DOCK REPLACEMENT WOODS BAY FISHING ACCESS











BAY DOCK

REVISION DATE

09/18/2023

09/18/2023

09/18/2023

09/18/2023

09/18/2023

09/18/2023

WOODS

DATE: 11/24/202

2 REVISION 2

TITLE SHEET

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WOODS BAY, MONTANA

OWNER / DEVELOPER

MONTANA FISH, WILDLIFE AND PARKS 1522 NINTH AVE. PO BOX 200701 HELENA, MT 59620 ATTN: JAMIE MONGOVEN EMAIL: JMONGOVEN@MT.GOV

CIVIL

JACKOLA ENGINEER & ARCHITECTURE, P.C. 2250 US HIGHWAY 93 S KALISPELL, MT 59901 ATTN: TOBY MCINTOSH, PE

STRUCTURAL

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WOODS BAY, MONTANA

GENERAL NOTES

SITE LOCATION ST

- 1. CONTRACTOR TO REVIEW AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK, ANY CONDITIONS NOT INDICATED ON CONTRACT DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO REGINNING WORK
- 2. CONTRACTOR TO CONTACT LOCAL UTILITIES, IF NECESSARY, SUBMIT ALL APPLICABLE PERMIT DOCUMENTS, QUALIFICATIONS, ETC., AND BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH PERMITS, UTILITY EXTENSIONS, TAP-INS, ETC.
- 3. THE CONTRACTOR SHALL REMOVE ALL DEBRIS AS A RESULT OF THIS PROJECT. THE CONTRACTOR WILL REMOVE EXISTING EQUIPMENT, FIXTURES, ETC. IN THE SPACE PRIOR TO CONSTRUCTION AND RELOCATE PER OWNER
- 4. THE CONTRACTOR SHALL SCHEDULE HIS WORK AND MATERIAL AND EQUIPMENT DELIVERIES SO AS NOT TO INTERFERE WITH THE DAILY OPERATIONS OF THE REMAINDER OF THE FACILITY.
- 5. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, EQUIPMENT, FIXTURES, ETC. FROM DAMAGE DURING THE COURSE OF CONSTRUCTION.
- 6. ALL SURFACES AND/OR FINISHES DAMAGED AS A RESULT OF AND ADJACENT TO THE WORK SHALL BE REPAIRED AND FINISHED TO THEIR ORIGINAL CONDITION.
- 7. EACH SUBCONTRACTOR IS RESPONSIBLE TO COORDINATE AND SCHEDULE HIS WORK WITH THE GENERAL CONTRACTOR AND ALL OTHER SUBCONTRACTORS WHOSE WORK WILL BE AFFECTED.

- 8. USE DETAILS MARKED 'TYPICAL' (TYP) WHEREVER APPLICABLE.
- 9. ALL ITEMS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY PERSONS SKILLED IN THEIR RESPECTIVE TRADE AND WHO. NORMALLY PARTICIPATE IN THE WORK OF THAT TRADE
- 10. WORDS WHICH HAVE WELL KNOWN TECHNICAL OR TRADE MEANINGS ARE USED IN THE DRAWINGS AND SPECIFICATIONS IN ACCORDANCE WITH SUCH RECOGNIZED MEANINGS.
- 11. WITHIN THE DRAWINGS AND RELATED SPECIFICATIONS THERE SHALL BE THE FOLLOWING PRECEDENCE:
- A) ADDENDA OR MODIFICATIONS TO THE DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER THE ORIGINAL, WHEN ISSUED BY THE ENGINEER.
- B) SPECIFICATIONS SHALL TAKE PRECEDENCE OVER DRAWINGS.
- C) WITHIN THE DRAWINGS THE LARGER SCALE TAKES PRECEDENCE OVER THE SMALLER, FIGURED DIMENSIONS OVER SCALED AND NOTED MATERIALS OVER GRAPHIC INDICATIONS
- 12. THE ENGINEER SHALL BE IN THE FIRST INSTANCE THE SOLE INTERPRETER OF THE DRAWINGS AND SPECIFICATIONS WITH REGARD TO THEIR MEANING OR INTENT.
- 13. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY DURING BUILDING

GENERAL CONDITIONS

SHEET#

TITLE SHEET

EXISTING SITE SURVEY

OVERALL SITE PLAN

STRUCTURAL NOTES

STRUCTURAL NOTES

DOCK PLAN

ELEVATIONS

DETAILS

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C1.11

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THE GENERAL CONTRACTOR IS TO GUARANTEE ALL WORK INCLUDING WORK DONE BY SUBCONTRACTORS FOR A MINIMUM PERIOD OF ONE (1) YEAR COMMENCING WITH THE SUBSTANTIAL COMPLETION OF THE CONTRACT UNLESS A DIFFERENT TIME PERIOD IS INDICATED IN THE CONTRACT.

SHEET LIST

SHEET TITLE

SITE AND LAKE PROTECTION PLAN

SITE AND LAKE PROTECTION PLAN

ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL GOVERNING CODES, ORDINANCES AND AUTHORITIES HAVING JURISDICTION. GENERAL CONTRACTOR IS RESPONSIBLE FOR ORTAINING AND PAYING FOR ALL REQUIRED BUILDING PERMITS

THE GENERAL CONTRACTOR IS TO HAVE A FULL TIME QUALIFIED SUPERVISOR ON THE

ALL MATERIAL SPECIFIED IS TO BE NEW & INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS. GENERAL CONTRACTOR IS TO CONSTRUCT PROJECT IN ACCORDANCE WITH THE DOCUMENTS. ANY DEVIATION FROM THE INTENT OF THE DOCUMENTS, WITHOUT ARCHITECT OR ENGINEER'S APPROVAL, ARE AT THE CONTRACTOR'S OWN RISK AND MAY RESULT IN THE WORK BEING DONE OVER AT CONTRACTOR'S EXPENSE (MATERIALS AND LABOR)



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WOODS BAY DOCK WOODS BAY, MONTANA

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EXISTING SITE SURVEY

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OVERALL SITE PLAN

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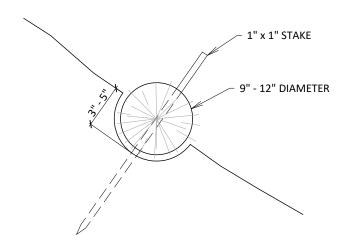
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SITE AND LAKE PROTECTION PLAN

C1.11



- 1. PREPARE THE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED.
- 2. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
- 3. DIG SMALL TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF IT'S THICKNESS BECAUSE THE GROUND WILL SETTLE.
- 4. IS IT CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
- 5. START BUILDING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
- CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3-12 FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES.
- LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN TE SOIL AND THE STRAW WATTLE.
- USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES.
- 9. DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY ONE OR TWO INCHES OF STAKE EXPOSED ABOVE ROLL.
- 10. INSTALL S TAKES AT LEAST EVERY 4 FEET APART THROUGH THE WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY EROSIVE OR VERY STEEP SLOPES.

INSPECTION AND MAINTENANCE:

- 1. INSPECT THE STRAW ROLLS AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE ROLLS ARE IN CONTACT WITH THE SOIL. REPAIR ANY RILLS OR GULLYS PROMPTLY.
- WATTLES STAKED ALONG THE CONTOUR OF NEWLY CONSTRUCTED OR DISTURBED SLOPES CAN OFTEN BE USED TO REPLACE SEDIMENT FENCES ON STEEP SLOPES.

STRAW WATTLE SEDIMENT BARRIER







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GENERAL NOTES AND DETAILS

C2.00

STRUCTURAL DESIGN

A. GOVERNING CODES AND GENERAL NOTES

INTERNATIONAL BUILDING CODE (IBC) 2018

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)- MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES- ASCE 7-16 AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)- PLANNING AND DESIGN GUIDELINES FOR SMALL CRAFT HARBORS- ASCE NO. 50

AMERICAN CONCRETE INSTITUTE (ACI) - BUILDING CODE & COMMENTARY ACI 318-14

AMERICAN INSTITUTE STEEL OF CONSTRUCTION (AISC) - STEEL CONSTRUCTION MANUAL FOURTEENTH EDITION AISC 360-16 THE CONTRACTOR IS RESPONSIBLE FOR LOCATING OR HAVING LOCATED THE DOCK ON THE SITE AND VERIFYING ALL FOUNDATION DIMENSIONS, VERIFYING EXISTING CONDITIONS, AND SETBACK REQUIREMENTS FROM EASEMENTS AND PROPERTY LINES PRIOR TO CONSTRUCTION.

B. DESIGN LOADS

1. DOCK WAVE LOAD	494 PLF
2. DOCK WIND LOAD	222 PLF
3. DOCK ICE UPLIFT LOAD	BY GEOTECH
4. DOCK IMPACT LOAD	224 LBS
5. DOCK CURRENT LOAD	25 PLF
6. DOCK LIVE LOAD	40 PSF
7. CONCENTRATED DOCK LIVE LOAD	500 LBS
8. RESULTANT LATERAL LOAD	74.1 KIPS

STRUCTURAL DESIGN INFORMATION

- DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC SPECIFICATIONS AND CODES, LATEST EDITION
- PROVIDE MATERIAL CONFORMING TO THE FOLLOWING REQUIREMENTS FOR ALL STRUCTURAL STEEL:
 - HOLLOW STRUCTURAL SECTION (HSS): ASTM A500, GRADE B, Fy=46 KSI
 - PLATES: ASTM A36, Fy=36KSI
 - WELDING ELECTRODE: E70XX
- NO CUTTING, DRILLING, OR OTHER ALTERATION OF STEEL FRAMEWORK IS PERMITTED EITHER TO ACCOMMODATE OTHER TRADES OR TO REPAIR MISALIGNMENTS, CONTACT ENGINEERS FOR ANY FIELD REVISIONS OR REPAIRS

STRUCTURAL STEEL NOTES

SUBMITTALS SHALL BE SUBMITTED TO THE OWNER & ENGINEER OF RECORD (EOR) FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH IBC107.3.4.1. ALLOW 7-14 DAYS FOR REVIEW BY THE EOR.

SUBMIT MANUFACTURERS PRODUCT DATA FOR:

LIST OF DEFERRED SUBMITTALS

- PILE CONNECTORS
- SUBMIT SHOP DRAWINGS, STAMPED BY A REGISTERED ENGINEER LICENSED IN THE STATE OF MONTANA, FOR:
- DOCK SECTIONS

- SEE STRUCTURAL STEEL NOTES FOR STEEL PILE REQUIREMENTS.
- ALL CEMENT IN CONCRETE TO CONFORM TO ASTM C150 SPECIFICATION FOR PORTLAND CEMENT.
- ALL AGGREGATE TO CONFORM TO ASTM C33 SPECIFICATION FOR CONCRETE AGGREGATES.
- CONCRETE SUPPLIER TO MIX BASED ON THEIR TESTING TO ASSURE THE MINIMUM COMPRESSIVE STRENGTH PER ACI 318. IN THE ABSENCE OF
 - SUFFICIENT TEST DATA, CONCRETE PROPORTIONING SHALL BE DONE IN ACCORDANCE WITH ACI 301 & 318.
- THE MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 1 1/4".
- CONCRETE CURING (OTHER THAN HIGH-EARLY) SHALL BE MAINTAINED ABOVE A TEMPERATURE OF 50°F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN DAYS AFTER PLACEMENT. HIGH EARLY CONCRETE SHALL BE CURED ABOVE 50°F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST
- G. ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR-FREEZING WEATHER. ALL CONCRETE MATERIALS, ROCK, AND PILES WHICH THE CONCRETE IS TO BE IN CONTACT WITH IS TO BE FREE OF FROST. FROZEN MATERIALS OR MATERIALS CONTAINING ICE SHALL NOT BE USED.
- DURING HOT WEATHER, PROPER ATTENTION SHALL BE GIVEN TO INGREDIENTS, PRODUCTION METHODS, HANDLING, PLACING, PROTECTION, AND CURING TO PREVENT EXCESSIVE CONCRETE TEMPERATURES AND EVAPORATION THAT MAY IMPAIR REQUIRED STRENGTH OR SERVICEABILITY OF THE
- ALL PILES SHALL BE MECHANICALLY CONSOLIDATED. VIBRATORS SHALL BE INSERTED IN PREVIOUS POURED FRESH CONCRETE TO PREVENT COLD JOINTS WHEN MULTIPLE LAYER OF CONCRETE ARE PLACED IN A PILE.
- REFER TO TABLE BELOW FOR TOTAL AIR CONTENT FOR CONCRETE IN DIFFERENT SERVICE CONDITIONS.

	28 DAY COMPRESSIVE STRENGTH	SLUMP (IN) MAX/MIN	MAX W/C RATIO	AIR CONTENT (%)
PILE IN-FILL	4000 PSI	5/3	.5	6 +/- 1.5%

SOILS AND GEOTECHNICAL RECOMMENDATIONS ARE BASED ON THE GEOTECHNICAL INVESTIGATION BY SLOPESIDE ENGINEERING DATED DECEMBER 15,2021.

- CONTINUOUS SPECIAL INSPECTIONS ARE REQUIRED DURING THE PILE DRILLING AND INSTALLATION
- PILE INSTALLATION: PILES SHALL BE INSTALLED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION
 - HSS14X.625 PILES SHALL BE INSTALLED IN 2'-0" DIAMETER DRILLED PIERS AND FILLED WITH CONCRETE USING TREMIE METHODS TO FILL FROM THE BOTTOM UP.
 - IT IS LIKELY THAT THE DRILLED SHAFTS SHALL REQUIRED TEMPORARY CASING TO PROTECT THE SHAFTS FROM CAVING
 - STEEL PILES SHALL BE LOCATED AND PLUMBED TO PERMIT DOCK INSTALLATION.
 - CONCRETE SHALL BE HELD 6" BELOW THE SURFACE OF THE OUTSIDE OF THE PILE. THE CONCRETE INSIDE THE PILE SHALL FILL THE ENTIRE INTERIOR OF THE PILE AND BE DOMED ABOVE THE TOP OF THE STEEL
 - AREA UNDER THE DOCK SHALL BE FILLED WITH NOMINAL 3" ROUND ROCKS. THIS MATERIAL SHALL BE COMPACTED UNTIL WELL KEYED NEXT TO THE BOAT RAMP AND THE AROUND THE



SOILS & GEOTECHNICAL NOTES





WOODS BAY DOCK

A REVISIONS

STRUCTURAL NOTES

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- SPECIAL INSPECTIONS/TESTING SHALL BE COMPLETED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE CONTRACTOR. THE STRUCTURAL OBSERVATIONS
- SHALL BE COMPLETED BY THE ENGINEER OF RECORD (EOR) OR A REGISTERED DESIGN PROFESSIONAL AS OUTLINED BELOW.

 THE CONTRACTOR SHALL PROVIDE ACCESS TO THE SITE & MANLIFTS &/OR SAFETY EQUIPMENT REQUIRED FOR ACCESS TO THE PARTICULAR INSPECTION LOCATION.
- THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE IN ADVANCE FOR THE INSPECTIONS AND OBSERVATIONS TO BE COMPLETED.
- SPECIAL INSPECTORS SHALL BE COMPLETED TO SECTION 1705 CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE.
- SPECIAL INSPECTORS SHALL SUBMIT A STATEMENT OF THEIR ACCREDITATION TO THE ENGINEER AND THE BUILDING OFFICIAL. THE APPROVED SPECIAL INSPECTORS AND STRUCTURAL OBSERVERS SHALL COMPLETE A STATEMENT OF SPECIAL INSPECTORS FOR THEIR SCOPE OF WORK.
- PRIOR TO COMMENCEMENT OF THE CONSTRUCTION A MEETING WITH THE BUILDING OFFICIAL, OWNER, EOR, CONTRACTOR AND SPECIAL INSPECTOR AGENCY(IES)
- SHALL BE COMPLETED TO REVIEW THE SCOPE AND THE STATEMENT(S) OF SPECIAL INSPECTIONS.
- SPECIAL INSPECTOR DUTIES
 - OBSERVE AND/OR TEST THE WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
 - NOTIFY THE CONTRACTOR OF ALL DISCREPANCIES AND NOTED IN THE INSPECTION REPORTS
 - INSPECTION AND OBSERVATION REPORTS SHALL BE COMPLETED & SUBMITTED TO THE EOR/OWNER AND CONTRACTOR. INSPECTION AGENCY SHALL SUBMIT A REPORT THAT ALL WORK REQUIRING SPECIAL INSPECTIONS WAS INSPECTED AND IS IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.
- SPECIAL INSPECTIONS OF POST INSTALLED ANCHORS SHALL MEET THE REQUIREMENT OF THE APPROVED ICC-ES REPORT FOR THE PRODUCT

	TABLE 1 - REQUIRED GEOTECHNICAL INSPECTIONS					
	ITEM	FREQUENCY	ВУ	NOTES		
1	DURING DILLING OF SHAFTS	CONTINUOUS	GEOTECHNICAL ENGINEER			
2	INSTALLATION OF PILES (STEEL & CONCRETE)	CONTINUOUS GEOTECHNICAL ENGINEER				
3	INSTALLATION OF THE 3" ROCK	CONTINUOUS	GEOTECHNICAL ENGINEER			

	TABLE 2 - REQUIRED VERIFICATION & INSPECTIONS OF CONCRETE CONSTRUCTION			
	ITEM	FREQUENCY	ВУ	NOTES
1	VERIFY USE OF REQUIRED MIX DESIGN	PERIODIC	SPECIAL INSPECTOR	
2	AT THE TIME CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS PERFORM SLUMP AND AIR TEST AND DETERMINE THE TEMPERATURE THE CONCRETE		SPECIAL INSPECTOR	
3	NOT LESS THAN ONE STRENGTH TEST FOR EACH 150 YDS OF CONCRETE PLACED EACH DAY.		SPECIAL INSPECTOR	
4	INSPECTION OF CONCRETE INSTALLATION	PERIODIC	SPECIAL INSPECTOR	
5	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC	SPECIAL INSPECTOR	
6	INSPECTION FORMWORK FOR SHAPE, LOCATIONS AND DIMENSIONS	PERIODIC	SPECIAL INSPECTOR	

	TABLE 3 - STRUCTURAL (EOR) OBSERVATIONS			
	ІТЕМ	NOTES		
1	PILE INSTALLATION PERIODIC	BY EOR		
2	DOCK INSTALLATION PERIODIC	BYEOR		





WOODS BAY DOCK

STRUCTURAL NOTES

PILE SCHEDULE						
TAG	SIZE	MATERIAL	LOADING	NOTES		
P1	HSS14.000X0.625		10.0 KIPS APPLIED LATERALLY ANYWHERE FROM (-) 4'-0" FROM T.O. PILE TO LAKE BED, ANY DIRECTION	FILL W/ CONCRETE PER CONCRETE NOTES, S0.00		
P2	HSS14.000X0.625		66.9 KIPS APPLIED LATERALLY ANYWHERE FROM (-) 4'-0" FROM T.O. PILE TO LAKE BED, ANY DIRECTION	FILL W/ CONCRETE PER CONCRETE NOTES, S0.00		
Р3	HSS14.000X0.625		40.0 KIPS APPLIED LATERALLY ANYWHERE FROM (-) 4'-0" FROM T.O. PILE TO LAKE BED, ANY DIRECTION	FILL W/ CONCRETE PER CONCRETE NOTES, S0.00		

5' - 0"

20' - 0"

DOCK GENERAL NOTES:

- SEE SO.00 FOR DESIGN CRITERIA AND GENERAL STRUCTURAL
- SEE S1.20 FOR PILE DETAILS. 2.
- 3. DIMENSIONS ARE AS SHOWN FOR INFORMATION ONLY. LAYOUT SHOULD BE COORDINATED WITH CIVIL PLANS.
- DIMENSIONS ARE SHOWN TO OUTSIDE OF DOCK UNITS UNLESS NOTED OTHERWISE.
- 5. VERIFY EXISTING CONDITIONS BEFORE INSTALLING DOCK
- FWP WILL REMOVE EXISTING DOCK 6.



S1.20

5' - 0"

Р1

\S1.20/

20' - 0"

60' - 0"

24' - 0" +/-

20' - 0"

PLAN KEYNOTES

- NOMINAL 8'x20' FLOATING DOCK SECTION, CONNECT PER MFR RECOMMENDATIONS, TYP OF (3) SEE SPEC
- ALUMINUM TRANSITION PLATE/ROLLER @ END OF GANGWAY
- ALUMINUM 60" X 20'-0" GANGWAY W/ HANDRAILS, TO GRADE, CENTER ON DOCK
- PILING BRACKET, ATTACH TO DOCK PER MFR RECOMMENDATIONS, TYP OF (7) FOR LOAD INDICATED
- STEEL PILES W/ EMBEDMENT PER GEOTECH, TYP OF (7), SEE SCHEDULE FOR PILE LOADING
- ALUMINUM GANGWAY ROLLER @ END OF GANGWAY
- ALUMINUM CLEATS @ 8'-0" O.C. MAX EA SIDE, START SPACING AT 24'-0" FROM EAST END OF DOCK, ATTACH TO DOCK PER MFR RECOMMENDATIONS, ADJUST SPACING AS NECESSARY FOR PILES MINIMUM (8)
- (E) CONCRETE BOAT RAMP
- INFILL AREA UNDER INSTALLED DOCK AND (E) BOAT RAMP W/ 3" BALLAST ROCK, ROCK TO EXTEND UNDER DOCK, GRADE TO MATCH (E) RAMP, APPROX. LENGTH OF ROCK INFILL=110'

 $\langle 2 \rangle$

20' - 0"

- <u>/2</u>\{ 10 } NOT USED
 - DECKING PER SPECS
 - ATTACH GANGWAY TO DOCK WITH HINGE KIT
 - INFILL AREA NOT SHOWN FOR CLARITY





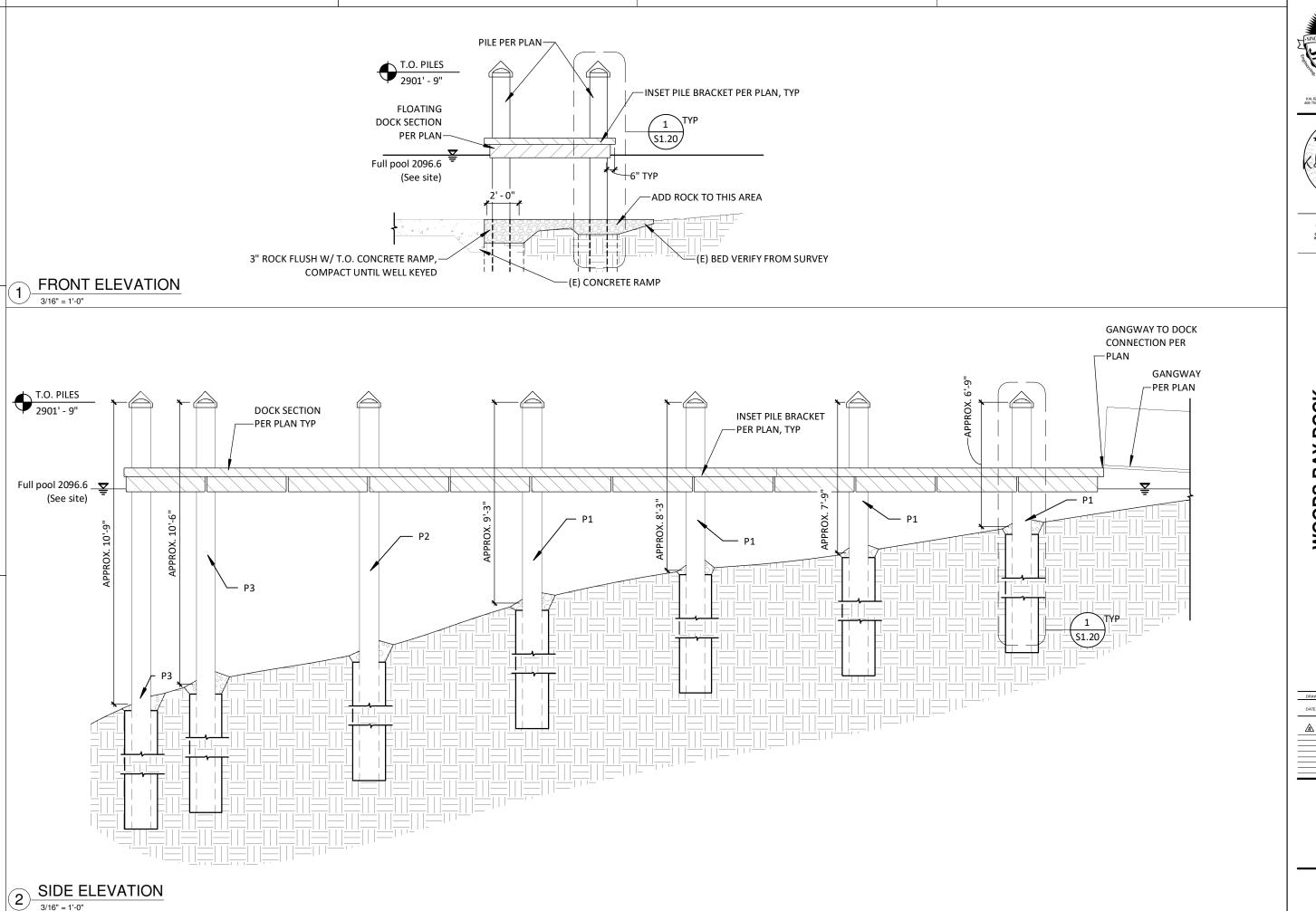
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DOCK PLAN

DOCK PLAN

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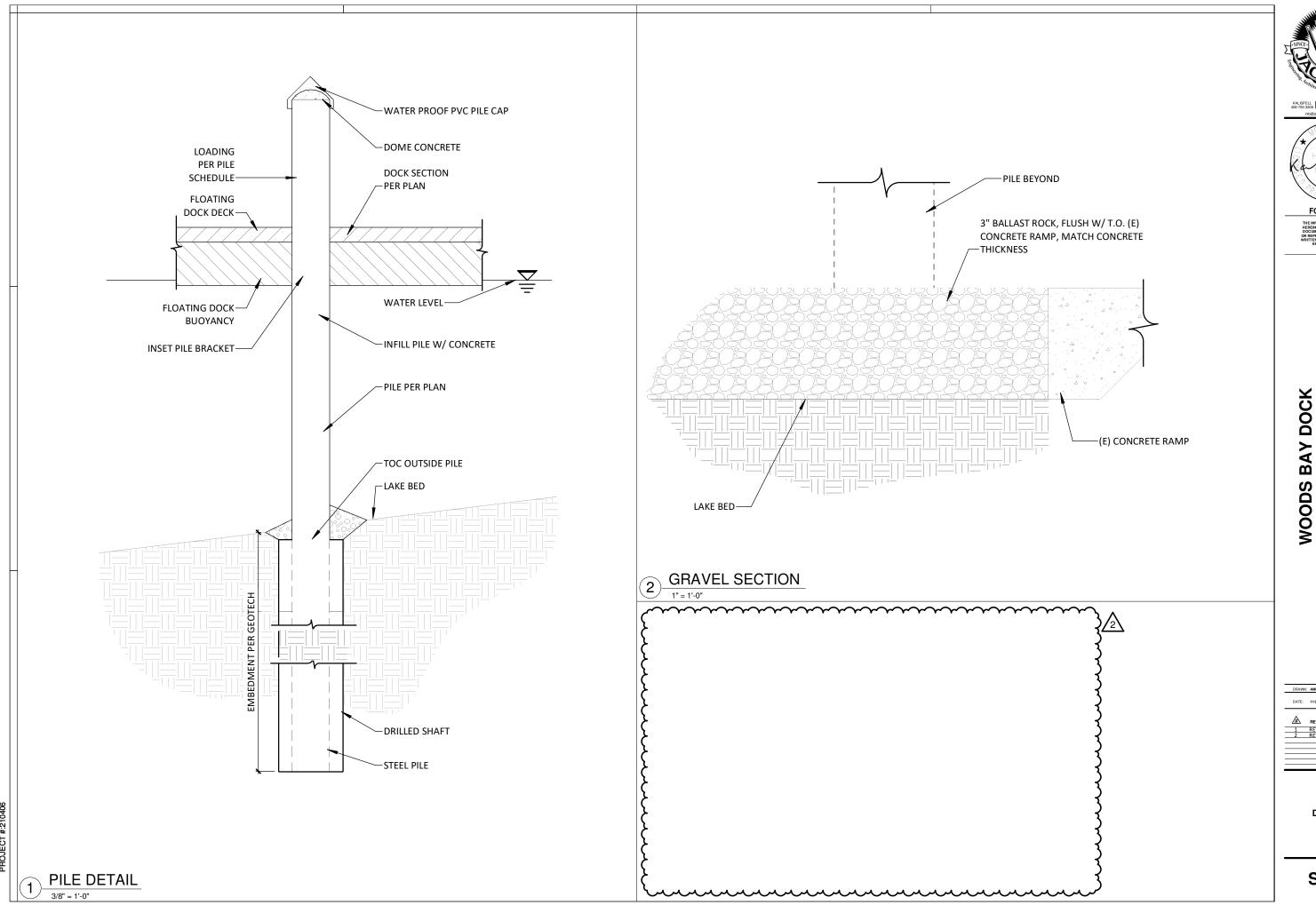
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