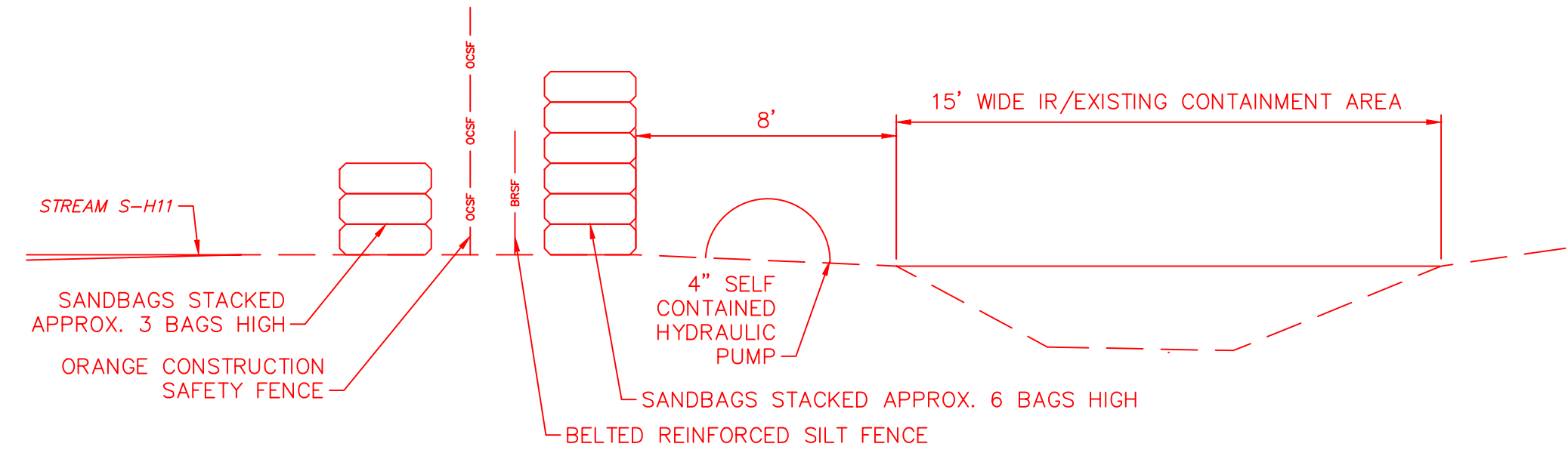
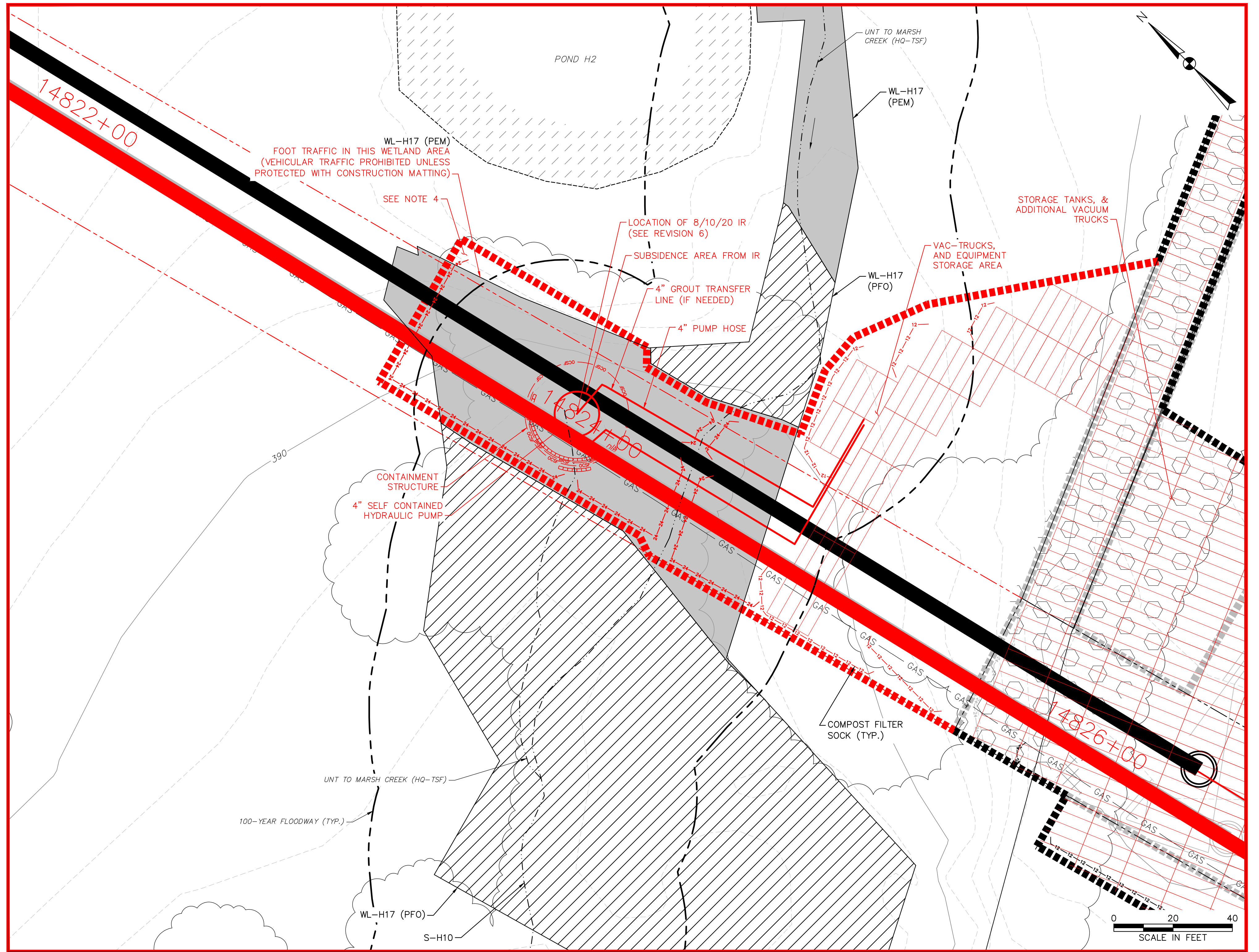


**HDD S3-0290 BOREHOLE GROUT PLAN CONSTRUCTION SEQUENCE:**

- PRIOR TO THE COMMENCEMENT OF THE BOREHOLE GROUTING OPERATIONS THE FOLLOWING STEPS MUST BE TAKEN:
1. NOTIFICATION TO THE CCD AND DEP SERO WILL BE MADE TO IDENTIFY WHEN THE GROUTING OPERATION WILL COMMENCE AND WHEN IT IS COMPLETED.
  2. LOCATE STAGING AREAS AND ACCESS POINTS INCLUDING CONSTRUCTION ENTRANCES. INSTALL ADDITIONAL LOCATE STAGING AREAS AND ACCESS POINTS INCLUDING CONSTRUCTION ENTRANCES. INSTALL ADDITIONAL COMPOST FILTER SOCK AS IDENTIFIED ON E&S PLAN. INSPECT ALL PREVIOUSLY INSTALLED E&S CONTROLS AND THE IR CONTAINMENT STRUCTURE FOR INTEGRITY AND CONDUCT ANY MAINTENANCE NEEDED. THE SITE IS LOCATED IN AN HQ WATERSHED, THEREFORE ABACT BMPs MUST BE USED.
  3. VEHICLE ACCESS TO THIS AREA SHALL BE RESTRICTED TO THE ROCK ACCESS ROAD AND CONSTRUCTION MATTING VEHICLE ACCESS TO THIS AREA SHALL BE RESTRICTED TO THE ROCK ACCESS ROAD AND CONSTRUCTION MATTING TO AVOID CONTACT WITH DISTURBED SOILS.
  4. LOCATE AND MARK ANY SPECIAL PROTECTION AREAS TO BE ACCESSED BY FOOT TRAFFIC ONLY. TO AVOID LOCATE AND MARK ANY SPECIAL PROTECTION AREAS TO BE ACCESSED BY FOOT TRAFFIC ONLY. TO AVOID ADDITIONAL WETLAND IMPACTS, CONTRACTOR MAY PLACE SEVERAL SANDBAGS FOR WALKING PATHS THROUGH SATURATED AREAS.
  5. INSTALL AND MAINTAIN CONSTRUCTION MATS WHERE IDENTIFIED ON THE E&S PLAN. INSTALL AND MAINTAIN CONSTRUCTION MATS WHERE IDENTIFIED ON THE E&S PLAN.
  6. ALL EQUIPMENT RELATED TO THE BOREHOLE GROUTING SHALL BE STAGED IN AREAS IDENTIFIED ON E&S PLAN. ALL EQUIPMENT RELATED TO THE BOREHOLE GROUTING SHALL BE STAGED IN AREAS IDENTIFIED ON E&S PLAN.
  7. A 4-INCH SELF-CONTAINED HYDRAULIC PUMP, ALREADY STAGED WITHIN THE CONTAINMENT AREA, WILL BE USED A 4-INCH SELF-CONTAINED HYDRAULIC PUMP, ALREADY STAGED WITHIN THE CONTAINMENT AREA, WILL BE USED TO DEWATER THE AREA WITHIN IR CONTAINMENT STRUCTURE INTO ONSITE STORAGE TANKS. THE 4-INCH PUMP WILL BE USED TO EMPTY THE CONTAINMENT AREA OF WATER PRIOR TO INITIATION OF THE GROUTING OPERATION. THE DEWATERED STATUS WILL BE MAINTAINED THROUGHOUT THE GROUT OPERATION.
  8. ANY WATER OR GROUT, OR COMBINATION THEREOF, EMERGING AS A RESULT OF THE GROUTING OPERATION WILL ANY WATER OR GROUT, OR COMBINATION THEREOF, EMERGING AS A RESULT OF THE GROUTING OPERATION WILL BE PUMPED TO STORAGE TANKS USING VACUUM TRUCKS OR PUMPS. AT LEAST ONE BACKUP VACUUM TRUCK WILL BE STAGED ON COMPOSITE MATTING NEAR WETLAND TO MITIGATE A RELEASE RATE THAT MAY OVERWHELM THE CONTAINMENT.
  9. THE IMMEDIATE VICINITY OF THE IR/SUBSIDENCE LOCATION AND HDD PATH WILL BE INSPECTED MULTIPLE TIMES THE IMMEDIATE VICINITY OF THE IR/SUBSIDENCE LOCATION AND HDD PATH WILL BE INSPECTED MULTIPLE TIMES THROUGHOUT THE GROUT OPERATION. AN ENVIRONMENTAL INSPECTOR AND PROFESSIONAL GEOLOGIST WILL BE ON-SITE DURING THE GROUTING OPERATION. THE ENTIRE REACHES OF STREAMS H10 AND H11 AND THE EXTENTS OF WETLAND H17 WILL BE INSPECTED AT LEAST TWICE A DAY THROUGHOUT THE GROUT OPERATION.
  10. AT LEAST TWO EXTRA VACUUM TRUCKS AND FOUR EXTRA PUMPS (3-INCH OR LARGER) ALONG WITH EXTRA SILT AT LEAST TWO EXTRA VACUUM TRUCKS AND FOUR EXTRA PUMPS (3-INCH OR LARGER) ALONG WITH EXTRA SILT FENCE, SANDBAGS, COMPOST FILTER SOCK, TURBIDITY CURTAINS, AND PLASTIC WILL ALWAYS BE ON-SITE DURING THE GROUT OPERATION.
  11. IF AN IR WERE TO OCCUR OUTSIDE OF THE ORIGINAL IR LOCATION THE GROUT INJECTION WILL BE HALTED, IF AN IR WERE TO OCCUR OUTSIDE OF THE ORIGINAL IR LOCATION THE GROUT INJECTION WILL BE HALTED, RELEASE CONTAINED, TOOLING REMOVED, PROPER NOTIFICATIONS MADE, AND EVALUATION OF THE SITUATION REVIEWED TO DETERMINE WHAT ADDITIONAL ACTIONS ARE NEEDED, IF ANY, TO COMPLETE THE GROUTING EFFORT.
  12. UPON COMPLETION OF THE BOREHOLE GROUTING EFFORT ALL DISTURBED AREAS OUTSIDE OF THE SUBSIDENCE UPON COMPLETION OF THE BOREHOLE GROUTING EFFORT ALL DISTURBED AREAS OUTSIDE OF THE SUBSIDENCE AREA WILL BE STABILIZED IN ACCORDANCE WITH THE CHAPTER 102 PERMIT REQUIREMENT RECEIVED FOR THE PROJECT.
  13. THE SUBSIDENCE AREA RESTORATION PLAN IS BEING SUBMITTED TO THE DEP UNDER SEPARATE REVIEW AND THE SUBSIDENCE AREA RESTORATION PLAN IS BEING SUBMITTED TO THE DEP UNDER SEPARATE REVIEW AND APPROVAL AND WILL BE ADDRESSED DURING THAT PROCESS.



**CONTAINMENT PROFILE**



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PITTSBURGH, PA 15220  
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REVISIONS			
NO.	BY	DATE	REMARKS
1A	RS	5/11/21	ADDITIONAL STAGING AREA INFORMATION

SUNOCO PIPELINE LP  
SINKING SPRING, PENNSYLVANIA  
PENNSYLVANIA PIPELINE PROJECT  
CONSTRUCTION SPREAD 6

1-20" & 1-16" WELDED STEEL NATURAL GAS PIPELINES  
CHESTER COUNTY CONSERVATION DISTRICT  
EROSION & SEDIMENT CONTROL &  
SITE RESTORATION PLAN  
SHEET 29A OF 74

DATE:	2/6/17
PROJECT NO.:	112C05958
DESIGNED BY:	JB
DRAWN BY:	BH
CHECKED BY:	RS
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<b>ES-6.29A</b>	
SHEET 6.29A OF 99	