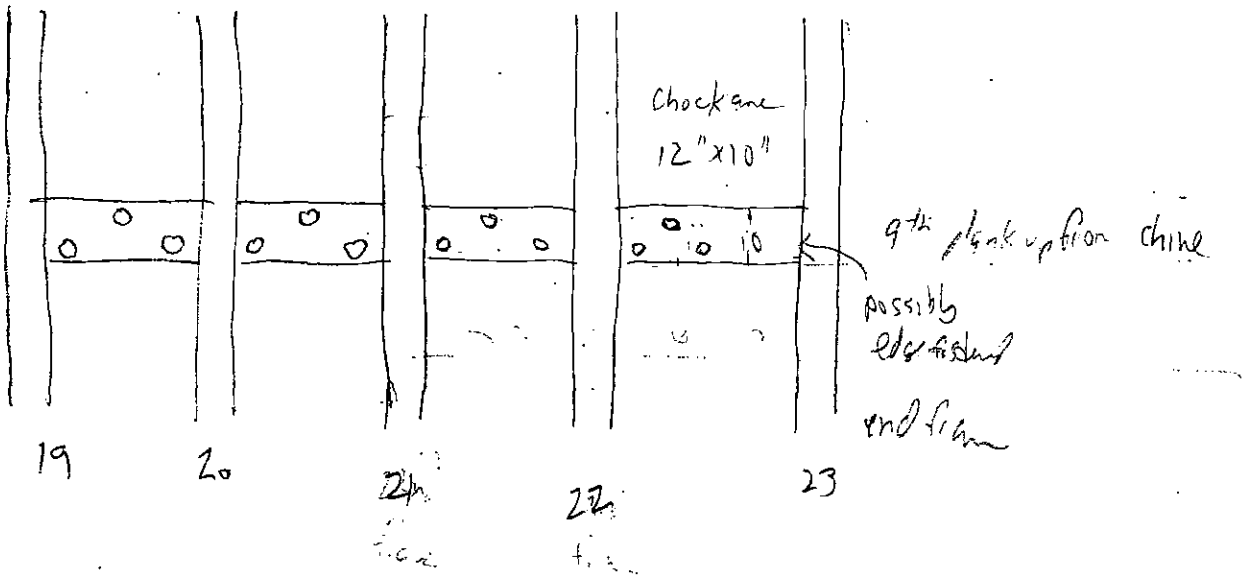




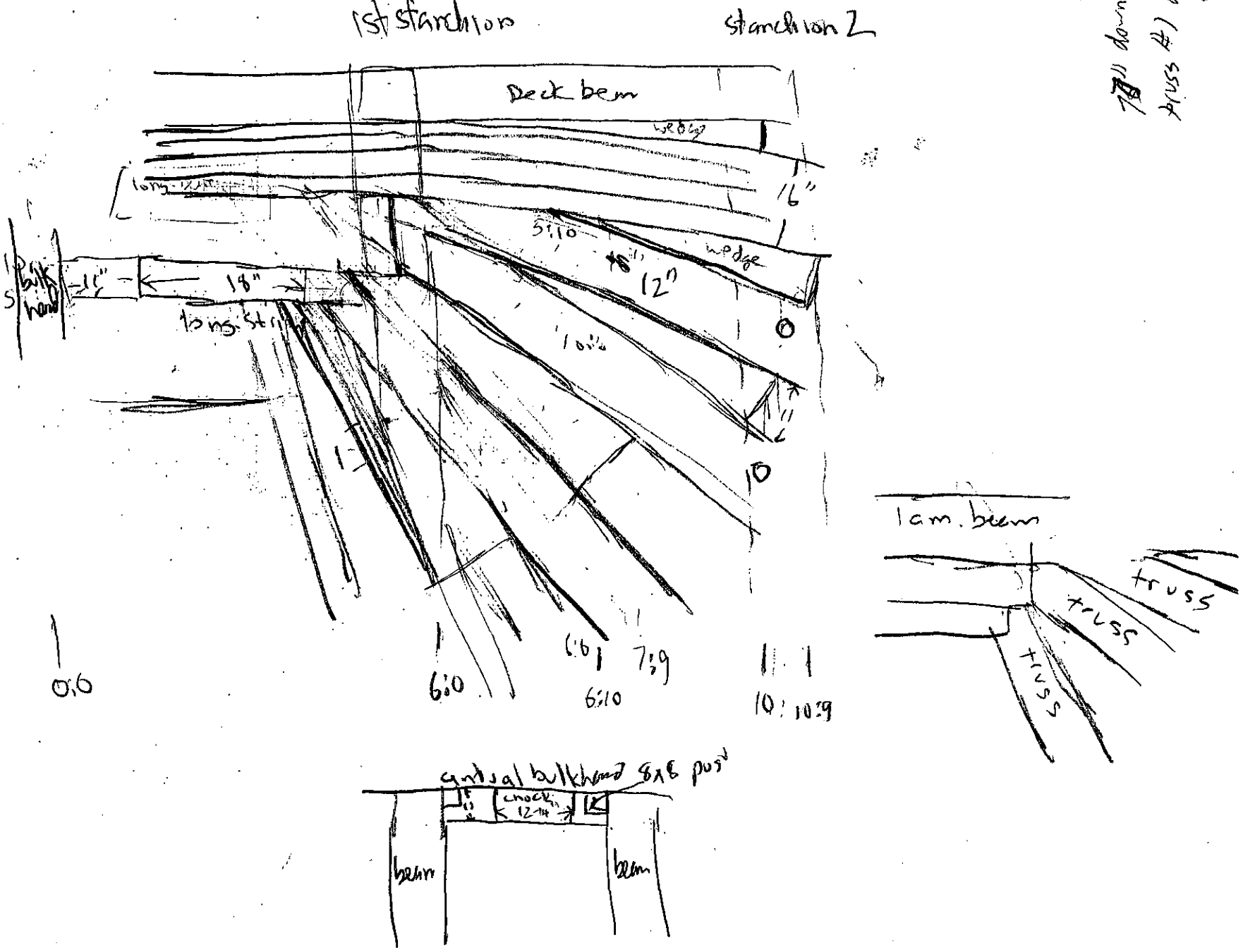
wing profile ladder base locations



Living profile
extra chock locations + fastener pattern



1st 4 frame spaces


1st stanchion
stanchion 2
Deck beam
wedge
long. strut
16"
5:10
wedge
12"
10"
18"
10½"
0:0
6:0
6:10
7:9
10:10:9
1 am. beam
truss
truss
truss
gutsal bulkhead 8x8 post
chock
beam
beam

6 STRIPS

VESSEL 2 SHOOTERS

8/13/04

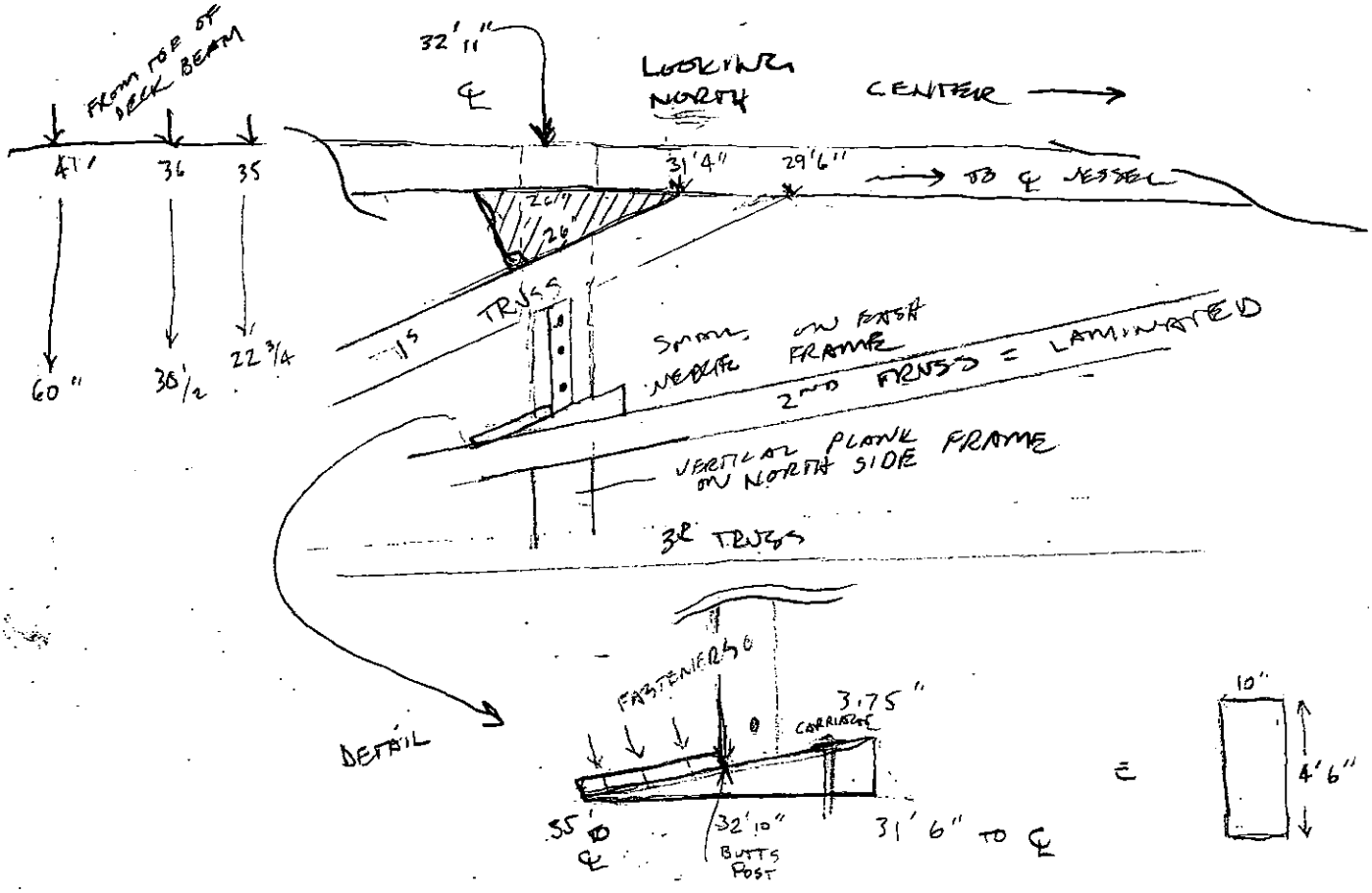
ME ; MKF

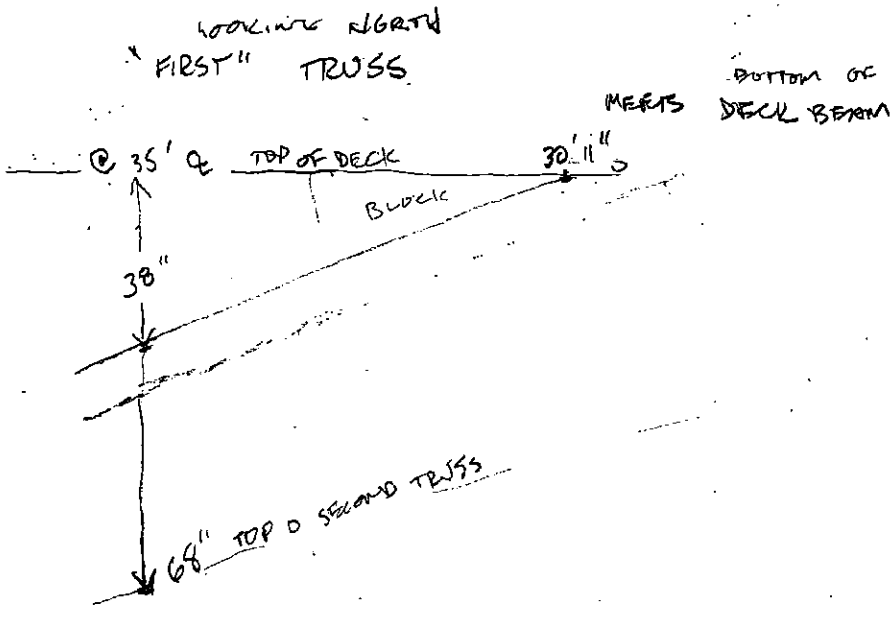
3 WD TRUSS @ 20ft from centerline

84 in from TOP of Deck Planking

2nd Truss - 30ft 6in from centerline

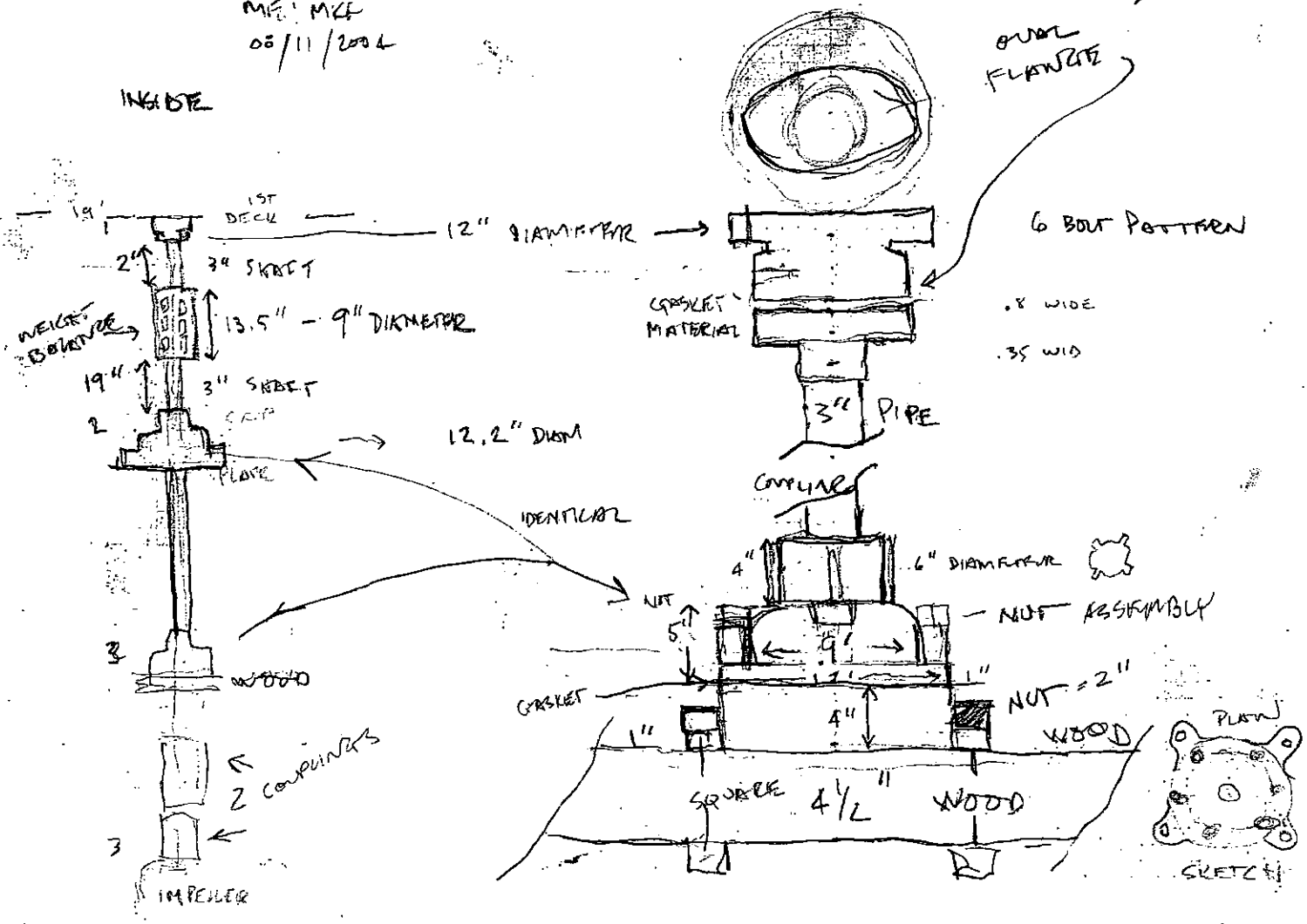
123 in from TOP of Deck Planking





6 VESSELS
VESSEL - 1 (VESSEL #1 = SOUTH SEGMENT) BETTER PRESERVATION
MF. MKF
05/11/2004

INSIDE



6 SHIPS - VESSEL 2
8/17/04 -
ME; MKF - STANCHION DETAILS

3RD FRAME (FROM NORTH) - 1 BUTT JOINT @ 25' 7" FROM ℄ (4' REINFORCERS)

FROM CENTERLINE

1ST STANCHION - 10 x 4 SOUTH SIDE @ 4'10" FROM ℄
2ND STANCHION - 10x4 " " @ 9'6" FR ℄
3RD STANCHION NORTH @ 18'11" FROM ℄
4TH STANCHION SOUTH @ 23'7" FROM
5TH STANCHION NORTH @ 32'11" FROM ℄

STOPPED AT J12

4TH FRAME (FROM NORTH) - BUTT JOINT @ 21'4"

1ST STANCHION NORTH SIDE - = 4'10"
TIE ROD = 13'
BULK HEAD
2ND STANCHION 10x4 18'11" FROM ℄ NORTH SIDE
REINFORCED DOUBLER 19'4" → 23'4" 21'4" = BUTT JOINT
23'8"
3RD STANCHION @ 23'7" SOUTH SIDE
BULK HEAD @ 28'3" (5" THICK)
4TH STANCHION @ 32'11 NORTH SIDE
(NOTE SUPPORT STRUCTURE FOR RAFTING BITS)

5TH FRAME (FROM NORTH)

1ST STANCHION @ ≈ 4'10" FROM ℄ ON NORTH
BULK HEAD @ CENTER = 14'
REINFORCED DOUBLER (BUTT JOINT) 14'4" → 18'4"
BUTT JOINT IS AT 16'4"
2ND STANCHION CENTER 18'8" FROM ℄ NORTH SIDE
3RD STANCHION 23'7" CENTER SOUTH SIDE
BULK HEAD CENTER 28'
4TH STANCHION 32'10" CENTER NORTH SIDE

NOTE: TAPE MOVED SLIGHTLY CENTER TO ALIGN W/ EACH FRAME - THUS THE EXACT DISTANCE FROM ℄ HAS ERROR +/- 1" MAYBE!

FRAME DETAILS
6 SHIPS - VESSEL 2
8/17/04
NE; MKF

6TH FRAME - MEASURED

NOT MEASURED - 2 STANCHIONS - BETWEEN ℄ & 1ST BULKHEAD - BOTH SOUTH BULKHEAD @ 14'2" FROM ℄

18'4" = 3RD STANCHION - W/ VERTICAL BRACE - STANTION ON NORTH

TIE ROD @ 13'4" 4TH STANCHION - 23'2" ℄ W VERTICAL BRACE STANCHION SOUTH

BUTT JOINT REINFORCER ≈23'8" TO 27'5"

VERTICAL TIE ROD 29' FROM ℄ CENTER OF DECK BEAM

5TH STANCHION 32'8" NORTH SIDE W VERTICAL SPACER

7TH FRAME -

- 2 STANCHIONS BETWEEN ℄ & 1ST BULKHEAD - SOUTH SIDE

(*) (NB- 10'6" FROM ℄ ALL TRUSSES; WEDGES START HERE)

- BUTT JOINT REINFORCER - 14'6" - 18'5"
- TIE ROD @ 15' from ℄

"

- STANCHION 18'6.5" - 19'4.5" NORTH SIDE
- STANCHION 23'8" SOUTH SIDE W/ SPACER

TIE ROD @ 27'2"

- 28'3" ℄ BULKHEAD

STANCHION - NORTH SIDE @ 32'11" (CENTER)

- STANCHION - SOUTH SIDE @ 37'8" W VERTICAL REINFORCER

TO CHINE 43'1"

8TH FRAME -

ALL BULKHEAD - TOTAL DISTANCE - NO VERTICALS EXCEPT BULKHEAD (LONGITUDINAL)

8/17/04 MEL MKF T.O.T = TOP OF TRUSS

Frame 3

"2nd Truss-laminated" @ 28ft 6in — 50 in

T.O.T. TO Deck Planking

3rd Truss @ 28ft 6in — 9ft 8in (14in THICK

T.O.T. to Deck planking

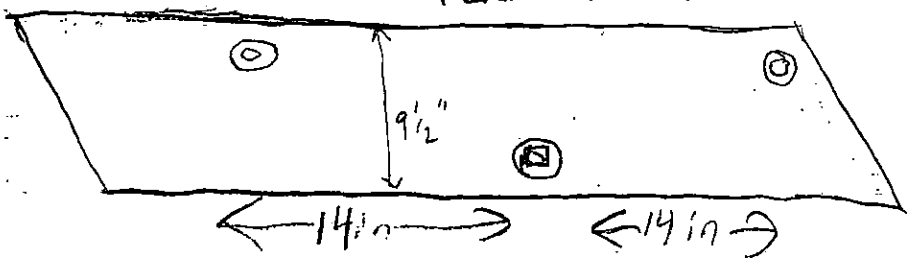
4th Truss @ 28ft 6in 12ft

TO.T TO T.O.D. planking

DEPTH TO Bottom planking — 13ft 8in

2nd Truss 15in Deep 9½ wide

PLAN VIEW



10 ft 10½

14" CENTER ON BOLTS

ME ; MKF

All stations measured on centers

Deck Features on Vessel II

L- Distances from centerline

W- 3rd Deck Beam from N side of Vessel II

3RD DECK BEAM FROM NORTH (NOTE FROM CENTERS)

SEE ① DRAWINGS 6/4/04

1- 4ft 10in from centerline Vertical Stantion (10in wide) south side ✓

2- 5ft 11in Triangular : " " (Proximal End) Distal

3- 9ft 6in - ② Vertical Stantion (10in wide) southside ✓

4- 10ft 5in - Distal End of Triangular " " Blocking

5- 14ft 3in - Bulk Head perpendicular to Deck Beams (CENTER @ 14')

6- 15ft 1½in - vertical tie Rod Bolt Head

7- 18ft 11in - ③ Vertical Stantion (10in wide) North side

8- 23ft 7in - ④ Vertical Stantion (10in wide) South side

9- 23ft 7in - inboard Medial Edge of (4in thick) reinforced (10in wide) Joint on 3rd Deck Beam

10- 27ft 2½in - Vertical tie Rod Bolt Head ✓

11 27ft 6in - outboard lateral Edge of reinforced Joint " " " "

12 28ft 3in - Centerline on perpendicular Bulk Head 5in thickness

13 29ft 5in - Notched Butt Joint on proximal end of diagonal timber (TRUSS

14 31ft 2in - Proximal end of Triangular Blocking

15 33ft 10in - Distal end of Triangular Blocking TRUSS

16 36ft 1½in - Perpendicular timber (8in wide)

17 42ft 11in - to edge of west wing -

(4A) - 32ft 11in - Vertical Stantion on North side

- 24in Vertical Brace

2 TRUSSES - 58in From Deck Planking to Top of Angled Truss

- 36in From Truss to Top of Deck Planking

(1A) 5'3" TO 9'1" = HATCH FRAME TIMBER 4" x 6"

SCANTLING LIST - 3RD FRAME FROM NORTH

08/14/04

DEPTH OF HOLD – MEASURE W PULLEY PLUMB BOB TO WOOD BOTTOM – FROM DECK TOP

14' 2.75"	@ 7'9" FROM ℄	FROM TOP OF DECK
14' 3"	@ 20'2" FROM ℄	FROM TOP OF DECK
13'2"	@ 34'11" FROM ℄	" " " "
13'8"	@ 28'6"	

POSSIBLE "BEND" OF THE BOTTOM

TOP OF 3RD TRUSS (TOP MAST)

@ 14' FROM ℄	TOP PLANKING TO TOP TIMBER 21"
@ 20' FROM ℄	" " " " " 29.5"
@ 26' "	" " " " " 44"
@ 32'6" "	" " " " " 60"

~~THIS WILL SHOW THE ONBAR OF THE SECOND TRUSS~~

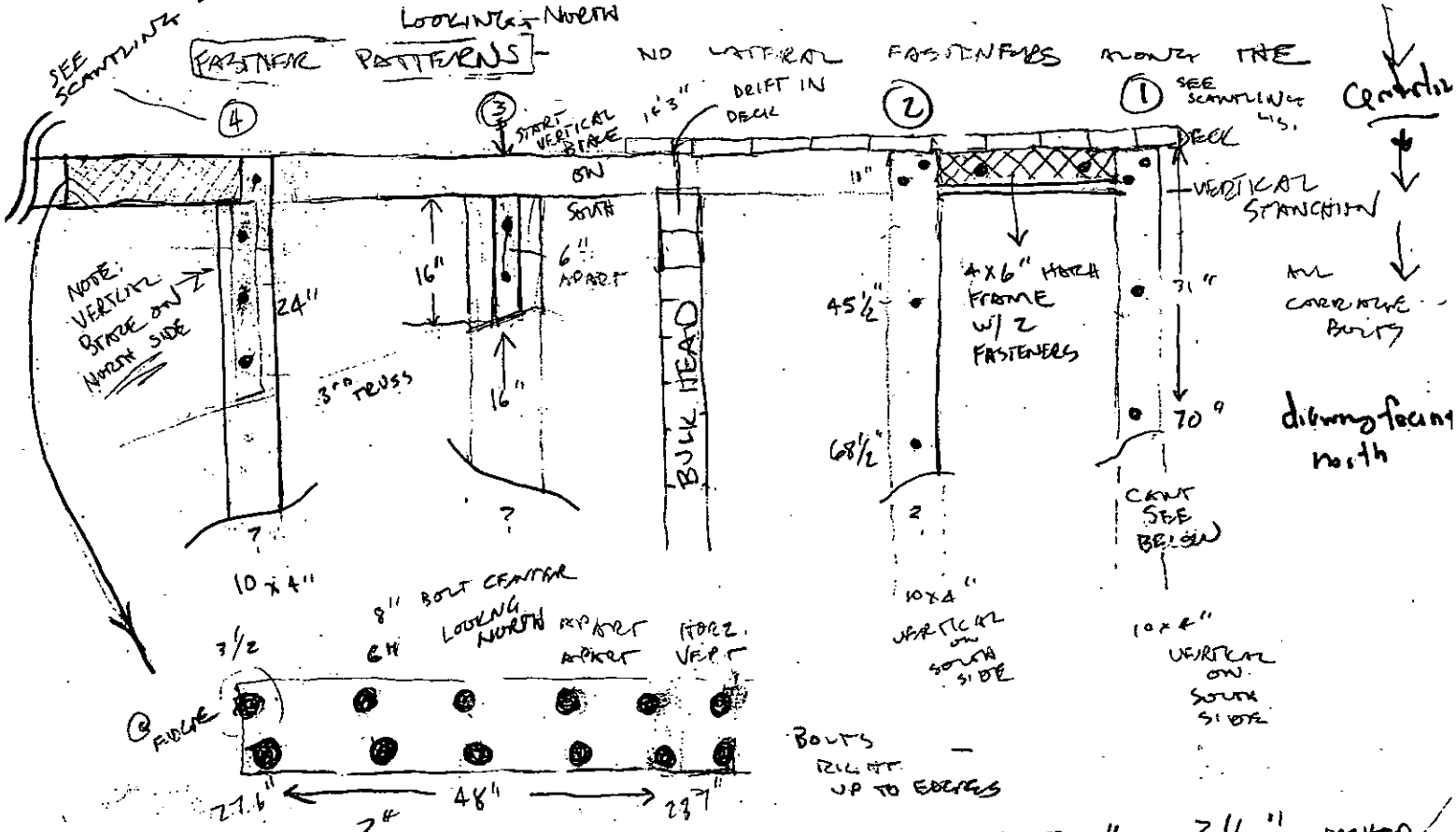
14'3" 2.9

THIRD TRUSS MEETS DECK BEAM (BOTTOM) @ 5'11" FROM ℄

SEE SCANTLING LIST

LOOKING NORTH

FASTENER PATTERNS – NO VERTICAL FASTENERS ALONG THE ℄



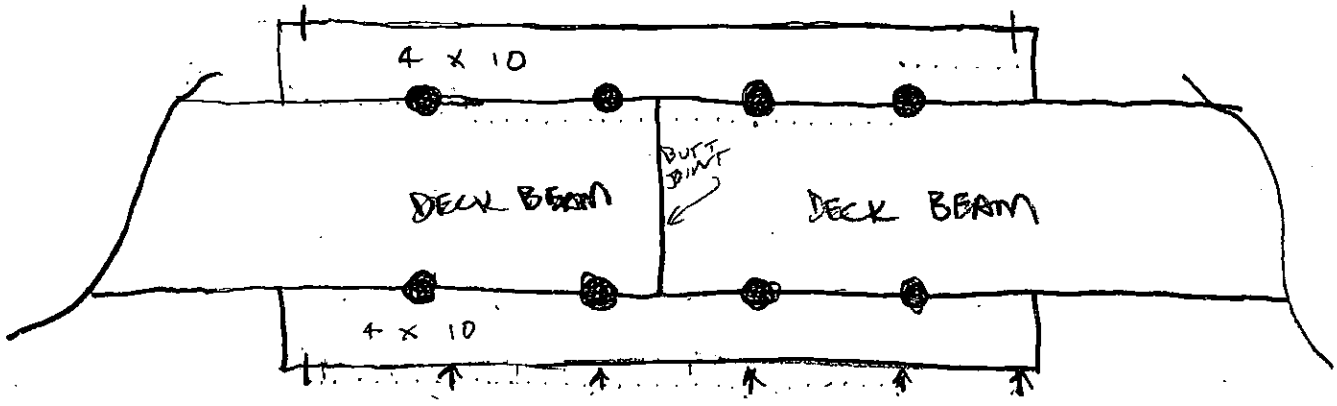
2" NUTS ON CARRIAGE BOLTS – OFFSET 1" 3½" WASHER

6 VESSELS

8/17/04 ME & MKF

PLAN - BUTT JOINT REINFORCERS - PLAN

TRUNNEL PATTERNS 1" TRUNNELS



CARRIAGE BOLT PATTERN @ 8" SEE DRAWING 8/14/04

ME MKE

6 VESSELS
- V2 (SHOOTERS)
- 8/15/04

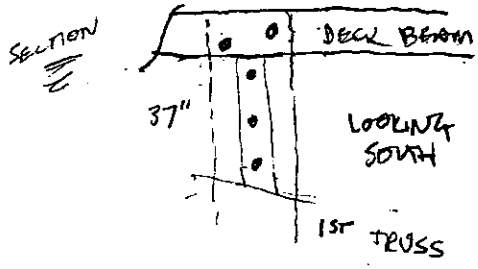
-

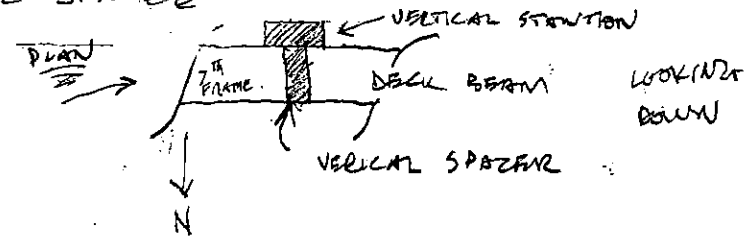
- EXTENDING SCANTLINGS FROM 3RD FRAME BY MEASURING OFF 7TH

PARTNER BITS

NOTE YESTERDAY WE TOOK SCANTLINGS ON FRAME 3 OUTSTOPPED AT ABOUT 32'11" FROM ℄ BECAUSE PLANKING DIDN'T ALLOW FOR VISIBILITY AND RAFTING BITS FRAME WORKS IN THE NORTH WEST CORNER OF V2

- VERICAL STANTION - ON FRAME 7TH 37'10.5 FROM ℄ 10 X 4. STANTION IS ON SOUTH SIDE OF FRAME 7 THIS WAS THE VERTICAL "SPACER"





THIS WOULD MAKE 5 VERTICAL STANCHIONS PER ½ FRAME

DISTANCE TO WEAT WING: 43'1" ℄ TO FOR INBOARD BOTTOM OF WING. - BUT DECK BEAM CONTINUES THROUGH TO OUTSIDE OF WING.

12

SIX VESSELS
VESSEL 2 - SHOOTERS
08/11/04
MKA & ME

FACING SOUTH

32'.6

= BOLT & WASHER SET

- VERTICAL FRAME DETAIL
- ATTACHED TO DECK BEAM # 11 (FROM NORTH)

51"

10" x 4" x 10'6" TO BOTTOM VERTICAL FRAME

32'9" BROKEN DECK

DECK PLANKING = 3.5" ASSUME 4" TO START

CAULK

PLANK

PLANK

POTTER

DECK BEAM
10 X 10"

9½-11"

CENTER 32'8" FROM O.C.

4"

4"

12"

BLOCK 10" WIDTH

41" TO WATER LEVEL
@ 9:17 8/11/04

10x10

FASTENERS
1" BOLT HEAD W/
2" WASHER

DIAGONAL STANTION

SOLID TIMBER

VERTICAL STANTION
5" x 10"
BETWEEN TIMBERS

w/ 3 FITTINGS "BEHIND" VERTICAL STANTION

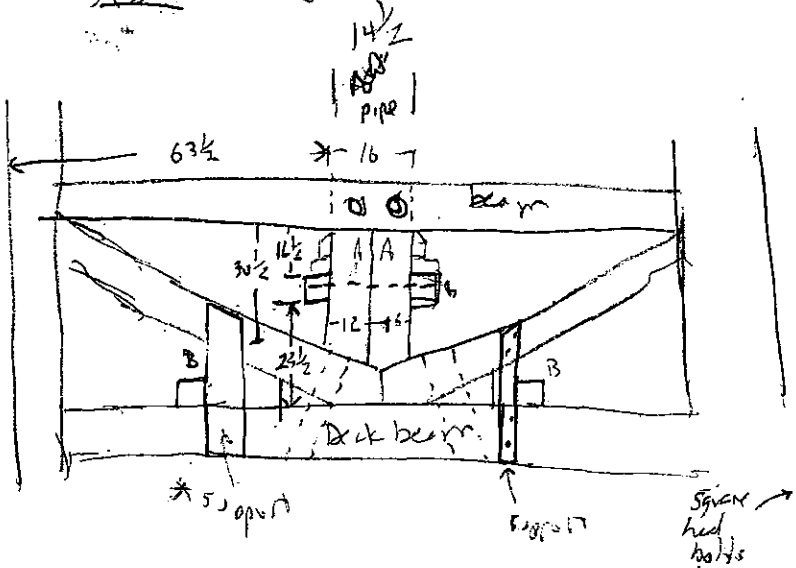
16"

LAMINATED

10'6" TO BOTTOM

outlet pipe between frame 15 & 14

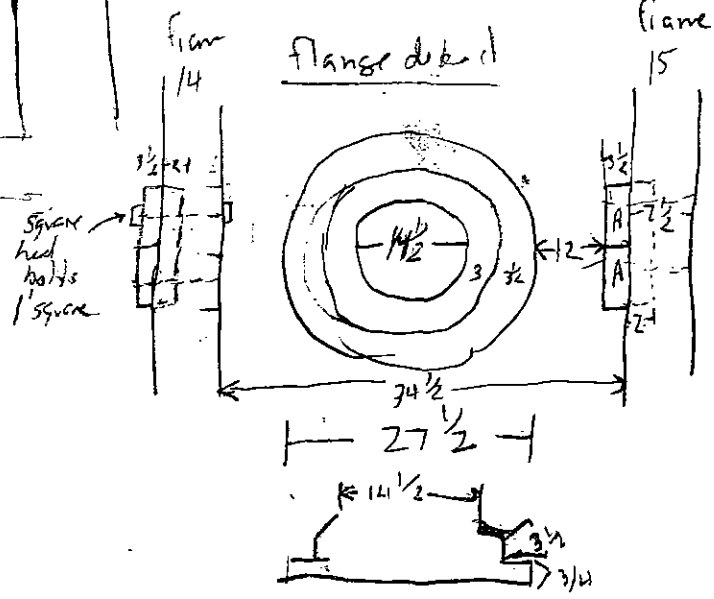
XSec looking north



A two 5½ x 8 beams edge first (notched at top to fit beam)

B 5½ x 5½ flange supports, run b/n frame 15 & 14

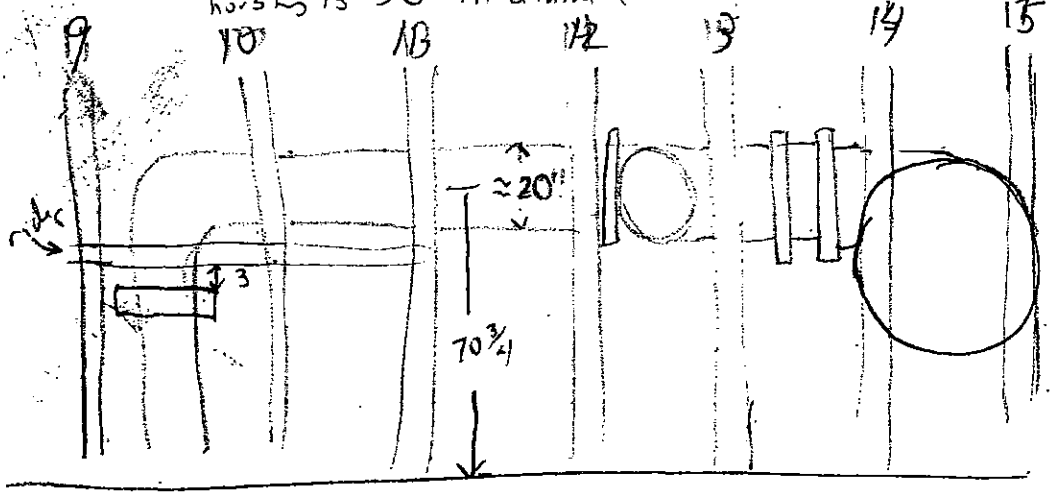
* these are typical for deck beam stiffeners for structural rigidity support



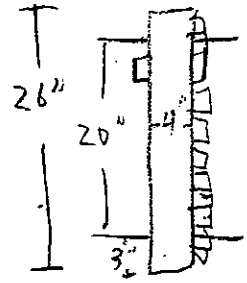
impeller housing

located directly under drive shaft b/n frames 15 & 14

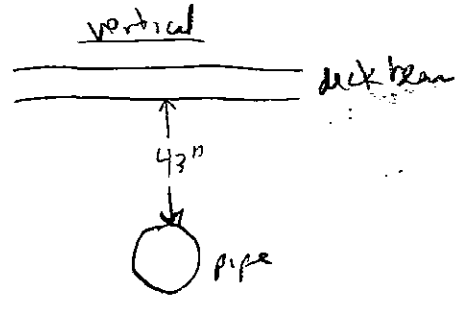
housing is 50" in diameter



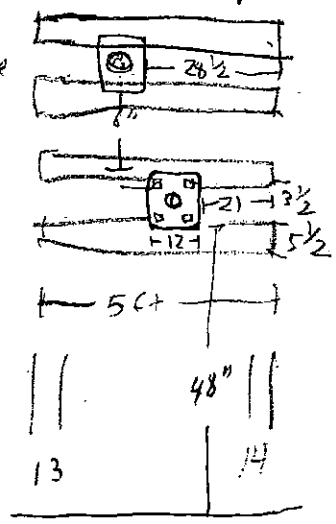
flanges



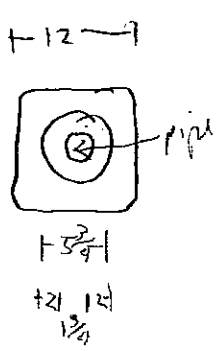
vertical



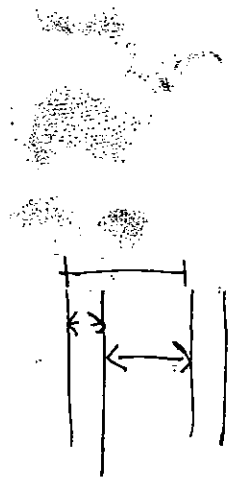
machinery detail
b/n F 14 & 13
12 + 14 ?



5 1/2 x 5 1/2 timbers

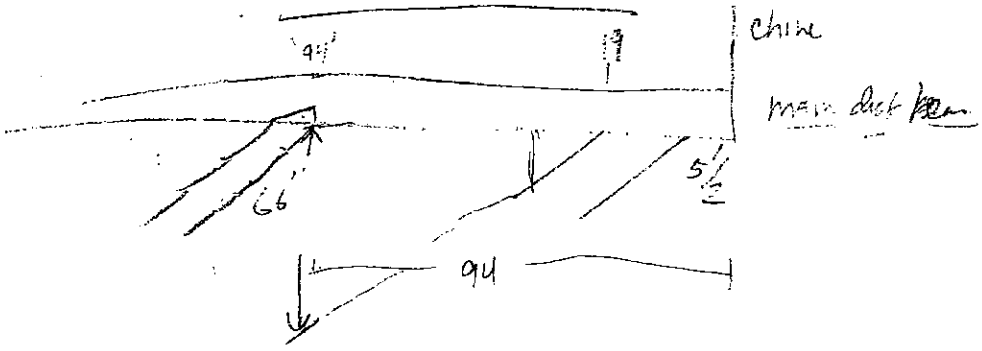


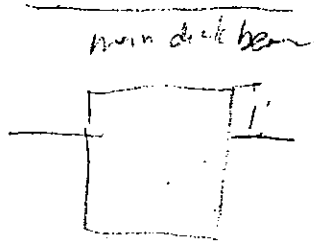
through deck
6 ft
one of these at upper deck level
= double sided



these vertical pipes connect to main pipe system below not sure cl can't really tell

location of wing truss

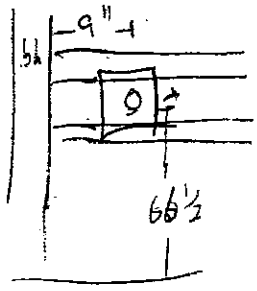




~~location of wing truss~~

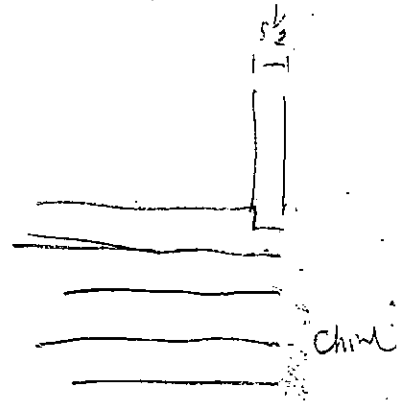
gate values

15th frame (bulkhead)
9" aft
66½" inboard chine



Same distance forward of 8th frame

curved cap



extends up to bottom of plank #39

Lightyear
Cheetah
VZ 50102
8/15/2004

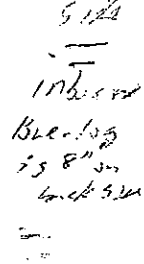
Deck crown measurements

offset	depth
2:6	10"
5:0	10"
10:6	9½
15:0	8¾
20:0	6"
25:0	6¾
30:0	4¾
35:0	4
38:0	3

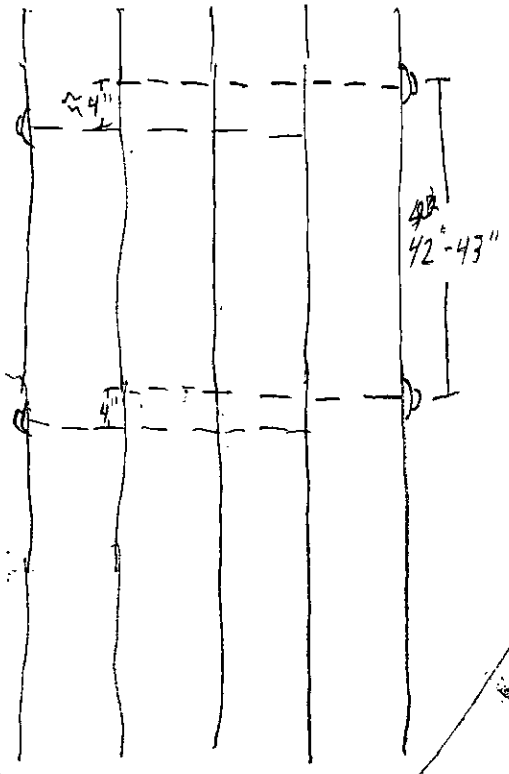
location of large hatch
51:3 ½
47:6 ½
11¼ wide

Chine log scantlings

9½ molded
10 sided



Deck keelson/other fastener pattern

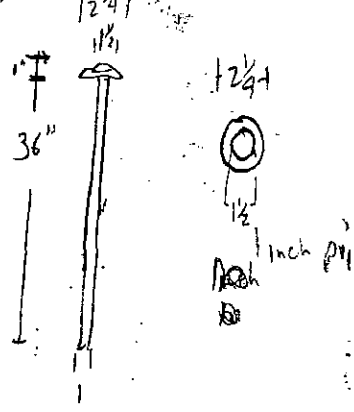


S

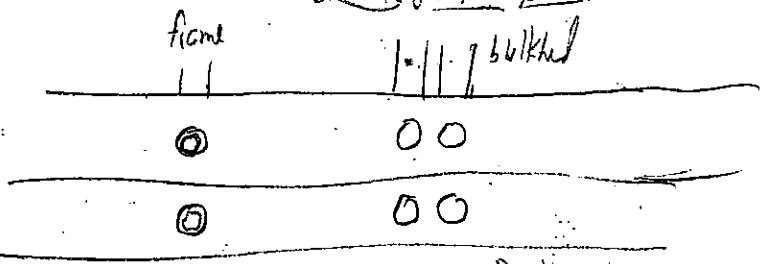
Chine log butt joints 42½, 38, 43, 43, 42, 42, 4

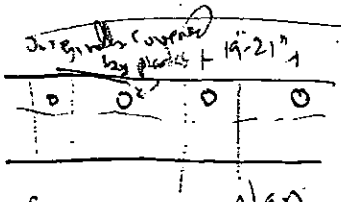
Log	B/L
Upper	65:3
Lower	51:3
Upper	28:9
lower	14:9

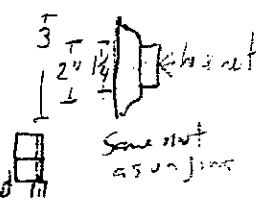
113½



Chine log fastener pattern

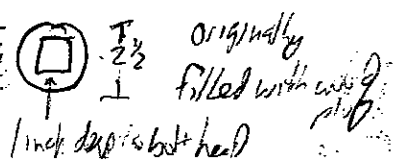






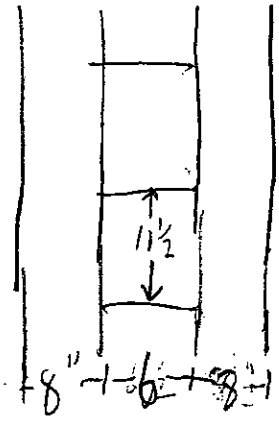
Fasteners go all the way to other side of frame

Scantlings:
molded 10"
Sided



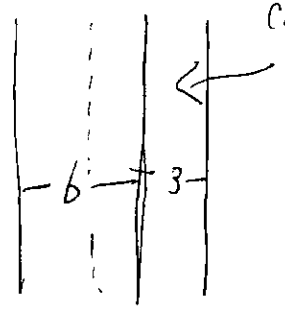
profile of inboard wing frames

bulkhead frames



scantlings
bulkhead timbers
sided 11½
molded 6"
bulkhead frame
sided 8
molded 8

reg frame (frame 14)



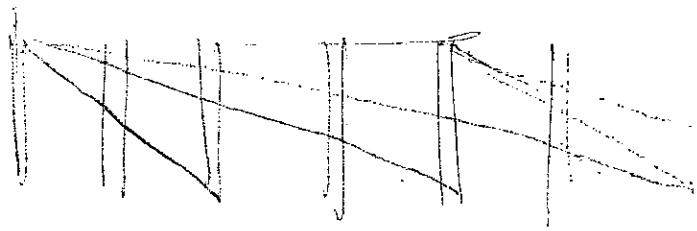
this side is forward on frames 13–27
cl aft on 1–12

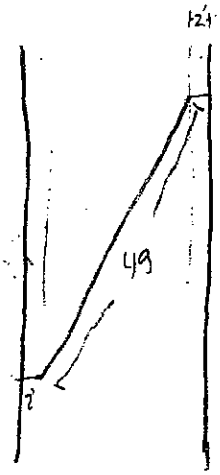
9

location of long. bulkhead through holes
start b/n frames 5 & 6
one plank high (11½")
fasteners go through opening – probably go through both chine logs

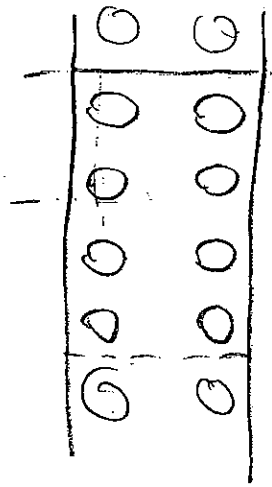
Deck beam plans

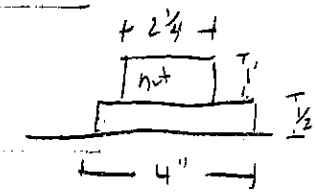
Frame 1



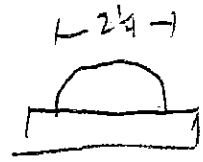


Scarph





carriage bolt w/ washer



at board side

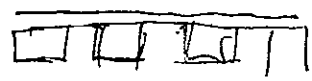
beam
molded 12"
side 15^

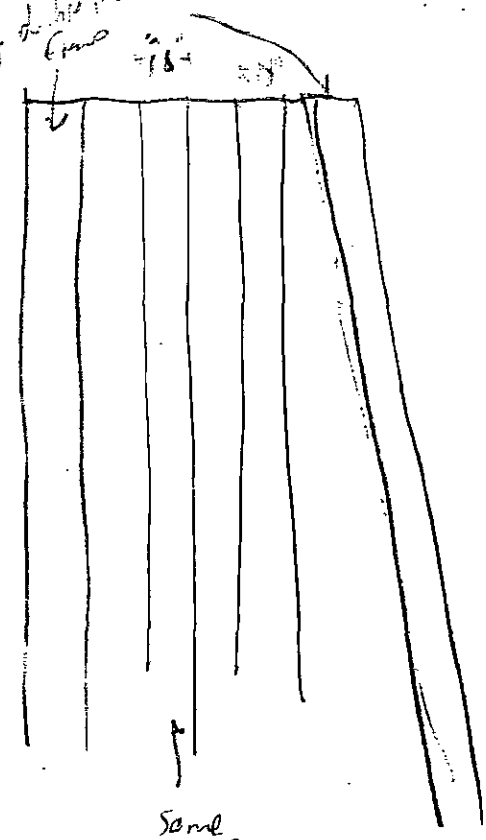
location:
~~in board edge~~ 23" std of
3.2 long bulkhead

Wing frame profile

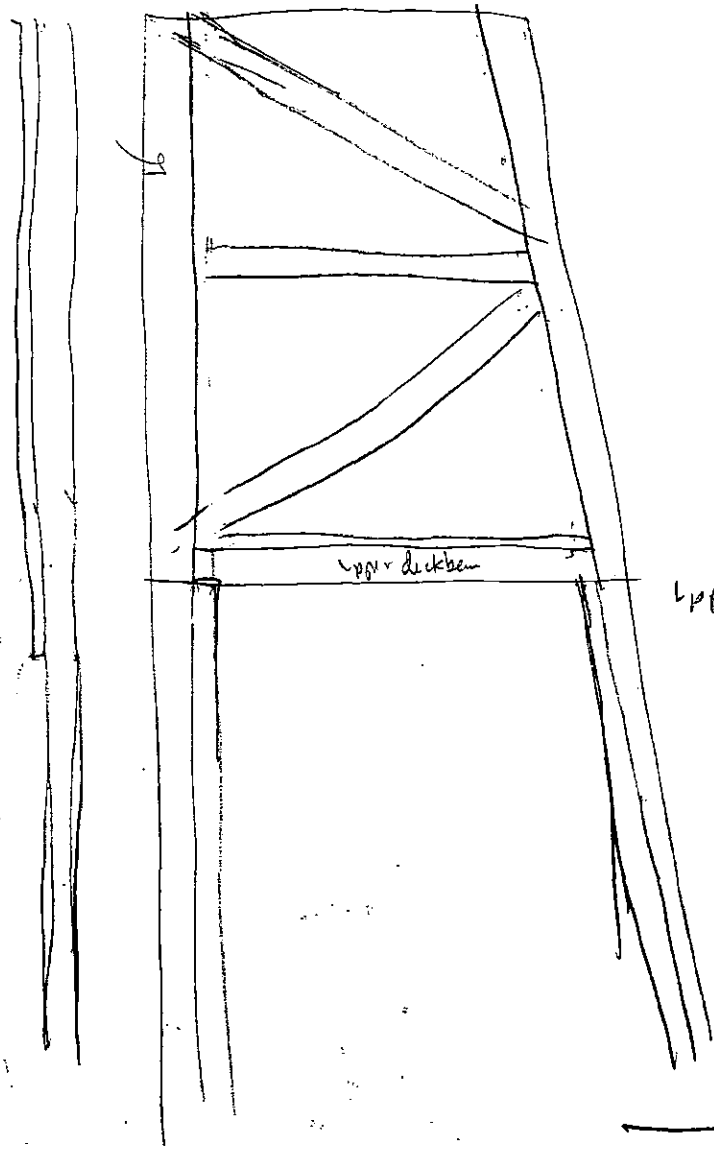
upper deck beam
3" molded
(-7" sided

3½" outer hull planking thickness



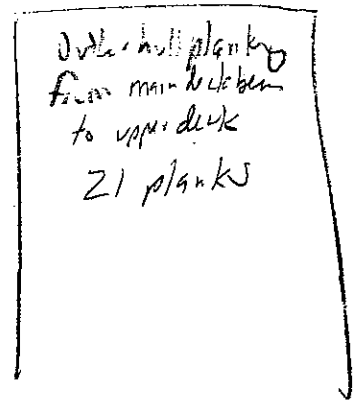


Same sided as frames



upper deckbeam

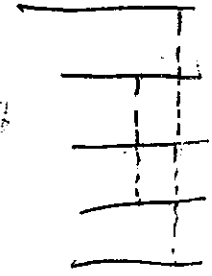
Double hull planking from main deckbeam to upper deck
21 planks



- frames become 10" molded at upper deck
- 5½ inch fir added to side of frame instead, making it thicker ≈ ⅘ the width of frame

faces inboard, so thus sides aim mid point

hull/keel fastener pattern
2 boards long drift bolts

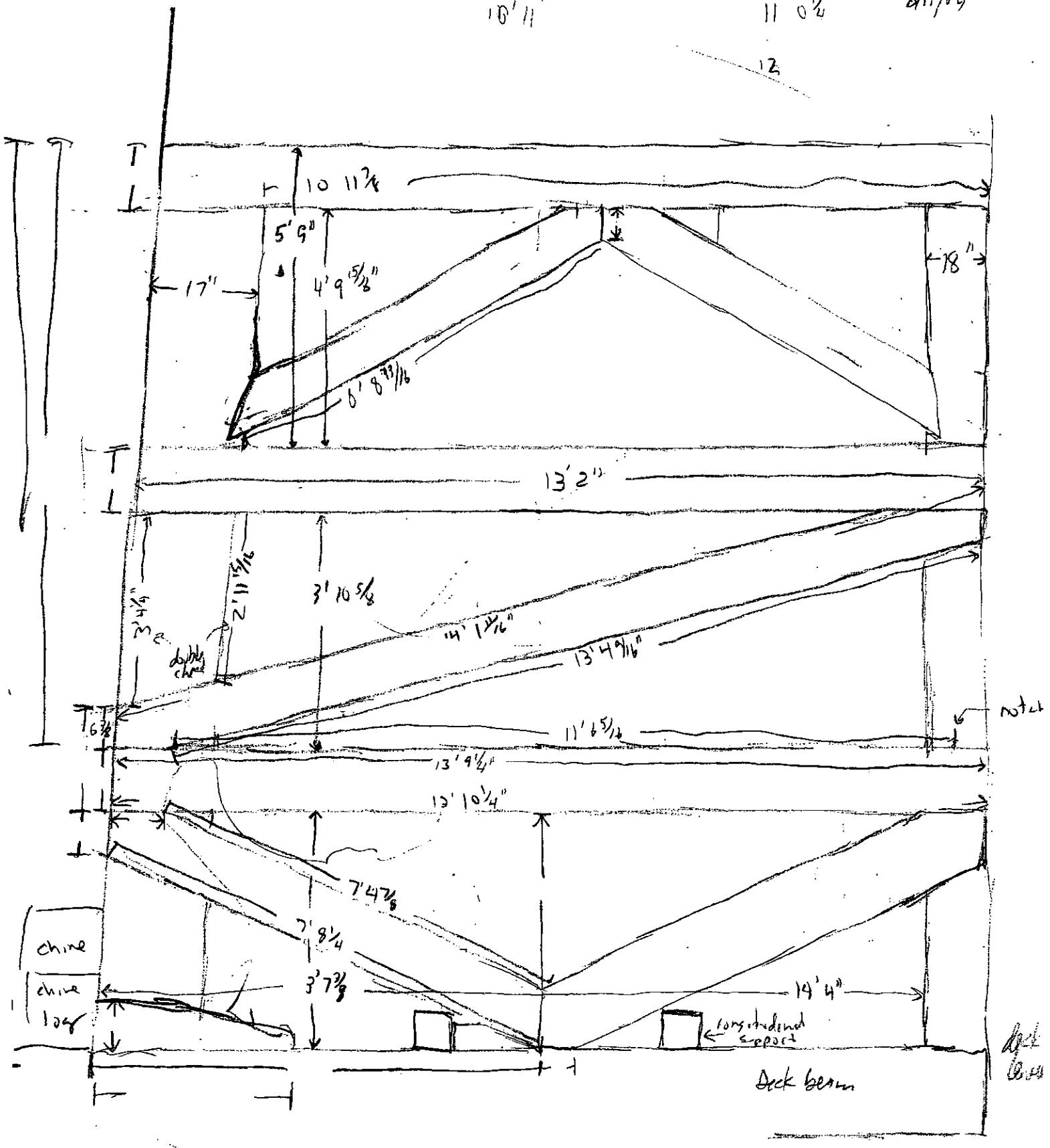


Lydecker
Gwyscher
Rowing profile
8/11/04

12 6 1/16
11 0 1/2

10' 11

12



← page

frame 15

6 pass VA
V2 wing x sec
8/14/2004
Lyde Art

Scantlings

A vertical frame
18 molder
5"-6" sided
consists of 2 timbers
outside 10" molded, 6" sided
inside 8" molded, 6" sided

B Beam
7" molded
8" sided
two timbers in molded direction
3" + 5" fore-aft

C wing planking
3½" molded
9" sided

D Beam
7" molded
7½" sided
2 beams

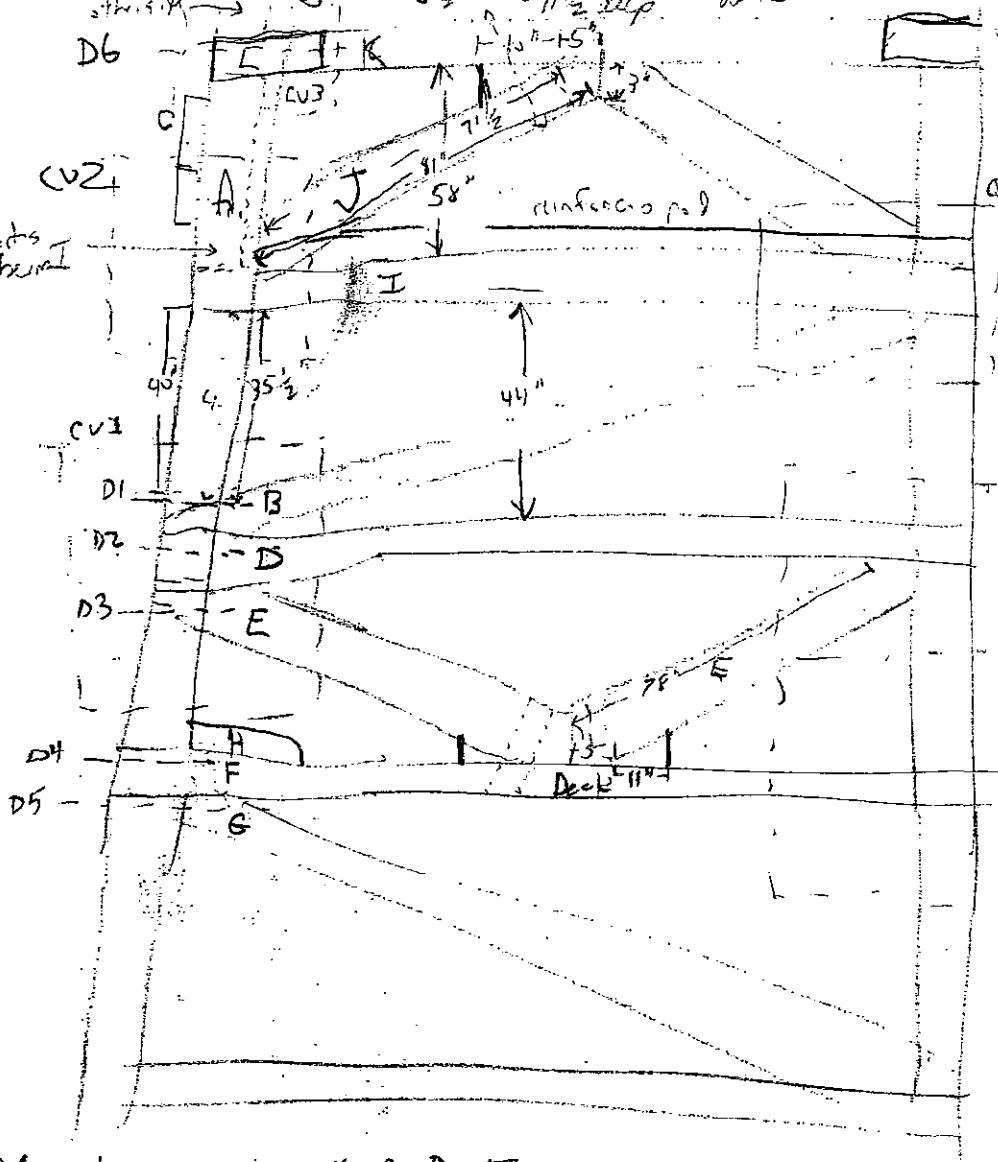
J truss
5½" molded, 5½ sided

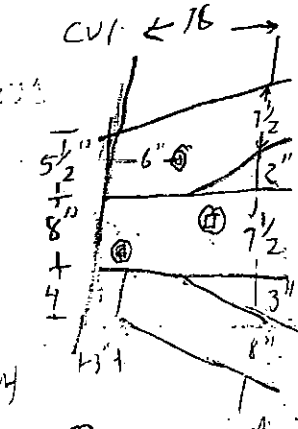
K Beam
11½ molded
6" sided

Bearing strip

check 3½ sided, 24" molded

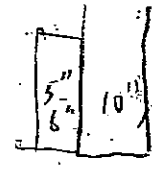
deck





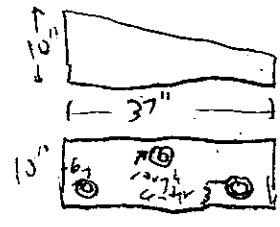
H Carriage bolt - 2" washer 1" head

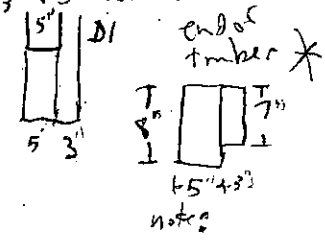
F Beam
10" sided
10" molded

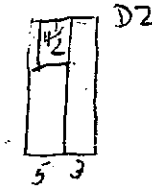


G Beam
10" molded
10" sided

H knee



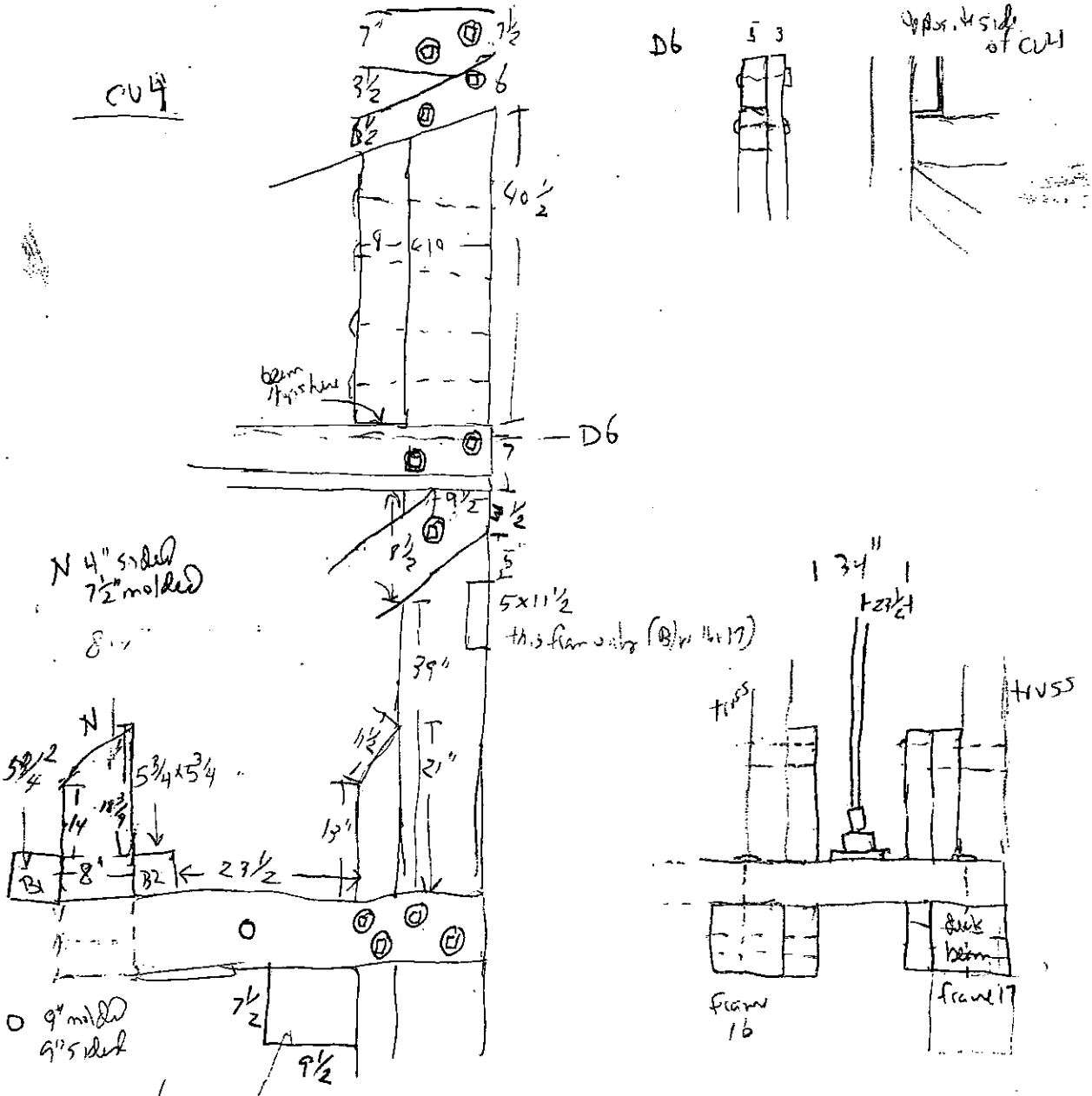




E trusses
5" sided
7½" molded

* note = timbers I, B, D, E are composite beams with different size timbers. See scantl. A for detail

CU4



Beam supports run length of vessel

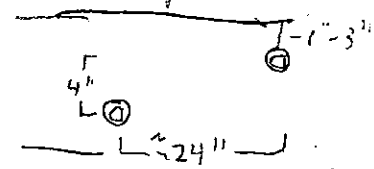
B1 Longitudinal timber runs b/n Frame 17 & 12

B2 " " " " " 17 & 16

similar beam ≈ 8" outboard b/n 12 & 11

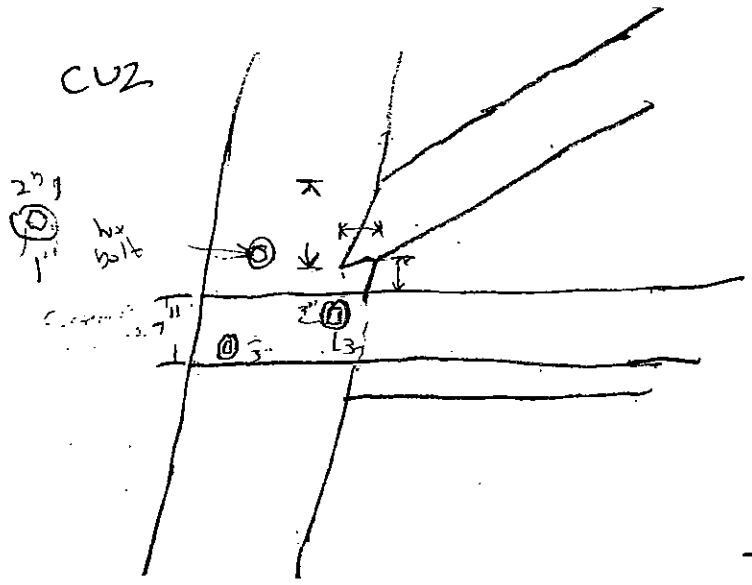
I. Beam
7"+9" molded
9" sided

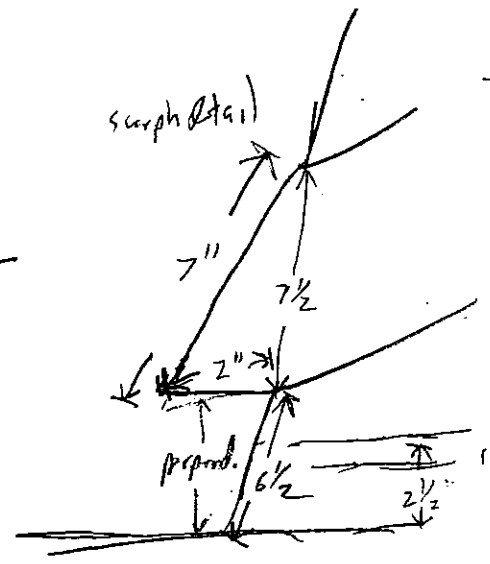
D + I fastener pattern



repeating pattern

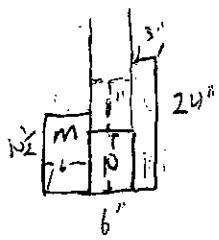
CU2





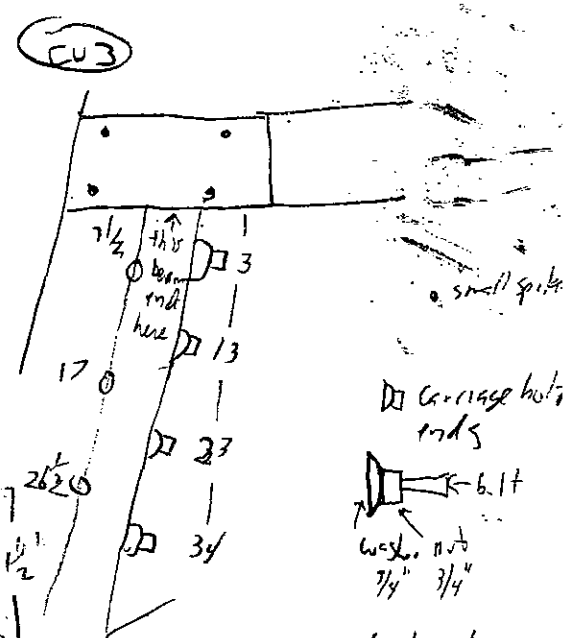
reinforcing rod 1" diameter

D6



M
6" sided
10½" molded

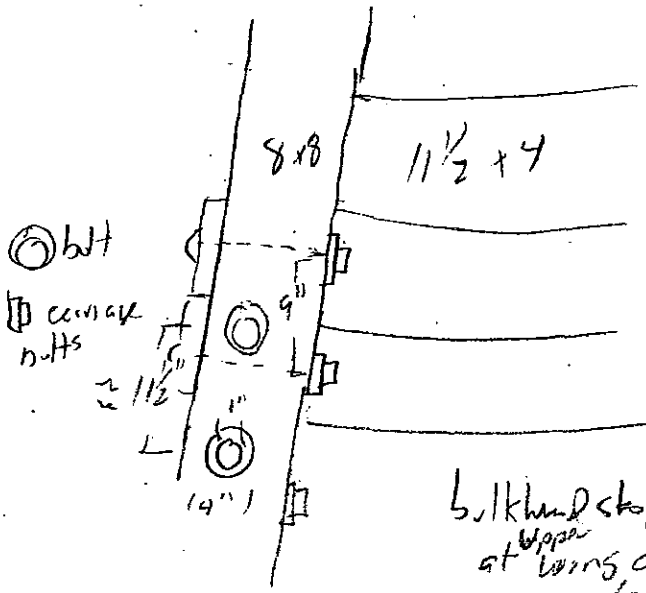
CU3

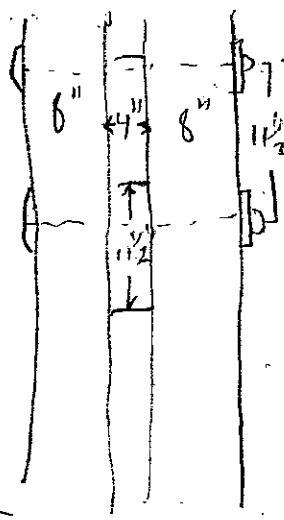


Carriage bolt ends

ø stynctr
@ 1½" diam

Lino bulkhead





bulkhead stops at upper living deck level

Wing profile

'6 vessels' V2
port wing profile
8/11/04

port wing frame locations
measurements to center of frame.

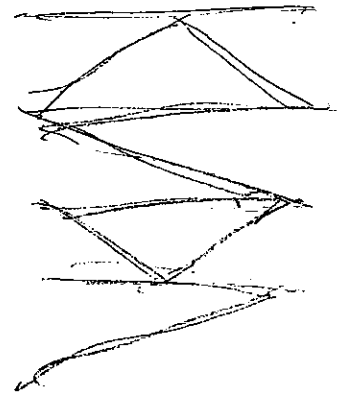
frame	B/L		bulkheads
1	1'		8
2	4'	4'	16
3	7	10½	
4	11	3	
5	14	9	
6	18	3½	
7	21	9	
8	25	11	
9	28	9	
10	32	4	
11	35	10	
12	40	8	
13	44	2	
14	47	8	
15	51	3	
16	54	0	
17	58	3	
18	61	9	
19	65	3	
20	68	9	
21	72	3	
22	75	8	
23	79	0	

note
cross bracing in wings
switches sides at amidships
aft side forward,
forward side aft.

wing frame scantlings
17" molded (two timbers 10" & 7")
6" sided

port wing feature locations

feature	B/L		vertical
bottom rt corner small hatch	11	10	21½
bottom left corner	14	1	
L-bracket w/chain	31	6	24
bottom rt corner large hatch	47	7	15½
bottom left large hatch	51	3½	
bottom rt small hatch	65	10	21½
bottom left small hatch	68	1	21¼



29' 5 7/16" to top of plank
+ 2 bow arcs, measured
from top of chine

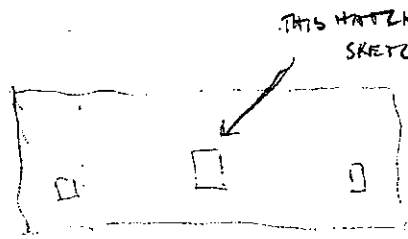
Wing planking

# of	
9"	9" x 3" 1st 16 up from chine
7	7" x 3" (1st) 17 – 39
1	10 x 6 (1st) 40 – 41
2	6 x 6 (1st) 42 & 43

08/10/04 MKF / ME

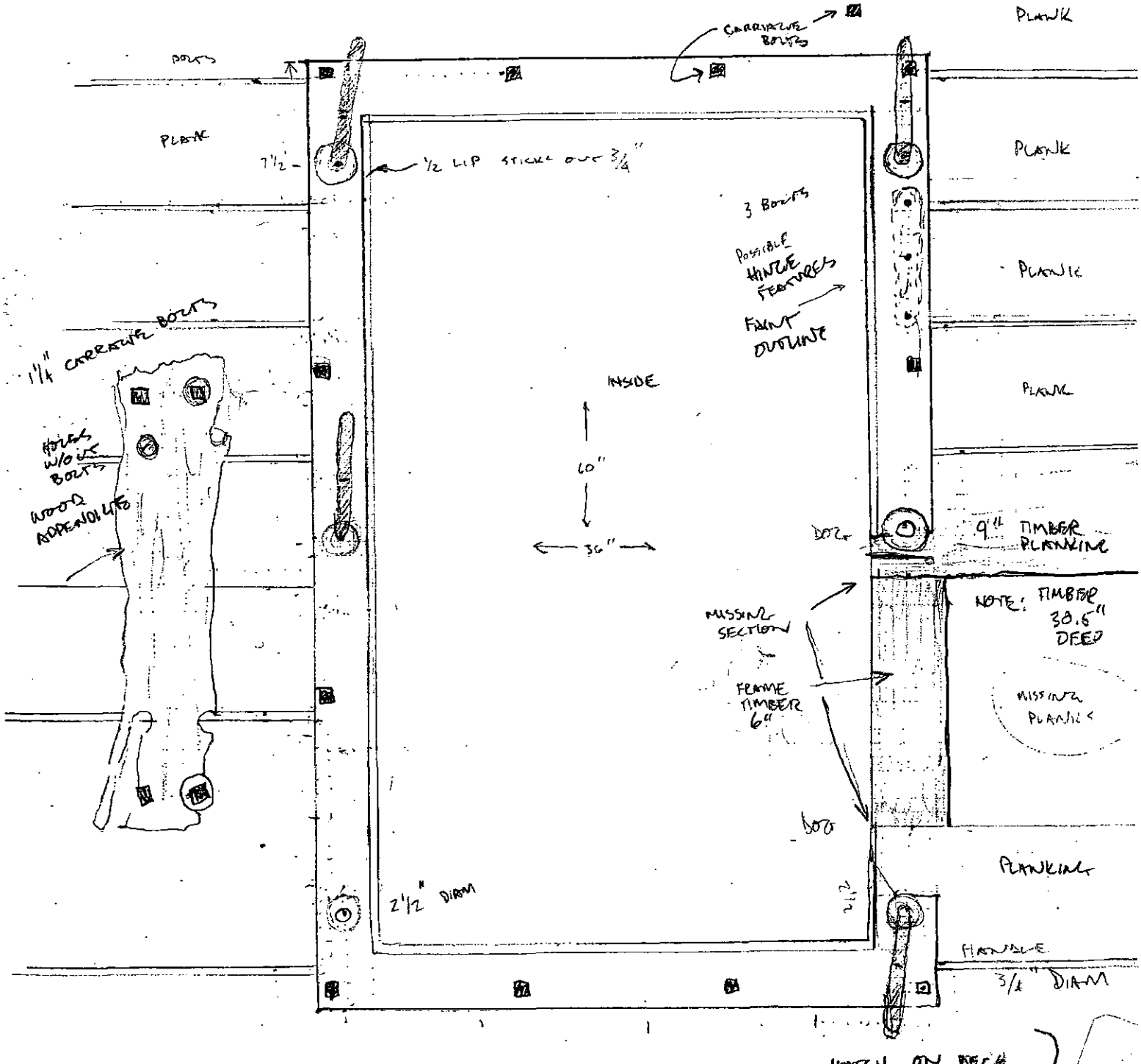
FLOATING DRY DOCK –
FEATURE # 1 WEST WING

LARGE HATCH 45 x 69" OD
CAULKING GROOVE 1/4 - 1/3"
HATCH BOARDS = 9" LONG



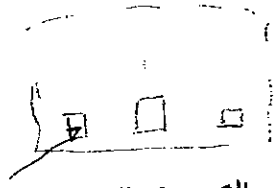
4 DOGS EXTANT / TWO OFF

PLANKS = 9" x 3.5" THICK



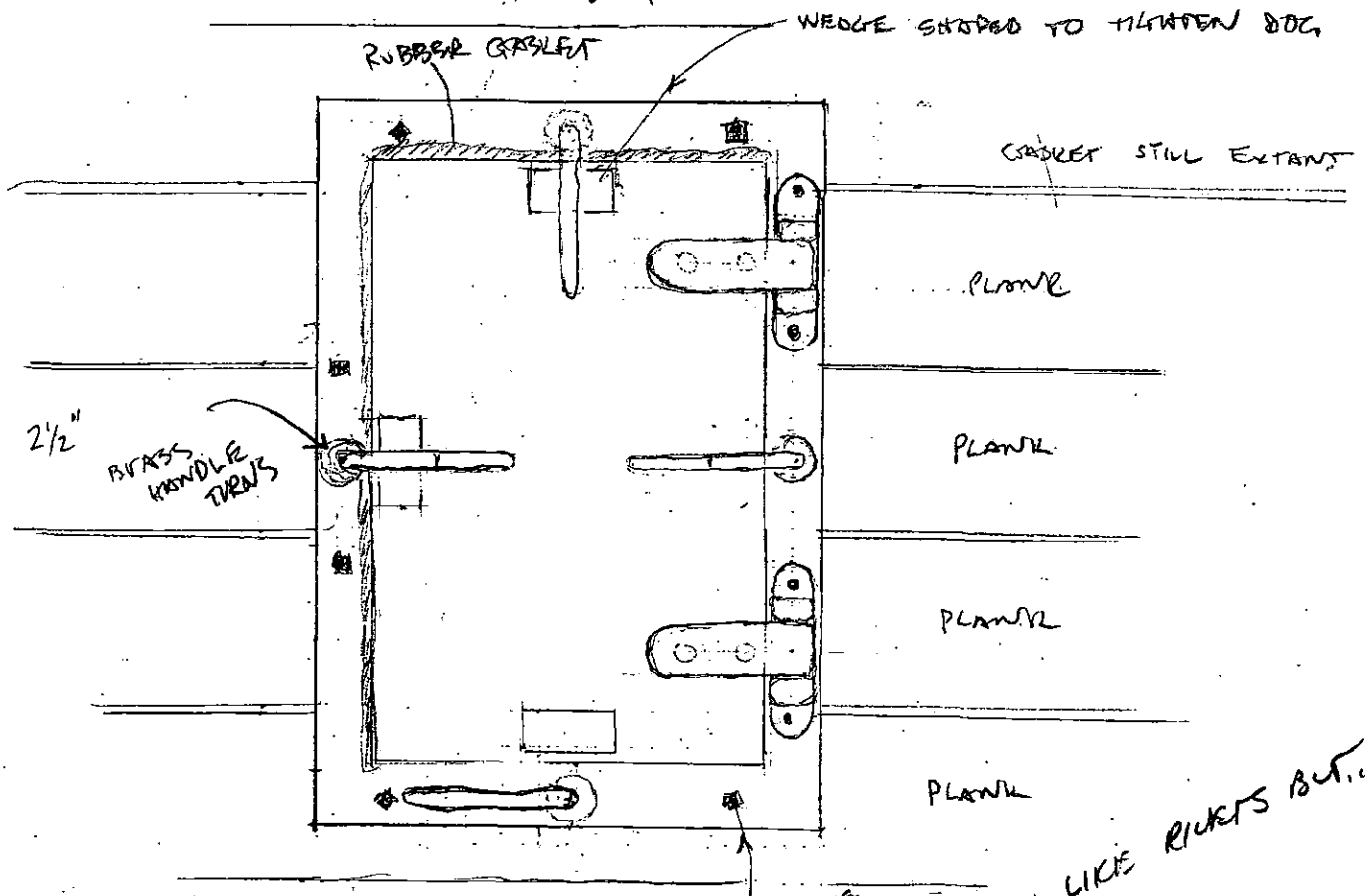
07/10/04

SIX VESSELS
V2 SHOOTERS ISLAND
MKF & ME
LITTLE DOOR SOUTH ON WEST WING
FEATURE 2
WEST WING



HINGES 3 1/2 X 2 1/2"

DOOR HINGED LEVERS = 3/4" DIAM



HANDLES BENT

1/2" IRON FOR FRAME & DOOR

RUBBER GASKET 1/2" THICK
PAINTED TWICE WHITE THEN RED
NO PAINT ON WOOD TO SPEAK OF -

Lydell Kinsey
Gressel
V2 8/17/04
wing profile

wing plank butt joint locations

frame	plank
6	1
7	3, 8, 11, 15
9	2, 7, 10, 14, 25
10	27
11	1, 9, 13, 22, 24, 29
12	38
13	12, 16, 17, 19, 32, 34
14	hatch, 18, 23, 28, 30, 37
15	11, 15, 35, 33, 35
16	21, 27, 32, 36, 38
17	2, 10, 14, 27, 40
18	17, 20, 31, 39
19	chinlog, 1, 9, 13, 19, 22, 34
20	24, 29
21	none
22	none
23	none

note
joint locations are on center of frame for first 16 planks, after which they are offset ~6" aft

Panamerican Consultants, Inc
Recordation Form

Project Name: 6 vessels Project Number:_____ Vessel Name: V-2

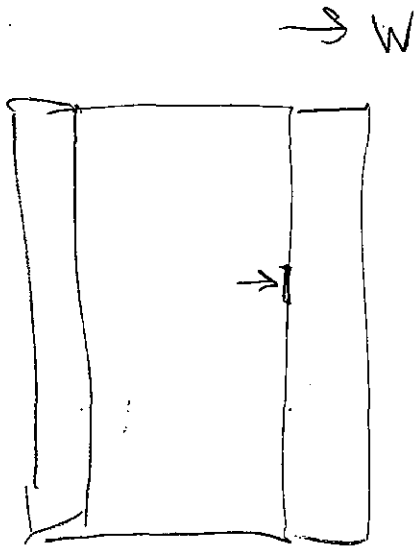
Team Members: Michael Faught Matt Elliott
Hatch

Feature (i.e. Cross Section, Plan View, Etc.): Hatch FEATURE #1 WEST WING

Photo Log: Note: Be sure to place measuring device in camera view

1 Roll #/Shot # 1 Location: West wing Direction: West LOOKING NW
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____
Roll #/Shot #_____ Location:_____ Direction:_____

Sketch of Feature (include measurements):



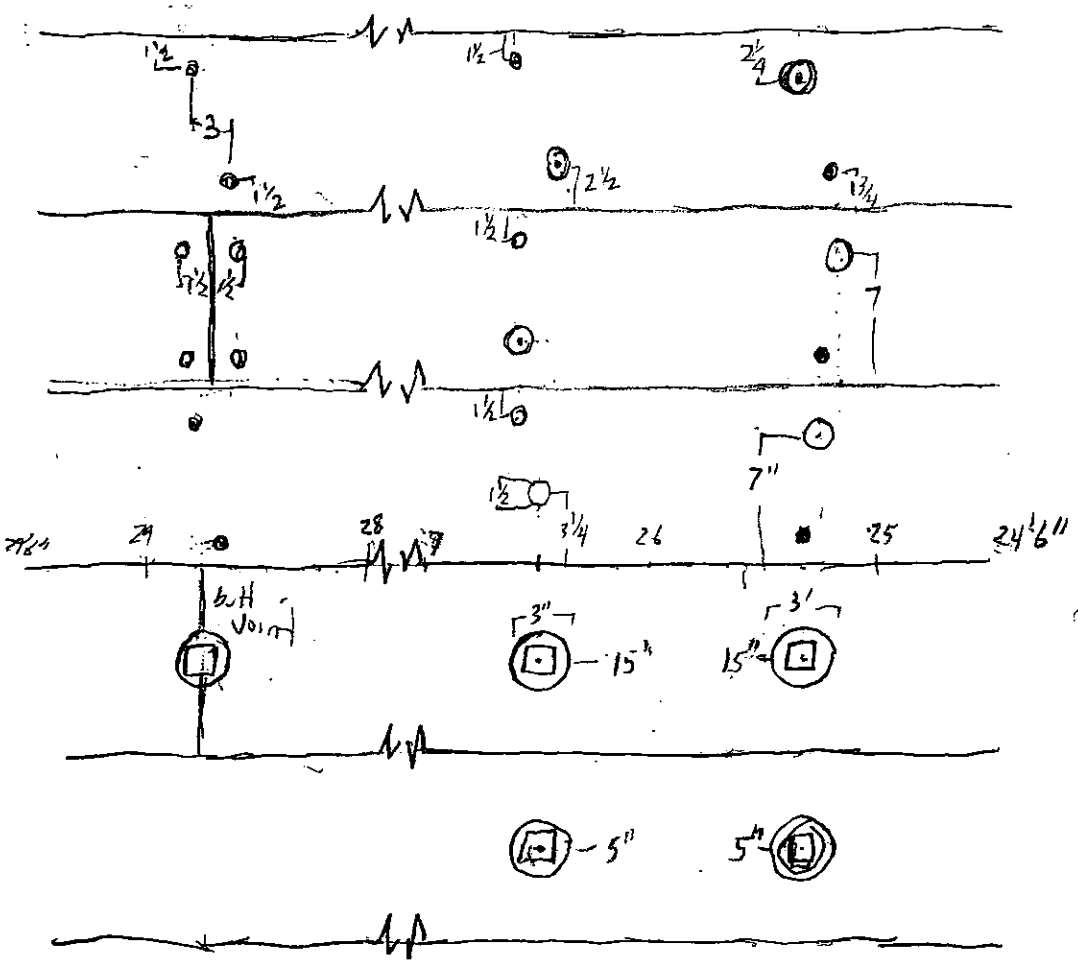
Lyle Hess
6 vessels
8/11/04
V2 wing planking
fastener pattern

frame 8, 1st bulkhead
frame 9

where is bulkhead
in relation?

frame 9

frame 8
bulkhead.



fasteners:

- 5/8" head cut nail
  1/4" shaft (round)
- ⓐ 1 1/2" head spike
  3/4" dia carriage bolt
- 2½" diameter head carriage bolt countersunk 3/4 inch

Deck plan

pg 1
Dyderhaven, Kirsten
6 vessels
8/10/04
V2 deck plan

deck beams

32½ room 32"
9½ space 10"

23 sets

42" total beam set
x 23 sets =

42
23
126
840
966

966"

80.
12 | 966
96
6

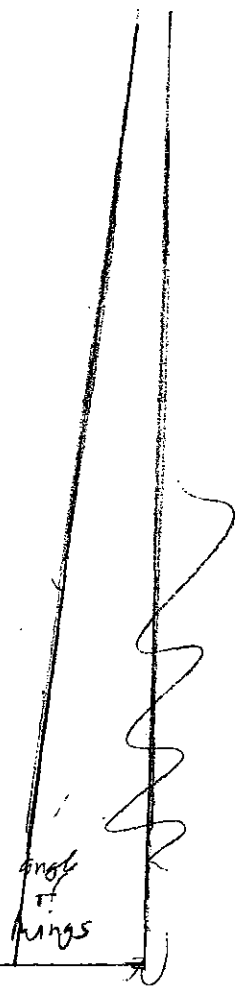
Location of deck beams on B/L starting at N end measured center to center

Beam	B/L
1	2'1"
2	5'
3	8'6"
4	12'
5	15'6"
6	19'
7	22'6"
8	26
9	29'6"
10	33
11	36'6"
12	40'
13	43'6"
14	47'
15	50'6"
16	54'
17	57'6"
18	61'
19	64'7"
20	68'½"
21	71'5½"
22	75'½"
23	78'
end	80'

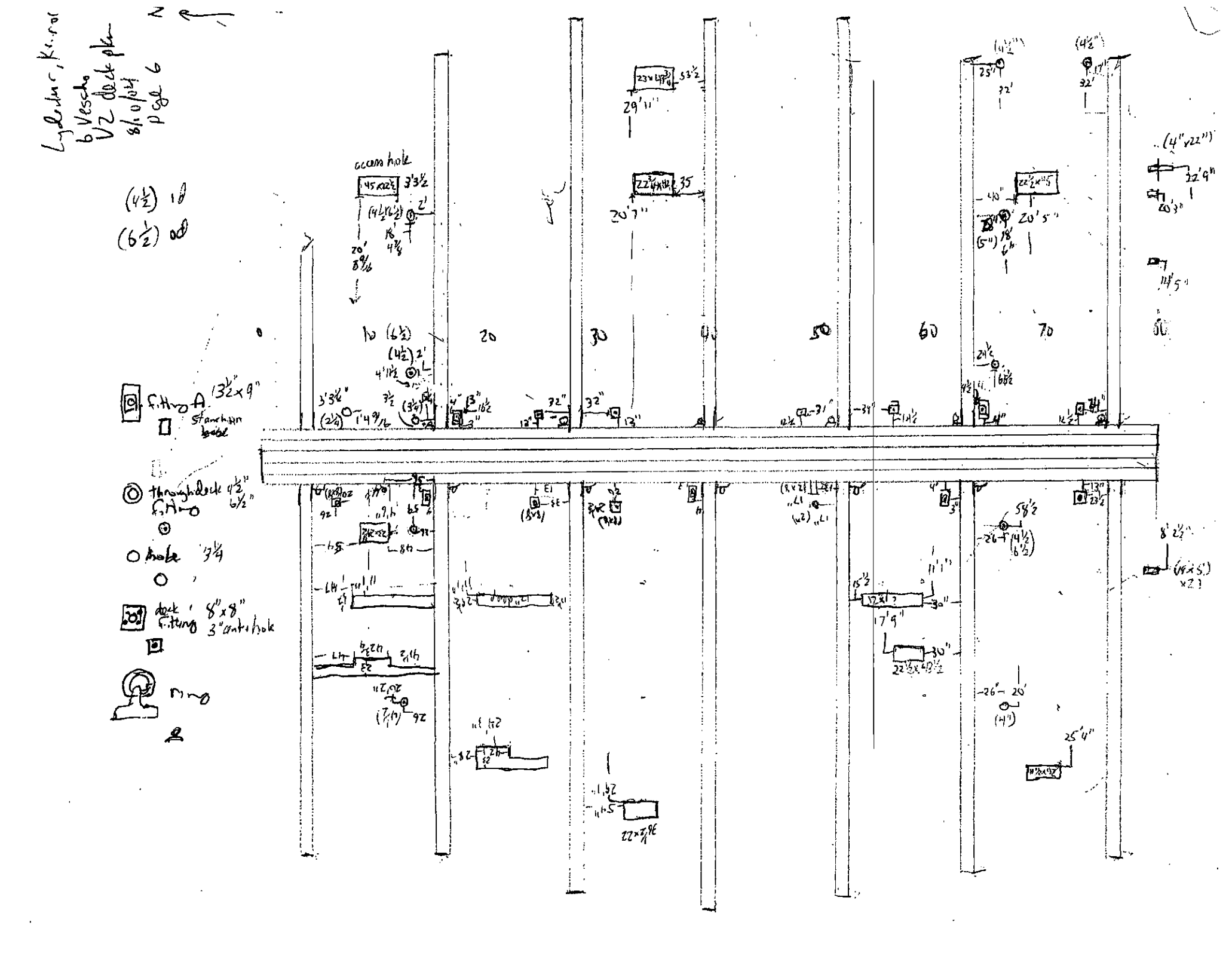
42"
38½
77

42" 35" 2'1"
5'
3'6" 2'11"
3'

47'2"



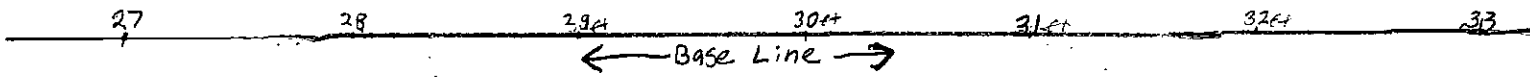
Cylinder, Kirol
b Vescho
V2 deck plan
8/10/04
page 6



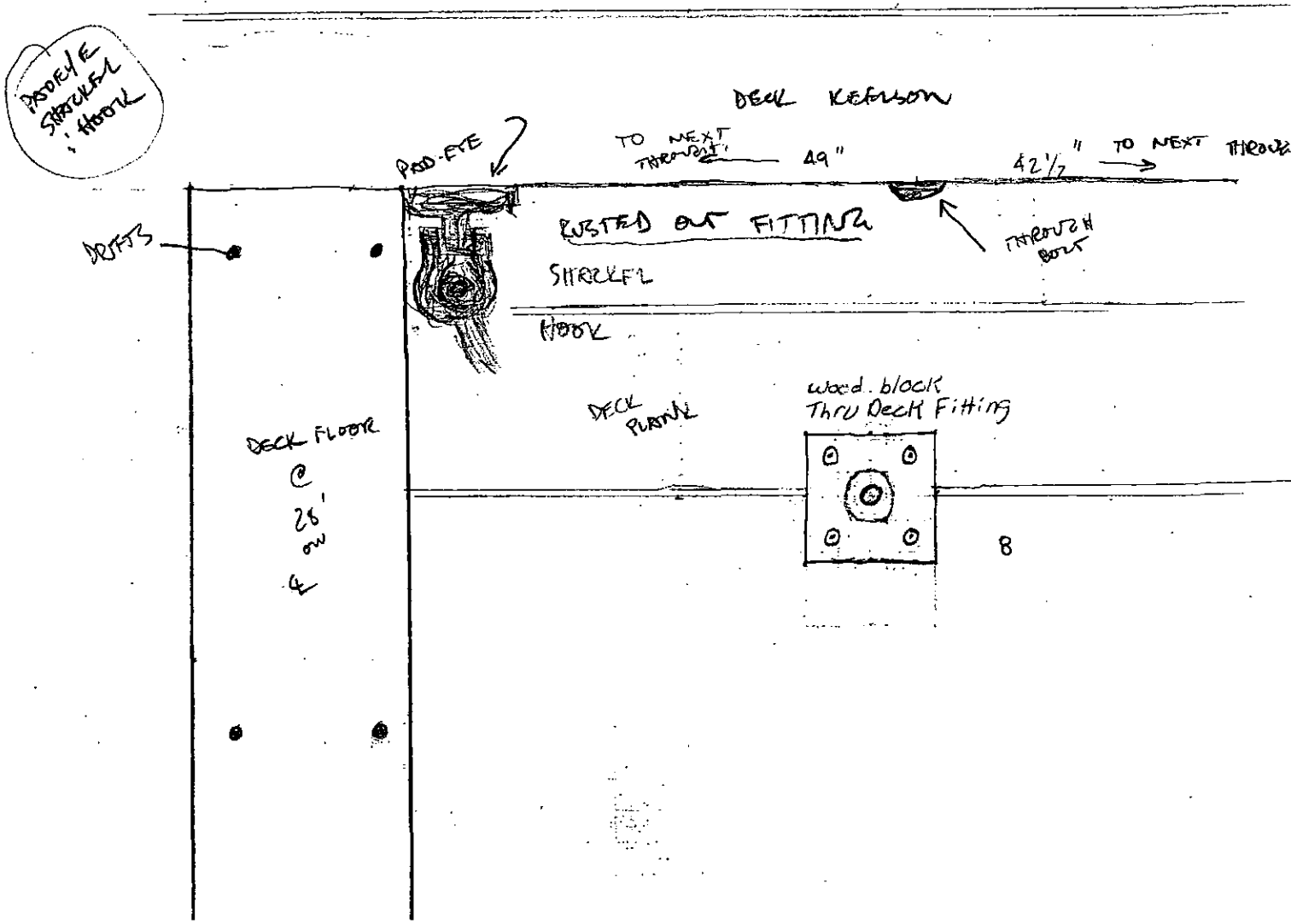
48 1/2 in From 31ft on baseline

WOOD BLOCK DECK FITTING

- VESSEL 2 - SHOOTERS ISLAND
07/10/04
MKF ; ME

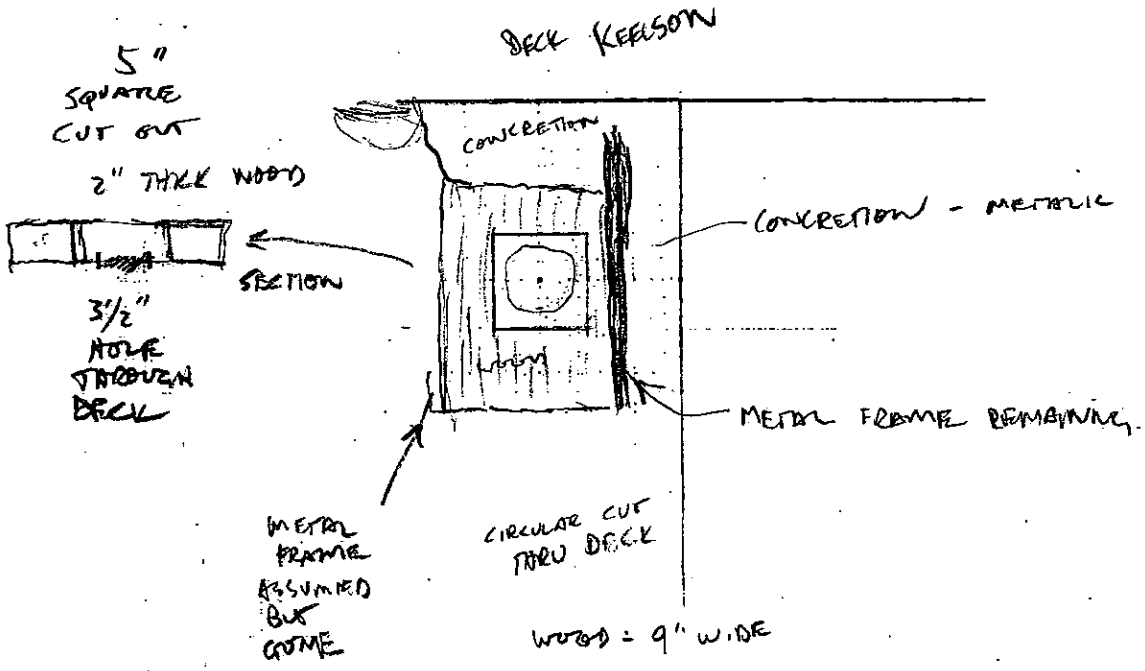


DECK KEELSON



SIX VESSELS
VESSEL 2 SHOOTERS ISL.
07/10/04
MKF & ME

38'1"
38'
℄ CENTERLINE



Six VESSELS

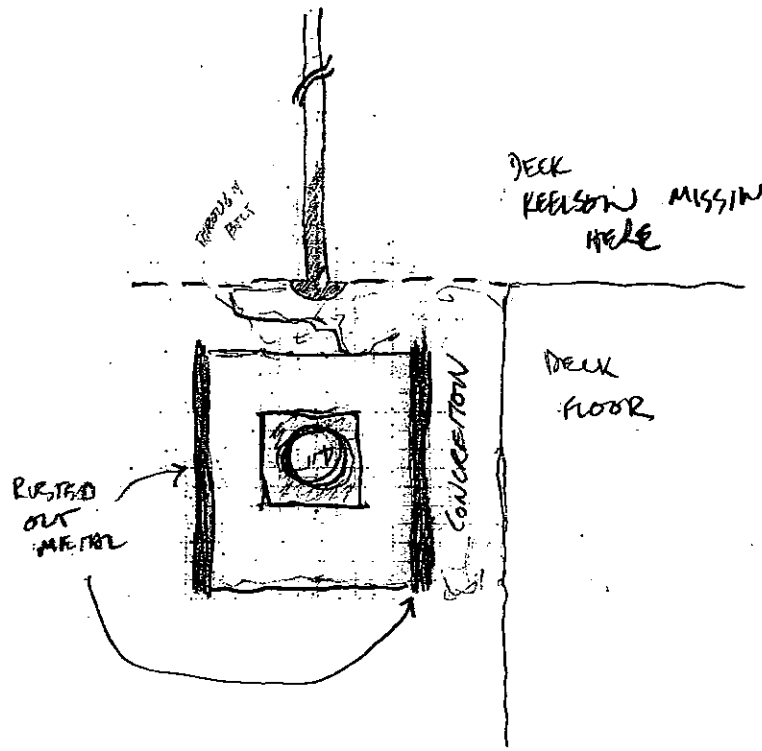
VESSEL 2 SHOOTERS

7/10/04

MKF & ME

62 62' 4" BOWE 63' 2"

℄ MEASURES



WOOD = 2"

Cy Leckey Kilroy
Gwessels V2
8/11/04
deck plan

Deck plank joint locations, stbd side

B/L	Deck plank #
4'11"	4
4" 11"	11
4' 11"	13
12'0"	5
	9
↓	13
15'6"	12
19'0"	6
	9
22'6"	2
	15
	18
	21
	24
	32
	38
	40
26'	7
	10
	27
29'6'	3
	13
	16
	19
	22
	25
	30
	42
33'	8
	9
	25
	33
36'6"	14
43'6"	17
	20
	23
	26
57'6"	38
	31
	27
	14
	11

1st 13 and 20-30 obscured by bubbles

1st 10 obscured

First 15 heads obscured by bubbles

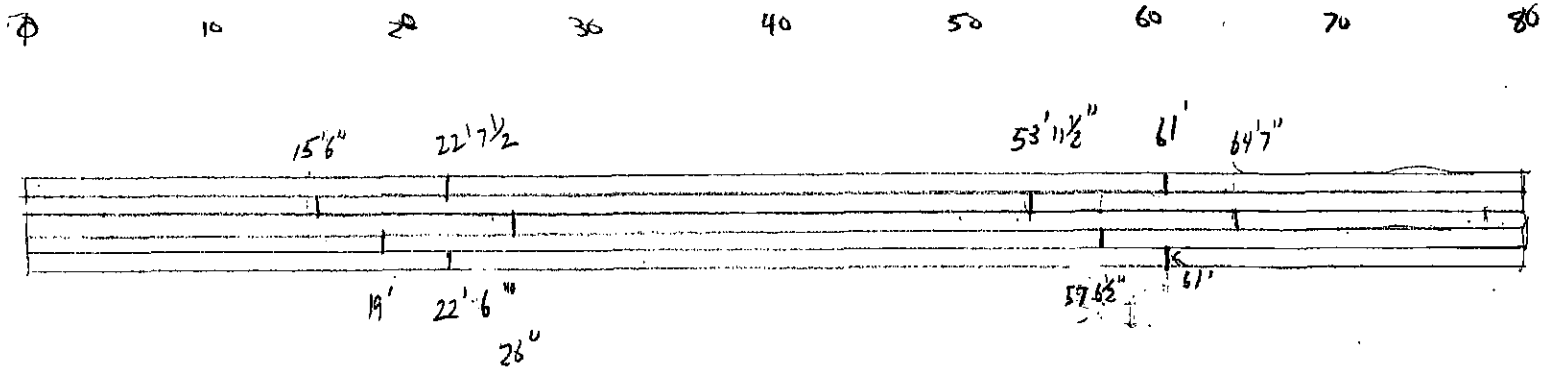
1st 10 obscured by bubbles

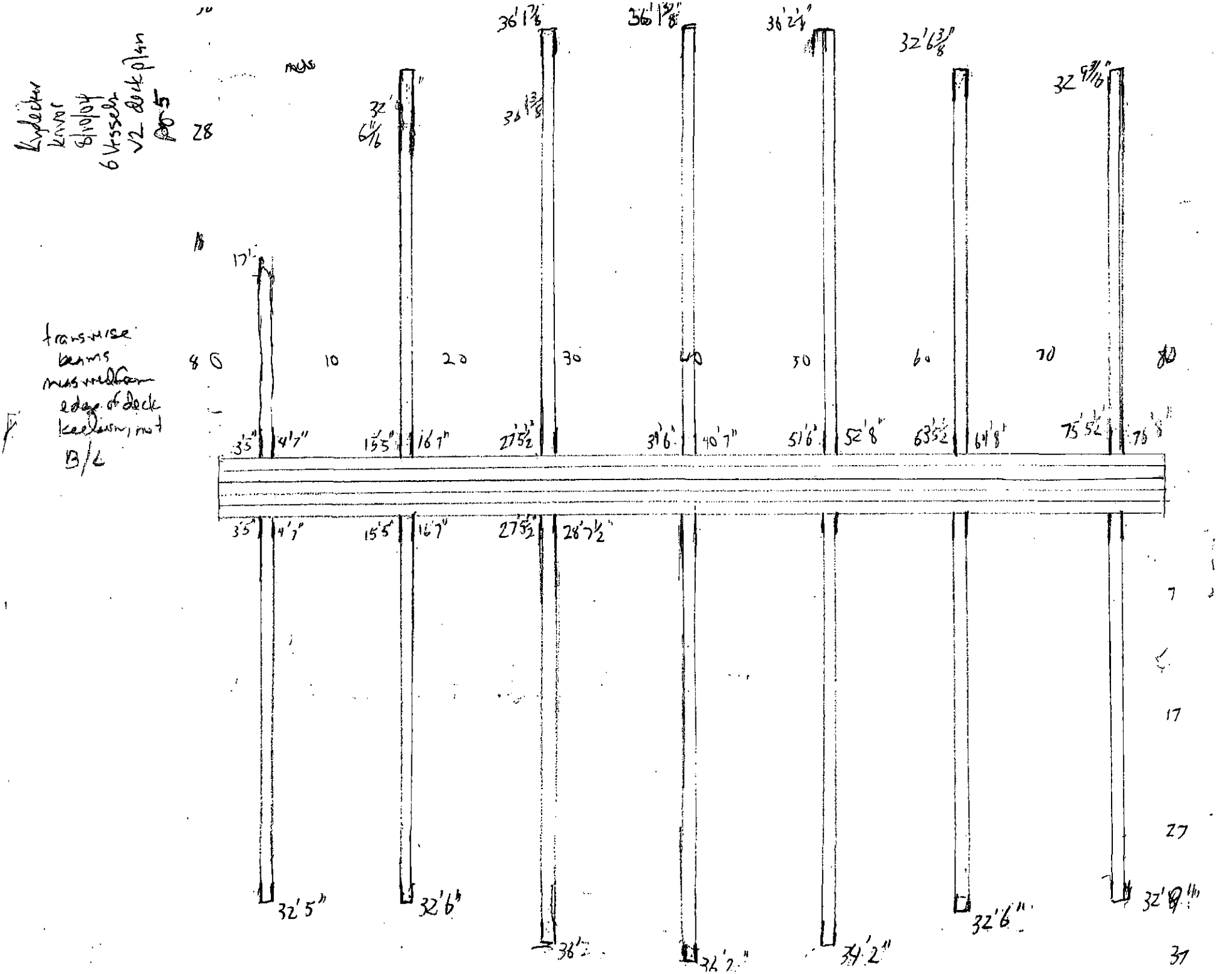
B/L	Deck plank #
61"	13
	18
	21
	35
	29
71'6"	10
	13
	17
	20
	26
	29

A. Lubelan
Grossell
9/10/04
V2 Quilt plan
Center keelson
deck
Joining locations
pg 4

← N

S →

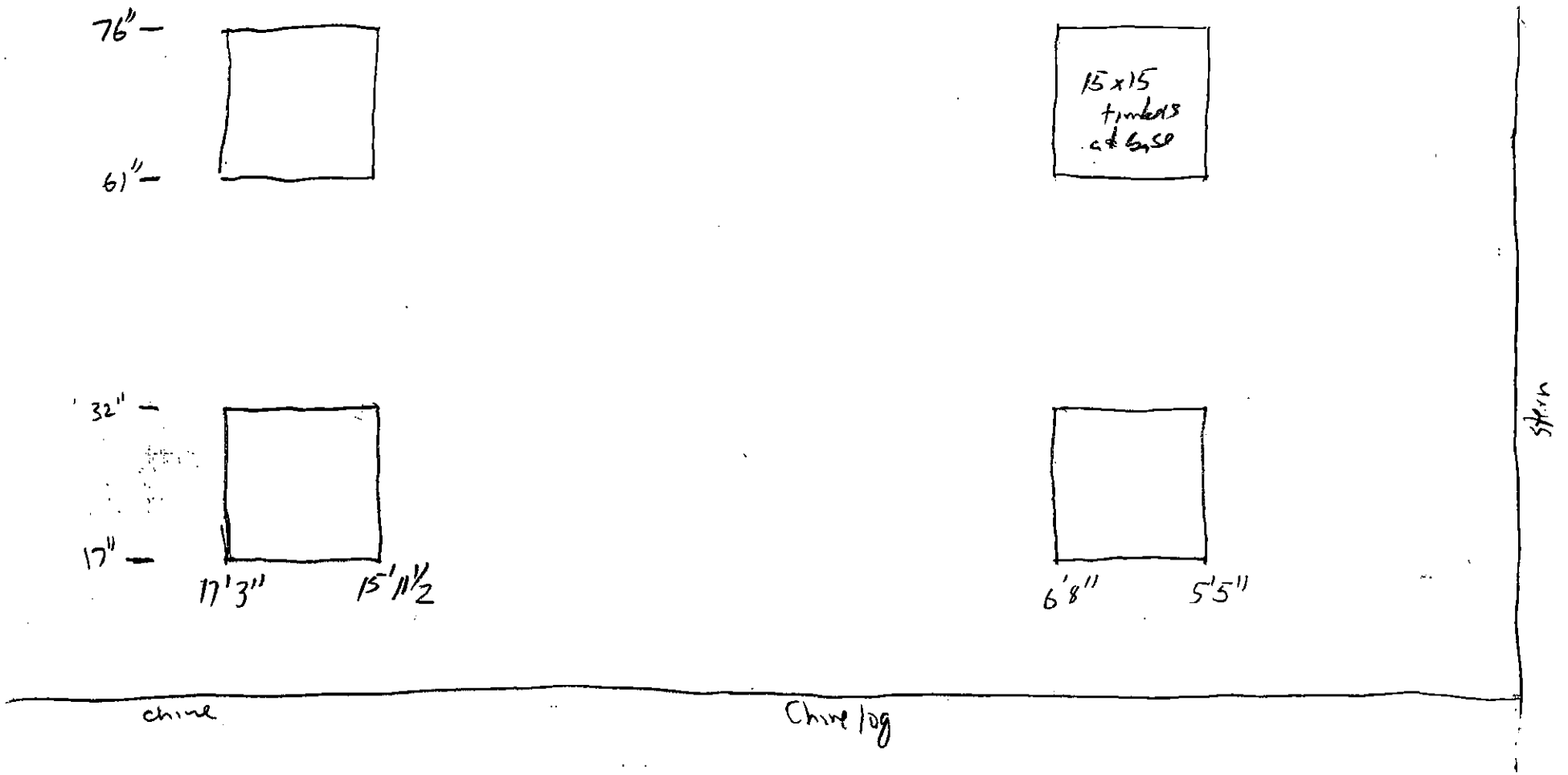


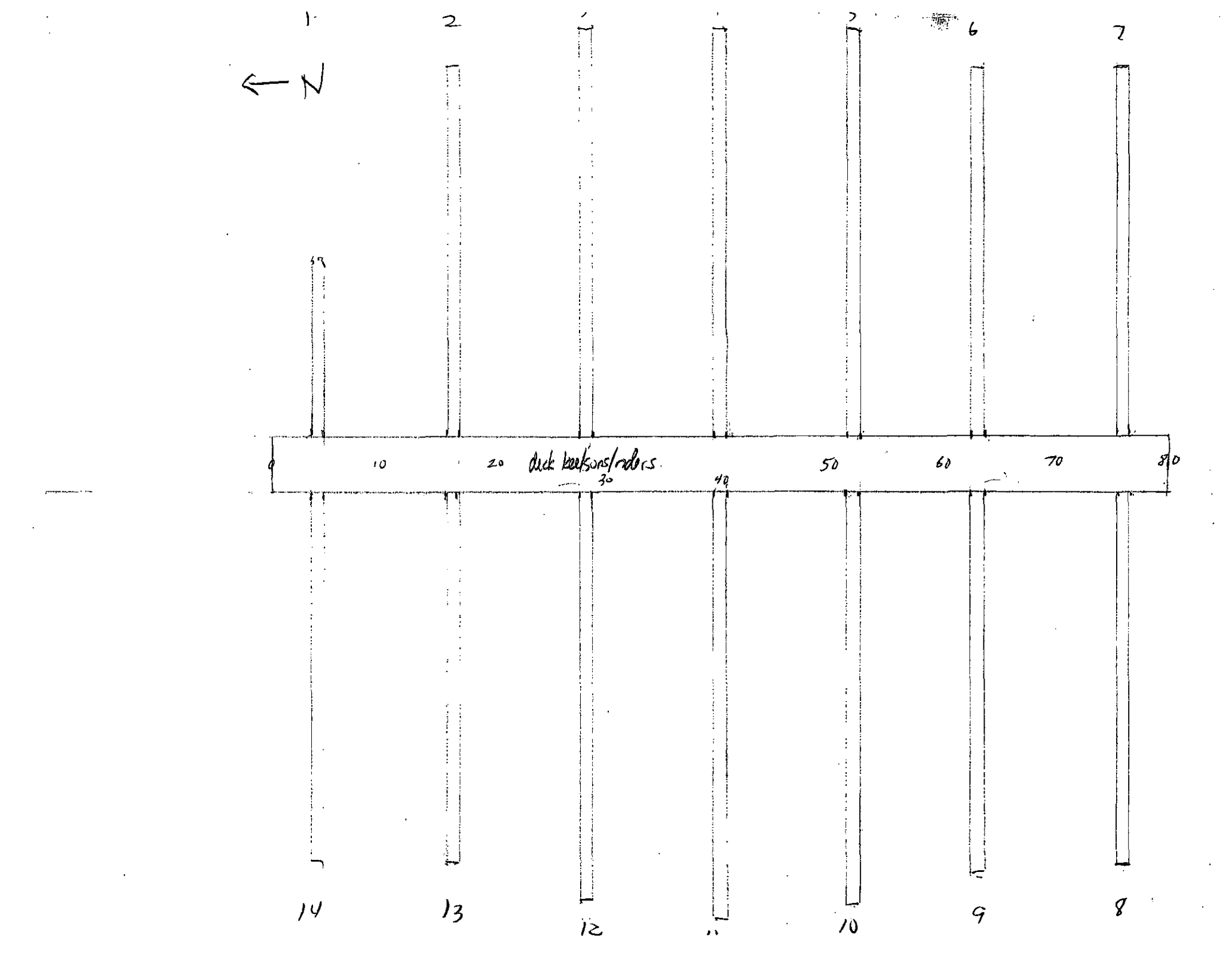

Kydeckar
kvar
6 kvssela
V2 deck plan
Bor 5
transverse
beams
mastvedfor
edge of deck
keellamn, mot
B/L
32' 6 1/16"
36' 1 7/8"
36' 1 3/8"
36' 2 1/4"
32' 6 3/8"
32' 6 3/8"
36' 1 3/8"
17'
8 0
10
20
30
40
50
60
70
80
35"
4'7"
15'5"
16'7"
27'5 1/2"
39'6"
40'7"
51'6"
52'8"
63'5 1/2"
64'8"
75'5 1/2"
75'8"
35'
4'7"
15'5"
16'7"
27'5 1/2"
28'7 1/2"
32'5"
32'6"
38'
32'2"
34'2"
32'6"
32'6"
7
17
27
37

Kaivol Lydecker
6 vessels
8/11/04
deck plan
port side deck plank
offsets

B/L	deck plank	offsets
27'5½"	keel	5"
	1	1'5"
	1½	2'5"
	1	2'11"
	2	3'11"
	3	4'11"
	4	5'10"
	5	6'9"
	6	7'8½"
	7	8'7½"
	8	9'7"
	9	10'6½"
	10	11'5½
	11	12 5
	12	13 5
	13	14 4½
	14	15 4
	15	16 3½
	16	17 2½
	17	18 1
	18	19 1
	19	20 0
	20	21 0
	21	21 11
	22	22 10½
	23	23 10
	24	24 9
	25	25 8
	26	26 8
	27	27 7
	28	28 6
	29	29 6
	30	30 5
	31	31 5
	32	32 5
	33	33 2½
	34	34 2
	35	35 2
	36	36 0
	37	37 0
	38	37 10
	39	38 10
	40	39' 10"
	41	40 11
	42	41' 10½
	43	42' 11"
	chine log	42' 11"

Lay down keyed
crossbeam 8 1/11/04
V2 deck plan
king posts
port stern




1
2
6
7
N
0
10
20
dock bollards/rubbers
30
40
50
60
70
80
14
13
12
11
10
9
8

Lydecker
Kruse
Gressler 8/11/04
Dock plan
deck planks

transverse rider 24'8"
fastener pattern

offset	B/L
3' 1½"	28' 4½"
4' 4½"	27' 9"
6' 5"	28' 5"
8' 5"	27' 9½"
10' 7"	28' 5"
12' 6"	28' 5"
12' 6"	27' 9"
~~bow joint~~ 12' 9"	
13' 1"	28' 5"
13' 1"	27' 9½"
15' 4"	27' 9"
17' 1"	28' 4"
17' 1"	27' 9"
20' 1"	28' 5½"
21' 11"	27' 9"
24' 0"	28' 5½"
25' 11"	27' 10"
28' ½"	28' 5"
28' ½"	27' 9½"
30' 0"	27' 9"
32' 2"	28' 5"
34' 3½"	27' 9½"
36' 4"	28' 5"
38' 2"	27' 9"
38' 5"	28' 5"
end of timber 38' 8½"	

measurements taken on transverse rider #3

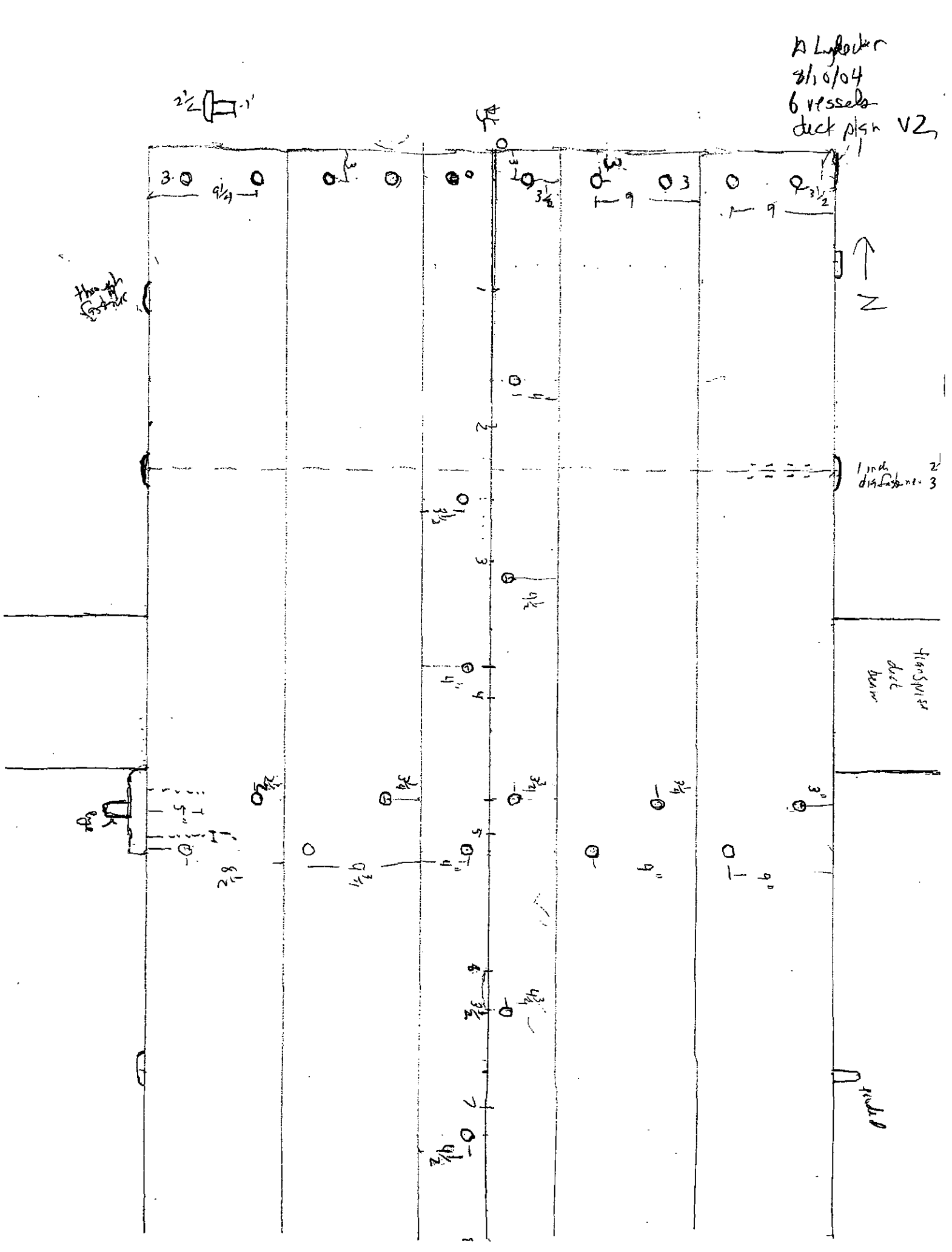
transverse riders are single timbers except for #3 & #5 which have butt joints at offset 12'9"

Deck planking

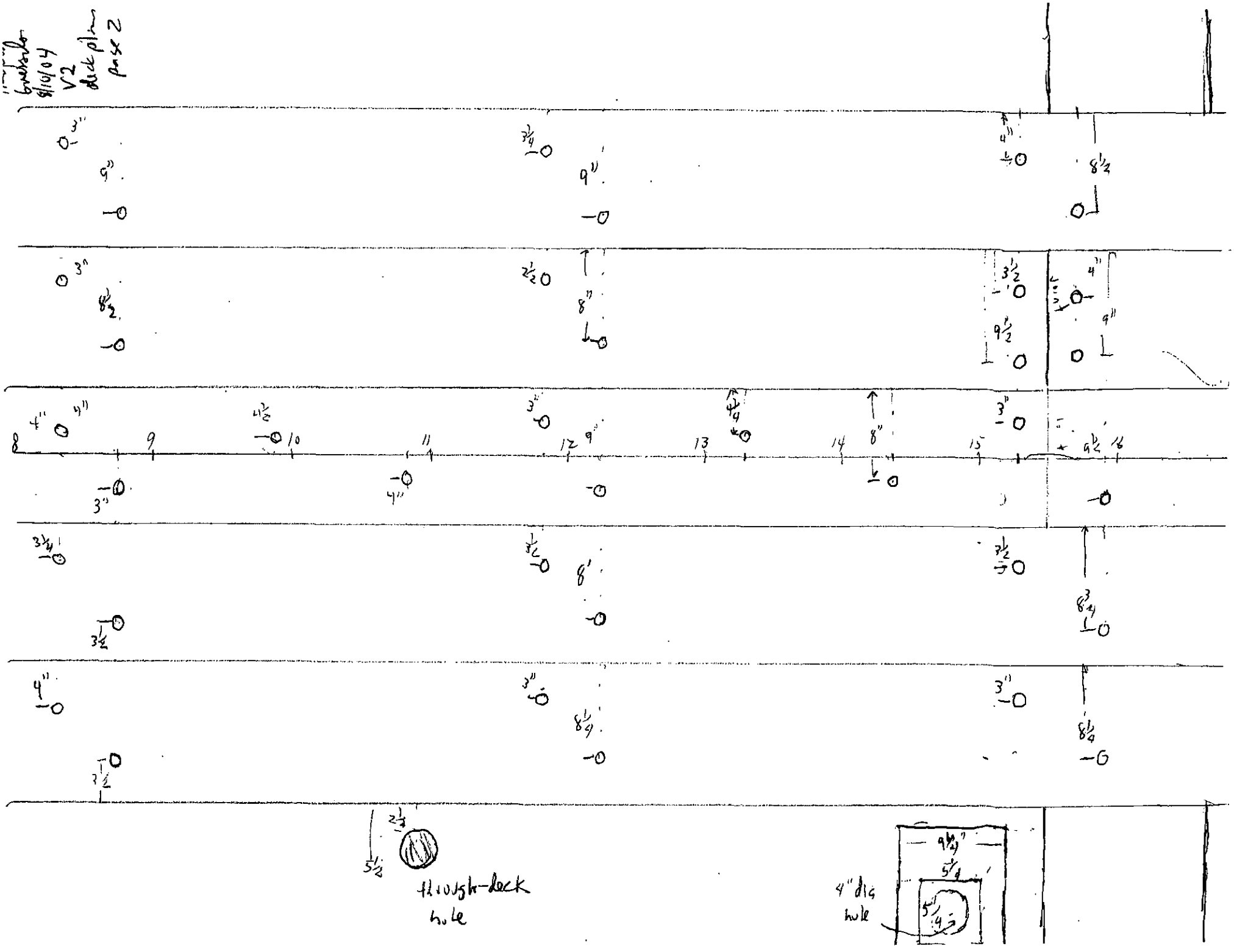
plank	offset	B/L
35	35' 4½"	28' 8"
36	36' 3"	
37	37' 2"	
38	38' 1"	
39	39' 1"	
40	40' 0"	
41	41' 1"	
42	42' 1"	
43	43' 2"	
chine log	43' 2"	

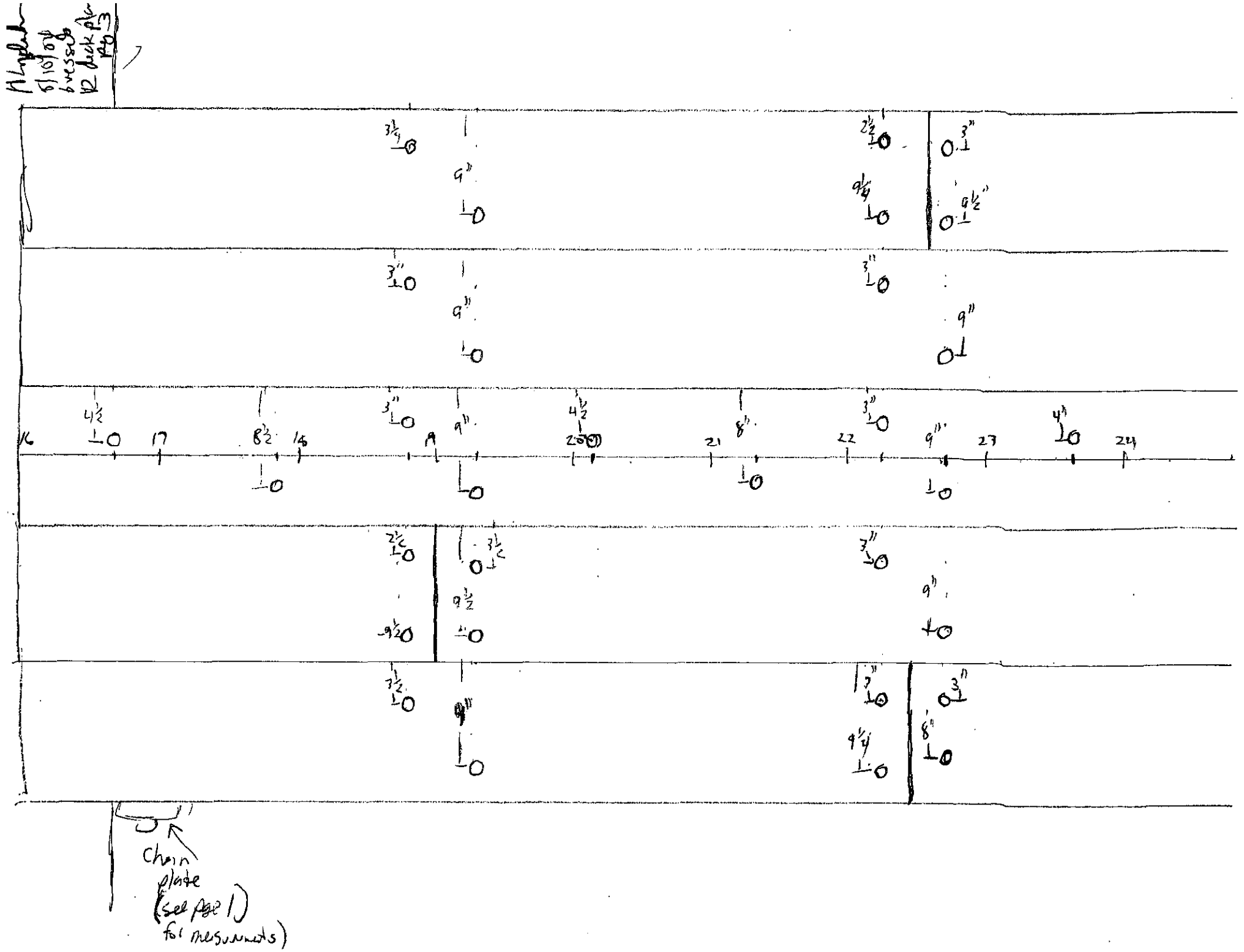
stbd side

plank	offset	B/L
Deck Keelson	6"	28' 8"
"	1' 7"	
"	2' 6"	
off plank 1	3' 5½"	
2	4' 5"	
3	5' 4½"	
4	6' 4"	
5	7' 3"	
6	8' 2"	
7	9' 1½"	
8	10' ¾"	
9	10' 11"	
10	11' 10"	
11	12' 9"	
12	13' 8½"	
13	14' 8"	
14	15' 7½"	
15	16' 6½"	
16	17' 6"	
17	18' 5"	
18	19' 4½"	
19	20' 4"	
20	21' 3"	
21	22' 2½"	
22	23' 1½"	
23	24' ½"	
24	25' 0"	
25	25' 11½"	
26	26' 10½"	
27	27' 10"	
28	28' 9"	
29	29' 8"	
30	30' 8"	
31	31' 7"	
32	32' 6"	
33	33' 5½"	
34	34' 4½"	


N Lykes
8/10/04
6 vessels
deck plan V2
2½ [1'
transverse deck beam

Gunstock
8/10/04
V2
deck plan
page 2




Chain plate (see page 1) for measurements

Panamerican Consultants, Inc
Scantlings Form

Project Name: 6 nosler Project Number:_____ Vessel Name: V2

Team Members: Krause, Lydecker

Name of Part: Deck rider/deck keelson

Location of Part on Vessel: main deck, centerline

Measurements: Molded: 11½ Sided: 12" Length See 8/10/04 @ V2 deck plan pg 4

Sketch of Part (be sure to note fastening size and location, including joints)

see V2 deck plan pgs 1-3 (8/10/04)

Material:_____ Shape:_____

Photo Log: Note: Be sure to place measuring device in camera view

Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____

Panamerican Consultants, Inc
Scantlings Form

Project Name: Gulfstar Project Number:_____ Vessel Name: V2

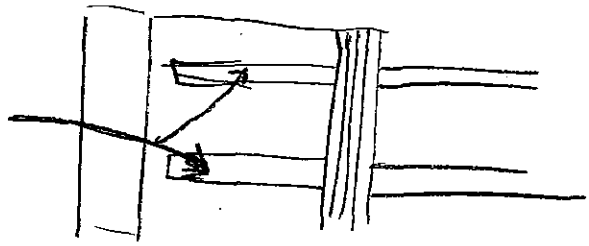
Team Members: Kevin, Lyle Ker

Name of Part: transverse deck beams

Location of Part on Vessel: main deck, perpendicular to deck beams/deck rivets

Measurements: Molded: 11 1/2 Sided: 13 1/2 Length_____

Sketch of Part (be sure to note fastening size and location, including joints)



Material:_____ Shape:_____

Photo Log: Note: Be sure to place measuring device in camera view

Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____

Panamerican Consultants, Inc
Scantlings Form

Project Name: Brissler Project Number:_____ Vessel Name: V2

Team Members: Luke, Kevin

Name of Part: Deck plank

Location of Part on Vessel: Deck

Measurements: Molded: 4" Sided: 11" Length varies

Sketch of Part (be sure to note fastening size and location, including joints)

Material:_____ Shape:_____

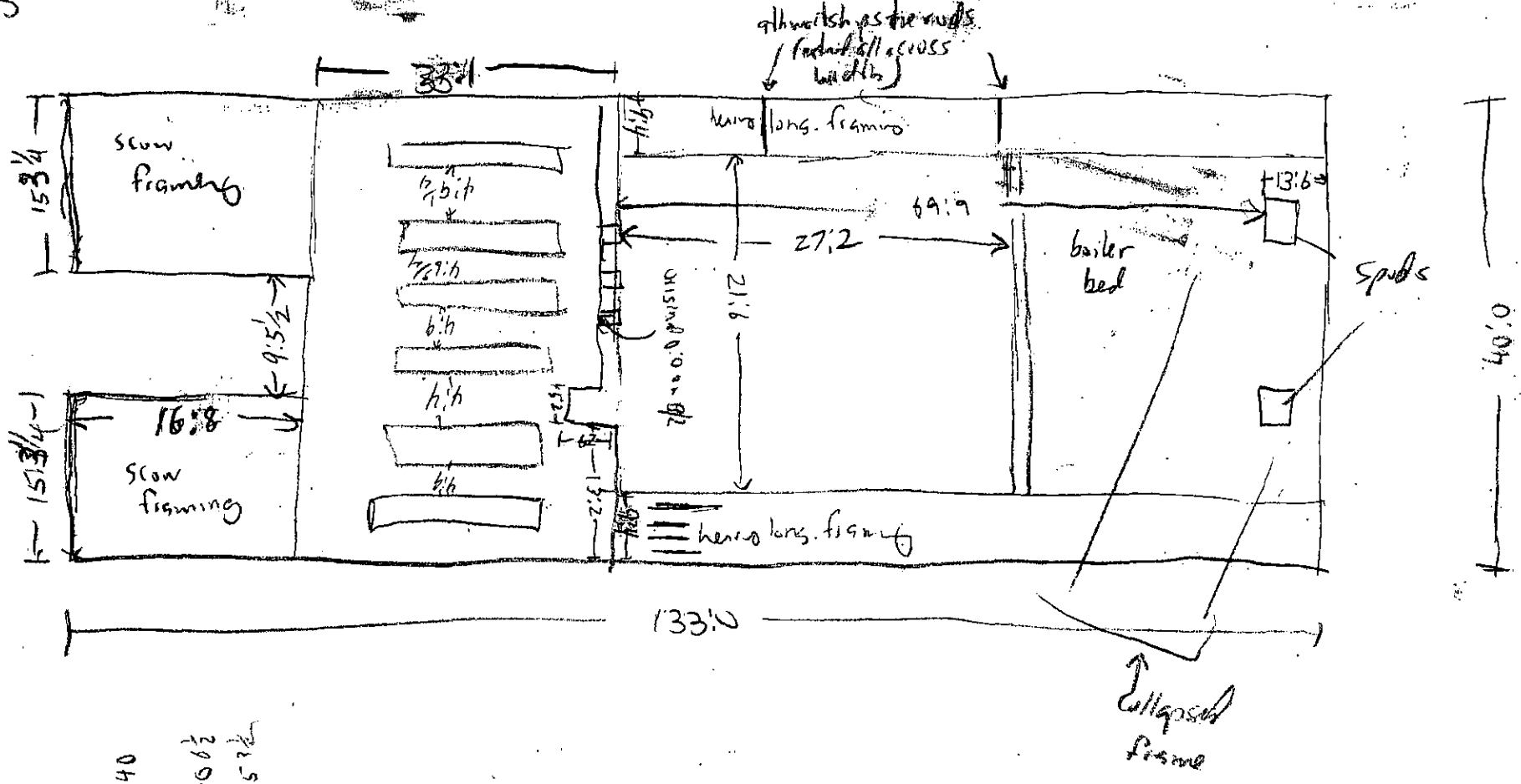
Photo Log: Note: Be sure to place measuring device in camera view

Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____
Shot #_____	Location:_____	Direction:_____

Overall
vessel 36
drawings
Jim Andrews
10/27/2004

Length OA
16'8
33'1
69'9
13'6
12
133'

29'6
3'7
33'1



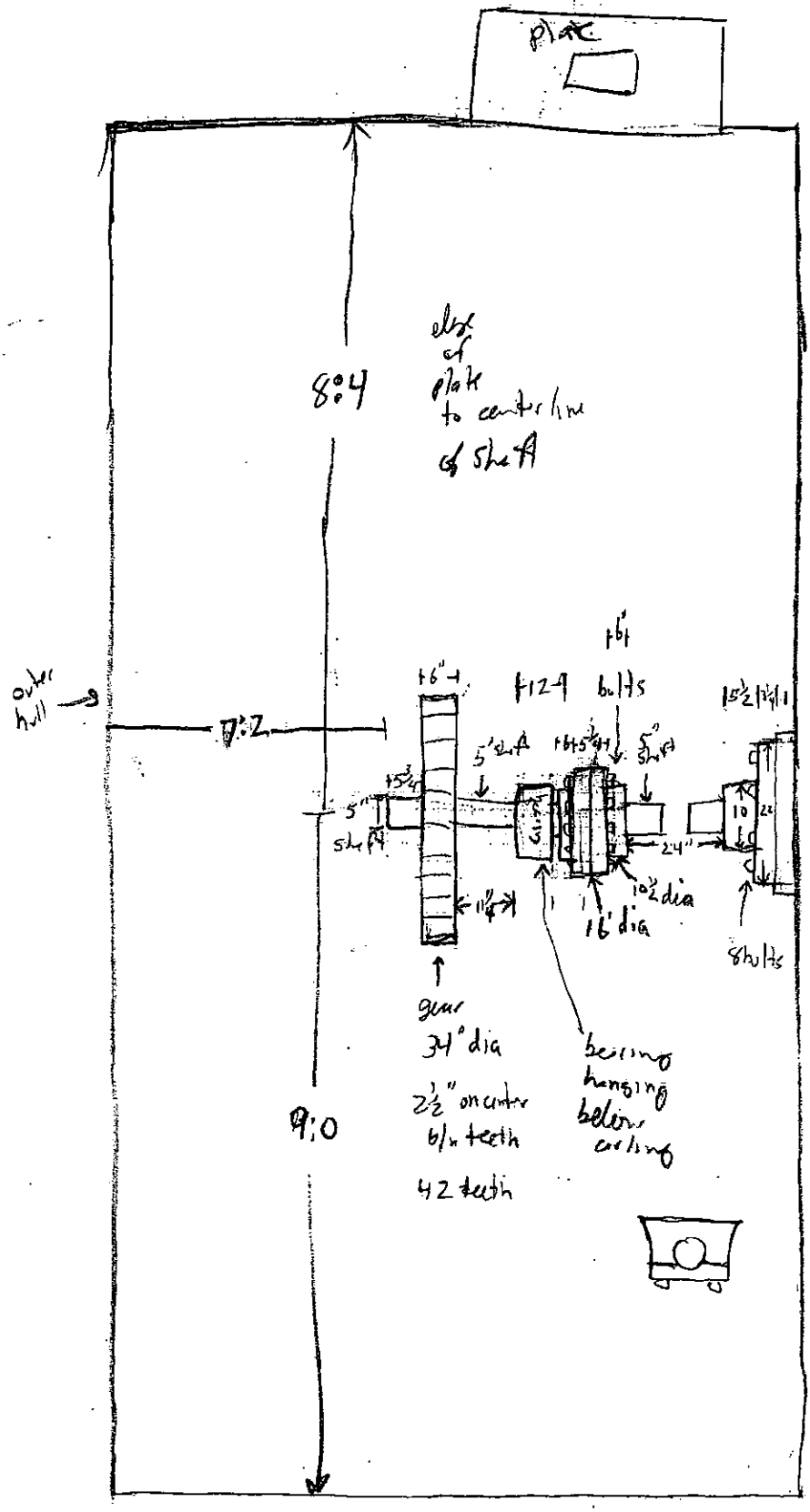
40
30'6
15'3

40'7
9'4
9'4
9'1/2

major framing members 12x12

6 vessels
V36
Jim & Andy
10/27/2004

cutterhead drive mechanism



77
23
100

73½
34·2
10 8

Electrical Box Cover

mfg by

F. H. Lovell Co.
Arlington, NJ USA

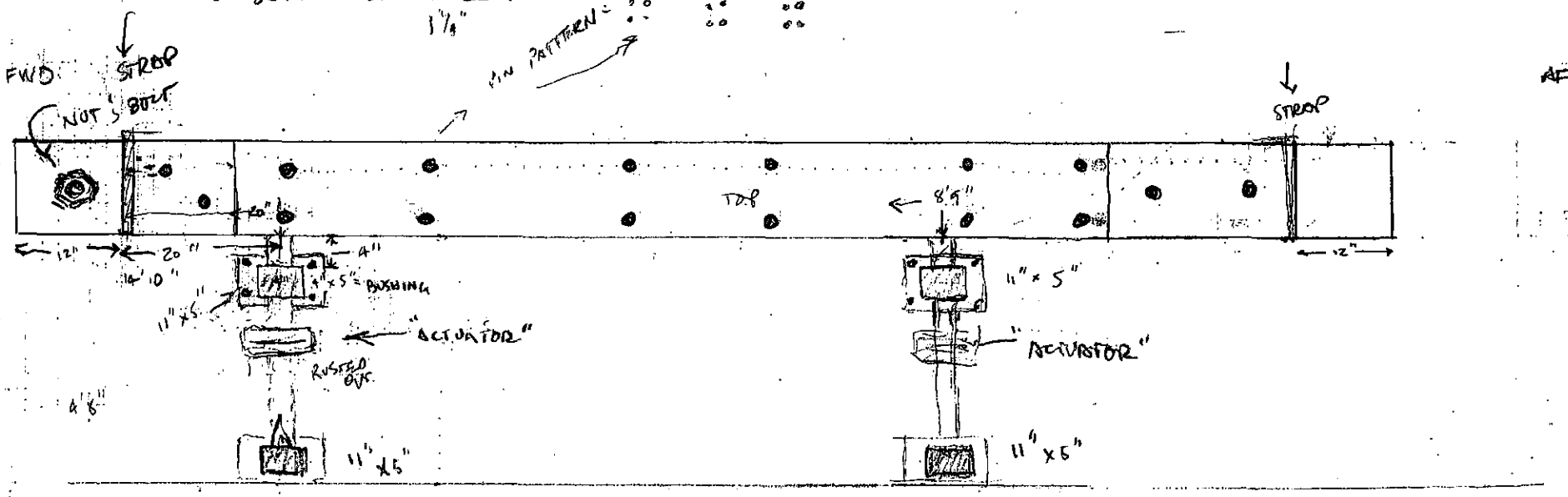
SIX VESSELS
27TH OCT, 2004
DREDGE - VESSEL # 37

14' 9"

FORTIEST STBD
"BUTTRESS"

PLAN

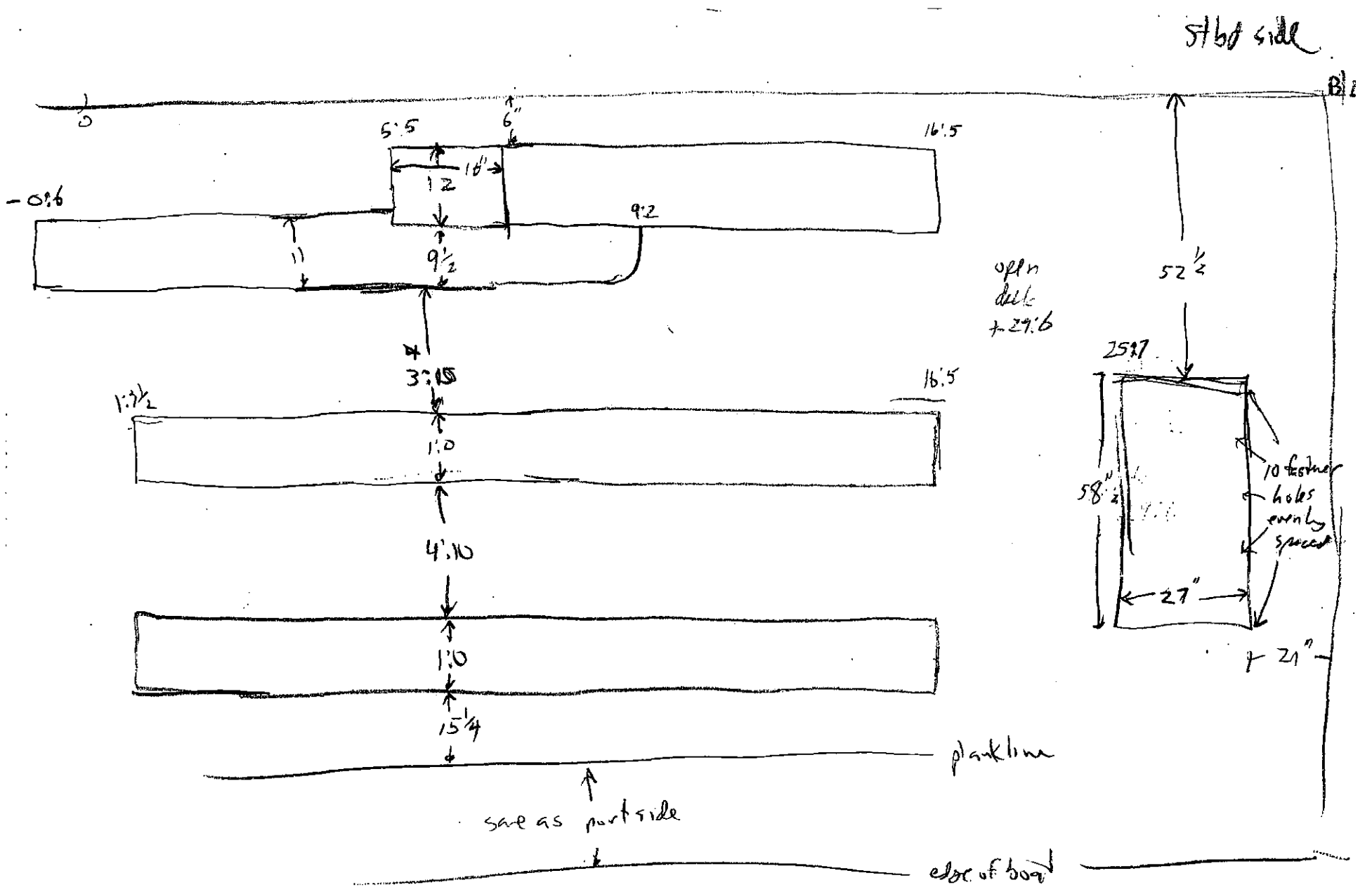
● = DRIFT PIND. = 1" DIAM
1 1/4"

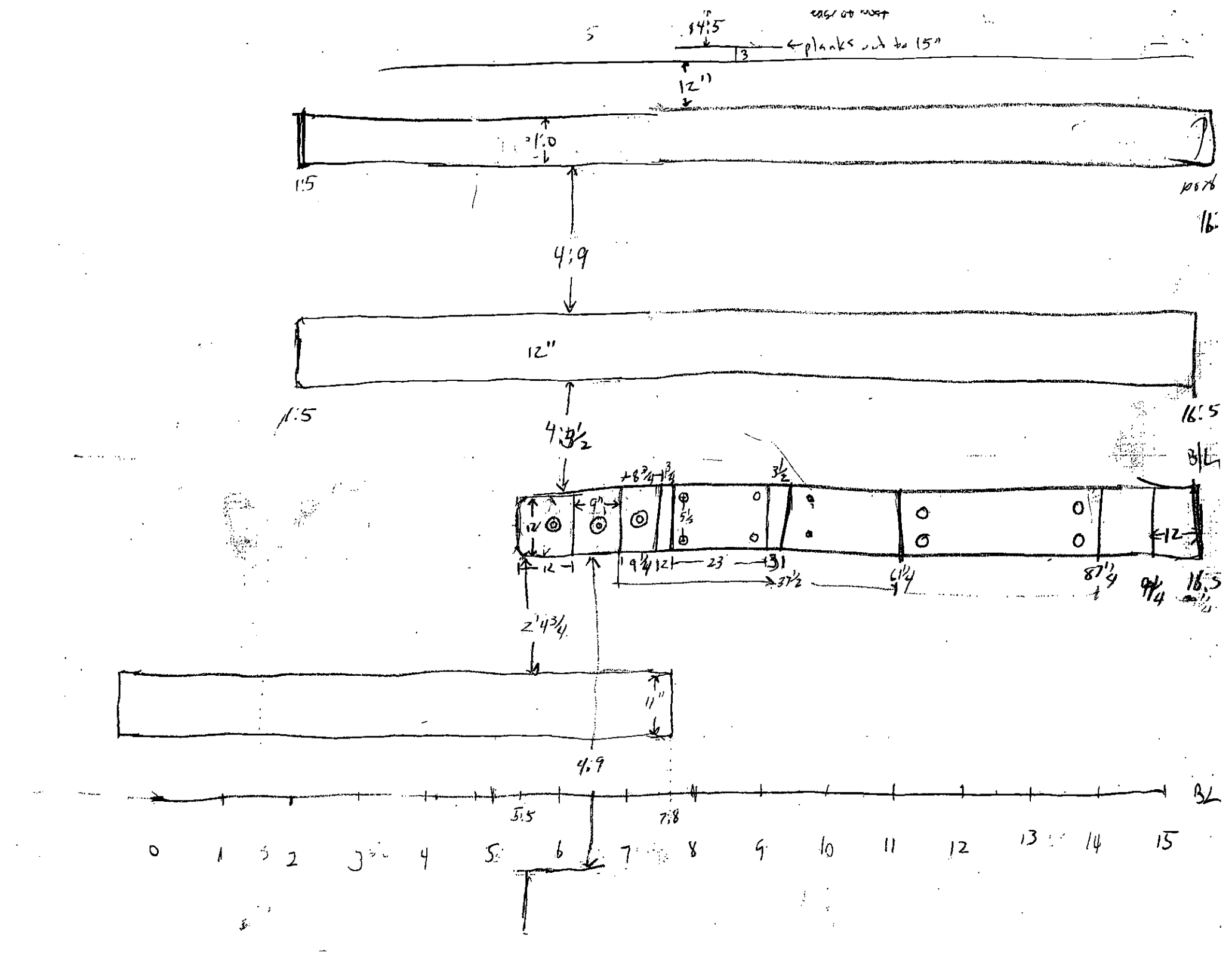


V. CORRODED
SHAFT

3" SHAFTS
U. CORRODED
SHAFT.

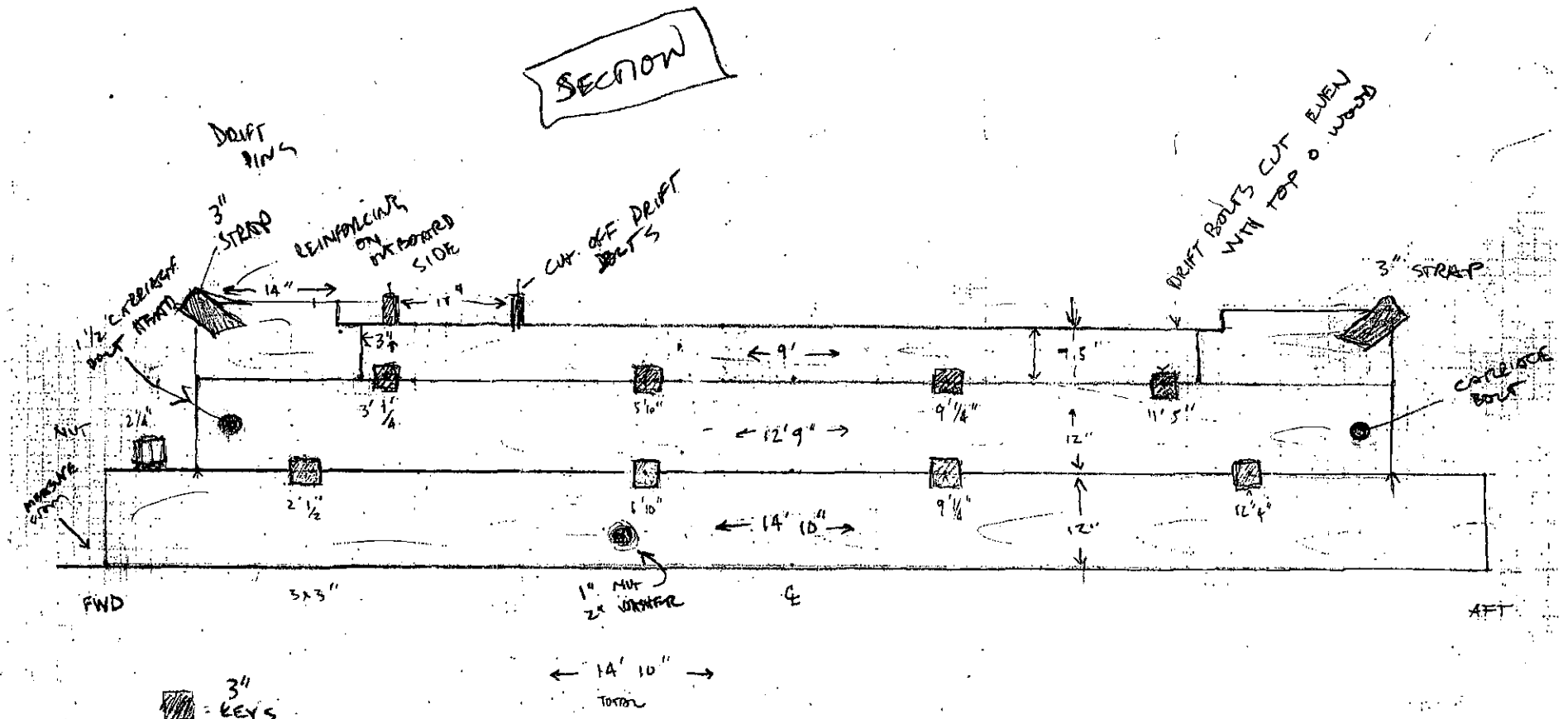
11 x 5


Stbd side
B
0
5'.5
6"
16'.5
16"
12
-0'.6
9'.2
11
9½
3'.15
16'.5
1'.3½
1'.0
4'.10
1'.0
15¼
plankline
same as port side
edge of boat
open deck +29'.6
52½
25'.7
58"½
10 fastener holes evenly spaced
27"
+ 21"


14:5
planks cut to 15"
12"
1:5
4:9
12"
1:5
16:5
4:3½
12
9"
5½
3½
12
12
9¾
12
23
31
37½
6¼
8¾
9¼
16:5
2'4¾
11"
4:9
5:5
7:8
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

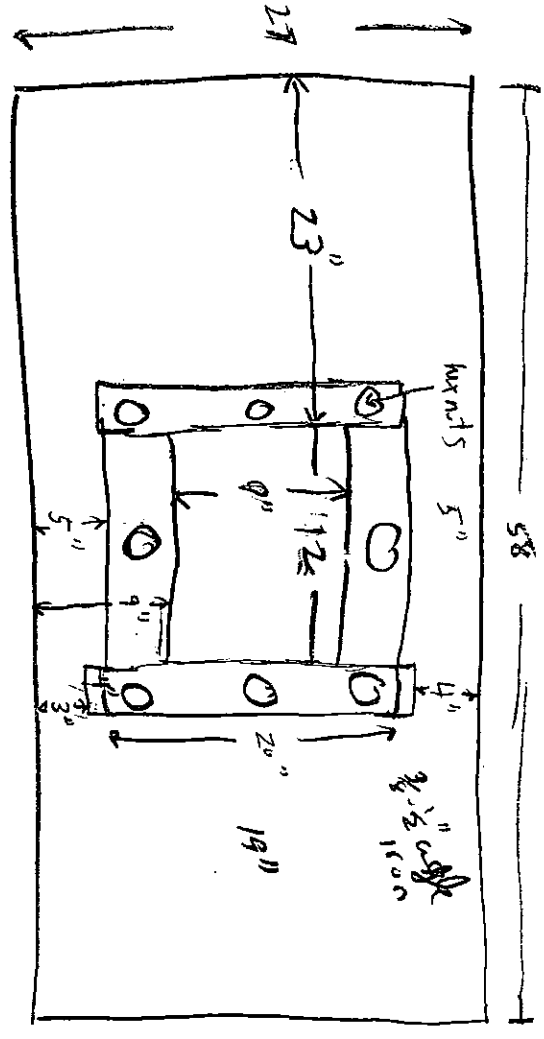
SIX VERSIONS
OCT 20. 2004
STBD - OUTER "FRAME"

DRAWING = JACKSEL 37



153 76.6 38 1/4

6 vessels
Jm + Am 6
@
forward sited
towers support
@



APPENDIX E: VESSEL ILLUSTRATIONS

(see enclosed CD)

APPENDIX F: PHOTO LOGS

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6 Vessels PROJECT NUMBER: V-2- Shooters Island

ROLL NO.: 1 CAMERA:

PHOTOGRAPHER'S NAME Michael Faught

FILM TYPE (CIRCLE APPROPRIATE CHOICE): B&W OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: FILM SPEED: Digital camera

NEG #	SHOT #	DATE	DESCRIPTION	VIEW	DIGITAL
	1	8/10/04	Thru-way Hatch in west wing	west	NO
	2	↓	↓		NO
	3	↓	↓		NO
	4	↓	↓		NO
	5	↓	↓		NO
	6	↓	Door / Hatch		NO
	7	↓	side shot of clos Handle		YES
	8		North side of Hatch/upper right		YES
	9		Hatch Hinge		YES
	10		possible Hatch Door		NO
	11	8/10/04	South Hatch on west wing	west	YES
	12	8/10/04	"	↓	NO
	13	8/10/04	HINGE DETAIL FROM OTHER DOCK (South)		NO
	14	"	South profile of small Hatch	North	NO
	15	"	North profile of " "	South	NO
	16	"	plan view of wood deck fitting	East	NO
	17	"	Deck pulley	plan view	NO
	18	"	DECK FRAMING - WEST DECK STRINGERS		
	19	"	" " STRINGERS WOOD		YES
	20	"	station step box -	plan view	YES
	21	"	" " "	"	YES
	22	"	panoramic view South East	"	YES x 2
	23	"	station step box	plan view	YES
	24	8/10/04	VESSEL 1 - South - SOUTH SIDE DRAIN BOX	PLAN	YES
	25	"	VESSEL 1 - "		YES
	26	"	"		YES x 2
	27		SHACKLE & HOOK LOOSE ON DECK		YES
	28		"		YES
	29		VESSEL 1 SOUTH - ANTIFOULING DRAIN		YES
	30	8/11/04	Vessel II - sub deck framing	west plan view	YES
	31	"	"	North plan view	YES
	32	"	Deck Repair & exposed wood caulk	East plan view	YES
	33	"	" 23.9 from 61' ℄	East	SE CORNER YES
	34	"	" 44" x 22" REPAIR	East	YES
	35	8/11/04	SOUTH SIDE FRAMING DETAIL @ 32.6'	From ℄ 8.6' from South END	YES
	36	8/11/04	scarf Joint @ 79 ft North/South 33 ft from Baseline	South Deck view	YES
	37	"	" "	South plan view	YES

NOTES

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6 vessels PROJECT NUMBER: _____

ROLL NO.: 2 CAMERA: _____

PHOTOGRAPHER'S NAME Matt Elliott. Michael Fought

FILM TYPE (CIRCLE APPROPRIATE CHOICE): B&W OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: 36 FILM SPEED: 100

DIGITIZED

NEG #	SHOT #	DATE	DESCRIPTION	VIEW	
	2	8/11/04	coupler on pump drive shaft	North	YES
	3		" VESSEL #1	North	YES
	4	8/11/04	Packing flanges	North	YES
	5		"	North	YES
	6		"		YES
?	7		"		YES
	8				YES
	9				YES
	10				YES
	14	8/14/2004	joint inboard wing frame 15th frame 1st beam	South	
	15	8/14/2004	obverse of 14, 15th frame	north	
	16		joint inboard wing frame 17 frame 1st beam	south	
	17		obverse of 16, 14½ th frame	north	
	18		15th frame notch 2nd beam	South	
	19		3rd beam center joint 13th frame	north	
	20		impeller flange mount main deck	down	
	21		bulkhead @ frame 16	Southwest	
	22		upper deck beam reinforcement @ 15th frame	East	
	23		upper deck frame @ hatch 13th frame	East	
	24		outlet pipe, gate valve motor	north	
	25		general view, inside wing shore 2nd beam	North	
	26		impeller drive shaft mount, detail, 2nd beam level	West	
	27		2nd beam joint detail + fastener detail	West	
	28		"	"	
	29		outboard wing frame detail main deck level	down	
	30		"	"	
	31		vertical outlet pipe mounting detail	north	
	32		"	"	
	33		rudder timber detail	north	
	34		outlet pipe mounting detail, b/n main + 1st beam	north	
	35		"	"	
	36		pipe flange detail b/n frames 14 + 13	down	
	37		fastener detail 12th frame		

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: Fuessoldo PROJECT NUMBER: _____

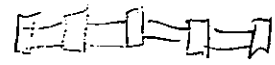
ROLL NO.: 3 CAMERA: b&w

PHOTOGRAPHER'S NAME Andy

FILM TYPE (CIRCLE APPROPRIATE CHOICE): B&W OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: _____ FILM SPEED: _____

5 frames in from stbd
9th plank on wing
1 row bronze
12 x 5"



NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	1	9/14/2004	main outlet pipe '4'	down
	2		general detail, outlet pipe marking, frame 13	south
	3		gate valve shaft, showing flanges	south
	4		↓	↓
	5			
	6		gate valve control rod flange 1st beam	south
	7		vertical control rod 4th frame	northeast
	8		knee fastener pattern, main deck beam, 13th frame	west
	9		elect. conduit w/ roller, b/n 12+13 frame	east
	10		gate valve detail	down
	11		view of const. b/n main + keelson, fwd. frame	south
	12		stopwaters on wing frame outboard 13th frame	south
	13		carriage bolts, wing frame, 13th frame	south
	14		"4" for outlet pipe	west
	15		impeller shaft + housing	west
	16		outlet pipe b/n 10+11 frame	west
	17		bracket	west
	18		piece of railing	west
	19		piece of railing	west
	20		door from large hatch	west
	21		5" sq pile on deck	south
	22		typical lifting fitting	down
	23		deteriorated underdeck fitting	down
	24		deteriorated deck fitting	down
	25		deteriorated block. Note main vertical	south
	26		portside wing showing locker, king posts	SW
	27		small scupper access hatch	west
	28		large hatch, port wing	west
	29		underdeck brackets stbd aft	south
	30		deck hook	down
	31		pulley? on deck	down
	32		through first fitting, possible vent	down
	33		detail of screen in fitting	down
	34		detail of chine log VI F5	south
	35		detail of deck beams 3,4+5 when mod's side	east
	36		detail of deck knee, chine at frame 5	south
	37		stbd bobbed corner	east

Gressels Roll #4 Camera: B&W + Digital Photographer: Andy

	Shot #	Date	Description	View
Roll 4	1	8/17/04	frame + chock, frame #1, fastener pattern	east
	2		wing bulkhead b/n frames 1+2	west
	3		outlet sthbd frames, chocks + long. shelf	south
	4		main deck beam to outlet hull frame joint frame 2	SE
	5		2nd frame, upper beam truss joint w/fastener pattern	S
	6		4th frame, truss seat with chock	S
	7		view showing deck knees, chocks, frames	W
	8		outlet hull plank edge drifts	E
	9		rafting bitt, king post, transverse detail	down
	10		longitudinal bulkhead - wing	down
	11		rafting bitt - port aft	north
	12		rafting bit port fwd VI	north
	13		forward king post std, port fwd VI rafting bit	north
	14		aft king post std, port fwd, VI rafting bit	north
	15		rafting log, stbd	east
	16		hull truss detail stanchion ≈ 35" on offset, port	north
	17		truss + bulkhead detail, truss 1 - large arch, also tie rod	north
	18		truss, + stanchion detail, ca. 25-30" on offset, 3rd frame	north
	19		detail of truss junction port side 4th frame	east
	20		"	
	21		"	
	22		king post fwd frame detail stbd	east
	23		king post fwd frame detail	east
	24		3rd long. bulkhead 2nd frame, main truss	W
	25		stanchion detail	S
	26		king post frame detail	E
	27		king post framing detail	E
	28		impeller, stbd wing VI	E
	29		mounting flange, impeller shaft	E
	30		water pipe	E
	31		4" end outlet pipe, stbd wing VI	E
Roll 5	1		pipe	
	2		outlet/intake stbd wing VI	E
	3		Impeller housing	NE

6 vessels V2 Shoalts Island
Roll #6 M. Kruger 8/17/2004

1 - WEST FACE OF DRY DOCK - view to east
2 = LEAD REPAIR PATCHES (ON WEST FACE) - view to east
3 - Close up of patch (over seam) . view to east
4 - Through-hull pump flange . view to east (port side of V2)
5 - Ditto ↑
6 - Ditto ↑
7 - NW corner of V2 . with H2O gage . view to southeast
8 - Closeup of NW corner & the gage . view to SE
9. View to east of the North face of V2 (note scarphs)
10 - view to SW of face - note scarph joint.
11 - Scarph joint on North face of V2 - view to South
12 - Longitudinal supports on main deck - view to south
13. Scarph joint Close up on North face of V2 - View to South
14 - Chine timbers (2) & iron bracket on NE face of V2
15 - NE wing of V2 - View to SE
16 - NE wing/corner of V2 - note sacrificial planks
17 - Closeup of corner construction - view to South
18 - Spud construction on NE corner of V2 - view to west
19 - Valve (through hull) on east side of V2 - view to west
20 - Ditto - close-up
21 - Ditto
22 - SE spud frame . view to west
23. View west along south face of V2.
24 - Closeup of valve on east side of V2.
25. Ditto
26 - Wood frame around valve - View to west
27 - Spud on NE corner of V2 - view to NW
28 - view west down north face of V2.
29. pic of SW corner of V2 w/ iron sheeting
30 - Ditto
31 - Scarph on North face . view to south

Continuation of 35mm film - Roll #6 8-18-04

#33 - Andy recording Chine Construction - view to east (V1)

#34 - Faught measuring repair patch on NE corner of V2

#35 - pump boat w/ writing (unintelligible) view to east

#36 - iron bracket for clamping down connecting timbers between dry dock sections - (on V2)

End of Roll #6

Roll # 7 (B/W 35 mm) 8-18-04

#2 - Close-up of iron bracket fastening hole on V2

#3 - Spud assembly on NE corner of V2

#4 - Ditto

#5 - Chine assembly on SW corner of V2 . view to NW

#6 - Longitudinal deck keelsons (5) of V2 . Note sacrificial planking view to north

#7,8,9 - Panoramic Shot looking North of V2 (with Faught, Elliott, Duff, Wiecker).

#10 - scarph on Southern face of V2 - view to north.

#11 - spud Assembly on SE corner of V2 - view to NW

#12 - Ditto

#13 wood frame for outflow valve

#14 vertical valve on NE corner of V2 view to NW

#15 - exhaust stack on East wing of V2 - view to west

#16 - Transverse iron pipe that empties into wing section - view to west

#17 - iron brackets on NE corner of V2 . View to west

#18 - corner construction on NE corner of V2 - view to south

#19,20 - Spud box Tension rods - close up of end nuts. NE corner of V2.

#21 - Elliott, Faught Stringing baseline tape - View to west

#22 - burned NE corner of V2 (w/ spud) view to NW

#23 - burnt SE corner of V2 (w/spud) view to SW

#24 - burnt Center Section of V2 - view to W.

#25 - Wing bulkhead (burnt) on east wing - view to west

#26,27 - transverse bulkhead / outer hull fastening pattern (w/tape measure) view to west.

#28,29 - wood Chock w/ through pipes (2) for drain?? View to west

#30 View to north along east face of V2 . note wood exhaust

Roll #7 (35mm B/W) cont. 8-18-04

#31 Close-up of SE spud box assembly.

#32. Close-up of corner construction @ SE corner of U2 View to North.

#33- Shot of corner "patch" on SE corner of U2 - view to North

#34/#35- Waterline shot between U_1 & U_2 - view to West

Roll #8 Gressala V2 9/19/2004 A. Lydecker

Shot	Description	View
1	stbd, 4th frame 4th stanchion	S
2	same as 2, showing evidence of plank removal.	S
3	king post detail showing collar mounting bolts forward stbd	E
4	mounting bolt detail	E
5	closed access hole port side 9th+10th frame	W
6	evidence of deck repair 10th frame, port side	W
7	6th stanchion detail 7th frame, port side	W
8	port forward rafting bit below deck framing detail	N
9	rafting bit detail port fwd	N
10	"	
11	"	
12	"	
13	deck beams port side looking aft	S
14	deck, wing & bit detail new, port side	W
15	" "	W
16	" "	W
17.		
18	deck framing port fwd	W
19	"	W
20	6th stanchion detail	W
21		
22		
23		
24		
25	tie rod bolt detail 4th beam, just inboard of 1st bulkhead	W
26	deck rider fastener pattern, 4th rider	S
27		
28		
29	12th beam, fastener detail 7th stanchion	North
30	opposite end (fwd) of 12th beam 7th stanchion fastener detail	S
31	" " "	S

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6e vessels PROJECT NUMBER: _____

ROLL NO.: 9 CAMERA: 35 mm pentax

PHOTOGRAPHER'S NAME MCIC

FILM TYPE (CIRCLE APPROPRIATE CHOICE) ~~B&W~~ OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: 36 FILM SPEED: 100

NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	2	8.19.04	Duff recording manhadan boat	E
	3	"	"	E
	4		Bow repair (w/measuring tape)	
	5		Stern detail	E
	6		Stern scarph ~~saw cap~~ stbd side	E
	7		upper lower hull plank fastener pattern	E
	8		lower hull plank " " stbd	E
	9		hull plank " " stbd	E
	10		lower hull plank " " "	E
	11		iron cap on rub rail stbd	E
	12		stbd side looking aft from bow	E
	13		"	E
	14-30		bow views	W
	31		main deck fwd.	

Photo Log

Roll #8

Shot #	Description	View
32	Forward Cabin	From Bow looking Aft
33	Bow Chock Starboard	South
34	Top of Stem	South
35	Stem fastener Pattern	South
36	Gunwale/Stem Join (Stb.)	South
37	Deck at Bow/Stem	South / Forward

End of Roll #8 Black and White "TMax 100"

Begin Roll #9

1	Deck Plank to King Planks		South
2	Main Deck Looking Aft		North West
3	King Deck Plank Fastener Pattern		North
4	Main Deck Stb. Deck Plank Detail		South
5	Stb. Bulwarks at Bow		South
6	Fwd King Post		East
7	Pilot House Base (Stb.)		South
8	Pilot House Base (Stb		South
9	Steering Mechanism		North
10	Steering Mech. Side View		East
11	Deck fittings Eyes/Pipe/Chain/Paint		North
12	Deck Plank Fastener Pattern / c115' on Baseline		South
13	Turnbuckle on Deck Baseline c.116'		Down
14	Fastener Pattern w. Wood Plugs	c117'	Down
15	Square Hole in Deck Stb.	c.114'	West

Photo Log Roll # 9 continued

Shot #	View	Baseline	Description
16	East	c 112 ft.	Hatch in Wheelhouse Stb. Side
17	"	"	" " " "
18	North	c115'	Deck Plank Joint Pattern
19	"	"	" " " "
20	South		Corner (Stb/Aft) Detail of Pilot House
21	"		" " " "
22	East		" " " "
23			Mistake / Fubar
24	East		Pilot House Aft Base
25	East		Mast
26	East	c72'	Deck Fittings
27	North		Hatch Combing Fwd Face Cargo Hatch
28	North		Cargo Hatch
29	East		" " Corner Detail
30	"		" " Coaming
31	"		" " Fastener Pattern
32	North	c58'	Round Iron Deck Hatch Stb Side
33	North		Stb. Gunwale Repair Detail
34	"		" " " (Whole)
35	West	c160	Deck Rail Base Stb Side
36	"		Deck Rail Hole (directly Above #35)
37	North		Scarf in Gunwhale Top Plank

End of Roll # 9

Photo Log Roll #10 B+W ASA100 TMax

Shot #	View	Baseline	Description
1	West		Eyebolt w. Ring Stb. Gunwale at Gunwale Scarf
2	West		Eybolt w Hemp Core Wire Rope
3	X X	X X	FUBARBA
4	West		Hemp Core Wire Rope Detail
5	North		Quarter Deck Stb End Detail
6	North		Quarter Deck Forward End
7	North		Circular Steel Deck Hatch, Open, Stb Side
8	Down		Stb. Gunwale Fastening Pattern
9	North		Quarter Deck General View Aft
10	North		" " Gunwale Interface
11	"		" " " "
12	West		" " " " Detail
13	West		Paint Detail Fwd End Quarter Deck Railing
14	South		Stb. Deck
15	"		Stb. Gunwale looking Fwd
16	West		Salvage Damage / Hole in deck
17	West		Gunwale fasteners
18	East		Aft Cabin Fwd/Stb Corner Detail
19	North		Quarter Deck Railing
20	West		Rub Rail
21	South		Bollard
22			Railing Stile Stb Q-deck
23	South		Deck Fitting, unknown
24	South		General View Forward From Q-Deck
25			Deck Fitting #1
26	North		Q-Deck Deck Plank Fastener Pattern
27	West	c.46'	Deck Eye Bolt
28			Fabarba
29	West	44	Remains of Salvaged Deck Fitting
30	West		Quarter Deck Railing Repair
31			" " " " Detail
32	North		Stb Fwd Davit Base
33+34+35+36			" " " " Detail
37	North		Crew Workbox

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: Six Ships PROJECT NUMBER: 24242

ROLL NO.: 11 CAMERA: B&W & DIGITAL

PHOTOGRAPHER'S NAME MKF & ME

FILM TYPE (CIRCLE APPROPRIATE CHOICE): B&W OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: _____ FILM SPEED: 100

NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	1	8/23/04	Bad shot	East
	2	8/23/04	Bad shot	East
	3	8/23/04	Fairbanks Morriss Engine	East - vessel 33
	4	"	" Vessel 33	"
	5	"	Fore End of Engine "	North-Aft
	6	"	"workers" on boat	west
	7	"	Panorama of Boat	west
	8	"	"	"
	9	"	stern photo	North west
	10	"	Ensine compartment	West
	11	"	"	"
	12	"	Transverse Bulk Head	West - Interior of Starboard
	13	"	"	"
	14	"	Davit Framing starboard subdeck	west
	15	"	"	"
	16	12	Framing Details sub deck starboard side	Fore South
	17	"	"	"
	18	"	Futtocks on port bow	west
	19	"	"	"
	20	"	Longitudinal Bow starboard side	North
	21	"		
	22	"	Hatch in Foredeck Port Bow	Down
	23	"	"	↓
	24	"	"	↓
	25	"	Vertical stanchion Foreward Hold	South
	26	8/24/04	Fags Frolicking on the Bow	South west
	27	"	Center Point of steering Arch	Down / West
	28	"	"	
	29	"	"	
	30	"	"	Down / South
	31	"	Detail of arch port spoke	Down / west
	32	"	Center spoke Fastner	Down / North
	33	"	First or Starboard side spoke	Down / west
	34	"	Starboard cable steering mechanism	Down / West
	35	"	"	"
	36	"	Planview of Stern	"

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6 Vessels PROJECT NUMBER: _____

ROLL NO.: 12 CAMERA: Yashica T4

PHOTOGRAPHER'S NAME Faught, Lydecker

FILM TYPE (CIRCLE APPROPRIATE CHOICE) (B&W) OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: 36 FILM SPEED: 100

NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	1	8/25/04	Thru Hull Fitting btwn 62-63 Frames	East / starboard stern
	2	"	"	"
	3	"	Iron plate starboard stern 66-67	East / starboard stern
	4	"	Rub Rail starboard stern	East / " "
	5	"	"	"
	6	"	Stern of "Fish Hawk"	South
	7	"	Port Bow cant Frames	west
	8	"	Futtock 3 " " port Bow	West
	9	"	Futtock 2 port Bow	west
	10	"	Starboard side Futtock Frame set 26	west
	11	"	starboard side Hull	West
	12	"	Rigging Element starboard side	West
	13	"	Iron Plate port side	East
	14	"	Starboard Frame 42	East
	15	"	Futtock Fastner pattern Frame 42	"
	16	"	Thru Hull waterway starboard side 46-47	"
	17	"	Rail Buttress	"
	18	"	Outer Hull Outplank From 31 starboard	"
	19	"	missing Futtocks starboard side	"
	20	"	Notch of Futtocks Frame 28 starboard side	"
	21	"	Fastening pattern + thru Hole on D. B. 15	" starboard
	22	"	Port side thru deck steering	"
	23	"	"	West
	24	"	Fags Frolicking on deck	West
	25	"	Fore - shot of Hold	"
	26	"	center - shot of Hold	"
	27	"	Aft - shot of Hold	"
	28	"	Ladder in Hold	North
	29	"	port side main hatch deck beams	E
	30	"	fore end of main hatch showing stanchions	S
	31		aft cabin showing detail	E
	32			
	33			
	34			N
	36			N
	36			N
	37		engine room looking aft	N

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6 vessels PROJECT NUMBER: _____

ROLL NO.: 13 CAMERA: Yashica T4

PHOTOGRAPHER'S NAME Lydecker

FILM TYPE (CIRCLE APPROPRIATE CHOICE): (B&W) OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: 36 FILM SPEED: 100

NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	1	8/25/04	below deck framing details ca. frame 50	down
	2			fore (w.s)
	3			aft (n)
	4		bracket	down
	5		davit mounting below deck	down
	6		below decks framing, aft davit	N
	7		ensign, bulkhead, aft fore end of aft cabin	S
	8		stbd framing looking forward	S
	9		bow views, including fish paintings	e
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20		steering mechanism detail	e
	21		steering detail, stbd side	e
	22		timber holes for steering gear, stbd side wheelhouse	n
	23		timber holes for steering gear	s
	24			s
	25		detail of 24 x 25 showing pipe	s
	26		steering gear hole in quarterdeck bulkhead	n
	27		steering gear hole	n
	28		main hatch support mounting & fore	s
	29		" " " aft	n
	30		universal joint ca. beam 28	w
	31		universal joint detail ca. beam 28	w
	32		chain plate stbd ca. beam 23	e
	33			e
	34			e
	35		chain plate mounting looking down from gunwale	s
	36		hawse hole	aft (n)
	37		mast ca. deck beam 22 framing detail	e

PANAMERICAN CONSULTANTS, INC.
PHOTOGRAPHIC LOG

PROJECT NAME: 6 vessels PROJECT NUMBER: 24242

ROLL NO.: 14 CAMERA: Yashica TX4

PHOTOGRAPHER'S NAME Lydecker

FILM TYPE (CIRCLE APPROPRIATE CHOICE): B&W OR COLOR / PRINT OR SLIDE

NO. OF EXPOSURES: 36 FILM SPEED: TMAX 100

NEG #	SHOT #	DATE	DESCRIPTION	VIEW
	1	8/25/04	Exterior title ca kick stem 36 inboard side of gunwale	S
	2		rail & end cap detail	S
	3			
	4			
	5			
	6			
	7			
	8			
	9			
		8/26/04	Various stern shots	S
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19		Bottom Butt Plank Patch	E
	21	8/26/04	Steering Block & Chain	West
	22			
	23			
	24			

27TH OCT 2004 SIX VESSELS

SCR COMPANY - JERSEY CITY, N.J. - = BRICK BY LEVERS

N 01

LEVER SYSTEM - DREDGE BY MANHATTAN TROWLER

BOW = EAST END

92½" WIDE

11 LEVERS - COARSE ; FINE GRADING -

FROM PORT SIDE

C
C
F
C
C
C
F
C
C
V. COARSE

PHOTO LOG - Vessel #37 Dredge

1 LOOKING SOUTH - LEVERS
2 " " - LEVERS
3 " East - Levers
4 " North - Levers
5 " North - Levers & Brick Plan view facing North
6 " East - Brick & Levers
7 " West - " & "

Roll #15

1 South Stb Fwd Iron Support
2 West " " " "
3 East Machinery Support Chamber
4 " " " "
5 " Machinery Supports
6 " " "
7 " " Support Key
8 West Detail: Iron Clamp on Machinery Support
9 South " " " " " "
10 " Misc. Machinery betw. Machinery supports
11 West " " " " "
12 c. S.E. " " " " "
13 South " " " " "

↓ continued on Reverse

Photo #		
14	East	Dredge Mechanism, Bow Port
15	S.W	" " " Stb
16	S.W	Dredge Center Pipe
17	East	Control Lever Detail
18	"	" " "
19	"	" " "
20	"	" " " Handle
21	North	Aft toward Engine/Boiler Bed
22	Down	Brick, "WW CO"
23	Down	" "J.C.R. Co."
24	"	Drive Belt, Coiled on Deck
25	"	" " " " " , Rivet Detail
26	"	Misc. Elect. Pieces
27	North	Central Machinery Mount Chamfer Detail
28	East	Machinery Support Timber Key
29	Down	Vice
30	East	Winch Drum Scoring, Side of Machery Support
31	"	" " " " " " "

End Roll

10/27/04 Vessel #37 Dredge

Photo Log

Digital Camara

Frame –		direction	
	39 –	south	– Levers
	38 –	East	– Levers
	37 –	North	– Levers
	36 –	West	– Levers
	35 –	West	– Levers
	34 –	~~North~~ ~~Mess~~	East
	33 –	North	↓
	32 –	North	↓
	31 –	North	– West
	30 –	North	– Fags frolicking on deck
	29 –		

Roll # 16 Vessel 37 27 Oct 2004

#		
1	North	Dredge Pipe (Large) Interior of Vessel
2	N.E	Collapsed Structure, Aft End
3	South	Dredge Well at Bow
4	South	Machinery Supports
5	Down	Hemp Core Wire Rope
6	South	Port quarter
7	North	port quarter & machinery
8	North	" " "
9	South	port yoke
10	South	Inboard Starboard Machinery @ Bow
11	South	panorama of starboard quarter Bow
12	"	" " " "
13	South	Stern to stern
14	East	crane or A frame
15.	East	Base of spud
16	North	Scooner
17	East	starboard stern spud mechanism
18	East	starboard side of vessel
19.	East	" " " "
20	NORTH	AFT END PANORAMA - W TO E x3
21	NORTH	"
22	NORTH	"
23	North	Drive mechanism for cutterhead
24	"	" " " "
25	"	" " " "
26	"	" " " "
27	"	" " " "
28	yoke of	port side of thruster Bow.
29	S	
30	W	brick pile
31	W	brick pile
32	W	boiler?

10/28/04 Photo Log on Faught's camara Vessell 36

		Direction
1	port Bow	East
2	Port bow	South
3	Starboard quarter	South
4	" "	South
5	Port Yoke	"
6	panorama of starboard quarter to the bow	
7	" " "	" " "
8	stern to stem	South
9	A or crane frame	East
10	Base of sand	East
11	scooner	North
12.	Starboard stern spud mechanism	East
13.	starboard side of vessel	
14.	" " "	"
15	LOGLINE NORTH - AFT FINAL	PANORAMA
16	" " " "	"
17	" " " "	"
18	North drive mechanism for cutter head	
19	" " " " "	"
20	" " " " "	"
21	" " " " "	"
22	" " " " "	"
23	Yoke on port side of starboard Bow	

APPENDIX G: SECTIONAL DRYDOCK PLANS

(see enclosed CD)

APPENDIX H: J. HOWARD SMITH COMPANY VESSELS

J. Howard Smith Company vessels owned (Sources: Annual List of Merchant Vessels and Steve Rogers).

Official No.	Type	Name	GT	NT	L	W	D	Year Built	Where Built	Crew	HP	Company	Home Port	Year Bought
15098	screw steamer	*Ocean View*	108	35	91.8	17	9.2	1884	Noank, CT	27	150	J. Howard Smith		1934
115647	screw steamer	*Sterling*	143	97	110	18.1	8.8	1879	East Deering, MI	20	325	Harvey W. Smith		1936
208447	screw steamer	*Stephen W. KcKeever*	223	104	128	22.2	10	1911	Noank, CT	25	325			1939?
208613	screw steamer	*McKeever Brothers*	223	104	128	22.2	10	1911	Noank, CT	25	450			1939?
286511	screw steamer	*George P. Squires*	218	137	142.7	22.7	8.8	1900	Baltimore	28	164	Fisheries Products		1933
208447	oil screw	*Stephen W. McKeever Jr.*	223	104	128	22.2	10	1911	Noank, CT	20	300	Otis Smith		1934
208272	oil screw	*Edward J. McKeever Jr.*	223	104	128	22	10	1910	Noank, CT	20	300	Harvey W. Smith		1936
223087	screw steamer	*Elias F. Wilcox*	329	164	139.1	24	11.6	1923	Noank, CT	34	600	Harvey W. Smith		1936
235089	oil screw	*J.H. Whitehurst*	149	37	100	21.9	8.9	1936	Fernandina, FL	15	240	Harvey W. Smith		1936
231225	oil screw	*John L. Lawrence*	229	150	157.8	21.2	10.6	1877	New London, CT	20	500	Harvey W. Smith		1936
140227	oil screw	*Luce Brothers*	144	39	114.3	18.9	8.9	1877	New London, CT	20	210	Harvey W. Smith		1935
223553	oil screw	*Parkins*	133	40	107	23.6	8.3	1923	Pocomola City, MD	22	200	Harvey W. Smith		1934
115647		*Sterling*	143	97	110	18.1	8.8	1879	East Deering, MI	20	210	Harvey W. Smith		1936
236189	oil screw	*Charlie Mason*	180	36	113.1	21.8	9.1	1937	Fernandina, FL	15	240	Harvey W. Smith	Brunswick, GA	1937
236319	oil screw	*Mary Ellen*	180	36	113.1	21.8	9.1	1937	Fernandina, FL	15	240	Harvey W. Smith	Brunswick, GA	1937
208410	screw steamer	*Rowland H. Wilcox*	247	119	132	22.3	10.7	1911	Noank, CT	32	450	Harvey W. Smith	New York, NY	1937
		Benjamin L. Bishop	151	36	97	21.7	9.4	1936	Fernandina, FL	20	240	Harvey W. Smith	Fernandina, FL	1937
237525	oil screw	*Promised Land*	184	47	118	21.4	8.6	1938	Fernandina, FL	22	275	Otis H. Smith	Fernandina, FL	1938
237323	oil screw	*West Beaufort*	119	36	88.8	20	6.8	1938	Fernandina, FL	20	240	Harvey W. Smith	Fernandina, FL	1938
237665	oil screw	*Port Monmouth*	119	36	88.8	20	6.8	1938	Fernandina, FL	20	240	Otis H. Smith	Fernandina, FL	1939
240730		*Charles Herbert Rice*	148	54	106.9	21	8.5	1941	Reedville, VA	23	300	Harvey W. Smith	Reedville, VA	1942
240744		*Silver Star*	144	50	99.5	20.2	8.3	1941	Beaufort, NC	19	220	Harvey W. Smith	Reedville, VA	1942
216580	oil screw	*Lancaster*	143	34	109.4	19.9	8.4	1918	Weems, VA	23	100	J. Howard Smith		1932
105768	oil screw	*Annie L. Wilcox*	158	38	127	27	7.5	1905	Camden, NJ	10	375	J. Howard Smith		1934
277139	oil screw	*John Twohy Brusster*	121	37	105	19.5	8.5	1894	Pensacola, FL	7	210	J. Howard Smith		1935
226167	oil screw	*Doswell S. Edwards*	93	39	77.3	23.6	7.3	1926	Kayan, VA	6	120	J. Howard Smith	New York, NY	1937
229816	gas screw	*Artemis (ex Dorothy)*	20	13	47	11.2	5.1	1930	Algonac, MI	1	500	J. Howard Smith		1942
237350	oil screw	*Fernandina*	119	36	88.8	20	6.8	1938	Fernandina, FL	20	240	Atlantic Navigation	New York, NY	
242052	oil screw	*Mispillion*	143	48	93.7	21.9	7.3	1942	Reedville, VA	20	220	Atlantic Navigation	New York, NY	
211424	screw steamer	*East Hampton*	407	208	162.8	26.6	12.7	1913	Rockland, ME	35	900	Smith Meal	New York, NY	
222067	oil screw	*Little Joe*	250	75	134.3	21.7	10.9	1922	Weems, VA	30	300	Fish Products	Reedville, VA	

Official No.	Type	Name	GT	NT	L	W	D	Year Built	Where Built	Crew	HP	Company	Home Port	Year Bought
218334	oil screw	*H. R. Humphreys*	211	48	126.1	20.7	9.7	1919	Weems, VA	37	300	Fish Products	Beaufort, NC	
216583	oil screw	*Swanson*	154	32	109.4	19.9	8.4	1918	Weems, VA	20	200	Fish Products	Beaufort, NC	
211345	screw steamer	*A Brooke Taylor*	295	130	146	23.3	11	1913	Wilmington, DE	28	450	Menhaden Products	Reedville, VA	
223556	oil screw	*Annie Dow*	241	45	134.3	21.7	10.8	1924	Weems, VA	30	400	Menhaden Products	Reedville, VA	
216453	oil screw	*E. Warren Edwards*	231	30	125.2	21	10.2	1918	Milford, DE	8	300	Menhaden Products	Reedville, VA	
85527	screw steamer	*G. S. Allyn*	211	136	150.4	20	10.7	1878	Mystic	10	600	Menhaden Products	Norfolk, VA	
96610	oil screw	*Helen Euphane*	168	62	112	20.4	9.3	1902	Pocomoke City, MD	30	380	Menhaden Products	Reedville, VA	
130733	oil screw	*Northumberland*	167	99	134.2	20.2	9.3	1897	Pocomoke City, MD	9	450	Menhaden Products	Reedville, VA	
208805	oil screw	*W.L. Messick*	326	75	131.8	23.5	12.5	1911	Norfolk	30	600	Menhaden Products	Reedville, VA	
209911	oil screw	*Wilbert A Edwards*	343	94	143.4	24	11.6	1912	Solomons, MD	24	600	Menhaden Products	Reedville, VA	
239265	oil screw	*Damyank*	47	23	61	18.3	5.1	1939	Sturgeon Bay	5	300	Atlantic Navigation	Wilmington, NC	
233800	oil screw	*Rebel*	14	11	43.7	14.4	5.4	1938	Jacksonville, FL	2	180	Atlantic Navigation	Jacksonville, FL	
218514	gas screw	*Deuchland*	45	38	75.3	18.2	4.9	1919	Morehead City, NC	21	60	Beaufort Fisheries	Beaufort, NC	
141719	gas screw	*Leland Mills*	52	42	79.8	18.7	5.5	1901	Cambridge, MD	14	100	Beaufort Fisheries	Beaufort, NC	
224343	oil screw	*Lloyd T*	22	20	56.4	16.2	3.4	1924	Bettie, NC	11	60	Beaufort Fisheries	Beaufort, NC	
141729	gas screw	*Lorena D*	16	13	48.8	15	3.3	1901	Beaufort, NC	3	120	Beaufort Fisheries	Beaufort, NC	
204756	gas screw	*Reaper*	22	13	51.6	16.3	4	1907	Smyrna, NC	12	20	Beaufort Fisheries	Beaufort, NC	
224904	gas screw	*Tampa*	14	11	42.1	12.4	2.9	1925	Stacy, NC	6	20	Beaufort Fisheries	Beaufort, NC	
223512	oil screw	*Virginia Bell*	33	20	57.7	16	5.2	1923	Amburg, VA	10	100	Beaufort Fisheries	Beaufort, NC	
225174	oil screw	*W. A. Mace*	80	56	87.1	20.3	6.8	1925	New Bern, NC	18	100	Beaufort Fisheries	Beaufort, NC	
205060	oil screw	*Golden West*	14	9	43.9	14.3	3.6	1908	Almatos Bay, CA	1	125	Marine Products	San Diego, CA	
248128	oil screw	*Shoal Harbor*	193	98	120.5	20.5	9.2	1945	Beaufort, NC	20	265	Harvey W. Smith	Beaufort, NC	
236189	oil screw	*Charlie Mason*	180	36	113.1	21.8	9.1	1937	Fernandina, FL	20	240	Atlantic Navigation	New York, NY	
236319	oil screw	*Mary Ellen*	180	36	113.1	21.8	9.1	1937	Fernandina, FL	15	240	Atlantic Navigation	New York, NY	
240682	oil screw	*Capt Fred*	21	11	48.4	16.8	5.5	1941	St. Augustine, FL	4	80	Fish Meal	Beaufort, NC	
241067	oil screw	*Romie*	29	11	48.2	16.7	5.6	1941	St. Augustine, FL	4	80	Fish Meal	Beaufort, NC	
248147	oil screw	*Fearless Fosdick*	10	7	38.6	10.3	4.7	1945	Beaufort, NC	2	88	Harvey W. Smith	Beaufort, NC	
164390	barge	*O.D. No. 34*	353	353	90.3	28.9	6.9	1911	Suffolk, VA	1	0	Menhaden Reduction	New York, NY	
201093	oil screw	*Amanda Bishop*	57	15	73.2	20	6.2	1904	Patchogue, NY	4	100	Harvey W. Smith	Beaufort, NC	
245903	oil screw	*Belford*	149	48	113.9	21.1	7.4	1944	Beaufort, NC	20	540	Harvey W. Smith	Beaufort, NC	
218277	oil screw	*Elizabeth Edwards*	97	26	82.6	21.6	7.3	1919	Greenport, NY	24	180	Harvey W. Smith	Beaufort, NC	
252204	oil screw	*Escatawpa*	137	93	95.7	22.9	7	1946	Beaufort, NC	20	320	Harvey W. Smith	Beaufort, NC	

Official No.	Type	Name	GT	NT	L	W	D	Year Built	Where Built	Crew	HP	Company	Home Port	Year Bought
245904	oil screw	*Fire Island*	153	51	113.9	21.1	7.4	1944	Beaufort, NC	20	540	Harvey W. Smith	Beaufort, NC	
252206	oil screw	*Mississippi*	138	93	95.7	22.9	7	1946	Beaufort, NC	20	320	Harvey W. Smith	Beaufort, NC	
252650	oil screw	*Moss Point*	160	108	106.8	23.3	6.8	1947	Beaufort, NC	20	500	Harvey W. Smith	Beaufort, NC	
2532	oil screw	*Ocean Springs*	149	101	105.9	22.7	7.1	1947	Beaufort, NC	20	500	Harvey W. Smith	Beaufort, NC	
84	oil screw	*Singing River*	106	108	106.8	23.3	6.8	1947	Beaufort, NC	20	500	Harvey W. Smith	Beaufort, NC	
216583	oil screw	*Swanson*	154	32	109.4	19.9	8.4	1918	Weems, VA	21	330	Atlantic Navigation	New York, NY	
223189	oil screw	*Thomas C. McNeal*	232	42	127.9	21.1	9.8	1923	Solomons, MD	33	300	Atlantic Navigation	New York, NY	
253241	barge	*Crab Island*	171	171	98.1	31.1	7.1	1947	Camden, NJ	1	0	Fish Products	Philadelphia, PA	
253242	oil screw	*Little George*	11	8	36	11	4.2	1947	Camden, NJ	1	96	Fish Products	Philadelphia, PA	
216582	oil screw	*Richmond*	150	34	109.4	19.9	8.4	1918	Weems, VA	20	200	Fish Products	Beaufort, NC	
255385	oil screw	*Barnegat*	179	101	120.4	21.5	8.3	1948	Camden, NJ	27	600	Fish Products	Philadelphia, PA	
255550	barge	*Little Egg*	171	171	98.1	31.1	7.1	1948	Camden, NJ	1	0	Fish Products	Philadelphia, PA	
256216	oil screw	*Brigantine*	178	101	120.4	21.5	8.3	1948	Camden, NJ	27	600	Fish Products	Philadelphia, PA	
212389	oil screw	*Pocahontas*	345	40	139.6	24.2	11.5	1914	Milford, DE	30	600	Smith Meal	Boston, MA	
255159	gas screw	*Marpro*	15	12	39.9	11.3	5	1948	San Diego, CA	3	200	Marine Products	San Diego, CA	
258419	oil screw	*Absecon*	198	119	130.5	22.5	8.5	1949	Camden, NJ	26	800	Fish Products	Philadelphia, PA	
257543	oil screw	*Beach Haven*	177	101	120.4	21.5	8.3	1949	Camden, NJ	27	600	Fish Products	Philadelphia, PA	
258135	oil screw	*Little Gull*	198	119	130.5	22.5	8.9	1949	Camden, NJ	26	800	Fish Products	Philadelphia, PA	
157192	oil screw	*Manasquan*	178	102	120.4	21.5	8.3	1949	Camden, NJ	27	600	Fish Products	Philadelphia, PA	
	oil screw	*Sea Girt*												
257539	oil screw	*Calcasieu*	199	135	121.7	20.6	9.8	1949	Beaufort, NC	21	400	Gulf Menhaden	Beaufort, NC	
257540	oil screw	*Marmentau*	199	135	121.7	20.6	9.8	1945	Beaufort, NC	21	400	Gulf Menhaden	Beaufort, NC	
258001	oil screw	*Montauk*	306	208	146	24.1	9.8	1949	Camden, NJ	28	800	Smith Meal	Boston, MA	
257967	oil screw	*Shinnecock*	306	208	146	24.1	9.8	1949	Camden, NJ	28	800	Smith Meal	Boston, MA	
255736	oil screw	*Rockaway*	187	152	121.8	20.5	9.1	1948	Beaufort, NC	20	550	Atlantic Navigation	New York, NY	
259359	oil screw	*Brandywine*	198	119	130.5	22.5	8.5	1950	Camden, NJ	26	800	Fish Products	Philadelphia, PA	
259924	oil screw	*Shrewsbury*	198	119	130.5	22.5	8.5	1950	Camden, NJ	26	800	Fish Products	Philadelphia, PA	
	oil screw	*Fish Hawk*							Beaufort, NC					
259594	oil screw	*Princess Bay*	281	227	134.22	23.7	11	1950	Beaufort, NC	23	550	Atlantic Navigation	New York, NY	
252652	oil screw	*Singing River*	106	108	106.8	23.3	6.8	1947	Beaufort, NC	20	500	Fish Meal	Biloxi, MS	
262699	oil screw	*Alex M*	12	8	36.1	11.2	4.4	1951	Camden, NJ	1	92	Fish Products	Philadelphia, PA	
261429	oil screw	*Indian River*	198	119	130.5	22.5	8.5	1951	Camden, NJ	26	800	Fish Products	Philadelphia, PA	

Official No.	Type	Name	GT	NT	L	W	D	Year Built	Where Built	Crew	HP	Company	Home Port	Year Bought
261897	oil screw	*Rehoboth*	198	119	130	22.5	8.5	1951	Camden, NJ	26	800	Fish Products	Philadelphia, PA	
266605	oil screw	*Elmo*	207	86	124.7	22.4	8.8	1953	Morehead City, NC		800	Atlantic Navigation	New York, NY	
255887	oil screw	*Mattie H. Phillips*	198	71	125.3	22.2	9.7	1948	Morehead City, NC		800	Atlantic Navigation	New York, NY	
265392	oil screw	*Core Sound*	58	39	64.4	20	5.7	1953	Morehead City, NC		170	Beaufort Fisheries	Beaufort, NC	
255026	oil screw	*Alabama*	165	112	105.9	23.2	6.9	1948	Beaufort, NC		375	Fish Meal	Biloxi, MS	
201093	oil screw	*Amanda Bishop*	57	15	73.2	20	6.2	1904	Patchogue, NY		100	Fish Meal	Biloxi, MS	
253791	oil screw	*Chandeleur*	160	109	105.4	23.3	7.2	1947	Beaufort, NC		512	Fish Meal	Biloxi, MS	
255027	oil screw	*Pascagoula*	165	112	105.9	23.2	6.9	1948	Beaufort, NC		375	Fish Meal	Biloxi, MS	
249835	oil screw	*Sandy Hook*	188	153	125.6	20.5	9.1	1946	Beaufort, NC		400	Fish Meal	Biloxi, MS	
265528	oil screw	*Moriches*	199	115	130.6	23.1	8.4	1953	Camden, NJ		800	Fish Products	Philadelphia, PA	
253152	oil screw	*Pauline*	249	107	126.3	25	11.3	1943	Bellingham, WA		1600	Beaufort Fisheries	Beaufort, NC	
267646	oil screw	*Neptune*	189	111	139.4	26.1	7.1	1954	Pascagoula, MS		1120	Fish Meal	Biloxi, MS	
267697	oil screw	*Triton*	181	103	140.4	26.1	6.9	1954	Port Arthur, TX		1120	Fish Meal	Biloxi, MS	
268668	barge	*Seven Islands*	265	265	133.1	31.1	8.2	1954	Camden, NJ			Fish Products	Philadelphia, PA	
267714	oil screw	*Winter Quarter*	199	115	130.6	23.1	8.4	1954	Camden, NJ		800	Fish Products	Philadelphia, PA	
268766	gas screw	*Fin*	8	6	31	9	3.8	1946	Cambridge, NC		100	Fish Products	Philadelphia, PA	
267824	oil screw	*Amagansett*	226	153	140.5	22.7	8.5	1954	Camden, NJ		800	Smith Meal	Boston, MA	
262584	oil screw	*Maidstone*	227	148	140.5	22.7	8.4	1951	Camden, NJ		800	Smith Meal	Boston, MA	
258001	oil screw	*Montauk*	306	208	146	24.1	9.8	1947	Camden, NJ		800	Smith Meal	Boston, MA	
262042	oil screw	*Nantucket*	227	148	140.5	22.7	8.4	1951	Camden, NJ		800	Smith Meal	Boston, MA	
137066	oil screw	*E. J. Codd*	181	75	121.7	22.5	9	1903	Pocomoke City, MD		300	Smith Meal	New York, NY	
135002	oil screw	*Eugene F. Price*	194	132	121.5	20.9	9.2	1874	Bristol, ME		400	Smith Meal	New York, NY	
141863	oil screw	*Leander Wilcox*	196	82	133.3	22.3	9.2	1903	Noank, CT		450	Smith Meal	New York, NY	
219992	oil screw	*Medric*	354	93	150.4	25	13.3	1920	S. Portland, ME		1200	Smith Meal	New York, NY	
217516	oil screw	*Seminole*	158	42	103	22	9.5	1919	Milford, DE		320	Smith Meal	New York, NY	
256786	oil screw	*Evelyn L. Willis*	126	48	106.3	18.2	9.1	1943	Stanford		335	Fish Meal	Biloxi, MS	
255240	oil screw	*Tar heel*	116	78	106.7	18	9.9	1942	Kingston, NY		2400	Fish Meal	Boston, MA	
269649	oil screw	*Napeague*	231	140	141.5	24.2	9.4	1955	Camden, NJ		960	Fish Meal	Boston, MA	
250339	oil screw	*Cape May*	156	72	85.5	21.4	13	1946	Groton, CT		400	Smith Meal	Boston, MA	
270596	oil screw	*Louisiana*	195	133	142.8	27.5	7.9	1955	Port Arthur, TX		1000	Atlantic Navigation	New York, NY	
271674	oil screw	*Romer Shoal*	190	129	140	27.1	8.7	1956	Port Arthur, TX		1250	Atlantic Navigation	New York, NY	
270533	oil screw	*Texas*	196	133	142.8	27.5	7.9	1955	Port Arthur, TX		1000	Fish Products	Philadelphia, PA	

Official No.	Type	Name	GT	NT	L	W	D	Year Built	Where Built	Crew	HP	Company	Home Port	Year Bought
269525	oil screw	*Parramore Banks*	198	113	130.6	23.1	8.4	1955	Camden, NJ		800	Fish Products	Philadelphia, PA	
271249	oil screw	*Jarrett Bay*	64	43	66.5	20.6	5.7	1956	Williston, NC		255	Beaufort Fisheries	Beaufort, NC	
271518	oil screw	*Breton Island*	174	118	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
271588	oil screw	*Cat Island*	181	123	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
271714	oil screw	*Dauphine Island*	181	123	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
271527	oil screw	*Ship Island*	181	123	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
271491	oil screw	*Shoal Harbor*	171	54	122.9	24	6.9	1956	Jacksonville, FL		600	Fish Meal	Biloxi, MS	
273448	gas screw	*Abercrombie*	9	8	31.1	9.8	3.6	1956	Salisbury, MD		125	Fish Products	MD	
273449	gas screw	*Fitch*	9	8	31.1	9.8	3.6	1956	Salisbury, MD		125	Fish Products	MD	
271851	oil screw	*Bird Island*	181	123	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
271775	oil screw	*Horn Island*	181	123	124.4	24.1	6.8	1956	Port Arthur, TX		600	Fish Meal	Biloxi, MS	
274545	oil screw	*Li'l Abner*	607	386	193.8	36.1	10.2	1957	Pascagoula, MS		1280	Fish Meal	Biloxi, MS	
276926	oil screw	*Frosty Morn*	648	344	195	36	11.1	1958	Jacksonville, FL		1240	J. Howard Smith Inc.	New York, NY	
278603	oil screw	*Lennoxville*	71	48	66.9	22.8	4.8	1959	New Bern, NC		290	Beaufort Fisheries	Beaufort, NC	
269194	oil screw	*Acadia*	317	216	120	30	8.5	1955	Port Arthur, TX		1200	Fish Meal	Morehead City, NC	
279285	oil screw	*Broadkill*	8	5	32.7	9.4	3.3	1959	Dorchester, NJ		165	Fish Products	Wilmington, DE	
278285	oil screw	*Sharps Point*	8	5	32.7	9.4	3.3	1959	Dorchester, NJ		165	Fish Products	Wilmington, DE	
267678	oil screw	*Al Cubbage*	192	130	141.5	26.2	6.9	1954	Port Arthur, TX		1120	J. Howard Smith Inc.	New York, NY	
267887	oil screw	*O.M. Haverstick*	197	134	141.5	26.2	6.9	1954	Port Arthur, TX		1120	J. Howard Smith Inc.	New York, NY	
274255	oil screw	*Tiny Tim*	613	337	194.6	36	9.2	1957	Atlantic Beach, FL		1280	J. Howard Smith Inc.	New York, NY	
280451	oil screw	*La Nina*	47	32	45.9	16.5	8.3	1960	Seattle, Wa			Fish Meal	New York, NY	
269489	oil screw	*Fisherman*	198	135	142.8	27.5	7.9	1955	Port Arthur, TX		900	Fish Meal	Morehead City, NC	
278749	oil screw	*La Salle*	417	283	134.8	32.1	10.2	1959	Port Arthur, TX		880	Fish Meal	Morehead City, NC	
281150	oil screw	*Maverick*	468	318	150.3	32.1	10.7	1960	Port Arthur, TX		912	Fish Meal	Morehead City, NC	
269537	oil screw	*Muddy Water*	198	134	142.8	27.5	7.9	1955	Port Arthur, TX		912	Fish Meal	Morehead City, NC	
281151	oil screw	*Sabine Pass*	470	320	150.3	32.1	10.7	1960	Port Arthur, TX		912	Fish Meal	Morehead City, NC	
281152	oil screw	*Trinity Shoal*	470	320	150.3	32.1	10.7	1960	Port Arthur, TX		912	Fish Meal	Morehead City, NC	
289467	oil screw	*Skate*	262	178	153.7	23.2	10.7	1944	Neponset, MA		800	Fish Products	Wilmington, DE	
294343	oil screw	*Sikeoyness*	507	345	168.2	32.1	11.7	1944	New Orleans, LA		800	Fish Products	Wilmington, DE	
295011	oil screw	*Sinepuxent*	522	355	168.2	32.1	11.7	1944	New Orleans, LA		1000	Fish Products	Wilmington, DE	
280452	oil screw	*La Pinta*	47	32	47.4	16.5	8.3	1960	Seattle, WA		170	Fish Products	New York, NY	
280453	oil screw	*Santa Maria*	47	32	46.1	16.5	8.3	1960	Seattle, WA		170	J. Howard Smith Inc.	New York, NY	

APPENDIX I: *FISH HAWK* TREASURY DEPARTMENT DOCUMENTS

CG-1270 (REV. 3-67)

PERMANENT OR TEMPORARY	
PERMANENT	
CERTIFICATE No.	72

THE UNITED STATES OF AMERICA

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

OFFICIAL NO.	COMMERCIAL RADIO CALL AND SIGNAL LETTERS
257819	

Measured at Beaufort, North Carolina 19 49
Rebuilt at ____ 19____
Remeasured at ____ 19____

Service Fishing
Horsepower 550

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] JOHN P. ALBAN of Malverne, New York, PRESIDENT

having taken and subscribed the oath [2] ____ *required by law, and having sworn* [3] ____ *th*

[4] EASTERN TANKER CORP. (I.R.S. Employer No. 13-5641962)

70 Pine Street, New York, New York 10005

Incorporated under the Laws of the State of New York

[5] IS A ____ *citizen of the United States and the sole owner of the vessel called the*

[6] FISHHAWK (Name of vessel), of NEW YORK, N. Y.

and that the said vessel was built in the year [7] 949, at Beaufort, North Carolina (Home port), of [7] Wood

as appears by [8] P.E. No. 129 issued at New York, N.Y., December 5th, 1974, now surrendered; OWNERSHIP CHANGED

and [9] said enrollment *having certified th*

the said vessel is a [10] Oil Screw ; *that she h*

One *deck*, One *mast*, a Straight *stem, and a* Round *stern; th*

her register length is 134.2 *Tns feet, her register breadth* 23.7 *Tns feet, her register depth* 11.8 *Tns fe*

her height ____ *Tns feet; that the measures as follows:* [11]

	TONS	100THS
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ____; *bridge* ____; *poop* ____; *break* 12.64		
houses—deck 32.74, *side* ____, *mast* ____, *trunks* ____; *excess hatchways* 1.82; *light and air* ____	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ____ *Master's cabin* ____		
Steering gear ____ *Anchor gear* ____ *Boatswain's stores* ____		
Chart house ____ *Donkey engine and boiler* ____ *Radio house* ____		
Storage of sails ____ *Propelling power (actual space* 30.90) 175 P. P. 54.07		
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ____, *afterpeak* ____, *other spaces (except double bottoms) for water ballast* ____, *open forecastle* ____, *open bridge* ____, *open poop* ____, *open shelter deck* ____, *open houses* ____, *cabins* ____, *companions* .99, *galley* 6.86, *skylights* ____, *wheelhouse* 3.99, *water-closets* ____, *anchor gear* ____, *donkey engine and boiler* ____, *steering gear* ____, *light and air spaces* 21.28, *other machinery spaces* 6.51, ____

And [12] ____ *having agreed to the description and measurement above specif*

the said vessel has been duly ENROLLED at this PORT:

LICENSE

And JOHN P. ALBAN, *the master, having sworn that he is a citizen of the Uni States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the Un States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YE from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of NEW YORK, N. Y.

District of NEW YORK CITY, N. Y., *this* TWENTIETH *day of* NOVEMBER

in the year One Thousand Nine Hundred and SEVENTY-FIVE

Edith Brooks

By direction of the EDITH BROOKS
Officer in Charge, Marine Inspectio

[1] Insert name and address of person by whom oath or affirmation was made. [2] On the first document of a new record, write in this block "Consolidated Certificate of ____ Builder". On

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 24)

MORTGAGE DESCRIPTION

(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, *at* _____ *m.*

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____

Documentation Officer.

MORTGAGE DISCHARGE

(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, *at* _____ *m.*

[SEAL]

_____

Documentation Officer.

Official No. 257819

CG-1271

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

FISHERIES.
(Insert "Coasting Trade" or "Fisheries")

No. 129

OF THE

Oil Screw

CALLED THE

FISHHAWK

OF

NEW YORK, N.Y.

283 *gross,* 229 *net,*

ISSUED AT THE

Port of NEW YORK, N.Y.

DECEMBER 5th, 19 74

WHERE SURRENDERED:
NEW YORK, N.Y.
WHEN SURRENDERED:
NOVEMBER 20th, 1975
WHY SURRENDERED:
OWNERSHIP CHANGED

P.E. NO. 72 ISSUED

Edith Brooks
Documentation Officer.

GPO 949-240

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 24)

MORTGAGE DESCRIPTION

(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, *at* _____ *m.*

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____

Documentation Officer.

MORTGAGE DISCHARGE

(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____ _____, 19____, *at* _____ *m.*

[SEAL]

_____

Documentation Officer.

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE No. 129

THE UNITED STATES OF AMERICA

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

OFFICIAL NO. 257819
CODED RADIO CALL AND SPECIAL LETTERS:

Measured at Beaufort, North Carolina, 1949
Rebuilt at _____, 19__
Remeasured at _____, 19__

Service Fishing
Horsepower 550

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] ROBERT W. SMITH of Red Bank, N.J., SECRETARY
having taken and subscribed the oath [2] _____ *required by law, and having sworn* [3] _____ *that*
[4] THE NEW SMITH MEAL COMPANY, INC. (I.R.S. Employer No. 22-1992052)
Box D, Port Monmouth, N.J. 07758
INCORPORATED UNDER THE LAWS OF THE STATE OF MASS.
LESS THAN 75 PERCENT OF THE INTEREST IN THE CORPORATION OWNING THIS VESSEL IS
OWNED BY CITIZENS OF THE UNITED STATES. IT SHALL NOT ENGAGE IN THE COASTWISE TRADE

IS A [5] _____ *citizen of the United States and the sole owner of the vessel called the*
[6] FISHHAWK (Name of vessel), *of* NEW YORK, N.Y. (Home port)
and that the said vessel was built in the year 1949, *at* Beaufort, North Carolina, *of* Wood
as appears by [8] P.E. No. 152 issued at New York, N.Y., April 8, 1970, now surrendered; OWNERSHIP CHANGED

and [9] Said Enrollment *having certified that*
the said vessel is a [10] Oil Screw;
One *deck*, One *mast*, a Straight *stem, and a* Round *stern; that*
her register length is 134.2 *feet, her register breadth* 23.7 *feet, her register depth* 11.8 *feet,*
her height _____ *feet; that she measures as follows:* [11]

	TONS	100THS
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle _____; *bridge* _____; *poop* _____; *break* 12.64		
houses—deck 32.74, *side* _____, *mast* _____, *trunks* _____; *excess hatchways* 1.82; *light and air* _____	47	20
GROSS TONNAGE	283	61

Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):

Crew space _____ *Master's cabin* _____
Steering gear _____ *Anchor gear* _____ *Boatswain's stores* _____
Chart house _____ *Donkey engine and boiler* _____ *Radio house* _____
Storage of sails _____ *Propelling power (actual space* 30.90*)* 175 P. P. 54.07

TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak _____, *afterpeak* _____, *other spaces (except double bottoms) for water ballast* _____, *open forecastle* _____, *open bridge* _____, *open poop* _____, *open shelter deck* _____, *open houses* _____, *cabins* _____, *companions* .99, *galley* 6.86, *skylights* _____, *wheelhouse* 3.59, *water-closets* _____, *anchor gear* _____, *donkey engine and boiler* _____, *steering gear* _____, *light and air spaces* 21.28, *other machinery spaces* 6.51, _____

And [12] _____ *having agreed to the description and measurement above specified, the said vessel has been duly ENROLLED at this PORT:*

LICENSE

And JOSEPH SCHOLLENBERGER, *the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YEAR from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of NEW YORK, N.Y.
District of NEW YORK CITY, N.Y., *this* 5th *day of* DECEMBER,
in the year One Thousand Nine Hundred and SEVENTY-FOUR

F. DI SOGRA
By direction of the Officer in Charge, Marine Inspection.

[1] Insert name and address of person by whom oath or affirmation was made.

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 20)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Documentation Officer.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Documentation Officer.

Official No. 257819

CG-1271

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 152

OF THE

Oil Screw

CALLED THE

FISHHAWK

OF

NEW YORK, N. Y.

283 *gross,* 229 *net,*

ISSUED AT THE

Port of NEW YORK, N. Y.

APRIL 8TH, 19 70

WHERE SURRENDERED:
New York, N.Y.

WHEN SURRENDERED:
December 5, 1974

WHY SURRENDERED: (U.S. MARITIME ADMINISTRATION TRANSFER ORDER NO MA-13392 DATED 6th MAY 1974)
OWNERSHIP CHANGED
P.E. NO. 129 ISSUED

F. DI SOGRA
Documentation Officer.

GPO 959-652

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 20)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Documentation Officer.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____ _____, 19____, at _____ m.

[SEAL]

_____
Documentation Officer.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of REEDVILLE, VIRGINIA, 6 NOVEMBER, 19 70
E. B. HAYNIE, having taken the oath required by law, is at present master of the within-named vessel, vice
W. H. SMITH
Gladys S. Evans, Documentation Officer.

(2) Port of Reedville, Va, 18 Nov., 19 70
William H. Lewis, having taken the oath required by law, is at present master of the within-named vessel, vice
E. B. Haynie
Gladys S. Evans, Documentation Officer.

(3) Port of REEDVILLE, VIRGINIA, 20 NOVEMBER, 19 70
MATHEWS GASKINS, having taken the oath required by law, is at present master of the within-named vessel, vice
WILLIAM G. LEWIS
Gladys S. Evans, Documentation Officer.

(4) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(5) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(6) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(7) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(8) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(9) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(10) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(11) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

(12) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
.....
....., Documentation Officer.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

Renewal No. 2. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

Renewal No. 3. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

Renewal No. 4. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

Renewal No. 5. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

Renewal No. 6. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR from ....., 19.....
[Seal] ..... Documentation Officer.

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE No. 152

THE UNITED STATES OF AMERICA

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

OFFICIAL No.	COMBINED RADIO CALL AND SIGNAL LETTERS
257819	WC 5738

Measured at Beaufort, North Carolina 1949
Rebuilt at ____ 19____
Remeasured at ____ 19____

Service Fishing
Horsepower 550

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] H. W. SMITH of Port Monmouth, New Jersey, PRESIDENT
having taken and subscribed the oath [2] ____ *required by law, and having sworn* [3] ____ *that*
[4] ATLANTIC NAVIGATION COMPANY (I. R. S. Employer No. 21-0398946)
Port Monmouth, New Jersey 07758
Incorporated under the laws of the State of New Jersey

IS A [5] *citizen of the United States and the sole owner of the vessel called the*
[6] FISHHAWK (Name of vessel) *of* NEW YORK, N. Y.
and that the said vessel was built in the year 1949 *at* Beaufort, North Carolina *of* [7] (Home port) Wood
as appears by [8] P. E. No. 265 issued at New York, N. Y., May 20th, 1964, Now Surrendered; OWNERSHIP CHANGED

and [9] Said Enrollment *having certified that*
the said vessel is a[10] Oil Screw *; that she has*
One *deck*, One *mast*, *a* Straight *stem, and a* Round *stern; that*
her register length is 134.2 *Tons feet, her register breadth* 23.7 *Tons feet, her register depth* 11.8 *Tons feet,*
her height ____ *Tons feet; that she measures as follows:* [11]

	TONS	100THS
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ____; *bridge* ____; *poop* ____; *break* 12.64		
houses—deck 32.74, *side* ____, *mast* ____, *trunks* ____; *excess hatchways* 1.82; *light and air* ____	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ____ *Master's cabin* ____		
Steering gear ____ *Anchor gear* ____ *Boatswain's stores* ____		
Chart house ____ *Donkey engine and boiler* ____ *Radio house* ____		
Storage of sails ____ *Propelling power (actual space* 30.90*)* 175 P. P. 54.07		
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ____, *afterpeak* ____, *other spaces (except double bottoms) for water ballast* ____, *open forecastle* ____, *open bridge* ____, *open poop* ____, *open shelter deck* ____, *open houses* ____
cabins ____, *companions* .99, *galley* 6.86, *skylights* ____, *wheelhouse* 3.59, *water-closets* ____, *anchor gear* ____
donkey engine and boiler ____, *steering gear* ____, *light and air spaces* 21.28, *other machinery spaces* 6.51, ____

And [12] ____ *having agreed to the description and measurement above specified,*
the said vessel has been duly ENROLLED at this PORT:

LICENSE

And H. W. SMITH *, the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY *for ONE YEAR from the date hereof, and no longer.*
(Coasting Trade, Cod Fishery, or Mackerel Fishery)

GIVEN under my hand and seal at the PORT of NEW YORK, N. Y.
District of NEW YORK CITY, N. Y., *this* 8TH *day of* APRIL
in the year One Thousand Nine Hundred and SEVENTY

EDWARD F. LORENTZ
By direction of the Officer in Charge, Marine Inspection.

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.

[9] On the first document of a new vessel, write in this blank "certificate of ....., builder." On every document other than the first, recite whether the last former document was permanent or temporary, the

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION

(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____

Deputy Collector of Customs.

MORTGAGE DISCHARGE

(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded* _____, 19____, *at* _____ *m.*

[SEAL]

_____

Deputy Collector of Customs.

Official No. 257819

Customs Form 1271

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 265

OF THE

Oil Screw

CALLED THE

FISHHAWK

OF

NEW YORK, N. Y.

283 *gross,* 229 *net,*

ISSUED AT THE

Port of NEW YORK, N. Y.

MAY 20th, 1964

WHERE SURRENDERED:
NEW YORK, N. Y.

WHEN SURRENDERED:
APRIL 8, 1970

WHY SURRENDERED:
OWNERSHIP CHANGED.

P. E. NO. 152 ISSUED.

Edward Rauth

~~Supervising Special Agent~~
Documentation Officer

16—21316-1

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION

(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, *at* _____ *m.*

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____

Deputy Collector of Customs.

MORTGAGE DISCHARGE

(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded* _____, 19____, *at* _____ *m.*

[SEAL]

_____

Deputy Collector of Customs.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of REEDVILLE, VIRGINIA, MAY 22, 1964
WILEY H. LEWIS, having taken the oath required by law, is at present master of the within-named vessel, vice H. H. CUBBAGE
Gladys S Evans, Deputy Collector of Customs.

(2) Port of REEDVILLE, VIRGINIA, 6 June, 1969
JACKIE A. SIMPSON, having taken the oath required by law, is at present master of the within-named vessel, vice WILEY H. LEWIS
Gladys S Evans, Documentation Officer

(3) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice:
....., Deputy Collector of Customs.

(4) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(5) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(6) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(7) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(8) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(9) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(10) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(11) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(12) Port of ....., 19.....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of REEDVILLE, VIRGINIA (5-6-65)
The within-described LICENSE is hereby renewed for ONE YEAR
from MAY 20, 19 65
[Seal] Gladys S Evans, Deputy Collector of Customs.

Renewal No. 2. Port of REEDVILLE, VIRGINIA (5-25-66)
The within-described LICENSE is hereby renewed for ONE YEAR
from MAY 25, 19 66
[Seal] Gladys S Evans, Port Director

Renewal No. 3. Port of REEDVILLE, VIRGINIA (5-16-67)
The within-described LICENSE is hereby renewed for ONE YEAR
from 16 JUNE 1967
[Seal] Gladys S Evans, Documentation Officer

Renewal No. 4. Port of REEDVILLE, VIRGINIA (5-29-68)
The within-described LICENSE is hereby renewed for ONE YEAR
from 16 JUNE, 19 68
[Seal] Gladys S Evans, Documentation Officer

Renewal No. 5. Port of REEDVILLE, VIRGINIA (6-6-69)
The within-described LICENSE is hereby renewed for ONE YEAR
from 16 JUNE, 19 69
[Seal] Gladys S Evans, Documentation Officer

Renewal No. 6. Port of .....
The within-described LICENSE is hereby renewed for ONE YEAR
from ....., 19.....
[Seal] ....., Deputy Collector of Customs.

16—21810-2

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE No. 265

THE UNITED STATES OF AMERICA

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

OFFICIAL No.	COMBINED RADIO CALL AND SIGNAL LETTERS
257819	WC 5738

Measured at Beaufort, N. C. 1949
Rebuilt at ..... 19....
Remeasured at ..... 19....

Service Fishing
Horsepower 550

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] H. H. CUBBAGE of Port Monmouth, New Jersey, PRESIDENT
having taken and subscribed the oath [2] ..... *required by law, and having sworn* [3] ..... *that*
[4] FISH HAWK, INC.
Port Monmouth, New Jersey
INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

IS A [5] citizen *of the United States and the sole owner of the vessel called the*
[6] FISHHAWK (Name of vessel), *of* New York, N. Y. (Home port)
and that the said vessel was built in the year 1949, *at* Beaufort, N. C., *of* [7] wood
as appears by [8] P.E. No. 368, issued at New York, N. Y., April 17th, 1957, now surrendered;
RENEWAL SPACES FILLED.
and [9] said enrollment *having certified that the said vessel is a* [10] oil screw; *that she has* one *deck*, one *mast*, a straight *stem, and a* round *stern; that her register length is* 134.2 *Tons feet, her register breadth* 23.7 *Tons feet, her register depth* 11.8 *Tons feet, her height* ..... *Tons feet; that she measures as follows:* [11]

	TONS	100ths
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ....., *bridge* ....., *poop* ....., *break* 12.64		
houses—deck 32.74, *side* ....., *mast* ....., *trunks* ....., *excess hatchways* 1.82, *light and air*	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ..... *Master's cabin*		
Steering gear ..... *Anchor gear* ..... *Boatswain's stores*		
Chart house ..... *Donkey engine and boiler* ..... *Radio house*		
Storage of sails ..... *Propelling power (actual space* 30.90) 175 P.P.	54.07	
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ....., *afterpeak* ....., *other spaces (except double bottoms) for water ballast* ....., *open forecastle* ....., *open bridge* ....., *open poop* ....., *open shelter deck* ....., *open houses* ..... *cabins* ....., *companions* .99, *galley* 6.86, *skylights* ....., *wheelhouse* 3.59, *water-closets* ....., *anchor gear* ..... *donkey engine and boiler* ....., *steering gear* ....., *light and air spaces* 21.28, *other machinery spaces* 6.51, ...

And [12] ..... *having agreed to the description and measurement above specified the said vessel has been duly ENROLLED at this PORT:*

LICENSE

And H. H. CUBBAGE, *the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YEAR from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of NEW YORK, N. Y.
District of NEW YORK, *this* TWENTIETH *day of* MAY
in the year One Thousand Nine Hundred and SIXTY-FOUR

JOSEPH P. KELLY, COLLECTOR
By ..... Customs Marine Officer

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.
[4] Insert the name and business address of the owner. If there are two or more owners, give the name and business address of one of the owners (managing owner, if one has been designated) and the proportion

[5] On the first document of a new vessel, write in this blank "certificate of ....., builder." On every document other than the first, recite whether the last former document was permanent or temporary, the kind, number, date, and place of issue of such former document, whether the original or a copy of the former document was surrendered, and the reason for issue of the new document.

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 24)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

Official No. 257819

Customs Form 1271

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 368

OF THE

Oil Screw

CALLED THE

FISHHAWK

OF

New York, N.Y.

283 gross, 229 net,

ISSUED AT THE

Port of NEW YORK, N.Y.

APRIL 17th, 1957.

WHERE SURRENDERED:
NEW YORK, N. Y.

WHEN SURRENDERED:
MAY 20th, 1964

WHY SURRENDERED:
RENEWAL SPACES FILLED

P.E. NO. 265 ISSUED

JOSEPH P. KELLY, COLLECTOR
By _____
Customs Marine Officer

_____
~~Deputy Collector of Customs.~~

16—21210-1

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 24)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of REEDVILLE, VIRGINIA, MAY 20 1957, 19....
Miley H. Lewis, having taken the oath required by law, is at present master of the within-named vessel, vice
H. H. Culbreth
Leah R. Moore, Deputy Collector of Customs.

(2) Port of Reedville, Virginia, February 16, 1961
Warner Haynie, having taken the oath required by law, is at present master of the within-named vessel, vice
Miley H. Lewis
Gladys S. Evans, Deputy Collector of Customs.

(3) Port of Reedville, Va., May 22, 1961
Wiley H. Lewis, having taken the oath required by law, is at present master of the within-named vessel, vice
Warner Haynie
Gladys S. Evans, Deputy Collector of Customs.

(4) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(5) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(6) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(7) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(8) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(9) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(10) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(11) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

(12) Port of ....., 19....
....., having taken the oath required by law, is at present master of the within-named vessel, vice
....., Deputy Collector of Customs.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of REEDVILLE, VIRGINIA
The within-described LICENSE is hereby renewed for ONE YEAR
from JUN 2 1958, 19....
[Seal] Leah R. Moore, Deputy Collector of Customs.

Renewal No. 2. Port of REEDVILLE, VA., (5-28-59)
The within-described LICENSE is hereby renewed for ONE YEAR
from JUNE 2, 1959
[Seal] Leah R. Moore, Deputy Collector of Customs.

Renewal No. 3. Port of REEDVILLE, VIRGINIA
The within-described LICENSE is hereby renewed for ONE YEAR
from JUN 2 1960, 19....
[Seal] Leah R. Moore, Deputy Collector of Customs.

Renewal No. 4. Port of Reedville, Va. (5-22-61)
The within-described LICENSE is hereby renewed for ONE YEAR
from June 2, 19 61
[Seal] Gladys S. Evans, Deputy Collector of Customs.

Renewal No. 5. Port of Reedville, Va. (5-15-62)
The within-described LICENSE is hereby renewed for ONE YEAR
from JUNE 2, 19 62
[Seal] Gladys S. Evans, Deputy Collector of Customs.

Renewal No. 6. Port of REEDVILLE, VIRGINIA (5-21-63)
The within-described LICENSE is hereby renewed for ONE YEAR
from JUNE 2, 1963
[Seal] Gladys S. Evans, Deputy Collector of Customs.

16—22315-2

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE NO. 368

THE UNITED STATES OF AMERICA

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

OFFICIAL NO.	COMMERCIAL RADIO CALL AND SIGNAL LETTERS
257819	WC 5738

5-28-64

Measured at Beaufort, N.C. 1949
Rebuilt at ..... 19....
Remeasured at ..... 19....

Service Fishing
Number of crew, INCLUDING master —
Horsepower 550 Oil Engine

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] H. H. CUBBAGE, of Port Monmouth, New Jersey, PRESIDENT,
having taken and subscribed the oath [2] ..... *required by law, and having sworn* [3] ..... *that*
[4] FISH HAWK, INC.
of Port Monmouth, New Jersey,
Incorporated under the laws of the State of Delaware
IS A
[5] *citizen of the United States and the sole owner of the vessel called the*
[6] FISHHAWK (Name of vessel), *of* New York, N.Y. (Home port)
and that the said vessel was built in the year [7] 1949, *at* Beaufort, N.C., *of* [7] Wood
as appears by [8] P.E.No. 500, issued at New York, N.Y. on May 21,1951, now surrendered; PROPERTY CHANGED.
and [9] said enrollment *having certified that the said vessel is a* [10] oil screw; *that she has* one *deck*, one *mast*, *a* straight *stem, and a* round *stern; that her register length is* 134.2 *Tons feet, her register breadth* 23.7 *Tons feet, her register depth* 11.8 *Tons feet, her height* ..... *Tons feet; that she measures as follows:* [11]

	TONS	100THS
Capacity under tonnage deck	235	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ....; *bridge* ....; *poop* ....; *break* 12.64 *houses—deck* 32.74, *side* ...., *mast* ...., *trunks* ....; *excess hatchways* 1.82; *light and air*	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space .... *Master's cabin*		
Steering gear .... *Anchor gear* .... *Boatswain's stores*		
Chart house .... *Donkey engine and boiler* .... *Radio house*		
Storage of sails .... *Propelling power (actual space* 30.90 *)* 175 P.P. 54.07		
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ...., *afterpeak* ...., *other spaces (except double bottoms) for water ballast* ...., *open forecastle* ...., *open bridge* ...., *open poop* ...., *open shelter deck* ...., *open houses* .... *cabins* ...., *companions* .99, *galley* 6.86, *skylights* ...., *wheelhouse* 3.59, *water-closets* ...., *anchor gear* .... *donkey engine and boiler* ...., *steering gear* ...., *light and air spaces* 21.28, *other machinery spaces* 5.51, ...

And [12] ..... *having agreed to the description and measurement above specified, the said vessel has been duly ENROLLED at this PORT:*

LICENSE

And H. H. CUBBAGE, *the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YEAR from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of NEW YORK, N.Y.
District of NEW YORK, *this* SEVENTEENTH *day of* APRIL
in the year One Thousand Nine Hundred and FIFTY-SEVEN.

ROBERT W. DILL COLLECTOR
(Seal) Customs Marine Officer

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.
[4] Insert the name and business address of the owner. If there are two or more owners, give the name and business address of one of the owners (managing owner, if one has been designated) and the proportion

[6] On the first document of a new vessel, write in this blank "certificate of ..... builder." On every document other than the first, recite whether the last former document was permanent or temporary, the kind, number, date, and place of issue of such former document, whether the original or a copy of the former document was surrendered, and the reason for issue of the new document.
[9] Write "said register," "said enrollment," or "said license." In the first document of a new vessel

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 23)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

Official No. 257819

Customs Form 1271

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 500

OF THE

011 Screw

CALLED THE

FISHHAWK

OF

New York, N.Y.

283 gross, 229 net,

ISSUED AT THE

Port of NEW YORK, N.Y.

MAY 21st, 19 51.

WHERE SURRENDERED: NEW YORK, N. Y.

WHEN SURRENDERED: APR 17 1957

WHY SURRENDERED: Property Changed
PE No. 368 issued

ROBERT E. [illegible], COLLECTOR
By _____
First Deputy Collector of Customs.

16—21316-1

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 23)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of REEDVILLE,VA., May 24, 19 51

LEN O.LOWRY, having taken the oath required by law, is at present master of the within-named vessel.

Leah R. Moore
Deputy Collector of Customs.
(customs marine officer)

(2) Port of REEDVILLE, Va NOV 3 1952 19

JAMES LUPTON, having taken the oath required by law, is at present master of the within-named vessel.

Leah R. Moore
Deputy Collector of Customs.

(3) Port of Reedville,Va., May 13, 1953

Len O.Lowry, having taken the oath required by law, is at present master of the within-named vessel.

Leah R. Moore
Deputy Collector of Customs.

(4) Port of REEDVILLE, VA NOV 9 1953 19

James Lupton, having taken the oath required by law, is at present master of the within-named vessel.

Leah R. Moore
Deputy Collector of Customs.

(5) Port of REEDVILLE, VA MAY 22 1954

LEN O.LOWRY, having taken the oath required by law, is at present master of the within-named vessel.

Leah R. Moore
Deputy Collector of Customs.

(6) Port of REEDVILLE, VA NOV 5 1954 19

R.B.Wallace, having taken the oath required by law, is at present master of the within-named vessel.

nee, Lenyl. Lowry
Leah R. Moore
Deputy Collector of Customs.

(7) Port of REEDVILLE,VA., MAY 16, 1955

WILEY H.LEWIS, having taken the oath required by law, is at present master of the within-named vessel Vice: Len O.Lowry

Leah R. Moore
Deputy Collector of Customs.

(8) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____
Deputy Collector of Customs.

(9) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____
Deputy Collector of Customs.

(10) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____
Deputy Collector of Customs.

(11) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____
Deputy Collector of Customs.

(12) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____
Deputy Collector of Customs.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of REEDVILLE, VA

The within-described LICENSE is hereby renewed for ONE YEAR from JUN 3 1952 19

[Seal] Leah R. Moore
Deputy Collector of Customs.

Renewal No. 2. Port of Reedville,Va., (5-13-53)

The within-described LICENSE is hereby renewed for ONE YEAR from June 3, 1953

[Seal] Leah R. Moore
Deputy Collector of Customs.

Renewal No. 3. Port of REEDVILLE,VA., (5-22-54)

The within-described LICENSE is hereby renewed for ONE YEAR from June 3, 1954

[Seal] Leah R. Moore
Deputy Collector of Customs.

Renewal No. 4. Port of REEDVILLE,VA., (5-16-55)

The within-described LICENSE is hereby renewed for ONE YEAR from JUNE 3, 19 55

[Seal] Leah R. Moore
Deputy Collector of Customs.

Renewal No. 5. Port of REEDVILLE,VA., (5-21-56)

The within-described LICENSE is hereby renewed for ONE YEAR from JUNE 3, 19 56

[Seal] Leah R. Moore
Deputy Collector of Customs.

Renewal No. 6. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____
Deputy Collector of Customs.

Form 1944

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE No. 500

THE UNITED STATES OF AMERICA

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

OFFICIAL No. 257819 | COMBINED RADIO CALL AND SIGNAL LETTERS

Measured at Beaufort, N.C. 1949
Rebuilt at ____ 19____
Remeasured at ____ 19____

Service Fishing
Number of crew, INCLUDING master 21
Horsepower 550
Draft 9'2" Oil Engine

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] HARVEY W. SMITH, of Port Monmouth, N.J., PRESIDENT,

having taken and subscribed the oath [2] ____ *required by law, and having sworn* [3] ____ *that*

[4] ATLANTIC NAVIGATION COMPANY,

of Port Monmouth, New Jersey,

Incorporated under the laws of the State of New Jersey,

[5] IS A citizen *of the United States and the sole owner of the vessel called the*

[6] F I S H H A W (Name of vessel), *of* NEW YORK, N.Y. (Home port)

and that the said vessel was built in the year [7] 1949, *at* Beaufort, N.C., *of* wood

as appears by [8] P.E.NO.558, issued at New York, N.Y., on June 13,1949,now surrendered; PROPERTY CHANGED.

and [9] said enrollment *having certified that the said vessel is a* [10] oil screw; *that she has* one *deck,* one *mast, a* straight *stem, and a* round *stern; that her register length is* 134.2 *feet, her register breadth* 23.7 *feet, her register depth* 11.8 *feet, her height* ____ *feet; that she measures as follows:* [11]

	TONS	100ths
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ____; bridge XXXX; poop ____; break 12.64		
houses—deck 32.74, side ____, chart ____, radio ____; excess hatchways 1.82; light and air ____	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ____ Master's cabin ____		
Steering gear ____ Anchor gear ____ Boatswain's stores ____		
Chart house ____ Donkey engine and boiler ____ Radio house ____		
Storage of sails ____ Propelling power (actual space 30.90) 175 P.P.	54	07
TOTAL DEDUCTIONS		
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ____, afterpeak ____, other spaces (except double bottoms) for water ballast ____, open forecastle ____, open bridge ____, open poop ____, open shelter deck ____, cabins ____ companions .99, galley 6.86, skylights ____, wheelhouse 3.59, water-closets ____, anchor gear ____, condenser ____ donkey engine and boiler ____, steering gear ____, light and air spaces 21.28, other machinery spaces 6.51, ____

And [12] ____ *having agreed to the description and measurement above specified, the said vessel has been duly ENROLLED at this PORT:*

LICENSE

And HARVEY W. SMITH, *the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YEAR from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of NEW YORK, N.Y.
District of NEW YORK, *this* TWENTY-FIRST *day of* MAY
in the year One Thousand Nine Hundred and FIFTY-ONE.

HARRY M. DURNING, COLLECTOR
By ____ Collector of Customs.

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.
[4] Insert the name and business address of the ____. If there are two or more ____ insert the name[s] ...

[8] On the first document of a new vessel, write in this blank "certificate of ____ builder." On every document other than the first, recite whether the last former document was permanent or temporary; its kind, number, date, and place of issue of such former document, whether the original or a copy of ...

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 23)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

Discharge amount, $ _____

Port of _____

[SEAL]

Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

Deputy Collector of Customs.

Official No. 257819

Customs Form 1271

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE
FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 558
OF THE
Oil Screw
CALLED THE
FISHHAWK
OF
New York, N.Y.

283 gross, 229 net,

ISSUED AT THE
Port of NEW YORK, N.Y.
JUNE 13th, 1949.

WHERE SURRENDERED: NEW YORK, N. Y.

WHEN SURRENDERED: MAY 21 1951

WHY SURRENDERED: Property Changed
P.E. No. 500 issued

HARRY M. DURNING, COLLECTOR

BY _____ *Deputy Collector of Customs.*

16—21815-1

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 23)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

Discharge amount, $ _____

Port of _____

[SEAL]

Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

Deputy Collector of Customs.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of REEDVILLE, VA., May 13, 1950

HENRY NAGLE, having taken the oath required by law, is at present master of the within-named vessel.

[signature] Deputy Collector of Customs.
(customs marine officer)

(2) Port of REEDVILLE, VA., November 10, 1950

LEN O. LOWRY, having taken the oath required by law, is at present master of the within-named vessel.

[signature] Deputy Collector of Customs.
(customs marine officer)

(3) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(4) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(5) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(6) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(7) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(8) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(9) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(10) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(11) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

(12) Port of _____, _____, 19____

_____, having taken the oath required by law, is at present master of the within-named vessel.

_____ Deputy Collector of Customs.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of REEDVILLE, VA., (5-13-30)

The within-described LICENSE is hereby renewed for ONE YEAR from June 13, 1950

[Seal] [signature] Deputy Collector of Customs.
(customs marine officer)

Renewal No. 2. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____ Deputy Collector of Customs.

Renewal No. 3. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____ Deputy Collector of Customs.

Renewal No. 4. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____ Deputy Collector of Customs.

Renewal No. 5. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____ Deputy Collector of Customs.

Renewal No. 6. Port of _____

The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____

[Seal] _____ Deputy Collector of Customs.

PERMANENT OR TEMPORARY: PERMANENT
CERTIFICATE No. 558

THE UNITED STATES OF AMERICA

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

OFFICIAL No.	COMBINED RADIO CALL AND SIGNAL LETTERS
257819	

Measured at Beaufort, N.C. 19 49
Rebuilt at ____ 19 ____
Remeasured at ____ 19 ____

Service Fishing
Number of crew, INCLUDING master 21
Horsepower 550
Draft M 9'2" Oil Engine

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] J. HOWARD SMITH, of Port Monmouth, N.J., SECRETARY,
having taken and subscribed the oath [2] ____ required by law, and having sworn [3] ____ that
[4] ____

J. HOWARD SMITH, INCORPORATED,
of Port Monmouth, New Jersey,
Incorporated under the laws of the State of New Jersey,

[5] IS A citizen of the United States and the sole owner of the vessel called the
[6] FISHHAWK (Name of vessel), of NEW YORK, N.Y.
and that the said vessel was built in the year [7] 949, at Beaufort, N.C. (Home port), of [7] wood
as appears by [8] P.E.NO. 13-D, issued at Beaufort, N.C., May 20, 1949, now surrendered; PROPERTY AND HOME PORT CHANGED.
and [9] said enrollment having certified that
the said vessel is a [10] oil screw; that she has
one deck, one mast, a straight stem, and a round stern; that
her register length is 134.2 [10] feet, her register breadth 23.7 [10] feet, her register depth 11.8 [10] feet,
her height ____ [10] feet; that she measures as follows: [11]

	TONS	100THS
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck		
Capacity of enclosures on the upper deck, viz: Forecastle ____; bridge ____; poop ____; break 12.64 houses—deck 32.74, side ____, chart ____, radio ____; excess hatchways 1.82; light and air ____	47	20
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ____ Master's cabin ____		
Steering gear ____ Anchor gear ____ Boatswain's stores ____		
Chart house ____ Donkey engine and boiler ____ Radio house ____		
Storage of sails ____ Propelling power (actual space 30.90m) 175% P.P. 54.07		
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ____, afterpeak ____, other spaces (except double bottoms) for water ballast ____, open forecastle ____, open bridge ____, open poop ____, open shelter deck ____, cabins ____, companions .99, galley 6.86, skylights ____, wheelhouse 3.59, water-closets ____, anchor gear ____, condenser ____, donkey engine and boiler ____, steering gear ____, light and air spaces 21.28, other machinery spaces 6.51, ____

And [12] ____ having agreed to the description and measurement above specified,
the said vessel has been duly ENROLLED at this PORT:

LICENSE

And J. HOWARD SMITH, the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) for ONE YEAR from the date hereof, and no longer.

GIVEN under my hand and seal at the PORT of NEW YORK, N.Y.
District of NEW YORK, this THIRTEENTH day of JUNE
in the year One Thousand Nine Hundred and FORTY-NINE.

HARRY M. DURNING, COLLECTOR
BY ____ Collector's Clerk.

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.

[8] On the first document of a new vessel, write in this blank "certificate of ____ builder." On every document other than the first, recite whether the last former document was permanent or temporary, the kind, number, date, and place of issue of such former document, whether the original or a copy of the

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

Official No. 257819

Customs Form 1271

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

Permanent
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE

Mackerel Fishery
(Insert "Coasting Trade" or "Fisheries")

No. 13 - D

OF THE

Oil screw

CALLED THE

" FISH HAWK "

OF

Beaufort, N. C.

283 gross, 229 net,

ISSUED AT THE

Port of Beaufort, North Carolina

MAY 29, 1949

WHERE SURRENDERED: NEW YORK, N. Y.

WHEN SURRENDERED: JUN 13 1949

WHY SURRENDERED: Property & Home Port Changed
P.E. No. 558 issued.

HARRY M. DURNING, COLLECTOR

BY _____ *Deputy Collector of Customs*

16—21310-1

8E

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, 19____, at _____ m.

Total amount, $ _____

Date of maturity _____, 19____

_____

Discharge amount, $ _____

_____

Port of _____

[SEAL]

_____
Deputy Collector of Customs.

MORTGAGE DISCHARGE
(SUBSECTION GB)

Port of _____

_____, 19____

The sum of $ _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____
Deputy Collector of Customs.

ENDORSEMENTS OF CHANGE OF MASTER

(1) Port of Beaufort N.C., May 27, 19 49
Fred M. Haynie, having taken the oath required by law, is at present master of the within-named vessel.
Chas Bouyet, Deputy Collector of Customs.

(2) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(3) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(4) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(5) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(6) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(7) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(8) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(9) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(10) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(11) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

(12) Port of _____, _____, 19____
_____, having taken the oath required by law, is at present master of the within-named vessel.
_____, Deputy Collector of Customs.

ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

Renewal No. 2. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

Renewal No. 3. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

Renewal No. 4. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

Renewal No. 5. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

Renewal No. 6. Port of _____
The within-described LICENSE is hereby renewed for ONE YEAR from _____, 19____
[Seal] _____, Deputy Collector of Customs.

June 1944

PERMANENT OR TEMPORARY: Permanent
CERTIFICATE No. 13 - D

THE UNITED STATES OF AMERICA

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

OFFICIAL No.	COMBINED RADIO CALL AND SIGNAL LETTERS
257819	

Measured at Beaufort, N. C. 19 49
Rebuilt at ..... 19 ....
Remeasured at ..... 19 ....

Service Fishing
Number of crew, INCLUDING master 21
Horsepower 550, Diesel type

Consolidated Certificate of Enrollment and License

In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States

[1] H. W. Smith, of P. O. Box 38, Beaufort, North Carolina
having taken and subscribed the oath [2] ..... *required by law, and having sworn* [3] ..... *that*
[4] .....

he is a

[5] *citizen of the United States and the sole owner of the vessel called the*
[6] "FISH HAWK" (Name of vessel), *of* Beaufort, N. C. (Home port)
and that the said vessel was built in the year 1949, *at* Beaufort, North Carolina, *of* wood
as appears by [8] Certificate of H. W. Smith, Master Carpenter of the Fish Meal Company, Builders of Beaufort, N. C.

and [9] Certificate of K. K. Kimmell, U. S. Admeasurer of Wilmington, N. C. *having certified that the said vessel is a* [10] oil screw; *that she has* One *deck*, One *mast*, a Straight *stem, and a* Round *stern; that her register length is* 134 2/10 *feet, her register breadth* 23 7/10 *feet, her register depth* 11 8/10 *feet, her height* ..... /10 *feet; that she measures as follows:* [11]

	TONS	100THS
Capacity under tonnage deck	236	41
Capacity between decks above tonnage deck	12	64
Capacity of enclosures on the upper deck, viz: Forecastle ....; bridge ....; poop ....; break 12.64	32	74
houses—deck 32.74, side ....., chart ....., radio .....; excess hatchways 1.82; light and air	1	82
GROSS TONNAGE	283	61
Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):		
Crew space ..... Master's cabin		
Steering gear ..... Anchor gear ..... Boatswain's stores		
Chart house ..... Donkey engine and boiler ..... Radio house		
Storage of sails ..... Propelling power (actual space 30.90) 175% P. P.	54	07
TOTAL DEDUCTIONS	54	07
NET TONNAGE	229	

The following-described spaces, and no others, have been omitted, viz: Forepeak ....., *afterpeak* ....., *other spaces (except double bottoms) for water ballast* ....., *open forecastle* ....., *open bridge* ....., *open poop* ....., *open shelter deck* ....., *cabins* ..... *companions* .99, *galley* 6.86, *skylights* ....., *wheelhouse* 3.59, *water-closets* ....., *anchor gear* ....., *condenser* ..... *donkey engine and boiler* ....., *steering gear* ....., *light and air spaces* 21.28, *other machinery spaces* 6.51, ...

And [12] H. W. Smith *having agreed to the description and measurement above specified, the said vessel has been duly ENROLLED at this PORT:*

LICENSE

And H. W. Smith, *the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:*

LICENSE is hereby granted for the said vessel to be employed in carrying on the MACKEREL FISHERY (Coasting Trade, Cod Fishery, or Mackerel Fishery) *for ONE YEAR from the date hereof, and no longer.*

GIVEN under my hand and seal at the PORT of Beaufort, N. C.
District of North Carolina No. 15, *this* 20 *day of* May
in the year One Thousand Nine Hundred and Forty - Nine

Olive Longest
Deputy Collector of Customs

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.

[8] On the first document of a new vessel, write in this blank "certificate of ..... builder." On a document other than the first, recite whether the last former document was permanent or temporary, kind, number, date, and place of issue of such former document, whether the original or a copy of

3-59985

Customs Form 1319
TREASURY DEPARTMENT
2.12, 2.13, 2.42, 2.43,
C. R. 1943; 2.13, C. M. 1943
August 1943

APPLICATION OF OWNER FOR OFFICIAL NUMBER

UNITED STATES CUSTOMS SERVICE

Place Beaufort, N. C. May 11, 1949

To the Collector of Customs at Beaufort, North Carolina

SIR: Application is hereby made, in accordance with the provisions of R. S. 4177, as amended (46 U. S. C. 45), and regulations established pursuant thereto, for an OFFICIAL NUMBER for the following-described vessel, which is ready for a marine document:

Name[1] "FISH HAWK"

Rig[2] Oil screw Gross tonnage 283 Net tonnage 229

Register dimensions: Length 134 2/10 Breadth 23 7/10 Depth 11 8/10

Material of hull[3] Wood Hull No. _____ Horsepower[4] 550

Builder[5] Fish Meal Company

When begun[6] 1949 When launched[7] 1949

When built[8] 1949 Where built (place and State) Beaufort, North Carololina

Type of engine[9] 6 Cylinder Atlas Diesel type

Engine built by Atlas Imperial Mfg., at Oakland Calif., in 19 45

Owner[10] H. W. Smith

Address (street, city, and State) P. O. Box 38, Beaufort, North Carolina

Service[11] Fishing Number of officers 1 Crew 20

Application ~~(is)~~ (is not) made for award of visual SIGNAL LETTERS. This vessel (is) (is not) equipped with radio-transmitting apparatus.

I CERTIFY that this vessel has not previously borne an official number and has never been documented as a vessel of the United States under the above or any other name.

Signature[12] H. W. Smith, Capacity[12] Sole owner

Signature[12] _____, Capacity[12] _____

Please type or print name above signature and indicate capacity in which applicant signs

PORT OF Beaufort, North Carolina May 11, 1949

To the Commissioner of Customs.

SIR: I transmit herewith the application for assignment of an OFFICIAL NUMBER for the vessel described above.

Olive Longest
Olive Longest
Deputy Collector of Customs.

DO NOT WRITE IN THIS SPACE

Official No. 255815

Signal or call letters ----

Home port Beaufort

In addition to the information to be given herein, the name or names of any former owner or owners shall be stated on the reverse hereof. If there was no former owner, that fact shall be stated.

This application shall be filed in duplicate when filed with the collector at the home port designated for the vessel; otherwise, in triplicate.

Customs Form 1319, Designation of Home Port of Vessel, must be executed in duplicate and accompany this application

[1] Insert the vessel's name exactly as it will be marked upon the vessel. If the vessel has had a different name, the former name shall be stated in parentheses following the name under which it is intended to be documented. If the vessel has borne a motorboat number, that number shall be given in the same manner.

[2] Give the rig of the vessel as "steam screw," "gas screw," "oil side-wheel," "oil stern wheel," "schooner," "barge," or some other appropriate description. If the vessel is a steam vessel, state whether it is designed to burn oil or coal; if electric drive, whether turbo or oil engine. If the vessel is propelled by sail and machinery, give the rig as though the vessel were propelled in whole by the engine.

[3] If composite, so state.

[4] Give indicated horsepower (IHP) for a reciprocating or beam steam engine, shaft horsepower (SHP) for a turbine, brake horsepower (BHP) for gas or oil engine.

[5] *Individual, corporate, or firm* name of builder or builders; do not give name of an officer of a corporation.

[6] For a vessel of 100 gross tons or over, give the date of laying of the keel. *Omit in the case of a vessel of less than 100 gross tons.*

[7] For a vessel of 100 gross tons or over, give the month, date, and year of launching. Omit in the case of a vessel of less *than 100 gross tons.*

[8] Give the year of completion of the vessel.

[9] Indicate whether the engine is reciprocating, turbine, or internal-combustion. If reciprocating, state whether single, compound, triple, or quadruple expansion; if turbine, whether direct drive or reduction gear; if internal-combustion, give the number of cylinders, cycles, and kind of fuel and if oil, state whether Diesel or semi-Diesel.

[10] Individual, corporate, or firm name. Do not give name of an officer of a corporation. In the case of ownership by two or more individuals, the name of each owner shall be shown. If the vessel is owned by the United States of America, so state followed by the words "as represented by" and the name of the Department or Agency concerned.

[11] Passenger, freight, tanker, yacht, or some other appropriate description.

[12] In the case of corporate ownership, the application shall be executed in the corporate name and shall be signed by the president, secretary, a specially authorized officer of the corporation, or an authorized agent. In the case of a firm or partnership, the application shall be executed in the firm name and shall be signed either by a member of the firm, one of the partners, or a duly authorized agent. In the case of individual ownership by two or more persons, one of the owners may sign his own name as "managing owner," provided there is filed with the collector a written authorization for him to act in that capacity signed by the owners of a majority interest. In every case, the capacity in which the person signs, whether as owner, managing owner, agent, member of firm, copartner, etc., shall be stated clearly. If an individual executes the application in the name of a corporation, firm, or partnership, the capacity in which the organization name is signed, whether as owner, managing owner, authorized agent, etc., shall be shown immediately after the name of such organization and the capacity in which the individual signs as representative of the organization, whether as president, secretary authorized agent, etc., shall be shown immediately following his signature.

16—36616-1

3-588

Certificate of marking of official number has been received

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, *19*____, *at* _____ *m.*

*Total amount, $*_____

Date of maturity _____, *19*____

_____

*Discharge amount, $*_____

_____

Port of _____

[SEAL]

_____
Documentation Officer.

MORTGAGE DISCHARGE
(SUBSECTION GS)

Port of _____

_____, *19*____

*The sum of $*_____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, *19*____, *at* _____ *m.*

[SEAL]

_____
Documentation Officer.

Official No. 257819

CG-1271

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

PERMANENT
(Permanent or Temporary)

Consolidated Enrollment and License

FOR THE
FISHERIES
(Insert "Coasting Trade" or "Fisheries")

No. 72
OF THE
011 Screw
CALLED THE
FISHHAWK
OF
NEW YORK, N.Y.

283 *gross,* 229 *net,*
ISSUED AT THE
Port of NEW YORK, N. Y.
NOVEMBER 20th, *19*75

WHERE SURRENDERED: OUT OF DOCUMENTATION
NEW YORK, N.Y.
WHEN SURRENDERED:
FEBRUARY 27, 1976
WHY SURRENDERED:
OUT OF DOCUMENTATION FOLLOWING A CHANGE OF OWNERSHIP.

ROSE SETTEMBRINO
Documentation Officer.

GPO 949-240

PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1936, SEC. 30—U. S. C., TITLE 46, CHAPTER 25)

MORTGAGE DESCRIPTION
(SUBSECTION DC)

Mortgagor _____

Mortgagee _____

Endorsed _____, *19*____, *at* _____ *m.*

*Total amount, $*_____

Date of maturity _____, *19*____

_____

*Discharge amount, $*_____

_____

Port of _____

[SEAL]

_____
Documentation Officer.

MORTGAGE DISCHARGE
(SUBSECTION GS)

Port of _____

_____, *19*____

*The sum of $*_____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, *19*____, *at* _____ *m.*

[SEAL]

PROCESSED AND TAPED
BY. amf
DATE 7-28-76

_____
Documentation Officer.

APPENDIX J: DIVE SAFETY PLAN

DIVE SAFETY PLAN

Recordation of Six (6) Vessels in Connection with the New York And New Jersey Harbor Navigation Study Upper and Lower Bay, Port of New York and New Jersey Staten Island, Richmond County, New York, and Elizabeth, Union County and Bayonne, Hudson County, New Jersey

Contract No. DACW51-01-D-0015
Delivery Order No. 0023

Introduction

This document is the Dive Safety Plan to be employed by Panamerican Consultants, Inc., (Panamerican) of Memphis, Tennessee during diving operations for the New York District, U.S. Army Corps of Engineers (COE), to record six vessels determined during a Phase II assessment of 39 targets in 2002 to be eligible for inclusion on the National Register of Historic Places. This investigation will be conducted under subcontract to Matrix Environmental and Geotechnical Services, of Florham Park, New Jersey, for the New York District in response to their Scope of Work entitled *Recordation of Six (6) Vessels in Connection with the New York And New Jersey Harbor Navigation Study Upper and Lower Bay, Port of New York and New Jersey Staten Island, Richmond County, New York, and Elizabeth, Union County and Bayonne, Hudson County, New Jersey,* under Contract No. DACW51-01-D-0015, Delivery Order No. 0023.

The document provides an outline of procedures intended to: (1) ensure the safety of project divers, and (2) effectively and efficiently complete project goals and objectives. The diving operations for this project meet all federal requirements for safe diving. All diving activities are in accordance with the strictest provisions of U.S. Army Corps of Engineers, U.S. Navy, and Panamerican diving safety manuals and diving guidelines. The safety of project divers is given priority in all decisions and actions undertaken during diving operations. During all diving operations conducted as part of this project, all persons diving and working under the auspices of Panamerican shall abide by this Dive Safety Plan.

If for any reason the dive plan is altered in mission, depth, personnel, or equipment, the USACE Command Diving Coordinator (UDC) at the district level shall be contacted and shall review any revision prior to actual operation.

Research Design

The purpose of diving operations is to record six vessels determined during a previous assessment to be eligible for NRHP status. As specified in the SOW and the Memorandum of Agreement (MOA), field project aspects will include:

- Archival research will be conducted pertaining to the history of the individual vessel as well as vessel type in order to place it within the proper historic context

- Diving Safety Plan Development

- Recordation of vessels
  - KVK Vessel 33 Manhaden Fishing Trawler - Complete recordation including scantlings, profile, plan view of deck, and longitudinal cross sections. Also, recording of stern including rudder and propulsion, and the bow. Photo documentation will include 35mm and video.
  - KVK Vessel 36 Wooden hydraulic dredge - Recordation of basic dimensions and photo documentation by 35mm and video.
  - KVK Vessel 37 Schooner Paul E. Thurlow - Complete recordation including scantlings, plan view of hull outline, deck stanchions, and holds. Also recordation of stern including rudder, and bow, as well as photo documentation including 35mm and video.
  - KVK Vessel 38 Floating Drydock - Complete recordation including major dimensions, scantlings, plan view of remaining hull, deck stanchions, bulkheads, framing, and remaining machinery. Since original deck planking is no longer in place and access can be gained to the inside of the vessel, at least one cross section including internal bracing will be taken. Photo documentation will include 35mm and video.
  - Shooters Island Vessel 2 Floating Drydock - Complete recordation including scantlings, profile, plan view of deck, longitudinal cross sections along centerline and through at least one of the wings. At least one cross section will be obtained including both wings and the location of internal bracing and remaining machinery, pending safe access. Photo documentation will include 35mm and video.
  - Shooters Island Vessel SS16b Unidentified Type with Composite construction - Complete recordation including scantlings, plan and at least one cross section and recordation of bow and stern including propulsion. Possible recovery of diagnostic artifacts including propeller and portion of framing with attached hull planking, pending feasibility. Photo documentation will include 35mm and video.

- Preparation of salvage and conservation plan regarding Vessel SS16b.

Schedule and Duration of Diving

The project is tentatively scheduled for August 1st – September 30th, 2004. Not all aspects of the project involve diving, as many portions of the vessels are above water and can be accessed by boat or by land. For those vessels requiring diving, it will take place on each day that weather

and safe water levels permit safe diving. Diving will not commence until the Dive Safety Plan is approved by the USACE Dive Safety Officer, and until the Dive Safety Officer visits the dive station and approves the operation.

The depths recorded for the area range from zero to 20 feet Mean Sea Level. Dives and divers will be restricted to no-decompression limits. In calculating no-decompression limits the next greater time and next greater depth will be used on standard U.S. Navy diving tables.

Personnel

The dive team consists of five positions: a diving supervisor, a diver, a stand-by diver, one tender, and a time-keeper/communications operator. Each dive team member will meet the training and qualification requirements established in COE Safety and Health Requirements Manual (EM 385-1-1). Mr. Stephen James will serve as Project Manager. Mr. Andrew Lydecker will serve as the Diving Supervisor and Principal Investigator. Other members of the dive team are Michael Faught, underwater archaeologist; Michael Krivor, underwater archaeologist; Jim Duff, underwater archaeologist, and Matt Elliott, archaeological diver. All of these dive team members are certified for diving; are current in Red Cross training for First Aid and Cardiopulmonary Resuscitation (CPR); and have recently passed a physical examination conducted for the purpose of ascertaining fitness for diving. Prior to the start of diving operations all participants will receive a thorough briefing on the content and objectives of the Dive Safety Plan. Periodically during the conduct of diving operations, the dive team will review the Dive Safety Plan at briefings as deemed necessary by the Diving Supervisor.

Mr. Stephen R. James, Jr. acts as Project Manager for this project. Mr. James holds a degree in anthropology from Memphis State University and a master's degree in nautical archaeology from the Institute of Nautical Archaeology, Texas A&M University. SOPA (Society of Professional Archaeologists) certified since 1985, and with 20 years of experience in maritime archaeology, he has extensive project experience and has directed and conducted all phases of work on submerged sites including archival research, remote-sensing surveys, anomaly assessment, site testing, and full-scale shipwreck mitigation. Mr. James has an extensive diving background with various U.S. Army Corps of Engineer Districts: New York, Wilmington, Savannah, Vicksburg, Memphis, Mobile, New Orleans, and Galveston. He served as Project Manager for the investigation of the *Manuela* in San Juan Harbor in 2001.

Mr. Andrew Lydecker, who will act as Principal Investigator and Dive Supervisor for the investigation, holds an M.S. in Cartography and G.I.S. and an M.A. in Archaeology, both from the University of Wisconsin. He also holds a B.S. in Anthropology from Mankato State University. He has extensive archaeological and computer drafting experience. His previous archaeological experience was gained in the Great Lakes, Florida, Southern rivers, Caribbean, and South Pacific. Since joining Panamerican in 2000, he has directed and authored several projects for the Jacksonville District COE, including both diving and remote-sensing projects. He has been employed by Panamerican previously for New York, Wilmington, Jacksonville, Mobile, and Vicksburg District COE operations on various underwater diving projects. Recently he has acted as Principal Investigator and Diving Supervisor for a Phase II assessment of remote-

sensing targets and hulks in New York Harbor.

Dr. Michael K. Faught will serve as an Underwater Archaeologist. Dr. Faught obtained his PhD at the University of Arizona, Tucson, and has been principal investigator and project administrator for several terrestrial and underwater projects with Panamerican's Tampa office. He has expertise in submerged prehistoric site archaeology, geoarchaeology, chipped stone analysis, acoustic remote sensing, archaeology of North America. He has six years of cultural resource management experience in the desert southwest, and seven years of post doctoral research and teaching in Florida. Dr. Faught has extensive experience with acoustic remote sensing data (side scan and subbottom) and experience with magnetometry. He has raised more than $800k in state grants and small contracts as principle investigator for Dog and St. George Island Shipwreck Survey and the PaleoAucilla Prehistory Project and several other projects. Authored and edited a large number of Cultural Resource Reports and Monographs and growing number of journal articles.

Mr. Michael Krivor, who will act as Maritime Archaeologist, holds an M.A. from the program in maritime history and archaeology from East Carolina University, and a B.A. in aquatic archaeology from Humboldt State University. Since joining Panamerican, Mr. Krivor has participated in numerous remote sensing surveys and anomaly investigations on projects on the Gulf Coast, East Coast, Pacific, the Caribbean, and many Southern river systems. He has directed numerous archaeological projects for various clients ranging from the Army Corps of Engineers Memphis, New York, and Vicksburg Districts, as well as various state, local, and private agencies. Prior to employment with Panamerican, he accumulated experience in the Caribbean and on the East Coast. Recently certified by the Register of Professional Archaeologists (ROPA 1999), Mr. Krivor is directing an investigation on the Lower White River of Arkansas for the Memphis District Corps of Engineers.

Mr. James Duff, who will act as Archaeological Diver for the investigation, joined Panamerican in August of 1991 and is A.B.T. in the master's program at Texas A&M University. He will act as Remote-sensing Specialist and Underwater Archaeologist. Prior to employment with Panamerican, he accumulated extensive professional experience working for the North Carolina State Underwater Archaeology Unit and participated in remote-sensing surveys and anomaly investigations on projects with various universities and consulting firms. Since joining Panamerican, Mr. Duff has successfully directed and completed a variety of underwater cultural resource projects. Among these, he co-authored a shipwreck compilation and historic background report recently completed as part of a remote-sensing survey for a submerged pipeline corridor from New Jersey to Staten Island, New York. That survey collected over 2,000 line miles of remote-sensing survey records, including magnetometer, side scan sonar, and sub-bottom profiler, which were analyzed and interpreted by Mr. Duff for potentially significant cultural resources. He has directed or participated in several remote-sensing surveys and diver investigations for the New York, Wilmington, Savannah, Mobile, and Vicksburg Districts. At present Mr. Duff is acting as an Archaeological Diver for the testing of six anomalies on the Yazoo River for the Vicksburg District Army Corps of Engineers. He also served as Underwater Archaeologist for the investigation of the *Manuela* in San Juan Harbor in 2001.

Mr. Matt Elliott, who will act as Archaeological Diver, holds a B.A. in Anthropology from the University of South Alabama, as well as a Commercial Diving Certificate from the International Commercial Diving Institute. Mr. Elliott has previous terrestrial and maritime archaeological experience in the South Pacific, southern rivers, and East Coast, and brings his extensive commercial diving experience to the team. Recently he participated as an archaeological diver on a Phase II assessment of remote-sensing targets and hulks in the Hudson River at Athens, New York for the New York District.

If any of the above cannot be on site an alternate nautical archaeologist from Panamerican's pool of qualified employees will stand in.

Dive Platform

The dive platform utilized will be of a size and type appropriate for the area environment and specific diving operations. At present a particular vessel has not been contracted for this project. A vessel will be chartered locally and be operated by an experienced and U.S.C.G. licensed local captain. The vessel will conform to U.S. Coast Guard specifications according to class and requirements established in EM 385-1-1, and will have on board all required safety equipment. The vessel will be equipped with a safe and secure dive ladder at the stern to be used by divers, aided by their tender, when entering and leaving the water.

Diving Equipment

For the purposes of this investigation Surface Supplied Air (SSA) will be the main diving system employed for the inherent safety and more efficient working operations provided by the direct diver to surface air line and communications. This is especially true when operating underwater dredges and jets. The dive helmets will be Superlite 17 A/B Helmets. The helmets are maintained according to manufacturer's specifications. No modifications will take place on air supply fixtures. The dive helmets and the dive hoses used are currently certified, and copies of these certifications will be provided to the New York District Corps' Agency Diving Coordinator (ADC) prior to the commencement of diving operations. All dive helmets will be fitted with radios to permit communication with the surface. It should be stated that in the event of a loss of radio communication, the dive will be terminated.

Environmental Suits

Environmental suits will be required during excavation of suspected contaminated sediments and recordation in areas where diver/sediment contact might occur. The watertight suits will be used in conjunction with the SSA helmets to effectively seal off the diver from potential contamination in the suspended sediments. Hot water suits and wet suits are unacceptable since they do not protect the hands and feet. Divers and equipment used in excavating contaminated sediments will be hosed off after each dive and at the end of the day to reduce possible contamination.

Diving Equipment Inspection

Inspection of all equipment will be performed as necessary or as required by the specific manufacturer. The inspection program will entail five different inspections:

- Inspection and operational testing of equipment received from the factory or distributor
- Inspection of equipment as it is issued to workers
- Inspection after use
- Periodic inspection of stored equipment
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise

The inspection checklist is provided below. Records will be kept of all inspection procedures. Individual identification numbers will be assigned to all reusable pieces of equipment, and records should be maintained by that number. At a minimum, each inspection should record the ID number, date, inspector, and any unusual conditions or findings. Periodic review of these records may indicate an item with excessive maintenance costs or a particularly high level of downtime.

Equipment Inspection Checklist

Helmets

Before use:

- Yearly inspection by certified inspector of all hoses, helmets, regulators, valves, etc. (these have been appended to this Plan).

During the work task:

- Daily inspection of helmets, including regulator (i.e., intake valves and exhaust ports), neck seal, one-way valve on air supply hose attachment, and free-flow operation. The helmets are checked for any leaks, malfunctions, and corrosion.
- Daily inspection of communication system. This involves a sound check at the surface when all gear is set up, and once again as soon as the diver is underwater. All wires at both the communication box and the helmet are checked for corrosion.

Hoses

Before use:

- Yearly pressure inspection.

During the work task:

- Daily, before connecting air hoses to helmets, they are blown free with air to make sure no debris or particulars are in the hose.
- Daily, all couplings are checked for leaks, corrosion, or malfunctions.
- Daily, all hoses are inspected for frays, cuts, corrosion, leaks, cracks, bulges, etc.
- Hoses, while in use, will be continually rinsed with a diluted bleach solution to keep contaminants to a minimum.

Air Supply

Before use:

- Certificate of air quality will be provided.

During the work task:

- K bottles will be properly secured in a well-ventilated area out of the direct sun or other heat source.

Storage

Diving equipment will be stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. Storage procedures are as follows:

- All equipment will be stored in a well-ventilated area, with good airflow around each item, if possible.
- Dive suits, helmets, and hoses will be stored in a manner consistent with manufacturer's recommendations.

Air Supply

Air for SSA diving will be provided by cascade system of no fewer than two 240-cubic-foot 'K' bottles. Pressure gauges and check valves are included in the air supply system as appropriate. Two levels of redundant backup air supply will be used, including an aluminum 80cf SCUBA

cylinder linked to the SSA cascade system, and a 50cf aluminum SCUBA cylinder worn by the diver and connected to the dive helmet. The cascade system will be stored in an environment protected from excessive heat and secure from falling. The timekeeper will monitor the air supply system during each dive to ensure that air pressure is correctly maintained and adequate reserve air is always available. A certificate of air quality will be obtained from the air supplier, and submitted to the New York District Dive Safety Officer for approval prior to commencement of diving activities.

The air supply hoses are Gates 33 H/B commercial dive hoses that have a working pressure at least equal to the working pressure of the air supply system and will have a rated bursting pressure at least four times greater than operating pressure or at least 80 PSI over bottom (ambient) pressure. The hoses are kink-resistant, marked in 10-foot increments from the diver, and will be equipped with corrosion-resistant fittings. When not in use hoses will be over-under coiled or figure-eight coiled to prevent twists and/or kinks. Hose ends will be capped or taped when not in use. The dive hoses will be inspected prior to each dive.

Divers using SSA will wear a safety harness with a quick-release attachment connected to the air umbilical. A safety line of at least 3/8 inch synthetic material is included as an integral part of the umbilical. The divers will wear clothing or wet suits, boots, gloves, and other protective gear appropriate to the conditions. Divers will wear weight belts equipped with quick-release buckles. All the equipment used during the diving operations will be inspected prior to each dive.

During all periods of diving, a suited stand-by diver will be fully prepared and equipped to dive SSA in the event of an emergency. There will be a separate individual timekeeper and communications operator during each dive. Voice communication between diver and surface will be maintained at all times. If voice communication is lost, the dive will be terminated.

Diving Operations

The dive platform will be securely anchored or moored during all diving operations; no "live-boating" will be conducted during this project. The diving will be provided by surface supply air only. Each diver will have a full-time dive tender handling the diver air supply hose. The tender will help the diver don, remove and adjust equipment. The tender will check and ensure that the diver is properly rigged and adjusted immediately before the diver enters the water. The diver will not enter the water until clearance from the tender has been given. The diver and the communications operator will conduct a communications check prior to the diver's entering the water. The diver will check all equipment for proper function immediately upon submerging, while descending, and upon reaching the bottom before conducting any work. The tender will hold the diver's hose with the proper tension at all times during the dive. The hose should be held with enough tension to permit the tender and diver to transmit and receive "pull-signals" as needed, particularly in the event of a loss of radio communication. Should the diver's hose become fouled, all work will cease, the hose will be cleared, and the hazard causing the fouling will be evaluated before work is resumed.

The underwater examination of each site will begin with orientation dives to determine the

visible spatial extent, integrity, and present components of the site. Appropriate techniques and equipment such as metal and hydraulic probes will be employed to locate buried remains if none are apparent above the bottom. If necessary, portions of the site and its components will be uncovered through the use of hydraulic venturi-style dredges powered by small, low-pressure water pumps. It is emphasized that a minimum necessary amount of sediments will be disturbed in order to locate, examine, and evaluate the site. Archaeological divers will record sufficient information to assess NRHP eligibility. Relative to existing water and overburden conditions, video will be produced of the site.

Environmental Considerations

A number of consistent environmental conditions are expected to be encountered in the project area. Water temperatures are expected to be in the 60-80 degree range. The project will have equipment on hand to deal with a wide range of temperature conditions. Visibility is not expected to exceed 2 feet, with most diving occurring in zero-visibility water. All divers are trained in and have extensive experience diving in zero visibility environments. Currents are not expected to exceed 1 knot. In the event current exceeds 1 knot, diving will not take place. When possible, diving will be coordinated with periods of slack tide.

Safety Considerations

All diving will be performed in accordance with the U.S. Army Corps of Engineers "Safety and Health Requirements Manual" EM385-1-1 dated September 1996; with the U.S. Navy Diving Manual, Volumes I and II; and with Panamerican's "Diving Safety Program for Submerged Cultural Resource Investigation" as appropriate.

Colds, upper sinus infections, respiratory infections, and ear infections that are contra-indicated for diving will preclude an individual from diving. All divers will inform the diving supervisor of the ingestion of any medication. All diving will be voluntary, and any dive team member may decline to dive at any time.

Safety and planning sessions will precede each day of diving. These sessions will include an assessment of safety aspects, potential hazards, tasks to be undertaken, emergency procedures, and any necessary modifications to operating procedures. Maximum depth and dive time will be determined before the completion of each dive. Approximate depth will be All dives will be logged throughout the dive, and written comments for the dive log will be required of the returning diver immediately upon completion of each dive. Upon completion of a dive and prior to the commencement of the next dive the returning diver will inform the dive supervisor about diving conditions observed and specifically about any hazards or potential hazards encountered. Divers will remain awake for at least one hour after a dive. Divers will wait at least 12 hours before flying after any dive; this will be extended to 24 hours following multiple days of diving.

An international diving flag (Alpha flag) and a civilian "diver-down" flag (red with white diagonal stripe) will be raised on the diving platform prior to, and lowered following completion of, all diving operations. All diving personnel will carry accurate timepieces and sharp knives.

Fire extinguishers will be aboard the dive platform and in each vehicle used. The dive team will have a diver first aid kit, oxygen, and floating backboard on hand during all diving operations. All personnel will be familiar with safety procedures and with the locations of safety equipment. Any accidents or injuries will be reported to the diving supervisor immediately, and a report of injury form will be completed.

Relative to Lock Out/Tag Out (LOTO) considerations, all project personnel will be familiarized with any potential sources of unexpected energy (i.e. boat motor) and/or any potential sources of kinetic or stored energy which could cause injury or damage. As stated in the Dive Safety Plan the dive platform will be anchored/moored (with at least two anchors) during all dive operations; therefore no "live-boating" will be conducted during this project. The dive platform's engine will not be started until all dive operations have ceased and each person is safely onboard the vessel. The boat captain and/or Principal Investigator will address any additional LOTO precautions prior to any dive operations. No differential water pressures (due to unequal water elevations) are anticipated during any phase of this project.

Safety Procedures and Checklists

Safety will be the paramount concern during the project. All diving will be performed in accordance with the U.S. Army Corps of Engineers "Safety and Health Requirements Manual" EM385-1-1 dated September 1996; with the U.S. Navy Diving Manual; and with Panamerican's "Diving Safety Program for Submerged Cultural Resource Investigation" as appropriate. A copy of EM385-1-1 will be reviewed prior to the fieldwork phase of the project. Special attention will be paid to Chapter 19, "Floating Plant and Marine Activities," and Chapter 30, "Contract Diving Operations," and a copy will made available for inspection to all persons on the crew.

All Panamerican personnel scheduled to participate in this research have been qualified in First Aid and CPR by the Red Cross or comparable agency. Certificates to this effect are presented as part of the Dive Safety Plan package. Prior to initiating any field work, the Diving Supervisor will locate the nearest hospitals, hyperbaric chamber, notify the U.S. Coast Guard, and take care of any other logistical safety considerations. During the investigation there will be available communication with shore in the event of an accident. If applicable, the United States Coast Guard will be contacted prior to the commencement of activities so a "Notice to Mariners" broadcast of our diving activities can be arranged. They will also be contacted at the completion of diving activities.

The diving environment will be the main consideration. Tides, weather and vessel traffic will all be monitored.

Evacuation Routes and Emergency Facilities

Evacuation routes from project areas to emergency medical facilities will be established and all project personnel will know these routes. There will be sufficient fuel kept in all vehicles for emergency use. There will always be a vehicle and/or boat available for emergency use during diving operations. In the event of an emergency the 911 emergency system is in operation in the project area. The ambulance service nearest to and/or which can most quickly reach the landing

nearest the dive site will be ascertained prior to diving operations. The emergency medical facility closest to, and/or most quickly reached from, the dive site and project docking area will be ascertained prior to diving operations. The nearest hyperbaric chamber is located at the Memorial Medical Center (1-800-225-7654). The United States Coast Guard (U.S.C.G.) in the area is under the direction of 1st District Operations, New York Group. The 1st District U.S.C.G. maintains a 24-hour Search and Rescue Hotline (212-668-7913). Search and Rescue helicopters capable of providing emergency evacuation operate out of the Coast Guard Air Station (718-765-2409). The Coast Guard will be notified of our working dates and location prior to initiation of fieldwork and will be updated periodically of our standing.

EMERGENCY SERVICES

EMERGENCY	911	EMERGENCY
HOSPITAL	201-858-5000	Bayonne Hospital 29th St. and Ave., E. Bayonne, NJ 07002
HOSPITAL	718-226-9000	Staten Island University Hospital 475 Seaview Ave., Staten Island, NY 10305
HOSPITAL	718-226-2000	Staten Island University Hospital 375 Seguine Ave., Staten Island, NY 10309
HYPERBARIC CHAMBER	1-800-255-7654 908-892-1100	Memorial Medical Center 24-Hour, Point Pleasant Hospital

DIVERS ALERT NETWORK (D.A.N.)

DIVING EMERGENCY	919-684-8111	24-Hour Hotline

UNITED STATES COAST GUARD, 1ST DISTRICT

GROUP NEW YORK	212-668-7913	
SEARCH AND RESCUE	212-668-7913/7937	24-HOUR HOTLINE
Operations Office	212-668-7913	USCG, 1st District, Governor's Island
Air Station	718-765-2409	USCG Air Station Brooklyn
Waterways Office	212-668-7906	Waterways, Governor's Island

NEW JERSEY STATE MARINE POLICE, PORT NEWARK

State Marine Police	201-578-8173	Port Newark Office

APPENDIX K: HEALTH, SAFETY, AND ACCIDENT PREVENTION PLAN

HEALTH, SAFETY AND ACCIDENT PREVENTION PLAN

Recordation of Six (6) Vessels in Connection with the New York And New Jersey Harbor Navigation Study Upper and Lower Bay, Port of New York and New Jersey Staten Island, Richmond County, New York, and Elizabeth, Union County and Bayonne, Hudson County, New Jersey

Contract No. DACW51-01-D-0015
Delivery Order No. 0023

1.0 Introduction

1.1 Purpose

This document is the Health, Safety and Accident Prevention (HSAP) to be employed by Panamerican Consultants, Inc., (Panamerican) of Memphis, Tennessee during contract operations for the New York District, U.S. Army Corps of Engineers (COE), to record six vessels determined during a Phase II assessment of 39 targets in 2002 to be eligible for inclusion on the National Register of Historic Places. This investigation will be conducted under subcontract to Matrix Environmental and Geotechnical Services, of Florham Park, New Jersey, for the New York District in response to their Scope of Work entitled *Recordation of Six (6) Vessels in Connection with the New York And New Jersey Harbor Navigation Study Upper and Lower Bay, Port of New York and New Jersey Staten Island, Richmond County, New York, and Elizabeth, Union County and Bayonne, Hudson County, New Jersey,* under Contract No. DACW51-01-D-0015, Delivery Order No. 0023.

The following site-specific HSAP was prepared to provide safe procedures and practices for PCI personnel engaged in conducting cultural resources and archaeological investigations the six vessels. The plan has been developed using as guidance the Occupational Safety and Health Administration (OSHA)1910.120 regulations and the US Army Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1; 3 Sept. 1996). The purpose of this HSAP is to establish personnel protection standards and mandatory safety practices and procedures for this task specific effort. This plan assigns responsibilities, establishes standard operating procedures, and provides for contingencies that may arise during the field archaeological and cultural resources efforts.

If for any reason the HSAP is altered in objective, personnel, or equipment, the New York District's Health and Safety Officer shall be contacted and shall review any revision prior to actual operation.

1.2 Applicability

The provisions of the plan are mandatory for all personnel engaged in archaeological and cultural resources investigations. All personnel who engage in these activities must be familiar with this plan and comply with its requirements; these personnel must sign-off on the Plan Acceptance Form (Appendix A), which will be retained by Panamerican Consultants, Inc. in the project file.

All personnel will be responsible for operating in accordance with the OSHA regulations 29 CFR Part 1910.120 - 'Hazardous Waste Operations and Emergency Response' and U.S. Army Corps of Engineers EM.385-1-1. It should be noted however, that although this plan was produced in accordance with these requirements this work is not being conducted in areas designated as hazardous waste or material areas.

Appendix A contains a statement of compliance form, a plan acceptance form, a site safety briefing form, and an accident/exposure form. This plan is applicable to all aspects of the tasks detailed below associated with an archaeological and cultural resources investigations to be performed in project areas.

The plan is based on available information concerning possible industrial contaminants and physical hazards that exist, or may exist, at the project site and during planned tasks. If more data concerning the nature and/or concentrations of contaminants become available, the plan will be modified accordingly. Modifications will be made by the Site Safety Officer. All modifications will be documented in the plan and field book and provided to the Project Manager and the Health and Safety Manager for approval.

A copy of this plan will be available for review by all on-site personnel. In addition, a copy of the plan will be provided to all subcontractors prior to their initial entry onto the site.

Before field activities begin, personnel will be required to read the HSAP. All personnel must agree to comply with the minimum requirements of the site-specific plan, be responsible for health and safety, and sign the Statement of Compliance for all on-site employees before site work begins.

1.3 Field Activities

The tasks associated with the performance of the archaeological and cultural resources investigations include:

- Mobilization and Demobilization
- Documentary Research
- Recordation of Vessels
- Data Analysis

1.4 Personnel Requirements

Complete mapping, detailed drawing and photo documentation of the six wrecks will require three multi-person teams. One team of five people will conduct underwater mapping, and photography. As stipulated by the Regulation No. 385-1-93 of the Safety Contract Diving Operations Requirements (Corps 2004), in depths of 33 feet or less, five people are required when diving with SSA; a diver, a dive tender, a standby diver, a communications operator, and a diving supervisor. Because SSA will be employed for safety reasons, in concert with the fact that water depths will not exceed 20 feet, a five person dive team will be required for the project.

The remaining two teams will conduct above-water mapping and photography. One team of 2 people will complete all photography requirements. This will include digital, 35 mm, and video. The third team of 3 people will focus on mapping; including site plans, vessel features and detailed drawings. Surface documentation will require a longer time period and demand more detailed recordation procedures. Since above water and under water recording operations will not be carried on at the same time, the same personnel can be used in each of the three teams.

There will be one overall supervisor that will coordinate activities between all three teams. Each team will also have a field supervisor. The teams will rotate duties as deemed necessary to complete tasks as required.

Key personnel are as follows:

Project Manager- Mr. Stephen R. James, Jr.
Principal Investigator - Mr. Andrew D. W. Lydecker
Site Safety Officer - Mr. Andrew D. W. Lydecker
PCI Safety Manager - Mr. Stephen R. James, Jr.

Site personnel and their duties are outlined below:

1) Field Director

The Field Director and/or Principal Investigator will be responsible for all personnel and subcontractors on-site and designates duties to the on-site personnel. The Field Director has the primary responsibility for:

- Assuring that personnel are aware of the provisions of this plan and are instructed in the work practices necessary to ensure safety in planned procedures and for dealing with emergencies.
- Verifying that the provisions of this plan are implemented.
- Assuring that all field personnel have the required training.
- Assuring that appropriate personnel protective equipment (PPE), if necessary, is available for and properly utilized by all personnel.
- Assuring that personnel are aware of the potential hazards associated with site

operations.

- Supervising the monitoring of safety performances by all personnel to ensure that required work practices are employed.
- Maintain sign-off forms and safety briefing forms.

2) Site Safety Officer

The Site Safety Officer shall:

- Monitor hazards to determine the degree of hazard present.
- Determine changes to protection levels, clothing, and equipment needed to ensure the safety of personnel.
- Evaluate on-site conditions and recommend to the Field Director modifications to work plans and personnel protection levels needed to maintain personnel safety.
- Determine that appropriate safety equipment is available on-site and monitor its proper use.
- Verify and post the locations of medical facilities, emergency telephone numbers and routes.
- Monitor field personnel and potential for exposure to physical hazards such as heat/cold stress, safety rules near heavy equipment and excavations.
- Halt site operations if unsafe conditions occur or if work is not being performed in compliance with this plan.
- Discuss changes to the plan with the Project Manager if field conditions warrant.
- Identify any special medical conditions or restrictions of personnel prior to field work.
- Monitor performance of all personnel to ensure that the required safety procedures are followed. If established safety rules and practices are violated, a report of the incident will be filed and sent to the Project Manager (Panamerican Consultants, Inc.) within 48 hours of the incident.
- Conduct daily safety meetings as necessary and complete the Site Safety Briefing Form prior to the initiation of field activities and as necessary (Appendix A).

3) Archaeological Field Personnel

It shall remain the responsibility of each field crew member to follow the safe work practices listed in this HSAP and in general to:

- Be aware of the procedures outlined in this plan.
- Take reasonable precautions to prevent injury to himself and to his coworkers.
- Perform only those tasks that he believes can be done safely, and immediately report any accidents or unsafe conditions to the Safety Officer and Field Director.
- Notify the SSO and Field Director of any special medical problems (i.e., allergies or medical restrictions) and make certain that on-site personnel are aware of any such problems.
- Think "safety first" prior to and while conducting field work.

The PCI crew can request assistance from the site safety officer or emergency personnel at any time during the course of field work. Each crew member has the authority to halt work should he deem conditions to be unsafe. Visitors will be required to report to the Field Director and Site Safety Officer and follow the requirements of this plan.

2.0 COMPREHENSIVE WORK PLAN

This section comprises the organizational structure and work plan for the recordation of six vessels in Kill Van Kull and Arthur Kill. The six vessels differ to varying degrees in extant hull amounts, direction and ease of access, integrity of remaining hull, associated debris, internal sedimentation, and safety concerns. All of these factors will affect recordation and will dictate to some extent the tools employed, as well as the time required for recordation of the vessels.

Varying with the tide and location, perhaps one of the most important factors is water depth. Rapidly dropping tides, coupled with very shallow areas adjacent to some of the vessels will mandate an orchestration of the day's work, basically comprised of the continual shifting of the work vessels and work sites based on documentation requirements. Access availability of the six vessels is presented below

2.1 Project Phases

Located on Shooters Island and along the Kill Van Kull shoreline of Staten Island, five of the vessels lie within New York State, and one lies within New Jersey State. As presented the SOW, the Memorandum of Agreement (MOA) between the Corps and the New Jersey State Historic Preservation Officer and the New York State Historic Preservation Officer stipulate that the vessels to be recorded, and level of recordation, are as follows:

1. KVK Vessel 33. Menhaden Fishing Trawler. Accessible only by water and best at low tide, Vessel 33 will receive complete recordation. Architectural documentation will include the profile, the plan view of the deck, and the longitudinal cross section of the vessel, all of which can be obtained during low tide by non-diving personnel. Diving aspects of the recordation will include recordation of the stern, including rudder and propulsion, and the bow. Recordation of hull lines will also be undertaken, and will entail both diving and non-diving personnel. Photo documentation in the form of 35 mm and video will also be undertaken.

2. KVK Vessel 36. Wooden Hydraulic Dredge. Accessible only by water and best at low tide, Vessel 36 will receive partial recordation, including basic dimensions and structural elements. Photo documentation in the form of 35 mm and video will also be undertaken

3. KVK Vessel 37. *Paul E. Thurlow.* Four-Masted Schooner. Accessible only by water and best at low tide, Vessel 37 will receive complete recordation. Architectural documentation will include a plan view of the hull outline, deck stanchions, and holds. Recordation of hull lines will also be undertaken. Diving aspects of the recordation will include recordation of the stern, including rudder, and the bow. Photo documentation in the form of 35 mm and video will also be undertaken.

4. KVK Vessel 38. Floating Drydock. Accessible only by water and best at low tide, Vessel 38 will receive complete recordation. Architectural documentation will include major dimensions, a plan view of the remaining hull, deck stanchions, bulkheads, framing, and the location of any remaining machinery. Since most of the original deck planking is no longer in place, thus allowing access to the internal structure of the pontoon, at least one cross section including internal strengthening of the pontoon will be included. Photo documentation in the form of 35 mm and video will also be undertaken.

5. Shooters Island Vessel 2. Floating Drydock. Accessible only by water, Vessel 2 will receive complete recordation. Architectural documentation will include the profile, the plan view of the deck, and longitudinal cross sections of the vessel along both the centerline and through at least one of the wings. Also, at least one cross section will be obtained including both wings and the location of internal bracing, and remaining machinery, if safe access is possible. Most of the above documentation will be obtainable by non-diving personnel. Photo documentation in the form of 35 mm and video will also be undertaken.

6. Shooters Island Vessel SS16b: Unidentified Type; Composite Construction. Accessible only by water, Vessel SS16b will receive archival research and be fully recorded. Architectural documentation will include the profile, the plan view of the hull, and the longitudinal cross section of the vessel, as well as recordation of the stern, including rudder and propulsion, and the bow. Recordation of hull lines will also be undertaken. All aspects will involve diving personnel. Photo documentation in the form of 35 mm and video will also be undertaken.

2.2 Vessel Access

The locations of the vessels to be recorded mandate the employment of several different types of work boats. For diving, a large crew-type dive vessel will be employed. Shallow draft vessels, will be employed for access to above water portions of the site. The draft of the small work boats will not exceed 2 feet, with the draft of one of the work boats being extremely shallow.

While tide and vessel drafts are important considerations, the most critical factors affecting the proposed documentation project are safety concerns. Certainly project personnel will have the experience and capability to work safely from boats. Because of the often slick and deteriorated timbers, personnel will exercise the utmost caution and

will wear protective clothing, including footwear with sufficient traction to minimize the possibility of injury. Surface personnel will also be faced at times with recording in and around various types and amounts of debris. Some of the debris likely can be moved by hand but project personnel will simply work around the majority of debris.

KVK V33 — Main access location is adjacent the vessel's port midship area. This access location can be employed by either of the small project vessels, and can be employed on any tide. This location is, however, affected by the wakes of large tugs which transit at a high rate of speed. A small skiff can be taken into the internal perimeter of her hull on high tide. This will allow recordation of numerous aspects of the vessel by surface personnel. Access can be gained to the main deck of V33 via small boat. However, this will only be attempted if measurements cannot be obtained from the boat and only if the deck is stable enough to support weight.

KVK V36 — This vessel is nearly totally submerged and is best accessed by divers. The best access time is at high tide as this area will become very shallow at low tide, perhaps to the point of stranding the dive platform. Surface personnel can access her at low tide using the shallowest draft skiff at this location.

KVK V37 — The vessel's stern and midship area can be accessed from the port midship side by small boat only at any tide. The shallowest draft skiff with surface personnel should be able to access this area on a low tide. Diving personnel will be required to access the lower points of the hull, as well as the stern and bow. Surface personnel can record vessel aspects on any tide.

KVK V38 — This vessel is nearly totally submerged and is best accessed by divers. The best access time is at high tide as this area will become very shallow at low tide, perhaps to the point of stranding the dive platform. Surface personnel can access her at low tide using the shallowest draft skiff at this location.

Shooters Island V2 — The dive platform can access the starboard side of this vessel at high tide. A small skiff with surface personnel can skirt the outer hull for recordation of many aspects, thus allowing recordation of numerous aspects of the vessel by surface personnel. Access can be gained to the main deck of V2 via small boat. However, this will only be attempted if measurements cannot be obtained from the boat and only if the deck is stable enough to support weight.

SS 16b — This vessel is totally submerged and is accessible only by divers. The best access time is at high tide although it is accessible at low tide as well.

2.3 Photography

Photodocumentation tools will play an integral role in the recordation process. Both 35 mm and digital cameras will be used for all shots. Video documentation will also be used, as it allows a much more comprehensive view, and will aid in the mapping and analysis. In addition, the video record can be archived, and it can be employed as a teaching or reference tool of our maritime history.

2.4 Mapping

Vessel documentation will include mapping various vessel aspects. Many of the required aspects are above water and can be mapped by surface personnel. A mapping device, such as an Electronic Distance Measure (EDM), will expedite surface operations, and will be much safer than using a tape measure. Documentation will include all extant elements, such as frames, ceiling planking, outer-hull planking, decking, knees, etc. Where possible archaeologists will record evidence of workmanship, repairs, modifications and fastening patterns.

2.5 Artifact Recovery

Apart from documentation, MOA stipulations address recovery of components of Vessel SS16b. Composite framing and propulsion are present and will require specialized salvage equipment, including underwater saws and/or torches to recover. This recordation project will assess the requirements and access for recovery but will not attempt recovery.

2.6 Required Equipment Types

Major Equip. Type	Specific Requirement
Dive Platform	A diving platform large enough to accommodate the entire diving team plus SSA equipment and peripherals such as compressors and/or excavation equipment (i.e., water pump), is required..
Small Runabout	A small runabouts with a draft of no more than two feet will be on site to allow for personnel and equipment movement at the project site. It will also be employed as quick transport to shore in the case of an emergency.
Small Skiff	A small skiff with a draft of no more than 1 foot will be on site to allow surface recordation personnel access into the interior of the vessels at low tide, as well as access to the exterior of the vessels where submerged objects or shallow mud flats may occur.

SSA System	A surface supplied air system (SSA) will be required for many aspects of recordation and excavation. The employment of SSA is in direct response to safety concerns. Bailout bottles will be a part of the SSA divers equipment, and will be required in certain instances.
Environmental Suits	Consisting of a watertight SSA helmet and suit, an environmental suit will be required during recordation in areas where diver/sediment contact might occur.
Ladders	At least two, 8 to 10 foot ladders are required to access various vessel areas. The ladders will be a necessity in the recordation of *V2*.
EDM	An Electronic Distance Measure will be employed by surface personnel to accurately and expeditiously record many aspects of the vessels, including plan views.
Total Station	A laser transit total station will be employed to accurately and expeditiously record many aspects of the vessels, including hull lines.
Camera Equipment	Both 35 mm and digital cameras will be used for most shots. Black and white and digital still photography will be augmented by both above and underwater video documentation.

2.7 Schedule and Duration of Recordation

The project is tentatively scheduled for August 1st – September 30th, 2004. Not all aspects of the project involve diving, as many portions of the vessels are above water and can be accessed by boat or by land. Work will take place on each day that weather and safe water levels permit safe diving. Work will not commence until the Health and Safety Plan is approved by the USACE Health and Safety Officer.

3.0 HAZARD EVALUATION

Based on the nature of these archaeological activities, which include recordation of deteriorating structures, the hazard potential is deemed moderate. Activities will also be conducted in areas of historic industrial activity. The potential of encountering low levels of industrial contamination exists. The following summarizes the potential hazards associated with deteriorating structures as well as potential chemical, physical and biological hazards.

3.1 Activity Hazard Analysis

3.1.1 Vessel Activity

HAZARD	MEANS OF PREVENTION	ACTION IN CASE
Weather	Monitor weather prior to leaving port. Constantly observe weather while conducting investigations. Indications of imminent foul weather are antithetical to safe investigations.	Do not have vessel leave port. Vessel return to port.
Fire aboard Vessel	All survey crew will become familiar with placement of fuel shutoff and fire suppression equipment.	Contact nearest Coast Guard facility. Engage fire suppression equipment.
Falling objects	All overhead objects will be secured.	Apply first aid or other appropriate treatment.
Falling, Tripping, and Slipping	Crew will be aware of the local environment and wear proper foot gear for environment. One hand for the boat one hand for self rule.	Apply first aid or other appropriate treatment. Seek medical help if necessary.
Man Overboard	Crew will wear Personal Flotation Device (PFD) when applicable.	Discontinue investigation. Recover man overboard.
Hypothermia	Crew will wear appropriate clothing for environmental conditions. Avoid exposure to extreme cold and unnecessary discomfort.	Supply with warm liquids and cover until body temperature returns to normal.
Drowning	Crew will wear Personal Flotation Device (PFD) when applicable. Crew will be familiar with the dive vessel and emergency equipment placement for immediate use if necessary.	Administer CPR as appropriate & seek medical attention immediately.
Vessel Sinking	Evaluate seaworthiness of vessel prior to any survey or work activity. Know location of all floatation devices and life rafts on project vessel. Know radio signal for emergencies "May Day".	Contact nearest Coast Guard facility. Abandon vessel.

3.2.2. Non-Diving Working Activity

ACTIVITY	POTENTIAL PROBLEMS	MEANS OF PREVENTION
Working on above water wrecks	Falling through deteriorated decking	Alternate means of obtaining desired data will be employed where possible.
	Falling through deteriorated decking	No unnecessary walking on deteriorated vessels.
	Shifting/falling objects	Wearing of proper safety equipment including hard hats and steel toed boots
	Undetected worker injury	Working in groups of two or more people.
	Falling off vessel into water	Wearing of proper safety equipment.
	Tripping	Observe tripping hazards and remove, avoid, or mark.
	Slipping, falling	Wearing of proper safety equipment.
		Careful observation of surroundings.
		No unnecessary walking on deteriorated vessels.
	Scrapes and cuts due to exposed sharp edges	Wearing of proper safety equipment
	Splinters	Wearing of proper safety equipment
	Exposure to waste chemicals, solvents, paints and other potentially hazardous items that may have been stored/left behind on vessels	Wearing of proper safety equipment. Avoiding deteriorated chemical storage cans/tanks.

3.2.3. General Hazard Analysis

ACTIVITY	POTENTIAL PROBLEMS	MEANS OF PREVENTION
Work Site	General public, pleasure and commercial vessels	Limit or Prevent Access as necessary Maintain communication via marine band radio.
Accident Prevention	Public and personal injury	Wear proper clothing and safety equipment. Signage and other applicable warning devices. .
Emergencies, Injuries and Accident Reporting	Public and personal injury.	Maintain survey crew certification in both CPR and First Aid. Maintain first aid kits. Post local emergency numbers. Promptly report and investigate all accidents.
Machinery And Equipment Operation	Equipment or property damage .Potential for personnel injury.	All machinery and equipment will be operated only by knowledgeable operators
Vehicle Operation.	Equipment or property damage Potential for personnel injury.	All survey crew members will obey local traffic laws Project vehicles will be properly maintained.
Loading and Offloading Equipment	Equipment or property damage Potential for personnel injury.	Each crew member will know abilities and not exceed them. Assign proper number of personnel to each task.
Water Access And Equipment Operation	Drowning, falling, or slipping .	All floating plant marine work will be performed in accordance with the requirements of EM385-1-1 Section 26

The above is a list of potential hazards that may be encountered during the current project. This list will be presented to each survey crew member for their review and input prior to any survey activity.

While on site other, not readily definable hazards may occur. A continuous evaluation of hazards will be conducted while engaging in project activities. Each new hazard that presents itself will be listed as they occur and preventive measures will be developed and implemented. Upon the completion of the investigation a review of the effectiveness of the present hazard analysis will be conducted to evaluate the overall effectiveness and determine if any changes or additional input is needed. Any hazards encountered during the investigation not previously listed will be included in a post survey hazard evaluation for better pre-project hazard analysis during future projects.

4.0 SAFE WORKING PRACTICES

4.1 General Practices

The following general safe work practices apply:

- Contact with potentially contaminated substances should be avoided. Puddles, pools, mud, etc. should not be walked through if possible. Kneeling, leaning, or sitting on equipment or on the ground should be avoided whenever possible.
- Unusual site conditions shall be promptly conveyed to the SSO and project management for resolution.
- A first-aid kit shall be available at the site.
- Field personnel should use all their senses to alert themselves to potentially dangerous situations (i.e., presence of strong, irritating, or nauseating odors, deteriorated surfaces, unstable debris, etc.).
- Field personnel must attend safety briefings and should be familiar with the physical characteristics of the investigation, including:
  - Accessibility to associates, equipment, and vehicles.
  - Site access.
  - Routes and procedures to be used during emergencies.
- Personnel will perform all investigation activities with a buddy who is able to:
  - Provide his or her partner with assistance.
  - Notify the SSO or Field Director if emergency help is needed.
- Work activities shall be terminated immediately in event of thunder and/or electrical storm.

The use of alcohol or drugs at the site is strictly prohibited.

5.0 PERSONAL PROTECTIVE EQUIPMENT

As required by OSHA in 29 CFR 1920.132, this plan constitutes a workplace hazard assessment to select personal protective equipment (PPE) to perform the archaeological

and the cultural resources investigation.

Protective clothing and equipment to initiate the project will include:

- Work clothes
- Steel or fiberglass-toed safety boots
- Work gloves
- Hard hat if work is conducted in areas with overhead danger

6.0 EMERGENCY INFORMATION

In the event of an emergency, the field team members or the SSO will employ emergency procedures. A copy of emergency information will be kept in the field vehicle and will be reviewed during the initial site briefing. Copies of emergency telephone numbers and directions to the nearest hospital will be prominently posted in the field vehicle.

6.1 Emergency Medical Treatment And First Aid

A first aid kit large enough to accommodate anticipated emergencies will be kept in the boat. If any injury should require advanced medical assistance, emergency personnel will be notified and the victim will be transported to the hospital. Keys for the field vehicle will be left in or near the ignition.

In the event of an injury or illness, work will cease until the SSO and Field Director have examined the cause of the incident and have taken appropriate corrective action. Any injury or illness, regardless of extent, is to be reported on the Accident Report Form (Appendix A).

6.2 Emergency Telephone Numbers

Emergency telephone numbers for medical and chemical emergencies will be posted in the field vehicle are listed below:

EMERGENCY	911	EMERGENCY
HOSPITAL	201-858-5000	Bayonne Hospital 29th St. and Ave., E. Bayonne, NJ 07002
HOSPITAL	718-226-9000	Staten Island University Hospital 475 Seaview Ave., Staten Island, NY 10305

HOSPITAL	718-226-2000	Staten Island University Hospital 375 Seguine Ave., Staten Island, NY 10309

UNITED STATES COAST GUARD, 1ST DISTRICT

GROUP NEW YORK	212-668-7913	
SEARCH AND RESCUE	212-668-7913/7937	24-HOUR HOTLINE
Operations Office	212-668-7913	USCG, 1st District, Governor's Island
Air Station	718-765-2409	USCG Air Station Brooklyn
Waterways Office	212-668-7906	Waterways,Governor's Island

NEW JERSEY STATE MARINE POLICE, PORT NEWARK

State Marine Police	201-578-8173	Port Newark Office

6.3 Emergency Standard Operating Procedures

The following standard operating procedures are to be implemented by on-site personnel in the event of an emergency. The SSO shall manage response actions.

- Upon notification of injury to personnel, the designated **emergency signal shall be sounded**, if necessary. All personnel are to terminate their work activities and assemble with the SSO. The emergency medical service and hospital emergency room shall be notified of the situation. If the injury is minor, but requires medical attention, the SSO shall accompany the victim to the hospital and provide assistance in describing the circumstances of the accident to the attending physician.
- Upon notification of an equipment failure or accident, the SSO shall determine the effect of the failure or accident on site operations. If the failure or accident affects the safety of personnel or prevents completion of the scheduled operations, all personnel are to leave the area until the situation is evaluated and appropriate actions taken.
- Upon notification of a natural disaster, such as tornado, high winds, flood, thunderstorm or earthquake, on-site work activities are to be terminated by the SSO and all personnel are to evacuate the area.

6.4 Emergency Response Follow-Up Actions

Following activation of the Emergency Response Plan, the SSO shall notify the project manager and other PCI managers. The SSO shall submit a written report documenting the incident within two working days (see Attachments).

6.5 Medical Treatment For Site Accidents/Incidents

The SSO shall be informed of any site-related injury, exposure or medical condition resulting from work activities. All personnel are entitled to medical evaluation and treatment in the event of a site accident or incident.

SITE MEDICAL SUPPLIES AND SERVICES

The SSO or a trained first aid crew member shall evaluate all injuries at the site and render emergency first-aid treatment as appropriate. If an injury is minor but requires professional medical evaluation, the SSO shall escort the employee to the appropriate emergency room. For major injuries occurring at the site, emergency services shall be requested.

First-Aid Kits

A first-aid kit shall be available, readily accessible and fully stocked. The first-aid kit shall be located within specified vehicles used for on-site operations.

7.0 PERSONNEL TRAINING REQUIREMENTS

7.1 Initial Site Entry Briefing

Prior to initial site entry, the SSO shall provide all personnel (including site visitors) with site-specific health and safety training. A record of this training shall be maintained. This training shall consist of the following:

- Discussion of the elements contained within this plan
- Discussion of responsibilities and duties of key site personnel
- Discussion of physical, biological and chemical hazards present at the site
- Discussion of work assignments and responsibilities
- Discussion of the correct use and limitations of the required PPE
- Discussion of the emergency procedures to be followed at the site
- Safe work practices to minimize risk
- Communication procedures and equipment
- Emergency notification and procedures

7.2 Additional Training

The following additional training is required for all full-time site workers.

- Red Cross Standard First Aid
- Red Cross CPR

7.3 Daily Safety Briefings

The SSO will determine if a daily safety briefing with all site personnel is needed. The SSO shall document the daily briefings in the field log book. This documentation shall include health and safety topics covered and attendees at the briefing. The briefing shall discuss the specific tasks scheduled for that day and the following topics:

- Specific work plans
- Physical, chemical or biological hazards anticipated
- Fire or explosion hazards
- PPE required
- Emergency procedures, including emergency escape routes, emergency medical treatment, and medical evacuation from the site
- Weather forecast for the day
- Buddy system
- Communication requirements
- Site control requirements

APPENDIX L: STATE SITE FORMS

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey*

Your Name Andrew Lydecker Date 3/4/2008

Address 91 Tillman St, Memphis, TN 38111 Phone (901)454-4733

Organization (if any) Panamerican Consultants, Inc., U.S. Army Corps of Engineers – New York District

1. SITE IDENTIFIER(S) KVK V36, suction dredge,

2. COUNTY Richmond One of the following: CITY Staten Island

TOWNSHIP
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER State of New York
Address

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
Superstructure: complete___ partial_ collapsed ___ not evident _X
Foundation: above _X_ below _X_ (ground level) not evident
_X_ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible):
Oak and yellow pine with bronze and iron fasteners

Grounds
___Under cultivation ___Sustaining erosion ___Woodland ___Upland
___Never cultivated ___Previously cultivated ___Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor ___X
Distance to nearest water from structure (approx.) ___0
Elevation: sea level

5. Site Investigation (append additional sheets, if necessary):
Surface -- date (s) 8/1/2004 - 9/15/2004 Site map (submit with form*)
Collection
Subsurface -- date(s)
Testing: shovel ___ coring ___ other ___ unit size
no. units _____ (Submit plan of units with form*)

Excavation: unit size _____ no. of units
(Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator A. Lydecker

Manuscript or published report (s) (reference fully):
Lydecker, Andrew D. W. 2008, *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey.* Prepared by Panamerican Consultants, Inc, Prepared for U.S. Army Corps of Engineers, New York District.

Present repository of materials

6. Site inventory: suction dedge
   a. Date constructed or occupation period ca 1900
   b. Previous owners, if known U.S. Army Corps of Engineers.
   c. Modifications, if known Cabin and superstructure, upper deck, masts and rigging removed.

   (append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
   a. Historic map references
      1) Name_____ Date _____ Source
         Present location of original, if known
      2) Name_____ Date _____ Source
         Present location of original, if known
   b. Representation in existing photography
      1) Photo date 1940 Where located Aerographic Corporation
      2) Photo date 1951 Where located Aerographic Corporation
      3) Photo date 1960 Where located Aerographic Corporation
      4) Photo date 1974 Where located Aerographic Corporation
      5) Photo date 1984 Where located Aerographic Corporation
      6) Photo date 1994 Where located Aerographic Corporation
   c. Primary and secondary source of documentation (reference fully)

   d. Persons with memory of site
      1) Name_____ Address
      2) Name _____ Address

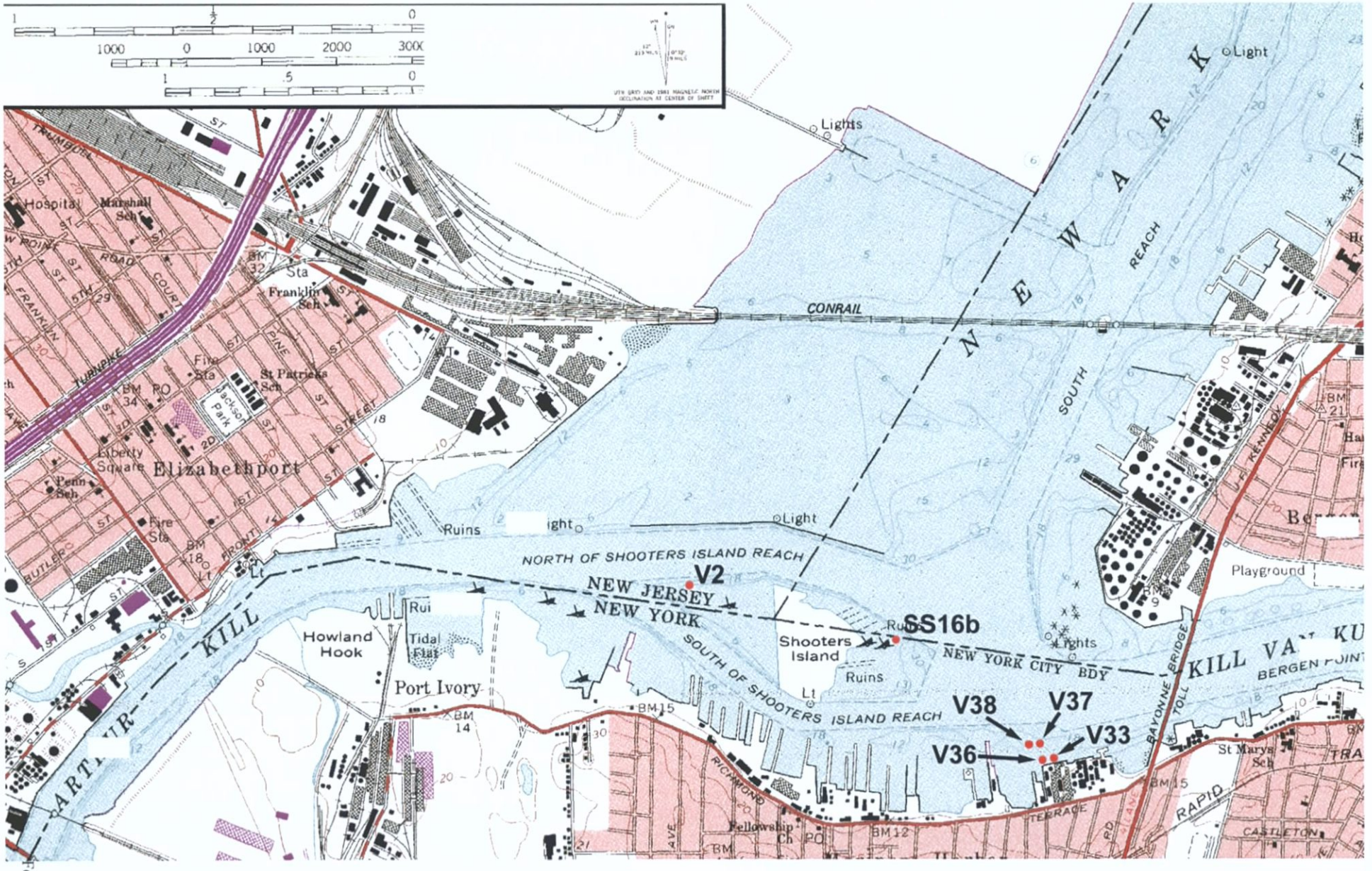
8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

If prehistoric materials are evident, check here and fill out prehistoric site form.

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

USGS 71/2 Minute Series Quad. Name Elizabeth NJ/NY
For Office Use Only--UTM Coordinates
571949E, 4498809N WGS 84 Zone 18N meters

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.


V2
SS16b
V38
V37
V33
V36
NEWARK
Elizabethport
Port Ivory
Howland Hook
Shooters Island
Tidal Flat
Ruins
Light
Lights
CONRAIL
NORTH OF SHOOTERS ISLAND REACH
NEW JERSEY
NEW YORK
SOUTH OF SHOOTERS ISLAND REACH
NEW YORK CITY BDY
KILL VAN KULL
ARTHUR KILL
BAYONNE BRIDGE
Playground
St Marys Sch
Fellowship Ch
CASTLETON
RAPID
TERRACE
RICHMOND
Jackson Park
Liberty Square
Penn Sch
Franklin Sch
St Patricks Sch
Marshall Sch
Hospital
Fire Sta
BM 14
BM 15
BM 12
BM 18
BM 21
BM 32
BM 34

NEW JERSEY STATE MUSEUM
ARCHAEOLOGICAL SITE REGISTRATION PROGRAM
BUREAU OF ARCHAEOLOGY & ETHNOLOGY
PO BOX 530, TRENTON, N.J. 08625-0530
Ph.(609) 292-8594; Fx.(609) 292-7636

SITE NAME: ~~**KVK-SS16b**~~ SHOOTERS IS. V2 **SITE NO.: 28-** UN-44

NJ State Atlas Coordinates: _____

USGS 7.5 Minute Series Quad. Name __Elizabeth, NY/NJ_____

UTM Coordinates (required)___571361 E, 4499299 N WGS 84 Zone 18 N meters_____

County: ~~Elizabeth~~ UNION Municipality: Elizabeth

Location (descriptive):East end of Shooters Island Period of Site: early 20th century

Type of Site: (historic/prehistoric) historic vessel

Cultural affiliation(s) (if known):

Owner's Name: State of New Jersey
Address:
Phone:
Attitude toward preservation: positive
Tenant's Name:
Address:
Phone:

Surface Features: none Prominent Landmarks: Shooters Island

Vegetation Cover: none

Nearest Water Source: Kill van Kull Distance: 0

Soil Type: Erosion:

Stratified (if known):

Threat of Destruction (if known): moderate

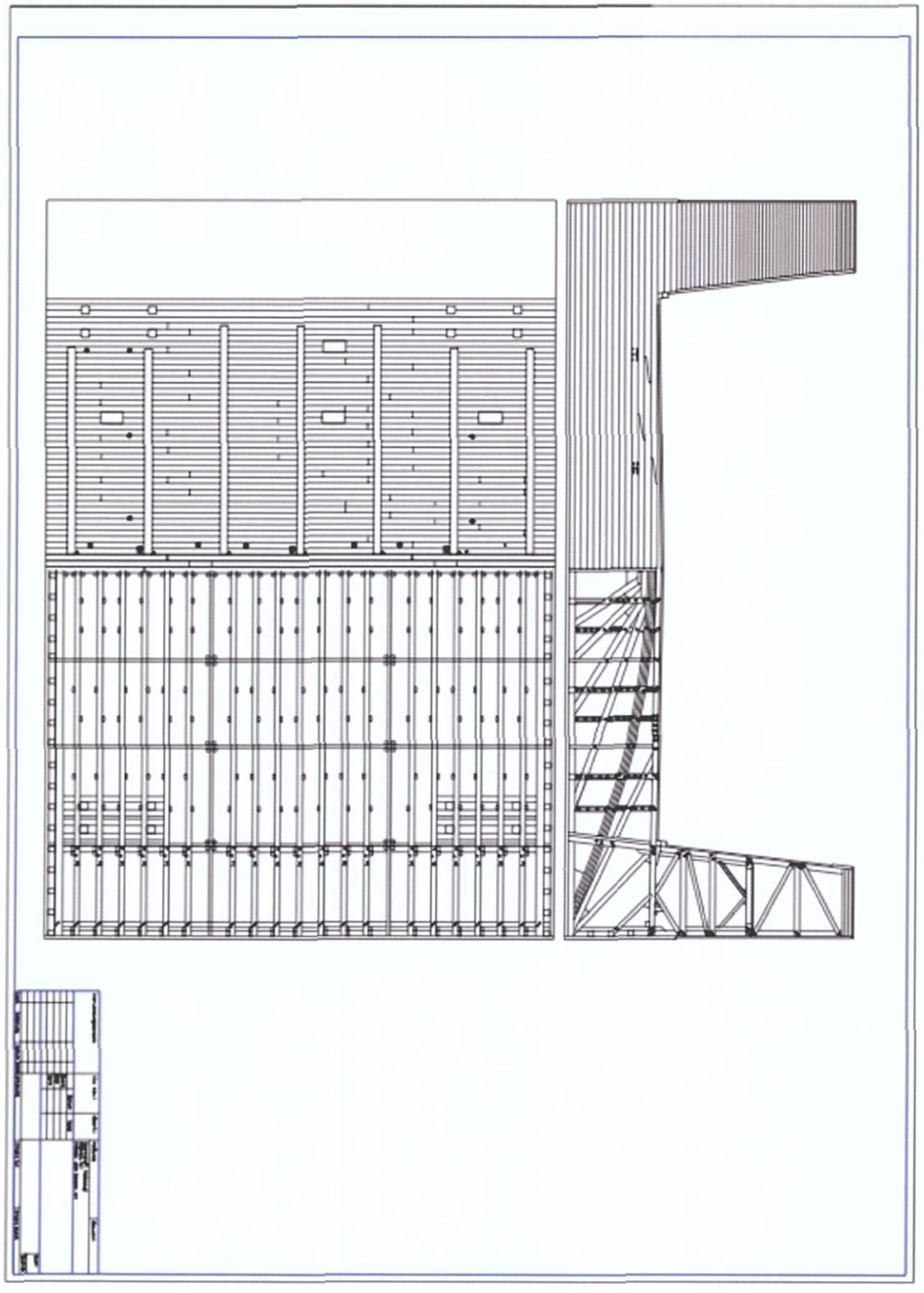
PREVIOUS WORK (list below):

By Whom	Date	Collection Stored	Previous Designation

Recorders Name:
Address:
Phone:
Collection stored:
Date recorder at site:

Sketch Map of the Site:

Indicate the chief topological features, such as streams, swamps, shorelines, and elevations (approx). Also show buildings and roads. Indicate the site location by enclosing the site area with a dotted line. Use a scale (approx) to indicate distance and dimensions.



Observations, Remarks, or Recommendations

References: Unpublished Approx Date Published Date

Lydecker, Andrew D. W. 2008, *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey.* Prepared by Panamerican Consultants, Inc, Prepared for U.S. Army Corps of Engineers, New York District.

Revised 2003

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier___*Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey*

Your Name Andrew Lydecker Date 3/4/2008

Address 91 Tillman St, Memphis, TN 38111 Phone (901)454-4733

Organization (if any) Panamerican Consultants, Inc., U.S. Army Corps of Engineers – New York District

1. SITE IDENTIFIER(S) KVK V38, balanced floating drydock,

2. COUNTY Richmond One of the following: CITY Staten Island

TOWNSHIP
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER State of New York
Address

4. SITE DESCRIPTION (check all appropriate categories):Structure/site

Superstructure: complete___ partial_ collapsed ___ not evident __X
Foundation: above ___ below _X_ (ground level) not evident
_X_ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible):
Oak and yellow pine with bronze and iron fasteners

Grounds

___Under cultivation ___Sustaining erosion ___Woodland ___Upland
___Never cultivated ___Previously cultivated ___Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor ___X
Distance to nearest water from structure (approx.) ___0
Elevation: _sea level

5. Site Investigation (append additional sheets, if necessary):
Surface -- date (s) _8/1/2004 - 9/15/2004_____ Site map (submit with form*)
Collection
Subsurface -- date(s)
Testing: shovel ___ coring ___ other ___ unit size
no. units _____ (Submit plan of units with form*)

Excavation: unit size _____ no. of units
(Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator ____A. Lydecker

Manuscript or published report (s) (reference fully):
Lydecker, Andrew D. W. 2008, *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey.* Prepared by Panamerican Consultants, Inc, Prepared for U.S. Army Corps of Engineers, New York District.

Present repository of materials

6. Site inventory: remains of balanced floating drydock
   a. Date constructed or occupation period ca 1920
   b. Previous owners, if known unknown.
   c. Modifications, if known Cabin and superstructure, upper deck, masts and rigging removed.

   (append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
   a. Historic map references
      1) Name_____ Date _____ Source
         Present location of original, if known
      2) Name_____ Date _____ Source
         Present location of original, if known
   b. Representation in existing photography
      1) Photo date 1974 Where located Aerographic Corporation
      2) Photo date 1984 Where located Aerographic Corporation
   c. Primary and secondary source of documentation (reference fully)

   d. Persons with memory of site
      1) Name_____ Address
      2) Name _____ Address

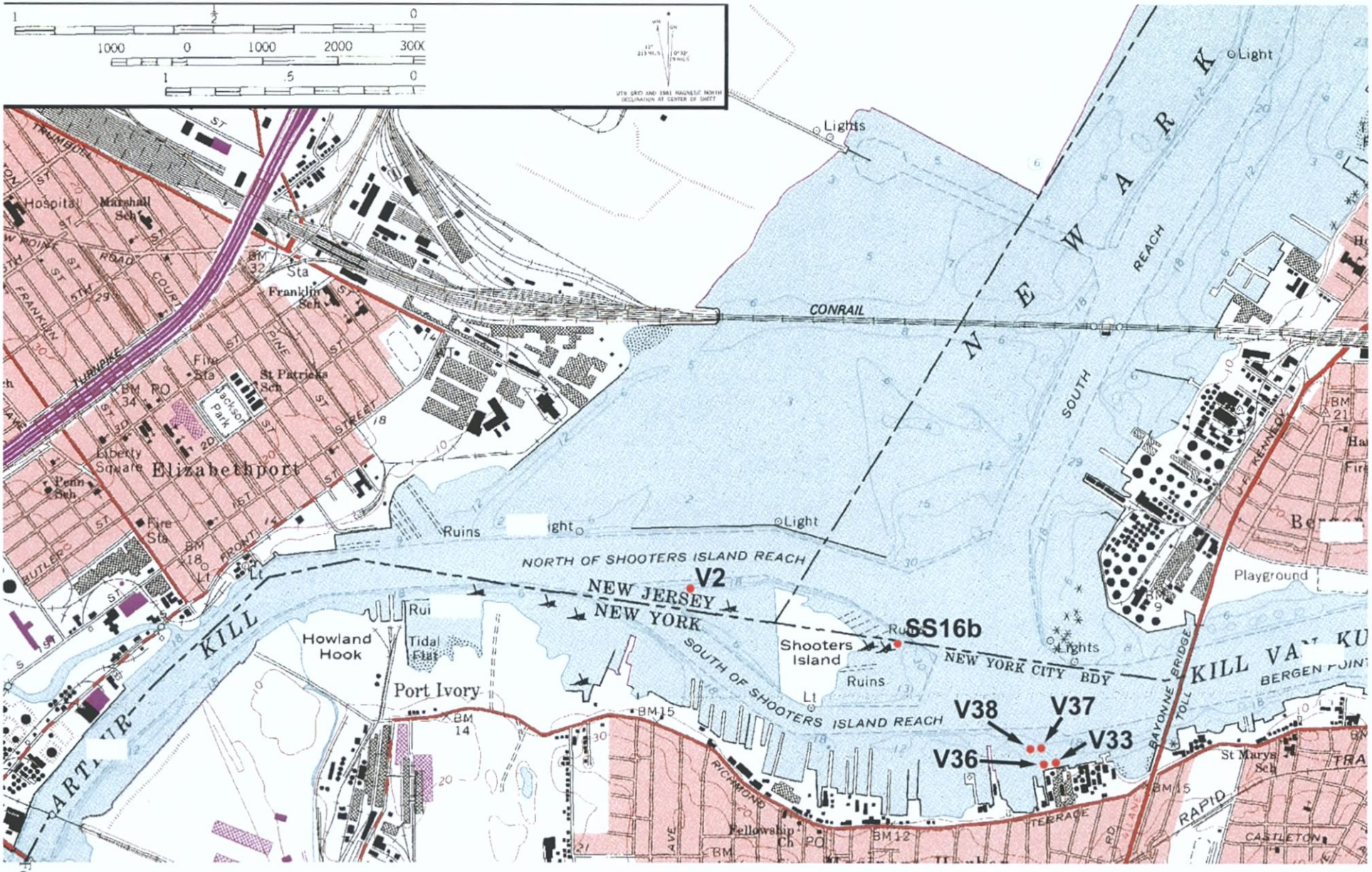
8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

   If prehistoric materials are evident, check here and fill out prehistoric site form.

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

   USGS 71/2 Minute Series Quad. Name Elizabeth NJ/NY
   For Office Use Only--UTM Coordinates
   571889E, 4498883N WGS 84 Zone 18N meters

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. *Provide a label for the print(s) on a separate sheet.*


V2
SS16b
V38
V37
V33
V36
NEWARK
Light
Lights
CONRAIL
REACH
SOUTH
NORTH OF SHOOTERS ISLAND REACH
NEW JERSEY
NEW YORK
SOUTH OF SHOOTERS ISLAND REACH
NEW YORK CITY BDY
Elizabethport
Howland Hook
Port Ivory
Tidal Flat
Shooters Island
Ruins
Light
Lights
Playground
Hospital
Marshall Sch
Franklin Sch
Fire Sta
St Patricks Sch
Jackson Park
Liberty Square
Penn Sch
BM 32
BM 34
BM 18
BM 14
BM 15
BM 12
BM 21
TURNPIKE
FRANKLIN
PINE
STREET
FRONT
BUTLER
ROAD
COURT
KENNEDY
BAYONNE BRIDGE
TOLL
RAPID
TERRACE
RICHMOND
AVE
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Fellowship Ch
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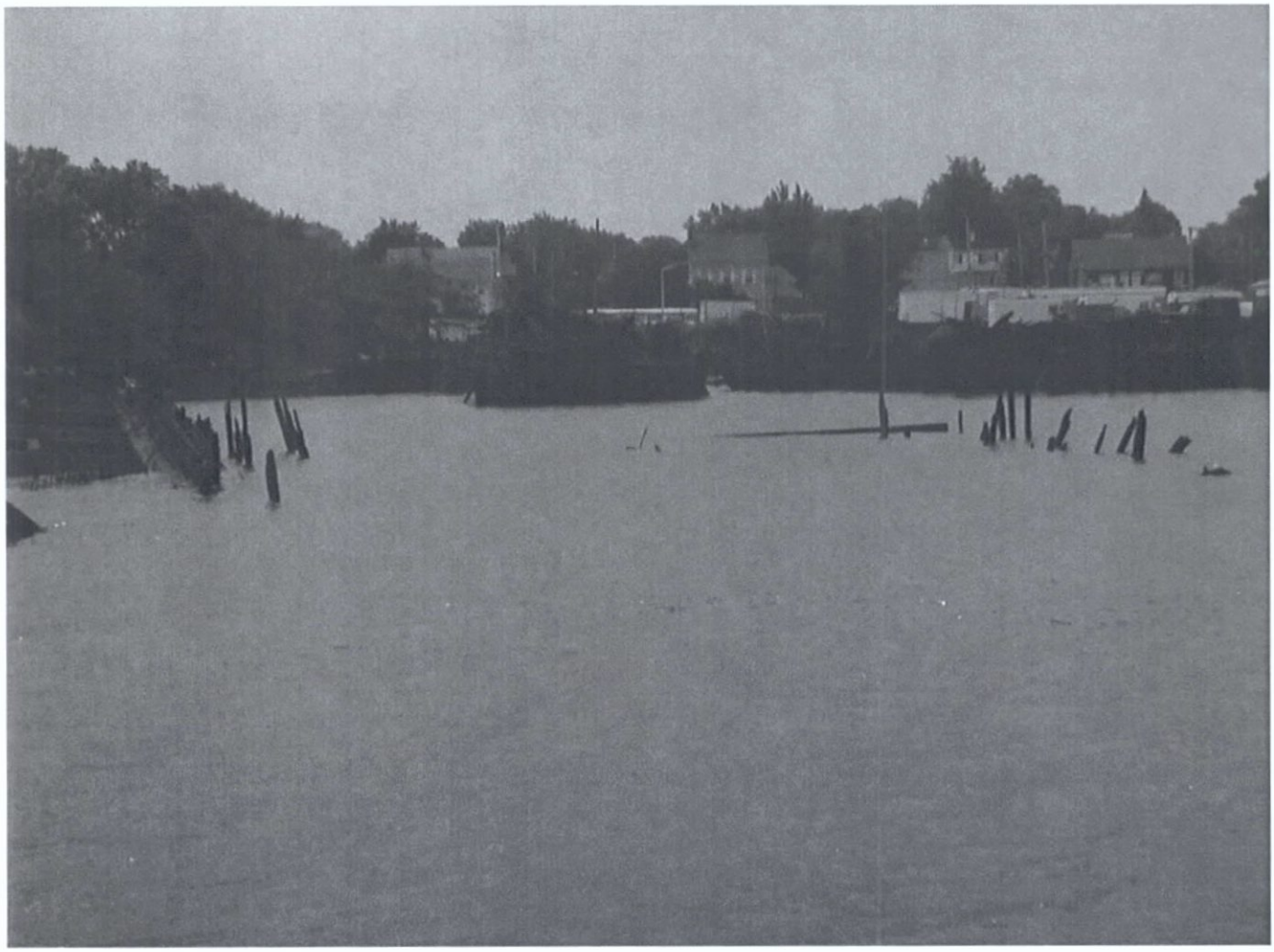
St Marys Sch
CASTLETON
BERGEN POINT
KILL VAN KU
ARTHUR KILL



NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier__*Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey*

Your Name__Andrew Lydecker_____ Date__3/4/2008

Address__91 Tillman St, Memphis, TN 38111_____ Phone (901)454-4733

Organization (if any) _____Panamerican Consultants, Inc., U.S. Army Corps of Engineers – New York District

1. SITE IDENTIFIER(S)__KVK V37, Paul E. Thurlow,

2. COUNTY__Richmond_____One of the following: CITY_____Staten Island

TOWNSHIP
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER_____State of New York
Address

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
Superstructure: complete___ partial_ collapsed ___ not evident __X
Foundation: above ___ below _X_ (ground level) not evident
__X_ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible):
Oak and yellow pine with bronze and iron fasteners

Grounds
___Under cultivation ___Sustaining erosion ___Woodland ___Upland
___Never cultivated ___Previously cultivated ___Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor __X
Distance to nearest water from structure (approx.) __0
Elevation: _sea level

5. Site Investigation (append additional sheets, if necessary):
Surface -- date (s) _8/1/2004 - 9/15/2004_____ Site map (submit with form*)
Collection
Subsurface -- date(s)
Testing: shovel ___ coring ___ other ___ unit size
no. units _____ (Submit plan of units with form*)

Excavation: unit size _____ no. of units
(Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator _____A. Lydecker

Manuscript or published report (s) (reference fully):
Lydecker, Andrew D. W. 2008, *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey.* Prepared by Panamerican Consultants, Inc, Prepared for U.S. Army Corps of Engineers, New York District.

Present repository of materials

6. Site inventory: four-masted schooner *Paul E. Thurlow*
   a. Date constructed or occupation period 1919
   b. Previous owners, if known Crowell and Thurlow, William M. Martino.
   c. Modifications, if known Cabin and superstructure, upper deck, masts and rigging removed.

   (append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
   a. Historic map references
      1) Name_____ Date _____ Source
         Present location of original, if known
      2) Name_____ Date _____ Source
         Present location of original, if known
   b. Representation in existing photography
      1) Photo date 1951 Where located Aerographic Corporation
      2) Photo date 1960 Where located Aerographic Corporation
      3) Photo date 1974 Where located Aerographic Corporation
      4) Photo date 1984 Where located Aerographic Corporation
      5) Photo date 1994 Where located Aerographic Corporation
   c. Primary and secondary source of documentation (reference fully)

   d. Persons with memory of site
      1) Name_____ Address
      2) Name _____ Address

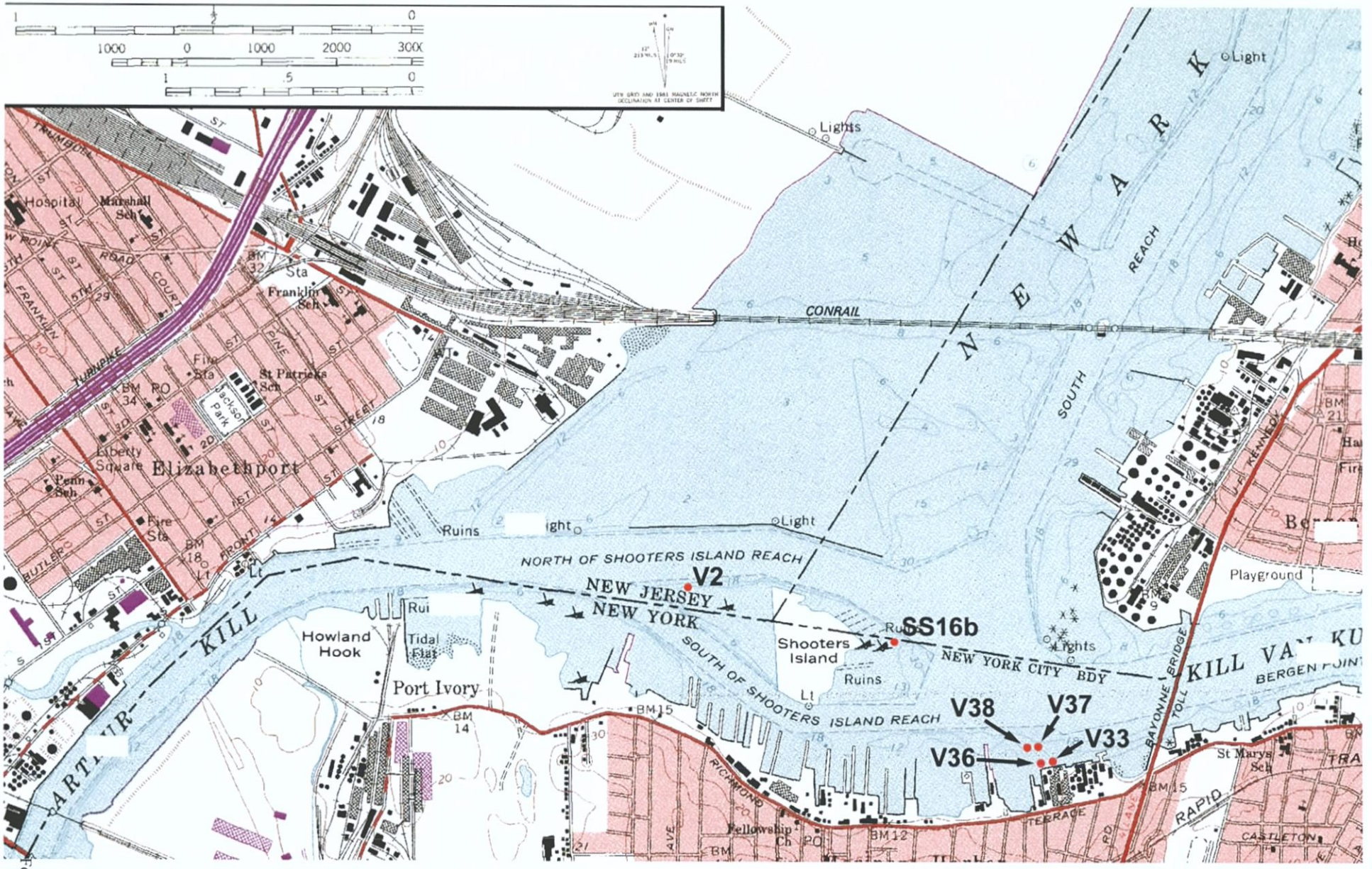
8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

If prehistoric materials are evident, check here and fill out prehistoric site form.

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

USGS 71/2 Minute Series Quad. Name Elizabeth NJ/NY
For Office Use Only--UTM Coordinates
571919E, 4498896N WGS 84 Zone 18N meters

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.


V2
SS16b
V38
V37
V33
V36
NEWARK
Elizabethport
Port Ivory
Howland Hook
Shooters Island
Tidal Flat
Ruins
Light
Lights
CONRAIL
NORTH OF SHOOTERS ISLAND REACH
SOUTH OF SHOOTERS ISLAND REACH
NEW JERSEY
NEW YORK
NEW YORK CITY BDY
KILL VAN KULL
ARTHUR KILL
Playground
Hospital
Marshall Sch
Franklin Sch
St Patricks Sch
Penn Sch
Fire Sta
Liberty Square
Jackson Park
Bergen Point
St Marys Sch
Fellowship Ch
CASTLETON
RAPID
TERRACE
BAYONNE BRIDGE
TOLL

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier__*Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey*

Your Name__Andrew Lydecker_____ Date__3/4/2008

Address__91 Tillman St, Memphis, TN 38111_____ Phone (901)454-4733

Organization (if any) _____Panamerican Consultants, Inc., U.S. Army Corps of Engineers – New York District

1. SITE IDENTIFIER(S)__KVK V33, Fish Hawk,

2. COUNTY__Richmond_____One of the following: CITY_____Staten Island

TOWNSHIP
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER_____State of New York
Address

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
Superstructure: complete___ partial_X_ collapsed ___ not evident
Foundation: above __X__ below ___ (ground level) not evident
__X_ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible):
Oak and yellow pine with bronze and iron fasteners

Grounds
___Under cultivation ___Sustaining erosion __Woodland ___Upland
___Never cultivated ___Previously cultivated __Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor ___X
Distance to nearest water from structure (approx.) ___0
Elevation: _sea level

5. Site Investigation (append additional sheets, if necessary):
Surface -- date (s) _8/1/2004 - 9/15/2004_____ Site map (submit with form*)
Collection
Subsurface -- date(s)
Testing: shovel ___ coring ___ other ___ unit size
no. units _____ (Submit plan of units with form*)

Excavation: unit size _____ no. of units
(Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator _____A. Lydecker

Manuscript or published report (s) (reference fully):
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Present repository of materials

6. Site inventory: Menhaden trawler Fish Hawk
   a. Date constructed or occupation period 1949
   b. Previous owners, if known Atlantic Navigation Company J. Howard Smith Company, Fish Hawk, Inc.
   c. Modifications, if known Cabin and superstructure, mast and rigging removed.

   (append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
   a. Historic map references
      1) Name_____ Date _____ Source
         Present location of original, if known
      2) Name_____ Date _____ Source
         Present location of original, if known
   b. Representation in existing photography
      1) Photo date 1984 Where located Aerographic Corporation
      2) Photo date 1994 Where located Aerographic Corporation
   c. Primary and secondary source of documentation (reference fully)

   d. Persons with memory of site
      1) Name_____ Address
      2) Name _____ Address

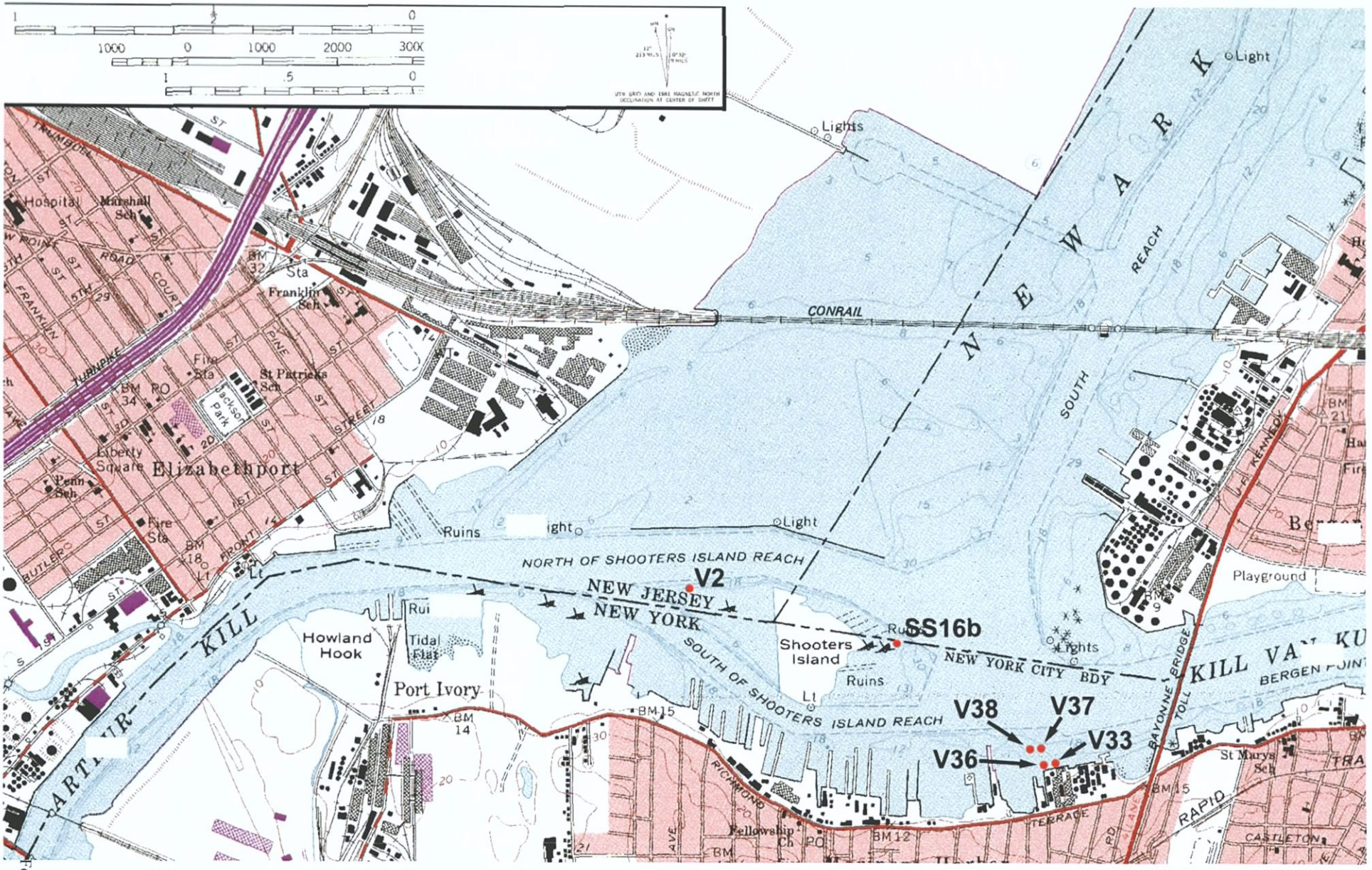
8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

If prehistoric materials are evident, check here and fill out prehistoric site form.

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

   USGS 71/2 Minute Series Quad. Name Elizabeth NJ/NY
   For Office Use Only--UTM Coordinates
   571966E, 4498819N WGS 84 Zone 18N meters

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.


Lights
NEWARK
REACH
CONRAIL
SOUTH
Light
Hospital
Marshall Sch
Franklin Sch
Fire Sta
St Patricks Sch
Jackson Park
Liberty Square
Elizabethport
Penn Sch
Ruins
NORTH OF SHOOTERS ISLAND REACH
V2
NEW JERSEY
NEW YORK
SS16b
Howland Hook
Tidal Flat
Port Ivory
Shooters Island
NEW YORK CITY BDY
SOUTH OF SHOOTERS ISLAND REACH
V38
V37
V33
V36
BAYONNE TOLL BRIDGE
KILL VAN KU
BERGEN POINT
Playground
St Marys Sch
RAPID
TERRACE
CASTLETON
Fellowship Ch
RICHMOND AVE
BM 15
BM 14
BM 12
BM 32
BM 34
BM 18
BM 21

Form - page 3

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier__*Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey*

Your Name__Andrew Lydecker_____ Date__3/4/2008

Address__91 Tillman St, Memphis, TN 38111_____ Phone (901)454-4733

Organization (if any) _____Panamerican Consultants, Inc., U.S. Army Corps of Engineers – New York District

1. SITE IDENTIFIER(S)__SS16b, composite hulled vessel

2. COUNTY__Richmond_____One of the following: CITY_____Staten Island

TOWNSHIP
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER_____State of New York
Address

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
Superstructure: complete___ partial____ collapsed ___ not evident _X_
Foundation: above ____ below _X_ (ground level) not evident
_X_ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible):
Oak and yellow pine with bronze and iron fasteners

Grounds
___Under cultivation ___Sustaining erosion ___Woodland ___Upland
___Never cultivated ___Previously cultivated ___Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor ___X
Distance to nearest water from structure (approx.) ___0
Elevation: _sea level

5. Site Investigation (append additional sheets, if necessary):
Surface -- date (s) _8/1/2004 - 9/15/2004_____ Site map (submit with form*)
Collection
Subsurface -- date(s)
Testing: shovel ___ coring ___ other ___ unit size
no. units _____ (Submit plan of units with form*)

Excavation: unit size _____ no. of units
(Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator _____A. Lydecker

Manuscript or published report (s) (reference fully):
Lydecker, Andrew D. W. 2008, *Recordation of Six (6) Vessels in Connection with the New York and New Jersey Harbor Navigation Study Upper and Lower Bay Port of New York and New Jersey Staten Island, Richmond County, New York, Elizabeth, Union County and Bayonne, Hudson County, New Jersey.* Prepared by Panamerican Consultants, Inc, Prepared for U.S. Army Corps of Engineers, New York District.

Present repository of materials

6. Site inventory: single section of sectional floating drydock
   a. Date constructed or occupation period ca 1900
   b. Previous owners, if known unknown.
   c. Modifications, if known _____
   (append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
   a. Historic map references
      1) Name_____ Date _____ Source
      Present location of original, if known
      2) Name_____ Date _____ Source
      Present location of original, if known
   b. Representation in existing photography
      1) Photo date 1940 Where located Aerographic Corporation
      1) Photo date 1951 Where located Aerographic Corporation
      2) Photo date 1960 Where located Aerographic Corporation
      3) Photo date 1994 Where located Aerographic Corporation
      4) Photo date 1940 Where located Library of Congress
      4) Photo date 1969 Where located Library of Congress

   c. Primary and secondary source of documentation (reference fully)

   d. Persons with memory of site
      1) Name_____ Address
      2) Name _____ Address

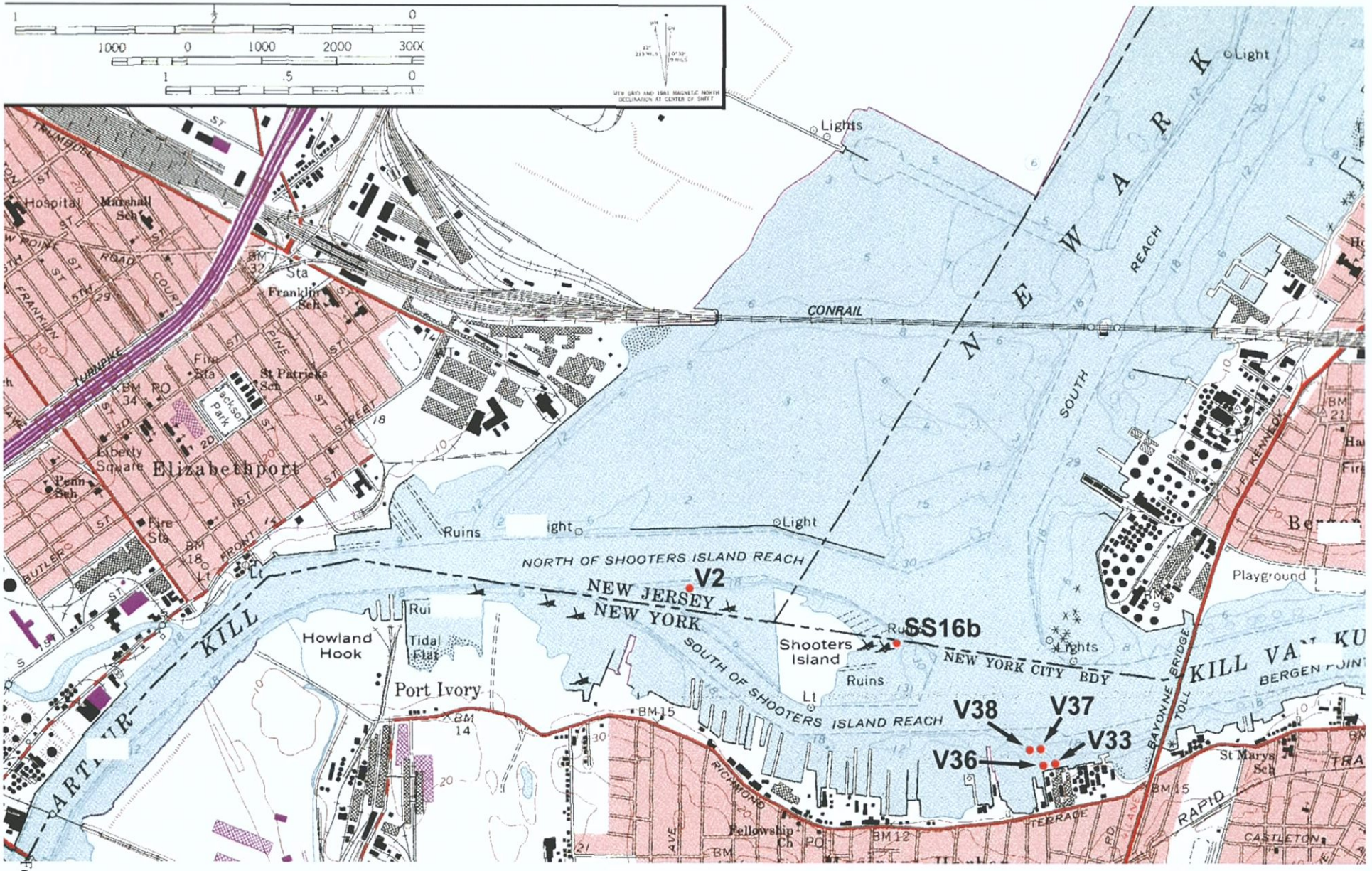
8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

If prehistoric materials are evident, check here and fill out prehistoric site form.

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

USGS 71/2 Minute Series Quad. Name Elizabeth NJ/NY
For Office Use Only--UTM Coordinates
571361E, 9499299N WGS 84 Zone 18N meters

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.


V2
SS16b
V38
V37
V33
V36
NEWARK
Light
Lights
REACH
CONRAIL
SOUTH
NORTH OF SHOOTERS ISLAND REACH
NEW JERSEY
NEW YORK
SOUTH OF SHOOTERS ISLAND REACH
NEW YORK CITY BDY
Elizabethport
Port Ivory
Howland Hook
Tidal Flat
Shooters Island
Ruins
Light
Lights
Playground
Hospital
Marshall Sch
Franklin Sch
St Patricks Sch
Fire Sta
Jackson Park
Liberty Square
Penn Sch
Sta
BM 32
BM 34
BM 18
BM 15
BM 14
BM 12
BM 21
PO
Lt
Fellowship Ch
St Marys Sch
CASTLETON
RAPID
TERRACE
RICHMOND
AVE
BAYONNE BRIDGE
TOLL
KILL VAN KU
BERGEN POINT
ARTHUR KILL
TURNPIKE
FRANKLIN
PINE
BUTLER
FRONT
JACKSON
STREET
ROAD
COURT