

Bidder Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone #: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Removal of existing floating dock and supply and  
install new floating dock at High Point Park**

**BID DATE: February 24, 2015**

**BID TIME: 10:00 a.m.**

PREPARED BY:

HOFFMAN ESTATES PARK DISTRICT  
1685 W. Higgins Road  
Hoffman Estates, IL 60169-2998  
Telephone: (847) 885-7500  
Facsimile: (847) 885-7523

## HOFFMAN ESTATES PARK DISTRICT

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January 2015

Dear Bidder:

Enclosed you will find the plans, specifications and bidding materials for **Removal of existing floating dock and Supply and installation of new floating dock at High Point Park**. All pertinent information is included in the attached package. Please submit the Proposal Forms, Certification, References, and Bid Bonds. Please copy your proposal and retain one copy for your records.

Bidders will be required to meet all State bidding requirements.

I look forward to reviewing your bid proposal and working with you on this project. If you have further questions or need to meet at the site, please contact me 847-561-2172. I can be reached Monday through Friday from 8:30 a.m. until 4:30 p.m.

Sincerely,

Gary Buczkowski  
Director of Planning and Development

## INVITATION TO BIDS

Sealed bids for the **Removal of existing floating dock and Supply and installation of new floating dock at High Point Park** will be received by the Hoffman Estates Park District at our office; 1685 West Higgins Road, Hoffman Estates, Illinois 60169 until **exactly 10:00 A.M., February 24, 2015**, and then publicly opened and read. Bids submitted after the closing time will be returned unopened. No oral or telephone proposals or modifications will be considered.

The Hoffman Estates Park District Board of Commissioners will make the final award.

Proposals shall be submitted on the attached Form of Proposal and returned in the envelope, if provided. No bidder may withdraw his proposal after the hour set for the opening thereof, or before award of the contract, unless said award is delayed for a period exceeding sixty (60) calendar days.

The Hoffman Estates Park District requires all bidders to comply with all provisions of the Park District Prevailing Wage Ordinance O-14-003. This ordinance specifies that no less than the general prevailing rate of wages as found by the Park District or Department of Labor or determined by a court on review shall be paid each draft type of worker or mechanic needed to execute the contract or perform the work.

The Hoffman Estates Park District may reject any or all of the bids on any basis and without disclosure of a reason. The failure to make such a disclosure shall not result in accrual of any right, claim, or cause of action by any unsuccessful Bidder against the Hoffman Estates Park District.

Bid results and the award of the bid will be published on the Hoffman Estates Park District website [www.heparks.org](http://www.heparks.org).

Sincerely,

Gary Buczkowski  
Director of Planning and Development

HOFFMAN ESTATES PARK DISTRICT

INSTRUCTIONS TO BIDDERS

1. Identification of Project

The official name and location of the project shall henceforth be known as:

**Removal of existing floating dock and Supply and installation of new floating dock at High Point Park.**

The official name and address of the project owner shall henceforth be known as:

HOFFMAN ESTATES PARK DISTRICT  
1685 West Higgins Road  
Hoffman Estates, IL 60169-2998

Bid Opening: February 24, 2015, 10:00 a.m.

Committee Approval: March 3, 2015

Board Approval: March 24, 2015

Contract Awarded: March 27, 2015

Commencement of Work: Commencement of paperwork shall begin immediately upon notification of award.

Substantial Completion Date: August 1, 2015

2. Contract Documents

The Notice to Bidders, the Instructions to Bidders, the Supplementary Conditions, Drawings, Specifications, the supplied Form of Proposal, the accepted Bid Sheet and certification comprise the Contract Documents. Copies of these documents can be obtained in person from the office of the Hoffman Estates Park District, 1685 W. Higgins Road, Hoffman Estates IL 60169-2998.

3. Explanation to Bidders

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc., must be requested in

writing and with sufficient time allowed for a reply to reach bidders before the submission of their bids.

Any interpretation made will be in the form of an amendment of the invitation for bids, drawings, specifications, etc., and will be furnished to all prospective bidders. Its receipt by the bidder must be acknowledged in the space provided on the Bid Form or by letter or telegram received before the time set for opening of bids. Oral explanations or instructions given before the award of the contract will not be binding.

#### 4. Conditions Affecting the Work

Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the Work, the general and local conditions, which can affect the Work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the Work.

#### 5. Bid Guarantee, Bonds and Required Paperwork

- A. A Bid Guarantee, five (5%) percent, is required by the invitation for bids. Failure to furnish a Bid Guarantee in the proper form and amount by the time set for opening of bids may be cause for rejection of the bid in the absolute discretion of the Owner.
- B. A Bid Guarantee shall be the form of a bid bond, postal money order, certified check, or cashier's check made payable to the Owner. Bid guarantees, other than those stated, will be returned to the bidder upon opening of bids. Such bids will not be considered for award (a) to unsuccessful bidders as soon as practical after the award of the job, and (b) to the successful bidder upon execution of such further contractual documents and bonds as may be required by the bid as accepted.
- C. The successful bidder, upon being given a "Written Notice to Proceed", will have five (5) calendar days to provide the required Labor and Material Payment Bond, Performance Bond, and Insurance Policies or certificates for same, and commence with the Work. Failure to comply with the conditions set forth in the Contract Documents shall result in the termination of the contract for default. In such event, the Contractor may be liable for any costs of performing the work which exceed the amount of his bid, and the Bid Guarantee shall be available toward offsetting such difference, if not previously returned to the Contractor.

## 6. Preparation and Submission of Bids

Before submitting proposal, each bidder shall carefully examine all documents pertaining to the Work and visit the site to verify conditions under which Work will be performed.

Submission of bid will be considered presumptive evidence that the Bidder has visited the site and is conversant with local facilities and difficulties, the requirements of the documents and of pertinent State or Local Codes, State of Labor and Material Markets, and has made due allowance in his bid for all contingencies. Include in bid all costs of labor, material, equipment, contractor's license, permits, guarantees, applicable taxes (sales tax does not apply), insurance and contingencies, with overhead and profit necessary to produce a completed project, or to complete those portions of the Work necessary to produce a completed project, or to complete those portions of the Work covered by the specifications on which proposal is made, including all trades, without further cost to the Owner. The Owner shall be responsible for the building permit fee.

No compensation will be allowed by reason of any difficulties which the Bidder could have discovered reasonably, prior to bidding.

All proposals must be made upon the Proposal Form furnished by the Owner attached hereto and should give the amounts bid for work, in numbers, and must be signed and acknowledged by the contractor. The Proposal should be enclosed in the envelope marked "Bid Proposal for Hoffman Estates Park District **Removal of existing floating dock and Supply and installation of new floating dock at High Point Park**" to be received until **10:00 A.M., February 24, 2015** showing the return address of the sender and addressed to: Hoffman Estates Park District, 1685 W. Higgins Road, Hoffman Estates, Illinois 60169. Bids should be sealed, marked and addressed as directed above. Failure to do so may result in a premature opening of or a failure to open such bid.

The proposal submitted must not contain erasures, inter-lineations, or other corrections unless each correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid.

Modifications of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening of bids. Telegraphic modifications will be considered, but should not reveal the amount of the original or reversed bid.

7. Prices

The prices are to include the furnishing of all materials, equipment, tools, insurance, bonds, warranties, and all other facilities, and the performance of all labor and services necessary for the proper completion of the Work except as may be otherwise expressly provided in the Contract Documents.

8. Time Schedule

The timely execution of any project is extremely important. The successful bidder shall take every means to meet the completion date stated above except for extensions granted by the Owner in writing for circumstances beyond the control of the Bidder.

9. Late Bids and Modifications or Withdrawals

Bids and modifications or withdrawals thereof received at the office designated in the invitation for bids after the exact time set for opening of bids will not be considered.

10. Withdrawal of Bids

Bids may be withdrawn by written or telegraphic request received from bidders prior to the time set for opening of bids.

11. Public Opening of Bids

Bids will be publicly opened at the time set for opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.

12. Award of Contract

- A. Award of Contract will be made to the lowest responsible bidder, as determined by the Board of Commissioners of the Hoffman Estates Park District, whose bid conforms to the invitation for bid.
- B. The Board of Park Commissioners may reject any or all of the bids on any basis and without disclosure of a reason. The failure to make such a disclosure shall not result in accrual of any right, claim, or cause of action by any unsuccessful bidder against the Hoffman Estates Park District.

13. Contract and Insurance

The written contract between the accepted bidder and the Owner shall be considered finalized and entered into between the parties upon the Park District Board's approval and award of the contract to the accepted bidder



and the Park District's execution of the accepted bidder's Form of Proposal, and said written contract shall be comprised by the Contract Documents. The accepted bidder shall provide the Owner with a Labor and Material Payment Bond, Performance Bond, and copies of applicable Insurance Policies and endorsements and certificates for same within five (5) calendar days of the "Written Notice to Proceed" and prior to the commencement of work.

14. Postponement of Date for Opening Proposals

The Owner reserves the right to postpone the date of presentation and opening of proposals and will give telegraphic notice of any such postponement to each interested party.

## SUPPLEMENTARY CONDITIONS

### SECTION I – GENERAL

#### 1. Application

These Supplementary Conditions shall be used in conjunction with and are a part of any and all Sections of the Specifications and all Contracts and Subcontracts that may be made for the completion of the work in all its parts as identified and described in the Contract Documents.

#### 2. Definitions

Owner: The Hoffman Estates Park District, Board of Commissioners, Staff and its appointed Owner's representative.

Contractor: A firm, corporation or individual with whom the Owner makes a direct Contract for the construction of all or any portion of the work.

Architect/Engineer: The authorized representative of the Owner.

Subcontractor: A firm, corporation or individual other than employees of a Contractor with whom a Contractor or Subcontractor makes a contract to furnish labor, and/or materials, and/or services in connection with the project.

Owner Representative: An employee of the Hoffman Estates Park District responsible for the coordination of the work involved on the project.

The words "approve", "equal to", "as directed", etc., are interpreted and will be taken to mean "to the satisfaction of the Owner." Samples shall be submitted and approvals shall be requested in ample time to avoid any delays should resubmission of an item be necessary.

#### 3. Contract Documents

The Contract Documents shall consist of the Notice to Bidders, the Instructions to Bidders, the Supplementary Conditions, the Drawings, the Specifications, the supplied Form of Proposal, and the accepted Bid Sheet and certification.

#### 4. Bonds

- A. With proposal, and attached hereto, each Bidder shall furnish Bid Security payable to the Owner in the amount of 5% of bid.
- B. Include allowance in Lump Sum Proposal for Performance Bond and Labor and Materials Payment Bond in the amount of 100% of Contract Price.

1. The Contractor, before commencing the Work, shall furnish a Performance Bond and a Labor and Material Bond. The Performance Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the faithful performance of the obligation of the Contract Documents, and the Labor and Material Payment Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the payment of all persons performing labor and furnishing materials in connection with the Contract Documents. Such bonds shall be on standard AIA Documents, issued by the American Institute of Architect/Engineers, shall be issued by a surety satisfactory to the Owner, and shall name the Owner as a primary co-obligee. The cost of the bonds is to be included in the Bid Proposal. The Performance Bond and Labor and Material Payment Bond will become a part of the Contract. Each Bidder shall list the name of the surety company that will be furnishing the Bonds on its Bid Proposal. The failure of a Bidder to list the name of its surety company on its Bid Proposal shall be a non-responsive bid. The failure of the successful Bidder to supply the required Bonds within five (5) days after the Notice of Award or within such extended period as the Owner may grant if the forms do not meet its approval shall constitute a default, and the Owner may either award the Contract to the next responsible, responsive Bidder or re-advertise for bids. A charge against the defaulting Bidder may be made for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid guarantee.
2. The Contractor shall deliver the required bonds to the Owner not later than five (5) days following the date the Agreement is entered into, or if the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to the commencement of the Work, submit evidence satisfactory to the owner that such bonds will be furnished.
3. The contractor shall require the attorney-in-fact who executed the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.
4. Whenever the Contractor shall be and is declared by Owner to be in default under the Contract, the Surety and the Contractor are each responsible to make full payment to the Owner or any and all extra Work incurred by the Architect/Engineer as a result of the Contractor's default, and to pay to Owner all attorney's fees and court costs incurred by Owner as a result of the Contractor's default, and in protecting Owner's rights under the Agreement to remedy Contractor's default.

5. The Contractor shall (i) furnish all Surety Company's bonds through Surety Company's local agents approved by and/or as directed by Owner; (ii) fully covered and guarantee with said bond the faithful performance and completion of the entire Contract, including without limitation, the faithful performance of prevailing wage requirements; and (iii) guarantee with said bond payment in all cases by the Contractor or by the Surety Company for all labor performed, material and supplies furnished with the entire Work in the Contract. Said Bond shall remain in full force and effect during the entire period of all general guarantees given by the Contractor with the Contract as called for in the Specifications and Contract, except in cases where other bonds are specifically called for in the specifications and Contract in connection with special guarantees.

## 5. Payment

The Contractor may present estimate of work for which he desires payment no later than the first Monday of each month, based on cost of labor and material incorporated into the work. Estimate shall be a Sworn Statement and shall show relative amount of each item completed. Submit Partial Waivers of Lien, including for first payout, from Contractors, Subcontractors and Material Suppliers with Sworn Statement for monthly payout. Payments will be made within approximately thirty (30) days after review by the Owner. Notwithstanding, anything to the contrary contained in the Contract Documents, payouts are to be made by checks payable to the Contractor. The Contractor will be required to submit a sworn payroll statement according to the Illinois Department of Labor documenting his compliance with the Illinois Prevailing Wage Act.

Final Payment will be made within approximately thirty (30) days of final inspection and approval and receipt of all waivers, sworn statements, guarantee statements, and other documents set forth in the Contract Documents.

## 6. Preparation of Bids

Before submitting proposal, each bidder shall examine carefully all documents pertaining to the work and visit the sites to verify conditions under which work will be performed. Submittal of the Bid Proposal by the Contractor is a representation by the Contractor, that the Contract Documents are full and complete, are sufficient to enable the Contractor to determine the cost of the Work and that the Contract Documents are sufficient to enable it to construct the Work outlined therein, in accordance with applicable laws and regulations, and otherwise to fulfill all its obligations hereunder, including, but not limited to, Contractor's obligations to construct the Work for an amount not in excess of the

contract Sum on or before the date(s) of Completion established in the Agreement. The Contractor further acknowledges and declares that it has visited and examined the Project site, examined all physical and other conditions affecting the Work and is fully familiar with all of the conditions thereon and thereunder affecting the same. In connection therewith, Contractor specifically represents and warrants to Owner that prior to the submission of its bid it has: (a) thoroughly examined the location of the work to be performed, is familiar with local conditions, and has read and thoroughly understands the Contract Documents as they relate to the physical conditions prevalent or likely to be encountered in the performance of the work at such location; (2) examined the nature, location and character of the general area in which the Project is located, including without limitation, its climatic conditions, available labor supply and labor costs, and available equipment supply and equipment costs; and (3) examined the quality and quantity of all materials, supplies, tools, equipment, labor, and professional services necessary to complete the Work in the manner and within the cost and time frame required by the Contract Documents.

Submission of bid will be considered presumptive evidence that the Bidder has visited the site and is conversant with local facilities and difficulties, the requirements of the documents and of pertinent State, County or Local Codes, State of Labor and Material Markets, and has made due allowance in his bid for all contingencies.

Include in bid all costs of labor, material, equipment, allowance, fees, permits, guarantees, applicable taxes (**sales tax does not apply**), insurance and contingencies, with overhead and profit necessary to complete those portions of the work covered by the specifications on which proposal is made, including all trades, without further cost to the Owner. Obtain all permits and arrange for all inspections. Pay all fees, permits and costs incurred.

No compensation will be allowed by reason of any difficulties, which the Bidder could have discovered prior to bidding.

#### 7. Fees and Inspection

The Contractor is responsible for all license fees and arrangements for all inspections required by State, County, Local and other authorities having lawful jurisdiction. The Owner is responsible for all building permit fees associate with the Work.

## 8. Subcontracts

Contractors operating under direct Contracts with the Owner may let Subcontracts for the performance of such portions of the work as are usually executed by special trades. All such Subcontracts shall be based on conformance with all pertinent conditions set forth in the Contract Documents, including the Supplementary Conditions as well as the detailed requirements of the portions of the drawings and specifications which depict or describe the work (labor and materials) covered by the Subcontract.

No Work may be sublet without approval of the Owner, who reserves the right to disapprove any proposed Subcontractor whose record does not establish his experience, competence, and financial ability to perform the work.

## 9. Materials

Materials shall conform to the drawings, specifications, manufacturer's specifications for all products incorporated into the work, and all applicable standards and guidelines.

Some specific equipment and materials have been specified for use on this project to establish minimum performance requirements or desired features. To receive consideration of alternate equipment or materials, the Bidder must submit all appropriate product data and receive pre-bid approval from the Owner. All materials are subject to the approval by the Owner both before and after incorporation in the project.

All condemned material or work shall be removed from the premises and properly disposed of.

## 10. Law Compliance

All project construction work shall comply with all State and Municipal Laws and Regulation, and with all Local Ordinances and Rules pertaining to this work. Such Laws, Regulations, Ordinances and Rules shall be considered a part of these specifications.

- A. The Contractor warrants that it is familiar with and shall comply with Federal, State and local laws, statutes, ordinances, rules and regulations and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of the Contract including without limitation Workers= Compensation Laws, minimum salary and wage statutes and regulations, laws with respect to permits and licenses and fees in connection therewith, laws

regarding maximum working hours. No plea of misunderstanding or ignorance thereof will be considered.

- B. Whenever required, the Contractor or Subcontractor shall furnish the Architect/Engineer and Owner with satisfactory proof of compliance with said Federal, State and local laws, statutes, ordinances, rules, regulations, orders, and decrees.
- C. Contractor shall carefully examine the Occupational Safety and health Act as issued by the Federal Register (OSHA), and the specific regulations governing procedures, techniques, safety precautions, equipment design, and the configuration of the same as required under this Act and shall comply with all terms of the Act and to perform and complete in a workmanlike manner all work required in full compliance with said Act.
- D. Contractor shall comply with all terms of the Illinois Preference Act and all terms of the Equal Employment Opportunity Clause of the Illinois Fair Employment Practices Commission.
- E. At all times Contractor shall remain in compliance with the Illinois Public Works Employment Discrimination Act (775 ILCS 10/1, et seq.) and the Illinois Human Rights Act (775 ILCS 5/2-101, et seq.), and in addition shall at all times comply with Section 2-105 of the Illinois Human Rights Act requiring a written sexual harassment policy as defined therein.
- F. Contractor and all subcontractors shall be solely responsible for complying with the Substance Abuse Prevention on Public Works Projects Act, Public Act 095-06345.
- G. Contractor agrees to maintain all records and documents for projects of the District in compliance with the Freedom of Information Act, 5 ILCS 140/1 et seq. In addition, Contractor shall produce records which are responsive to a request received by the District under the Freedom of Information Act so that the District may provide records to those requesting them within the time frames required. If additional time is necessary to compile records in response to a request, then Contractor shall so notify the District and if possible, the District shall request an extension so as to comply with the Act. In the event that the District is found to have not complied with the Freedom of Information Act due to Contractor's failure to produce documents or otherwise appropriately respond to a request under the Act, then Contractor shall indemnify and hold the District harmless, and pay all amounts determined to be due including but not limited to fines, costs, attorney's fees and penalties.
- H. Contractor understands, represents and warrants to the Owner that the Contractor and its Subcontractors (for which the Contractor takes responsibility to insure that they comply with the above-mentioned Acts) are in compliance with all requirements provided by the Acts set forth in Article 15 and that they will remain in compliance for the entirety of the Work. A violation of any of the Acts set forth in this

Article is cause for the immediate cancellation of the Contract. However, any forbearance or delay by the Owner in canceling this Contract shall not be considered as, and does not constitute, Owner=s consent to such violation and a waiver of any rights the Owner may have, including without limitation, cancellation of this Contract.

- I. Contractor and each of its Subcontractors shall pay prevailing wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with 820 ILCS 130/.01 et seq. The Contractor shall prominently post the current schedule of prevailing wages at the Contract site and shall notify immediately in writing all of its Subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to the Contractor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of the Contractor and not at the expense of the Owner. The change order shall be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. The Contractor shall be solely responsible to maintain accurate records as required by the prevailing wage statute and shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work

#### 11. Supervision

The Contractor shall maintain a highly qualified technician on the job site at all times. The Contractor shall enforce strict discipline and good order among his employees and the Subcontractors at all times work is in progress. The Contractor shall not employ any unfit person or anyone not skilled in the work assigned to him.

#### 12. Equipment and Tools

Furnish and maintain all equipment tools and apparatus, scaffolding, and all temporary work and materials necessary to perform the work.

#### 13. Expediting

Place orders for materials and equipment immediately upon receipt of Contract or Notice to Proceed and follow up vigorously to insure adequate and timely supply to the work. Perform all tracings and expediting actions and arrange to get workmen in the job at the proper time to avoid delays.

#### 14. Sanitary

The Contractor shall provide suitable, temporary toilet facilities at a specified location, for workmen on the project, complying in every respect



with Local and County requirements. Unit shall be chemically treated, serviced at regular intervals, and maintained in a sanitary condition at all times.

#### 15. Existing Utilities

The Contractor shall be responsible for locating and protecting all existing utilities, public and private, for the duration of the job. Prior to the commencement of any work, the Contractor shall notify all public and private utilities for the purpose of verifying, marking, and recording the locations of all under ground or overhead utilities, temporary or permanent. Any repair/replacement costs or associated damage will be the responsibility of the Contractor.

#### 16. Testing and Observations

The Contractor shall give the Owner, Village Inspector, and Manufacturer's Representative proper notice of readiness of Work for all required observations, tests, or reviews.

If Laws or Regulations of any public body having jurisdiction requires any Work (or part thereof) to specifically observed or tested, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish Engineer with the required certificates of inspection, testing, or approval. Contractor shall be responsible for and pay all costs in connection with any inspection or testing required in connection with Owner's or Manufacturer's agreed to Supplier of materials or equipment proposed to be incorporated into the Work, or of materials or equipment submitted for approval prior to the Contractor's purchase thereof for incorporation in the Work.

The cost of all observations, tests, and approvals in addition to the above which are required by the Contract Documents shall be paid by the Owner (unless otherwise specified).

All observations, tests, or reviews other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations agreed to by Owner and Contractor (or Manufacturer if so specified).

**Should testing reveal deficiencies due to Contractor error, subsequent testing costs shall be paid by Contractor.**

If any work (including the work of others) that is to be observed or tested is covered without the written concurrence of the Owner, it must, if requested by Engineer, be uncovered of observation. Such uncovering shall be at

the expense of the Contractor unless Contractor has given Owner or Village Inspector timely notice of Contractor's intention to cover such work and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Owner nor observations, tests, nor reviews by others shall relieve the Contractor from his obligations to perform the work in accordance with the Contract Documents.

17. Acceptance Preceding Work (if applicable)

Before starting any operation, the Contractor and Subcontractors shall examine work performed by others to which his work adjoins or is applied and report any condition that will prevent satisfactory accomplishment of his Contract. Failure to notify the Owner in writing of deficiencies or faults in preceding work will constitute acceptance thereof and waiver of any claims and its unsuitability.

18. Cutting and Patching

When necessary to cut or alter completed work to accommodate another trade, the Contractor or Subcontractor for work in places, shall do all cutting for and repair of portions of the work so disturbed. Where cutting is necessitated by fault or negligence of another Contractor, all costs of cutting and repairing shall be borne by the party at fault.

19. Damage to Current

Each Contractor shall adequately protect all preceding work from damage caused by him or his works. All breakage or damage will be repaired by trade concerned at the cost of the party causing damage. Each Contractor, however, shall be responsible for adequate protection of his own work against normal construction risks.

20. Housekeeping

Keep site of operations free from accumulations of rubbish and waste materials at all times. See that Subcontractors remove and dispose of their rubbish. Arrangements for removal and disposition of rubbish will be made by Contractors concerned at no cost to the Owner.

Should any Contractor or Subcontractor allow rubbish or waste material to accumulate on any portion of the site or in any portion of the building to such extent that the accumulation constitutes a hazard or obstructs the prosecution of the work in any way. The Owner may, if Contractor or Subcontractor at fault fails to remove such rubbish or waste materials within three (3) days after written notice to clear up the accumulation, engage prior labor or services of another Contractor to make necessary

removal and disposition and to charge cost against monies due to Contractor or Subcontractor at fault.

## 21. Protection

- A. Property: Each Contractor and Subcontractor shall take such precaution as are necessary adequately to protect from damage or deterioration and to safeguard from theft or pilferage, all materials, tools and equipment pertaining to his work which are on the site, whether stored or incorporated in the structure.
- B. Safety: Provide all barricades or other temporary protection as may be required by local authorities having lawful jurisdiction, or be considered of general safety, around all openings in floors and walls of the structure, and around all open pits or trenches in its vicinity.
- C. Weather: Each Contractor and Subcontractor shall at all times provide protection against rain, snow, wind storms, frost or heat so as to maintain all work, materials, apparatus, and fixtures, free from injury or damage.

At the end of each day's work, all new work subject to damage by the elements and all points where water or frost may enter any part of the structure or work shall be covered.

- D. Water: General Contractor shall at all times protect excavations, trenches, and building from damage from rain water, snow, spring water, ground water backing up of drains or sewers and all other water. He shall provide all pumps and equipment enclosures required for such protection.

He shall also construct and maintain any temporary drainage necessary to direct or lead water away from the work and shall do all pumping necessary to keep excavation and lowest floor free of water at all times.

- E. Damage: All work damaged by failure to provide protection shall be removed and replaced with new work at the expense of the Contractor at fault.

## 22. Guarantee

The Contractor and/or manufacturer shall provide a minimum of one (1) year warranty for all materials and workmanship associated with the project or work performed under the Contract.

## 23. Insurance

- **Worker's Compensation**
  - State: Statutory
  - Applicable Federal (e.g., Longshoremen's): Statutory
  - Employer's Liability
    - \$1,000,000.00 Per Occurrence
    - \$500,000.00 Disease, Policy Limit
    - \$500,000.00 Disease, Each Employee
- If written under **Commercial General Liability Policy** Form
  - \$2,000,000.00 General Aggregate
  - \$1,000,000.00 Products Completed Operations Aggregate
  - \$1,000,000.00 Personal and Advertising Injury
  - \$1,000,000.00 Each Occurrence
  - \$ 50,000.00 Fire Damage (any one fire)
  - \$ 50,000.00 Medical Expense (any one person)
- **Business Automobile Liability** (including owned, non-owned and hired vehicles):
  - Bodily Injury
    - \$1,000,000.00 Per Person
    - \$1,000,000.00 Per Accident
  - Property Damage
    - \$1,000,000.00 Per Occurrence
- **Umbrella Excess Liability**
  - \$2,000,000.00 over Primary Insurance
  - \$2,000,000.00 Retention for Self-Insured Hazards Each Occurrence

A. General: The Contractor shall not commence work under the Contract until he has obtained all insurance required, and it has been approved by the Owner, nor shall Contractor allow any Subcontractor to commence work on any portion of the work until all insurance required of the Subcontractor and Sub-subcontractor has been similarly approved by the Owner.

All such insurance shall be purchased only from companies licensed and duly authorized by the Department of Insurance of the State of Illinois to do business in Illinois and to write the types of insurance policies as herein specified. Insurance companies must have a minimum policy holder's rating of A+ and a financial rating of AAAAA as stated in the latest edition of Best's Insurance Guide.

The insurance coverages must be maintained by the Contractor and the Subcontractor until all work is completed by the Contractor and accepted by the Owner. If the policy is written on claims made basis,

then the Contractor shall purchase such additional insurance as may be necessary to provide specified coverage to the District for a period of not less than five (5) years from the completion of the work.

- B. Automobile Liability: Contractor shall obtain at his expense and keep in force at all times during the performance of the work, Comprehensive Automobile Liability Insurance providing for bodily injury, personal injury and property damage, limits of an amount not less than \$500,000 per occurrence and \$1,000,000 per annual aggregate.
- C. General Liability Insurance: Contractor shall obtain at his expense and keep in force at all times during the performance of the work, Comprehensive General Liability Insurance providing for bodily injury, personal injury and property damage, limits of not less than \$1,000,000 per occurrence and \$1,000,000 annual aggregate.
- D. Worker's Compensation and Employer's Liability Insurance: Contractor shall obtain at his expense and keep in force at all times during the performance of work, worker's compensation and related insurance coverage at amounts required by statute and employer's liability with limits of not less than \$1,000,000 per occurrence.
- E. Certificates of Insurance: Within five (5) calendar days after receipt of the "Written Notice to Proceed", the Contractor shall file with the Owner, a Certificate of Insurance and Policy Endorsement showing complete coverage of all insurance required by this Section signed by the insurance companies or their authorized agents, certifying to the name and address of the party insured, the description of the work covered by such insurance, the insurance policy numbers, the limits of liability of the policies and the dates of their expirations, with a further certification from said insurance companies that their policies will not be modified, amended, changed, cancelled or terminated without thirty (30) business days prior written notice to the Owner. If any form of umbrella or excess coverage policy is utilized by the Contractor, the Owner reserves the right to require a copy of the entire policy.
- F. All policies of insurance purchased or maintained in fulfillment of this paragraph 24 shall name the Owner and Architect/Engineer as additional insureds thereunder.
- G. Failure of Owner to demand any certificate, endorsement or other evidence of full compliance with these insurance requirements or failure of Owner to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance. The Contractor agrees that the obligation to

provide the insurance required by these documents is solely its responsibility and that this is a requirement which cannot be waived by any conduct, action, inaction or omission by the Owner.

- H. Nothing contained in the insurance requirements of the Contract Documents is to be construed as limiting the liability of the Contractor, the liability of any Subcontractor or any tier or either of their respective insurance carriers. The Owner, does not in any way, represent that the coverages or limits of insurance specified is sufficient or adequate to protect the Owner, Contractor, Architect/Engineer, or any Subcontractor's interests or liabilities but are merely at minimums. The obligation of the Contractor, the Architect/Engineer, and any Subcontractor of any tier to purchase insurance, shall not, in any way, limit their obligations to the Owner in the event the Owner should suffer an injury or loss in excess of the amount recoverable through insurance, or any loss or portion of the loss which is not covered by either the Contractors or any Subcontractor insurance.
- I. On the Certificate of Insurance, delete in the cancellation provision the following words, "Endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives."
- J. All the insurance required of the Contractor shall state that the coverage afforded to the additional insureds shall be primary insurance of the additional insureds with respect to claims arising out of operations performed by or on their behalf. If the additional insureds have other insurance or self-insured coverage which is applicable to the loss, it shall be on an excess or contingent basis.
- K. All insurance required of the Contractor shall provide that any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Owner or Architect/Engineer or any of their officers, directors, commissioners, officials, employees, consultants, volunteers, or agents. I. All insurance required of the Contractor shall provide that the insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- L. In the event the Contractor fails to furnish and maintain the insurance required by this contract, the Owner may purchase such insurance on behalf of the Contractor, and the Contractor shall pay the cost thereof to the Owner upon demand or shall have such cost deducted from any payments due the Contractor. The Contractor agrees to furnish to the Owner the information needed to obtain such insurance.

M. In order to protect the Owner and Architect/Engineer the Contractor shall require that all its Subcontractors purchase insurance protecting the Owner and Architect/Engineer to the same extent they are protected by the insurance required herein from the Contractor.

N. Owner's Liability Insurance

1. The Contractor shall purchase and maintain insurance covering the Owner's liability for claims which may arise from operations under the Contract and that will protect the Owner and the Architect/Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (2) is cause in whole or in part by any negligent act of omission of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party to whom insurance is afforded pursuant to this paragraph. The minimum limits of liability purchased for such coverage shall be equal to the aggregate of the limits required for the Contractor's Liability Insurance under 24 above.
2. In any and all claims against the Owner or the Architect/Engineer or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the insurance obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation Acts, disability benefit acts or other employee benefit acts.
3. The insurance obligations of the Contractor under this paragraph shall not extend to the liability of the Architect/Engineer, his agents or employees arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications or (2) the giving of or failure to give directions or instruction by the Architect/Engineer, his agents or employees provided that such giving or failure to give is the primary cause of the injury damage.
4. The Contractor shall provide the Owner with the Original policy and shall furnish the Architect/Engineer a memorandum copy of said policy. The named insured in the Protective Liability Policy shall be: Hoffman Estates Park District

## 24. Indemnification

To the fullest extent permitted by law, the Contractor shall waive any right of contribution against the Owner and shall indemnify and hold harmless the Owner and the Architect/Engineer and their officers, officials, employees, volunteers and agents from and against all claims, damages losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs), arising out of or resulting from the performance of the Contractor's work provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom, or is attributable to misuse or improper use of trademark or copyright protected material or otherwise protected intellectual property, to the extent it is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity which the Owner would otherwise have. The Contractor shall similarly, protect, indemnify and hold and save harmless, the Owner, its officers, officials, employee, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of any provisions of the Contract. The indemnification obligations under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Workers' Compensation or Disability Benefit Acts or Employee Benefit Acts

## 25. Labor Law

The Contractor and each and every Subcontractor performing work at the site of the project to which this Contract relates shall comply with applicable and provisions of all pertinent Federal, State, and Local Labor Laws.

## 26. Final Cleaning

Just prior to delivery of the job to the Owner, the Contractor shall perform a final cleaning of the equipment and haul away from the job site all debris created by his work on the site and surrounding area.



## 27. Time Schedule/Major Repairs

Work under the Contract shall commence within five (5) calendar days after given "Written Notice to Proceed" by Owners (or date specified) and shall continue with due diligence until due completion.

Each Contractor or Subcontractor shall and does hereby agree that he will start and prosecute his work so as to cause no delay to the Contractor and that he will complete all work under his Contract coincidentally with completion of Contractor's work.

The Contractor shall submit an estimated time schedule setting up order of procedure and time allowed for each branch of work. Contractor shall make every effort to adhere to these schedules, but reasonable modifications will be permitted from time to time to compensate for delays due to strikes or conditions beyond Contractor's control, exclusive of weather.

## 28. Avoidance of Delays (Major Repairs)

Each Contractor and Subcontractor shall be furnished a copy of the "Time Schedule" referred to above, and each shall so prosecute his work that he not only maintains his progress in accordance with the said Time Schedule but also shall cause no delays to other Contractors, either in person or through a Subcontractor, fail to maintain progress according to the approved Time Schedule or cause delay to another Contractor or Subcontractor, he shall furnish such additional labor and/or services or work such overtime as may be necessary to bring his operation up to schedule with no additional cost to Owner. Failure to maintain schedule or to the above steps to regain the agreed time schedule shall constitute default within the terms of the Contract and grounds on which the Owner may have recourse to the Contractor's Surety for remedial action.

## 29. Unit Prices and Measurement (if applicable)

Upon completion of the work, a final measurement will be conducted by the Contractor and Owner. Unit prices included in the bid proposal will be applied to the units measured to determine the final/total price of the work.

## 30. Assignment

The Contractor or any Subcontractor shall not assign the Contract nor any monies due to become due to him hereunder, to any Person, Firm, or Corporation without previous written consent of the Owner.

### 31. Extras

No extra work shall be allowed or paid for unless a Change Order is made and accepted by the Owner in writing.

### 32. Examination of Site

Before submitting proposal, contractors shall examine site. Such an examination will be presumed and no allowance will be made for extra labor or materials due to Contractor's failure to do so. Any information furnished by the Owner shall not constitute a representation concerning site conditions and the Contractor shall bear, solely and exclusively, all costs due to concealed, unknown, unusual or otherwise unforeseen conditions at the site. Contractor is aware that all such risk concerning site conditions is borne by it, has considered such in making its bid, and therefore freely waives all of its rights under the Illinois Public Construction Contract Act of 1999 .

### 33. Safety

The Contractor is responsible for the safe passage of pedestrian traffic for the duration of the job. Any precautionary measures, necessary warning signs, barricades, etc., required to inform the general public of potential hazards or dangers and as necessary to assist the Contractor in the performance of the work, shall be at his expense and provided for in his quoted price. **Public safety is a foremost concern of the Owner, therefore failure by the Contractor to take a pro-active approach to safety is unacceptable. If necessary, the Owner will take whatever steps deemed appropriate, at the cost of the Contractor, to ensure the safety of the general public and our employees.**

### 34. Personnel

If any person employed on the work site be, in the opinion of the Owner, intemperate, disorderly, incompetent, willfully negligent or dishonest in the performance of his duties, he shall be directed to cease work and vacate the job site immediately.

### 35. Liens

No payment shall become due until the Contractor, if required, shall deliver to Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed. If any lien

remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

### 36. Default

In case of default by the Contractor, the Owner may procure the articles or services from other sources and hold the Contractor responsible for any excess cost occasioned thereby.

### 37. Cancellation of Contract

If the Contractor or any of his Sub-contractors shall, in the judgment of the Hoffman Estates Park District, be unable to carry on the work satisfactorily, or if the Contractor or any of his Sub-contractors shall violate any of the provisions of this contract, or in case of bankruptcy of the Contractor, or failure of the Contractor to pay for supplies or workmen, or a work-stoppage, or a failure by the Contractor to provide sufficient workmen or sufficient material for the job, the Owner may serve written notice upon the Contractor and his Surety of his intention to terminate the Contract, and, if within seven (7) days after the service of such notice, the Contractor or the Sub-contractor or the Surety have not proceeded to carry on the work in accordance with this Contract and to the satisfaction of the Owner, this Contract shall cease and terminate and the Owner shall have the right to take over the work and prosecute the same to completion by Contract for the account and at the expense of the Contractor and the Surety; and the Contractor and Surety shall be liable to the Owner for any excess costs occasioned by the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work such materials, appliances, and plants as may be on the site of the work and necessary therefore; provided, however, that in the event the Owner determines that the failure of the Contractor, Sub-contractor or Surety to carry on the work in accordance with this Contract has resulted in an emergency which will require that the Owner take over the work immediately, to avoid loss or waste of a substantial part of the work already performed, the Owner may immediately take over the work and prosecute the same at the expense of the Contractor and Surety to the extent necessary to avoid damage, and may prosecute the same at the expense of the Contractor and Surety to the extent necessary to avoid damage, and may prosecute the same to completion at the expense of the Contractor and the Surety unless within seven (7) days after the services of the above described notice, the Contractor, Sub-contractor or Surety has proceeded to carry on the work in accordance with this Contract and to the satisfaction of the Hoffman Estates Park District.

38. Lien Waivers (if applicable)

Neither by partial nor final payment will the Owner be deemed to have waived any remedy for defective work or negligence on the part of the Contractor or any other portion of the Contract which, by its nature, survives after time of payment.

Supporting partial Waivers of Lien for each Subcontractor, supplier and prime contractor must accompany each request for progress payment.

Waivers must spell out exact description of work performed for which Waiver is issued and state whether dollar amount is full amount received or amount of work less retainage, held by prime contractor.

For final payment it is necessary to submit final waivers in the full amount of the Contracts for all Subcontractors, suppliers and prime contractors.

Waivers must be accompanied by a sworn statement listing Subcontractors and suppliers, the amount of their Contracts and the amount requested.

39. Line and Grade Stakes (if applicable)

Stakes for lines and grades shall be provided once by the Owner. Costs for replacement of damaged stakes shall be paid by the Contractor. Prior to commencing work and before pouring or finally adjusting any structure or closing any excavation, the Contractor shall verify the correctness of any grades so as to conform to the Contract Documents.

40. Construction Observation

A Consultant may be called upon to observe the work on behalf of the Owner and will provide general assistance during construction insofar as proper interpretation of the Contract Documents is affected. The consultant shall not be responsible for the acts or omissions of the Contractor's superintendent or other employees.

All materials used and all completed work by the Contractor shall be subject to the observation of the Owner/Owner's representative. The Contractor shall furnish such samples of materials for examination and tests as may be requested by the Owner and shall furnish any information required concerning the nature or source of any materials or equipment, which he proposes to use. Any material, equipment, or work which does not satisfactorily meet the Contract Documents may be rejected by the

Owner by giving written notice to the Contractor. All rejected materials, equipment, or work shall be promptly removed and replaced at the Contractor's expense.

#### 41. Field Representatives

Field representatives may be appointed by the Owner, Architect or Engineer to see that the work is performed in accordance with the Contract Documents. Field representatives shall have the authority to condemn and/or reject defective work materials. Only the Owner shall have authority to suspend work. Field representatives shall have no authority to permit deviation from the Contract Documents and Owner, the Contractor shall be liable for any deviations made without a written order from the Engineer.

# HOFFMAN ESTATES PARK DISTRICT

## Dock General Specifications

### 1. Float and Deck Design Standard

- 1.1 The individual dock section shall consist of decking surface and the float structure, which are to be constructed as a single, integrated component. Each section shall provide for the support of the dead load plus a specified live load of 62.5 pounds per square foot ( $\text{lb}/\text{ft}^2$ ). This shall be accomplished without the use of foam for either structural integrity or floatation. The dock sections shall be manufactured by a rotational molding process and each dock section shall be subject to the specific parameters of the particular model.
- 1.2 The individual dock section shall consist of a specified number of interior, air filler pylons. These pylons shall provide for flotation in the event of a breach of an exterior wall of the dock section; as well as the structural support for the deck portion of the float. Each pylon shall support the dead load plus a live load of 55 pounds (lb) The volume of each pylon shall be no less than 1540 cubic inches ( $\text{in}^3$ ).
- 1.3 The individual dock sections shall be constructed of the following materials with the following general properties:
  - 100% Virgin Linear Low Density Polyethylene (LLDPE), as that supplied by Mobile Polymers U. S., Inc. as NRP-135.
  - An ultraviolet inhibitor (UV-8).
  - A beige colorant, supplied by Teknor Color Company as DC-73118 at usage rate of 128 grams (g) per 100 pounds (lb) of LLDPE.
  - The density of the section shall be approximately .940 grams per cubic centimeter ( $\text{g}/\text{cm}^3$ ), per ASTM 1505.
  - The dock section shall have a brittleness temperature equal to, or less than,  $-130^\circ$  Fahrenheit (F), per ASTM D-746.
- 1.4 The properties of the exterior wall of the dock sections shall be as follows: The mean wall thickness shall be no less than 3.10 inches. The wall thickness shall be no less than 0.290 inches at any particular point.

The walls of the dock sections shall resist a punching shear of no less than 1900 pounds per square inch (lb/in<sup>2</sup>), per ASTM D-732, as well as having the capability of resisting a minimum impact of no less than 110 foot pounds (ft-lb), per ASTM D-3029.

The tensile strength @ break shall be no less than 24000 pounds per square inch (lb/in<sup>2</sup>), per ASTM D-638.

1.5 The decking surface shall be composed of a textured surface with a grid pattern for added adhesion during dry conditions. The deck shall have an approximate coefficient of friction equal to 0.64 during dry conditions. The decking surface shall also provide for an increased adhesion of approximately 25% when wet, or a coefficient of friction that is approximately equal to 0.85. Drainage of the decking surface shall be accomplished through the use of troughs, which shall have a width of no more than 0.5 inches (in) and a depth of no more than 0.5 inches (in). The drainage troughs shall extend over the width of the dock and shall be positioned at intervals of no less than 4.5 inches (in) and no greater than 6.5 inches (in) over the entire length of the deck.

1.6. The properties of the decking surface shall be as follows:

- The mean deck thickness shall be no less than 0.315 inches (in).
- The deck thickness shall be no less than 0.290 inches (in) at any particular point.
- The deck shall resist a punching shear which is no less than 1900 pounds per square inch (lb/in<sup>2</sup>), per ASTM D-732.
- The deck shall resist a minimum impact of no less than 120 foot pounds (ft-lb) near the center, or at the point where the deck is thinnest, per ASTM D-3029.
- The deck shall resist a minimum impact of no less than 150 foot pounds (ft-lb) within 16 inches (in) of the outside of the dock, per ASTM D-3029.

## 2. Floating Dock Structure

2.1 The dock structure, as a whole, shall consist of the individual sections, which are to be coupled together in the specific configuration desired by the purchaser. Any material used in the dock structure shall provide for resistance to rust, corrosion, and the effects of any fuel or gasoline.

2.2 A drawing of the final configuration, including any accessories, shall be supplied at the time of bid.

2.3 The dock structure shall act as one unit when assembled, so that wave and/or wind action shall produce a minimum amount of motion. The structure shall be secured with either piles, spuds, bottom anchors, or stiff arms. The securing shall allow the structure to rise and fall freely with any water level changes and allow the structure to span waves from crest to crest, while providing a stable walking surface.

### 3. Connections of Dock Sections

- 3.1 Each dock section shall have female-type pockets spaced symmetrically along the top and bottom edges, around the entire perimeter of the dock section. These pockets shall be spaced at 19.5 inch (in) intervals, center line to center line, from each other.
- 3.2 The female-type pockets shall accept a male-type coupler which shall be secured into the female pocket with the use of a 0.5 inch (in) X 13 inch (in) coupler bolt and nut.
- 3.3 The purpose of such connections is to provide for simple assembly and disassembly, as well as providing for the securing of one section to another. The connection will also provide for the ability to attach other dock sections from the same manufacture in the future.
- 3.4 Each connection point shall allow for some slippage in the event that an extreme stress is applied. This slippage will allow for disconnection without causing damage either to the male-type couplers or the female-type pockets.
- 3.5 The dock sections shall be connected at increments of 19.5 inches (in), in relation to each other. These connections may be made from any one side of any dock section to any other side of another dock section. These connections may also be used to connect dock sections of differing dimensions and shall provide for ease of assembly, whether the sections are to be assembled on land or in the water.
- 3.6 The male-type coupler shall be constructed of no less than 90% post/pre-consumer recycled tire rubber.
- 3.7 Each male-type coupler shall withstand a pullout force of no less than 2500 pounds (lb) before failure of coupler occurs.
- 3.8 Each of the female connection pockets shall provide for a pullout strength of no less than 3500 pounds (lb), before damage is caused to the dock section.
- 3.9 The accessories shall be connected to the dock system through the use of the female-type pocket and a male-type half-coupler. The male-type half-coupler shall have a 3.625 inch "T" -bolet embedded within it. The male-type half-coupler shall withstand a pullout force of no less than 3000 pounds (lb) before failure occurs.

### 4. Cleats

- 4.1 The tie up cleats shall be constructed of nylon 6,6 and shall have a length of 8-1/16 inches (in) and a height of 1-1/2 inches (in). The cleats shall be connected to the dock sections by two 5/16 inch (in) stainless steel bolts that are threaded into two stainless steel "T" nuts which are molded directly into the dock section. Each of the "T" nuts shall provide for a pull out force of no less that 2000 pounds (lb), so that the cleat may withstand a force of no less that 4000 pounds (lb).
- 4.2 T "T" nuts shall be molded in the dock section in sets of two, with the distance between the two "T" nuts being 2-1/4 inches (in).



- 4.3 There shall be three sets of “T” nuts placed along the length of each side of the dock section. The sets of “T” nuts shall be placed at equal distances between the first and second pockets, between the third and fourth pockets, and between the fifth and sixth pockets, along both sides of the dock section.
- 4.4 There shall be one set of “T” nuts at one end of the 40 inch (in) wide dock section placed at equal distances between the two pockets.
- 4.5 There shall be two sets of “T” nuts at one end of the 60 inch (in) wide dock section placed at equal distances between the three pockets.
- 4.6 There shall be two sets of “T” nuts at both ends of the 80 inch (in) wide dock section. These “T” nuts shall be placed at equal distance between the first and second pockets, and between the third and fourth pockets.

## 5. Anchorage

- 5.1 The dock system shall be designed to allow for the use of piling of various sizes, spud pipes, cables, or chains attached to a bottom anchor, or stiff-arm attachments for anchorage. Calculations shall be supplied by the approved low bidder to the owner prior to installation.

## 6. Railing Attachment

- 6.1 The dock structure shall have the ability to accept railing which is constructed to meet the standards established by both the States Organization for Boating Access (SOBA) and the National Uniform Building Code (NUBC). The railing shall be constructed of 1.5 inch (in) O. D., 14 gauge steel tubing. The steel tubing shall be finished either by a 0.003 inch (in) Hot-Dip Galvanizing or by powder coating painting process.

## 7. Designing for Layout

- 7.1 The dock system, anchorage, and connections shall be designed according to the recommendations of the American Society of Civil Engineers Manual and Report on Engineering Practice Number 50, “Planning and Design Guidelines for Small Craft Harbors”, the revised edition.

## 8. Main Docks

- 8.1 The main docks are the walkways which are subjected to the most amount of traffic. These should be designed to provide for comfortable and easy walking widths. Due to the design of the dock system not allowing for such things as pumps, power supplies, boxes, etc. to be attached to them, the overall width of the 60 inch (in) wide dock or 80 inch (in) wide dock is sufficient to accommodate most of the amount of pedestrian traffic which may be required.

## 9. Fingers

- 9.1 The finger widths should be designed so as to allow for safe and comfortable walking widths. Since the dock system is not generally designed to accommodate boats that are over 30 feet (ft) in length, a 40 inch (in) wide dock is sufficient to provide for finger stability as well as pedestrian safety for finger lengths up to 20 feet (ft) long. If the length of the finger exceeds 20 feet (ft) long, the 60 inch (in) wide docks should be strongly considered.

## 10. Wind Exposure

- 10.1 Boat Profile Height – According to the American Society of Civil Engineers (ASCE) manual published in 1969, for the average height profile compared to the length of the boat, the following will apply.
- a. For a 10 foot (ft) long boat.
    - ASCE average height is 3 feet (ft).
    - For future considerations, will assume average heights up to 6 feet (ft).
  - b. For a 20 foot (ft) long boat.
    - ASCE average height is 3.5 feet (ft).
    - For future considerations, will assume average heights up to 7 feet (ft).
  - c. For a 25 foot (ft) long boat.
    - ASCE average height is 3.6 feet (ft).
    - For future considerations, will assume average heights up to 7.2 feet (ft).
  - d. For all calculations done using the average boat profile heights, it will be considered that 100% of the boats using the dock will be twice the ASCE average profile.
- 10.2 Maximum Wind Exposure – From studies of maximum wind exposure, it is shown that the forces caused by the maximum wind exposure comes from an angle to the boat, instead of directly to the side or to the front of the boat. Due to the non-feasibility of designing a dock system to handle a maximum tornado wind gust, it is suggested that a reasonable wind speed should be chosen. According to the design standards set up by the Army Corps of Engineers, the dock system should be designed to withstand wind speeds of up to 77 miles per hour (mph) or 15 pounds per square foot (lb/ft<sup>2</sup>).
- 10.3 Hidden Boats – It is a common practice to use load factors of 10% to 15% for each hidden boat affected by wind force. That is, every boat that is shielded by another boat, either in front of, or on the side of, will have a decrease in the amount of force which is applied to that boat due to the affect of the shielding boat. The use of a force factor of 15% per hidden boat shall be used in any calculations.
- 10.4 Load From Various Directions – In the designing of the boat dock system, if piles are to be used as the means of support, it is necessary to take into account the force being applied in the direction of the maximum wind exposure only. However, if chains, cables, or deadweights are to be used as the means of support, it would be necessary to take into account the wind exposure from all directions, when designing the dock system.

## 11. Load Design

### 11.1 Dead Load

The dead load shall consist of the entire dock system plus any additional attachments to the dock system.

Under dead load conditions, flotation shall provide a minimum of approximately 13.5 inches (in) of freeboard.

The surfaces of adjacent deck surfaces shall have an elevation difference of no more than 0.125 inches (in).

The ends of the fingers shall have an elevation of no more that 1 inch (in) above that of the main dock.

The deck surface of each dock section shall not slope more than 0.5 inches (in) over the 10 foot (ft) length of the dock section.

The deck surface of each 80 inch (in) X 10 foot (ft) dock section shall not slope more than 0.35 inches (in) over the width of the dock section.

The deck surface of each 60 inch (in) X 10 foot (ft) dock section shall not slope more than 0.25 inches (in) over the width of the dock.

The deck surface of each 40 inch (in) X 10 foot (ft) dock section shall not slope more than 0.15 inches (in) over the width of the dock section.

#### 11.2 Live Load Due To Vertical Loads

Under dead load conditions plus an additional 20 pounds per square foot ( $\text{lb}/\text{ft}^2$ ) of uniform live load, flotation shall provide for a minimum of 9 inches (in) of freeboard.

Under dead load conditions, plus an additional 40 pounds per square foot ( $\text{lb}/\text{ft}^2$ ) of uniform live load, flotation shall provide for a minimum of 5 inches (in) of freeboard.

The dock structure shall support a concentrated vertical load of up to 400 pounds (lb) at any particular point on the surface of the deck. The structure shall accomplish this while maintaining a minimum freeboard of 10.25 inches (in).

#### 11.3 Live Load Due To Horizontal Loads

The dock system shall sustain the loads applied by any current and/or debris which are normal to a particular location.

The dock system shall be capable of sustaining continuous wave action of up to 1 foot and occasional wave action not in excess of 3 feet during storm conditions.

The dock sections shall sustain any loads applied by non-moving ice without damage. The dock system shall be capable of sustaining the loads applied by mooring boats up to 35 feet in length.

The dock system and anchorage shall be capable of withstanding sustained wind loads of 77 miles per hour (mph), or 15 pounds per square foot ( $\text{lb}/\text{ft}^2$ ), at 100% boat occupancy, unless otherwise specified.

The dock system shall be capable of withstanding the impact force caused by a 35 foot boat striking the end of a finger at a speed of 2 miles per hour (mph) and at an angle of  $10^\circ$  off center.

