

VILLAGE OF NEW PALTZ WATER SUPPLY AT RESERVOIR PROPERTY NEW PALTZ, ULSTER COUNTY, NY



LOCATION MAP
SCALE: 1"=500'

APPLICANT:
VILLAGE OF NEW PALTZ
25 PLATTEKILL AVENUE
NEW PALTZ NEW YORK 12561

VILLAGE MAYOR
TIMOTHY ROGERS

DEPUTY MAYOR
KT TOBIN

VILLAGE TRUSTEES
WILLIAM WHEELER-MURRAY
ALEXANDRIA WOJCIK
MICHELE ZIPP

VILLAGE CLERK:
ALBERTA G. SHAW

CHIEF WATER SYSTEM OPERATOR:
BLEU TERWILLIGER

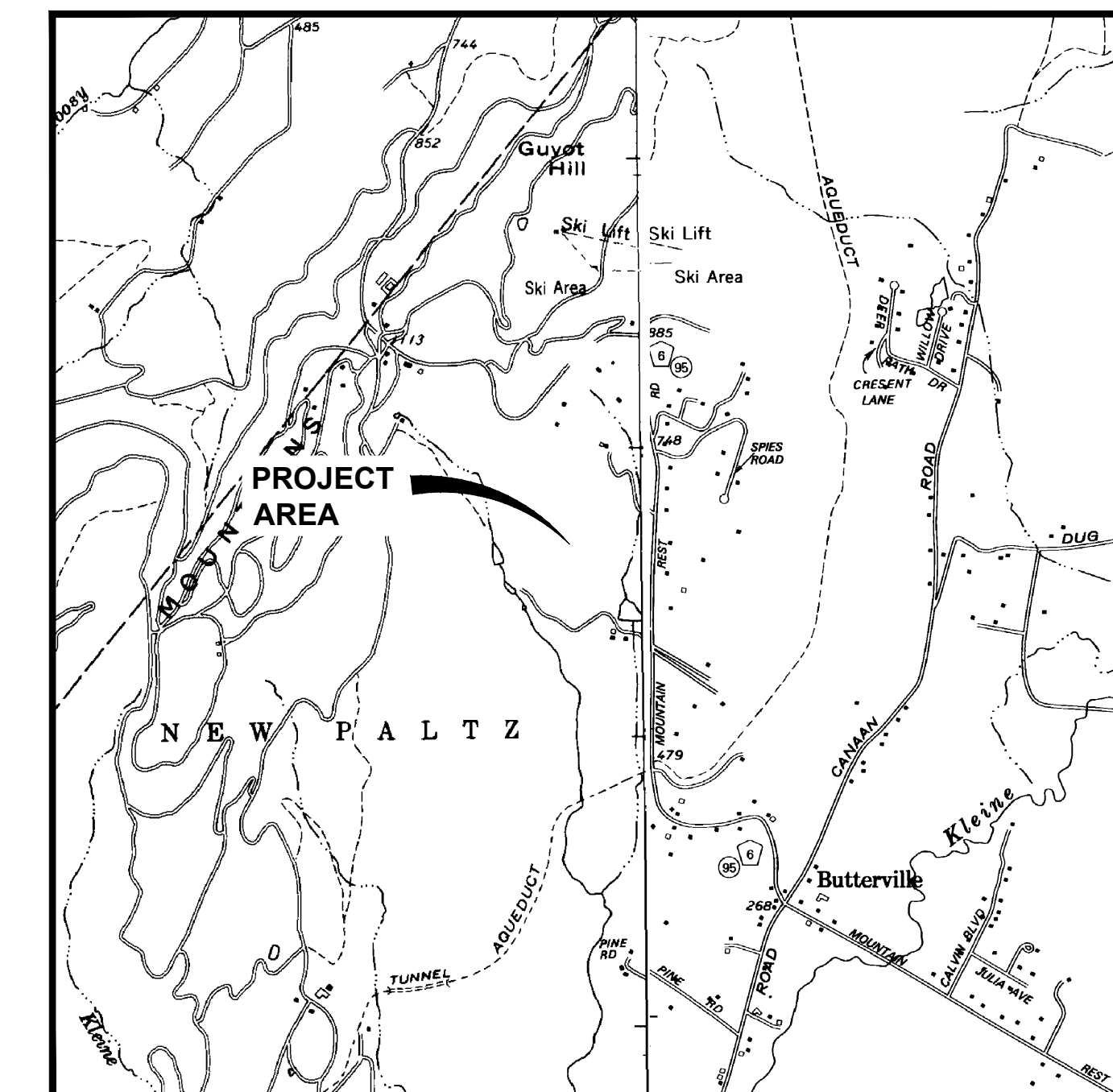
ENGINEER:
CHAZEN ENGINEERING & LAND SURVEYING CO., D.P.C.
21 FOX STREET, POUGHKEEPSIE, NY 12601
PHONE: (845) 454-3980

SURVEYOR:
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HYDROGEOLOGIST:
CHAZEN ENGINEERING & LAND SURVEYING CO., D.P.C.
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ELECTRICAL ENGINEER:
LABELLA ASSOCIATES

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AREA MAP
SCALE: 1"=2000'
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USGS MOHONK LAKE QUADRANGLE

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**NEW YORK STATE DEPARTMENT OF HEALTH
APPROVAL**

APPROVED
NEW YORK STATE DEPARTMENT OF HEALTH
Bureau of Water Supply Protection

Date 05/25/2022 By [Signature] P.E.
Chief, Design Section

NYSDOH Log No. 20402 ; DWSRF No. N/A

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Project/Contract RESERVOIR WELLS

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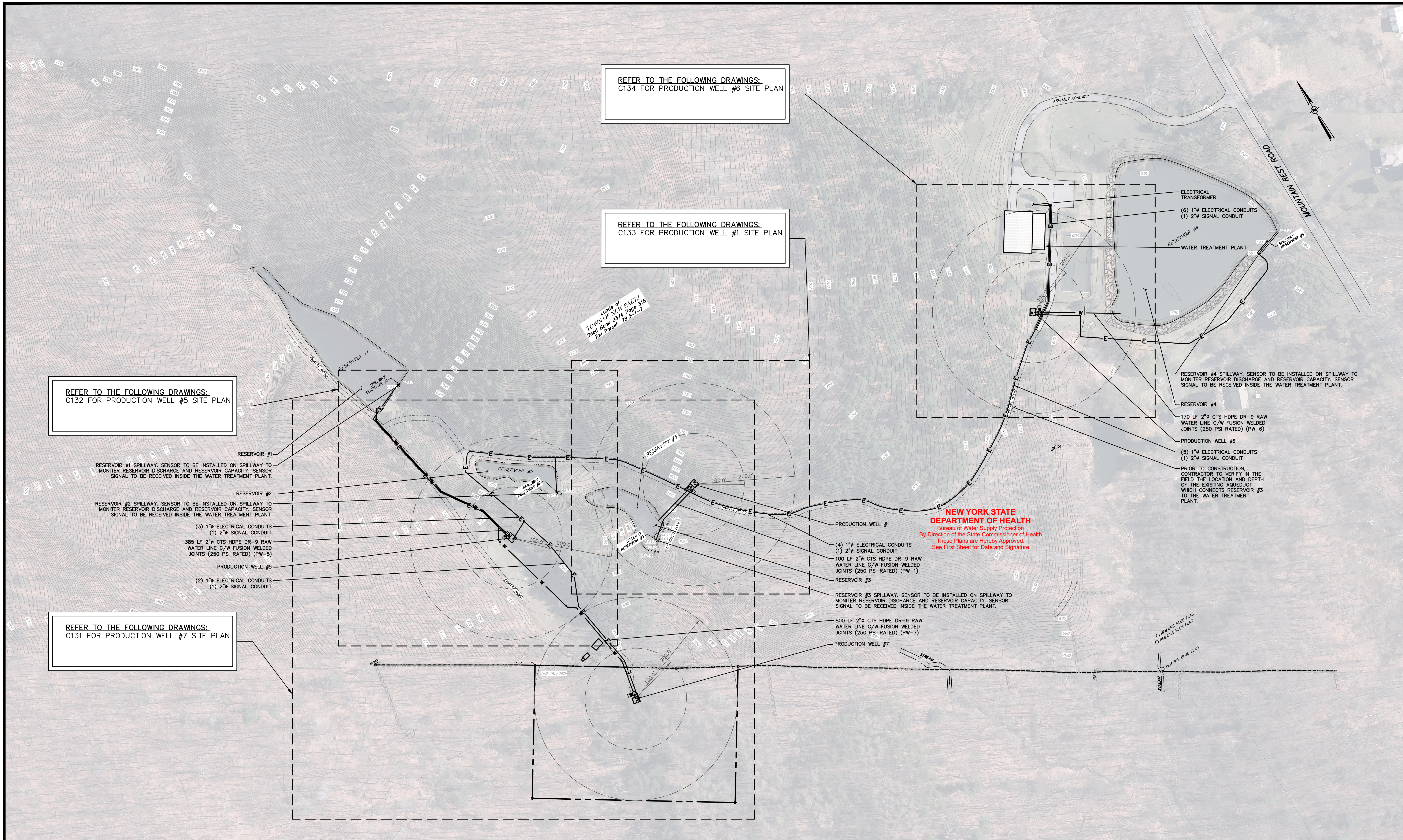
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NEW PALTZ RESERVOIR

TITLE SHEET

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed	checked
JMC	JMF
date	scale
10/26/20	AS NOTED
project no.	41725.04
sheet no.	G001



REFER TO THE FOLLOWING DRAWINGS:
C134 FOR PRODUCTION WELL #6 SITE PLAN

REFER TO THE FOLLOWING DRAWINGS:
C133 FOR PRODUCTION WELL #1 SITE PLAN

REFER TO THE FOLLOWING DRAWINGS:
C132 FOR PRODUCTION WELL #5 SITE PLAN

REFER TO THE FOLLOWING DRAWINGS:
C131 FOR PRODUCTION WELL #7 SITE PLAN

RESERVOIR #1 SPILLWAY SENSOR TO BE INSTALLED ON SPILLWAY TO MONITOR RESERVOIR DISCHARGE AND RESERVOIR CAPACITY. SENSOR SIGNAL TO BE RECEIVED INSIDE THE WATER TREATMENT PLANT.

RESERVOIR #2 SPILLWAY SENSOR TO BE INSTALLED ON SPILLWAY TO MONITOR RESERVOIR DISCHARGE AND RESERVOIR CAPACITY. SENSOR SIGNAL TO BE RECEIVED INSIDE THE WATER TREATMENT PLANT.

(3) 1" ELECTRICAL CONDUITS
(1) 2" SIGNAL CONDUIT
385 LF 2" CTS HDPE DR-9 RAW WATER LINE C/W FUSION WELDED JOINTS (250 PSI RATED) (PW-5)

PRODUCTION WELL #5
(2) 1" ELECTRICAL CONDUITS
(1) 2" SIGNAL CONDUIT

PRODUCTION WELL #1
(4) 1" ELECTRICAL CONDUITS
(1) 2" SIGNAL CONDUIT
100 LF 2" CTS HDPE DR-9 RAW WATER LINE C/W FUSION WELDED JOINTS (250 PSI RATED) (PW-1)

RESERVOIR #3 SPILLWAY SENSOR TO BE INSTALLED ON SPILLWAY TO MONITOR RESERVOIR DISCHARGE AND RESERVOIR CAPACITY. SENSOR SIGNAL TO BE RECEIVED INSIDE THE WATER TREATMENT PLANT.

800 LF 2" CTS HDPE DR-9 RAW WATER LINE C/W FUSION WELDED JOINTS (250 PSI RATED) (PW-7)
PRODUCTION WELL #7

ELECTRICAL TRANSFORMER
(6) 1" ELECTRICAL CONDUITS
(1) 2" SIGNAL CONDUIT

RESERVOIR #4 SPILLWAY SENSOR TO BE INSTALLED ON SPILLWAY TO MONITOR RESERVOIR DISCHARGE AND RESERVOIR CAPACITY. SENSOR SIGNAL TO BE RECEIVED INSIDE THE WATER TREATMENT PLANT.

RESERVOIR #4
170 LF 2" CTS HDPE DR-9 RAW WATER LINE C/W FUSION WELDED JOINTS (250 PSI RATED) (PW-6)

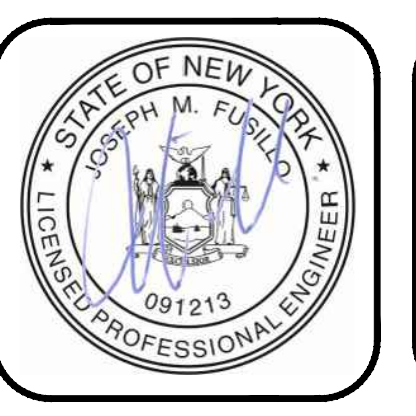
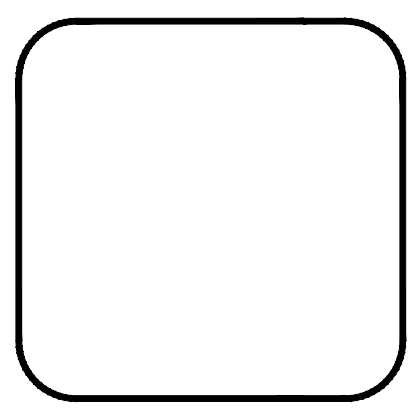
PRODUCTION WELL #6
(5) 1" ELECTRICAL CONDUITS
(1) 2" SIGNAL CONDUIT

NEW YORK STATE DEPARTMENT OF HEALTH
Bureau of Water Supply Protection
By Direction of the State Commissioner of Health
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○ REMAINS BLUE FLAG
○ REMAINS BLUE FLAG



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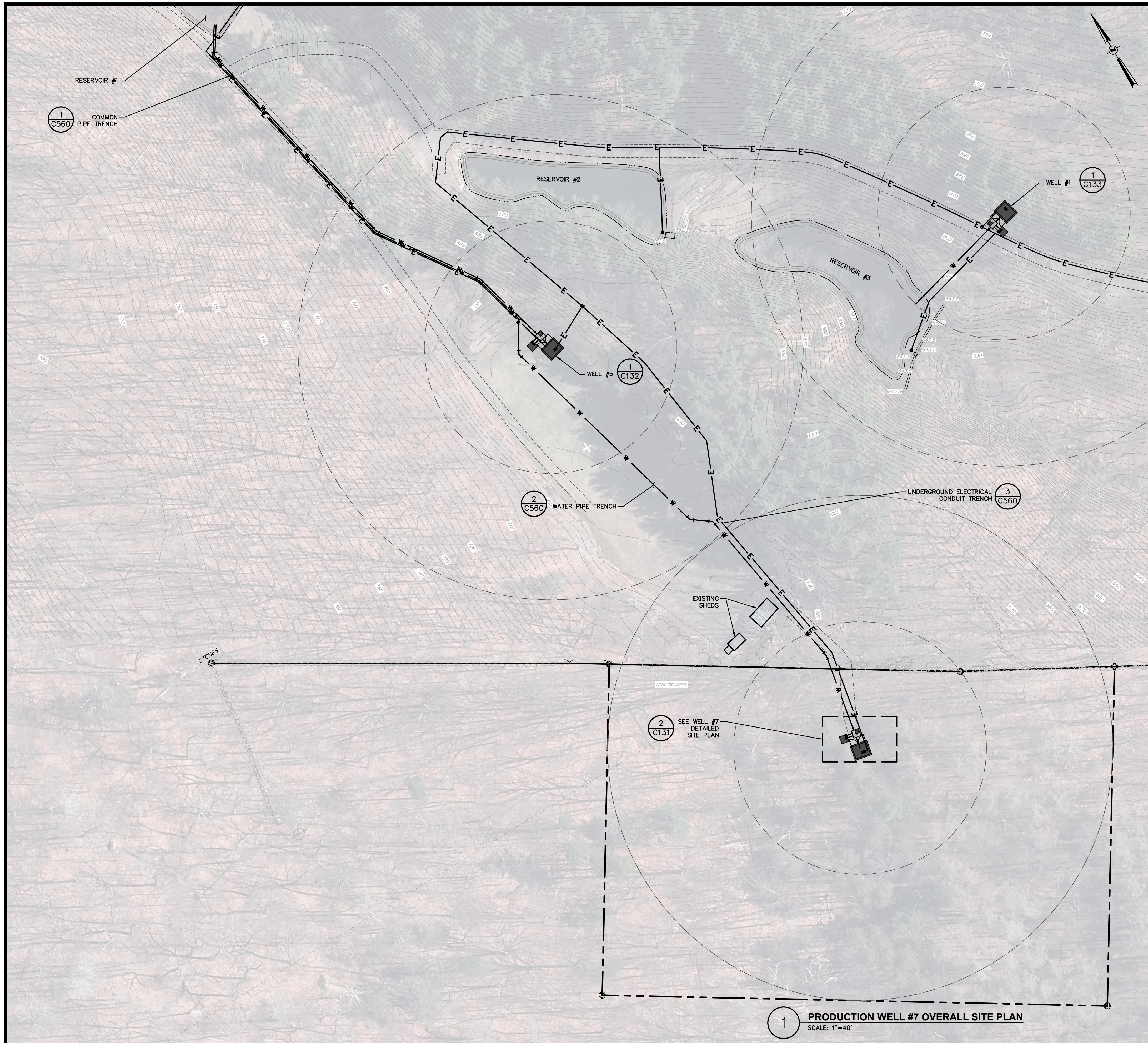


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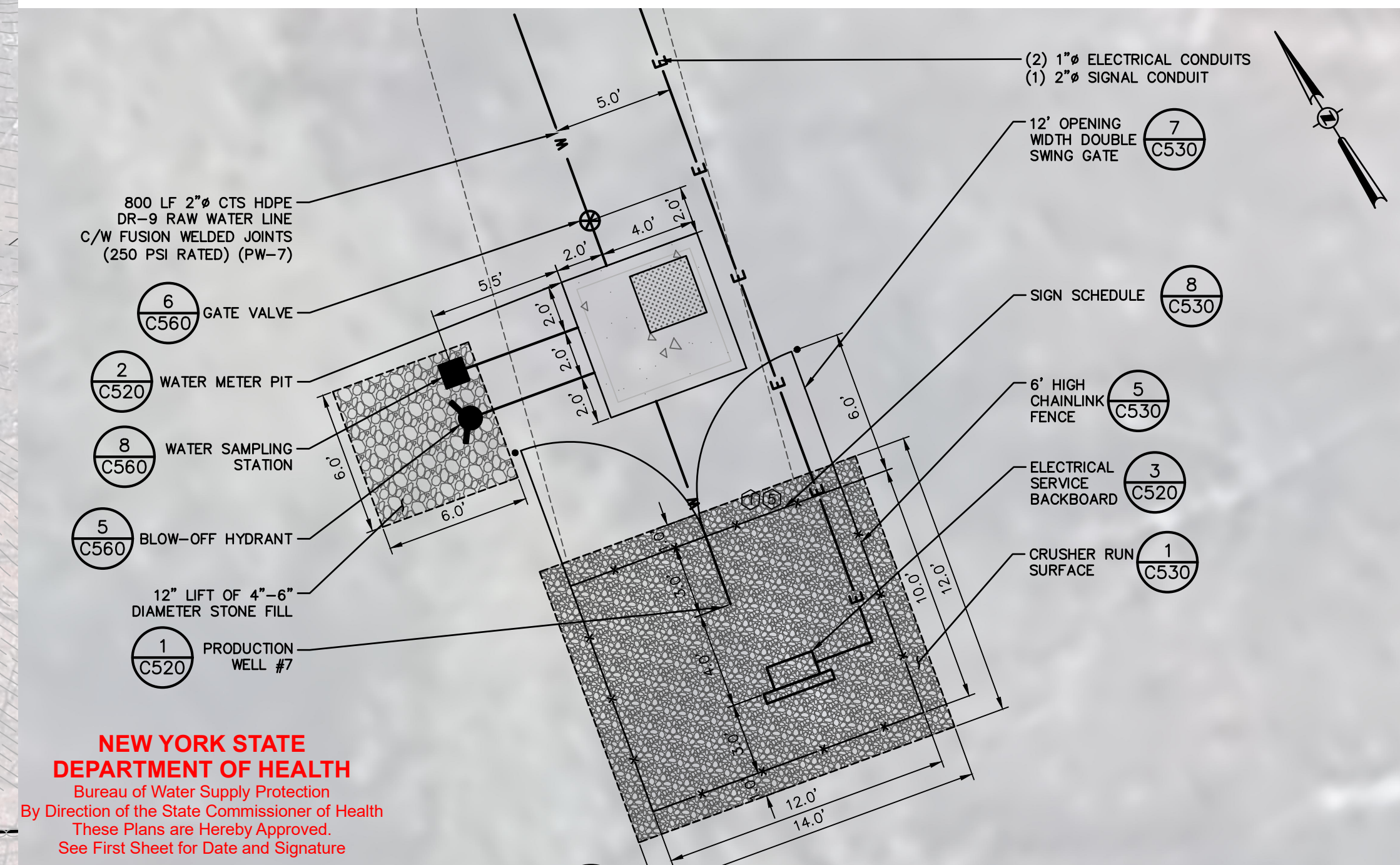
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NEW PALTZ RESERVOIR
OVERALL SITE PLAN
VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed JMC	checked JMF
date 10/26/20	scale 1"=80'
project no. 41725.04	sheet no. C130



1 PRODUCTION WELL #7 OVERALL SITE PLAN
SCALE: 1"=40'

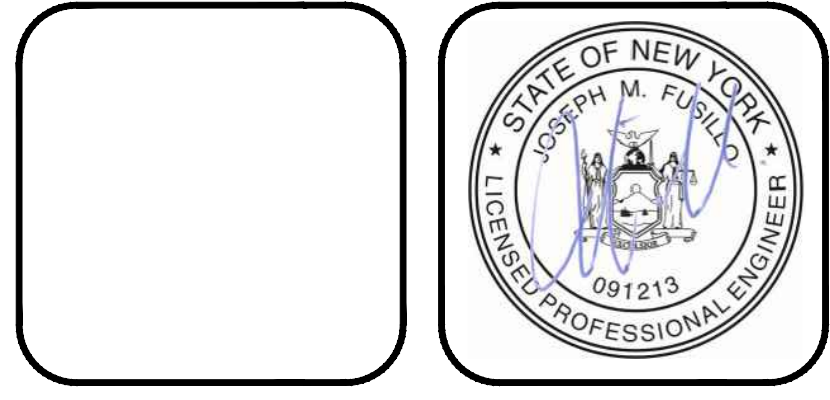


2 PRODUCTION WELL #7 DETAILED SITE PLAN
SCALE: 1"=5'

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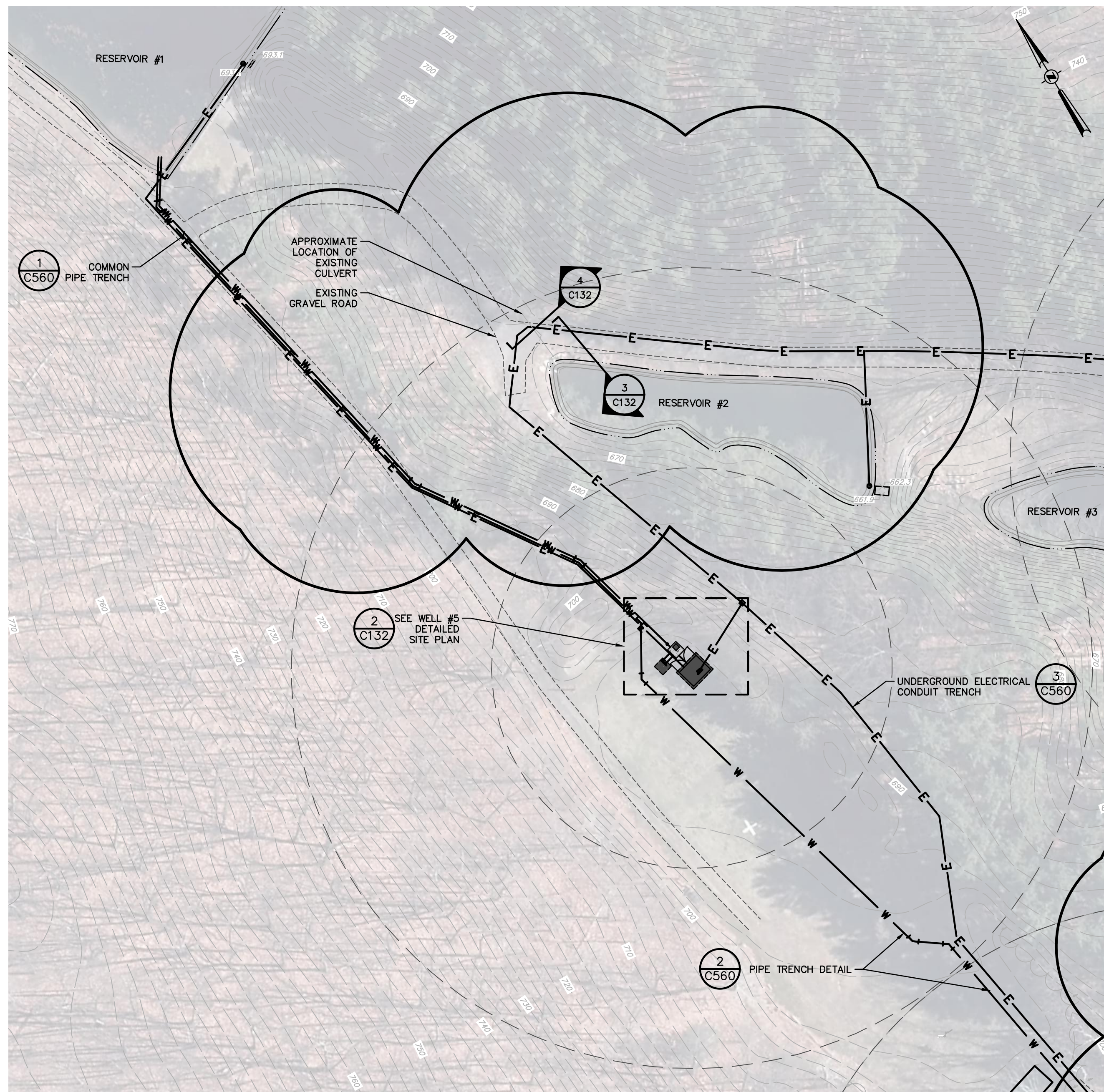
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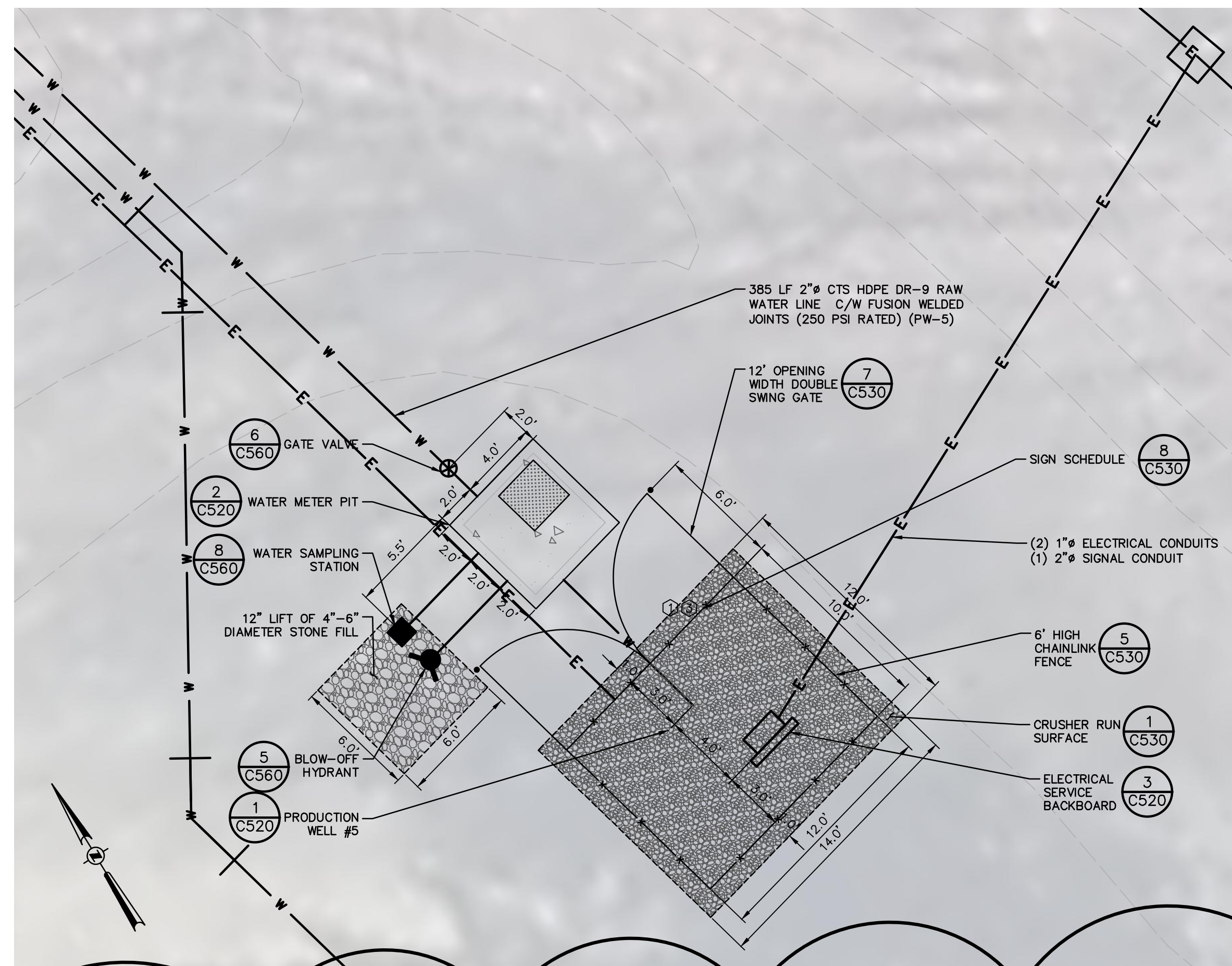
PRODUCTION WELL #7 SITE PLAN

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

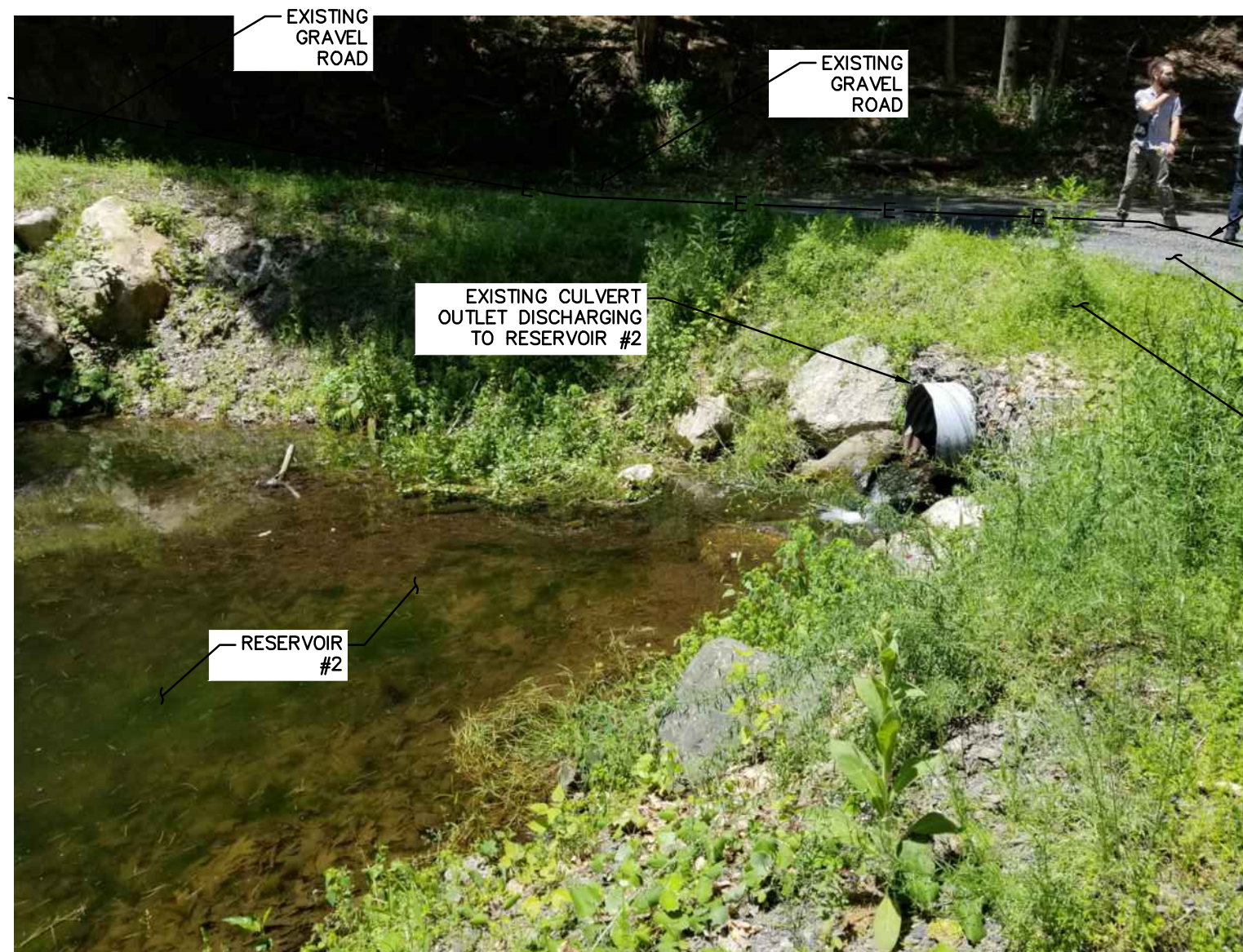
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JMC	JMF
date	scale
10/26/20	AS NOTED
project no.	41725.04
sheet no.	C131



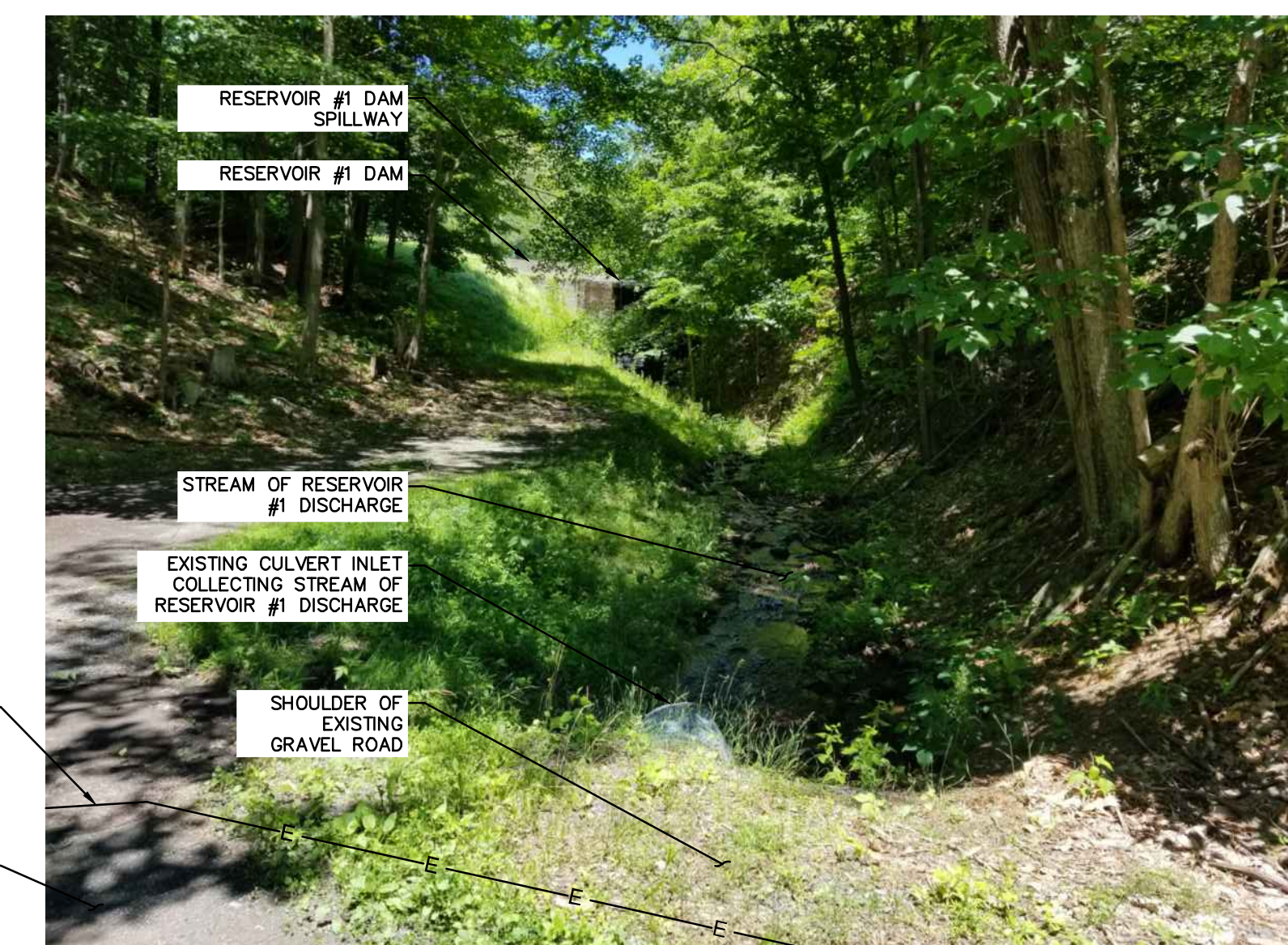
1 PRODUCTION WELL #5 OVERALL SITE PLAN
SCALE: 1"=40'



2 PRODUCTION WELL #5 DETAILED SITE PLAN
SCALE: 1"=5'



3 VIEW OF EXISTING CULVERT OUTLET - JUNE 2021
SCALE: NOT TO SCALE



4 VIEW OF EXISTING CULVERT INLET - JUNE 2021
SCALE: NOT TO SCALE

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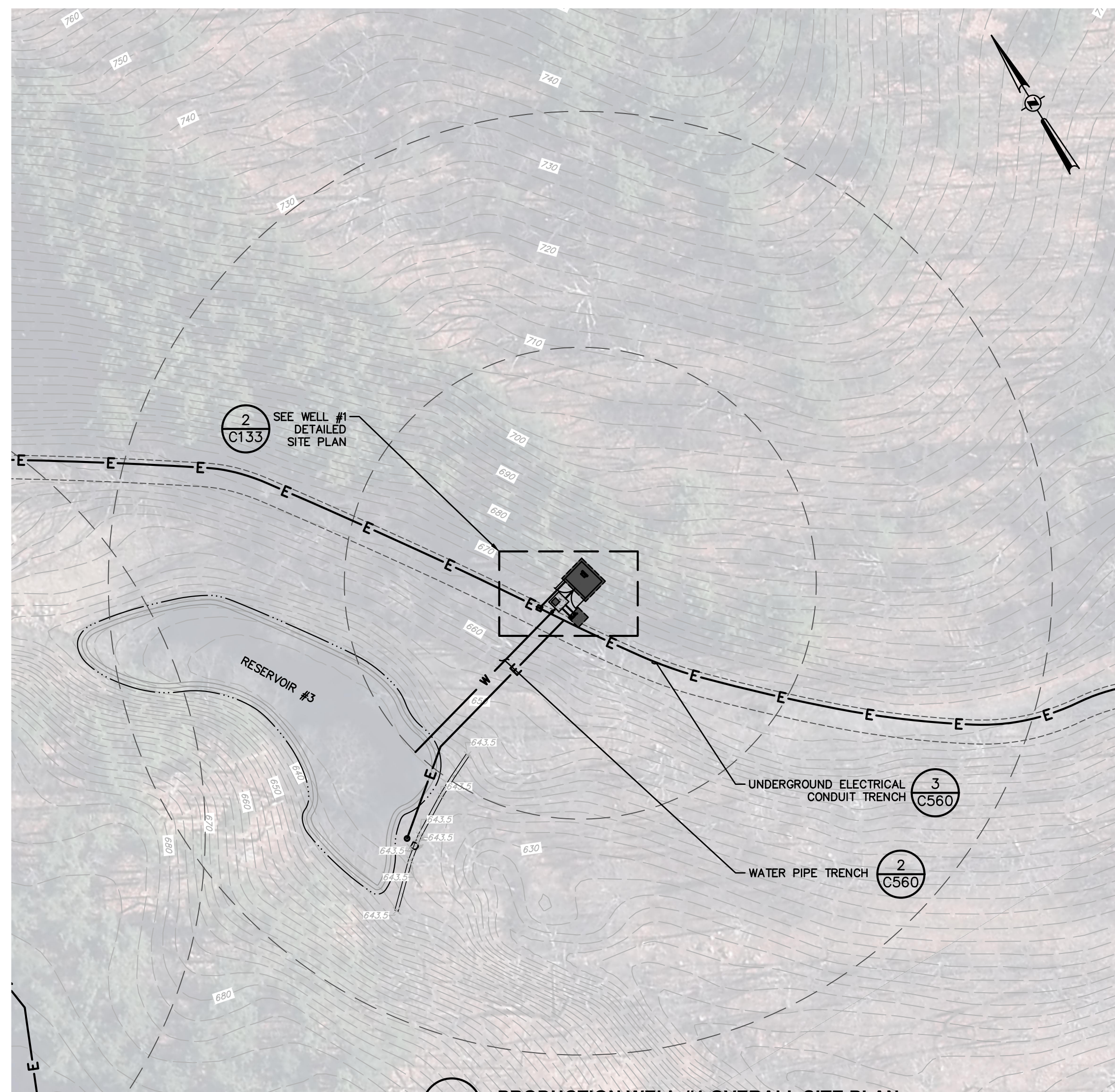
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1	04/25/22	REVISED IN RESPONSE TO DEC COMMENTS

NEW PALTZ RESERVOIR

PRODUCTION WELL #5 SITE PLAN

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

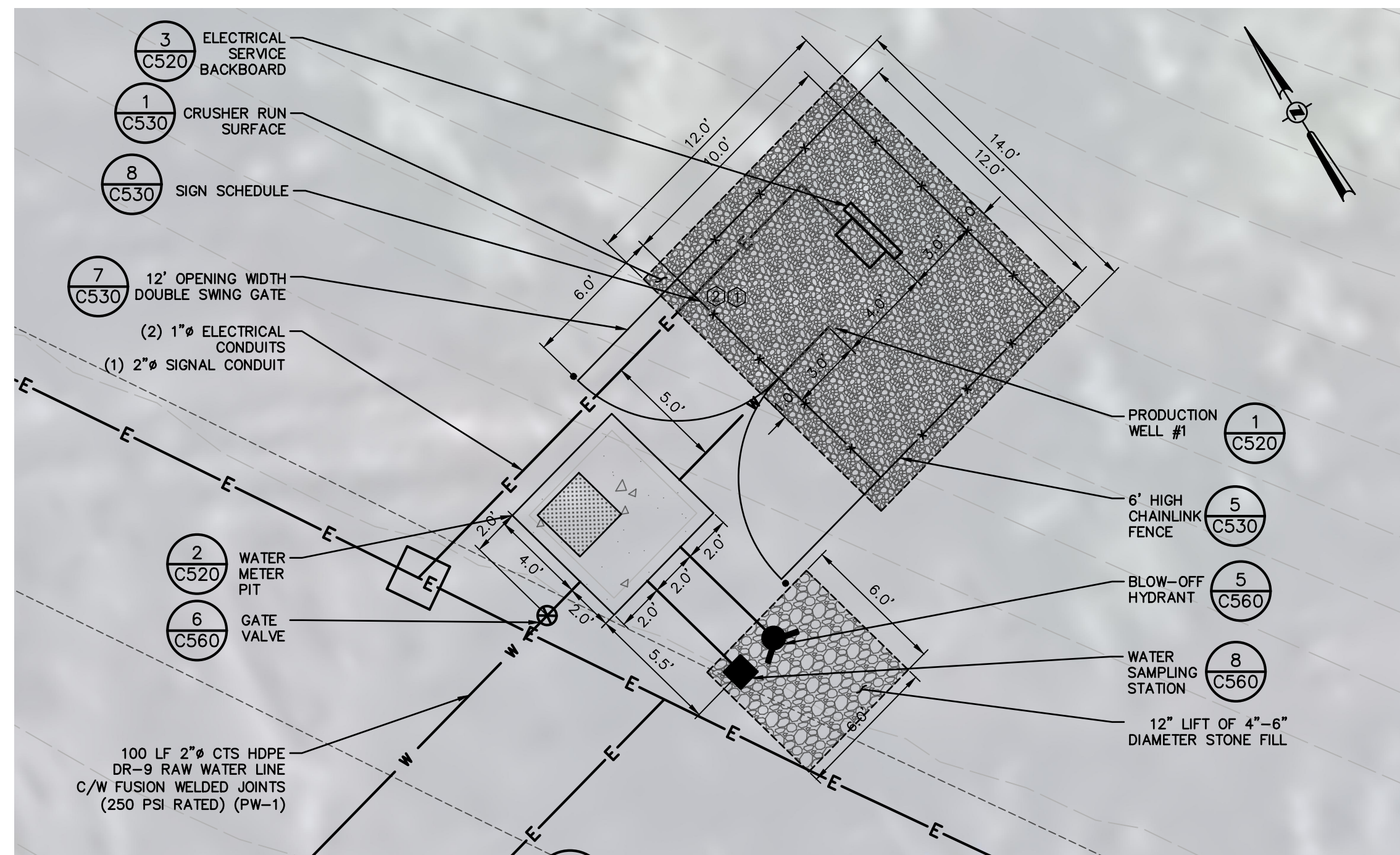
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JMC	JMF
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project no.	
41725.04	
sheet no.	
C132	



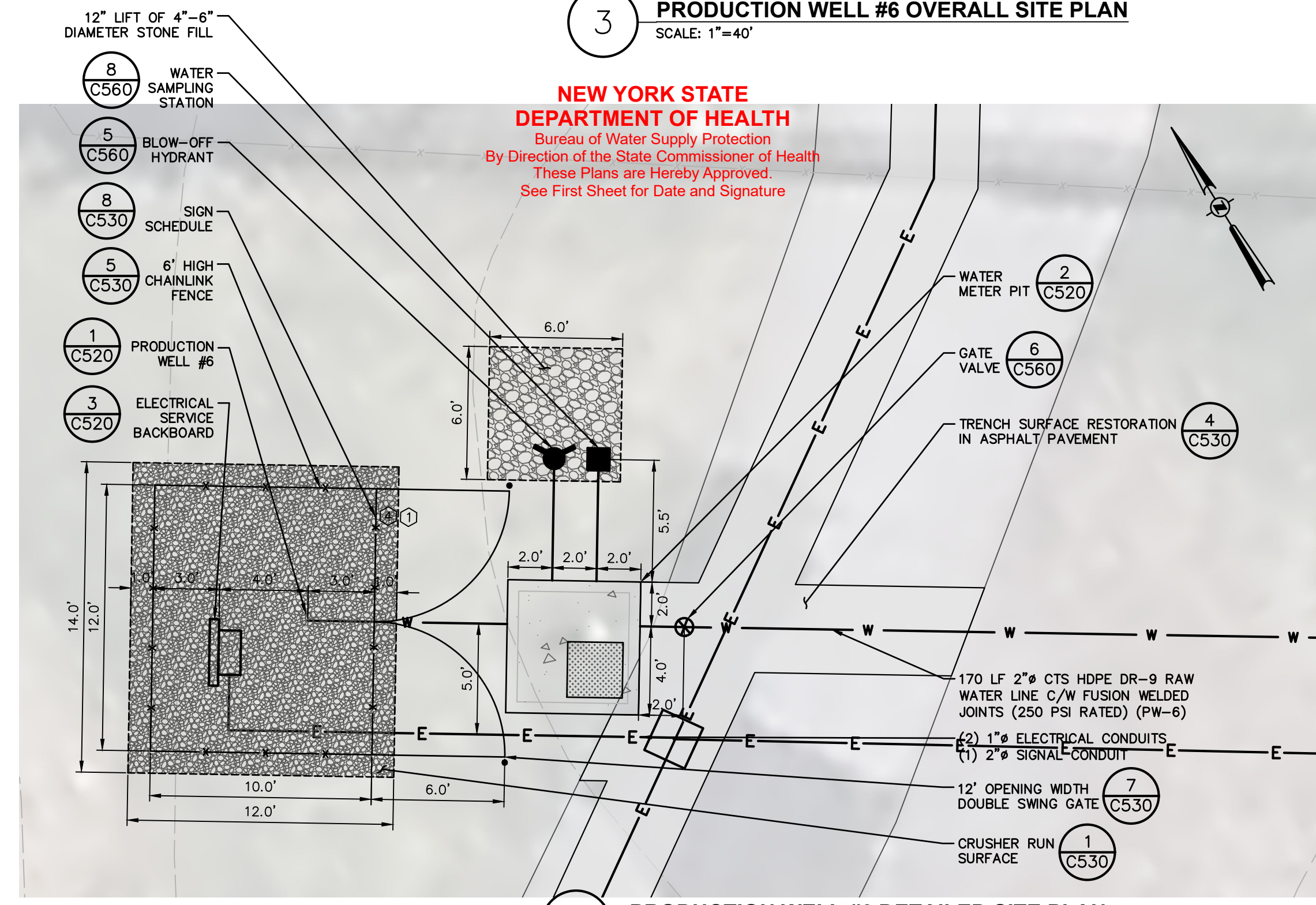
1 PRODUCTION WELL #1 OVERALL SITE PLAN
SCALE: 1"=40'



3 PRODUCTION WELL #6 OVERALL SITE PLAN
SCALE: 1"=40'



2 PRODUCTION WELL #1 DETAILED SITE PLAN
SCALE: 1"=5'



4 PRODUCTION WELL #6 DETAILED SITE PLAN
SCALE: 1"=5'

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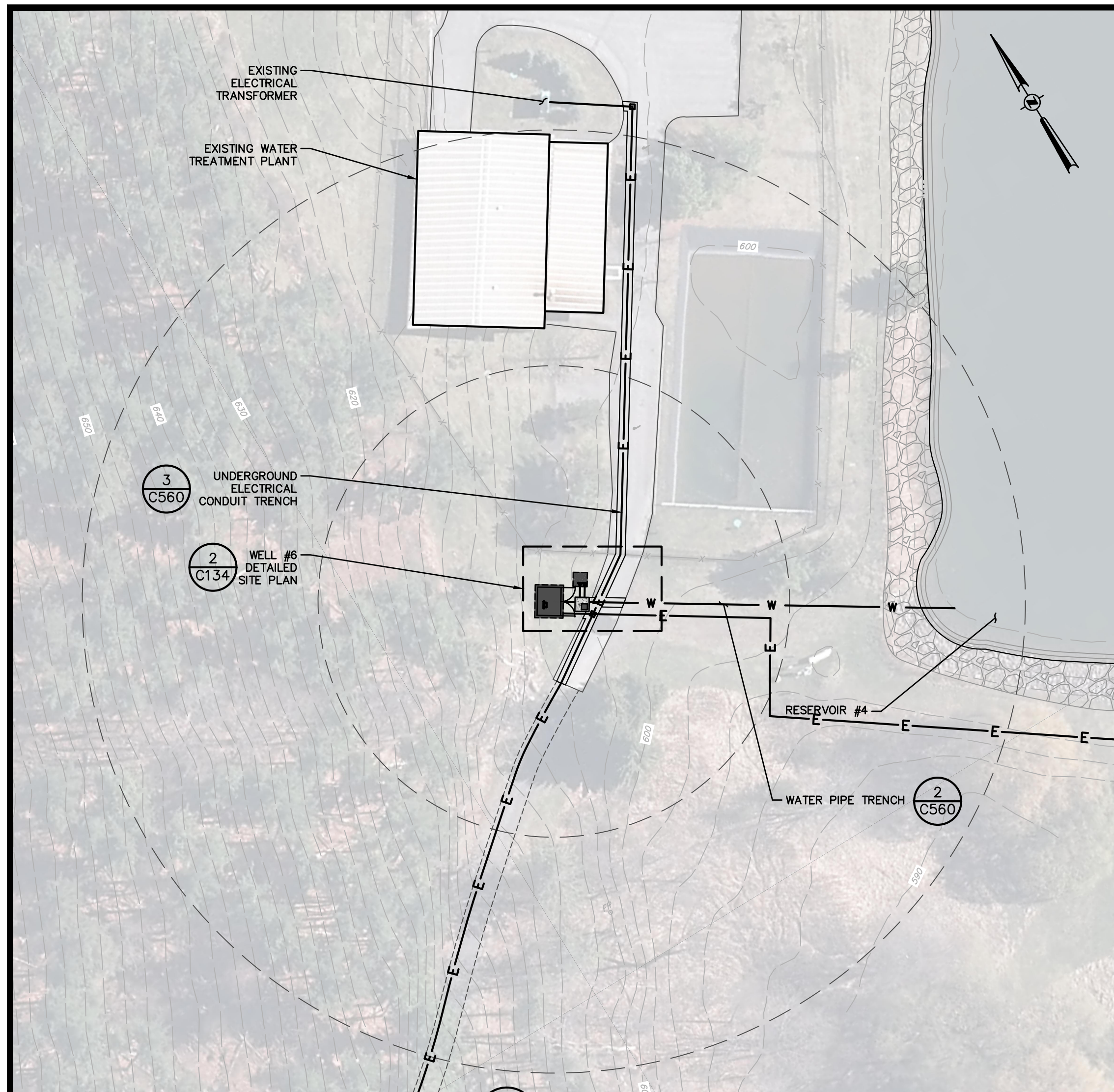
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NEW PALTZ RESERVOIR

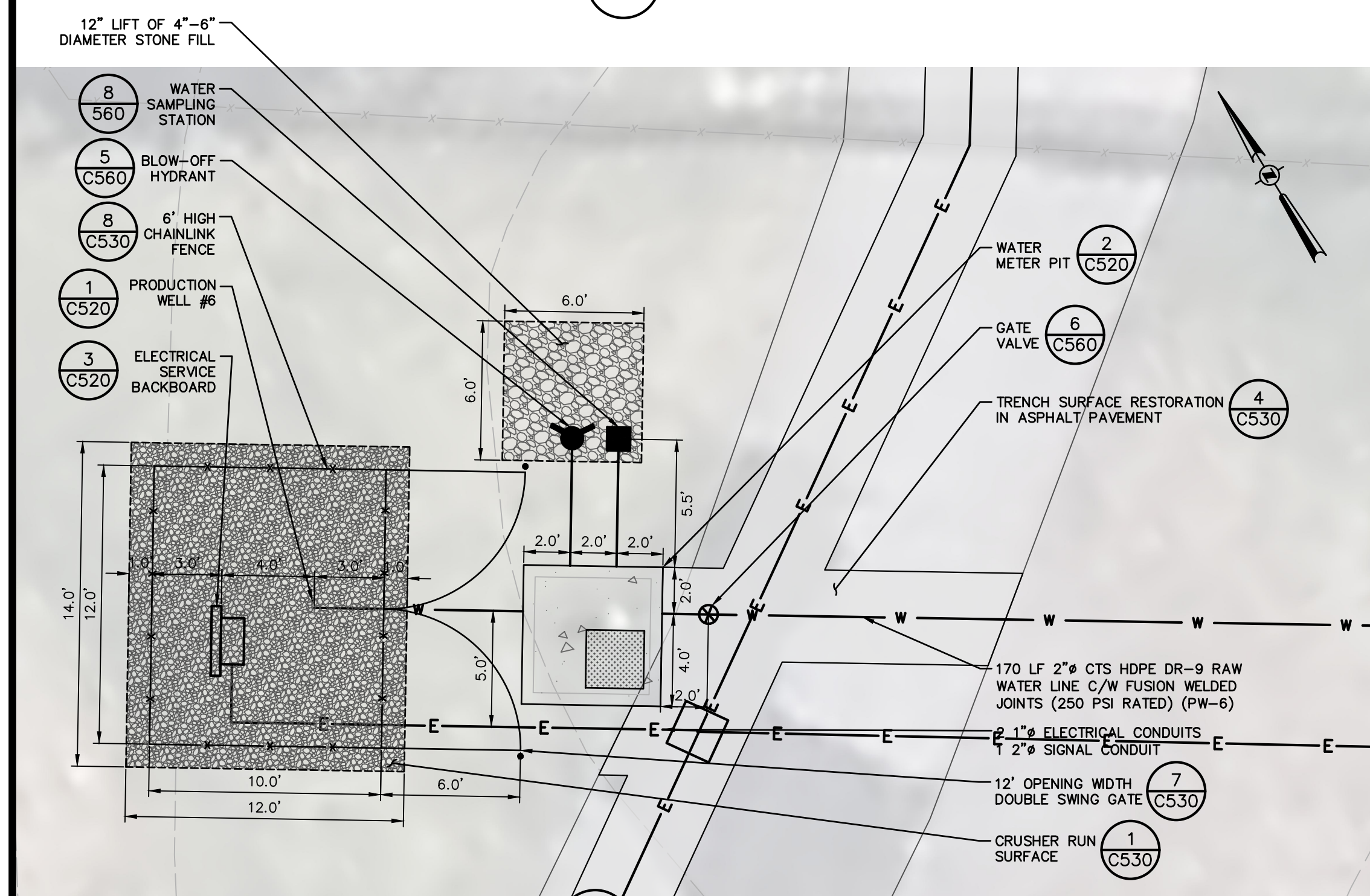
PRODUCTION WELL #1 & PRODUCTION WELL #6 SITE PLAN

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed	checked
JMC	JMF
date	scale
10/26/20	AS NOTED
project no.	41725.04
sheet no.	C133



1 PRODUCTION WELL #6 OVERALL SITE PLAN
 SCALE: 1"=40'



2 PRODUCTION WELL #6 DETAILED SITE PLAN
 SCALE: 1"=5'

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PRODUCTION WELL #6 SITE PLAN

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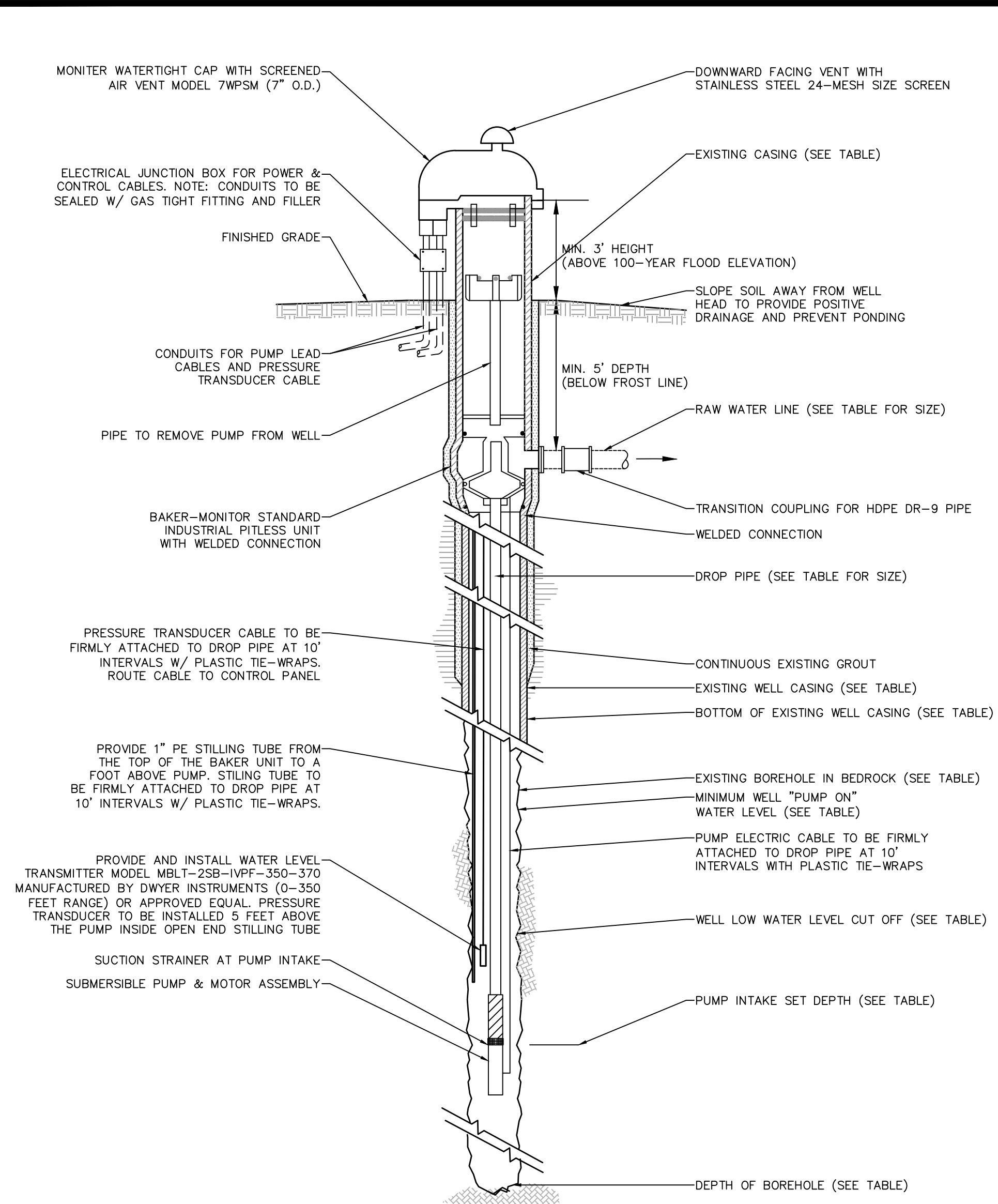
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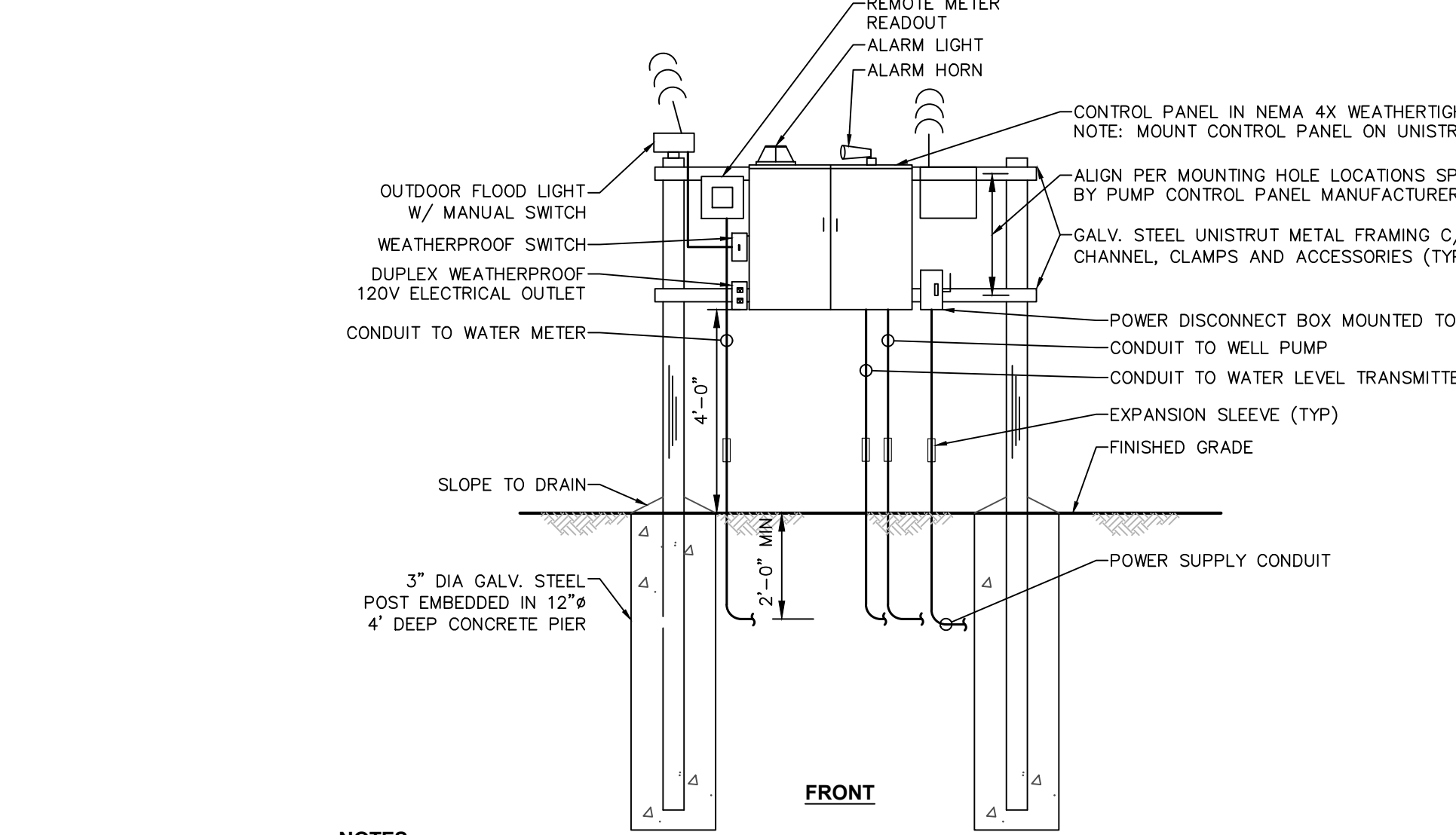
EROSION AND SEDIMENT CONTROL PLAN

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

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JMC	JMF
date	scale
10/26/20	1"=80'
project no.	
41725.04	
sheet no.	
C150	



1 PITLESS WELL UNIT TYPICAL DETAIL
SCALE: NOT TO SCALE



3 ELECTRICAL PANEL DETAIL
SCALE: NOT TO SCALE

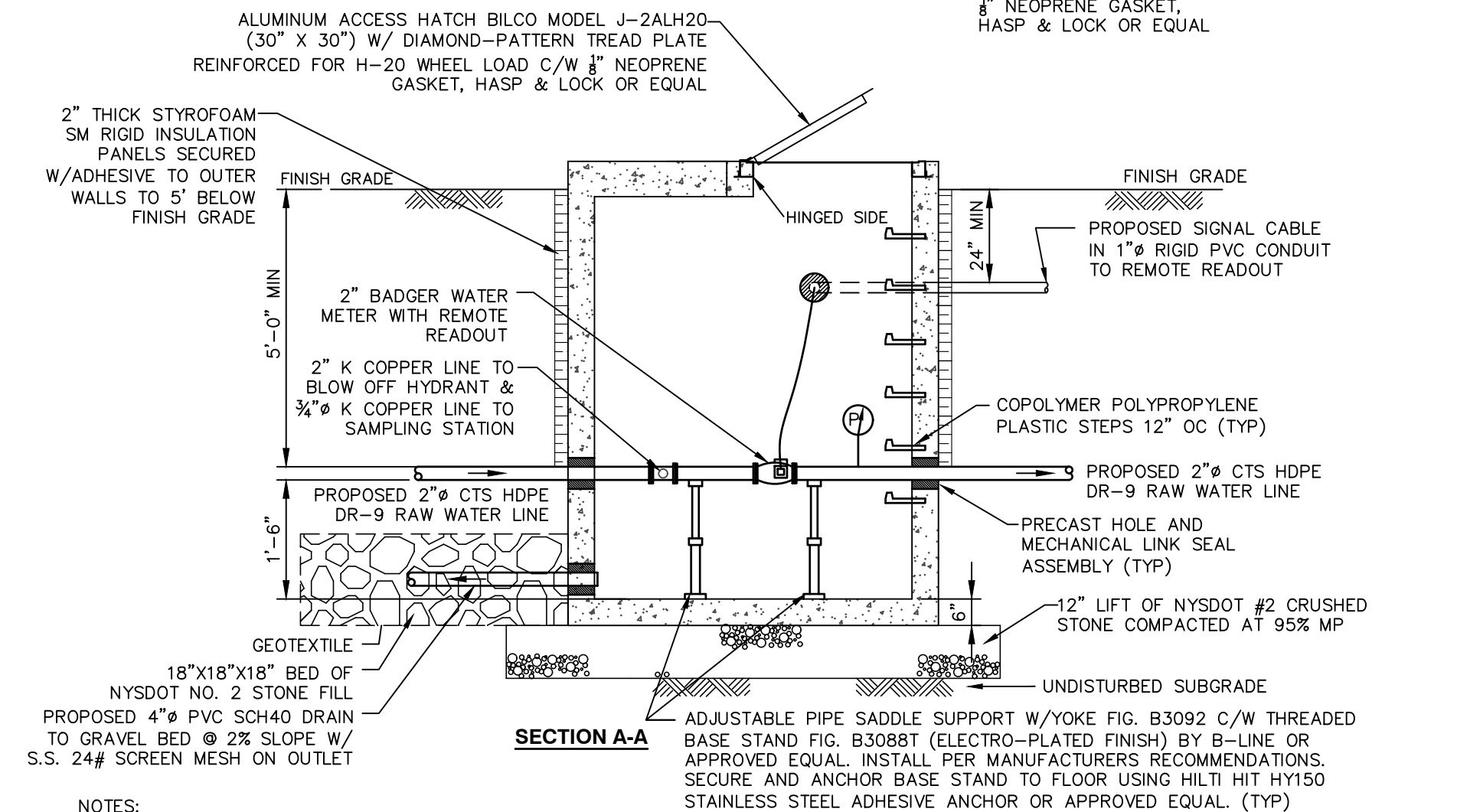
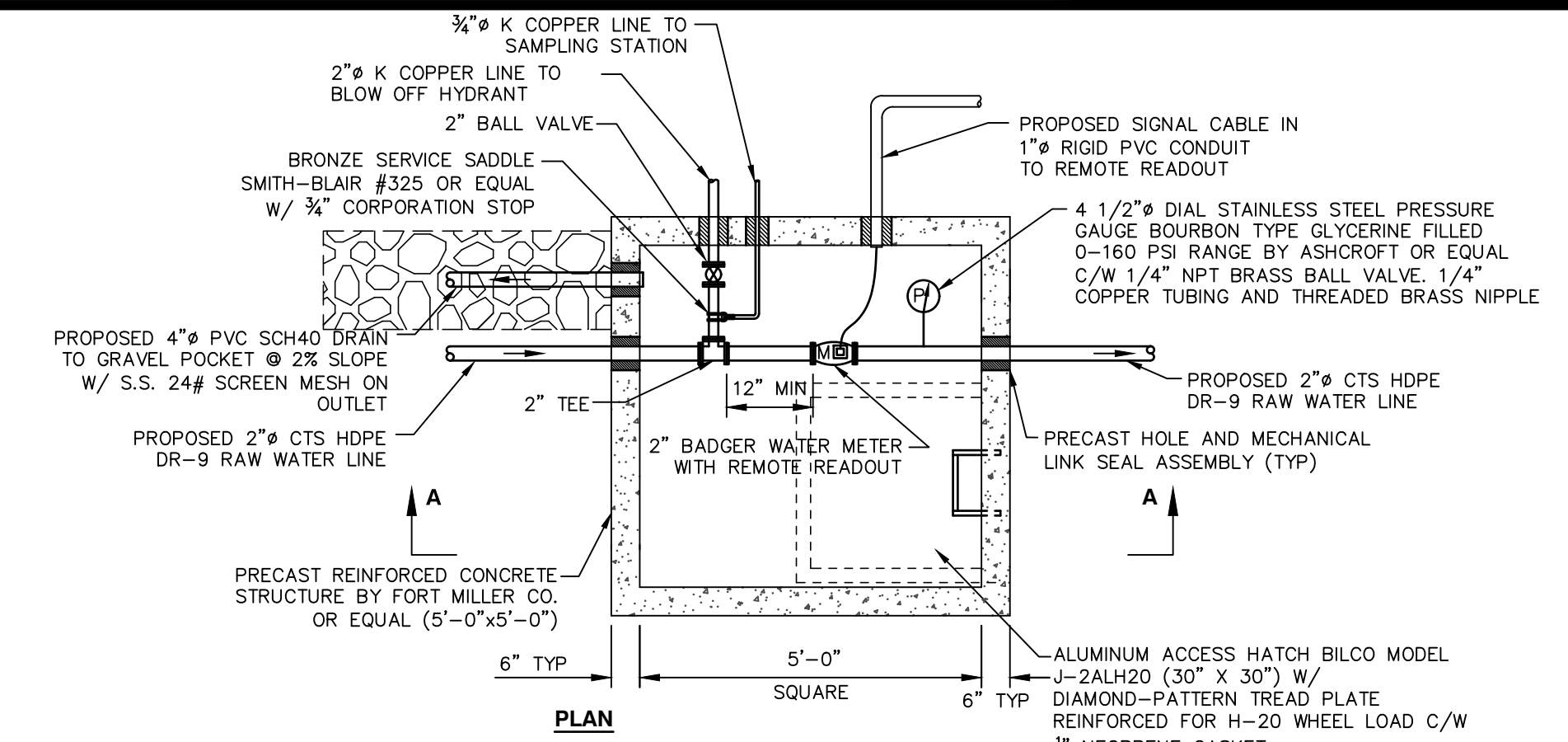
NOTES:
 1. INSTALL ALL ABOVEGROUND WIRING IN RIGID GALV. STEEL CONDUITS AND ALL UNDERGROUND WIRING IN PVC SCH40 CONDUITS.
 2. PROVIDE ADDITIONAL CONDUITS FOR CONTROL WIRING AS PER MANUFACTURER'S RECOMMENDATIONS. ALL CONDUITS TO BE GAS TIGHT SEALED.
 3. ALL ELECTRICAL WORK SHALL COMPLY WITH LOCAL AND NATIONAL ELECTRIC CODE (NEC) REQUIREMENTS.
 4. THE PROPOSED ELECTRICAL SYSTEM IS SHOWN SCHEMATICALLY FOR ILLUSTRATION PURPOSES ONLY.

TABLE 1- PRODUCTION WELLS - PHYSICAL PROPERTIES & CHARACTERISTICS

PROPERTY	PW-1 (35 METER)	PW-5 (55 METER)	PW-6 (55 METER)	PW-7 (55-70 METER)
1 WELL TYPE	BEDROCK	BEDROCK	BEDROCK	BEDROCK
2 WELL DIAM.	6"	6"	6"	6"
3 WELL DEPTH (FEET)	500.0	510.0	500.0	520.0
4 DRAWDOWN LIMIT (FEET)	300	150	250	350
5 WELL YIELD (GPM)	20	31-34	30-34	40-44
6 TOTAL STEEL CASING LENGTH (FEET)	60	60	56	60
7 STATIC WATER LEVEL (FEET BGS)	16.4	13.0	-1.0	17.1
8 DRAWDOWN (FEET)	283.6	137.0	251.0	332.9
9 PUMP INTAKE SET DEPTH (FEET BGS)	330.0	180.0	280.0	380.0
10 WELL PUMP (MAKE & MODEL)	GOULDS STAINLESS STEEL SUBMERSIBLE PUMP MODEL 365S30 W/ BUILT-IN CHECK VALVE & SUCTION STRAINER	GOULDS STAINLESS STEEL SUBMERSIBLE PUMP MODEL 365S20 W/ BUILT-IN CHECK VALVE & SUCTION STRAINER	GOULDS STAINLESS STEEL SUBMERSIBLE PUMP MODEL 365S75 W/ BUILT-IN CHECK VALVE & SUCTION STRAINER	GOULDS STAINLESS STEEL SUBMERSIBLE PUMP MODEL 365S75 W/ BUILT-IN CHECK VALVE & SUCTION STRAINER
11 PUMP MOTOR	3 HP/230V/3 PHASE 4-INCH CENTRIPRO MOTOR	2 HP/230V/3 PHASE 4-INCH CENTRIPRO MOTOR	3 HP/230V/3 PHASE 4-INCH CENTRIPRO MOTOR	7.5 HP/230V/3 PHASE 4-INCH CENTRIPRO MOTOR
12 PUMP DUTY POINT	24.3 GPM @ 318.4 TDH	36.2 GPM @ 182.7 TDH	31.8 GPM @ 277.8 TDH	45.4 GPM @ 411.3 TDH
13 NUMBER OF STAGES	15	10	14	36
14 PUMP DISCHARGE (INCH)	1-1/4" NPT	2" NPT	2" NPT	2" NPT
15 DROP PIPE	2"Ø THREADED GALV. STEEL ASTM A53 GRADE B SCH40	2"Ø THREADED GALV. STEEL ASTM A53 GRADE B SCH40	2"Ø THREADED GALV. STEEL ASTM A53 GRADE B SCH40	2"Ø THREADED GALV. STEEL ASTM A53 GRADE B SCH40
16 RAW WATER LINE	2"Ø HDPE DR-9 (250 PSI RATED) FUSION WELDED JOINTS	2"Ø HDPE DR-9 (250 PSI RATED) FUSION WELDED JOINTS	2"Ø HDPE DR-9 (250 PSI RATED) FUSION WELDED JOINTS	2"Ø HDPE DR-9 (250 PSI RATED) FUSION WELDED JOINTS
17 MIN. PUMP ON LEVEL (FEET BGS)	340	340	340	340
18 LOW WATER LEVEL CUT OFF (FEET BGS)	350	350	350	350
19 PITLESS UNIT	BAKER-MONITOR PITLESS UNIT MODEL SP567WBW6212S GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	BAKER-MONITOR PITLESS UNIT MODEL SP567WBW6212S GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	BAKER-MONITOR PITLESS UNIT MODEL SP567WBW6212S GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	BAKER-MONITOR PITLESS UNIT MODEL SP567WBW6212S GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)
20 WATER LEVEL TRANSMITTER	GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)	GLOBAL WATER WL400-150-170 (0-150 FEET RANGE)
21 EXISTING GRADE ELEV. (FEET)	666.6±	692.8±	602.9±	695.8±
22 EXISTING CASING ELEV. (FEET)	668.1	694.3	604.4	697.3

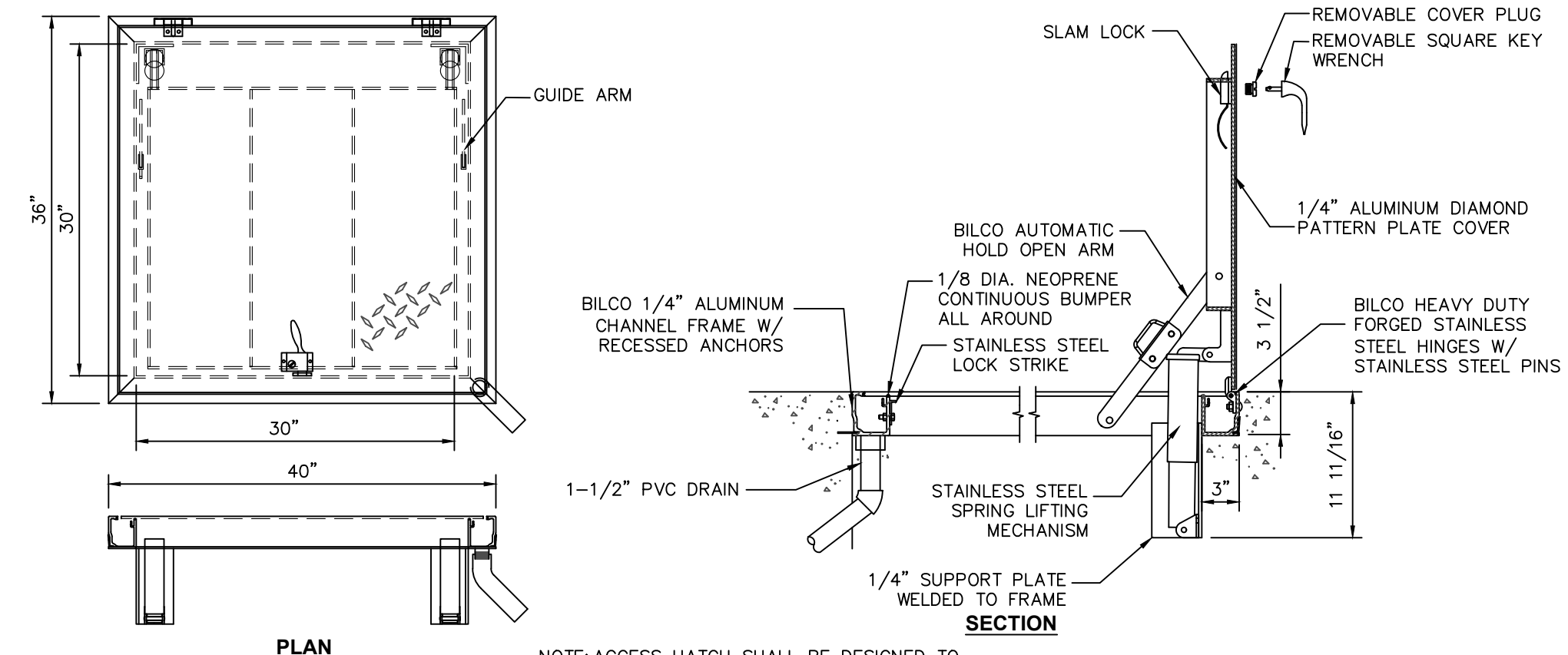
ABBREVIATION: BGS = BELOW GROUND SURFACE

WELL NOTES:
 1. WELLS WERE DRILLED BY JIM WILD WELL DRILLING LLC. WELL #1 WAS INSTALLED IN MAY 2017, WELL #5 WAS INSTALLED IN SEPTEMBER 2017, WELL #6 WAS INSTALLED IN OCTOBER 2017, AND WELL #7 WAS INSTALLED IN NOVEMBER 2018. ACCORDING TO THE WELL LOGS, THE ANNULAR SPACE BETWEEN THE STEEL CASING AND THE DRILLED HOLE WAS SEALED WITH SODIUM BENTONITE. THREE (3) SEPARATE 72-HOUR PUMPING TESTS WERE PERFORMED BY THE CHAZEN COMPANIES BETWEEN OCTOBER 2017 AND MARCH 2019. REFER TO THE JUNE 2019 PUMPING TESTING REPORT PREPARED BY CHAZEN FOR DETAILS ON WELL CASING CONSTRUCTION.
 2. DURING CONSTRUCTION, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE CONTAMINATION OF THE WELLS. ALL PERMANENT EQUIPMENT AND MATERIAL TO BE INSTALLED IN THE WELLS SHALL BE CHLORINATED JUST PRIOR TO INSTALLATION BY SPRAYING SUCH EQUIPMENT AND MATERIAL WITH A SOLUTION HAVING A CHLORINE RESIDUAL OF NOT LESS THAN 200 MG/L.
 3. THE TOP OF THE WELL CASING SHALL TERMINATE AT LEAST 3 FEET ABOVE THE 100-YEAR FLOOD OR FLOOD OF RECORD. CONTRACTOR SHALL ADJUST THE HEIGHT OF THE STEEL CASING TO THE PROPOSED ELEVATION BY EITHER CUTTING OR EXTENDING THE EXISTING CASING. EXTENSION WILL REQUIRE THE WELDING OF AN ADDITIONAL STEEL CASING SECTION OF APPROPRIATE LENGTH.
 4. PROVIDE AND INSTALL PITLESS UNIT, WELL PUMP, LEVEL TRANSDUCER AND ALL APPURTENANCES.
 5. PROVIDE AND INSTALL PUMP MOTOR CONTROLLER, MOTOR LEADS, LEVEL TRANSMITTER CABLE, AND WELL PUMP CONTROL PANEL.
 6. FURNISH AND INSTALL A 1" STILLING TUBE FROM THE TOP OF PITLESS UNIT TO 1'-0" ABOVE THE PUMP.
 7. RAW WATER LINES SHALL BE 2"Ø HDPE DR-9 PRESSURE PIPE (250 PSI) CONFORMING TO ASTM D-3035, ASTM D-2737, AND ASTM D-3350 FOR USE IN POTABLE WATER SYSTEM (NSF 61). JOINING OF PIPES AND FITTINGS SHALL BE ACCOMPLISHED THROUGH FUSION WELDING.
 8. THE WELLS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C654 (LATEST EDITION) AFTER INSTALLATION OF THE WELL PUMPS AND PRIOR TO USE.
 9. AFTER THE WELLS HAS BEEN CHLORINATED AND PUMPED TO WASTE WITH ZERO CHLORINE RESIDUAL, DUPLICATE SAMPLES SHALL BE TAKEN NOT LESS THAN 30 MINUTES APART AND TESTED FOR THE PRESENCE OF COLIFORM. IF NONE OF THESE SAMPLES SHOW THE PRESENCE OF COLIFORM, THEN THE WELLS MAY BE PLACED IN SERVICE.
 10. BEFORE ACCEPTANCE OF THE WORK, CONTRACTOR SHALL CONDUCT A PUMP TEST IN THE PRESENCE OF THE ENGINEER TO VERIFY THE PERFORMANCE OF THE INSTALLED WELL PUMPS. THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER BEFORE PROCEEDING WITH THE PUMP TESTS.
 11. FERTILIZER SHALL NOT BE APPLIED WITHIN THE 200' RADIUS WELL PROTECTION AREA.



NOTES:
 1. REINFORCEMENT FOR MANHOLE AND SLAB TOP SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING PLUS 25% IMPACT.
 2. CONCRETE TO TEST 4000 P.S.I. (MINIMUM) AT 28 DAYS IN CONFORMANCE WITH ASTM C-478.
 3. EACH METER PIT EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.
 4. AN ALUMINUM WARNING PLATE SHALL BE RIVETED TO THE OUTSIDE OF THE ACCESS HATCH. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE "WARNING - CONFINED SPACE - ENTRY PROHIBITED WITHOUT AUTHORIZATION"
 5. ALL PIPING AND FITTINGS INSIDE VALVE PIT SHALL BE PROPERLY RESTRAINED WITH FUSION WELDED, THREADED OR FLANGED END JOINT CONNECTIONS RATED AT A MINIMUM WORKING PRESSURE OF 150 PSI.

2 WATER METER PIT DETAIL
SCALE: NOT TO SCALE

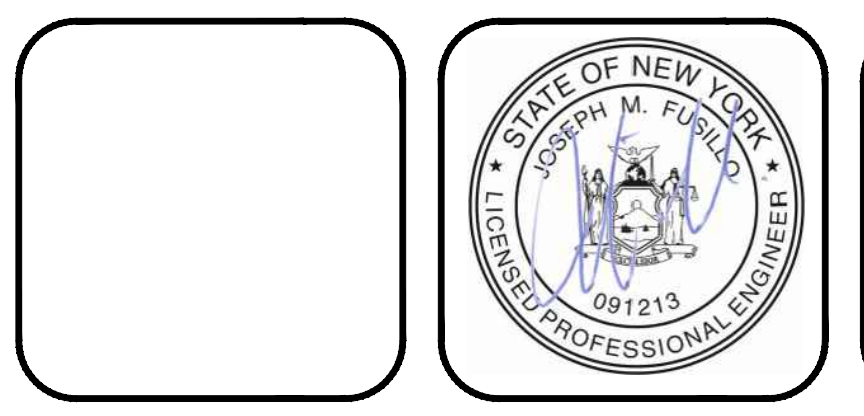


4 BILCO J-2ALH20 ACCESS HATCH
SCALE: NOT TO SCALE

NEW YORK STATE DEPARTMENT OF HEALTH
 Bureau of Water Supply Protection
 By Direction of the State Commissioner of Health
 These Plans are Herby Approved.
 See First Sheet for Date and Signature



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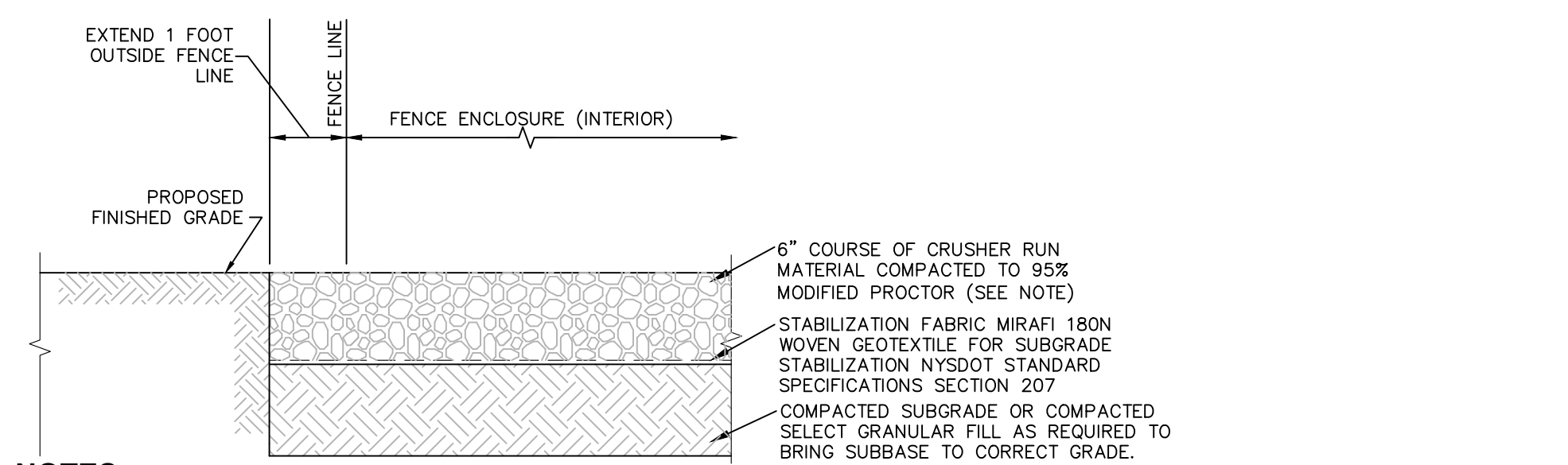


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rev.	date	description

NEW PALTZ RESERVOIR
PRODUCTION WELL DETAILS
 VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

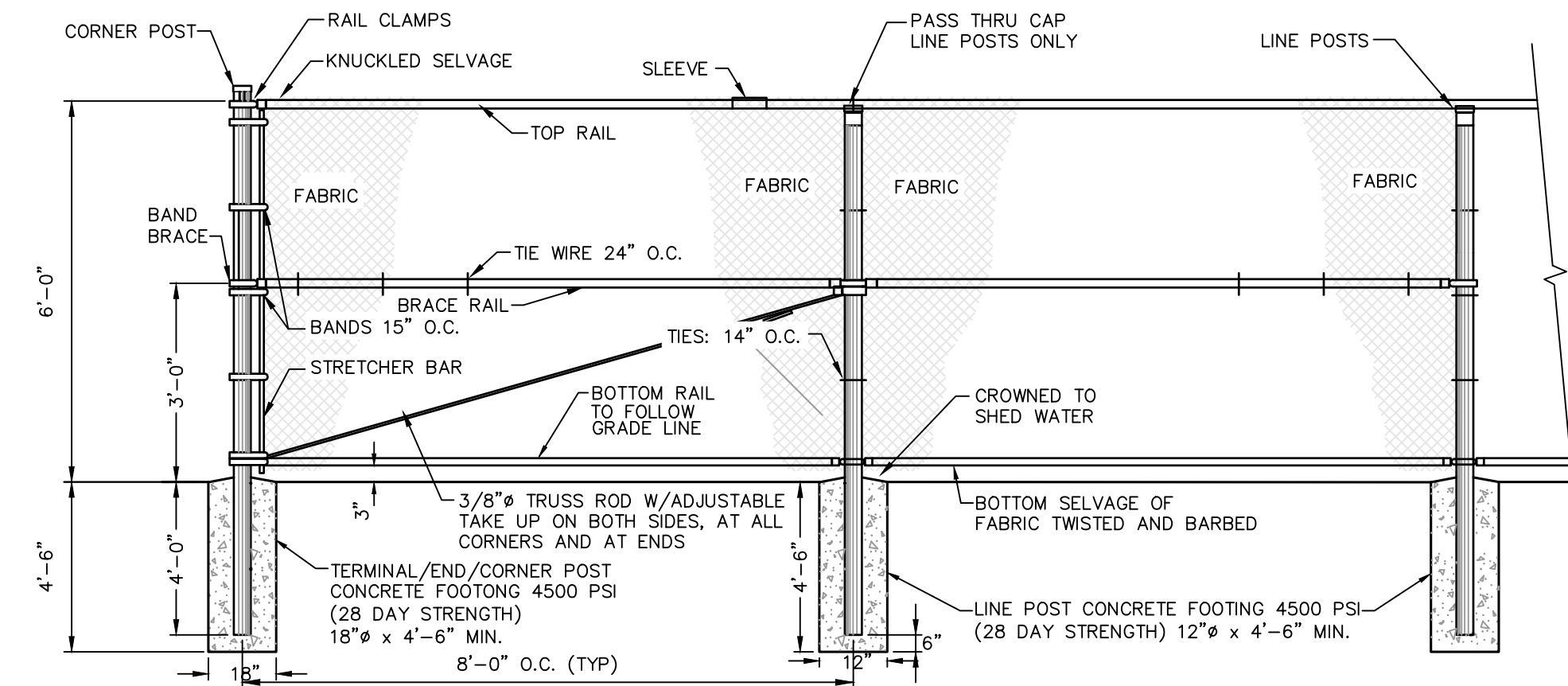
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date	scale
10/26/20	AS NOTED
project no.	41725.04
sheet no.	C520



- NOTES:**
- SAND, GRAVEL OR BANK RUN NOT PERMITTED FOR CRUSHER RUN SURFACE. MATERIAL SHALL BE FREE FROM ORGANICS AND CONSIST SOLELY OF CRUSHED ROCK PRODUCT WITH THE FOLLOWING GRADATION:

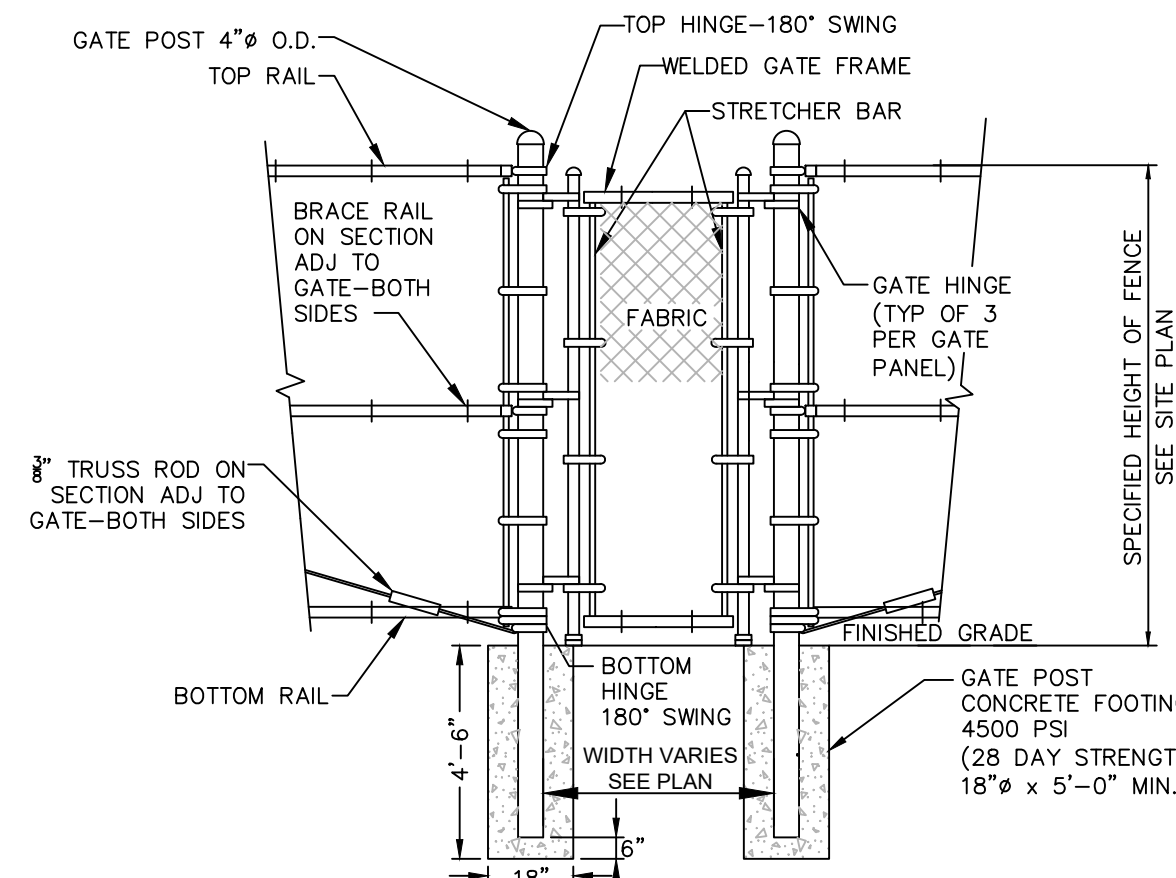
SIEVE: 1"	PASSING: 100%
SIEVE: 1/4"	PASSING: 25-60%
SIEVE No. 40	PASSING: 5-40%
SIEVE No. 200	PASSING: 0-10%

1 CRUSHER RUN SURFACE INSIDE WELL ENCLOSURE
SCALE: NOT TO SCALE

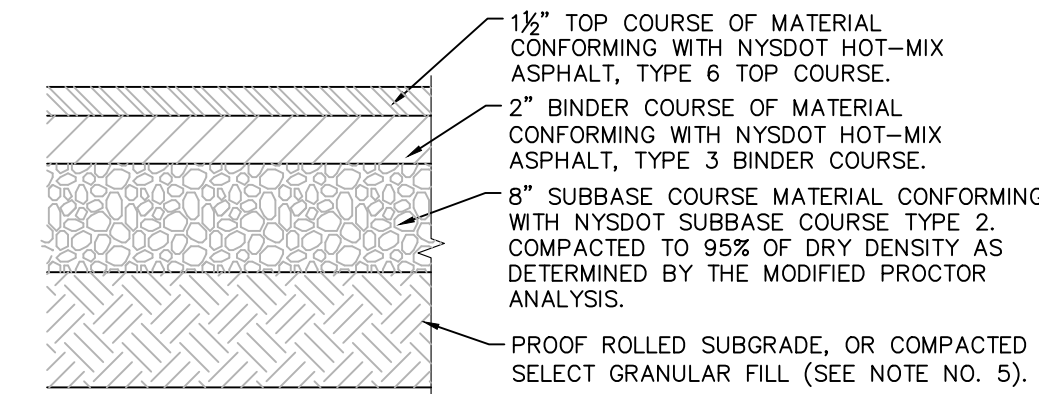


- NOTES:**
- CHAIN LINK FENCE FABRIC SHALL BE 9 GAUGE, GALVANIZED STEEL 2" DIAMOND MESH INTERWOVEN WIRE CONFORMING TO ASTM-A392.
 - LINE POSTS SHALL BE 2-1/2" O.D., END/CORNER POSTS SHALL BE 3" O.D. AND TOP AND BRACE RAILS SHALL BE 1 5/8" O.D.
 - PROVIDE AND INSTALL ALL ACCESSORIES, FITTINGS, TRUSS RODS, TENSION WIRE, STRETCHER BAR, AND ANY AND ALL COMPONENTS FOR A COMPLETE INSTALLATION.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS AND PRODUCT LITERATURE FOR REVIEW AND APPROVAL BY ENGINEER.

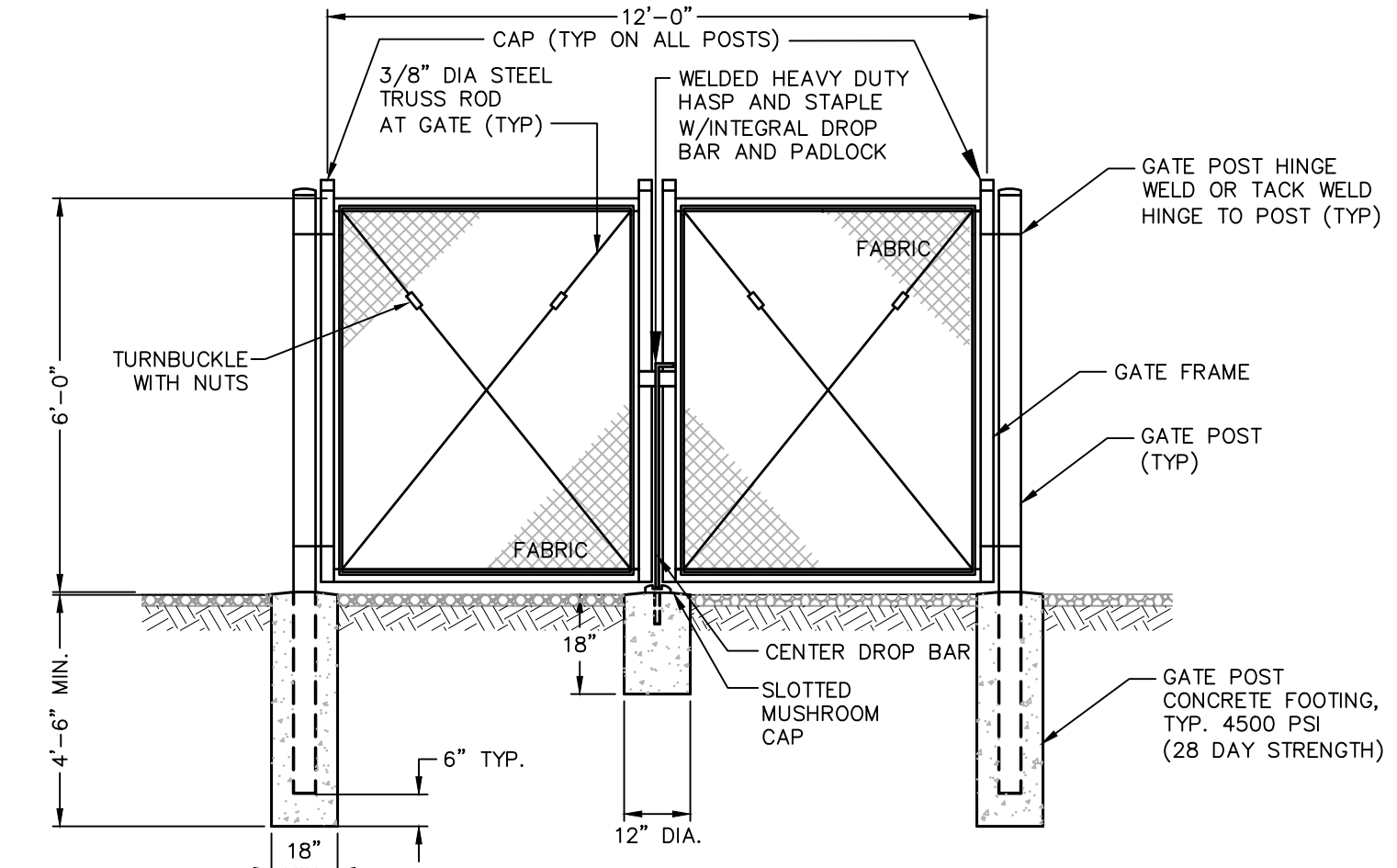
5 6' HIGH CHAIN LINK FENCE
SCALE: NOT TO SCALE



6 TYPICAL SINGLE SWING GATE DETAIL
SCALE: N.T.S.

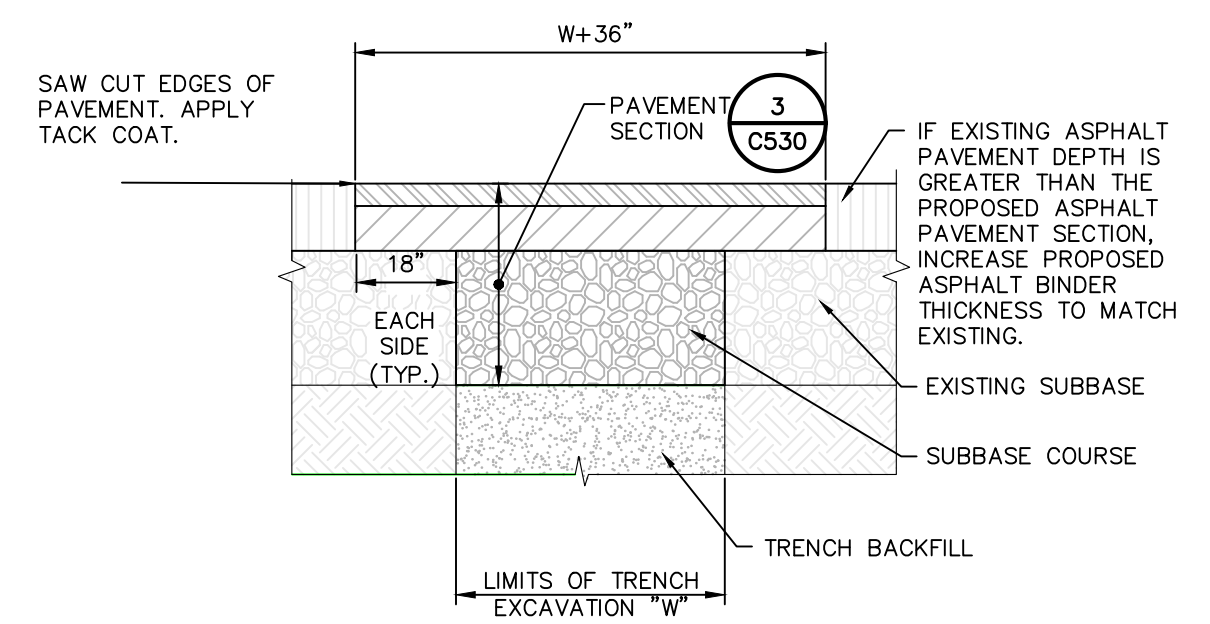


3 PAVEMENT SECTION DETAIL
SCALE: NOT TO SCALE



- NOTES:**
- GATES ARE TO SWING OUTWARD, MAINTAINING 4" OF CLEARANCE FROM FINISHED GRADE.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS AND PRODUCT LITERATURE FOR REVIEW AND APPROVAL BY ENGINEER.

7 DOUBLE SWING GATE OPENING DETAIL
SCALE: NOT TO SCALE



- NOTES:**
- SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
 - FURNISH, PLACE, AND COMPACT SUBBASE.
 - TACK COAT IN ACCORDANCE WITH NYSOT STANDARD SPEC.
 - FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

4 TRENCH SURFACE RESTORATION IN ASPHALT PAVEMENT
SCALE: NOT TO SCALE

NEW YORK STATE DEPARTMENT OF HEALTH
Bureau of Water Supply Protection
By Direction of the State Commissioner of Health
These Plans are Hereby Approved.
See First Sheet for Date and Signature

SIGN SCHEDULE				
SIGN NO.	SIGN FACE	MIN SIZE	COLORS BCK GRND LEGEND	MOUNTING
1	AUTHORIZED PERSONNEL ONLY	12"x18"	WHITE BLACK	SECURE TO CHAIN LINK FENCE
2	PW-1	7"x10"	WHITE BLACK	SECURE TO CHAIN LINK FENCE OR POST SIGN
3	PW-5	7"x10"	WHITE BLACK	SECURE TO CHAIN LINK FENCE OR POST SIGN
4	PW-6	7"x10"	WHITE BLACK	SECURE TO CHAIN LINK FENCE OR POST SIGN
5	PW-7	7"x10"	WHITE BLACK	SECURE TO CHAIN LINK FENCE OR POST SIGN

- NOTES:**
- SIGN SHALL BE MADE OF RIGID FIBERGLASS AS MANUFACTURED BY ACCUFORM OR APPROVED EQUAL. SIGN MATERIAL SHALL NOT CRACK, FADE OR TURN YELLOW PREMATURELY AND SHALL BE RESISTANT TO MOLD MILDEW, STAINS AND RUST WITH A MINIMUM GUARANTEE OF 10 YEARS.
 - SIGN IMAGE SHALL BE PRINTED ON FIBERGLASS WITH A UV PROTECTIVE COATING TO PROTECT AGAINST SIGN FADING.
 - SIGN SHALL BE RATED FOR INDOOR AND EXTREME OUTDOOR USE AND HAVE A SERVICE TEMPERATURE RANGE OF -40° TO 212° F.
 - SIGN SHALL HAVE ROUNDED CORNERS AND FOUR (4) 1/2" MOUNTING HOLES.
 - SIGN SHALL MEET OSHA SPECIFICATIONS.

8 SIGN SCHEDULE
SCALE: NOT TO SCALE

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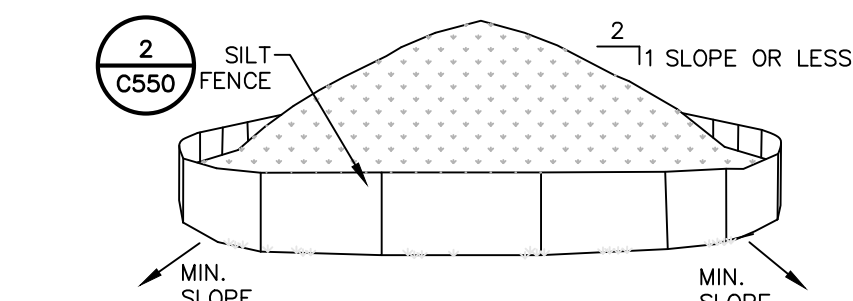
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NEW PALTZ RESERVOIR

SITE DETAILS

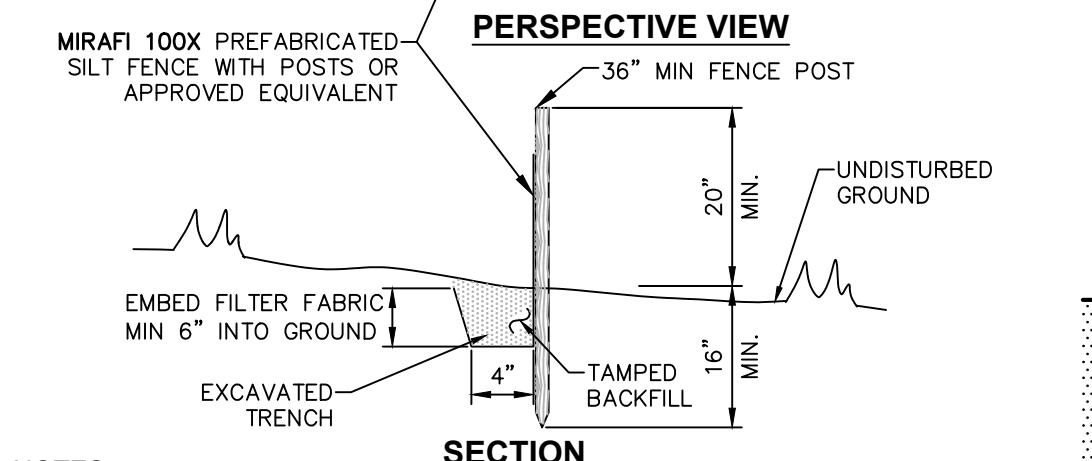
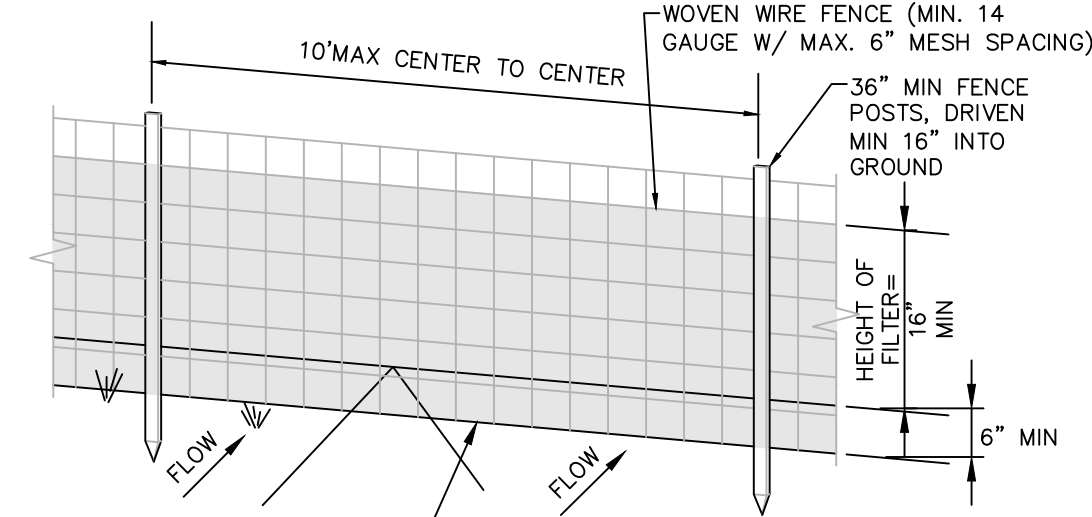
VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed JMC	checked JMF
date 10/26/20	scale AS NOTED
project no. 41725.04	
sheet no. C530	



- NOTES:**
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
 4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

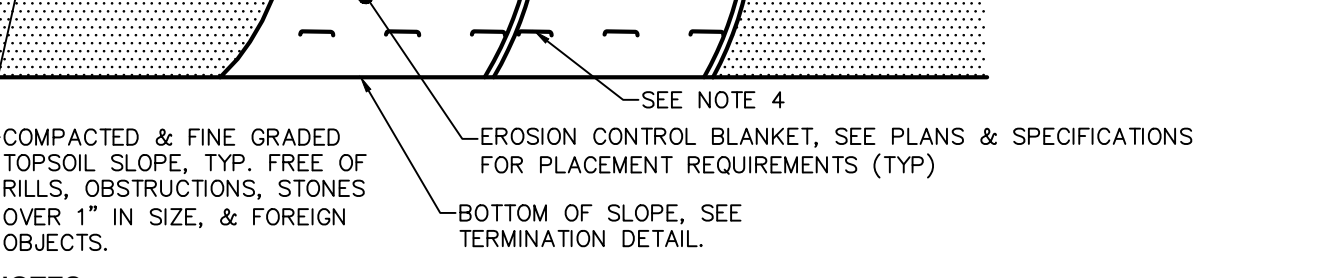
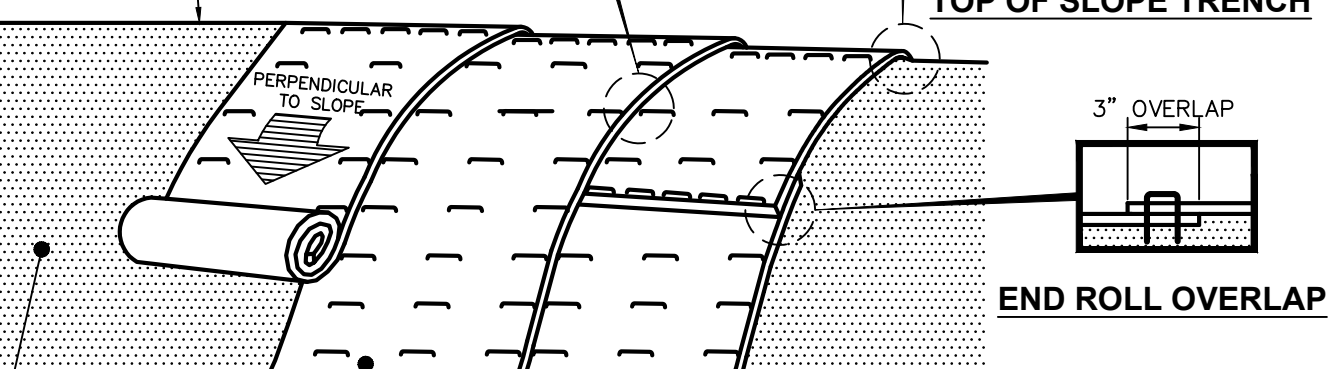
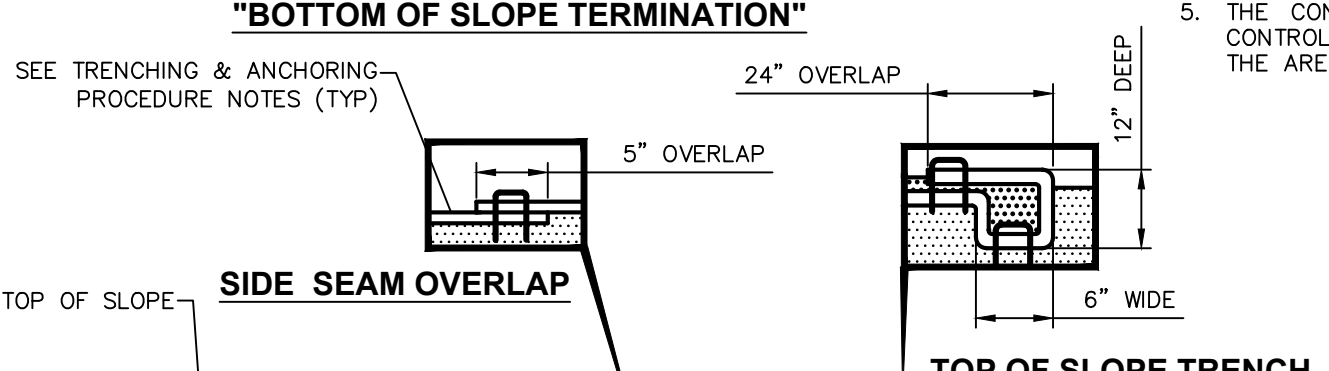
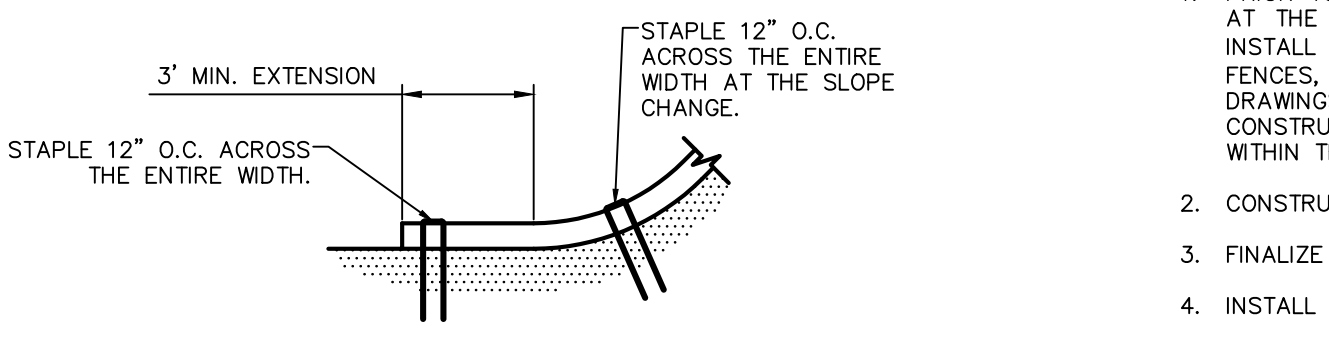
1 TEMPORARY SOIL STOCKPILE DETAIL
SCALE: NOT TO SCALE



- NOTES:**
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
 2. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX MESH OPENING.
 3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
 5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
 6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
 7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.
 8. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUN-OFF TO A SILT FENCE ARE:

SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH(FT)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

2 SILT FENCE INSTALLATION DETAIL
SCALE: NOT TO SCALE



- NOTES:**
1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.
 2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS. OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.
 3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.
 4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP: THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 12"D x 12"W TRENCH WITH A 24" OVERLAP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP: CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SHINGLE-STYLE) WITH A 3" OVERLAP. STAPLE THRU OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

3 EROSION CONTROL BLANKET INSTALLATION DETAIL
SCALE: NOT TO SCALE

CONSTRUCTION SEQUENCING NOTES:

1. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC. AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, STABILIZED CONSTRUCTION ENTRANCES) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
2. CONSTRUCT ALL UTILITIES AS SHOWN ON THE PLANS.
3. FINALIZE PAVEMENT SUB-GRADE PREPARATION.
4. INSTALL SUB-BASE MATERIAL AS REQUIRED FOR PAVEMENT.
5. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL.

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION.
2. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC. AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, STABILIZED CONSTRUCTION ENTRANCES) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
3. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
4. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE, AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
5. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
8. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

EROSION AND SEDIMENT CONTROL MEASURES:

1. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
3. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
4. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
5. SPOIL MATERIALS REMOVED DURING SITE EXCAVATIONS SHALL NOT BE DEPOSITED IN OR AROUND WETLANDS OR WATER COURSES.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

SOIL STOCKPILE:

INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:

SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

EROSION CONTROL BLANKET:

INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

DEWATERING PITS:

(IF REQUIRED) - INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:

PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

**NEW YORK STATE
DEPARTMENT OF HEALTH**
Bureau of Water Supply Protection
By Direction of the State Commissioner of Health
These Plans are Hereby Approved.
See First Sheet for Date and Signature

TOPSOIL SPECIFICATIONS:

1. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURBANCE TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.

SITE PREPARATION:

1. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.
2. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
3. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL:

1. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA:
 - A. ORIGINAL LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENISE MATERIAL, HAROPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
 - B. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
 - C. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
 - D. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97-100
No 200	20-60

APPLICATION AND GRADING:

1. TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER.
2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEEDED, MULCHED AND STABILIZED.

VEGETATIVE COVER SPECIFICATIONS:

TEMPORARY VEGETATIVE COVER (DURING CONSTRUCTION):

1. SITE PREPARATION (SAME AS PERMANENT VEGETATIVE COVER)
2. **SEED MIX:** (APPLY AT RATE OF 3 TO 4 LBS PER 1000 SF)

AMOUNT BY WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	% GERMINATION
100%	ANNUAL RYEGRASS	98%	90%
3. SEEDING (SAME AS PERMANENT VEGETATIVE COVER)

PERMANENT VEGETATIVE COVER (AFTER CONSTRUCTION):

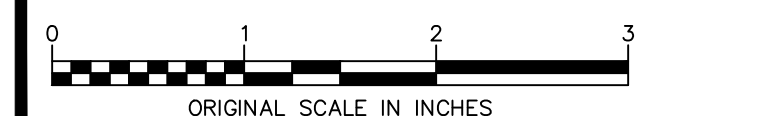
1. SITE PREPARATION
 - A. BRIND AREA TO BE SEEDDED TO REQUIRED GRADE. A MINIMUM OF 4" OF TOPSOIL IS REQUIRED.
 - B. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4 INCHES.
 - C. REMOVE ALL STONES OVER 1 INCH IN DIAMETER, STICKS AND FOREIGN MATTER FROM THE SURFACE.
 - D. LIME TO PH OF 6.5.
 - E. FERTILIZER: USE 5-10-5 (NPK) OR EQUIVALENT. APPLY AT RATE OF 4 LBS/1000 SF.
 - F. INCORPORATE LIME AND FERTILIZER IN THE TOP 4 INCHES OF TOPSOIL.
 - G. SMOOTH AND FIRM THE SEEDBED.
2. SEED MIXTURE FOR USE ON LAWN AREAS: PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS.

LAWN SEED MIX:	(APPLY AT RATE OF 5 TO 6 LBS PER 1000 SF)		
SUN AND PARTIAL SHADE:			
AMOUNT BY WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	% GERMINATION
20%	KENTUCKY BLUE GRASS	95%	80%
60%	PERENNIAL RYE	98%	90%
20%	CREeping RED FESCUE	97%	85%
100%			

3. SEEDING

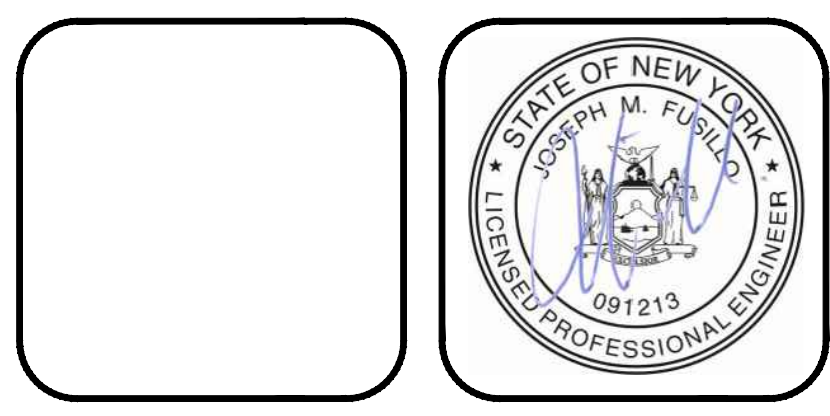
- A. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTI-PACKER OR HYDRO-SEEDER AT RATE INDICATED ABOVE.

- B. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
 - i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS /ACRE MIN., TO BE APPLIED ONCE SEEDING IS COMPLETE.
 - ii. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY HYDROSEEDER AT RATE OF 2,000 LBS/ACRE.
- C. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
- D. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLUDGE PLANTING SOIL.
- E. UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15TH TO JUNE 15TH, AND FROM AUGUST 15TH TO OCTOBER 15TH.



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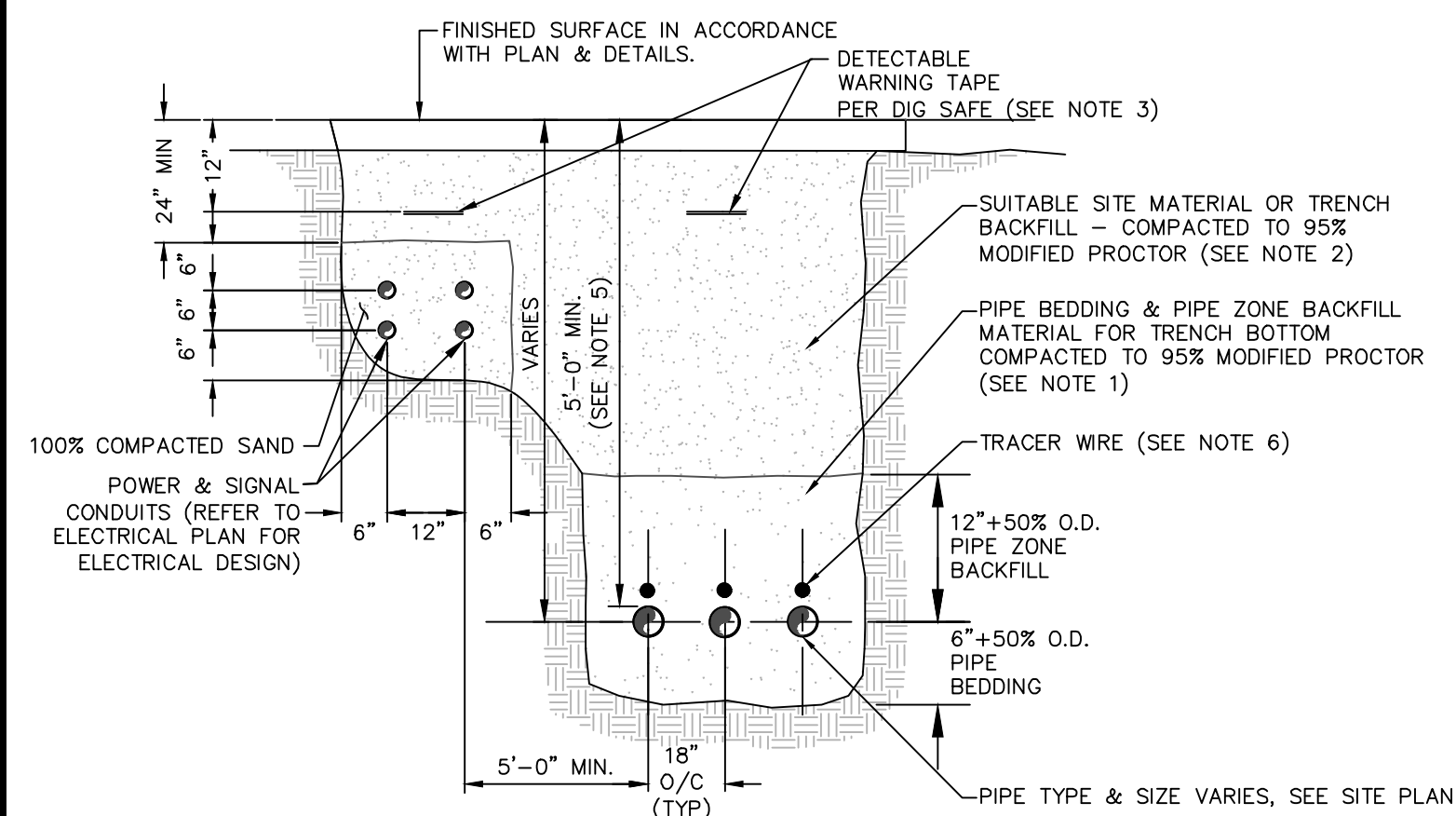
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NEW PALTZ RESERVOIR

EROSION & SEDIMENT CONTROL DETAILS

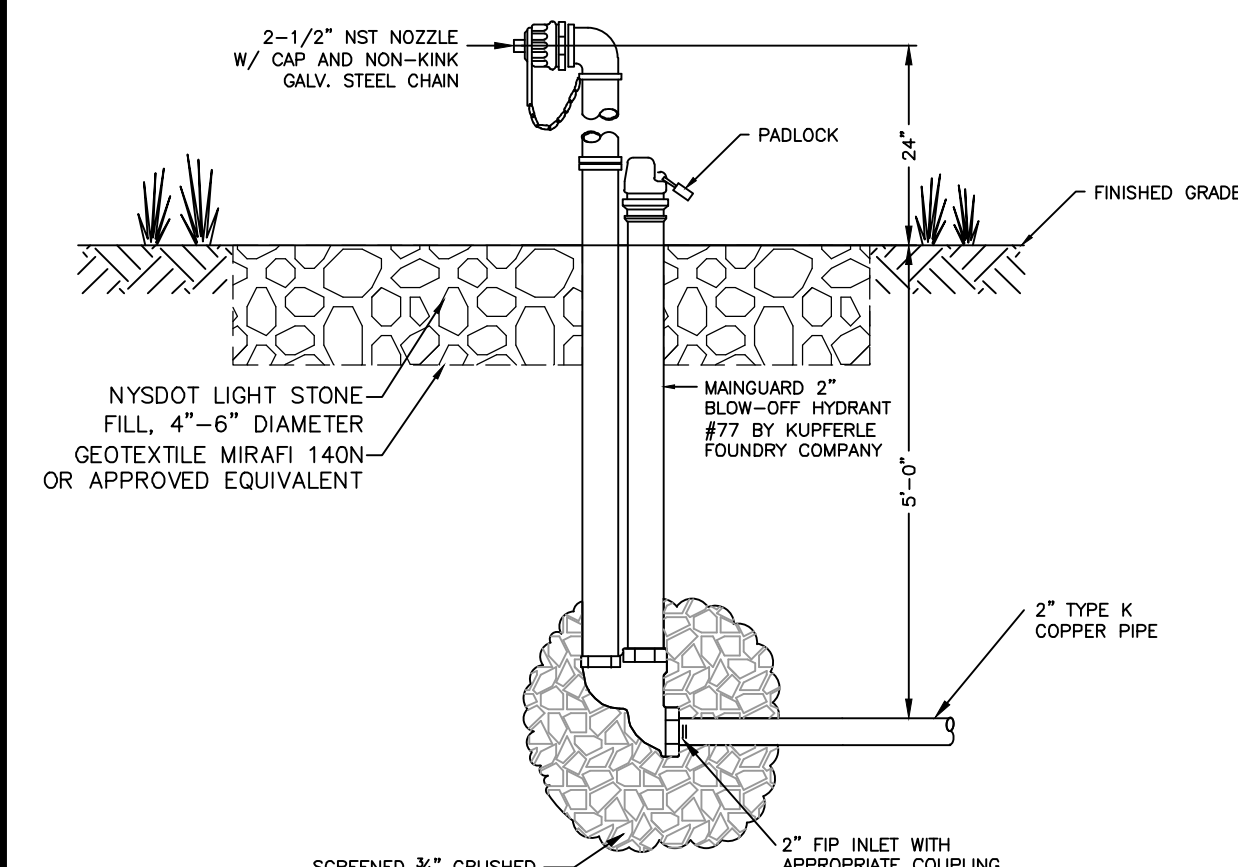
VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed	checked
JMC	JMF
date	scale
10/26/20	AS NOTED
project no.	41725.04
sheet no.	C550



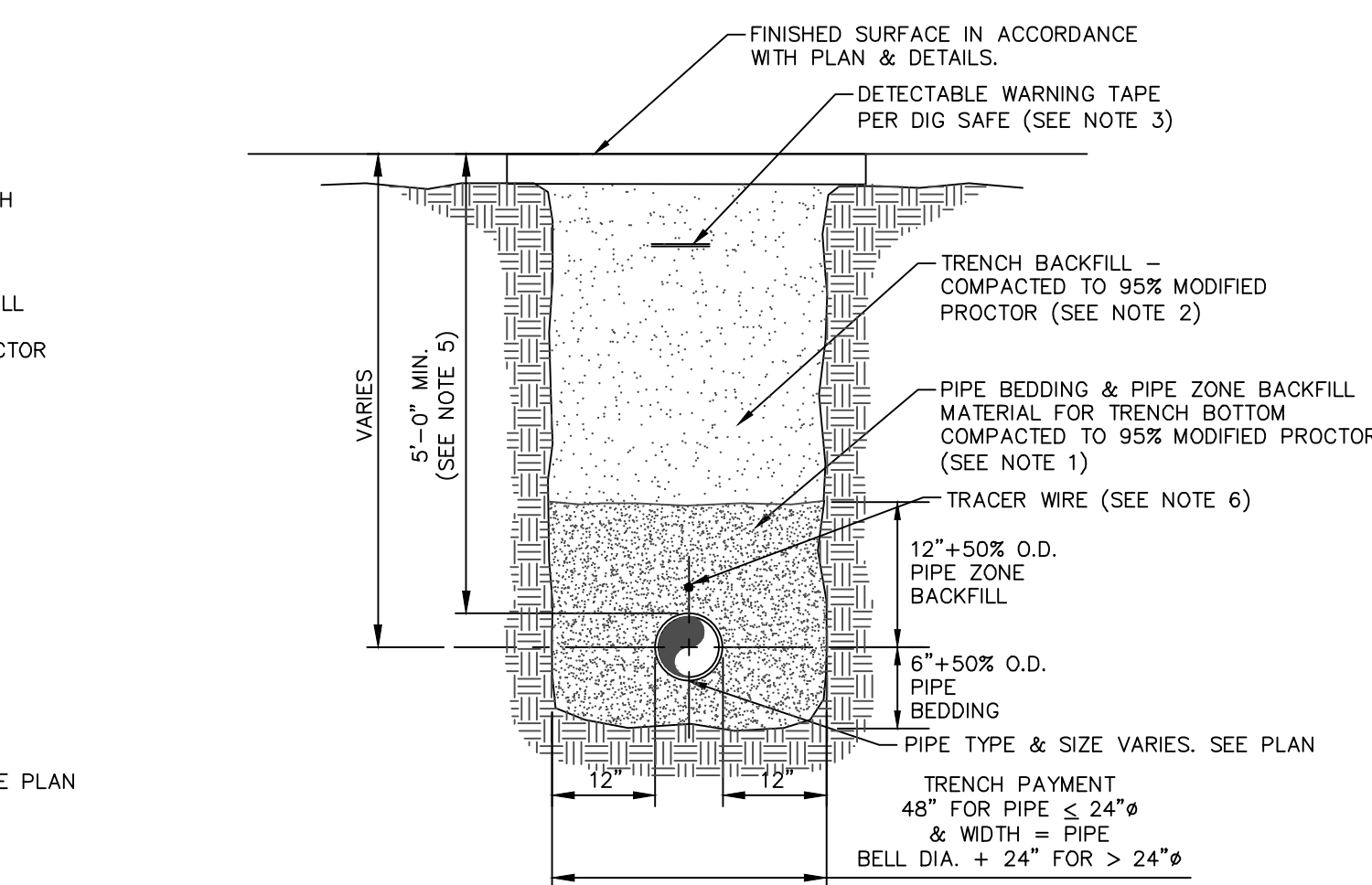
- NOTES:**
- PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:
- | SIEVE DESIGNATION | % PASSING |
|-------------------|-----------|
| 3/4" | 100% |
| NO. 40 | 0-70% |
| NO. 200 | 0-10% |
- TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:
- | SIEVE DESIGNATION | % PASSING |
|-------------------|-----------|
| 3/4" | 100% |
| NO. 40 | 0-70% |
| NO. 200 | 0-10% |
- IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.
 - INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
 - TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
 - 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAINS UNLESS OTHERWISE INDICATED ON PLANS.
 - ALL NON-METALLIC WATER MAINS SHALL BE PROVIDED WITH HDPE COATED 12 AWG COPPER CLAD STEEL CABLE CONFORMING TO ASTM B910. TRACER WIRE SHALL BE SECURED TO THE TOP OF THE PIPE EVERY 10 FEET WITH TAPE.
 - ALL TRENCHING, BACKFILL, DEWATERING, COMPACTION, GRADING AND SITE RESTORATION ASSOCIATED WITH INSTALLATION OF ALL UNDERGROUND STRUCTURES, WATER LINES AND ELECTRICAL WORK SHALL BE PROVIDED BY C-CONTRACT.
 - ALL CONDUITS, PULL BOXES AND POWER WIRING SHALL BE PROVIDED BY E-CONTRACT.
 - SIGNAL CABLING SHALL BE FURNISHED BY C-CONTRACT AND INSTALLED BY E-CONTRACT.
 - MAINTAIN 5'-0" HORIZONTAL ON-CENTER SPACING BETWEEN WATER LINES AND POWER/SIGNAL CONDUITS.

1 COMMON PIPE TRENCH DETAIL (TYPICAL)
SCALE: NOT TO SCALE

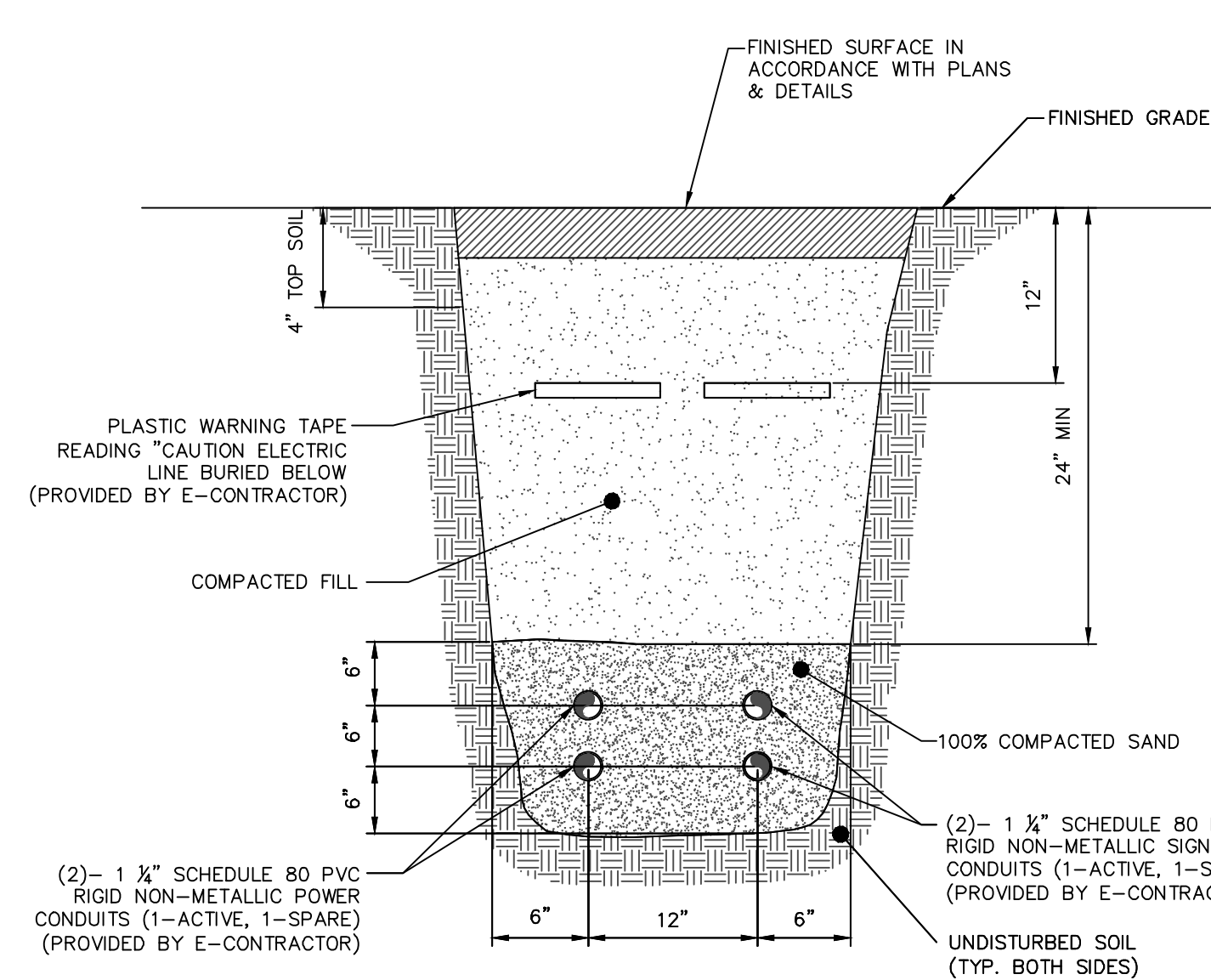


- NOTES:**
- POST HYDRANT SHALL BE MAINGUARD NO.77 BLOW-OFF HYDRANT AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO.
 - HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING TYPE WITH A 5'-0" BURY DEPTH. HYDRANT SHALL HAVE A 2" FIP HORIZONTAL INLET AND NON-TURNING OPERATING ROD. OUTLET SHALL BE 2-1/2" NST. HYDRANT SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE.
 - ALL WORKING PARTS SHALL BE BRONZE TO BRONZE, AND SERVICEABLE FROM ABOVE GROUND.
 - HYDRANT SHALL BE SET IN 1 CUBIC YARD OF SCREENED CRUSHED STONE OR GRAVEL TO ALLOW FOR PROPER DRAINAGE OF THE HYDRANT. RECOMMENDATIONS OF THE AWWA SHOULD BE FOLLOWED WHEN INSTALLING THE HYDRANT.

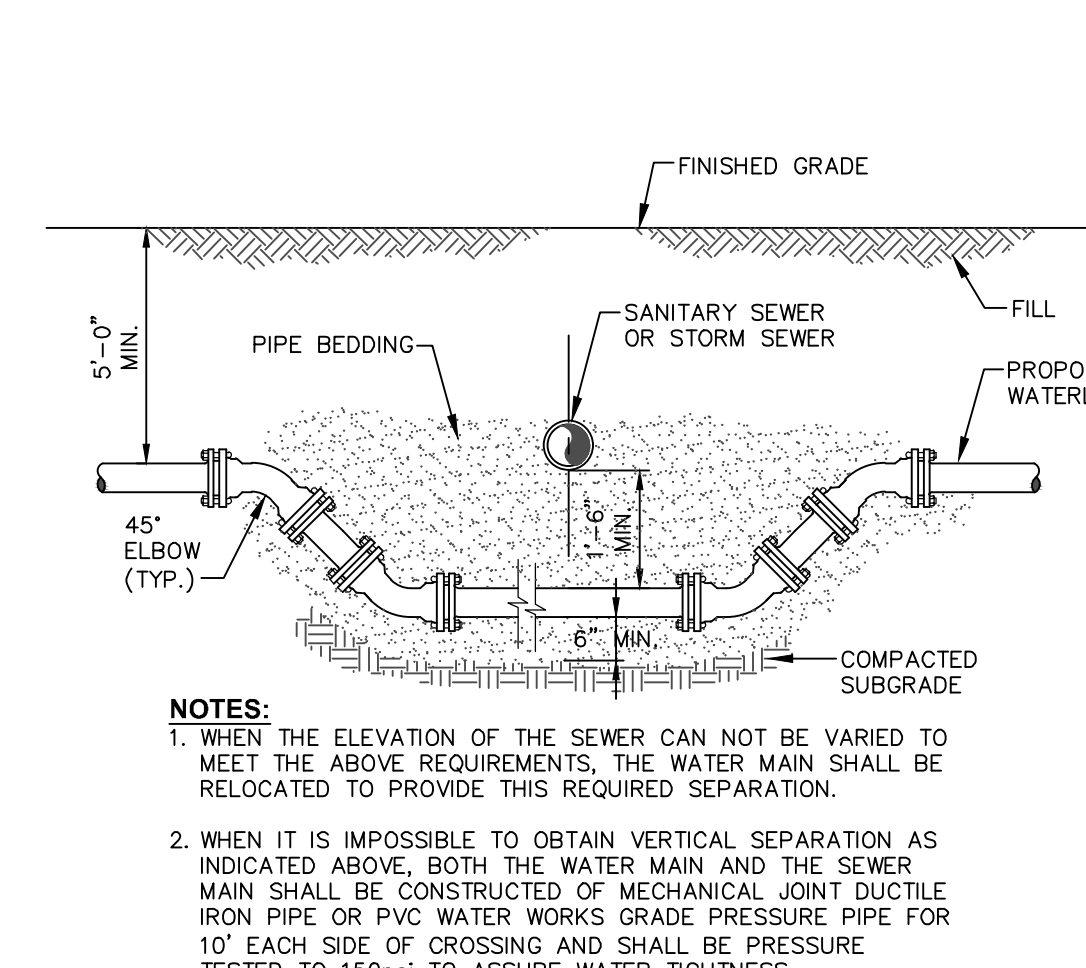
5 TYPICAL BLOW-OFF HYDRANT
SCALE: NOT TO SCALE



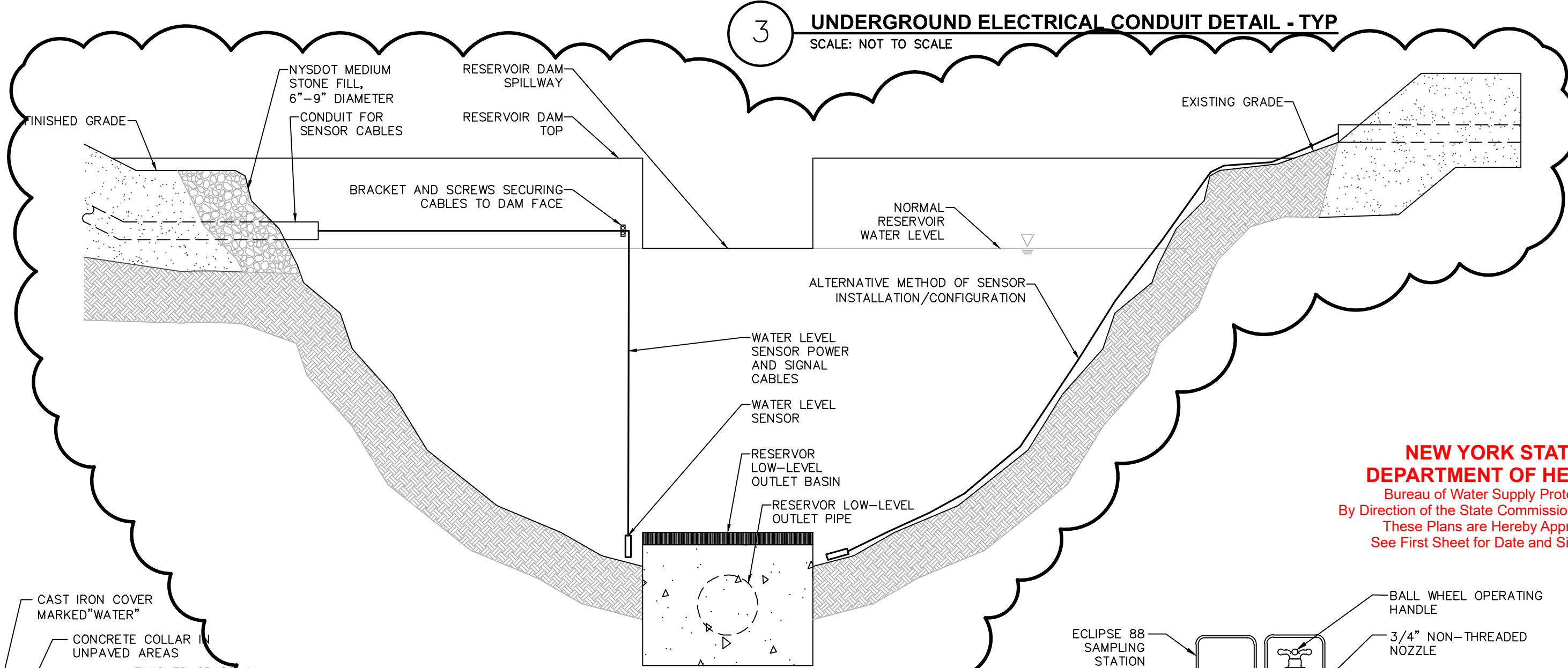
2 PIPE TRENCH DETAIL (TYPICAL)
SCALE: NOT TO SCALE



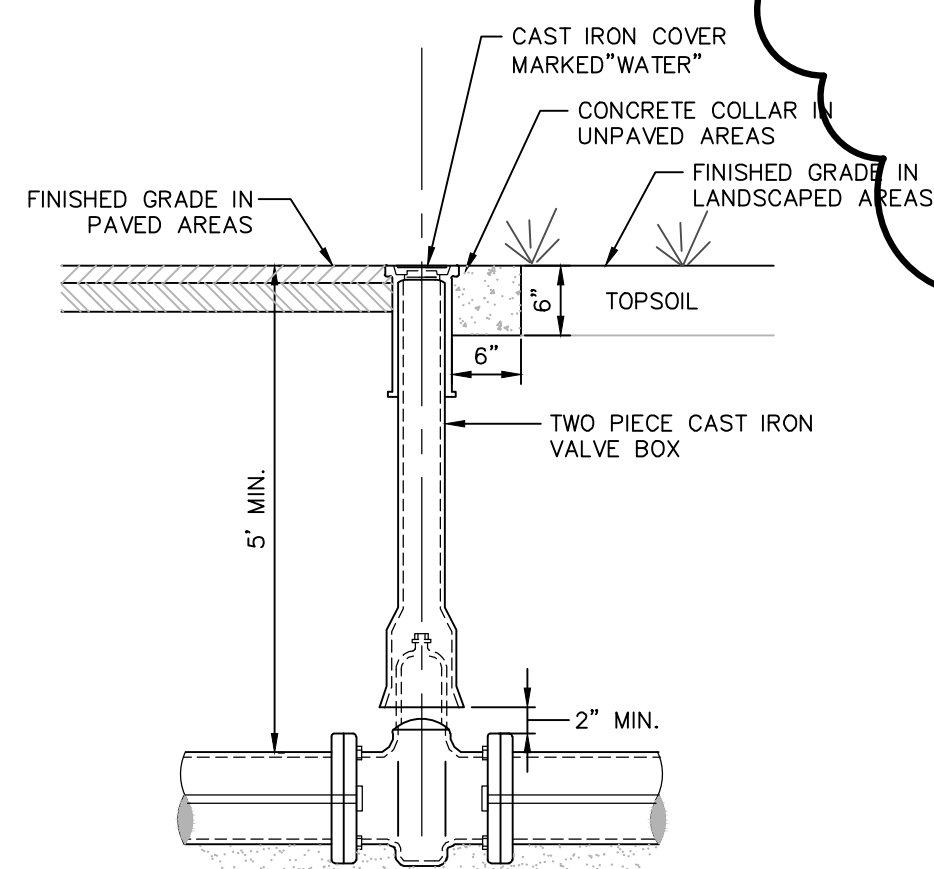
3 UNDERGROUND ELECTRICAL CONDUIT DETAIL - TYP
SCALE: NOT TO SCALE



4 WATERLINE OFFSET DETAIL
SCALE: NOT TO SCALE

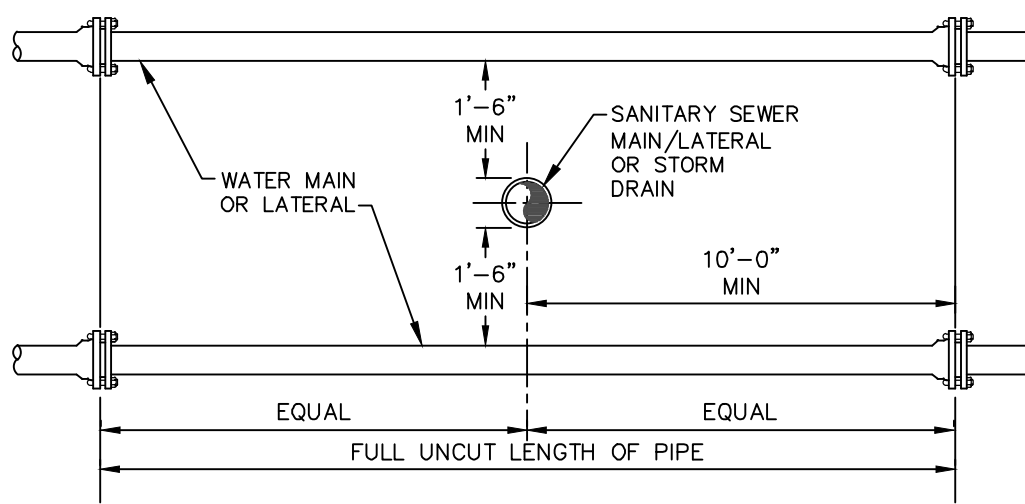


10 RESERVOIR WATER LEVEL SENSOR DETAIL (TYPICAL)
SCALE: NOT TO SCALE



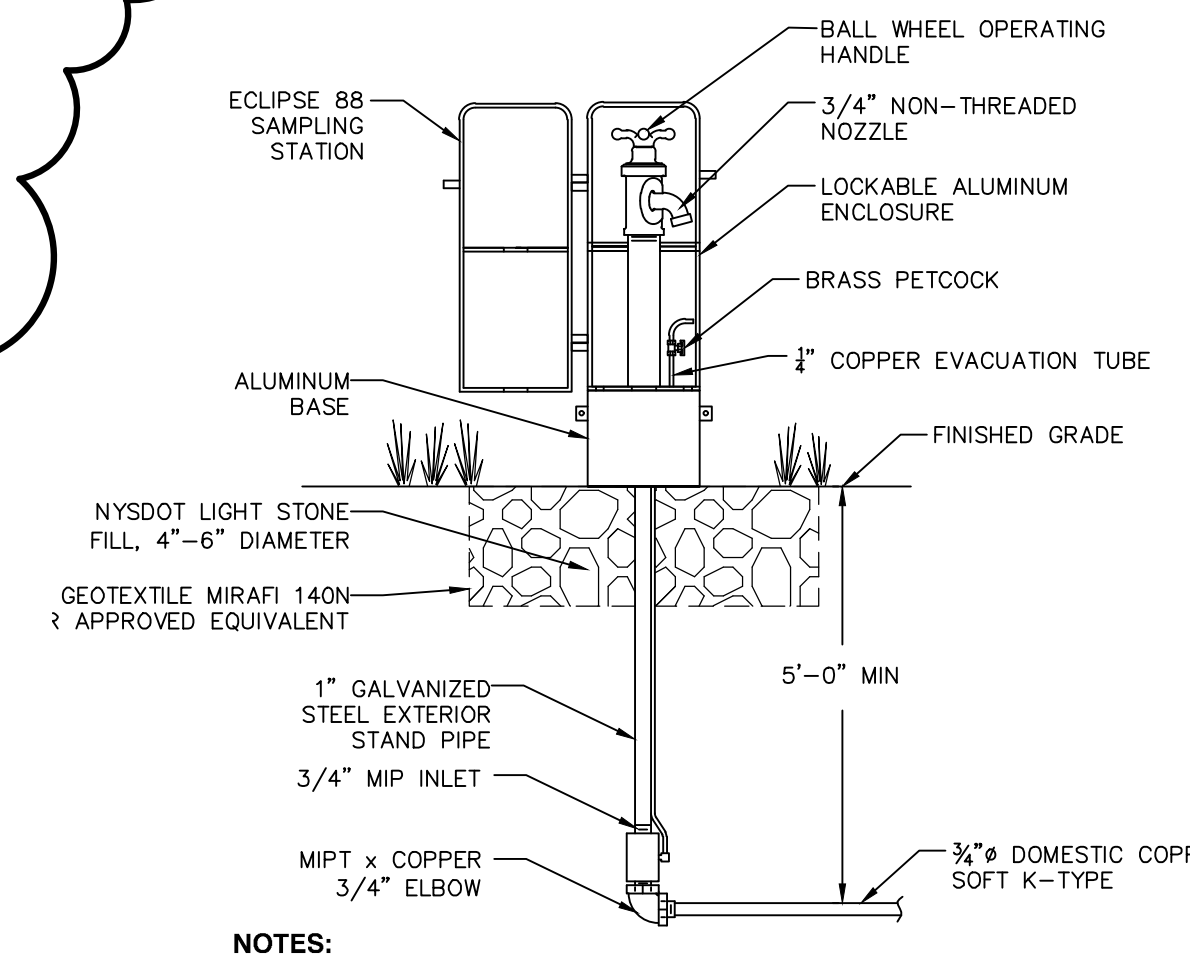
- NOTES:**
- NON-RISING STEM GATE VALVE, OPERATING DIRECTION SHALL BE COUNTER CLOCKWISE TO OPEN.
 - MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.
 - IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR EYEBOLTS. TWO (2) 3/4" GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180" SPACING SHALL BE USED FOR RODDING VALVES.
 - DIRECT BURY VALVE SHALL BE MODEL A-2360 RESILIENT WEDGE GATE VALVE WITH MECHANICAL JOINT ENDS AS MANUFACTURED BY MUELLER CO. OR APPROVED EQUIVALENT.
 - VALVE BOX SHALL BE 2-PIECE SLIDING TYPE WITH 5 1/4" SHAFT EXTENSION SERIES 6850 AS MANUFACTURED BY TYLER/UNION OR APPROVED EQUIVALENT.

6 TYPICAL GATE VALVE DETAIL
SCALE: NOT TO SCALE



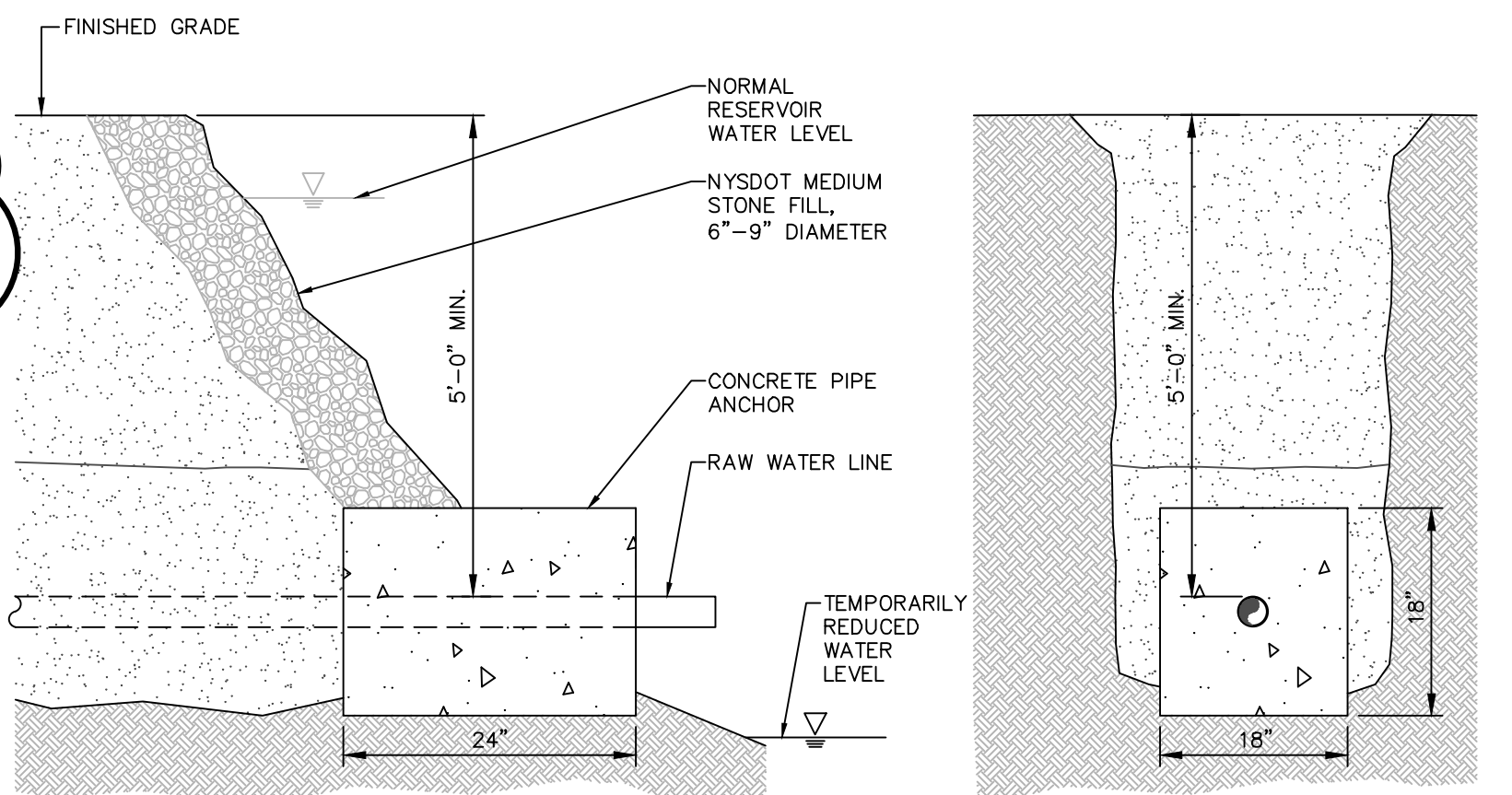
- NOTES:**
- NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE NYS HEALTH DEPARTMENT. OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.
 - WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10" EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO 150psi TO ASSURE WATER TIGHTNESS.

7 SANITARY/STORM SEWER AND WATERMAIN SEPARATION DETAIL
SCALE: NOT TO SCALE



- NOTES:**
- SAMPLING STATION SHALL BE ECLIPSE NO. 88 AS MANUFACTURED BY KUPFERLE FOUNDRY, ST. LOUIS, MO 63102, OR APPROVED EQUAL.
 - SAMPLING STATIONS SHALL BE 5' BURY, WITH A 3/4" FIP INLET AND A 3/4" UNTHREADED NOZZLE.
 - ALL STATIONS SHALL BE ENCLOSED IN A LOCKABLE, NON REMOVABLE, ALUMINUM-CAST HOUSING.
 - WHEN OPENED, THE STATION SHALL REQUIRE NO KEY FOR OPERATION, AND THE WATER WILL FLOW IN AN ALL BRASS WATERWAY.
 - ALL WORKING PARTS SHALL ALSO BE OF BRASS AND BE REMOVABLE FROM ABOVE GROUND WITH NO DIGGING. EXTERIOR PIPING SHALL BE BRASS.
 - A COPPER VENT TUBE SHALL ENABLE EACH STATION TO BE PUMPED FREE OF STANDING WATER TO PREVENT FREEZING AND TO MINIMIZE BACTERIA GROWTH.
 - STATION SHALL BE PROVIDED WITH PORTABLE BILOG PUMP PART #88P-1S

8 WATER SAMPLING STATION - TYP
SCALE: NOT TO SCALE



- SECTION A**
- NOTES:**
- CONTRACTOR TO COORDINATE CONSTRUCTION SCHEDULE WITH WATER TREATMENT PLANT OPERATOR TO ALLOW FOR WATER LEVEL IN RESERVOIRS TO BE LOWERED TO INSTALL PIPES.

9 RAW WATER DISCHARGE DETAIL (TYPICAL)
SCALE: NOT TO SCALE



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rev.	date	description
1	04/25/22	REVISED IN RESPONSE TO DEC COMMENTS

NEW PALTZ RESERVOIR

WATER DETAILS

VILLAGE OF NEW PALTZ, ULSTER COUNTY, NEW YORK

designed	checked
JMC	JMF
date	scale
10/26/20	AS NOTED
project no.	
	41725.04
sheet no.	
	C560