# PINTO POINT GRADING/STORMWATER MANAGEMENT PLAN FLOOD DAMAGE PREVENTION PLAN



SCALE 1"=20' WHEN PRINTED AT 22"X34"

SWALE #1 DATA

SWALE #2 DATA

SWALE #3 DATA

0.75 FT

75 CF 76 CF

0.75 FT

1 FT

143 CF

155 CF

9 FT

2 FT

1 FT

17 CF

33 CF

BOTTOM WIDTH

EFFECTIVE DEPTH TOTAL DEPTH REQUIRED VOLUME

VOLUME PROVIDED

BOTTOM LENGTH

BOTTOM WIDTH EFFECTIVE DEPTH

TOTAL DEPTH

REQUIRED VOLUME

VOLUME PROVIDED

BOTTOM LENGTH

BOTTOM WIDTH

EFFECTIVE DEPTH

TOTAL DEPTH

REQUIRED VOLUME

VOLUME PROVIDED

## SHEET INDEX

GRADING/STORMWATER MANAGEMENT PLAN FLOOD DAMAGE PREVENTION PLAN

NOTES AND DETAILS

CONTACT INFORMATION

MAVERICK REAL ESTATE IV LLC

VAN HOUTEN CONSULTING & DESIGN

 $401\frac{1}{2}$  E. SHERMAN AVE. STE. #208

572 PINTO POINT RD.

COOLIN, ID 83821

CIVIL ENGINEER

PARCEL #RP059610010180A LOCATED IN SEC. 27, T. 61N., R. 04W., B.M.

**BONNER COUNTY, IDAHO** 

## PHONE: (208) 930-4000

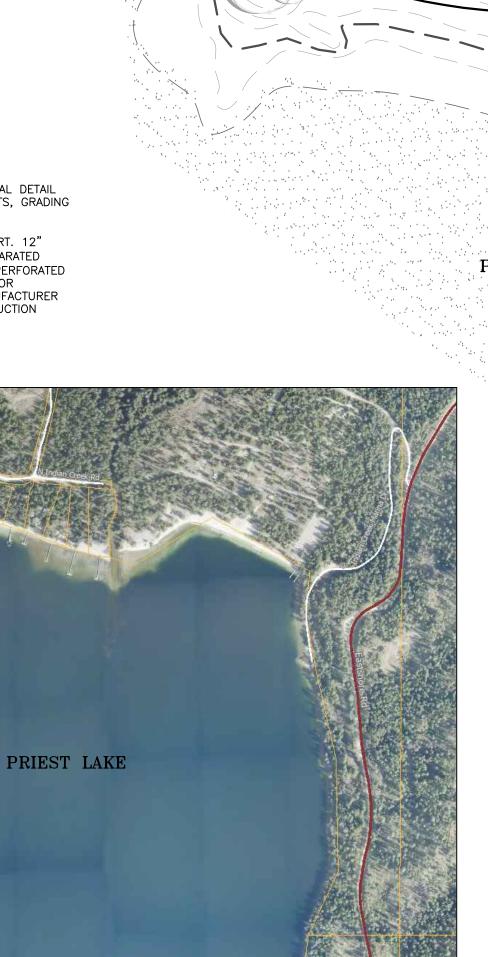
ALDERWOOD LANDSCAPING 9708 N. NEVADA ST. SPOKANE, WA 99218 PHONE: (509) 467-8298

COEUR D'ALENE, ID 83814

GLAHE & ASSOCIATES 303 CHURCH ST., STE A SANDPOINT, ID 83814 PHONE: (208) 265-4474

1. SEE ALDERWOOD LANDSCAPING'S PLAN FOR ADDITIONAL DETAIL ON EXISTING SITE CONDITIONS, PROPOSED IMPROVEMENTS, GRADING ACTIVITY AND LOT COVERAGE CALCULATIONS.

2. DRAIN ROCK BORDER SURROUNDING PICKLBALL COURT. 12" WIDE X 12" DEEP TRENCH OF CLEAN DRAIN ROCK SEPARATED FROM NATIVE SOIL BY FILTER FABRIC. INSTALL 4" DIA PERFORATED PIPE WRAPPED IN FILTER FABRIC IN TRENCH BOTTOM FOR CONVEYANCE TO DRAINAGE SWALE. CONSULT WITH MANUFACTURER OF COURT SURFACING MATERIAL FOR DETAILED CONSTRUCTION SPECIFICATIONS.



**IMPERVIOUS AREAS:** 

• TOTAL AREA = 46,047SF (1.06AC) • IMPERVIOUS AREA = 9,564SF (0.22AC)

SURVEY DATED 2/23/24.

TOTAL HEIGHT EXCEEDS 4.0 FT.

• 35% MAX IMPERVIOUS AREA WITHIN 200' OF SHORELINE PER BCRC 12-713

• IMPERVIOUS AREA WITHIN LIMITS OF DISTURBANCE ~ 5,600SF (0.13AC)

FLOOD PROTECTION SPECIFICATIONS:

FLOOD ELEVATION DATA, ELEVATION DATA OF O.H.W.M., AND EXISTING CONTOURS SHOWN ARE BASED ON GLAHE AND ASSOCIATES.

SEE ROCKERY RETAINING WALL DESIGN FOR CONSTRUCTION OF RETAINING

WALLS ADJACENT TO PICKLEBALL COURT. ALL OTHER BOULDERS SHALL BE

SLOPED AT 2:1 MAX OR BE DESIGNED BY A STRUCTURAL ENGINEER WHENEVER

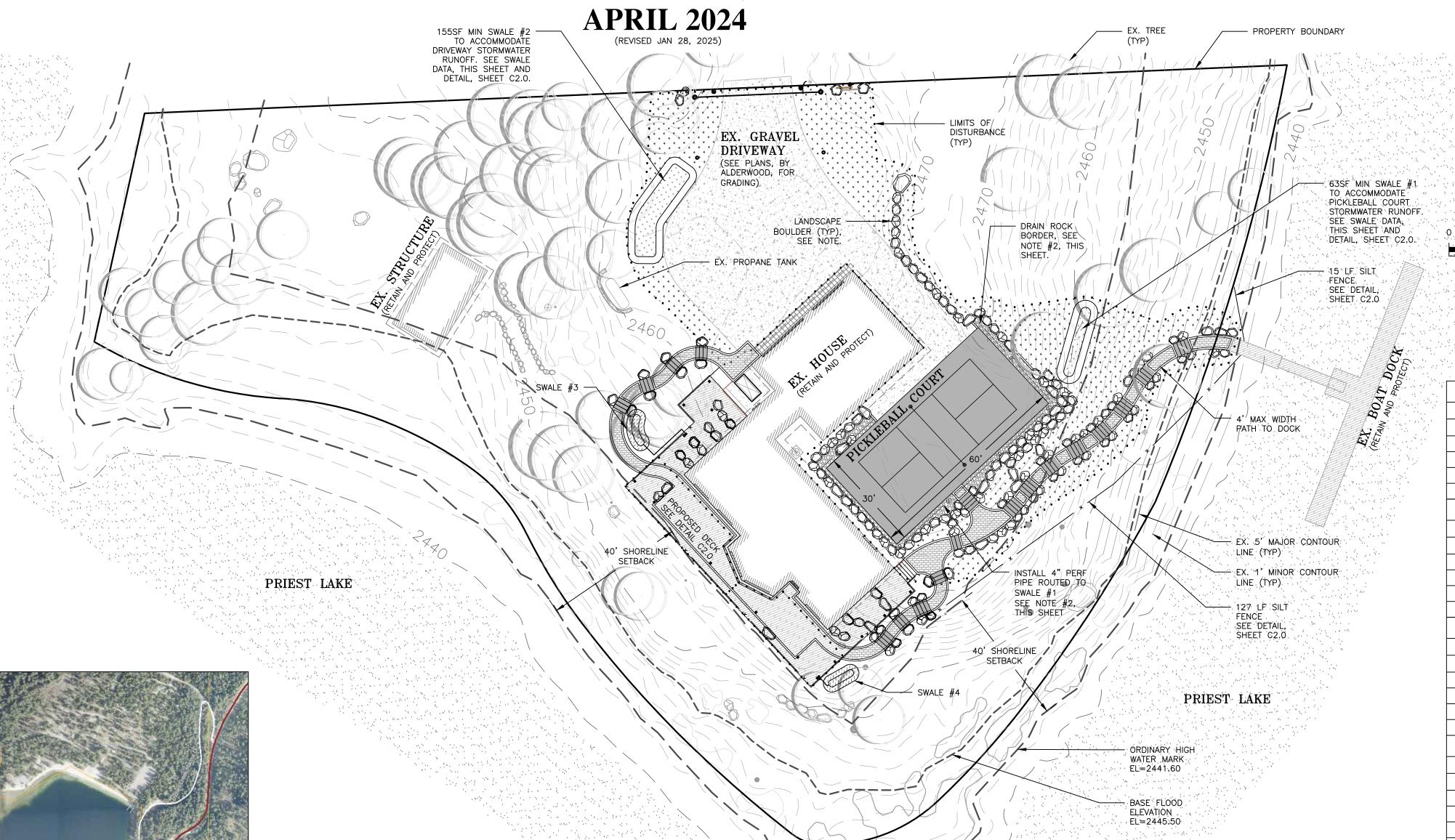
(ENTIRE SUBJECT PARCEL IS WITHIN 200' OF SHORELINE.) • EX. AND PROPOSED CALCULATED WITHIN 200' OF SHORELINE = 21%

BASE FLOOD ELEVATION (BFE): 2445.50 (100 YEAR BFE)

**ROCKERY RETAINING WALLS:** 

FLOOD PROTECTION ELEVATION (FPE): 2446.50 (BFE+1')

VICINITY MAP



THEREFORE NO VENTING IS REQUIRED.

FLOATATION AND COLLAPSE DURING THE 100 YEAR FLOOD EVENT.

## **SPECIFICATIONS:**

MATERIALS: ALL CONSTRUCTION MATERIALS LOCATED BELOW THE BFE SHALL BE WATER RESISTANT PER FEMA TECHNICAL BULLETIN 2.

## CALCULATIONS:

THERE ARE NO ENCLOSED AREAS PROPOSED WITH THESE IMPROVEMENTS,

THE IMPROVEMENTS HAVE BEEN DESIGNED TO RESIST LATERAL MOVEMENT,

TOTAL DEPTH	1 F
REQUIRED VOLUME	20 (
VOLUME PROVIDED	44 (
SWALE #4	l DATA
BOTTOM LENGTH	6 F
BOTTOM WIDTH	2 F
EFFECTIVE DEPTH	1 F

EX. DOCK

GRAVEL

**EXISTING** 

LEGEND

BELGARD PAVER WALKWAY

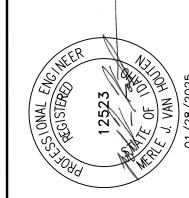
PICKELBALL COURT NATIVE HYDROSEED

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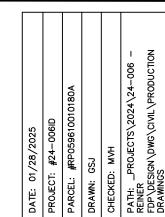
ROCKERY RETAINING WALLS

CUT STONE STAIRS

1 OF 2 • • • • • • • • • • • • • • • LIMITS OF DISTURBANCE



	B	CSO	SRP		
REVISIONS	DESCRIPTION	ADDRESS COUNTY COMMENTS	DECK RIVISION		
	DATE	5/30/2024	1/28/2025		
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## GENERAL NOTES:

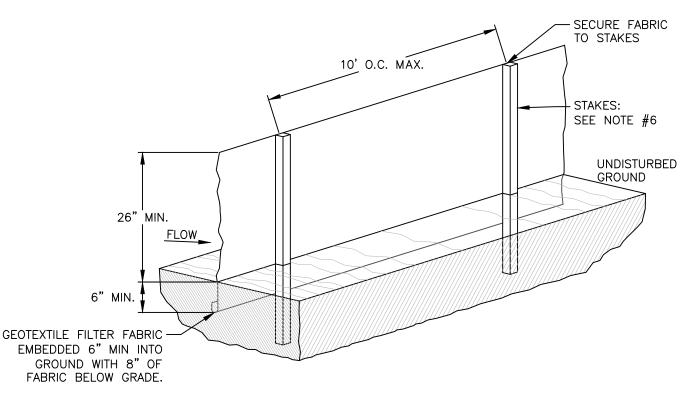
- 1. ALL WORK AND MATERIALS SHALL CONFORM TO THE MOST CURRENT EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC).
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 811 AT LEAST 72 HOURS BEFORE YOU DIG.
- 3. NO GUARANTEE IS MADE OR IMPLIED THAT ALL EXISTING UTILITIES ARE SHOWN. LOCATIONS OF EXITING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND THE PLANS PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED PLANS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER.
- 6. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR ANY FACILITIES.
- 7. WORK SHALL NOT BEGIN UNTIL ALL REQUIRED PLAN APPROVALS AND PERMITS HAVE BEEN OBTAINED FOR THE WORK BEING PERFORMED.
- 8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO COORDINATE CONSTRUCTION INSPECTIONS.
- 9. THE CONTRACTOR SHALL FULLY COMPLY WITH OSHA SAFETY STANDARDS AT ALL TIMES.
- 10. SURVEY DATA PROVIDED BY OTHERS. VAN HOUTEN CONSULTING & DESIGN TAKES NO RESPONSIBILITY FOR TOPOGRAPHICAL MISHAPS.
- 11. EXISTING PROPERTY CORNERS OR SURVEY MONUMENTS SHALL BE PROTECTED DURING THE COURSE OF CONSTRUCTION. ANY DAMAGED OR OBLITERATED CORNERS OR MONUMENTS SHALL BE RE-ESTABLISHED AT THE CONTRACTORS EXPENSE BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF IDAHO, PRIOR TO FINAL ACCEPTANCE.

## FLOODPLAIN DEVELOPMENT NOTES:

- 1. THIS FLOODPLAIN DEVELOPMENT PLAN IS BEING PREPARED TO FULFILL THE REQUIREMENTS OF THE BONNER COUNTY FLOOD PLAIN DEVELOPMENT PERMIT PROCESS AND BCRC 14-501 BECAUSE THE LOCATION OF THE PROPOSED IMPROVEMENTS ARE SHOWN WITHIN THE LIMITS OF THE MAPPED 100 YEAR FLOODPLAIN.
- 2. THE PROPOSED IMPROVEMENTS WILL NOT PRESENT SLOPE STABILIZATION OR EROSION CONTROL HAZARDS IN ITS FINISHED CONDITION.
- 3. THERE ARE NO ENCLOSED AREAS ASSOCIATED WITH THE PROJECT AND NO VENTING IS REQUIRED.
- 4. THE EXISTING STRUCTURE SHALL BE PRESERVED AND PROTECTED.
- 5. ALL WORK SHALL BE PERFORMED, AND THE SITE SHALL BE STABILIZED, WHILE WATER LEVELS ARE BELOW THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL EROSION CONTROL MEASURES SHOULD WATER LEVELS REACH THE LIMITS OF DISTURBANCE PRIOR TO SITE STABILIZATION.
- 6. ALL MECHANICAL EQUIPMENT SHALL PERFORM WORK ON THE INLAND SIDE OF THE ARTIFICIAL HIGH WATER MARK. DISTURBANCE TO THE SHORELINE SHALL BE MINIMIZED TO THE GREATEST EXTENT POSSIBLE. OPERATION OF EQUIPMENT WILL NOT BE ALLOWED BELOW THE ORDINARY OR ARTIFICIAL HIGH WATER MARK WITHOUT WRITTEN AUTHORIZATION FROM IDL.
- 7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY, LOCATED WITHIN THE SHORELINE AREA OR ELSEWHERE ON THE SUBJECT PROPERTY, SHALL BE RETURNED TO PRE-CONSTRUCTION CONDITIONS OR BETTER BY THE CONTRACTOR AT THE CONCLUSION OF THE PROJECT.
- 8. ALL CONSTRUCTION MATERIAL SHALL BE STOCKPILED LANDWARD OF THE 40' SHORELINE SETBACK.
- 9. ALL EXCAVATED MATERIAL SHALL BE REMOVED TO AN AREA OUTSIDE THE FLOODPLAIN, STOCKPILED PER IDEQ BMP #44 IN A POSITION IT WILL NOT RE-ENTER THE RIVER, AND BE HAULED OFF THE SITE PRIOR TO CONSTRUCTION COMPLETION.
- 10. CONTRACTOR SHALL NOT DISTURB ANY AREA BELOW THE OHWM WITHOUT FIRST SECURING PERMITS FROM IDL AND THE ARMY CORPS OF ENGINEERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE NO WORK TAKES PLACE BELOW THE OHWM.

## STORMWATER & EROSION CONTROL NOTES:

- 1. ALL STORMWATER BMPS SHALL CONFORM TO IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY (IDEQ) STORMWATER BEST MANAGEMENT PRACTICES
- 2. IN AREAS OUTSIDE THE LIMITS OF DISTURBANCE, RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND EXISTING VEGETATION IN AN UNDISTURBED STATE TO
- 3. INSPECT ALL ROADWAYS, AT THE END OF EACH DAY, ADJACENT TO THE CONSTRUCTION ACCESS ROUTE. IF IT IS EVIDENT THAT SEDIMENT HAS BEEN TRACKED OFF SITE AND/OR BEYOND THE ROADWAY APPROACH, CLEANING IS
- 4. INSPECT SEDIMENT CONTROL BMPS WEEKLY AT A MINIMUM, DAILY DURING A STORM EVENT, AND AFTER ANY DISCHARGE FROM THE SITE (STORMWATER OR NON-STORMWATER). THE INSPECTION FREQUENCY MAY BE REDUCED TO ONCE A MONTH IF THE SITE IS STABILIZED AND INACTIVE.
- 5. CONTROL FUGITIVE DUST FROM CONSTRUCTION ACTIVITY IN ACCORDANCE WITH STATE AND/OR LOCAL AIR QUALITY CONTROL AUTHORITIES WITH JURISDICTION OVER THE PROJECT AREA.
- 6. STOCKPILE ALL MATERIALS ON SITE, KEEPING OFF ROADWAYS.
- 7. NO AREAS DISTURBED BY CONSTRUCTION SHALL BE LEFT BARE. ALL NON-IMPERVIOUS DISTURBED AREAS NOT OTHERWISE COVERED WITH ROCK, MULCH OR LANDSCAPING SHALL BE HYDROSEEDED.
- 8. CONSTRUCTION SHALL BE CONSIDERED COMPLETE WHEN PERMANENT ESC CONTROLS, WHEN APPLICABLE, HAVE BEEN COMPLETELY INSTALLED; ALL LAND-DISTURBING ACTIVITIES THAT HAVE THE POTENTIAL TO CAUSE EROSION OR SEDIMENTATION PROBLEMS HAVE CEASED; AND, VEGETATION HAS BEEN ESTABLISHED IN THE AREAS NOTED AS REQUIRING VEGETATION ON THE ACCEPTED ESC PLAN ON FILE WITH THE LOCAL JURISDICTION.
- 9. REMOVE TEMPORARY ESC BMPS WITHIN THIRTY DAYS AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. PERMANENTLY STABILIZE AREAS THAT ARE DISTURBED DURING THE REMOVAL PROCESS.



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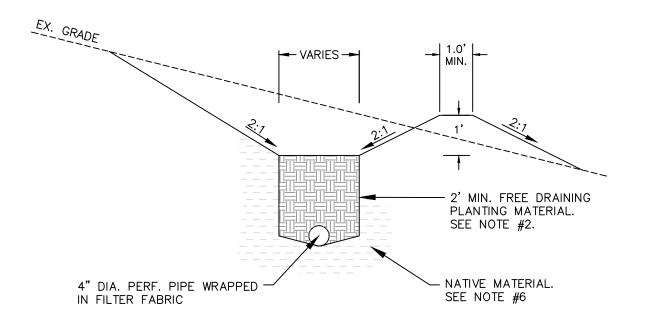
1. CONTRACTOR SHALL REFER TO IDEQ MANUAL OF BMPS FOR COMPLETE SILT FENCE CONSTRUCTION GUIDELINES.

- 2. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE GROUND COVER IS REMOVED. CLEARING, GRUBBING, AND STUMPING CAN OCCUR BEFORE SILT FENCE INSTALLATION IF GROUND COVER IS NOT REMOVED.
- 3. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE. 4. A RUN OF SILT FENCE SHOULD FOLLOW THE CONTOUR AS CLOSE AS POSSIBLE WITH THE ENDS TURNED
- UPSLOPE TO POND WATER BEHIND THE FENCE. 5. THE SILT FENCE SHOULD BE BURIED AT LEAST 6" DEEP AND HAVE A TOTAL OF 8" OF FABRIC BELOW THE GROUND. THIS CAN BE ACCOMPLISHED WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE OR
- 6. THE STAKES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE. THE STAKES SHALL BE LATH OR 2X2 NOMINAL HARDWOOD STAKE OF SOUND QUALITY. T-POSTS MAY BE SUBSTITUTED IF GROUND CONDITIONS REQUIRE, EMBED POST 16" MIN. INTO GROUND. 7. WHERE TWO SILT FENCE SECTIONS ARE COMBINED INTO ONE RUN THE END STAKES SHALL BE CONNECTED
- TOGETHER, NOT SIMPLY OVERLAPPED. 8. CONTRACTOR SHALL INSPECT AND REPAIR THE SILT FENCE REGULARLY. SEDIMENT SHALL BE REMOVED

SILT FENCE

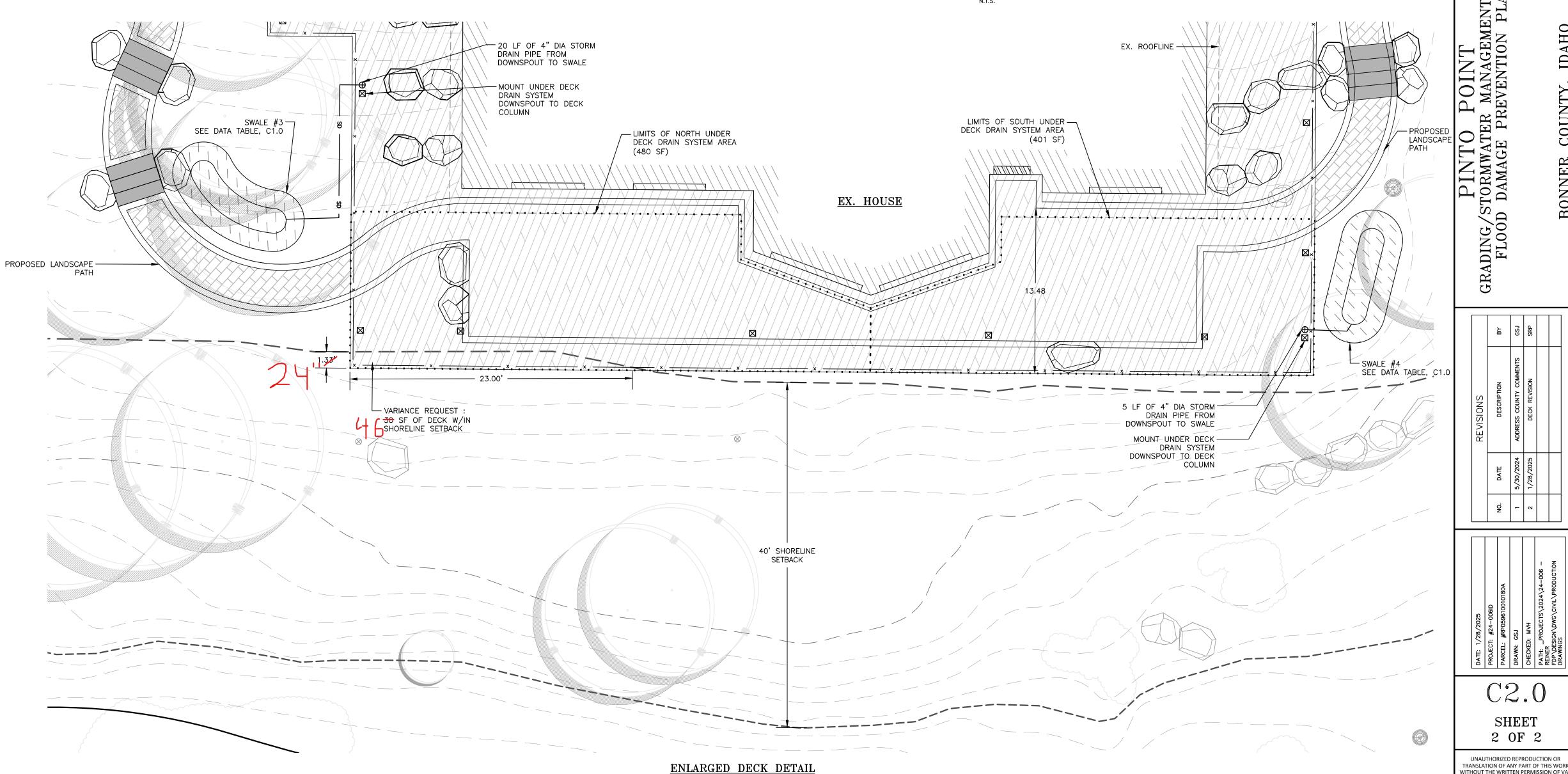
PRIOR TO IT REACHING HALF THE HEIGHT OF THE FENCE.

OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.



- 1. REFER TO IDEQ CATALOG OF BMPS FOR COMPLETE GIA CONSTRUCTION
- GUIDELINES. 2. PLANTING MATERIAL SHALL BE 2' DEEP MINIMUM, UNLESS NOTED OTHERWISE, AND CAPABLE OF PROMOTING THE GROWTH OF DEEP ROOTED HEALTHY
- 3. SOIL SHALL BE CAPABLE OF INFILTRATING STORMWATER RUNOFF AT A MINIMUM RATE OF 2.0 INCHES PER HOUR.
- 4. CLAY CONTENT IN THE SOIL SHALL NOT BE GREATER THAN 15%. 5. SOIL IN THE GIA BOTTOM SHALL REMAIN UNCOMPACTED. HEAVY
- EQUIPMENT/MOTORIZED VEHICLES ARE NOT PERMITTED IN THE GIA AREA. 6. FILL, OTHER THAN THE PLANTING MATERIAL IN THE GIA BOTTOM, SHALL BE PLACED IN 12" LOOSE LIFTS AND SHALL BE COMPACTED TO AT LEAST 85%
- OF THE MODIFIED PROCTOR DRY DENSITY. 7. IN THE EVENT THE SUB-GRADE SHOULD BE COMPACTED OR INSUFFICIENT PERCOLATION IS OBSERVED, TESTING OF THE SUB-GRADE MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER. IF SUFFICIENT PERCOLATION IS NOT OBSERVED, THE SUB-GRADE MUST BE REMOVED AND REPLACED, OR
- SCARIFIED TO A DEPTH OF 24" AND RETESTED. 8. SWALE BOTTOM SHALL BE OVER EXCAVATED TO CONSTRUCT A TREATMENT ZONE OF FREE DRAINING SOIL MATERIAL AND PERFORATED UNDERDRAIN PIPE. THE PERF PIPE SHALL BE LAID AT THE BOTTOM OF THE OVER EXCAVATION AND RUN THE ENTIRE LENGTH OF THE SWALE BOTTOM. SLOPE THE BOTTOM OF THE OVER EXCAVATION SO THE PERF PIPE LIES AT THE LOW POINT IN THE MIDDLE. PERF PIPE SHALL BE ALLOWED TO DAYLIGHT AT A POINT WHERE OUTLETTING FLOW RATES WILL NOT CAUSE SCOURING OR EROSION.

GRASSED INFILTRATION AREA (SWALE)



SCALE: 1"=5'