

SITE SPECIFIC NOTES

1. A PRE-CONSTRUCTION MEETING MUST BE SCHEDULED AT THE SITE WITH THE OWNER OR DEVELOPER AND A REPRESENTATIVE FROM THE DUTCHESS COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION OF THE WELL AND SEWAGE DISPOSAL SYSTEM TO DISCUSS APPROVED ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL.
2. THE HOUSE LOCATION SHALL MEET ALL MIN. REQUIREMENTS AS SET FORTH BY THE TOWN OF BEEKMAN ZONING ORDINANCE. THE TOWN ZONING OFFICE SHALL BE CONSULTED TO INSURE CONFORMITY WITH ALL APPLICABLE ZONING REQUIREMENTS PRIOR TO CONSTRUCTION.
3. LONG TERM MAINTENANCE PROVIDED ON SEDIMENT AND EROSION CONTROL PLAN AND SWEEP SHALL BE PROVIDED BY A SEPARATE DRAINAGE DISTRICT AS ESTABLISHED BY THE TOWN OF BEEKMAN.
4. CUL-DE-SAC NOTES:
  - A. FINISHED GRADE ELEVATION TO BE GRADED FLUSH WITH CATCH BASIN.
  - B. THE SURFACE OF THE INNER CUL-DE-SAC SHALL BE 4" MIN. RIP RAP OR AS REQUIRED BY THE TOWN ENGINEER/HIGHWAY DEPARTMENT.
5. THE DEVELOPER/CONTRACTOR SHALL NOTIFY THE HIGHWAY DEPARTMENT AT LEAST FOUR WEEKS IN ADVANCE OF ANY PLANS TO PAVE THE INTERIOR ROADWAY, TO ALLOW FOR POSSIBLE COORDINATION OF THESE EFFORTS.
6. INSTALL FOOTING DRAINS AS SHOWN OR AS PROVIDED BY THE TOWN OF BEEKMAN BUILDING DEPARTMENT.
7. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES IN/AROUND THE AREA OF DISTURBANCE. ALL UTILITIES SHALL BE FIELD MARKED AS REQUIRED.
8. ALL EASEMENTS SHALL BE STAKED AND FLAGGED TO ASSURE THAT THE WIRE UTILITIES CONSTRUCTION DOES NOT INTERFERE WITH OTHER SUBDIVISION INFRASTRUCTURE, ESPECIALLY TRANSFORMER LOCATIONS AND JUNCTION BOXES.
9. ANY DISTURBANCE TO THE STREAM BUFFER REQUIRES A SPECIAL PERMIT FROM THE TOWN OF BEEKMAN PLANNING BOARD.
10. LOT #1 HAS THE REMAINS OF A FORMER DAM. THE DAM REMAINS ARE NOT REGISTERED WITH THE NYSDEC. THE DAM DOES NOT FLOOD UPLAND WATER.
11. THE ROAD IS PROPOSED TO BE DEDICATED TO THE TOWN OF BEEKMAN.
12. UPON AN EXTENSION OF THE ROAD TO THE ADJOINING PARCEL, THE EDGES OF THE CUL-DE-SAC WOULD BE REMOVED.
13. THE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE "TOWN OF BEEKMAN ZONING LAW, LAND SUBDIVISION REGULATIONS".
14. PROPOSED DRIVEWAYS SHALL CONFORM TO 8.155-SH-561 DRIVEWAYS OF THE CODE OF THE TOWN OF BEEKMAN.
15. A PROPOSED PLOT PLAN TO BE SUBMITTED AT THE TIME OF THE BUILDING PERMIT DETAILING THE PROPOSED LANDSCAPING FOR THE LOT ALONG WITH ARCHITECTURAL ELEVATIONS.
16. THE PROJECT HAS BEEN APPROVED AS A CONSERVATION SUBDIVISION. TWO (2) OF THE LOTS SHALL BE SUBJECT TO "MODERATE" PRICING.
17. THE PROJECT LIES WITHIN AN AQUIFER OVERLAY ZONE.
18. UPON THE DEVELOPMENT OF THE PARCEL LOCATED AT THE END OF THE CUL-DE-SAC, THE "WINGS" OF THE CUL DE SAC SHALL BE REMOVED AND DRIVEWAYS FOR LOT 11 & 12 EXTENDED.
19. DRIVEWAYS
  - a. IN ALL RESIDENTIAL DISTRICTS, ALL DRIVEWAYS, INCLUDING SHARED DRIVEWAYS AND PRIVATE ROADS, SHALL BE DESIGNED, CONSTRUCTED AND MAINTAINED TO ALLOW FOR POSSIBLE ACCESS TO THE RESIDENTIAL DWELLINGS IN A MANNER THAT AVOIDS BOTH ADVERSE IMPACT UPON THE INTERSECTING PUBLIC OR PRIVATE STREET OR ROADWAY FROM EITHER STORMWATER OR EROSION AND PROVIDES REASONABLE ACCESS TO SUCH RESIDENTIAL DWELLINGS FOR ROUTINE OR EMERGENCY ACCESS. FOR REASONS OF TRAFFIC AND PEDESTRIAN SAFETY, UPON OR AND OFF THE STREET, AS WELL AS TO PROVIDE FOR POSSIBLE FUTURE ROAD WIDENING OR OTHER IMPROVEMENTS, ALL NEW DRIVEWAYS AND SIDEWALK CROSSINGS ENTERING ONTO ANY STREET, WHETHER PRIVATE, SHARED OR PUBLIC, SHALL COMPLY WITH ALL REQUIREMENTS OF THIS CHAPTER AND SHALL BE SUBJECT TO THE APPROVAL OF THE TOWN OF BEEKMAN CODE ENFORCEMENT OFFICER, TOWN OF BEEKMAN HIGHWAY SUPERINTENDENT, DUTCHESS COUNTY DEPARTMENT OF PUBLIC WORKS OR NEW YORK STATE DEPARTMENT OF TRANSPORTATION, WHICHEVER IS APPLICABLE. WHERE SUCH DRIVEWAYS ARE PART OF A USE SUBJECT TO SPECIAL USE PERMIT, SUBDIVISION OR SITE PLAN APPROVAL, THEY SHALL BE SUBJECT TO PLANNING BOARD APPROVAL. THE PLANNING BOARD, CODE ENFORCEMENT OFFICER AND/OR HIGHWAY SUPERINTENDENT MAY SEEK THE OPINION OF THE TOWN OF BEEKMAN FIRE COMMISSIONERS IN REVIEWING AND APPROVING ANY DRIVEWAYS IN EXCESS OF THE STANDARDS LISTED HEREIN.
  - b. NO DRIVEWAY CENTER LINE SHALL INTERSECT A STREET LINE LESS THAN 70 FEET FROM THE INTERSECTION OF ANY TWO STREET LINES.
  - c. SHARED DRIVEWAYS MAY BE PERMITTED BY THE PLANNING BOARD TO SERVE UP TO THREE RESIDENCES, PROVIDED THAT EACH LOT SERVED BY SUCH A DRIVEWAY HAS SUFFICIENT, PHYSICALLY ACCESSIBLE ROAD FRONTAGE TO ALLOW CONSTRUCTION OF A SEPARATE DRIVEWAY FOR EACH RESIDENCE, AND SUBJECT TO THE FOLLOWING REQUIREMENTS:
    - i. THE SHARED DRIVEWAY SHALL BE PAVED AND MEET THE REQUIREMENTS FOR ALIGNMENT, WIDTH, CROSS SECTION AND DRAINAGE AS DEEMED ACCEPTABLE BY THE PLANNING BOARD.
    - ii. THE SHARED DRIVEWAY SHALL BE INCLUDED IN AN EASEMENT AREA DESCRIBED BY BEARING AND DISTANCE. APPROPRIATE EASEMENT AND MAINTENANCE AGREEMENTS SHALL BE FILED WITH THE DUTCHESS COUNTY CLERK FOR SAID SHARED DRIVEWAYS.
    - iii. THE PLANNING BOARD MAY REQUIRE A BOND OR EQUIVALENT SURETY COVERING THE COST OF CONSTRUCTION FOR SHARED DRIVEWAYS AND ADJUTANCES.
    - iv. PLANS ARE TO BE SUBMITTED DEMONSTRATING WHAT WOULD BE NEEDED TO CONSTRUCT THE ADDITIONAL DRIVEWAYS.
    - v. IN THE CASE OF RESIDENTIAL UNITS, DRIVEWAYS SHALL EXTEND TO PROVIDE ACCESS TO THE INTERIOR OF THE DWELLING.

- a. FOR DRIVEWAYS LESS THAN 200 FEET, THE MAXIMUM GRADE FOR ANY NEW DRIVEWAY, OR PORTION THEREOF, ACCESSORY TO A SINGLE-FAMILY DWELLING AND CONNECTING ITS OFF-STREET PARKING AREA TO A STREET SHALL NOT EXCEED 10% AS MEASURED BETWEEN ANY TWO-FOOT CONTACT INTERVAL.
- b. FOR DRIVEWAYS IN EXCESS OF 200 FEET, THE MAXIMUM GRADE FOR THE FIRST 200 FEET SHALL NOT EXCEED 10% WITHIN THE REMAINING PORTION OF THE DRIVEWAY, THE PLANNING BOARD MAY APPROVE A GRADE UP TO 15% WITH THE MINIMUM REQUIREMENT THAT A PLAN BE SUBMITTED DEMONSTRATING WHAT WOULD BE NECESSARY TO REDUCE THE GRADE TO 10%. THE BOARD SHALL SEEK THE INPUT OF THE HIGHWAY SUPERINTENDENT AND THE COMMISSIONERS IN SUCH CASES.
- c. IF A PORTION OF ANY DRIVEWAY HAS A GRADE THAT EXCEEDS 10%, A PARKING AREA FOR TWO VEHICLES THAT IT IS WHOLLY CONTAINED OUTSIDE OF THE TRAVEL WAY SHALL BE REQUIRED, AT THE DISCRETION OF THE CODE ENFORCEMENT OFFICER AND THE HIGHWAY SUPERINTENDENT, AT THE POINT OF THE EXCESSIVE GRADE OCCURRENCE.
- d. THE MAXIMUM GRADE FOR NEW DRIVEWAYS, OF ANY LENGTH, ACCESSORY TO USES OTHER THAN SINGLE-FAMILY DWELLINGS AND CONNECTING THE REQUIRED OFF-STREET PARKING AREA TO THE STREET SHALL NOT EXCEED 10%.
- e. NOTWITHSTANDING THE MAXIMUM PERMITTED GRADES SPECIFIED ABOVE, NO DRIVEWAY SHALL HAVE A GRADE IN EXCESS OF 3% WITHIN 25 FEET OF THE ROADWAY EDGE AND WITHIN 25 FEET OF THE DWELLING.
- f. ALL DRIVEWAYS SHALL BE CONSTRUCTED SO AS TO BE IN COMPLIANCE WITH THE FOLLOWING REQUIREMENTS:
  - i. A MINIMUM OF 14 FEET OF UNOBSTRUCTED VERTICAL CLEARANCE.
  - ii. SHALL BE DESIGNED WITH SUFFICIENT BASE TO SUPPORT EMERGENCY VEHICLES.
  - iii. SHALL BE SURFACED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES.
  - iv. ANY DRIVEWAY WHERE SECTIONS OF THE DRIVEWAY HAVE GRADES IN EXCESS OF 4% SHALL BE PAVED OVER ITS ENTIRE LENGTH. SHALL HAVE A MINIMUM DRIVABLE WIDTH OF 12 FEET AND UNOBSTRUCTED TRAVEL-WAY WIDTH OF 15 FEET.
  - v. AT THE ROADWAY EDGE, SHALL HAVE AN ASPHALT DRIVEWAY APRON 15 FEET WIDE BY 10 FEET DEEP (THREE-INCH MINIMUM OVER EIGHT INCHES OF WELL-COMPACTED R.O.B. GRAVEL), WITH AN EXTENDED UNOBSTRUCTED TRAVEL-WAY WIDTH ALONG THIS APRON OF 20 FEET.
  - vi. MAY BE REQUIRED TO HAVE A NEGATIVE GRADE NEAR THE ROADWAY TO CONTROL STORM DRAINAGE AS REQUIRED BY THE HIGHWAY SUPERINTENDENT OR TOWN ENGINEER.
  - vii. DRIVEWAY CURVE RADIi WILL BE DETERMINED AT TIME OF CONSTRUCTION DEPENDENT UPON SITE CONDITIONS.
  - viii. SHALL HAVE AN APPROPRIATE OPERATING AREA (AOS) WITHIN 25 FEET OF THE DWELLING OR STRUCTURE WITH A MAXIMUM GRADE OF 5% REQUIRED DRIVEWAY CLEARANCE AND SUFFICIENT BASE TO SUPPORT EMERGENCY VEHICLES.
  - ix. GATES, UTILITY BOXES, DRIVEWAY POSTS, STONE WALLS, RETENTION WALLS, PILARS OR OTHER OBSTRUCTIONS SHALL CONFORM TO THE UNOBSTRUCTED WITH REQUIREMENT AND HAVE A MINIMUM SETBACK FROM THE ROADWAY EDGE OF 25 FEET. SECURITY GATES SHALL BE EQUIPPED WITH AN APPROPRIATE KNOX DEVICE, AS APPROVED BY THE BEEKMAN FIRE DISTRICT.
  - x. CLEAR VISIBILITY SHALL BE PROVIDED AND MAINTAINED IN BOTH DIRECTIONS AT ALL EXIT POINTS SO THAT THE DRIVER OF AN AUTOMOBILE STOPPED ON THE PLATFORM PORTION OF ANY NEW DRIVEWAY WILL HAVE AN UNOBSTRUCTED VIEW OF THE HIGHWAY FOR A DISTANCE COMMENSURATE WITH THE SPEED AND VOLUME OF TRAFFIC ON SUCH HIGHWAY AND SO THAT THERE IS A SIMILAR VIEW OF THE AUTOMOBILE IN THE DRIVEWAY.

- DRIVEWAYS GREATER THAN 500 FEET IN LENGTH:
- a. SHALL HAVE AN EMERGENCY VEHICLE PULL-OFF (EVP); WITH THE MINIMUM REQUIREMENTS THE AREA MEETS THE REQUIRED DRIVEWAY CLEARANCE AND BASE REQUIREMENTS.
  - b. DRIVEWAYS EXCEEDING 900 FEET WILL REQUIRE ADDITIONAL EMERGENCY VEHICLE PULL-OFFS AT A MAXIMUM OF EVERY 900 FEET AS MEASURED FROM THE DWELLING.
  - c. DEPENDING ON THE NATURE OF THE DRIVEWAY AND TYPE OF STRUCTURES IT SERVES, ADDITIONAL ADAS AND EVPs MAY BE REQUIRED AT TIME OF REVIEW OR CONSTRUCTION.
  - d. WITH THE PASSAGE OF THIS SUBSECTION, ALL PRESENT DRIVEWAYS SHOULD MINIMALLY COMPLY WITH THE VERTICAL CLEARANCE OF 14 FEET AND, WHERE PRACTICAL, COMPLY WITH THE TRAVEL WIDTH OF 15 FEET. ALL PRESENT GATES AND CHAINS SHALL BE EQUIPPED WITH A KNOX DEVICE AS APPROVED BY THE FIRE DISTRICT.

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, A CENTER-LINE PROFILE OF THE PROPOSED DRIVEWAY, PREPARED BY A LICENSED SURVEYOR, MAY BE REQUIRED BY THE HIGHWAY SUPERINTENDENT OR CODE ENFORCEMENT OFFICER.

DRIVEWAYS ARE SUBJECT TO ON-SITE INSPECTION AND FINAL DETERMINATION BY THE CODE ENFORCEMENT OFFICER AND THE HIGHWAY SUPERINTENDENT AT THE TIME OF CONSTRUCTION, WITH CONSULTATION PROVIDED BY THE BEEKMAN FIRE DISTRICT, TOWN ENGINEER, AND/OR BUILDING INSPECTOR AS NEEDED. BEFORE THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO), AN AS-BUILT PLOT OF THE DRIVEWAY, SHOWING GRADE PROFILES, PREPARED IN A FORMAT ACCEPTABLE TO THE HIGHWAY SUPERINTENDENT, MAY BE REQUIRED.

OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C.O JOHN MASIMILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER	DATE
SURVEY CERTIFICATION	
I HEREBY CERTIFY THAT THIS BOUNDARY SURVEY WAS PREPARED BY ME AND WAS MADE FROM AN ACTUAL FIELD SURVEY COMPLETED IN JANUARY 11, 2012 TOPOGRAPHICAL SURVEY DATUM AS PER USGS.	
ZARECKI & ASSOCIATES, LLC	SEAL
TOWN OF BEEKMAN PLANNING BOARD	
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE _____ DAY OF _____, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.	
SIGNED THIS _____ DAY OF _____, 20____, BY	
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	

RECOMMENDED FOR APPROVAL

DUTCHESS COUNTY DEPARTMENT OF HEALTH  
POUGHKEEPSIE, N.Y.

THIS IS TO CERTIFY THAT THE PROPOSED  
ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL  
RESIDENTIAL SUBDIVISION  
TO BE KNOWN AS  
ALAINA ESTATES  
IN THE TOWN OF BEEKMAN  
WERE APPROVED ON \_\_\_\_\_

IN ACCORDANCE WITH PLANS ON FILE IN THE OFFICE OF  
THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CONSENT  
IS HEREBY GIVEN TO THE PLUNG OF THE MAP ON WHICH  
THIS ENDORSEMENT APPEARS IN THE OFFICE OF THE  
COUNTY CLERK OF DUTCHESS COUNTY IN ACCORDANCE WITH  
THE PROVISIONS OF ARTICLE II TITLE 2 OF THE NEW  
YORK STATE PUBLIC HEALTH LAW AND ARTICLE 17 TITLE  
15 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION  
LAW AND ARTICLE II OF THE DUTCHESS COUNTY  
SANITARY CODE.

SUPERVISING PUBLIC HEALTH ENGINEER

PARCEL INFORMATION:

- 1) PARCEL LIES WITHIN THE AQUIFER OVERLAY DISTRICT (A-0). SINGLE FAMILY DETACHED RESIDENTIAL DEVELOPMENT IS A PERMITTED USE WITHIN THE (A-0) DISTRICT) - \$155-12D.
- 2) THE PROJECT MAINTAINS CERTAIN SLOPES. EXISTING SLOPES ARE DEFINED IN THE TOWN OF BEEKMAN ZONING CODE AS FOLLOWS:

MODERATELY STEEP - 15% TO 25%  
VERY STEEP - 25% TO 33%  
EXTREMELY STEEP - 33% OR GREATER

THERE ARE NO EXTREME SLOPES ON THE PROPERTY.

- 3) THE PARCEL MAINTAINS WETLANDS AND WATER BODIES AS DEFINED BY CHAPTER 155-52 OF THE TOWN OF BEEKMAN ZONING ORDINANCE. A NYSDEC WETLANDS RESIDES ON THE ADJOINING PARCEL (ACROSS CR-7). A FEDERAL WETLAND RESIDES AT THE SOUTHWEST CORNER OF THE PARCEL. A 100' BUFFER IS PROVIDED AROUND THE NYSDEC WETLAND. A 75' BUFFER IS PROVIDED AROUND THE PERIMETER OF THE FEDERAL WETLAND. A 50' BUFFER IS ALSO PROVIDED FROM THE EDGE OF THE EXISTING UNNAMED (C7) STREAM WHICH BISECTS THE PARCEL.

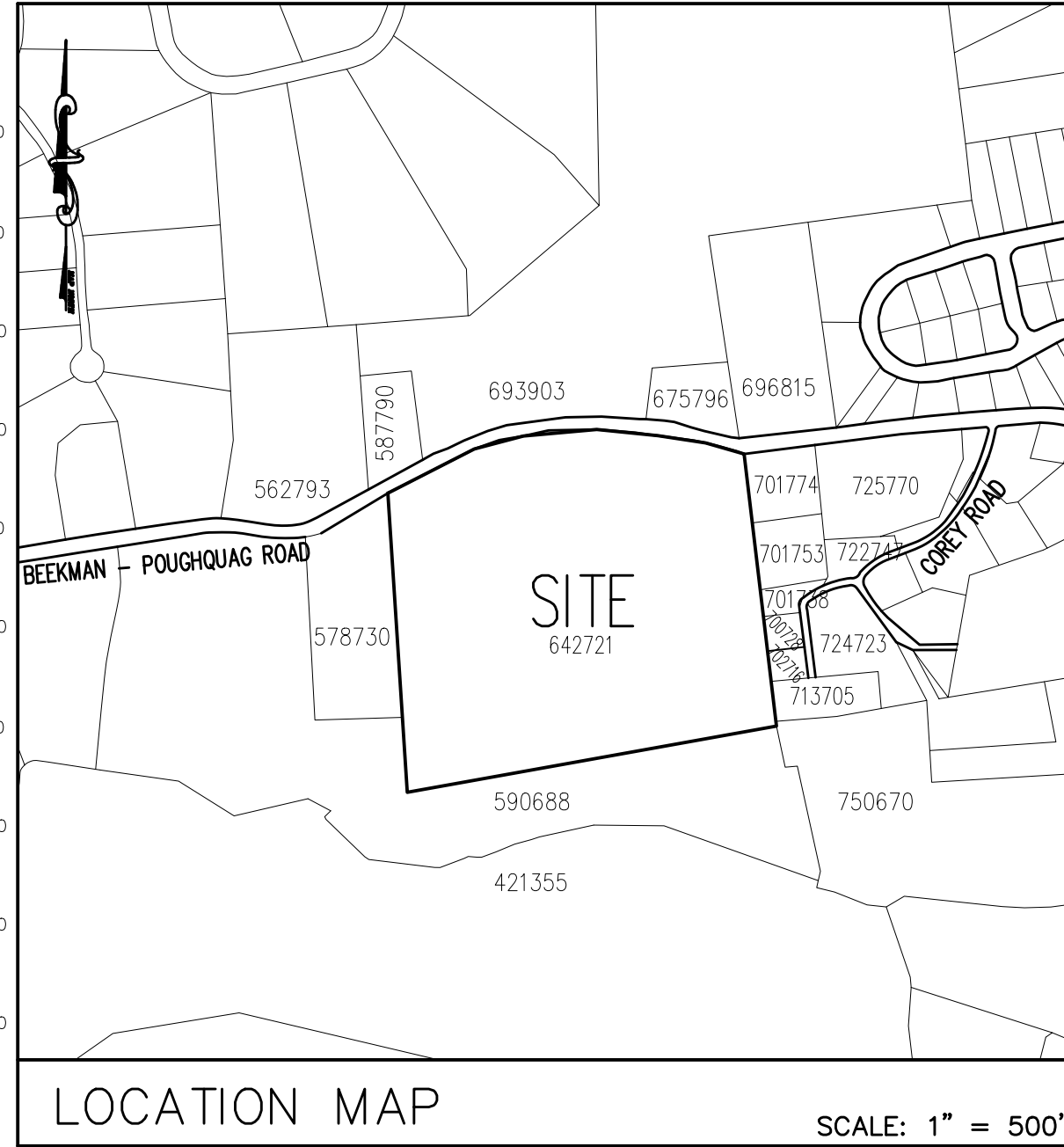
NYSDEC WETLANDS (AS FLAGGED BY HEATHER GIERLOFF FROM NYSDEC) ON SEPTEMBER 28, 2012

ROW AND SIGHT LINE DISTURBANCE  
WITHIN THE 100' NYSDEC ADJACENT  
AREA - 0.113 AC. 5,700 S.F.  
(CROSS HATCH AREA)

PARCEL(S) INFORMATION	
TAX GRID PARCEL NUMBER(S):	132200-6758-00-642721
ZONING DISTRICT:	R-45 (RESIDENTIAL 45,000 S.F. MIN.)
TOPO DATUM (REFERENCE):	USGS (U.S.G.S. NAD 1929)
TOTAL AREA	20.82 AC. +/-
# OF PARCELS (PRIOR TO SUBDIVISION):	1
# OF PARCELS (AFTER SUBDIVISION):	16
PROPOSED SEWER	CENTRAL WATER
PROPOSED WATER	CENTRAL SEWER

ADJOINING PARCEL LEST PER DC GIS SYSTEM

- KEVIN P. RYAN  
244 BEEKMAN-POUGHQUAG RD  
POUGHQUAG, NY 12570  
FOR PROPERTY:1322000067580005787300000
- NICOLASI BUILDINGS INC  
135 SLEIGHT PLASS RD  
POUGHKEEPSIE, NY 12603  
FOR PROPERTY:13220000675800027247230000
- JSM UPSTATE PROPERTIES INC  
208 PLEASANT PLAINS AVE  
STATEN ISLAND, NY 10309  
FOR PROPERTY:13220000675800006427210000
- BRIAN ECK  
11450 CANYON VIEW CR  
CUPERTINO, CA 95014  
FOR PROPERTY:13220000675800027506700000
- FOUR SEASONS DELI &  
454 VIOLET AVE  
POUGHKEEPSIE, NY 12601  
FOR PROPERTY:13220000675800027017380000
- DALTON FARM HOMEOWNERS  
1961 ROUTE 6  
CARMEL, NY 10512  
FOR PROPERTY:13220000675800026939030000
- KATHERINE E. BUCKLEY  
18 COREY RD  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800027227470000
- NICOLASI BUILDINGS INC  
135 SLEIGHT PLASS RD  
POUGHKEEPSIE, NY 12603  
FOR PROPERTY:13220000675800027137050000
- COUNTY OF DUTCHESS DEPT HWYS  
22 MARKET ST  
POUGHKEEPSIE, NY 12601  
FOR PROPERTY:13220000675800006968150000
- GREEN'S AUTO REPAIR INC  
PO BOX 757  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800027017530000
- BEEKMAN FIRE DISTRICT  
PO BOX 400  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800027257700000
- ARSENIO PAEZ  
289 BEEKMAN POUGHQUAG RD  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800006757960000
- SUSAN L. KASKEL  
5 SUGAR LN  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800004213550000
- FRANCES RODRIGUEZ  
65 TOWN VIEW DR  
WAPPINGERS FALLS, NY 12590  
FOR PROPERTY:13220000675800005677900000
- GREEN'S AUTO REPAIR INC  
PO BOX 842  
POUGHQUAG, NY 12570  
FOR PROPERTY:1322000067580002717740000
- CARYN FELLOWS  
241 BEEKMAN POUGHQUAG RD  
POUGHQUAG, NY 12570  
FOR PROPERTY:13220000675800005627930000
- DIAMOND HORSE DEVELOPERS INC  
PO BOX 271  
MAHOUDAC FALLS, NY 10542  
FOR PROPERTY:13220000675800005968800000
- NICOLASI BUILDINGS INC  
135 SLEIGHT PLASS RD  
POUGHKEEPSIE, NY 12603  
FOR PROPERTY:13220000675800027007280000

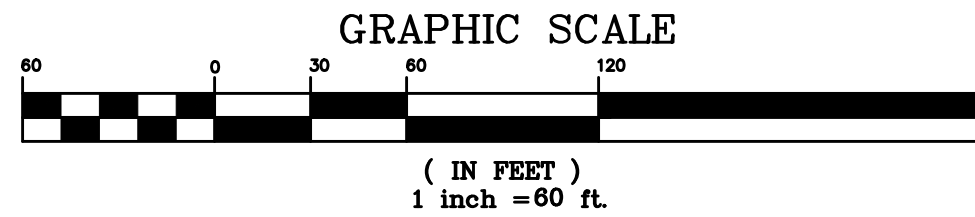


NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

THE FRESHWATER WETLAND BOUNDARY AS REPRESENTED ON THESE PLANS ACCURATELY DEPICTS THE LIMITS OF FRESHWATER WETLAND V8-37 AS DELINEATED BY HEATHER GIERLOFF AUGUST 2012

BRIAN J. STOKOSA  
SURVEYOR/ENGINEER  
DATE: 09/28/2012

WETLAND BOUNDARY DELINEATION AS VALIDATED BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REMAIN VALID FOR TEN (10) YEARS UNLESS EXISTING EXEMPT ACTIVITIES, AREA HYDROLOGY, OR LAND USE PRACTICES CHANGE (e.g. AGRICULTURE TO RESIDENTIAL) AFTER TEN YEARS THE BOUNDARY MUST BE REVALIDATED BY D.E.C. STAFF. REVALIDATION MAY INCLUDE A NEW DELINEATION AND SURVEY OF THE WETLAND BOUNDARY. ANY PROPOSED CONSTRUCTION, GRADING, FILLING, EXCAVATING, CLEARING OR OTHER REGULATED ACTIVITY IN THE FRESHWATER WETLANDS SHALL BE IN ACCORDANCE WITH THE LIMITS OF FRESHWATER WETLANDS AS DELINEATED ON THIS PLAN. REVALIDATION PERMIT FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION UNDER ARTICLE 24 OF THE ENVIRONMENTAL CONSERVATION LAW (FRESHWATER WETLANDS ACT) PRIOR TO COMMENCEMENT OF WORK.



IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

Mark A. Day, PE	
Revised:	OCTOBER 1, 2018
Proj No:	2018.249
License No.	069646
<b>M.A. DAY Engineering, PC</b> <i>Consulting Engineers</i>	
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202	
PROJECT <b>ALAINA ESTATES</b> TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK	
DRAWING <b>SUBDIVISION PLAN</b>	
SCALE AS NOTED	DRAWN BY BJS
DATE 01-01-17	CHECKED BY BJS
DRAWING No. 1 of 12	

PROPOSED CONDITIONS

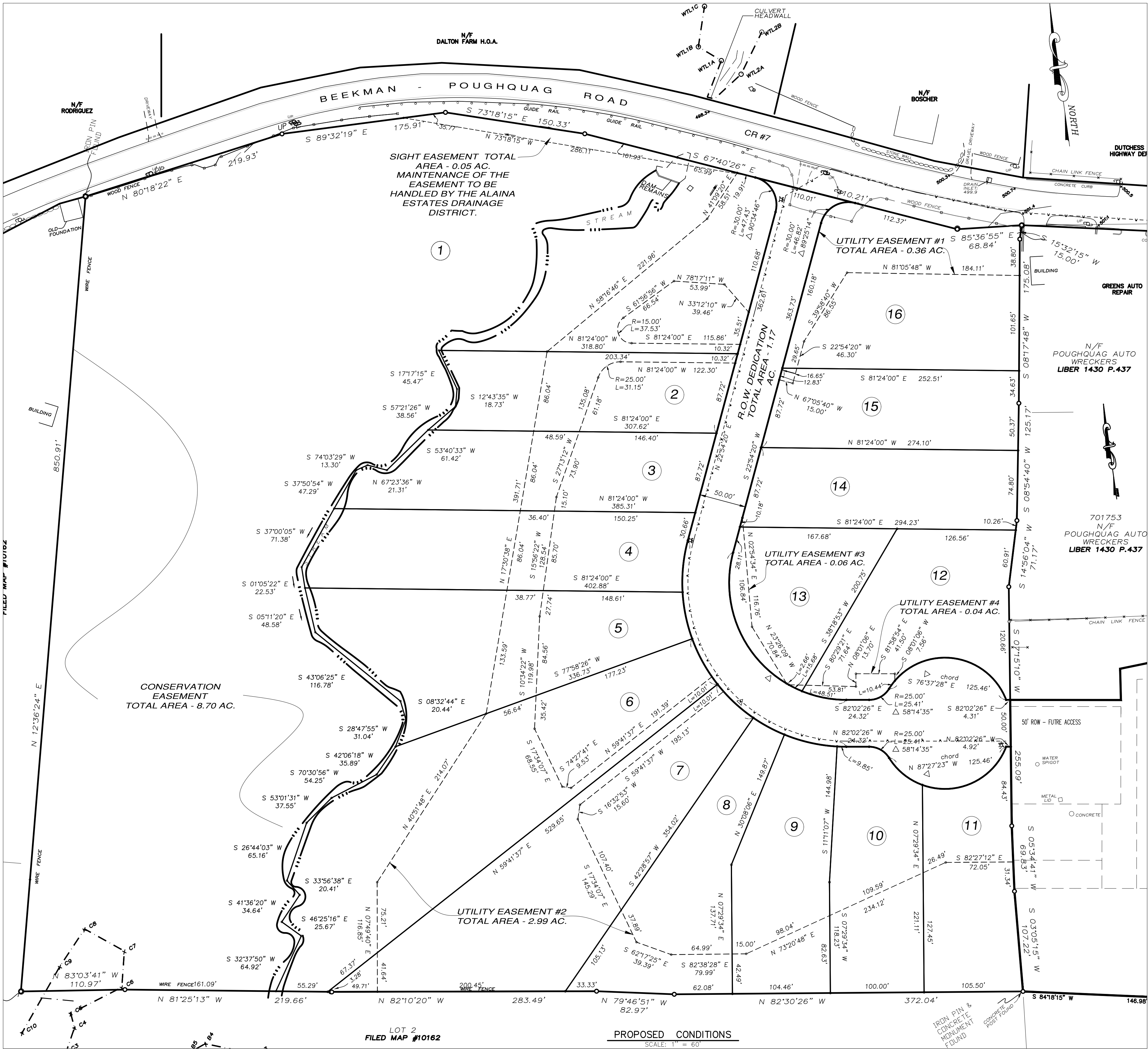
SCALE: 1" = 60'

STREET TREE PLANTING SCHEDULE

SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	BALL SIZE	REMARKS
RM	RED MAPLE	ACER RUBRUM	3"	32"	NURSERY GROWN, PLANT IN SPRING OF YEAR
SM	SUGAR MAPLE	ACER SACCHARUM	3"	32"	NURSERY GROWN, PLANT IN SPRING OF YEAR

C=CALIPER





DUTCHESS COUNTY DEPARTMENT OF HEALTH – STANDARD NOTES

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:  
"APPENDIX 75-A, WASTE TREATMENT – INDIVIDUAL HOUSEHOLD SYSTEMS", NEW YORK STATE SANITARY CODE  
"WASTE TREATMENT HANDBOOK, INDIVIDUAL HOUSEHOLD SYSTEMS", NEW YORK STATE DEPARTMENT OF HEALTH  
"RURAL WATER SUPPLY", NEW YORK STATE DEPARTMENT OF HEALTH  
"PLANNING THE SUBDIVISION AS PART OF THE TOTAL ENVIRONMENT", NEW YORK STATE DEPARTMENT OF HEALTH  
NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICES, PROCEDURES AND STANDARDS  
DUTCHESS COUNTY DEPARTMENT OF HEALTH SANITARY CODE, ARTICLE XI AND ARTICLE XIX.  
DUTCHESS COUNTY DEPARTMENT OF HEALTH APPROVAL LETTER.

2. THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICES AND PROCEDURES FOR ARRANGEMENTS OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES, AND, AS A CONDITION OF THIS APPROVAL, A CONSTRUCTION INSPECTION BY A REPRESENTATIVE OF THE D.C.D.O. OR PROFESSIONAL ENGINEER SHALL BE CONDUCTED TO DETERMINE THAT CONSTRUCTION AT THE TIME OF INSPECTION WAS COMPLETED IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND ANY AMENDMENT THEREOF.
3. APPROVAL OF ANY PLANS OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.
4. ALL WELLS AND SEWAGE DISPOSAL SYSTEMS EXISTING OR APPROVED WITHIN 200' OF THE PROPOSED CENTRAL WATER AND SDS ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY EFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE SDS AND CENTRAL WATER SYSTEM.
5. ALL SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND PLACEMENT.
6. THERE SHALL BE NO FURTHER SUBDIVISION OF ANY PARCEL AS SHOWN ON THIS PLAN WITHOUT THE APPROVAL OF THE TOWN PLANNING BOARD AND THE DUTCHESS COUNTY HEALTH DEPARTMENT. ANY MODIFICATIONS OR DEVIATIONS FROM THIS PLAN MUST BE APPROVED BY THE TOWN PLANNING BOARD AND/OR THE DUTCHESS COUNTY HEALTH DEPARTMENT.
7. THE APPROVED PLANS, AND ANY AMENDMENTS THEREOF, SHALL BE FILED WITHIN 1 (ONE) YEAR AFTER THE APPROVAL THEREOF, IN THE OFFICE OF THE CLERK OF THE COUNTY OF DUTCHESS AND THAT A COPY OF EACH APPROVED PLAN AND APPROVED AMENDMENT THEREOF, CERTIFIED BY THE CLERK OF THE COUNTY OF DUTCHESS AS HAVING BEEN FILED, INDICATING THE DATE OF SUCH FILING, SHALL BE FILED BY THE OWNER OF THE PROPERTY IN THE OFFICE OF THIS DEPARTMENT WITHIN 30 DAYS OF THE FILING IN THE OFFICE OF THE CLERK OF THE COUNTY OF DUTCHESS.
8. THE PURCHASER OF A LOT SHALL BE FURNISHED WITH A LEGIBLE REPRODUCTION OF THE APPROVED PLAN SHOWING THE PROPOSED ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL FACILITIES IN ACCORDANCE WITH THE PLANS APPROVED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT.
9. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH SHALL BE NOTIFIED OF THE INSTALLATION OF THE SEWAGE DISPOSAL SYSTEM(S) PRIOR TO COVERING OF THE TRENCHES, IN ORDER THAT AN INSPECTION CAN BE MADE. AN INSPECTION SHALL ALSO BE REQUIRED OF EACH AND EVERY LOT AS NOTED ON THE APPROVED PLANS RELATIVE TO THE LOCATION OF THE SEWAGE DISPOSAL SYSTEM AND THE WATER SUPPLY SYSTEM PRIOR TO EXCAVATION AND CONSTRUCTION.
10. THE EXISTING SEWAGE DISPOSAL SYSTEM(S) AND/OR EXISTING WATER SUPPLY(ES) (IF ANY) AS SHOWN ON THE APPROVED PLAN WERE INSTALLED PRIOR TO THE APPROVAL DATE FROM THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
11. THIS APPROVAL SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF THE APPROVAL OF THE PLANS AS SHOWN ON THIS CERTIFICATE. REQUESTS FOR EXTENSIONS PAST THIS PERIOD ARE TO BE MADE IN WRITING TO THE DEPARTMENT OF HEALTH AT LEAST SIX (6) MONTHS PRIOR TO EXPIRATION.
12. SEWAGE DISPOSAL SYSTEMS ARE TO BE STAKED OUT IN THE FIELD PRIOR TO EXCAVATION.
13. NO CELLAR, ROOF OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SEWAGE DISPOSAL SYSTEM.
14. ANY MODIFICATIONS OR DEVIATIONS FROM THIS PLAN MUST BE APPROVED BY THE DESIGN ENGINEER PRIOR TO THE CONSTRUCTION OF THE SDS.
15. NO FOOTING OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE TREATMENT SYSTEM OR WITHIN 25 FEET OF ANY WELL.
16. THERE SHALL BE NO VEHICULAR TRAFFIC OVER THE SEWAGE DISPOSAL SYSTEM, PRIOR TO CONSTRUCTION, THE AREA OF THE SYSTEM SHALL BE STAKED OUT AND FENCED OFF.
17. SEWAGE DISPOSAL SYSTEMS SHALL NOT BE INSTALLED IN WET OR FROZEN SOIL.
18. ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORM WATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.
19. THE DCDOH SHALL BE NOTIFIED PRIOR TO THE BACKFILLING OF ANY COMPLETED SDS SO THAT A FINAL INSPECTION MAY BE PERFORMED.
20. THE DCDOH SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE, USE CHANGES MAY REQUIRE REAPPROVAL BY THE DCDOH.

ADDITIONAL NOTE FOR FILL SECTIONS:  
ANY FILL OR IMPERVIOUS COVER MUST BE IN PLACE AND A PROFESSIONAL ENGINEER SHALL CERTIFY IN WRITING THAT ALL SOIL CONDITIONS, INCLUDING THE MATERIAL, DIMENSIONS, AND LOCATION ARE SATISFACTORY TO ALLOW INSTALLATION OF THE SEWAGE DISPOSAL SYSTEM. FILL SHALL BE SAND AND GRAVEL WITH A STABILIZED PERCOLATION RATE WHICH IS LESS THAN OR EQUIVALENT TO THE PERCOLATION RATE OF THE VIRGIN SOIL, AND NO MORE THAN 15 MINUTES PER INCH. THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE FILL MATERIAL IS IN PROPER PLACES OF PROPER QUALITY AND DIMENSIONS AND IS OF PROPER QUALITY. PROPER QUALITY MUST BE DEMONSTRATED BY STABILIZED PERCOLATION TEST, THE RESULTS OF WHICH SHALL BE SUBMITTED WITH THE ENGINEER'S CERTIFICATION.

TOWN OF BEEKMAN NOTES

1. A BUILDING PERMIT WILL NOT BE ISSUED UNTIL A LOT PLAN SHOWING SATISFACTORY ARRANGEMENTS FOR SOIL EROSION AND SILTATION CONTROL IS SUBMITTED AND ACCEPTED BY THE BUILDING INSPECTOR AND SUCH ARRANGEMENTS ARE IMPLEMENTED TO THE SATISFACTION OF THE TOWN.
2. ALL SINGLE ACCESS DRIVEWAYS ARE TO BE A MINIMUM 12' WIDE.
3. ALL DRIVEWAYS MUST BE PAVED.
4. THE TOWN OF BEEKMAN WILL NOT ACCEPT OWNERSHIP OF THE ROAD NOR ANY EASEMENT TO ANY DRAINAGE FACILITIES OUTSIDE THE TOWN RIGHT OF WAY UNTIL AS BUILT PLANS PREPARED BY A LICENSED LAND SURVEYOR AND WRITTEN CERTIFICATION OF CONSTRUCTION COMPLIANCE FROM A PROFESSIONAL ENGINEER HAVE BEEN PROVIDED TO THE TOWN OF BEEKMAN. NOTE THE RESPONSIBILITY FOR THE MAINTENANCE OF EACH STORMWATER FACILITY OUTSIDE OF THE TOWN OF BEEKMAN RIGHT OF WAY RESTS WITH THE LANDOWNER AND NOT THE TOWN OF BEEKMAN. EACH STORMWATER FACILITY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID STORMWATER FACILITY AND ALL ASSOCIATED DRAINAGE STRUCTURES ON SAID FACILITY OWNER'S PROPERTY IN ACCORDANCE WITH THE MAINTENANCE AGREEMENT APPROVED BY THE TOWN OF BEEKMAN TOWN BOARD PER 155-79 OF THE TOWN OF BEEKMAN CODE.
5. ROAD CONSTRUCTION NOTE: DURING THE COURSE OF CONSTRUCTION, AN ANTI TRACKING DEVICE SHALL BE UTILIZED UNTIL SUCH TIME THAT THE ROAD IS SATISFACTORILY STABILIZED.
6. FOOTING AND LEADER DRAINS ARE TO BE TIED DIRECTLY TO THE DRAINAGE INFRASTRUCTURE WHEN PRACTICALLY DICTATES. THIS EFFORT SHALL BE COORDINATED WITH THE TOWN HIGHWAY SUPERINTENDENT AND/OR TOWN ENGINEER.
7. THERE SHALL BE NO FURTHER SUBDIVISION OF ANY LOTS WITHOUT THE APPROVAL OF THE TOWN OF BEEKMAN PLANNING BOARD.
8. THE STORMWATER MANAGEMENT REPORT IS AN INTEGRAL PART OF THE PROJECT APPROVAL.
9. PLANS PREPARED BY M. GILLESPIE & ASSOCIATES, CONSULTING ENGINEERING, P.L.L.C.
10. ANY DRIVEWAYS GREATER THAN 100 FEET MUST BE 12 FEET WIDE OR HAVE TWENTY-FOOT LONG PULL-OFFS EVERY 100 FEET.
11. ALL STREET TREES TO BE PLANTED OUTSIDE OF TOWN RIGHT OF WAY AT A 75' ON CENTER SPACING. EACH LOT SHALL HAVE AT LEAST 2 STREET TREES.

STANDARD NOTES FOR WATER SYSTEMS

THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:  
"RECOMMENDED STANDARDS FOR WATER WORKS (TEN STATES)"  
"RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH"  
"RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH"  
NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICES, PROCEDURES AND STANDARDS  
DUTCHESS COUNTY DEPARTMENT OF HEALTH SANITARY CODE, ARTICLE XI AND ARTICLE V.  
DUTCHESS COUNTY DEPARTMENT OF HEALTH APPROVAL LETTER.

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICES AND PROCEDURES FOR ARRANGEMENTS OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES.

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED AND CERTIFIED COMPLETE TO THE DUTCHESS COUNTY HEALTH DEPARTMENT BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT.

APPROVAL OF ANY PLANS OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RESUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICES & PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

ADDITIONAL NOTE FOR WATER DISTRIBUTION SYSTEM

ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE HOMEOWNER UP TO THE WATER SHUTOFF VALVE. THE WATER COMPANY SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON THE HOMEOWNER'S PROPERTY.

ADDITIONAL NOTES FOR RESIDENTIAL PROJECTS WITH CENTRAL WATER UTILITIES

NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS ISSUED UNDER SECTION 5-1.22(4) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5).

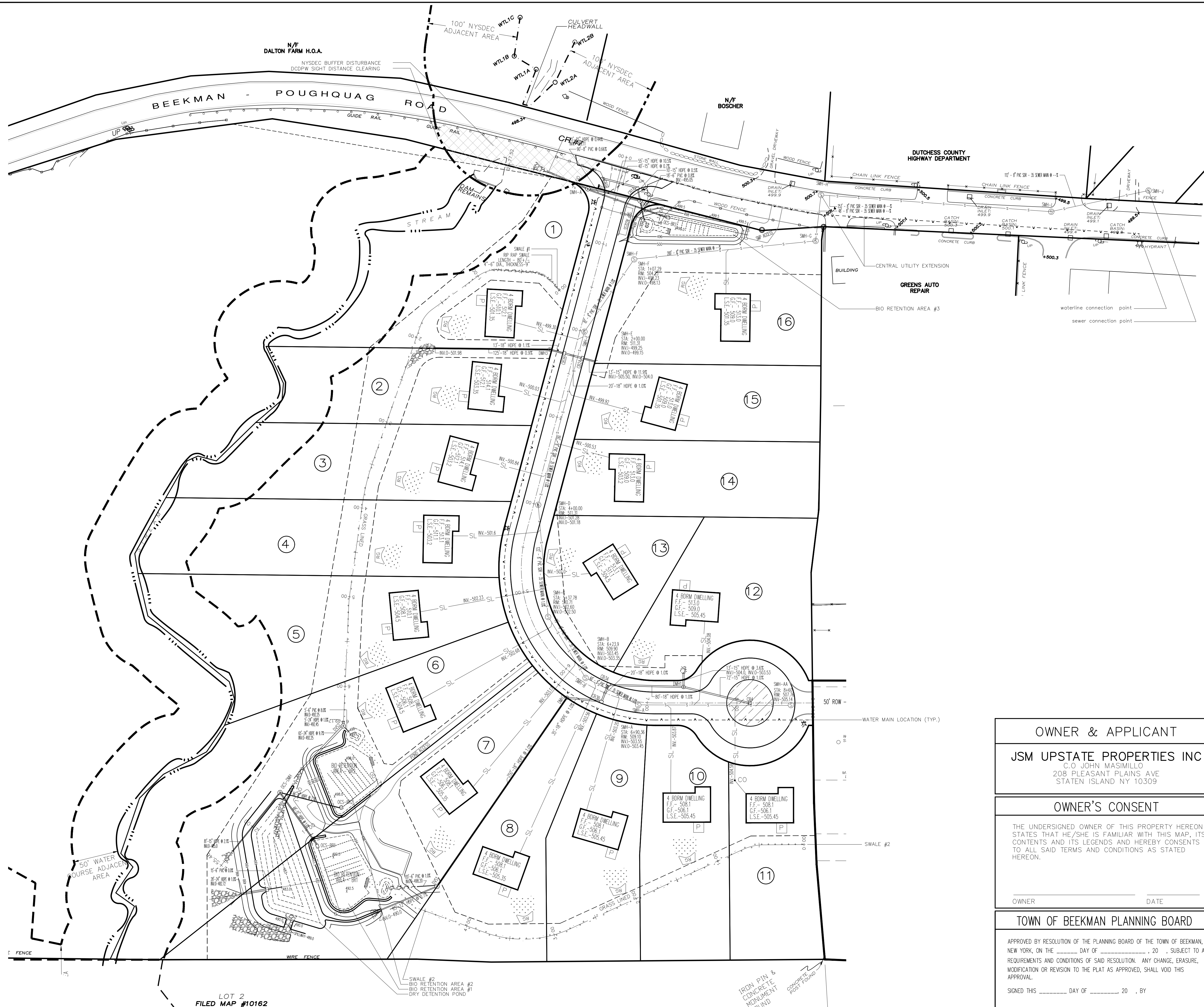
IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C.O JOHN MASIMILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER	DATE
TOWN OF BEEKMAN PLANNING BOARD	
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE _____ DAY OF _____, 20 , SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.	
SIGNED THIS _____ DAY OF _____, 20 , BY	
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	

SURVEY CERTIFICATION	
I HEREBY CERTIFY THAT THIS BOUNDARY SURVEY WAS PREPARED BY ME AND WAS MADE FROM AN ACTUAL FIELD SURVEY COMPLETED IN JANUARY 11, 2012 TOPOGRAPHICAL SURVEY DATUM AS PER USGS.	
ZARECKI & ASSOCIATES, LLC	SEAL

BULK REQUIREMENTS	MIN. REQUIRED	LOT #1	LOT #2	LOT #3	LOT #4	LOT #5	LOT #6	LOT #7	LOT #8	LOT #9	LOT #10	LOT #11	LOT #12	LOT #13	LOT #14	LOT #15	LOT #16
MINIMUM LOT AREA	45,000 SF	379,176	25,397	29,932	33,754	41,157	65,637	50,556	27,422	25,182	24,436	22,480	27,258	19,680	24,154	22,381	37,468
MINIMUM STREET FRONTAGE	100'	232'	450'	101'	104'	122'	158'	160'	101'	206'	410'	165'	370'	630'	109'	156'	202'
MIN. WIDTH	150'	193'	182'	202'	155'	177'	214'	171'	186'	289'	357'	158'	258'	154'	151'	153'	205'
MINIMUM FRONT YARD (FROM COUNTY/STATE HIGHWAY)	50'	64.4'	60'	123'	122'	71'	53'	54'	132'	206'	53'	63'	55'	67'	88'	54'	61'
MINIMUM REAR YARD	35'	138.1'	132'	43'	30'	48'	26'	26'	22'	47'	90'	149'	50'	32'	37'	43'	29'
MINIMUM SIDE YARD	20'	25.3'	64'	85'	189'	128'	102'	181'	145'	80'	40'	53'	113'	314'	258'	226'	177'
MAXIMUM BUILDING HEIGHT	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'	2 1/2 STORES/35'
MAXIMUM BUILDING COVERAGE (% LOT AREA)	10%	0.4	7.1	6.0	5.0	4.3	2.7	3.5	6.5	7.1	7.3	8.0	6.0	9.1	7.4	8.0	4.8
MAX. IMPERVIOUS & BLDG. COVERAGE (% LOT AREA)	15%	0.8	11.8	10.7	9.0	8.7	6.0	7.9	14.3	14.4	13.9	13.3	10.2	14.4	13.6	14.5	10.6

\* THE DEVELOPMENT ACTION HAS BEEN AS A CONSERVATION SUBDIVISION WITH REDUCED SETBACKS.



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Mark A. Day, PE	
Revised	OCTOBER 1, 2018
Project No.	2018-249
License No. 069646	

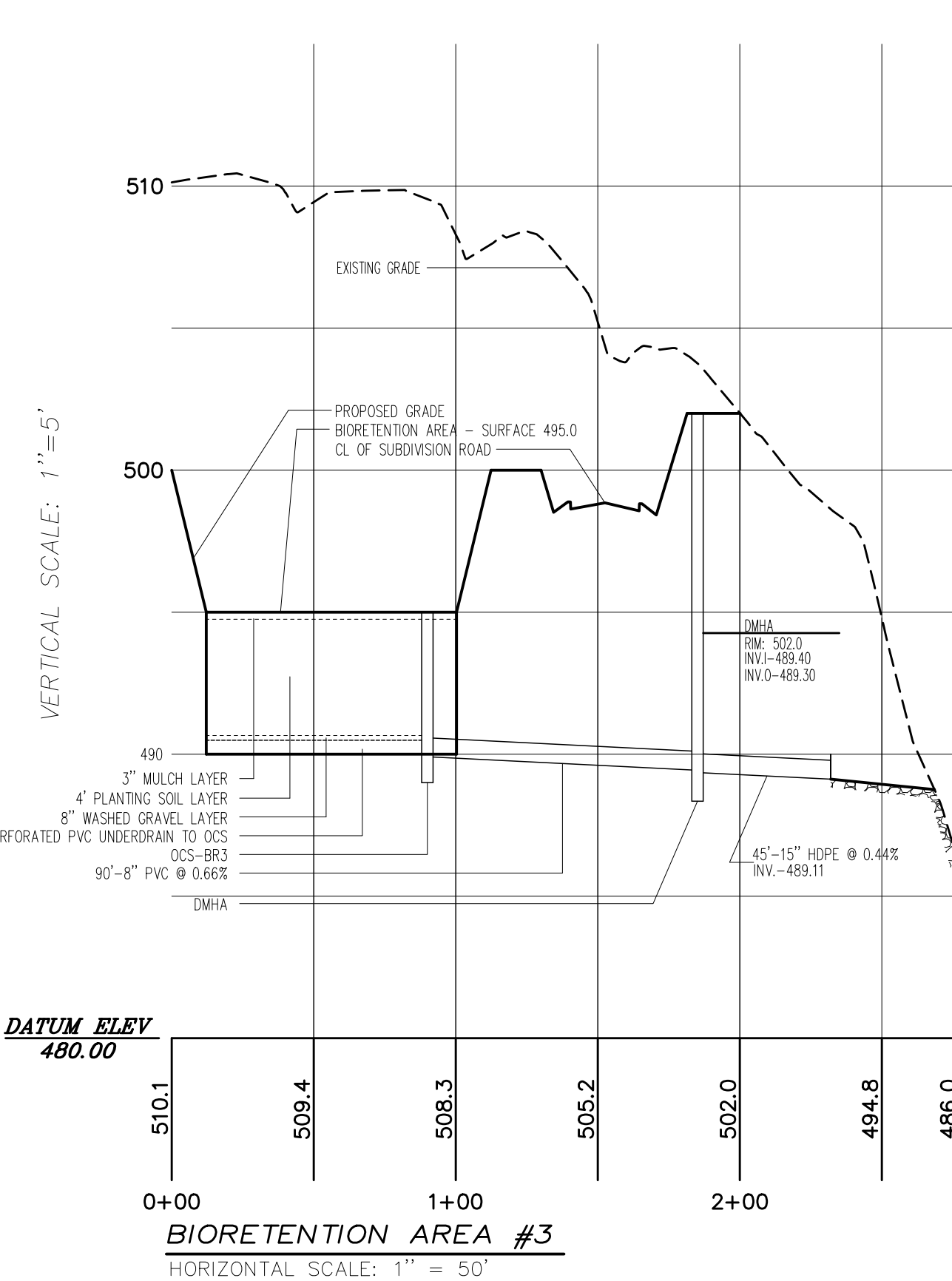
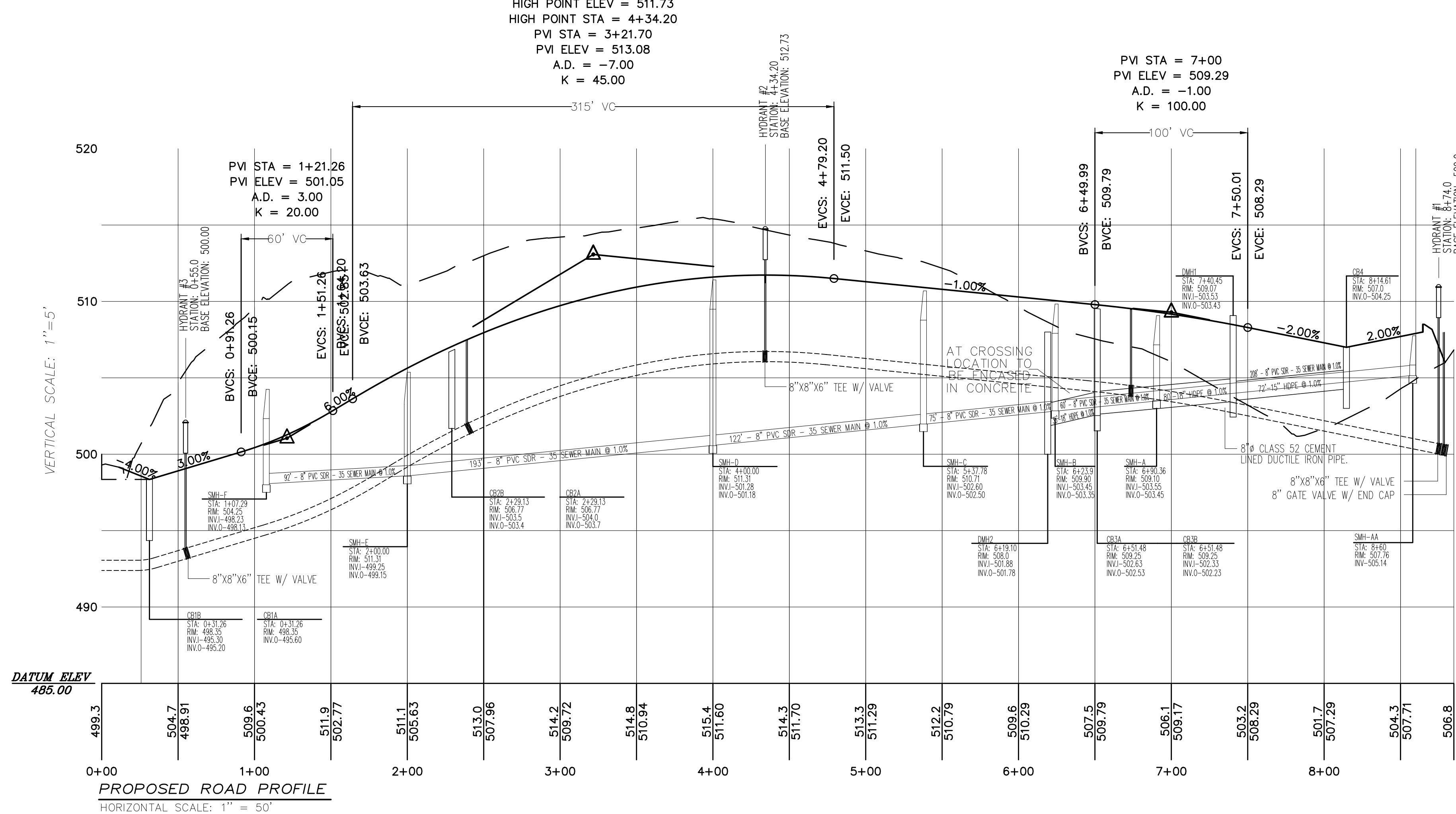
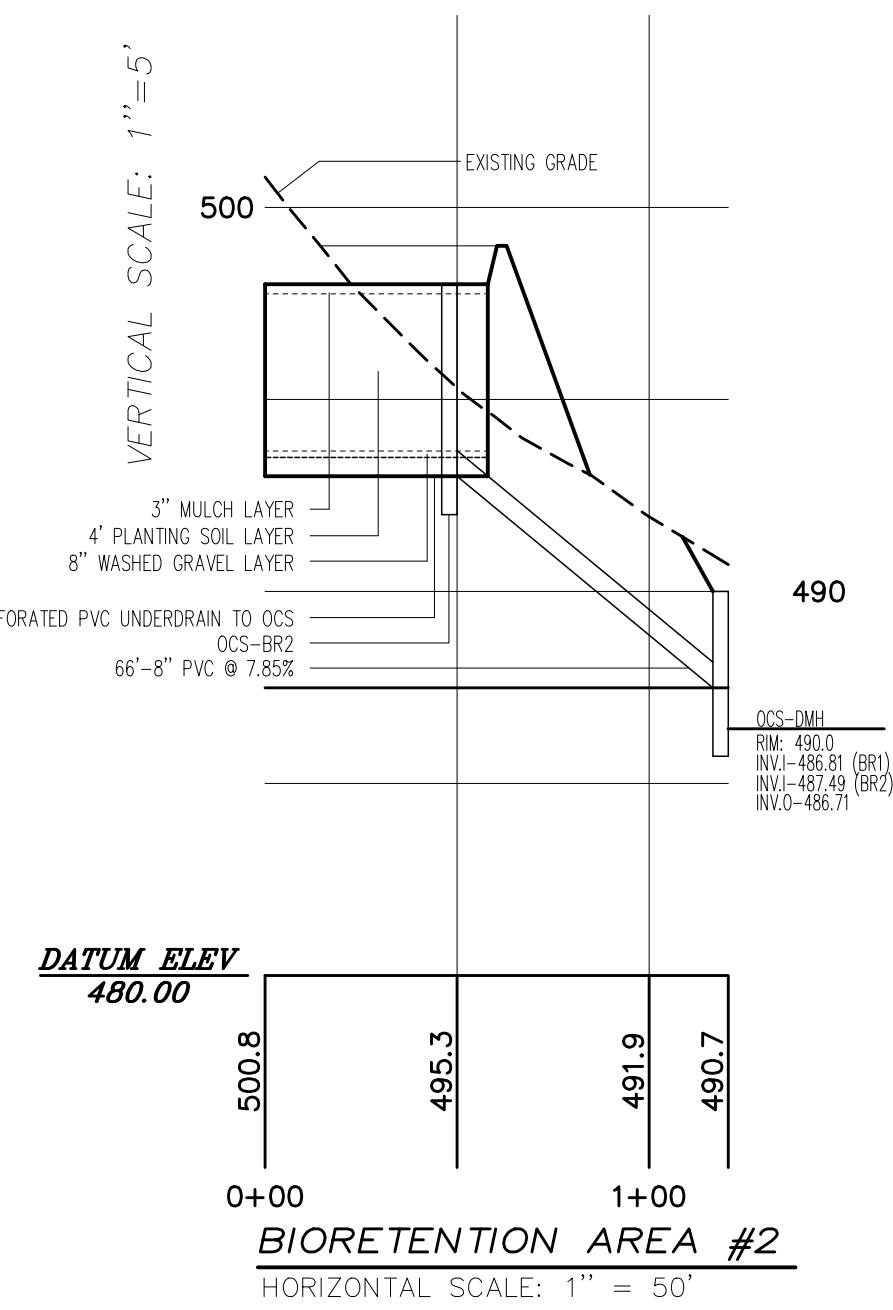
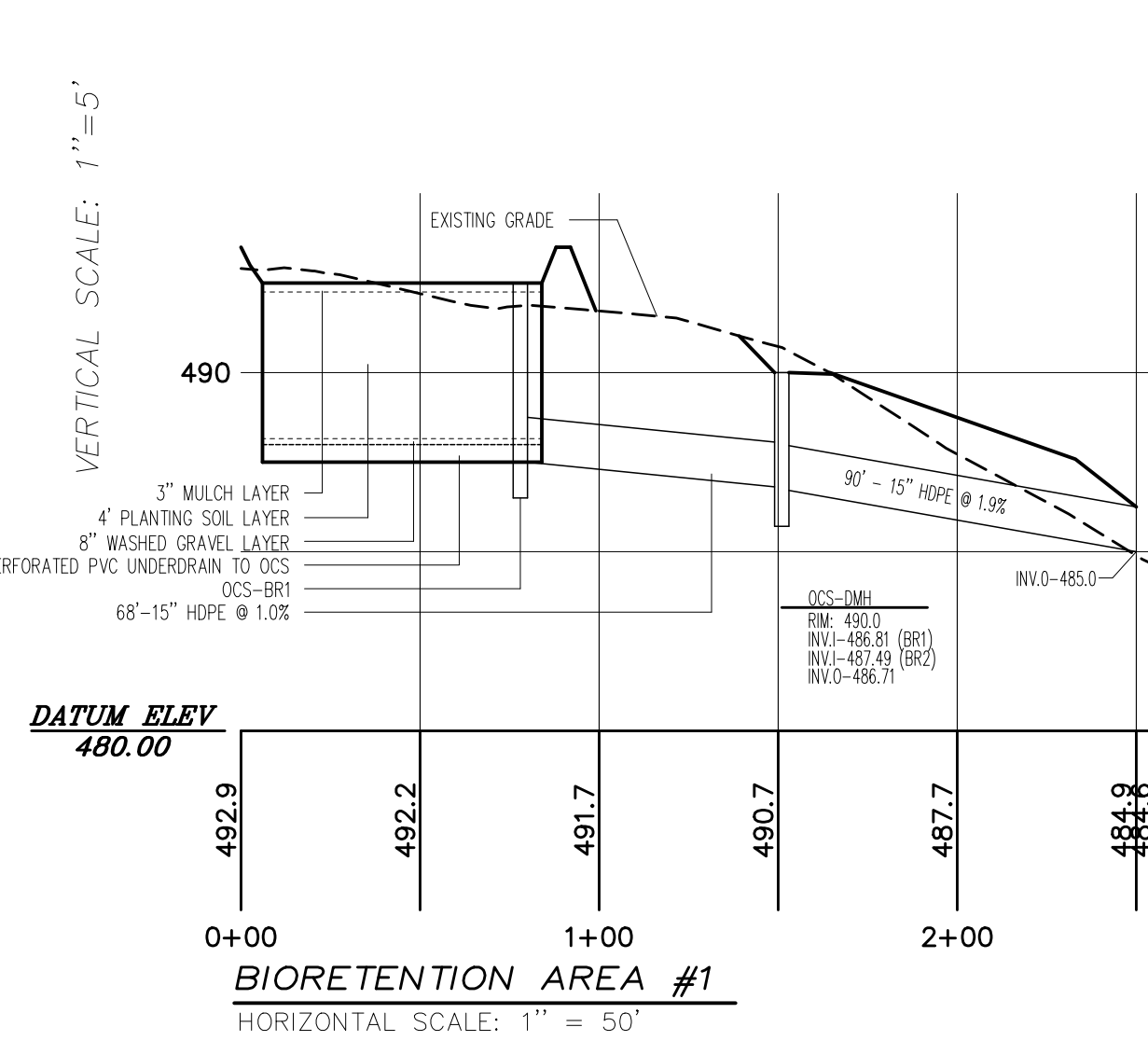
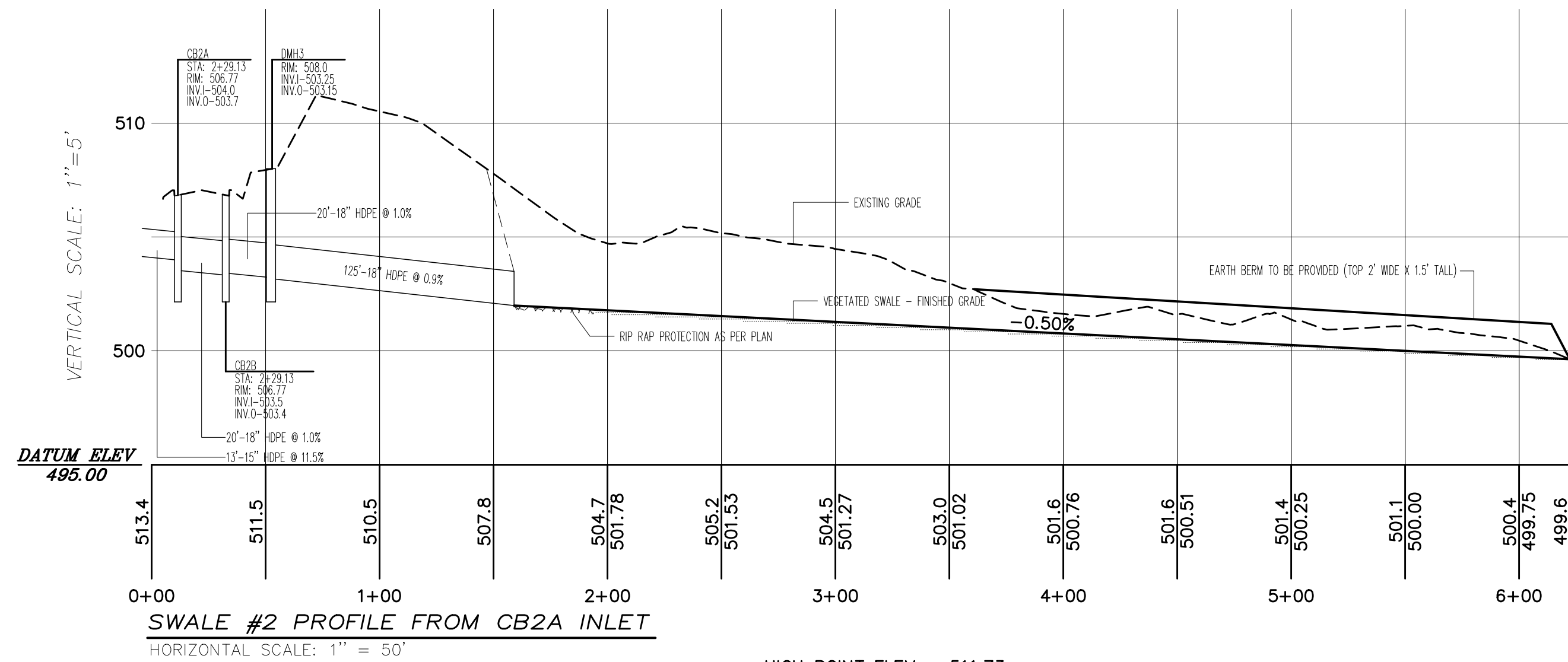
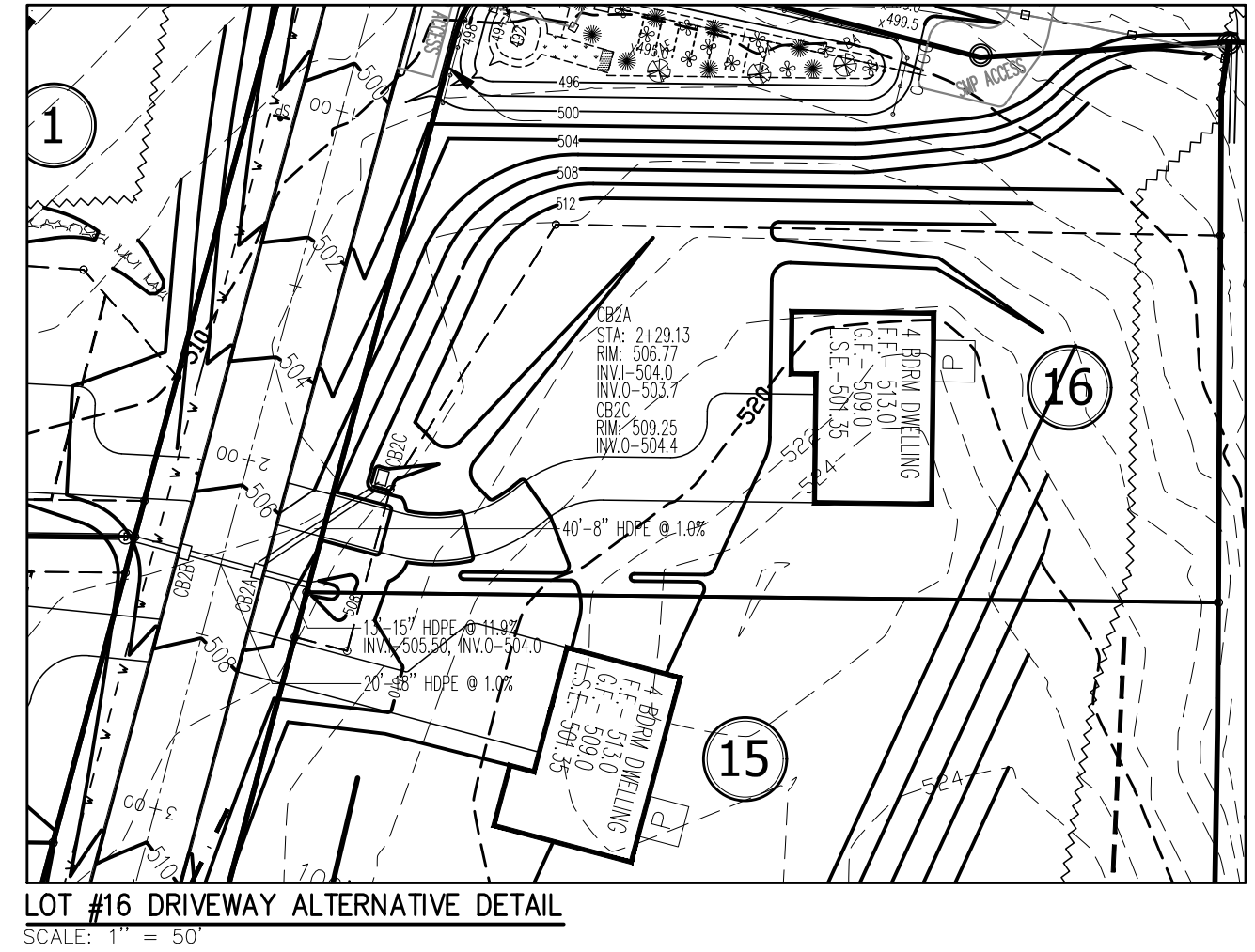
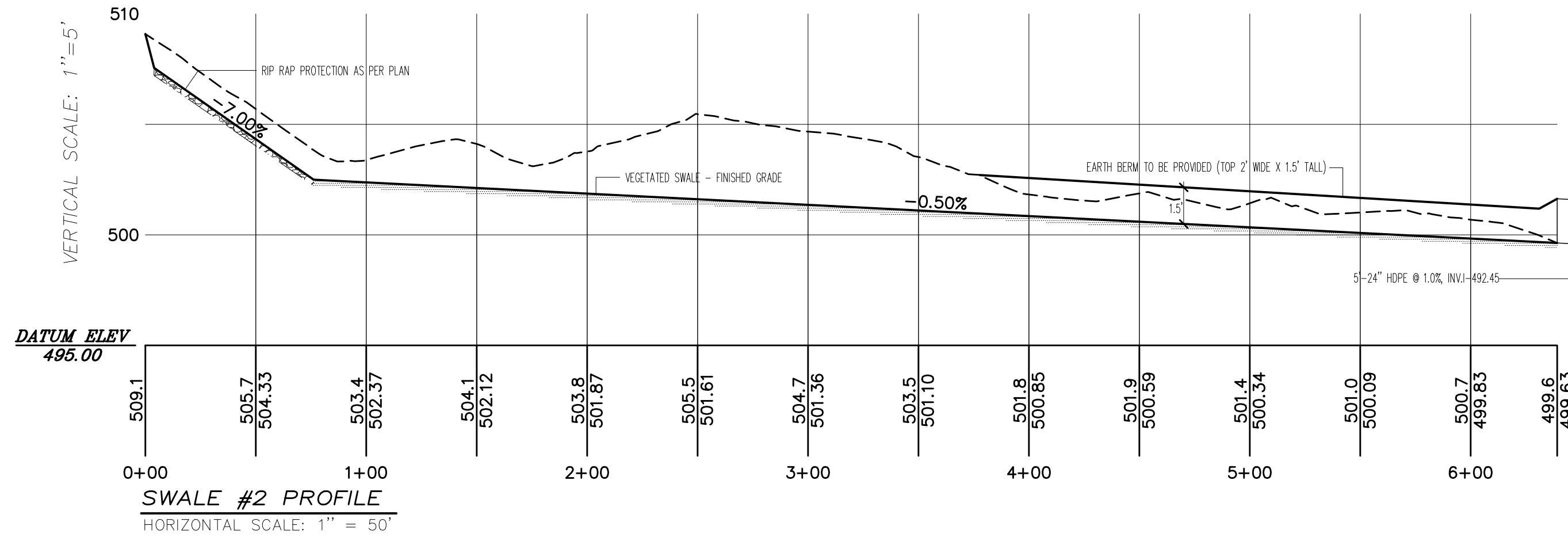
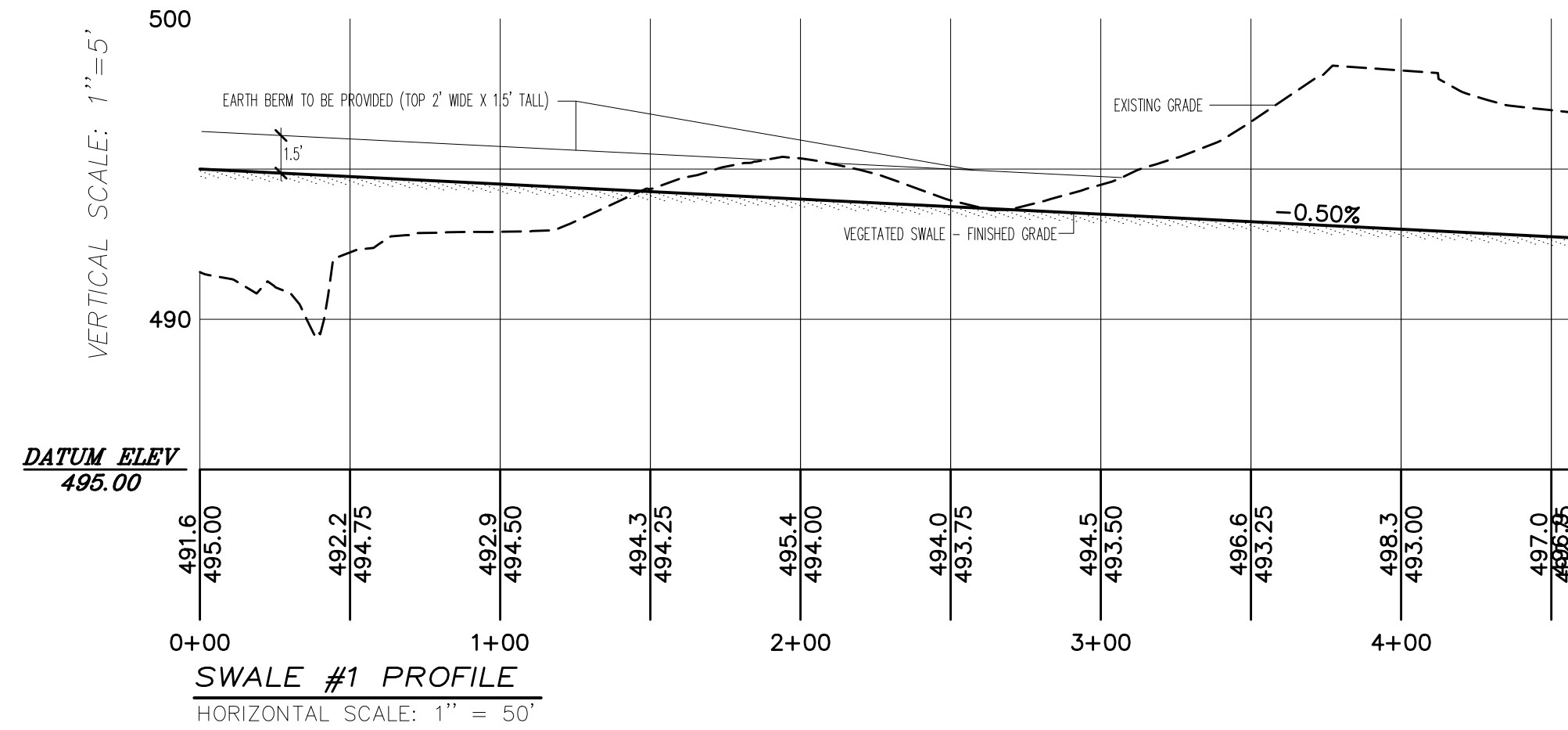
**M.A. DAY Engineering, PC**  
*Consulting Engineers*  
3 Van Wyck  
Lane Suite 2  
Wappingers Falls, New York  
(845)-223-3202

**ALAINA ESTATES**  
TOWN OF BEEKMAN  
DUTCHESS COUNTY, NEW YORK  
**50 SCALE PLAN**

SCALE	AS NOTED	DRAWN BY	BJS	DRAWING NO.	3 of 12
DATE	01-01-17	CHECKED BY	BJS		

OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C/O JOHN MASIMILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER	DATE
TOWN OF BEEKMAN PLANNING BOARD	
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE _____ DAY OF _____, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.	
SIGNED THIS _____ DAY OF _____, 20____, BY _____	
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	





OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C/O JOHN WASHILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
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CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	

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Mark A. Day, PE	
Residence	
Project No. OCTOBER 1, 2018	
License No. 069646	
M.A. DAY Engineering, PC	
Consulting Engineers	
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202	
PROJECT	
ALAINA ESTATES	
TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK	
DRAWING	
DRAINAGE PROFILES	
SCALE	DRAWN BY
AS NOTED	BJS
DATE	CHECKED BY
01-01-17	BJS
4 of 12	

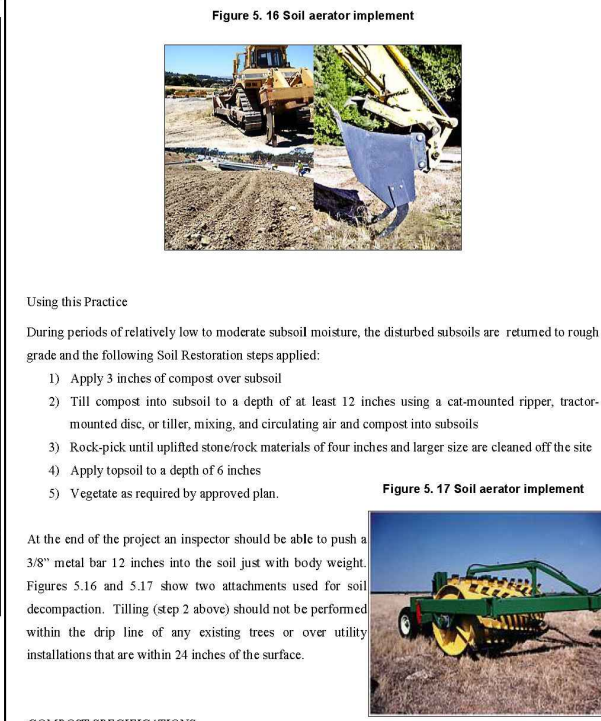


DISTURBED AREA SOIL RESTORATION REQUIREMENTS

Type of Soil Disturbance	Soil Restoration Requirement	Comments/Examples
Minimal soil disturbance	Restoration not required	Preservation of Natural Features
Area where topsoil is stripped only - no change in grade	HSG A & B HSG C & D Apply 6 inches of topsoil	Protect area from any ongoing construction activities
Area of cut or fill	HSG A & B HSG C & D Apply full Soil Restoration**	
Heavy traffic area on site (especially in areas 5-25 feet around buildings but not within 5 feet perimeter around Foundation walls)	Apply full Soil Restoration (de-composition and compost enhancement)	
Area where landfill Reduction and/or infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction	Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities connect a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.	

\*Attention includes the use of machines such as tractor-drawn implements with cozzens making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or pumps which function like a mini-valve.

\*\* Per "Deep Tilling and De-composition, DEC 2008"



Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

**Maintenance**

A simple maintenance agreement should identify where Soil Restoration is applied, where newly restored areas are located, who the responsible parties are to ensure that routine vegetation improvements are made (i.e., thinning, invasive plant removal, etc.). Soil compost amendments within a filter strip or grass channel should be located in public right of way, or within a dedicated stormwater or drainage easement.

**First year maintenance operations include:**

- Initial inspection for the first six months (once after each storm greater than half-inch)
- Re-seeding to repair bare or eroding areas to assure grass stabilization
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor

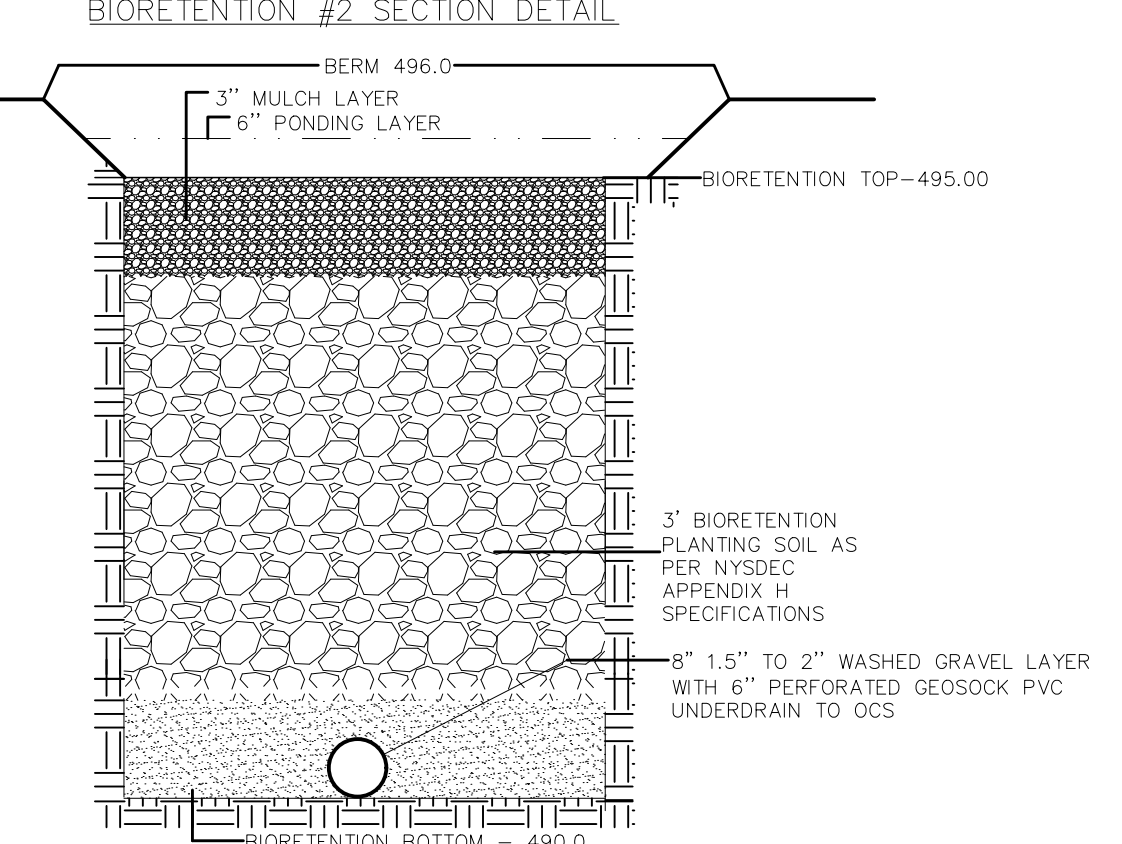
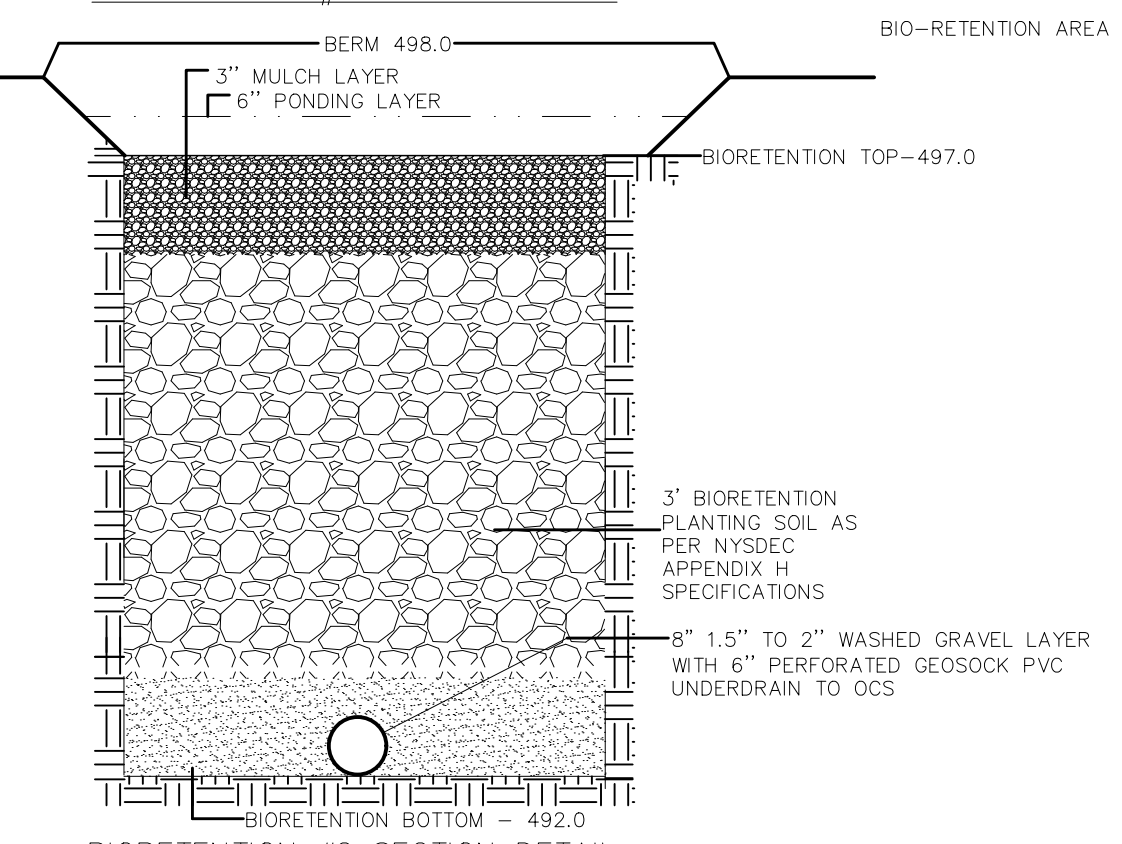
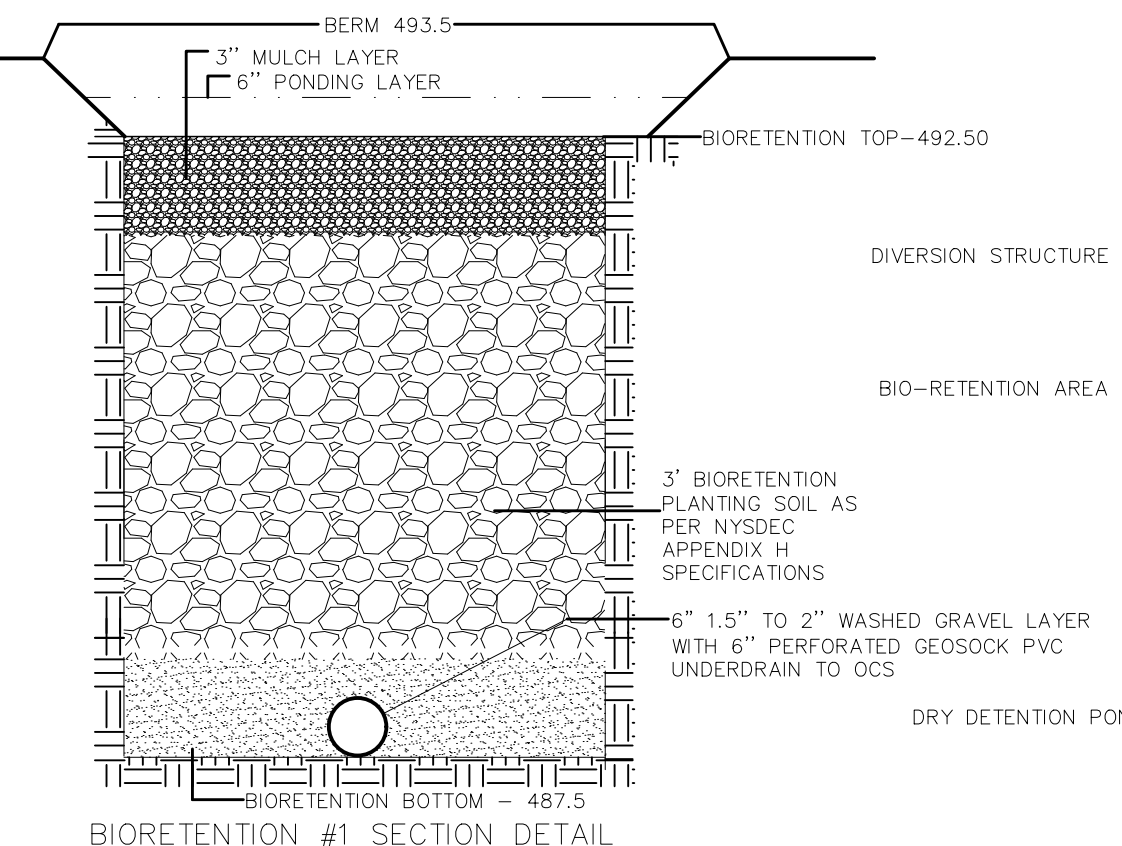
**Ongoing Maintenance:**

Two points help ensure lasting results of decompaction:

- Planting the appropriate ground cover with deep roots to maintain the soil structure
- Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths. (Sometimes it may be necessary to de-slash the turf every few years)

COMPOST SPECIFICATIONS

At the end of the project an inspector should be able to push a 3/4" steel bar 12 inches into the soil just with body weight. Figures 5.16 and 5.17 show two structures used for soil decompaction. Tilling (step 2 above) should not be performed within the dry line of any existing trees or other utility structures that are within 2' radius of the surface.



LANDSCAPING REQUIREMENTS

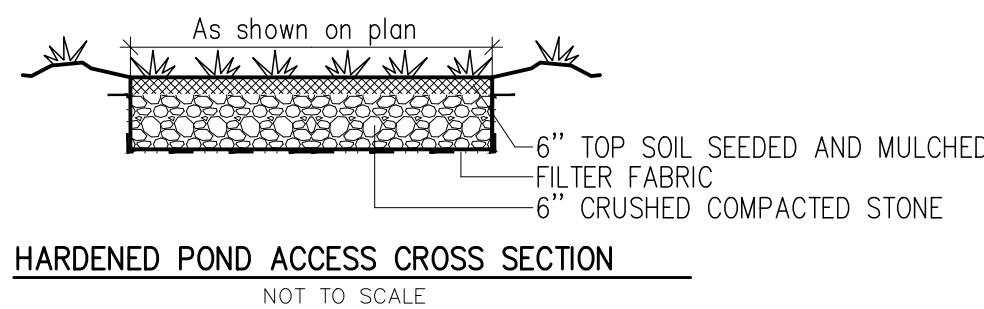
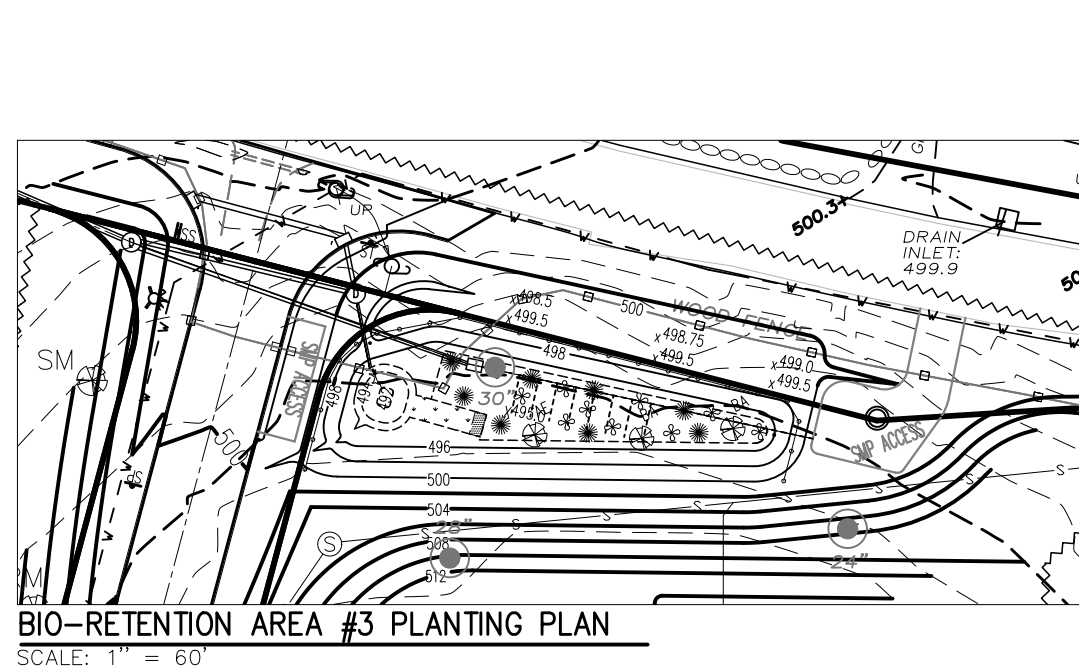
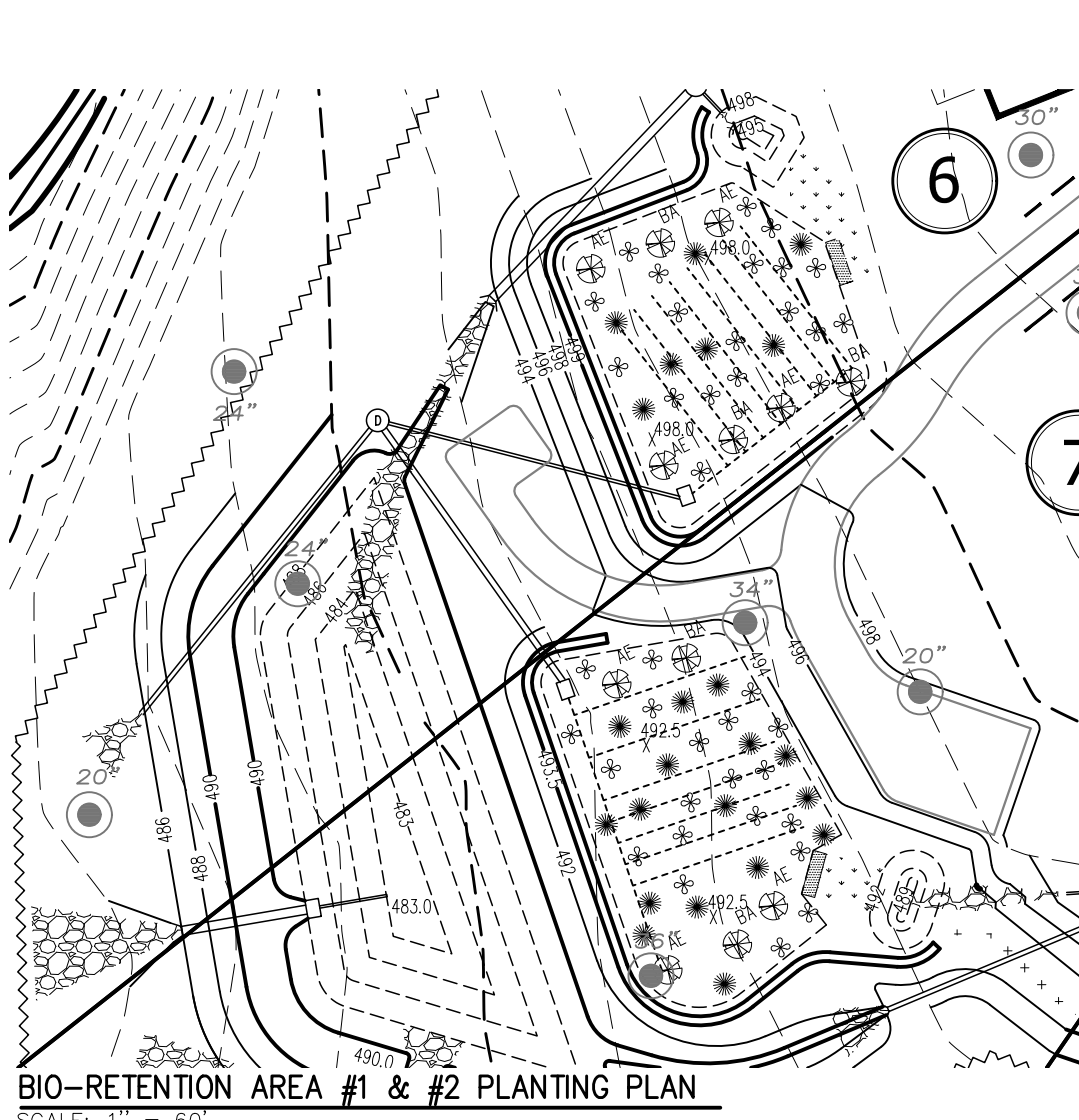
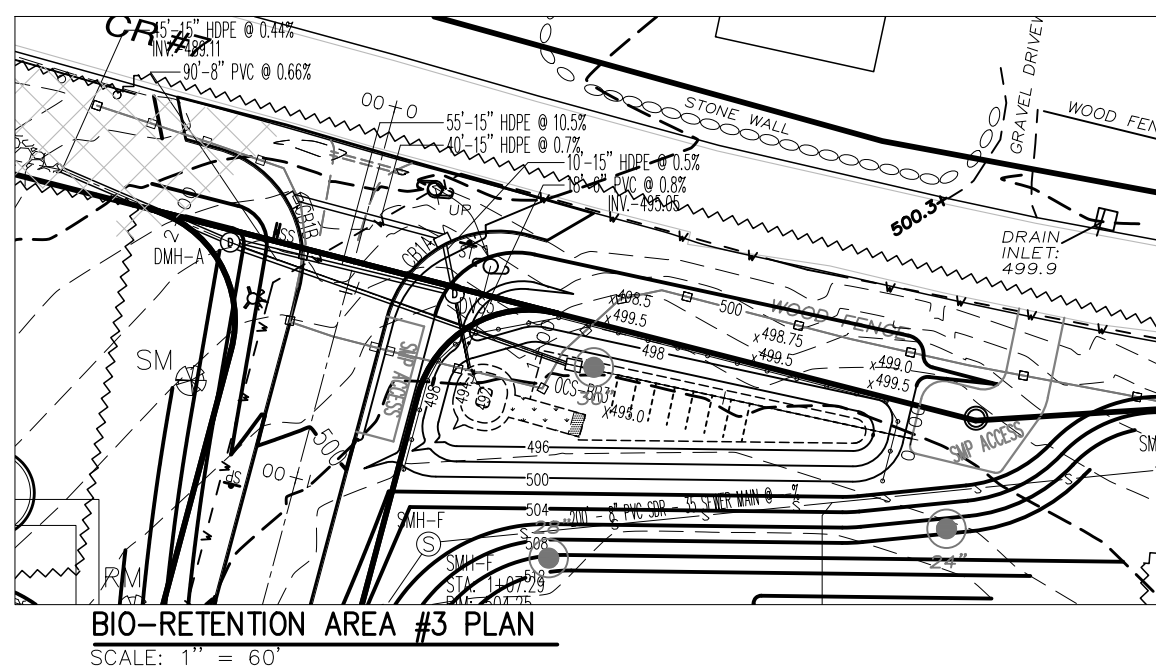
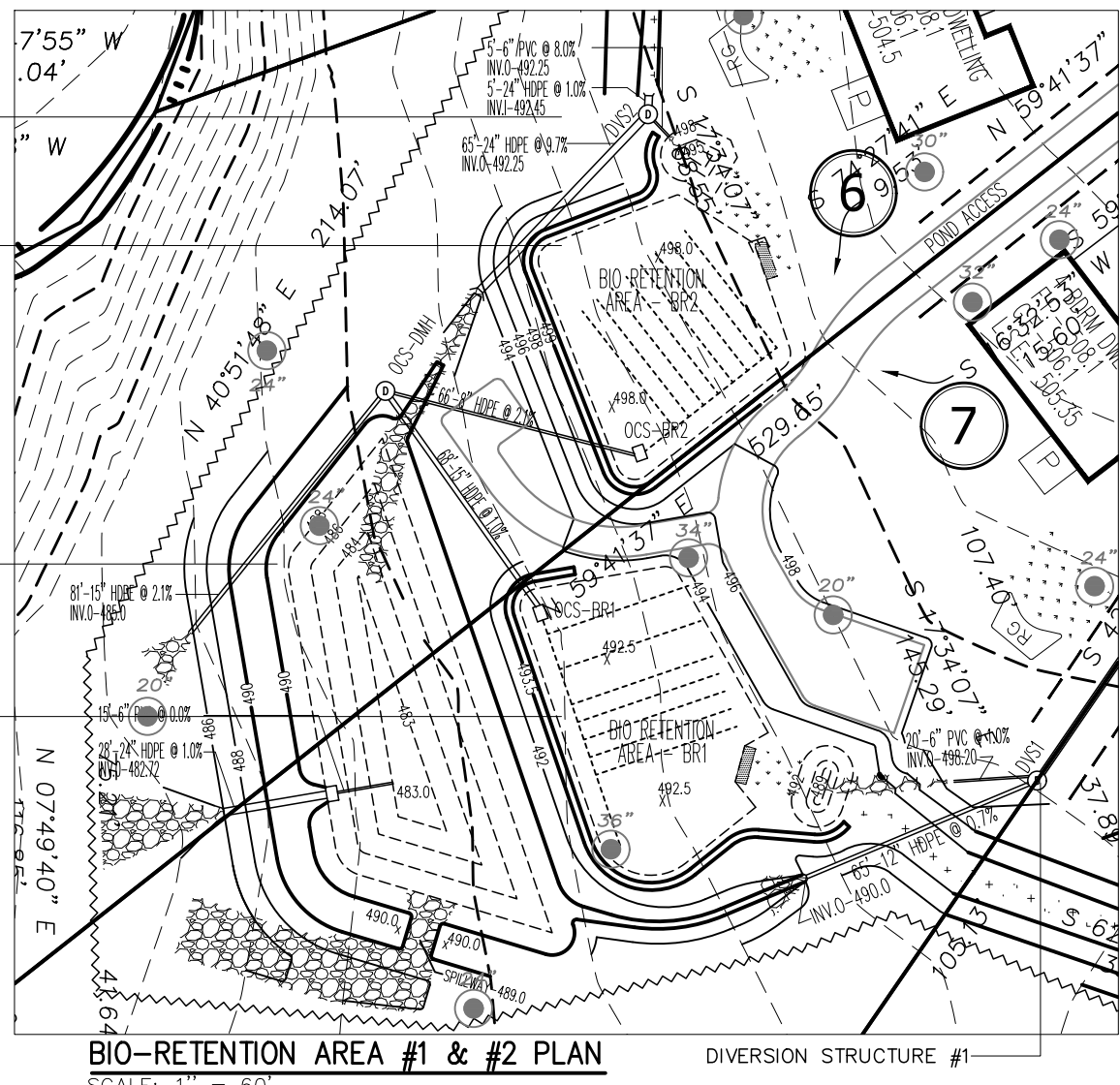
1. A DENSE AND VIGOROUS VEGETATIVE COVER SHALL BE ESTABLISHED OVER THE CONTRIBUTING PERVIOUS DRAINAGE AREAS BEFORE RUNOFF CAN BE ACCEPTED INTO THE FACILITY.

**MAINTENANCE REQUIREMENTS**

1. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE FACILITY OWNER AND THE LOCAL REVIEW AUTHORITY TO ENSURE THE FOLLOWING:

- SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT ACCUMULATES TO A DEPTH OF MORE THAN SIX INCHES. VEGETATION WITHIN THE SEDIMENTATION CHAMBER SHALL BE LIMITED TO A HEIGHT OF 18 INCHES. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED/REPAIRED WHEN DRAINDOWN TIMES EXCEED 36 HOURS.
- SEDIMENT SHALL BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS ONE INCH. WHEN THE FILTERING CAPACITY OF THE FILTER DIMINISHES SUBSTANTIALLY (I.E., WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 48 HOURS), THE TOP TEN FEET OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHALL BE DISPOSED IN AN ACCEPTABLE MANNER (I.E., LANDFILL).
- A STONE DROP (PEA GRAVEL, DAPHAUM) OF AT LEAST SIX INCHES SHALL BE PROVIDED AT THE INLET OF BIORETENTION FACILITIES. AREAS DEVOID OF MULCH SHALL BE RE-MULCHED ON AN ANNUAL BASIS. DEAD OR DISEASED PLANT MATERIAL SHALL BE REPLACED.
- RESTORATION PERIODS: MULCHING FREQUENCY - ANNUAL MULCHING IS REQUIRED. REMOVAL AND REPLACEMENT OF DEAD AND DISEASED VEGETATION; TREATMENT OF DISEASED TREES. WATERING SCHEDULE AFTER INITIAL INSTALLATION ONCE PER DAY FOR 14 DAYS IS REQUIRED. REPAIR AND REPLACEMENT OF STAKES AND WIRES.
- WARRANTY - A 2 YEAR WARRANTY PERIOD IS REQUIRED AFTER PLANTING HAS BEEN COMPLETED TO THE SATISFACTION OF THE TOWN ENGINEER. AN 85% SURVIVAL RATE IS REQUIRED. THE PLANTS SHALL BE IN A HEALTHY CONDITION AT THE END OF THE WARRANTY PERIOD.

Parameter	Value
pH range	5.2 to 7.00
Organic matter	1.5 to 4.0%
Magnesium	35 lbs. per acre, minimum
Phosphorus (P2O5)	75 lbs. per acre, minimum
Potassium (K2O)	85 lbs. per acre, minimum
Soluble salts	< 200 ppm
Clay	10 to 25%
Silt	30 to 55%
Sand	35 to 60%



BIORETENTION PLANTING SCHEDULE

SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	BALL SIZE OR CONTAINER	REMARKS
AE	AMERICAN ELM	ULMUS AMERICANA	2"	32"	NURSERY GROWN, PLANT IN SPRING OF YEAR
BA	BLACK ASH	FRAXINUS NIGRA	2"	32"	NURSERY GROWN, PLANT IN SPRING OF YEAR
BT	BUTTONBUSH	CEPAHLANTHUS OCCIDENTALIS	24"	CONTAINER	NURSERY GROWN, PLANT IN SPRING OF YEAR
EL	ELDERBERRY	SAMBUCUS CANADENSIS	1 GALLON CONTAINER		NURSERY GROWN, PLANT IN SPRING OF YEAR
SA	Speckled Alder	ALNUS RUUGOSA	24"	CONTAINER	NURSERY GROWN, PLANT IN SPRING OF YEAR

SWALE NOTES:

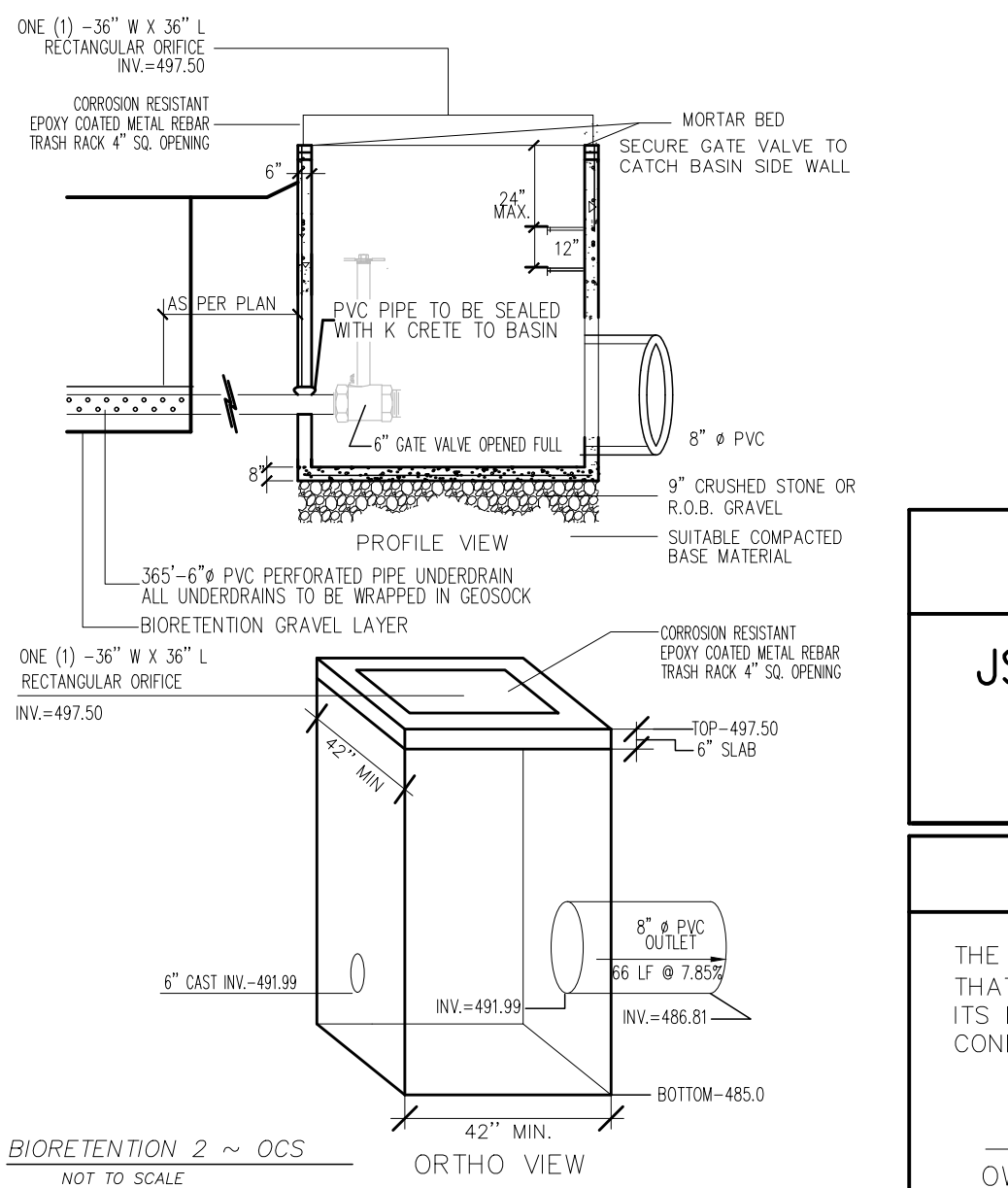
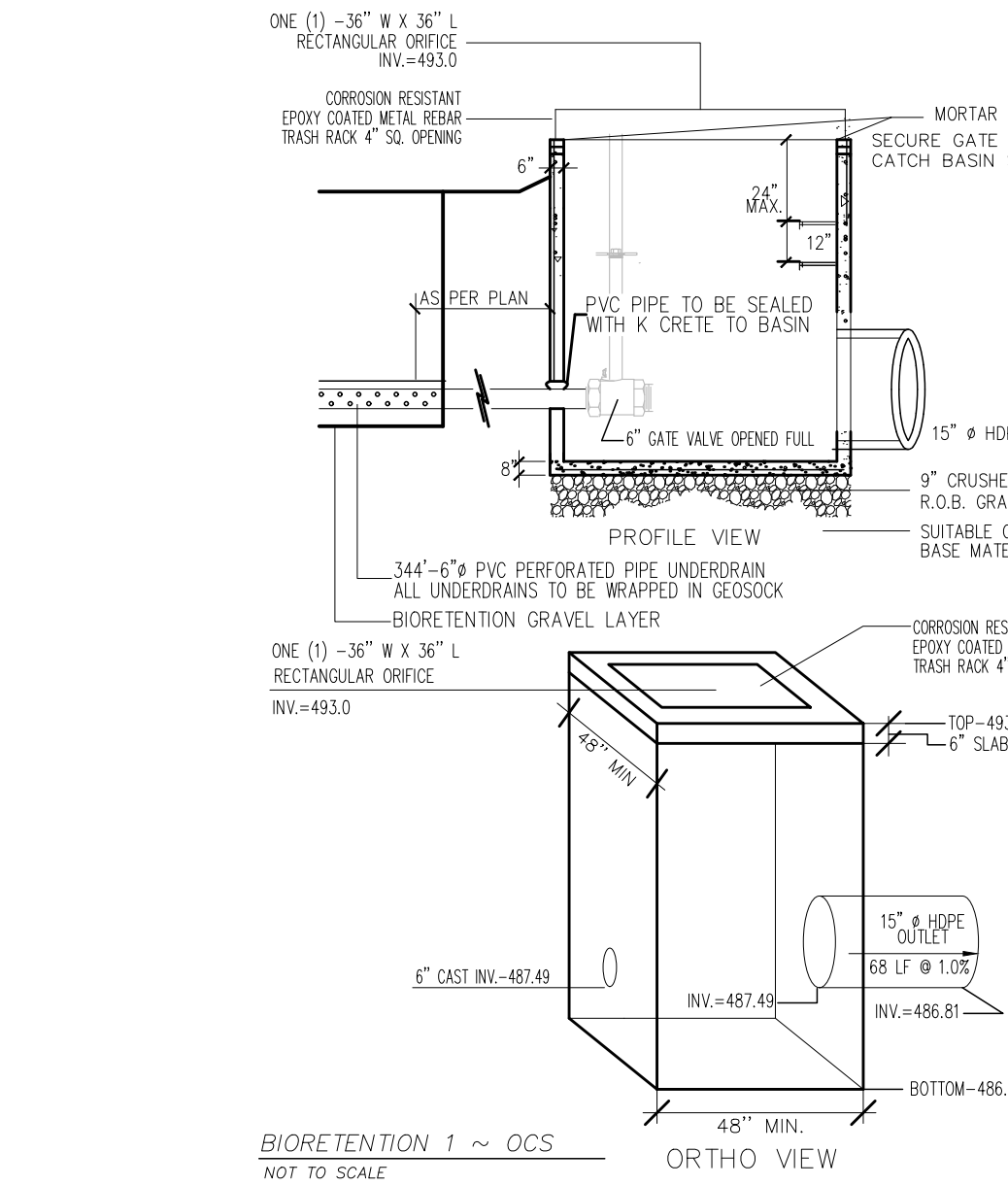
VEGETATIVE REQUIREMENTS

- STRIP VEGETATION, SOIL AND DEBRIS FROM SWALE BY HAND WHERE POSSIBLE
- AMEND SOIL AS NEEDED WITH FERTILIZER AND LIME
- PROVIDE 4 INCHES OF TOPSOIL
- REMOVE ALL STONES AND DEBRIS THAT MAY HINDER FLOW AND MAINTENANCE
- APPLY RECOMMENDED SEED MIXES (OR SOD) PER TABLE 5.9
- ROLL OR CULTI-PACK SEEDS AND MULCH SEED BED. ANCHOR MULCHING AS NEEDED.
- WATER AS NEEDED

MIXTURES	TABLE 5.9 RATE PER ACRE POUNDS	RATE PER 1,000 SQUARE FEET (POUNDS)
A. PERENNIAL RYEGRASS TAI FESCUE OR SMOOTH BROMEGRASS RED TOP	30 20 2	0.68 0.45 0.05
B. KENTUCKY BLUEGRASS CREEPING RED FESCUE PERENNIAL RYEGRASS	25 20 10	0.60 0.50 0.20

MAINTENANCE REQUIREMENTS

- FERTILIZE AND LIME AS NEEDED TO MAINTAIN DENSE VEGETATION.
- MOW AS REQUIRED, DURING THE GROWING SEASON TO MAINTAIN GRASS HEIGHTS AT 4 INCHES TO 6 INCHES.
- REMOVE ANY SEDIMENT OR DEBRIS BUILDUP BY HAND IF POSSIBLE IN THE BOTTOM OF THE CHANNEL WHEN THE DEPTH REACHES 2 INCHES.
- INSPECT FOR POOLS OF STANDING WATER. REGRADE TO RESTORE DESIGN GRADE AND REVEGETATE.
- REPAIR RILLS IN CHANNEL BOTTOM WITH COMPACTED TOPSOIL, ANCHORED WITH MESH OR FILTER FABRIC, SEED AND MULCH.
- USE OF HEAVY EQUIPMENT FOR MOWING AND REMOVING PLANTS/DEBRIS SHOULD BE AVOIDED TO MINIMIZE SOIL COMPACTION. DISTURBED AREAS SHOULD BE STABILIZED WITH SEED AND MULCH, OR REVETMENT, AS NECESSARY.



OUTLET CONTROL STRUCTURE NOTES

CONSTRUCTION NOTES:

- LADDER RUNGS TO CONFORM TO NYS DOT SPEC. 725-02.01.
- ALL PIPES SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE & OUTSIDE.
- BASE & RISER SECTIONS SHALL BE PRECAST & MONOLITHICALLY POURED.
- INSIDE DIMENSIONS SHALL REMAIN CONSTANT FROM TOP TO BOTTOM AND SHALL MATCH THE FRAME OPENING OF THE GRATE.
- SHALL CONFORM TO ASTM C-478 SPECIFICATION CURRENT EDITION AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- PROVIDE PROPER LIP AND/OR ANCHORING IN CASES OF HIGH GROUND WATER TO PREVENT FLOATION.
- TRASH RACK TO HAVE A MIN. 4" SQUARE OPENING. BARS TO BE EPOXY COATED AND CORROSION RESISTANT.
- PVC INLETS SHALL BE FITTED WITH A DOWN TURNED ELBOW WITH A SCREEN.
- ALL GATE VALVES PROVIDED BY UNDERDRAIN OR EQUIVALENT.
- ALL TRASH RACKS SHALL BE HINGED TO HAVE THE ABILITY TO BE OPENED.
- ALL GATE VALVES TO BE ACCESSIBLE FROM TOP OF DRAINAGE STRUCTURE.

NYSDEC STORMWATER DESIGN MANUAL APPENDIX H.2 BIORETENTION PLANTING SOIL BED CHARACTERISTICS

THE CHARACTERISTICS OF THE SOIL FOR THE BIORETENTION FACILITY ARE PERHAPS AS IMPORTANT AS THE FACILITY LOCATION, SIZE, AND TREATMENT VOLUME. THE SOIL MUST BE PERMEABLE ENOUGH TO ALLOW RUNOFF TO FILTER THROUGH THE MEDIA, WHILE HAVING CHARACTERISTICS SUITABLE TO PROMOTE AND SUSTAIN A ROBUST VEGETATIVE COVER CROP. IN ADDITION, MUCH OF THE NUTRIENT POLLUTANT UPTAKE (NITROGEN AND PHOSPHORUS) IS ACCOMPLISHED THROUGH ADSORPTION AND MICROBIAL ACTIVITY WITHIN THE SOIL PROFILE. THEREFORE, THE SOILS MUST BALANCE SOIL CHEMISTRY AND PHYSICAL PROPERTIES TO SUPPORT BIOTIC COMMUNITIES ABOVE AND BELOW GROUND.

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME. SOILS SHOULD FALL WITHIN THE SM, OR ML CLASSIFICATIONS OF THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. BRUSH OR SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12 TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN TABLE H.2.

MULCH LAYER

THE MULCH LAYER PLAYS AN IMPORTANT ROLE IN THE PERFORMANCE OF THE BIORETENTION SYSTEM. THE MULCH LAYER HELPS MAINTAIN SOIL MOISTURE AND AVOID SURFACE SEALING WHICH REDUCES PERMEABILITY. MULCH HELPS PREVENT EROSION, AND PROVIDES A MICRO-ENVIRONMENT SUITABLE FOR SOIL BIOTA AT THE MULCH/SOIL INTERFACE. IT ALSO SERVES AS A PRETREATMENT LAYER, TRAPPING THE FINER SEDIMENTS WHICH REMAIN SUSPENDED AFTER THE PRIMARY PRETREATMENT.

THE MULCH LAYER SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE, SHREDDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS), UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS, SUCH AS WEED SEEDS, SOIL, ROOTS, ETC. THE MULCH SHOULD BE APPLIED TO A MAXIMUM DEPTH OF THREE INCHES. GRASS CLIPPINGS SHOULD NOT BE USED AS A MULCH MATERIAL.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

OWNER & APPLICANT

JSM UPSTATE PROPERTIES INC  
C.O JOHN MASIMILLO  
208 PLEASANT PLAINS AVE  
STATEN ISLAND NY 10309

OWNER'S CONSENT

THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

OWNER \_\_\_\_\_ DATE \_\_\_\_\_

TOWN OF BEEKMAN PLANNING BOARD

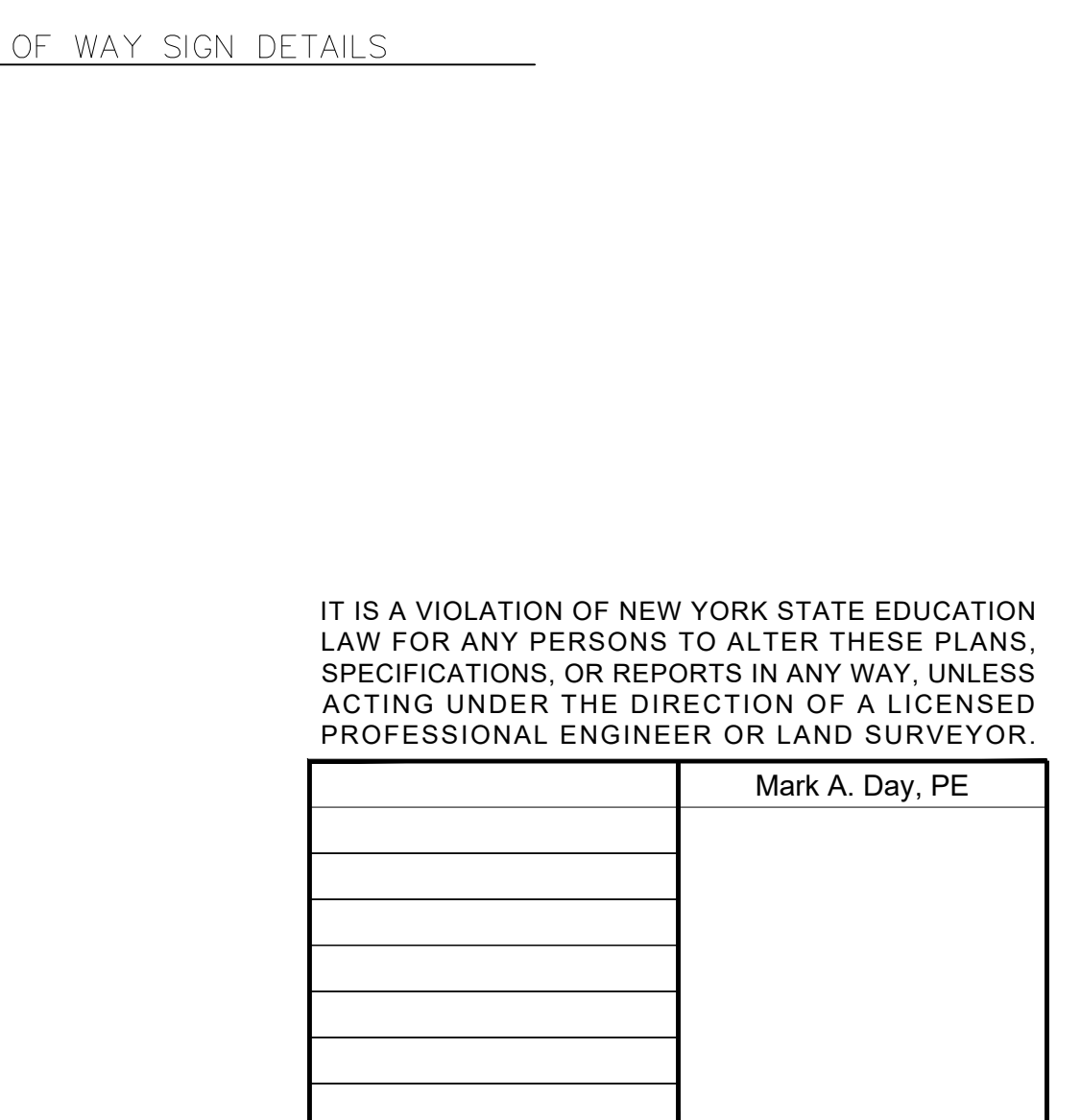
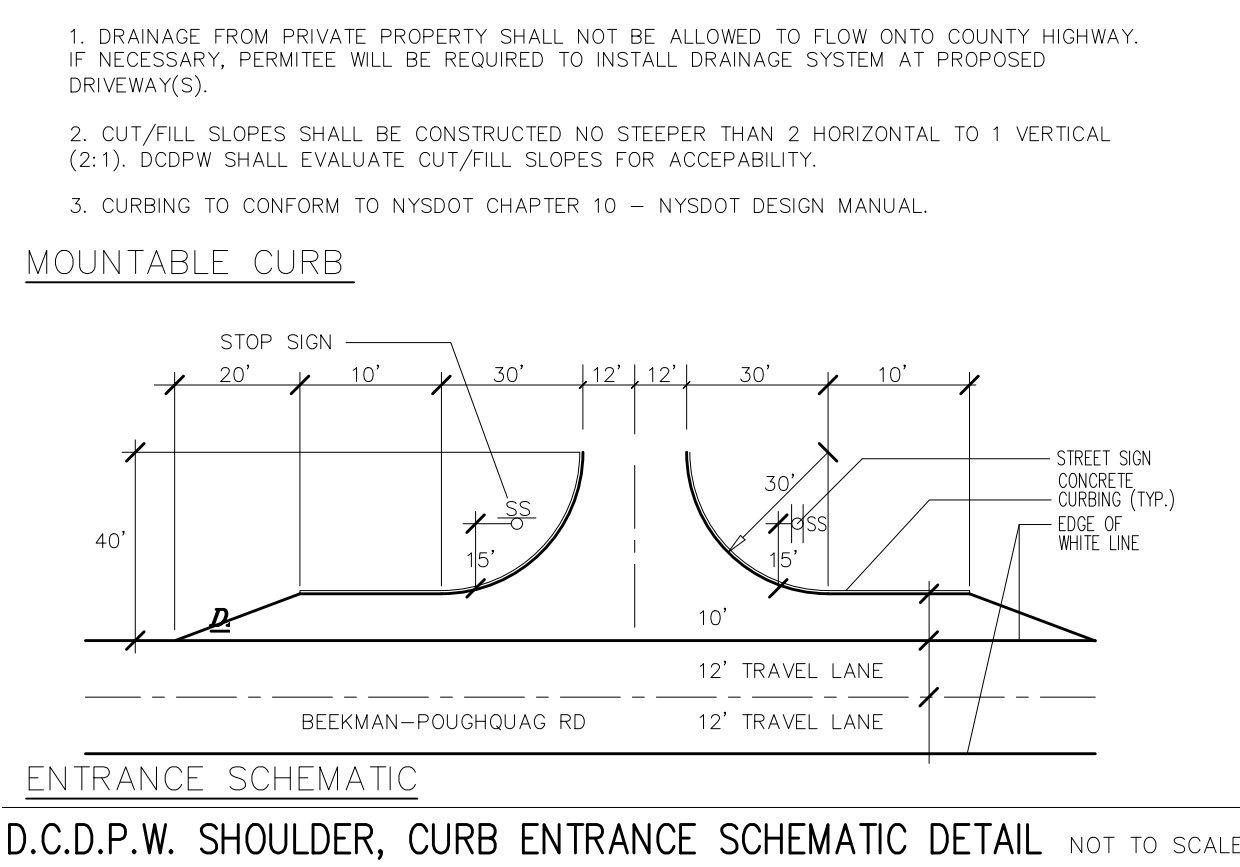
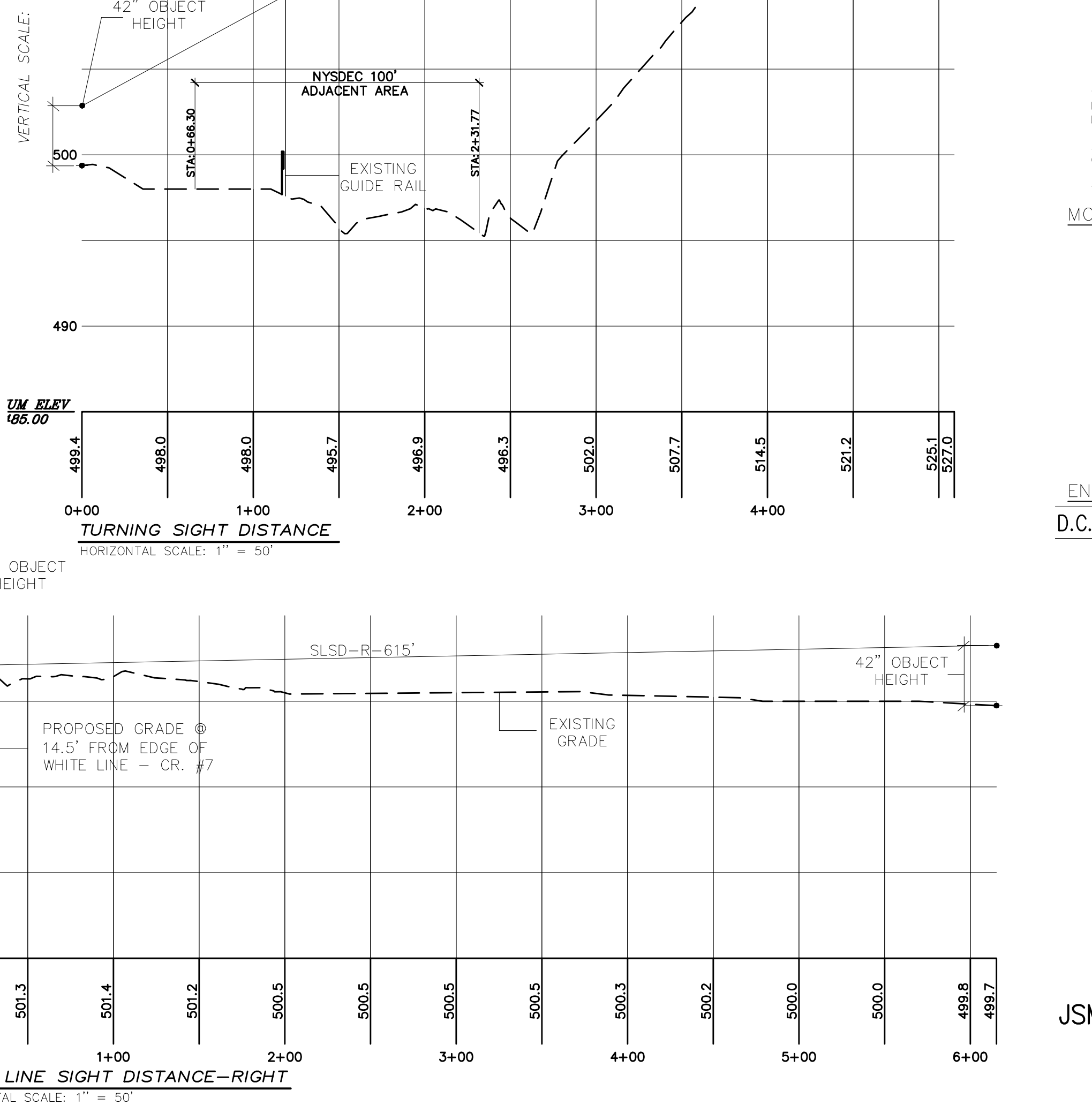
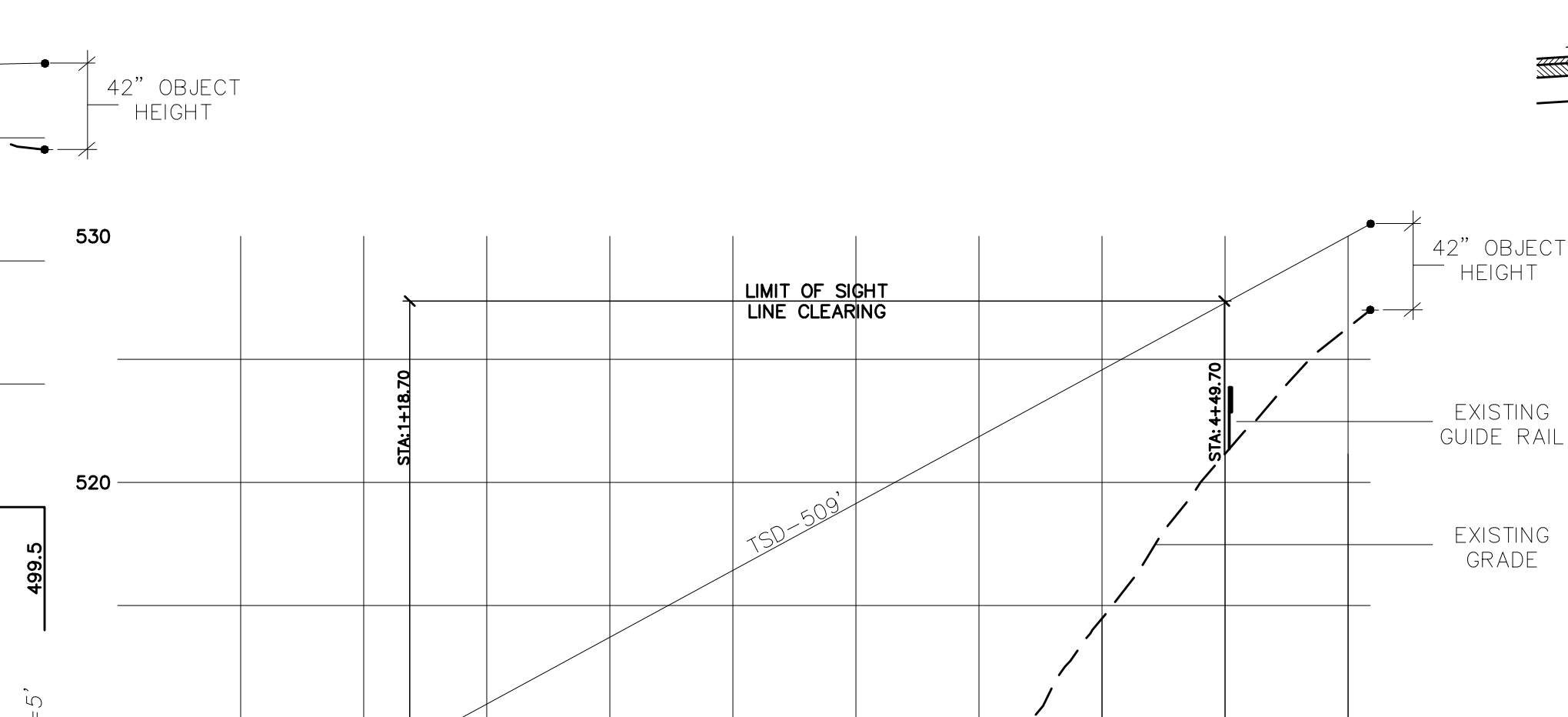
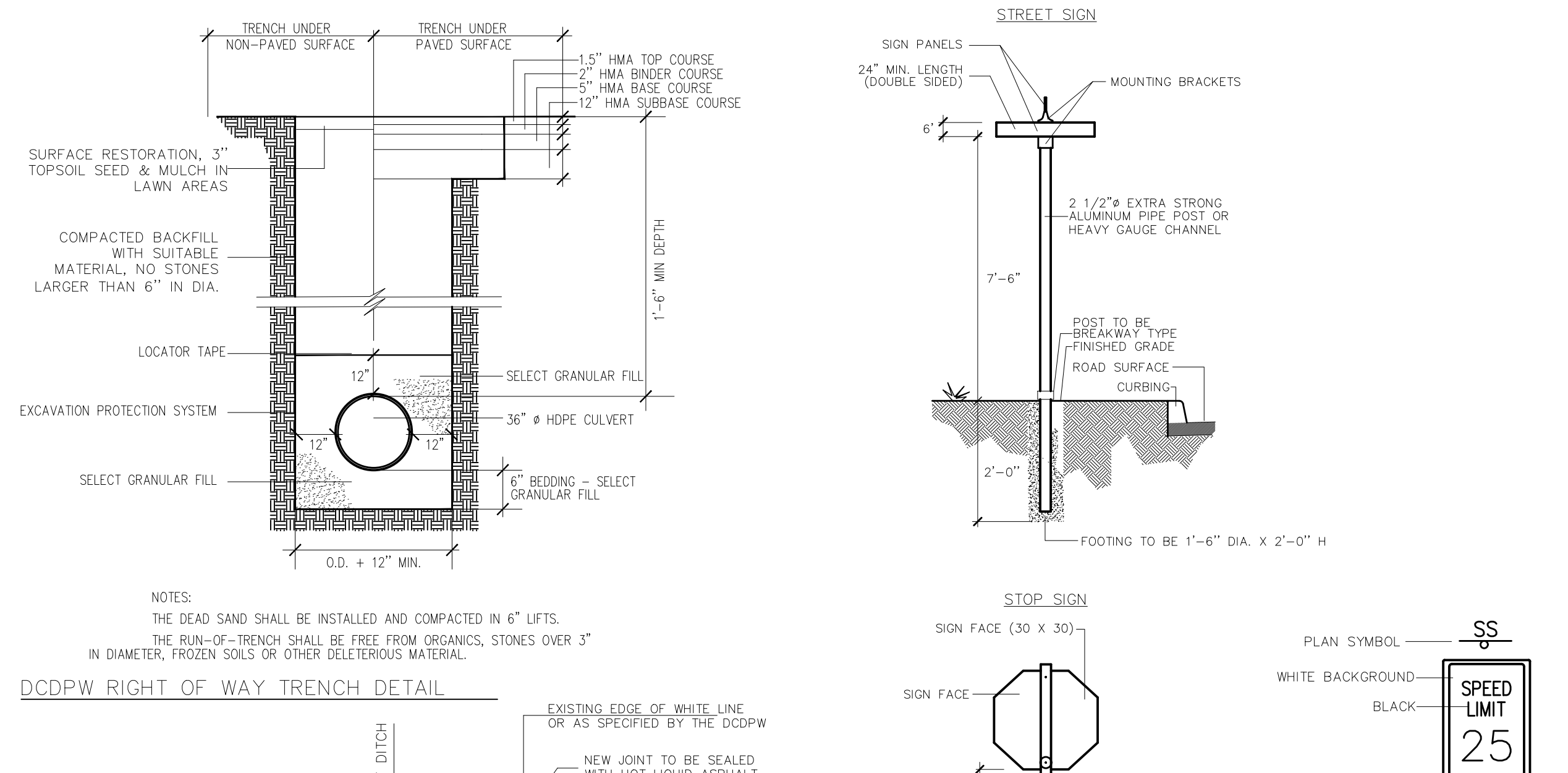
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BY \_\_\_\_\_

CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK

Mark A. Day, PE		
Revised	OCTOBER 1, 2018	
Project No.	2018.249	License No. 069646
<b>M.A. DAY Engineering, PC</b>		
Consulting Engineers		
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202		
PROJECT		
<b>ALAINA ESTATES</b>		
TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK		
DRAWING		
<b>CONSTRUCTION DETAILS</b>		
SCALE	AS NOTED	DRAWN BY
DATE	01-01-17	CHECKED BY
	BJS	
		5 of 12



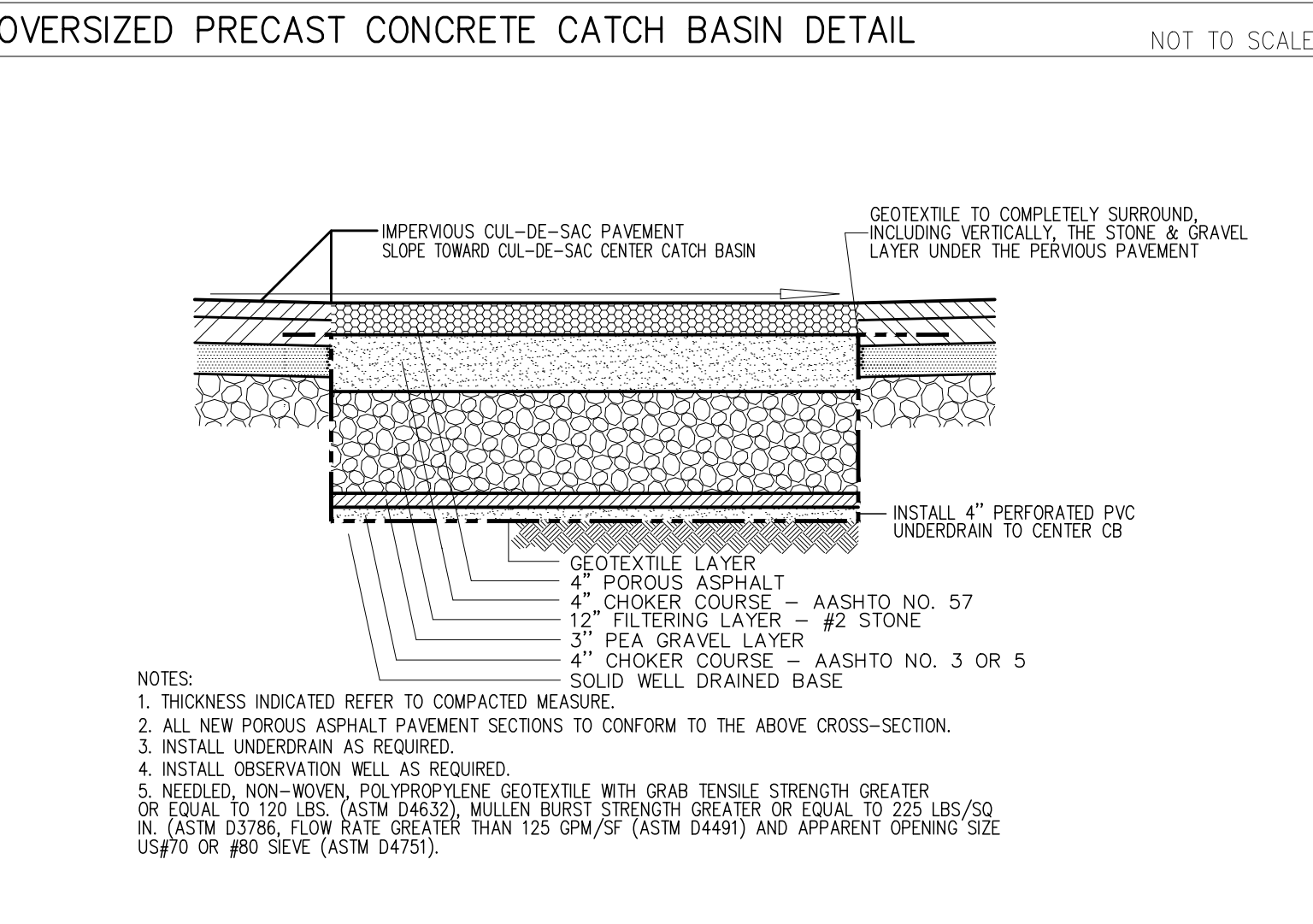
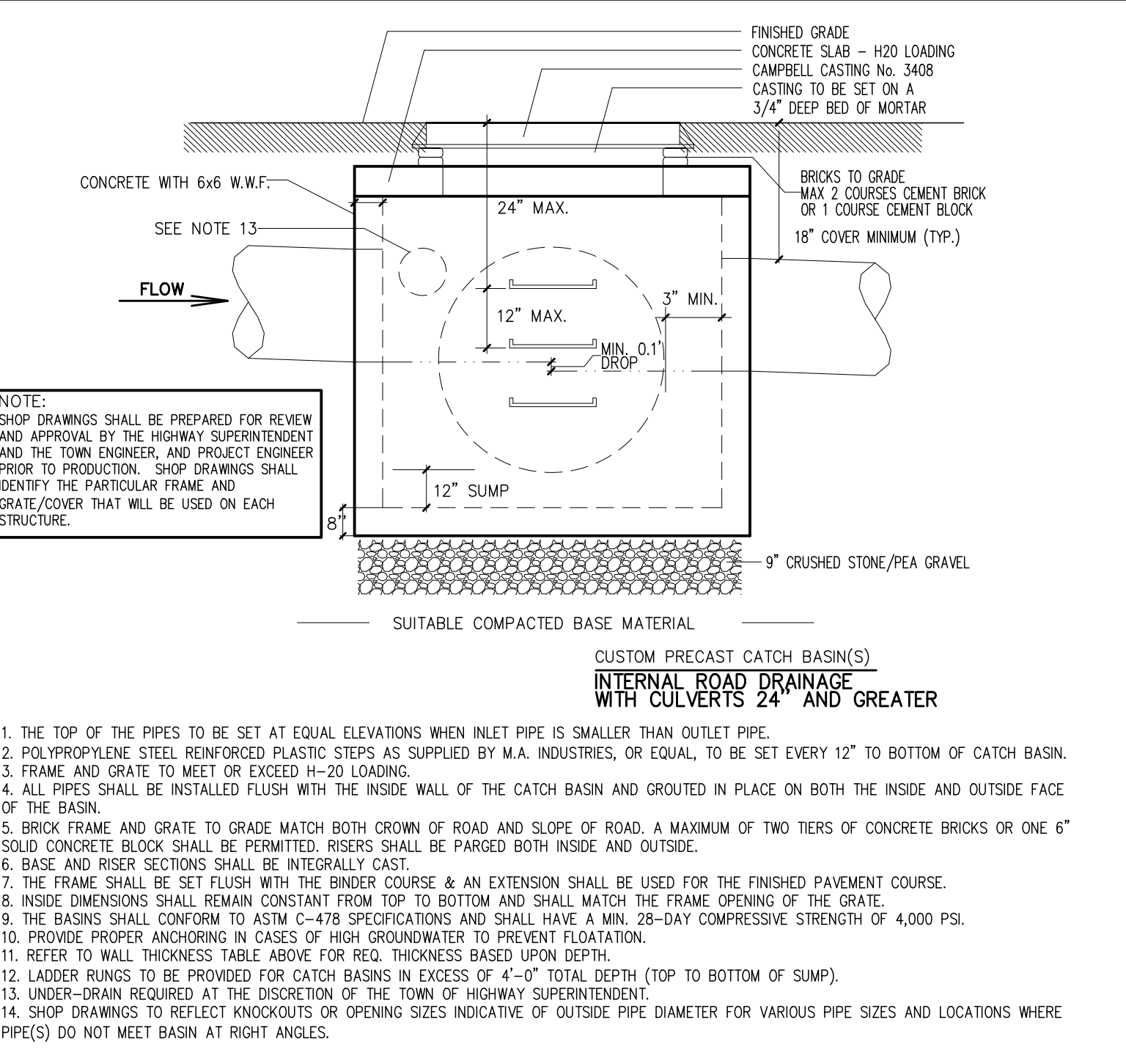
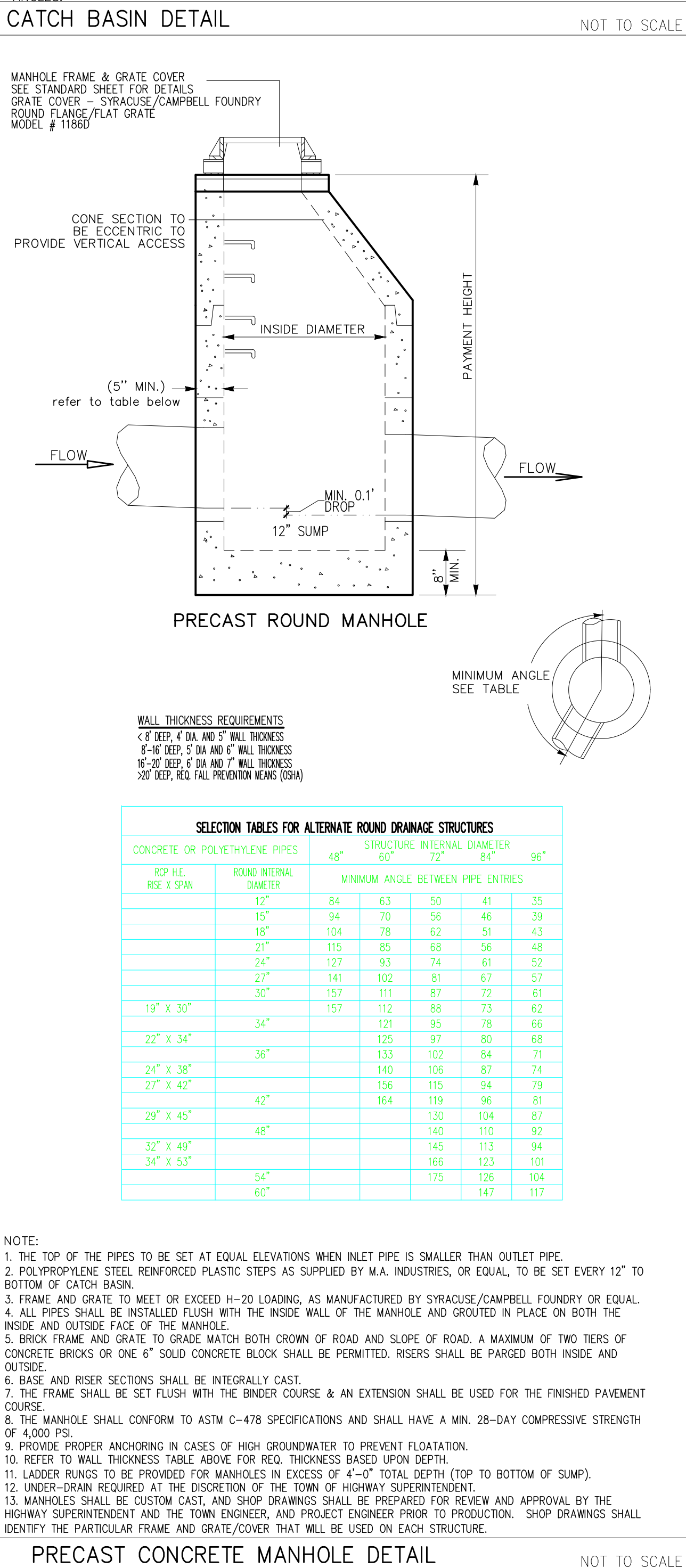
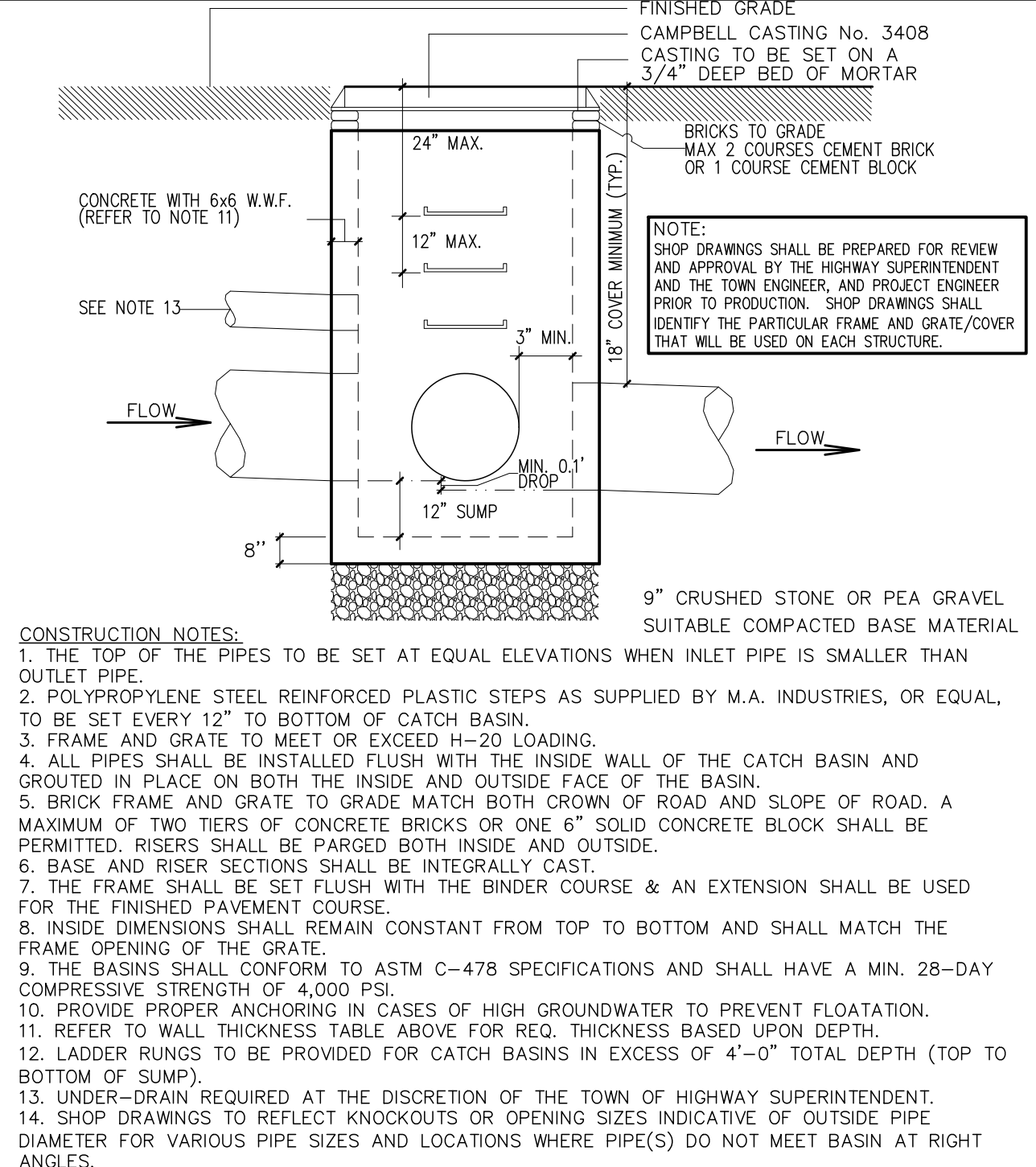
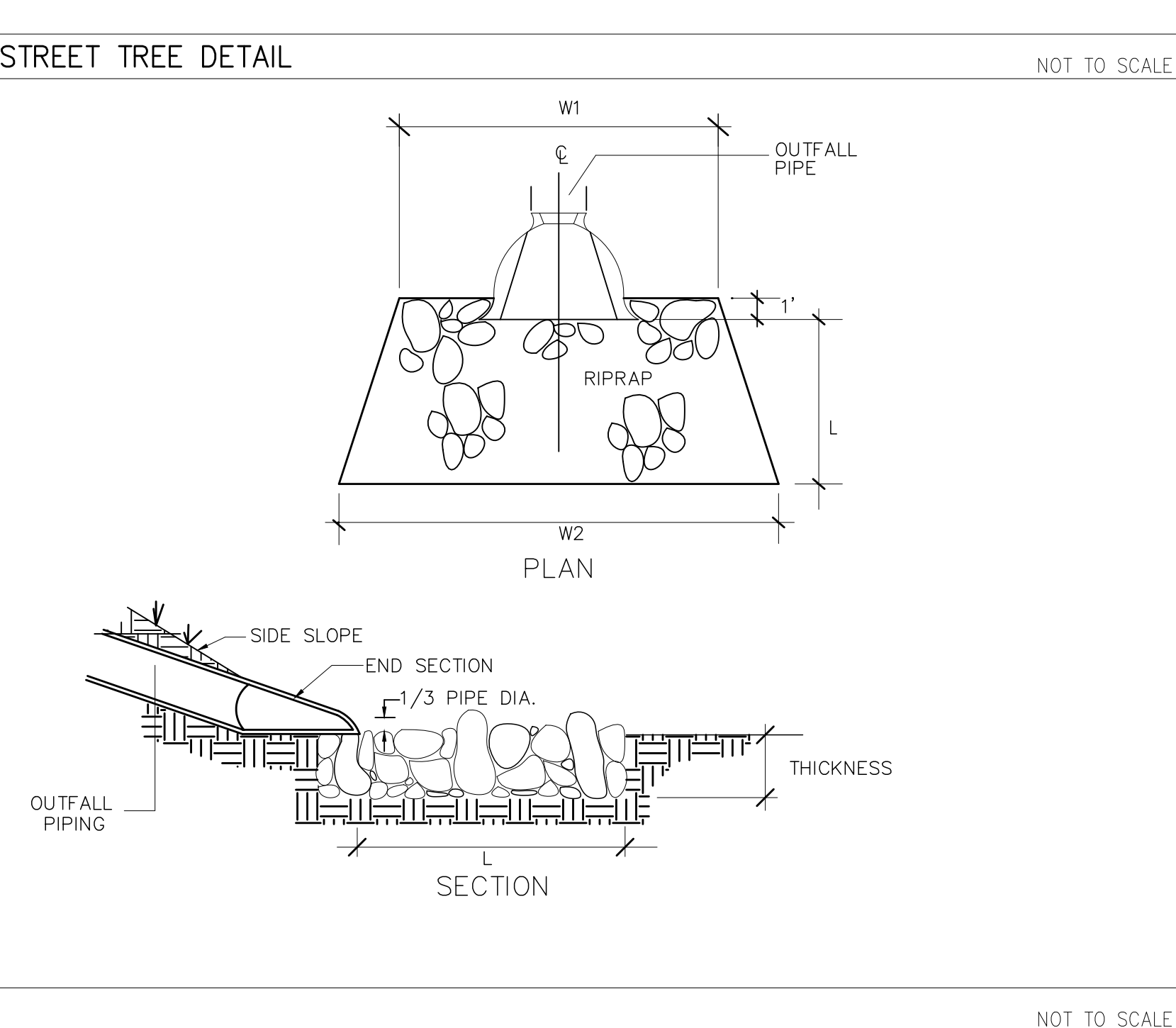
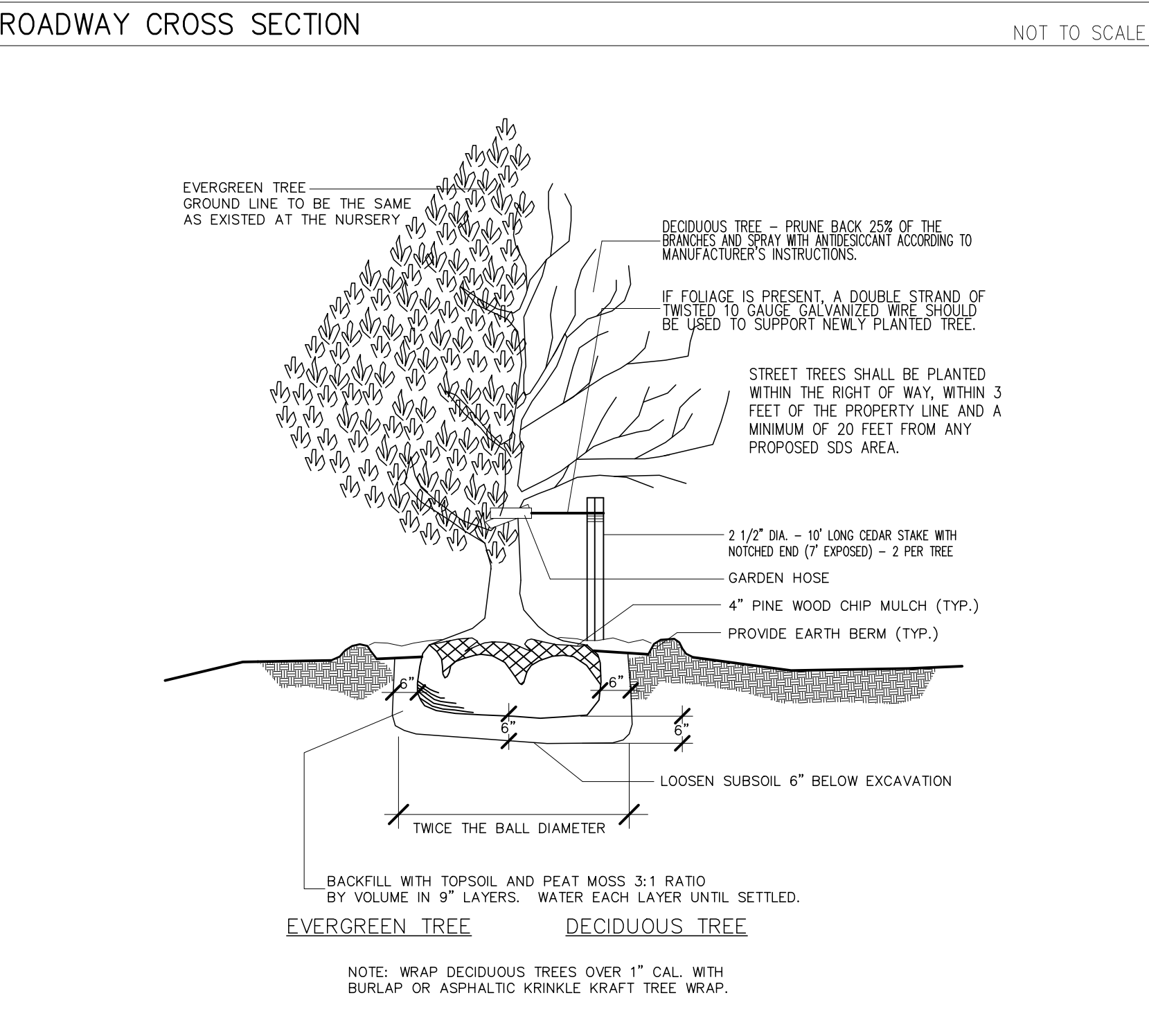
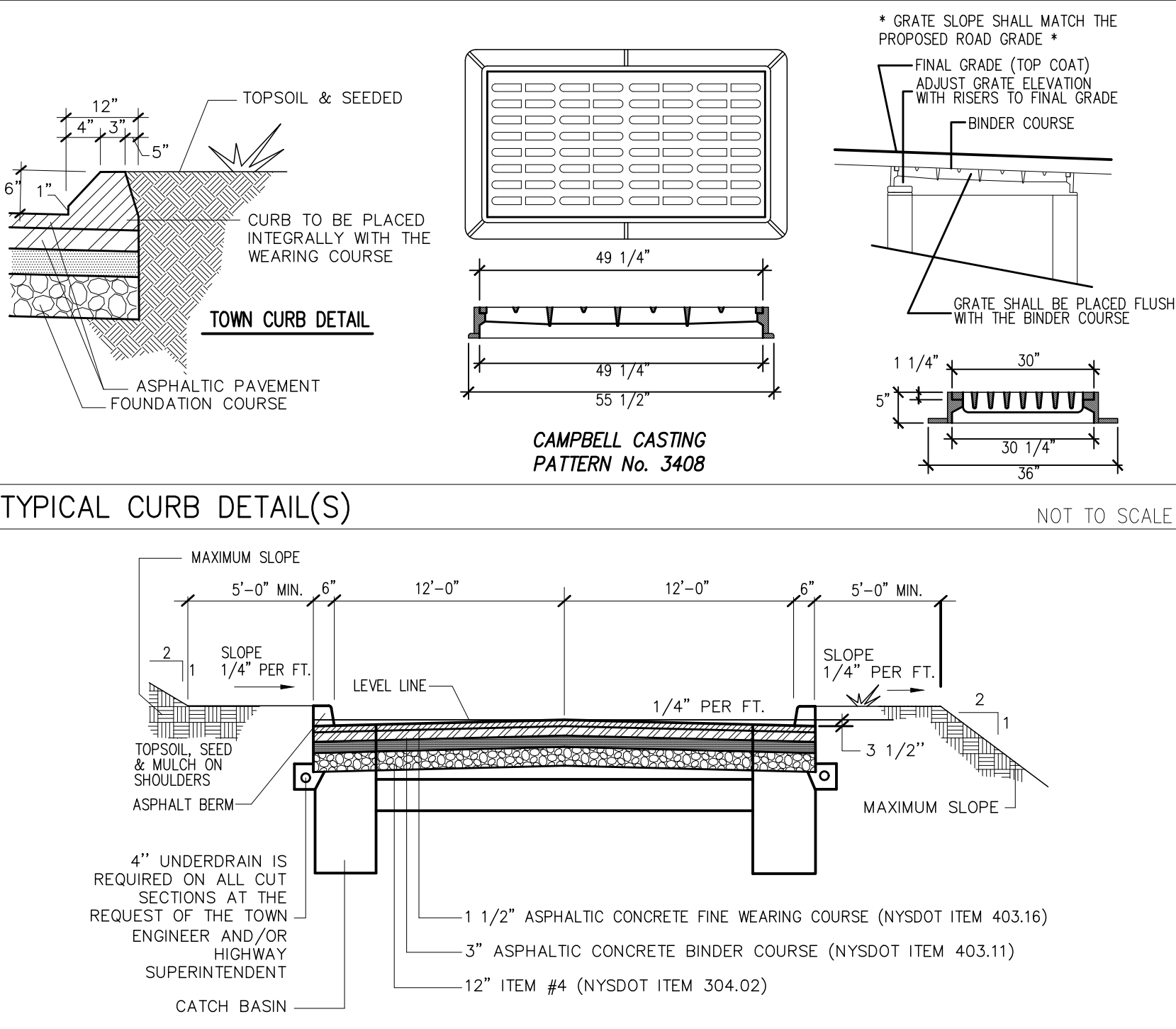
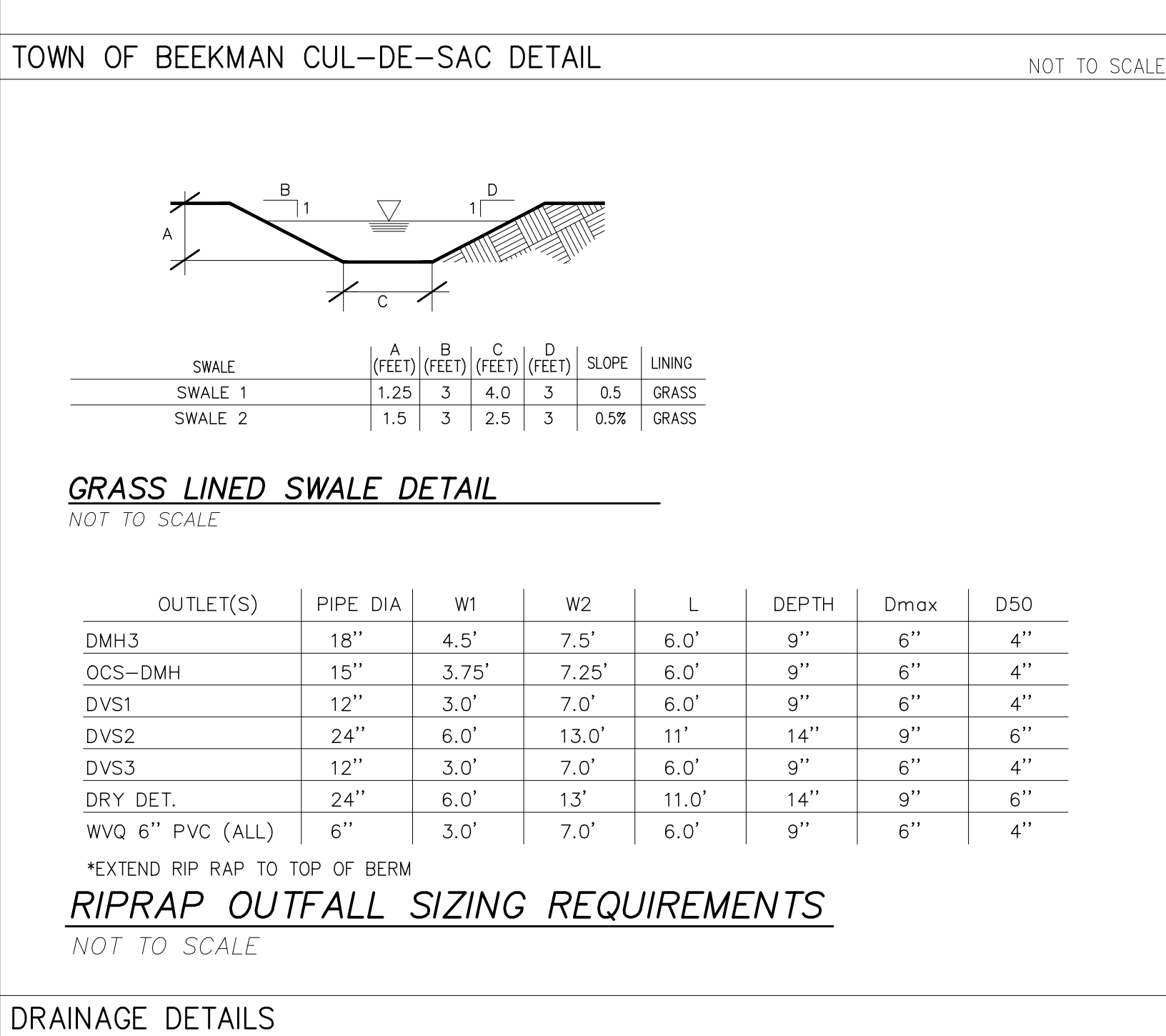
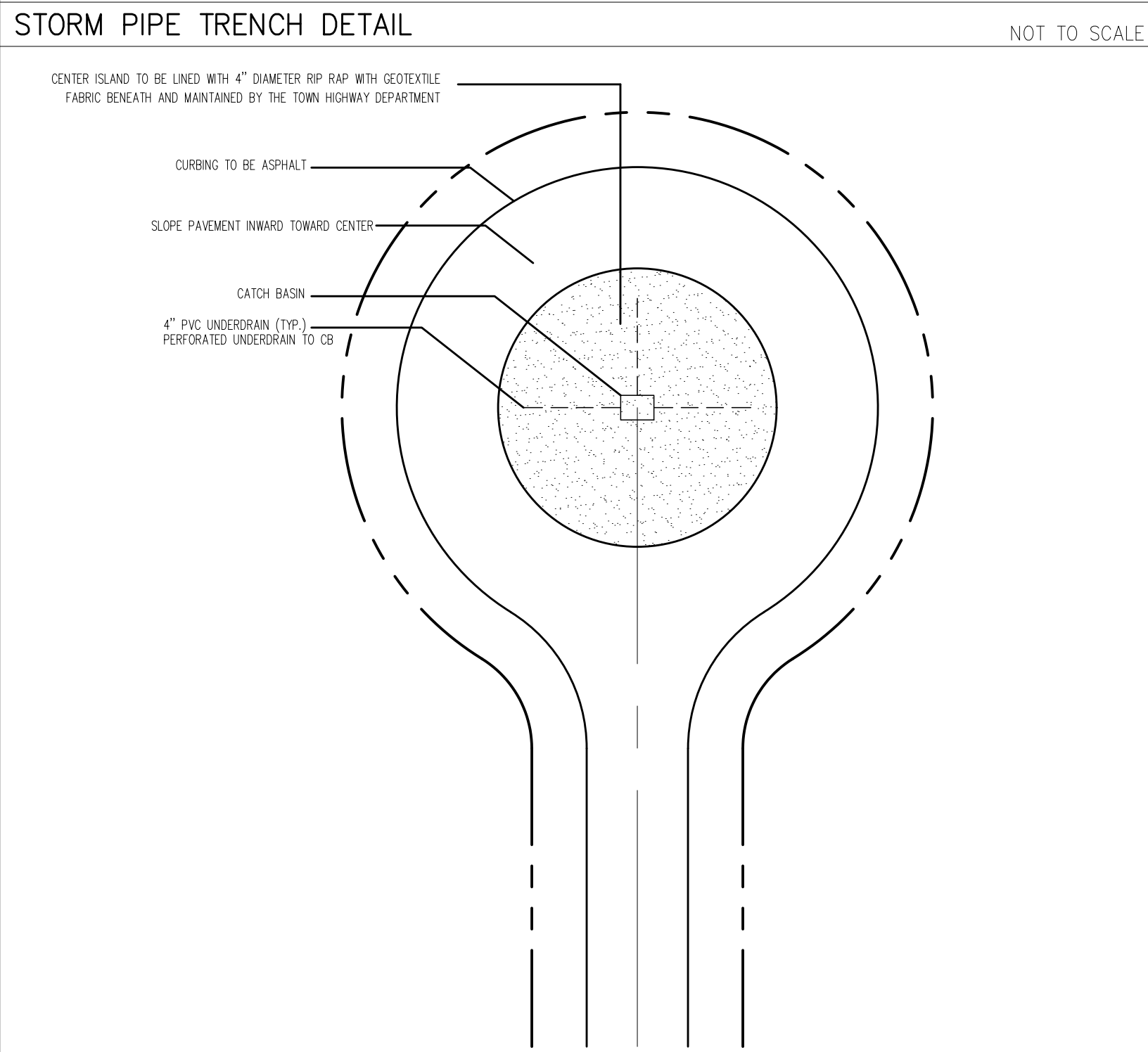
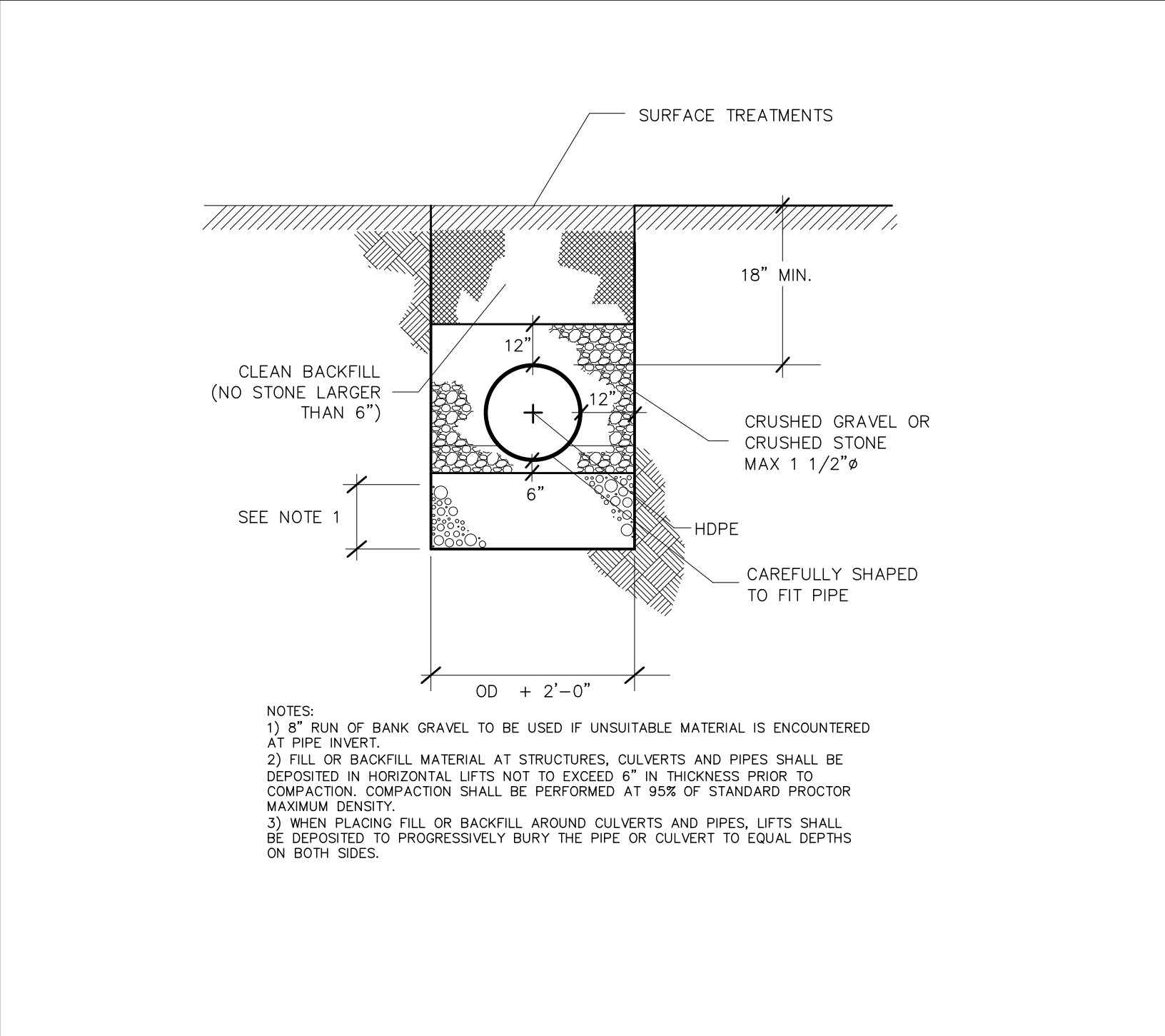


	Mark A. Day, PE
Revisions	
OCTOBER 1, 2018	
Project No.	
2018-249	
	License No. 069646

<b>OWNER'S CONSENT</b>	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER _____	DATE _____

<h1 style="margin: 0;">M.A. DAY Engineering, PC</h1> <hr/> <h2 style="margin: 0; color: #4F81BD;">Consulting Engineers</h2>		
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202		
PROJECT <h1 style="margin: 0; color: #4F81BD;">ALAINA ESTATES</h1> <p style="margin: 0; color: #4F81BD;">TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK</p>		
DRAWING <h1 style="margin: 0; color: #4F81BD;">CONSTRUCTION DETAILS</h1>		
SCALE <div style="text-align: center; font-size: 1.2em;">AS NOTED</div>	DRAWN BY <div style="text-align: center; font-size: 1.2em;">BJS</div>	DRAWING NO. <div style="text-align: center; font-size: 1.2em;">6 of 12</div>
DATE <div style="text-align: center; font-size: 1.2em;">01-01-17</div>	CHECKED BY <div style="text-align: center; font-size: 1.2em;">RJS</div>	





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OWNER \_\_\_\_\_ DATE \_\_\_\_\_

**TOWN OF BEEKMAN PLANNING BOARD**

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BY \_\_\_\_\_

CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK

**Mark A. Day, PE**

**M.A. DAY Engineering, PC**  
Consulting Engineers  
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Lane Suite 2  
Wappingers Falls, New York  
(845)-223-3202

**ALAINA ESTATES**  
TOWN OF BEEKMAN  
DUTCHESS COUNTY, NEW YORK

**CONSTRUCTION DETAILS**

SCALE: AS NOTED DRAWN BY: BJS CHECKED BY: BJS DATE: 01-01-17

7 of 12



DISINFECTING WATER MAINS – AWWA C651-05 OR LATEST EDITION

- SECTION 4.2 BASIC DISINFECTION PROCEDURE
1. INSPECTING MATERIALS TO BE USED TO ENSURE THEIR INTEGRITY.
  2. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR AND NOTING POTENTIAL CONTAMINATION AT THE CONSTRUCTION SITE.
  3. REMOVING, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.
  4. CHLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CHLORINATED WATER FROM THE MAIN.
  5. CHECKING THE EXISTING DISTRIBUTION SYSTEM FROM BACK FLOW USING HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
  6. DOCUMENTING THAT AN ADEQUATE LEVEL OF CHLORINE CONTACTED EACH PIPE TO PROVIDE DISINFECTION.
  7. DETERMINING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
  8. FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM.
- SECTION 4.3 PREVENTIVE AND CORRECTIVE MEASURES DURING CONSTRUCTION
- 4.3.1 GENERAL, HEAVY PARTICULATES GENERALLY CONTAIN BACTERIA AND PREVENT VERY HIGH CHLORINE CONCENTRATIONS FROM CONTACTING AND KILLING THESE ORGANISMS. THEREFORE, THE PROCEDURES OF THIS SECTION MUST BE OBSERVED TO ASSURE THAT A WATER MAIN AND ITS APPURTENANCES HAVE BEEN THOROUGHLY CLEANED FOR THE FINAL DISINFECTION BY CHLORINATION. ALSO, ANY CONNECTION OF A NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM PRIOR TO THE RECEIPT OF SATISFACTORY BACTERIOLOGICAL SAMPLES MAY CONSTITUTE A CROSS-CONNECTION. THEREFORE, THE NEW MAIN MUST BE ISOLATED UNTIL BACTERIOLOGICAL TESTS DESCRIBED IN SEC. 5 OF THIS STANDARD ARE SATISFACTORILY COMPLETED.
  - 4.3.2 KEEPING PIPE CLEAN AND FREE OF THE INTERIORS OF FITS, FITTINGS, AND VALVES SHALL BE PROTECTED FROM CONTAMINATION.
  - 4.3.2.1 OPENINGS/ OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERPLUG PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MALE PERIODS. RODENT-PROOF PLUGS MAY BE USED WHEN WATERPLUG PLUGS ARE NOT PRACTICABLE AND WHEN THOROUGH CLEANING WILL BE PERFORMED BY FLUSHING OR OTHER MEANS.
  - 4.3.2.2 STRINGING PIPE. PIPE DELIVERED FOR CONSTRUCTION SHALL BE STRUNG TO MINIMIZE THE ENTRANCE OF FOREIGN MATERIAL.
  - 4.3.2.3 DELAYS. DELAY IN PLACEMENT OF DELIVERED PIPE INVITES CONTAMINATION. THE MORE CLOSELY THE RATE OF DELIVERY IS CORRELATED TO THE RATE OF PIPE LAYING, THE LOWER THE RISK OF CONTAMINATION.
  - 4.3.2.4 JOINTS. JOINTS OF PIPE IN THE TRENCH SHALL BE COMPLETED BEFORE WATER IS STOPPED. IF WATER ACCUMULATES IN THE TRENCH, THE PLUGS SHALL REMAIN IN PLACE UNTIL THE TRENCH IS FREE OF STANDING WATER AND MUD THAT MAY ENTER THE PIPE.
  - 4.3.3 PACKING MATERIALS. TAPPING OR PACKING MATERIAL SHALL CONSIST OF MOLDED OR TUBULAR RUBBER RINGS, ROPE OF TREATED PAPER, OR OTHER APPROVED MATERIALS. MATERIALS SUCH AS JUTE OR HEMP SHALL NOT BE USED. PACKING MATERIAL SHALL BE HANDLED IN A MANNER THAT AVOIDS CONTAMINATION. IF ASBESTOS ROPE IS USED, ASBESTOS SHALL BE PREVENTED FROM ENTERING INTO THE WATER-CARRYING PORTION OF THE PIPE.
  - 4.3.4 SEALING MATERIALS. NO CONTAMINATED MATERIAL, OR ANY MATERIAL CAPABLE OF SUPPORTING GROWTH OF MICROORGANISMS SHALL BE USED FOR SEALING JOINTS. SEALING MATERIAL OR GASKETS SHALL BE HANDLED IN A MANNER THAT AVOIDS CONTAMINATION. IF THE INSTALLATION OF SEALING GASKETS SHALL BE SATISFACTORILY CLEAN. WATER AND SHALL NOT CONTRIBUTE ODORS. IT SHALL BE DELIVERED TO THE JOB IN CLOSED CONTAINERS AND SHALL BE KEPT CLEAN AND APPLIED WITH DEDICATED, CLEAN APPLICATION DEVICES.
  - 4.3.6 CLEANING AND SWABGING. IF DIRT ENTERS THE PIPE, IT SHALL BE REMOVED AND THE INTERIOR PIPE SURFACE SWABBED WITH A 1 TO 5 PERCENT HYPOCHLORITE DISINFECTING SOLUTION. IF, IN THE OPINION OF THE PURCHASER, THE PURPOSE OF THE PURCHASE IS TO PROVIDE A STRONG CHLORINE CONCENTRATION IN THE FIRST FLOW OF FLUSHING WATER THAT FLOWS DOWN THE MAIN, IN PARTICULAR, THIS PROCEDURE IS RECOMMENDED WHEN THE TYPE OF PIPE IS SUCH THAT THIS FIRST FLOW OF WATER WILL FLOW INTO ANNULAR SPACES AT PIPE JOINTS.
  - 4.3.7 WET-TRENCH CONSTRUCTION. IF IT IS NOT POSSIBLE TO KEEP THE PIPE AND FITTINGS DRY DURING INSTALLATION, THE WATER THAT MAY ENTER THE PIPE-JOINT SPACES SHALL CONTAIN AN AVAILABLE CHLORINE CONCENTRATION OF 25 MG/L. THIS MAY BE ACCOMPLISHED BY ADDING CALCIUM HYPOCHLORITE GRANULES OR TABLETS TO EACH LENGTH OF PIPE BEFORE IT IS LOWERED INTO A WET TRENCH OR BY TREATING THE TRENCH WATER WITH HYPOCHLORITE TABLETS.
  - 4.3.8 FLOODING BY STORM OR ACCIDENT DURING CONSTRUCTION. IF THE MAIN IS FLOODED DURING CONSTRUCTION, IT SHALL BE CLEARED OF THE FLOODWATER BY DRAINING AND FLUSHING WITH POTABLE WATER UNTIL THE MAIN IS FILLED WITH WATER. THE FLOODWATER SHALL BE DRAINED TO A CONCENTRATION OF 100 MG/L. THE SLOW RATE OF FLOW ENSURES THAT ALL PARTS OF THE MAIN AND ITS APPURTENANCES WILL BE EXPOSED TO THE HIGHLY CHLORINATED WATER FOR A PERIOD OF NOT LESS THAN 3 HR.
  - 4.3.9 FLOODING BY STORM OR ACCIDENT DURING CONSTRUCTION. IF THE MAIN IS FLOODED DURING CONSTRUCTION, IT SHALL BE CLEARED OF THE FLOODWATER BY DRAINING AND FLUSHING WITH POTABLE WATER UNTIL THE MAIN IS FILLED WITH WATER. THE FLOODWATER SHALL BE DRAINED TO A CONCENTRATION OF 100 MG/L. THE SLOW RATE OF FLOW ENSURES THAT ALL PARTS OF THE MAIN AND ITS APPURTENANCES WILL BE EXPOSED TO THE HIGHLY CHLORINATED WATER FOR A PERIOD OF NOT LESS THAN 3 HR.

- SECTION 4.4 FLOW METHOD OF CHLORINATION
- 4.4.1 GENERAL. THREE METHODS OF CHLORINATION ARE EXPLAINED IN THIS SECTION: TABLET, CONTINUOUS FEED, AND SLUG. INFORMATION IN THE FOREWORD IS HELPFUL IN DETERMINING THE APPROPRIATE METHOD. THE TABLET METHOD GIVES AN AVERAGE CHLORINE DOSE OF APPROXIMATELY 25 MG/L. THE CONTINUOUS-FEED METHOD GIVES A 24-HR CHLORINE RESIDUAL OF NOT LESS THAN 1 MG/L. AND THE SLUG METHOD GIVES A 3-HR EXPOSURE OF NOT LESS THAN 50 MG/L. FREE CHLORINE RESIDUAL IS REQUIRED AT THE END OF 24 HOURS.
  - 4.4.2.1 PLACING CALCIUM HYPOCHLORITE GRANULES. AT THE OPTION OF THE PURCHASER, CALCIUM HYPOCHLORITE GRANULES SHALL BE PLACED IN PIPE SECTIONS AS SPECIFIED IN SECTION 4.4.2.1. (SEE ABOVE) THE PURPOSE OF THIS PROCEDURE IS TO PROVIDE A STRONG CHLORINE CONCENTRATION IN THE FIRST FLOW OF FLUSHING WATER THAT FLOWS DOWN THE MAIN. IN PARTICULAR, THIS PROCEDURE IS RECOMMENDED WHEN THE TYPE OF PIPE IS SUCH THAT THIS FIRST FLOW OF WATER WILL FLOW INTO ANNULAR SPACES AT PIPE JOINTS.
  - 4.4.2.2 PRELIMINARY FLUSHING. BEFORE THE MAIN IS CHLORINATED, IT SHALL BE FILLED TO ELIMINATE AIR POCKETS AND FLUSHED TO REMOVE PARTICULATES. THE FLUSHING VELOCITY IN THE MAIN SHALL NOT BE LESS THAN 2.5 FT/SEC (0.76 M/SEC) UNLESS THE PURCHASER DETERMINES THAT CONDITIONS DO NOT PERMIT THE REQUIRED FLOW TO BE DISCHARGED TO WASTE.
  - 4.4.2.3 REQUIRED FLOW AND OPENINGS TO FLUSH PIPE SIZES (40" [276 KPA] RESIDUAL PRESSURE IN WATER MAIN)\*
- | PIPE DIAMETER (IN) | FLOW REQUIRED TO PRODUCE 2.5 FT/SEC (APPROX.) | SIZE OF TAP | NUMBER OF 2 1/2" HYDRANT OUTLETS |
|--------------------|---|-------------|----------------------------------|
| 4"                 | 100   | 1"          | 1                                |
| 6"                 | 150   | 1 1/2"      | 1                                |
| 8"                 | 200   | 2"          | 1                                |
| 10"                | 250   | 2 1/2"      | 1                                |
| 12"                | 300   | 3"          | 1                                |
| 14"                | 350   | 3 1/2"      | 1                                |
| 16"                | 400   | 4"          | 1                                |
- TABLE 3 SHOWS THE RATES OF FLOW REQUIRED TO PRODUCE A VELOCITY OF 2.5 FT/SEC (0.76 M/SEC) IN COMMONLY USED SIZES OF PIPE. NOTE: ORAT FLUSHING IS NO SUBSTITUTE FOR PREVENTIVE MEASURES DURING CONSTRUCTION. CERTAIN CONTAMINANTS, SUCH AS CAMEL DROPS, REST NUSING AT ANY FEASIBLE VELOCITY AND PIGGING OF THE MAIN MAY BE REQUIRED.
- TABLE 4 GIVES THE AMOUNT OF CHLORINE REQUIRED FOR EACH 100 LB (30.5 M) OF PIPE OF VARIOUS DIAMETERS. SOLUTIONS OF 1 PERCENT CHLORINE MAY BE PREPARED WITH SODIUM HYPOCHLORITE OR CALCIUM HYPOCHLORITE. THE LATTER SOLUTION REQUIRES FOR 100 LB (454 G) OF CALCIUM HYPOCHLORITE IN 8 GAL (30.3 L) OF WATER.
- 4.4.3.3 PROCEDURE FOR CHLORINATING THE MAIN
1. WATER SUPPLIED FROM A TEMPORARY, BACKFLOW-PROTECTED CONNECTION TO THE EXISTING DISTRIBUTION SYSTEM OR OTHER APPROVED SUPPLY SOURCE SHALL FLOW AT A CONSTANT, MEASURED RATE INTO THE NEWLY INSTALLED WATER MAIN. IN THE ABSENCE OF A METER, THE RATE MAY BE APPROXIMATED USING A PITOT GAUGE IN THE DISCHARGE, MEASURING THE TIME TO FILL A CONTAINER OF KNOWN VOLUME, OR MEASURING THE TRAJECTORY OF THE DISCHARGE AND USING THE FORMULA SHOWN IN FIGURE 2. THE MAIN SHOULD UNDERGO HYDROSTATIC TESTING PRIOR TO DISINFECTION.
  2. AT A POINT NOT MORE THAN 10 FT (3 M) DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN, WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. TO ENSURE THAT THIS CONCENTRATION IS ACHIEVED, THE CHLORINE CONCENTRATION SHOULD BE MEASURED AT REGULAR INTERVALS. THE CHLORINE SHOULD BE APPLIED CONTINUOUSLY AND FOR A SUFFICIENT PERIOD TO DEVELOP A SOLID COLUMN OF CHLORINE, OR SLUG, OF CHLORINATED WATER THAT WILL, AS IT MOVES THROUGH THE MAIN, EXPOSE ALL INTERIOR SURFACES TO A CONCENTRATION OF APPROXIMATELY 100 MG/L FOR AT LEAST 3 HR.
  3. THE FREE CHLORINE RESIDUAL SHALL BE MEASURED IN ELSE SLUG AS IT MOVES THROUGH THE MAIN. IF AT ANY TIME IT DROP BELOW 50 MG/L, THE FLOW SHALL BE STOPPED. CHLORINATION BY THE CONTINUOUS FEED METHOD SHALL BE RELOCATED AT THE HEAD OF THE SLUG; AND, AS FLOW RESUMES, CHLORINE SHALL BE RESTORED TO RESTORE THE FREE CHLORINE IN THE SLUG TO NOT LESS THAN 100 MG/L.
  4. AS THE CHLORINATED WATER FLOWS PAST FITTINGS AND VALVES, RELATED VALVES AND HYDRANTS SHALL BE OPERATED SO AS TO DISINFECT APPURTENANCES AND PIPE BRANCHES.

- SECTION 4.5 PACKING MATERIALS. TAPPING OR PACKING MATERIAL SHALL CONSIST OF MOLDED OR TUBULAR RUBBER RINGS, ROPE OF TREATED PAPER, OR OTHER APPROVED MATERIALS. MATERIALS SUCH AS JUTE OR HEMP SHALL NOT BE USED. PACKING MATERIAL SHALL BE HANDLED IN A MANNER THAT AVOIDS CONTAMINATION. IF ASBESTOS ROPE IS USED, ASBESTOS SHALL BE PREVENTED FROM ENTERING INTO THE WATER-CARRYING PORTION OF THE PIPE.
- SECTION 4.6 CLEANING AND SWABGING. IF DIRT ENTERS THE PIPE, IT SHALL BE REMOVED AND THE INTERIOR PIPE SURFACE SWABBED WITH A 1 TO 5 PERCENT HYPOCHLORITE DISINFECTING SOLUTION. IF, IN THE OPINION OF THE PURCHASER, THE PURPOSE OF THE PURCHASE IS TO PROVIDE A STRONG CHLORINE CONCENTRATION IN THE FIRST FLOW OF FLUSHING WATER THAT FLOWS DOWN THE MAIN, IN PARTICULAR, THIS PROCEDURE IS RECOMMENDED WHEN THE TYPE OF PIPE IS SUCH THAT THIS FIRST FLOW OF WATER WILL FLOW INTO ANNULAR SPACES AT PIPE JOINTS.
- SECTION 4.7 WET-TRENCH CONSTRUCTION. IF IT IS NOT POSSIBLE TO KEEP THE PIPE AND FITTINGS DRY DURING INSTALLATION, THE WATER THAT MAY ENTER THE PIPE-JOINT SPACES SHALL CONTAIN AN AVAILABLE CHLORINE CONCENTRATION OF 25 MG/L. THIS MAY BE ACCOMPLISHED BY ADDING CALCIUM HYPOCHLORITE GRANULES OR TABLETS TO EACH LENGTH OF PIPE BEFORE IT IS LOWERED INTO A WET TRENCH OR BY TREATING THE TRENCH WATER WITH HYPOCHLORITE TABLETS.
- SECTION 4.8 FLOODING BY STORM OR ACCIDENT DURING CONSTRUCTION. IF THE MAIN IS FLOODED DURING CONSTRUCTION, IT SHALL BE CLEARED OF THE FLOODWATER BY DRAINING AND FLUSHING WITH POTABLE WATER UNTIL THE MAIN IS FILLED WITH WATER. THE FLOODWATER SHALL BE DRAINED TO A CONCENTRATION OF 100 MG/L. THE SLOW RATE OF FLOW ENSURES THAT ALL PARTS OF THE MAIN AND ITS APPURTENANCES WILL BE EXPOSED TO THE HIGHLY CHLORINATED WATER FOR A PERIOD OF NOT LESS THAN 3 HR.
- SECTION 4.9 FLOODING BY STORM OR ACCIDENT DURING CONSTRUCTION. IF THE MAIN IS FLOODED DURING CONSTRUCTION, IT SHALL BE CLEARED OF THE FLOODWATER BY DRAINING AND FLUSHING WITH POTABLE WATER UNTIL THE MAIN IS FILLED WITH WATER. THE FLOODWATER SHALL BE DRAINED TO A CONCENTRATION OF 100 MG/L. THE SLOW RATE OF FLOW ENSURES THAT ALL PARTS OF THE MAIN AND ITS APPURTENANCES WILL BE EXPOSED TO THE HIGHLY CHLORINATED WATER FOR A PERIOD OF NOT LESS THAN 3 HR.

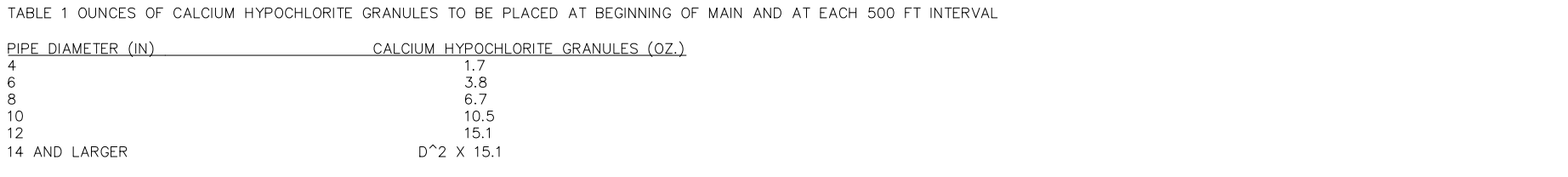


TABLE 1: OUNCES OF CALCIUM HYPOCHLORITE GRANULES TO BE PLACED AT BEGINNING OF MAIN AND AT EACH 500 FT INTERVAL.

PIPE DIAMETER (IN)	CALCIUM HYPOCHLORITE GRANULES (OZ.)
4"	3.6
6"	5.4
8"	7.2
10"	9.0
12"	10.8
14"	12.6
16"	14.4

WHERE D IS THE INSIDE PIPE DIAMETER IN FEET D = D/12

4.4.3.3 PROCEDURE FOR CHLORINATING THE MAIN

1. WATER SUPPLIED FROM A TEMPORARY, BACKFLOW-PROTECTED CONNECTION TO THE EXISTING DISTRIBUTION SYSTEM OR OTHER APPROVED SUPPLY SOURCE SHALL FLOW AT A CONSTANT, MEASURED RATE INTO THE NEWLY INSTALLED WATER MAIN. IN THE ABSENCE OF A METER, THE RATE MAY BE APPROXIMATED USING A PITOT GAUGE IN THE DISCHARGE, MEASURING THE TIME TO FILL A CONTAINER OF KNOWN VOLUME, OR MEASURING THE TRAJECTORY OF THE DISCHARGE AND USING THE FORMULA SHOWN IN FIGURE 2. THE MAIN SHOULD UNDERGO HYDROSTATIC TESTING PRIOR TO DISINFECTION.
2. AT A POINT NOT MORE THAN 10 FT (3 M) DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN, WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. TO ENSURE THAT THIS CONCENTRATION IS ACHIEVED, THE CHLORINE CONCENTRATION SHOULD BE MEASURED AT REGULAR INTERVALS. THE CHLORINE SHOULD BE APPLIED CONTINUOUSLY AND FOR A SUFFICIENT PERIOD TO DEVELOP A SOLID COLUMN OF CHLORINE, OR SLUG, OF CHLORINATED WATER THAT WILL, AS IT MOVES THROUGH THE MAIN, EXPOSE ALL INTERIOR SURFACES TO A CONCENTRATION OF APPROXIMATELY 100 MG/L FOR AT LEAST 3 HR.
3. THE FREE CHLORINE RESIDUAL SHALL BE MEASURED IN ELSE SLUG AS IT MOVES THROUGH THE MAIN. IF AT ANY TIME IT DROP BELOW 50 MG/L, THE FLOW SHALL BE STOPPED. CHLORINATION BY THE CONTINUOUS FEED METHOD SHALL BE RELOCATED AT THE HEAD OF THE SLUG; AND, AS FLOW RESUMES, CHLORINE SHALL BE RESTORED TO RESTORE THE FREE CHLORINE IN THE SLUG TO NOT LESS THAN 100 MG/L.
4. AS THE CHLORINATED WATER FLOWS PAST FITTINGS AND VALVES, RELATED VALVES AND HYDRANTS SHALL BE OPERATED SO AS TO DISINFECT APPURTENANCES AND PIPE BRANCHES.

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PIPE DIAMETER (IN)	FLOW REQUIRED TO PRODUCE 2.5 FT/SEC (APPROX.)	SIZE OF TAP	NUMBER OF 2 1/2" HYDRANT OUTLETS
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4.4.3.3 PROCEDURE FOR CHLORINATING THE MAIN

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CONSTRUCTION SEQUENCE

THE APPLICANT PROPOSES TO DISTURB MORE THAN 5.0 AC. AT ONE TIME WITH PERMISSION FROM THE TOWN OF BEEKMAN.

PHASE I (APPROXIMATE AREA OF DISTURBANCE 5.75 ACRES) –

1. FILE NOI WITH THE N.Y.S.D.E.C., OBTAIN DRIVEWAY PERMIT FROM THE TOWN OF BEEKMAN. THE APPROVED SEDIMENT AND EROSION CONTROL PLAN SHALL BE FOLLOWED AS REQUIRED. NO DEVIATION IS ALLOWED WITHOUT APPROVAL FROM THE TOWN OF BEEKMAN. COORDINATE ALL ACTIONS WITH THE TOWN OF BEEKMAN.
  2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL SITE EROSION AND SEDIMENT CONTROLS UNTIL THE SITE NOT (NOTICE OF TERMINATION) IS FILED WITH THE NYSDEC.
  3. THE PARCEL OWNER IS RESPONSIBLE FOR RETAINING A QUALIFIED INDIVIDUAL TO PERFORM ONSITE INSPECTS AS REQUIRED BY THE GP 0-15-002 PERMIT. SINCE DISTURBANCE IS GREATER THAN 5.0 AC AT ONE TIME, TWO SWPPP INSPECTIONS PER WEEK ARE REQUIRED. THE TOWN OF BEEKMAN PUBLIC WORKS DEPARTMENT SHALL BE PROVIDED COPIES OF INSPECTIONS VIA EMAIL DELIVERY.
  4. PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO CONSTRUCTION WITH THE TOWN ENGINEER, CONTRACTOR, OWNER, AND SWPPP INSPECTOR FOR THE OWNER.
  5. A NYSLS SHALL FIELD IDENTIFY THE LIMIT OF DISTURBANCE SURROUNDING THE SITE, SEDIMENT HOLDING POND AREA, AND PARCEL ACCESS POINTS AS IDENTIFIED ON THE PLAN SET. ORANGE CONSTRUCTION FENCING LOCATION SHALL BE STAKED NYSLS, IN THE LOCATIONS SHOWN PRIOR TO SITE DISTURBANCE.
  6. CONSTRUCT SITE ENTRANCE FROM BEEKMAN POUGHQUAG ROAD –
    - CLEAR AND ROUGH GRADE AS REQUIRED.
    - STABILIZE SITE ENTRANCE ROAD TO SITE BY INSTALLING GRAVEL PER CONSTRUCTION ACCESS DETAIL. STABILIZE ADJACENT BARE AREAS WITH VEGETATION.
    - TEMPORARY FENCING CAN BE INSTALLED IF REQUIRED.
  7. INSTALL ORANGE CONSTRUCTION FENCING AROUND ALL BIO-RETENTION AREAS, NO SEDIMENT SHALL ENTER FACILITIES UNTIL THE CONTRIBUTING AREAS ARE FINAL GRADED AND STABILIZED AS APPROVED BY THE TOWN STORMWATER MANAGEMENT OFFICE AND PROJECT ENGINEER.
  8. INSTALL SEDIMENT TRAPS FOR CONSTRUCTION OF SITE –
    - A NYSLS SHALL STAKEOUT THE LIMIT OF DISTURBANCE IN THE AREA OF THE SEDIMENT TRAP.REMOVE TREES, EXISTING PAVEMENT AS REQUIRED FROM SITE, INSTALL WATER BARS, TEMPORARY DIVERSION SWALES, ROUGH GRADE SITE.
    - INSTALL SILT FENCE ALONG THE LOWER SIDE OF THE PROPOSED SEDIMENT TRAPS.
    - EXCAVATE AREA FOR SEDIMENT TRAP.
    - INSTALL DEWATERING DEVICE. DEWATERING DEVICE TO OUTLET TO DAYLIGHT.
    - INSTALL OVERFLOW WEIR AS PER TRAP DETAIL.
    - TEMPORARY STABILIZATION OF THE SEDIMENT TRAP AND ADJACENT DIVERSIONS SHALL BE PERFORMED.
  9. A DISTURBANCE PLAN SHALL CONSISTENTLY BE UPDATED (INCLUDED IN BI-WEEKLY INSPECTION REPORTS) AS SITE DISTURBANCE CHANGES.
  10. BIORETENTION AREAS SHALL NOT BE INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO THE SATISFACTION OF THE TOWN/PROJECT ENGINEER.
- REFER TO EROSION CONTROL MAINTENANCE SCHEDULE FOR FURTHER INFORMATION
- EROSION AND SEDIMENT CONTROL PLAN SUBJECT TO ANY IN FIELD MODIFICATIONS REQUIRED BY THE TOWN OF BEEKMAN INSPECTORS, NYSDEC, AND PROJECT ENGINEER. A DISTURBANCE PLAN SHALL CONSISTENTLY BE UPDATED (INCLUDED IN BI-WEEKLY INSPECTION REPORTS) AS SITE DISTURBANCE CHANGES.
- VEGETATE DISTURBED AREAS NOT TO BE SUBJECT TO CONSTRUCTION WITHIN 14 DAYS.
- UPON INSTALLATION OF ROAD-SUBBASE AND STABILIZATION OF ALL DISTURBED AREAS, SILT FENCING, TEMPORARY SWALES, CHECK DAMS, AND INLET PROTECTION ASSOCIATED WITH THIS PHASE MAY BE REMOVED UNLESS OTHER WISE NOTED BY FIELD INSPECTIONS BY THE TOWN ENGINEER AND PROJECT ENGINEER.

EROSION CONTROL IMPLEMENTATION SCHEDULE (ALL PHASES):

EROSION/SEDIMENT CONTROL	PLACEMENT
SILT FENCE	PRIOR TO ANY SITE DISTURBANCE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
STABILIZED CONSTRUCTION ENTRANCE	PRIOR TO ANY GRADING OF THE SITE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SEDIMENT TRAP	PRIOR TO ANY GRADING OF THE ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SILT FENCE (ADDITIONAL)	INSTALL AS REQUIRED DURING RD CONSTRUCTION/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CHECK DAM	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CATCH BASIN PROTECTION	DURING ROUGH GRADING OF ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
RIPRAP OUTLET/OVERFLOW	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
POND VEGETATION ESTABLISHMENT	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
– REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION	

CONSTRUCTION EROSION CONTROL MAINTENANCE SCHEDULE (ALL PHASES):

STRUCTURE	INSPECTION	MAINTENANCE REQUIRED	STRUCTURE TYPE
SILT FENCE	WEEKLY	REPAIR, REPLACE	TEMPORARY
STABILIZED CONSTRUCTION ENTRANCE	DAILY	REPAIR, REPLACE	TEMPORARY
LITTER	DAILY	PICK UP	---
CHECK DAM	WEEKLY	REPAIR	TEMPORARY
DUST	DAILY	SPRAYING, SWEEPING	---
RIPRAP OUTLET/OVERFLOW	WEEKLY	REPAIR	PERMANENT
VEGETATION ESTABLISHMENT	WEEKLY	WATERING, SEEDING	PERMANENT
SEDIMENT TRAP	WEEKLY	REPAIR, DEEPEN	TEMPORARY
SITE DISTURBANCE PLAN UPDATE	WEEKLY	UPDATE DISTURBANCE AREA	---
– REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION			

SWPPP PLAN CERTIFICATION

I, BRIAN J. STOKOSA, P.E. HERE BY CERTIFY THAT THE DESIGN OF ALL STORMWATER MANAGEMENT PRACTICES DETAIL ON THIS PLAN SET MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE GP 0-15-002 PERMIT.

SWPPP PLAN PREPARER: BRIAN J. STOKOSA, P.E. NYSPE #083970

SWPPP PLAN PREPARER SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

SWPPP PLAN ONSITE REQUIREMENTS

EACH CONTRACTOR AND SUBCONTRACTOR IDENTIFIED IN THE SWPPP WHO WILL BE INVOLVED IN SOIL DISTURBANCE AND/OR STORMWATER MANAGEMENT PRACTICE INSTALLATION SHALL SIGN AND DATE A COPY OF THE FOLLOWING CERTIFICATION STATEMENT BEFORE UNDERTAKING ANY LAND DEVELOPMENT ACTIVITY:

"I HEREBY CERTIFY THAT I UNDERSTAND AND AGREE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE SWPPP AND AGREE TO IMPLEMENT ANY CORRECTIVE ACTIONS IDENTIFIED BY THE QUALIFIED INSPECTOR DURING A SITE INSPECTION. I ALSO UNDERSTAND THAT THE OWNER OR OPERATOR MUST COMPLY WITH THE TERMS AND CONDITIONS OF THE MOST CURRENT VERSION OF THE NEW YORK STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM ("SPDES") GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES AND THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS. FURTHERMORE, I UNDERSTAND THAT CERTIFYING FALSE, INCORRECT OR INACCURATE INFORMATION IS A VIOLATION OF THE REFERENCED PERMIT AND THE LAWS OF THE STATE OF NEW YORK AND COULD SUBJECT ME TO CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PROCEEDINGS. "

SITE CONSTRUCTION CONTRACTOR: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_

CONTRACTOR PHONE #: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_ TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

SEEDING NOTES:

1) EXPOSED SLOPES AND ALL GRADED AREAS SHALL BE SEEDED WITH THE FOLLOWING GRASS SEED MIX AS REQUIRED:

STEEP SLOPES ( 3:1)

TEMPORARY SEEDING –  
SUMMER SEASON – GERMAN MILLET @ 40 LBS PER ACRE  
WINTER SEASON – RYE GRAIN @ 120 LBS PER ACRE

PERMANENT SEEDING – SPRING/FALL  
TALL FESCUE @ 100 LBS PER ACRE  
KOBE LESPEDEZA @ 10 LBS PER ACRE  
BAHIAGRASS @ 25 LBS PER ACRE  
RYE GRAIN @ 40 LBS PER ACRE

4) GRASS SEED MIX MAY BE APPLIED BY EITHER MECHANICAL OR HYDROSEEDING METHODS. HYDROSEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF N.Y. STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

5) SEEDED AREAS SHALL BE MULCHED AS REQUIRED:

MID-SUMMER, LATE FALL OR WINTER  
APPLY AT A RATE OF 100 LBS/1,000 SQ.FT. GRAIN STRAW, COVER WITH NETTING AND STAPLE TO THE SLOPE.

SPRING OR EARLY FALL  
APPLY AT A RATE OF 45 LBS/1,000 SQ.FT. WOOD FIBER IN A HYDRO SEEDER SLURRY.

DESCRIPTION OF EROSION CONTROL PRACTICES

TEMPORARY SWALE – A TEMPORARY EXCAVATED DRAINAGE WAY. THE PURPOSE OF A TEMPORARY SWALE IS TO PREVENT RUNOFF FROM ENTERED DISTURBANCE AREAS BY INTERCEPTING AND DIVERTING IT TO A STABILIZED OUTLET OR TO INTERCEPT SEDIMENT LADEN WATER AND DIVERT IT TO A SEDIMENT TRAPPING DEVICE.

SILT FENCE – A TEMPORARY BARRIER OF GEOTEXTILE FABRIC (FILTER CLOTH) USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL. THE PURPOSE OF A SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND EFFECT DEPOSITION OF TRANSPORTED SEDIMENT LOAD. LIMITS IMPOSED BY ULTRAVIOLET STABILITY OF THE FABRIC WILL DICTATE THE MAXIMUM PERIOD THE SILT FENCE MAY BE USED.

CHECK DAM – SMALL TEMPORARY STONE DAMS CONSTRUCTED ACROSS A DRAINAGE WAY. THE PURPOSE IS TO REDUCE EROSION IN A DRAINAGE CHANNEL BY RESTRICTING THE VELOCITY OF FLOW IN THE CHANNEL.

STABILIZED CONSTRUCTION ENTRANCE – A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER CLOTH LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET ALLEY, SIDEWALK OR PARKING. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS.

DUST CONTROL – THE CONTROL OF DUST RESULTING FROM LAND-DISTURBING ACTIVITIES. THE PURPOSE IS TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM DISTURBED SOIL SURFACES THAT MAY CAUSE OFF-SITE DAMAGE, HEALTH HAZARDS, AND TRAFFIC SAFETY PROBLEMS.

ROCK OUTLET PROTECTION – A SECTION OF ROCK PROTECTION PLACED AT THE OUTLET AND OF THE CULVERTS, CONDUITS, OR CHANNELS. THE PURPOSE OF THE ROCK OUTLET PROTECTION IS TO REDUCE THE DEPTH, VELOCITY, AND ENERGY OF THE WATER, SUCH THAT THE FLOW WILL NOT ERODE THE RECEIVING DOWNSTREAM REACH. SEE EROSION CONTROL PLAN FOR FURTHER DETAIL.

ADDITIONAL SITE SPECIFIC CONSTRUCTION NOTES:

1. ALL EROSION CONTROL MEASURES AS SHOWN ON THE ORIGINAL APPROVED PLAN SHALL BE CLOSELY FOLLOWED. ADDITIONAL SILT FENCE SHALL BE INSTALLED DOWNSTREAM OF THE SEDIMENT TRAP AREAS.
2. ALL SEDIMENT TRAP SPOIL SHALL BE STOCKPILED AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DETERIORATION OF THE STOCKPILES.
3. A CONSTRUCTION FENCE SHALL BE INSTALLED AROUND ALL AREAS OF DISTURBANCE.
4. TWO MEASURING POLES OF NON-DETERIORATING MATERIAL SHALL BE PROVIDED WITHIN EACH SEDIMENT TRAP. THE POLES SHALL BE INSTALLED SUCH THAT OVERTURNING/MOVEMENT DOES NOT OCCUR. A SWATH OF PAINT SHALL BE PROVIDED ON THE POLE TO THE FOLLOWING ELEVATION FOR EACH SEDIMENT TRAP:  
ACCUMULATION OF SEDIMENT TO THE TOP OF THE SWATH (ELEVATION SPECIFIED) SHALL SERVE TO INDICATE THAT THE SEDIMENT SHALL BE REMOVED AND THE TRAP SHALL BE RESTORED TO ITS ORIGINAL DIMENSIONS.
5. PRIOR TO THE START OF SITE CONSTRUCTION, THE SITE CONTRACTOR SHALL MEET WITH THE TOWN ENGINEER AND HIGHWAY DEPARTMENT TO DISCUSS THE POSTING OF CONSTRUCTION WARNING SIGNS TO ALERT DRIVERS OF THE ACTIVITY NEAR THE CONSTRUCTION SITE. A MPT PLAN SHALL BE DEVELOPED AT THE TIME OF A DCDPW PERMIT SUBMISSION.
6. HEAVY TRUCK TRAFFIC ASSOCIATED WITH THE DRIVEWAY INSTALLATION PHASE SHALL BE LIMITED TO MONDAY THROUGH FRIDAY 7:00AM TO 4:00 PM.

ADDITIONAL INFORMATION FOUND WITHIN SWPPP REPORT

1. BACKGROUND INFORMATION ABOUT THE SCOPE OF THE PROJECT, INCLUDING LOCATION, TYPE AND SIZE OF PROJECT.
2. A DESCRIPTION OF PRE/POST DEVELOPMENT CONDITIONS FOR PROJECT SITE DRAINAGE AREA.
3. A DELINEATION OF PRE/POST DEVELOPMENT DRAINAGE BOUNDARIES.
4. HYDROLOGIC AND HYDRAULIC ANALYSIS OF ALL STRUCTURAL DETAILS FOR POST DEVELOPMENT PRACTICES.
5. A COMPARISON OF PRE/POST DEVELOPMENT RUNOFF VALUES.
6. LONG TERM MAINTENANCE OF DRAINAGE FACILITIES.

SWPPP PLAN ONSITE REQUIREMENTS

A COPY OF THE SWPPP, NOI, AND CONSTRUCTION LOG BOOK SHALL BE RETAINED AT THE SITE OF THE LAND DEVELOPMENT ACTIVITY DURING CONSTRUCTION FROM THE DATE OF INITIATION OF CONSTRUCTION ACTIVITIES TO THE DATE OF FINAL STABILIZATION.

WEEKLY INSPECTIONS MUST BE PERFORMED BY A QUALIFIED INDIVIDUAL, INSPECTIONS NOTED ON THE ONSITE CONSTRUCTION LOG BOOK, ANY DEVIATIONS OR CHANGES TO THE SWPPP NOTED.

TEMPORARY SEDIMENT TRAP DESIGN

SEDIMENT AREA – 1  
TOTAL AREA = 6.9 A.C.  
GRASS SEDIMENT TRAP – 3,600 CUBIC FT./ACRE  
REQUIRED VOLUME – 24,840 CUBIC FT.  
PROVIDED VOL. – 25,125 CUBIC FT.  
TOP OF BERM – 486.0  
BOTTOM OF POND – 482.0  
WEIR ELEVATION – 489.0  
WEIR WIDTH – 3.0'  
WEIR DEPTH – 1.5'

SEDIMENT AREA – 2  
TOTAL AREA = 1.5 A.C.  
GRASS SEDIMENT TRAP – 3,600 CUBIC FT./ACRE  
REQUIRED VOLUME – 5,400 CUBIC FT.  
PROVIDED VOL. – 6,735 CUBIC FT.  
TOP OF BERM – 486.0  
BOTTOM OF POND – 490.0  
PROVIDE RISER INLET TO BR3 BASIN (PLUG) ALL INLETS

SEDIMENT & EROSION PLAN LEGEND

CSA CONSTRUCTION STAGING AREA

A-2 B-3 DISTURBANCE LIMITS

TEMPORARY SWALE

PROPOSED SILT FENCING

ORANGE CONSTRUCTION FENCING

SEDIMENT MARKER

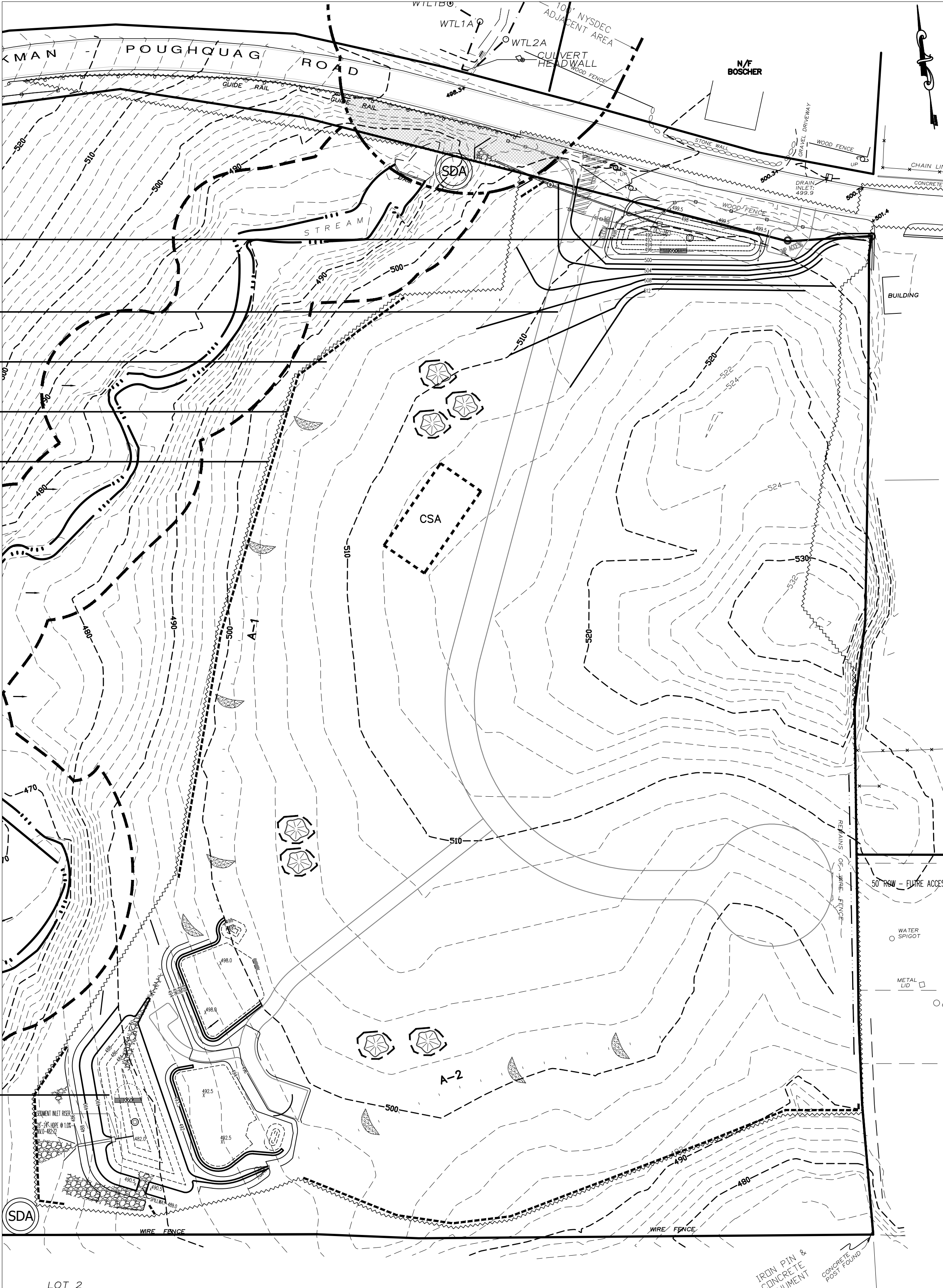
CHECK DAM LOCATION  
FOLLOW DAM SPACING TABLE

CONSTRUCTION ENTRANCE

TEMPORARY SOIL STOCKPILE  
WITH SILT FENCING EROSION CONTROL

STORMWATER DISCHARGE AREA

SEDIMENT TRAP LOCATION



PHASE I  
SCALE: 1" = 60'

OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C/O JOHN MASMILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER _____	DATE _____
TOWN OF BEEKMAN PLANNING BOARD	
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE _____ DAY OF _____, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.	
SIGNED THIS _____ DAY OF _____, 20____, BY _____	
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

Mark A. Day, PE	
Revised	OCTOBER 1, 2018
Project No.	2018.249
License No.	069646
M.A. DAY Engineering, PC	
Consulting Engineers	
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202	
ALAINA ESTATES	
TOWN OF BEEKMAN DUTCHESS COUNTY, NEW YORK	
CONSTRUCTION DETAILS	
SCALE AS NOTED	DRAWN BY BJS
DATE 01-01-17	CHECKED BY BJS
9 of 12	



CONSTRUCTION SEQUENCE

THE APPLICANT PROPOSES TO DISTURB MORE THAN 5.0 AC. AT ONE TIME WITH PERMISSION FROM THE TOWN OF BEEKMAN

PHASE II (APPROXIMATE AREA OF DISTURBANCE 6.75 ACRES) --

1. SITE GRADING.
2. ROUGH GRADE SITE.
3. INSTALL REQUIRED DRAINAGE PIPING.
4. INSTALL WATER MAIN / SEWER EXTENSION.
5. INSTALL BRING SITE TO FINISHED GRADE STABILIZED EXPOSED AREAS.
6. AS FILL IS ADDED TO THE SITE DIVERSION SWALES SHALL BE ADJUSTED ACCORDINGLY TO DIRECT RUNOFF TO SEDIMENT TRAP.
7. TEMPORARY STABILIZE THE SITE SHOULDERS WHILE UTILITY INSTALLATION (ELECTRIC AND FIBER) IS BEING PERFORMED VIA

A DISTURBANCE PLAN SHALL CONSISTENTLY BE UPDATED (INCLUDED IN BI- WEEKLY INSPECTION REPORTS) AS SITE DISTURBANCE CHANGES.

BIORETENTION AREAS SHALL NOT BE INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO THE SATISFACTION OF THE TOWN/PROJECT ENGINEER.

CHECK DAMS CAN BE REMOVED ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO THE SATISFACTION OF THE TOWN/PROJECT ENGINEER.

REFER TO EROSION CONTROL MAINTENANCE SCHEDULE FOR FURTHER INFORMATION  
EROSION AND SEDIMENT CONTROL PLAN SUBJECT TO ANY IN FIELD MODIFICATIONS REQUIRED BY THE TOWN OF BEEKMAN INSPECTORS, NYSDEC, AND PROJECT ENGINEER. A DISTURBANCE PLAN SHALL CONSISTENTLY BE UPDATED (INCLUDED IN BI-WEEKLY INSPECTION REPORTS) AS SITE DISTURBANCE CHANGES.

1. VEGETATE DISTURBED AREAS NOT TO BE SUBJECT TO CONSTRUCTION WITHIN 14 DAYS.
2. UPON INSTALLATION OF ROAD-SUBBASE AND STABILIZATION OF ALL DISTURBED AREAS, SILT FENCING, TEMPORARY SWALES, CHECK DAMS, AND INLET PROTECTION ASSOCIATED WITH THIS PHASE MAY BE REMOVED UNLESS OTHER WISE NOTED BY FIELD INSPECTIONS BY THE TOWN ENGINEER AND PROJECT ENGINEER.

PHASE III (APPROXIMATE AREA OF DISTURBANCE 6.75 ACRES) --

1. CONSTRUCT INDIVIDUAL DRIVEWAY(S) AND HOUSE SITE(S).
2. INSTALL SILT FENCING ON DOWN HILL PORTION OF GRADING.
3. CLEAR AND ROUGH GRADE FOR DRIVEWAY AND HOUSE AS REQUIRED.
4. CHECK STABILIZED ENTRANCE TO INSURE PROPER FUNCTION.
5. STABILIZE ADJACENT BARE AREAS WITH VEGETATION.

2. FOLLOW INDIVIDUAL LOT CONSTRUCTION GENERAL NOTE.

3. CONSTRUCT HOME AS PER BUILDING PLOT PLAN.

4. SEEDING AND MULCHING SHOULD BE CONDUCTED SO THAT NO AREA GREATER THAN 2 ACRES IS LEFT EXPOSED FOR MORE THAN 14 DAYS AFTER REGULAR CONSTRUCTION IS COMPLETED IN THAT AREA.

5. REMOVE SILT FENCING EROSION CONTROL FOR THE INDIVIDUAL LOT ONCE THE AREA HAS BEEN STABILIZED AS REQUIRED.

BIORETENTION AREAS SHALL NOT BE INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO THE SATISFACTION OF THE TOWN/PROJECT ENGINEER.

CHECK DAMS CAN BE REMOVED ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED TO THE SATISFACTION OF THE TOWN/PROJECT ENGINEER.

REFER TO EROSION CONTROL MAINTENANCE SCHEDULE FOR FURTHER INFORMATION  
EROSION AND SEDIMENT CONTROL PLAN SUBJECT TO ANY IN FIELD MODIFICATIONS REQUIRED BY THE TOWN OF BEEKMAN INSPECTORS, NYSDEC, AND PROJECT ENGINEER.

1. VEGETATE DISTURBED AREAS NOT TO BE SUBJECT TO CONSTRUCTION WITHIN 14 DAYS.
2. UPON INSTALLATION OF ROAD-SUBBASE AND STABILIZATION OF ALL DISTURBED AREAS, SILT FENCING, TEMPORARY SWALES, CHECK DAMS, AND INLET PROTECTION ASSOCIATED WITH THIS PHASE MAY BE REMOVED UNLESS OTHER WISE NOTED BY FIELD INSPECTIONS BY THE TOWN ENGINEER AND PROJECT ENGINEER.

EROSION CONTROL IMPLEMENTATION SCHEDULE (ALL PHASES):

EROSION/SEDIMENT CONTROL	PLACEMENT
SILT FENCE	PRIOR TO ANY SITE DISTURBANCE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
STABILIZED CONSTRUCTION ENTRANCE	PRIOR TO ANY GRADING OF THE SITE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SEDIMENT TRAP	PRIOR TO ANY GRADING OF THE ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SILT FENCE (ADDITIONAL)	INSTALL AS REQUIRED DURING RD CONSTRUCTION/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CHECK DAM	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CATCH BASIN PROTECTION	DURING ROUGH GRADING OF ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
RIPRAP OUTLET/OVERFLOW	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
POND VEGETATION ESTABLISHMENT	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
- REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION	

CONSTRUCTION EROSION CONTROL MAINTENANCE SCHEDULE (ALL PHASES):

STRUCTURE	INSPECTION	MAINTENANCE REQUIRED	STRUCTURE TYPE
SILT FENCE	WEEKLY	REPAIR, REPLACE	TEMPORARY
STABILIZED CONSTRUCTION ENTRANCE	DAILY	REPAIR, REPLACE	TEMPORARY
LITTER	DAILY	PICK UP	---
CHECK DAM	WEEKLY	REPAIR	TEMPORARY
DUST	DAILY	SPRAYING, SWEEPING	---
RIPRAP OUTLET/OVERFLOW	WEEKLY	REPAIR	PERMANENT
VEGETATION ESTABLISHMENT	WEEKLY	WATERING, SEEDING	PERMANENT
SEDIMENT TRAP	WEEKLY	REPAIR, DEEPEN	TEMPORARY
SITE DISTURBANCE PLAN UPDATE	WEEKLY	UPDATE DISTURBANCE AREA	---
- REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION			

SWPPP PLAN CERTIFICATION

I, BRIAN J. STOKOSA, P.E. HEREBY CERTIFY THAT THE DESIGN OF ALL STORMWATER MANAGEMENT PRACTICES DETAIL ON THIS PLAN SET MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE GP 0-15-002 PERMIT.

SWPPP PLAN PREPARER: BRIAN J. STOKOSA, P.E. NYSPE #083970

SWPPP PLAN PREPARER SIGNATURE: DATE: \_\_\_\_\_

SWPPP PLAN ONSITE REQUIREMENTS

EACH CONTRACTOR AND SUBCONTRACTOR IDENTIFIED IN THE SWPPP WHO WILL BE INVOLVED IN SOIL DISTURBANCE AND/OR STORMWATER MANAGEMENT PRACTICE INSTALLATION SHALL SIGN AND DATE A COPY OF THE FOLLOWING CERTIFICATION STATEMENT BEFORE UNDERTAKING ANY LAND DEVELOPMENT ACTIVITY:

"I HEREBY CERTIFY THAT I UNDERSTAND AND AGREE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE SWPPP AND AGREE TO IMPLEMENT ANY CORRECTIVE ACTIONS IDENTIFIED BY THE QUALIFIED INSPECTOR DURING A SITE INSPECTION. I ALSO UNDERSTAND THAT THE OWNER OR OPERATOR MUST COMPLY WITH THE TERMS AND CONDITIONS OF THE MOST CURRENT VERSION OF THE NEW YORK STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM ("SPDES") GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES AND THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS. FURTHERMORE, I UNDERSTAND THAT CERTIFYING FALSE, INCORRECT OR INACCURATE INFORMATION IS A VIOLATION OF THE REFERENCED PERMIT AND THE LAWS OF THE STATE OF NEW YORK AND COULD SUBJECT ME TO CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PROCEEDINGS. "

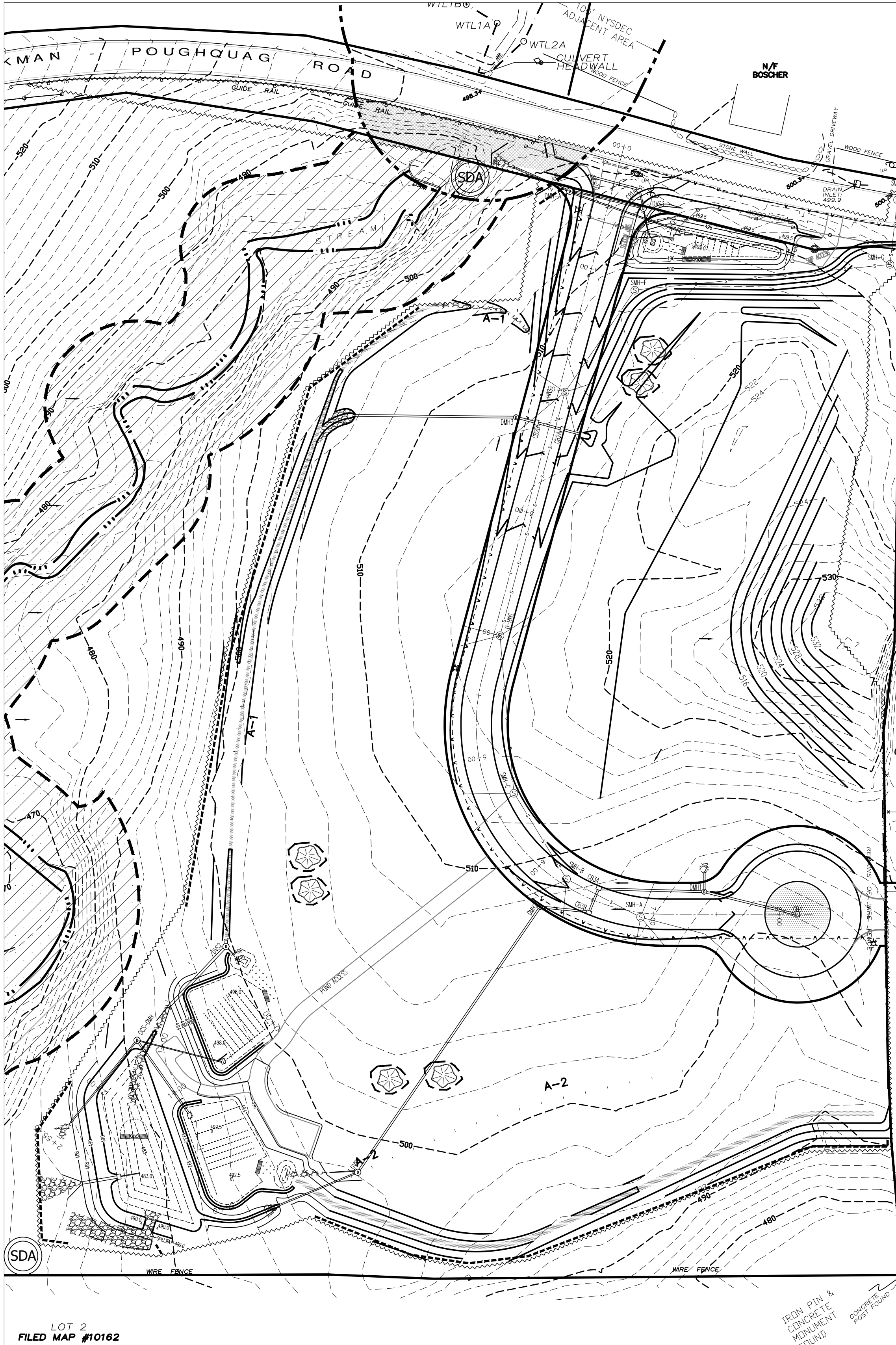
SITE CONSTRUCTION CONTRACTOR: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_

CONTRACTOR PHONE #: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_  
TITLE: \_\_\_\_\_

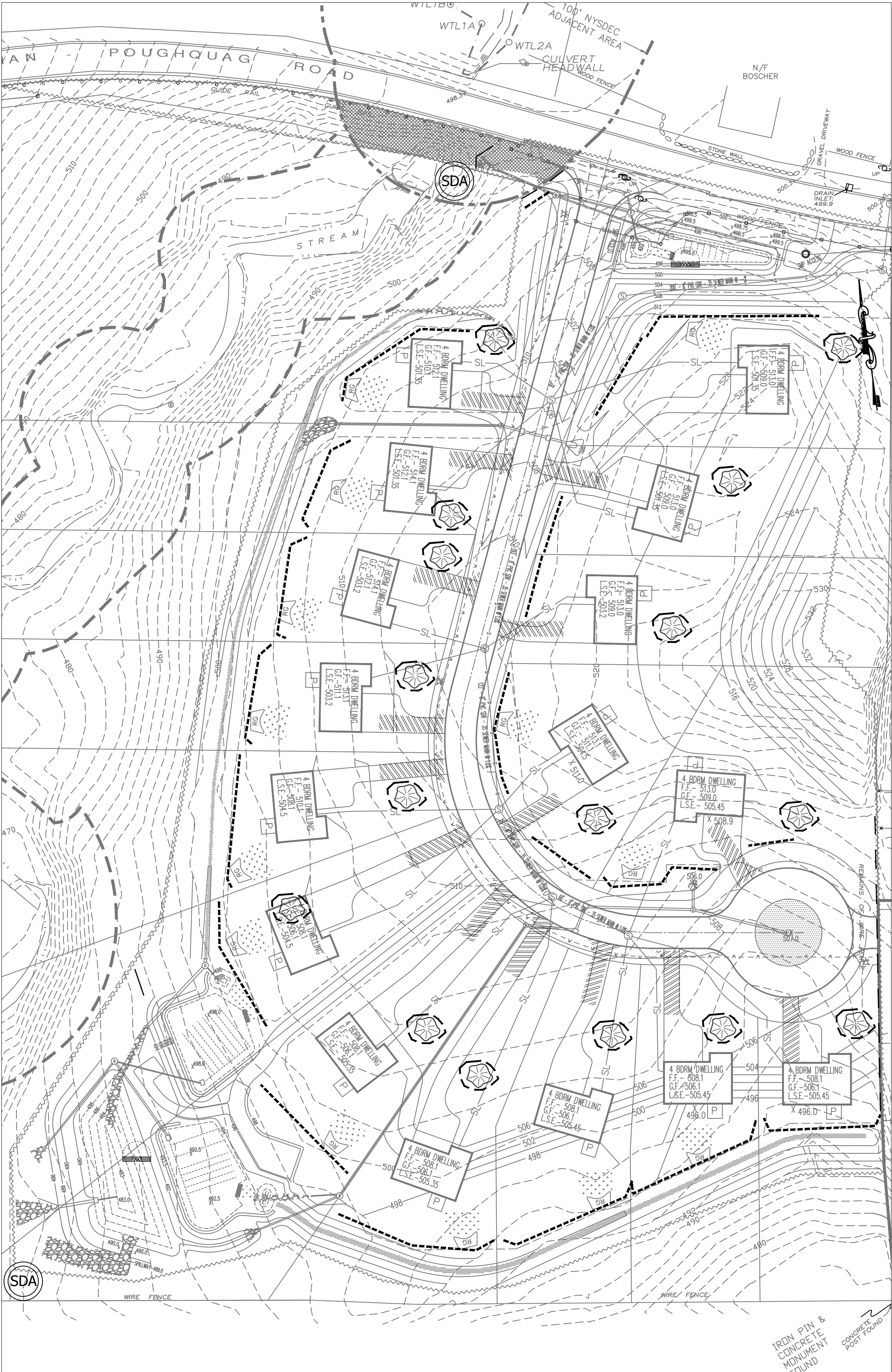
DATE: \_\_\_\_\_



PHASE II  
SCALE: 1" = 60'

SEDIMENT & EROSION PLAN LEGEND

	CONSTRUCTION STAGING AREA		CHECK DAM LOCATION FOLLOW DAM BRACING TABLE
	DISTURBANCE LIMITS		CONSTRUCTION ENTRANCE
	TEMPORARY SWALE		TEMPORARY SOIL STOCKPILE WITH SILT FENCING EROSION CONTROL
	PROPOSED SILT FENCING		STORMWATER DISCHARGE AREA
	ORANGE CONSTRUCTION FENCING		SEDIMENT TRAP LOCATION
	SEDIMENT MARKER		



PHASE III  
SCALE: 1" = 60'

OWNER & APPLICANT	
JSM UPSTATE PROPERTIES INC C/O JOHN MASIMILLO 208 PLEASANT PLAINS AVE STATEN ISLAND NY 10309	
OWNER'S CONSENT	
THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.	
OWNER	DATE
TOWN OF BEEKMAN PLANNING BOARD	
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK, ON THE _____ DAY OF _____, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.	
SIGNED THIS _____ DAY OF _____, 20____, BY	
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK	

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Mark A. Day, PE
Revised	OCTOBER 1, 2018
Project No.	2018.249
	License No. 069646

M.A. DAY Engineering, PC

Consulting Engineers

3 Van Wyck  
Lane Suite 2  
Wappingers Falls, New York  
(845)-223-3202

ALAINA ESTATES

TOWN OF BEEKMAN  
DUTCHESS COUNTY, NEW YORK

CONSTRUCTION  
DETAILS

SCALE	AS NOTED	DRAWN BY	BJS	DRAWING No.	
DATE	01-01-17	CHECKED BY	BJS		10 of 12



CONSTRUCTION SEQUENCE

THE APPLICANT PROPOSES TO DISTURB MORE THAN 5.0 AC. AT ONE TIME WITH PERMISSION FROM THE TOWN OF LAGRANGE.

PHASE IV (APPROXIMATE AREA OF DISTURBANCE 2.0 ACRES) -

1. CONVERT TEMPORARY SEDIMENT PONDS TO FUNCTIONAL STORMWATER MANAGEMENT FACILITIES AS PER PLAN IF REQUIRED. REMOVE SILT AND SEDIMENT FROM ALL FACILITIES.
2. BEGIN RESHAPING OF POND INTERIOR ONLY IF THE SEDIMENT TRAP IS FREE OF STANDING WATER TO AVOID A RELEASE OF SEDIMENT INTO RECEIVING SWALE.
3. REMOVE ANY TEMPORARY SWALE. EXAMINE, REPAIR, FRESHEN, PERMANENT SWALES AS REQUIRED.
4. INSTALL SMP PLANTINGS AS REQUIRED FOLLOWING ALL PLANTING RECOMMENDATIONS FOUND WITHIN THE PLAN SET.
5. FINAL ASPHALT COURSE FOR SUBDIVISION ROAD.
6. SEED AND MULCH, INSTALL STREET TREES, MONUMENTS AS REQUIRED.
7. SEEDING AND MULCHING SHOULD BE CONDUCTED SO THAT NO AREA GREATER THAN 2 ACRES IS LEFT EXPOSED FOR MORE THAN 14 DAYS AFTER REGULAR CONSTRUCTION IS COMPLETED IN THAT AREA.
8. REMOVE SILT FENCING WHEN PHASE HAS BEEN STABILIZED AS REQUIRED.

REFER TO EROSION CONTROL MAINTENANCE SCHEDULE FOR FURTHER INFORMATION  
EROSION AND SEDIMENT CONTROL PLAN SUBJECT TO ANY IN FIELD MODIFICATIONS REQUIRED BY THE TOWN OF BECKMAN INSPECTORS, NYSDC, AND PROJECT ENGINEER.

- 1. VEGETATE DISTURBED AREAS NOT TO BE SUBJECT TO CONSTRUCTION WITHIN 14 DAYS.
- 1. UPON INSTALLATION OF ROAD-SUBBASE AND STABILIZATION OF ALL DISTURBED AREAS, SILT FENCING, TEMPORARY SWALES, CHECK DAMS, AND INLET PROTECTION ASSOCIATED WITH THIS PHASE MAY BE REMOVED UNLESS OTHER WISE NOTED BY FIELD INSPECTIONS BY THE TOWN ENGINEER AND PROJECT ENGINEER.

EROSION CONTROL IMPLEMENTATION SCHEDULE (ALL PHASES):

EROSION/SEDIMENT CONTROL	PLACEMENT
SILT FENCE	PRIOR TO ANY SITE DISTURBANCE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
STABILIZED CONSTRUCTION ENTRANCE	PRIOR TO ANY GRADING OF THE SITE/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SEDIMENT TRAP	PRIOR TO ANY GRADING OF THE ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
SILT FENCE (ADDITIONAL)	INSTALL AS REQUIRED DURING RD CONSTRUCTION/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CHECK DAM	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
CATCH BASIN PROTECTION	DURING ROUGH GRADING OF ROAD/AS REQUIRED AS PER CONSTRUCTION SEQUENCE
RIPRAP OUTLET/OVERFLOW	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
POND VEGETATION ESTABLISHMENT	AS REQUIRED AS PER CONSTRUCTION SEQUENCE
- REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION	

CONSTRUCTION EROSION CONTROL MAINTENANCE SCHEDULE (ALL PHASES):

STRUCTURE	INSPECTION	MAINTENANCE REQUIRED	STRUCTURE TYPE
SILT FENCE	WEEKLY	REPAIR, REPLACE	TEMPORARY
STABILIZED CONSTRUCTION ENTRANCE	DAILY	REPAIR, REPLACE	TEMPORARY
LITTER	DAILY	PICK UP	---
CHECK DAM	WEEKLY	REPAIR	TEMPORARY
DUST	DAILY	SPRAYING, SWEEPING	---
RIPRAP OUTLET/OVERFLOW	WEEKLY	REPAIR	PERMANENT
VEGETATION ESTABLISHMENT	WEEKLY	WATERING, SEEDING	PERMANENT
SEDIMENT TRAP	WEEKLY	REPAIR, DEEPEN	TEMPORARY
SITE DISTURBANCE PLAN UPDATE	WEEKLY	UPDATE DISTURBANCE AREA	---
- REFER TO CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION			



PHASE IV  
SCALE: 1" = 60'

SEDIMENT & EROSION PLAN LEGEND

	CONSTRUCTION STAGING AREA		CHECK DAM LOCATION FOLLOW DAM SPACING TABLE
	DISTURBANCE LIMITS		CONSTRUCTION ENTRANCE
	TEMPORARY SWALE		TEMPORARY SOIL STOCKPILE WITH SILT FENCING EROSION CONTROL
	PROPOSED SILT FENCING		STORMWATER DISCHARGE AREA
	ORANGE CONSTRUCTION FENCING		SEDIMENT TRAP LOCATION
	SEDIMENT MARKER		

RAIN GARDEN - SEQUENCE OF CONSTRUCTION

1. INSTALL SEDIMENT CONTROL DEVICES.
2. GRADE SITE TO ELEVATIONS SHOWN ON PLAN. IF APPLICABLE, CONSTRUCT CURB OPENINGS AND/OR REMOVE OR REPLACE EXISTING CONCRETE. CURB OPENINGS SHOULD BE BLOCKED OR OTHER MEASURES TAKEN TO PROHIBIT DRAINAGE FROM ENTERING CONSTRUCTION AREA.
3. STABILIZE GRADING WITHIN LIMIT OF DISTURBANCE EXCEPT FOR THE BIORETENTION AREA.  
EXCAVATE BIORETENTION AREA TO PROPOSED INVERT DEPTH AND SCARIFY THE EXISTING SOIL SURFACES, TAKING CARE NOT TO COMPACT THE IN-SITU MATERIALS.
4. INSTALL UNDERDRAIN SYSTEM AND OBSERVATION WELLS, IF SPECIFIED.
5. BACKFILL BIORETENTION AREA WITH PLANTING SOIL. WET DOWN THE PLANTING SOIL PRIOR TO PLANTING VEGETATION TO ALLOW FOR SETTLEMENT.
6. EXCAVATE OR FILL TO ACHIEVE PROPER DESIGN GRADE, LEAVING SPACE FOR THE UPPER LAYER OF MULCH THAT WILL BRING THE SURFACE TO FINAL GRADE.
7. PLANT VEGETATION. MULCH AND INSTALL EROSION PROTECTION AT ENTRANCE POINTS. REMOVE SEDIMENT CONTROL PRACTICES OR ENTRANCE BLOCKS WITH INSPECTOR AUTHORIZATION.

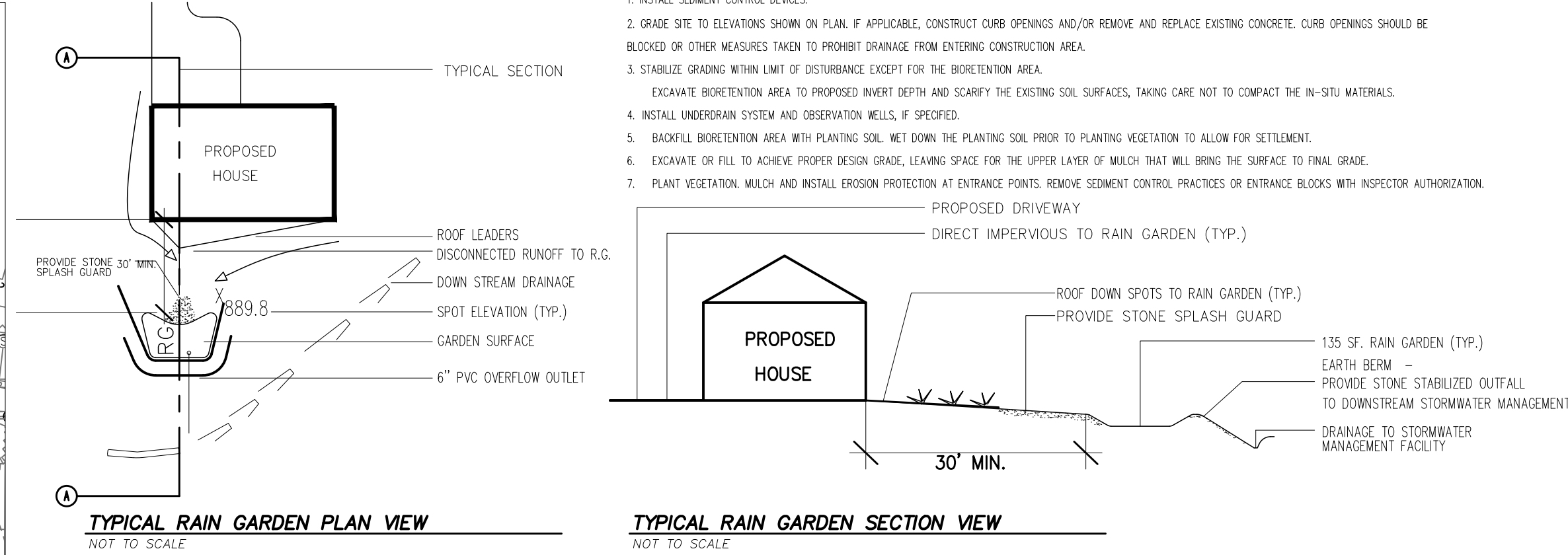
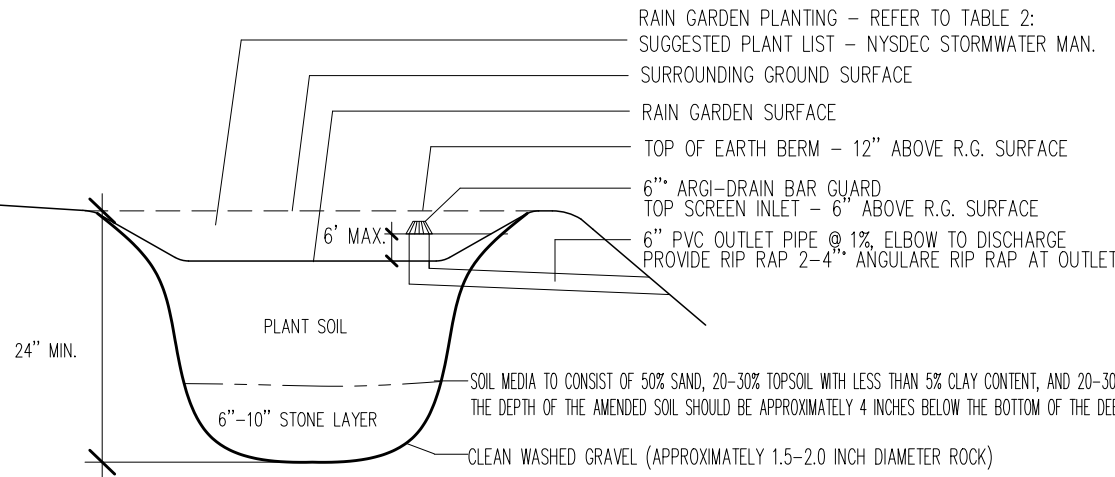


TABLE 2: SUGGESTED PLANT LIST - NYSDC STORMWATER MAN. - CHAPTER 9

SHRUBS	HERBACEOUS PLANTS
WITCH HAZEL HAMAMELIS VIRGINIANA	CINNAMON FERN OSMUNDA CINNAMOMEA
WINTERBERRY ILEX VERTICILLATA	CUTLEAF CONEFLOWER ROEBUCKIA LACINATA
ARROWWOOD VIBURNUM DENTATUM	WOOLGRASS SCIRPUS CYPERINUS
BROOK-SIDE ALDER ALNUS SERRULATA	NEW ENGLAND ASTER ASTER NOVAE-ANGIAE
RED-OSIER DOGWOOD CORNUS STOLONIFERA	FOX SEDGE CAREX VULPINOIDEA
SWEET PEPPERBUSH CLETHRA ALNIFOLIA	SPOTTED JOE-PYE WEED EUPATORIUM MACULATUM

ADAPTED FROM NYSOM BIORETENTION SPECIFICATIONS, BANNERMAN, BROOKLYN BOTANIC GARDEN.



TYPICAL RAIN GARDEN SOIL SECTION VIEW  
NOT TO SCALE

RAIN GARDEN - GUIDELINES AND INSPECTION POINTS

1. ACTIVE SOIL EROSION CONTROL IS THE FIRST LINE OF DEFENSE AGAINST CONTAMINATION OF THE BIORETENTION AREA.
2. ALL SEDIMENT CONTROL DEVICES MUST BE IN PLACE PRIOR TO THE START OF THE MAIN CONSTRUCTION.
3. GRADING OF ANY CATCHMENT AREA DRAINING TO THE FACILITY SHOULD BE DONE SPARINGLY AND STABILIZED IMMEDIATELY (WITHIN 14 DAYS).
4. A BIORETENTION CELL SHOULD NOT BE PLACED IN SERVICE UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND APPROVED BY THE INSPECTOR.
5. SOIL MATERIALS SHOULD NOT BE DELIVERED UNTIL THE BIORETENTION SITE HAS BEEN EXCAVATED OR GRADED AND THE UNDERDRAIN SYSTEMS ARE IN PLACE. PLANTING MATERIALS SHOULD NOT BE DELIVERED UNTIL AFTER THE SOIL MEDIA HAS HAD TIME TO SETTLE TO THE PROPER GRADE ELEVATION.
6. PRIOR TO COVERING THE UNDERDRAIN SYSTEM, THE INSPECTOR MUST OBSERVE THE UNDERDRAIN ITSELF, THE CONNECTIONS, GRAVEL BEDDING, AND ANY FILTER FABRIC. MANUFACTURER'S TICKETS ARE REQUIRED FOR THE GRAVEL, PIPE AND FILTER FABRIC MATERIAL.
7. IF PLACING GRAVEL OVER THE UNDERDRAIN, AVOID DROPPING IT FROM HIGH LEVELS WITH A BACKHOE OR FRONT-END LOADER BUCKET. SPILL DIRECTLY OVER THE UNDERDRAIN AND SPREAD MANUALLY.
8. AVOID OVER-COMPACTING OF THE SOIL MATERIAL BY ALLOWING TIME FOR NATURAL COMPACTION AND SETTLEMENT. NO ADDITIONAL MANUAL COMPACTION OF SOIL IS NECESSARY. TO SPEED UP THE NATURAL COMPACTION PROCESS, PRESUMING THE PLACED SOIL MAY BE PERFORMED.
9. OVERFILL ABOVE THE PROPOSED SURFACE INVERT TO ACCOMMODATE NATURAL SETTLEMENT TO THE PROPER GRADE. DEPENDING UPON THE SOIL MATERIAL, UP TO 20% NATURAL COMPACTION MAY OCCUR. IF CONSTRUCTION SCHEDULING PERMITS, IT IS PREFERABLE TO ALLOW NATURAL SETTLEMENT TO OCCUR WITH THE HELP OF RAINEVENTS.
10. THE MULCH LAYER SURFACE SHOULD APPROXIMATE THE FINAL ELEVATION AS SHOWN ON THE DESIGN PLANS.
11. ALL PLANT MATERIALS SHOULD BE TAGGED FOR IDENTIFICATION IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
12. THE LANDSCAPING WORK AND MATERIALS SHALL BE GUARANTEED FOR A MINIMUM OF 1 GROWING SEASON AND A MAXIMUM OF 2 YEARS FROM THE DATE OF INSTALLATION. THE WARRANTY PERIOD BEGINS WHEN THE AS-BUILT CONSTRUCTION PLAN IS APPROVED.

RAIN GARDEN NOTES: (AS PER NYSDC STORMWATER MANUAL)

1. RAIN GARDENS SHOULD BE LOCATED WITHIN APPROXIMATELY 30 FEET OF THE DOWNSPOUT OR IMPERVIOUS AREA TREATED.
2. ROOFTOP CONVEYANCE TO THE RAIN GARDEN IS THROUGH ROOF LEADERS DIRECTED TO THE AREA, WITH STONE OR SPLASH BLOCKS PLACED AT THE POINT OF DISCHARGE INTO THE RAIN GARDEN TO PREVENT EROSION.
3. RUNOFF FROM DRIVEWAYS AND OTHER PAVED SURFACES SHOULD BE DIRECTED TO THE RAIN GARDEN AT A NON-FRODIE RATE THROUGH SHALLOW SWALES, OR ALLOWED TO SHEET FLOW ACROSS SHORT DISTANCES.
4. PONDING DEPTH ABOVE THE RAIN GARDEN BED SHOULD NOT EXCEED 6 INCHES. THE RECOMMENDED MAXIMUM PONDING DEPTH OF 6 INCHES PROVIDES SURFACE STORAGE OF STORMWATER RUNOFF, BUT IS NOT TOO DEEP TO AFFECT PLANT HEALTH, SAFETY, OR CREATE AN ENVIRONMENT OF STAGNANT CONDITIONS ON PERFECTLY FLAT SITES. THIS DEPTH IS ACHIEVED THROUGH EXCAVATION OF THE RAIN GARDEN AND BACKFILLING TO THE APPROPRIATE LEVEL ON SLOPING SITES. THIS DEPTH CAN BE ACHIEVED WITH THE USE OF A BERM ON THE DOWNSLOPE EDGE, AND EXCAVATION/BACKFILL TO THE REQUIRED LEVEL.
5. SURFACE AREA IS DEPENDENT UPON STORAGE VOLUME REQUIREMENTS BUT SHOULD NOT EXCEED A MAXIMUM LOADING RATIO OF 5:1 (DRAINAGE AREA TO INFILTRATION AREA, WHERE DRAINAGE AREA IS ASSUMED TO BE 100% IMPERVIOUS, TO THE EXTENT THAT THE DRAINAGE AREA IS NOT 100% IMPERVIOUS, THE LOADING RATIO MAY BE MODIFIED).
6. A LENGTH TO WIDTH RATIO OF 2:1, WITH THE LONG AXIS PERPENDICULAR TO THE SLOPE AND FLOW PATH IS RECOMMENDED.

SOIL  
THE COMPOSITION OF THE SOIL MEDIA SHOULD CONSIST OF 50% SAND, 20-30% TOPSOIL WITH LESS THAN 5% CLAY CONTENT, AND 20-30% LEAF COMPOST. THE DEPTH OF THE AMENDED SOIL SHOULD BE APPROXIMATELY 4 INCHES BELOW THE BOTTOM OF THE DEEPEST ROOT BALL.

CONSTRUCTION  
RAIN GARDENS SHOULD INITIALLY BE DUG OUT TO A 24" DEPTH, THEN BACKFILLED WITH A 6 - 10 INCH LAYER OF CLEAN WASHED GRAVEL (APPROXIMATELY 1.5-2.0 INCH DIAMETER ROCK), AND FILLED BACK TO THE RAIN GARDEN BED DEPTH WITH A CERTIFIED SOIL MIX.

ENVIRONMENTAL/LANDSCAPING ELEMENTS  
THE RAIN GARDEN SYSTEM RELIES ON A SUCCESSFUL NATIVE PLANT COMMUNITY TO STABILIZE THE PONDING AREA, PROMOTE INFILTRATION, AND UPTAKE POLLUTANTS. TO DO THAT, PLANT SPECIES NEED TO BE SELECTED THAT ARE ADAPTABLE TO THE WET/POOR CONDITIONS THAT WILL BE PRESENT. THE GOAL OF PLANTING THE RAIN GARDEN IS TO ESTABLISH AN ATTRACTIVE PLANTING BED WITH A MIX OF UPLAND AND WETLAND NATIVE SHRUBS, GRASSES AND HERBACEOUS PLANT MATERIAL. ARRANGED IN A NATURAL CONFIGURATION STARTING FROM THE MORE UPLAND SPECIES AT THE OUTER MOST ZONE OF THE SYSTEM TO MORE WETLAND SPECIES AT THE INNER MOST ZONE. PLANTS SHOULD BE CONTAINER GROWN WITH A WELL ESTABLISHED ROOT SYSTEM, PLANTED ON ONE FOOT CENTERS. TABLE 2 PROVIDES A REPRESENTATIVE LIST OF POSSIBLE PLANT SELECTIONS. RAIN GARDENS SHOULD NOT BE SEEDED AS THIS TAKES TOO LONG TO ESTABLISH THE DESIRED ROOT SYSTEM, AND SEED MAY BE FLOATED OUT WITH RAIN EVENTS. THE SAME LIMITATION IS TRUE FOR PLOGS. SHREDDED HARDWOOD MULCH SHOULD BE APPLIED UP TO 2" TO HELP KEEP SOIL IN PLACE.

MAINTENANCE  
RAIN GARDENS ARE INTENDED TO BE RELATIVELY LOW MAINTENANCE. WEEDING AND WATERING ARE ESSENTIAL THE FIRST YEAR, AND CAN BE MINIMIZED WITH THE USE OF A WEED FREE MULCH LAYER. RAIN GARDENS SHOULD BE TREATED AS A COMPONENT OF THE LANDSCAPING, WITH ROUTINE MAINTENANCE PROVIDED BY THE HOMEOWNER OR HOMEOWNERS' ASSOCIATION, INCLUDING THE OCCASIONAL REPLACEMENT OF PLANTS, MULCHING, WEEDING AND THINNING TO MAINTAIN THE DESIRED APPEARANCE. HOMEOWNERS AND LANDSCAPERS SHOULD BE EDUCATED REGARDING THE PURPOSE OF THE RAIN GARDEN, SO THE DESIRABLE ASPECTS OF PONDING WATER ARE RECOGNIZED AND MAINTAINED.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

SWPPP PLAN CERTIFICATION

I, BRIAN J. STOKOSA, P.E. HEREBY CERTIFY THAT THE DESIGN OF ALL STORMWATER MANAGEMENT PRACTICES DETAIL ON THIS PLAN SET MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE GP 0-15-002 PERMIT.

SWPPP PLAN PREPARER: BRIAN J. STOKOSA, P.E. NYSPE #083970

SWPPP PLAN PREPARER SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

SWPPP PLAN ONSITE REQUIREMENTS

EACH CONTRACTOR AND SUBCONTRACTOR IDENTIFIED IN THE SWPPP WHO WILL BE INVOLVED IN SOIL DISTURBANCE AND/OR STORMWATER MANAGEMENT PRACTICE INSTALLATION SHALL SIGN AND DATE A COPY OF THE FOLLOWING CERTIFICATION STATEMENT BEFORE UNDERTAKING ANY LAND DEVELOPMENT ACTIVITY:

"I HEREBY CERTIFY THAT I UNDERSTAND AND AGREE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE SWPPP AND AGREE TO IMPLEMENT ANY CORRECTIVE ACTIONS IDENTIFIED BY THE QUALIFIED INSPECTOR DURING A SITE INSPECTION. I ALSO UNDERSTAND THAT THE OWNER OR OPERATOR MUST COMPLY WITH THE TERMS AND CONDITIONS OF THE MOST CURRENT VERSION OF THE NEW YORK STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM ("SPDES") GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES AND THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS. FURTHERMORE, I UNDERSTAND THAT CERTIFYING FALSE, INCORRECT OR INACCURATE INFORMATION IS A VIOLATION OF THE REFERENCED PERMIT AND THE LAWS OF THE STATE OF NEW YORK AND COULD SUBJECT ME TO CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PROCEEDINGS."

SITE CONSTRUCTION CONTRACTOR: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_

CONTRACTOR PHONE #: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_ TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER & APPLICANT

JSM UPSTATE PROPERTIES INC

C/O JOHN MASIMILLO  
208 PLEASANT PLAINS AVE  
STATEN ISLAND NY 10309

SPILL RESPONSE EMERGENCY PHONE NUMBER(S):  
NYS Spill Hotline: 1-800-457-7362  
National Response Center: 1-800-424-8802

OWNER'S CONSENT

THE UNDERSIGNED OWNER OF THIS PROPERTY HEREOF STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

OWNER

DATE

TOWN OF BECKMAN PLANNING BOARD

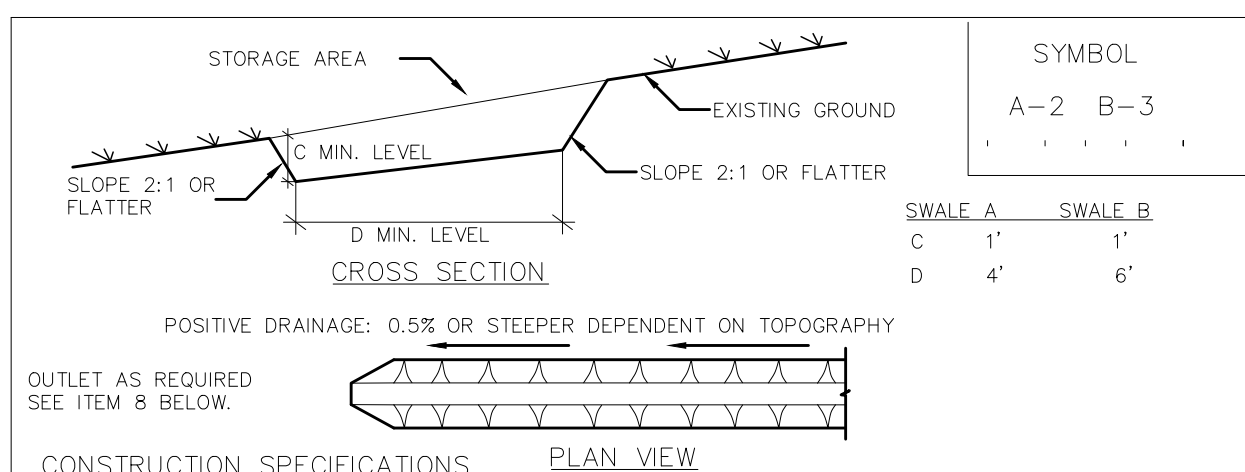
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BECKMAN, NEW YORK, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BY

CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BECKMAN, NEW YORK

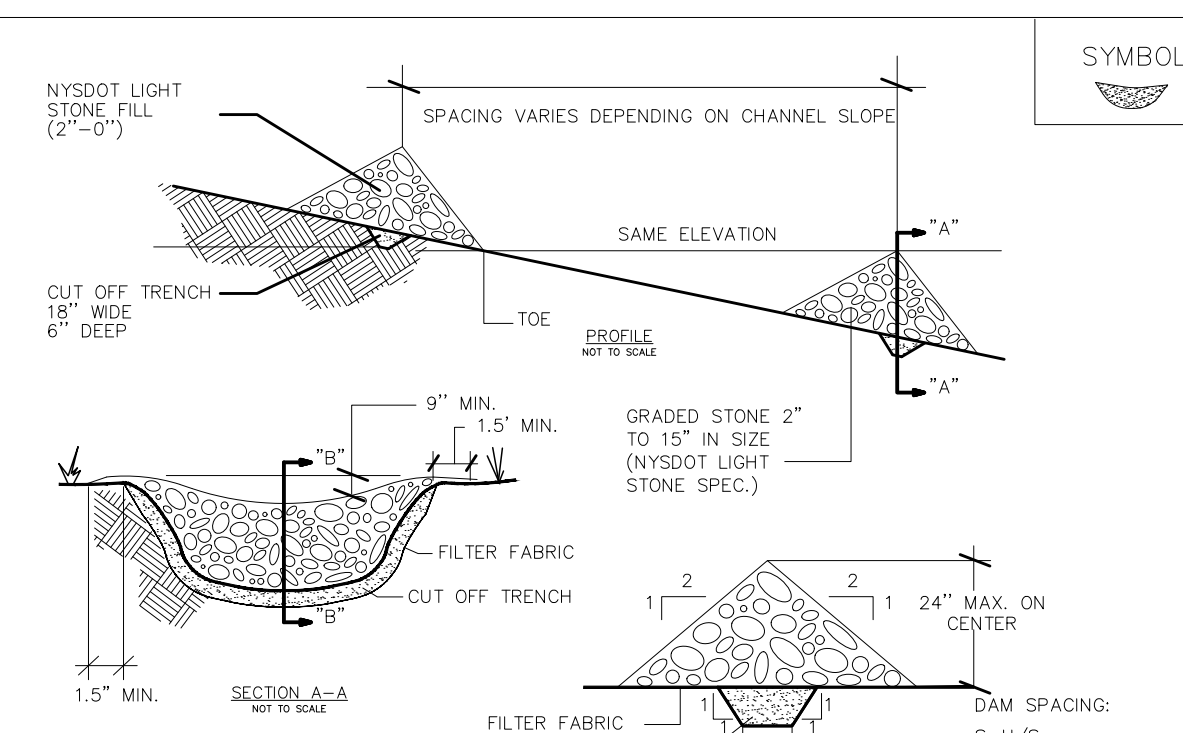
		Mark A. Day, PE	
Revised		OCTOBER 1, 2018	
Project No.		2018.249	
		License No. 069646	
<b>M.A. DAY Engineering, PC</b>			
<i>Consulting Engineers</i>			
3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202			
PROJECT			
<b>ALAINA ESTATES</b>			
TOWN OF BECKMAN DUTCHESS COUNTY, NEW YORK			
<b>CONSTRUCITON DETAILS</b>			
SCALE	AS NOTED	DRAWN BY	BJS
DATE	01-01-17	CHECKED BY	BJS
		DRAWING NO.	11 of 12



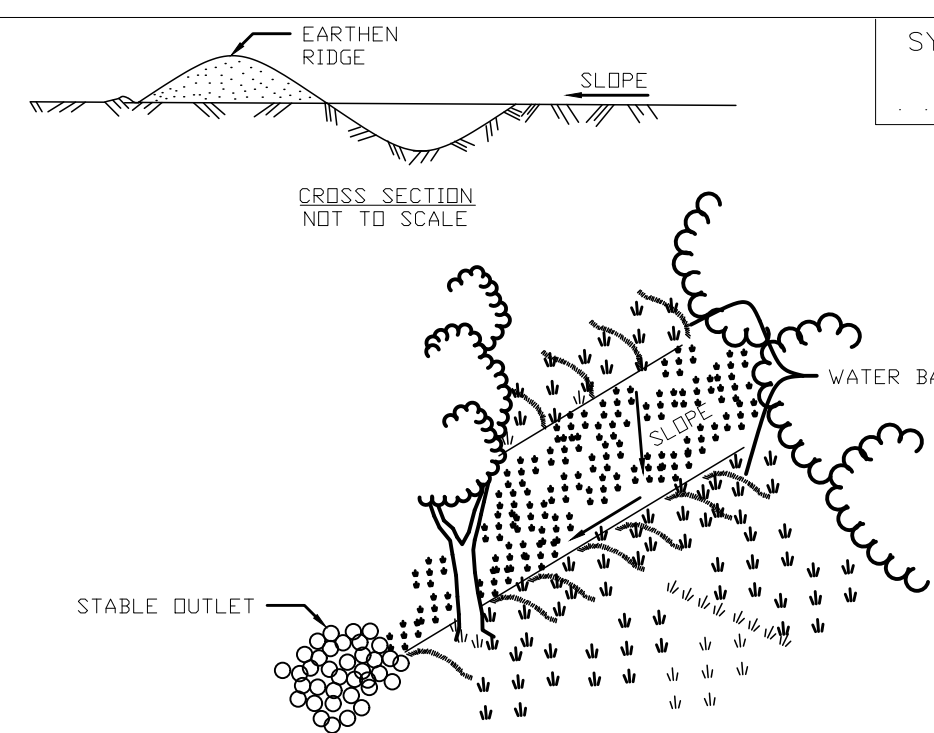


1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDER NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

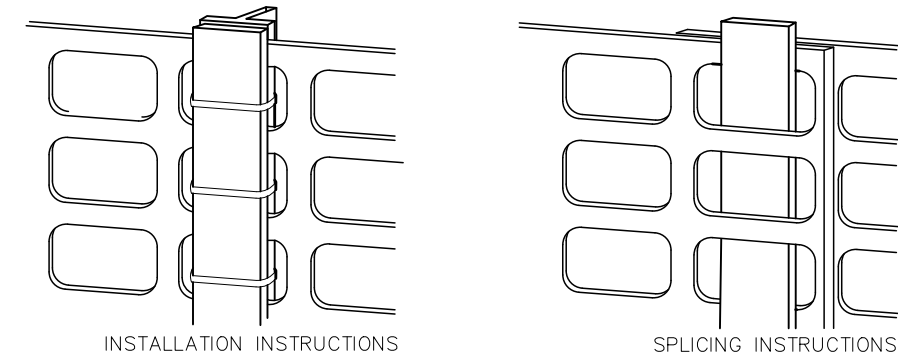
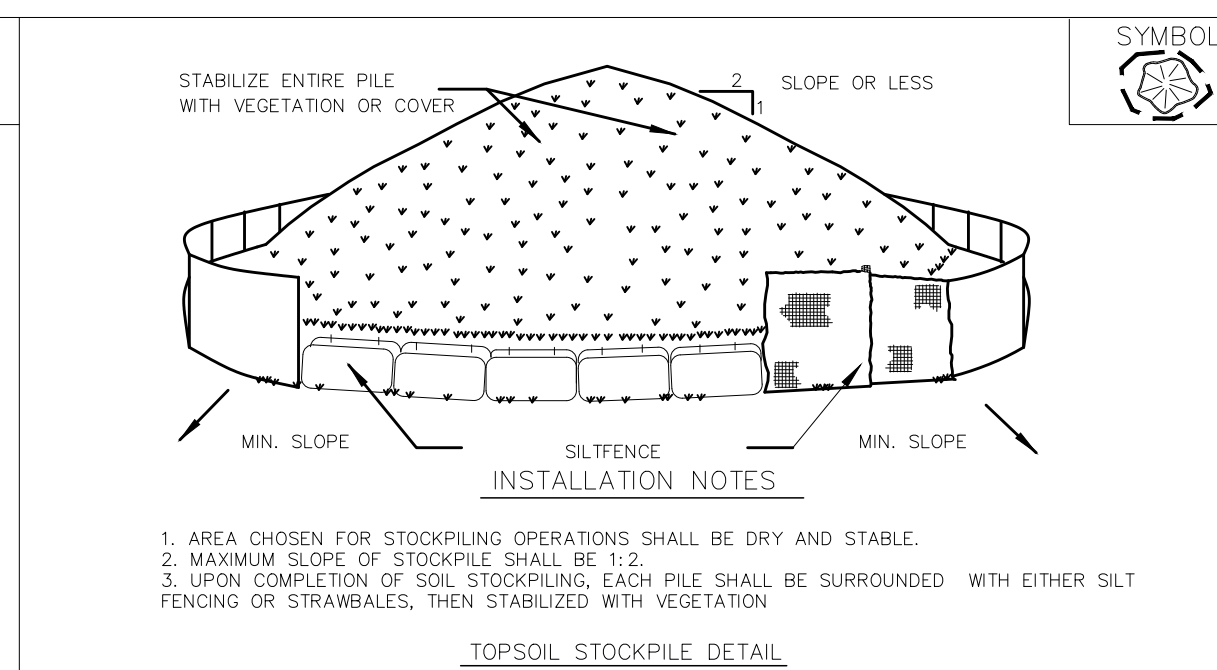
TYPE OF TREATMENT	CHANNEL GRADE	A/5 (AC. OR LESS)	B/5 (AC. -10AC.)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCEL/SOD
3	5.1-8.0%	SEED WITH JUTE OR EXCEL/SOD	LINED WITH 4-8" RIP-RAP OR RECYCLED CONCRETE OVERLAY
4	8.1-20%	LINED WITH 4-8" RIP-RAP	ENGINEERED DESIGN
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



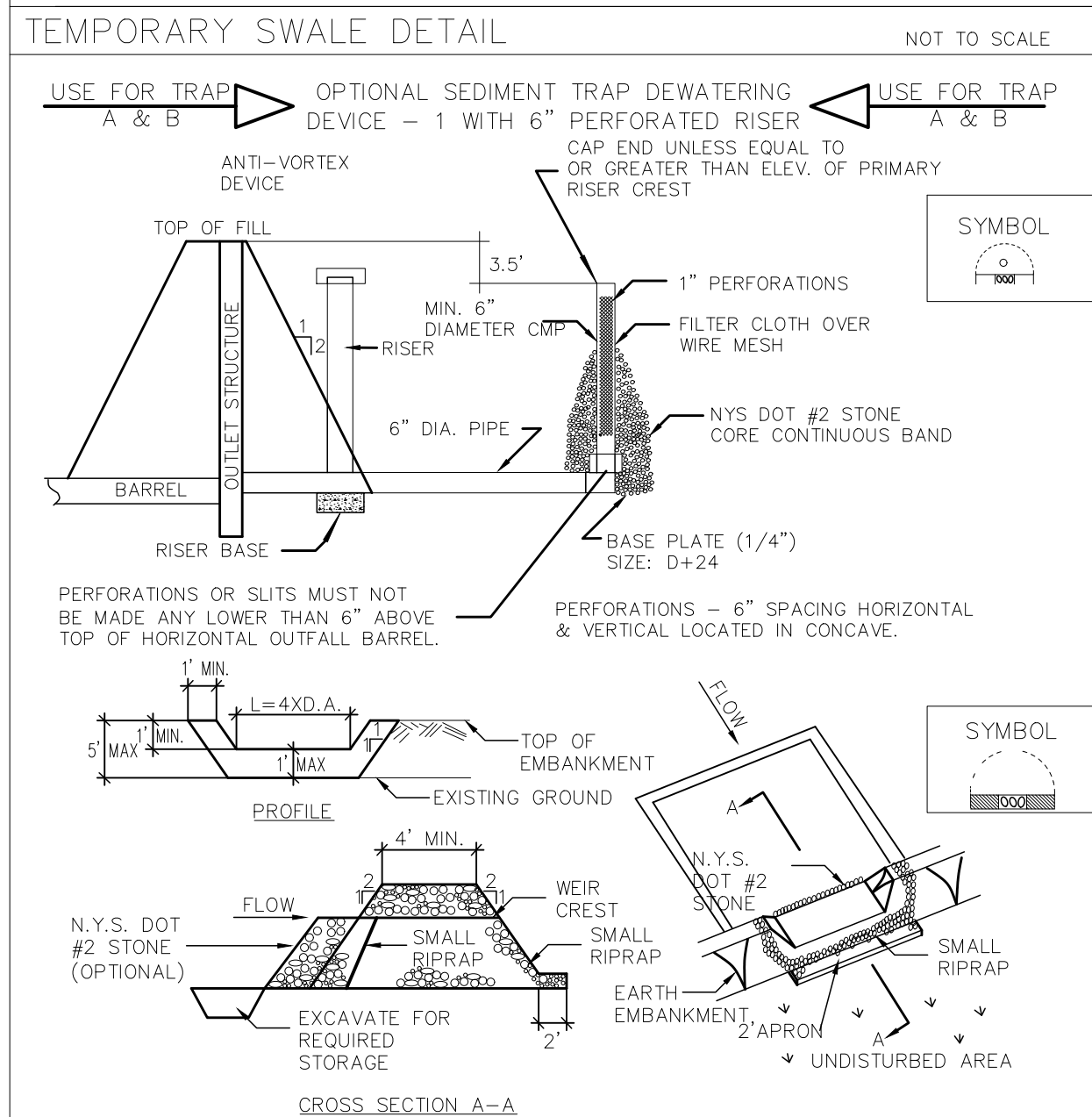
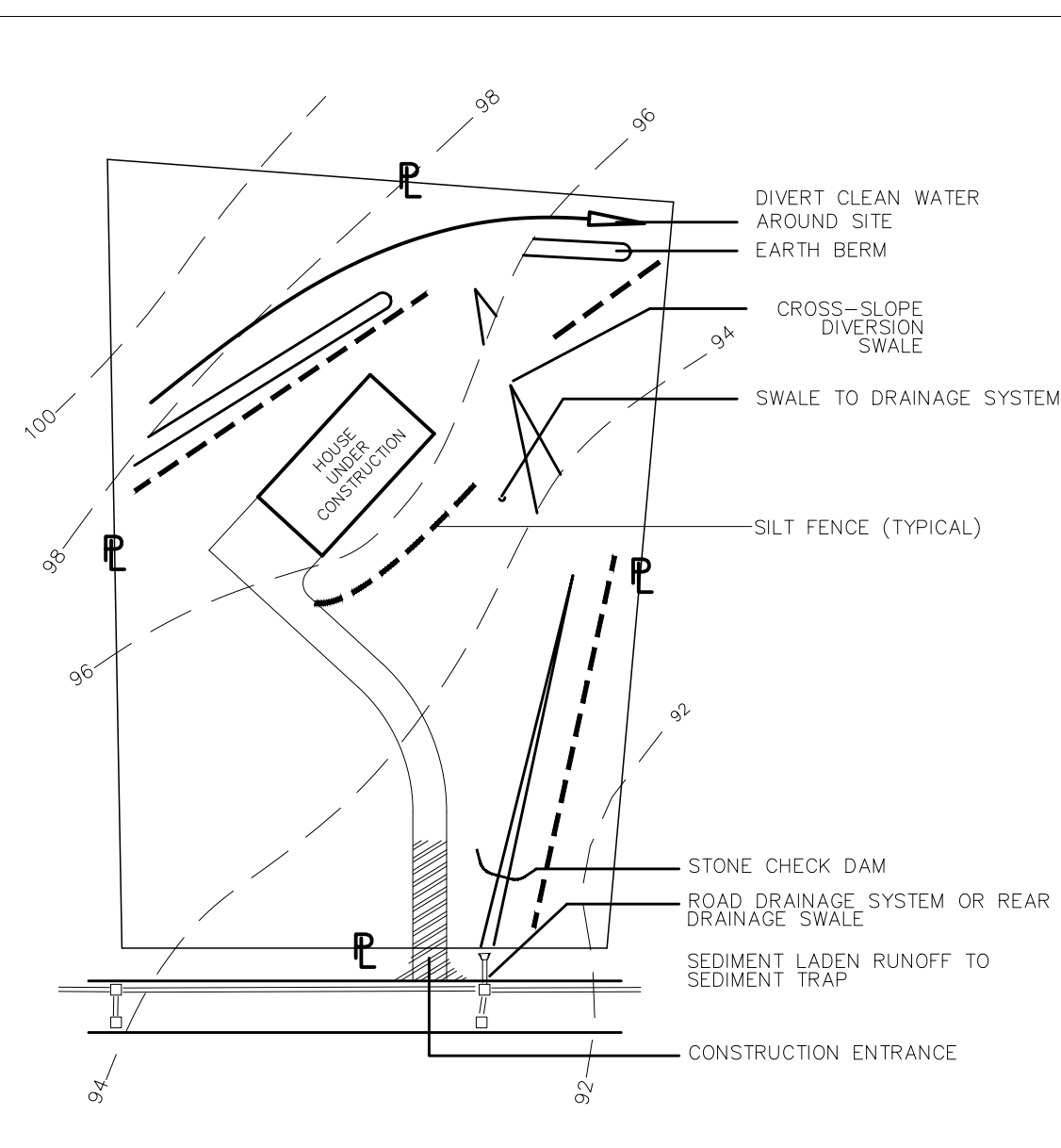
- | CONSTRUCTION SPECIFICATIONS  |  | SECTION B-B 18" W | H = H/T OF CHANNEL SLOPE    |
|--|--|-------------------|-----------------------------|
| 1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRASSES AND LOCATIONS SHOWN ON THIS PLAN.  |  |                   | 2.0 AC. MAX. DRAINAGE AREA  |
| 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWN STREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.                        |  |                   | <u>SLOPE</u> <u>SPECING</u> |
| 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT RUTTING AROUND THE DAM.  |  |                   | 2%   100'0"                 |
| 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.   |  |                   | 4%   50'0"                  |
| 5. ENSURE THE CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.                                    |  |                   | 6%   33'3"                  |
| 6. CHECK DAMS SHALL BE INSPECTED AFTER EACH RUNOFF EVENT AND ALL DAMAGE THAT OCCURS SHALL BE CORRECTED IMMEDIATELY.  |  |                   | 8%   25'0"                  |
| 7. REMOVE SEDIMENT ACCUMULATION BEHIND THE CHECK DAM S REQUIRED TO ALLOW CHANNEL TO DRAIN. THE STONE CHECK DAMS AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT AROUND THE DAM. |  |                   | 10%   20'0"                 |
|  |  |                   | 12%   16'6"                 |
|  |  |                   | 14%   14'5"                 |
|  |  |                   | 16%   12'3"                 |



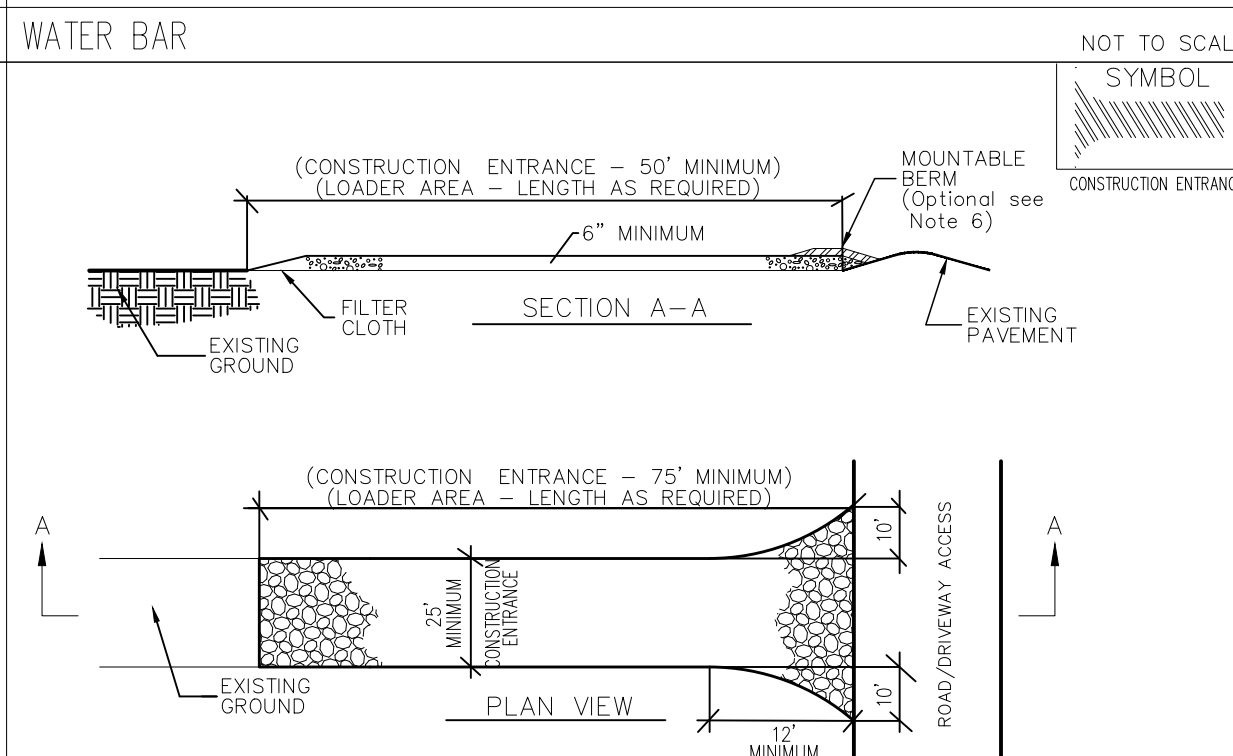
- ### CONSTRUCTION SPECIFICATIONS
1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
  2. DISK OR STRIP THE SOF FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
  3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
  4. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.
  5. VEHICLE CROSSESS SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE IMMEDIATELY RESEED TO MULCH COVER.
  6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.



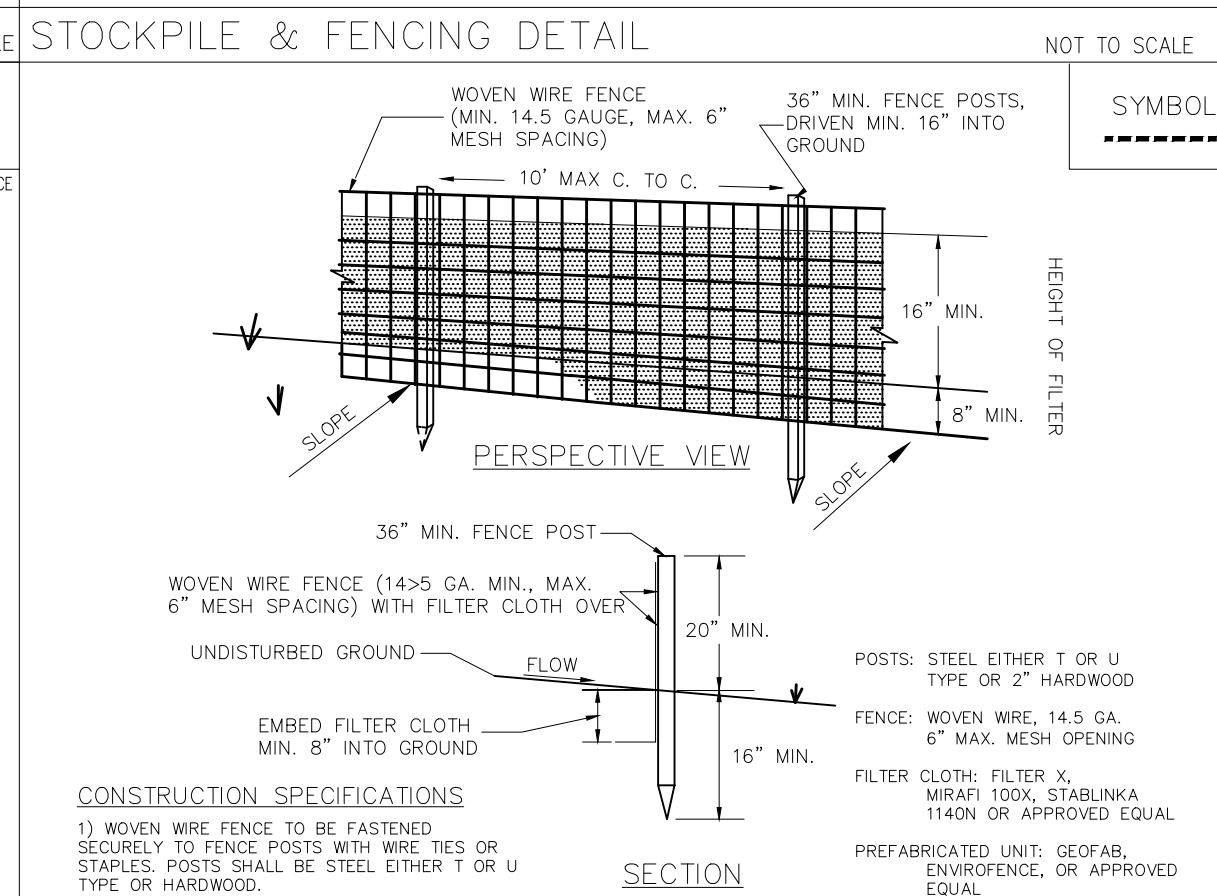
- |  |  |
|--|--|
| <p>1. T-POST SHOULD BE PLACED A MAXIMUM OF 10 FEET APART</p> <p>2. VERTICAL STRAND OF FENCE SHOULD BE SANDWICHED BETWEEN FLAT SIDE OF T-POST AND 1"x2" WOOD SLAT</p> <p>3. WIRE TIES OR PLASTIC CABLE TIES CAN THEN BE USED TO SECURE THE SLAT AND FENCE STRAND TO THE T-POST.</p> | <p>1. TO CONNECT FENCE SECTIONS, OVERLAP 2 STRAND SECTION FROM EACH END AND WEAVE A 1"x2" SLAT THROUGH THE OVERLAPPED STRANDS</p> <p>2. FENCE SHOULD BE TENSIONED BY HAND ONLY. DO NOT USE MECHANICAL TENSIONERS.</p> <p><u>ORANGE CONSTRUCTION FENCE DETAIL</u></p> |
|--|--|



- OPTION: A ONE FOOT LAYER OF N.Y.S. DOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP INFLAKE OF THE EMBEDDED FILTER CLOTH.
- CONSTRUCTION SPECIFICATIONS
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE ROOT AREA SHALL BE CLEARED.
  2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAMMING BY HAND OR ROLLING WHILE IT IS BEING CONSTRUCTED.
  3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
  4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP "4"-8" LONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
  5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
  6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
  7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
  8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- MAXIMUM DRAINAGE AREA 5 ACRES



- NOTES:
1. STONE SIZE - USE 2" min. STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
  2. STONE - AS REQUIRED, BUT NOT LESS THAN THE FOLLOWING:
    - a. THICKNESS - NOT LESS THAN SIX (6) INCHES.
    - b. STONE WEIGHT - NOT LESS THAN 10 LBS. PER CUBIC FOOT AT POINTS WHERE INGRESS OR EGRESS OCCURS. 25 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
    - c. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
  3. STONE SHALL BE PLACED OVER THE ENTIRE TOWARD OR OVERFLOW TOWARD CONCRETE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BARRIER WITH 5:1 SLOPES WILL BE PERMITTED.
  4. STONE SHALL BE PLACED IN THE MAIN DRAINAGE CHANNELS TO PREVENT BACKFLOWING OF FLOODING OF SEDIMENT INTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT.
  5. STONE SHALL BE PLACED AND/OR OBTAINED TO BE USED TO TRAP SEDIMENT, DRIFTED, DISPERSED, OR TRACKED INTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING.
  6. WHEN STONE IS PLACED TO PREVENT OR REDUCE FLOODING OF SEDIMENT INTO PUBLIC RIGHTS-OF-WAY, WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
  7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



- ### CONSTRUCTION SPECIFICATIONS

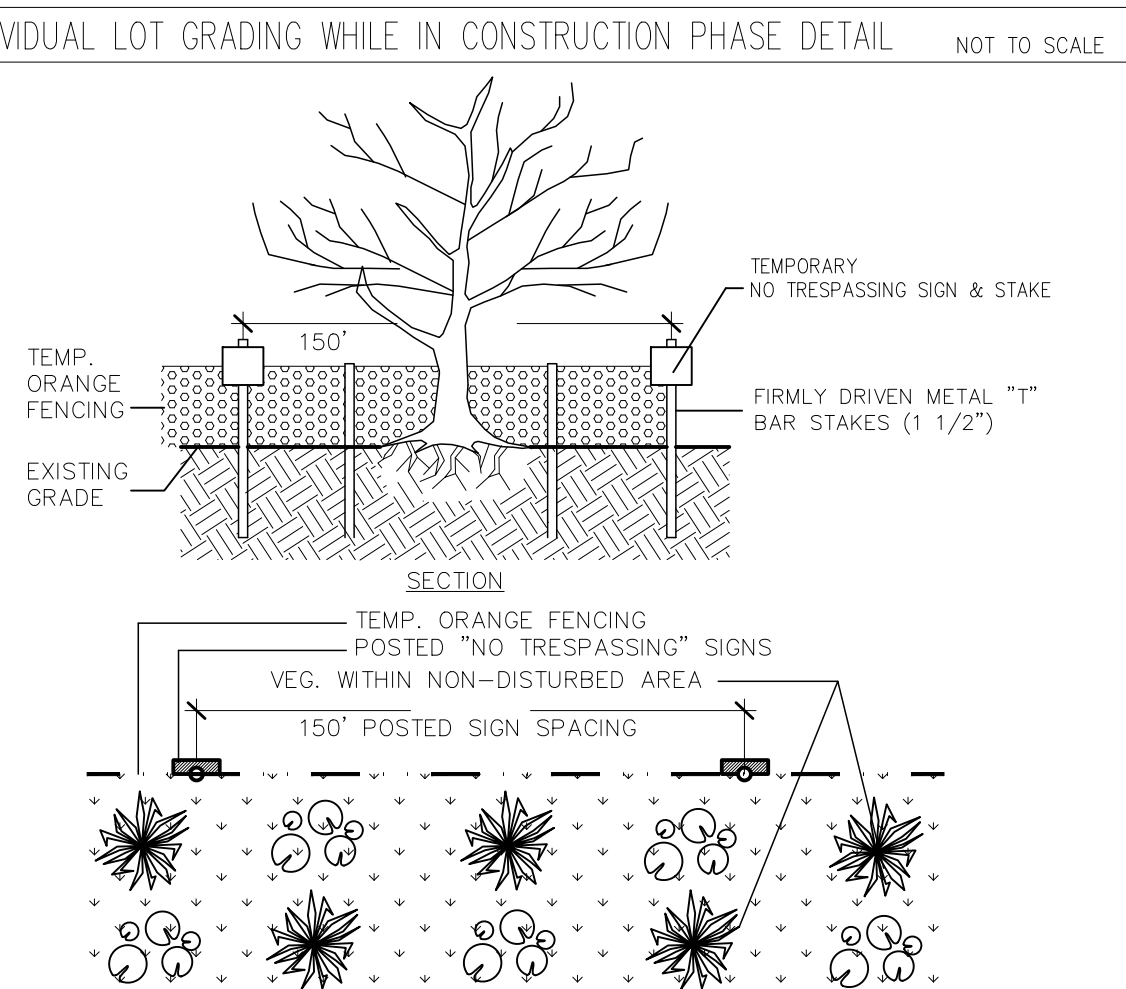
  - 1) MOVN WRN FENCE TO BE FASTENED SECURELY TO FILTER POSTS WITH 12" OR STAPLES. POSTS SHALL BE STEEL EITHER T OR U TYPE OR WOODEN.
  - 2) MOVN WRN FENCE TO BE FASTENED SECURELY TO MOVN WRN FENCE WITH STAPS SPACED EVERY 24" AT TOP AND MID SECTION.
  - 3) WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY TWO INCHES AND FOLDED.
  - 4) PREFABRICATED UNITS SHALL BE GEOFAB, ENVIRONMENTAL OR APPROVED EQUIVALENT.
  - 5) MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BUGLES" DEVELOP IN THE SILT FENCE.

### SECTION

FILTER CLOTH SHALL BE 12" OR APPROVED EQUIVALENT

PREFABRICATED UNIT GEOFAB, ENVIRONMENTAL OR APPROVED EQUIVALENT

12" OR APPROVED EQUIVALENT



- CONSTRUCTION NOTES:
1. BARRIER LIMITS ACCESS INTO BUFFER AREAS AND EDGE OF DISTURBANCE AREA DURING CONSTRUCTION ACTIVITIES. BARRIER AND SIGNAGE SHALL BE POSTED AND INSPECTED PRIOR TO SITE DISTURBANCE.
  2. BARRIER SHALL BE COMPRISED OF TEMPORARY ORANGE CONSTRUCTION FENCING.
  3. POSTED "NO TRESPASSING" SIGNS TO BE INSPECTED BY TOWN ENGINEER OR BUILDING INSPECTOR PRIOR TO SITE DISTURBANCE.
  4. PROPOSED SIGNS SHALL STATE "NO TRESPASSING", AND BE COMPRISED OF A WEATHER RESISTANT MATERIAL TO INSURE LONGEVITY.
  5. DRIVE STAKES FIRMLY INTO GROUND AT LEAST 12" BELOW GRADE.



LONG TERM MAINTENANCE TABLE WITH RESPONSIBLE PARTIES:

IN ORDER FOR ANY PLAN TO OPERATE AS IT WAS ORIGINALLY INTENDED, IT MUST BE MAINTAINED PROPERLY. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES, THE TOWN OF BEEKMAN HIGHWAY DEPARTMENT SHALL ASSUME RESPONSIBILITY FOR MAINTENANCE OF STRUCTURES LOCATED WITHIN THE TOWN RIGHT-OF-WAY AND DRAINAGE EASEMENTS. RESIDENTIAL HOMEOWNERS IDENTIFIED BELOW SHALL BE RESPONSIBLE FOR ANY STORMWATER STRUCTURE (GRASS SWALES) LOCATED ON THEIR PROPERTY. THE HOMEOWNER/TOWN SHALL APPLY MEASURES FOR APPLICABLE STORMWATER STRUCTURES AS PER THE TABLE LISTED BELOW. THE FOLLOWING MEASURES HAVE BEEN IMPLEMENTED IN THE OVERALL DESIGN.

STORMWATER MANAGEMENT PRACTICE	RESPONSIBLE MAINTENANCE ENTITY	RESPONSIBLE MAINTENANCE CONTACT INFO	INSPECTION FREQUENCY	MAINTENANCE REQUIRED	GENERAL NOTES
CATCH BASIN	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	ANNUALLY OR, AFTER EACH EVENT WHERE 3 IN. OF RAINFALL IS EXCEEDED IN A 24-HR PERIOD	GENERAL INSPECTION, CLEANING, REPAIR IF REQUIRED	CATCH BASINS SHOULD BE INSPECTED FOR DEBRIS AND LITTER SHOULD BE REMOVED FROM THE BASINS DURING THESE INSPECTIONS. SEDIMENT WILL HAVE TO BE REMOVED FROM THE BASINS EITHER MANUALLY OR BY VACUUM TRUCK WHEN 10% OF THE AVAILABLE CAPACITY HAS BEEN USED (E.G. FOR 36" SUMP, WHEN THE DEPTH OF SEDIMENT EXCEEDS 3.6"). IN ADDITION, THE STRUCTURES SHOULD BE REPAIRED AND/OR REPLACED ON AN AS-NEEDED BASIS.
SWALES	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	ANNUALLY OR, AFTER EACH EVENT WHERE 3 IN. OF RAINFALL IS EXCEEDED IN A 24-HR PERIOD	GENERAL INSPECTION, CLEANING, REMOVE DEBRIS	ALL DEBRIS AND LITTER SHOULD BE COLLECTED AND REMOVED. IN ADDITION, THE FOLLOWING ITEMS SHOULD BE CHECKED AND REPAIR AS NEEDED: * THE SWALES SHOULD BE CHECKED FOR EROSION, AND ALL ERODED AREAS SHOULD BE STABILIZED IMMEDIATELY. * ALL CULVERT OUTLETS AND INLETS SHOULD BE CHECKED FOR CLOGGING AND ACCUMULATION OF SEDIMENT, AND CLEANED AS NEEDED. GRASSSED SWALES SHOULD BE MOWED AT LEAST TWICE DURING THE GROWING SEASON (E.G., MIDDLE AND END OF THE GROWING SEASON) TO PREVENT THE GROWTH OF TREES AND SHRUBS, AND TO CONTROL WEED GROWTH.
SEDIMENT FOREBAY	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	PLUNGE POOL INSPECTED MONTHLY SEDIMENT TO BE REMOVED EVERY 5 TO 6 YEARS OR AT 50% OF FOREBAY DESIGN CAPACITY	GENERAL INSPECTION, CLEANING, REMOVE DEBRIS & SEDIMENT	THE PLUNGE POOL OUTLET WEIR SHALL BE CHECKED TO INSURE PROPER FUNCTION MEETING DESIGN INTENT. THE PLUNGE POOL SHALL BE CHECKED AND SEDIMENT REMOVED EVERY 5 TO 6 YEARS, OR AFTER 50% OF THE FOREBAY CAPACITY HAS BEEN LOST. ACCUMULATION IN THE PLUNGE POOL, SEDIMENT SHALL BE CAREFULLY REMOVED AS NECESSARY.
BIORETENTION SMP	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	BIORETENTION FACILITY – ANNUALLY MONTHLY – MOW UPLAND AREAS	GENERAL INSPECTION, CLEANING, REMOVE DEBRIS & SEDIMENT, MOW UPLAND AREAS	THE BIORETENTION FACILITY SHALL BE CHECKED TO INSURE PROPER FUNCTION MEETING DESIGN INTENT. UPLAND AREAS SHALL BE CHECKED AND DIVERSION SWALES SHALL BE CHECKED TO INSURE ONLY POST DEVELOPMENT RUNOFF FROM THE SEDIMENT FOREBAY/GRASS SWALE ENTERS THE BIORETENTION PRACTICE. DIVERSION SWALES SHALL BE CAREFULLY CHECKED/REMEDIATED AS NECESSARY.
DRY DETENTION BASIN	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	DRY DETENTION STRUCTURE ANNUALLY, & OUTLET CONTROL STRUCTURE – TWICE A YEAR	GENERAL INSPECTION, CLEANING, REMOVE DEBRIS & MOW UPLAND AREAS	THE DRY DETENTION OUTLET CONTROL STRUCTURE SHALL BE CHECKED TO INSURE PROPER FUNCTION MEETING DESIGN INTENT. DEBRIS SHALL BE REMOVED AS REQUIRED. BASIN AREA SHOULD BE MOWED AND MAINTAINED DURING GROWING SEASON. SEE ALSO SHEET #3 – DRY DETENTION NOTES
STORM SEWER PIPE	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	ANNUALLY – INLET/OUTLET GENERAL INSPECTION BIANNUALLY – DEBRIS AND SILTATION	GENERAL INSPECTION, CLEANING, REMOVE DEBRIS & SEDIMENT	OBSTRUCTION IN THE STORM SEWER PIPING SHOULD BE KEPT TO A MINIMUM. THE PIPING SHOULD BE KEPT FREE OF FILTATION AND BUILD-UP OF EITHER INORGANIC OR ORGANIC LOADING. ALL INLET AND OUTLET/CULVERTS SHOULD BE CHECKED FOR EROSION. ALL AREAS DIRECTLY PRIOR TO THE CULVERT INLETS SHOULD BE MAINTAINED TO PREVENT BRUSH FROM IMPEDING CULVERT CAPACITY.
INDIVIDUAL RAIN GARDEN	INDIVIDUAL PARCEL OWNERS & HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	WATERING, WEEDING, DEBRIS REMOVAL AND REPLANTING AS REQUIRED WHEN REQUIRED TO MAINTAIN THE HEALTH OF THE GARDEN.	GENERAL INSPECTION – WATERING, WEEDING, & REMOVE DEBRIS, REPLANT AS REQUIRED	RAIN GARDENS ARE INTENDED TO BE RELATIVELY LOW MAINTENANCE. WEEDING AND WATERING ARE ESSENTIAL THE FIRST YEAR, AND CAN BE MINIMIZED WITH THE USE OF A WEED FREE MULCH LAYER. RAIN GARDENS SHOULD BE TREATED AS A COMPONENT OF THE LANDSCAPING, WITH ROUTINE MAINTENANCE PROVIDED BY THE SHEET #6 OF DRAWING SET HOWEVER, INCLUDING THE OCCASIONAL REPLACEMENT OF PLANTS, MULCHING, WEEDING AND THINNING TO MAINTAIN THE DESIRED APPEARANCE.
SUBDIVISION ENTRANCE SOFT EASEMENT	HIGHWAY DEPARTMENT ALAINA ESTATES DRAINAGE DISTRICT	AS PER DEED OF RECORD ONFILE WITH THE DUTCHESS COUNTY CLERKS OFFICE.	EVERY 5 YEARS – VEGETATION REMOVAL	GENERAL INSPECTION – REMOVAL OF TREES AND BRUSH UNDERGROWTH	*ALL DEBRIS AND LITTER SHOULD BE COLLECTED AND REMOVED. IN ADDITION, ALL VEGETATION SHALL BE INSPECTED AND CUT BACK TO INSURE SIGHTLINES ARE MAINTAINED AS SHOWN ON THIS PLAN.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Mark A. Day, PE
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PROJECT  
**ALAINA ESTATES**  
TOWN OF BEEKMAN  
DUTCHESS COUNTY, NEW YORK

DRAWING

# CONSTRUCTION DETAILS

SCALE AS NOTED	DRAWN BY BJS	DRAWING No.  12 of 12
DATE 01-01-17	CHECKED BY BJS	

OWNER &amp; APPLICANT

JSM UPSTATE PROPERTIES INC  
C.O JOHN MASIMILLO  
208 PLEASANT PLAINS AVE  
STATEN ISLAND NY 10309

OWNER'S CONSENT

THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON  
STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS  
CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS  
TO ALL SAID TERMS AND CONDITIONS AS STATED  
HEREON.

OWNER	DATE
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TOWN OF BEEKMAN PLANNING BOARD

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN,  
NEW YORK, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, SUBJECT TO ALL  
REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE,  
MODIFICATION OR REVISION TO THE PLAT AS APPROVED, SHALL VOID THIS  
APPROVAL.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BY \_\_\_\_\_  
\_\_\_\_\_  
CHAIRMAN OF THE PLANNING BOARD OF THE TOWN OF BEEKMAN, NEW YORK

12 of 12