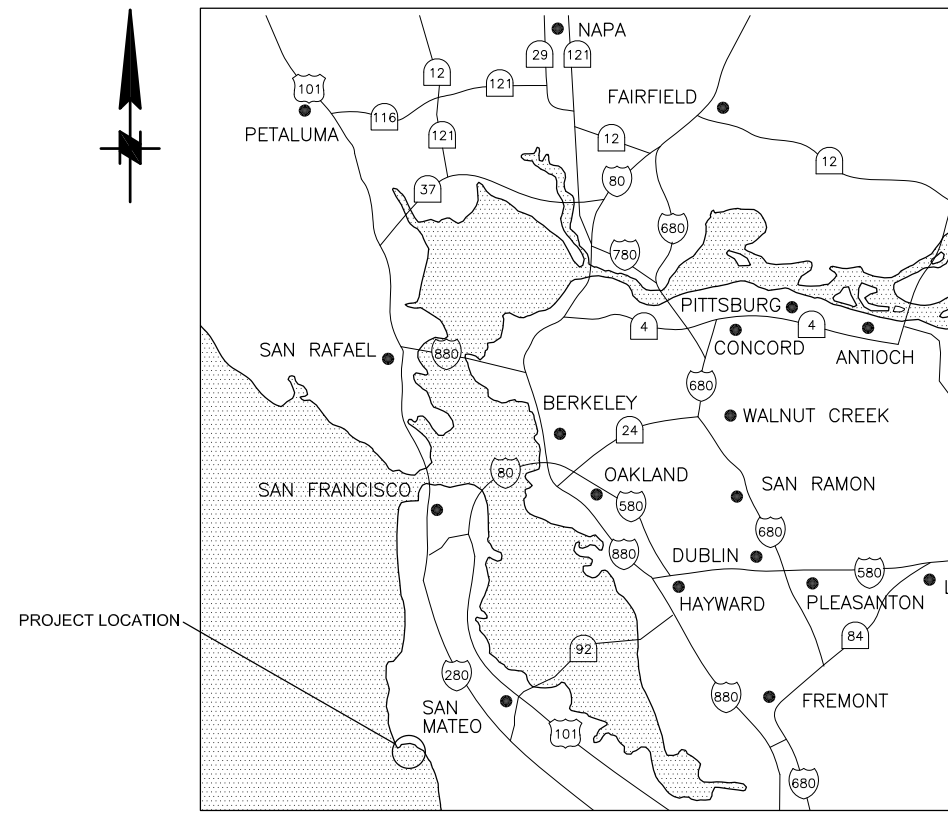


JOHNSON PIER PILE REPAIRS

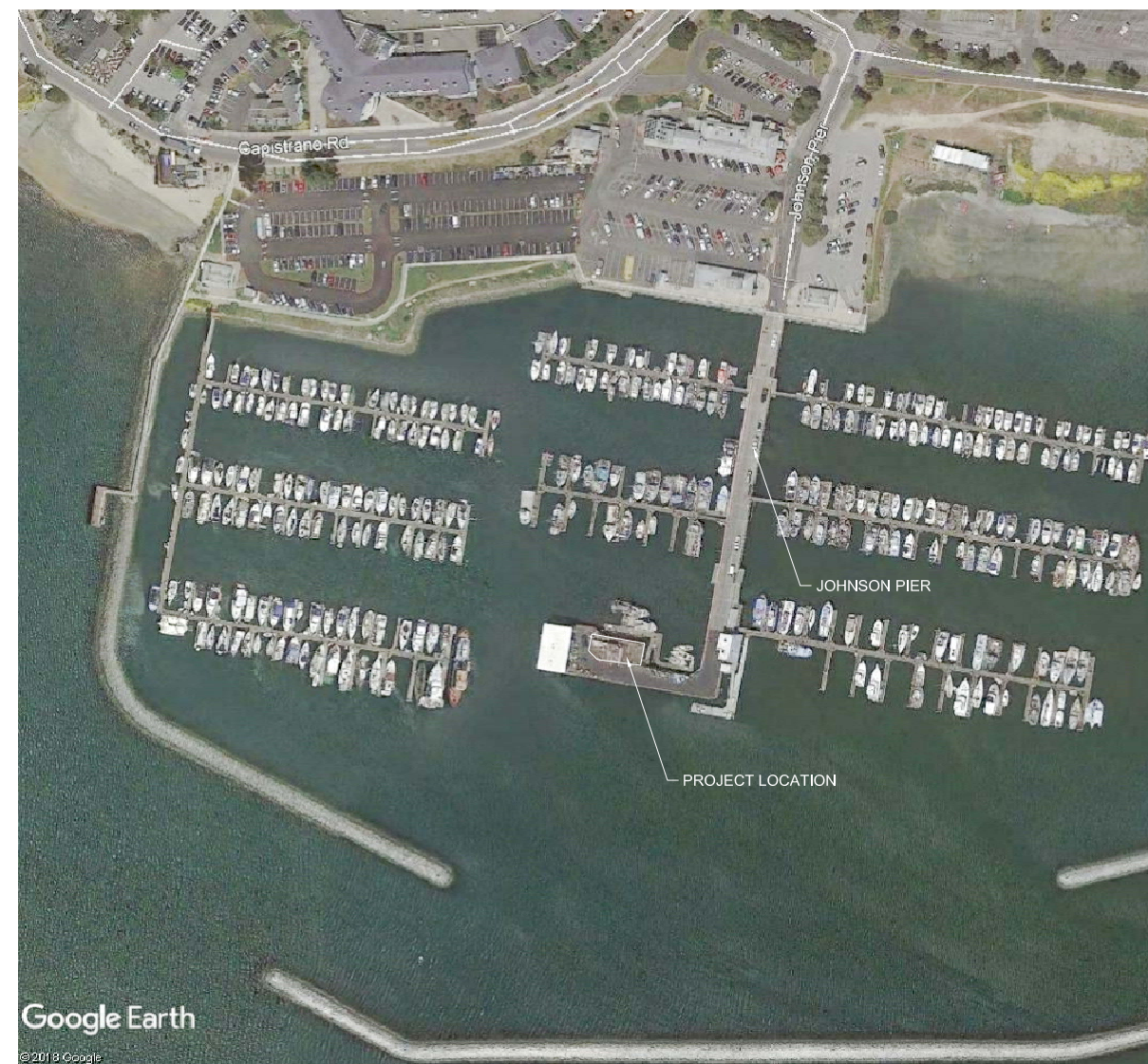
SAN MATEO COUNTY HARBOR DISTRICT

SAN MATEO COUNTY, CALIFORNIA

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1	T01	TITLE SHEET
2	G01	GENERAL NOTES
3	S01	PILE PLAN
4	S02	PILE REPAIR DETAIL



VICINITY MAP
NTS



LOCATION MAP
NTS

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DSGN SC	DR PH	CHK BP/JJ
JOB NO. 9673-10	SUBMITTED BY	TITLE

SAN MATEO COUNTY HARBOR DISTRICT JOHNSON PIER PILE REPAIRS	DATE: 16 SEPTEMBER 2019
	SHEET 1 OF 4
TITLE SHEET	T01

GENERAL

- EXISTING SITE FEATURES BASED UPON SITE VISIT CONDUCTED BY MOFFATT & NICHOL MARCH 2019 AND DRAWINGS BY COWI MARINE NORTH AMERICA, DATED FEBRUARY 21, 2017.
- PROJECT VERTICAL DATUM IS MEAN LOWER LOW WATER. TIDAL RANGE AT PILLAR POINT HARBOR IS AS FOLLOWING:

WATER LEVEL	ELEVATION (FT)
MEAN HIGHER HIGH WATER (MHHW)	5.60
MEAN HIGH WATER (MHW)	4.95
MEAN TIDE LEVEL (MTL)	3.03
MEAN LOW WATER (MLW)	1.14
MEAN LOWER LOW WATER (MLLW)	0.00

- ALL WORK SHALL BE PERFORMED AT LOW TIDE DURING DAYLIGHT HOURS.
- PROTECT ALL EXISTING SITE FEATURES NOT CALLED OUT TO BE DEMOLISHED. REPAIR ANY DAMAGE DONE TO EXISTING FEATURES TO REMAIN.
- DIMENSIONS NOTED AS PLUS OR MINUS (±) OR "REF" INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. THEY ARE TO BE FIELD VERIFIED BY THE CONTRACTOR.
- VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD BEFORE PROCEEDING. NOTIFY OWNER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS THE CONTRACTOR SHALL OBTAIN WRITTEN DIRECTION FROM OWNER BEFORE PROCEEDING. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS - DO NOT SCALE DRAWINGS.
- ALL BMPS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AS WELL AS AT THE END OF EACH WORK DAY.
- PROVIDE CATCHMENT TO PREVENT ANY MATERIAL FROM FALLING INTO THE WATER DURING DEMOLITION AND CONSTRUCTION. ALL CAUGHT MATERIAL SHALL BE REMOVED IMMEDIATELY OR BY THE END OF THE WORK DAY.
- PROVIDE SILT CURTAINS TO CONTAIN SEDIMENT DISTURBANCE WITHIN REPAIR AREA.
- FOREIGN MATERIALS (E.G. DEMOLITION DEBRIS, WOOD PRESERVATIVES, OTHER CHEMICALS, ETC.) SHALL BE PREVENTED FROM ENTERING THE HARBOR AND COASTAL WATERS.
- MAINTAIN GOOD CONSTRUCTION SITE HOUSEKEEPING: KEEP ALL MATERIALS COVERED AND OUT OF RAIN, PLACE TRASH RECEPTACLES ON SITE AND DISPOSE OF WASTE PROPERLY. COVER TRASH RECEPTACLES IN WET WEATHER.
- INSPECT PROJECT AREA AT COMPLETION OF WORK TO ENSURE NO DEBRIS, TRASH, OR CONSTRUCTION MATERIALS ARE LEFT AT THE SITE OR IN ADJACENT COASTAL WATERS.
- REMOVAL ACTIVITIES ARE PROHIBITED OUTSIDE OF THE LIMITS OF THE DESIGNATED CONSTRUCTION AND DEMOLITION.
- ALL ADVERSELY AFFECTED ACCESS POINTS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER WITHIN 3 DAYS OF COMPLETION OF CONSTRUCTION.
- EQUIPMENT WASHING, FUELING, AND/OR SERVICING SHALL NOT TAKE PLACE ON THE BEACH, DOCK, OR PIER. WORK VEHICLES WILL BE MAINTAINED AND WASHED IN CONFINED AREAS DESIGNED TO CONTROL RUNOFF AND LOCATED MORE THAN 100 FEET AWAY FROM THE MEAN HIGH TIDE LINE.
- ENSURE THAT WORK CREWS ARE BRIEFED TO OBSERVE APPROPRIATE PRECAUTIONS AND REPORT ANY SPILLS.
- WHERE REFERENCE IS MADE TO STANDARD SPECIFICATIONS, REFERENCE SHALL MEAN STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS, LATEST EDITION EXCLUDING MEASUREMENT AND PAYMENT ITEMS.

PERMITS

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE REGULATORY WORK WINDOWS AND PERMIT CONDITIONS PER PERMITS FROM THE FOLLOWING AGENCIES:
 - US ARMY CORPS OF ENGINEERS
 - REGIONAL WATER QUALITY CONTROL BOARD
 - CALIFORNIA COASTAL COMMISSION
 - CALIFORNIA ENVIRONMENTAL QUALITY ACT - CATEGORICAL EXEMPTION

LUMBER

- NEW TIMBER PILE SEGMENTS SHALL BE TREATED DOUGLAS FIR ROUND TIMBER PILES CONFORMING TO ASTM D25. TREATMENT SHALL BE FOR SALTWATER SEVERE BORER HAZARD TO A MINIMUM NET RETENTION OF 2.5 PCF.

PILE REPAIR

- TIMBER PILINGS INDICATED SHALL BE REPAIRED WITH A STRUCTURAL REPAIR: FIBERGLASS JACKET ENCASING A STEEL REINFORCED EPOXY GROUT FILL, SIMPSON FX-70 SYSTEM OR APPROVED EQUAL.
- FIBERGLASS JACKET AND GROUT PORT SHALL BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
- MONITOR PRESSURE-INJECTION OR GRAVITY-FEED GROUT APPLICATION TO ENSURE MATERIAL DOES NOT LEAK INTO WATER.
- EXCESS GROUT THROUGH PORTS SHALL BE COLLECTED AND REMOVED FROM WATER.

HARDWARE

- ALL STEEL PLATES, ANGLES, BOLTS, LAG BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED. BOLTS SHALL HAVE FLAT WASHERS AT THE NUT AND HEAD.
- BOLTS SHALL CONFORM TO ASTM A307A.

REINFORCEMENT

- REINFORCEMENT SHALL CONFIRM TO ASTM A615.

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JOHNSON PIER PILE REPAIRS

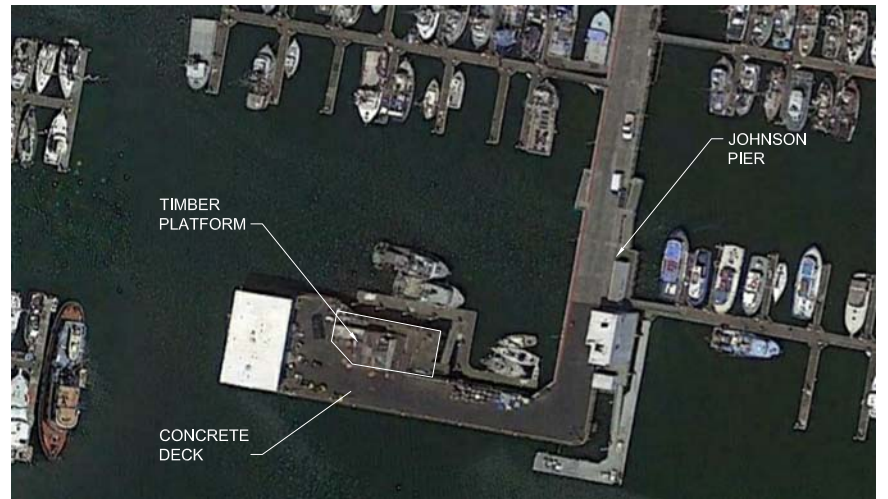
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 SHEET 2 OF 4

GENERAL NOTES

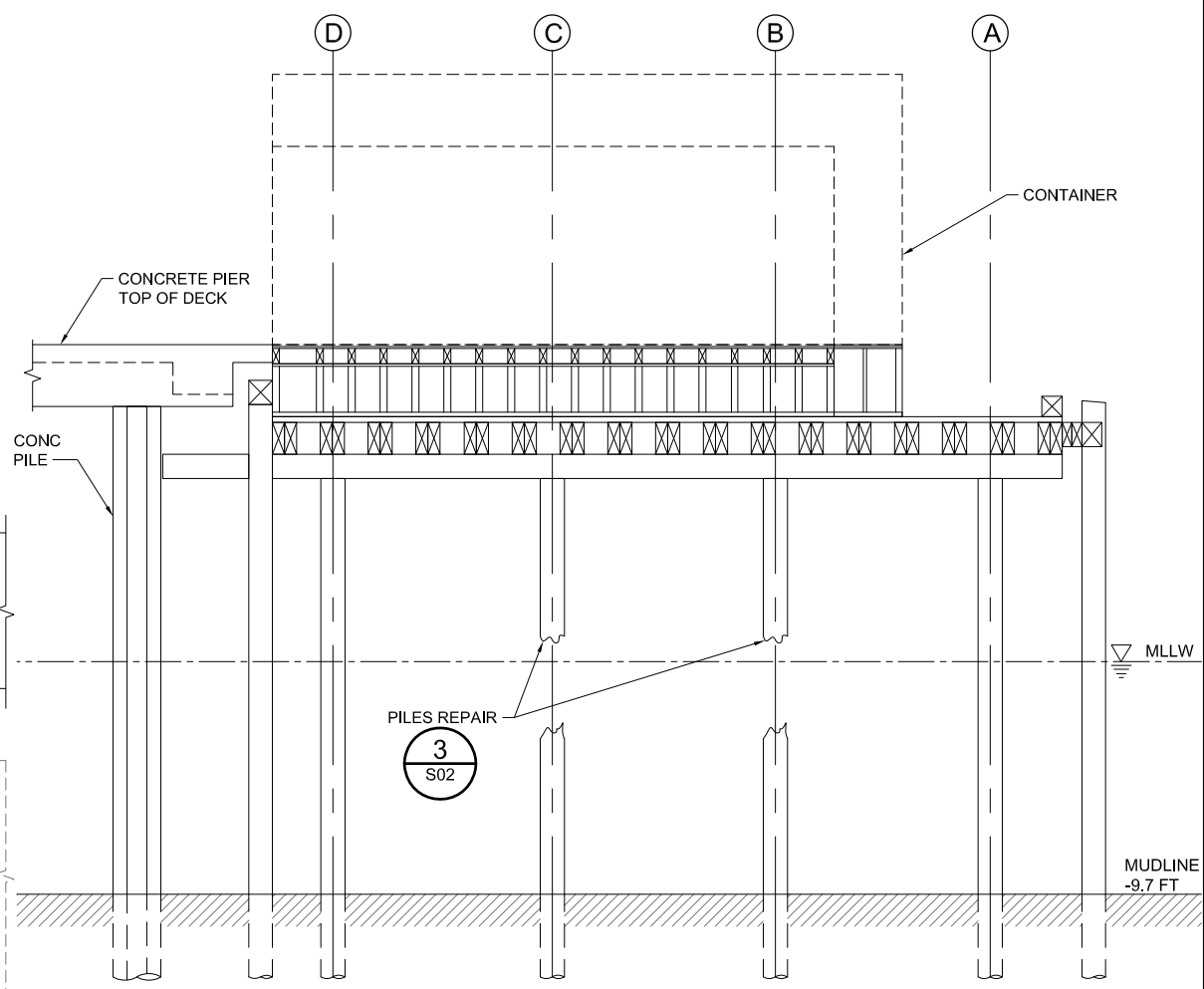
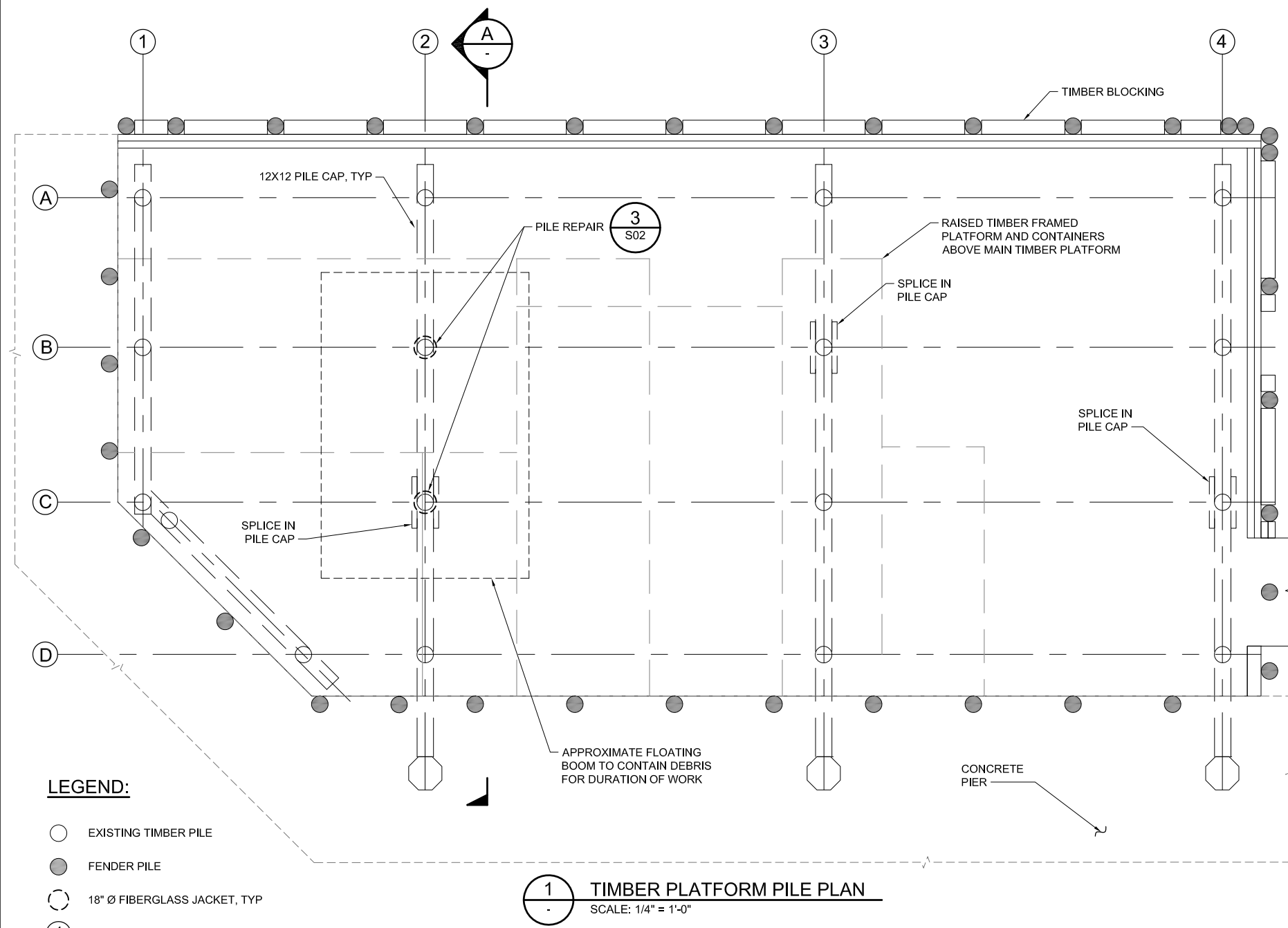
G01

NOTES:

1. PLAN IS INTENDED TO PROVIDE A BASIC LAYOUT OF THE TIMBER PLATFORM, IT IS BASED ON DRAWINGS PROVIDED AND MAY NOT ACCURATELY DEPICT ACTUAL DIMENSIONS AND LAYOUT OF STRUCTURAL COMPONENTS. FIELD VERIFICATION OF AS-BUILT CONDITIONS IS RECOMMENDED.
2. ALL FEATURES SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.



KEY PLAN
NO SCALE



LEGEND:

- EXISTING TIMBER PILE
- FENDER PILE
- 18" Ø FIBERGLASS JACKET, TYP
- ① PILE BENT DESIGNATION
- Ⓐ PILE ROW DESIGNATION

1 TIMBER PLATFORM PILE PLAN
SCALE: 1/4" = 1'-0"

A SECTION
SCALE: 1/4" = 1'-0"



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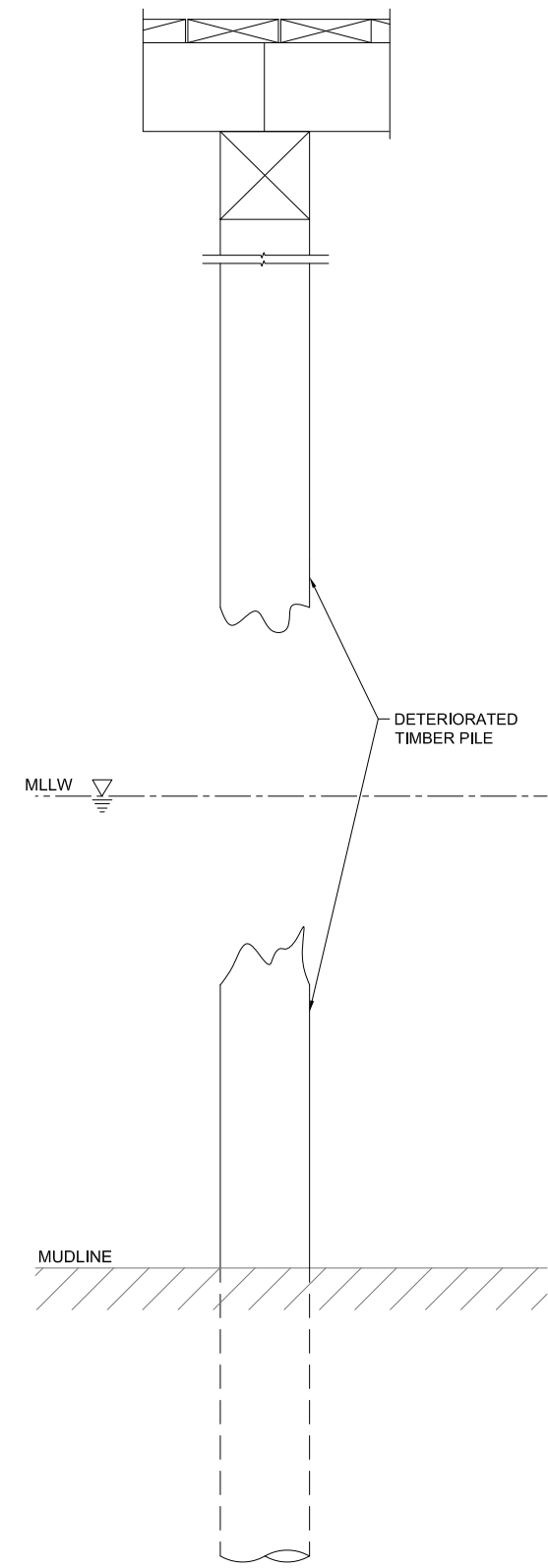
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PILE PLAN S01

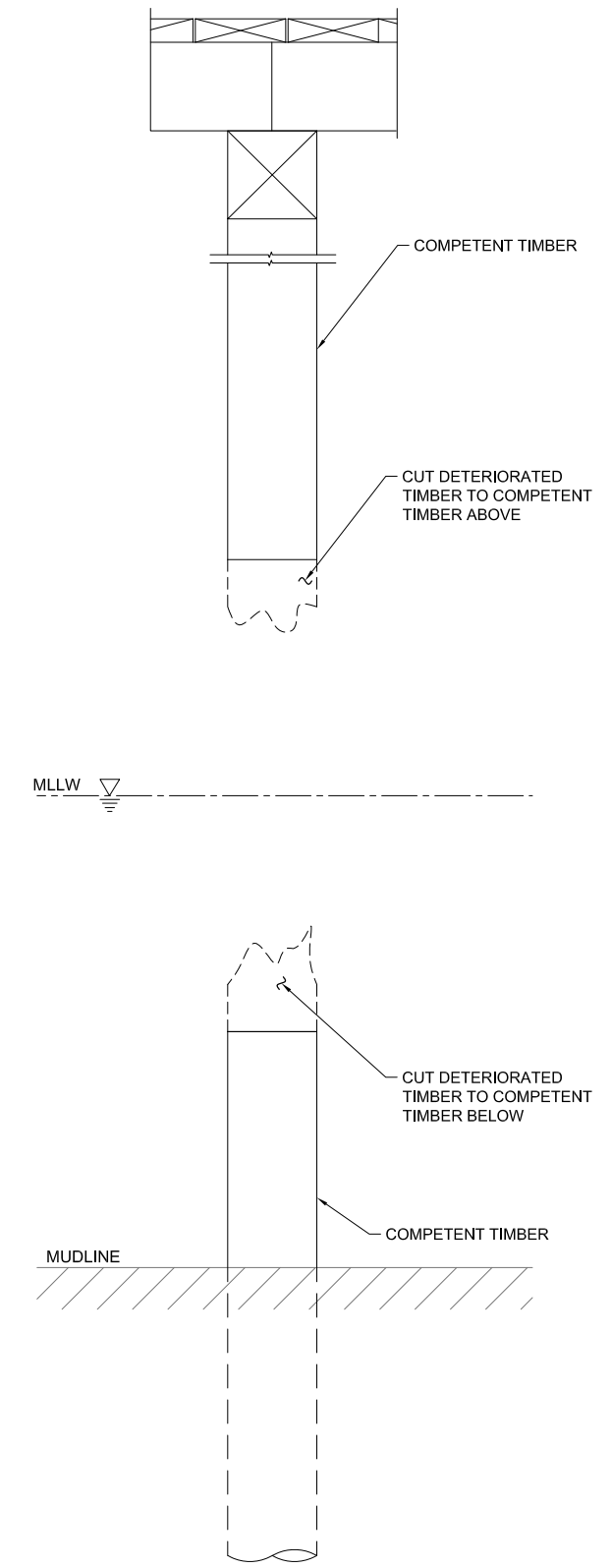
NOTES:

ORDER OF WORK:

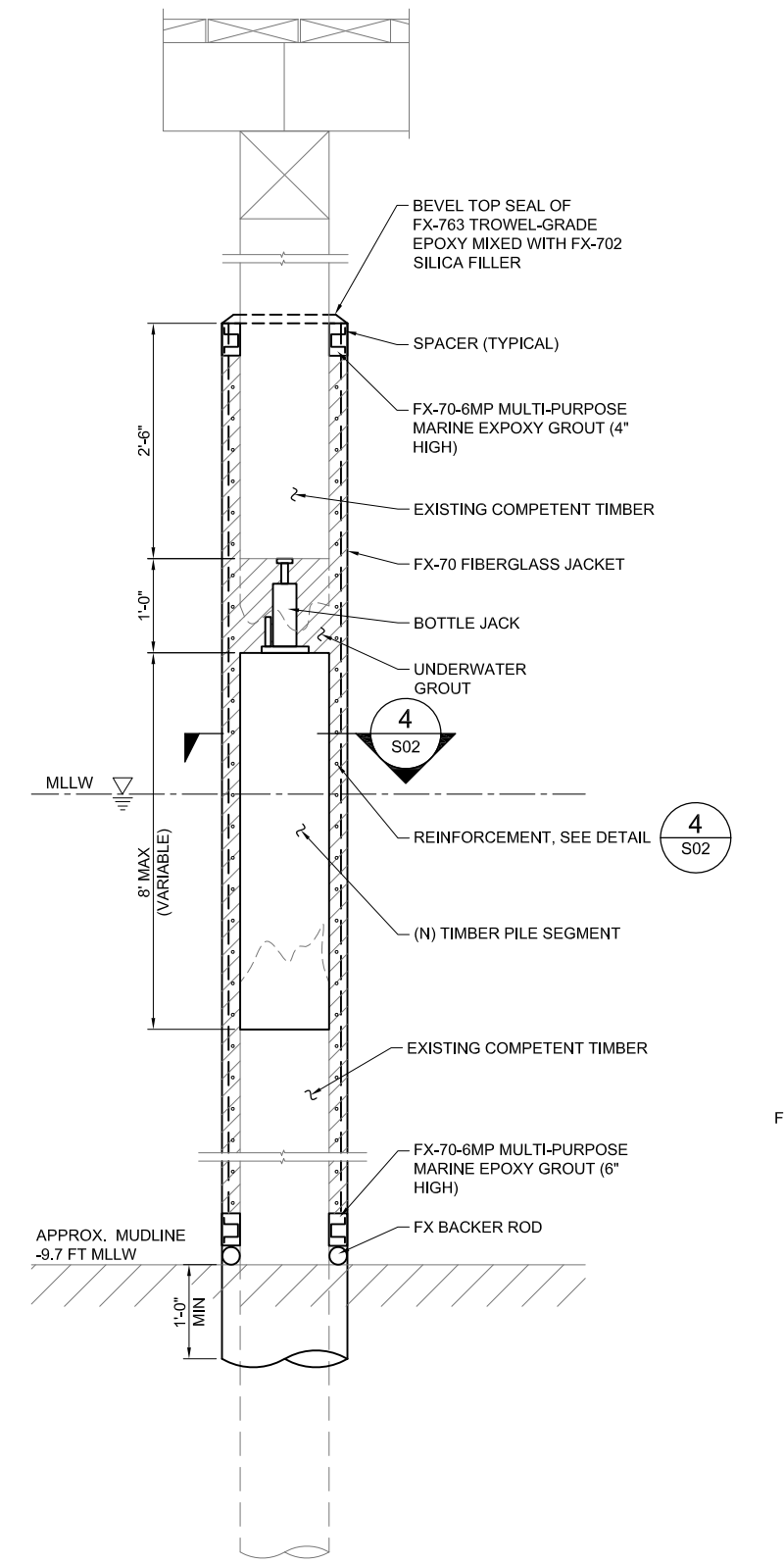
- MECHANICALLY (WATER BLAST / WIRE BRUSH) REMOVE GREASE, RUST, MARINE GROWTH, LOOSE AND UNSOUND WOOD, AND OTHER BOND INHIBITING MATERIALS.
- PROVIDE PATH FOR WATER TO ESCAPE AS GROUT DISPLACES IT FROM BELOW. LEAVE NO POCKETS, CUT A GROOVE OR DRILL HOLE AT TOP OF INTERIOR VOIDS.
- CUT UPPER AND LOWER SECTION OF DETERIORATED PILE AT COMPETENT TIMBER --"FRESH HEAD" PILE. CLEAN PILE VOIDS.
- MEASURE GAP BETWEEN UPPER AND LOWER SECTIONS OF COMPETENT TIMBER.
- SUPPORT NEW PILE SEGMENT ON LOWER SECTION OF COMPETENT TIMBER WITH 1 FT GAP TO UPPER SECTION OF COMPETENT TIMBER
- INSTALL BOTTLE JACK (8 TON HYDRAULIC, MCMASTER CARR 8803T15 OR EQUAL) ABOVE NEW PILE SEGMENT TO RESTORE LOAD BEARING.
- INSTALL FIBERGLASS JACKET AROUND PILE PER MANUFACTURES SPECIFICATION WITH REINFORCEMENT IN ANNULUS. GROUT SOLID WITH BOTTLE JACK LEFT IN PLACE.



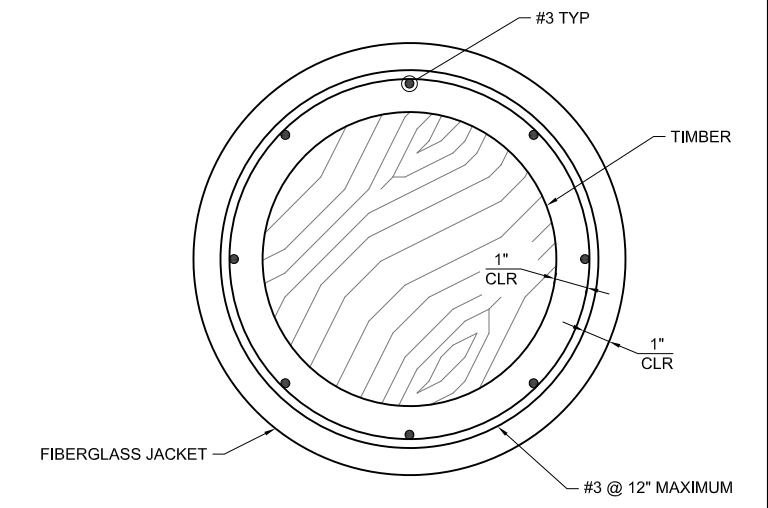
1 EXISTING CONDITION
SCALE: 1" = 1'-0"



2 PILE PREPARATION
SCALE: 1" = 1'-0"



3 PILE REPAIR
SCALE: 1" = 1'-0"



4 REINFORCEMENT DETAIL
SCALE: 3" = 1'-0"

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SHEET 4 OF 4

PILE REPAIR DETAIL **S02**