

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DNREC # 2019-DS-100

MARINA FIRE SUPPRESSION SYSTEM REPLACEMENT

AT
DELAWARE SEASHORE STATE PARK
39415 INLET ROAD
REHOBOTH, DELAWARE, 19971



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 Newark, DE 19711
 Phone: (302)738-7172

Duane Morris Plaza
 30 S. 17th Street, Suite 830
 Philadelphia, PA 19103
 Phone: (267) 804-7286
 DEDC Project # 19P196



AREA MAP

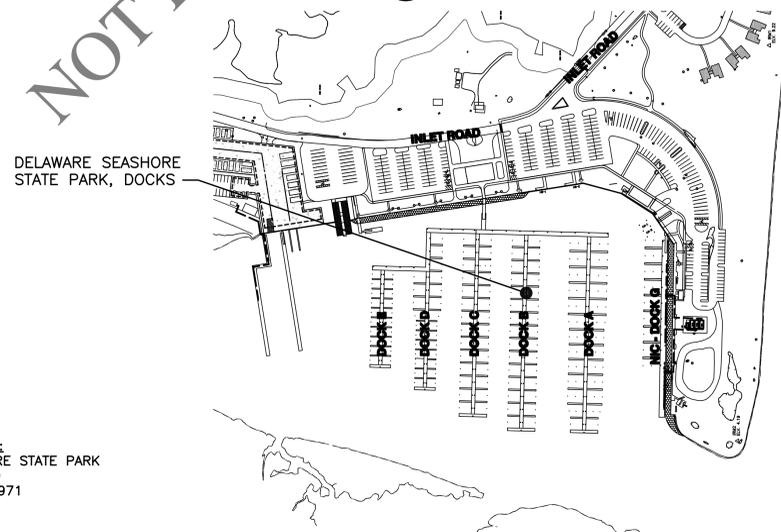
DRAWING LIST:

DEDC#	TITLE
FP-001	FIRE PROTECTION LEGENDS, ABBREVIATIONS, NOTES, AND DETAILS
FPD-100	FIRE PROTECTION DEMOLITION PLAN
FP-100	FIRE PROTECTION NEW WORK PLAN



LOCATION MAP

PROJECT LOCATION:
 DELAWARE SEASHORE STATE PARK
 39415 INLET ROAD
 REHOBOTH, DE, 19971

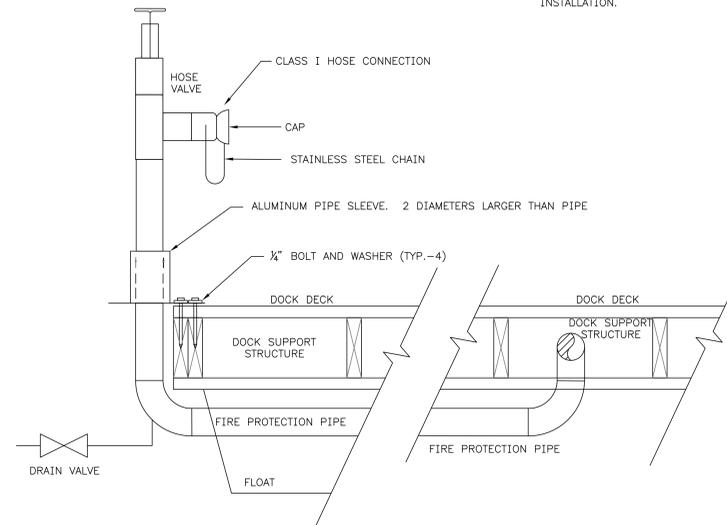


DELAWARE SEASHORE STATE PARK
 SITE MAP

ISSUED FOR BID: NOVEMBER 14, 2019

NOTE:

1. PROVIDE SIGNAGE TO READ "MANUAL STANDPIPE FOR FIRE DEPARTMENT USE ONLY".
2. THE INTENT IS TO MATCH EXISTING INSTALLATION.



1 TYPICAL PIER STANDPIPE HOSE CONNECTION
 FP-001 SCALE: NONE

ABBREVIATIONS:

- (D) DEMOLISH
- (E) EXISTING
- FHV FIRE HOSE VALVE
- (N) NEW
- NIC NOT IN CONTRACT
- DWG DRAWING
- TP TRUE NORTH
- PN PLAN NORTH
- AHJ AUTHORITY HAVING JURISDICTION

LEGEND:

(NOT ALL SYMBOLS USED)

- POINT OF CONNECTION NEW TO EXISTING
- POINT OF DISCONNECTION EXISTING TO DEMOLITION
- PIPING TO BE DEMOLISHED
- EXISTING UTILITY PIPING
- NEW UTILITY PIPING
- SHUT OFF VALVE
- PIPE UP OR RISE
- PIPE DOWN OR DROP
- "T" PIPE DOWN
- REDUCER
- UNION
- CAP
- FLEXIBLE PIPING

NOT FOR BIDDING PURPOSES

PROJECT OVERVIEW:

INTENT OF THIS PROJECT IS TO REPLACE IN KIND THE FIRE PROTECTION STANDPIPE SYSTEM AT THE DELAWARE SEASHELL STATE PARK MARINA. FIRE PROTECTION CONTRACTOR SHALL FULLY DESIGN AND INSTALL THE NEW SYSTEM WHILE OBTAINING APPROVAL FROM FIRE MARSHAL AND AUTHORITY HAVING JURISDICTION. THE DOCK SHALL REMAIN OCCUPIED/OPERATIONAL DURING CONSTRUCTION, AND THE PROJECT SHALL BE PHASED. SEE BELOW FOR GENERAL PHASING. REFER TO FP-100 FOR PHASING DETAILS.

1. DEMOLISH AND INSTALL NEW PIPING AT THE DOCK THAT CONNECTS DOCK A, DOCK B, AND THE ENTRANCE TO LAND.
2. DEMOLISH AND INSTALL NEW PIPING AT THE DOCK THAT CONNECTS DOCK C, DOCK D, DOCK E, AND THE ENTRANCE TO LAND. DOCK A AND DOCK B SHALL REMAIN OPERATIONAL.
3. DEMOLISH AND INSTALL NEW PIPING AT DOCK A. DOCK B, C, D, AND E SHALL REMAIN OPERATIONAL.
4. DEMOLISH AND INSTALL NEW PIPING AT DOCK B. DOCK A, C, D, AND E SHALL REMAIN OPERATIONAL.
5. DEMOLISH AND INSTALL NEW PIPING AT DOCK C. DOCK A, B, D, AND E SHALL REMAIN OPERATIONAL.
6. DEMOLISH AND INSTALL NEW PIPING AT DOCK D. DOCK A, B, C, AND E SHALL REMAIN OPERATIONAL.
7. DEMOLISH AND INSTALL NEW PIPING AT DOCK E. DOCK A, B, C, AND D SHALL REMAIN OPERATIONAL.

THE PHASING ABOVE IS FOR INTENT. IF CONTRACTOR HAS AN ALTERNATE WAY TO PHASE THE PROJECT, IT WILL BE ACCEPTED AFTER REVIEW BY OWNER AND ENGINEER.

FIRE PROTECTION SYSTEM NOTES:

1. THE FIRE PROTECTION WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE DESIGN, PERFORMING HYDRAULIC CALCULATIONS, INSTALLATION AND TESTING OF A NEW MANUAL DRY STANDPIPE SYSTEM FOR THE PROTECTION OF THE DELAWARE SEASHELL STATE PARK MARINA DOCKS. COORDINATE INSTALLATION AND TESTING SCHEDULE WITH OWNER AND DEDC THROUGHOUT THE PROJECT.
2. THE STANDPIPE SYSTEM SHALL BE DESIGNED BY CONTRACTORS FIRE PROTECTION NICET III PROFESSIONAL AND INSTALLED IN ACCORDANCE WITH NFPA 14, NFPA 303, THESE DRAWINGS, THE SPECIFICATIONS, DELAWARE STATE FIRE PREVENTION REGULATIONS (DSFPR) AND THE STATE OF DELAWARE FIRE MARSHAL'S OFFICE (AHJ). THE CONTRACTOR SHALL PROVIDE TO THE STATE OF DELAWARE (OWNER) A COMPLETE, FULLY OPERATIONAL AND FULLY COORDINATED STANDPIPE SYSTEM APPROVED BY THE AHJ.
3. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS, CALCULATIONS AND EQUIPMENT DATA SHEETS TO DEDC, LLC AND AHJ FOR APPROVAL PRIOR TO STARTING ANY INSTALLATION WORK.
4. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE DOCKS, DOCK OCCUPANTS AND DOCK EQUIPMENT DURING ALL INSTALLATION AND TESTING WORK. IF DAMAGES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING SUCH DAMAGES WITHOUT ANY COST TO OWNER.
5. CONTRACTOR SHALL DOCUMENT ALL FIELD CHANGES TO THE APPROVED SHOP DRAWINGS AND SHALL ISSUE FINAL AS-BUILT DOCUMENTATION TO OWNER AT COMPLETION OF THE PROJECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS AND BE RESPONSIBLE FOR PAYMENT OF ALL FEES RELATIVE TO THE INSTALLATION AND TESTING FOR THE SPRINKLER SYSTEM AND UNDERGROUND PIPING. ALL PERMIT AND APPROVAL FEES SHALL BE INCLUDED IN THE BID PRICES.
7. CONTRACTOR SHALL PERFORM FLOW TEST TO ACHIEVE BASE PRESSURE AND FLOWS.
8. STANDPIPE SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE APPROPRIATE OCCUPANCY HAZARD CLASSIFICATIONS AS LISTED IN NFPA 14 AND IN ACCORDANCE WITH THE FIRE SUPPRESSION BID SPECIFICATIONS. CONTRACTOR SHALL DETERMINE THE OCCUPANCY HAZARD FOR EACH AREA DURING DESIGN.
9. CONTRACTOR SHALL COORDINATE THE DESIGN AND INSTALLATION OF ALL STANDPIPE SYSTEM PIPING AND EQUIPMENT, INCLUDING HOSE VALVE LOCATIONS WITH ALL EXISTING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING FEATURES OF THE DOCK TO AVOID INTERFERENCES.
10. FIRE PROTECTION CONTRACTOR SHALL FIELD VERIFY PLANS FOR ACCURACY AND SHALL BE RESPONSIBLE FOR FIELD LAYOUT AND COORDINATION FOR ALL DESIGN & SHOP DRAWINGS.
11. ALL PIPING AND FITTINGS SHALL BE INSTALLED SO THAT THE SYSTEM CAN BE DRAINED AND FLUSHED IN ACCORDANCE WITH NFPA 14. TRAPPED PIPING SHALL BE DRAINED IN ACCORDANCE WITH NFPA 14.
12. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 14. ALL HANGER MATERIAL AND METHODS SHALL BE UL LISTED AND APPROVED. ALL STANDPIPE SYSTEM PIPING SHALL BE SECURED TO THE DOCK USING THE GUIDELINES AS OUTLINED IN NFPA 14.
13. THESE DRAWINGS ARE INTENDED TO SHOW INTENT ONLY. BECAUSE OF DIAGRAMMATIC LAYOUT AND SMALL SCALE OF DRAWING, NOT ALL RISERS, DROPS, OFFSETS AND RELATED SPECIALTIES ARE INDICATED. PROVIDE ALL SUCH PIPING, FITTINGS, VALVES AND SPECIALTIES REQUIRED IN SUCH CASES TO INSURE A COMPLETE AND PROPERLY OPERATING INSTALLATION IN ACCORDANCE WITH CODES AND WITHOUT EXTRA COST TO OWNER.
14. CONTRACTOR SHALL VISIT THE JOB SITE AND OBSERVE ALL EXISTING CONDITIONS. THE CONTRACTOR MUST SURVEY AND VERIFY LOCATIONS AND PHYSICAL SIZES OF ALL EXISTING ITEMS AND DETERMINE/DESIGN FINAL PIPE ROUTING, INCLUDING ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WORK AS PART OF THEIR CONTRACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
15. NEW FIRE PIPING SHALL BE LOCATED IN THE JOIST CAVITIES DIRECTLY BELOW THE DOCK DECKING. JOIST CAVITIES CONTAIN EXISTING ELECTRICAL WIRING, DOMESTIC WATER AND JOISTS FOR TAKEOFFS TO STANDPIPES AND EACH DOCK. CONTRACTOR SHALL ROUTE PIPING AROUND EXISTING UTILITIES. COORDINATE WITH OWNER FOR ALL LOCATIONS WHERE CONFLICTS OCCUR PRIOR TO INSTALLATION.
16. ALL SHUTDOWNS OF EXISTING SYSTEMS FOR EACH PHASE SHALL BE COORDINATED WITH OWNER AND FIRE MARSHAL A MINIMUM OF 48 HOURS PRIOR TO SHUT DOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF ANY STAND BY AND FIRE WATCH PERSONNEL REQUIRED.
17. CONTRACTOR SHALL PROVIDE ALL MEANS NEEDED TO TEST THE SYSTEM. PROVIDE AN AIR COMPRESSOR AND CONNECTION TO PRESSURIZE AND TEST THE SYSTEM THROUGHOUT THE PROJECT. CONFIRM ELECTRICAL REQUIREMENTS ONSITE WITH REQUIRED ELECTRICAL PROVISIONS.



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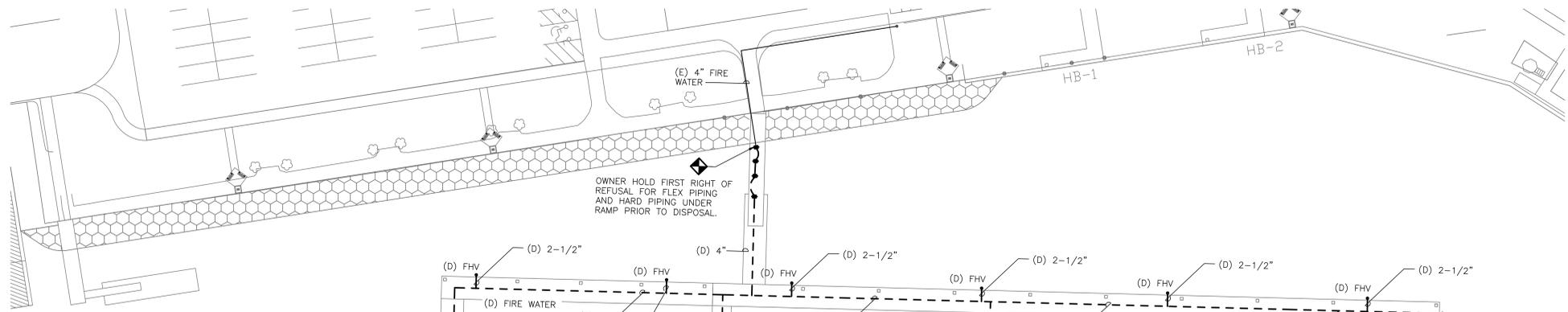
PROJECT TITLE: MARINA FIRE SUPPRESSION SYSTEM REPLACEMENT

REVISIONS					
REV.	REVISIONS	RVSD	CHCKD	APRVD	DATE
0	ISSUED FOR BID	DBB	MLF	MLF	11/14/19

JOHN R. FARINA P.E.
 DELAWARE PE# 13559

SCALE	AS NOTED	DATE	REVISION NO.	0
DRAWN BY	DBB	6/26/19		
CHECKED BY	MLF	6/28/19		
APPROVED BY	MLF	7/22/19		

FP-001

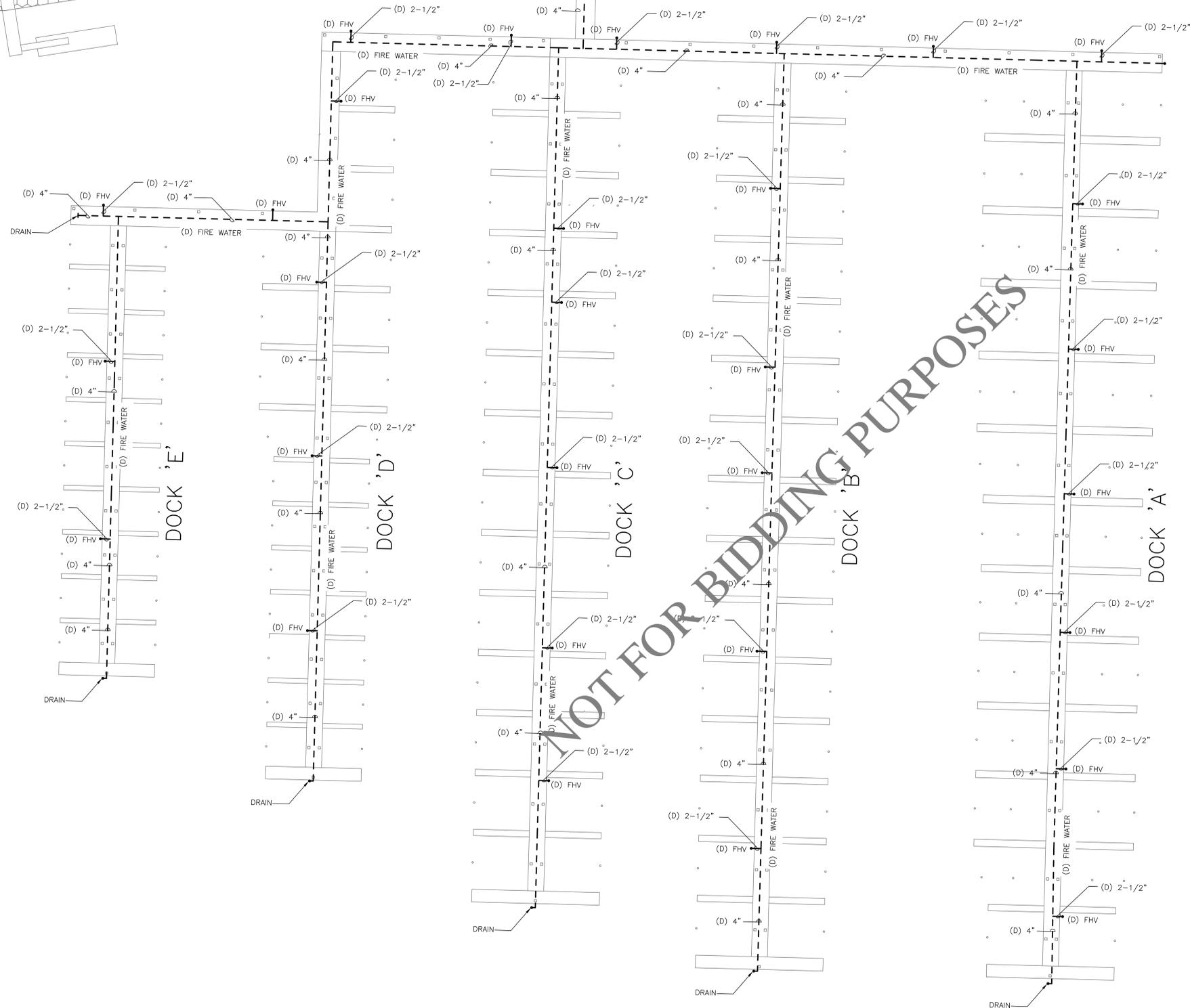


GENERAL NOTES:

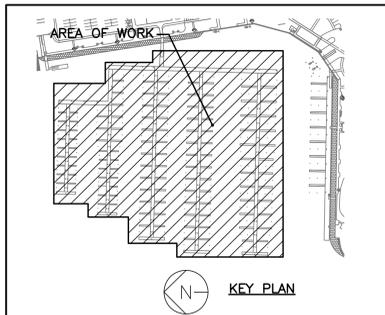
1. REFER TO DRAWING FP-001 FOR LEGENDS, ABBREVIATIONS, NOTES, AND DETAILS.
2. EXTENT OF DEMOLITION TO SHALL BE CONFINED TO DOCKS 'A' THRU 'E' AND CONNECTING DOCKS.
3. ALL FIRE PIPING TO BE REMOVED IS SUSPENDED BELOW THE DOCKS.

PHASING NOTES:

1. THIS DRAWING SHOWS THE COMPLETE DEMOLITION OF THE EXISTING DOCK FIRE PROTECTION SYSTEM. DEMOLITION SHALL BE PHASED, IN ACCORDANCE WITH 'PROJECT OVERVIEW' GENERAL PHASING AND PHASING KEY NOTES ON DRAWING FP-100.



NOT FOR BIDDING PURPOSES



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 DEDIC Project # SP1908

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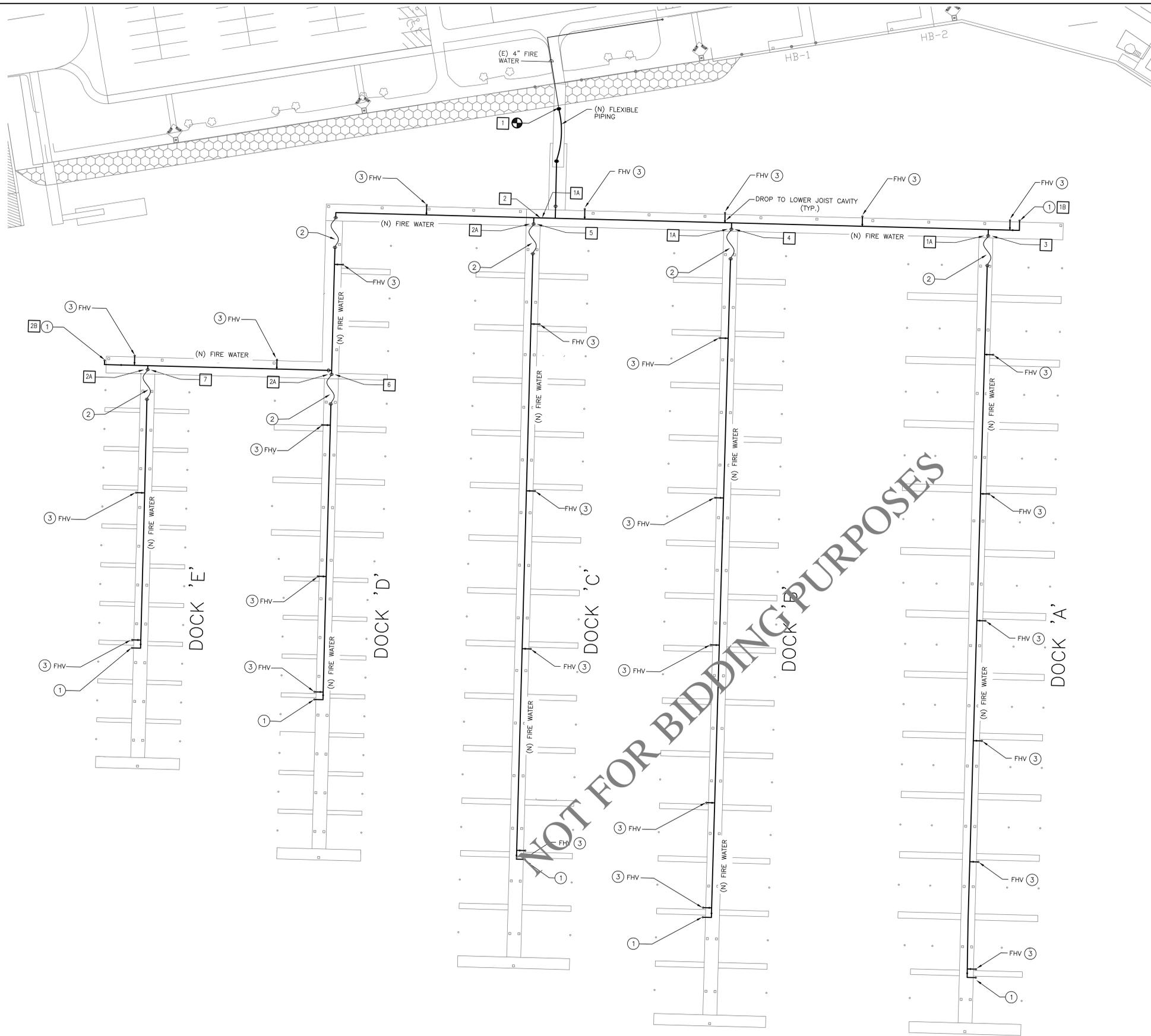
1 FIRE PROTECTION DEMOLITION PLAN

FP-100 SCALE: 1"=30'-0"

JOHN R. FARINA P.E.
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GENERAL NOTES:

1. REFER TO DRAWING FP-001 FOR LEGENDS, ABBREVIATIONS, NOTES, AND DETAILS.
2. EXTENT OF NEW WORK SHALL BE CONFINED TO DOCKS 'A' THRU 'E' AND CONNECTING DOCKS.
3. ALL NEW FIRE PIPING TO BE INSTALLED SHALL BE SUSPENDED BELOW THE DOCKS.
4. THE DOCKS SHALL BE OCCUPIED DURING CONSTRUCTION AND MUST BE FREE OF OBSTRUCTIONS AND CONSTRUCTION DEBRIS.

NEW WORK NOTES:

- ① PROVIDE DRAIN AT LOW POINT AT END OF FIRE PIPE. NOT ALL DRAINS SHOWN. CONTRACTOR TO DESIGN ADDITIONAL LOW POINT DRAINS. DRAINS SHALL BE PER NFPA 14 AND 303.
- ② PROVIDE FLEXIBLE CONNECTION FOUR (4) FEET MINIMUM.
- ③ NEW STAND PIPES / FIRE HOSE VALVES ABOVE DOCKS, SEE DETAIL 1/FP-001.

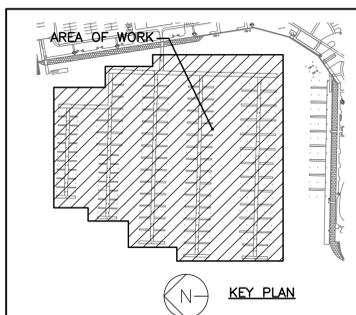
PHASING NOTES:

1. REFERENCE 'PROJECT OVERVIEW' DRAWING FP-001 FOR GENERAL PHASING.
2. UPON COMPLETION OF A PHASE, THE SYSTEM SHALL BE TESTED AND INSPECTED PER THE CONSTRUCTION DOCUMENTS. NO PHASE IN CONSTRUCTION SHALL BE CONNECTED TO A FUNCTIONING PHASE UNTIL THE PHASE IN CONSTRUCTION IS COMPLETED.

PHASING KEYED NOTES:

- 1 PHASE 1: START OF NEW WORK. CONNECT TO EXISTING FLEXIBLE PIPING.
- 1A PHASE 1: TERMINATION POINT OF NEW WORK ASSOCIATED WITH PHASE 1. TEMPORARILY CAP PIPING AT POINT INDICATED TO MAINTAIN INTEGRITY OF SYSTEM.
- 1B PHASE 1: END OF NEW WORK ASSOCIATED WITH PHASE 1.
- 2 PHASE 2: START OF NEW WORK. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 2 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. DOCKS A AND B SHALL REMAIN OPERATIONAL DURING THIS PHASE.
- 2A PHASE 2: TERMINATION POINT OF NEW WORK ASSOCIATED WITH PHASE 2. TEMPORARILY CAP PIPING AT POINT INDICATED TO MAINTAIN INTEGRITY OF SYSTEM.
- 2B PHASE 2: END OF NEW WORK ASSOCIATED WITH PHASE 2.
- 3 PHASE 3: START OF NEW WORK WITHIN DOCK 'A'. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 3 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. TEMPORARILY CAP PHASE 1 CONNECTION PIPING DURING REPLACEMENT OF DOCK A. DOCKS B, C, D, AND E SHALL REMAIN OPERATIONAL DURING THIS PHASE.
- 4 PHASE 4: START OF NEW WORK WITHIN DOCK 'B'. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 4 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. TEMPORARILY CAP PHASE 1 CONNECTION PIPING DURING REPLACEMENT OF DOCK B. DOCKS A, C, D, AND E SHALL REMAIN OPERATIONAL DURING THIS PHASE.
- 5 PHASE 5: START OF NEW WORK WITHIN DOCK 'C'. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 5 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. TEMPORARILY CAP PHASE 1 CONNECTION PIPING DURING REPLACEMENT OF DOCK C. DOCKS A, B, D, AND E SHALL REMAIN OPERATIONAL DURING THIS PHASE.
- 6 PHASE 6: START OF NEW WORK WITHIN DOCK 'D'. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 6 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. TEMPORARILY CAP PHASE 1 CONNECTION PIPING DURING REPLACEMENT OF DOCK D. DOCKS A, B, C, AND E SHALL REMAIN OPERATIONAL DURING THIS PHASE.
- 7 PHASE 7: START OF NEW WORK WITHIN DOCK 'E'. CONNECTING TO PHASE 1 IS PROHIBITED AT POINT INDICATED UNTIL PHASE 7 IS COMPLETE AND SHALL BE THE FINAL CONNECTION TO MAINTAIN THE INTEGRITY OF SYSTEM. TEMPORARILY CAP PHASE 1 CONNECTION PIPING DURING REPLACEMENT OF DOCK E. DOCKS A, B, C, AND D SHALL REMAIN OPERATIONAL DURING THIS PHASE.

NOT FOR BIDDING PURPOSES



1 FIRE PROTECTION NEW WORK PLAN
 FP-100 SCALE: 1"=30'-0"

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