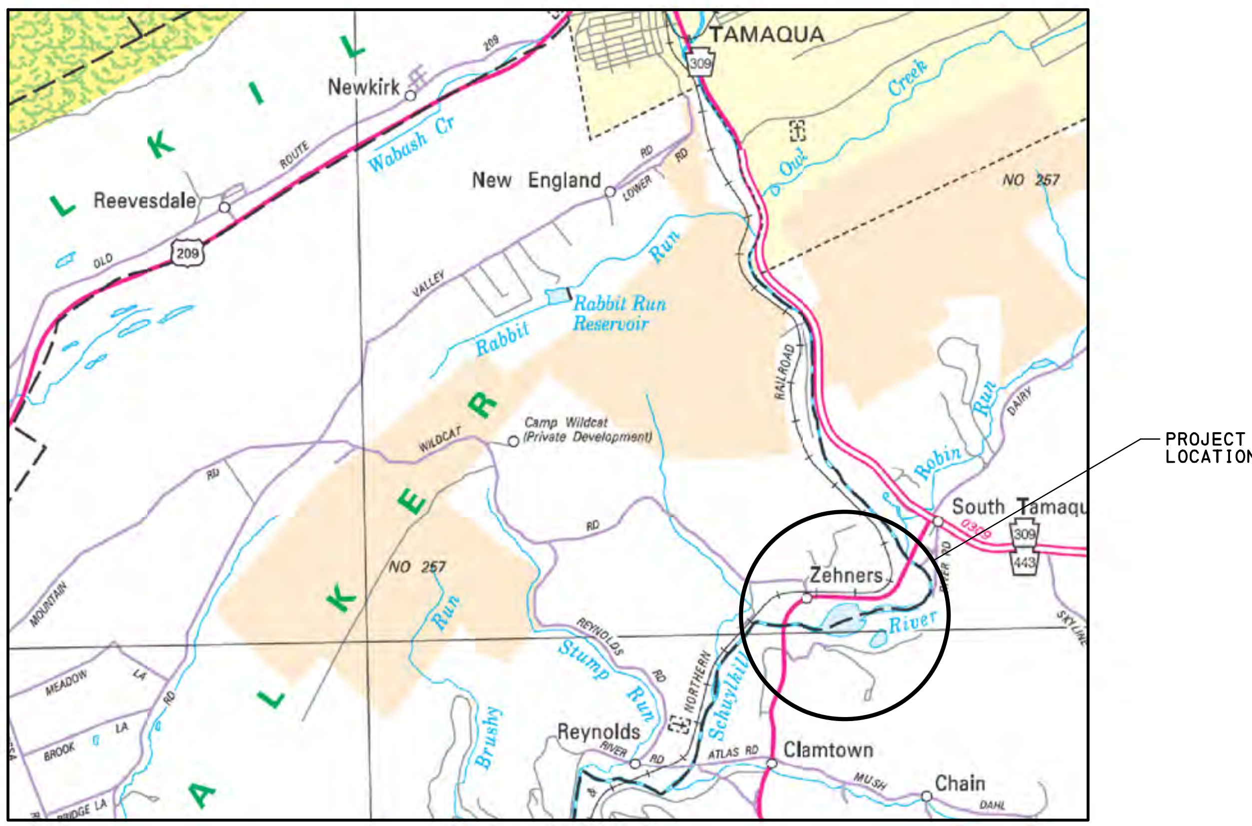
TAMAQUA DAM MITIGATION BANKING SITE

WALKER & WEST PENN TOWNSHIP
SCHYUKILL COUNTY

PREPARED FOR:

LAND RECLAMATION GROUP



LOCATION MAP

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GENERAL NOTES

1. THIS STREAM AND WETLAND REESTABLISHMENT PLAN HAS BEEN PREPARED FOR LAND RECLAMATION GROUP FOR THE PURPOSE OF RESTORING STREAM, WETLAND, AND FLOOD PLAIN RESOURCES.
2. BASEMAP WAS GENERATED FROM SURVEYS DATED 12/5/2022 AND INTEGRATED WITH SURVEY PROVIDED BY MUNICIPAL AUTHORITY OF SCHYUKILL COUNTY FROM THE DAM BREACH PERMIT APPLICATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO COMPLY WITH PROVISIONS OF THE PENNSYLVANIA ACT 187 (1996) BEFORE PERFORMING ANY EXCAVATION WORK.
4. THE CONTRACTOR WILL NOTIFY THE LANDOWNER'S REPRESENTATIVE AT LEAST TWO WEEKS PRIOR TO START OF GRADING OPERATIONS WITHIN THE PROJECT AREA.

RECYCLING OR DISPOSAL OF CONSTRUCTION WASTE

PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEPARTMENT REGULATIONS. INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. A NOTE REQUIRING RECYCLING OF WASTE MATERIALS, WHERE FEASIBLE, SHOULD BE ADDED TO THE DRAWINGS.

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL 1-800-242-1776

PA ONE CALL System Inc.

PREPARED BY:	PREPARED FOR:			DESIGNED BY: TOT	CHECKED BY: MB	SHEET 1 OF 30
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	TITLE SHEET SCALE AS SHOWN	ENGINEER	DATE: 08-25-2023	

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER

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DATE: 8/28/2023 TIME: 12:14:42 PM

GENERAL NOTES

PROJECT DESCRIPTION:
UPGRADE STREAM WITH THE CONSTRUCTION OF SINGLE AND TRIPLE LOG GRADE CONTROLS, STONE DEFLECTORS AND WOODY DEBRIS.

GENERAL CONSTRUCTION NOTES:
SEDIMENT MUST BE REMOVED FROM THE EQUIPMENT USED PRIOR TO MOBILIZATION TO THE PROJECT.

EQUIPMENT MUST BE WASHED TO REMOVE ANY POTENTIAL CONTAMINATES TO THE WATERWAY.

RE-WASH EQUIPMENT WHEN WORK IS COMPLETED PRIOR TO MOBILIZING OFF-SITE TO MINIMIZE THE POTENTIAL OF TRANSPORTING ANY INVASIVE VEGETATION. EQUIPMENT SHALL BE ASHED/BRUSHED IN A WARM WATER BLEACH SOLUTION.

THE COMPLETED STRUCTURE CANNOT BE CONSTRUCTED AT AN ELEVATION HIGHER THAN THE ADJACENT STREAM BANKS.

STONE STRUCTURES NEED TO BE KEYED INTO THE STREAM BOTTOM AND BANKS.

CONSTRUCT LOG STRUCTURES WITH THE LARGER END OF THE LOG TRENCHED A MINIMUM OF 5 FEET INTO THE STREAM BANK.

UTILIZE LOGS AVERAGING 12 INCHES IN DIAMETER. THE SAME DIMENSION LOGS ABOVE THE ROOT BALL FOR STREAM BANK STABILIZATION BMP'S, USING HARDWOOD, HEMLOCK AND/OR LARCH SPECIES.

REINFORCEMENT RODS HAVING 1/2 INCH DIAMETER CUT TO LENGTH AS SPECIFIED. PINS FOR TYING LOGS TOGETHER

ONLY CLEAN NON-POLLUTING ROCK CAN BE USED.

PLACED STREAMBED MATERIAL WILL CONSIST OF RIVER GRAVEL NOMINAL TO 24 INCHES IN SIZE WHICH WILL BE AVAILABLE ON SITE.

ALL WOOD FOR STRUCTURES WILL BE OBTAINED FROM THE PROPERTY AND PURCHASED IF NEEDED. ALL ROOT WADS WILL BE PRODUCED ON SITE, SILL LOGS MAY BE CUT ON THE PROPERTY OR PURCHASED.

ALL WORK WILL BE DONE DURING LOW-FLOW CONDITIONS, AVOIDING PERIODS DURING, OR IMMEDIATELY FOLLOWING HEAVY PRECIPITATION.

DIVERSIONS WILL BE UTILIZED, FOLLOW THE CONSTRUCTION SEQUENCE TO MAINTAIN DRY WORK AREAS.
WIDE TRACKED MACHINES ARE PREFERRED FOR THE PROJECT.

EQUIPMENT MUST BE INSPECTED DAILY TO ENSURE THAT THERE IS NO LEAKING OF LUBRICANTS, FUEL, HYDRAULIC FLUIDS, ETC.

EXCAVATION OF STREAM BANKS AND/OR STREAM BOTTOM FOR THE PURPOSE OF KEYING IN STONE AND/OR TIMBERS, WILL BE COMPLETED IN ONE DAY. ALL DISTURBED AREAS WILL BE IMMEDIATELY STABILIZED WITH ROCK, SEEDING, AND MULCHING, OR OTHER SUITABLE MATERIAL, DURING THE ONE-DAY CONSTRUCTION LIMIT. NEWLY VEGETATED AREAS WILL BE INSPECTED AND REPAIRED (AS NEEDED) UNTIL GRASS IS WELL ESTABLISHED.

WHEN VEGETATION IS REMOVED FOR THE CONSTRUCTION INSIDE THE EXISTING IMPOUNDMENT SALVAGE ALL HYDROPHYTIC SHRUBS AND TREES TO BE PLANTED LATER. STORE THESE PLANTS IN WATER UNTIL READY TO USE.

AREAS OF DISTURBANCE WILL BE TEMPORARILY STABILIZED WITH CEREAL RYE OR ANNUAL RYE GRASS 30LB/ACRE. THE SITE WILL BE PERMANENTLY STABILIZED WITH A NATIVE ERNST SEED MIX ERNMX-131@ 30LB/ACRE OR AN APPROVED EQUAL.

STRAW OR HAY MULCH WILL BE PLACED THE AID IN THE STABILIZATION OF THE SITE 3 TONS PER ACRE FOLLOWING THE E&S STANDARDS.

ONLY CLEAN, NONPOLLUTING MATERIALS SHALL BE USED AS FILL, WHICH WILL BE KEYED INTO THE STRUCTURES FOR LONGEVITY.

ENHANCEMENT STRUCTURES SHALL BE MAINTAINED IN SAFE AND FUNCTIONAL CONDITION, INCLUDING NECESSARY DEBRIS REMOVAL BY THE OWNER.

THE PROPERTY LINES ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY. THE CONTRACTOR MAY NEED TO VERIFY THE PROPERTY LINE PRIOR TO CONSTRUCTION.

CONSTRUCTION OF ALL STRUCTURES MUST BE ON COMMONWEALTH OF PENNSYLVANIA PROPERTY.

CONSTRUCTION SEQUENCE

ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CONSTRUCTION SEQUENCE. EACH STEP SHALL BE COMPLETED BEFORE A SUBSEQUENT STEP IS INITIATED. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED.

THE MITIGATION BANK WILL BE CONSTRUCTED IN A HALF WIDTH MANOR. THE FIRST PART OF THE PROJECT WILL BE THE CONSTRUCTION OF A CHANNEL TO THE NORTH SIDE OF THE IMPOUNDMENT. A NEW FLOOD PLAIN WILL BE CONSTRUCTED. ONCE COMPLETED THER RIVER FLOW WILL BE SHIFTED TO THE NORTHERN REACH THROUGH THE IMPOUNDMENT AND A TWO RIVER CHANNELS WILL BE CONSTRUCTED TO THE SOUTHERN SIDE OF THE IMPOUNDMENT. THE SEQUENCE WILL BE AS FOLLOWS:

PRE-CONSTRUCTION

1. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE MITIGATION SITE PLAN PREPARER, THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN PREPARER, AND A REPRESENTATIVE FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION TO AN ON-SITE PRECONSTRUCTION MEETING.
2. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
3. ALL APPLICABLE PERMITS AND APPROVALS REQUIRED FOR THIS PROJECT SHALL BE SECURED PRIOR TO THE START OF CONSTRUCTION. COPIES OF PERMITS, PLANS AND APPROVALS SHALL BE KEPT ON-SITE AT ALL TIMES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT PRIOR TO IMPLEMENTATION.
5. THE SELECTED CONTRACTOR IS RESPONSIBLE FOR HAVING AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN FOR ALL OFF-SITE WASTE AND BORROW SITES.
6. CONTRACTOR SHOULD LIMIT STOCKPILING OF WASTE, CONSTRUCTION EQUIPMENT, FUEL TANKS, BORROWED EXCAVATION, ETC. NEAR THE STREAM IN THE EVENT A SIGNIFICANT STORM SHOULD OCCUR.
7. MOBILIZE FOR PROJECT CONSTRUCTION.

CONSTRUCTION

1. RELOCATE AND RECONSTRUCT UNT-1. FROM STATION 400+00 TO 404+50. RECONSTRUCT THE CHANNEL ACCORDING TO THE PLAN. COMPLETE THE WORK 200 FEET AT A TIME STABILIZING THE CHANNEL WITH ORGANIC COCONUT MATTING SPECIFIED IN THE CHANNEL DETAILS. PUMP ANY FLOWS AROUND THE WORK AREA. THE EXCESS SOILS WILL BE USED TO BUILD THE EARTH BERM THROUGH THE IMPOUNDMENT.
2. EXCAVATE AREA FOR WETLAND WEST OF UNT-1 STATION 405+00 TO 408+00 SET GRADE CONTROLS VALLEY WIDE.
3. SEED MULCH AREA WITH PROPOSED PEM OBLIGATED SEED MIX. BLANKET IN PROPOSED FLOW AREAS AND MULCH OVER FLOOD PLAIN.
4. INSTALL COMPOST FILTERSOCK AT STATION 104+50 AT THE PROPOSED RIVER PROFILE ELEVATION.
5. BEGIN THE FLOODPLAIN CONSTRUCTION FOR THE NOTHERN ALIGNMENT. BEGINNING AT STATION 104+00. CUT THE FLOODPLAIN OUT AND CONSTRUCT THE NOTHERN BRANCH OF THE RIVER CHANNEL STR-1. CUT THE CHANNEL STR-1 FROM STATION 104+00 TO 109+80. INSTALL THE GRADE CONTROLS FROM THE NORTH EDGE OF THE FLOODPLAIN TO THE EXISTING RIVERS EDGE. FOLLOW THE DETAILS FOR THE GRADE CONTROL CONSTRUCTION.STABILIZE WITH CEREAL RYE AND ERNST MIX 131 CONSERVATION MIX SEEDING THE FLOODPLAIN WITH ECMB ACCORDING TO THE E&S AND PLANTING PLAN. EXCESS MATERIAL FROM THE CUT WILL BE USED TO CONSTRUCT THE BERM (HAUL ROAD) THROUGH THE IMPOUNDMENT.ESTIMATE SIZE IS FIVE (5) FEET TALL TWENTY (20) WIDE AT THE BOTTOM.
6. CONSTRUCT RIVER CROSSING AT STATION 5625+00. SEE DETAIL FOR RIVER CROSSING.
7. WHEN THE BERM IS CONSTRUCTED AND THE ENTIRE RIVER FLOW IS SOUTH OF BASELINE 200 THE CONTRACTOR WILL INSTALL ALL GRADE CONTROLS ALONG THE NORTH SIDE OF THE BERM ACROSS BASELINE 100 (STR-1) FROM THE TOE OF SLOPE OF THE BASIN TO THE BERM.
8. GRADE CONTROLS WILL INSTALLED AT THE ELEVATIONS SET ON STR-1. SHEET 25 OF 30.
9. AS THE CONTRACTOR INSTALLS THE GRADE CONTROLS, THE WORK AREAS WILL BE STABILIZED. THE FLOOD PLAIN AND CHANNEL EDGES WILL BE BLANKETED WITH ECMB AND SEEDED WITH THE PROPOSED SEEDING MIX. STR-1, THE 100 BASELINE, WILL BE CONSTRUCTED AND STABILIZED WITH STREAM BED MATERIAL AVAILABLE FROM BORROW AREAS AND GRAVEL BARS WITHIN THE PROJECT LIMITS. PLACE TREETOPS AND OTHER WOODY DEBRIS IN THE CHANNEL.
10. READAJUST BERM TO CROSS PROPOSED STR-2 AT 218+50 AND CONSTRUCT BERM TO RIGHT RIVERBANK AT 5624+50. DIVERT ALL WATERFLOW TO THE CONSTRUCTED STR-1 NORTH OF BERM. STABILIZE WITH ECMB AND TEMPORARY SEEDING MIX.
11. INSTALL COMPOST FILTER SOCK TRAP AT STATION 302+70.
12. PUMP ANY CAPTURED WATER IN LOW AREAS FROM THE PROJECT AREA TO A DOWNSTREAM AREA. IF WATER IS STAINED OR MUDDY IT MUST BE PUMPED TO A SEDIMENT FILTER BAG.
13. CONSTRUCT VALLEYWIDE GRADE CONTROL THAT CROSSES STR-2 AND STR-3. GRADE CONTROL CROSSES BASELINE AT 5611+00 AND STR-3 BASELINE AT 305+40.
14. USE EXCAVATED MATERIAL AND ADDITIONAL BORROW TO CONSTRUCT A TEMPORARY BERM FROM STATION 207+00, 5611+00, AND 305+40 TO SOUTHERN SHORELINE OF THE FORMER IMPOUNDMENT. THIS BERM SHOULD HAVE AN ELEVATION SET 1 FOOT HIGHER THAN THE HAUL ROAD BERM ELEVATION. PLAN FOR WATER TO FLOW OVER HAUL ROAD IF THERE IS A LARGE STORM. SEED WITH TEMPORARY MIX.
15. BEGIN DEMOLITION OF THE DAM AND SPILLWAY. REMOVE THE DERICK STONES OF THE FORMER SPILLWAY ACROSS THE STR-3 (300 BASELINE) TO REQUIRED ELEVATION SET ON PLAN SHEET IN FIGURE 4 CROSS SECTION DETAIL SHEET 21 OF 30. SALVAGE THE DERRICK STONES FOR VALLEY WIDE GRADE CONTROLS.
16. INSTALL GRADE CONTROLS FROM STATION 300+00 TO 304+40. WORKING 100 FEET AT A TIME.
17. GRADE RIVERBED OF STR-3 (300 BASELINE) TO THE PROPOSED ELEVATION. EXCESS SOIL WILL BE REQUIRED. PLACE TREETOPS AND OTHER WOODY DEBRIS IN THE CHANNEL.
18. PLACE STREAMBED MATERIAL ON NEW RIVERBED.
19. REMOVE TEMPORARY BERM AT STATION 305+40 TO PROPOSED BED ELEVATION SET BY THE GRADE CONTROL UPSTREAM OF BERM.
20. CONTINUE CONSTRUCTION OF VALLEY WIDE GRADE CONTROLS ACROSS THE FORMER IMPOUNDMENT. CONSTRUCT THE GRADE CONTROLS AS PRESENTED ON THE PLANS FOLLOWING THE DETAILS IN THE PLAN SET FROM STATION 5612+00 TO 5621+00. CONSTRUCT GRADE CONTROL TO THE ELEVATIONS SET ON CROSS SECTIONS ON SHEET 26 OF 30 (STR-2) AND 23 OF 26 (STR-3). CONSTRUCT GRADE CONTROLS FROM THE CONSTRUCTED BERM (HAUL ROAD) ACROSS PROPOSED STR-2 AND STR-3 TO THE SOUTH BANK OF THE FORMER IMPOUNDMENT.
21. CONSTRUCT STR-2 AND STR-3 ACCORDING TO THE DETAIL.
22. STABILIZE FLOOD PLAIN WITH ECMB. PLACE EXCAVATED RIVER BORROW MATERIAL IN STR-2 AND STR-3.
23. CONSTRUCT RIVERBANK CONTROLS FROM 5638+00 TO 5644+00.
24. REESTABLISH UNT-2 ACCORDING TO THE PROFILE ON SHEET 24 OF 30 SET GRADE CONTROL LOGS TO THE ASSIGNED ELEVATIONS EXTENDING AT A MINIMUM OF 5-7 FEET INTO UNDISTURBED SOILS. EXCAVATE 1.5 FEET BY 15 FEET OF ANY BLACK SOILS REPLACE WITH CLEAN BORROW FROM THE BORROW AREA. EXCAVATED MATERIAL WILL BE WASTED ON PROPERTY AND PROPERLY CAPPED.
25. REESTABLISH UNT-3 ACCORDING TO THE PROFILE ON SHEET 24 OF 30. SET GRADE CONTROL LOGS TO THE ASSIGNED ELEVATIONS EXTENDING AT A MINIMUM OF 5-7 FEET INTO UNDISTURBED SOILS. EXCAVATE 1.5 FEET BY 20 FEET OF ANY BLACK SOILS. REPLACE WITH CLEAN BORROW FROM THE BORROW AREA. EXCAVATED MATERIAL WILL BE WASTED ON PROPERTY AND PROPERLY CAPPED.
26. SEED AND BLACKET UNT-2 AND UNT-3 WITH PEM OBLIGATE SEED MIX IDENTIFIED ON SHEET 28 OF 30 PLANTING PLAN.
27. PLANT SHUBS AND TREES FOR ENHANCEMENTS OF WETLAND 1, 2, AND 3.
28. PLANT ADDITIONAL TREES AND SHRUBS IN RIPARIAN AREAS PROPOSED IN PLANTING PLAN IN REESTABLISHED WETLANDS.

LEGEND

EXISTING CONTOUR

EXISTING 100-YR FLOODPLAIN

EASEMENT BOUNDARY

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:

LAND RECLAMATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

EXISTING SITE PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT

CHECKED BY : MB

ENGINEER

DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647

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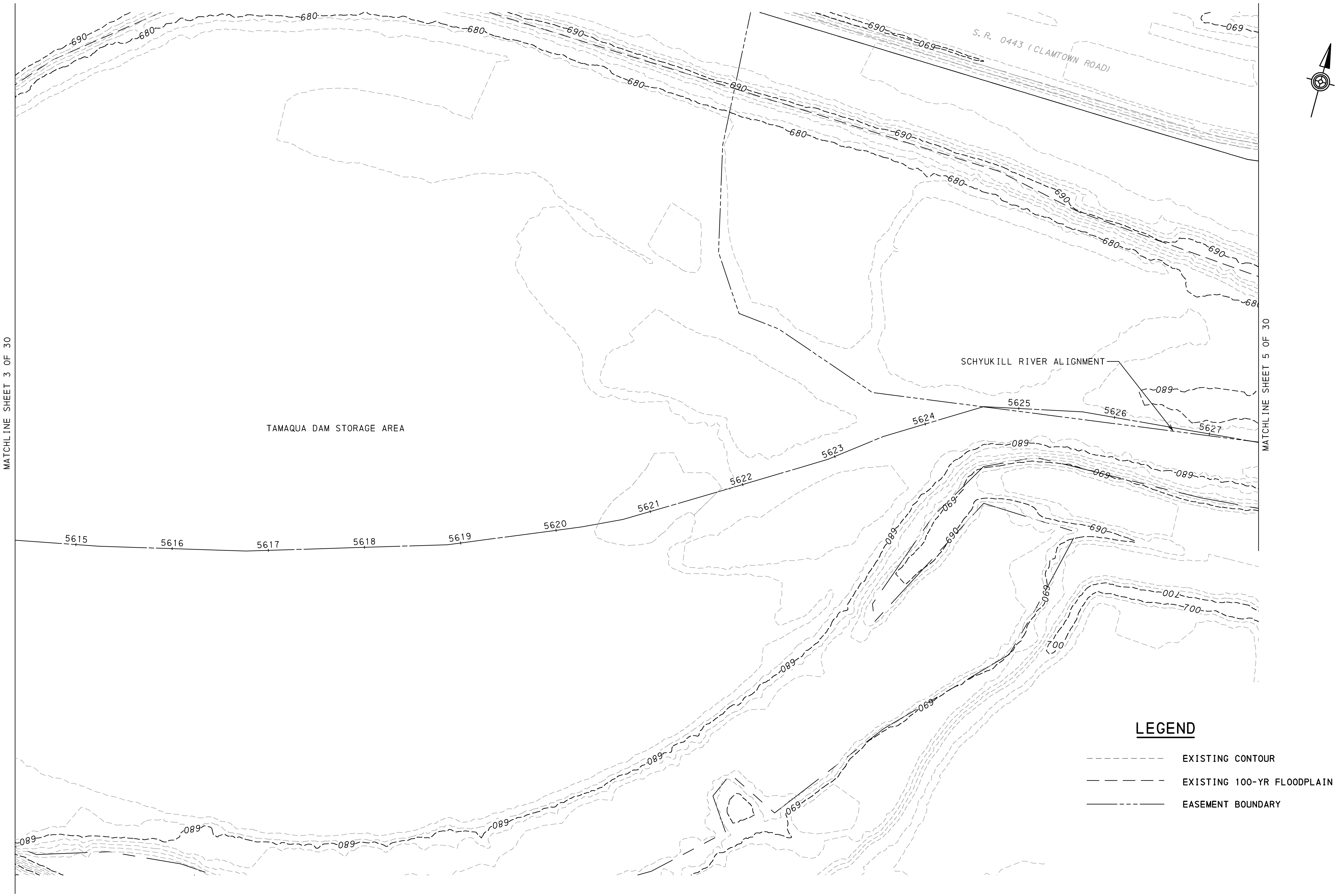

LEGEND

EXISTING CONTOUR

EXISTING 100-YR FLOODPLAIN

EASEMENT BOUNDARY

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
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PREPARED FOR:

LRG

LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

EXISTING SITE PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT | CHECKED BY : MB | SHEET 4 OF 30

ENGINEER

DATE: 08-25-2023

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REGISTERED PROFESSIONAL
JAMES H. FLYNN
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PE 061647

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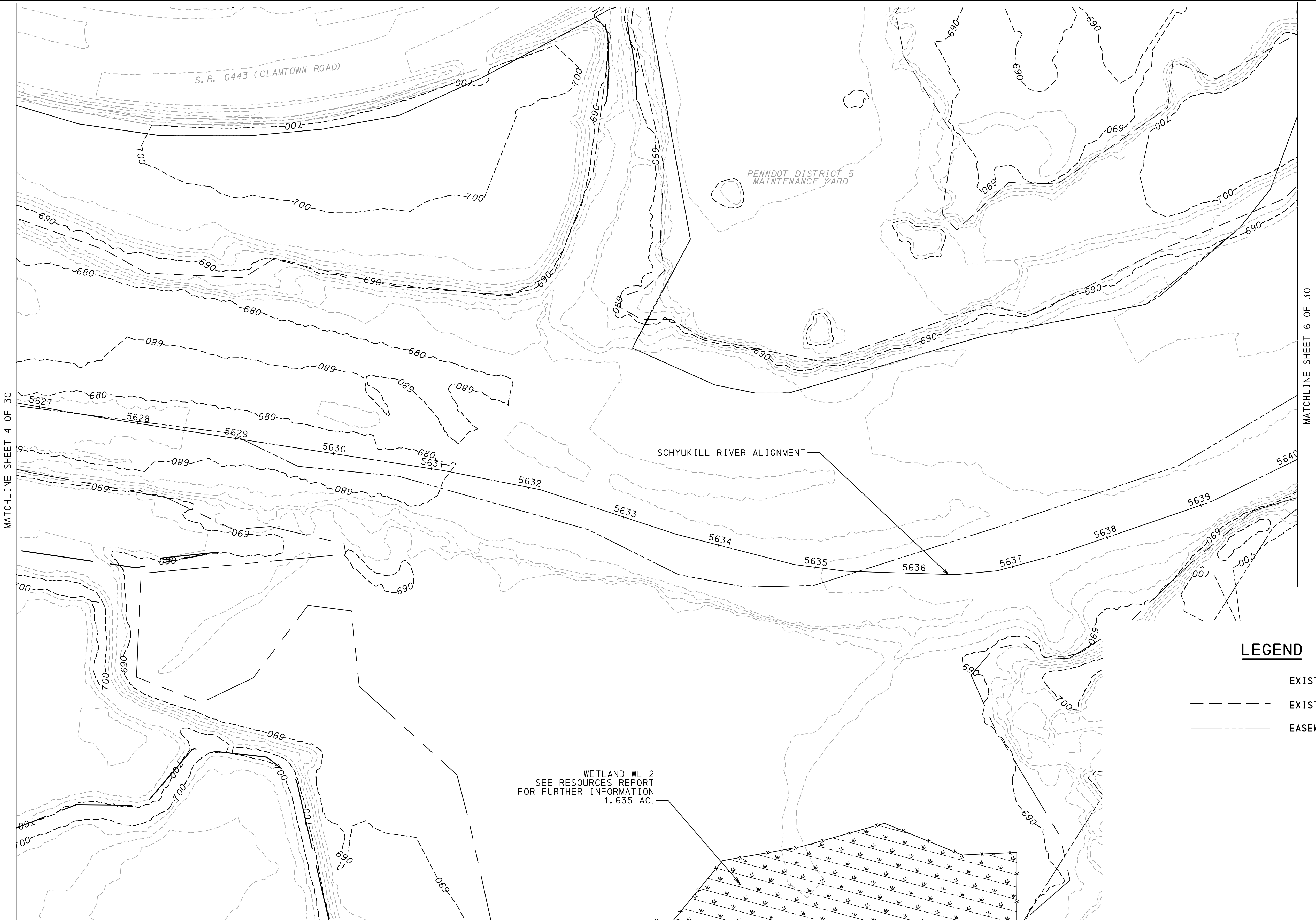

LEGEND

EXISTING CONTOUR

EXISTING 100-YR FLOODPLAIN

EASEMENT BOUNDARY

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
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TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

EXISTING SITE PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT

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ENGINEER

DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647

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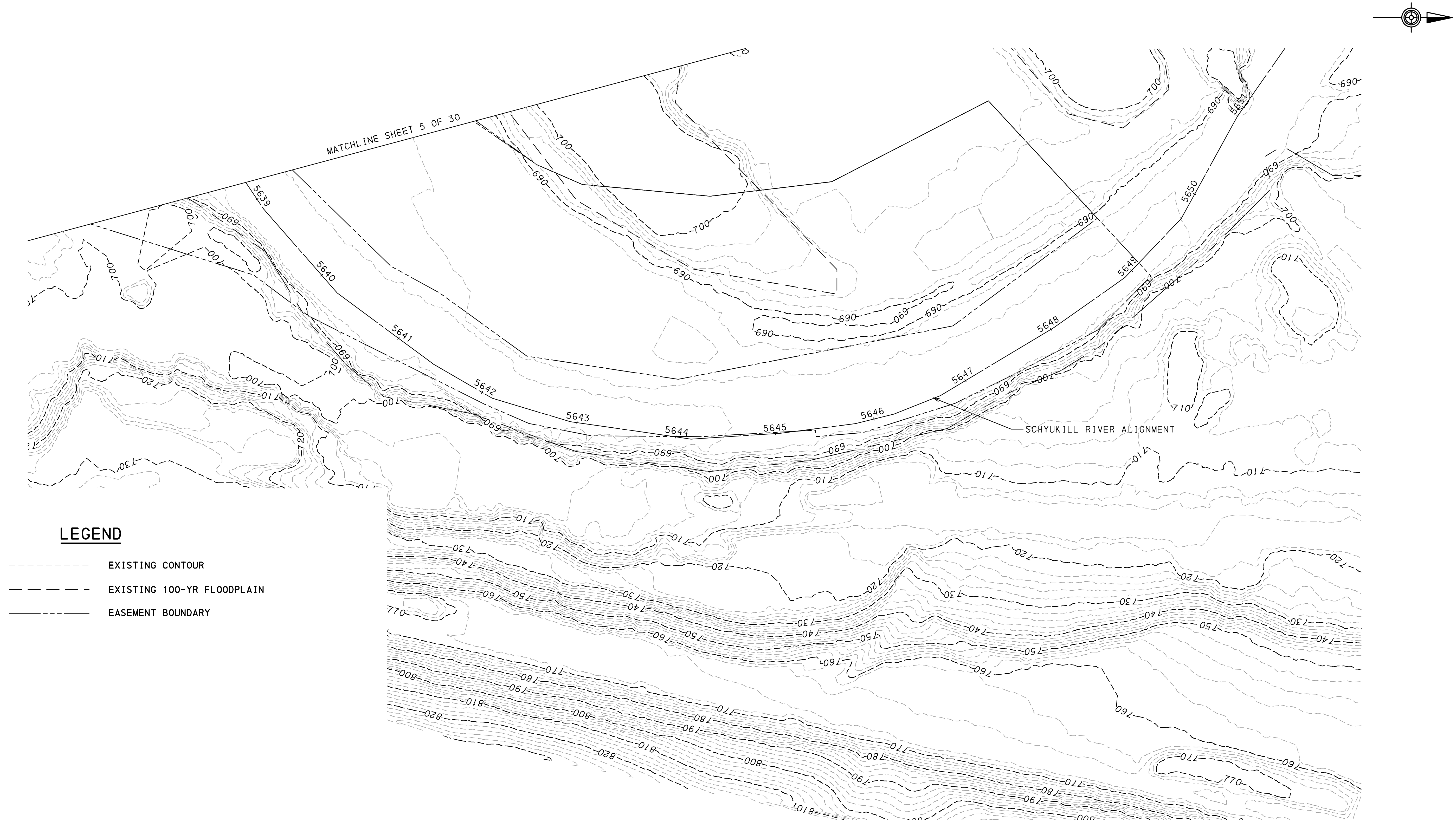

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HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LRG LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	EXISTING SITE PLAN SCALE 0 50 100 FEET 1 INCH = 50 FEET	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 6 OF 30

COMMONWEALTH OF PENNSYLVANIA
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ENGINEER
PE 061647

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LEGEND

- EXISTING CONTOUR
- EXISTING 100-YR FLOODPLAIN
- EASEMENT BOUNDARY

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PREPARED BY:
HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
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TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

EXISTING SITE PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT
CHECKED BY : MB
SHEET 7 OF 30

ENGINEER
DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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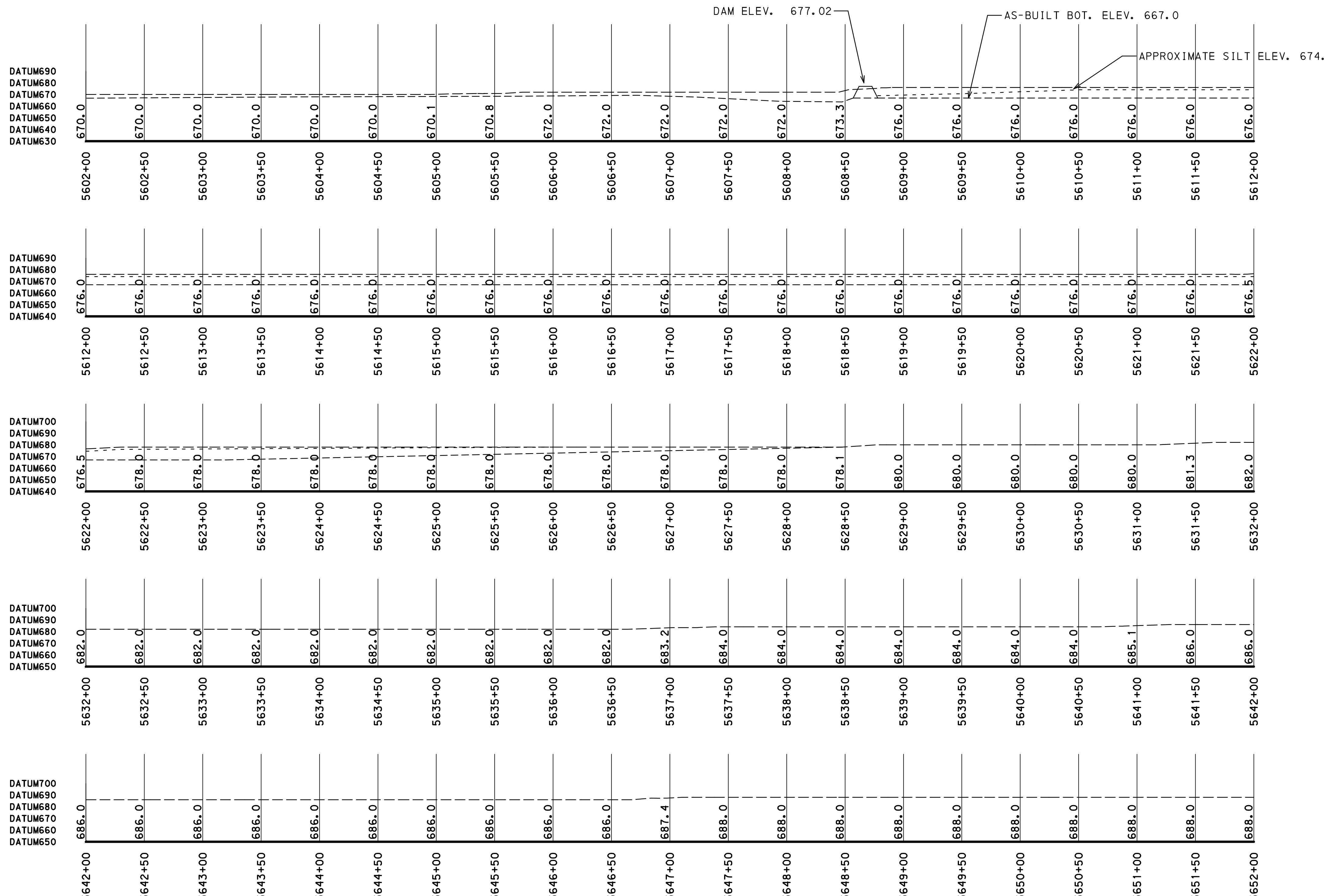
PE 061647



MAIN SCHUYKILL RIVER ALIGNMENT

NOTE:
THIS IS THE MAIN ALIGNMENT FOR THE RIVER. PLEASE SEE THE SUBSEQUENT PROFILES FOR THE PROPOSED DESIGN.

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PREPARED BY:	PREPARED FOR:					
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LRG LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	EXISTING SITE PROFILE SCALE NOT TO SCALE	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 8 OF 30

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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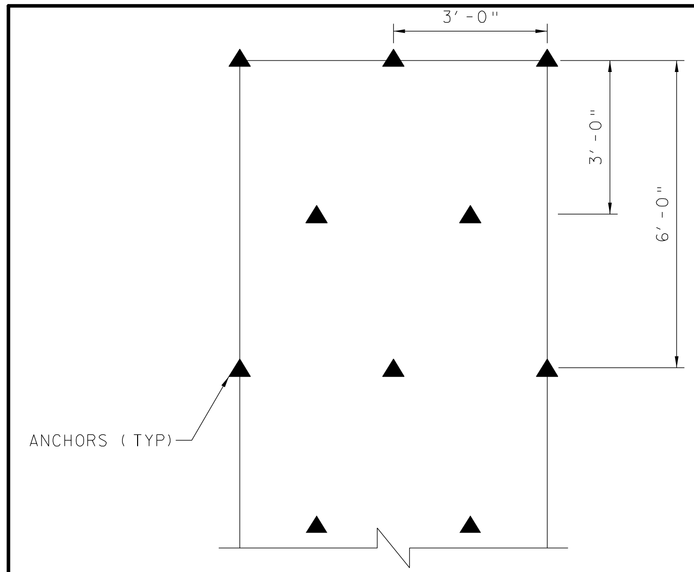
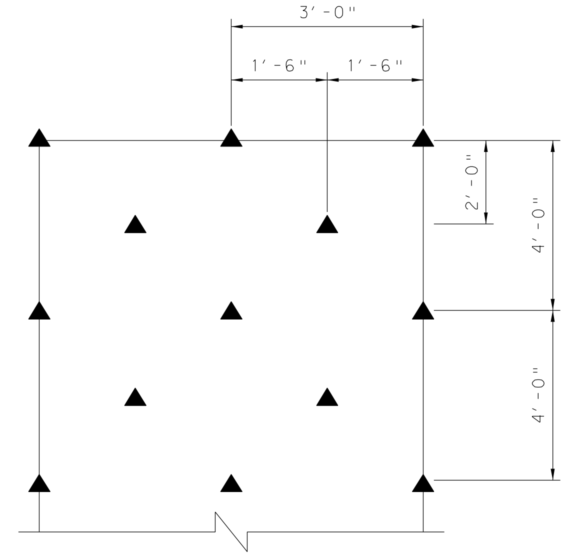


ANCHOR PATTERN FOR SLOPES BETWEEN 3:1 AND 2:1 (INCLUDING 3:1)

PLACE 1.8 ANCHORS/SY



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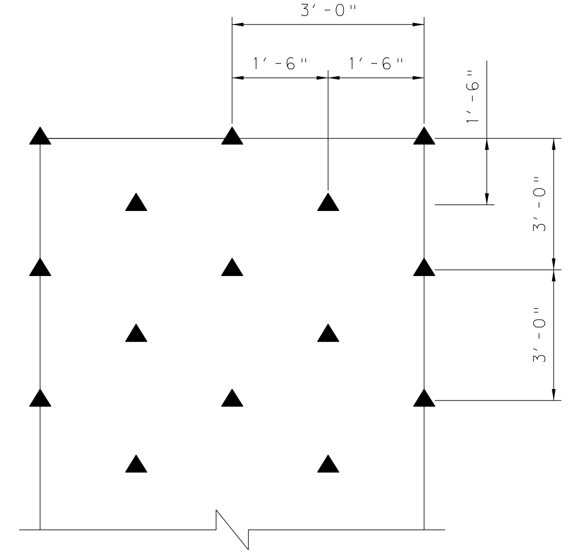
PLACE 2 ANCHORS/SY



ANCHOR PATTERN FOR SLOPES 1:1 OR STEEPER

PLACE 2 1/2 ANCHORS/SY

ANCHOR PATTERNS FOR SLOPES

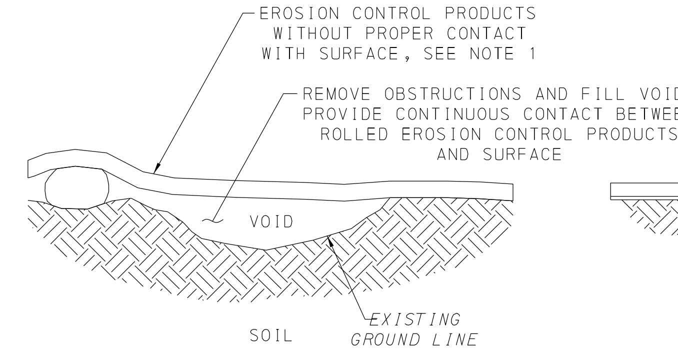


FIGURE 1

LACK OF CONTINUOUS CONTACT

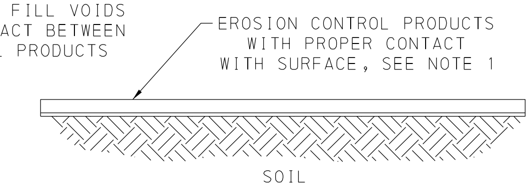
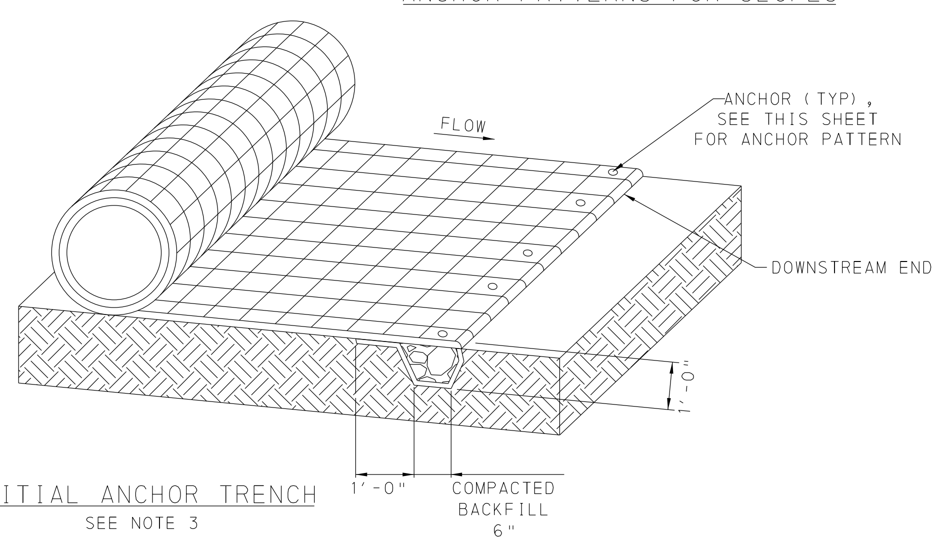


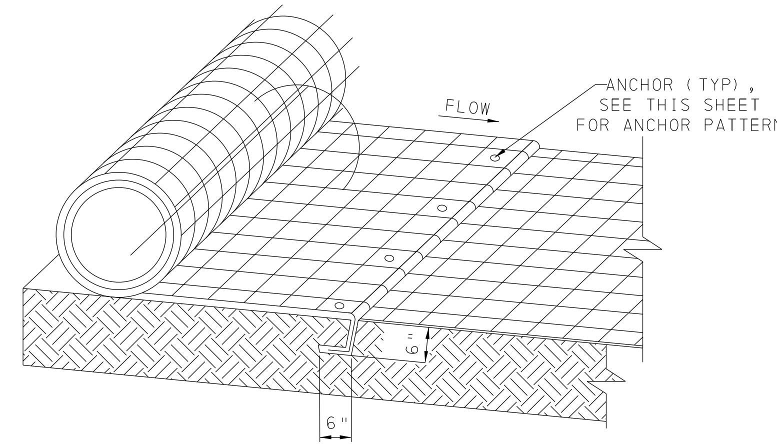
FIGURE 2

CONTINUOUS CONTACT



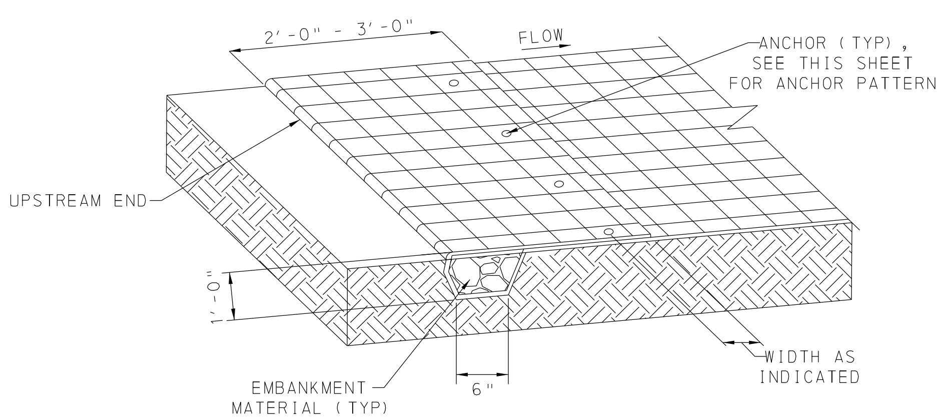
INITIAL ANCHOR TRENCH

SEE NOTE 3



INTERMITTENT CHECK SLOT

SEE NOTE 4



TERMINAL ANCHOR TRENCH

SEE NOTE 5

NOTES

1. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE EROSION CONTROL PRODUCTS AND THE SOIL.
2. PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 408/2016, SECTION 806.2 (d).
3. EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE EROSION CONTROL PRODUCTS.
4. EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL AT 25'-0" TO 30'-0" ALONG THE LENGTH OF THE EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE EROSION CONTROL PRODUCTS.
5. EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
6. PERMANENT EROSION CONTROL PRODUCT SHALL BE USED IN EROSION CONTROL CHANNELS OR WITHIN 50' OF WATERWAYS IN ACCORDANCE WITH ITEM 0806-0140.
7. THE PREFERRED MATERIAL FOR ROLLED PRODUCTS ARE JUTE OR COCONUT FIBER MATS.
8. ROLLED PRODUCTS ARE NOT TO BE PLACED ON BEDROCK.
9. COMPLY WITH RC-73M

EAST COAST erosion control

Proud Member and Participant of:
www.eastcoasterosion.com
443 Bricker Road Bernville, PA 19506
1.800.582.4005 +1.610.488.8496 Fax +1.610.488.8494

Material and Performance Specification

ECS-2B™ Double Net Straw Biodegradable Rolled Erosion Control Product

Description:

The ECS-2B™ is made with uniformly distributed 100% agricultural straw and two organic jute nets securely sewn together with biodegradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECS-2B™ has functional longevity of approximately 12 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 3:1 to 2:1 and low to medium flow channels The ECS-2B™ meets Type 2.D specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Matrix:	1	2	
	100% Straw	N/A	
Netting:	**Type**		**Net Color**
Top:	Organic Leno Weave Jute		Natural
Middle:	None		
Bottom:	Organic Leno Weave Jute		
Net Opening:	**Top**	**Middle**	**Bottom**
	0.5" x 1.0"	N/A	0.5" x 1.0"
Thread:	**Type**	**Color**	
	Biodegradable Thread	Natural	
Roll Sizes:	**Standard**	**"A" Size**	**Mega**
Width:	8 ft 2.4 m	4.00 ft 1.2 m	16 ft 4.9 m
Length:	112.5 ft 34.3 m	225 ft 68.6 m	112.5 ft 34.3 m
Weight*:	59 lbs 26.8 kg	59 lbs 26.8 kg	118 lbs 53.5 kg
Area:	100 yd² 83.6 m²	100 yd² 83.6 m²	200 yd² 167.2 m²
#/Pallet:	20	9	20

*Weight at time of manufacturing.

ECC-2B™ Double Net Coconut Biodegradable Rolled Erosion Control Product

Description:

The ECC-2B™ is made with uniformly distributed 100% coconut fiber and two organic jute nets securely sewn together with biodegradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECC-2B™ has functional longevity of approximately 24 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 1:1 and medium to high flow channels. The ECC-2B™ meets Type 4.B specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Matrix:	1	2	
	100% Coconut	N/A	
Netting:	**Type**		**Net Color**
Top:	Organic Leno Weave Jute		Natural
Middle:	None		
Bottom:	Organic Leno Weave Jute		
Net Opening:	**Top**	**Middle**	**Bottom**
	0.5" x 1.0"	N/A	0.5" x 1.0"
Thread:	**Type**	**Color**	
	Biodegradable Thread	Natural	
Roll Sizes:	**Standard**	**"A" Size**	**Mega**
Width:	8 ft 2.4 m	4.00 ft 1.2 m	16 ft 4.9 m
Length:	112.5 ft 34.3 m	225 ft 68.6 m	112.5 ft 34.3 m
Weight*:	60 lbs 27.2 kg	60 lbs 27.2 kg	120 lbs 54.4 kg
Area:	100 yd² 83.6 m²	100 yd² 83.6 m²	200 yd² 167.2 m²
#/Pallet:	20	9	20

*Weight at time of manufacturing.

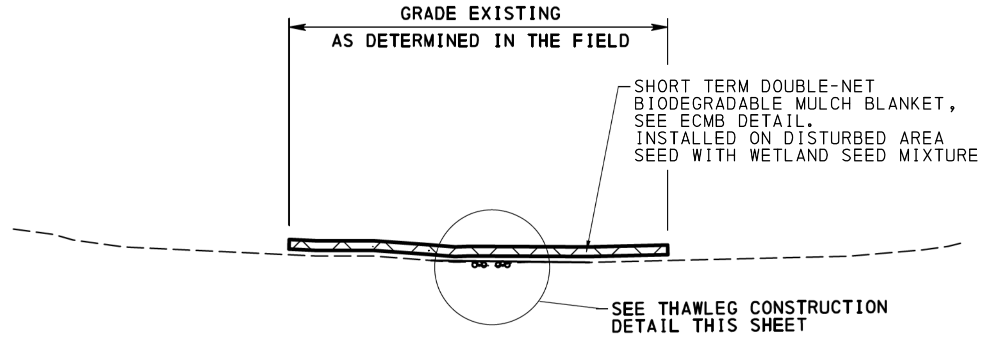
EROSION CONTROL MULCH BLANKET

EAST COAST EROSION CONTROL ECS-2B AND ECC-2B

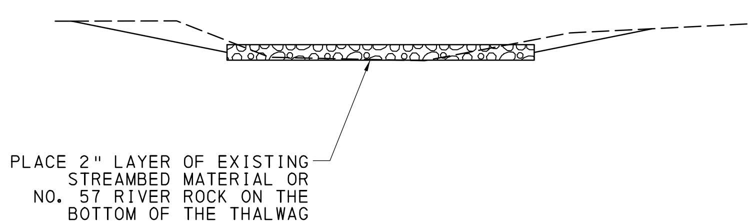
FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignDetails.dgn
DATE: 8/28/2023 TIME: 12:39:38 PM

PREPARED BY:	PREPARED FOR:			
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LRG LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	DETAILS SCALE AS SHOWN	DESIGNED BY: TOT CHECKED BY: MB SHEET 9 OF 30 ENGINEER DATE: 08-25-2023

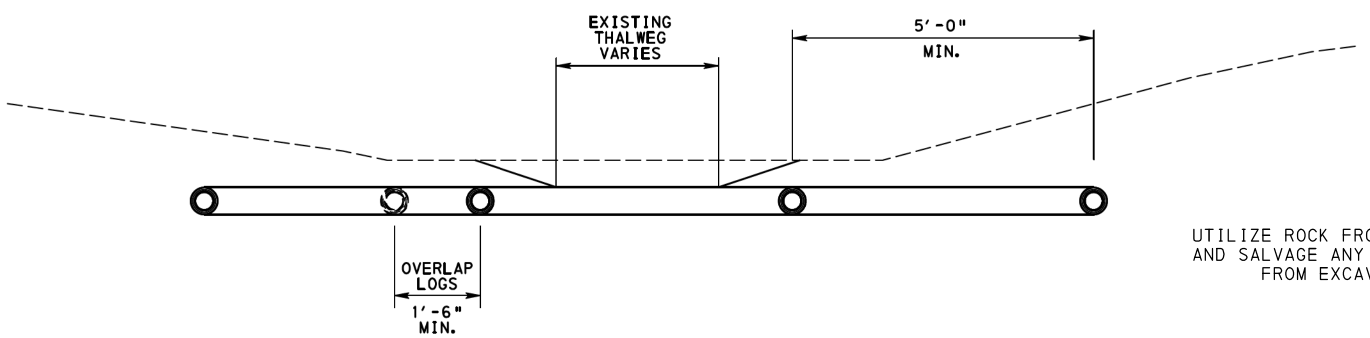
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 06647



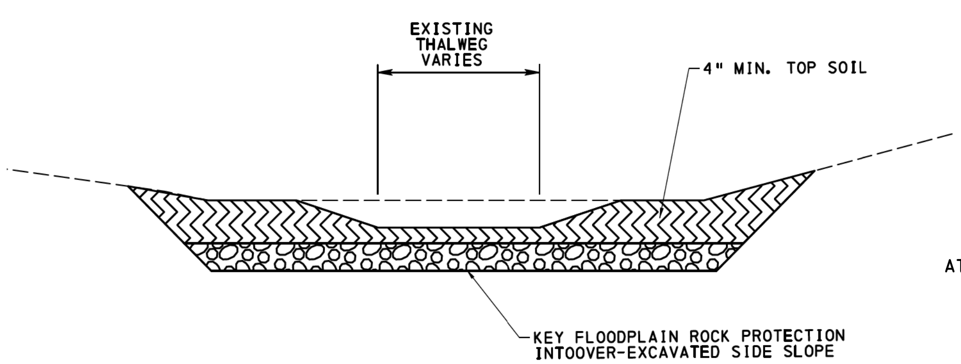
TYPICAL STREAM REESTABLISHMENT DETAIL
NTS



TYPICAL THALWAG CONSTRUCTION DETAIL
NTS



LOG GRADE CONTROL



ROCK GRADE CONTROL

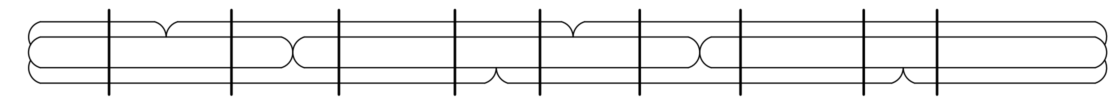
TRIPLE STACKED LOG GRADE CONTROL
FOR UNT-1, UNT-2 & UNT-3
SECTION A-A

CONSTRUCTION NOTES:

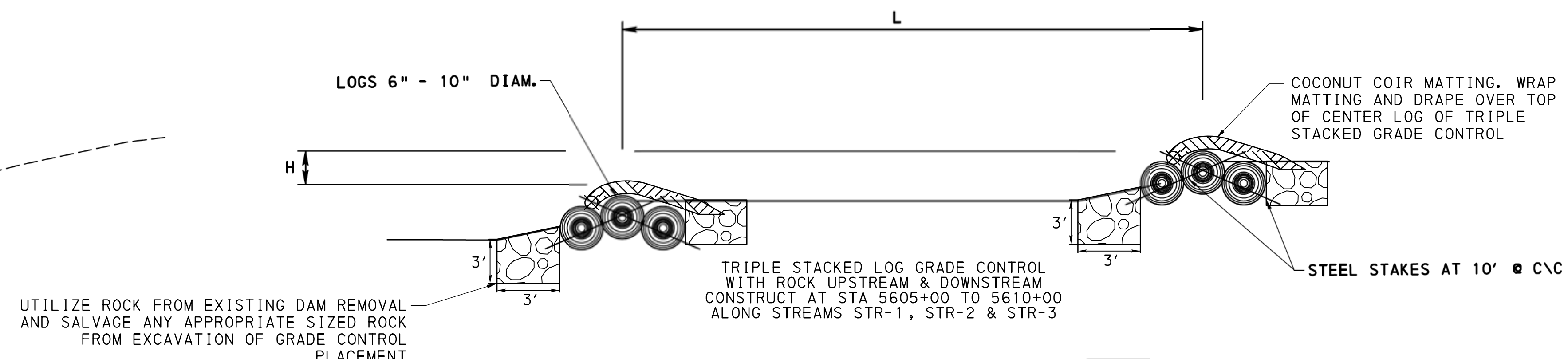
1. LOGS SHALL BE HEMLOCK, LOCUST, OR OTHER ONSITE AVAILABLE SPECIES.
2. LOG STRUCTURES WILL USE THREE LOGS: TRIPLE STACKED AS PER THE DETAIL. ON SITE AVAILABLE ROCK FROM BORROW AREA AND DAM REMOVAL WILL BE PLACED ON THE UPSTREAM & DOWNSTREAM SIDE OF THE GRADE CONTROLS TO PREVENT SCOUR AND ENSURE STABILITY OF THE GRADE CONTROL. LENGTHS WILL VARY DEPENDING ON THE LENGTH OF AVAILABE LOGS, BUT WILL BE PINNED TOGETHER VALLEY WIDE.
3. DIAMETER OF LOG WILL BE DETERMINED BY THE CONSTRUCTION MANAGER.
4. PRELIMINARY DESIGN OF THE GRADE CONTROL STRUCTURES IS ON DRONE SURVEY. GRADE CONTROLS WILL BE EVALUATED DURING CONSTRUCTION TO MEET THE ACTUAL FLOW CONDITIONS.

ADDITIONAL NOTES:

- PINS ARE TO BE 0.5" NON-COATED STEEL REBAR.
- MIN. 2 PINS PER SECTION OF LOG, PINNED THROUGH TOP LOG INTO BOTTOM.
- PRE-DRILL AND DRIVE PINS.



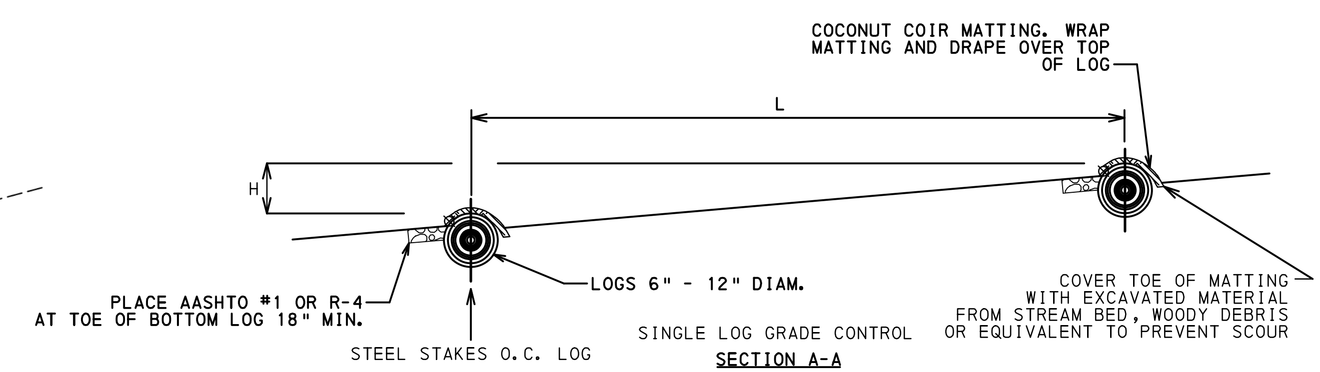
TRIPLE STACKED LOG GRADE CONTROL
PLAN VIEW
NTS



TRIPLE STACKED LOG GRADE CONTROL
WITH ROCK UPSTREAM & DOWNSTREAM
CONSTRUCT AT STA 5605+00 TO 5610+00
ALONG STREAMS STR-1, STR-2 & STR-3

GRADE CONTROL PLACEMENT

PERCENT SLOPE	SPACING (FT)
1-0	100
3-1	75-100
5-3	60-75
7-5	45-60
9-7	30-45
11-9	20-30
13-11	15-20
15	9-15



SINGLE LOG GRADE CONTROL
SECTION A-A
NTS

GRADE CONTROL NOTES:

1. GRADES GREATER THAN 20% WILL USE REESTABLISHMENT LOG AND ROCK STEP POOL. SEE DETAIL THIS SHEET.

GRADE CONTROL DETAIL
NTS

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignDetails.dgn
DATE: 10/2/2023 TIME: 3:11:33 PM

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HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	DETAILS SCALE AS SHOWN	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 10 OF 30

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REGISTERED PROFESSIONAL ENGINEER
JAMES H. FLYNN
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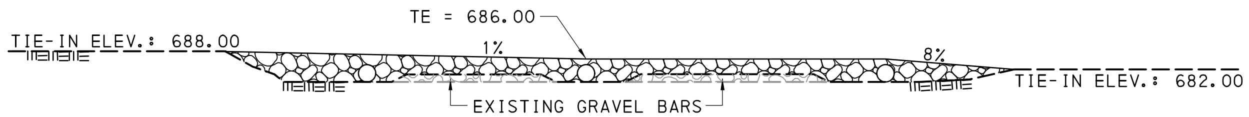
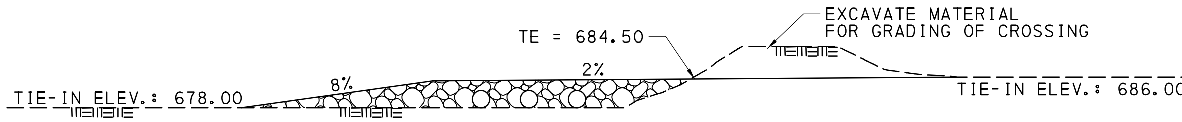


STREAM CROSSING DETAIL
FOR STATION 5635+25



STREAM CROSSING DETAIL
FOR STATION 5625+00

CONSTRUCTION NOTES:

1. USE 3 36" CORRUGATED METAL PIPES FOR IN-STREAM CROSSING AS SHOWN IN THE ABOVE DETAIL. MINIMUM OF 1 36" PIPE IS REQUIRED TO PASS LOW FLOW THROUGH CROSSING (USGS STREAMSTATS 30 DAY 2-YR LOW FLOW).

2. BACKFILL CROSSINGS WITH CLEAN ROCK. MINIMUM 1' OF COVER OVER PIPE.

Provide 50' stabilized access to crossing on both sides of stream channel (see Standard Construction Detail #3-12).

Pipes shall extend beyond the toe of the roadway.

Runoff from the roadway shall be diverted off the roadway and into a sediment removal BMP before it reaches the rock approach to the crossing.

MAINTENANCE

1. **Temporary stream crossings shall be inspected on a daily basis.**
2. **Damaged crossings shall be repaired within 24 hours of the inspection and before any subsequent use.**
3. **Sediment deposits on the crossing or its approaches shall be removed within 24 hours of the inspection**

As soon as the temporary crossing is no longer needed, it shall be removed. All materials shall be disposed of properly and disturbed areas stabilized.

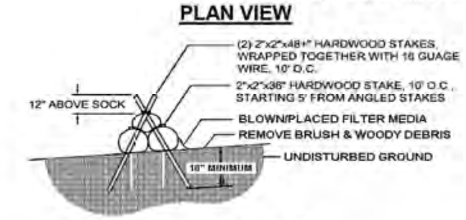
STREAM CROSSING
NOT TO SCALE

STANDARD CONSTRUCTION DETAIL #3-11
Compost Sock Sediment Trap

18" DIAMETER SOCK
24" DIAMETER SOCK
24" DIAMETER SOCK

1. Compost Sock Sediment Trap shall be sized to provide 2,000 cubic feet of storage capacity for each acre tributary to the trap.
2. Minimum base width is equivalent to the height.
3. Sediment accumulation shall not exceed 1/3 the total height of the trap.
4. Socks shall be of larger diameter at the base of the trap and decrease in diameter for successive layers as indicated to the left.
5. Ends of the trap shall be a minimum of 1 foot higher in elevation than the mid-section, which shall be located at the point of discharge.

PLAN VIEW



Adapted from Filtrexx

STAKING DETAIL

Sock material shall meet the standards of Table 4.1. Compost shall meet the standards of Table 4.2.

Compost sock sediment traps shall not exceed three socks in height and shall be stacked in pyramidal form as shown above. Minimum trap height is one 24" diameter sock. Additional storage may be provided by means of an excavated sump 12" deep extending 1 to 3 feet upslope of the socks along the lower side of the trap.

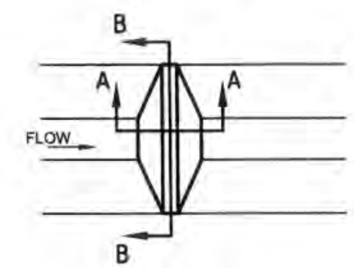
Compost sock sediment traps shall provide 2,000 cubic feet storage capacity with 12" freeboard for each tributary drainage acre. (See manufacturer for anticipated settlement.)

The maximum tributary drainage area is 5.0 acres. Since compost socks are "flow-through," no spillway is required.

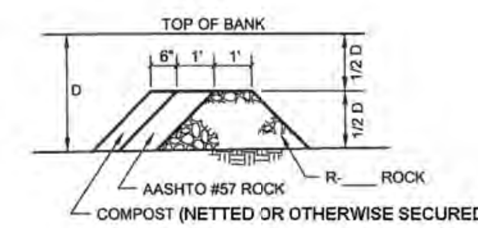
Compost sock sediment traps shall be inspected weekly and after each runoff event. Sediment shall be removed when it reaches 1/3 the height of the socks.

Photodegradable and biodegradable socks shall not be used for more than 1 year.

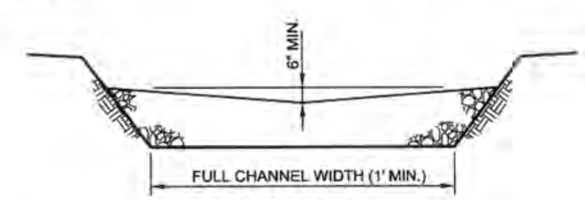
STANDARD CONSTRUCTION DETAIL # 4-14
Rock Filter



PLAN VIEW



SECTION A-A



SECTION B-B

PA DEP

FOR 3' ≤ D USE R-4
FOR 2' ≤ D < 3' USE R-3
NOT APPLICABLE FOR D < 2'

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignDetails.dgn
DATE: 10/2/2023 TIME: 3:12:20 PM

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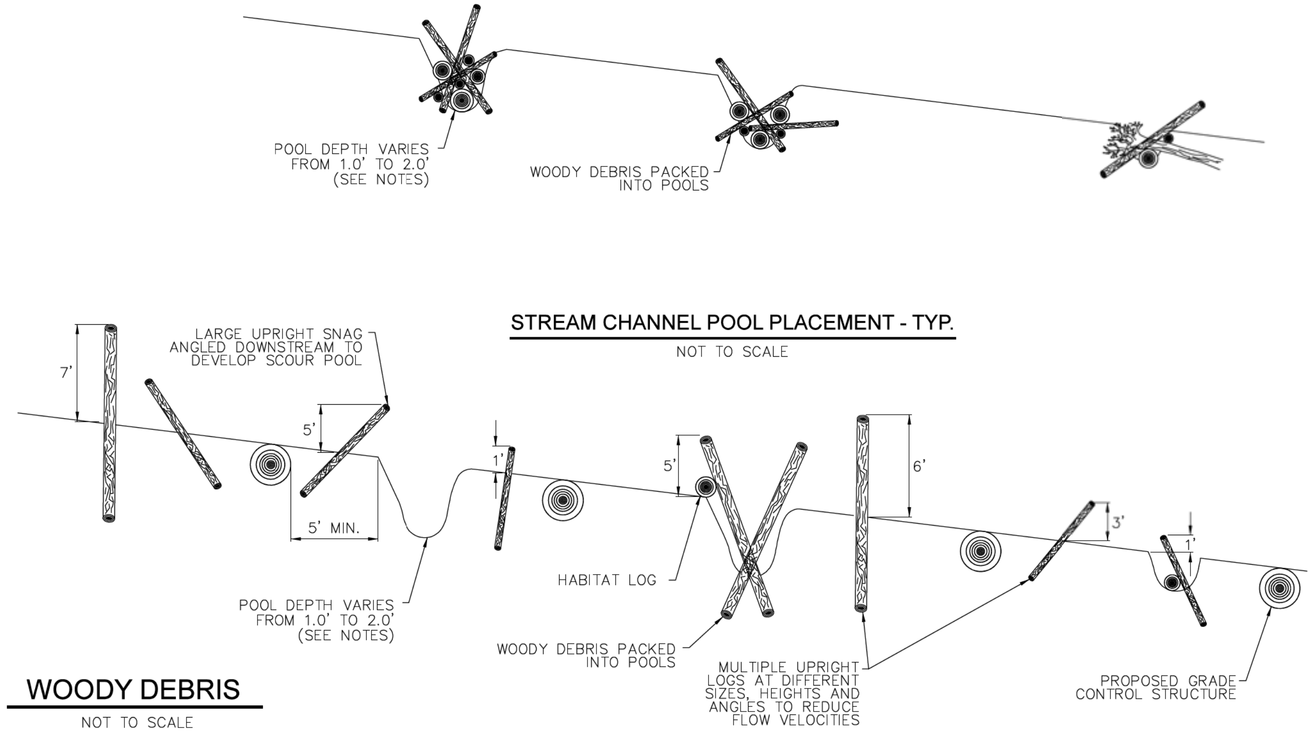
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	DETAILS SCALE AS SHOWN	DESIGNED BY : TOT	CHECKED BY : MB	SHEET 11 OF 30
				ENGINEER	DATE: 08-25-2023	COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647



STREAM CHANNEL POOL PLACEMENT - TYP.

NOT TO SCALE

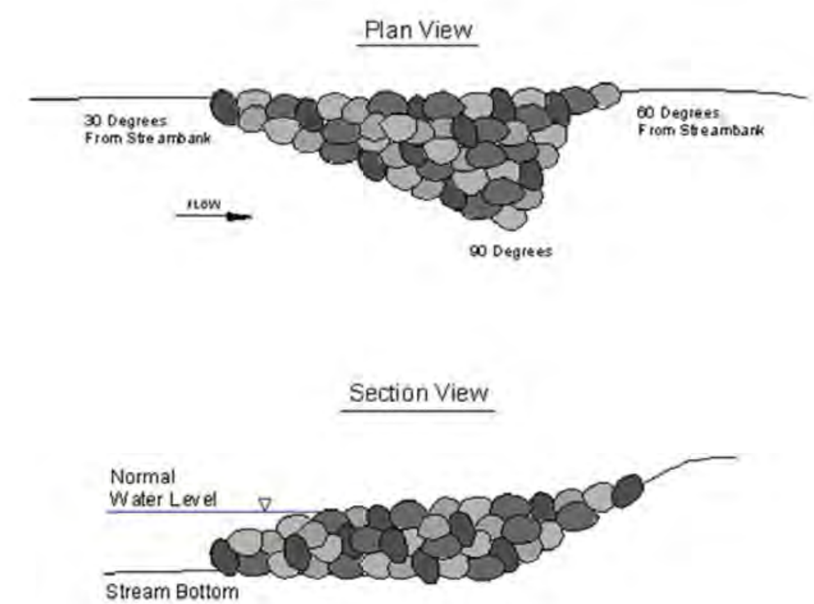
WOODY DEBRIS

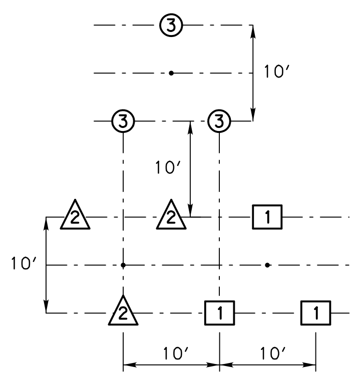
NOT TO SCALE

CONSTRUCTION NOTES:

1. INSTALL HARVESTED WOODY DEBRIS AND GRADE CONTROL STRUCTURES THROUGHOUT THE FLOODPLAIN AT THE DIRECTION OF THE ENGINEER OR CONSTRUCTION MANAGER PRIOR TO PLACING TOPSOIL.
2. WOODY DEBRIS AND SNAGS WILL BE INSTALLED AT THE DIRECTION OF THE ENGINEER OR CONSTRUCTION MANAGER. THE SIZE, FINAL LOCATION AND ORIENTATION OF PROPOSED WOODY DEBRIS WILL BE DETERMINED BY THE ENGINEER OR THE CONSTRUCTION MANAGER BASED ON SITE CONDITIONS DURING CONSTRUCTION.
3. ALL LARGE WOODY DEBRIS SHALL BE PINNED WITH UPRIGHT SNAGS SO THAT FLOW CAN NOT LIFT THE WOODY DEBRIS OUT. SNAGS SHALL BE PLACED AS DETAIL SHOWS TO SECURE LOGS IN PLACE.
4. POOLS SHALL BE PACKED WITH AVAILABLE WOODY DEBRIS AT THE DIRECTION OF THE ENGINEER OR CONSTRUCTION MANAGER.
5. TREE TOPS SHOULD BE BURIED A MINIMUM OF 4' INTO BANK.

STONE DEFLECTOR



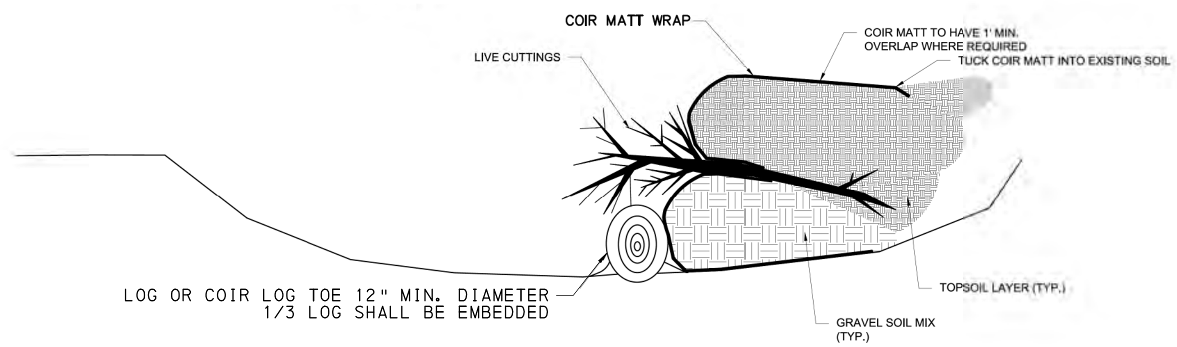


1	SHRUB-TREE SPECIES
2	SHRUB-TREE SPECIES
3	SHRUB-TREE SPECIES
1 1 1	HOMOGENOUS CLUSTER OF SHRUB-TREE SPECIES

NOTE:
EVENLY DISTRIBUTE PLANT CLUSTER TO PROMOTE SPECIES DIVERSIFICATION

CLUSTER PLANTING PLAN

NOT TO SCALE



SINGLE LIFT BRANCH LAYERING WITH LOG OR COIR LOG TOE

TYPE: Standard Coir Logs **Netting: 100% Compressed Coir Twine**

Standard Product Specifications

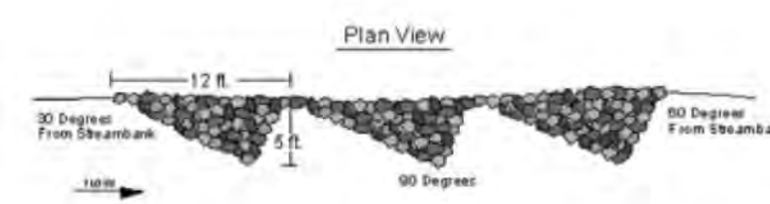
Diameter:	6.0 in (15.2 cm)	8.0 in (20.3 cm)	9.0 in (22.9 cm)
Length:	12 ft (3.66 m)	N/A	N/A
Weight +10%:	17 lbs	N/A	N/A
Density:	7 lb/ft³ (112.13 kg/m³)	N/A	N/A
#/Pallet:	49	N/A	N/A
Pallets/truck	8	N/A	N/A

Diameter:	12.0 in (30.5 cm)	16.0 in (40.6 cm)	20.0 in (50.8 cm)
Length:	12 ft (3.66 m)	12 ft (3.66 m)	12 ft (3.66 m)
Weight +10%:	66 lbs	117 lbs	183 lbs
Density:	7 lb/ft³ (112.13 kg/m³)	7 lb/ft³ (112.13 kg/m³)	7 lb/ft³(112.13 kg/m³)
#/Pallet:	16	9	4 / 6
Pallets/truck	8	8	8

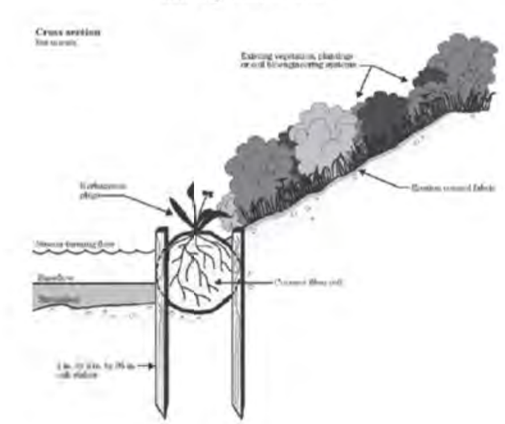
EAST COAST SEDIMENT RETENTION FIBER ROLL

STANDARD COIL LOG

SAW-TOOTH DEFLECTORS



Coir Log Cross Section



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HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	DETAILS SCALE AS SHOWN	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 12 OF 30

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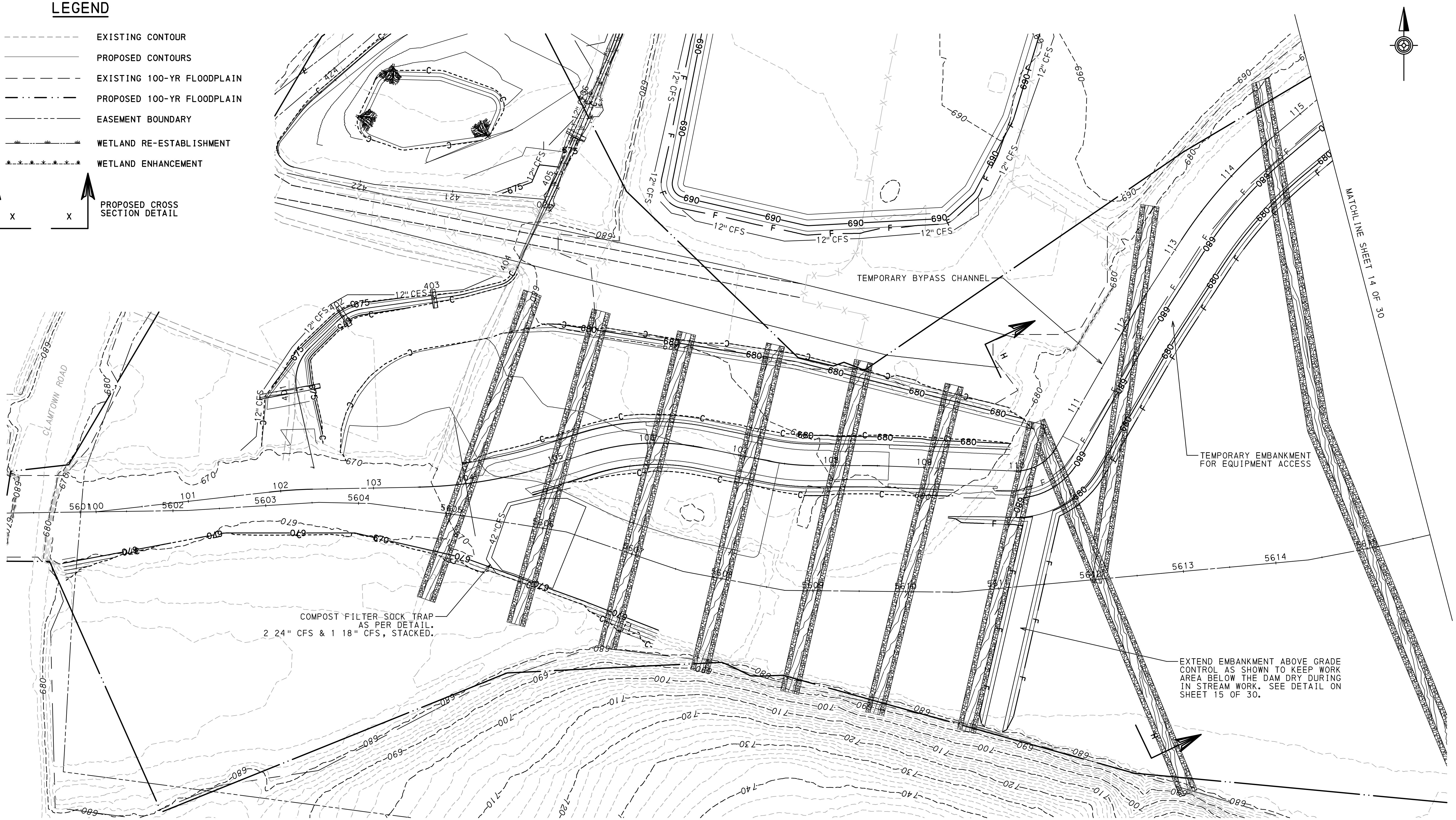
FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignDetails.dgn
DATE: 8/28/2023 TIME: 12:49:15 PM

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOURS
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EASEMENT BOUNDARY
- WETLAND RE-ESTABLISHMENT
- WETLAND ENHANCEMENT
- X X PROPOSED CROSS SECTION DETAIL



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DATE: 10/2/2023 TIME: 3:56:27 PM

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NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

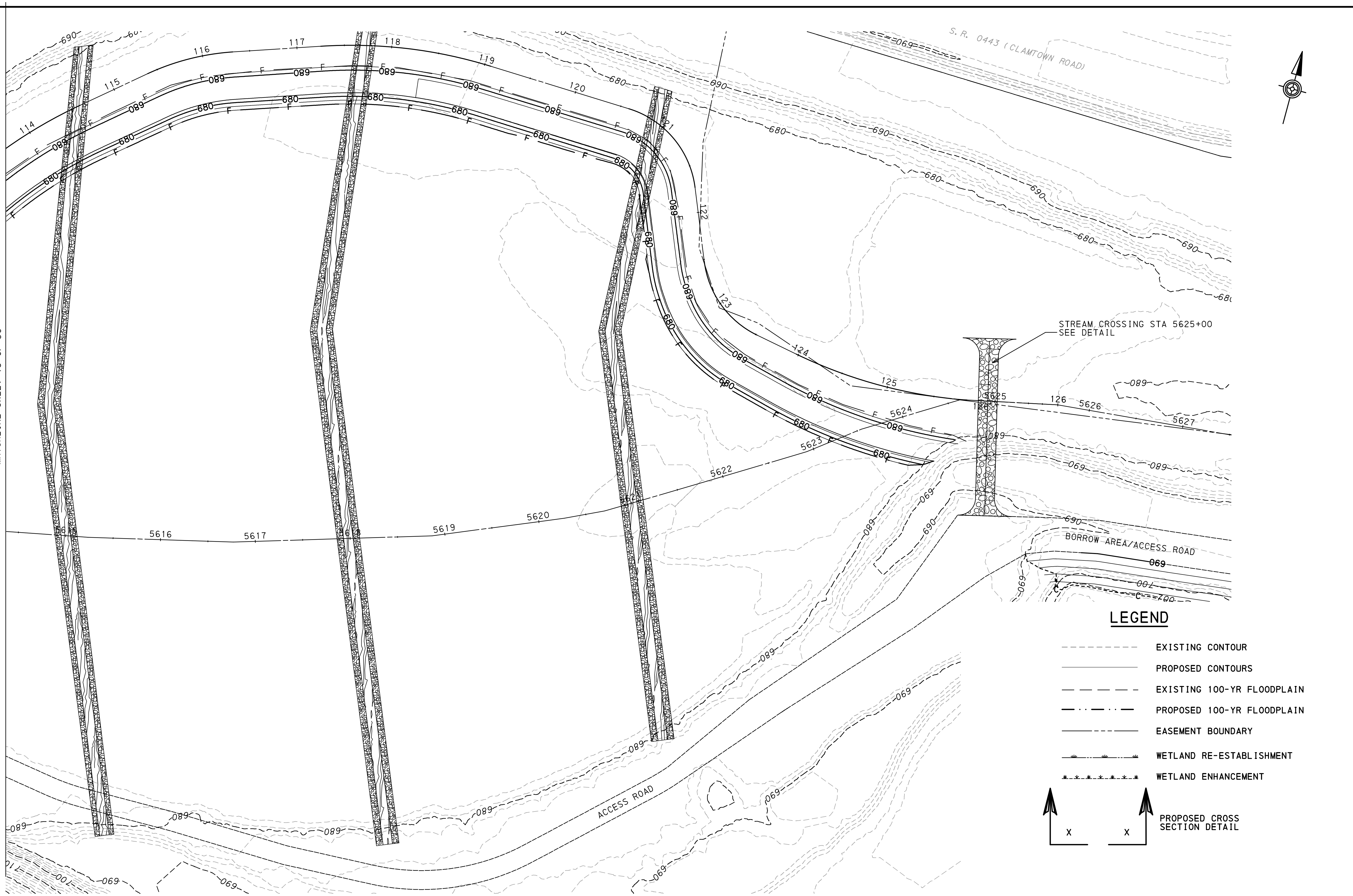
TEMPORARY STREAM BYPASS PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT
CHECKED BY : MB
SHEET 13 OF 30

ENGINEER
DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JAMES H. FLYNN
PE 061647



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DATE: 10/2/2023 TIME: 3:57:36 PM

PREPARED BY:

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PREPARED FOR:

LAND RECLAMATION GROUP, LLC
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NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

TEMPORARY STREAM BYPASS
PLAN

SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT | CHECKED BY : MB | SHEET 14 OF 30

ENGINEER

DATE: 08-25-2023

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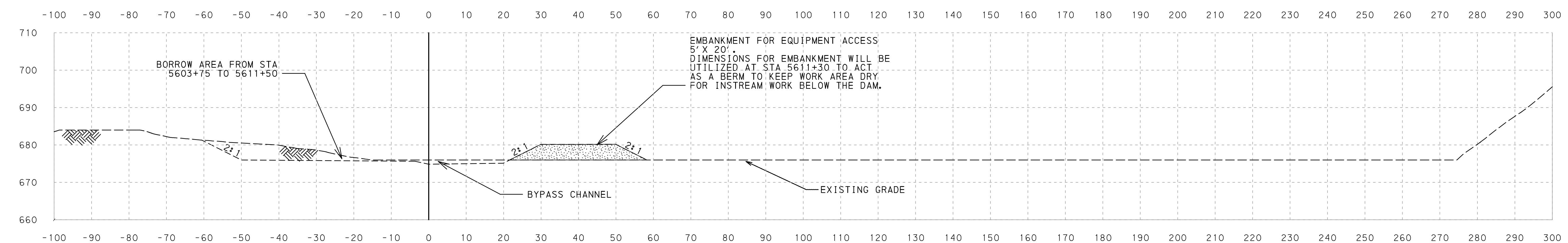
JAMES H. FLYNN
ENGINEER

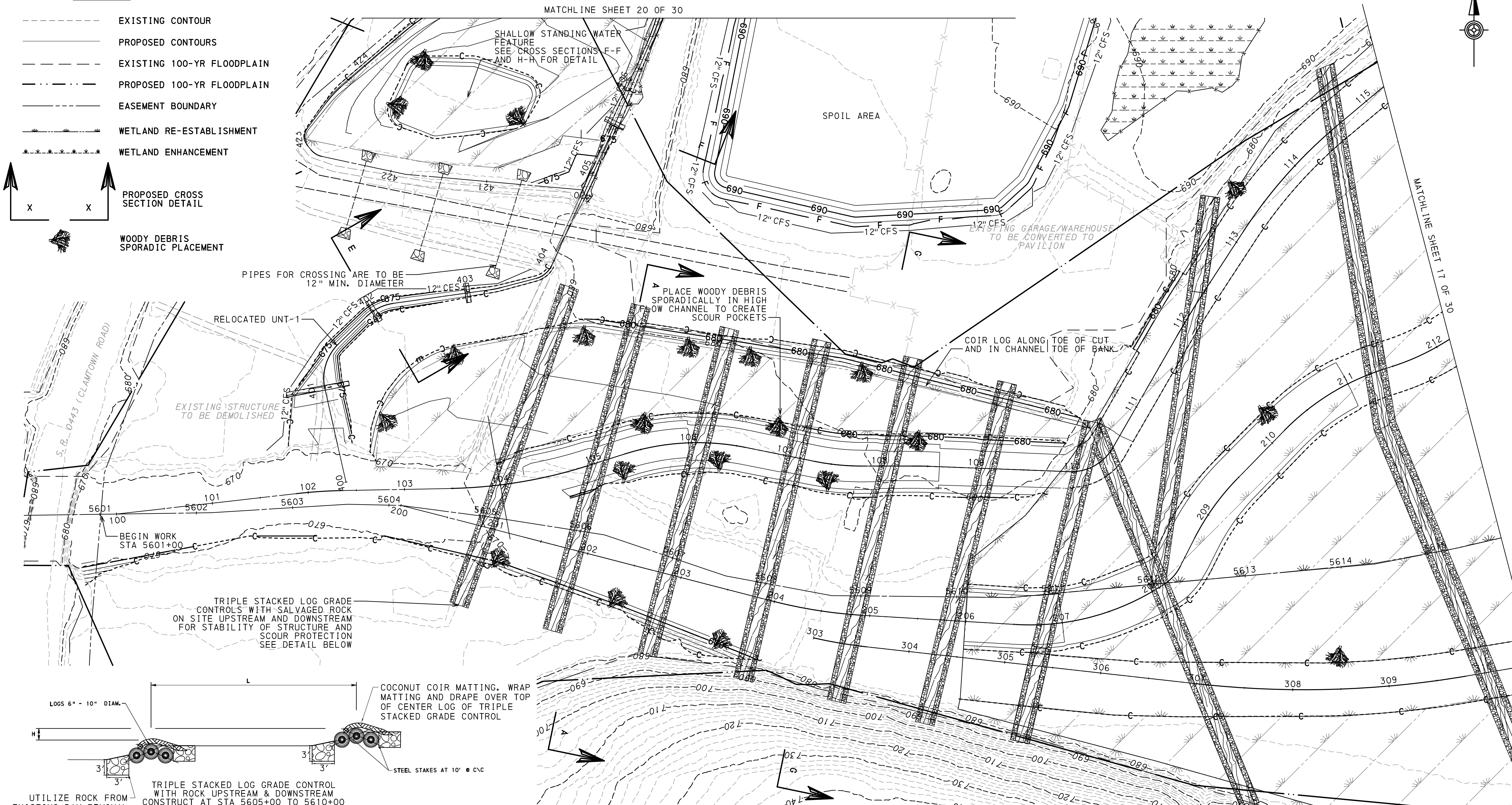


TYPICAL BYPASS CHANNEL
CROSS SECTION
FOR STATIONS
109+50 TO 125+75
SECTION H-H

NOT TO SCALE

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOURS
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EASEMENT BOUNDARY
- WETLAND RE-ESTABLISHMENT
- WETLAND ENHANCEMENT
- PROPOSED CROSS SECTION DETAIL
- WOODY DEBRIS SPORADIC PLACEMENT



UTILIZE ROCK FROM EXISTING DAM REMOVAL AND SALVAGE ANY APPROPRIATE SIZED ROCK FROM EXCAVATION OF GRADE CONTROL PLACEMENT

TRIPLE STACKED LOG GRADE CONTROL WITH ROCK UPSTREAM & DOWNSTREAM CONSTRUCT AT STA 5605+00 TO 5610+00 ALONG STREAMS STR-1, STR-2 & STR-3

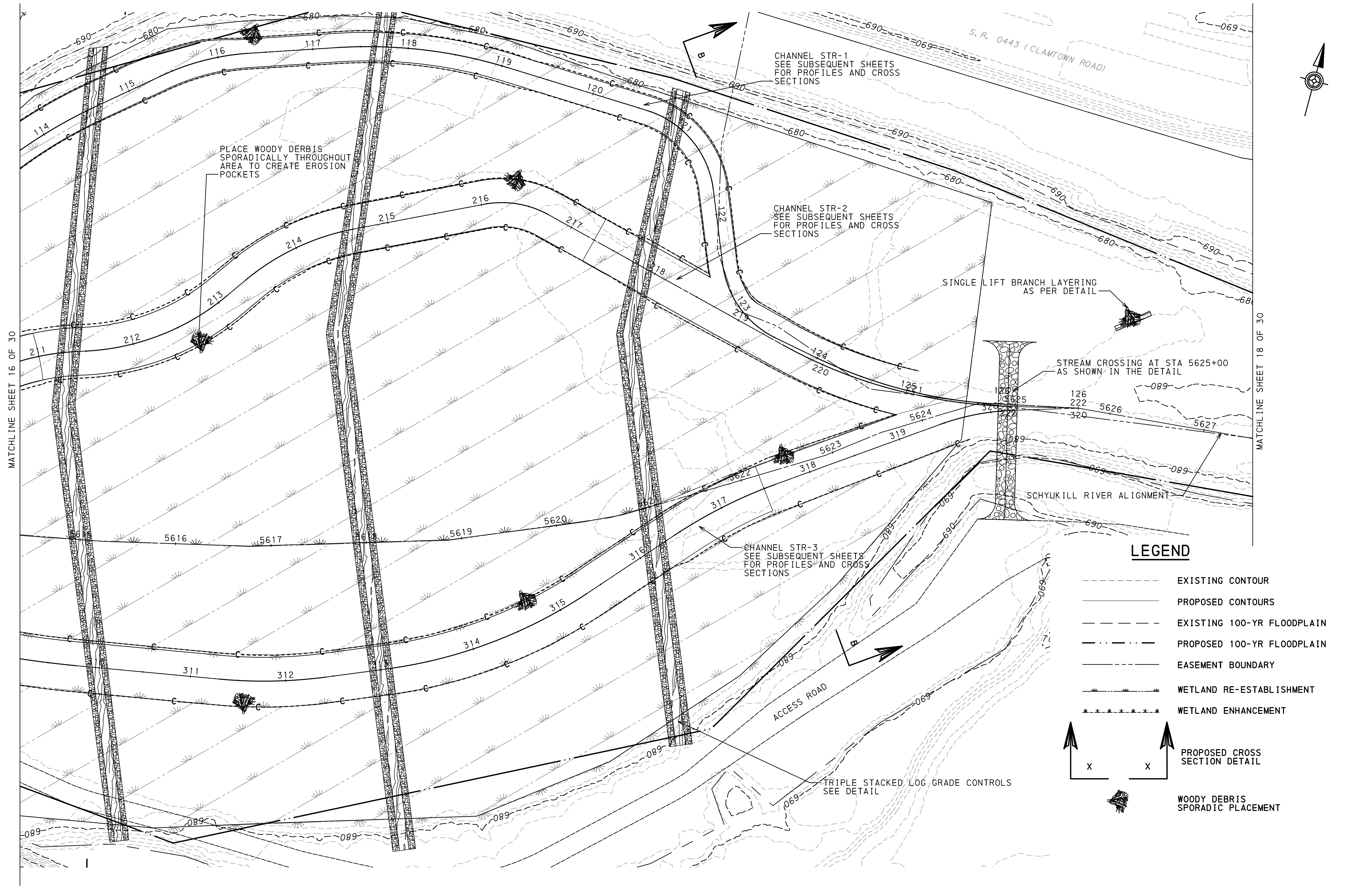
AS SHOWN ON GRADE CONTROL DETAIL

NOTES:
- ANY GRADED AREAS ARE TO HAVE ECMB INSTALLED ON SLOPES GREATER THAN 3:1.
- WOODY DEBRIS IS TO BE PLACED SPORADICALLY THROUGHOUT FLOODPLAIN AREAS.

FILE: W:\Projects\21-635 Tamaqua Dam\CAD\TamaquaDamDesignPlan01.dgn
DATE: 10/2/2023 TIME: 3:55:24 PM

PREPARED BY: HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	PREPARED FOR: LRG LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	MITIGATION SITE PLAN	DESIGNED BY : TOT	CHECKED BY : MB
			SCALE 0 50 100 FEET 1 INCH = 50 FEET	ENGINEER	DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647



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DATE: 10/2/2023 TIME: 3:54:21 PM

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:

LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

MITIGATION SITE PLAN

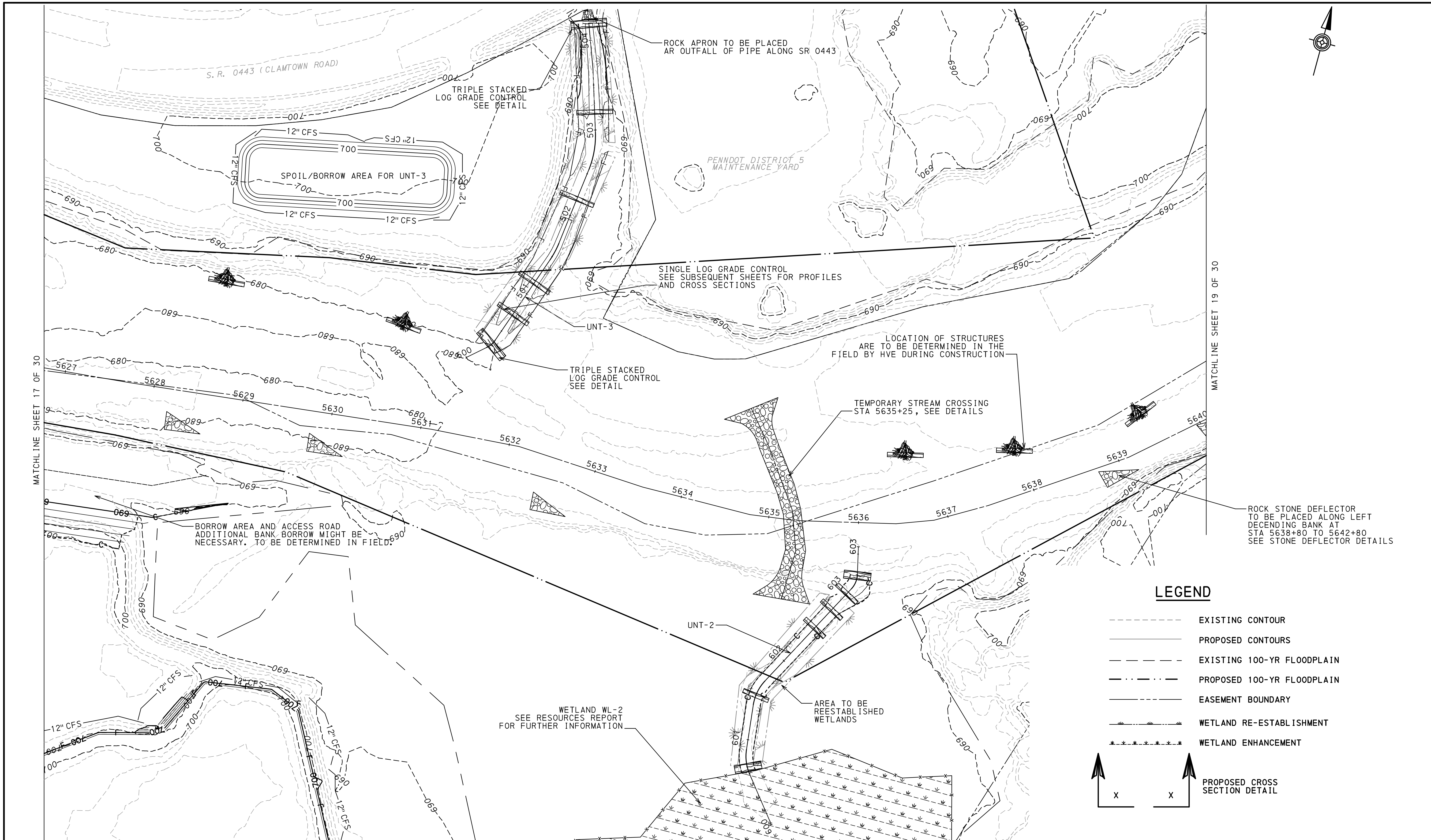
SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT | CHECKED BY : MB | SHEET 17 OF 30

ENGINEER

DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647



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DATE: 10/2/2023 TIME: 3:40:22 PM

PREPARED BY:	PREPARED FOR:			DESIGNED BY : TOT	CHECKED BY : MB	SHEET 18 OF 30
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	MITIGATION SITE PLAN SCALE 0 50 100 FEET 1 INCH = 50 FEET	ENGINEER	DATE: 08-25-2023	COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647

LEGEND

EXISTING CONTOUR

PROPOSED CONTOURS

EXISTING 100-YR FLOODPLAIN

PROPOSED 100-YR FLOODPLAIN

EASEMENT BOUNDARY

WETLAND RE-ESTABLISHMENT

WETLAND ENHANCEMENT

X X PROPOSED CROSS SECTION DETAIL

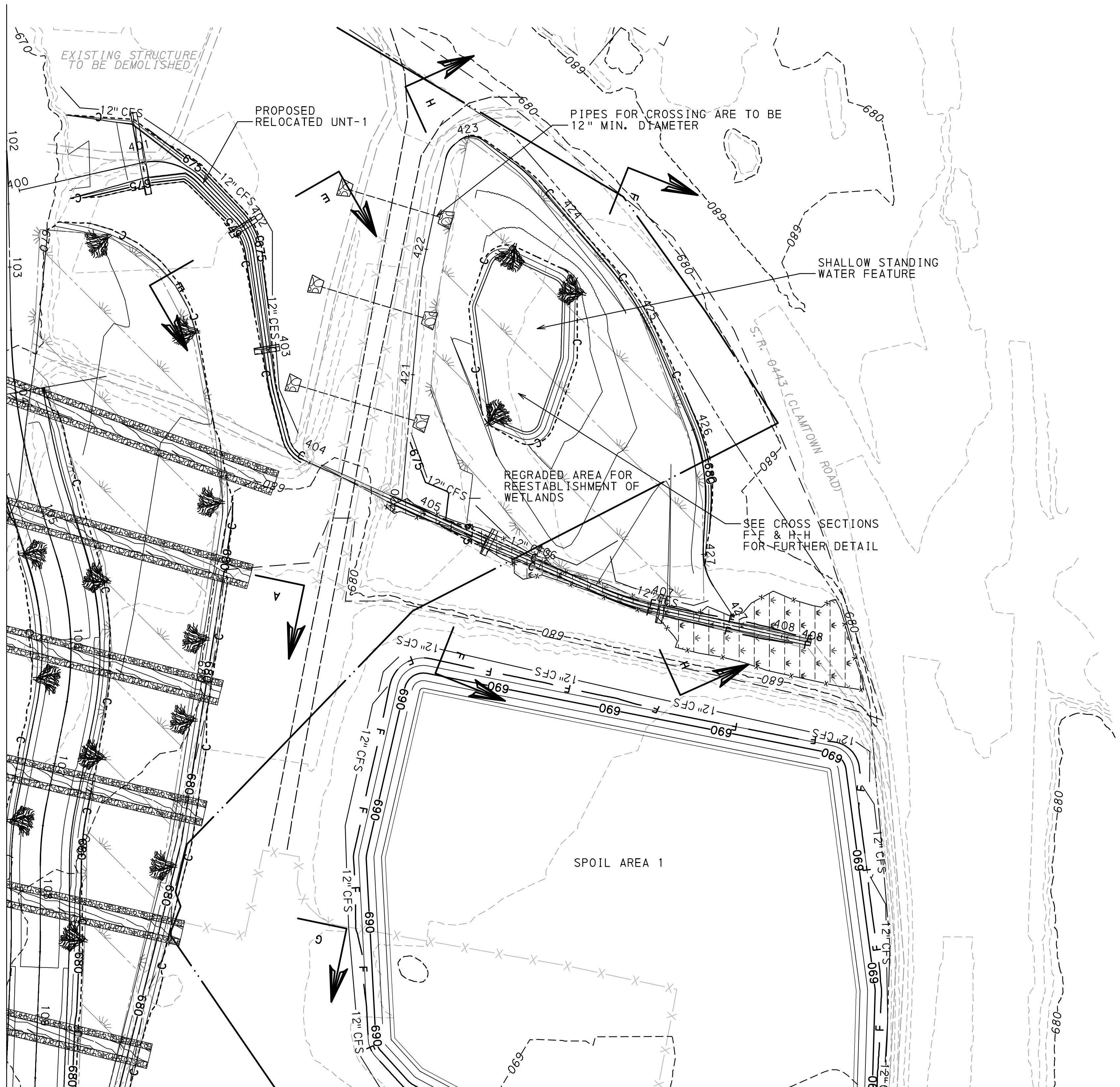
SINGLE LIFT BRANCH LAYERING

NOTES:
- DEFLECTORS AND SCOUR PROTECTION ON SOUTHERN BANK WILL BE PLACED AS REQUIRED. TO BE DETERMINED BY HVE IN THE FIELD AND WILL ONLY TAKE PLACED FROM 5643+00 DOWNSTREAM.
- PLACEMENT OF WOODY DEBRIS AND LOGS IN RIVER WILL BE DETERMINED BY HVE IN THE FIELD THROUGHOUT THE LENGTH OF LITTLE SCHUYLKILL RIVER WITHIN LIMITS.

PREPARED BY:	PREPARED FOR:					
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	MITIGATION SITE PLAN SCALE 0 50 100 FEET 1 INCH = 50 FEET	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 19 OF 30

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignPlan04.dgn
DATE: 10/2/2023 TIME: 3:46:38 PM



LEGEND

EXISTING CONTOUR
PROPOSED CONTOURS
EXISTING 100-YR FLOODPLAIN
PROPOSED 100-YR FLOODPLAIN
EASEMENT BOUNDARY
WETLAND RE-ESTABLISHMENT
WETLAND ENHANCEMENT
X X PROPOSED CROSS SECTION DETAIL
WOODY DEBRIS SPORADIC PLACEMENT

PREPARED BY:
HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:
LRG
LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

MITIGATION SITE PLAN

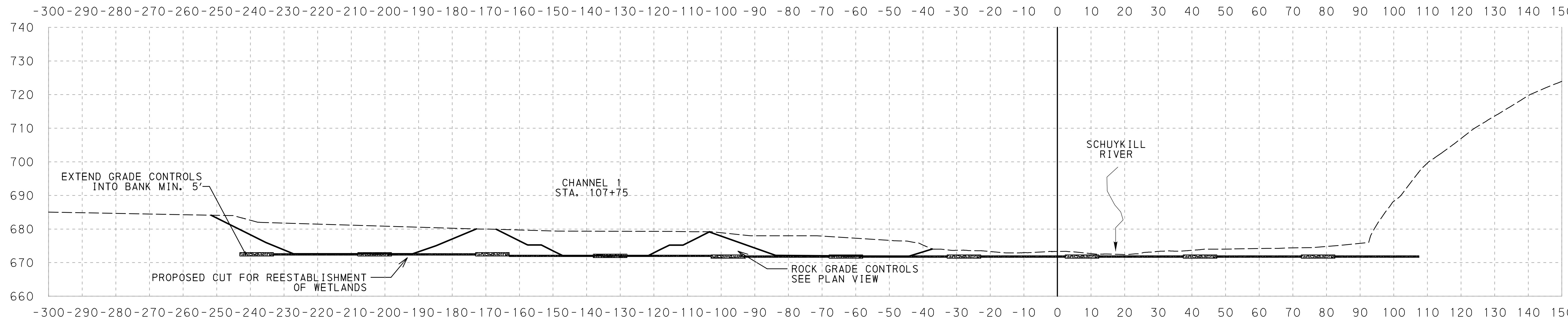
SCALE
0 50 100 FEET
1 INCH = 50 FEET

DESIGNED BY : TOT
CHECKED BY : MB
SHEET 20 OF 30

ENGINEER
DATE: 08-25-2023

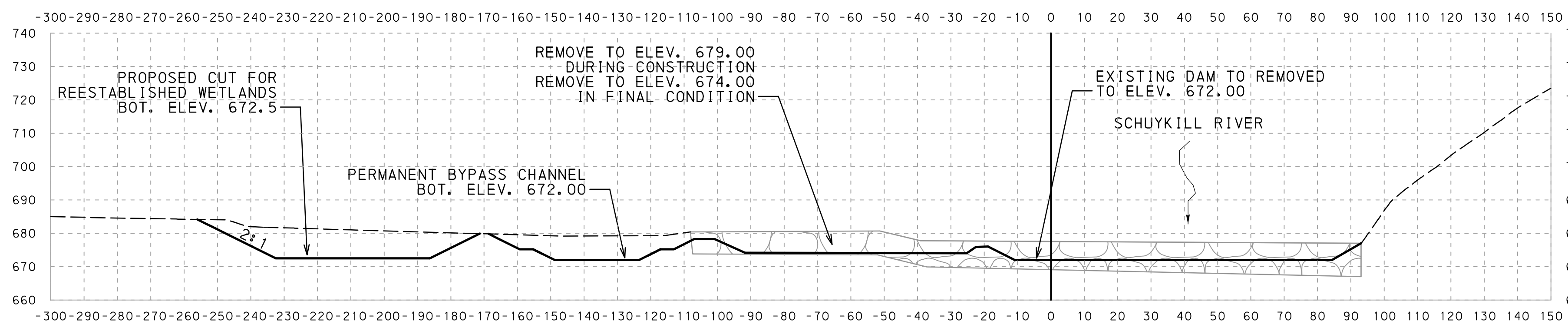
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamDesignPlan05.dgn
DATE: 10/2/2023 TIME: 3:53:09 PM



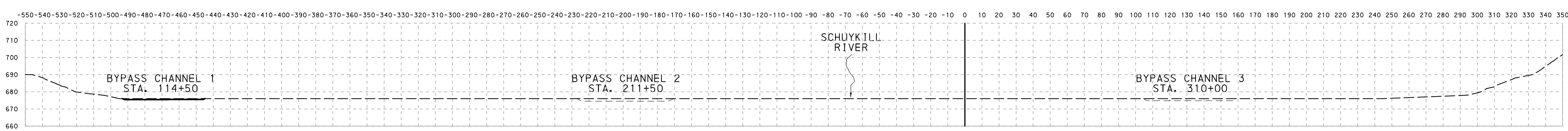
TYPICAL CROSS SECTION
FOR STATIONS
5605+00 TO 5610+00
SECTION A-A

NOT TO SCALE



TYPICAL DAM BREACH
CROSS SECTION
FOR STATIONS
5608+60 TO 5608+70
SECTION G-G

NOT TO SCALE



TYPICAL CROSS SECTION
FOR STATIONS
5610+00 TO 5625+00
SECTION B-B

NOT TO SCALE

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 8/28/2023 TIME: 1:02:22 PM

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:

LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

PROPOSED CROSS SECTIONS

SCALE

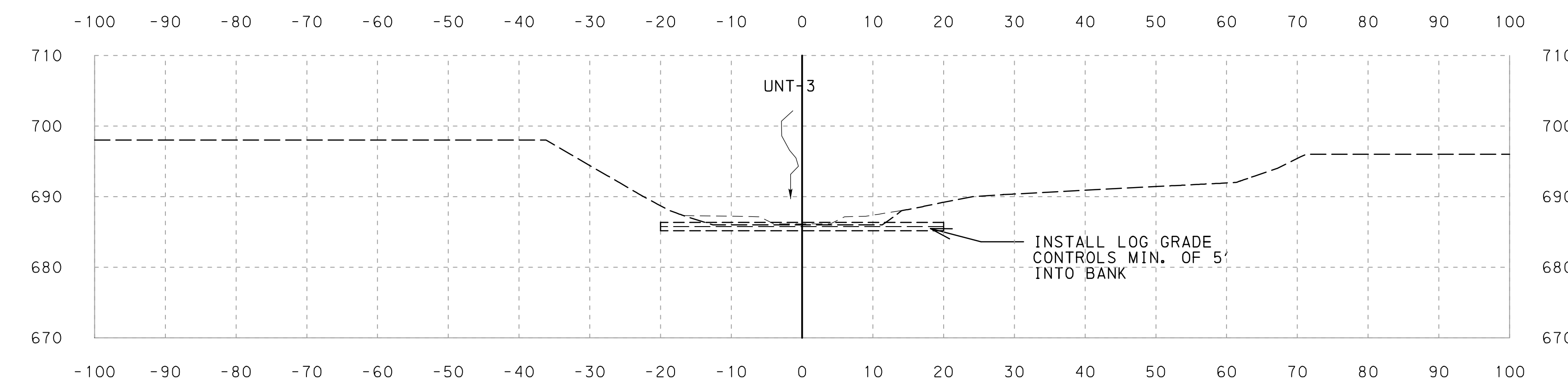
NOT TO SCALE

DESIGNED BY : TOT | CHECKED BY : MB | SHEET 21 OF 30

ENGINEER

DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JAMES H. FLYNN
PE 061647



TYPICAL CROSS SECTION
FOR UNT-3
500+25 TO 504+25
SECTION C-C

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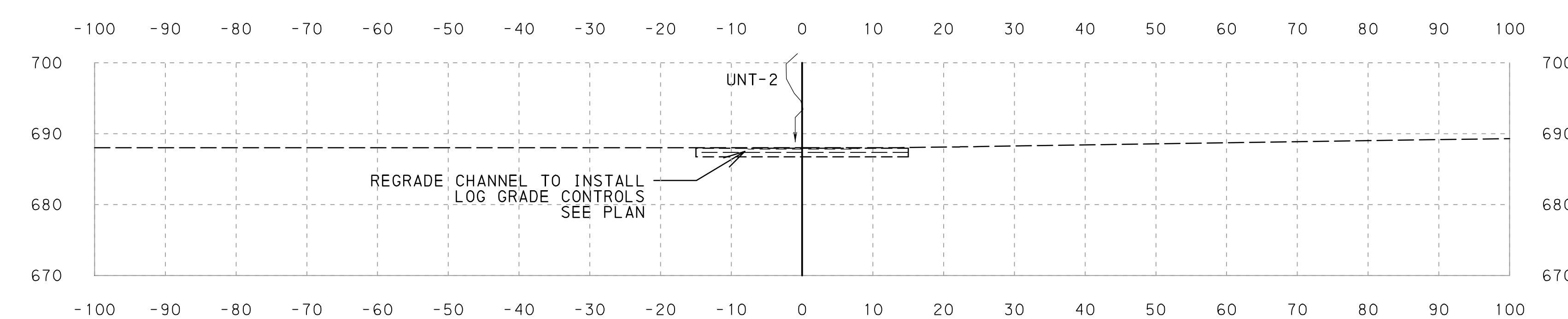


TYPICAL CROSS SECTION
FOR UNT-2
600+00 TO 603+25
SECTION D-D

NOT TO SCALE

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 8/28/2023 TIME: 1:02:58 PM

PREPARED BY:
HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:
LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

PROPOSED CROSS SECTIONS

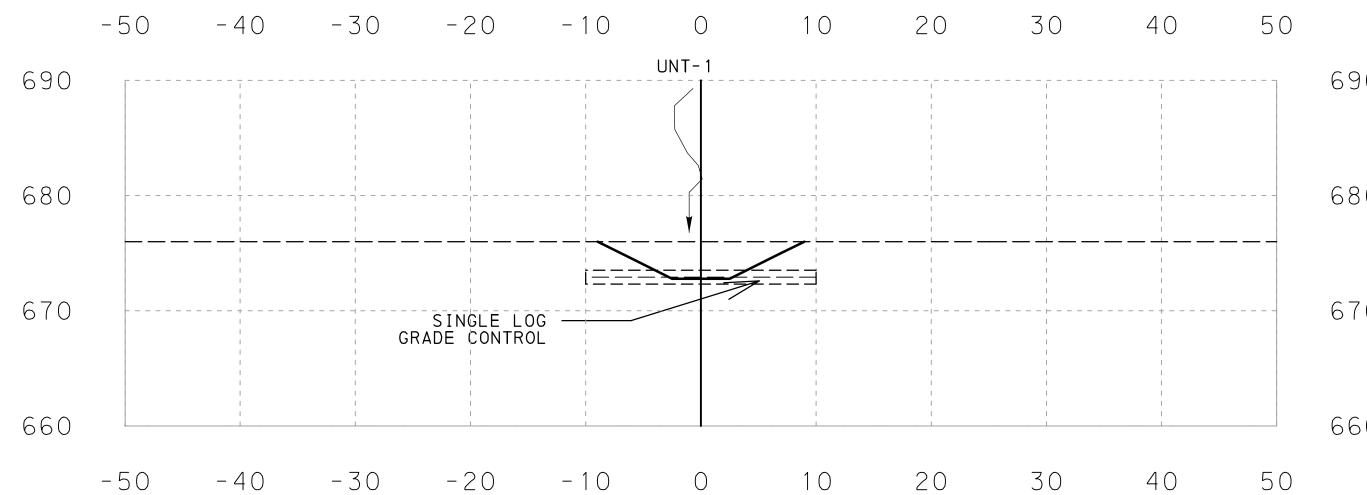
SCALE
NOT TO SCALE

DESIGNED BY : TOT | CHECKED BY : MB | SHEET 22 OF 30

ENGINEER

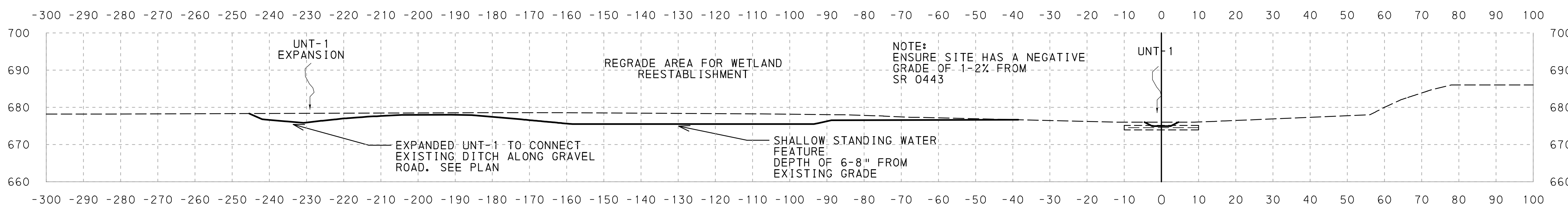
DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647



TYPICAL CROSS SECTION
FOR UNT-1
400+50 TO 404+00
SECTION E-E

NOT TO SCALE



TYPICAL CROSS SECTION
FOR UNT-1
405+00 TO 407+50
SECTION F-F

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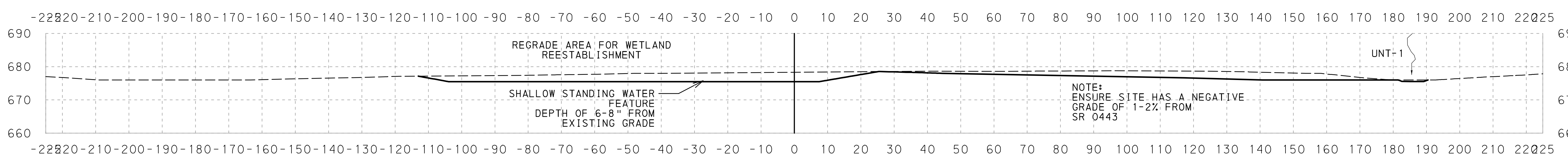


TYPICAL CROSS SECTION
FOR UNT-1
SECTION H-H

NOT TO SCALE

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 8/28/2023 TIME: 11:03:15 PM

PREPARED BY:
HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:
LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

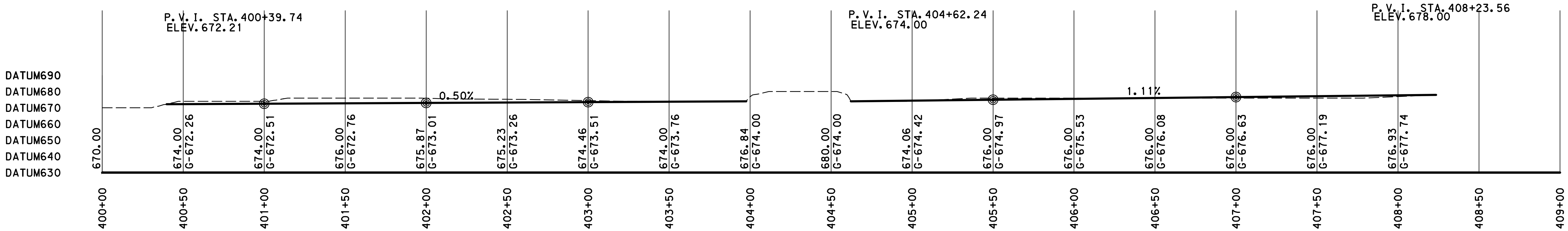
PROPOSED CROSS SECTIONS

SCALE
NOT TO SCALE

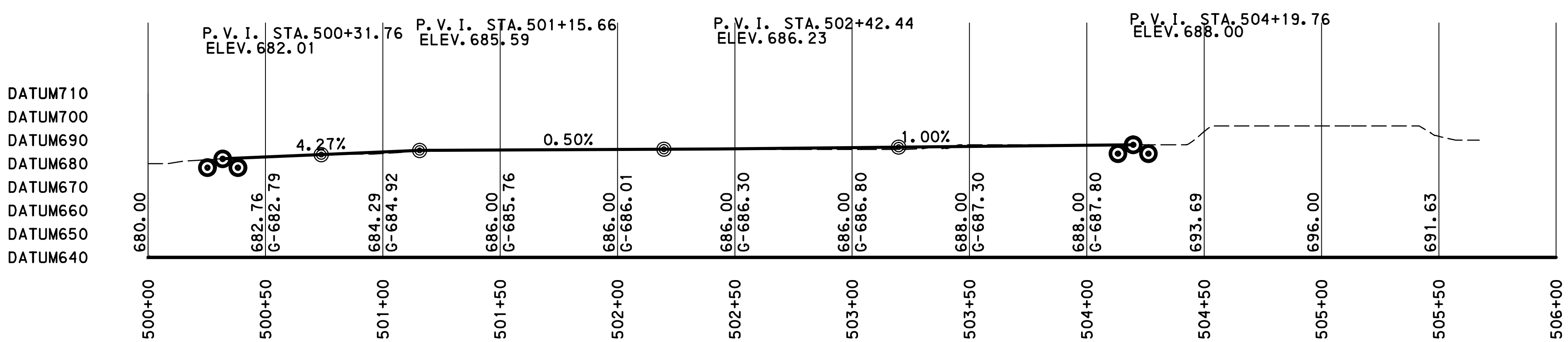
DESIGNED BY : TOT
CHECKED BY : MB

ENGINEER
DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647



UNT-1



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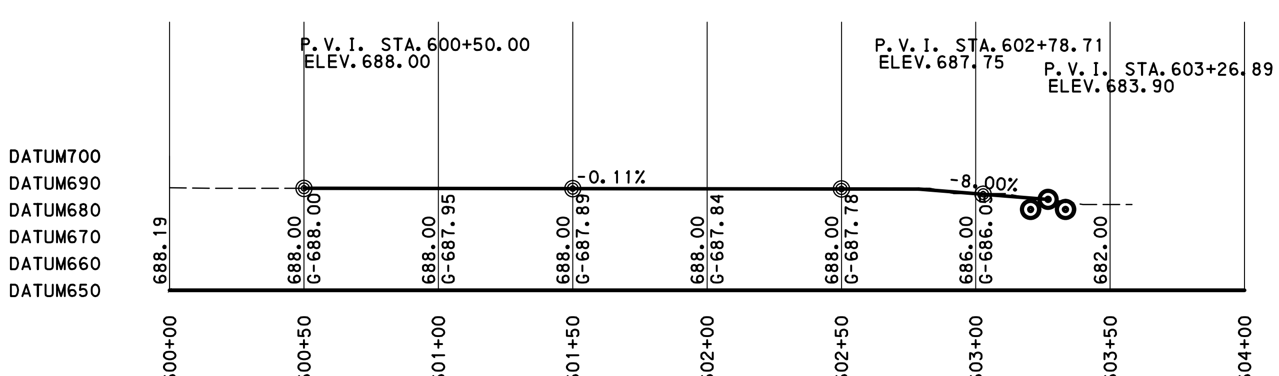
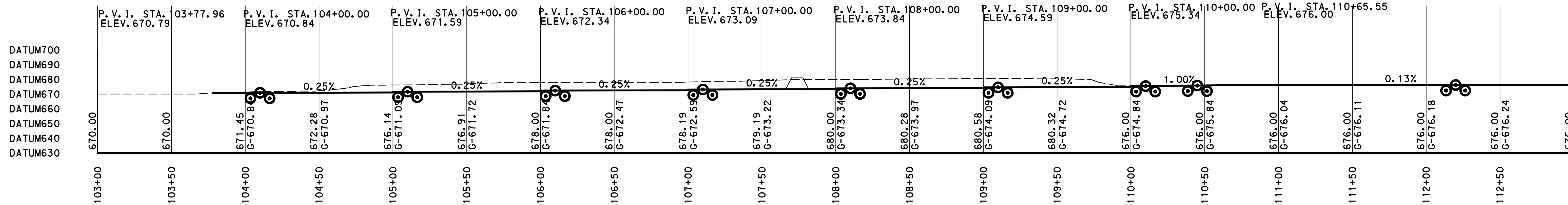


UNT-2

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 8/28/2023 TIME: 1:03:49 PM

PREPARED BY:	PREPARED FOR:					
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	PROPOSED SITE PROFILE SCALE NOT TO SCALE	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 24 OF 30

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647



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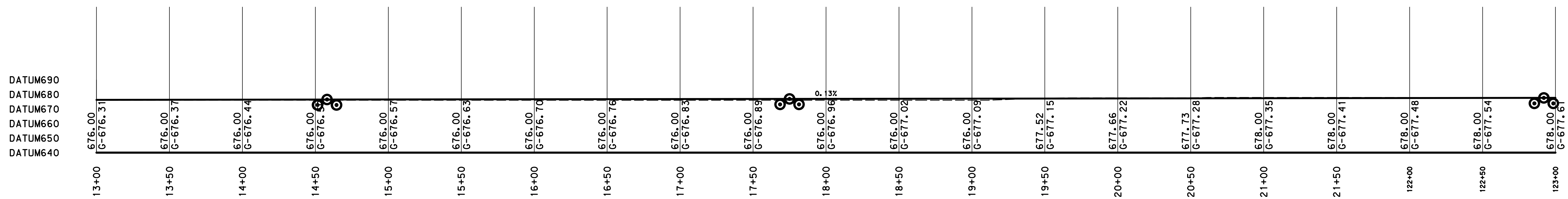

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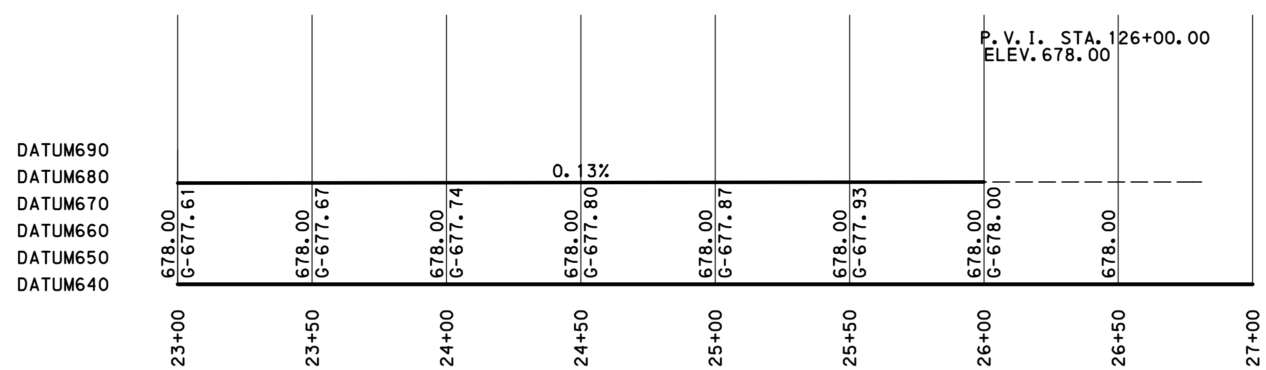

CHANNEL STR-1

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DATE: 10/3/2023 TIME: 9:08:39 AM

PREPARED BY:

HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:

LAND RECLAMINATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

PROPOSED SITE PROFILE

SCALE

NOT TO SCALE

DESIGNED BY : TOT

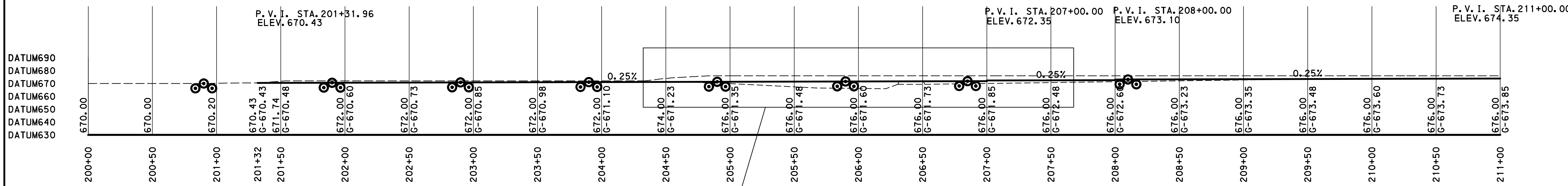
CHECKED BY : MB

SHEET 25 OF 30

ENGINEER

DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647



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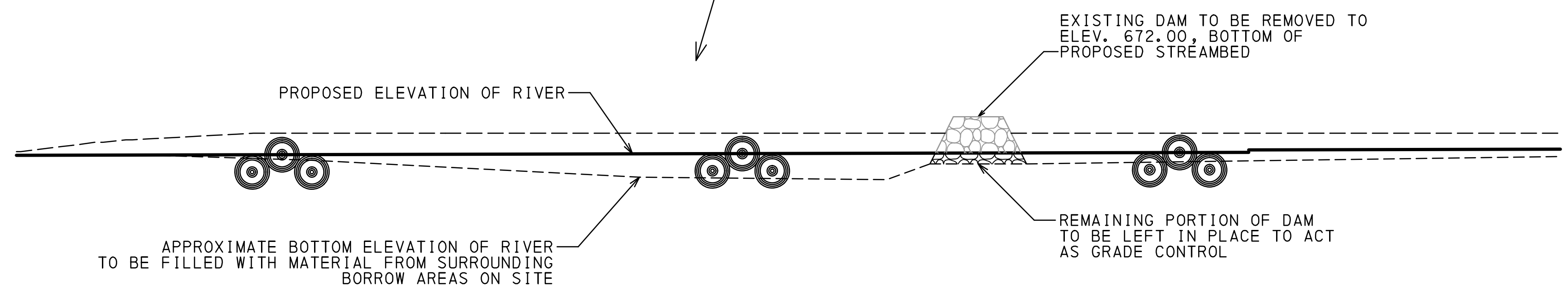
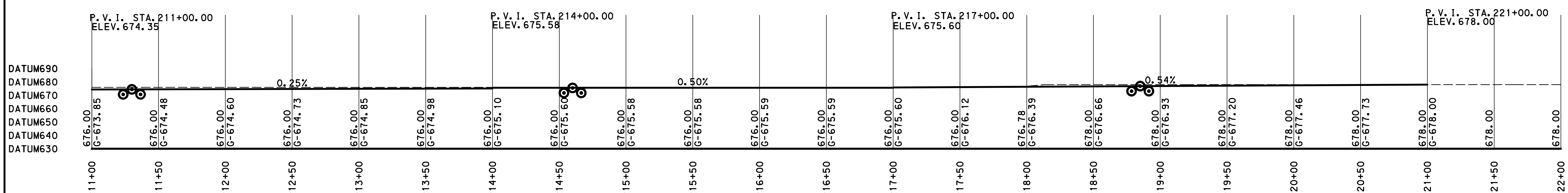


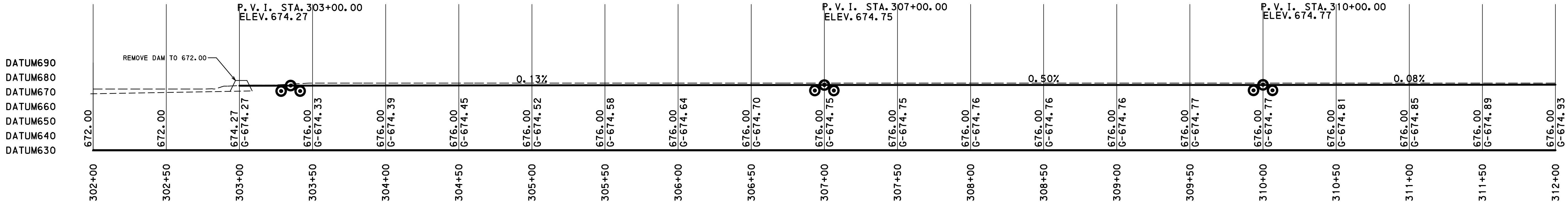


CHANNEL STR-2

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 10/3/2023 TIME: 9:09:05 AM

PREPARED BY:	PREPARED FOR:					
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LRG LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	PROPOSED SITE PROFILE SCALE NOT TO SCALE	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 26 OF 30

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES H. FLYNN ENGINEER PE 061647



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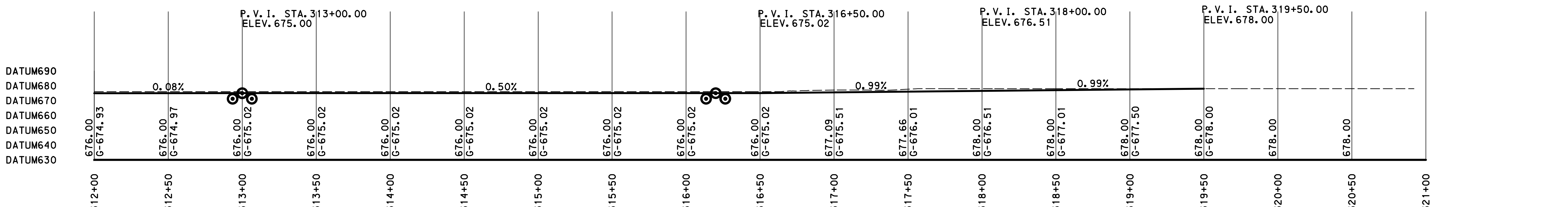


CHANNEL STR-3

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamFinalDesignProfilesXSEC.dgn
DATE: 10/3/2023 TIME: 9:09:50 AM

PREPARED BY:
HUNT VALLEY ENVIRONMENTAL, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

PREPARED FOR:
LAND RECLAMATION GROUP, LLC
632 HUNT VALLEY CIRCLE
NEW KENSINGTON, PA 15068

TAMAQUA DAM MITIGATION SITE PLAN
LITTLE SCHUYLKILL RIVER
SCHUYLKILL COUNTY, PENNSYLVANIA

PROPOSED SITE PROFILE

SCALE
NOT TO SCALE

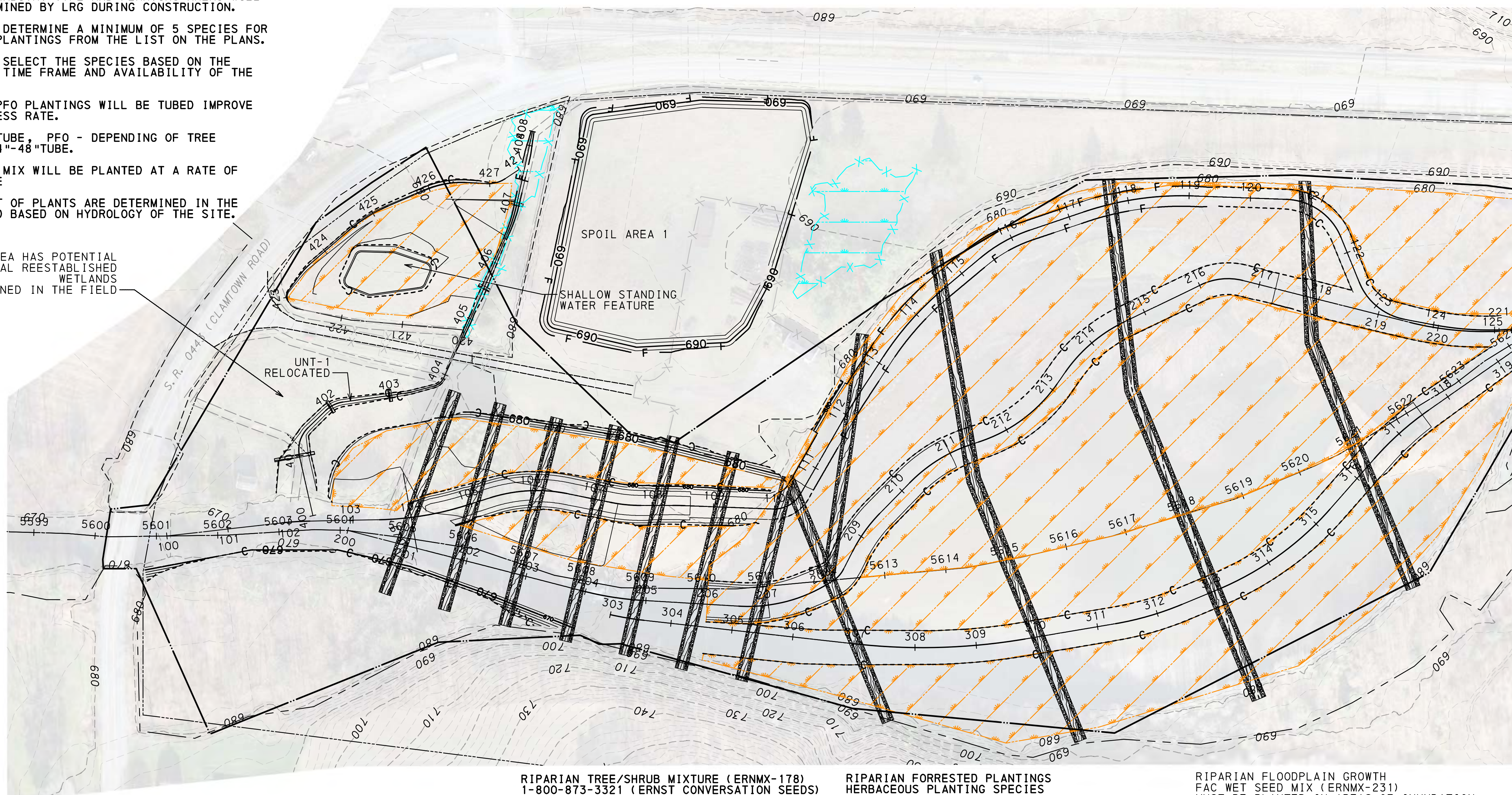
DESIGNED BY : TOT
CHECKED BY : MB
SHEET 27 OF 30

ENGINEER
DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JAMES H. FLYNN
PE 061647

NOTES:

1. WETLAND HABITAT TYPE AND PLANTING AREAS WILL BE DETERMINED BY LRG DURING CONSTRUCTION.
2. LRG WILL DETERMINE A MINIMUM OF 5 SPECIES FOR THE PSS PLANTINGS FROM THE LIST ON THE PLANS.
3. LRG WILL SELECT THE SPECIES BASED ON THE PLANTING TIME FRAME AND AVAILABILITY OF THE SPECIES.
4. PSS AND PFO PLANTINGS WILL BE TUBED IMPROVE THE SUCCESS RATE.
5. PSS 24"TUBE, PFO - DEPENDING OF TREE HEIGHT 24"-48"TUBE.
6. PEM SEED MIX WILL BE PLANTED AT A RATE OF 20LB/ACRE
7. PLACEMENT OF PLANTS ARE DETERMINED IN THE FIELD AND BASED ON HYDROLOGY OF THE SITE.



SEE MATCHLINE SHEET 29 OF 30

LEGEND

EXISTING CONTOUR

PROPOSED CONTOUR

EASEMENT BOUNDARY

REESTABLISHED WETLANDS 20.691 AC.

REHABILITATED WETLANDS 2.365 AC.

HAUL ROAD/SLOPE RESTORATION MIXTURE (ERNMX-132-1)
1-800-873-3321 (ERNST CONVERSATION SEEDS)
OR EQUIVALENT AT A RATE OF 30LB/ACRE

435 PLANTS\AC
(10' MIN SPACING)
(MIN. 1 GALLON CONTAINERIZED PLANTS)

RECOMMENDED SPECIES:

SWAMP WHIT OAK (QUERCUS BICOLOR)
PIN OAK (QUERCUS POLUSTRIS)
BLACK WILLOW (SALIX NIGRA)
EASTERN HEMLOCK (TSUGA CANADENSIS)
SYCAMORES (PLATANUS SPP.)
RIVER BIRCH (BETULA NIGRA)
RED MAPLE (ACER RUBRUM)
SILVER MAPLE (A. SACCARINUM)

NATIVE SHRUB PLANTING - 435 PLANTS\AC
5 LIKE SPECIES, SPACED 5' O/C CLUSTERED
WITH 20' CLUSTER SPACING
(MIN. 1 QUART CONTAINERIZED PLANTS)

RECOMMENDED SPECIES:

BUTTONBUSH (CEPHALANTHUS OCCIDENTALIS)
CHOKEBERRY, BLACK (ARONIA MELANOCARPA)
CRANBERRY RED (ARBUTIFOLIA)
DOGWOOD, GRAY (CORNUS RACEMOSA)
DOGWOOD RED (OSIER CORNUS SERICEA)
DOGWOOD, SILKY (CORNUS AMOMUM)
ELDERBERRY (SAMBUCUS CANADENSIS)
HOLLY, WINTERBERRY (ILEX VERTICILLATA)
VIBURNUM, ARROWWOOD (VIBURNUM DENTATUM)
VIBURNUM, BLACKHAW (VIBURNUM PRUNIFOLIUM)
VIBURNUM, CRANBERRY (VIBURNUM TRILOBUM)
VIBURNUM, NANNYBERRY (VIBURNUM LENTAGO)

RIPARIAN TREE/SHRUB MIXTURE (ERNMX-178)
1-800-873-3321 (ERNST CONVERSATION SEEDS)
OR EQUIVALENT AT A RATE OF 20LB/ACRE
NURSE CROP AT A RATE OF 30LB/ACRE

RECOMMENDED SPECIES:

MAPLE, RED (ACER RUBRUM)
BITTERNUT HICKORY (CARYA CORDIFORMIS)
AMERICAN BEECH (FAGUS GRANDIFOLIA)
OAK, PIN (QUERCUS PALUSTIS)
OAK, SHINGLE (QUERCUS IMBRICARIA)
BLACK CHERRY (PRUNUS SEROTINA)
SASSAFRAS (SASSAFRAS ALBIDUM)
CANADA HEMLOCK (TSUGA CANADENSIS)
OAK, WHITE (QUERCUS ALBA)
OAK, RED (QUERCUS RUBRA)
OAK, CHESTNUT QUERCUS MONTANA
HICKORY, SHAGBARK (CARYA OVATA)
WITCHHAZEL (HAMAMELIS VIRGINIANA)
AMERICAN SYCAMORE (PLATANUS OCCIDENTALIS)
AMERICAN HORNBEAM (CARPINUS CAROLINIANA)
SHADBUSH (AMELANCHIER CANADENSIS)
DOGWOOD, GRAY (CORNUS FLORIDA L)
FLOWERING, DOGWOOD (CORNUS RACEMOSA)
AMERICAN HAZELNUT (CORYLUS AMERICANA)
COMMON SPICEBUSH (LINDERA BENZOIN)
RIVER BIRCH (BETULA NIGRA)
SHAGBARK HICKORY (CARYAOVATA)

RIPARIAN FORRESTED PLANTINGS
HERBACEOUS PLANTING SPECIES
OBLIGATE WETLAND SEED MIXTURE (ERNMX-131)
1-800-873-3321 (ERNST CONVERSATION SEEDS)
OR EQUIVALENT AT A RATE OF 20LB/ACRE
NURSE CROP AT A RATE OF 30LB/ACRE

RECOMMENDED SPECIES:

NURSE CROP VIRGINIA WILD RYE
NURSE CROP BARNYARD GRASS (5/15-9/15)
CEREAL RYE ALL SEASON (9/15-5/15)
FOX SEDGE (COREX VULPINAIDEA
LURID SEDGE (COREX LURIDA)
HOP SEDGE(COREX LUPULINA
GREEN BULRUSH (SCRIPUS ATROVIRENS)
EASTERN BUR EDGE (SPARGANIUM AMERICANUM)
GIANT BUR REED (SPARGANIUM EURYCARPUM
BLUE VERVAIN (VERBANA HESTATA)
SOFT RUSH (JUNCUS EFFUSUS)
RATTLESNAKE GRASS (GLYCERIA CANADENSIS)
BONESET (EUPARTORIUM PERFOILATUM)
JOE PYE WEED (EUPATORIUM FISTULOSUM)
FRINGED SEDGE (COREX CRINTA)
SWAMP MILKWEED (ASCIEPICAS INCARNATA)
SQ STEMMED MONKEYFLOWER (MIMULUS RINGENS)
SOFTSTEM BULRUSH (SCRIPUS VALIDUS)
SWAMP SUNFLOWER (HELIANTHUS ANGUSTIFOLIUS)
WOOLGRASS (SCIRPUS CYPERINUS)

RIPARIAN FLOODPLAIN GROWTH
FAC WET SEED MIX (ERNMX-231)
MUST BE PLANTED IN AREAS OF INUNDATION
1-800-873-3321 (ERNST CONVERSATION SEEDS)
OR EQUIVALENT AT A RATE OF 20LB/ACRE
NURSE CROP AT A RATE OF 30LB/ACRE

RECOMMENDED SPECIES:

FOX SEDGE (CAREX VULPINOIDEA)
VIRGINIA WILDRYE (ELYMUS VIRGINICUS)
LURID SEDGE (CAREX LURIDA)
GRAY'S SEDGE (CAREX GRAYI)
BLUNT BROOM SEDGE (CAREX SCOPARIA)
BLUE VERVAIN (VERBENA HASTATA)
SOFT RUSH (JUNCUS EFFUSUS)
OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES)
SWAMP MILKWEED (ASCLEPIAS INCARNATA)
STAR SEDGE (CAREX INTUMESCENS)
GOLDEN ALEXANDER'S (ZIZIA AUREA)
NODDING BUR MARIGOLD (BIDENS CERNUA)
AWL SEDGE (CAREX STIPATA)
NEW YORK IRONWEED (VERNONIA NOVEBORACENSIS)
BONESET (EUPATORIUM PERFORIATUM)
FOWL MANNAGRASS (GLYCERIA STRIATA)
PENNSYLVANIA SMARTWEED (POLYGONUM PENSYLVANICUM)
WOOLGRASS (SCIRPUS CYPERINUS)
GREAT BLUE LOBELIA (LOBELIA SIPHILITICA)

NEW ENGLAND ASTER (ASTER NOVAE-ANGILAE)
ZIGZAG ASTER (ASTER PRENANTHOIDES)
JOE PYE WEED (EUPATORIUM ALTERNIFOLIA)
SEEDBOX (LUDWIG ALTERNIFOLIA)
PURPLESTEM ASTER (ASTER PUNICEUS)
FLAT TOPPED WHITE ASTER (ASTER UMBELLATUS)

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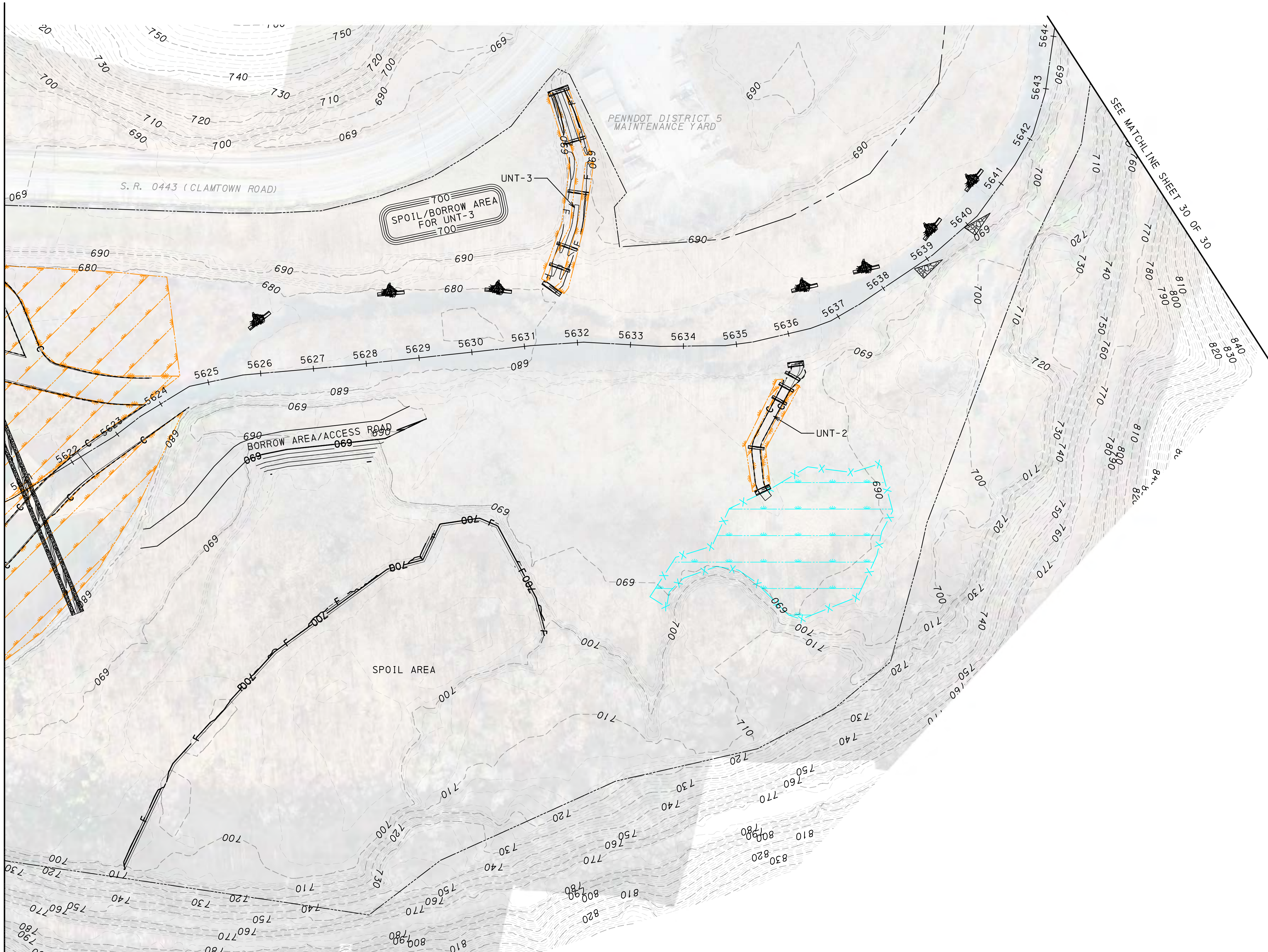
DATE: 10/2/2023 TIME: 4:09:07 PM

PREPARED BY:	PREPARED FOR:			DESIGNED BY : TOT	CHECKED BY : MB	SHEET 28 OF 30
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMINATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	PLANTING PLAN SCALE 0 100 200 FEET 1 INCH = 100 FEET	ENGINEER	DATE: 08-25-2023	COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES H. FLYNN PE 06[illegible]47



LEGEND

EXISTING CONTOUR

PROPOSED CONTOUR

EASEMENT BOUNDARY

REESTABLISHED WETLANDS
20.691 ACRES

ENHANCED WETLANDS
2.365 ACRES

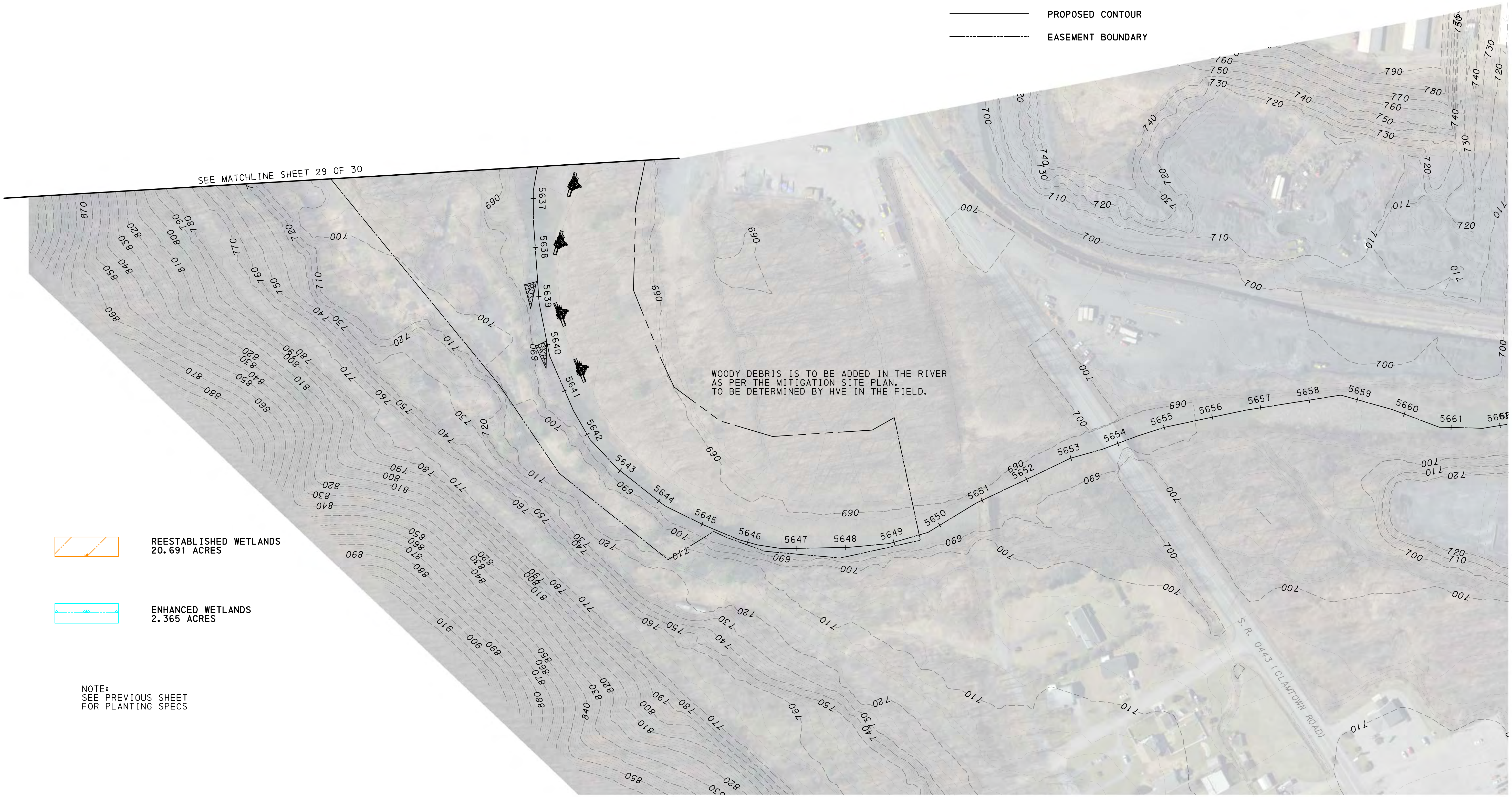
NOTE:
SEE PREVIOUS SHEET
FOR PLANTING SPECS

PREPARED BY:	PREPARED FOR:			
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LRG LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	PLANTING PLAN SCALE 0 100 200 FEET 1 INCH = 100 FEET	DESIGNED BY : TOT CHECKED BY : MB SHEET 29 OF 30 ENGINEER DATE: 08-25-2023

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EASEMENT BOUNDARY



REESTABLISHED WETLANDS
20.691 ACRES

ENHANCED WETLANDS
2.365 ACRES

NOTE:
SEE PREVIOUS SHEET
FOR PLANTING SPECS

FILE: W:\Projects\21-635 Tamaqua Dam\CADD\TamaquaDamPlantingPlan03.dgn
DATE: 10/2/2023 TIME: 4:18:23 PM

PREPARED BY:	PREPARED FOR:					
HUNT VALLEY ENVIRONMENTAL, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	LAND RECLAMATION GROUP, LLC 632 HUNT VALLEY CIRCLE NEW KENSINGTON, PA 15068	TAMAQUA DAM MITIGATION SITE PLAN LITTLE SCHUYLKILL RIVER SCHUYLKILL COUNTY, PENNSYLVANIA	PLANTING PLAN SCALE 0 100 200 FEET 1 INCH = 100 FEET	DESIGNED BY : TOT ENGINEER	CHECKED BY : MB DATE: 08-25-2023	SHEET 30 OF 30

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES H. FLYNN
ENGINEER
PE 061647