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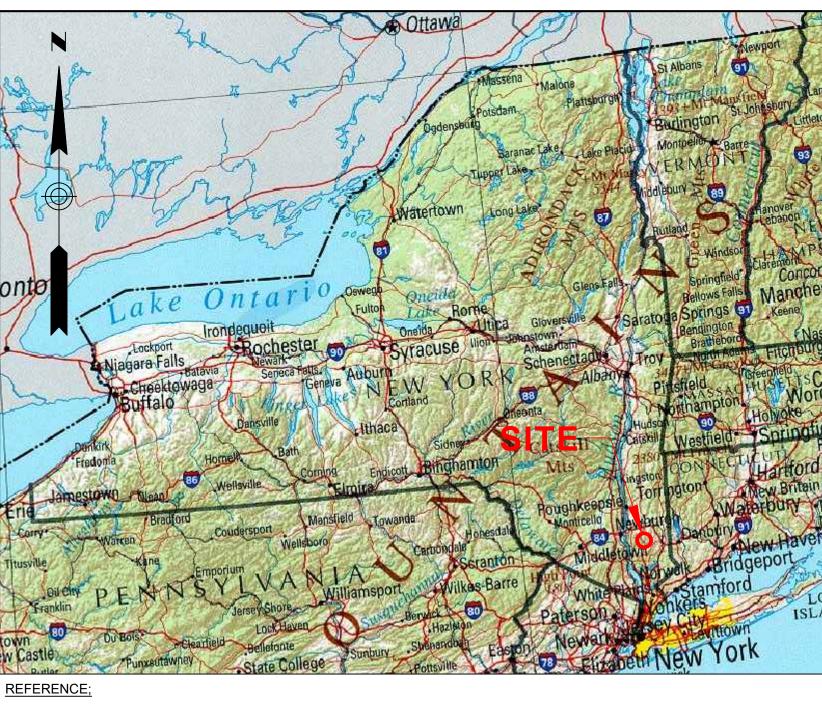
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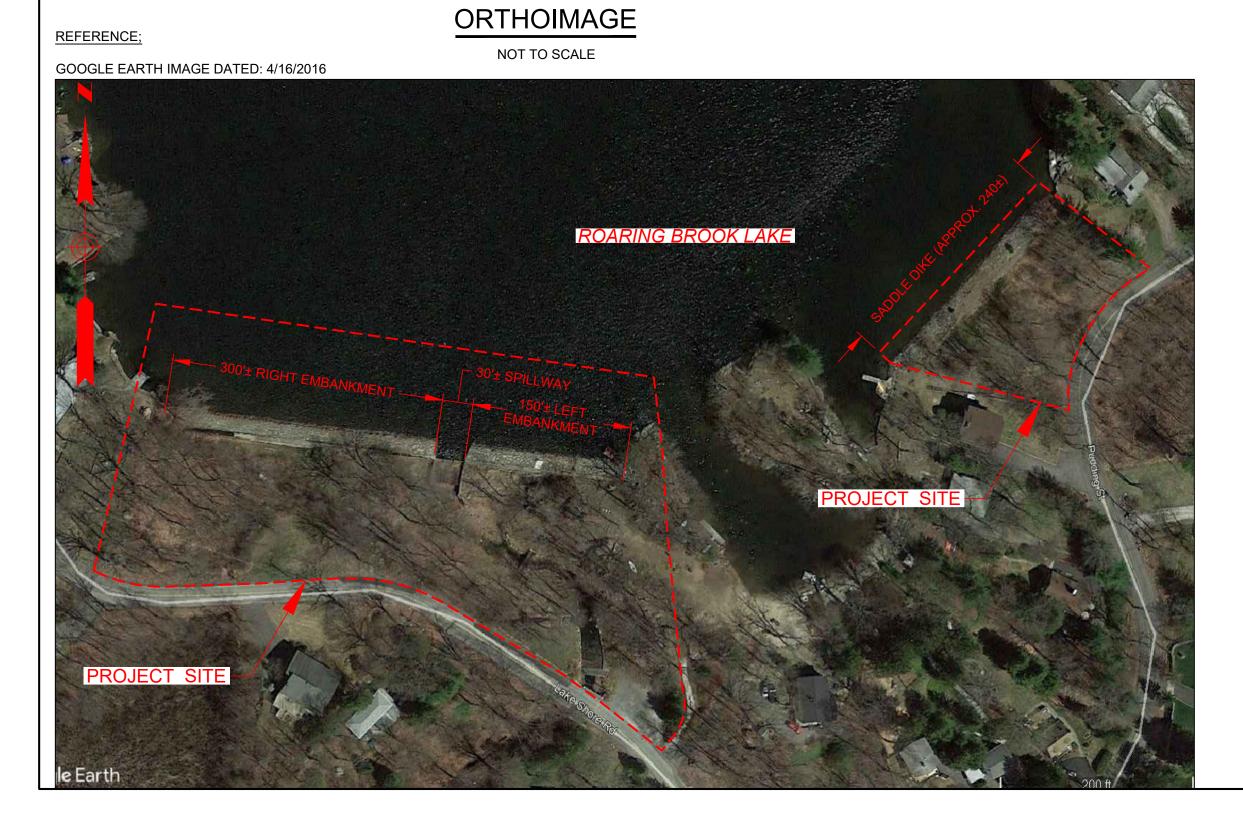
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LOCATION MAP

90% DESIGN NOVEMBER 2021

# ROARING BROOK LAKE DAM REHABILITATION

NYSDEC DAM STATE ID: 213-2775



TOWN OF PUTNAM VALLEY
PUTNAM COUNTY
STATE OF NEW YORK

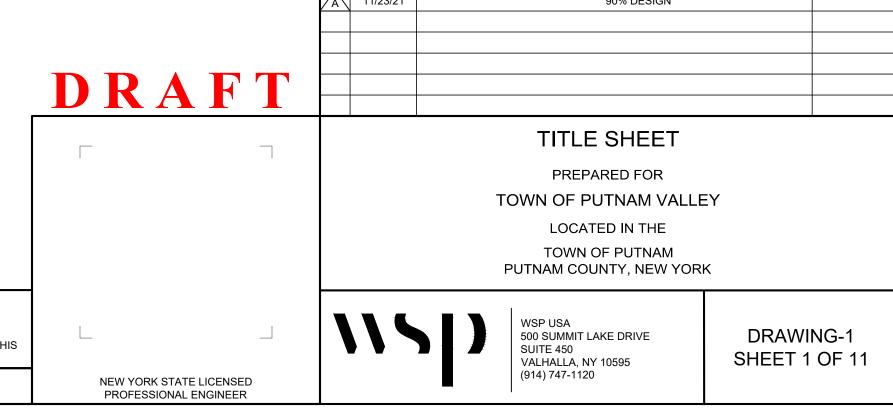
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DATE 3/3/21 APPROVED BY

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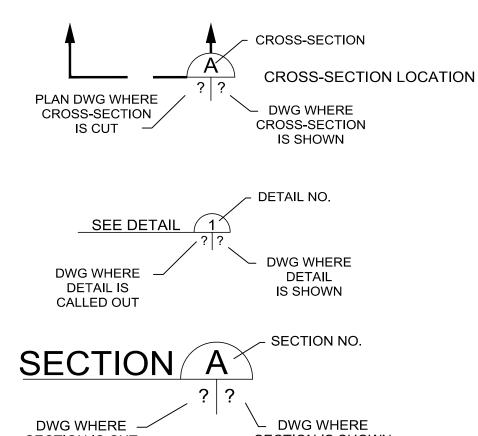
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**REVISIONS** 

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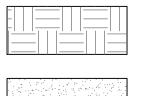
#### **ABBREVIATIONS: ABBREVIATIONS: AASHTO** AMERICAN ASSOC. OF STATE HIGHWAY RA or R RCC ROLLER COMPACTED CONCRETE AND TRANSPORTATION OFFICIALS RC or R.C.P. ACI AMERICAN CONCRETE INSTITUTE REINFORCED CONCRETE PIPE AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION REF. REFERENCE **ASTM** AMERICAN SOCIETY FOR TESTING MATERIALS REV. REVISION ROW. or R.O.W. RIGHT OF WAY **BOTTOM FACE** RQD ROCK QUALITY DESIGNATION BLBASELINE RSCL RESIDUAL SOIL CLAY-LIKE BOW **BOTTOM OF WALL** SECT. or SEC SECTION CATCH BASIN SPEC(S) or SPEC. SPECIFICATION C.C. or CC or C/C CENTER TO CENTER STANDARD PENETRATION TEST SS CAD COMPUTER AIDED DESIGN STAINLESS STEEL CFS CUBIC FEET PER SECOND STA. STATION CIRC. CIRCULATING STL. STEEL C.I.P. CAST IRON PIPE TAN **TANGENT** CJ CONSTRUCTION JOINT C/L or CL or C CENTER LINE T.B. TOP AND BOTTOM TD CLR. CLEARANCE TOTAL DEPTH C.M.P. or CMP CORRUGATED METAL PIPE TOP FACE CRS **CORROSION RESISTANT STEEL** TOW TOP OF WALL CORR. CORRUGATED TEST PIT C.Y., CY OR CU. YDS. CUBIC YARD TYP or TYP. **TYPICAL** DIA. DIAMETER U/S UPSTREAM DIM. DIMENSION UEL UNDERGROUND ELECTRIC LINE **DUCTILE IRON PIPE** D.I.P. U.P. UTILITY POLE D/S DOWNSTREAM VC DIAMETER AT WHICH 50% OF THE SAMPLE IS SMALLER THAN D50 VERTICAL CURVE VP or VPI VERTICAL POINT OF INTERSECTION EF or E.F. EACH FACE **EXPANSION JOINT** W.E. WATER ELEVATION E.J. **ELEVATION** ELEV. or EL. WITH W/ AND SO FORTH W/O WITHOUT ETC. WT. WEIGHT EW or E.W. EACH WAY EXIST. **EXISTING** W.V. WATER VALVE **FERC** FEDERAL ENERGY REGULATORY COMMISSION YARD FIG. FIGURE LEGEND: **FPS** FEET PER SECOND FS **FACTOR OF SAFETY** FT FEET **EXISTING FLOOR** FL or FLR FLEXIBLE MEMBRANE LINER FML ----- CLEARING LIMITS GS GROUND SURFACE GPM GALLONS PER MINUTE LIMIT OF EXCAVATION HDPE EDGE OF WATER/SHORELINE HIGH DENSITY POLYETHYLENE HWY HIGHWAY ---- EXISTING INTERMEDIATE CONTOUR ID **IDENTIFICATION INSIDE DIAMETER** I.D. INVERT ELEVATION I.E. or INV. EL. INSIDE FACE TREE LINE INV. **INVERT IRON PIN** PROPERTY LINE I.P. JT **JOINT** \_\_ s \_\_\_ s \_\_\_ s \_\_\_ s \_\_\_ s \_\_\_ SILT FENCE LENGTH POUND —— OEL —— OEL —— ELECTRIC LINE (OVERHEAD) LBS. POUNDS LF or L.F. LINEAR FOOT/FEET —— UEL —— UEL —— ELECTRIC LINE (UNDERGROUND) MAX. MAXIMUM — w — w — w — w — WATER LINE MANHOLE MILLIMETER —— UGC —— UGC — UNDERGROUND CABLE/CONDUIT MICROGRAMS PER LITER UG/L GUARDRAILS MG/L MILLIGRAMS PER LITER MINIMUM MIN. NORMAL POOL EL. 1528.9' MON. MONUMENT WATER ELEVATION M.S.L. MEAN SEA LEVEL MW MONITORING WELL STEEL PLATE N.A.D. NORTH AMERICAN DATUM STRUCTURAL ANGLE N.G.V.D. NORTH GEODETIC VERTICAL DATUM N.A.V.D. NORTH AMERICAN VERTICAL DATUM EDGE OF BUILDING NOT APPLICABLE N/A NGS NATIONAL GEODETIC SURVEY $\times^{249.2}$ SPOT ELEVATION NOT IN CONTRACT NIC NTS NOT TO SCALE UTILITY POLE NYSDEC NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION $\bigcirc$ NEW YORK STATE DEPARTMENT OF TRANSPORTATION NYSDOT SLOPE INDICATOR OC or O.C. ON CURVE **OUTSIDE DIAMETER** O.D. SLOPE DIRECTION OVERHEAD ELECTRICAL LINE OEL OF OUTSIDE FACE OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION FLOW DIRECTION P.C. POINT OF CURVATURE PCC POINT OF COMPOUND CURVE POINT OF INTERSECTION P.I. or PI PPM PARTS PER MILLION PPB PARTS PER BILLION PRC POINT OF REVERSE CURVE PSF POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PT or P.T. POINT OF TANGENCY



SECTION IS SHOWN SECTION IS CUT - DETAIL NO. DWG WHERE DWG WHERE DETAIL IS SHOWN DETAIL IS CALLED OUT

# STATIONING LEGEND: — - — - — EXISTING DAM AXIS

## **SYMBOLS:**



**BEDROCK** 



SAND



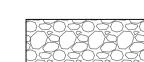
CONCRETE



**NATIVE SOIL** 



SELECT FILL



RIP RAP/ROCK FILL

AT OR SPACING **CENTER TO CENTER** 

AND

FEET

**INCHES** 

DELTA

**DELTA ANGLE** 

ANGLE

DIAMETER

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ALTERATIONS SHALL BE SEALED BY THE ALTERING ENGINEER AND HAVE THE NOTATION "ALTERED BY" FOLLOWED BY HIS NEW YORK STATE LICENSED 31403062-T1(M)

PROFESSIONAL ENGINEER

WSP USA 500 SUMMIT LAKE DRIVE SUITE 450 VALHALLA, NY 10595 (914) 747-1120

DRAWING-2 SHEET 2 OF 11

ABBREVIATIONS AND LEGEND

PREPARED FOR

TOWN OF PUTNAM VALLEY

LOCATED IN THE

TOWN OF PUTNAM PUTNAM COUNTY, NEW YORK

#### GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL CODES AND REGULATIONS, EXCEPT WHERE MODIFIED ON THE CONSTRUCTION PLANS AND SPECIFICATIONS
- 2. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING PUBLIC ROADS CAUSED BY HIS OPERATIONS IN ACCORDANCE WITH NYSDOT, PUTNAM COUNTY AND TOWN OF PUTNAM VALLEY DPW REQUIREMENTS.
- 3. ALL ELEVATIONS ARE SHOWN AT NORTH AMERICAN VERTICAL DATUM (NAVD 1988) UNLESS OTHERWISE INDICATED. HORIZONTAL LOCATIONS ARE BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27).
- 4. ACTUAL EXCAVATION DEPTH WILL BE CONFIRMED IN THE FIELD DURING CONSTRUCTION, BY THE ENGINEER OR OWNER'S REPRESENTATIVE.
- 5. TOP OF ROCK IS DEFINED AS THE APPROXIMATE ELEVATION WHERE CORING OPERATIONS BEGIN (AUGER REFUSAL).
- 6. THE CONTRACTOR, AT THEIR DISCRETION, MAY DRAWN THE RESERVOIR DOWN A MAXIMUM OF 5 FEET IN ORDER TO PROVIDE ADDITIONAL STORAGE CAPACITY FOR INFLOW TO THE RESERVOIR OR ACCESS TO UPSTREAM AREAS. THE CONTRACTOR MUST BE PREPARED FOR AND SHALL ASSUME THE RISK OF OVERFLOW SPILLAGE DUE TO SEVERE STORMS.
- 7. NO CONCRETE OR MORTAR IS TO BE DISCHARGED INTO THE STREAM OR RESERVOIR.
- 8. ALL CONCRETE EQUIPMENT AND TOOLS SHALL BE CLEANED AS FAR AWAY FROM THE STREAM AS PRACTICABLE.
- 9. IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION TEMPORARY BERMS MAY BE NEEDED DAILY UNTIL THE SLOPE IS BROUGHT TO GRADE.
- 10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN TWENTY-ONE (21) DAYS.
- 11. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED, AS NECESSARY.
- 12. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE FINAL GRADING.
- 13. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFF-SITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- 14. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
- 15. ANY DAMAGE TO EXISTING STRUCTURES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE REPLACED AND REPAIRED BY THE CONTRACTOR TO ORIGINAL CONDITION AS DETERMINED BY THE ENGINEER OR THE TOWN OF PUTNAM VALLEY.
- 16. THE CONTRACTOR SHALL VERIFY AND CHECK ALL DIMENSIONS, LOCATIONS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY UNCERTAINTIES AND DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION PRIOR TO COMMENCING THAT WORK FEATURE.
- 17. THE CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL OFF THE TOWN OF PUTNAM VALLEY LAND AT AN APPROVED OFF-SITE DISPOSAL AREA IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS. ALL PERMITS REQUIRED FOR OFF-SITE DISPOSAL SHALL BE OBTAINED BY THE CONTRACTOR.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLIANCE WITH AND THE ENFORCEMENT OF ALL APPLICABLE SAFETY REGULATIONS.
- 19. IN CASE OF A DISCREPANCY BETWEEN THE SPECIFICATIONS AND CONSTRUCTION DOCUMENTS, THE STRICTEST REQUIREMENTS AS DETERMINED BY THE ENGINEER SHALL GOVERN.

## SEDIMENT CONTROL:

1. CONTRACTOR SHALL PROVIDE AND MAINTAIN SEDIMENT CONTROL SERVICES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS THROUGHOUT THE TERM OF THE WORK COVERED BY THIS CONTRACT. SEE SPECIFICATIONS SECTION 02430 STABILIZATION MEASURES FOR EROSION AND SEDIMENT CONTROL.

#### **DEMOLITION:**

- 1. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ITEMS CALLED FOR IN THE PLANS AT AN APPROVED OFF-SITE LOCATION.
- 2. SEE SECTION 02060 DEMOLITION FOR ADDITIONAL INFORMATION.

#### **EXCAVATION:**

- 1. ALL EXCAVATED MATERIAL SHALL BE USED FOR FINAL SITE GRADING ACTIVITIES.
- 2. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR ANY ROAD SURFACE IRREGULARITIES CAUSED BY LOADING OR HAULING OPERATIONS AS DETERMINED BY THE ENGINEER OR THE CITY OF BEACON.

#### **CAST-IN-PLACE CONCRETE:**

- 1. ALL CONCRETE WORK SHALL COMPLY WITH AMERICAN CONCRETE INSTITUTE (ACI) STANDARDS (LATEST EDITION).
- 2. ALL CONCRETE SHALL CONFORM TO:
  - MINIMUM F'C: 4000 PSI @ 28-DAYS.
  - MAXIMUM SLUMP: 3 INCHES
  - MAXIMUM W-C RATIO: 0.41
- MAXIMUM AGGREGATE SIZE: 1.5 INCH
- AIR ENTRAINMENT: 6% BY VOLUME
- 3. SEE SECTION 03300 CAST IN PLACE CONCRETE FOR ADDITIONAL INFORMATION
- 4. ALL MIXING, HANDLING AND TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI STANDARDS.
- 5. CRACK CONTROL JOINTS SHALL BE PLACED AS SHOWN ON PLANS OR ELEVATIONS PER SECTION 03300 CAST IN PLACE CONCRETE AND 03240 EXPANSION JOINTS, CONSTRUCTION JOINTS, AND WATERSTOPS.
- 6. CONTROL JOINTS NOT INDICATED ON THE DRAWINGS SHALL BE MADE AND LOCATED TO NOT SIGNIFICANTLY IMPAIR THE STRENGTH OF THE STRUCTURE CONTRACTOR SHALL SUBMIT LOCATION OF PROPOSED JOINTS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

## SURVEY NOTES:

- 1. ALL ELEVATIONS ARE SHOWN RELATIVE TO LOCAL SITE DATUM. TOPOGRAPHIC SURVEY WAS COMPLETED IN MARCH 2021 RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). SURVEYED ELEVATIONS WERE THEN DECREASED BY 8.5 FEET TO CONVERT FROM NAVD88 TO LOCAL DATUM AND MAINTAIN CONSISTENCY WITH 1993 PROJECT RECORD DRAWINGS. HORIZONTAL LOCATIONS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83), NEW YORK EAST.
- 2. THE LOCATION OF THE UTILITIES AS SHOWN ON THE PLANS HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO CONSTRUCTION.

## REINFORCING STEEL

- ALL REINFORCING STEEL SHALL CONFORM TO ASTM STANDARD A-615, GRADE 60, UNLESS OTHERWISE SHOWN AND ASTM A775. NO TACK WELDING OF REINFORCING SHALL BE PERMITTED. PLACEMENT AND DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 318 AND ACI SP-66, RESPECTIVELY (LATEST EDITIONS).
- 2. ALL REBAR SHALL HAVE A MINIMUM COVER OF 3 INCHES UNLESS NOTED OTHERWISE.
- 3. ALL REINFORCING SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT DURING CONCRETE PLACEMENT.
- 4. ALL HORIZONTAL AND VERTICAL REINFORCING STEEL SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.

#### **CONCRETE FORMWORK:**

- 1. ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
- 2. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL FORMS. SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED DURING CONSTRUCTION INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE.
- 3. UNLESS SPECIFIED OTHERWISE, ALL TOLERANCES FOR FORMWORK SHALL CONFIRM TO ACI STANDARD 117, STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS. THE CONTRACTOR SHALL HIRE A LICENSED SURVEYOR TO VERIFY THAT THE WORK IS WITHIN THE SPECIFIED TOLERANCES.
- 4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED AS SHOWN ON THE DRAWINGS.

### SUMMARY OF WORK:

- MOBILIZATION AND DEMOBILIZATION OF ALL PERSONNEL, EQUIPMENT, MATERIALS, AND ANYTHING ELSE REQUIRED TO PERFORM THE CONSTRUCTION WORK.
- 2. SITE SURVEYING TO ESTABLISH THE APPROPRIATE DESIGN ELEVATIONS.
- 3. INSTALLING OF EROSION AND SEDIMENT CONTROLS AND ANY OTHER ENVIRONMENTAL PROTECTION MEASURES.
- 4. CONSTRUCT DOWNSTREAM CHANNEL FOR AUXILIARY SPILLWAY.
- 5. CONSTRUCT NEW AUXILIARY SPILLWAY.
- 6. PATCH EXISTING TRAINING WALLS FOR MAIN DAM.
- 7. RAISE TRAINING WALL MASONRY CAP.
- 8. PATCH DOWNSTREAM CRACKS ALONG AUXILIARY SPILLWAY WITH SHOTCRETE.
- 9. RAISE MAIN DAM PARAPET WALL
- 10. RAISE SADDLE DIKE PARAPET WALL.
- 11. PLACE GROUTED RIPRAP ALONG DOWNSTREAM AUXILIARY SPILLWAY STREAMBED.
- 12. INSTALL NEW METAL CHAIN-LINK FENCE ON PARAPET WALLS.
- 13. SITE RESTORATION.

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WARNING

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PROFESSIONAL ENGINEER

GENERAL NOTES

PREPARED FOR

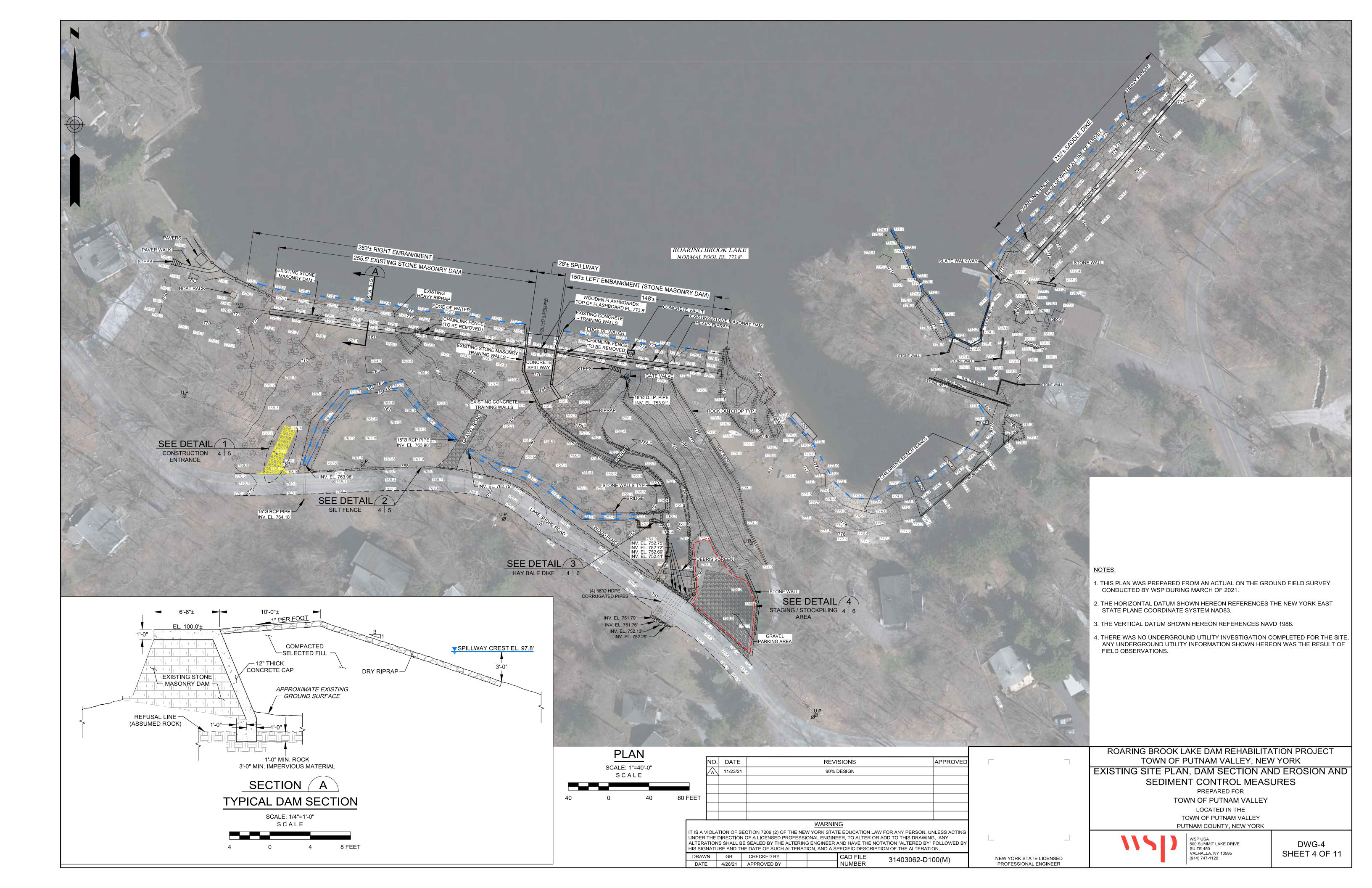
TOWN OF PUTNAM VALLEY

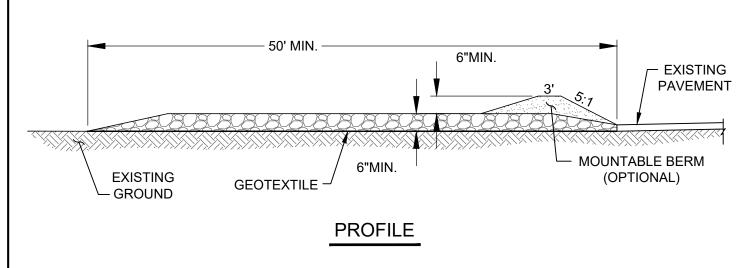
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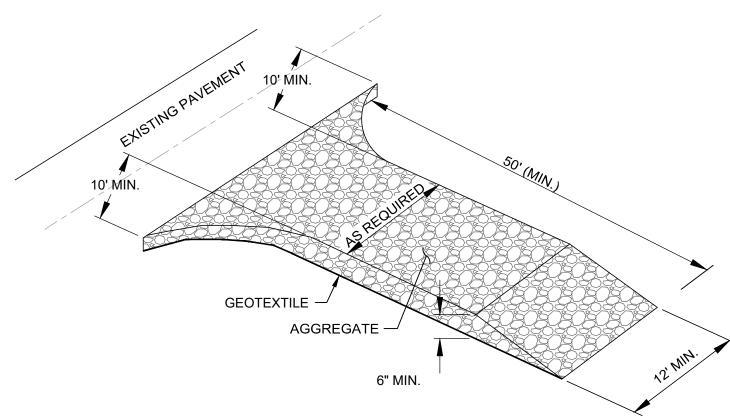
LOCATED IN THE
TOWN OF PUTNAM
PUTNAM COUNTY, NEW YORK



DRAWING-3 SHEET 3 OF 11







## STABILIZED CONSTRUCTION ENTRANCE

PLAN

NOT TO SCALE SEE CONSTRUCTION ENTRANCE NOTES **DETAIL** 

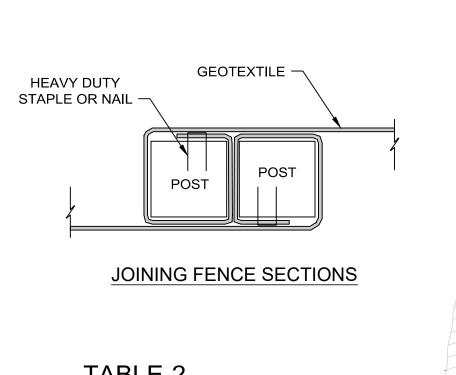
## **CONSTRUCTION ENTRANCE NOTES:**

- STONE SIZE USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- 5. GEOTEXTILE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE
- SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

		Slope Length/Fence Length (ft.)		
Slope	Steepness	Standard	Reinforced	Super
<2%	< 50:1	300/1500	N/A	N/A
2-10%	50:1 to 10:1	125/1000	250/2000	300/2500
10-20%	10:1 to 5:1	100/750	150/1000	200/1000
20-33%	5:1 to 3:1	60/500	80/750	100/1000
33-50%	3:1 to 2:1	40/250	70/350	100/500
>50%	> 2:1	20/125	30/175	50/250

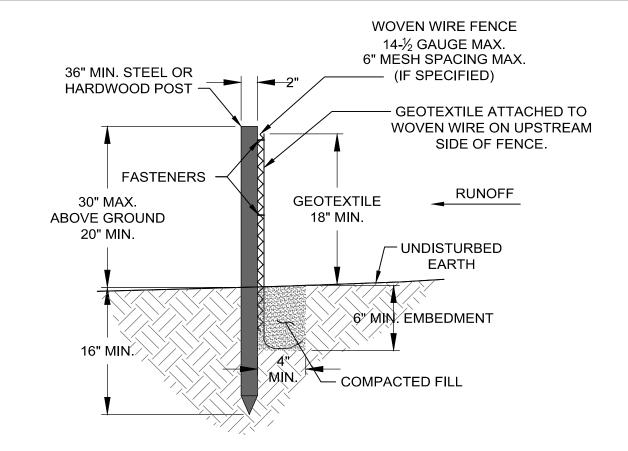
Standard Silt Fence (SF) is fabric rolls stapled to wooden stakes driven 16 inches in the ground. Reinforced Silt Fence (RSF) is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.

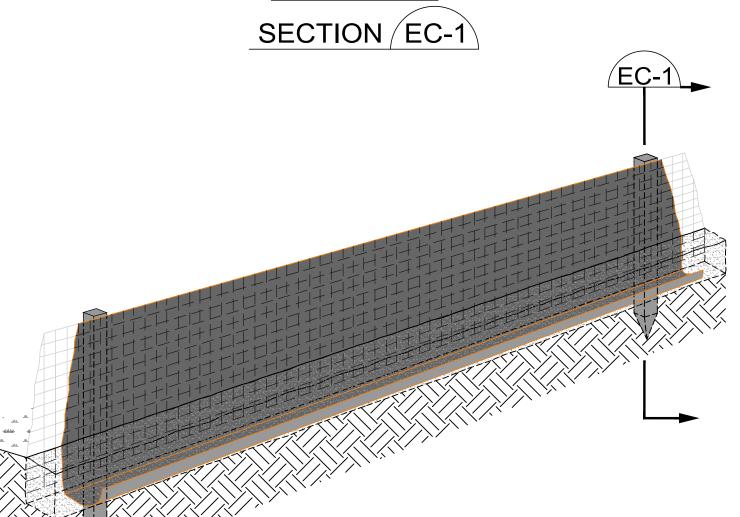
Super Silt Fence (SSF) is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.



## TABLE-2

GEOTEXTILE  Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	110	ASTM D 4632
Elongation at Failure (%)	20	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/ min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751
Minimum UV Residual	70	ASTM D 4355



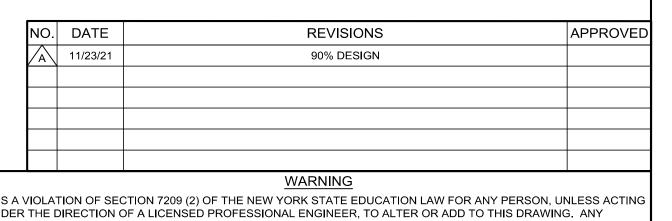


TYPICAL SECTION



SILT FENCE NOTES: (SEE DETAIL #2 & TABLES 1 & 2)

- 1. THE TYPE OF SILT FENCE SPECIFIED FOR EACH LOCATION ON THE PLAN SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH SHOWN IN TABLE-1.
- 2. THE FABRIC SHALL MEET THE SPECIFICATIONS PROVIDED IN TABLE-2.
- 3. GEOTEXTILE FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT TO PREVENT RUNOFF FROM MIGRATING AROUND THE FENCE.
- 4. SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 1/3 THE ABOVE GROUND HEIGHT OF THE FENCE. MAINTENANCE SHALL BE PERFORMED AS NECESSARY WHEN BULGES DEVELOP IN FENCE. CONTACT OWNERS REPRESENTATIVE BEFORE SEDIMENT IS REMOVED.
- 5. WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
- 6. WHERE TWO POSTS MEET TO JOIN FENCE SECTIONS, THE TOPS OF THE POSTS SHALL BE SECURED TOGETHER WITH WIRE.
- 7. POSTS SHALL BE SPACED @ 10 FOOT C-C MAX. POSTS SHALL BE STEEL TYPE "T" OR "U" OR 2" X 2" HARDWOOD.
- 8. SECURELY FASTEN WOVEN WIRE FENCE TO POSTS WITH WIRE TIES SPACED 24 INCHES AT THE TOP AND MIDSECTION OF THE FENCE, OR ACCORDING TO MANUFACTURER'S SPECIFICATIONS, WHICHEVER
- 9. PREFABRICATED UNITS ARE ACCEPTABLE AS LONG AS ALL MATERIAL SPECIFICATIONS ARE MET.



IT IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER OR ADD TO THIS DRAWING. ANY ALTERATIONS SHALL BE SEALED BY THE ALTERING ENGINEER AND HAVE THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. DRAWN GB CHECKED BY 31403062-D100(M) NUMBER

DATE 4/26/21 APPROVED BY

ROARING BROOK LAKE DAM REHABILITATION PROJECT TOWN OF PUTNAM VALLEY, NEW YORK

EROSION AND SEDIMENT CONTROL DETAILS (1 OF 2) PREPARED FOR

TOWN OF PUTNAM VALLEY LOCATED IN THE TOWN OF PUTNAM VALLEY PUTNAM COUNTY, NEW YORK

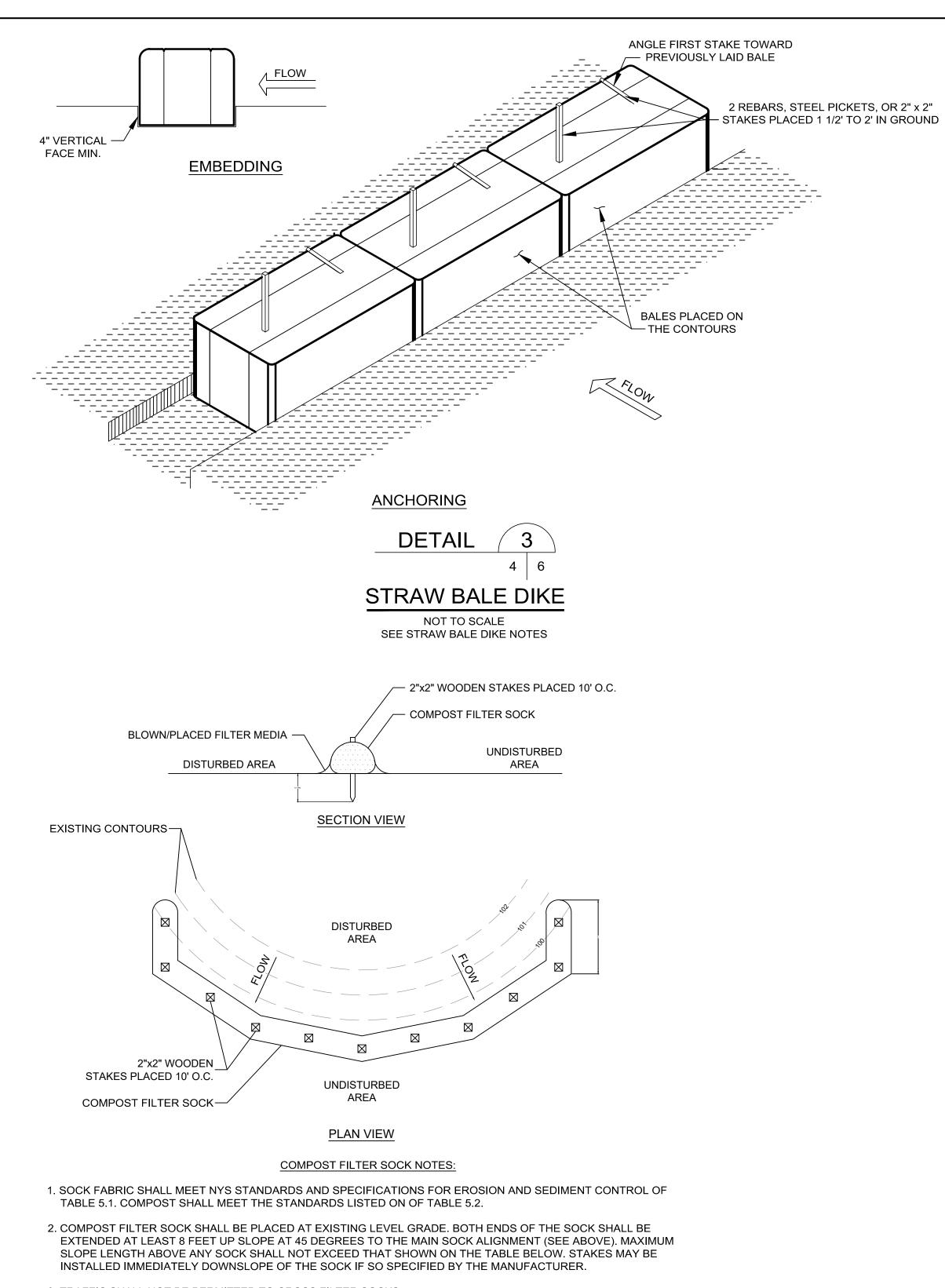


NEW YORK STATE LICENSED

PROFESSIONAL ENGINEER

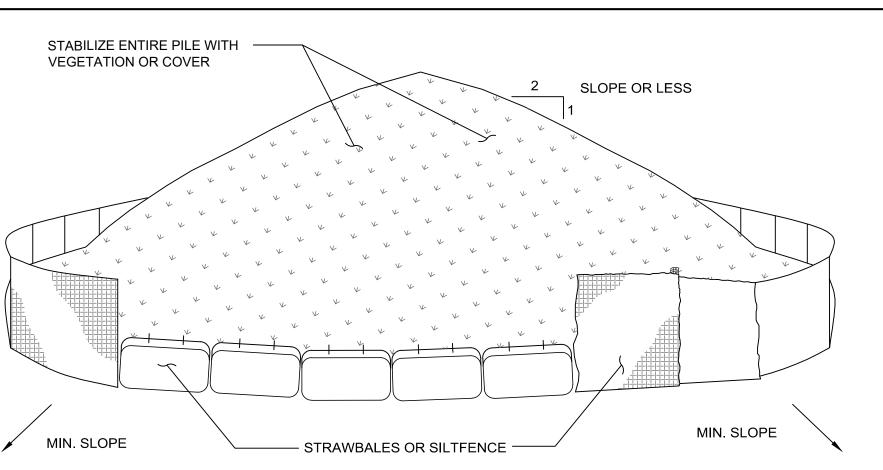
500 SUMMIT LAKE DRIVE VALHALLA, NY 10595

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- 3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- 4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- 5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- 6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 7. UPON STABILIZATION OF THE AREA TRIBUTART TO THE SOCKS, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK SCALE: NOT TO SCALE



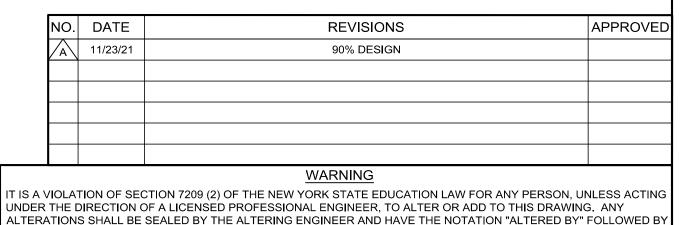
## **INSTALLATION NOTES:**

- 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.



#### STRAW BALE DIKE NOTES: (SEE DETAIL #3)

- 1. REPLACE STRAW BALE DIKES AT LEAST OF 3 MONTHS AFTER INSTALLATION OR AFTER STORM EVENTS LARGER THAN 1".
- 2. MAXIMUM ALLOWABLE SLOPE LENGTHS BEHIND STRAW BALE DYKES SHALL CONFORM TO TABLE 1.
- 3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 4. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
- 5. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER. ALL OTHER STAKES SHALL BE DRIVEN FLUSH WITH BALE.
- 6. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 7. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 8. 100-FOOT SPACING BETWEEN STRAW BALE DIKES IS REQUIRED. MAXIMUM AREA BEHIND 100-FOOT LENGTH OF BALES SHALL NOT EXCEED 0.25 ACRES.



ALTERATIONS SHALL BE SEALED BY THE ALTERING ENGINEER AND HAVE THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NUMBER

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EROSION AND SEDIMENT CONTROL DETAILS (2 OF 2) PREPARED FOR

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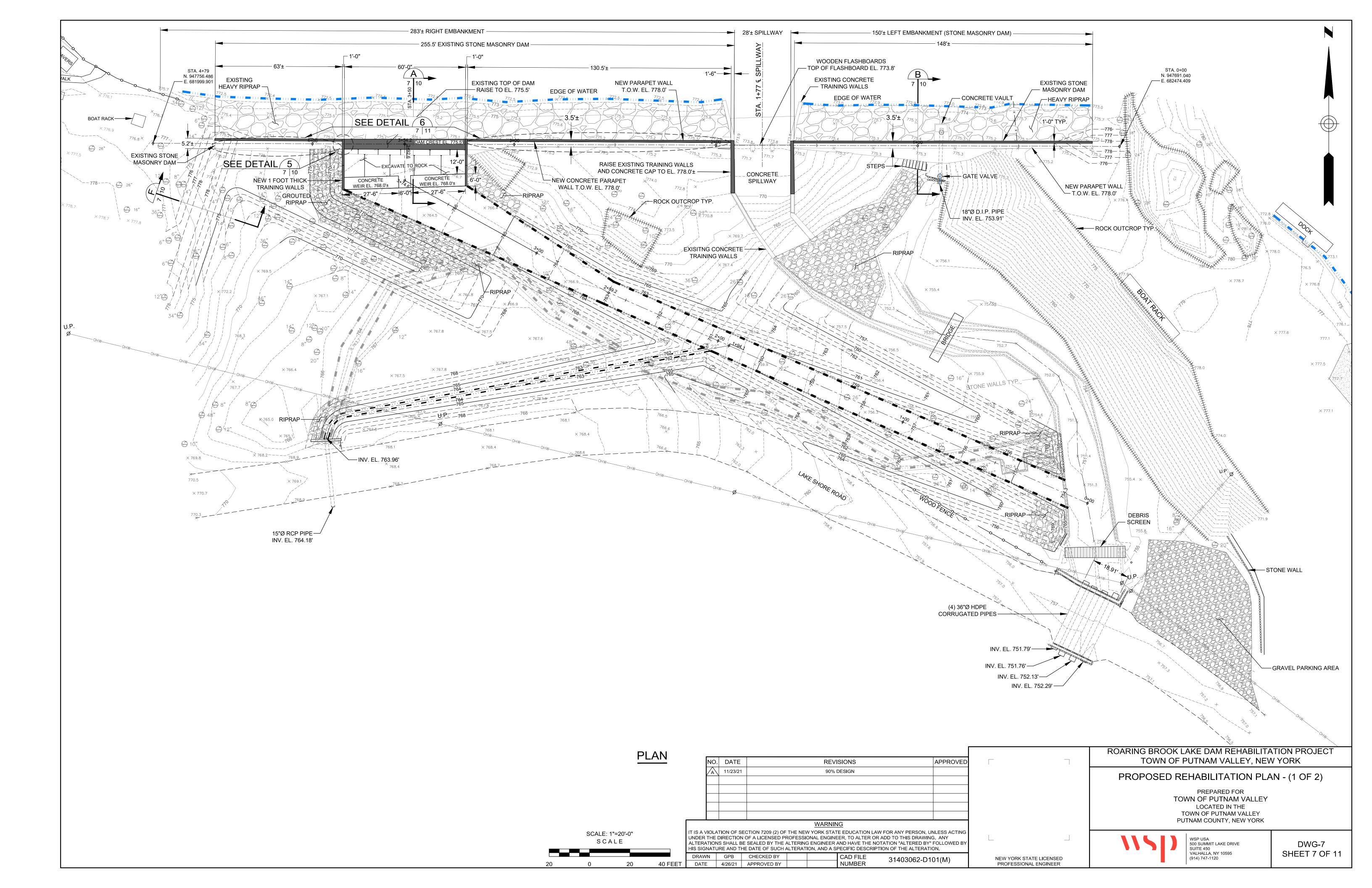
LOCATED IN THE TOWN OF PUTNAM VALLEY PUTNAM COUNTY, NEW YORK

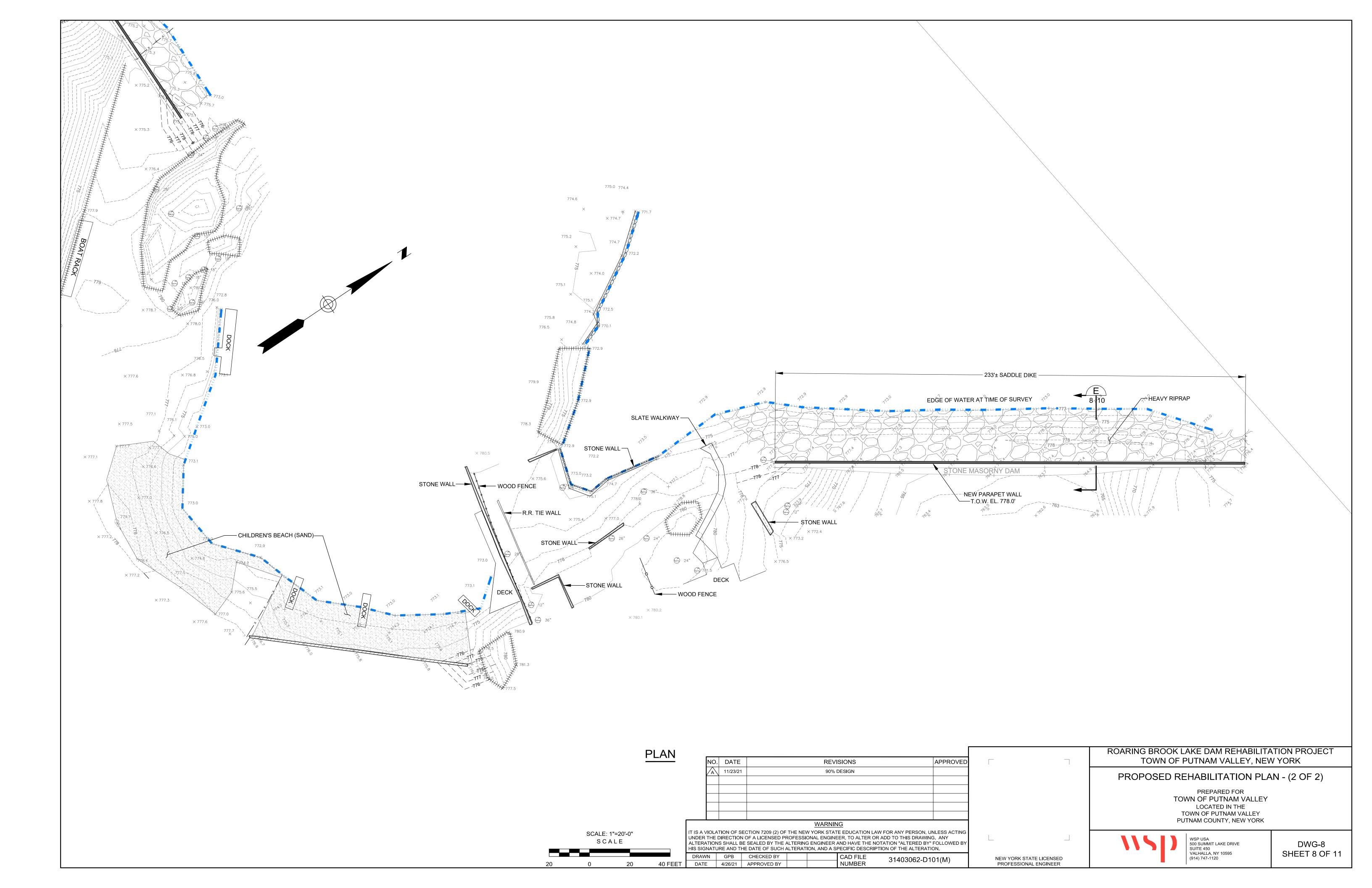
ROARING BROOK LAKE DAM REHABILITATION PROJECT

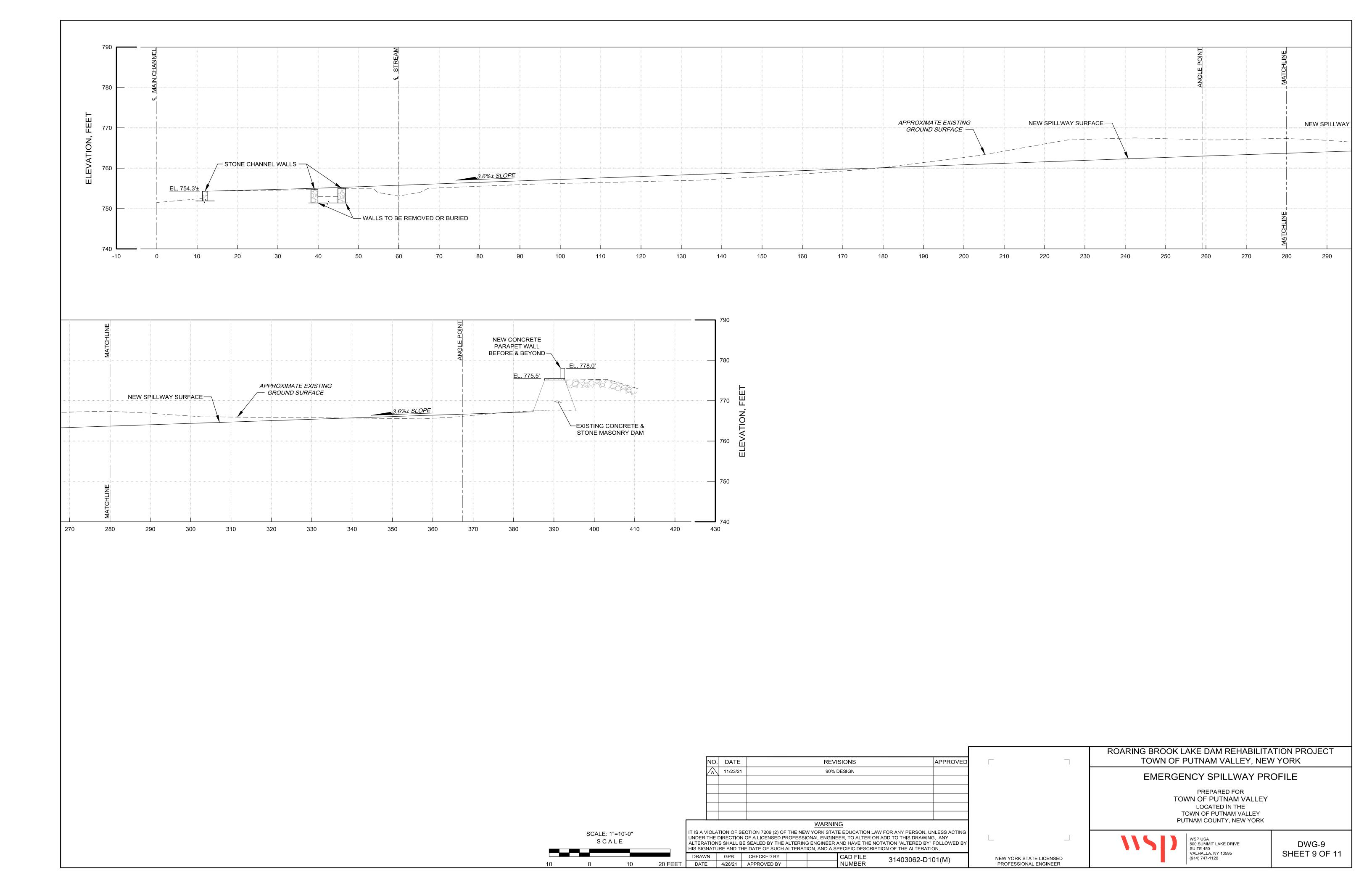
TOWN OF PUTNAM VALLEY, NEW YORK

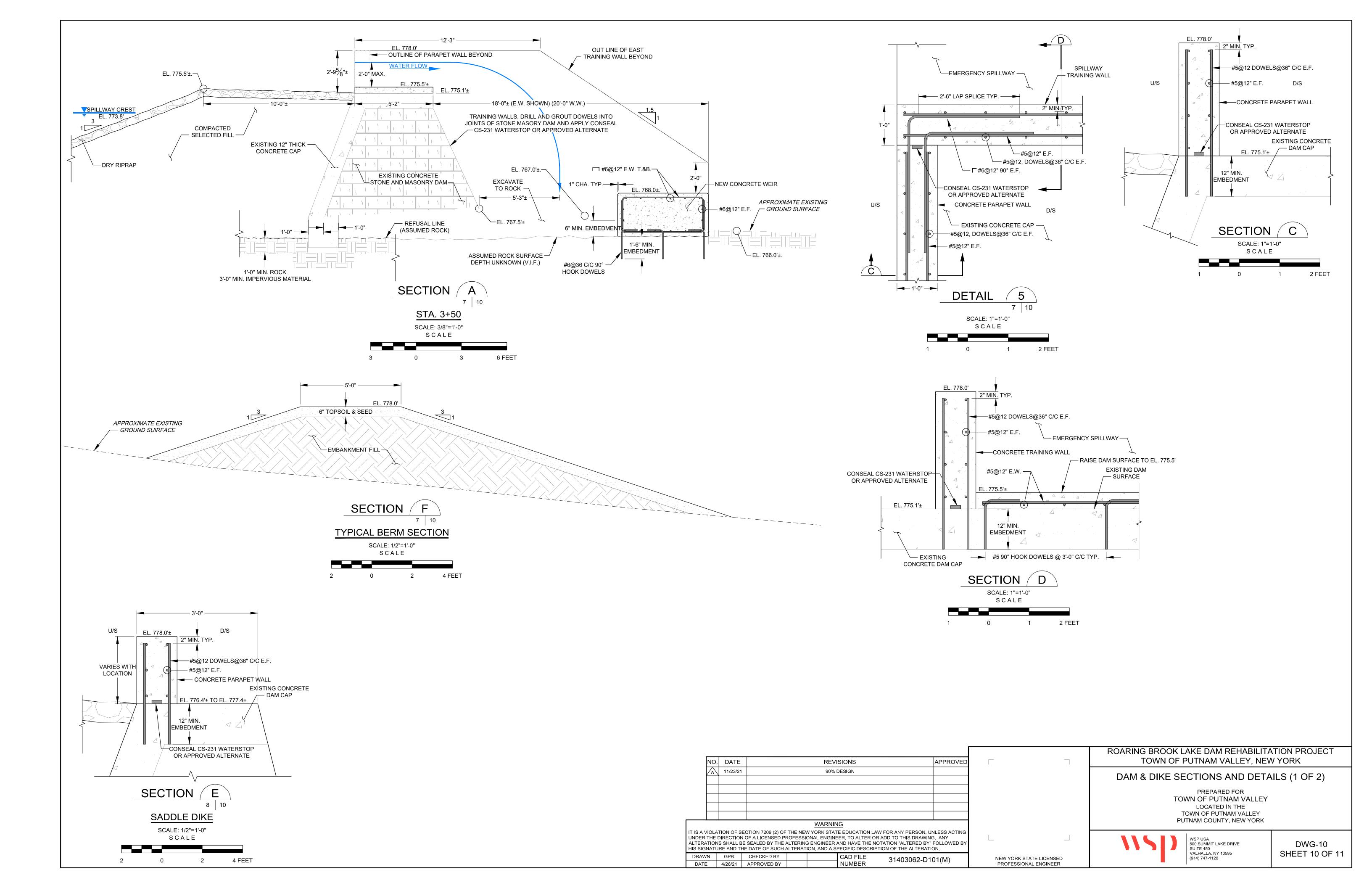


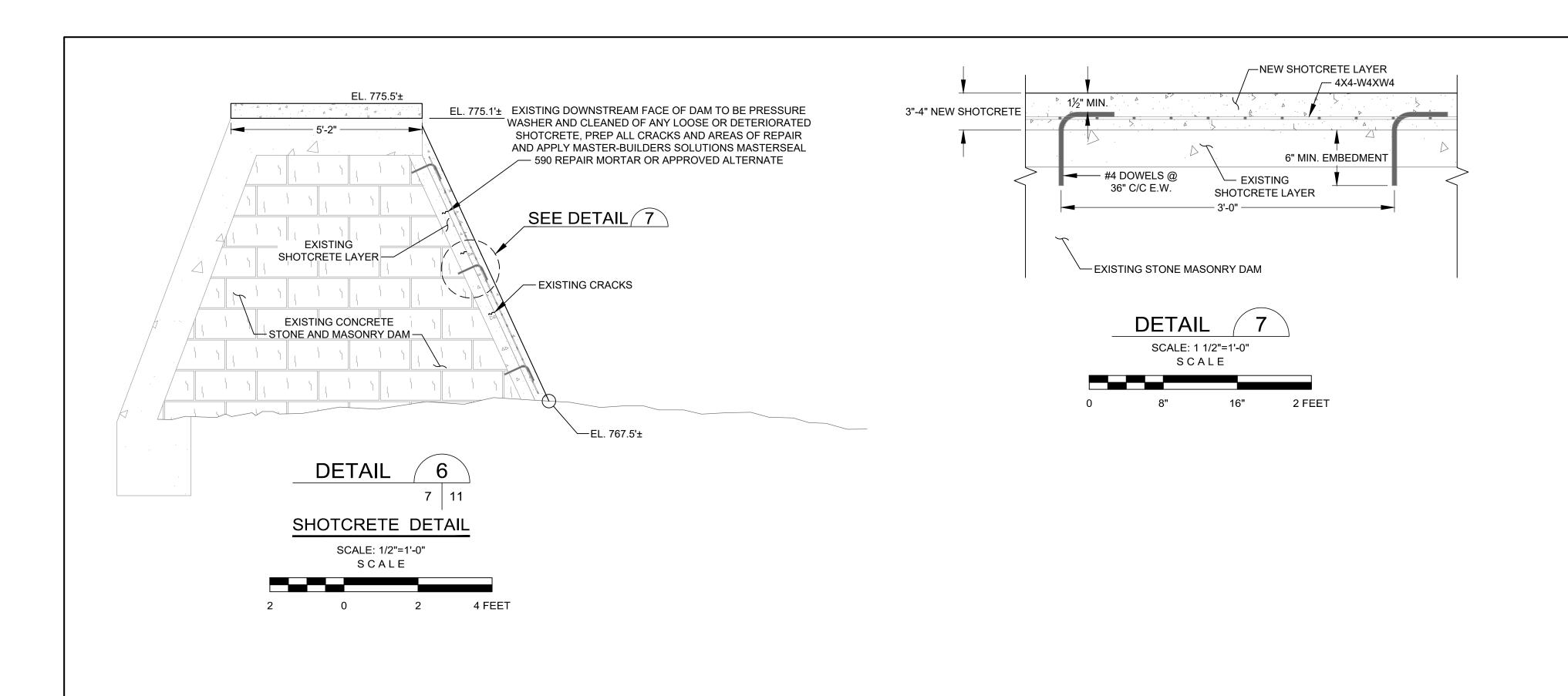
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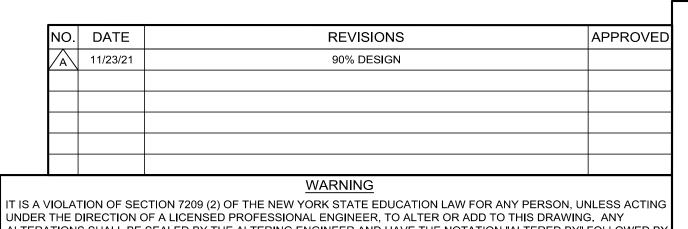












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31403062-D101(M)

NEW YORK STATE LICENSED PROFESSIONAL ENGINEER

ROARING BROOK LAKE DAM REHABILITATION PROJECT TOWN OF PUTNAM VALLEY, NEW YORK

## DAM & DIKE SECTIONS AND DETAILS (2 OF 2)

PREPARED FOR TOWN OF PUTNAM VALLEY LOCATED IN THE TOWN OF PUTNAM VALLEY PUTNAM COUNTY, NEW YORK



500 SUMMIT LAKE DRIVE SUITE 450 VALHALLA, NY 10595 (914) 747-1120

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