

**THE COUNTY COMMISSIONERS OF
KENT COUNTY, MARYLAND**

REQUEST FOR PROPOSAL

PW 25-04

**FOR
BAYSIDE LANDING PARK MARINA
IMPROVEMENTS IN KENT COUNTY,
MARYLAND**

Director of Purchasing
400 High Street
Chestertown, Maryland 21620-1312

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SCHEDULE

BID NUMBER # PW 25-04

<u>Date</u>	<u>Step</u>
October 4, 2024	Begin Newspaper Advertising; Mail/Email Notices to Bidders on Bid List Post on eMaryland Marketplace Advantage (eMMA) and Kent County's Request for Proposals webpage.
October 15, 2024	10:00 a.m. Pre-bid meeting at Project Site: Bayside Landing Park Marina in Rock Hall, MD.
October 21, 2024	Questions must be received by 12pm.
October 29, 2024	10:00 a.m. Bids are due & Bid Opening at 709 Morgnec Road, Chestertown, MD.
November 6, 2024	Tentative Award by County Commissioners.

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This section is for the using or requesting department or agency to specify in detail, including references to attachments, etc., the specifications, drawings, details, etc., to be included in the RFP/IFB. It has been prepared primarily by the using agency.

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SECTION A. GENERAL MATTERS

1. **Summary**

The County Commissioners of Kent County, Maryland, a body corporate and politic and a political subdivision of the State of Maryland (the “County”) is requesting proposals from qualified bidders to perform improvements and upgrades, including but not limited to demolishing, removing, and replacing of existing docks, finger piers, mooring piles, and portions of bulkheads, along with associated electrical and plumbing service improvements to the Bayside Landing Park Marina, located in Rock Hall, Maryland, in accordance with Chapter 49 of the Code of Public Local Laws of Kent County (CPLL).

2. **Issuing Office**

Daniel F. Mattson, P.E., C.F.M., C.M.E.

Director of Public Works
709 Morgnec Road
Chestertown, MD 21620

Telephone #: (410) 778-2600
dmattson@kentgov.org

The individual listed above shall serve as the “Director of Purchasing” and as the sole point of contact for purposes of this procurement.

3. **Silence of Specification**

The apparent silence of the specifications as to any detail, or the apparent omission from it of detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and only material and workmanship of the first quality are to be used. Proof of specifications compliance will be the responsibility of the vendor.

4. **Preparation of Proposal**

a. The bidder’s proposal shall be written in ink or typewritten on the form provided.

b. If items are listed with a zero quantity, bidder shall state unit price **ONLY** (intended for open end purchases where estimated requirements are not known). The proposal shall show a total bid price for each item bid and the total bid price of the proposal, excluding zero quantity items.

5. **Prices Quoted**

The prices quoted are those for which the material will be furnished F.O.B. Destination and include all charges that may be imposed during the period of the contract.

6. Samples or Brochures

Samples or brochures are not required for this project at the time of bid.

7. Questions and Inquiries

All questions and inquiries regarding the terms of this RFP should be directed to the Director of Purchasing identified above prior to the pre-bid conference.

Questions subsequent to the pre-bid conference must be submitted in writing or email to the person below.

Please refer any questions to: Daniel F. Mattson, P.E., C.F.M., C.M.E.
Kent County Department of Public Works
Phone: 410-778-1449
Email: dmattson@kentgov.org

Questions must be received by noon, October 21, 2024. If deemed relevant to other bidders, a summary of questions and answers, including those addressed at the pre-bid conference, will be distributed to all attendees of the pre-bid conference and any others known to have received the bid documents.

Written responses shall be considered the official answers and shall supersede any verbal discussions. Verbal answers at or subsequent to the pre-bid conference are not binding and reliance should not be placed on the same.

8. Submission Deadline and Instructions

All proposals must arrive at the Department of Public Works (“Bid Receipt Office”) by October 29, 2024 at 10:00 A.M. in order to be considered. Requests for extension of this date or time will not be granted. Offerors mailing proposals should allow sufficient mail and internal delivery time to ensure timely receipt at the Bid Receipt Office. Proposals or unsolicited amendments to proposals arriving after the closing date and time will **NOT** be considered.

Bidders are cautioned that bids mailed, shipped express, by courier, or hand delivered to arrive the day of the bid opening must be in the hands of the Bid Receipt Office no later than 10:00 a.m. on the date specified. Bids received later than that time will be returned unopened. Please check your method of delivery to see if it conforms to this requirement. Proposals must be mailed, shipped, or hand delivered to the address below:

Procurement Manager
Kent County Department of Public Works
709 Morgnec Road
Chestertown, Maryland 21620

BIDDERS ARE ADVISED THAT MAIL IS DELIVERED ONCE A DAY, AND USUALLY ARRIVES AFTER THE TIME SPECIFIED FOR BID DELIVERY ON THE APPLICABLE DATE.

BIDS WILL NOT BE ACCEPTED AT ANY OTHER LOCATION.

THE COUNTY WILL NOT BE RESPONSIBLE FOR ANY BIDS DELIVERED TO ANY OTHER LOCATION THAN THE OFFICE OF DIRECTOR OF PURCHASING WHETHER SUCH OTHER LOCATION IS A COUNTY OFFICE OR OTHERWISE.

All proposals must be in a sealed envelope with the following information clearly printed on the outside:

**THIS IS A SEALED BID PROPOSAL FOR
KENT COUNTY – PW 25-04.**

Please note that if a bid is mailed, sent by messenger service, or delivered by commercial carrier (e.g. FEDEX, UPS, etc.). **THE OUTSIDE ENVELOPE, AS WELL AS THE INSIDE ENVELOPE, IF ANY, MUST CONTAIN THE LEGEND SHOWN ABOVE.** County staff receives many items by such services and if the legend does not appear a response may be misrouted or delayed in opening. The bidder takes full responsibility for the legend and THE COUNTY WILL NOT DEEM A BID AS TIMELY RECEIVED, EVEN IF RECEIVED ON TIME, IF OPENED LATER THAN THE DEADLINE DUE TO LACK OF THE APPROPRIATE LEGEND ON THE MAILER/OUTSIDE ENVELOPE.

9. Duration of Offer

Unless otherwise specified by the County, proposals submitted in response to this solicitation are irrevocable for 90 days following the closing date. This period may be extended only with the offeror's written agreement.

10. Withdrawal of Proposals

A bidder may withdraw its proposal unopened after it has been deposited, if such a request is made prior to the time set for the opening of the proposal.

11. Public Inspection of Proposals

If the bidder designates a portion of its bid as confidential, it shall isolate and identify in writing the confidential portions. The bidder shall include with this designation a statement that explains and supports for firm's claim that the bid items identified as confidential contain trade secrets or other proprietary data.

12. Changes in Contract Documents

Changes to contract documents shall be made only in writing, and copies will be emailed, faxed, or mailed to all known prospective bidders. The County assumes no responsibility for verbal instructions or interpretations. The contract documents contain the provisions

required for the contract. Information obtained from an officer, agent, or employee of the County or any other person shall not affect the risks or obligations assumed by the bidder or relieve him of fulfilling any of the conditions of the contract.

13. Revisions to the RFP

If it becomes necessary to revise this RFP, amendments will be provided to all prospective offerors that were sent this RFP or otherwise are known by the Director of Purchasing to have obtained this RFP. Acknowledgment of the receipt of all amendments will be required.

14. Cancellation of the RFP; Rejection of All Proposals

The County may cancel this RFP, in whole or in part, or may reject any/all proposals submitted in response whenever this action is determined to be in the best interest of the County. Kent County shall have no liability or obligation to any of the proposers preparing or submitting proposals under this RFP.

15. Proposal Acceptance; Discussions

The County reserves the right to accept or reject any and all proposals, in whole or in part, received in response to this RFP, to waive or permit cure of minor irregularities; and to conduct discussions with all qualified offerors in any manner necessary to serve the best interests of the County. The County also reserves the right, at its sole discretion; to award a contract based upon the written proposals received without prior discussions or negotiations.

16. Disqualification of Bidders

Any one or more of the following causes may be considered as sufficient for the disqualification of a bidder and the rejection of its proposal or proposals:

- A. More than one proposal for the same contract from an individual, firm, or corporation under the same or different names.
- B. Evidenced of collusion among bidders.
- C. Unsatisfactory performance record as evidenced by past experience.
- D. If the unit prices are obviously unbalanced either in excess or below reasonable cost analysis values.
- E. If there are any unauthorized additions, interlineation, conditional or alternate bids or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.
- F. Non-attendance of mandatory pre-bid meetings may be cause of disqualification.

17. Bid Opening

All bids will be opened and publicly read by designated County staff at 10:00 a.m., October 29, 2024, Kent County Department of Public Works, 709 Morgnec Road, Chestertown, Maryland 21620. Bidders and other interested parties are invited to attend these public forums.

18. Omission of Specifications

The omission of a bidder of any of any specifications, or details of any specifications which would normally apply to the products of service herein stated, shall not relieve the bidder from fulfilling those required specifications needed to provide an end product best suited to the intended purpose. The best commercial practices are to prevail, and only materials of first quality, correct type, size, and design are to be used.

Workmanship shall be of first quality. All parts and materials, whether specified herein or not, shall be rated to meet or exceed the maximum rating required by the product or service and its maximum intended purpose.

19. Incurred Expenses

The County will not be responsible for any costs incurred by an offeror in preparing and submitting a proposal in response to this RFP.

20. Compliance with Law

By submitting an offer in response to this RFP, the offeror, if awarded the contract, agrees that it will comply with all federal, state, and local laws applicable to its activities and obligations under the contract.

21. Acceptance of Terms and Conditions

By submitting a response to this RFP, an offeror shall be deemed to have accepted all the terms, conditions, and requirements set forth in this RFP unless otherwise clearly noted and explained in its proposal. All proposals submitted in response to this request for Proposal become the property of the County. *All County agreements are subject to the County's General Terms and Conditions unless otherwise specifically changed or waived hereunder or in the Contract.*

22. Term

Any contract(s) resulting from this procurement will be for the stated period; provided, however, that all contracts are subject to non-appropriations and termination for convenience clauses.

23. Failure To Deliver or Perform

In the event the offeror fails to deliver the goods or services covered by the contract and in accordance with the delivery dates stipulated in the contract, the County reserves the right to purchase on the open market those goods and services which the offeror has failed to deliver and shall deduct any additional costs incurred by the County as a result of such failure to deliver, from any money due the offeror under the contract or other contracts with the County.

24. Termination of Contract

The County reserves the right to cancel the contract entered into as a result of this bid if, in its opinion, there shall be a failure on the part of the offeror at any time to perform faithfully any of the contract requirements. Should the offeror fail to comply with contract requirements, except for circumstances beyond its control, such as, but not limited to an Act of God, war, flood, and governmental restrictions, the County reserves the right to purchase the required goods or services in the open market and charge the offeror with any excess costs, or to complete the required work or obtain the required goods at the expense of the offeror and to withhold any monies that may be due or become due and apply same to any expenses or excess costs incurred to the County.

The County may terminate this agreement at any time, for any reason, and shall be liable only for time and costs incurred as of the date of termination.

25. Changes to the Contract

The County may at any time make changes within the general scope of the contract in the design or specifications of the services to be delivered. The contract shall be modified in writing to reflect any equitable adjustment caused by any increase or decrease in the offeror's cost or time required for performance or change in scope of service. The County reserves the right to increase or decrease quantities and/or projects at their discretion.

26. Agreement/Contract

Any agreement or contract resulting from the acceptance of a Proposal shall be on forms either supplied by or approved by the County and shall contain, as a minimum, applicable provisions of the Request for Proposal. The County reserves the right to reject any agreement that does not conform to the Request for Proposal and any County requirements for agreements and contracts.

27. Contract and Related Data

No reports, information or data given to or prepared by the County under the contract shall be made available to any person by the firm without the prior written approval of the County.

28. Contract Award

It is the intent of the County to award a contract to the lowest qualified responsible and responsive bidder within thirty (30) calendar days following bid opening; However, the County requires bidders, by signing the "Standard Bid Acceptance" form to guarantee their bid for a period of ninety (90) days following the bid opening date. The County reserves the right to reject any and/or all bids.

The County also reserves the right to negotiate further the terms of the contract, including the award amount, with the selected bidder prior to entering into a contract. If contract negotiations cannot be concluded successfully with the selected bidder, the County may negotiate a contract with the next selected bidder, and so on. The County reserves the right to negotiate with the bidder whose proposal is the closest to being acceptable or to seek

additional proposals after the proposal date. The County reserves the right to waive any irregularities and technicalities and may, at its discretion, request a follow-up or amended proposal.

29. Contract Extension

There is no anticipated contract extension required for this project.

30. Contract Documents

The Contract Documents shall include this RFP, Schedule, Information to Bidders, Bid Forms, Specifications, Drawings, Addenda, the County General Terms and Conditions, the resulting contract, and any other documents which are clearly intended to be a part of the terms, conditions, requirements, and specifications for the subject products or services. Drawings and specifications for this project shall include those entitled “Marina Improvements Bayside Landing Park”, dated July 2024, prepared by Davis, Bowen & Friedel, Inc., totaling 13 sheets, as well as “Technical Specifications Bayside Landing Park Marina Improvements” dated January 31, 2024 and attached herein, which are hereby made a part of the contract documents.

31. Kent County Purchasing Code

All County purchases are subject to and to be accomplished in accordance with Chapter 49 of the CPLL. Bidders should familiarize themselves with Chapter 49. A copy of Chapter 49 may be obtained from the Clerk to the County Commissioners, 410-778-4600 and available online through the County’s web site at <http://www.kentcounty.com/>

32. Termination for Convenience

Contracts shall remain in effect for the time period and quantity specified unless the contract is terminated by the County. The County may terminate the contract at any time by giving written notice of such termination and specifying the effective date thereof, at least thirty (30) days before the effective date of termination.

33. Termination for Cause

If, for any reasons, or through any cause, the Contractor fails to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor violates any of the covenants, agreements, or stipulations of this Contract, the County shall thereupon have the right to terminate this contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In the event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports or other material prepared by the Contractor under this Contract shall, at the option of the County, become its property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials which is usable to the County.

34. Non-discrimination

The County is an equal opportunity employer. The County complies with Title VI of the Civil Rights Act of 1964, which provides that no person shall be denied on the grounds of race, color, or national origin, be excluded from, be denied the benefits of, or discriminated against under any program or activity receiving Federal financial assistance. **Each bidder shall verify through execution of the bid form that it does not discriminate on the basis of race, color, creed, religion, gender, age, lawful sexual orientation, marital status, national origin, or on any other basis generally prohibited by any federal, State, or local law, rule, or regulation.**

35. Kent County Ethics Ordinance

By submitting a bid in response hereto, the bidder acknowledges that it is familiar with the County's Code of Ethics, CPLL, Chapter 29, and certifies that it has no knowledge of any violation of that Chapter, that it has no knowledge of any conflict of interest which may exist or arise under Chapter 29 if the bidder is awarded a contract, and that it has not given any gift (as that term is defined in Chapter 29) to anyone who has or may participate in the awarding of this contract or the management or supervision thereof. Contact the County's Attorney Office at 410-810-0428 if any additional information is required. A copy of Chapter 29 may be obtained from the Clerk to the County Commissioners, 410-778-4600 and available online through the County's web site at <http://www.kentcounty.com/>

SECTION B. BID PROPOSALS AND RELATED MATTERS

1. Pre-bid Conference

A pre-bid conference will be held on October 15, 2024, beginning at 10:00 a.m. at the project site at Bayside Landing Park Marina, Rock Hall, MD 21661. All interested offerors are encouraged to attend. Nothing stated at the pre-bid conference may change the Request for Proposals unless the Director of Purchasing makes a change by written amendment.

2. Presentation

Offerors may be required to make individual written or oral presentations to the County representatives in order to clarify their proposals.

3. Proposal Form

Proposals should be prepared simply and economically, providing a straightforward, concise description of the offeror's proposal for meeting the requirements of this procurement.

4. Bid Forms

All Bids must be made on the required bid forms. All blank spaces for bid prices must be completed in ink or typewritten, and the bid form must be fully completed and executed when submitted. Unless otherwise specifically required, only one copy of the bid form is required. A conditional or qualified bid will not be accepted. The base price on the bid form shall be the total cost of the item being bid in accordance with the specifications in the RFP. Alternates shall only be used to reflect increases or decreases in the base bid price. Only those alternates, which are specifically requested by the County will be considered.

5. Bid Notice Disclaimer

The mailing of bid solicitations (notices) to incumbent and/or potential vendors of goods and services is a courtesy extended by the County, as well as a method for generating interest among vendors. For purposes of bidding opportunities, generally, interested vendors should rely on the public notices published in the newspapers of general circulation in Kent County, the Kent County website, and eMaryland Marketplace Advantage.

6. Bid Surety

All bids shall be accompanied by a Bid Surety in the form of a certified check, or bid bond, made payable to the County Commissioners of Kent County, Maryland for the penal sum of 5% of the bid price. Bid Surety will be returned to all bidders upon completion of the contract award process, with the exception of the successful bidder. Non-Performance or failure to sign the contract within ten (10) working days after the award, or later within the bid guarantee period at the discretion of the County, or withdrawal of a bid subsequent to opening but prior to award, shall result in forfeiture of the Bid Surety. Any Bid Surety and related forms and instruments required must be executed and attached to the bid submittal.

7. Waiver of Technicalities

The County reserves the right to waive formalities or technicalities in bids as the interest of the County may require in accordance with the terms of the County's Purchasing Ordinance, Chapter 49, Code of Public Local Laws of Kent County, Maryland ("CPLL").

8. Basis of Award

All responsive proposals from responsible bidders will be eligible for contract award, based on the following:

- A. Lowest price from a responsive and responsible bidder as indicated by the total price on the bid form.
- B. Compliance with specifications.
- C. Compliance with terms of bid package.
- D. Ability to perform or deliver on time.

The County may undertake such investigations or inquiries as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish County with all requested information and data for this purpose.

9. Modification or Withdrawal of Bids

- A. Pre-Opening Modification or Withdrawal of Bids

Bids may be modified or withdrawn by written notice received by the Clerk to the County Commissioners before the time and date set for bid opening.

- B. Disposition of Bid Bond

If a bid is withdrawn in accordance with this regulation, the Bid Bond, if any, shall be returned to the Bidder.

- C. Late Bids, Late Withdrawals, and Late Modifications

Any bid and any request for Withdrawal or Modification received after the time and date set for receipt and opening of bids is late and will be disregarded.

10. Performance and Payment Bonds

In accordance with this Request for Proposal, the selected bidder will be required to furnish a Performance Bond and a Payment Bond each in an amount of one hundred percent (100%) of the contract price. The successful bidder shall be required to furnish the bond(s) at the time of the execution of the contract. Where attorneys-in-fact sign bid, payment, and/or performance bonds bidders must provide with each bond a certified and effective

dated copy of their Power of Attorney. The bidder to whom the contract is awarded will be required to execute the contract and obtain the requisite bonds within ten (10) calendar days from the date when Notice to Award is delivered by the County to the bidder.

11. Substitutions

The Contract, if awarded, will be on the basis of materials and equipment described in the drawings or specified in the specifications without consideration of possible substitute or “approved equal” items. The material, products, and equipment described in the bidding documents establish a standard of required function, dimension and appearance. Whenever it is indicated in the drawings or specified in the specifications that a substitute or “approved equal” item of material or equipment may be furnished or used by the contractor if acceptable to the county, application for such acceptance will not be considered by the county until after execution of the contract.

12. Alternates

An alternate is a dollar amount to be added to or subtracted from the base bid price. The County may request alternate prices to compare various options that may be in their best interest. The County shall have the right to accept alternates in any order or combination, and to determine the low bidder on the basis of the base bid and alternates accepted.

13. Addenda

Addenda, if any, will be emailed, mailed or delivered to all that are known to have received a complete set of bidding documents and will be posted on the Kent County website, and eMaryland Marketplace Advantage. Copies of Addenda will be made available for inspection wherever bidding documents are on file for that purpose. No addenda will be issued later than three (3) days prior to the date for receipt of bid, except an Addendum withdrawing the request for bids or one which includes postponement of the date for receipt of bids.

14. Trade and Brand Names

Unless specifically provided otherwise in an RFP, the use of or references to any trade or brand names in this bid package shall be solely for the purpose of establishing a standard and shall in no way infer that other trade and brand names will not be acceptable.

15. Product Literature

Product literature shall only be required from the successful Bidder.

16. Exceptions to Bid Specifications

Any bidder taking an exception to the stated specifications or requirements must make such exceptions clear and in writing, and shall attached such exceptions to, or include them in,

the sealed bid proposal. This section is not to be construed to mean that the county is obligated to accept any such exception. **THE COUNTY IS NOT OBLIGATED TO ACCEPT ANY BID NOT IN CONFORMANCE WITH BID SPECIFICATIONS AND MAY REJECT SUCH BIDS WITHOUT COMMENT OR REVIEW. BIDDERS TAKING SUCH EXCEPTIONS DO SO AT THEIR OWN RISK.**

17. Time of Delivery

The Contractor, after receipt of written notice of the award of the contract and receipt of the purchase order, shall diligently prosecute same so that it will be fully completed within the number of consecutive calendar days stated in the proposal. Calendar days for completing delivery of the bid items shall start from the date of notice to proceed.

18. Default in Contracting

Should the bidder to whom the contract is awarded fail, or be unable, to execute the contract for any reason, within seven (7) calendar days after notification of award, then an amount equal to the difference between the accepted bid price and that of the next highest bidder shall be forfeited to the owner as liquidated damages.

19. Payment Terms

Payment will be made only for properly approved invoices supported by adequate information and details enabling the County to make a determination that the appropriate level of performance has been reached, including invoices for materials actually delivered and services actually performed. Otherwise, payment will not be made. Invoices must include the period covered and a detailed listing of the items included in the invoice, which shall be subject to the review of the County. Invoices shall be submitted monthly (for ongoing projects or orders) or within thirty (30) days of delivery or completion (for single service or delivery contracts) by paper or by electronic invoice (via fax or email). Approved payment shall be made to the contractor within forty-five (45) calendar days of receipt of an acceptable invoice. Payment will be made upon successful submission and approval of services. Invoices shall be mailed directly to the designated Contract Administrator. The County will withhold a 10% payment retainage in accordance with AIA guidelines and will require a release of liens prior to final payment.

20. Kent County Substance Abuse Policy

The County adopted the “Kent County Government Substance Abuse Policy,” to which policy the successful bidder must strictly adhere. Prospective bidders are cautioned to make themselves familiar with the policy. **Bidders must state on the “Standard Bid Form” whether or not you have a drug abuse program in effect.**

21. Insurance

Prior to execution of this contract, the successful bidder shall submit a “**Certificate of Insurance**” indicating it carries the specified insurances in the amount specified in this RFP. Coverages shall be maintained throughout the term of the contract. Unless otherwise specified, coverage levels shall be required as follows:

- A. Professional malpractice, negligence, and errors and omissions coverage in minimum amounts of \$2,000,000.00 per event and \$1,000,000.00 per person.
- B. General Liability - Minimum - \$2,000,000.00
- C. Workers' Compensation Insurance as required as law.
- D. Comprehensive Liability Insurance with minimum limits of \$1,000,000.00 per person, \$2,000,000.00 per occurrence. Policy shall include the broad form of Comprehensive General Liability Endorsement or its equivalent.
- E. All required coverages shall include and specifically name the County as an additional insured and loss payee with respect to all operations under the contract.
- F. The successful bidder will furnish the County any up-to-date certificates of insurance stating the requirements listed above at contract implementation.

22. Immigration Law Compliance

By submitting and signing a proposal, each bidder hereby certifies that it does not, and if awarded the contract, will not during the performance of the contract, employ illegal workers or otherwise violate any provisions of any applicable federal, State, or local law concerning the employment of illegal aliens, the certification of nationality of workers, or otherwise.

23. Federal Taxpayer Identification Certificate (W-9)

All first-time successful bidders doing business with the County must submit a completed standard "Federal Taxpayer Identification Certificate – W-9".

SECTION C. SCOPE OF WORK, SPECIFICATIONS AND RELATED MATTERS

RFP # PW 25-04

Bayside Landing Park Marina Improvements SPECIFICATIONS

1. GENERAL

It is the intent of these specifications to cover all aspects of the Bayside Landing Park Marina Improvements project.

The project shall consist of demolition and removal of existing facilities and construction of improvements and upgrades, including but not limited to replacing of existing docks, finger piers, mooring piles, and portions of bulkheads consistent with the project plan set titled “Marina Improvements Bayside Landing Park” prepared by Davis Bowen & Friedel, Inc, dated July 2024 and consisting of 13 sheets total (“Plans”), as well as document titled “Technical Specifications Bayside Landing Park Marina Improvements” dated January 31, 2024 and consisting of 50 pages (“Tech Spec”). The entire scope of work represented within the Plans and Tech Spec shall be hereby included within the scope of work of this Request for Proposals unless specifically otherwise stated herein.

Kent County has coordinated for the entirety of marina facilities to be vacated by boaters/users prior to the start of construction. **Contractor shall coordinate with the County to determine schedule for demolition and construction.** The contractor shall be responsible for securing the entire limit of construction for the project site, for the duration of the project. Demolition included within the scope of this contract shall include all facilities impacted and/or proposed to be replaced, as shown on the Plans. Items proposed to remain shall be protected and preserved by the Contractor throughout construction, or replaced at no additional cost. Items proposed to be replaced shall be replaced in-kind, or improved to meet current construction codes and/or standards, as applicable. All areas disturbed by construction shall be restored as denoted on the plans, or by topsoil, seed and mulch. The Contractor will be responsible for restoration of all existing facilities, site grading and soil erosion / sedimentation control throughout construction.

Any incidental or additional work required to fulfill the requirements of the specified work shall be considered a part of said specified work and no additional payment shall be made. All work shall be performed in accordance with the prevailing code for the trade or trades involved and shall be done in a first-class workmanship manner. Inferior or shoddy workmanship or materials will not be tolerated nor accepted for payment. It shall be fully understood that the Department of Public Works shall make the final decision as to the acceptance of all work and material and that in the event of an adverse decision, no claim of any sort shall be made against the county or any of its employees, agents, or assigns.

All work shall be performed in accordance with all applicable Federal, State and local regulations.

2. SUBSTITUTIONS

Whenever a material, method of construction, article or piece of equipment is identified on the plans or specifications by reference to brand name or catalog numbers, it shall be

understood that this is referenced for the purpose of defining the scope of work, performance or other salient requirements and that other materials, methods of construction, or products of equal capacities, quality and function shall be considered. The contractor may recommend the substitution of a material, method of construction, article or piece of equipment of equal substance and function for those specified herein, only if that substitution offers project savings and/or benefits the project schedule. The contractor is responsible for demonstrating the substitution is better or equal to that specified. The county shall have sole discretion for any substitution approvals. The contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the contractor without a change in the contract price or contract time.

3. GENERAL SCOPE OF WORK & BACKGROUND INFORMATION

It shall be the responsibility of all bidders to visit the site and verify existing conditions.

The Contractor shall be responsible for the proper removal and disposal of all demolition materials. The bid price shall include all disposal costs.

Existing electrical service to the existing sewage pump out facility shall be removed and replaced in kind. Though not represented on the Plans, all costs associated with this effort shall be included in the Lump Sum bid Item A4 "Water, sewer, and electric service upgrade (replacement and extension to each slip including utility pedestal)".

4. RIGHT-OF-WAY STATUS

Construction easements for this project have been acquired by Kent County Department of Public Works.

5. EXPERIENCE REQUIRED

In addition to the bid price, bidders shall submit evidence of their experience and qualifications as it relates to this project, as well as that for any proposed subcontractors. References shall also be provided with current contact information. Past performance, staff qualifications and availability and other resources will be major criteria in the review of proposals.

6. WARRANTY

The contractor shall provide a one (1) year labor and materials warranty exclusive of natural disaster or third-party damage.

7. AWARD

The successful bidder shall be selected based upon a review of qualifications, experience, price. The decision of the County Commissioners of Kent County shall be final. The County Commissioners of Kent County reserve the right to accept or reject any or all proposals should it be in the best interest of the county to do so.

8. PREVAILING WAGE REQUIREMENTS

There are no prevailing wage rate requirements on this project.

9. PROGRESS MEETINGS

Progress meetings shall be held monthly at a minimum to review progress and schedule. More regularly scheduled meetings may be required if deemed necessary by the contractor or county for specific issues.

10. TEMPORARY FACILITIES

No temporary facilities are required by the county. The contractor shall provide sanitary facilities for workers.

SECTION D. BID FORMS

BID NUMBER PW 25-04

1. Standard Sealed Bid Price Sheet
2. Standard Sealed Bid Form
3. Bid Bond
4. Signature Form
5. Affidavit of Qualifications to Bid
6. Non-Collusion Certificate

STANDARD SEALED BID PRICE SHEET BID NUMBER PW 25-04

County Commissioners of Kent County, Maryland:

We hereby submit, for your review, our proposal requested by the RFP. This proposal includes and incorporates all information and specifications, which are contained in the Contract Documents, as described in the RFP, the same as if specifically written herein. A completed, signed, and accepted copy of this Standard Sealed Bid Form shall serve as a valid and binding contract.

A. The Bidder will complete the Work under Schedule A in accordance with the Contract Documents for the following price(s).

SCHEDULE A – BASE BID

Item No.	Description	Lump Sum Prices
A1	Mobilization/Demobilization	\$
A2	Demolition and removal of docks, finger piers, mooring piles, and portions of the timber bulkheads	\$
A3	Replacement of docks, finger piers, mooring piles, and timber bulkheads	\$
A4	Water, sewer, and electric service upgrade (replacement and extension to each slip including utility pedestal)	\$
A5	Parking area and lawn restoration (including replacement of walkway with concrete sidewalk)	\$
Subtotal Schedule A		\$

B. The Bidder will complete the Work under Schedule B, when authorized in writing, in accordance with the Contract Documents for the following price(s):

SCHEDULE B – CONTINGENT ITEMS

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Estimated Bid Price
B1	Timber Piles (12" - 3') furnished and placed	VF	5		\$
B2	Timber Wales (6" x 8") furnished and placed	LF	20		\$
B3	Timber Sheeting (4" x 10") furnished and placed	VF	80		\$
B4	Timber Stringers (3" x 10") furnished and placed	LF	32		\$
B5	Timber Decking (3" x 8") furnished and placed	LF	24		\$
B6	Concrete Sidewalk (4" thick x 6' wide)	LF	10		\$
B7	AASHTO M43, No. 57 Stone	TN	10		\$
B8	CR-6/GAB (Graded Aggregate Base)	TN	10		\$
B9	In-Kind Replacement of existing sewage pump out	EA	1		\$
Subtotal Schedule B					\$

TOTAL BASE BID (SCHEDULE A): \$ _____
_____ Dollars and _____ Cents
Written Bid Price

Acknowledgement of Addendum Receipt _____
(Signed)

Addendum No.(s) _____
(List Addendum Nos. acknowledged)

To begin work as specified in the “Notice to Proceed” and to prosecute said work to complete the contract within 90 calendar days.

Drug Abuse Policy In Effect (Circle One)	YES	NO
Insurance certificate attached (Circle One)	YES	NO
Bid Surety Attached? (Circle One)	YES	NO
Signature form executed? (Circle One)	YES	NO
Affidavit of qualification to bid? (Circle One)	YES	NO
Non-collusion certificate (Circle One)	YES	NO

STANDARD SEALED BID FORM

BID NUMBER PW 25-04

BIDDER: _____

AGENT (TYPED): _____

FIRM Name: _____

ADDRESS: _____

TELEPHONE: _____

EMAIL: _____

Submitted by: _____

(Signature of authorized agent above)

_____, this _____ day of _____ 2024.

Accepted by:

Daniel F. Mattson, P.E., C.F.M., C.M.E.,
Director of Public Works,
by Authority of the County Commissioners

ATTEST:

_____ **DATE** _____

BID SURETY

KNOWN ALL MEN BY THESE PRESENTS, that we the undersigned, _____, as

principal, and _____, as surety, are hereby held and firmly bound unto the County Commissioners of Kent County

AS OWNER in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the County Commissioners of Kent County a certain BID, attached hereto and hereby made a part of hereof to enter into a contract in writing, for the

NOW, THEREFORE,

- a) If said BID shall be rejected, or
- b) If said BID shall be accepted and the principal shall execute and deliver a contract in the form of Contract attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor, furnishings, materials, in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of the obligation as herein stated.

The Surety, for value received, hereby stipulated and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID and said Surety does hereby waive notice of any such extension. IN WITNESS WHEREOF, the Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal
By: _____

Surety
By: _____

IMPORTANT: Surety companies executing BONDS must authorized to transact business in the State of Maryland.

SIGNATURE FORM

NAME OF BIDDER: _____

SIGNATURE OF AUTHORIZED PERSON: _____

PRINT AUTHORIZED PERSON: _____

TITLE OF AUTHORIZED PERSON: _____

STREET NAME AND NUMBER: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE NUMBER: _____

E-MAIL _____

DATE: _____

BIDDERS FEDERAL EMPLOYERS' IDENTIFICATION NO. _____

BIDDERS CONTRACTORS LICENSE AND PERMIT NUMBERS:

AFFIDAVIT OF QUALIFICATION TO BID

I HEREBY AFFIRM THAT

1. I am the (Title) _____ and the duly authorized representative of the firm of (Name of Corporation) _____ whose address is _____

and that I possess the legal authority to make this affidavit on behalf of myself and the firm for which I am acting.

Except as described in paragraph 3 below, neither I nor the above firm, nor to the best of my knowledge, any of its officers, directors, or partners, or any of its employees directly involved in obtaining contracts with the State of any county, bi-county, or multi-county agency, or subdivision of the State, have been convicted of, or have pleaded no contender to a charge of, or having during the course of an official investigation or other proceeding, admitted in writing or under oath, acts or omissions which constitute bribery, attempted bribery, or conspiracy to bribe under the provisions of Criminal Law Article of the Annotated Code of Maryland, or under the laws of any state or the Federal government.

2. (State "none", or as appropriate, list any conviction, plea, or admission described in paragraph 2 above, with the data: court, position with the firm, and the sentence or disposition, if any)

I acknowledge that this affidavit is to be furnished to the County Attorney for the County Commissioners of Kent County, and where appropriate, to others. I acknowledge that, if the representations set forth in this affidavit are not true and correct, the County Commissioners of Kent County may terminate any contract awarded and take any other appropriate action. I further acknowledge that I am executing this affidavit in compliance with Section 16D of Article 78A of the Annotated Code of Maryland, which provides that certain persons who have been convicted of, or have admitted to bribery, attempted bribery, or conspiracy to bribe may be disqualified, either by operation of law or after hearing, from entering into contracts with the State or any of its agencies or subdivisions.

I do solemnly declare and affirm under the penalties of perjury that the contents of this affidavit are true and correct.

Signature _____ Date _____

NON-COLLUSION CERTIFICATE

I HEREBY CERTIFY I am the _____
(Title)

and the duly authorized representative of the firm of _____

whose address is _____

AND THAT NEITHER I, nor to the best of my knowledge, information, and belief, the above firm, nor any of its other representatives I here represent, have:

- a. Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the bid, or offer being submitted herewith.
- b. Not in any manner, directly or indirectly, entered into any agreement, participated in any collusion to fix the bid price or price proposal of the bidder, or offer of herein or any competitor, or otherwise taken into action in restraint of free competition bidding in connection with the Contract for which the within bid or offer is submitted.

In making this affidavit, I represent that I have personal knowledge of the matters and facts herein stated.

Date

Signature

Date

Print Name or Type



GENERAL TERMS & CONDITIONS OF CONTRACT BETWEEN COUNTY & CONTRACTOR

1. ACCOUNTING SYSTEM AND AUDIT, ACCURATE INFORMATION

The Contractor certifies that all information the Contractor has provided or will provide to the County is true and correct and can be relied upon by the County in awarding, modifying, making payments, or taking any other action with respect to this contract including resolving claims and disputes. False or misleading information constitutes grounds for the County to terminate this contract for cause and to pursue any other appropriate remedy. The Contractor certifies that the Contractor's accounting system conforms to generally accepted accounting principles, is sufficient to comply with the contract's budgetary and financial obligations, and is sufficiently able to produce reliable financial information.

The County may examine the Contractor's and any first-tier subcontractor's records to determine and verify compliance with the contract and to resolve or decide any claim or dispute arisen under this contract. The Contractor and any first-tier subcontractor must grant the County access to these records at all reasonable times during the contract term and for three (3) years after final payment (or for such longer period as may be required pursuant to any federal, state, or other loan or grant condition). If the contract is supported to any extent with federal or state funds, the appropriate federal or state authorities may also examine these records. The Contractor must include the preceding language of this paragraph in all first-tier subcontracts.

2. AMERICANS WITH DISABILITIES ACT

The Contractor agrees to comply with the nondiscrimination requirements of Titles II and III, and other provisions, of the Americans with Disabilities Act of 1990, Pub. Law 101-336, as amended, currently found at 42 U.S.C., § 12101, *et seq.*

3. APPLICABLE LAWS

This contract must be construed in accordance with the applicable laws, rules, and regulations of the State of Maryland (without regard to its conflicts of laws principles) and of Kent County. All Kent County laws, rules, and regulations are incorporated by reference into, and made a part of, this contract. In the case of any inconsistency between this contract and such laws, rules, and regulations, the laws, rules, and regulations shall govern. The Contractor must, without additional cost to the County, pay any necessary fees and charges, obtain any necessary licenses and permits, and comply with applicable federal, state and local laws, codes and regulations. For purposes of litigation involving this contract, except for Contract Disputes discussed in paragraph 8 below, exclusive venue and jurisdiction must be in the Maryland State courts located in Kent County, Maryland.

4. ASSIGNMENTS AND SUBCONTRACTS

The Contractor may not assign or transfer this contract, any interest herein or any claim hereunder, except as expressly authorized in writing by County's County Administrator, or as otherwise specifically provided for in the contract. Unless performance is separately and expressly waived in writing by the County Administrator, an assignment does not release the Contractor from responsibility for performance of this contract. Unless otherwise provided in the contract, the Contractor may not contract with any other party for furnishing any of the materials or services herein contracted for without the written approval of the County Administrator.

5. CHANGES

The County Administrator may unilaterally change the work, materials and services to be performed, in accordance with County law, rule, or regulation. The change must be in writing and within the general scope of the contract. The contract will be modified to reflect any time or money adjustment the Contractor is entitled to receive. Any claim concerning an adjustment in time or money due to a change must be given in writing to the County Administrator, or the designated Contract Administrator, within thirty (30) days from the date that the change was ordered, or the claim will be waived. Any failure to agree upon a time or money adjustment must be resolved under the "Disputes" clause (Section 8) of this contract. The Contractor must proceed with the prosecution of the work as changed, even if there is an unresolved claim. No charge for any extra work, time or material will be allowed, except as provided in this section.

6. CONTRACT ADMINISTRATION

A. The Contract Administrator, subject to paragraph B below, is the Department Representative designated by the County Administrator. The Contract Administrator is authorized to:

- 1) Serve as liaison between the County and Contractor;
- 2) Give direction to the Contractor to ensure satisfactory and complete performance;
- 3) Monitor and inspect the Contractor's performance to ensure acceptable timeliness and quality of service;
- 4) Serve as records custodian for this contract;
- 5) Accept or reject the Contractor's performance or service;
- 6) Furnish timely written notice of the Contractor's performance failures, if applicable, to the County Administrator;
- 7) Prepare required documents and reports;
- 8) Approve or reject invoices for payment;
- 9) Recommend contract modifications or terminations to the County Administrator; and
- 10) Issue Notice to Proceed.

B. The Contract Administrator is NOT authorized to make determinations (as opposed to recommendations) that alter, modify, terminate, or cancel the contract, effect a procurement, interpret ambiguities in contract language, or waive the County's contractual rights.

7. COST & PRICING DATA

The Contractor guarantees that any cost and/or pricing data provided to the County will be accurate and complete. The Contractor grants the County access to all books, records, documents, and other supporting data in order to permit adequate evaluation of the Contractor's proposed price(s). The Contractor also agrees that the price to the County, including profit or fee, may, at the option of the County, be reduced to the extent that the price was based on inaccurate, incomplete, or non-current data supplied by the Contractor.

8. DISPUTES DURING CONTRACT PERFORMANCE

Any dispute by Contractor arising during the performance of the contract, which dispute is not disposed of by mutual agreement, must be decided as provided hereunder. Pending final resolution of a dispute, the

Contractor must proceed diligently with contract performance. Subject to the discretion of the County Administrator, the head of the County department, office, or agency ("Department Head") of the Contract Administrator is the designee of the County Administrator, for the purpose of dispute resolution. If the Contract Administrator is the Department Head, then the dispute shall be managed by the County Administrator. The Department Head may, with the Contractor's consent, delegate this responsibility to another person (other than the Contract Administrator). The Contractor waives any dispute or claim not made in writing and received by the Department Head within thirty (30) days of the occurrence giving rise to the dispute or claim. A dispute must be in writing, for specific relief, and any requested relief must be fully supported by affidavit and all relevant calculations, including cost and pricing information, records, and other information. The Contractor may, at the County's option, be made a party to any related dispute involving another Contractor.

9. DOCUMENTS, MATERIALS AND DATA

All documents, materials or data developed as a result of this contract are the County's property, unless specifically provided for in the contract. The County has the right to use and reproduce any documents, materials, and data, including confidential information, used in the performance of, or developed as a result of, this contract. The County may use this information for its own purposes, including reporting to state and federal agencies. The Contractor warrants that it has title to or right of use of all documents, materials or data used or developed in connection with this contract. The Contractor must keep confidential all documents, materials, and data prepared or developed by the Contractor or supplied by the County.

10. DURATION OF OBLIGATION

The Contractor agrees that all of the Contractor's obligations and warranties which, directly or indirectly, are intended by their nature or by implication to survive performance of the contract shall so survive the completion of performance, termination for cause, or the termination for convenience of the contract.

11. ENTIRE AGREEMENT

There are no promises, terms, conditions, or obligations other than those contained within the contract, including any terms, conditions, documents or exhibits thereto, and in these General Terms and Conditions. This contract supersedes all communications, representations, or agreements, either verbal or written, between the parties hereto, with the exception of express warranties given to induce the County to enter into the contract.

12. ETHICS REQUIREMENTS/ POLITICAL CONTRIBUTIONS

The Contractor must comply with the ethics provisions contained in Chapter 29 – Ethics of the Code of Public Local Laws of Kent County.

13. GUARANTEE

- A. Contractor guarantees for one (1) year from acceptance, or for such other period of time as may have been expressly stated in the contract or the County's written solicitation, all goods, services, and construction offered, including those used in the course of providing the goods, services, and/or construction. This includes a guarantee that all products offered (or used in the installation of those products) carry a guarantee against any and all defects for such period. The Contractor must correct any and all defects in material and/or workmanship which may appear during the guarantee period, or any defects that occur within one (1) year of acceptance even if discovered more than one (1) year after acceptance, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the County and to the County's satisfaction;
- B. Should a manufacturer's or service provider's warranty or guarantee exceed the requirements stated above, that guarantee or warranty will be the primary one used in the case of defect. Copies of manufacturer's or service provider's warranties must be provided upon request;

- C. All warranties and guarantees must be in effect from the date of acceptance by the County of the goods or services;
- D. The Contractor guarantees that all work shall be accomplished in a workmanlike manner, and the Contractor must observe and comply with all federal, state, County and local laws, ordinances, and regulations in providing the goods and performing the services listed;
- E. Goods and materials provided under this contract must be of first quality, latest model, and of current manufacture, and must not be of such age or so deteriorated as to impair their usefulness or safety. Items that are used, rebuilt, or demonstrator models are unacceptable, unless specifically requested by the County in the contract documents; and
- F. All goods shall be merchantable and fit for the particular purpose, ordered or purchased, and as the Contractor so represents and warrants.

14. HAZARDOUS AND TOXIC SUBSTANCES

Manufacturers and distributors are required by federal "Hazard Communication" provisions of 29 CFR 1910.1200, and the Maryland "Access to Information About Hazardous and Toxic Substances" Law, to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Contractor must comply with these laws and must provide the County with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with delivery of goods.

15. IMMIGRATION REFORM AND CONTROL ACT

The Contractor warrants that both the Contractor and any subcontractor do not and shall not hire, recruit, or refer for a fee, for employment under this contract or any subcontract, an alien while knowing the alien is an unauthorized alien, or any individual without complying with the requirements of the federal Immigration and Nationality laws, including but not limited to any verification and record keeping requirements. The Contractor further assures the County that, in accordance with those laws, it does not and will not discriminate against an individual with respect to hiring, or recruitment or referral for a fee, of the individual for employment or the discharging of the individual from employment because of such individual's national origin or, in the case of a citizen or intending citizen, because of such individual's citizenship status.

16. PROVISIONS

Notwithstanding any provisions to the contrary within any contract terms or conditions supplied by the Contractor, the County's General Terms and Conditions supersede the Contractor's terms and conditions in the event of any inconsistency, unless specifically waived or amended by the County.

In the case of any conflicts or ambiguities determined among the contract documents, such matters shall be resolved in favor of the following priorities:

- A. Any term or condition specifically provided for within a signed agreement or exhibit to a contract, other than terms and conditions provided by the Contractor;
- B. Terms and Conditions specified by the County in any Request For Proposal, Request For Qualifications, Invitation For Bid, or any other solicitation document, specifying with particularity the County's General Terms and Conditions; and
- C. These General Terms and Conditions.

The lack of a specific provision in any of the documents referred to in items 16.A. and 16.B. above shall not operate to create an ambiguity with these General Terms and Conditions.

17. INDEMNIFICATION

The Contractor is responsible for any loss, personal injury, death and any other damage (including incidental and consequential) that may be done or suffered by reason of the Contractor's negligence or failure to perform any contractual obligations. The Contractor must indemnify and save the County harmless from any loss, cost, damage, and other expenses, including attorney's fees and litigation expenses, suffered or incurred due to the Contractor's negligence or failure to perform any of its contractual obligations. If requested by the County, the Contractor must defend the County in any action or suit brought against the County arising out of the Contractor's negligence, errors, acts or omissions under this contract. The negligence of any agent, subcontractor or employee of the Contractor is deemed to be the negligence of the Contractor. For the purposes of this paragraph, County includes its elected officials, employees, agents, boards, and agencies. Any incidental and consequential damages shall be limited to the amount of insurance required by the contractor hereunder.

18. INDEPENDENT CONTRACTOR

If the Contractor is an independent contractor, the Contractor and the Contractor's employees or agents are not agents or employees of the County. Neither these General Terms and Conditions nor the contract are intended to create any partnership, joint venture, agency or other relationship between the County and the Contractor.

19. INFRINGEMENT

The Contractor represents and warrants that there is no copyright or patent infringement with respect to any goods or materials furnished pursuant to the contract. The Contractor shall indemnify and hold harmless the County with respect to cost, expense, damages, and liability arising from or on account of any claim for infringement.

20. INSPECTIONS

The County has the right to monitor, inspect and evaluate or test all supplies, goods, or services called for by the contract at all reasonable places (including the Contractor's place of business) and times (including the period of preparation or manufacture).

21. INSURANCE

Prior to execution of the contract, the Contractor must obtain, at its own cost and expense, and must keep in force and effect during the term of this contract (including all extensions) the insurance specified in the contract. This must include any applicable table or attachment with an insurance company licensed or qualified to do business in the State of Maryland and with an A. M. Best rating of not less than A-. The Contractor must submit a certificate of insurance prior to award of this contract and prior to any contract modification extending the term of the contract, as evidence of compliance with this provision. The County must be named as an additional insured on all liability policies. Forty-five (45) days written notice to the County of cancellation or material change in any of the policies is required. In no event may the insurance coverage be less than that shown on the applicable table, attachment, or contract provision for required insurance. Subject to applicable law, the County Administrator may waive or modify the requirements of this section 21 in whole or in part.

22. NON-CONVICTION OF BRIBERY

The Contractor hereby declares and affirms that, to its best knowledge, none of its officers, directors, members, partners, or employees directly involved in obtaining contracts has been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or the federal government.

23. NONDISCRIMINATION IN EMPLOYMENT

The Contractor shall not discriminate in employment, or in the treatment of employees, or discriminate in any manner on the basis of race, color, gender, age, religion, creed, national origin, ancestry, marital status, disability, political affiliation, or lawful sexual orientation and shall follow and obey all applicable State, Federal, and County laws and regulations regarding employment discrimination. The Contractor must bind its subcontractors to the provisions of this section.

24. PAYMENTS

This contract is subject to a non-appropriations clause as provided herein. No payment may be made or is due under this contract unless funds for the payment have been appropriated and encumbered by the County. Under no circumstances will the County pay the Contractor for legal fees. The Contractor must not proceed to perform any work or provide goods, services, or construction prior to receiving written confirmation that the County has appropriated and encumbered funds for the work. If the Contractor fails to obtain this verification from the County prior to performing work, the County has no obligation to pay the Contractor for the work.

If this contract provides for an additional contract term, or for work in any period beyond the end of the County's fiscal year in which the contract is executed, continuation of this contract beyond the end of that fiscal year is contingent upon the subsequent appropriation of funds and encumbrance of those appropriated funds for payments under this contract. If funds are not appropriated and encumbered to support continued performance in a subsequent fiscal period, this contract terminates without further notice from, or cost to, the County. The Contractor acknowledges that the County Commissioners have no obligation to appropriate funds for this contract in subsequent fiscal years. Furthermore, the County has no obligation to encumber funds to this contract in subsequent fiscal years. Accordingly, for each subsequent contract term, the Contractor must take appropriate action to verify that such funds have been appropriated and encumbered. See Annotated Code of Maryland, Article 31, section 3.

25. PERSONAL PROPERTY

All furniture, office equipment, operator equipment, vehicles and other similar types of personal property specified in the contract and purchased with funds provided under the contract become the property of the County upon the termination or expiration of this contract, unless expressly stated otherwise.

26. TERMINATION FOR CAUSE

The County may terminate the contract in whole or in part, and from time to time, whenever the County determines that the Contractor is:

- A. Defaulting in performance or is not complying with any provision of this contract;
- B. Failing to make satisfactory progress in the prosecution of the contract; or
- C. Endangering the performance of this contract.

Prior to a termination for cause, the County will send the Contractor written notice specifying the cause. The notice will give the Contractor ten (10) days from the date the notice is issued to cure the default or make progress satisfactory to the County in curing the default, unless a different time is given in the notice. If the County determines that default contributes to the curtailment of an essential service or poses an immediate threat to life, health, or property, the County may terminate the contract immediately upon issuing oral or written notice to the Contractor without any prior notice or opportunity to cure. In addition to any other remedies provided by law or the contract, the Contractor must compensate the County for additional costs incurred by the County to obtain substitute performance. A termination for cause shall be considered a termination for convenience as of the date the Contractor was advised of the termination for cause, if there was, in fact, no cause.

27. TERMINATION FOR CONVENIENCE

This contract may be terminated by the County, in whole or in part, upon written notice to the Contractor, when the County determines termination to be in the County's best interest. The termination is effective ten (10) days after the notice is issued, unless a different time is given in the notice. The County is liable only for payment for acceptable performance prior to the effective date of the termination, and for costs reasonably incurred as of the date of termination, including costs or items acquired by such costs that cannot be economically retained by the Contractor for other or future use of the Contractor.

28. TIME

Time is of the essence in the performance by Contractor of the contract and of all ancillary matters arising therefrom.

29. TITLE

All goods delivered or provided to the County or otherwise pursuant to the contract, and the title thereto, shall be free of any security interest, lien, contract restriction, or other form of encumbrance. Title shall pass to the County at the place of delivery to the County, subject to the County's right to inspect and accept or reject the goods.

30. WORK UNDER THE CONTRACT

Work may not commence under this contract until all conditions for commencement are met, including execution of the contract by both parties, compliance with insurance requirements, and issuance of any required Notice to Proceed.

TECHNICAL SPECIFICATIONS

BAYSIDE LANDING PARK
MARINA IMPROVEMENTS

**BAYSIDE AVENUE
ROCK HALL, MARYLAND**

FOR THE

**THE COMMISSIONERS OF KENT COUNTY, MARYLAND
400 HIGH STREET
CHESTERTOWN, MARYLAND 21620-1312**



DATE: AUGUST 4, 2024

DBF CONTRACT NO. 4137A001

**DAVIS, BOWEN & FRIEDEL, INC.
106 NORTH WASHINGTON STREET
SUITE 103
EASTON, MARYLAND 21601
410-770-4744**

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Specifications for this project are arranged in accordance with the Construction Specification Institute numbering system and format. Section numbering is discontinuous and all numbers not appearing in the Table of Contents are not used for this Project.

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DIVISION 2 – EXISTING CONDITIONS

SECTION 02 03 41 SELECTIVE DEMOLITION AND REMOVAL

PART 1 - GENERAL

- (a) Definitions:
- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
 - (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.
- (b) Related work not included in this Section consists of the following:
- (1) Section 31 00 00 provided under “Earthwork.”
 - (2) Section 31 10 00 provided under “Site Preparation.”
- (c) The Contractor shall provide all labor, material, equipment, and services for and reasonably incidental to executing demolition, salvage of identified items and materials, removal of designated trees, and removal of items indicated or required in order to complete the overall scope of work for this project. Rubbish and debris shall be removed from the park property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Owner or Owner’s Representative.
- (d) Protection:
- (1) Protection of Personnel
During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site.
 - (2) Protection of Structures
The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, and demolition work performed under this contract.
 - (3) Protection of Existing Property
Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Owner, any damaged

items shall be repaired or replaced as approved by the Owner or Owner's Representative. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing and supports as required.

(4) Protection of Trees

Trees within the project site which might be damaged during demolition, and which are indicated to be left in place, shall be protected by an orange blaze safety fence. The fence shall be securely erected a minimum of five (5') feet from the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to remain that is damaged during the work under this contract shall be replaced at no cost to the County as approved by the Owner or Owner's Representative.

(g) Submittals:

1. Demolition and Removal Plan

a. Submit plan for demolition of materials

- i. Procedures for demolishing and subsequent stockpiling, and/or storage.

b. Submit plan for removal of materials:

- i. Materials to be removed off site.
- ii. Transportation plans for material to be removed offsite.
- iii. Intended disposal location of each material to be removed offsite.

- c. All demolition debris planned to be hauled off site will require an erosion and sediment control plan for that site or an approved landfill. Submit records approved erosion and sediment control plan or approved landfill.

PART 2 – PRODUCTS

- (a) No specific products apply to this section.

PART 3 – EXECUTION

a) Preparation

1. Prior to any work of this Section, the Contractor shall carefully inspect the entire site and all objects designated to be removed and to be preserved, locate all existing utility lines, and determine all requirements for disconnecting and capping, and locate all existing active utility lines traversing the site and determine the requirements for the protection.

2. The drawings do not purport to show all objects, such as utilities existing on the site. Before commencing any work of this Section, the Contractor shall verify with the Owner or Owner's Representative all objects to be removed and all objects to be preserved.
3. The Contractor shall prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area.

(b) Utilities

1. The Contractor shall preserve in operating condition all active utilities traversing the site and designated to remain. He shall closely coordinate his activities with the Owner, and utility companies affected by the work and shall notify the Owner or Owner's Representative immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible for the repairs of damage to existing utility lines that are indicated or made known to the Contractor prior to the start of demolition operations.
3. Existing utilities shall be discontinued and removed as indicated. Utilities removed shall be terminated in a manner conforming to the nationally recognized code covering the specific utility and approved by the utility company and the Owner or Owner's Representative. When the utility lines are encountered that are not indicated on the drawings, the Owner or Owner's Representative shall be notified prior to further work in that area.

(c) Tree Removal and Trimming

1. Felling of trees – Prior to the felling of trees, the Contractor in company with the Owner or Owner's Representative shall mark all trees to be felled. He shall use all necessary care to protect the roots and branches of trees designated to remain and to prevent damage to person and properties.
2. Trimming of Trees- In company with the Owner or the Owner's Representative, ascertain the limbs and roots which are to be trimmed and clearly mark them to designate the approved point of cutting. Cut evenly, using proper tools and skilled worker to achieve neat severance with the least possible damage to the tree. Promptly coat the cut area with the approved pruning paint in strict accordance with the manufacturer's recommendations. In case of root cuts, apply wet burlap or other protection approved by the Owner or Owner's Representative as required, to prevent drying out as directed by the Owner or Owner's Representative.
3. Grubbing – Remove all surface rocks and all stumps, roots, and other vegetation within the limits of construction necessary to perform the work as shown on the drawings. Do not leave any root greater than three inches in diameter in the ground except as specifically approved by the Owner or

Owner's Representative.

4. The Contractor shall remove all trees designated to be removed including their stumps, roots, greenery and legally disposed of off-site at the Contractor's expense.

(d) Demolition

1. Existing pavements and slabs designated for removal shall be saw cut and removed where specified on the drawings and to the limits indicated on the drawings. Pavement and slab removal shall be full depth.

(e) Disposal of Material: Title to material and equipment to be demolished, except Owner salvage, is vested in the Contractor upon receipt of notice to proceed. The Owner will not be responsible for the condition, loss, or damage to such property after notice to proceed.

1. Salvageable Items and Material: Contractor shall salvage items and material to the maximum extent possible.

A. Material Salvaged for the Contractor: Material salvaged for the Contractor may be temporarily stored on-site as approved by the Owner or Owner's Representative. However, materials shall be removed from the Owner's property upon the request of the Owner and/or before completion of the contract. Material salvaged for the Contractor shall not be sold on the site.

B. Items Salvaged by the Owner: The Owner will remove salvageable items prior to the start of construction.

2. All materials removed shall become the property of the Contractor and shall be removed from the site to an approved disposal area. Be advised that the landfills measure the tipping fee cost on a cost per ton basis. The Contractor shall remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets and/or adjacent areas. It will be the responsibility of the Contractor to obtain an approved sediment control plan for the off-site area if necessary. All costs associated with demolition and disposal shall be at the Contractor's expense.

PART 4 - MEASUREMENT FOR PAYMENT

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on Attachment A1: Bid Form.

END OF SECTION

DIVISION 3 – CONCRETE

SECTION 03 30 53 - CAST-IN-PLACE CONCRETE

Part 1 - General

(a) Definitions

- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
- (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.

(a) Related work not included in this Section consists of the following:

- (1) Section 31 00 00 provided under “Earthwork.”
- (2) Section 31 10 00 provided under “Site Preparation.”

(b) Summary

1. The Contractor shall provide all materials, labor, equipment and services necessary for, and reasonably incidental to furnishing and installing cast-in-place concrete.
2. Work shall consist of necessary subbase grading, forming, reinforcing, expansion joints, mixing, pouring, curing, finishing, and protection of concrete structures and surfaces.

(c) Related Documents: The general provisions of the Contract; including Division 1 – General Requirements; ASTM Standards in Building Codes, latest edition; ACI Manual of Concrete Practice, latest edition; and the MDOT “Standard Specifications for Construction and Materials,” July 2023, and all applicable supplements and addenda pertaining thereto apply to this section.

(d) Quality Assurance

1. Skilled workforce experienced in concrete placement and finishing shall be used for all work. All materials shall be new and first order.

(e) Testing Agency

1. The Owner shall engage a professional testing agency to obtain concrete cylinders, conduct required breakage tests, and report findings in a suitable technical report format. Cost of testing, inspection and preparing the report shall be borne by the Owner.

(f) Submittals

1. Submit the following information for approval prior to initiation of construction:
 - a. Mix design, including complete information on all additives.
 - b. Reinforcing steel certification.
 - c. Expansion joint - manufacturer's catalog data.
 - d. Submit all test reports upon receipt from the professional testing agency.

(g) Delivery, Storage and Handling

1. Do not deliver concrete until forms, reinforcement, embedded items, and chamfer strips are in place and ready for concrete placement. Follow ACI 301 for job site storage of materials. Store reinforcement on racks raised above the ground to avoid excessive rusting. Protect materials from contaminants such as grease, oil, and dirt. Ensure materials can be accurately identified after bundles are broken and tags removed.

PART 2 – PRODUCTS

(a) Concrete

1. Contractor-Furnished Mix Design: ACI 211.1, ACI 301, and ACI 318 except as otherwise specified. The compressive strength (f'_c) of the concrete for each portion of the structure(s) shall be indicated and as shown in Table I at the end of this section.
2. Maximum slump shown in Table 1 may be increased one inch for methods of consolidation other than vibration. Slump may be increased to 7 inches when superplasticizers are used. Provide air entrainment using air-entraining admixture. The water soluble chloride ion concentrations in hardened concrete at ages from 28 to 42 days shall not exceed 0.15.
3. Required Average Strength of Mix Design: The selected mixture shall produce an average compressive strength exceeding the specified strength by the amount indicated in ACI 301.

(b) Materials

1. Cement: ASTM C-150, Type I or II blended cement except as modified herein. The blended cement shall consist of a mixture of ASTM C-150 cement and one of the following materials: ASTM C-618 pozzolan or fly

ash, or ASTM C-989 ground iron blast furnace slag. The pozzolan or fly ash content shall not exceed 25% by weight of the total cementitious material. The ground iron blast furnace slag shall not exceed 50% by weight of total cementitious material. For exposed concrete, use one manufacturer for each type of cement, ground slag, fly ash, and pozzolan.

2. Water: Water shall be fresh, clean and potable.
3. Aggregates: ASTM C-33, except as modified herein. Furnish aggregates for exposed concrete surfaces from one source. Aggregates shall not contain any substance which may be deleteriously reactive with the alkalis in the cement.
4. Nonshrink Grout: ASTM C-1107.
5. Admixtures: Calcium chloride shall not be used as an admixture.
 - a. Air-Entraining: ASTM C-260.
 - b. Accelerating: ASTM C-494/ C-494M, Type C.
 - c. Retarding: ASTM C-494/ C-494M, Type B or D.
 - d. Water Reducing: ASTM C-49/ C-494M Type A or E.
6. Materials for Forms: Provide wood, plywood, or steel. Use plywood or steel forms where a smooth form finish is required. Lumber shall be square edged or tongue-and-groove boards, free of raised grain, knotholes, or other surface defects. Plywood: PS-1, B-B concrete form panels or better. Steel form surfaces shall not contain irregularities, dents, or sags.
 - a. Form Ties and Accessories: The use of wire alone is prohibited. Form ties and accessories shall not reduce the effective cover of the reinforcement.
 - b. Reinforcing Bars: ASTM A-615/A-615M and ASTM A-617/A-617M with the bars marked A, Grade 60; ASTM A-706/A-706M.
7. Chairs or concrete bricks to provide required clearances.

(c) Reinforcement:

1. Reinforcing Bars: ACI 301/301M unless otherwise specified. ASTM A-615/A-615M and ASTM A-617/A-617M with bars marked A, grade 60. Epoxy-coated reinforcing steel bars ASTM A-775A/A-775M.
2. Welded Wire Fabric: ASTM A-185 or ASTM A-497. Provide flat sheets of

welded wire fabric for slabs and toppings unless otherwise specified.

(d) Materials for Curing Concrete:

- a. Impervious Sheeting: ASTM C-171, waterproof paper, clear or white polyethylene sheeting, or polyethylene-coated burlap.
- b. Liquid Membrane-Forming Compound: ASTM C-309, white pigmented, Type 2, Class B.

(e) Expansion/Contraction Joint Filler: ASTM D-1751 or ASTM D-1752, 1/2 inch thick, unless otherwise indicated or as directed by the Owner or Owner's Representative.

PART 3 – EXECUTION

(a) Preparation

1. Subgrade: The Contractor shall prepare subgrade and place, grade and compact aggregate base course in accordance with Section 31 20 00 – “Earth Moving.” Forms and shoring shall not be placed until the Contractor's geotechnical consultant and the Owner's Representative have given approval.

(b) Forms

1. ACI 301/301M. Provide forms and shoring for concrete placement. Set forms mortar-tight and true to line and grade. Forms shall be sufficiently strong to carry the dead weight of the concrete without deflection. Chamfer above grade exposed joints, edges, and external corners of concrete 0.75 inch unless otherwise indicated. Provide formwork with clean-out openings to permit inspection and removal of debris.
2. Coating: Before concrete placement, coat the contact surfaces of forms with a non-staining mineral oil, non-staining form coating compound, or two coats of nitrocellulose lacquer. Do not use mineral oil on forms for surfaces to which adhesive, paint, or other finish material is to be applied.
3. Removal of Forms and Supports: After placing concrete forms shall remain in place for the time periods specified in ACI 347R. Prevent concrete damage during form removal.
4. Dewatering: The boat ramp's slab and subbase shall not be placed within the wingwall enclosure until the area has been dewatered and the wingwall/toewall has been inspected and approved by the Owner or Owner's Representative. Care shall be taken during the pouring and filling operation to maintain the alignment of the wingwall. The Contractor shall be responsible for adequately bracing the wingwalls/toewall as

necessary before and during dewatering.

(c) Placing Reinforcement and Miscellaneous Materials

1. ACI/MCP-2. Provide bars, wire fabric, wire ties, supports, and other devices necessary to install and secure reinforcement. Reinforcement must not have rust, scale, oil, grease, clay, or foreign substances that would reduce the bond. Rusting of reinforcement is a basis of rejection if the effective cross-sectional area or the nominal weight per unit length has been reduced. Remove loose rust prior to placing steel. Tack welding is prohibited.
2. Reinforcement Supports: Place reinforcement and secure with galvanized or non corrodible chairs or spacers as approved by the Owner or Owner's Representative. For supporting reinforcement on the ground, use concrete or other non corrodible material, having a compressive strength equal to or greater than the concrete being placed.
3. Epoxy Coated Reinforcing: Shall meet the requirements of ASTM A 775/A 775M including Appendix X1, "Guidelines for Job Site Practices" except as otherwise specified herein. Epoxy-coated bars shall be tied with plastic-coated tie wire; or other materials acceptable to the Owner or Owner's Representative.
4. Epoxy Coated Reinforcing Steel Placement and Coating Repair: Carefully handle and install bars to minimize job site patching. Do not drag bars over other bars or over abrasive surfaces. Keep bar free of dirt and grit. When possible, assemble reinforcement as tied cages prior to final placement into the forms. Support assembled cages on padded supports. It is not expected that coated bars, when in final position ready for concrete placement, are completely free of damaged areas; however, excessive nicks and scrapes which expose steel is cause for rejection. Criteria for defects which require repair and for those that do not require repair are as indicated. Inspect for defects and provide required repairs prior to assembly. After assembly, reinspect and provide final repairs.
5. Immediately prior to application of the patching material, manually remove any rust and debonded coating from the reinforcement by suitable techniques employing devices such as wire brushes and emery paper. Exercise care during this surface preparation so that the damaged areas are not enlarged more than necessary to accomplish the repair. Clean damaged areas of dirt, debris, oil, and similar materials prior to application of the patching material.
6. Do repair and patching in accordance with the patching material manufacturer's recommendations. These recommendations, including cure times, must be available at the job site at all times. Patching material must be referenced in shop drawing submittals.

7. Allow adequate time for the patching materials to cure in accordance with the manufacturer's recommendation prior to concrete placement.
8. Cover: ACI/MCP-2 for minimum coverage, unless otherwise indicated.
9. Setting Miscellaneous Material: Place and secure anchors and bolts, pipe sleeves, conduits, chairs or concrete bricks to provide cover clearances, and other such items in position before concrete placement. Plumb anchor bolts and check location and elevation. Temporarily fill voids in sleeves with readily removable material to prevent the entry of concrete.
10. Construction Joints: Locate joints to least impair strength. Continue reinforcement across joints unless otherwise indicated. In paved areas exposed to vehicular traffic, provide construction joints in accordance with MD SHA Standards and Specifications and as directed by the Owner or Owner's Representative.
11. Expansion Joints and Contraction Joints: Provide expansion joints at edges of boat ramp slab on grade abutting vertical surfaces, and as indicated. Make expansion joints ½ inch wide unless indicated otherwise. Completely fill joints exposed to weather with joint filler material and joint sealant. Do not extend reinforcement or other embedded metal items bonded to the concrete through any expansion joint unless an expansion sleeve is used.
12. Provide contraction joints, at a maximum spacing of 10 feet unless otherwise indicated. Contractor joints shall be at a minimum of 1 inch depth after the surface has been finished. Complete saw joints within 4 to 12 hours after concrete placement. Protect joints from intrusion of foreign matter. Seal joints per MD SHA Standard Specification Section 808.

(d) Batching, Measuring, Mixing, and Transporting Concrete

1. ASTM C-94/C-94M, ACI 301/301M, ACI 302.1R, and ACI 304R, except as modified herein. Batching equipment shall be such that the concrete ingredients are consistently measured within the following tolerances: 1% for cement and water, 2% for aggregate, and 3% for admixtures. Furnish mandatory batch ticket information for each load of ready mix concrete.
2. Mixing: ASTM C-94/C-94M and ACI 301/301M. Machine mix concrete. Begin mixing within 30 minutes after the cement has been added to the aggregates. Place concrete within 90 minutes of either addition of mixing water to cement and aggregates or addition of cement to aggregates if the air temperature is less than 84° F.
 - a. Reduce mixing time and place concrete within 60 minutes if the air temperature is greater than 84 degrees F except as follows: if set retarding admixture is used and slump requirements can be met,

limit for placing concrete may remain at 90 minutes. Additional water may be added, provided that both the specified maximum slump and water-cement ratio are not exceeded. When additional water is added, an additional 30 revolutions of the mixer at mixing speed is required. If the entrained air content falls below the specified limit, add a sufficient quantity of admixture to bring the entrained air content within the specified limits. Dissolve admixtures in the mixing water and mix in the drum to uniformly distribute the admixture throughout the batch.

3. Transporting: Transport concrete from the mixer to the forms as rapidly as practicable. Prevent segregation or loss of ingredients. Clean transporting equipment thoroughly before each batch. Do not use aluminum pipe or chutes. Remove concrete which has segregated in transporting and dispose of as directed.

(e) Placing Concrete

1. Contractor shall contact the Owner or Owner's Representative forty-eight (48) hours prior to pour to allow sufficient time for inspection and any corrections. Do not place concrete when weather conditions prevent proper placement and consolidation: in uncovered areas during periods of precipitation, or in standing water. Deposit concrete as close as practicable to the final position in the forms. Do not exceed a free vertical drop of 3 feet from the point of discharge. Place concrete in one continuous operation from one end of the structure towards the other.
2. Vibration: ACI 301/301M and ASTM A 775. Furnish a spare, working, vibrator on the job site whenever concrete is placed. Consolidate concrete slabs greater than 4 inches in depth with high frequency mechanical vibrating equipment supplemented by hand spading and tamping. Consolidate concrete slabs 4 inches or less in depth by wood tampers, spading, and settling with a heavy leveling straightedge. Operate internal vibrators with vibratory element submerged in the concrete, with a minimum frequency of not less than 6000 impulses per minute when submerged. Do not use vibrators to transport the concrete in the forms. Insert and withdraw vibrators approximately 18 inches apart. Penetrate the previously placed lift with the vibrator when more than one lift is required. Place concrete in 18 inch maximum vertical lifts. External vibrators shall be used on the exterior surface of the forms when internal vibrators do not provide adequate consolidation of the concrete.
3. Cold Weather: ACI 306.1. Do not allow concrete temperature to decrease below 50° F. Obtain approval prior to placing concrete when the ambient temperature is below 40° F or when concrete is likely to be subjected to freezing temperatures within 24 hours. Cover concrete and provide sufficient heat to maintain 50° F minimum adjacent to both the formwork and the structure while curing. Limit the rate of cooling to 5° F

in any one hour and 50° F per 24 hours after heat application.

4. Hot Weather: ACI 305R. Maintain required concrete temperature using Figure 2.1.5 in ACI 305R to prevent the evaporation rate from exceeding 0.2 pounds of water per square foot of exposed concrete per hour. Cool ingredients before mixing or use other suitable means to control concrete temperature and prevent rapid drying of newly placed concrete. Shade the fresh concrete as soon as possible after placing. Start curing when the surface of the fresh concrete is sufficiently hard to permit curing without damage.
 - a. Provide water hoses, pipes, spraying equipment, and water hauling equipment, where job site is remote to water source, to maintain a moist concrete surface throughout the curing period. Provide burlap cover or other suitable, permeable material with fog spray or continuous wetting of the concrete when weather conditions prevent the use of either liquid membrane curing compound or impervious sheets. For vertical surfaces, protect forms from direct sunlight and add water to top of structure once concrete is set.

(f) Surface Finishes

1. Concrete Pads: Use broom finish on surface of a pads unless otherwise indicated. Perform a floated finish, and then draw a broom or burlap belt across the surface to produce a coarse scored texture. Permit surface to harden sufficiently to retain the scoring or ridges. Broom at right angles to the slope of the slab. Unless otherwise indicated, provide a transverse slope of 1/48. Limit variation in cross section to 1/4 inch in 5 feet.

(g) Curing and Protection

1. ACI 301/301M except 10 days for retaining walls or pavement and 21 days for concrete that will be in full-time or intermittent contact with seawater, salt spray, alkali soil or waters. Begin curing immediately following form removal. Avoid damage to concrete from vibration created by blasting, pile driving, movement of equipment in the vicinity, disturbance of formwork or protruding reinforcement, and any other activity resulting in ground vibrations. Protect concrete from injurious action by sun, rain, flowing water, frost, mechanical injury, tire marks, and oil stains. The materials and methods of curing shall be subject to approval by the Owner or Owner's Representative.
2. Protection of Treated Surfaces: Prohibit pedestrian and vehicular traffic and other sources of abrasion at least 72 hours after compound application. Maintain continuity of the coating for the entire curing period and immediately repair any damage.

(h) **Field Quality Control**

1. Sampling ASTM C-172. Collect samples of fresh concrete to perform tests specified. ASTM C-31/ C-31M for making test specimens.
 - a. Testing:
 - i. Slump Tests: ASTM C-143/ C-143M. Take concrete samples during concrete placement. The maximum slump may be increased as specified with the addition of an approved admixture provided that the water-cement ratio is not exceeded. Perform tests at commencement of concrete placement, when test cylinders are made, and for each batch (minimum) or every 20 cubic yards (maximum) of concrete.
 - ii. Temperature Tests: Test the concrete delivered and the concrete in the forms. Perform tests in hot or cold weather conditions (below 50° F and above 80° F) for each batch (minimum) or every 10 cubic yards (maximum) of concrete, until the specified temperature is obtained, and whenever test cylinders and slump tests are made.
 - iii. Compressive Strength Tests: ASTM C-39. Make three test cylinders for each set of tests in accordance with ASTM C-31/C-31M. Precautions shall be taken to prevent evaporation and loss of water from the specimen. Test one cylinder at 7 days, one cylinder at 28 days, and hold one cylinder in reserve. Samples for strength tests of each mix design and concrete placed each day shall be taken not less than once a day, not less than once for each 50 cubic yards of concrete. If the average of any three consecutive strength test results is less than f'_c (referenced below) or if any strength test result falls below f'_c by more than 500 psi, take a minimum of three ASTM C-42/C-42M core samples from the in-place work represented by the low test cylinder results and test. Concrete represented by core test shall be considered structurally adequate if the average of three cores is equal to at least 85% of f'_c and if no single core is less than 75% of f'_c . Locations represented by erratic core strengths shall be retested. Remove concrete not meeting strength criteria and provide new acceptable concrete. Repair core holes with non-shrink grout. Match color and finish of adjacent concrete.
 - iv. Air Content: ASTM C-231 for normal weight concrete. Test air-entrained concrete for air content at the same

frequency as specified for slump tests.

TABLE 1					
f'c Cast-In-Place Concrete					
Location, MD-SHA Mix Designation	f'c (Min. 28 Day Comp. Strength) (psi)	ASTM C-33 Aggregate Size No.)	Range of Slump (inches)	Water-Cement Ratio (max. by weight)	Air Entr. (percent)
Sidewalk (MD-SHA Mix No. 3)	3500	57 or 67	2-5	0.50	5-8
Curb and Post Footer. (MD-SHA Mix No. 2)	3000	57 or 67	2-5	0.50	5-8

PART 4 - MEASUREMENT FOR PAYMENT

- (i) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on STANDARD SEALED BID PRICE SHEET.

-END OF SECTION -

DIVISION 06 – WOODS, METALS, AND PLASTICS

SECTION 06 13 33 – HEAVY TIMBER PIER CONSTRUCTION

Part 1 - General

(a) Definitions:

- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
- (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.

(b) Related work not included in this Section consists of the following:

- 1) “Selective Demolition and Removal” provided under Section 02 03 41.
- 2) “Timber Bulkhead and Wingwalls” provided under Section 35 31 16.

(a) Summary:

1. The Contractor shall furnish all labor, materials and equipment necessary to construct the timber piers as shown on the Drawings, as described in these Specifications and as directed by the Owner or the Owner's Representative.
2. The Contractor shall adhere to the terms of the various permits issued to this project. This shall include permits from the UA Army Corps of Engineers, the State of Maryland, and any other applicable permits.
3. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to work. If the Contractor observes that the Specifications and/or Drawings are at variance therewith, he will give the Owner prompt written notice thereof. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he will bear all costs arising therefrom.
4. Included elsewhere in these Specifications are copies of construction permits which are required to be available at the construction site. They are included for the contractor's convenience, compliance and guidance, but the engineering sketches and notes are approximate and suitable only for permit purposes and the Contractor shall attach no significance to volumes mentioned in these permits, but shall compute his own.
5. Related Documents: The general provisions of the Contract; including Division 1 – General Requirements, “ASTM Standards in Building Codes, latest edition; and all applicable supplements and addenda pertaining thereto apply to this section.

PART 2 - PRODUCTS

(a) Timber

1. All timber shall be Southern Yellow Pine unless otherwise approved by the Owner or Owner's Representative. Virginia Pine is not acceptable. Timber shall be free from all defects which will impair its strength and durability. All timber shall comply with the following specifications.

(b) Round Timber Piles:

1. General Quality: Piles shall meet the requirements of the ASTM D25 "Standard Specifications for Round Timber Piles", except as modified by the Drawings and Specifications. Piles shall be cut from sound, live trees and shall be free from decay and insect attack. Piles shall be cut above the ground swell and have a gradual taper from three feet below the butt to the tip as specified on the Drawings. Piles shall be free from defects such as holes, scars, checks, shakes, splits, twist of grain, compression wood and knots as required by ASTM Specification D25.
2. Sizes: In place length of piles, minimum butt and tip diameter, minimum butt and tip circumferences, and pile taper shall be as specified in the Drawings. Pile length shall be sufficient to achieve 10 tons minimum bearing on each pile. **Prior to ordering the piles and sheeting, three (3) Forty (40) foot long test piles shall be driven where shown on the drawings at the permanent positions.** These piles are to verify the pile and sheeting design lengths shown on the drawings. In the event that the pile and sheeting lengths are changed, the contract price shall be changed in accordance with the Unit Price Bid Items provided by the Contractor in the BID FORM.
3. Sapwood: Piles shall have a minimum sapwood thickness of three (3.0) inches. The sapwood shall be measured continuously along the radius at mid-point of length and at the butt of the pile.
4. Straightness: Piles shall be within a straightness requirement where a line drawn from the center of the tip to the center of the butt does not fall outside the center of the pile at any point by more than 1¼% of the length of the pile, or shall be entirely within the body of the pile, whichever is less.
5. Peeling and Cutting: Prior to treatment, piles shall be clean peeled of all outer bark and at least a minimum of 80% of the inner bark. The butts and tips of piles shall be sawed square with the axis of the pile. The allowable tolerance shall be 10% from square.

(c) Lumber:

1. All timbers, dimension lumber, and boards shall be graded and carry an identifiable grade mark in accordance with the Grading Rules of the

Southern Pine Inspection Bureau. The in-place length of lumber shall be as shown on the Drawings. Lumber shall comply with the following specifications.

- a. Posts, Bollards, Deck, Rail, Posts, Pickets, Beams, Cap and Fascia Boards: Grade No. 1 minimum and surfaced on four sides (S4S).
- b. Cross Bracing, Butt Blocks, Beams, Stringers, and Spacer Blocks: Grade No. 1 minimum and surfaced on two edges (S2E).

(d) Hardware

1. Hardware to be used for the construction of the timber observation platform shall be manufactured from good, commercial quality material and shall meet the minimum requirements of the following specifications:
 - a. Rods, Bolts and Nuts: All bolts and nuts shall conform to ASTM Specification A-307 for Grade A Steel and shall have hexagonal heads.
 - b. NYDD and Standard Cut Washers shall be fabricated from a commercial grade steel and conform to ASTM Specification Designation F 844-83 with the exception that galvanizing shall be as specified below.
 - c. Spikes and Nails: Shall be annular wire type and shall meet AISI Specification 1010 or 1020 for steel.
 - d. Hurricane Ties: Shall be 18 gauge steel capable of withstanding a minimum uplift load of 520 pounds.
 - e. Threads on all fasteners shall be of the rolled type. All bolts shall show 1/4 inch of thread on the outside face of the nuts.
 - f. All of the above hardware shall be hot-dipped galvanized in accordance with ASTM designation A-153. The zinc coating shall be Class A, 2.0 ounces of zinc per square foot of hardware surface.

(e) Weather Guards

1. All covered posts tops (i.e.: posts under platform) shall be trimmed as shown on the plans and the end grains treated with Bitumastic No. 300-M and coated with 1/8 inch asphalt roofing cement. Asphalt roofing cement shall be high grade, waterproof cement, easily spread by trowel to 1/8 inch in one coat, meeting Federal Specifications SS-C-153 Type I, Class B. Use Clipper Ship Roofing Cement MP51 or equivalent.

(f) Miscellaneous Materials

1. All timber field cuts, trimmed areas and holes shall be treated with Bitumastic No. 300-M (Black) as manufactured by Koppers Company, Inc., Pittsburgh, Pennsylvania, 15219. All coatings shall be done in accordance with the manufacturer's instructions.
2. Asphalt roofing cement for weather guards on batter piles shall be a high grade, waterproof cement, easily spread by trowel to 1/8 inch in one coat, meeting Federal Specifications SS-c-153 Type 1, Class B. Use Clipper Ship Roofing Cement MP51 or equivalent.
3. Tar paper for weather guards on batter piles shall be the type classified as roofing tar paper, weighing 50 lbs. per square inch, without granules, and approximately 1/8" thick. If 50 lbs. per square roofing paper is unavailable two layers of 30 lbs. per square paper shall be applied with asphalt roofing cement spread on all paper surfaces as directed by the Owner or Owner's Representative.
4. Geotextile Fabric under landward end of pier shall be equal to Mirafi 700x.

(g) Treatment

1. All lumber shall be treated with preservative by the pressure process in accordance with the following requirements.
2. Piles and lumber shall be squared to length in accordance with the Drawings before treatment.
3. C.C.A. Treatment:
 - a. All posts, cross-bracing, platform beams, stringers, pile caps butt blocks, and spacer blocks shall be pressure treated with C.C.A. Type C in accordance with the requirements of the American Wood Preservers Association. Standard P5 to a final net retention of not less than 2.5 lbs. of chromated copper arsenate per cubic foot of wood as determined by chemical assay according to AWPA Standard A2
4. A.C.Q. Treatment:
 - a. The timber bollards, fascia boards, rail pickets, beam and cap shall be treated with A.C.Q. Type D to a minimum net retention of 0.6 lb. of alkaline copper quat per cubic foot of wood as determined by chemical assay in accordance with AWPA Standard U1-04.
5. In general, treated materials shall be branded or tagged after treatment for identification. Branding of piles shall be accomplished three feet from the butt by burning on the surface with legible lettering the supplier's brand, plant designation, date of treatment, species of timber, type of preservative and retention of preservative. Lumber shall be bundled and

tagged with the appropriate information.

(h) Certification

1. Prior to delivery of materials to the construction site, the Contractor shall supply to the Owner or Owners Representative the following certifications:
 - a. A notarized Certificate attesting to the fact that all timber meets the requirements of the Drawings and Specifications as to species, grade, strength, finish and size.
 - b. A notarized Certificate of Treatment from the supplier indicating that all timber meets the Specifications as to type of CCA/ACQ treatment used, method of application and final net retention by assay in pounds per cubic foot. The Certificate shall include the number of pieces involved and their description. Accompanying the Certificate shall be a copy of the Charge Report and a copy of the chart obtained from the combination recorder. A date shall be shown when the gauges and recorder were certified by a particular inspection agency.
 - c. A notarized Certificate indicating that all hardware (bolts, washers, rods, etc.) meet these specifications as to galvanizing and steel type. The certificate shall list the materials in detail.

(i) Inspection and Testing

1. All materials are subject to initial inspection and testing by an independent firm acceptable to the Owner or Owner's Representative in order to ensure compliance with the Drawings, Specifications, AWWA Standards and other specified standards.
2. This independent firm shall specialize in the inspection and testing of timber materials and will be retained to provide these services by the Contractor or material supplier.
3. Inspection and testing of timber materials from approved treatment plants within a 150-mile radius of the project site shall be performed by the Owner and/or an independent firm retained by the Owner.
4. Inspection and testing of timber materials from approved treatment plants outside a 150-mile radius of the project site shall be performed by an independent firm retained by the Contractor and/or the material supplier.
5. The inspection and testing of timber materials shall be carried out in accordance with the Grading Rules of the Southern Pine Inspection Bureau and the AWWA Standard M2. These inspections shall be performed before treatment and after treatment, preferably on complete order and only at the treating plants.

6. If the Contractor chooses to obtain timber materials from a treatment plant located OUTSIDE the established limits, all costs relating to the inspection and testing of these materials shall be borne by him and/or the material supplier, and shall be included in the lump sum price bid for the project.
7. In cases where the treatment is WITHIN the established limits, the Contractor or material supplier shall notify the Owner prior to treatment and after treatment when the timber materials are ready for inspection and testing.
8. In ordering materials, the Contractor is required to notify the Owner or Owner's Representative of the source from which he proposes to obtain all timber materials. He shall make available to the material supplier (and independent firm, if applicable) copies of the project Drawings and Specifications.
9. Acceptance or rejection of materials shall be made on the basis of adherence to the specified standards. Rejected materials shall be replaced and/or retreated. The cost of inspecting replaced or retreated materials shall be incurred by the treating plant. An independent inspection agency acceptable to the Owner or Owner's Representative shall be retained for this purpose.
10. Notwithstanding the inspection of materials at the treatment plant, the Owner or Owner's Representative reserves the right to reject any individual timber pieces not meeting the specified requirements. The Contractor shall be responsible for the replacement of any materials rejected at the project site.
11. Accepted timber materials shall be identified by hammering with an identifiable mark as evidence of inspection and testing. All required paperwork including certificates and test reports shall be made available to the Owner or the Owner's Representative prior to the release of the materials from the treating plant. Materials shall not be delivered to the project site without prior notification and approval of the Owner or the Owner's Representative.

(j) Storage of Materials

1. The method of storing and handling materials at the construction site shall be such as to avoid injury and to protect them against the weather. Posts shall be arranged so that they are not subjected to unequal forces which will tend to twist or warp them. Lumber shall be stored 12 inches above the ground to provide ventilation, piled to shed water and to prevent warp. The Owner or Owner's Representative may require suitable covering to protect the materials from the weather.

PART 3 - EXECUTION

- (a) All piles and lumber, whenever possible, shall be cut to size trimmed and bored before assembly.
- (b) All field cuts, trimmed areas and holes shall be given three coats of Bitumastic No. 300-M (Black) in accordance with the manufacturer's instructions. This shall include the bottom of the 4"x6" timber posts.
- (c) All timber piles as shown on the drawings shall be driven by gravity, vibratory (except for test piles) or diesel hammer as approved by the Owner or the Owner's Representative. Any hammer which does not perform satisfactorily on piles being driven, regardless of prior approval, shall be replaced by a hammer acceptable to the Owner or the Owner's Representative. A pile driving record shall be maintained by the Contractor. He shall record the bearing value of each wingwall pile driven in accordance with ENR pile capacity formulas. Driving shall be continuous without intermission until the pile has been driven to the required penetration. In general, the penetration for any pile shall not be less than shown on the Plans even in hard materials. Jetting or augering is permissible in hard materials, if approved by the Owner or the Owner's Representative, but the last 2 feet of penetration must be driven without damage to the pile. In any event, the penetration of the piles shall be such as to give a minimum safe bearing value of 10 tons. The test pile shall not be driven unless the Owner or Owner's Representative is at the site. Jetting will not be permitted in soft material. If necessary, steel tips shall be added to the pile to facilitate driving in hard material.
- (d) Each timber pile is expected to provide adequate pile bearing capacity. If during driving operations the Contractor finds inadequate bearing on piles, he shall stop driving and immediately contact the Owner or the Owner's Representative. The Contractor is advised that in the event that the length of piles shown on the Drawings is found to be inadequate on the basis of bearing value, longer replacement piles may be required. It is anticipated that the replacement piles may be up to 50% longer than the piles shown on the Drawings. Conversely, in the event that the length of piles shown in the drawings is found to be excessive on the basis of bearing value (>30 tons), shorter replacement piles may be allowed. It is anticipated that the shorter replacement piles may be up to 25% shorter than the piles shown on the Drawings. These piles shall be installed as directed by the Owner or the Owner's Representative. Payment for replacement piles shall be in accordance with the Unit Price Bid Item provided by the Contractor in the BID FORM.
- (e) Broken or shattered timber piles shall not be accepted. Piles shall not be more than 3 inches out of place along the construction line of the wall and not more than 2% out of plumb. Piles damaged by overdriving or which do not conform to the above tolerances shall be removed and replaced with new piles at the Contractor's expense.
- (f) During driving, the top of timber piles shall be protected from damage by using a head or cap. The head or cap shall cover the entire surface of the top of the pile. Trimming the top of the pile to fit the cap shall be kept to a minimum. Damage to the top of the pile shall be restricted to the top 6 inches.

- (g) After driving, the length of timber pile remaining above the elevation of cutoff shall not be more than 6 inches for damaged piles. The top of piles shall be sawed to a true plane of elevation fixed by the Drawings. Cutoff of piles shall not take place without the approval of the Owner or the Owner's Representative. If the pile tops are not damaged, full length driving will be required. Pile tops shall then be trimmed and waterproofed. Batter blocks shall be placed and bolts installed as specified.
- (h) All materials shall be accurately assembled, set, regularly spaced, and coursed; and they shall be true to line, even, square, plumb, tight and level.
- (i) In the installation of bolts, all bolt holes shall be a minimum diameter to assure a tight and driving fit. Holes shall be of a diameter such that bolts are inserted by light tapping. All counterbored holes for the installation of washers shall not be more than 1.0 inch in depth.
- (j) All bolts shall have a $\frac{1}{4}$ inch length of thread outside the face of all nuts after tightening, cutting and trimming of bolt ends is completed.
- (k) The decking shall be placed as shown on the drawings. To prevent splitting of the ends of the lumber, pilot holes at the ends of the decking shall be drilled prior to nailing to the stringers. The Contractor shall place the wood grain rings of the decking down on the stringers.
- (l) The pile caps and stringers shall be placed as shown on the drawings. In the installation of bolts, all bolt holes shall be a minimum diameter to assure a tight and driving fit. Holes shall be of a diameter such that bolts are inserted by firm tapping.
- (m) The hurricane straps shall be placed at the stringer/pile cap interface in accordance with the manufacturer's instructions.
- (n) The handrail system shall be constructed as shown on the drawings.

Part 4 - Measurement

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on STANDARD SEALED BID PRICE SHEET.

- END OF SECTION -

DIVISION 31 – EARTHWORK

SECTION 31 00 00 EARTHWORK

PART 1 - GENERAL

- (a) Definitions:
- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
 - (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.
 - (3) Backfill: Backfill required for undercut areas shall be defined, in this section only, as material that meets the product requirements of Structural Fill provided in Part 2 of this Section.
- (a) Related work not included in this Section consists of the following:
- (1) Section 02 03 41 provided under “Selective Demolition and Removal.”
 - (2) Section 33 29 19.13 provided under “Topsoil Placement and Grading”
- (b) The Contractor shall provide all labor, materials, equipment, and services necessary for executing all earthwork operations in the preparation of subgrade for walks, trails, structures, and pavements. The Contractor is responsible for all excavation, compaction, furnishing and installing backfill material, and all other related items as shown on the drawings and/or as specified herein.
- (c) Work shall consist of, but not be limited to, preliminary rough grading; excavation, bedding; removal from the site of unsuitable soil materials; soils testing and certification; rough grading, fill and backfilling, subgrade preparation, finish grading of subgrades, and dewatering. Erosion Control measures are included as part of this work.
- (d) All excavation, fill, bedding and backfill work provided under other sections of these specifications shall conform to requirements of this Section. All backfill, embankments and subgrade where pavement or other structures are proposed shall be tested and certified by the Contractor’s soils testing agency provided as work of this Section.
- (e) Testing and Soils Testing Agency
1. Contractor will engage a professional geotechnical firm for quality control testing and inspection during earthwork operations. Cost of testing and inspection shall be borne by the Contractor. The Contractor’s testing and inspection firm shall not be the same firm retained for the design of this

contract unless approved by the County in writing.

2. The geotechnical engineer shall provide its professional opinion, by letter, sealed and signed by a professional engineer registered in the State of Maryland, that the earthwork has been completed in accordance with the plans and specifications.

(f) Submittals

Submit the following reports directly to the County from the soils testing agency with copy to Contractor:

1. Field density test reports.
2. One optimum moisture-maximum density curve for each type of soil encountered as a minimum

- (g) The Contractor shall notify the County and Miss Utility forty-eight (48) hours prior to the start of earth moving activities. He shall locate existing underground utilities in areas of work. If utilities are to remain in place, the Contractor shall provide adequate means of support and protection during earthwork operations. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the utility company and the County immediately for direction. Cooperate with the County and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of the utility company and County. Do not interrupt existing utilities serving facilities occupied and used by the County or others during occupied hours, except when permitted in writing by the County or the County's Representative and then only after acceptable temporary utility services have been provided. The Contractor must receive written notice to proceed before interrupting any utility.

- (h) The use of explosives is not permitted.

- (i) Barricade open excavations occurring as part of this work and post with warning lights if requested by the County. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

PART 2 – PRODUCTS

(a) Soil Materials:

1. Structural Fill: Structural fill reused from on-site soils or furnished by the Contractor for the construction of subgrades. In accordance with Geotechnical Report, listed in Attachment 1, acceptable on-site soils that

may be used for upland structural fill are classified as SP, which do not contain organic matter and debris.

2. Nonstructural Fill: Nonstructural fill are soils that exist on-site that may be used in general site grading areas where structural fill is not required unless otherwise specified.
3. Unsatisfactory Fill: Unsatisfactory materials include man-made fills; trash; refuse; and material classified as satisfactory which contains root and other organic matter or frozen material. The County shall be notified of any contaminated materials.
4. Contingent Select Borrow: This item has been included for use only when authorized by the County. This item may be used for backfilling undercut areas.

(b) Aggregate:

1. Backfill and Fill Materials under Walks, Roadways and Parking Areas shall be in accordance with Maryland Type "GA Sub-base" or "CR-6".

PART 3 – EXECUTION

(a) Excavation:

1. General Excavation includes all excavation to proposed subgrade elevations indicated, regardless of character of materials and obstructions encountered. When excavation has reached the required subgrade elevations, the County will make an inspection along with the Contractor's soils testing agency. Any excavation below the proposed subgrade elevations indicated will be considered unauthorized excavation.
2. Unauthorized excavation, as well as remedial work directed by the County, shall be at Contractor's expense. Backfill and compact unauthorized excavations as specified or authorized excavations of same classification, unless otherwise directed by the County.
3. The native soils may be sensitive to alteration in moisture content and will become unworkable during and following periods of precipitation. For this reason, if earthwork is attempted in late autumn, winter or early spring, the importation of high quality, granular material will be permitted by the County at the Contractor's expense. Sand, gravel, or sand/gravel mixtures would be appropriate for wet weather placement. SM, SM/ML and CL materials are moderately to very sensitive to changes in moisture conditions and therefore should be protected. The Contractor will be required to dry these materials in order to use them as suitable fill under structures and pavements and as backfill for retaining walls or set them aside for use in landscape areas.
4. If unsuitable bearing materials are encountered at required subgrade

elevations, the Contractor shall immediately contact the County for direction regarding how to proceed. It may be necessary to carry excavations deeper and replace excavated material as directed by the County and/or stabilize as appropriate. Removal of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.

5. The Contractor shall implement all measures necessary to protect the subgrade under all pavements and structures from damage due to construction activities and equipment. The County makes no representations that the existing soils are adequate to support construction equipment and materials without damage to the subgrade. The Contractor shall include in his Bid all labor, materials, and equipment necessary to protect the subgrade from damage and shall repair any damage at no additional cost to the County.
6. Dewatering necessary for completion of the work specified is considered to be incidental to the construction. The Contractor shall include all costs for dewatering equipment, labor and incidentals in the respective Bid Item associated with each aspect of the work. No additional cost will be paid by the County for dewatering activities. The Contractor shall conduct the dewatering activities subject to approval of the County and the Maryland Department of the Environment. The Contractor will be required to conduct the dewatering activities using adequate measures to control the release of sediment from the project site.
 - a. Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding project site and surrounding area.
 - b. Do not allow water to accumulate in excavations. Provide and maintain pumps, well points, sumps, suction and discharge lines and other dewatering system components necessary to convey water away from excavations.
 - c. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to collecting or run-off areas.
7. Strip suitable topsoil from the site where excavation or grading is indicated and stockpile separately from the other excavated material. Material unsuitable for use as topsoil and backfilling shall be placed in the "landscape areas" or wasted at an approved, legal location at the Contractor's expense. Locate topsoil so that the material can be used readily for the finished grading. Where sufficient existing topsoil conforming to the material requirements is not available on site, provide borrow materials suitable for use as topsoil. Protect topsoil and keep in segregated piles until needed.
8. Structural Fill shall be placed on "competent" existing materials following

removal of topsoil and all organic material. Where visual observations and field tests determine that the founding materials are inadequate, it will be necessary to modify the founding materials by undercutting, moisture control, backfill, and compaction to a depth determined to be appropriate for the applicable structural loading conditions and backfilled with approved materials available on site or to be brought from offsite sources. This undercutting, moisture control, backfill, and compaction is considered to be incidental to the proposed work up to one foot below existing grade or the proposed subgrade, whichever is lower, and shall be included in the lump sum price bid. No cost extra will be considered for undercutting, moisture control, backfill, and compaction necessary to place fill on "competent" existing material up to one foot below existing grade or the proposed subgrade, whichever is lower. Any material deficit of the specified materials for backfilling of the one-foot undercut zone specified shall be included in the lump sum Base Bid and shall result in no additional cost to the Owner.

9. Stability of Excavations: Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Maintain sides and slopes of excavations in safe condition until completion of backfilling.
10. Material Storage: Stockpile satisfactory excavated materials required for backfill or fill. Place, grade, and shape stockpiles for proper drainage. Protect, as necessary. Prevent saturation of soil above the optimum moisture content. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain. Dispose of excess soil material and waste materials as herein specified. The Contractor shall stockpile all fill material in locations designated on the plans unless approval is specifically granted in writing by the County for placement in other locations on the project site within the specified limit of disturbance.
11. Prior to the construction of slabs, pavements, or the placement of fill in any structure areas, all existing organic materials, frozen or wet, excessively soft, or loose soils, and other deleterious materials shall be removed and wasted.

(b) Backfill and Fill:

1. Places backfill and fill materials evenly adjacent to paving, piping and conduit to required elevations. Take care to prevent wedging action of backfill against paving or displacement of piping or conduit by carrying material uniformly around paving, piping or conduit to approximately same elevation in each lift.

(c) Compaction:

1. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification indicated below.
2. After the excavation and/or stripping operations have been completed, the exposed subgrade soils shall be inspected by the Contractor's Geotechnical Consultant. The Owner will require the exposed subgrade materials be proof

rolled utilizing a heavily loaded dump truck or other pneumatic tired vehicle of similar size and weight. The purpose of proof rolling will be to provide surficial densification and to locate any isolated areas of soft or loose soils requiring undercutting. Proof rolling is not advised in wet areas which may deteriorate under repeated vehicular loading. The Contractor shall contact the Owner immediately if the subgrade is suspected to be weak prior to proof rolling to receive direction from the Engineer regarding how to proceed. Precipitation may result in standing water (perched water) at low areas.

3. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentage of maximum density for soils which exhibit a well-defined moisture density relationship determined in accordance with ASTM D-1557.
 - a. Pavements, Walks, Ramps, and Slabs: Compact each layer of backfill or fill materials to a minimum of 95 percent of the maximum dry density. The top one foot below subgrade shall be compacted to 95 percent. Adjustments to the natural moisture content of the soils may be required in order to obtain the specified compaction levels.
 - b. Lawn Areas: Compact each layer of backfill or fill material to a minimum of 85% of the maximum dry density.
 - c. When compacting with hand compaction equipment, all backfill material shall be placed from the bottom up in successive 4" maximum in loose horizontal layers.
 - d. If backfilling by heavy compaction equipment, all backfill material shall be placed from the bottom up in successive 8" maximum in loose horizontal layers.
4. Moisture Control: Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade or layer of soil material. Apply water in manner to prevent free water appearing on surface during or subsequent to compaction operations.
 - a. Remove and replace or scarify and air-dry soil material that is too wet to permit compaction to specified density.
 - b. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by disking harrowing or pulverizing until moisture content is reduced to a satisfactory value.
5. For the proof rolling and fill compaction operations, compaction shall extend at least two (2') feet beyond the pavement boundaries except as shown on the plans and/or as directed by the Owner or Owner's

Representative. A sufficient number of in-place density tests shall be performed by the Contractor's geotechnical consultant to verify that the proper degree of compaction is being obtained in all fill soils. As a minimum, the number of tests shall be as specified under Paragraph (g) of this Section.

(d) Grading:

1. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finish surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated or between such points and existing grades of earthwork is conducted in the presence of moisture, the traffic of heavy equipment, including heavy compaction equipment may create pumping and a general deterioration of the subgrade soils. Construction traffic should be minimized at structural sub-grade areas. If possible, the grading should be conducted during dry weather.
2. Grade smooth and even, free of voids, compacted as specified and to required elevation. Provide final grades within a tolerance of 1/2" when tested with a 10' straight edge.
3. Soil Testing Agency must approve subgrades and fill layers before further construction work is performed.

(e) Field Quality Control:

1. Make at least one field density test of subgrade for every 1000 square feet of paved area or structure area, but in no case less than 3 tests at each area. In each compacted fill layer, make one field density test for every 1000 square feet, but in no case less than 3 tests at each area. The testing agency shall recommend additional testing if in their opinion, the above recommendations are not sufficient.
2. If in the opinion of the County, based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing at no additional expense to the County.
3. Cost of inspection and testing shall be borne by the Contractor.
4. The Contractor's geotechnical consultant shall provide their professional opinion that the fill and backfill materials have been placed and compacted in accordance with the specification.

(f) Maintenance:

1. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
3. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.
4. Where settling is measurable or observable on excavated areas during general project warranty period, remove surface (pavement, lawn, or other finish), add backfill material, compact and replace surface treatment. Restore appearance, quality and condition of surface or finish to match adjacent work and eliminate evidence of restoration to greatest extent possible.

(g) Disposal of Waste Materials:

1. Remove waste materials, including unacceptable excavated material, tree stumps, roots, greenery, trash, and debris, and legally dispose of it off the County's property.

PART 4 - MEASUREMENT FOR PAYMENT

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on STANDARD SEALED BID PRICE SHEET.

END OF SECTION

DIVISION 31 – EARTHWORK

SECTION 31 10 00 SITE PREPARATION

PART 1 - GENERAL

(a) Definitions:

- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
- (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.

(a) Related work not included in this Section consists of the following:

- (1) Section 02 03 41 provided under “Selective Demolition and Removal.”

(b) SUMMARY:

1. The Contractor shall provide all labor, material, equipment and services for and reasonably incidental to executing all Site Preparation as indicated on drawings and/or specified, as directed by the County, or as necessary to perform the work required under this Contract.
2. The Contractor shall adhere to the terms of the various permits and approvals issued to this project. This shall include permits and approvals from all required Federal, State, and Local agencies, and any other applicable permits. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to work. If the Contractor observes that the Specifications and/or Drawings are at variance therewith, he will give the County prompt written notice thereof. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the County, he will bear all costs arising there from.
3. Work shall consist of, but not be limited to, the following:

- (c) Any preparatory work, including clearing and grubbing and maintenance of traffic, necessary to execute the work such as a field office, if specified in these Specifications, mobilization and demobilization of any equipment to and from the site, or any other incidental preparation related to the work and removal of items from the site.
- (d) Removal of items indicated or required in order to complete the overall scope of work for this project.

- (e) Removal of all debris and trash.
- (f) Land Surveyor (provided by Contractor) to establish and lay out lines, levels and grades for all work of this contract. The established reference points for horizontal and vertical control are indicated on the drawings. Should any work be questioned by the County, it shall be rechecked and certified in writing by a Professional Engineer or Land Surveyor at no addition to contract sum. If the Contractor identifies conflicts between the control data, layout data, and other details shown on the plans and/or conditions in the field, the Contractor shall contact the County immediately and request verification of the control data, layout data, and other details provided to the Contractor. The County shall be notified regarding potential conflicts prior to the Contractor establishing the layout lines, levels or grades for the proposed construction.
- (g) It shall be contractor's responsibility to have visited the site and to have examined all contract documents and determined to his complete satisfaction the extent of work to be accomplished.
- (h) Use all means necessary to prevent the spread of dust during performance of the work of this Section; thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.
 - 1. On-site burning will not be permitted.
 - 2. Explosives will not be permitted.
- (i) Use all means necessary to protect existing objects designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the County Inspector at no additional cost to the County.
- (j) Materials not specified to be utilized as fill on-site shall be disposed of off-site by the Contractor at an approved disposal facility secured by the Contractor. The cost for disposing of materials off-site shall be included in the respective bid item governing the specific portion of the work.

PART 2 – PRODUCTS

- (a) No specified products are included with this section.

PART 3 – EXECUTION

- (a) Notify the County at least two full working days prior to commencing the work of this Section.
- (b) Prior to all work of this Section, carefully inspect the entire site and all objects designated to be removed and to be preserved, locate all existing utility lines and determine all requirements for disconnecting and capping, and locate all existing

active utility lines traversing the site and determine the requirements for the protection.

1. The drawings do not purport to show all objects, such as trees and shrubs existing on the site. Before commencing the work of this Section, verify with the County all objects to be removed and all objects to be preserved.
- (c) Preserve in operating condition all active utilities traversing the site and designated to remain. The Contractor shall closely coordinate his activities with the County and utility companies affected by the work.
- (d) Remove all debris from the site and leave the site in a neat and orderly condition to the approval of the County. The Contractor shall legally dispose of all debris, rubbish, trash, etc., off-site at the Contractor's expense.

PART 4 - MEASUREMENT FOR PAYMENT

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on STANDARD SEALED BID PRICE SHEET.

END OF SECTION

DIVISION 32 – EXTERIOR IMPROVEMENTS

SECTION 32 91 19.13 TOPSOIL PLACEMENT AND GRADING

PART 1 - GENERAL

- (a) Definitions:
- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
 - (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.
- (b) Related work not included in this Section consists of the following:
- (1) Section 31 00 00 provided under “Earthwork.”
 - (2) Section 31 10 00 provided under “Site Preparation.”
- (a) The work covered by this Section consists of furnishing, spreading, and raking of topsoil in preparation for seeding and includes all labor, material, and equipment necessary to complete same in accordance with the drawings of the project.
- (b) Graded and Disturbed Areas: Upon completion and compaction of fill to subgrade, 3” of topsoil shall be placed, spread to a uniform thickness and graded and raked to remove large stones, root mat and other foreign materials and left ready for seeding.

PART 2 – PRODUCTS

1. Topsoil
 - a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2 inches in diameter.
 - b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - c. Topsoil substitutes or amendments, as recommended by a qualified

agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

PART 3 – EXECUTION

- (a) Topsoil shall be placed as previously referenced or as otherwise directed by the County.

PART 4 - MEASUREMENT FOR PAYMENT

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on STANDARD SEALED BID PRICE SHEET.

END OF SECTION

DIVISION 35 – WATERWAY AND MARINE CONSTRUCTION

SECTION 35 31 16 – TIMBER BULKHEADS AND WINGWALLS

Part 1 - General

- (a) Definitions:
- (1) Engineer: Engineer, shall refer to the County Project Manager or his authorized representative.
 - (2) County: County, as used herein, shall refer to the Kent County Public Works Project Manager or his/her authorized representative.
- (b) Related work not included in this Section consists of the following:
- (1) Section 31 00 00 provided under “Earthwork.”
 - (2) Section 31 10 00 provided under “Site Preparation.”
- (a) The Contractor shall furnish all labor, materials and equipment necessary to construct the wingwalls and toewall as shown on the drawings, and as specified herein.
- (b) The Contractor shall adhere to the terms of the various permits issued to this project. This shall include permits from the U. S. Army Corps of Engineers, the state of Maryland, Kent County, Maryland, and any other applicable permits.
- (c) The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to work. If the Contractor observes that the Specifications and/or Drawings are at variance therewith, he will give the Owner prompt written notice thereof. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he will bear all costs arising therefrom.
- (d) Included elsewhere in these Specifications are copies of construction permits which are required to be available at the construction site. They are included for the contractor’s convenience, compliance and guidance, but the engineering sketches and notes are approximate and suitable only for permit purposes and the Contractor shall attach no significance to volumes mentioned in these permits, but shall compute his own.
- (e) Related Documents: The general provisions of the Contract; including Division 1 – General Requirements, “ASTM Standards in Building Codes, latest edition; Geotechnical Engineering Report in Appendix 3; and all applicable supplements and addenda pertaining thereto apply to this section.

Part 2 - Products

- (a) Timber: All timber shall be Southern Yellow Pine unless otherwise approved by the Owner or Owner's Representative. Virginia Pine is not acceptable. Timber shall be free from all defects which will impair its strength and durability. All timber shall comply with the following specifications.
- (b) Round Timber Piles:
1. General Quality: Piles shall meet the requirements of the ASTM D25 "Standard Specifications for Round Timber Piles", except as modified by the Drawings and Specifications.
 - a. Piles shall be cut from sound, live trees and shall be free from decay and insect attack. Piles shall be cut above the ground swell and have a gradual taper from three feet below the butt to the tip as specified on the Drawings. Piles shall be free from defects such as holes, scars, checks, shakes, splits, twist of grain, compression wood and knots as required by ASTM Specification D25.
 2. Sizes: In place length of piles, minimum butt and tip diameter, minimum butt and tip circumferences, and pile taper shall be as specified in the Drawings. Pile length shall be sufficient to achieve 10 tons minimum bearing on each pile. **Prior to ordering the piles and sheeting, test piles shall be driven where shown on the drawings at the permanent position (See Section 06 13 33 Heavy Timber Construction).** These piles are to verify the pile and sheeting design lengths shown on the drawings. In the event that the pile and sheeting lengths are changed, the contract price shall be changed in accordance with the Unit Price Bid Items provided by the Contractor in the BID FORM.
 3. Sapwood: Piles shall have a minimum sapwood thickness of three (3.0) inches. The sapwood shall be measured continuously along the radius at mid-point of length and at the butt of the pile.
 4. Straightness: Piles shall be within a straightness requirement where a line drawn from the center of the tip to the center of the butt does not fall outside the center of the pile at any point by more than 1¼% of the length of the pile, or shall be entirely within the body of the pile, whichever is less.
 5. Peeling and Cutting: Prior to treatment, piles shall be clean peeled of all outer bark
 - a. and at least a minimum of 80% of the inner bark. The butts and tips of piles shall be sawed square with the axis of the pile. The allowable tolerance shall be 10% from square.
- (c) Lumber: All timbers, dimension lumber, and boards shall be graded and carry an identifiable grade mark in accordance with the Grading Rules of the Southern Pine

Inspection Bureau. The in place length of lumber shall be as shown on the Drawings. Lumber shall comply with the following specifications.

1. Batter Blocks: Grade No. 1 Dense, surfaced on four sides (S4S).
- (d) Lumber: All timbers, dimension lumber, and boards shall be graded and carry an identifiable grade mark in accordance with the Grading Rules of the Southern Pine Inspection Bureau. The in place length of lumber shall be as shown on the Drawings. Lumber shall comply with the following specifications.
1. Wales and Butt Block: Grade No. 1 Dense, surfaced on four sides (S4S).
 2. Sheeting: Grade No. 1 minimum, tongued and grooved (T &G) and surfaced on one side (S1S) or surfaced on two sides (S2S).
 3. Capboard, Back Up Boards and Liner: Grade No. 1 minimum, surfaced on four sides (S4S).
- (e) Hardware: Hardware to be used for the construction of the bulkhead and wingwall shall be manufactured from good, commercial quality material and shall meet the minimum requirements of the following specifications:
1. Rods, Bolts and Nuts: All rods, bolts and nuts shall conform to ASTM Specification A-307 for Grade A Steel and shall have hexagonal heads.
 2. NYDD and Standard Cut Washers shall be fabricated from a commercial grade steel and conform to ASTM Specification Designation F 844 with the exception that galvanizing shall be as specified below.
 3. Spikes and Nails: Shall be the annular wire type and shall meet AISI Specification 1010 or 1020 for steel.
 4. Threads on all fasteners shall be of the cut type with the shank and outside thread diameters being at least equal to the nominal diameter of the fastener. All threads shall be cut prior to galvanizing. All bolts and rods shall show 1/4 inch of thread on the outside face of the nuts.
 5. All of the above hardware shall be hot-dipped galvanized in accordance with ASTM designation A-153. The zinc coating shall be Class A, 2.0 ounces of zinc per square foot of hardware surface.
- (f) Weather Guards:
1. All vertical pile and batter block tops shall be covered with black plastic pile caps. They shall be molded from 3/16 inch hic, ultra-violet resistant, low-density polyethylene as approved by the Owner or Owner's Representative.
 2. All Covered pile tops shall be trimmed as shown on the plans and the end grains treated with Bitumastic 300-M and coated with 1/8 inch asphalt roofing cement.

3. Weather guards for top of batter piles shall be made by using roofing tar paper. The tops of the batter and vertical anchor piles shall be treated with Bitumastic 300-M coated within 1/8 inch minimum thickness of asphalt roofing cement. Batter pile tops shall be further covered with tar paper prior to placement of the batter block.
4. All submerged vertical pile tops shall receive 1/8 inch minimum thickness of epoxy no. A-788 Splash Zone Compound as manufactured by Kop-Coat, Inc. or an approved equal.

(g) Miscellaneous Materials:

1. All timber field cuts, trimmed areas and holes shall be treated with Bitumastic No. 300-M (Black) as manufactured by Koppers Company, Inc., Pittsburgh, Pennsylvania, 15219. All coatings shall be done in accordance with the manufacturer's instructions.
2. Asphalt roofing cement for weather guards on batter piles shall be a high grade, waterproof cement, easily spread by trowel to 1/8 inch in one coat, meeting Federal Specifications SS-c-153 Type 1, Class B. Use Clipper Ship Roofing Cement MP51 or equivalent.
3. Tar paper for weather guards on batter piles shall be the type classified as roofing tar paper, weighing 50 lbs. per square inch, without granules, and approximately 1/8" thick. If 50 lbs. per square roofing paper is unavailable two layers of 30 lbs. per square paper shall be applied with asphalt roofing cement spread on all paper surfaces as directed by the Owner or Owner's Representative.

(h) Treatment: All piles and lumber shall be treated with preservative by the pressure process in accordance with the following requirements.

1. Piles and lumber shall be squared to length in accordance with the Drawings before treatment.
2. C.C.A. Treatment: All piles and batter blocks shall be pressure treated with C.C.A. Type C in accordance with the requirements of the American Wood Preservers Association. Standard P5 to a final net retention of not less than 2.5 lbs. of chromated copper arsenate per cubic foot of wood as determined by chemical assay according to AWPA Standard A2.
3. In general, treated materials shall be branded or tagged after treatment for identification. Branding of piles shall be accomplished three feet from the butt by burning on the surface with legible lettering the supplier's brand, plant designation, date of treatment, species of timber, type of preservative and retention of preservative. Lumber shall be bundled and tagged with the appropriate information.

(i) Certifications: Prior to delivery of materials to the construction site, the Contractor shall supply to the Owner or Owner's Representative the following certifications:

1. A notarized Certificate attesting to the fact that all timber meets the requirements of the Drawings and Specifications as to species, grade, strength, finish and size.
2. A notarized Certificate of Treatment from the supplier indicating that all timber meets the Specifications as to type of CCA treatment used, method of application and final net retention by assay in pounds per cubic foot. The Certificate shall include the number of pieces involved and their description. Accompanying the Certificate shall be a copy of the Charge Report and a copy of the chart obtained from the combination recorder. A date shall be shown when the gauges and recorder were certified by a particular inspection agency.
3. A notarized Certificate indicating that all hardware (bolts, washers, rods, etc.) meet these specifications as to galvanizing and steel (stainless steel / Grade A steel) type. The certificate shall list the materials in detail.

(j) Inspection and Testing:

1. All materials are subject to initial inspection and testing by an independent firm acceptable to the Owner or Owner's Representative in order to ensure compliance with the Drawings, Specifications, AWWA Standards and other specified standards.
2. This independent firm shall specialize in the inspection and testing of timber materials and will be retained to provide these services by the Owner.
3. Inspection and testing of timber materials from approved treatment plants within a 120-mile radius of Salisbury, Maryland shall be performed by the Owner and/or an independent firm retained by the Owner.
4. Inspection and testing of timber materials from approved treatment plants outside a 120-mile radius of Salisbury, Maryland shall be performed by an independent firm retained by the Contractor and/or the material supplier.
5. The inspection and testing of timber materials shall be carried out in accordance with the Grading Rules of the Southern Pine Inspection Bureau and the AWWA Standard M2. These inspections shall be performed before treatment and after treatment, preferably on complete order and only at the treating plants.
6. If the Contractor chooses to obtain timber materials from a treatment plant located OUTSIDE the established limits, all costs relating to the inspection and testing of these materials shall be borne by him and/or the material supplier, and shall be included in the lump sum price bid for the project.
7. In cases where the treatment is WITHIN the established limits, the Contractor or material supplier shall notify the Owner prior to treatment and after treatment when the timber materials are ready for inspection and testing.

8. In ordering materials, the Contractor is required to notify the Owner or Owner's Representative of the source from which he proposes to obtain all timber materials. He shall make available to the material supplier (and independent firm, if applicable) copies of the project Drawings and Specifications.
9. Acceptance or rejection of materials shall be made on the basis of adherence to the specified standards. Rejected materials shall be replaced and/or retreated. The cost of inspecting replaced or retreated materials shall be incurred by the treating plant. An independent inspection agency acceptable to the Owner or Owner's Representative shall be retained for this purpose.
10. Notwithstanding the inspection of materials at the treatment plant, the Owner or Owner's Representative reserves the right to reject any individual timber pieces not meeting the specified requirements. The Contractor shall be responsible for the replacement of any materials rejected at the project site.
11. Accepted timber materials shall be identified by hammering with an identifiable mark as evidence of inspection and testing. All required paperwork including certificates and test reports shall be made available to the Owner or the Owner's Representative prior to the release of the materials from the treating plant. Materials shall not be delivered to the project site without prior notification and approval of the Owner or the Owner's Representative.

Part 3 - Execution:

- (a) Complete descriptions of timber and sheet pile driving equipment including hammers, extractors, protection caps and other installation appurtenances and procedures shall be submitted to the Owner or Owner's Representative and approved prior to the start of the work and no more than 15 workdays following the pre-construction meeting.
- (b) All timber piles and lumber whenever possible shall be cut to size, trimmed, and bored before assembly.
- (c) All timber field cuts, trimmed areas and holes shall be given three coats to a minimum thickness of 16 dry mils of Bitumastic No. 300-M (Black) in accordance with the manufacturer's instructions.
- (d) All materials shall be accurately assembled, set, regularly spaced and coursed; and they shall be true to line, even, square, plumb, tight and level.
- (e) Storage of Materials:
 1. Timber Material: The method of storing and handling timber materials at the construction site shall be such as to avoid injury and to protect them against the weather. Timber piles shall be arranged so that they are not subjected to unequal forces which will tend to twist or warp them. Lumber shall be stored

12 inches above the ground to provide ventilation, piled to shed water and to prevent warp. The Owner or Owner's Representative may require suitable covering to protect the materials from the weather.

2. Timber Sheeting

- a. Sheeting shall be driven by conventional methods approved by the Owner or Owner's Representative. Jetting will not be allowed in soft material. Jetting in hard material is permissible but must be kept to a minimum and must be approved by the Owner or Owner's Representative.
- b. Progress in driving sheeting shall be accomplished by using the tongued edge as the leading edge. The surfaced side of the sheeting shall be positioned against the wales. The bottom of the sheeting may be beveled to facilitate driving in hard material. Controlled excavation for placement of sheeting may be allowed where bottom conditions prevent driving by normal methods. The specific method of controlled excavation shall be approved by the Owner or Owner's Representative.
- c. Damage to the top of the sheeting and the tongued and grooved edges shall be minimized. The top of the sheeting shall be protected during driving by using a cap. The maximum allowable cutoff of sheeting to the top wall elevation shall not be more than six (6) inches for damaged material. Cutoff of sheeting after driving shall not take place without the approval of the Owner or Owner's Representative. If the top of sheeting is not damaged, full length driving will be required. Ends of sheeting shall then be waterproofed.
- d. To insure adherence of sheeting to the wales, a horizontal template or rack shall be used in the driving operation. A jack or "come along" shall be used to provide proper adherence of the tongued and grooved edges. The sheeting shall then be spiked to the wales. The Contractor shall predrill the sheeting if necessary to prevent splitting of the individual sheets as they are spiked to the wales.
- e. The sheeting shall not be out of plumb by more than 1/2 inch in 5 feet. The Contractor shall be required to drive a full length, tongued and grooved wedge to correct the vertical alignment of the sheeting.
- f. Full length corner boards (sheeting) shall be driven at the bulkhead's corner/bends, at the wingwalls/toewall's corners/bends and connections to the bulkheads.
- g. After completion of the sheeting operation, an inspection shall be made by the Owner or Owner's Representative and by the Contractor to determine the amount of tongue and groove overlap at the joints between the adjacent sheeting. If the joint of tongue and groove at any point shows an opening of 1/8 inch or more, due to

separation of the sheeting or damage to the tongue or groove, a full-length treated back-up board of 1 x 4 inch cross section shall be installed at the joint to make a tight closure. The board shall be driven and/or jetted into place, with the top of the board flush with the bottom of the wale. The backup board shall be nailed to the sheeting.

(f) Wale System:

1. For the alignment of wales, the maximum permissible gap in the pile shall not exceed 2 inches. Shims shall only be used in exceptional cases and then only with the permission of the Engineer. Wale surfaces of butt splices or lapped splices shall be coated with asphalt roofing cement prior to assembly.
2. In the installation of rods and bolts, all rods and bolt holes shall be a minimum diameter to assure a tight and driving fit. Holes shall be of a diameter such that bolts are inserted by light tapping. All counterbored holes for the installation of washers shall not be more than 1.0 inch in depth.
3. All rods and bolts shall have a ¼ inch length of thread outside the face of all nuts after tightening, cutting and trimming of bolt and tie rods ends are completed.

(g) Timber Cap: The timber capboard shall be placed as shown on the drawings. To prevent splitting of the ends of the lumber, pilot holes at the ends of the capboard shall be drilled prior to nailing to the wale. Contractor shall place the wood grain rings of the capboard down on the wale.

(h) Timber Piles:

1. All timber piles as shown on the drawings shall be driven by gravity, vibratory (except for test piles) or diesel hammer as approved by the Owner or the Owner's Representative. Any hammer which does not perform satisfactorily on piles being driven, regardless of prior approval, shall be replaced by a hammer acceptable to the Owner or the Owner's Representative. A pile driving record shall be maintained by the Contractor. He shall record the bearing value of each wingwall pile driven in accordance with ENR pile capacity formulas. Driving shall be continuous without intermission until the pile has been driven to the required penetration. In general, the penetration for any pile shall not be less than shown on the Plans even in hard materials. Jetting or augering is permissible in hard materials, if approved by the Owner or the Owner's Representative, but the last 2 feet of penetration must be driven without damage to the pile. In any event, the penetration of the piles shall be such as to give a minimum safe bearing value of 10 tons. The test pile shall not be driven unless the Owner or Owner's Representative is at the site. Jetting will not be permitted in soft material. If necessary, steel tips shall be added to the pile to facilitate driving in hard material.

2. Each timber pile is expected to provide adequate pile bearing capacity. If during driving operations the Contractor finds inadequate bearing on piles, he shall stop driving and immediately contact the Owner or the Owner's Representative. The Contractor is advised that in the event that the length of piles shown on the Drawings is found to be inadequate on the basis of bearing value, longer replacement piles may be required. It is anticipated that the replacement piles may be up to 50% longer than the piles shown on the Drawings. Conversely, in the event that the length of piles shown in the drawings is found to be excessive on the basis of bearing value (>30 tons), shorter replacement piles may be allowed. It is anticipated that the shorter replacement piles may be up to 25% shorter than the piles shown on the Drawings. These piles shall be installed as directed by the Owner or the Owner's Representative. Payment for replacement piles shall be in accordance with the Unit Price Bid Item provided by the Contractor in the BID FORM.
3. Broken or shattered timber piles shall not be accepted. Piles shall not be more than 3 inches out of place along the construction line of the wall and not more than 2% out of plumb. Piles damaged by overdriving or which do not conform to the above tolerances shall be removed and replaced with new piles at the Contractor's expense.
4. During driving, the top of timber piles shall be protected from damage by using a head or cap. The head or cap shall cover the entire surface of the top of the pile. Trimming the top of the pile to fit the cap shall be kept to a minimum. Damage to the top of the pile shall be restricted to the top 6 inches.
5. After driving, the length of timber pile remaining above the elevation of cutoff shall not be more than 6 inches for damaged piles. The top of piles shall be sawed to a true plane of elevation fixed by the Drawings. Cutoff of piles shall not take place without the approval of the Owner or the Owner's Representative. If the pile tops are not damaged, full length driving will be required. Pile tops shall then be trimmed and waterproofed. Batter blocks shall be placed and bolts installed as specified.

(i) EXCAVATION / FILL:

1. Excavation and Fill shall be performed as referenced in Section 31 20 00 of these specifications.

Part 4 – Measurement

- (a) Measurement for payment of these items of work will be provided in the form of a Lump Sum basis and provided on Attachment A1: Bid Form.

- END OF SECTION -

LEGEND table with columns ITEM, EXISTING, and PROPOSED. Items include CONTOUR, ELEVATION SPOT SHOT, SWALE, FENCE, CULVERT, LIGHTPOLE, SAFETY LADDER, MANHOLE, LIMIT OF TIEROD/ANCHOR SYSTEM, RIP-RAP, and CONCRETE.

BAYSIDE LANDING PARK MARINA IMPROVEMENTS

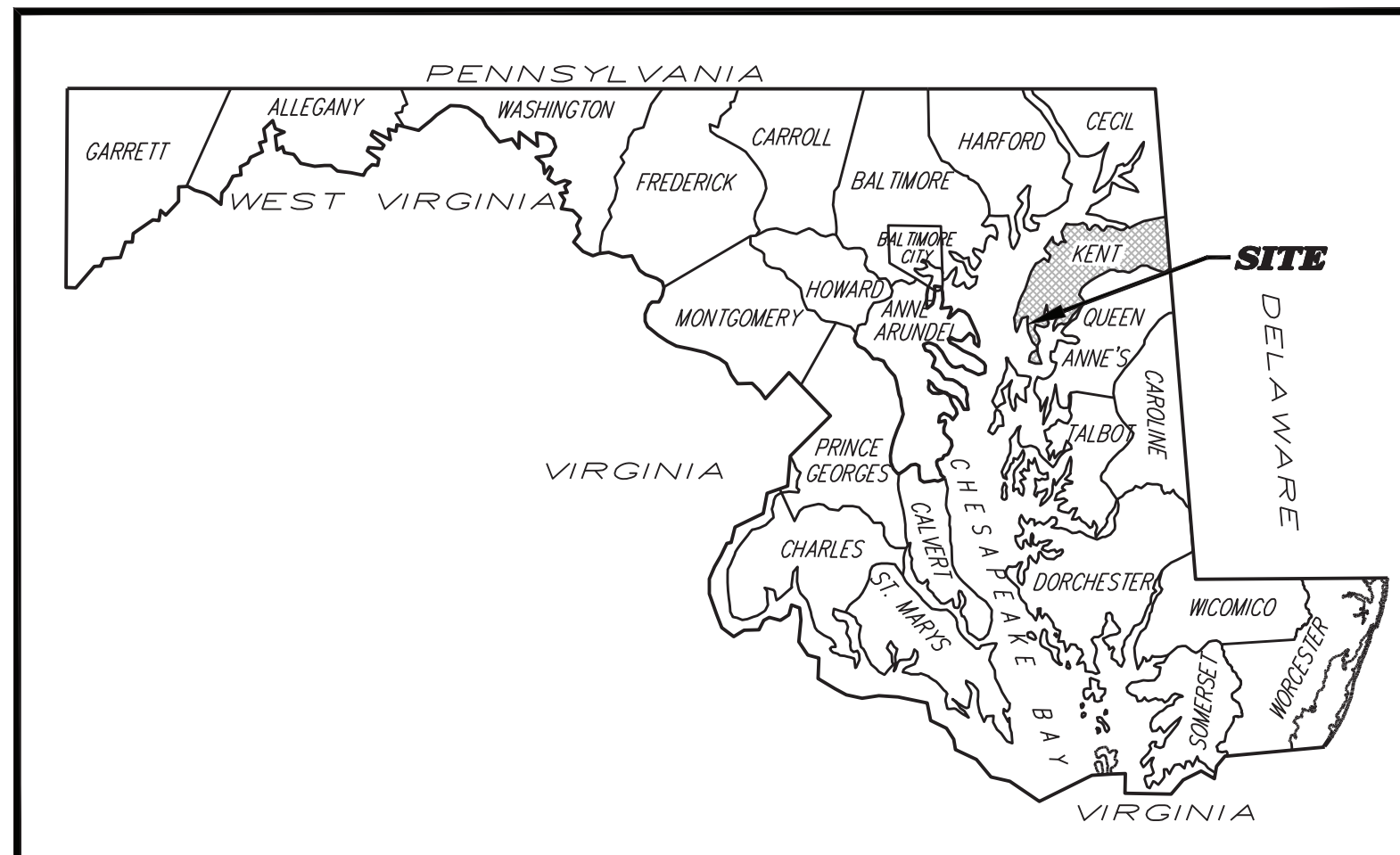
IN
TOWN OF ROCK HALL
KENT COUNTY, MARYLAND

ABBREVIATIONS table with columns ABBR. and DESCRIPTION. Includes symbols for AT, ACRE, CRITICAL AREA, CENTER TO CENTER, DIAMETER, EAST/EASTING, ELEVATION, EROSION & SEDIMENT CONTROL, EXISTING, FOOT, INCH, INVERT, POUND, LINEAR FEET, LIMIT OF DISTURBANCE, MAXIMUM, MEAN HIGH WATER, MINIMUM, MEAN LOW WATER, NORTH/NORTHING, NOT APPLICABLE, NUMBER, ON CENTER, ON CENTER EACH WAY, POUNDS PER SQUARE INCH, REFERENCE, SOUTH, STABILIZED CONSTRUCTION ENTRANCE, STORMDRAIN, SQUARE FEET, STANDARD, TONGUE AND GROOVE, TYPICAL.

Professional Engineer
No. 38830
Expiration Date: 12/29/2024

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS

MIDDLEBURY, VERMONT
SALESVILLE, MARYLAND
410-251-1444
410-251-0791



LOCATION MAP
SCALE: NONE



VICINITY MAP
SCALE: 1" = 2000'

Site Data table:

Tax Map	0500
Parcel	0528 Lot 1; 0529
Deed Ref.	00247 / 00027
Entire Parcel Area	1.25; 1.44 Acres +/-
Zoning	Maritime Water Dependent
Critical Areas	Yes
Jurisdictional Wetlands	No
Owner Name	The County Commissioners of Kent County Maryland
Site Address	20927 Bayside Avenue Rock Hall, Maryland 21861
FEMA FIRM Data	Map Number 24029C0263D Effective date: June 9, 2014 Zone AE (Elev. 5), Zone VE (Elev. 7)
Contractor	To Be Determined
Developer	Kent County Department of Public Works Contact: Michael Moulds, P.E. Tel: 410-778-2600
Engineer/Surveyor	Davis, Bowen & Friedel, Inc. 106 N. Washington Street Easton, MD 21601 Tel: 410-770-4744 Project Manager: Ken Eaton

SHEET INDEX table:

Item	Description	Scale
C-100	Cover Sheet	As Shown
C-101	Overall Site Plan	1" = 30'
C-102	Site Plan	1" = 10'
C-103	Site Plan	1" = 10'
C-104	Details	As Shown
C-105	Details	As Shown
E-001	Electrical Specifications	None
E-002	Electrical Power Plan	1" = 30'
E-300	Electrical Schedules	None
E-301	Electrical Schedules	None
P-001	Plumbing Data Sheet	None
P-002	Plumbing Specifications	None
P-100	Plumbing Plan and Details	1" = 30'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH KENT COUNTY STANDARD DETAILS UNLESS OTHERWISE NOTED.
- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS AND ANY DAMAGE TO EXISTING UTILITY SERVICES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S OWN EXPENSE.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY TO COMPLETE SUCH WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-257-7777) A MINIMUM OF 5 DAYS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING. THE CONTRACTOR SHALL EXERCISE CARE WHEN DIGGING ADJACENT TO AND CROSSING UNDERGROUND UTILITIES.
- HORIZONTAL CONTROL IS BASED ON MARYLAND STATE PLANE COORDINATE SYSTEM AND WAS ESTABLISHED USING STATIC GPS. VERTICAL DATUM IS MLW ESTABLISHED USING RTK GPS
- TOPOGRAPHIC SURVEY WAS PERFORMED IN SEPTEMBER 2022 BY DAVIS, BOWEN & FRIEDEL, INC. (DBF).
- THE CONTRACTOR MUST MAINTAIN 10' CLEARANCE FROM ALL OVERHEAD ELECTRICAL LINES AT ALL TIMES IN ACCORDANCE WITH MD H.V.L.A. (MARYLAND HIGH VOLTAGE LINE ACT).
- NO TRENCH EXCAVATION SHALL BE MADE IF THE NEAREST BOTTOM SIDE OF TRENCH IS LESS THAN A 1:1 SLOPE AWAY FROM ANY UTILITY POLES, UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH THE UTILITY COMPANY.
- ALL CONSTRUCTION CONDUCTED WATERWARD OF THE MEAN HIGH WATER (MHW) LINE SHALL BE PERFORMED BY A MARINE CONTRACTOR WHO IS REGISTERED WITH THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN ACCORDANCE WITH SECTION 17-301 OF THE ENVIRONMENTAL ARTICLE, ANNOTATED CODE OF MARYLAND.

ENGINEER'S CERTIFICATION

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38830, EXPIRATION DATE: 12-29-2024"

MARINA IMPROVEMENTS BAYSIDE LANDING PARK IN THE TOWN OF ROCK HALL KENT COUNTY, MARYLAND

Comments table with columns DATE and COMMENTS.

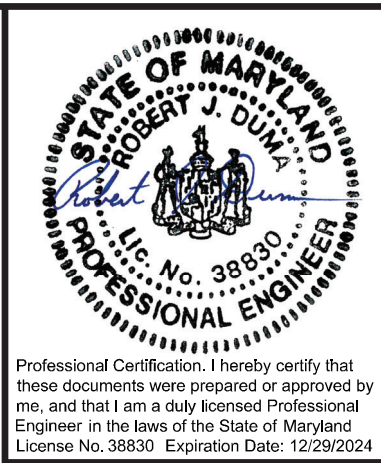
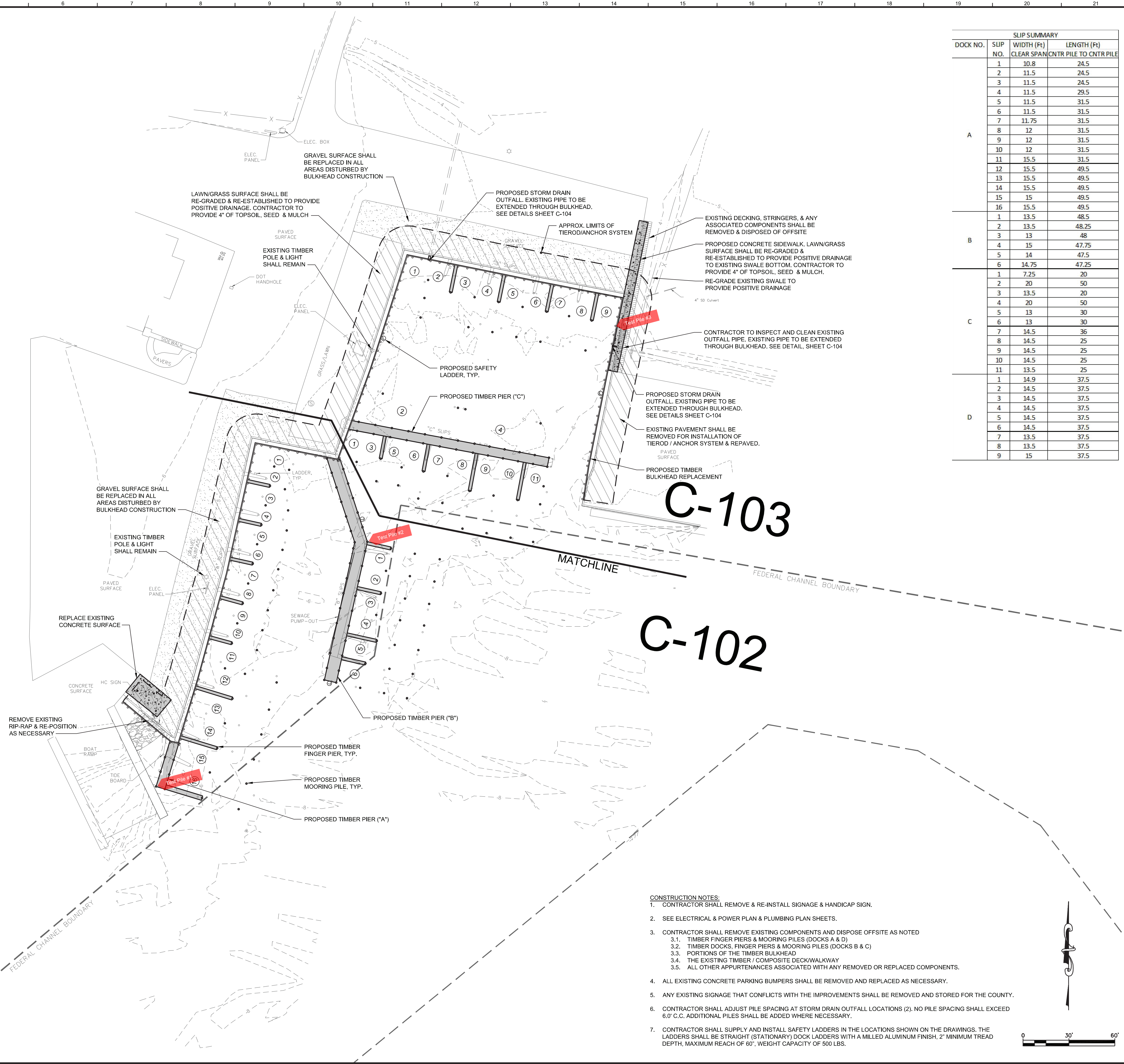
Date: JULY 2024
Scale: AS SHOWN
Dwn.By: SMS
Proj.No.: 4137A001.A01

DETAILS

Dwg.No.:
C-100

P:\11707A Kent County\1137A001.A01 Bayside Marina\Design\113.4137A001 Site Plan.dwg, Jul 29, 2024, 4:23:10pm, sbs

SLIP SUMMARY			
DOCK NO.	SLIP NO.	WIDTH (Ft)	LENGTH (Ft)
		CLEAR SPAN	CNTR PILE TO CNTR PILE
A	1	10.8	24.5
	2	11.5	24.5
	3	11.5	24.5
	4	11.5	29.5
	5	11.5	31.5
	6	11.5	31.5
	7	11.75	31.5
	8	12	31.5
	9	12	31.5
	10	12	31.5
	11	15.5	31.5
	12	15.5	49.5
	13	15.5	49.5
	14	15.5	49.5
	15	15	49.5
	16	15.5	49.5
B	1	13.5	48.5
	2	13.5	48.25
	3	13	48
	4	15	47.75
	5	14	47.5
	6	14.75	47.25
C	1	7.25	20
	2	20	50
	3	13.5	20
	4	20	50
	5	13	30
	6	13	30
D	7	14.5	36
	8	14.5	25
	9	14.5	25
	10	14.5	25
	11	13.5	25
	1	14.9	37.5
	2	14.5	37.5
	3	14.5	37.5
	4	14.5	37.5
5	14.5	37.5	
6	14.5	37.5	
7	13.5	37.5	
8	13.5	37.5	
9	15	37.5	



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 ARCHITECTS • ENGINEERS • SURVEYORS
 MILLERS BLVD, SUITE 200
 KENT COUNTY, MARYLAND 21506
 410.776.7447

**MARINA IMPROVEMENTS
 BAYSIDE LANDING PARK
 IN THE TOWN OF ROCK HALL
 KENT COUNTY, MARYLAND**

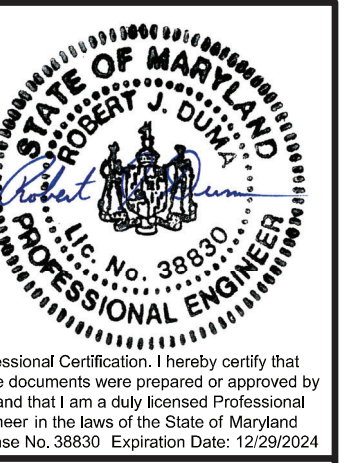
- CONSTRUCTION NOTES:**
- CONTRACTOR SHALL REMOVE & RE-INSTALL SIGNAGE & HANDICAP SIGN.
 - SEE ELECTRICAL & POWER PLAN & PLUMBING PLAN SHEETS.
 - CONTRACTOR SHALL REMOVE EXISTING COMPONENTS AND DISPOSE OFFSITE AS NOTED
 - TIMBER FINGER PIERS & MOORING PILES (DOCKS A & D)
 - TIMBER DOCKS, FINGER PIERS & MOORING PILES (DOCKS B & C)
 - PORTIONS OF THE TIMBER BULKHEAD
 - THE EXISTING TIMBER / COMPOSITE DECK/WALKWAY
 - ALL OTHER APPURTENANCES ASSOCIATED WITH ANY REMOVED OR REPLACED COMPONENTS.
 - ALL EXISTING CONCRETE PARKING BUMPERS SHALL BE REMOVED AND REPLACED AS NECESSARY.
 - ANY EXISTING SIGNAGE THAT CONFLICTS WITH THE IMPROVEMENTS SHALL BE REMOVED AND STORED FOR THE COUNTY.
 - CONTRACTOR SHALL ADJUST PILE SPACING AT STORM DRAIN OUTFALL LOCATIONS (2). NO PILE SPACING SHALL EXCEED 6.0' C.C. ADDITIONAL PILES SHALL BE ADDED WHERE NECESSARY.
 - CONTRACTOR SHALL SUPPLY AND INSTALL SAFETY LADDERS IN THE LOCATIONS SHOWN ON THE DRAWINGS. THE LADDERS SHALL BE STRAIGHT (STATIONARY) DOCK LADDERS WITH A MILLED ALUMINUM FINISH, 2" MINIMUM TREAD DEPTH, MAXIMUM REACH OF 60", WEIGHT CAPACITY OF 500 LBS.

DATE	COMMENTS

Date: JULY 2024
 Scale: 1" = 30'
 Dwn.By: SMS
 Proj.No.: 4137A001.A01

OVERALL SITE PLAN

Dwg.No.: **C-101**



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 MILLERSVILLE, MARYLAND 21104
 410.341.1444

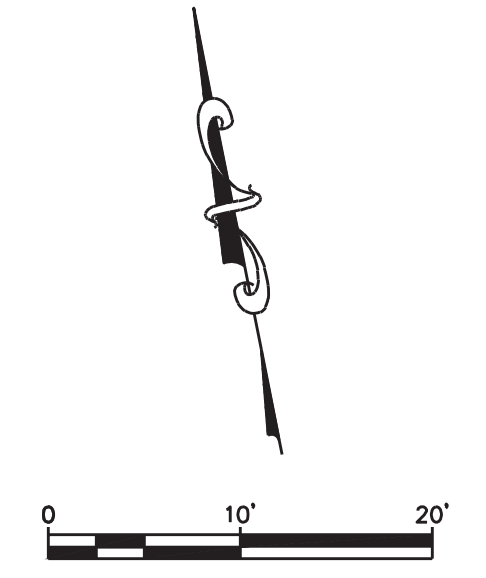
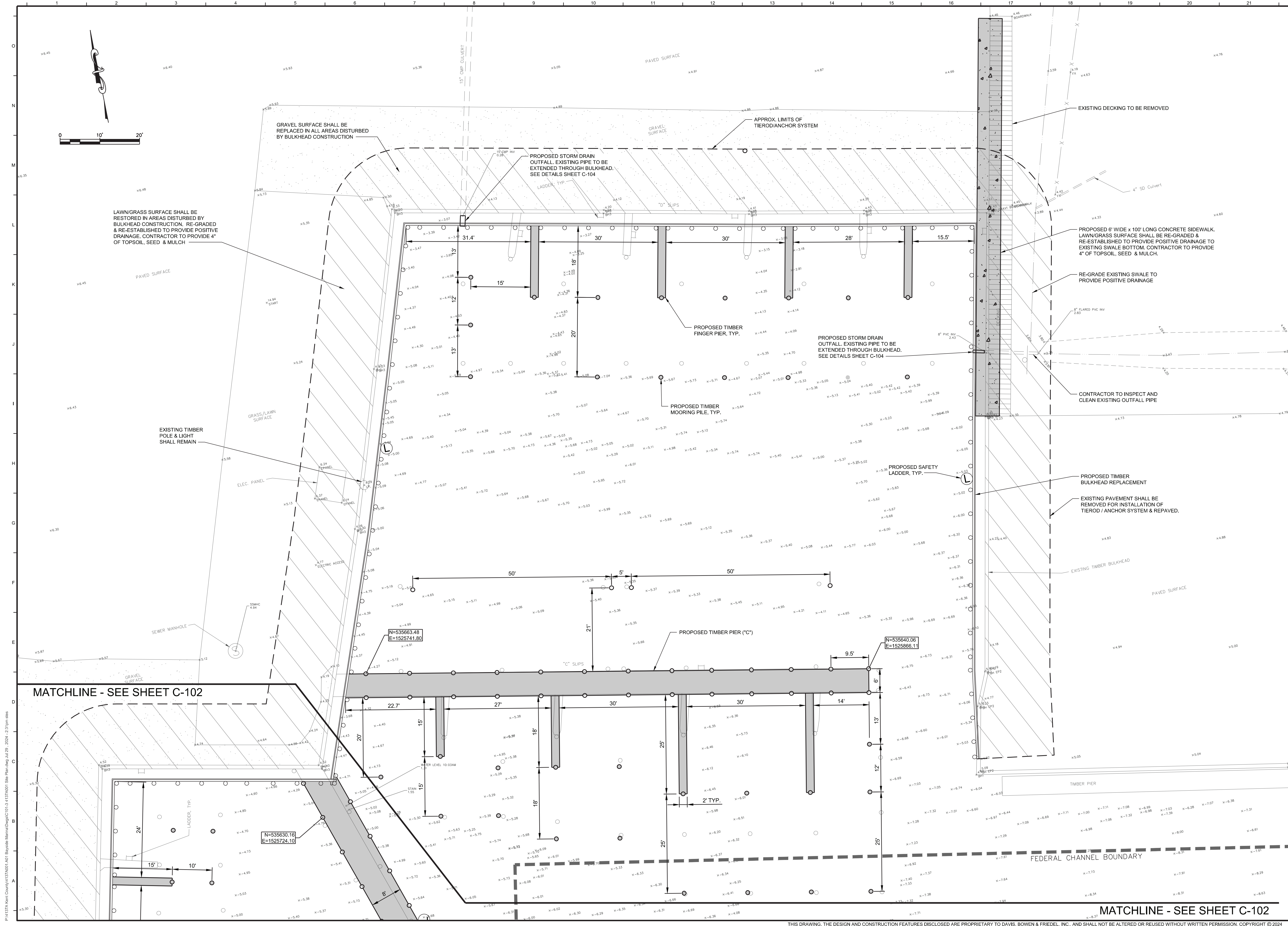
**MARINA IMPROVEMENTS
 BAYSIDE LANDING PARK
 IN THE TOWN OF ROCK HALL
 KENT COUNTY, MARYLAND**

DATE	COMMENTS

Date: JULY 2024
 Scale: 1" = 10'
 Dwn. By: SMS
 Proj. No.: 4137A001.A01

SITE PLAN

Dwg. No.: **C-103**



MATCHLINE - SEE SHEET C-102

FEDERAL CHANNEL BOUNDARY

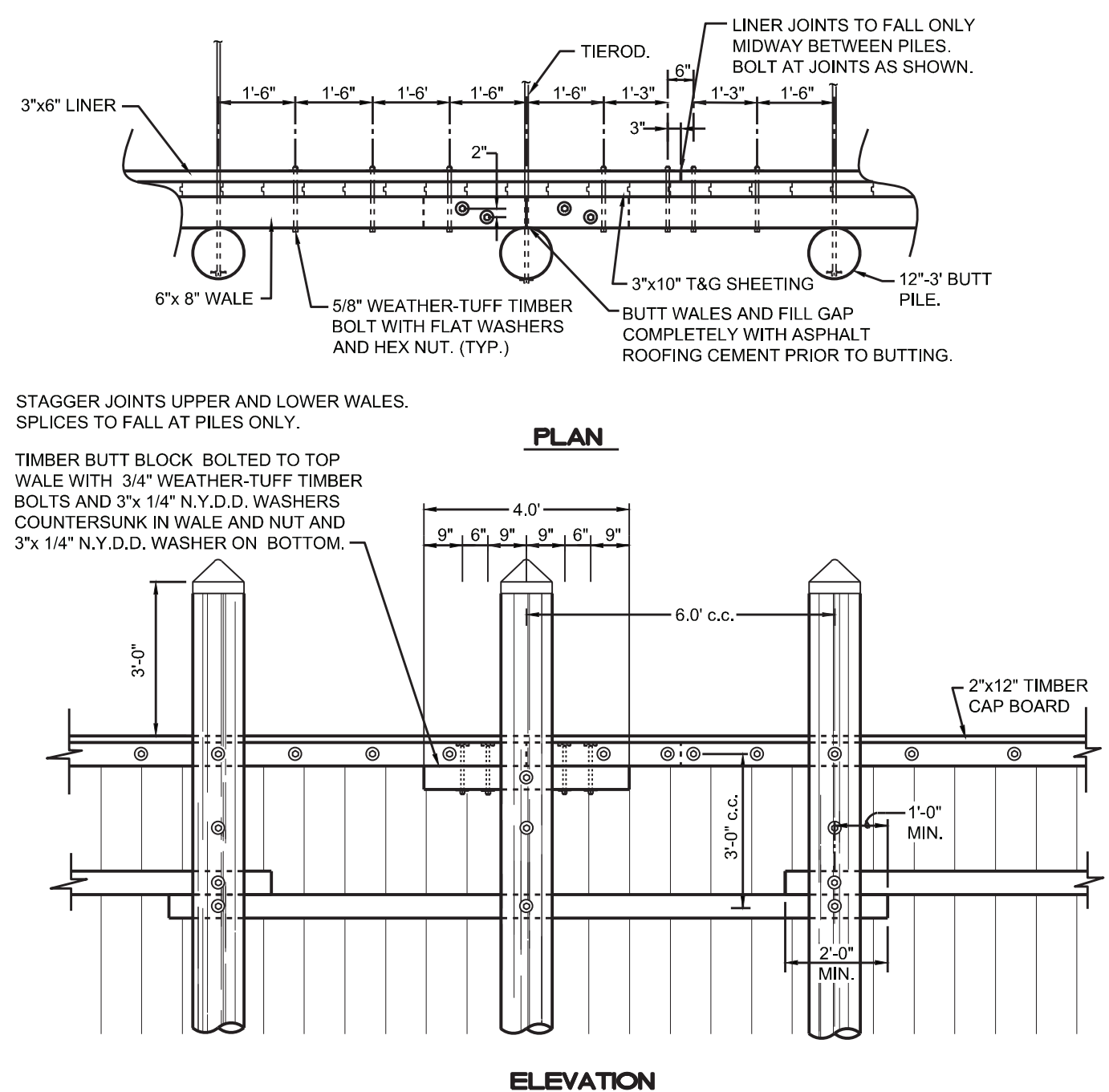
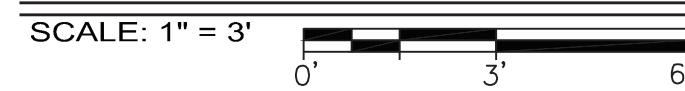
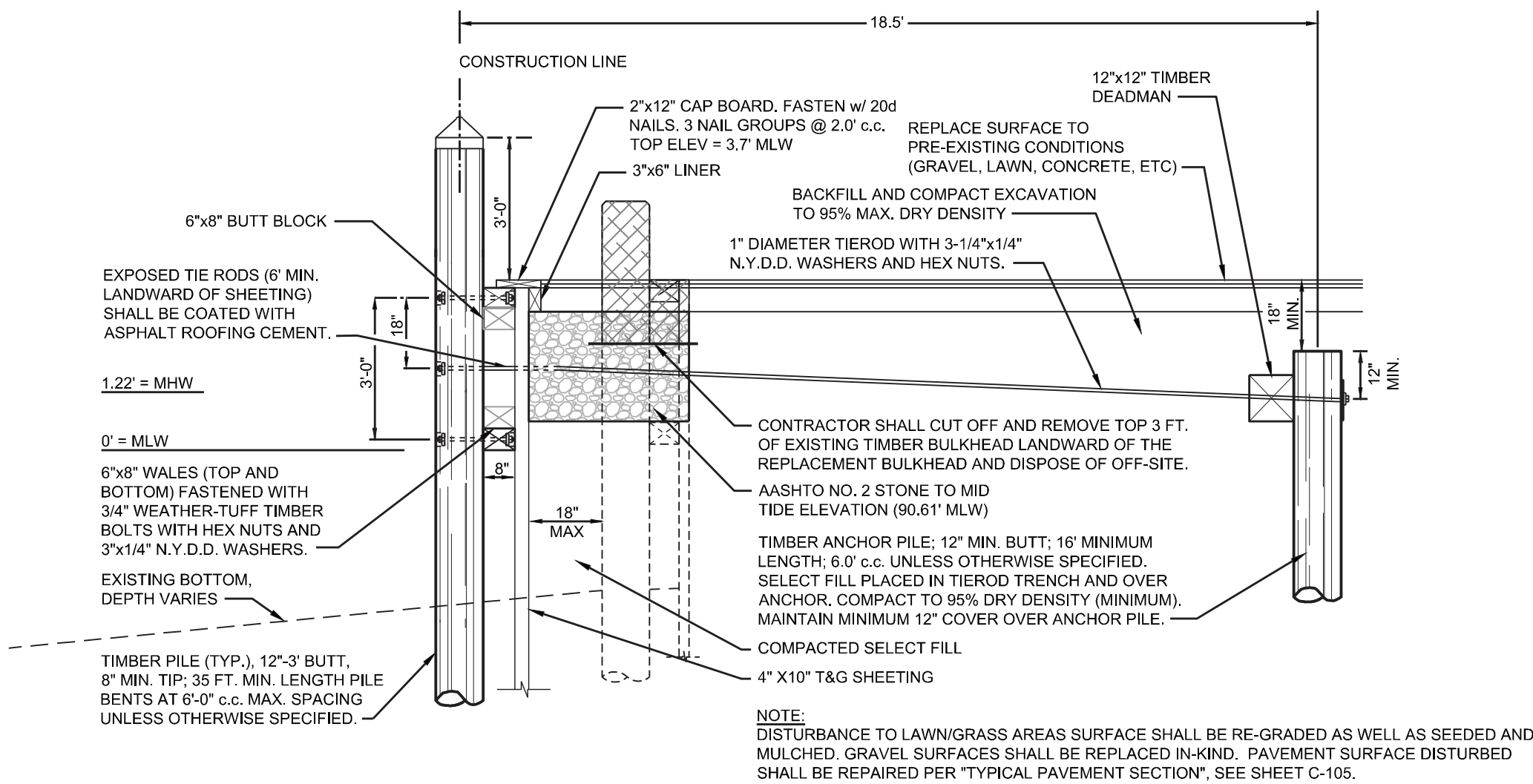
MATCHLINE - SEE SHEET C-102

NO.	DATE	REVISION

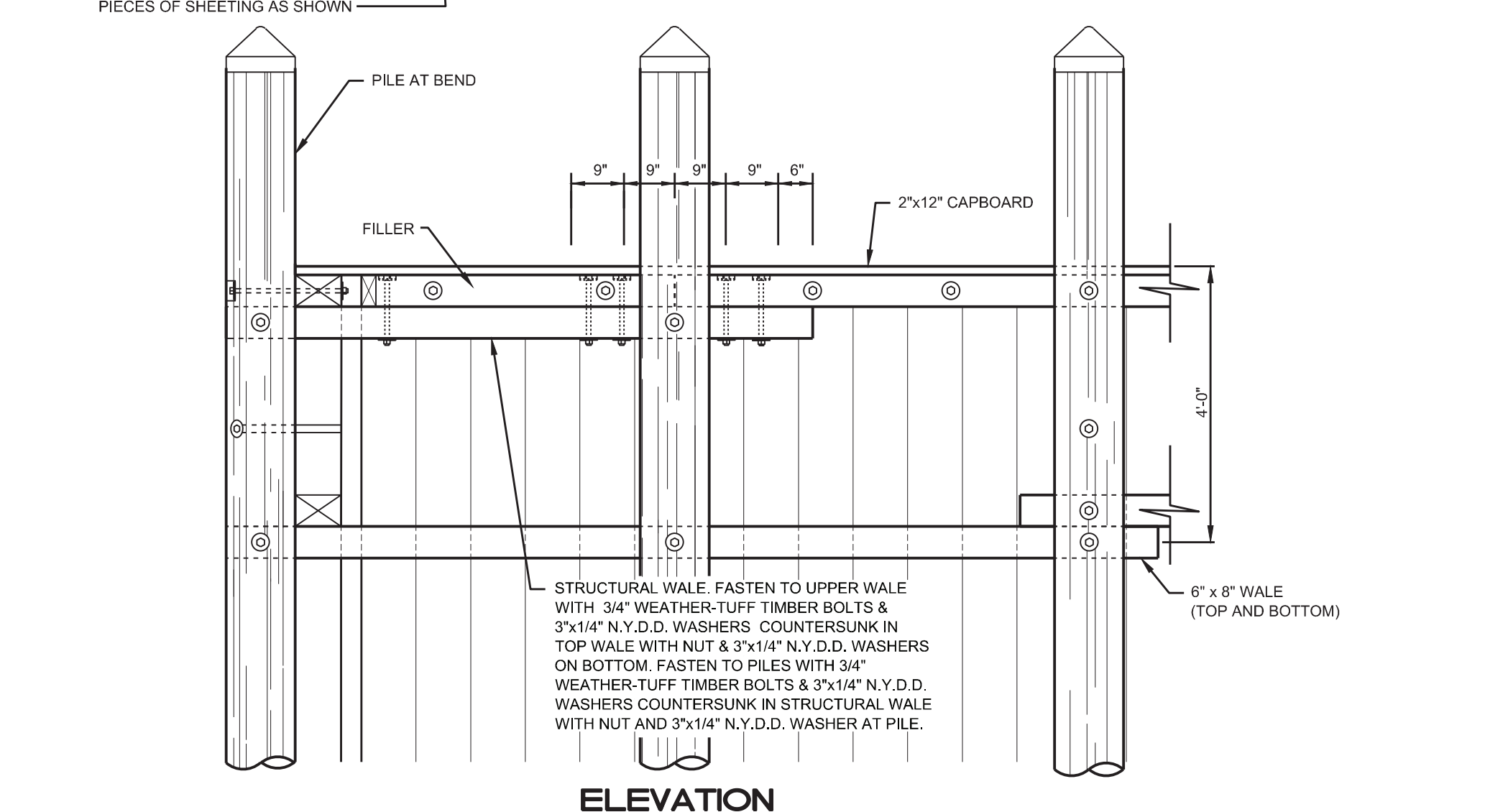
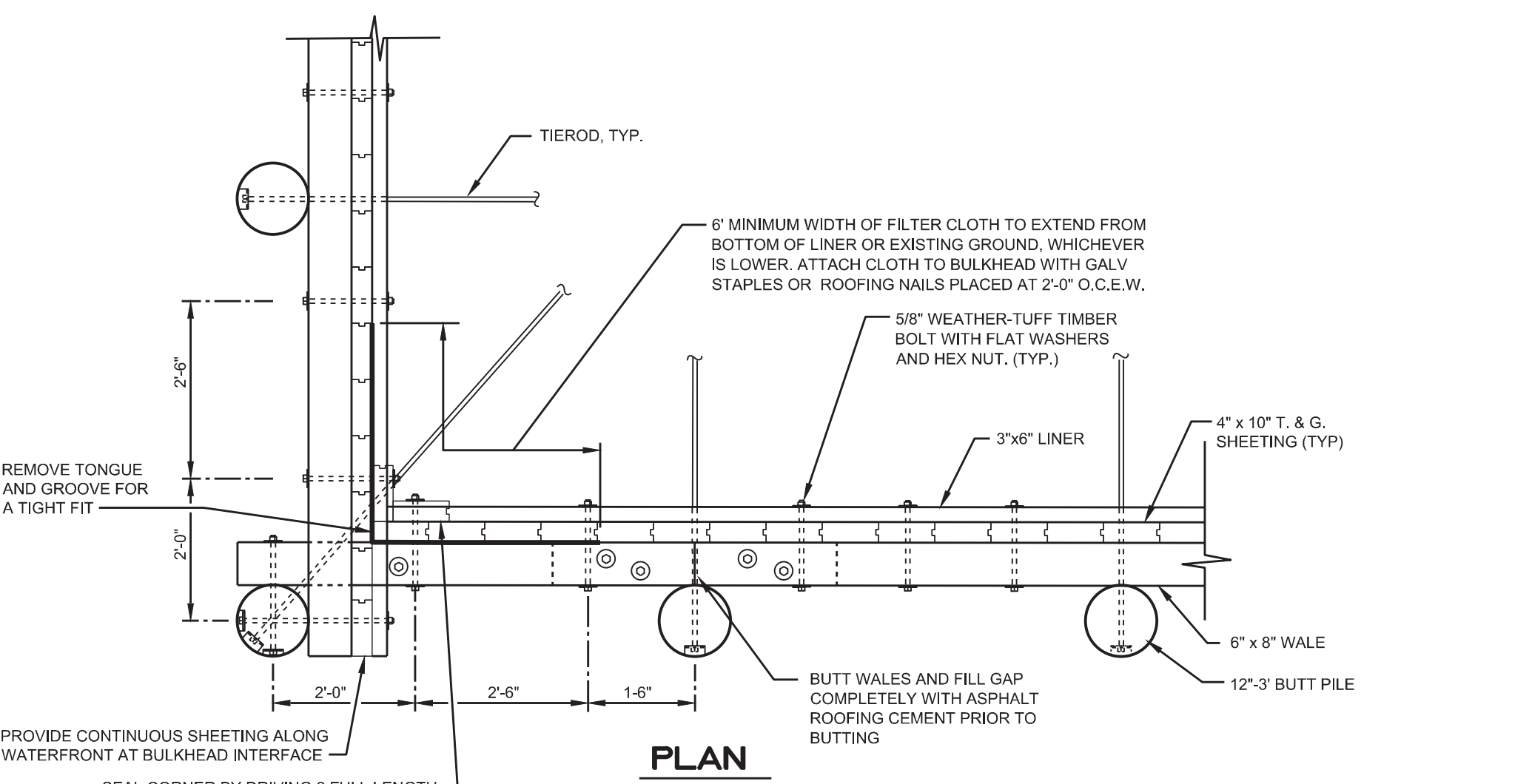
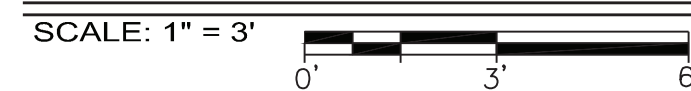
Date: JULY 2024
Scale: AS SHOWN
Dwn. By: SMS
Proj. No.: 4137A001.A01

DETAILS

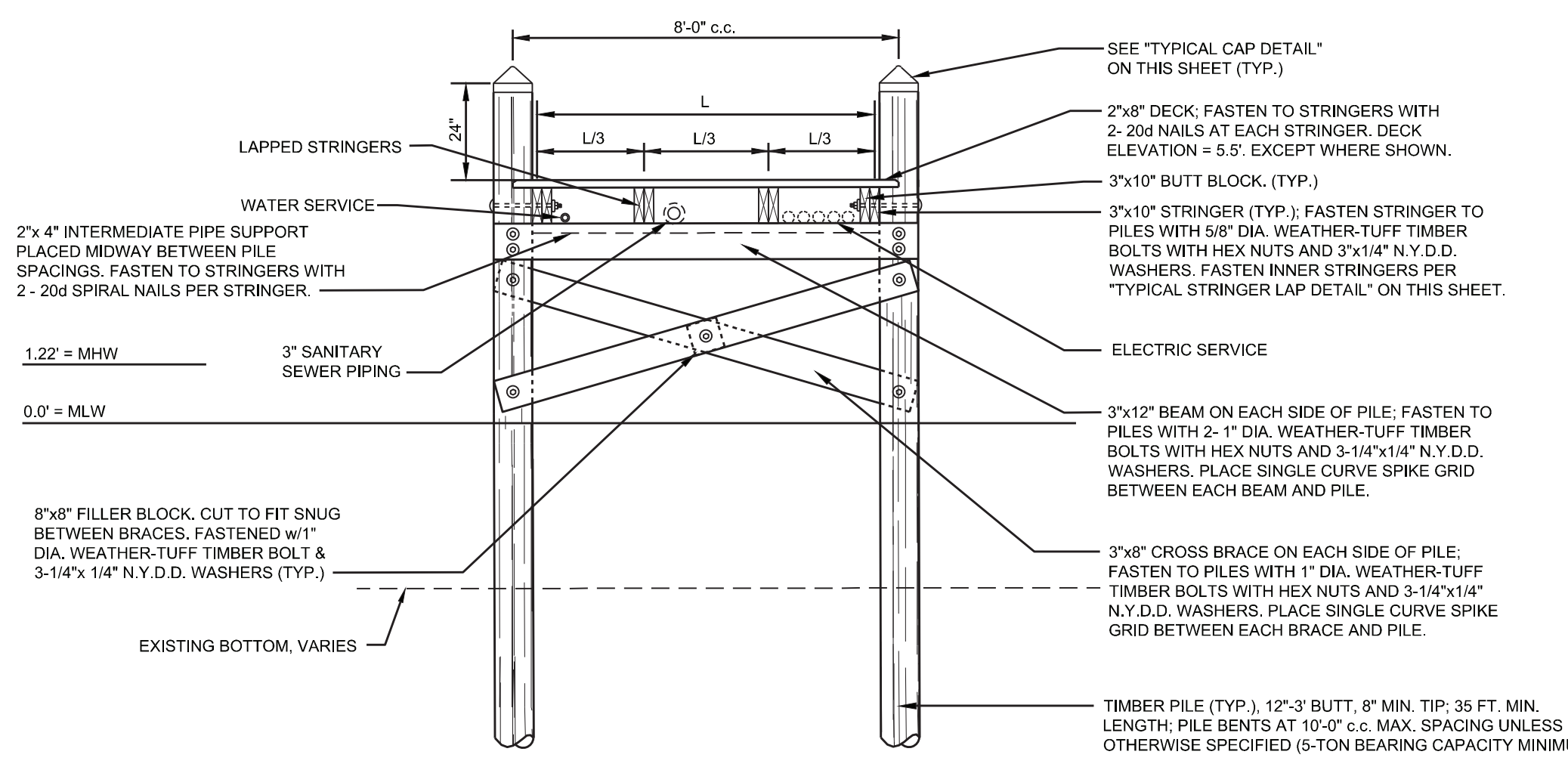
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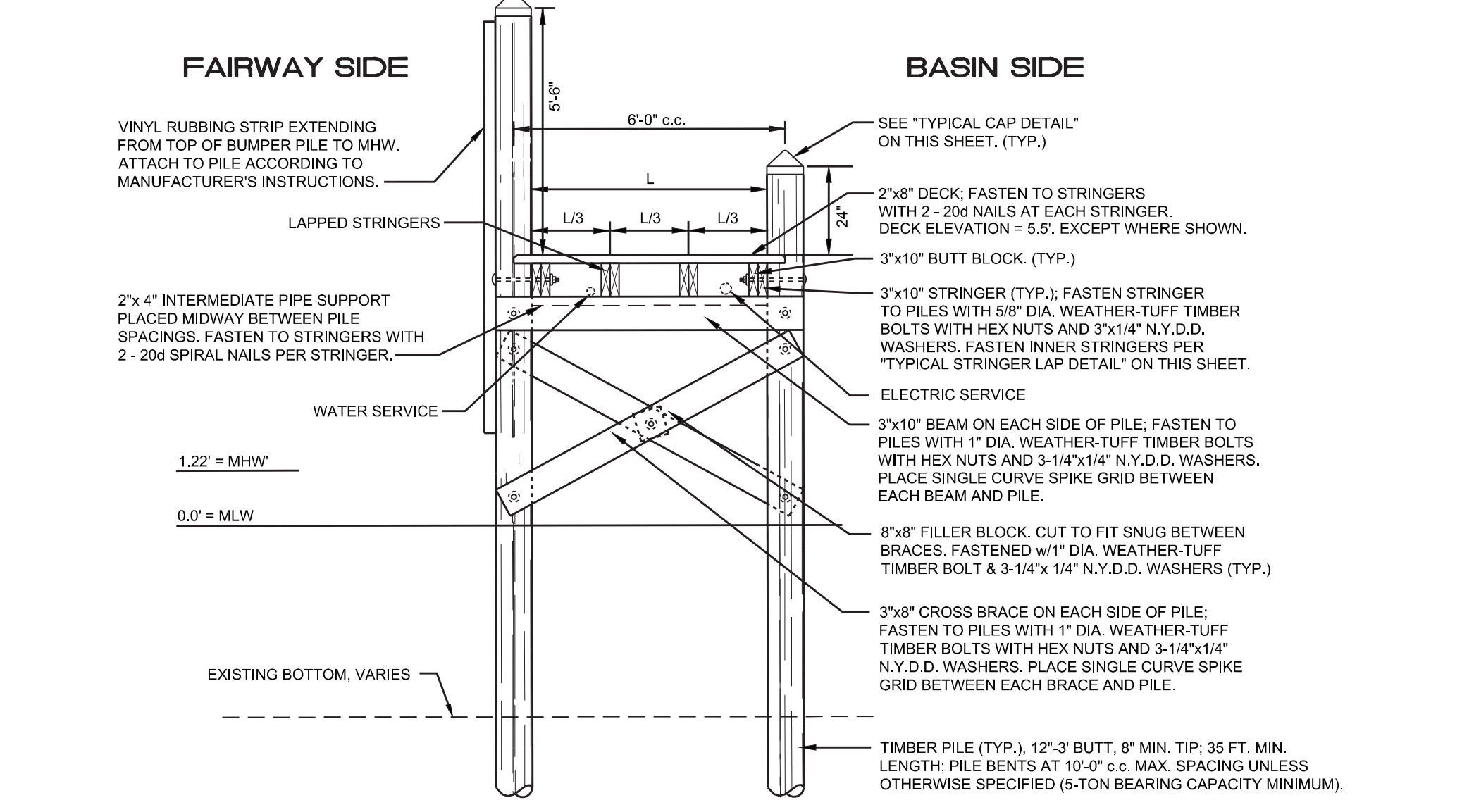
TYPICAL BULKHEAD WALE DETAILS



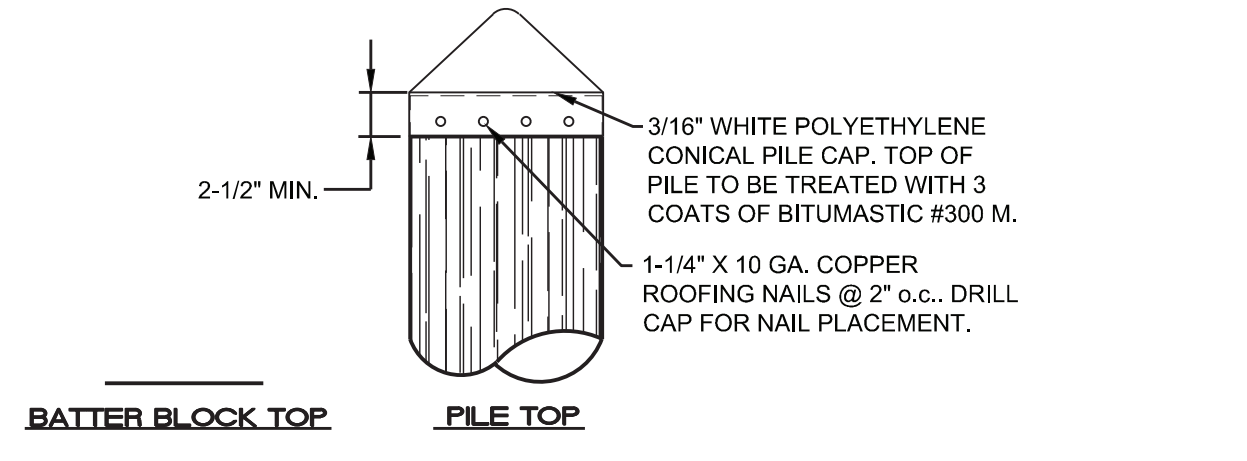
TYPICAL BULKHEAD CORNER DETAIL



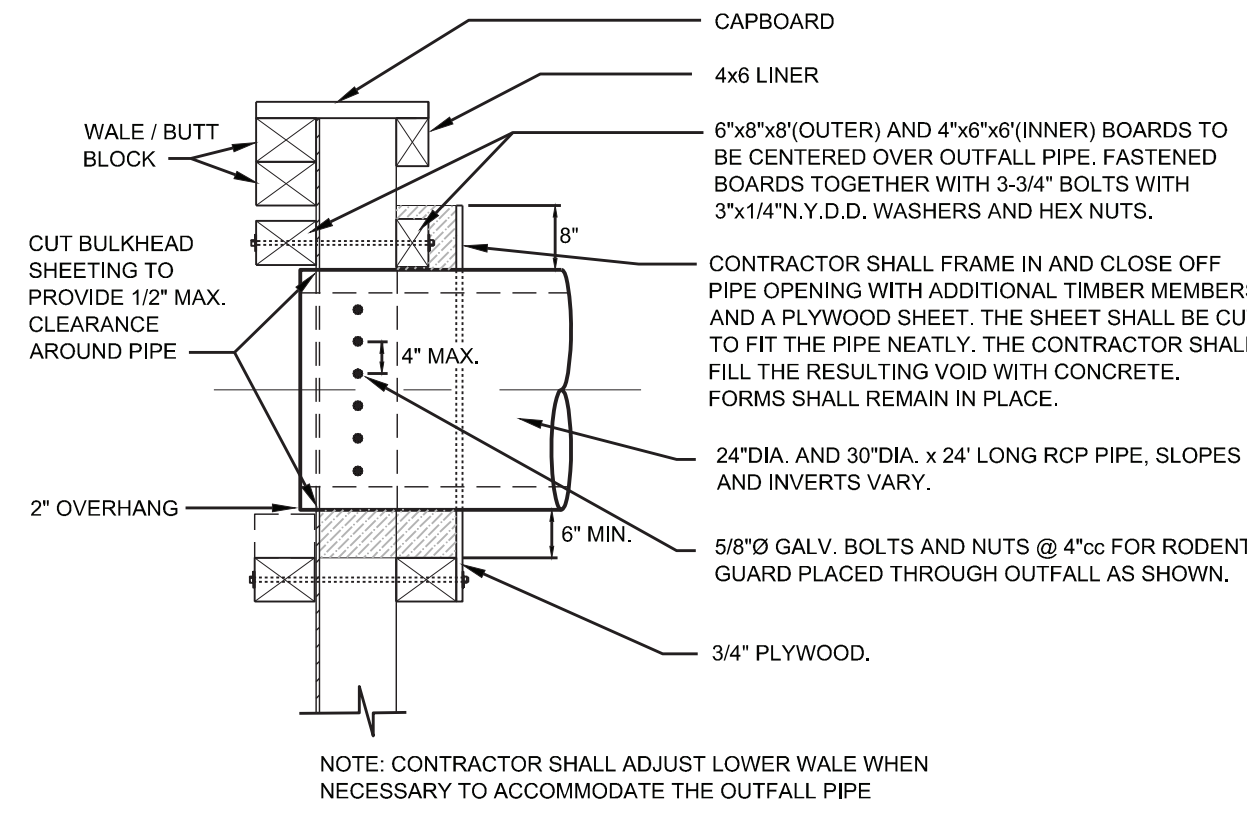
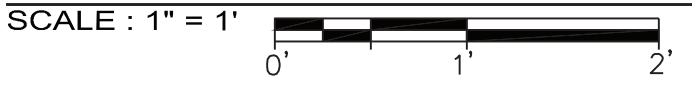
TYPICAL 8' COLLECTOR PIER (PIER B)



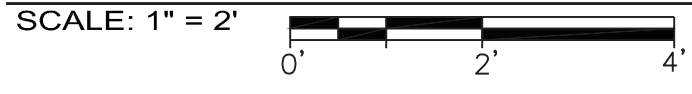
TYPICAL 6' PIER SECTION (PIER A & C)



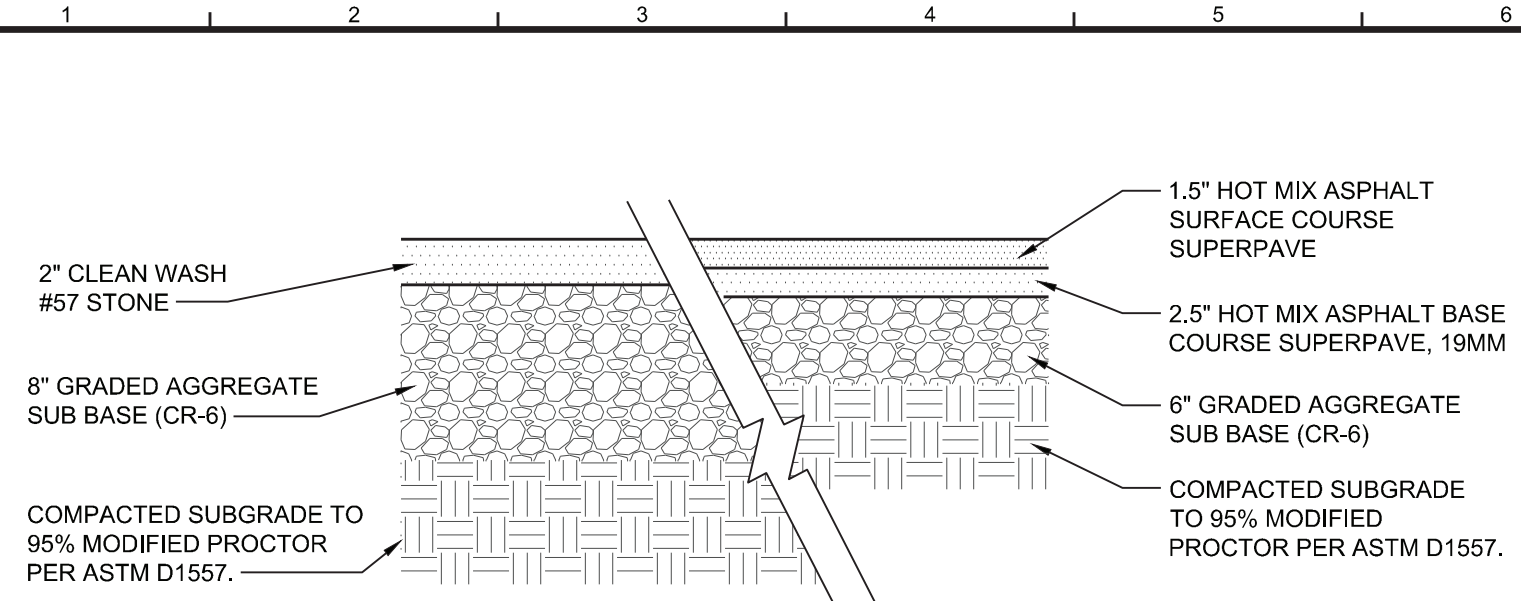
TYPICAL CAP DETAIL



TYPICAL DRAIN OUTLET DETAIL

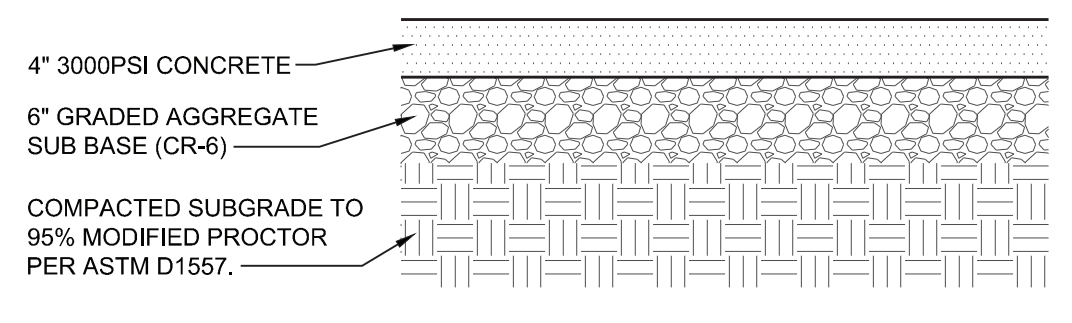


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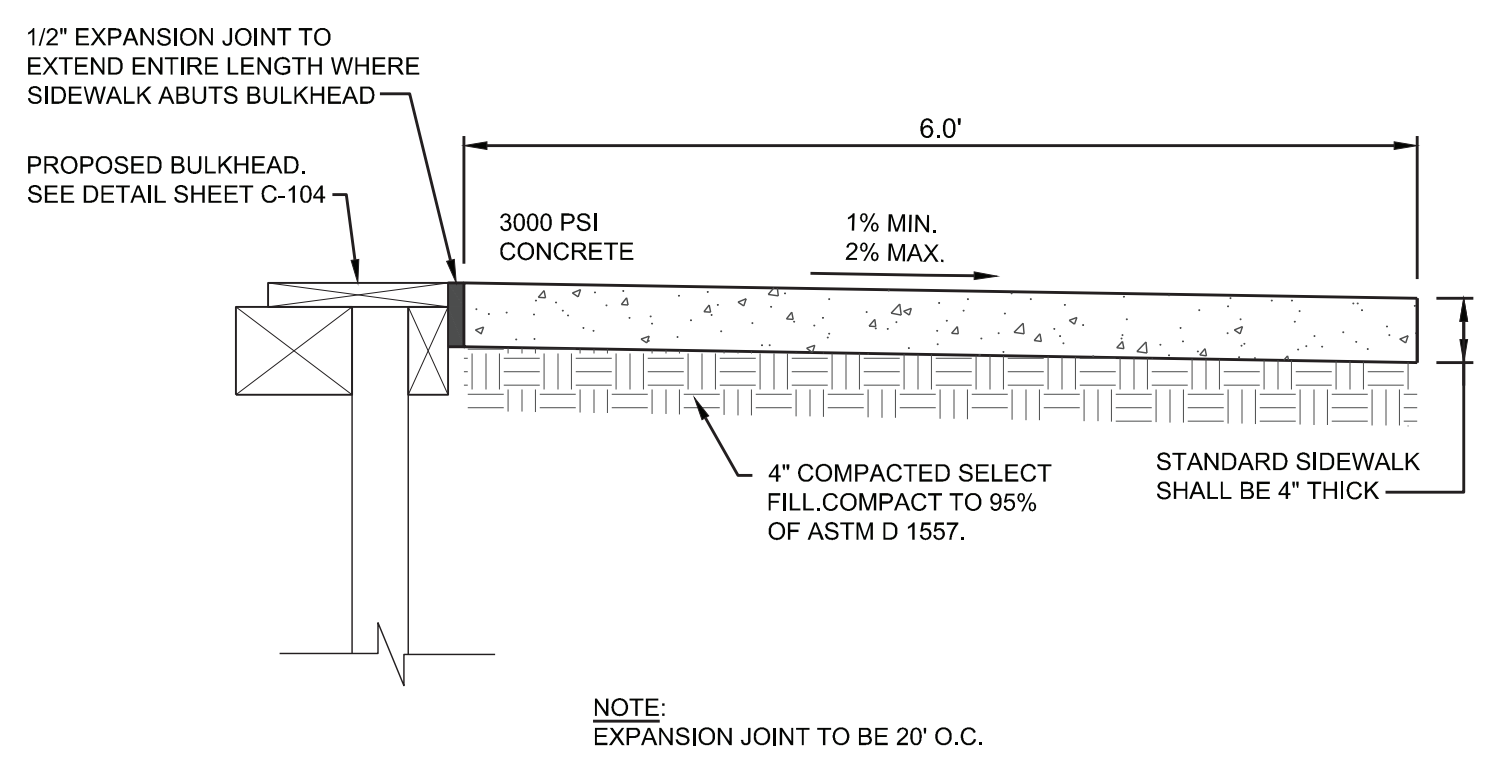


GRAVEL SECTION
SCALE: NONE

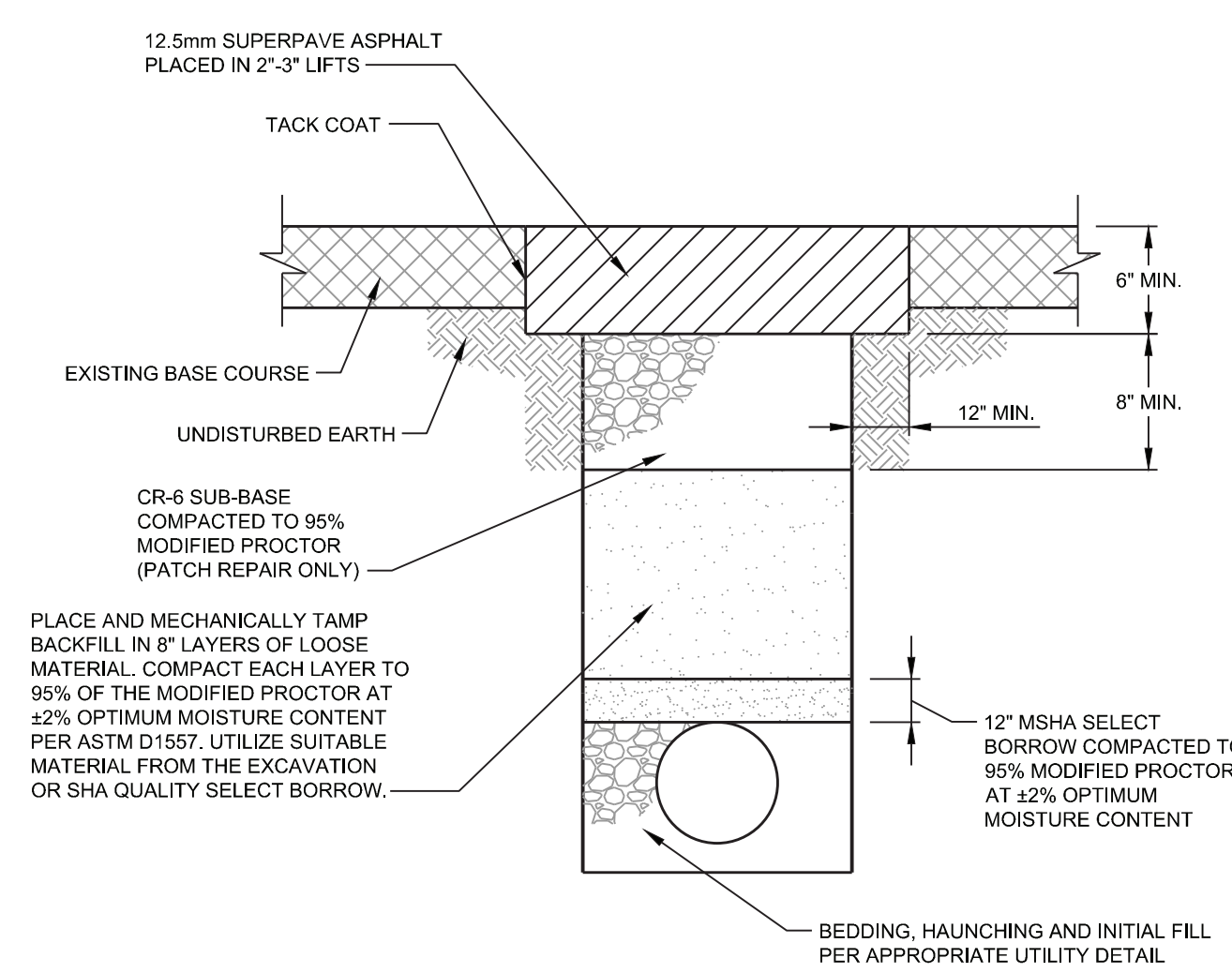
PARKING LOT PAVING SECTION
SCALE: NONE



CONCRETE REPLACEMENT SECTION
SCALE: NONE

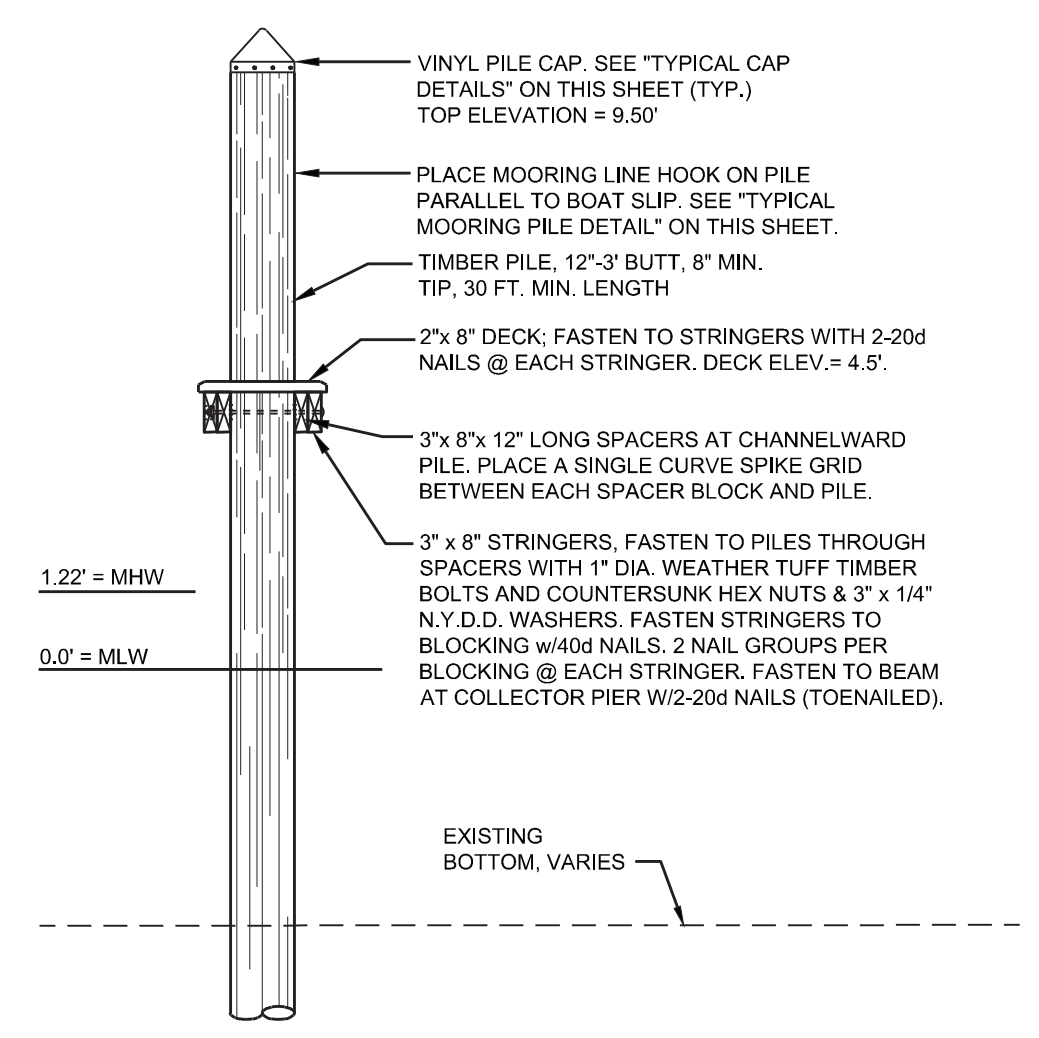


CONCRETE SIDEWALK WITH BULKHEAD DETAIL
SCALE: NONE

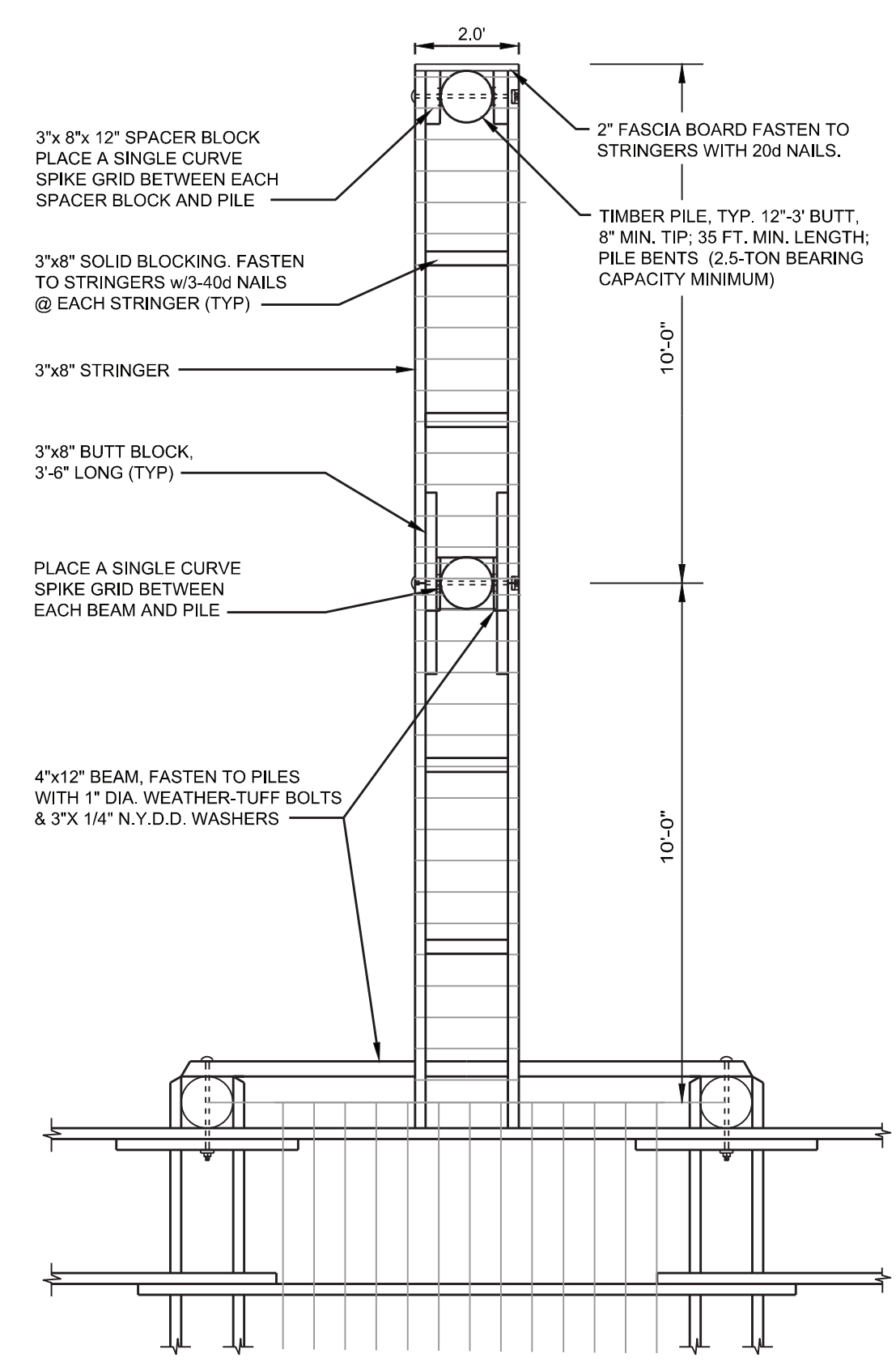


TRENCH RESTORATION DETAIL
SCALE: NONE

- NOTES:**
- PAVEMENT SHALL BE SAW CUT FULL DEPTH OF THE EXISTING PAVEMENT SECTION. ALL CUTS SHALL BE MADE IN STRAIGHT LINES.
 - IF PATCH FALLS WITHIN 2' OF EXISTING CURB OR EDGE OF PAVING, CONTINUE RESTORATION TO EDGE OF PAVE.
 - PATCH PAVEMENT SHALL BE 6" MINIMUM AND SHALL EXTEND TO EXISTING BASE COURSE THICKNESS, WHICHEVER IS GREATER.
 - EXISTING ROADWAY SECTION
 - APPROX. 2 1/2" BASE ASPHALT
 - APPROX. 6" CR-6
 - APPROX. 12" SOIL CEMENT

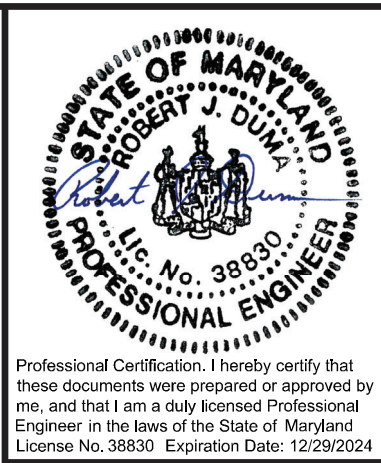


TYPICAL FINGER PIER SECTION
SCALE: 1" = 3'



TYPICAL FINGER PIER PLAN
SCALE: 1" = 3'

* SEE ELECTRICAL POWER PLAN SHEETS FOR PROPOSED POWER/WATER PEDESTALS.



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SALISBURY, MARYLAND
410.341.1414
410.343.0791

**MARINA IMPROVEMENTS
BAYSIDE LANDING PARK
IN THE TOWN OF ROCK HALL
KENT COUNTY, MARYLAND**

DATE	COMMENTS

Date: JULY 2024
Scale: AS SHOWN
Dwn.By: SMS
Proj.No.: 4137A001.A01

DETAILS

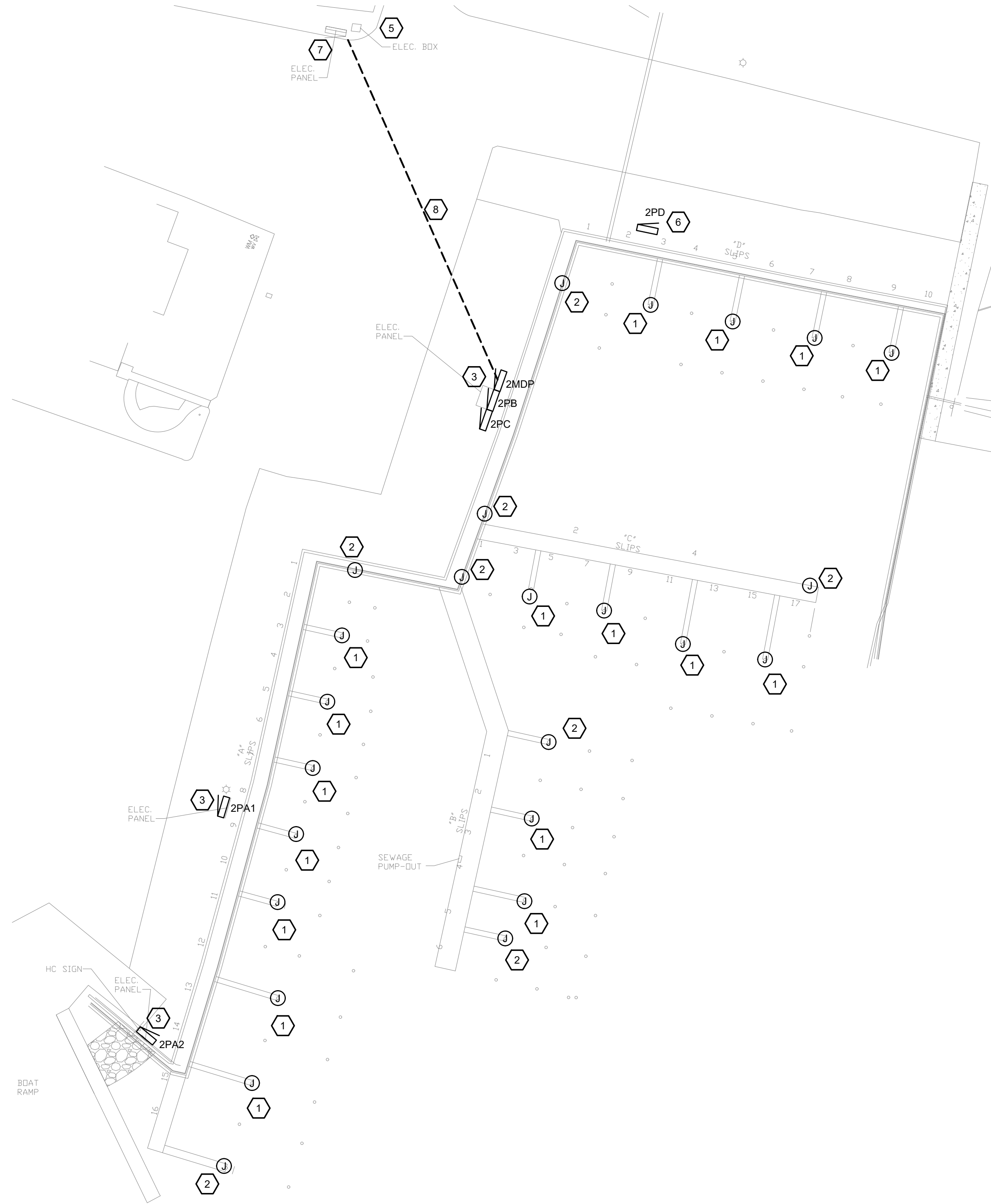
Dwg.No.: **C-105**

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ELECTRICAL ABBREVIATIONS			
A	AMPERE	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	MC	METAL CLAD
AFG	ABOVE FINISHED GRADE	MCB	MAIN CIRCUIT BREAKER
AHU	AIR HANDLING UNIT	MFR	MANUFACTURER
AIC	AMPERE INTERRUPTING CURRENT	MLO	MAIN LUGS ONLY
ATS	AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
AV	AUDIO/VISUAL	NEC	NATIONAL ELECTRICAL CODE
BFG	BELOW FINISHED GRADE	NF	NON-FUSED
C	CONDUIT	NIC	NOT IN CONTRACT
CATV	CABLE ANTENNA TELEVISION	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	NTS	NOT TO SCALE
CCTV	CLOSED CIRCUIT TELEVISION	OC	ON CENTER
CFL	COMPACT FLUORESCENT	OFCl	OWNER FURNISHED CONTRACTOR INSTALLED
CKT	CIRCUIT	P	POLE
EBU	EMERGENCY BATTERY UNIT	PC	PLUMBING CONTRACTOR
EC	EMPTY CONDUIT	PCP	PUMP CONTROL PANEL
EC	ELECTRICAL CONTRACTOR	PF	POWER FACTOR
ECB	ENCLOSED CIRCUIT BREAKER	PL	PROPERTY LINE
EF	EXHAUST FAN	PNL	PANEL
ERU	ENERGY RECOVERY UNIT	PNLBD	PANELBOARD
EQUIP	EQUIPMENT	Ø	PHASE
ETR	EXISTING TO REMAIN	PRI	PRIMARY
EWC	ELECTRIC WATER COOLER	RECP	RECEPTACLE
EWB	ELECTRIC WATER HEATER	RTU	ROOF TOP UNIT
EXIST	EXISTING	SE	SERVICE ENTRANCE
FLA	FULL LOAD AMPS	SEC	SECONDARY
FPC	FIRE PROTECTION CONTRACTOR	TBB	TELEPHONE BACKBOARD
FPVAV	FAN POWERED VARIABLE AIR VOLUME	TR	TAMPER RESISTANT
GC	GENERAL CONTRACTOR	TRT	TRIPLE TUBE FLUORESCENT LAMP
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
GND	GROUND	TYP	TYPICAL
HID	HIGH INTENSITY DISCHARGE	UON	UNLESS OTHERWISE NOTED
HP	HORSE POWER/HEAT PUMP	V	VOLTS
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	VAC	VOLTS ALTERNATING CURRENT
IG	ISOLATED GROUND	VAV	VARIABLE AIR VOLUME
JB	JUNCTION BOX	VDC	VOLTS DIRECT CURRENT
KVA	KILO-VOLT AMPERE	VFD	VARIABLE FREQUENCY DRIVE
KW	KILO-WATT	W	WATTS/WIRE
LC	LIGHTING CONTACTOR	WG	WIRE GUARD
LTG	LIGHTING	WP	WEATHERPROOF
MAU	MAKE UP AIR UNIT	XFMR	TRANSFORMER
MCA	MINIMUM CIRCUIT AMPS		

POWER	
	UTILITY PEDESTAL CONNECTION
	DISCONNECT SWITCH - SIZE AS INDICATED ON PLANS 30/2/20/3R — NEMA RATING (IF OTHER THAN 1) — FUSE SIZE (AMPS), N.F. INDICATES NON-FUSED — No. OF POLES — SIZE (AMPS)
	ELECTRICAL METER, MOUNT 54" AFF (MINIMUM).
	ELECTRICAL PANELBOARD
	ELECTRICAL CIRCUIT RUN IN CONDUIT AND CIRCUIT HOMERUN TO PANELBOARD (PANEL AND CIRCUIT DESIGNATION AS INDICATED), AS A MINIMUM CONDITION, EACH SINGLE PHASE CIRCUIT SHALL HAVE 1 #12 PHASE CONDUCTOR, 1 #12 NEUTRAL CONDUCTOR, AND 1 #12 GROUNDING CONDUCTOR IN 3/4" CONDUIT. PROVIDE ADDITIONAL PHASE CONDUCTORS AS REQUIRED FOR "MULTIPLE PHASED" ELECTRICAL LOADS. PROVIDE ADDITIONAL "SWITCH LEG" CONDUCTORS TO PROVIDE THE LIGHT FIXTURE CONTROL INDICATED. MULTIPLE SINGLE PHASE CONDUCTORS SHALL BE GROUPED TOGETHER IN A COMMON CONDUIT IN ACCORDANCE WITH THE NEC AND AT THE CONTRACTOR'S DISCRETION. NEUTRAL AND GROUNDING CONDUCTORS SHALL BE SHARED AS ALLOWED BY THE NEC. CONDUIT LARGER THAN 3/4" AND CONDUCTORS LARGER THAN #12 SHALL BE AS INDICATED.

GENERAL	
	KEYNOTE.
	LIMIT OF DEMOLITION WORK.
	POINT OF CONNECTION, NEW TO EXISTING.
DETAIL OR SECTION NOTATION: ENUMERATION: A = DETAIL, 1 = SECTION	
	ENUMERATION NUMBER OR LETTER
	SHEET WHERE DETAIL OR SECTION IS SHOWN



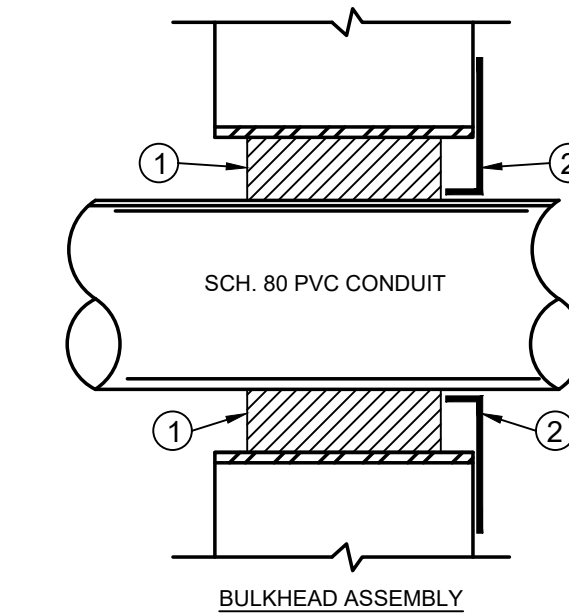
1
ELECTRICAL POWER PLAN
E200 1" = 30' 0"

GENERAL NOTES:

- EC SHALL NOT HAVE MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A CONDUIT WITHOUT DERATING AMPACITIES PER THE NEC.
- VERIFY EXACT LOCATIONS OF ALL DEVICES WITH CIVIL PLANS PRIOR TO ROUGH-IN.
- REMOVE ALL EXISTING RECEPTACLES, ASSOCIATED CABLES, CONDUITS, CONNECTIONS, SUPPORTS, HARDWARE AND MATERIALS ASSOCIATED WITH RECEPTACLES MOUNTED ON EXISTING PIERS TO BE DEMOLISHED. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITY.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL DRAWINGS AND CONTRACTOR ON EXACT SEQUENCE OF CONSTRUCTION.
- MOUNT CONDUIT AND JUNCTION BOXES TO INSIDE FACE OF NEW PIER STRUCTURAL BEAM. JUNCTION BOXES SHALL BE NEMA 4X FIBERGLASS BOXES. DRILL THROUGH CROSS BEAMS AND PROVIDE STAINLESS STEEL SLEEVES AS REQUIRED IN LIEU OF BENDING AROUND BEAMS. ALL MOUNTING HARDWARE FOR CONDUIT AND BOXES SHALL BE 316 STAINLESS STEEL. PROVIDE AND INSTALL EXPANSION FITTINGS ON ALL CONDUITS MOUNTED ON PIERS AND DOCKS.
- ALL ELECTRICAL CONNECTIONS SHALL BE LOCATED AT LEAST 12" ABOVE DECK.

POWER DRAWING NOTES: (#)

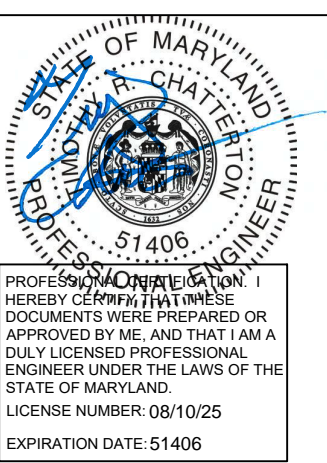
- EATON CAMP MATE MARINE POWER/WATER PEDESTAL. PROVIDE PEDESTAL WITH TWO (2) 30A 125V RECEPTACLES AND ONE (1) 20A GFCI RECEPTACLE WITH CIRCUIT BREAKERS SERVING EACH OUTLET. PROVIDE WITH BREAKERS SERVING EACH RECEPTACLE. PROVIDE PEDESTAL WITH WATER HOSE BIB. COORDINATE EXACT PEDESTAL SPEC WITH OWNER PRIOR TO ORDERING. REFER TO PANEL SCHEDULES FOR CIRCUIT REQUIREMENTS.
- EATON CAMP MATE MARINE POWER/WATER PEDESTAL. PROVIDE PEDESTAL WITH ONE (1) 30A 125V RECEPTACLES AND ONE (1) 20A GFCI RECEPTACLE WITH CIRCUIT BREAKERS SERVING EACH OUTLET. PROVIDE PEDESTAL WITH WATER HOSE BIB. COORDINATE EXACT PEDESTAL SPEC WITH OWNER PRIOR TO ORDERING. REFER TO PANEL SCHEDULES FOR CIRCUIT REQUIREMENTS.
- EXISTING PANELS SHALL BE DEMOLISHED IN THEIR ENTIRETY IN THIS AREA. REMOVE ALL FEEDER AND BRANCH CONDUCTORS AND CUT CONDUITS TO BELOW GRADE. EXISTING CONDUITS MAY BE REUSED IF IN GOOD SHAPE AND MEET OR EXCEED REQUIREMENTS OF CIRCUITS.
- PROVIDE NEW 800A 240/120V 1Ø/3W PANEL. REFER TO SINGLE LINE DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- EXISTING PAD-MOUNT TRANSFORMER. COORDINATE WITH LOCAL UTILITY COMPANY FOR REPLACEMENT OF EXISTING PAD-MOUNT. CONTRACTOR SHALL PROVIDE NEW PAD AS REQUIRED FOR NEW PAD-MOUNT.
- PROVIDE NEW BACKBOARD FOR NEW PANEL. BACKBOARD SHALL MATCH EXISTING AND CONSIST OF TWO (2) PRESSURE TREATED MARINE GRADE 4x4'S WITH 3/4" MARINE GRADE PLYWOOD. ALL HARDWARE SHALL BE STAINLESS STEEL.
- PROVIDE SERVICE ENTRANCE RATED 800A FUSED DISCONNECT SWITCH AT BACKBOARD FOR NEW SERVICE FEEDER FROM UTILITY PAD-MOUNT TRANSFORMER.
- TRENCH AND PATCH ASPHALT PARKING LOT AS REQUIRED TO RUN NEW CONDUIT.



(#) DETAIL NOTES:

- SEAL ANNULAR SPACE WITH MODULAR RUBBER SEAL. SEAL WATER TIGHT.
- PROVIDE SEDIMENT PROOF FILTER CLOTH.

2
TYP. BULK HEAD PENETRATION DETAIL
E200 NOT TO SCALE



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410.766.1444

**MARINA IMPROVEMENTS
BAYSIDE LANDING PARK
IN THE TOWN OF ROCK HALL
KENT COUNTY, MARYLAND**

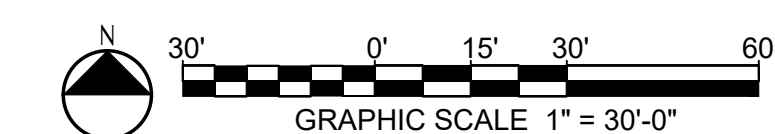
DATE	COMMENTS

Date: OCTOBER 2022
Scale: 1" = 30' 0"
Dwn.By: SMS
Proj.No.: 4137A001.A01

Allen + Shariff
MEP Engineering
Project Management
205 East Market Street
Salisbury, Maryland 21801
443.545.1300

ELECTRICAL POWER PLAN

Dwg.No.: **E-200**



Branch Panel: 2PB

Location: EXTERIOR
Supply From: 2MDP
Mounting: SURFACE
Enclosure: TYPE 4X

Volts: 240/120V
Phases: 1
Wires: 3

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Mains Rating: 300
MCB Rating: 300

CKT	Circuit Description	Notes	Wire Size	Trip	Pole	LOAD (VA)		Pole	Trip	Wire Size	Notes	Circuit Description	CKT
						A	B						
1	SPACE	-	-	-	-	10800	-	-	-	-	-	SLIP 1B,2B,3B	2
3	SPACE	-	-	-	-	-	10800	-	-	-	-	-	4
5	SPACE	-	-	-	-	10800	-	-	-	-	-	SLIPS 4B,5B,6B	6
7	SPACE	-	-	-	-	-	10800	-	-	-	-	-	8
9	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	10
11	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	12
13	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	14
15	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	16
17	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	18
19	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	20
21	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	22
23	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	24
25	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	26
27	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	28
29	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	30
Total Load:						21600	21600						
Amps:						180.0							

NOTES:

Branch Panel: 2PC

Location: EXTERIOR
Supply From: 2MDP
Mounting: SURFACE
Enclosure: TYPE 4X

Volts: 240/120V
Phases: 1
Wires: 3

A.I.C. Rating: 22 KAIC
Mains Type: MCB
Mains Rating: 300
MCB Rating: 300

CKT	Circuit Description	Notes	Wire Size	Trip	Pole	LOAD (VA)		Pole	Trip	Wire Size	Notes	Circuit Description	CKT
						A	B						
1	SPACE	-	-	-	-	10800	-	-	-	-	-	SLIP 1C,3C,5C	2
3	SPACE	-	-	-	-	-	10800	-	-	-	-	-	4
5	SPACE	-	-	-	-	14400	-	-	-	-	-	SLIPS 7C,9C,11C,13C	6
7	SPACE	-	-	-	-	-	14400	-	-	-	-	-	8
9	SPACE	-	-	-	-	7200	-	-	-	-	-	SLIPS 15C,17C	10
11	SPACE	-	-	-	-	-	7200	-	-	-	-	-	12
13	SPACE	-	-	-	-	7200	-	-	-	-	-	SLIP 2C,4C	14
15	SPACE	-	-	-	-	-	7200	-	-	-	-	-	16
17	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	18
19	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	20
21	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	22
23	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	24
25	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	26
27	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	28
29	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	30
Total Load:						39600	39600						
Amps:						330.0							

NOTES:

Branch Panel: 2PD

Location: EXTERIOR
Supply From: 2MDP
Mounting: SURFACE
Enclosure: TYPE 4X

Volts: 240/120V
Phases: 1
Wires: 3

A.I.C. Rating: 10 KAIC
Mains Type: MCB
Mains Rating: 300
MCB Rating: 300

CKT	Circuit Description	Notes	Wire Size	Trip	Pole	LOAD (VA)		Pole	Trip	Wire Size	Notes	Circuit Description	CKT
						A	B						
1	SPACE	-	-	-	-	10800	-	-	-	-	-	SLIP 1D,2D,3D	2
3	SPACE	-	-	-	-	-	10800	-	-	-	-	-	4
5	SPACE	-	-	-	-	14400	-	-	-	-	-	SLIPS 4D,5D,6D,7D	6
7	SPACE	-	-	-	-	-	14400	-	-	-	-	-	8
9	SPACE	-	-	-	-	7200	-	-	-	-	-	SLIPS 8D,9D	10
11	SPACE	-	-	-	-	-	7200	-	-	-	-	-	12
13	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	14
15	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	16
17	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	18
19	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	20
21	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	22
23	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	24
25	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	26
27	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	28
29	SPACE	-	-	-	-	-	-	-	-	-	-	SPACE	30
Total Load:						32400	32400						
Amps:						270.0							

NOTES:

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
5140B
SALESBUILDING
302.241.1444
410.545.3991
ARCHITECTS - ENGINEERS - SURVEYORS
MIDWEST/MARYLAND
410.782.7144

**MARINA IMPROVEMENTS
BAYSIDE LANDING PARK
IN THE TOWN OF ROCK HALL
KENT COUNTY, MARYLAND**

COMMENTS

DATE

Date: OCTOBER 2022

Scale: NONE


Dwn.By: JTH

Proj No.: 4137A001.A01

**ELECTRICAL
SCHEDULES**

Dwg No.:

E-301


Allen + Shariff
MEP Engineering
Project Management
205 East Market Street
Salisbury, Maryland 21801
443.545.1300

DIVISION OF MECHANICAL/ ELECTRICAL WORK		
ITEM	MECH/ DIV 22 AND 23	ELEC/ DIV 26
AUTOMATIC TEMPERATURE CONTROLS	FURNISH, INSTALL & WIRE	POWER WIRE
CONTROL PANELS FOR MECHANICAL EQUIPMENT	FURNISH & INSTALL	POWER WIRE
LOW VOLTAGE CONTROL WIRING FOR MECH EQUIP.	FURNISH & INSTALL	
LINE VOLTAGE CONTROL WIRING FOR MECH. EQUIP.	FURNISH, INSTALL & WIRE	
MECHANICAL FLOW SWITCHES	FURNISH, INSTALL & WIRE	
THERMOSTATS/ SENSORS	FURNISH, INSTALL & WIRE	
PIE & E/P SWITCHES	FURNISH, INSTALL & WIRE	
DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT	FURNISH & INSTALL	POWER WIRE
MECHANICAL EQUIPMENT MONITORS	FURNISH & INSTALL	POWER WIRE
MANUAL STARTERS FOR MECHANICAL EQUIPMENT	FURNISH & INSTALL	POWER WIRE
MAGNETIC STARTERS FOR MECHANICAL EQUIPMENT	FURNISH	INSTALL & POWER WIRE
MOTOR CONTROL CENTERS	CONTROL WIRING	FURNISH, INSTALL & POWER WIRE
VARIABLE SPEED CONTROLLERS	FURNISH & INSTALL	POWER WIRE
MOTORIZED DAMPERS & VALVES	FURNISH, INSTALL & WIRE	
DUCT SMOKE DETECTORS	INSTALL	FURNISH & WIRE
HEAT TRACE CABLE FOR PIPING	FURNISH & INSTALL	POWER WIRE
OIL/ GAS EMERGENCY SHUT-OFF SWITCHES		FURNISH, INSTALL & POWER WIRE
SPRINKLER FLOW & TAMPER SWITCHES	BY SPRINKLER CONTRACTOR	WIRE

PLUMBING SPECIFICATION

GENERAL INFORMATION

A. GENERAL

- CONFORM TO GENERAL AND SPECIAL CONDITIONS OF CONTRACT.
- SPECIFICATIONS ARE APPLICABLE TO CONTRACTORS AND/OR SUBCONTRACTORS.
- THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND EQUIPMENT DRAWINGS AND SPECIFICATIONS ARE INCORPORATED INTO, AND BECOME A PART OF THIS DIVISION. THIS CONTRACTOR SHALL EXAMINE SUCH DRAWINGS AND SPECIFICATIONS AND BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS CONTAINED THEREIN. THE SUBMISSION OF THE BID SHALL INDICATE SUCH KNOWLEDGE.
- VISIT SITE, CHECK FACILITIES AND CONDITIONS.
- SYSTEMS SHALL BE COMPLETE AND PLACED IN OPERATION.
- EACH CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF RUBBISH DAILY. CONTRACTOR SHALL PROTECT THEIR WORK AND EXISTING OR ADJACENT PROPERTY AGAINST WEATHER, TO MAINTAIN THEIR WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
- CONTRACTORS SHALL CONFIRM AND COMPLY WITH UTILITY COMPANY REQUIREMENTS, COORDINATE CONNECTION POINTS IN FIELD.
- ARRANGE FOR AND OBTAIN OWNER'S AND INSURANCE REPRESENTATIVE'S PERMISSION FOR ANY SERVICE SHUTDOWNS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN.
- PIPING, CONTROLS, ETC., SHALL NOT BE INSTALLED, OR ROUTED ABOVE, ELECTRICAL PANELS AND EQUIPMENT OR THROUGH ELEVATOR MACHINE ROOMS.
- THE CONTRACTOR SHALL COORDINATE AND PROVIDE A WRITTEN LISTING OF ELECTRICAL CHARACTERISTICS OF PLUMBING EQUIPMENT TO ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT. ADDITIONAL COMPENSATION WILL NOT BE MADE FOR LACK OF CONTRACTOR COORDINATION OF EQUIPMENT'S ELECTRICAL CHARACTERISTICS.
- DURING THE BUILDING CONSTRUCTION SOME EXISTING INSTALLATION MAY BE EXPOSED THAT WILL HAVE TO BE CHANGED, ALTERED, REROUTED AND/OR ABANDONED. ANY SUCH WORK WHICH COMES UNDER THE JURISDICTION OF THIS CONTRACTOR SHALL BE DONE BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
- WORK RELATED TO THE EXISTING BUILDING SHALL BE COORDINATED TO MINIMIZE INTERFERENCE OR INTERRUPTION OF NORMAL BUILDING USE BY OWNER. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR PHASING REQUIREMENTS.
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING CONDITIONS THAT MAY AFFECT THE BID. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED FOR FAILURE TO REVIEW EXISTING CONDITIONS PRIOR TO BIDDING.

B. CODES, PERMITS, STANDARDS AND REGULATIONS

- CONFORM TO APPLICABLE CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ETC.), GOVERNMENT REGULATIONS, UTILITY COMPANY REQUIREMENTS, AND APPLICABLE STANDARDS.
- OBTAIN PERMITS AND PAY FEES. ARRANGE FOR REQUIRED TESTS, INSPECTIONS AND APPROVALS. PROVIDE COPIES OF INSPECTIONS, AND APPROVALS TO THE ARCHITECT-ENGINEER.

C. RELATED WORK SPECIFIED ELSEWHERE

- OPENINGS AND CHASES, WHEN SHOWN ON ARCHITECTURAL DRAWINGS.
- TEMPORARY WATER SERVICE, SANITARY FACILITIES, FIRE PROTECTION AND HEATING DURING CONSTRUCTION.
- POURED-IN-PLACE CONCRETE.
- FINISH PAINTING.
- ELECTRIC POWER WIRING.

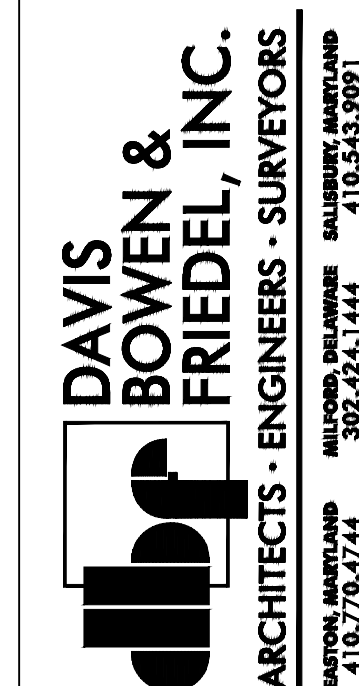
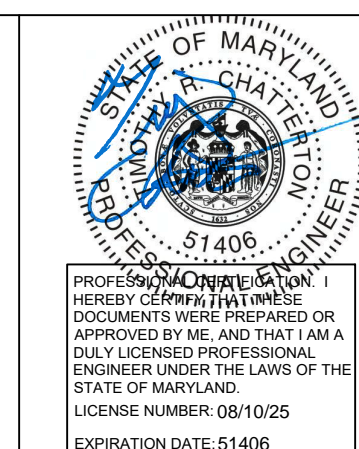
D. DRAWINGS

- THE SYSTEMS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. CONFIRM DIMENSIONS BY FIELD MEASUREMENT.
- THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING WHICH IS NOT COVERED BY DRAWINGS, SHALL BE OBTAINED FROM THE ARCHITECT OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY.
- DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT ONE ANOTHER. ANY MATERIALS OR LABOR CALLED FOR IN ONE BUT NOT THE OTHER SHALL BE PROVIDED.

E. DEMOLITION AND REMOVAL

- DISCONNECT, DISASSEMBLE, CAP, PLUG AND REMOVE PIPING, DUCTS AND EQUIPMENT INDICATED ON THE DRAWINGS, AND AS REQUIRED FOR THE PROJECT.
- ANY EQUIPMENT DESIGNATED BY OWNER TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO THE OWNER'S ON SITE.
- DEMOLITION SHALL BE DONE IN A MANNER NOT TO DAMAGE ADJACENT WORK AND NOT AFFECT THE OPERATION OF SYSTEMS TO REMAIN IN USE. ANY ITEM TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR OR THAT REQUIRES DAMAGE DUE TO THE ABSOLUTE NECESSITY FOR DEMOLITION REQUIREMENTS SHALL BE REPLACED AND/OR REPAIRED AT HIS EXPENSE.
- OPENINGS ON PIPING AND DUCTS THAT REMAIN SHALL BE CAPPED AND PROPERLY SECURED.
- ASBESTOS REMOVAL WILL BE HANDLED BY THE OWNER AND IS NOT A PART OF THIS WORK.
- EXAMINE AREAS AND CONDITIONS UNDER WHICH DEMOLITION WORK SHALL BE PERFORMED. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES PERFORMING DEMOLITION WORK.
- REMOVE SUPPORTS, HANGERS, AND ACCESSORIES FROM EQUIPMENT AND MATERIAL INDICATED TO BE REMOVED.

PLUMBING LEGEND		
SYMBOL	ABRV.	DESCRIPTION
	CW	COLD WATER PIPING
	EX	EXISTING PIPING (LINE TYPE INDICATES PIPE TYPE UNO.)
		EXISTING EQUIPMENT OR PIPING TO BE REMOVED (LINE TYPE INDICATES PIPE TYPE UNO.)
		PIPE UP
		PIPE DOWN
		PIPE TEE DOWN
		CAPPED PIPE
		BALL VALVE OR SHUTOFF VALVE
		BALL VALVE OR SHUTOFF VALVE IN RISE
		HOSE BIB AT UTILITY PEDESTAL
		DRAWING NOTE
		REVISION NUMBER
		PART PLAN NUMBER
		SHEET NUMBER WHERE PART PLAN IS FOUND
		CONNECTION POINT, NEW TO EXISTING
	DISC.	POINT OF DISCONNECTION
	IN. W.C.	INCHES WATER COLUMN
	UNO	UNLESS NOTED OTHERWISE
	GW	GREASE WASTE DRAIN LINE
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	COTG	CLEAN OUT TO GRADE
	A.F.F.	ABOVE FINISHED FLOOR ELEVATION
	B.F.F.	BELOW FINISHED FLOOR ELEVATION
	F.F.E.	FINISHED FLOOR ELEVATION
	DN.	DOWN
	VTR	VENT THROUGH ROOF TERMINATION
	ETR	EXISTING TO REMAIN
	RX	REMOVE EXISTING
	TBR	TO BE RELOCATED



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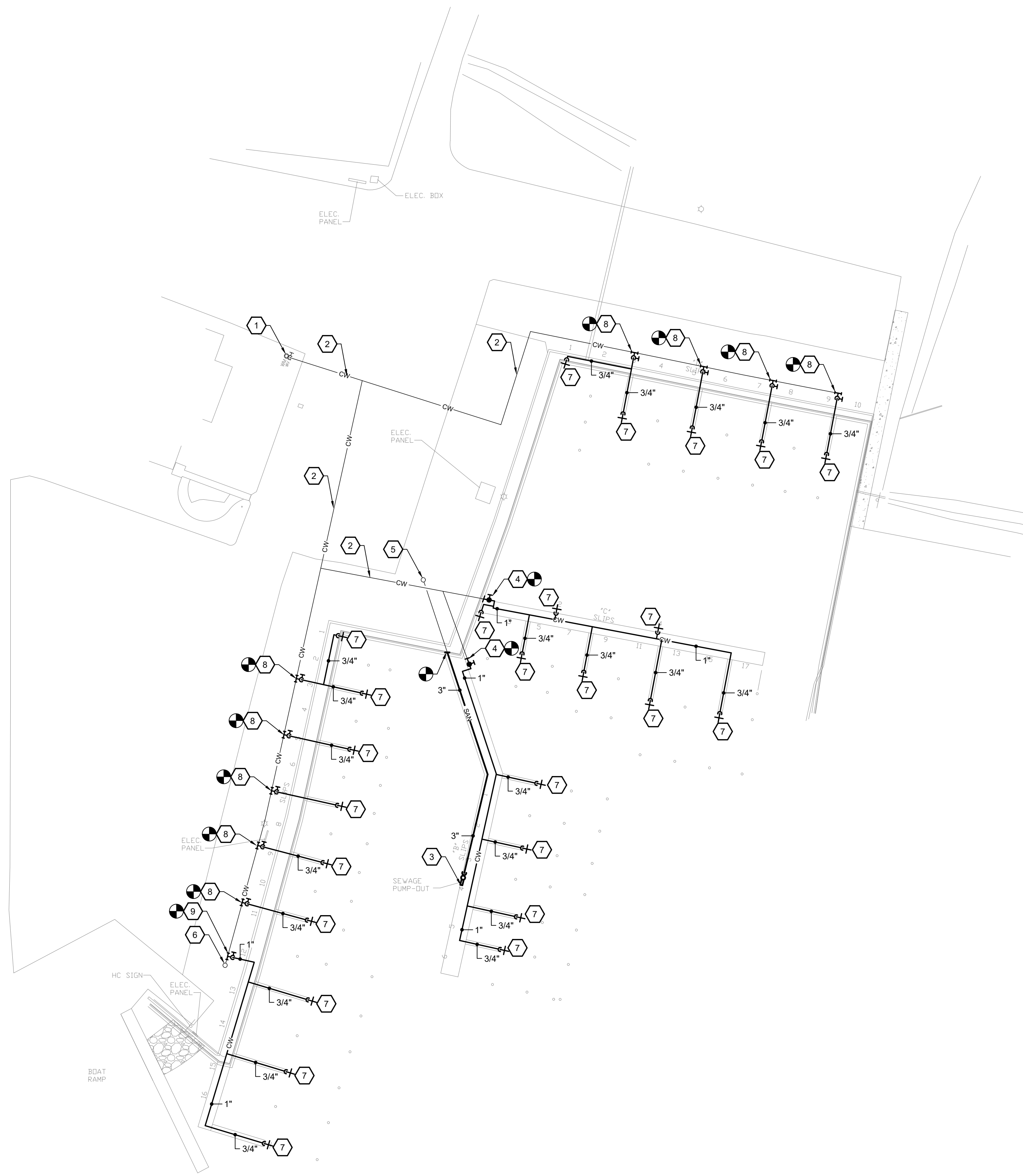
DATE	COMMENTS

Date: OCTOBER 2022
Scale: NONE
Dwn.By: PLG
Proj No.: 4137A001.A01



**PLUMBING
DATA SHEET**
Dwg No.: **P-001**

1 PLUMBING PLAN
P-100 1" = 30' 0"

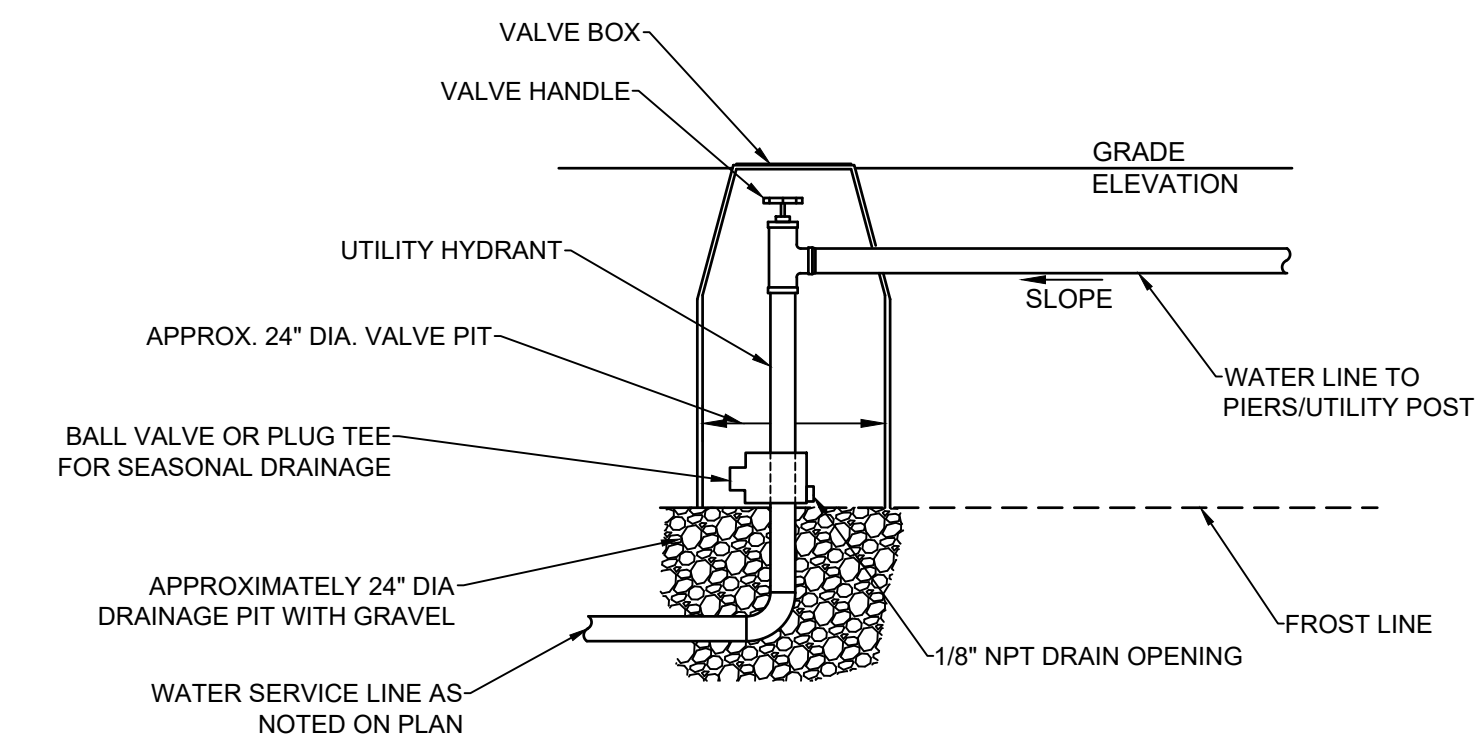


GENERAL NOTES:

- A. EXISTING CONDITIONS SHOWN ON THIS DRAWING HAVE BEEN OBTAINED FROM FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- B. REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATION OF UTILITY PEDESTAL. COORDINATE WATER CONNECTIONS TO PEDESTALS WITH LOCATIONS SHOWN ON ELECTRICAL.

DRAWING NOTES: #

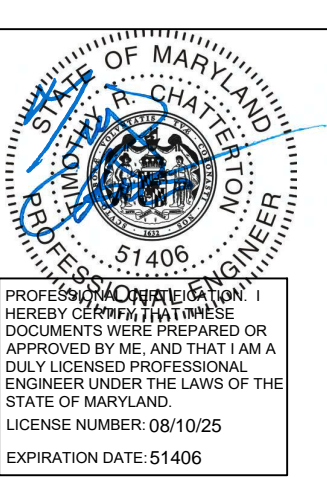
1. ETR DOMESTIC WATER METER PIT AND SERVICE VALVE.
2. ETR DOMESTIC PIPING ROUTED BELOW GRADE; ESTIMATED LINE SIZE TO BE 2 INCHES.
3. EXISTING SEWAGE PUMP OUT STATION SHALL BE REMOVED AND STORED DURING PIER RECONSTRUCTION THEN PUT BACK AT NEW LOCATION AS NOTED. PROVIDE NEW 3" PUMPED SAN PIPING FROM STATION ROUTED TIGHT TO UNDERSIDE OF PIER TO CONNECT TO EXISTING UNDERGROUND PIPING AT SEWER MANHOLE.
4. NEW 1" CW CONNECTED TO EXISTING SERVICE AT LOCATION SHOWN THEN ROUTED AT UNDERSIDE OF NEW PIERS; PROVIDE NEW ISOLATION VALVE AND SEASONAL DRAIN DOWN / BLOW OUT VALVE AT END OF LINE.
5. ETR SEWER MANHOLE.
6. ETR DOMESTIC SHUT-OFF VALVE HANDHOLE.
7. NEW 3/4" CW TO NEW UTILITY PEDESTAL.
8. CONNECT NEW 3/4" CW TO EXISTING BELOW GROUND MAIN; PROVIDE ISOLATION / SEASONAL DRAINAGE VALVE IN HANDHOLE AT POINT OF CONNECTION.
9. CONNECT NEW 1" CW TO EXISTING BELOW GROUND MAIN; PROVIDE ISOLATION / SEASONAL DRAINAGE VALVE IN HANDHOLE AT POINT OF CONNECTION.



2 HAND HOLE AND PIT DETAIL
P-100 SCALE: NONE

DETAIL NOTES:

1. FILL BOTTOM OF VALVE BODY PIT AREA WITH 1/2" GRAVEL TO A MINIMUM OF 3" ABOVE VALVE BODY.
2. IF GROUND AT VALVE BODY PIT IS SATURATED INCREASE GRAVEL DRAIN FIELD TO ACCOMMODATE PROPER DRAINAGE AS RECOMMENDED BY CIVIL ENGINEER.
3. UTILITY HYDRANT MUST BE DRAINED AND CLOSED SEASONALLY TO PROTECT FROM FREEZING ISOLATION VALVE IN MECH. RM. IN ENTRANCE BUILDING SHALL ALSO BE CLOSED.
4. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. UTILITY HYDRANT BASIS OF DESIGN: FREEZE RESISTANT NON-POTABLE WATER UTILITY HYDRANT, 3/4" THREADED, INLET AND OUTLET, 36" BURY DEPTH, WHEEL HANDLE VALVE OPERATOR. WOODFORD MANUFACTURING CO. MODEL U75W OR APPROVED EQUAL.
6. VALVE BOX BASIS OF DESIGN: 10" ROUND, STRUCTURAL FOAM POLYOLEFIN VALVE BOX AND COVER. COMMERCIAL GRADE IN A COLOR SELECTED AND APPROVED BY THE ARCHITECT. MANUFACTURED BY NDS MODEL NO. 111 OR APPROVED EQUAL.



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PLUMBING PLAN AND DETAILS

Dwg No.: P-100

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