



John Kellard, P.E.  
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Jan K. Johannessen, AICP

November 13, 2023

Planning Board  
Town of North Castle  
17 Bedford Road  
Armonk, New York 10504

Attn: Christopher Carthy,  
Planning Board Chairman

RE: Site Development Plan, Preliminary Subdivision and Final Subdivision Approvals  
Kent Place/Verizon Parking Plan  
23 Whipoorwill Road East – Section 108.01, Block 6, Lot 51  
Un-Numbered Town Parcel – Section 108.03, Block 1, Lot 78

Dear Chairman Carthy:

On behalf of our client, the Town of North Castle, we are transmitting via email, the following applications, plans and report relating to the application for Site Development Plan Approval, Preliminary Subdivision Approval and Final Subdivision Approval for the proposed Kent Place/Verizon Parking Plan project, located on 23 Whipoorwill Road East and an Un-Numbered Town Parcel

- Site Development Plan Set, prepared by KSCJ Consulting, dated (last revised) November 13, 2023:
  - T-01 Title Sheet
  - G-01 General Notes & Legend
  - G-02 General Notes
  - C-100 Existing Conditions & Removals Plan
  - C-101 Parking Improvement Plan
  - C-102 Grading Plan
  - C-103 Utility Plan
  - C-104 Erosion & Sediment Control Plan
  - C-200 Wetland Mitigation & Landscape Plan
  - C-300 Sewer Profile
  - C-500 Site Details
  - C-501 Pavement & Signage Details
  - C-502 Drainage Details
  - C-503 Sewer, Water & Planting Details
  - C-504 Erosion & Sediment Control Details

CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE | SITE & ENVIRONMENTAL PLANNING

Christopher Carthy, Planning Board Chairman  
Kent Place/Verizon Parking Plan  
November 13, 2023  
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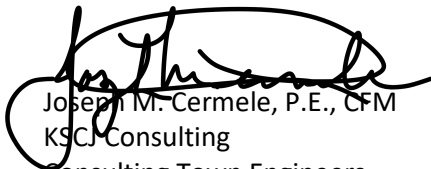
- Lighting Plan Set, prepared by OLA Consulting Engineers, dated (last revised) September 29, 2023:
  - Electrical Symbols, Abbreviations and General Notes (E0.1)
  - Electrical Specifications (E0.2)
  - Electrical Specifications and Details (E0.3)
  - Electrical Site Demolition Part Plan (E1.0)
  - Electrical Site Lighting Part Plan (E1.1)
  - Electrical Site Power Part Plan (E1.2)
  - Electrical Schedules (E6.1)
  
- Survey and Plat, prepared by TC Merritts Land Surveyors:
  - Topography of Property, dated February 9, 2023
  - Preliminary Subdivision Plat, dated February 11, 2022
  
- Stormwater Pollution Prevention Plan Report, prepared by KSCJ Consulting, dated November, 2023
  
- Full Environmental Assessment Form (EAF) Part 1, dated November 13, 2023
  
- Site Development Plan Approval Application, dated November 13, 2023
  
- Preliminary Subdivision Approval Application, dated November 13, 2023
  
- Final Subdivision Approval Application, dated November 13, 2023
  
- Tree Removal Permit Application, dated November 13, 2023
  
- Wetlands and Drainage Application, dated November 13, 2023

The above is submitted for your review and approval for the proposed parking lot improvements.

Christopher Carthy, Planning Board Chairman  
Kent Place/Verizon Parking Plan  
November 13, 2023  
Page 3 of 3

We are respectfully requesting that this item be placed on the Planning Board's November 27, 2023 agenda to discuss the application. If you should have any questions or require any additional materials, please do not hesitate to contact this office.

Very truly yours,



Joseph M. Cermele, P.E., CFM  
KSCJ Consulting  
Consulting Town Engineers

JMC/dc

Enclosures

cc: Kevin Hay, Town Administrator

# KENT PLACE/VERIZON PARKING PLAN

## PREPARED FOR TOWN OF NORTH CASTLE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK

DATE: NOVEMBER 13, 2023

### SITE DATA

APPLICANT/SPONSOR: TOWN OF NORTH CASTLE  
15 BEDFORD ROAD  
ARMONK, NY 10504

VERIZON NEW YORK INC.  
140 WEST STREET  
NEW YORK, NY 10007

PROPERTY ADDRESS: 23 WHIPPOORWILL ROAD EAST  
AND UN-NUMBERED TOWN PARCEL  
ARMONK, NEW YORK 10504

PROPERTY SIZE: ± 2.296 ACRES (± 100,172 SF)

TAX MAP DESIGNATION: 108.01-6-51 (±1.996 AC)  
108.03-1-78 (±0.30 AC)

ZONING DESIGNATION: R-3/4A - ONE FAMILY RESIDENCE

FIRE DISTRICT: ARMONK FIRE DEPARTMENT

SCHOOL DISTRICT: BYRAM HILLS SCHOOL DISTRICT

WATER SUPPLY: NORTH CASTLE WATER DISTRICT #4

SANITARY SEWER: NORTH CASTLE SEWER DISTRICT #2

### CIVIL ENGINEER/LANDSCAPE ARCHITECT

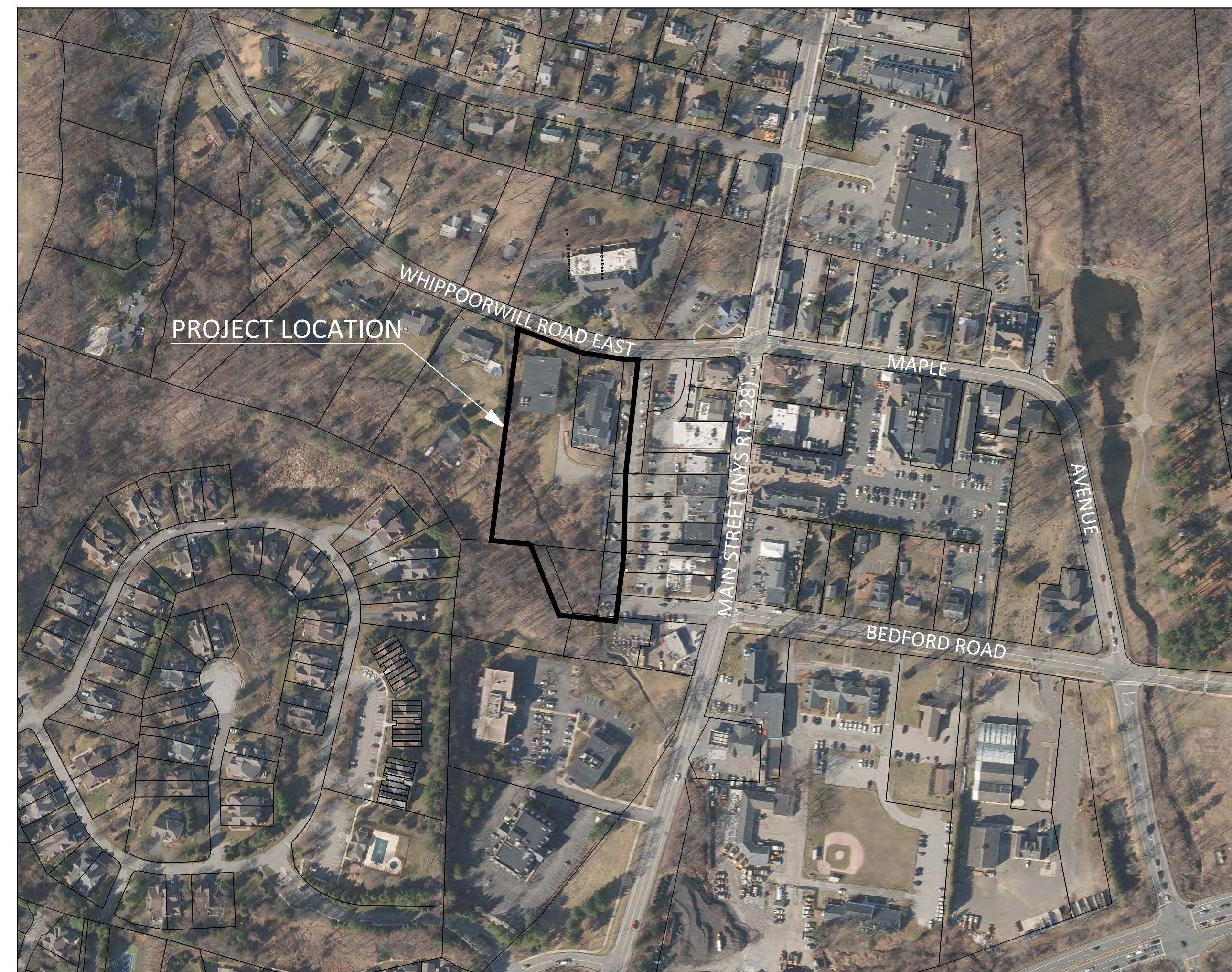
KSJC CONSULTING, D.P.C.  
ADDRESS: 500 MAIN STREET  
ARMONK, NEW YORK 10504  
PHONE: (914) 273-2323

### ELECTRICAL ENGINEER

OLA CONSULTING ENGINEERS, P.C.  
ADDRESS: 50 BROADWAY  
HAWTHORNE, NEW YORK 10532  
8 WEST 38TH STREET, SUITE 501  
NEW YORK, NEW YORK 10018  
PHONE: (914) 919-3204; (914) 383-7887

### SURVEYOR

TC MERRITTS LAND SURVEYORS  
ADDRESS: 394 BEDFORD ROAD  
PLEASANTVILLE, NEW YORK 10570  
PHONE: (914) 769-8003



VICINITY MAP  
(NOT TO SCALE)

### SHEET INDEX

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### TITLE SHEET

## KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

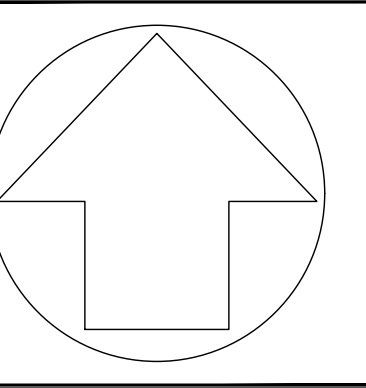
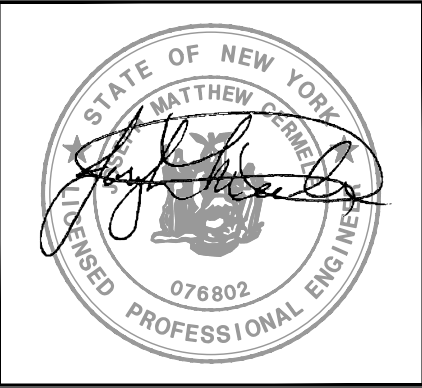


CIVIL ENGINEERING  
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WWW.KSCJCONSULTING.COM



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T-01

PROJECT I.D.:  
NC PARKING  
DATE:  
NOVEMBER 13, 2023

REVISIONS



CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE | SITE & ENVIRONMENTAL PLANNING  
500 MAIN STREET, ARMONK, NY 10549  
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WWW.KSCJCONSULTING.COM

LEGEND

Legend table with two columns: symbol/description and symbol/description. Includes symbols for property lines, buildings, fences, water features, and vegetation.

GENERAL NOTES:

- 1. SURVEY INFORMATION AND TOPOGRAPHY IS BASED UPON THE MAP ENTITLED "PRELIMINARY SUBDIVISION PLAT PREPARED FOR VERIZON NEW YORK INC." PREPARED BY TC MERRITTS LAND SURVEYORS, LAST REVISED, FEBRUARY 9, 2023.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE EXISTING FEATURES DISTURBED BY THE CONSTRUCTION OF THIS CONTRACT TO EXISTING CONDITION OR BETTER, AS DETERMINED BY THE ENGINEER.

DEMOLITION NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A CLEAN AND SAFE WORK AREA IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL TRACKED SOIL AND DEBRIS FROM WITHIN THE RIGHT-OF-WAY ON A DAILY BASIS AT A MINIMUM OR AS DIRECTED BY THE ENGINEER OR TOWN OFFICIALS.

GENERAL UTILITY NOTES:

- 1. ALL UTILITIES, INCLUDING ELECTRIC LINES, TELEPHONE, CABLE, WATER, SANITARY SEWER LINES, AND STORM SEWER LINES SHALL BE LOCATED UNDERGROUND AND SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN AND THE UTILITY COMPANIES HAVING JURISDICTION.
2. STORM DRAIN PIPING TO BE HIGH DENSITY POLYETHYLENE AS SHOWN ON THE CONSTRUCTION DRAWINGS. MINIMUM COVER TO BE 2 FEET UNLESS OTHERWISE NOTED.

SANITARY SEWER NOTES:

- 1. ALL GRAVITY SEWER SERVICES SHOWN ON THESE PLANS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35. SIZE AND LOCATION AS SHOWN ON PLANS.
2. SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE DESIGN ENGINEER MAY ALLOW DEVIATION WITH PRIOR APPROVAL ON A CASE-BY-CASE BASIS.

SANITARY SEWER LOW PRESSURE AIR TESTING:

- 1. GENERAL:
a. AIR TEST IS NOT RECOMMENDED WHEN GROUND WATER ELEVATION IS 2 FEET OR GREATER ABOVE THE TOP OF THE PIPE, AND CANNOT BE USED WHEN GROUND WATER IS GREATER THAN 6 FEET ABOVE THE TOP OF THE PIPE.
2. TEST PROCEDURES:
PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM-1417 AS PER SECTION 33.95 OF THE TENT STATES STANDARDS AND GENERALLY REQUIRE THE FOLLOWING:

GENERAL PLANTING NOTES:

- 1. ULTIMATE SPACING AND LOCATION OF PROPOSED TREES / SHRUBS SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD FOLLOWING CLEARING AND GRUBBING ACTIVITIES.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO STARTING WORK. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING PAVEMENTS, UTILITIES, STRUCTURES, ETC. TO REMAIN AND SHALL REPAIR AND/OR REPLACE ANY SUCH DAMAGE AT HIS EXPENSE.

- 8. ANY PLANT SUBSTITUTIONS ARE TO BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO IMPLEMENTATION. ALL PLANT SUBSTITUTIONS ARE TO CONSIST OF NATIVE PLANT SPECIES APPROPRIATE TO EXISTING SITE CONDITIONS.
9. ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.

FIVE (5) YEAR WETLAND/WETLAND BUFFER LANDSCAPE MONITORING & MAINTENANCE PLAN

- 1. PROTOCOL FOR WETLAND/WETLAND BUFFER LANDSCAPE MONITORING & MAINTENANCE PLAN
a. FOR THE FIRST YEAR, THE CONTRACTOR SHALL IMPLEMENT THE MITIGATION PLAN APPROVED BY THE TOWN OF NORTH CASTLE PLANNING BOARD.
b. FOLLOWING THE INSTALLATION OF ALL WETLAND BUFFER MITIGATION AND BIOTRETENTION PLANTING, IN ACCORDANCE WITH THE FINAL PLANS ADOPTED BY THE TOWN OF NORTH CASTLE PLANNING BOARD, THE CONTRACTOR SHALL SUBMIT TO THE TOWN'S WETLAND CONSULTANT TWO (2) COPIES OF THE FOLLOWING:

GENERAL NOTES & LEGEND

KENT PLACE/VERIZON PARKING PLAN

Site plan details including logos for KSCJ CONSULTING, State of New York Professional Engineer Seal, project location (500 MAIN STREET, ARMONK, N.Y. 10504), contact information, and revision table.

## INVASIVE SPECIES REMOVAL/MANAGEMENT PROGRAM

PRIOR TO COMMENCING THE INVASIVE SPECIES REMOVAL, THE CONTRACTOR SHALL MEET IN THE FIELD WITH THE TOWN'S WETLAND CONSULTANT TO VERIFY THE EXTENT OF THE AREAS OF INVASIVES TO BE REMOVED AND AREAS TO BE RESTORED. ONCE THE BOUNDARY OF THE RESTORATION AREAS ARE ESTABLISHED, THE PERIMETER SHALL BE STAKED AND SILT FENCE ERECTED TO PREVENT ANY SEDIMENT FROM BEING TRANSPORTED DOWNSTREAM DURING THE RESTORATION PERIOD.

ALL INVASIVE SPECIES ARE INTENDED TO BE REMOVED BY HAND LABOR ONLY. SINCE MOST OF THE INVASIVE SHRUBS ARE WELL-DEVELOPED, IT IS POSSIBLE THAT OTHER MEANS OF REMOVAL MAY BE REQUIRED (BACKHOE, TRACTOR AND CHAIN, ETC.). IF IT IS DETERMINED THAT MEANS OF REMOVAL OTHER THAN HAND-LABOR ARE REQUIRED TO COMPLETELY REMOVE THE ROOT SYSTEMS OF THE PLANTS, IT WILL REQUIRE PRIOR APPROVAL OF THE TOWN'S WETLANDS CONSULTANT.

ALL VINES AND INVASIVE SHRUBS INCLUDING, BUT NOT NECESSARILY LIMITED TO, MULTIFLORA ROSE, JAPANESE BARBERRY, MORROW'S HONEYSUCKLE AND COMMON MUGWORT CAN BE REMOVED DURING ANY SEASON WITH A HOE OR WEED WRENCH. IT IS IMPORTANT TO REMOVE ALL OF THE ROOT SYSTEM FROM THESE SHRUBS AND VINES TO PREVENT RE-SPROUTING FROM REMAINING ROOT SEGMENTS. JAPANESE STILTGRASS (AN ANNUAL INVASIVE SPECIES) EXISTS IN PORTIONS OF THE WETLAND BUFFER. WHEN REMOVING THE JAPANESE STILTGRASS (PULLING BY HAND), THE PULLED STILTGRASS PLANTS SHOULD BE BAGGED AND DISPOSED OF OFF SITE TO PREVENT SEED DISPERSAL. IT IS MORE EFFECTIVE TO REMOVE JAPANESE STILTGRASS IN MID TO LATE SUMMER WHEN PLANTS ARE MUCH TALLER AND MORE BRANCHED.

ONGOING FUTURE MONITORING OF THE REMOVAL AREAS IS CRUCIAL FOR THE LONG-TERM SUPPRESSION/ELIMINATION OF THE INVASIVE PLANTS. A LARGE SEED BANK OF THE INVASIVE SHRUB SPECIES LIKELY EXISTS WITHIN THE SOIL ADJACENT TO THE PLANTS. THEREFORE, IT IS IMPORTANT FOR THE ONGOING MONITORING OF THE AREA TO CONTROL (REMOVE) ANY SEEDLINGS AS THEY APPEAR.

MONITORING AND MAINTENANCE EFFORTS FOR THE WETLAND MITIGATION/INVASIVE SPECIES REMOVAL/MANAGEMENT PROGRAM WILL BE CONDUCTED OVER A FIVE (5) YEAR PERIOD. THE MITIGATION AREAS SHALL BE MONITORED FOR THE INTRODUCTION OF INVASIVE SPECIES ON A MONTHLY BASIS. UPON VISUAL OBSERVATION OF RE-EMERGENCE OF INVASIVE SPECIES WITHIN THE AREA, SAID SPECIES SHALL BE IMMEDIATELY REMOVED MANUALLY IN ACCORDANCE WITH THE PLAN.

AN ANNUAL REPORT PREPARED BY A LICENSED LANDSCAPE ARCHITECT OR AN ENVIRONMENTAL PROFESSIONAL SHALL BE PREPARED AND SUBMITTED TO THE TOWN OF NORTH CASTLE THROUGHOUT THE DURATION OF THE MONITORING PERIOD. THE REPORT SHALL INCLUDE LOCATION KEYED PHOTOGRAPHS OF THE INVASIVE SPECIES CONTROL AREAS, AND ADHERE TO THE FOLLOWING SCHEDULE:

- YEAR 1 (CONTRACTOR) - THE MITIGATION AREAS SHALL BE MONITORED FOR THE INTRODUCTION OF INVASIVE SPECIES ON A MONTHLY BASIS DURING THE GROWING SEASON. UPON VISUAL OBSERVATION OF RE-EMERGENCE OF INVASIVE SPECIES WITHIN THE AREA, SAID SPECIES SHALL BE REMOVED MANUALLY IN ACCORDANCE WITH THE PLAN.
- YEAR 2 (TOWN'S REPRESENTATIVE) - THE MITIGATION AREAS SHALL BE MONITORED FOR THE INTRODUCTION OF INVASIVE SPECIES EVERY TWO (2) MONTHS DURING THE GROWING SEASON.
- YEARS 3, 4 AND 5 (TOWN'S REPRESENTATIVE) - THE MITIGATION AREAS SHALL BE MONITORED FOR THE INTRODUCTION OF INVASIVE SPECIES FOUR (4) TIMES WITHIN THE GROWING SEASON.

## 5.0 EROSION AND SEDIMENT CONTROL PLAN

ALL PROPOSED SOIL EROSION AND SEDIMENT CONTROL PRACTICES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING PUBLICATIONS:

- NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (NYSSECS), LATEST EDITION
- NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) SPDES GENERAL PERMIT FOR STORMWATER RUNOFF FROM CONSTRUCTION ACTIVITY (GP-0-20-001)
- TOWN OF NORTH CASTLE REQUIREMENTS FOR "STORMWATER MANAGEMENT" (CHAPTER 267)

THE PRIMARY AIM OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN IS TO REDUCE SOIL EROSION FROM AREAS STRIPPED OF VEGETATION DURING CONSTRUCTION AND TO PREVENT SILT FROM REACHING THE DRAINAGE STRUCTURES, INFILTRATION SYSTEMS, WETLAND SYSTEMS, WATERCOURSES, WATERBODIES AND DOWNSTREAM PROPERTIES. THE INFILTRATION SYSTEMS WILL NOT BE PUT INTO SERVICE UNTIL THE CONTRIBUTING DRAINAGE AREAS TO THE SYSTEM HAVE BEEN STABILIZED. AS OUTLINED IN THE CONSTRUCTION SEQUENCING NOTES BELOW AND ON THE EROSION AND SEDIMENT CONTROL PLAN, THE EROSION AND SEDIMENT CONTROL PLAN IS AN INTEGRAL COMPONENT OF THE CONSTRUCTION PHASING AND PROJECT SEQUENCING AND WILL BE IMPLEMENTED TO CONTROL SEDIMENT AND RE-ESTABLISH VEGETATION AS SOON AS PRACTICABLE. THE PLAN WILL BE IMPLEMENTED PRIOR TO THE COMMENCEMENT OF ANY EARTHMOVING ACTIVITIES AND WILL BE MAINTAINED THROUGH THE DURATION OF THE PROJECT.

## 5.1 SUGGESTED CONSTRUCTION SEQUENCE AND PHASING

OUTLINED BELOW IS A BRIEF LISTING OF THE SUGGESTED CONSTRUCTION SEQUENCING FOR THE PROJECT.

PRIOR TO ANY INTERIOR SITE ACTIVITY, THE OWNER, CONTRACTOR AND OWNER'S ENGINEER SHALL HOLD A PRE-CONSTRUCTION MEETING.

FINAL STABILIZATION, AS DEFINED BY THE NYSDEC SPDES GENERAL PERMIT GP-0-20-001, IS THE ESTABLISHMENT OF A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE PERVIOUS SURFACE ONCE ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED. COVER CAN BE VEGETATIVE (E.G., GRASS, TREES, SEED AND MULCH, SHRUBS OR TURF) OR NON-VEGETATIVE (E.G., GEOTEXTILES, RIP-RAP OR GABIONS, PAVEMENT, ROOFS, ETC.).

THE APPLICANT SHALL NOTIFY THE TOWN OF NORTH CASTLE ENFORCEMENT OFFICIAL AT LEAST 48 HOURS BEFORE ANY OF THE FOLLOWING AS REQUIRED BY THE STORMWATER MANAGEMENT OFFICER:

- START OF CONSTRUCTION.
- INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES.
- COMPLETION OF SITE CLEARING.
- INSTALLATION OF CONSTRUCTED STORMWATER IMPROVEMENTS.
- COMPLETION OF ROUGH GRADING.
- COMPLETION OF FINAL GRADING.
- CLOSE OF THE CONSTRUCTION SEASON.
- COMPLETION OF FINAL LANDSCAPING.
- SUCCESSFUL ESTABLISHMENT OF LANDSCAPING IN PUBLIC AREAS.

### GENERAL CONSTRUCTION SEQUENCING

- A PRECONSTRUCTION MEETING WITH THE TOWN REPRESENTATIVES, CONTRACTOR AND ENGINEER SHALL BE SCHEDULED AT LEAST 48-HOURS BEFORE THE START OF CONSTRUCTION ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED AS INDICATED IN THE EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE. IF DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS IN ONE BUSINESS DAY AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
- PRIOR TO ANY CONSTRUCTION, STAKEOUT PROPERTY LINES AND CONSERVATION AREAS AND LIMITS OF DISTURBANCE FOR PHASE OF INTEREST. MARK LIMITS OF DISTURBANCE IN FIELD WITH ORANGE CONSTRUCTION FENCING OR FLAGGING.

### SUGGESTED CONSTRUCTION SEQUENCE:

- CONTRACTOR TO STAKE CLEARING LIMITS OF DISTURBANCE FOR PROPOSED IMPROVEMENTS.
- CONTRACTOR TO INSTALL PERIMETER EROSION CONTROLS.
- CONTRACTOR TO INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- CONTRACTOR TO INSTALL SILT FENCE AND TREE PROTECTION IN LOCATIONS, AS INDICATED ON THE SEDIMENT AND EROSION CONTROL PLAN.
- CONTRACTOR TO STOCKPILE EXCAVATED SOIL IN SOIL STOCKPILE LOCATIONS TO RECLAIM FOR FURTHER USE (I.E., LANDSCAPING).
- CONTRACTOR TO PROVIDE DUST CONTROL DURING CONSTRUCTION AS NECESSARY.
- CLEAR AND STUMP ALL TREES TO BE REMOVED.
- EXCAVATE THE AREA OF THE BIORETENTION BASIN FOR USE AS A TEMPORARY SEDIMENT TRAP.
- INSTALL OUTLET RISER AND DISCHARGE PIPE TO STREAM WITH RIP-RAP APRON. OUTLET RISER TO BE CONSTRUCTED WITH TEMPORARY FILTER PER PLAN.
- CONTRACTOR TO INSTALL INLET PROTECTION AROUND INSTALLED DRAINAGE FACILITIES.
- ROUGH GRADE THE SITE TO THE PROPOSED GRADES.
- INSTALL THE SANITARY SEWER SERVICE, LEAKAGE TEST THE LATERAL CONNECTION AND PUT INTO SERVICE UPON VERIFICATION OF ACCEPTABLE TESTING WITH THE TOWN ENGINEER.
- ABANDON THE EXISTING SEPTIC FIELD IN ACCORDANCE WITH WCHD REGULATIONS.
- INSTALL LIGHT POLE BASES, AND ELECTRIC CONDUIT FOR ALL SITE LIGHTS, GATE AUTOMATION CONTROLS AND REFUSE COMPACTORS.
- INSTALL PARKING LOT SUBBASE COURSE.

- INSTALL CONCRETE CURB, WALKS, COMPACTOR AND REFUSE AREA CONCRETE SLABS. INSTALL FOUNDATIONS FOR ROLLING GATE.
- INSTALL BIORETENTION BASIN GRAVEL DIAPHRAGM. RIVER STONE TOP COURSE NOT TO BE INSTALLED AT THIS TIME.
- INSTALL ASPHALT BINDER COURSE.
- INSTALL GATES, FENCES, REFUSE ENCLOSURE WALLS.
- CLEAR ACCUMULATED SEDIMENT AND DEBRIS FROM BIORETENTION BASIN AND SHAPE TO FINAL GRADES. INSTALL FINAL OUTLET CONFIGURATION PER PLAN.
- INSTALL TOP SOIL SEED AND PLANTINGS FOR THE BIORETENTION BASIN AND ALL AREAS TO BE VEGETATED AND WETLAND MITIGATION PER PLAN.
- INSTALL LIGHT POLES AND ELECTRIC SERVICES.
- CLEAN SEDIMENT FROM GRAVEL DIAPHRAGM. INSTALL TOP LAYER OF RIVER STONE.
- INSTALL TOP COURSE OF ASPHALT.
- INSTALL PAVEMENT MARKINGS AND SIGNAGE PER PLAN.
- ONCE 80% STABILIZATION IS ACHIEVED, REMOVE ALL TEMPORARY SEDIMENT CONTROLS.

## 5.2 TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

THE PROPOSED SOIL EROSION AND SEDIMENT CONTROL DEVICES INCLUDE THE PLANNED EROSION CONTROL PRACTICES OUTLINED BELOW. MAINTENANCE PROCEDURES FOR EACH EROSION CONTROL PRACTICE ARE ALSO PROVIDED HEREIN. THE OWNER OR OPERATOR MUST ENSURE THAT ALL EROSION AND SEDIMENT CONTROL PRACTICES IDENTIFIED HEREIN ARE MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES.

IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF NEXT BUSINESS DAY OR COMPLETED WITHIN SEVEN (7) CALENDAR DAYS.

### STABILIZED CONSTRUCTION ENTRANCE

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE PROJECT ENTRANCE AS INDICATED ON THE PLANS. THE PURPOSE OF THE STABILIZED CONSTRUCTION ENTRANCE IS TO PREVENT VEHICLES LEAVING THE SITE FROM TRACKING SEDIMENT, MUD OR ANY OTHER CONSTRUCTION-RELATED MATERIALS FROM THE SITE ONTO ADJACENT ROADWAYS.

### MAINTENANCE/INSPECTION

STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSPECTED A MINIMUM OF TWICE EVERY SEVEN (7) CALENDAR DAYS. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE IN A MANNER WHICH PREVENTS OR SIGNIFICANTLY REDUCES THE TRACKING OF SEDIMENT/SOIL ONTO ADJACENT ROADWAYS. THE CONTRACTOR SHALL INSPECT THE CONSTRUCTION ENTRANCE DAILY AND AFTER EACH RAIN EVENT FOR DISPLACEMENT OR LOSS OF AGGREGATE. THE CONTRACTOR SHALL TOP-DRESS THE CONSTRUCTION ENTRANCE WHEN DISPLACEMENT/LOSS OF AGGREGATE OCCURS, OR IF THE AGGREGATE BECOMES CLOGGED OR SILTED TO THE EXTENT THAT THE ENTRANCE CAN NO LONGER PERFORM ITS INTENDED FUNCTION. THE CONTRACTOR SHALL INSPECT THE VICINITY OF THE CONSTRUCTION ENTRANCE SEVERAL TIMES A DAY AND IMMEDIATELY REMOVE ANY SEDIMENT DROPPED OR WASHED ONTO ADJACENT ROADWAYS.

### SILT FENCE

SILT FENCE (GEOTEXTILE FILTER CLOTH) SHALL BE PLACED IN LOCATIONS DEPICTED ON THE APPROVED PLANS. THE PURPOSE OF THE SILT FENCE IS TO REDUCE THE VELOCITY OF SEDIMENT-LADEN STORMWATER FROM SMALL DRAINAGE AREAS AND TO INTERCEPT THE TRANSPORTED SEDIMENT LOAD. IN GENERAL, SILT FENCE SHALL BE USED AT THE DOWN-GRADIENT PERIMETER OF DISTURBED AREAS, TOE OF SLOPES OR INTERMEDIATELY WITHIN SLOPES WHERE OBVIOUS CHANNEL CONCENTRATION OF STORMWATER IS NOT PRESENT. SILT FENCE SHALL ALWAYS BE INSTALLED PARALLEL TO THE CONTOURS IN ORDER TO PREVENT CONCENTRATED FLOWS FROM DEVELOPING ALONG THE SILT FENCE.

### MAINTENANCE/INSPECTION

SILT FENCING SHALL BE INSPECTED A MINIMUM OF TWICE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL INCLUDE ENSURING THAT THE FENCE MATERIAL IS TIGHTLY SECURED TO THE WOOD POSTS. IN ADDITION, OVERLAPPING FILTER FABRIC SHALL BE SECURE AND THE FABRIC SHALL BE MAINTAINED A MINIMUM OF SIX (6) INCHES BELOW GRADE. IN THE EVENT THAT ANY "BULGES" DEVELOP IN THE FENCE, THAT SECTION OF FENCE SHALL BE REPLACED IMMEDIATELY WITH A NEW FENCE SECTION. ANY VISIBLE SEDIMENT BUILD-UP AGAINST THE FENCE SHALL BE REMOVED IMMEDIATELY AND DEPOSITED ON-SITE A MINIMUM OF 100 FEET OUTSIDE OF ANY REGULATED WETLAND AREA, WATERCOURSE OR WATERBODY.

### INLET PROTECTION

AFTER THE DRAIN INLETS HAVE BEEN INSTALLED AND THE SITE IS COMPLETELY STABILIZED, THESE DRAIN INLETS WILL RECEIVE STORMWATER FROM THE DRIVEWAY AND OVERLAND WATERSHEDS. DURING CONSTRUCTION, A FILTER FABRIC DROP INLET BARRIER SHALL BE PLACED AROUND THE DRAIN INLETS TO ALLOW STORMWATER TO BE FILTERED PRIOR TO THE STORMWATER BEING DISCHARGED TO THE DRAINAGE SYSTEM.

### MAINTENANCE/INSPECTION

INLET PROTECTION DEVICES SHALL BE INSPECTED A MINIMUM OF TWICE EVERY SEVEN (7) CALENDAR DAYS. CARE SHALL BE TAKEN TO ENSURE THAT ALL INLET PROTECTION DEVICES ARE PROPERLY LOCATED AND SECURE AND DO NOT BECOME DISPLACED. UPON STABILIZATION OF THE DRAINAGE AREAS, REMOVE ALL MATERIALS AND SEDIMENT AND DISPOSE OF PROPERLY. ANY ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM THE DEVICE AND DEPOSITED NOT LESS THAN 100 FEET FROM A REGULATED WETLAND AREA, WATERCOURSE OR WATERBODY.

### TREE PROTECTION

ALL SIGNIFICANT TREES TO BE PRESERVED LOCATED WITHIN THE LIMITS OF DISTURBANCE AND ON THE PERIMETER OF THE DISTURBANCE LIMITS SHALL BE PROTECTED FROM HARM BY ERECTING A THREE (3) FEET HIGH (MINIMUM) SNOW FENCE COMPLETELY SURROUNDING THE TREE. SNOW FENCE SHOULD EXTEND TO THE DRIP-LINE OF THE TREE TO BE PRESERVED. TREES DESIGNATED TO BE PROTECTED/SAVED ARE ILLUSTRATED ON THE CONSTRUCTION DRAWINGS AND WILL BE IDENTIFIED IN THE FIELD PRIOR TO CONSTRUCTION.

### MAINTENANCE/INSPECTION

THE SNOW FENCE SHALL REMAIN AT THE DRIP-LINE OF THE TREE TO BE PRESERVED. THE SNOW FENCE SHALL BE INSPECTED A MINIMUM OF TWICE EVERY SEVEN (7) CALENDAR DAYS. ANY DAMAGED PORTIONS OF THE FENCE SHALL BE REPAIRED OR REPLACED. CARE SHALL ALSO BE TAKEN TO ENSURE THAT NO CONSTRUCTION EQUIPMENT IS DRIVEN OR PARKED WITHIN THE DRIP-LINE OF THE TREE TO BE PRESERVED.

### RIP-RAP OUTLET PROTECTION

THE OUTLETS OF ALL STORMWATER DISCHARGE AREAS WILL BE PROTECTED FROM EROSION BY THE PLACEMENT OF STONE RIP-RAP AT THE CULVERT OUTLET. THE PURPOSE OF THE STONE OUTLET PROTECTION IS TO REDUCE THE VELOCITIES OF THE DISCHARGED WATER SUCH THAT FLOWS WILL NOT ERODE THE RECEIVING AREA.

### MAINTENANCE/INSPECTION

MAINTENANCE OF THE OUTLET PROTECTION DEVICES SHALL BE INSPECTED TWICE EVERY SEVEN (7) CALENDAR DAYS TO DETERMINE IF ANY SCOURING BENEATH THE RIP-RAP HAS OCCURRED AND/OR IF ANY RIP-RAP HAS BEEN DISPLACED. ALL DISPLACED RIP-RAP SHALL BE RE-POSITIONED OR REPLACED WITH NEW RIP-RAP. IN ADDITION, ALL LEAVES, TWIGS AND BRUSH SHALL BE REMOVED IN THE VICINITY OF THE CULVERT/SWALE OUTLET TO ENSURE THAT STORMWATER IS FLOWING UNOBSTRUCTED.

### SOIL/MATERIAL STOCKPILING

ALL SOIL/MATERIAL STRIPPED FROM THE CONSTRUCTION AREA DURING GRUBBING AND GRADING SHALL BE STOCKPILED WITHIN THE VICINITY OF THE LOCATIONS ILLUSTRATED ON THE APPROVED PLANS, OR IN PRACTICAL LOCATIONS ON-SITE APPROVED BY THE TOWN REPRESENTATIVE.

### MAINTENANCE/INSPECTION

ALL STOCKPILES SHALL BE INSPECTED A MINIMUM OF TWICE EVERY SEVEN (7) CALENDAR DAYS FOR SIGNS OF EROSION OR PROBLEMS WITH SEED ESTABLISHMENT. SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY VEGETATING THE STOCKPILE WITH A RAPIDLY-GERMINATING GRASS SEED AND SURROUNDED WITH SILT FENCE. IF THE PROJECT IS ONGOING DURING THE NON-GROWING SEASON, THE STOCKPILES SHALL BE PROTECTED WITH A TARPULIN COVERING THE ENTIRE STOCKPILE.

### TEMPORARY SEDIMENT TRAP

DURING CONSTRUCTION, STORMWATER FROM PORTIONS OF DISTURBED AREAS OF THE SITE WILL BE CONVEYED TO THE TRAP VIA OVERLAND SHEET FLOW AND TEMPORARY DIVERSION SWALES. THE TEMPORARY SEDIMENT TRAP IS LOCATED WHERE THE BIORETENTION BASIN IS TO BE CONSTRUCTED AND HAS BEEN APPROPRIATELY SIZED TO ACCOMMODATE STORMWATER FLOWS FROM DISTURBED AREAS BEING CONVEYED TO IT. IN ACCORDANCE WITH THE NYS SEESC, THE TEMPORARY SEDIMENT TRAP WILL CONTINUE TO BE UTILIZED UNTIL SUCH TIME AS THE CONTRIBUTING AREA TO THE TRAP IS COMPLETELY STABILIZED. AFTER SITE STABILIZATION, THE TEMPORARY SEDIMENT TRAP SHALL BE CLEARED OF ALL SEDIMENT AND THE BIORETENTION BASIN CONSTRUCTED PER THE APPROVED PLANS.

### MAINTENANCE/INSPECTION

THE PROPOSED TEMPORARY SEDIMENT TRAP SHALL BE INSPECTED AT A MINIMUM OF ONCE EVERY SEVEN (7) CALENDAR DAYS. DURING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT THE STRUCTURAL INTEGRITY OF THE EMBANKMENTS IS NOT COMPROMISED AND THAT THE INTERIOR SLOPES OF THE TRAP ARE NOT ERODING. SEDIMENTS SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO 50% OF THE DESIGN CAPACITY. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED FROM THE TRAP UPON INSPECTION SO AS TO NOT INTERFERE WITH THE PROPER FUNCTIONING OF THE TRAP.

### TEMPORARY DIVERSION SWALES

TEMPORARY DIVERSION SWALES WILL BE CONSTRUCTED AS SHOWN ON THE APPROVED PLANS AND ABOVE ALL CREATED DAMS 3:1 OR STEEPER (BOTH CUT AND FILL SLOPES) AND ALL UNSTABILIZED SLOPES STEEPER THAN 3:1 TO PREVENT STORMWATER RUNOFF FROM ERODING THESE SLOPES.

### MAINTENANCE/INSPECTION

INSPECTION OF THE SWALES MUST BE CONDUCTED AT A MINIMUM OF EVERY SEVEN (7) DAYS. THE CONTRACTOR SHALL ENSURE THAT POSITIVE PITCH WITHIN THE SWALE IS MAINTAINED AND THAT ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND ANY OTHER OBJECTIONABLE MATERIAL ARE REMOVED IMMEDIATELY UPON INSPECTION. ONCE SITE CONSTRUCTION HAS BEEN COMPLETED, THE SWALES SHALL BE SEEDED AND CONTINUE TO BE MAINTAINED AS OUTLINED ABOVE.

### SURFACE STABILIZATION

ALL DISTURBED AREAS WILL BE PROTECTED FROM EROSION WITH THE USE OF VEGETATIVE MEASURES (E.G., GRASS SEED MIX, SOD), HYDROMULCH, HAY OR EROSION CONTROL BLANKETS.

EROSION CONTROL BARRIERS CONSISTING OF SILT FENCING SHALL BE PLACED AROUND EXPOSED AREAS DURING CONSTRUCTION. ANY AREAS STRIPPED OF VEGETATION DURING CONSTRUCTION WILL BE VEGETATED AND/OR MULCHED IMMEDIATELY TO PREVENT EROSION OF THE EXPOSED SOILS. IN AREAS WHERE SIGNIFICANT EROSION POTENTIAL EXISTS (STEEP SLOPES) AND/OR WHERE SPECIFICALLY DIRECTED, CURLEX EXCELSIOR EROSION CONTROL BLANKETS (MANUFACTURED BY AMERICAN EXCELSIOR OR APPROVED EQUAL) SHALL BE INSTALLED.

MATERIALS THAT MAY BE USED FOR MULCHING INCLUDE STRAW, HAY, SALT HAY, WOOD FIBER, SYNTHETIC SOIL STABILIZERS, MULCH NETTING, EROSION CONTROL BLANKETS OR SOD. A PERMANENT VEGETATIVE COVER WILL BE ESTABLISHED UPON COMPLETION OF CONSTRUCTION OF THOSE AREAS WHICH HAVE BEEN BROUGHT TO FINISH GRADE AND TO REMAIN UNDISTURBED.

### GENERAL LAND GRADING

THE APPLICANT/DEVELOPER OR THEIR REPRESENTATIVES SHALL BE ON-SITE AT ALL TIMES WHEN CONSTRUCTION OR GRADING ACTIVITY TAKES PLACE AND SHALL INSPECT AND DOCUMENT THE EFFECTIVENESS OF ALL SEDIMENT AND EROSION CONTROL PRACTICES. NO MORE THAN FIVE (5) ACRES OF DISTURBED LAND WILL BE EXPOSED WITHOUT STABILIZATION AT ANY ONE TIME.

THE INTENT OF THE EROSION CONTROLS IS TO CONTROL ALL DISTURBED AREAS, SUCH THAT SOILS ARE PROTECTED FROM EROSION BY TEMPORARY METHODS AND, ULTIMATELY BY PERMANENT VEGETATION.

### DUST CONTROL

WHERE VEGETATIVE OR MULCH COVER IS NOT PRACTICAL IN DISTURBED AREAS OF THE SITE, DUST SHALL BE CONTROLLED BY THE USE OF WATER SPRINKLING. THE SURFACE SHALL BE SPRAYED UNTIL WET. DUST CONTROL SHALL CONTINUE UNTIL SUCH TIME AS THE ENTIRE SITE IS ADEQUATELY STABILIZED WITH PERMANENT VEGETATIVE COVER.

### CRITICAL AREA SEEDING

THIS PRACTICE APPLIES TO ALL DISTURBED AREAS DEVOID OF VEGETATION, EXCEPT WHERE SPECIFIC SEEDING/PLANTING RECOMMENDATIONS EXIST IN OTHER STANDARDS AND SPECIFICATIONS FOR SPECIFIC USES SUCH AS RECREATION.

### SITE PREPARATION WILL INCLUDE:

- SEED BED PREPARATION-SCARIFY IF COMPACTED. REMOVE DEBRIS AND OBSTACLES SUCH AS ROCKS AND STUMPS. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL SHALL BE PROVIDED.
- SOIL AMENDMENTS:
  - LIME TO PH 6.0
  - FERTILIZE WITH 600 LBS. OF 5-10-10 OR EQUIVALENT PER ACRE (14 LBS/1,000 SQ. FT.)
- SEED MIXTURES:
  - CRITICAL AREA SEED MIXTURE @ 35 LBS. PER ACRE (0.8 LB./1,000 SQ. FT.)
  - SEED MIXTURE TO CONSIST OF:
    - CREEPING RED FESCUE (FESTUCA RUBRA)
    - SWITCHGRASS (PANICUM VIRGATUM)
    - TIMOTHY (PHELEUM PRATENSE)
    - BIG BLUESTEM (ANDROPOGON GERARDII)
    - LITTLE BLUESTEM (ANDROPOGON SCOPARIUS)
  - ADD INNOCULANT IMMEDIATELY PRIOR TO SEEDING.

D. TIME OF SEEDING:  
PERMANENT SEEDINGS MAY BE ESTABLISHED AT ANY TIME OF THE YEAR IF PROPERTY MULCHED AND ADEQUATE MOISTURE IS PROVIDED. MID SUMMER IS NOT A GOOD TIME TO SEED, BUT THESE SEEDINGS, IF CONSTRUCTION IS COMPLETE AND ADEQUATELY IRRIGATED, WILL FACILITATE COVERING THE LAND. TEMPORARY SEEDINGS SHOULD BE MADE WITHIN 24 HOURS OF CONSTRUCTION OR DISTURBANCE. IF NOT, THE SOIL MUST BE SCARIFIED PRIOR TO SEEDING.

E. METHOD OF SEEDING:  
HAND-BROADCASTING, DRILLING WITH CULTIPACK TYPE SEEDER TO HYDROSEEDING ARE ACCEPTABLE. HYDROSEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE "NYSDOT'S STANDARD SPECIFICATIONS - CONSTRUCTION AND MATERIALS", SECTION 610\_3.02, METHOD NO.1. GOOD SOIL TO SEED CONTACT IS THE KEY TO SUCCESSFUL SEEDINGS.

F. MULCHING:  
MULCHING IS ESSENTIAL TO OBTAIN A UNIFORM STAND OF PLANTS AND SHOULD BE APPLIED TO PREVENT EROSION WHILE VEGETATION COVER IS ESTABLISHED. THE MULCHING SPECIFICATIONS PROVIDED HEREON APPLY TO ALL EXPOSED AREAS.

MULCH MATERIAL: AIR-DRIED STRAW (CEREAL GRAIN); FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.

APPLICATION RATE: 90 - 100 LBS. PER 1,000 SQ. FT. OR 2 TONS PER ACRE.

RECOMMENDED SURFACE COVERAGE: APPROXIMATELY 90%  
MULCH ANCHORING MATERIAL: BIODEGRADABLE MULCH NETTING OR HYDROMULCH 11 \_ 17 LBS. PER 1,000 SQ. FT. OR 500 - 750 LBS. PER ACRE.

METHOD OF ANCHORING APPLICATION: STAPLE MUCH NETTING (LIGHT-WEIGHT PAPER, JUTE WOOD FIBER, OR PLASTIC NETTING) TO SOIL SURFACE IN ACCORDANCE WITH NETTING MANUFACTURER'S RECOMMENDATIONS.

HYDROMULCH TO BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY AFTER MULCHING.

### G. IRRIGATION:

WATERING IS ESSENTIAL TO ESTABLISH A NEW SEEDING. WEATHER CONDITIONS AND THE INTENDED USE OF THE AREA WILL DICTATE WHEN TO WATER. IRRIGATION IS A SPECIALIZED PRACTICE AND CARE NEEDS TO BE TAKEN NOT TO EXCEED THE APPLICATION RATE/INFILTRATION RATE OF A GIVEN SOIL. EACH APPLICATION MUST BE UNIFORMLY APPLIED AND 1 TO 2 INCHES OF WATER SHOULD BE APPLIED PER APPLICATION SET UP.

### WINTER STABILIZATION

THIS STANDARD APPLIES TO ALL CONSTRUCTION ACTIVITIES INVOLVED WITH ONGOING LAND DISTURBANCE AND EXPOSURE BETWEEN NOVEMBER 15TH TO THE FOLLOWING APRIL 1<sup>ST</sup>.

### DESIGN CRITERIA:

- PREPARE A SNOW MANAGEMENT PLAN WITH ADEQUATE STORAGE FOR SNOW AND CONTROL OF MELT WATER, REQUIRING CLEARED SNOW TO BE STORED IN A MANNER NOT AFFECTING ONGOING CONSTRUCTION ACTIVITIES.
- ENLARGE AND STABILIZE ACCESS POINTS TO PROVIDE FOR SNOW MANAGEMENT AND STOCKPILING. SNOW MANAGEMENT ACTIVITIES MUST NOT DESTROY OR DEGRADE INSTALLED EROSION AND SEDIMENT CONTROL PRACTICES.
- A MINIMUM 25 FOOT BUFFER SHALL BE MAINTAINED FROM ALL PERIMETER CONTROLS SUCH AS SILT FENCE. MARK SILT FENCE WITH TALL STAKES THAT ARE VISIBLE ABOVE THE SNOW PACK.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS. ALL DEBRIS, ICE DAMS, OR DEBRIS FROM PLOWING OPERATIONS, THAT RESTRICT THE FLOW OF RUNOFF AND MELT WATER, SHALL BE REMOVED.
- SEDIMENT BARRIERS MUST BE INSTALLED AT ALL APPROPRIATE PERIMETER AND SENSITIVE LOCATIONS. SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED BEFORE THE GROUND FREEZES.
- SOIL STOCKPILES MUST BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, ANCHORED STRAW MULCH, ROLLED STABILIZATION MATTING, OR OTHER DURABLE COVERING. A BARRIER MUST BE INSTALLED AT LEAST 15 FEET FROM THE TOE OF THE STOCKPILE TO PREVENT SOIL MIGRATION AND TO CAPTURE LOOSE SOIL.
- IF STRAW MULCH ALONE IS USED FOR TEMPORARY STABILIZATION, IT SHALL BE APPLIED AT DOUBLE THE STANDARD RATE OF 2 TONS PER ACRE, MAKING THE APPLICATION RATE 4 TONS PER ACRE. OTHER MANUFACTURED MULCHES SHOULD BE APPLIED AT DOUBLE THE MANUFACTURER'S RECOMMENDED RATE.
- TO ENSURE ADEQUATE STABILIZATION OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL SHOULD BE STABILIZED AT THE END OF EACH WORK DAY UNLESS:
  - WORK WILL RESUME WITHIN 24 HOURS IN THE SAME AREA AND NO PRECIPITATION IS FORECAST OR;
  - THE WORK IS IN DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, FOUNDATION EXCAVATIONS, OR WATER MANAGEMENT AREAS.
- USE STONE PATHS TO STABILIZE ACCESS PERIMETERS OF BUILDINGS UNDER CONSTRUCTION AND AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED. STONE PATHS SHOULD BE A MINIMUM 10 FEET IN WIDTH BUT WIDER AS NECESSARY TO ACCOMMODATE EQUIPMENT.

### MAINTENANCE/INSPECTION


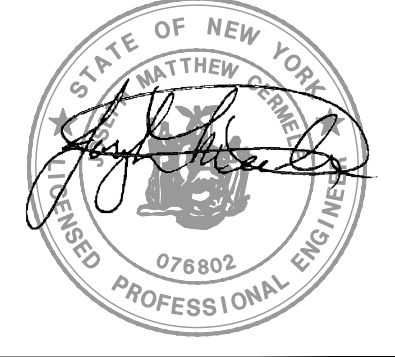
THE SITE SHALL BE INSPECTED FREQUENTLY TO ENSURE THAT THE EROSION AND SEDIMENT CONTROL PLAN IS PERFORMING ITS WINTER STABILIZATION FUNCTION. IF THE SITE WILL NOT HAVE EARTH DISTURBING ACTIVITIES ONGOING DURING THE "WINTER SEASON", ALL BARE EXPOSED SOIL MUST BE STABILIZED BY ESTABLISHED VEGETATION, STRAW OR OTHER ACCEPTABLE MULCH, MATTING, ROCK, OR OTHER APPROVED MATERIAL SUCH AS ROLLED EROSION CONTROL PRODUCTS. SEEDING OF AREAS WITH MULCH COVER IS PREFERRED BUT SEEDING ALONE IS NOT ACCEPTABLE FOR PROPER STABILIZATION.

## GENERAL NOTES

## KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE

WESTCHESTER COUNTY, NEW YORK

 KSCJ CONSULTING KELLARD SESSIONS CERMELE JOHANNESSEN		
<b>CIVIL ENGINEERING</b> <b>LANDSCAPE ARCHITECTURE</b> <b>SITE &amp; ENVIRONMENTAL PLANNING</b>		
500 MAIN STREET ARMONK, N.Y. 10504		
P: (914) 273-2323 F: (914) 273-2329		
WWW.KSCJCONSULTING.COM		
8		<b>G-02</b>
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2		PROJECT I.D.:
1		NC PARKING
		DATE:
		NOVEMBER 13, 2023

REVISONS

**SOIL TABLE**

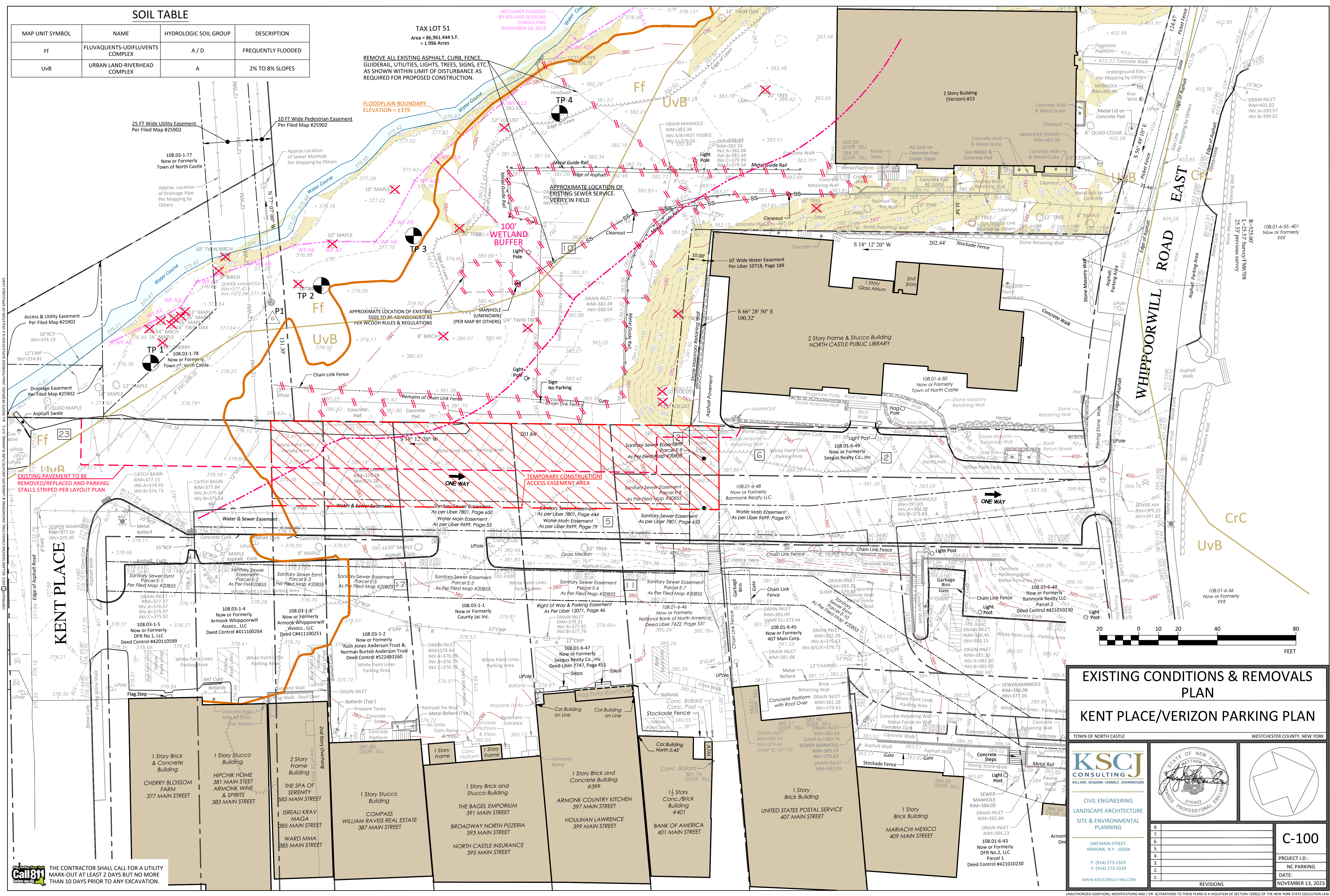
MAP UNIT SYMBOL	NAME	HYDROLOGIC SOIL GROUP	DESCRIPTION
Ff	FLUVAQUENTS-UDIFLUVENTS COMPLEX	A / D	FREQUENTLY FLOODED
UVB	URBAN LAND-RIVERHEAD COMPLEX	A	2% TO 8% SLOPES

**TAX LOT 51**  
Area = 86,961,444 S.F.  
= 1.996 Acres

REMOVE ALL EXISTING ASPHALT, CURB, FENCE, GUIDERAIL, UTILITIES, LIGHTS, TREES, SIGNS, ETC. AS SHOWN WITHIN LIMIT OF DISTURBANCE AS REQUIRED FOR PROPOSED CONSTRUCTION.

**FLOODPLAIN BOUNDARY**  
ELEVATION = ±379

**100' WETLAND BUFFER**



**EXISTING CONDITIONS & REMOVALS PLAN**  
**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

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PROJECT I.D.:  
NC PARKING  
DATE:  
NOVEMBER 13, 2023

REVISIONS

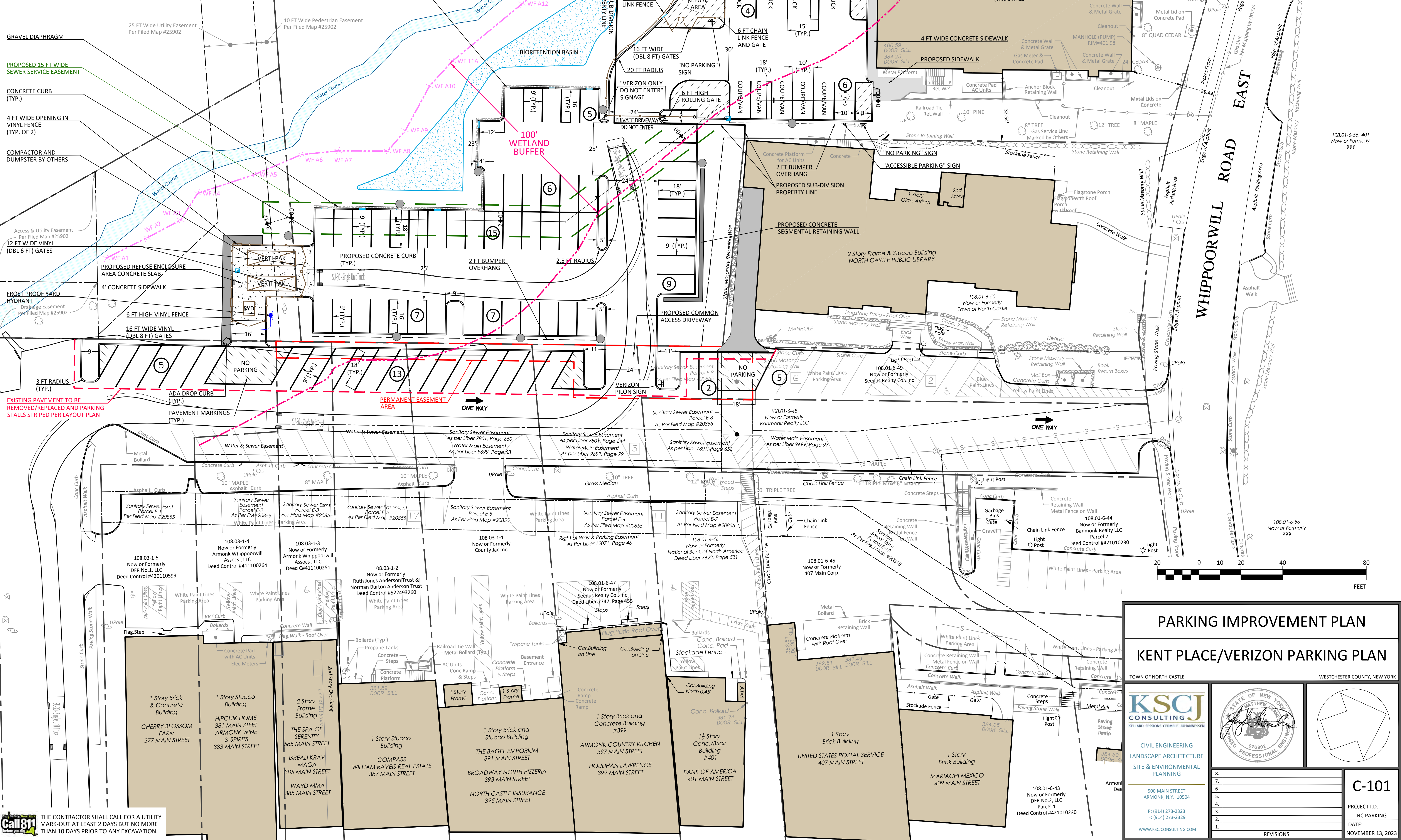
**Call 811** THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.

UNAUTHORIZED ADDITIONS, MODIFICATIONS AND/OR ALTERATIONS TO THESE PLANS IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW

**PARKING SUMMARY**

	EXISTING STALLS	PROPOSED STALLS	NET CHANGE
VERIZON LOT	10 STANDARD SPACES	5 STANDARD SPACES / 1 ADA SPACE / 4 TRUCK SPACES	NONE
KENT PLAN EXPANSION <sup>(1)</sup>	31 STANDARD SPACES	74 STANDARD SPACES	+43 SPACES

NOTE:  
1. PARKING SUMMARY ASSOCIATED WITH THE PROPOSED PARKING EXPANSION AND MODIFICATION OF THE REAR OF THE EXISTING KENT PLACE LOT REQUIRED FOR TRAFFIC CIRCULATION.



**Call 811**  
THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.

**PARKING IMPROVEMENT PLAN**  
**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

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**C-101**  
PROJECT I.D.:  
NC PARKING  
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NOVEMBER 13, 2023

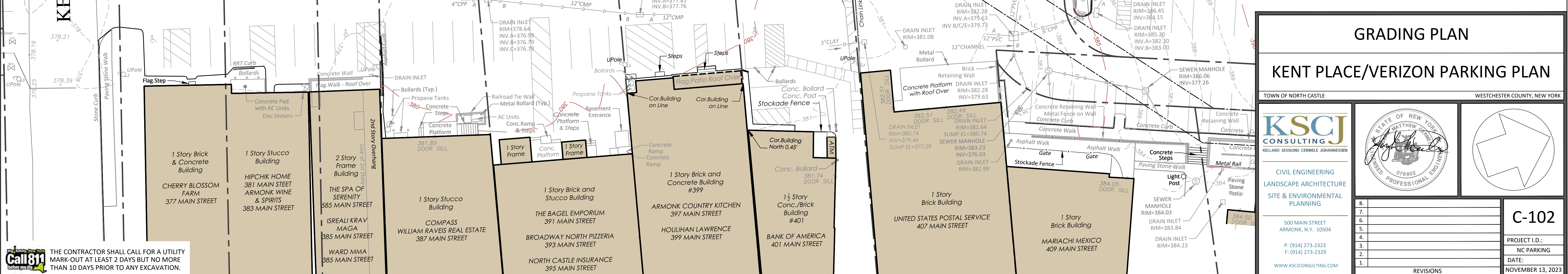
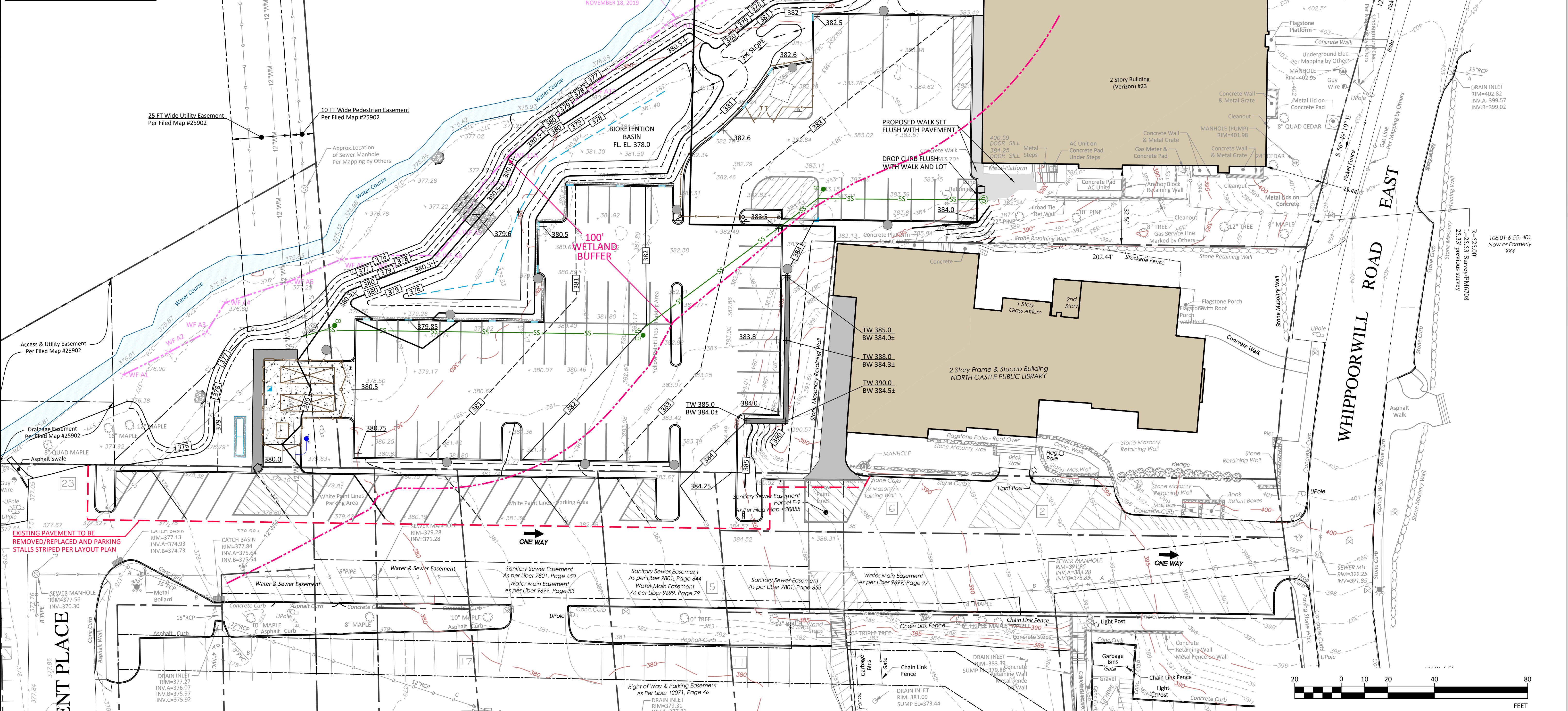
REVISIONS

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**FLOOD VOLUME SUMMARY**

EXISTING CONDITION = 1,215.85 CU YD
PROPOSED CONDITION = 1,219.07 CU YD
NET CUT WITHIN FLOODPLAIN = 3.22 CU YD



**Call 811** THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.

### GRADING PLAN

### KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

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STATE OF NEW YORK  
MATTHEW GERBER  
078802  
REGISTERED PROFESSIONAL ENGINEER

8	REVISIONS
7	
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**C-102**

PROJECT I.D.:  
NC PARKING

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NOVEMBER 13, 2023

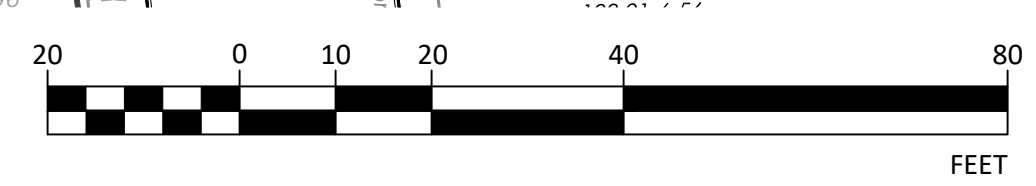
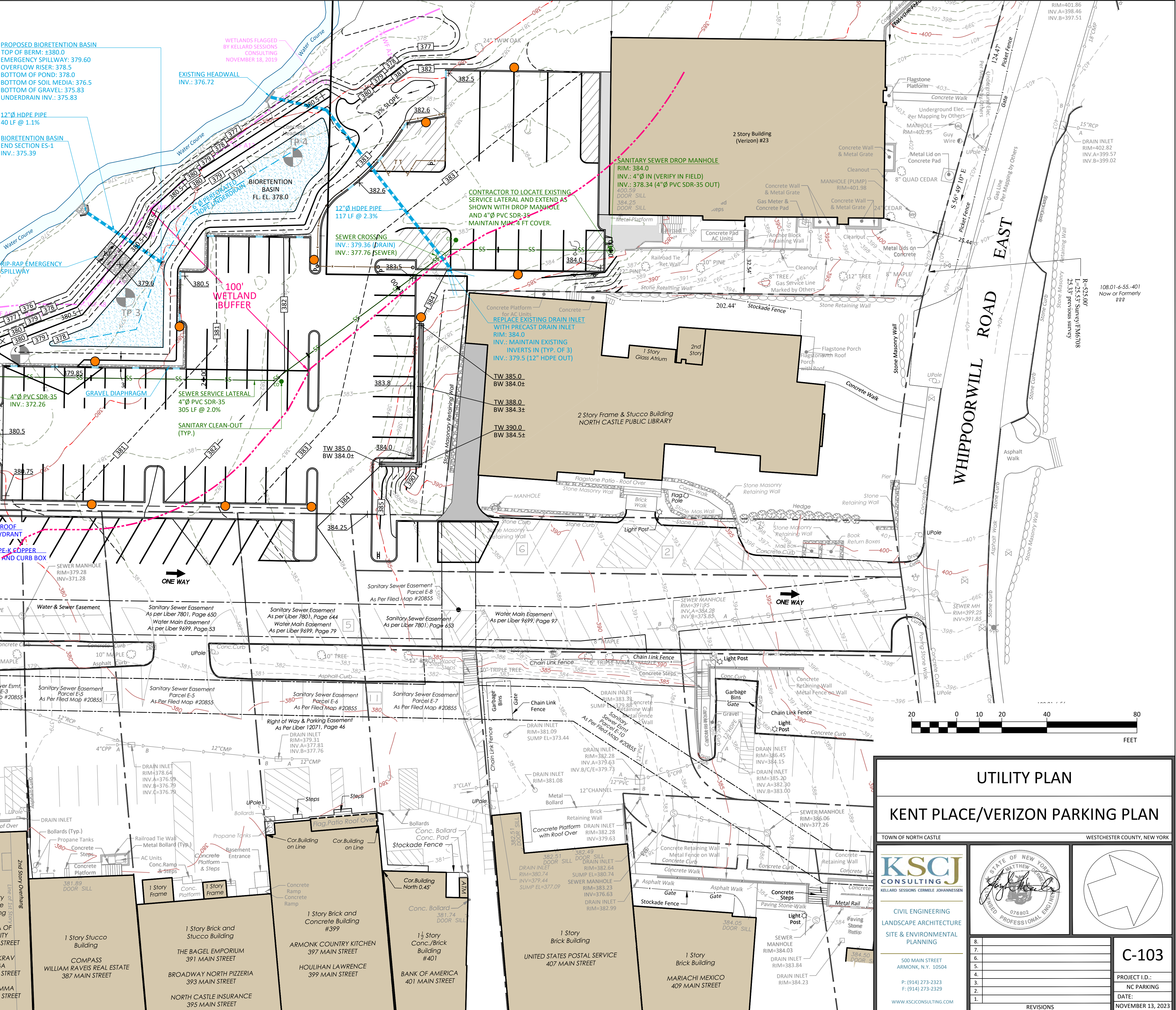
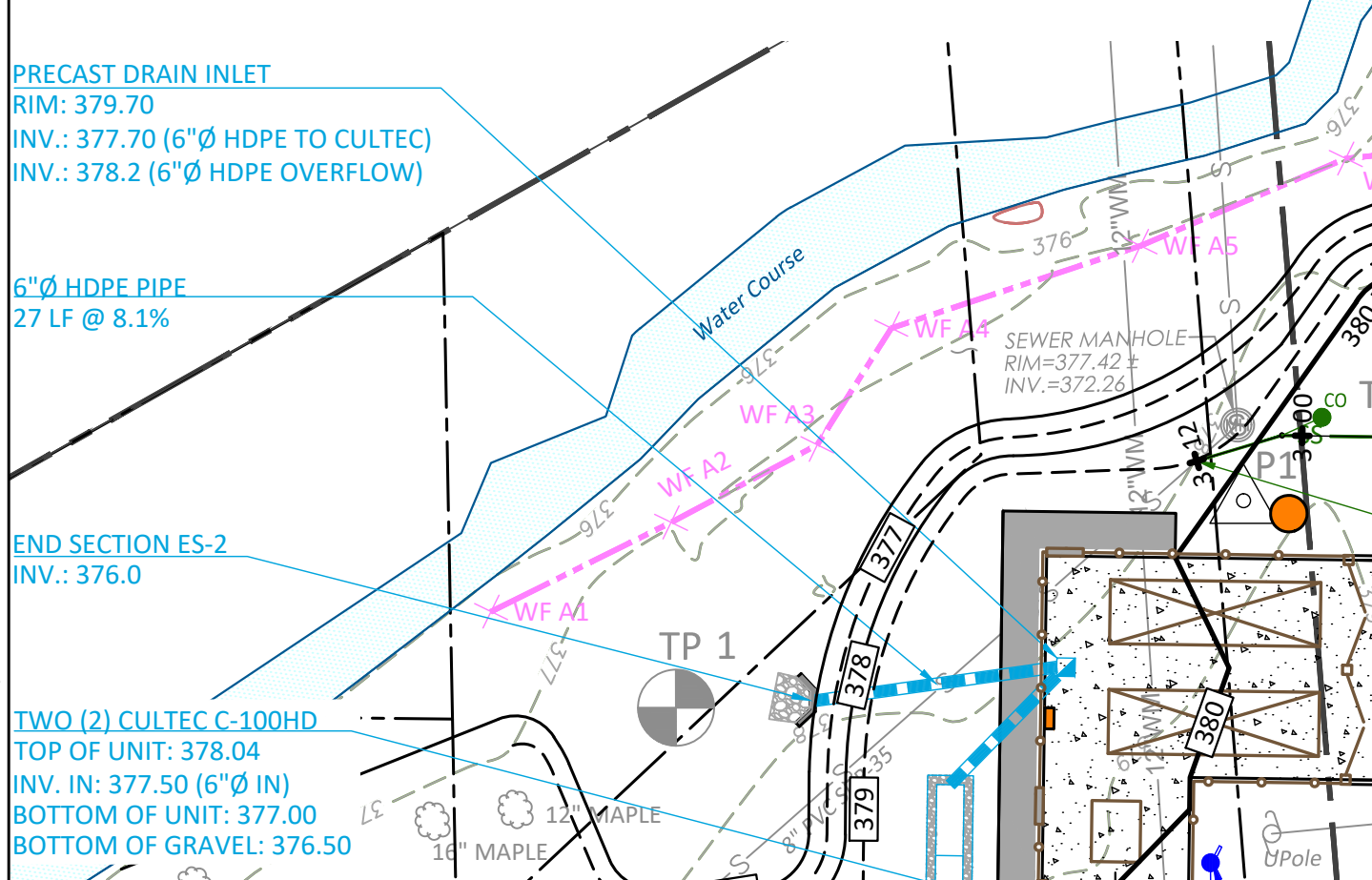
UNAUTHORIZED ADDITIONS, MODIFICATIONS AND/OR ALTERATIONS TO THESE PLANS IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW

**SOIL TESTING SUMMARY**

TEST PIT		DEEP TESTS		SOIL DESCRIPTION	
TP-1	0" - 12"	TOP SOIL		SANDY LOAM	
	12" - 32"	MOTTLING		SILTY CLAY	
	32" - 44"	WATER SEEP		@ 48"	
TP-2	0" - 10"	TOP SOIL		SANDY LOAM	
	10" - 36"	BANKRUN MATERIAL		WATER SEEP	
	36" - 70"	@ 60"			
TP-3	0" - 10"	TOP SOIL		SANDY LOAM	
	10" - 54"	MOTTLING		SILTY CLAY	
	54" - 72"	WATER SEEP		@ 65"	
TP-4	0" - 8"	TOP SOIL		FILL/DEBRIS	
	8" - 42"	MIXED GRAY CLAYS AND SANDS		WATER SEEP	
	42" - 84"	@ 66"			

TEST PIT		PERCOLATION TESTS		WATER LEVEL DROP (IN.)		SOIL RATE (MIN./IN.)	
P1	1	10:53	10:45	22	8	11	3
	2	10:45	11:12	27	8	11	3
	3	11:12	11:29	17	8	9	1

NOTE:  
1. SOIL TESTING WAS PERFORMED BY THIS OFFICE ON 10/19/2022.



**UTILITY PLAN**

**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

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STATE OF NEW YORK  
Professional Engineer  
Matthew Ceribale  
078802

**C-103**

PROJECT I.D.:  
NC PARKING

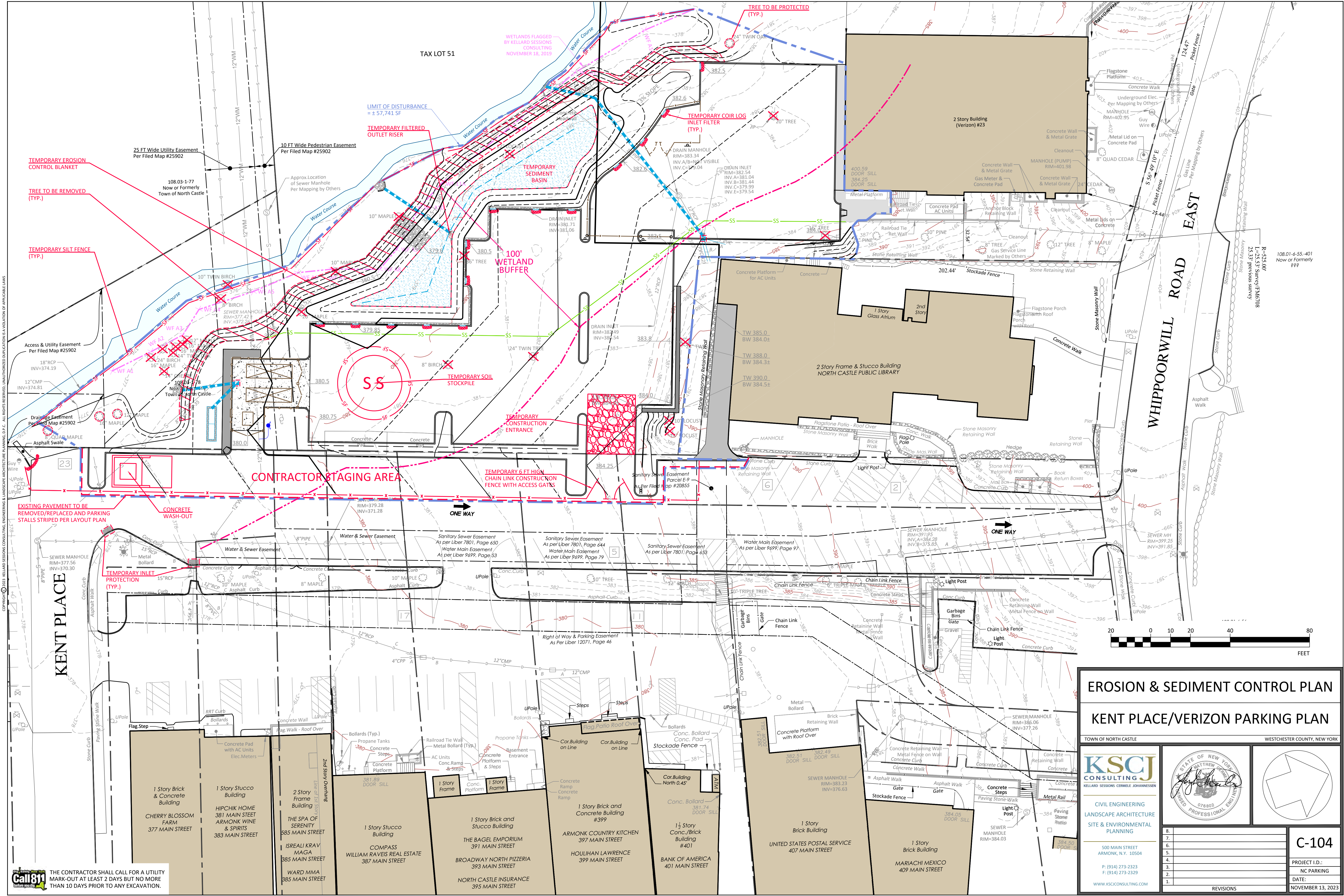
DATE:  
NOVEMBER 13, 2023

REVISIONS

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**Call 811** THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.

UNAUTHORIZED ADDITIONS, MODIFICATIONS AND/OR ALTERATIONS TO THESE PLANS IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW



**EROSION & SEDIMENT CONTROL PLAN**

**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

**KSCJ CONSULTING**  
KELLARD SESSIONS CONSULTING  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
SITE & ENVIRONMENTAL PLANNING

500 MAIN STREET  
ARMONK, N.Y. 10504  
P: (914) 273-2323  
F: (914) 273-2329  
WWW.KSCJCONSULTING.COM

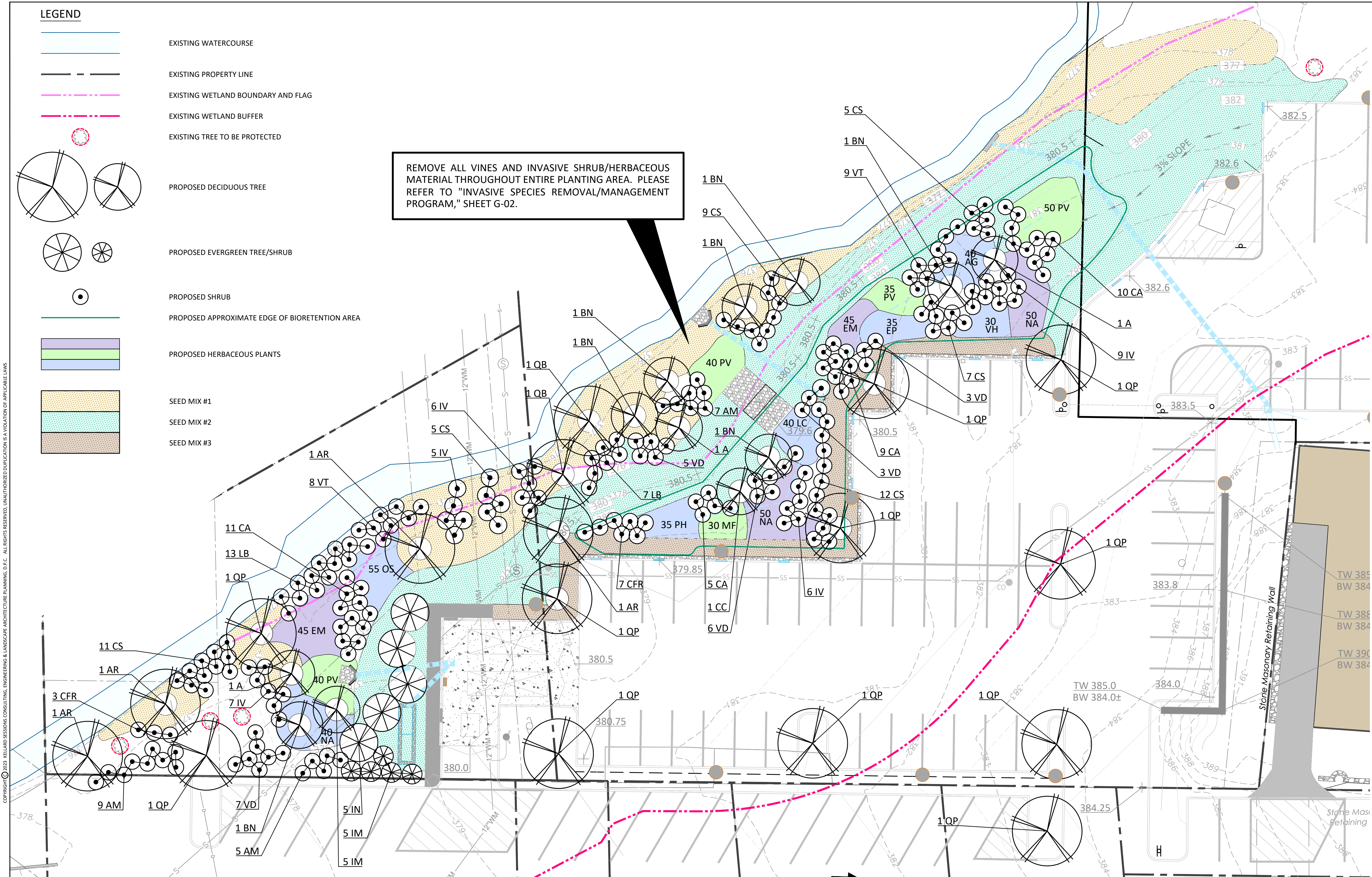
**C-104**

PROJECT I.D.:  
NC PARKING  
DATE:  
NOVEMBER 13, 2023

NO.	REVISIONS
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UNAUTHORIZED ADDITIONS, MODIFICATIONS AND/OR ALTERATIONS TO THESE PLANS IS A VIOLATION OF SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW

**Call 811** THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.



REMOVE ALL VINES AND INVASIVE SHRUB/HERBACEOUS MATERIAL THROUGHOUT ENTIRE PLANTING AREA. PLEASE REFER TO "INVASIVE SPECIES REMOVAL/MANAGEMENT PROGRAM," SHEET G-02.

Kent Place Verizon Parking Plan					
Bioretention Basin/Wetland and Floodplain Mitigation Planting List					
Symbol	Quantity	Common Name	Botanical Name	Size	Root
<b>Trees</b>					
CC	1	Eastern Redbud	<i>Cercis Canadensis</i>	8'-10" H	B&B
AC	3	Shadblow Serviceberry (clump form)	<i>Amelanchier Canadensis</i>	8'-10" H	B&B
BN	8	River Birch (clump form)	<i>Betula Nigra "Cully"</i>	2"-2 1/2"	B&B
AR	4	Red Maple	<i>Acer Rubrum "October Glory"</i>	2"-2 1/2"	B&B
QP	Hold	Pin Oak	<i>Quercus Palustris</i>	2"-2 1/2"	B&B
QB	3	Swamp White Oak	<i>Quercus Bicolor</i>	2"-2 1/2"	B&B
<b>Shrubs</b>					
AM	21	Black Chokeberry	<i>Aronia Melanocarpa</i>	3'-4" H	B&B
VD	15	Arrowwood Viburnum	<i>Viburnum Dentatum</i>	2'-3" H	B&B
CS	48	Red Osier Dogwood	<i>Cornus Sericea</i>	3'-4" H	B&B
CA	30	Sweet Pepperbush	<i>Clethra Alnifolia</i>	2'-3" H	B&B
IV	27	Common Winterberry	<i>Ilex Verticillata</i>	2'-3" H	B&B
LB	23	Common Spicebush	<i>Lindera Benzoin</i>	2'-3" H	B&B
CFR	10	Greystem Dogwood	<i>Cornus Foemina Racemosa</i>	3'-4" H	B&B
VT	17	Highbush Cranberry	<i>Viburnum Trilobum</i>	2'-3" H	B&B
IM	5	China Boy Holly	<i>Ilex Mesdab</i>	3'-4" H	B&B
IN	5	Nellie Stevens Holly	<i>Ilex Nelle R Stevens</i>	6'-7" H	B&B
<b>Herbaceous Plants</b>					
MF	30	Wild Bergamot	<i>Monarda Fistulosa</i>	1-Gal.	Cont.
LC	40	Cardinal Flower	<i>Lobelia Cardinalis</i>	1-Gal.	Cont.
AG	40	Big Bluestem	<i>Andropogon Gerardi</i>	1-Gal.	Cont.
PV	165	Switchgrass	<i>Panicum Virgatum</i>	1-Gal.	Cont.
NA	140	New England Aster	<i>Novae-Anglae</i>	1-Gal.	Cont.
RH	35	Black-Eyed Susan	<i>Rudbeckia Hirta</i>	1-Gal.	Cont.
EP	35	Purple Coneflower	<i>Echinacea Purpurea</i>	1-Gal.	Cont.
EM	75	Spotted Joe-Pye Weed	<i>Eupatorium Maculatum</i>	1-Gal.	Cont.
OS	55	Sensitive Fern	<i>Onclea Sensibilis</i>	1-Gal.	Cont.
VH	30	Blue Vervain	<i>Verbena Hastata</i>	1-Gal.	Cont.
<b>Seed Mixture</b>					
Seed Mix #1 - New England Erosion Control / Restoration Mix for Detention Basins and Moist Sites					
Seed Mix #1 Species: Riverbank Wild Rye ( <i>Elymus riparius</i> ), Creeping Red Fescue ( <i>Festuca rubra</i> ), Little Bluestem ( <i>Andropogon gerardi</i> ), Switch Grass ( <i>Panicum virgatum</i> ), Upland Bentgrass ( <i>Agrostis perennans</i> ), Nodding Bur Marigold ( <i>Bidens cernua</i> ), Hollow-Stem Joe Pye Weed ( <i>Eupatorium fistulosum/Eutrochium fistulosum</i> ), New England Aster ( <i>Aster novae-anglae</i> ), Boneset ( <i>Eupatorium perfoliatum</i> ), Blue Vervain ( <i>Verbena hastata</i> ), Soft Rush ( <i>Juncus effusus</i> ), Wool Grass ( <i>Scirpus cyperinus</i> ).				4,000 s.f.	850 s.f./LB
Seed Mix #2 - New England Conservation / Wildlife Mix					
Seed Mix #2 Species: Virginia Wild Rye ( <i>Elymus virginicus</i> ), Little Bluestem ( <i>Schizachyrium scoparium</i> ), Big Bluestem ( <i>Andropogon gerardi</i> ), Red Fescue ( <i>Festuca rubra</i> ), Switch Grass ( <i>Panicum virgatum</i> ), Partridge Pea ( <i>Chamaecrista fasciculata</i> ), Panicledleaf Tick Trefoil ( <i>Desmodium paniculatum</i> ), Indian Grass ( <i>Sorghastrum nutans</i> ), Blue Vervain ( <i>Verbena hastata</i> ), Butterfly Milkweed ( <i>Asclepias tuberosa</i> ), Black Eyed Susan ( <i>Rudbeckia hirta</i> ), Common Sneezeweed ( <i>Helenium autumnale</i> ), Heath Aster ( <i>Aster pilosus/Symphotrichum pilosum</i> ), Early Goldenrod ( <i>Solidago juncea</i> ), Upland Bentgrass ( <i>Agrostis perennans</i> ).				6,000 s.f.	1,200 s.f./LB
Seed Mix #3 - New England Erosion Control / Restoration Mix for Dry Sites					
Seed Mix #3 Species: Red Fescue ( <i>Festuca rubra</i> ), Canada Wild Rye ( <i>Elymus canadensis</i> ), Annual Ryegrass ( <i>Lolium multiflorum</i> ), Perennial Ryegrass ( <i>Lolium perenne</i> ), Little Bluestem ( <i>Schizachyrium scoparium</i> ), Indian Grass ( <i>Sorghastrum nutans</i> ), Switch Grass ( <i>Panicum virgatum</i> ), Upland Bentgrass ( <i>Agrostis perennans</i> ).				1,500 s.f.	850 s.f./LB

WETLAND DISTURBANCE	3,747 SF
INCREASE TO IMPERVIOUS WETLAND COVERAGE	0 SF
WETLAND MITIGATION	4,021 SF
WETLAND BUFFER DISTURBANCE	40,781 SF
INCREASE TO IMPERVIOUS WETLAND BUFFER COVERAGE	16,015 SF
WETLAND BUFFER MITIGATION	15,472 SF

- GENERAL NOTES:**
- REFER TO SHEET G-01 FOR TREE/SHRUB PLANTING DETAILS.
  - REFER TO SHEET G-01 FOR GENERAL PLANTING NOTES.
  - REFER TO SHEET G-01 FOR FIVE (5) YEAR WETLAND/WETLAND BUFFER LANDSCAPE MONITORING & MAINTENANCE PLAN.
  - REFER TO SHEET G-02 FOR INVASIVE SPECIES REMOVAL/MANAGEMENT PROGRAM.



## WETLAND MITIGATION & LANDSCAPE PLAN

### KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

**CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
SITE & ENVIRONMENTAL  
PLANNING**

500 MAIN STREET  
ARMONK, N.Y. 10504

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**C-200**

PROJECT I.D.:  
NC PARKING

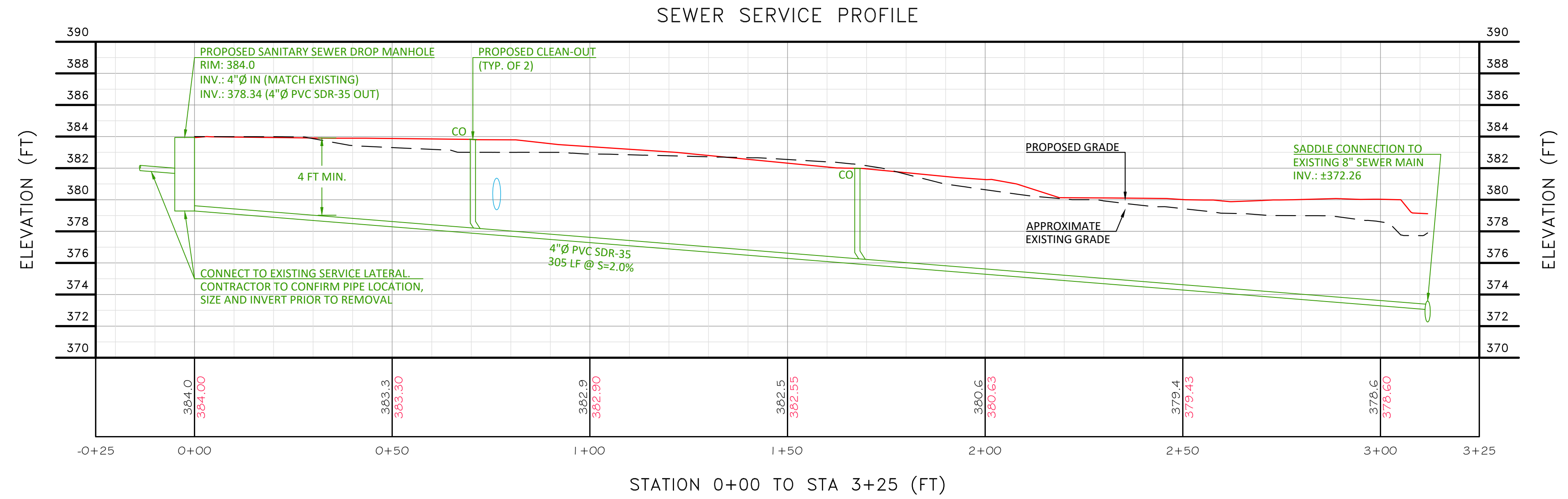
DATE:  
NOVEMBER 13, 2023

REVISIONS



**Call 811** before you dig. THE CONTRACTOR SHALL CALL FOR A UTILITY MARK-OUT AT LEAST 2 DAYS BUT NO MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION.

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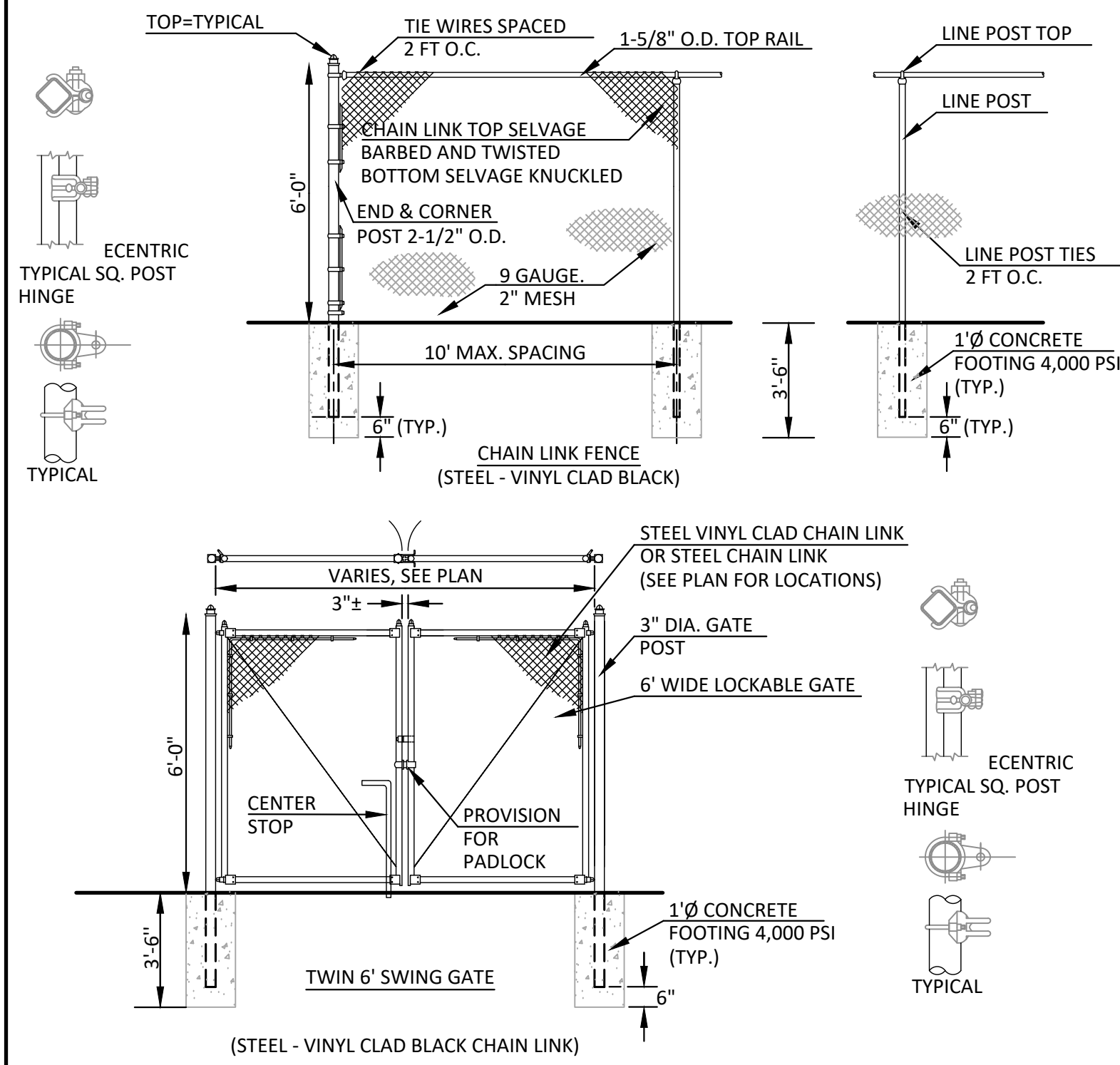
COPYRIGHT © 2023 KELLARD SESSIONS CONSULTING, ENGINEERING & LANDSCAPE ARCHITECTURE PLANNING, D.P.C. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS A VIOLATION OF APPLICABLE LAWS.



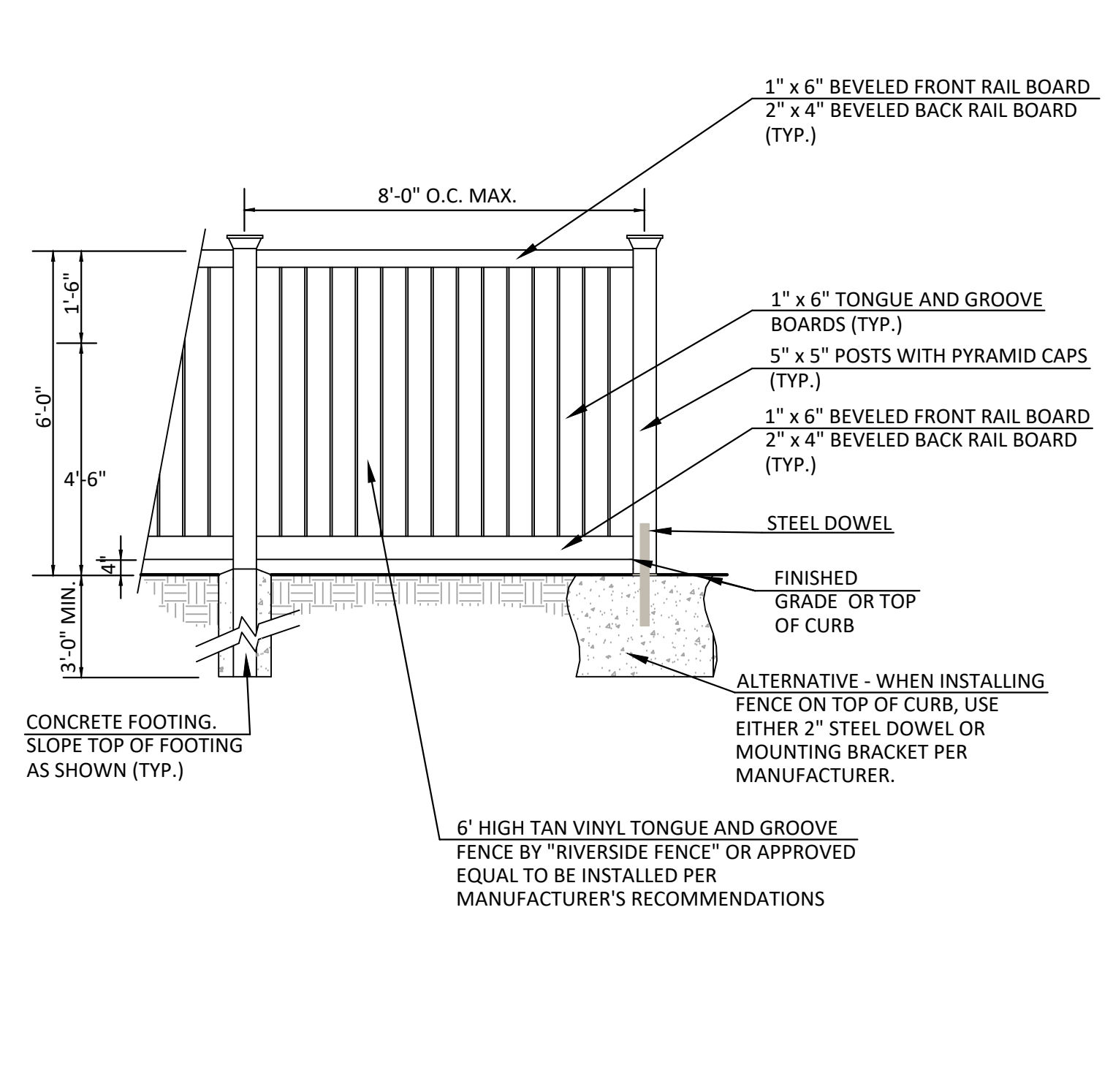
PROFILE SCALE:  
 HORIZ: 1"=20'  
 VERT: 1"=5'

<b>SEWER PROFILE</b>																	
<b>KENT PLACE/VERIZON PARKING PLAN</b>																	
<small>TOWN OF NORTH CASTLE</small>	<small>WESTCHESTER COUNTY, NEW YORK</small>																
 <p><b>KSCJ CONSULTING</b>  <small>KELLARD SESSIONS CERMELLE JOHANNESSEN</small></p> <p>CIVIL ENGINEERING          LANDSCAPE ARCHITECTURE          SITE &amp; ENVIRONMENTAL PLANNING</p> <p>500 MAIN STREET          ARMONK, N.Y. 10504</p> <p>P: (914) 273-2323          F: (914) 273-2329</p> <p><a href="http://WWW.KSCJCONSULTING.COM">WWW.KSCJCONSULTING.COM</a></p>	<div style="text-align: center;">  </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px; text-align: center;">8.</td> <td></td> </tr> <tr> <td style="text-align: center;">7.</td> <td></td> </tr> <tr> <td style="text-align: center;">6.</td> <td></td> </tr> <tr> <td style="text-align: center;">5.</td> <td></td> </tr> <tr> <td style="text-align: center;">4.</td> <td></td> </tr> <tr> <td style="text-align: center;">3.</td> <td></td> </tr> <tr> <td style="text-align: center;">2.</td> <td></td> </tr> <tr> <td style="text-align: center;">1.</td> <td></td> </tr> </table> <div style="text-align: right; padding-right: 10px;"> <p><b>C-300</b></p> <p>PROJECT I.D.: NC PARKING</p> <p>DATE: NOVEMBER 13, 2023</p> </div>	8.		7.		6.		5.		4.		3.		2.		1.	
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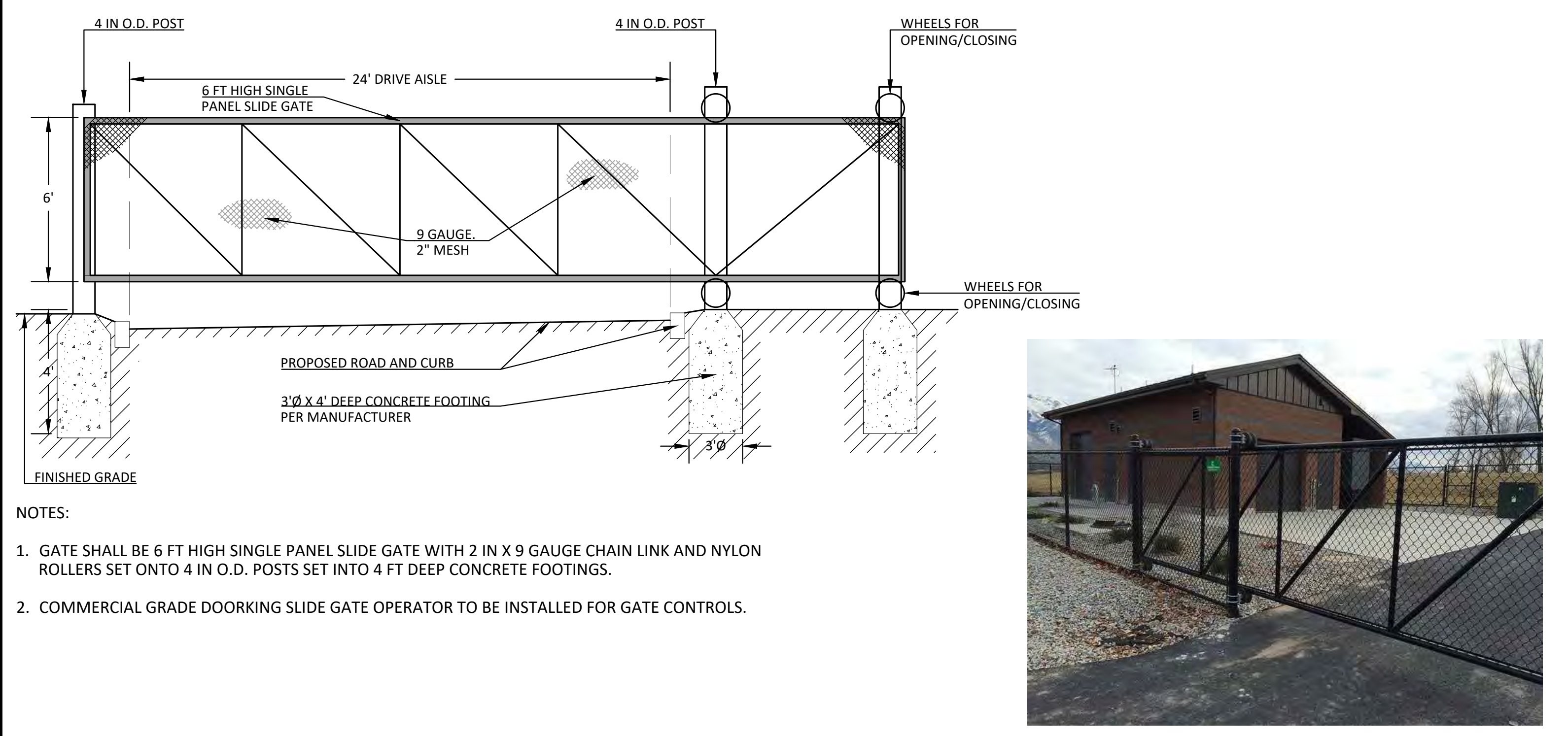
**CHAIN LINK FENCE AND GATE DETAIL (N.T.S.)**



**VINYL PRIVACY FENCE FOR REFUSE ENCLOSURE DETAIL (N.T.S.)**



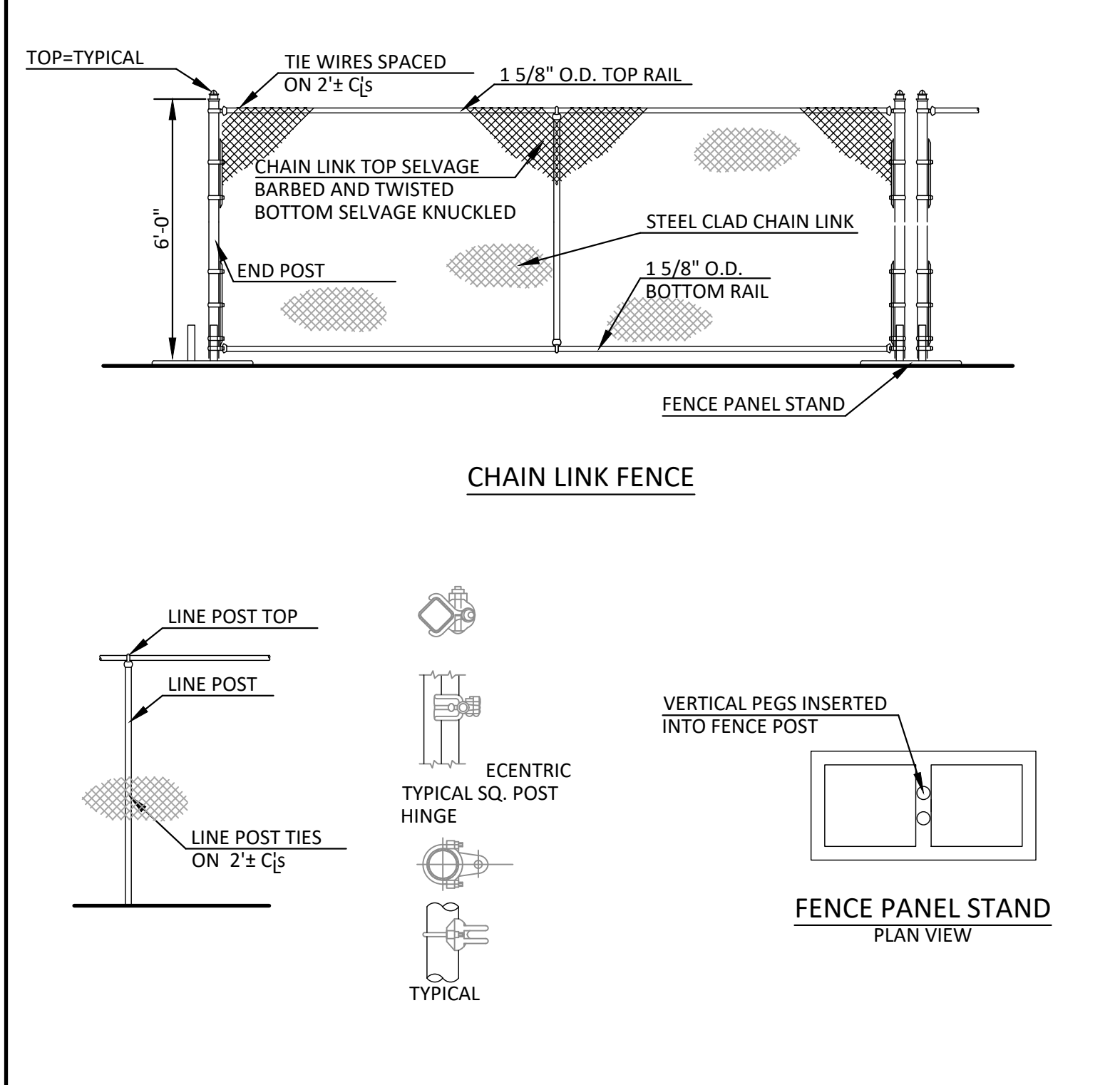
**SLIDE GATE DETAIL (N.T.S.)**



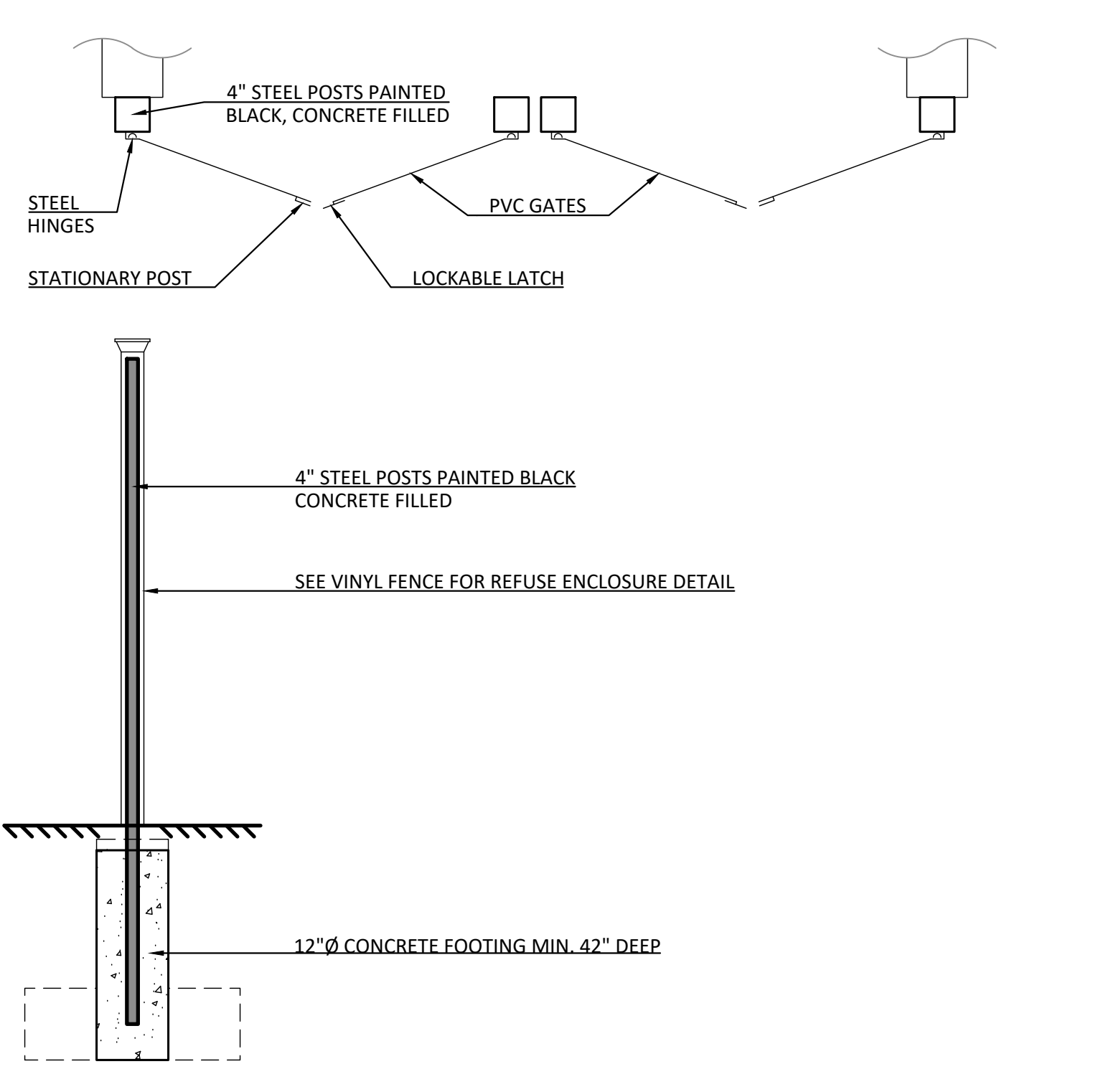
- NOTES:
- GATE SHALL BE 6 FT HIGH SINGLE PANEL SLIDE GATE WITH 2 IN X 9 GAUGE CHAIN LINK AND NYLON ROLLERS SET ONTO 4 IN O.D. POSTS SET INTO 4 FT DEEP CONCRETE FOOTINGS.
  - COMMERCIAL GRADE DOORING SLIDE GATE OPERATOR TO BE INSTALLED FOR GATE CONTROLS.



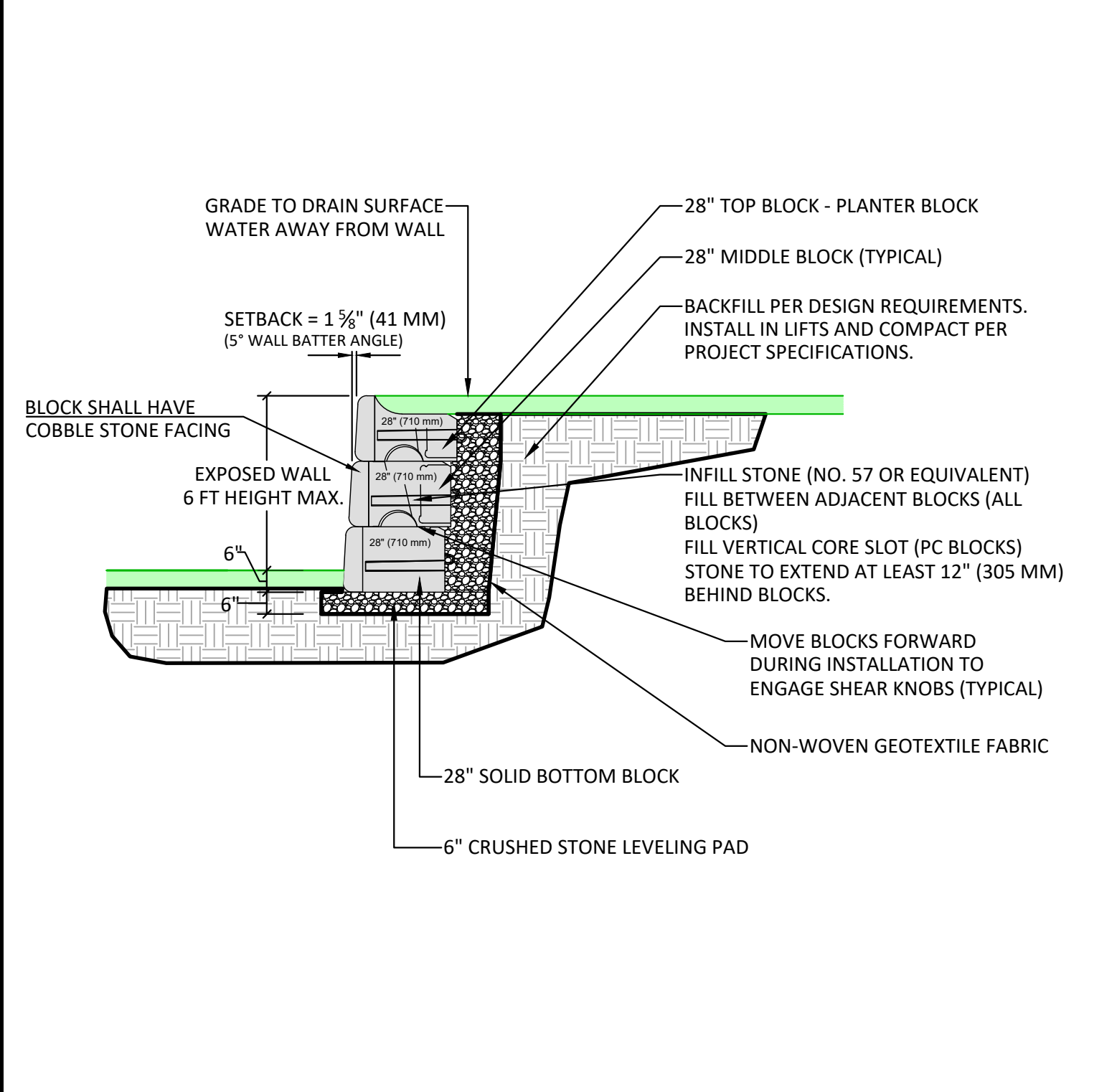
**TEMPORARY CHAIN LINK FENCE DETAIL (N.T.S.)**



**GATES FOR STEEL POSTS W/PVC GATES FOR REFUSE ENCLOSURE (N.T.S.)**



**CONCRETE SEGMENTAL RETAINING WALL REDI - ROCK SECTION DETAIL (N.T.S.)**



**SITE DETAILS**

**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

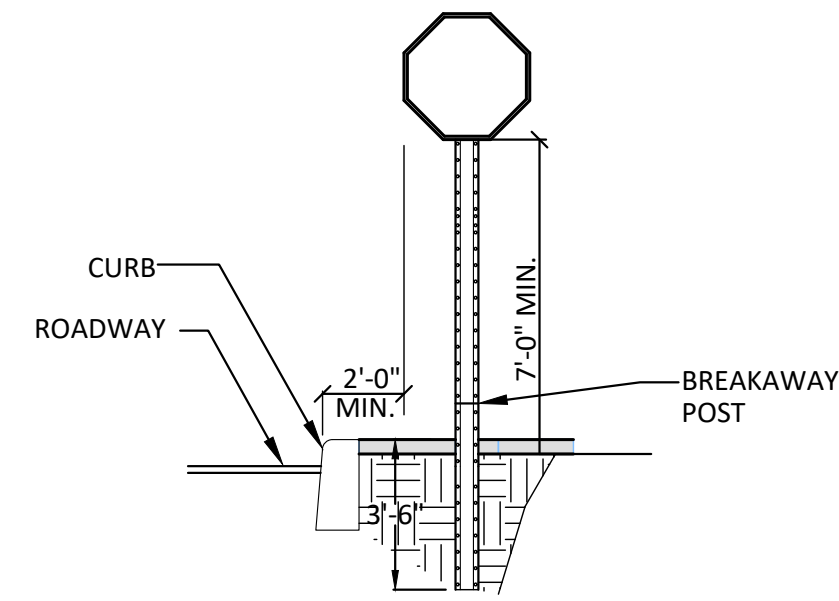
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 KELLARD SESSIONS CERMELE JOHANNESSEN  
 CIVIL ENGINEERING  
 LANDSCAPE ARCHITECTURE  
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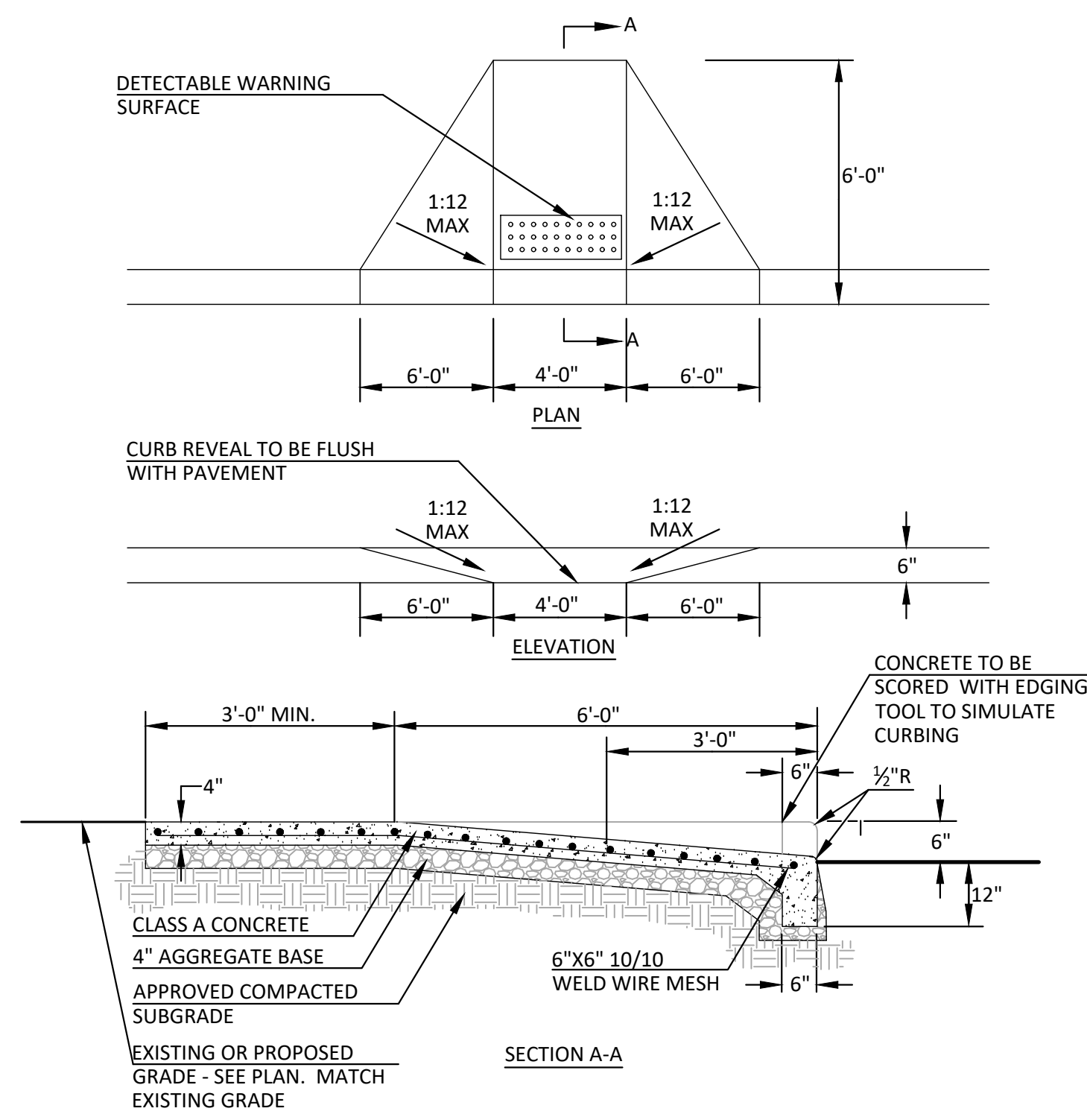
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TRAFFIC SIGN DETAIL (N.T.S.)

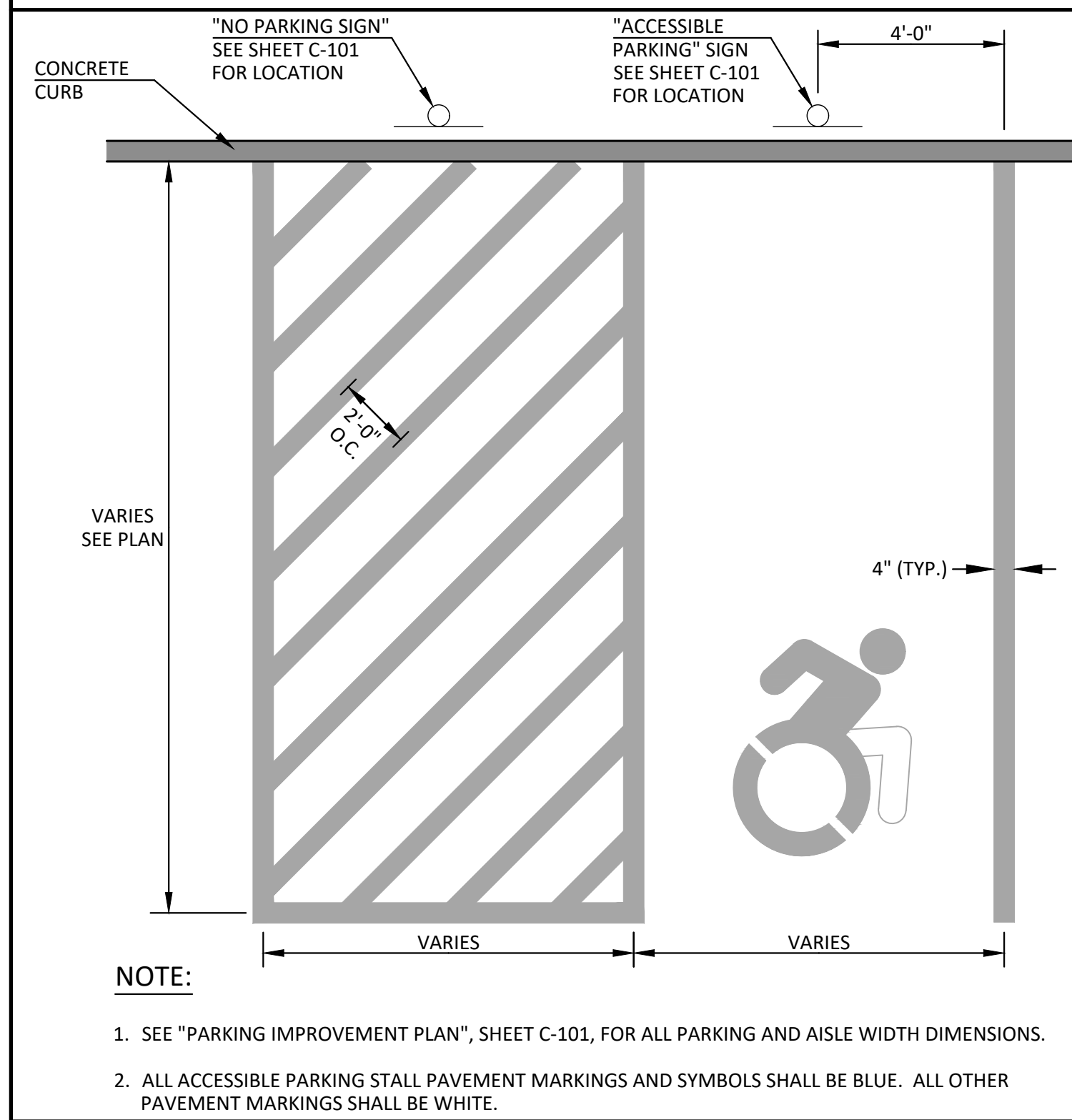
SIGN	M.U.T.C.D. NUMBER	SIZE OF SIGN	TYPE OF MOUNT
	R1-1	18" X 18"	GR. MT.
	R3-12 (L) R3-13 (R)	12" X 18"	GR. MT.
	R3-15	24" X 24"	GR. MT.
	R2-1	24" X 30"	YES
	R3-1	24" X 24"	NO



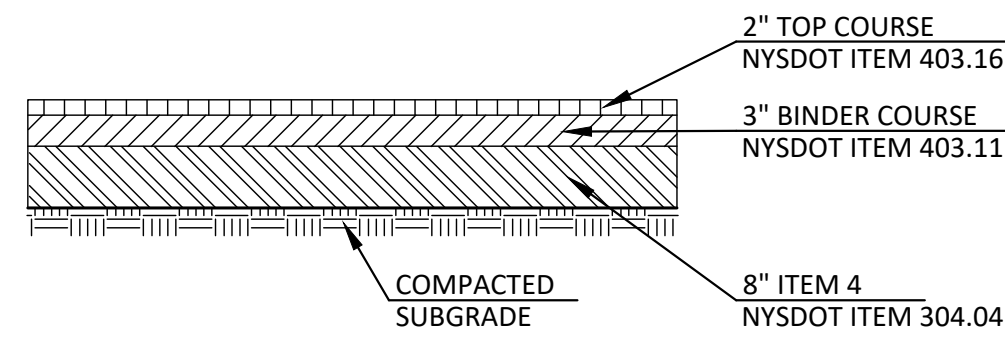
HANDICAP RAMP DETAIL (N.T.S.)



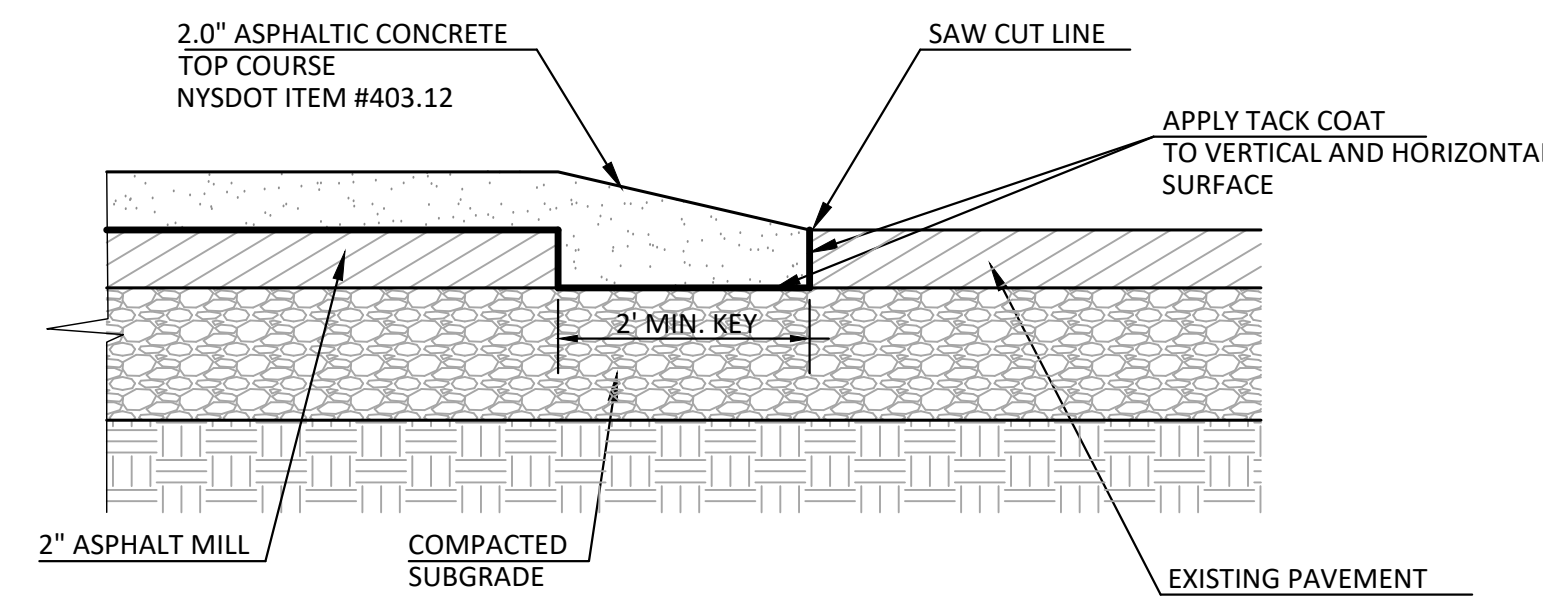
STREET STRIPING DETAIL (N.T.S.)



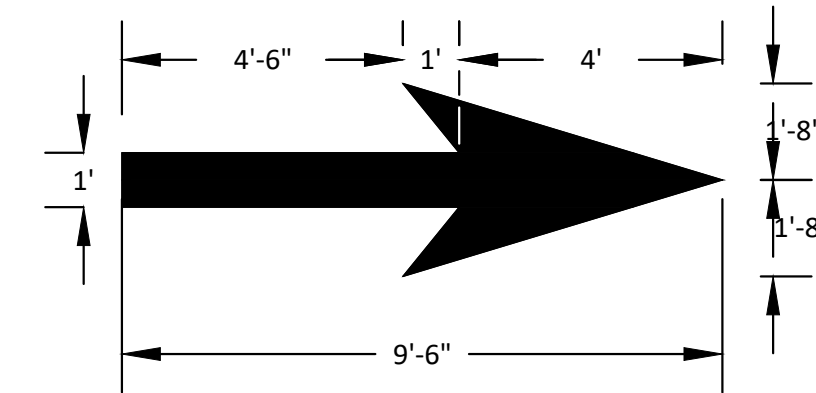
PARKING LOT PAVEMENT DETAIL (N.T.S.)



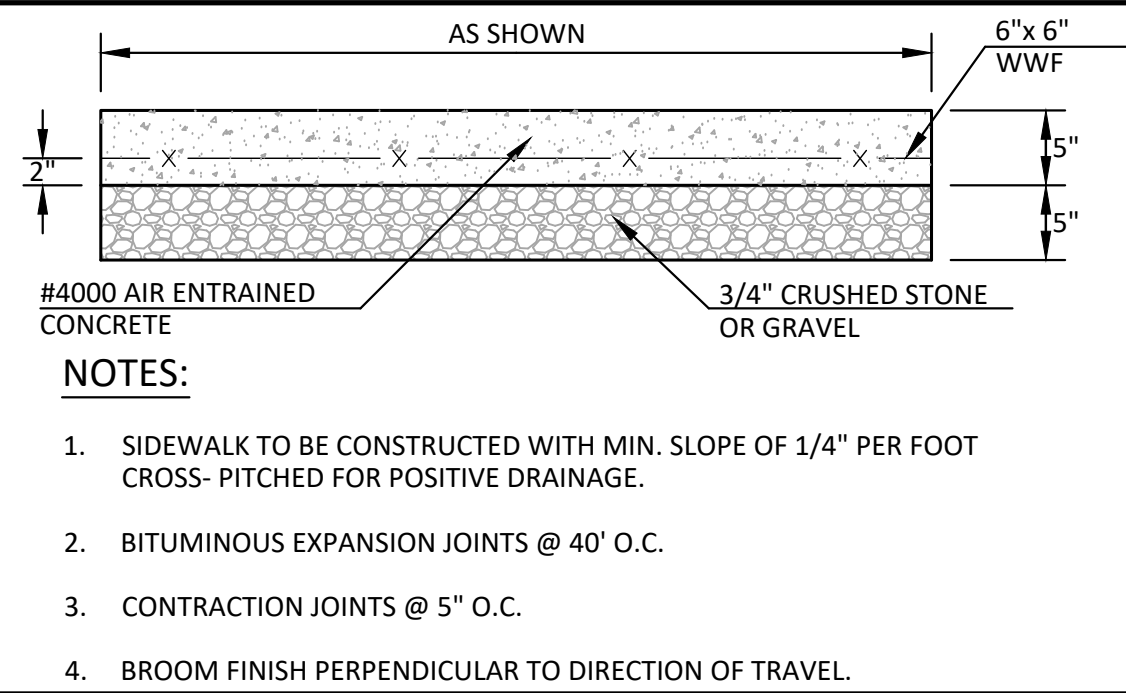
PAVEMENT OVERLAY DETAIL (N.T.S.)



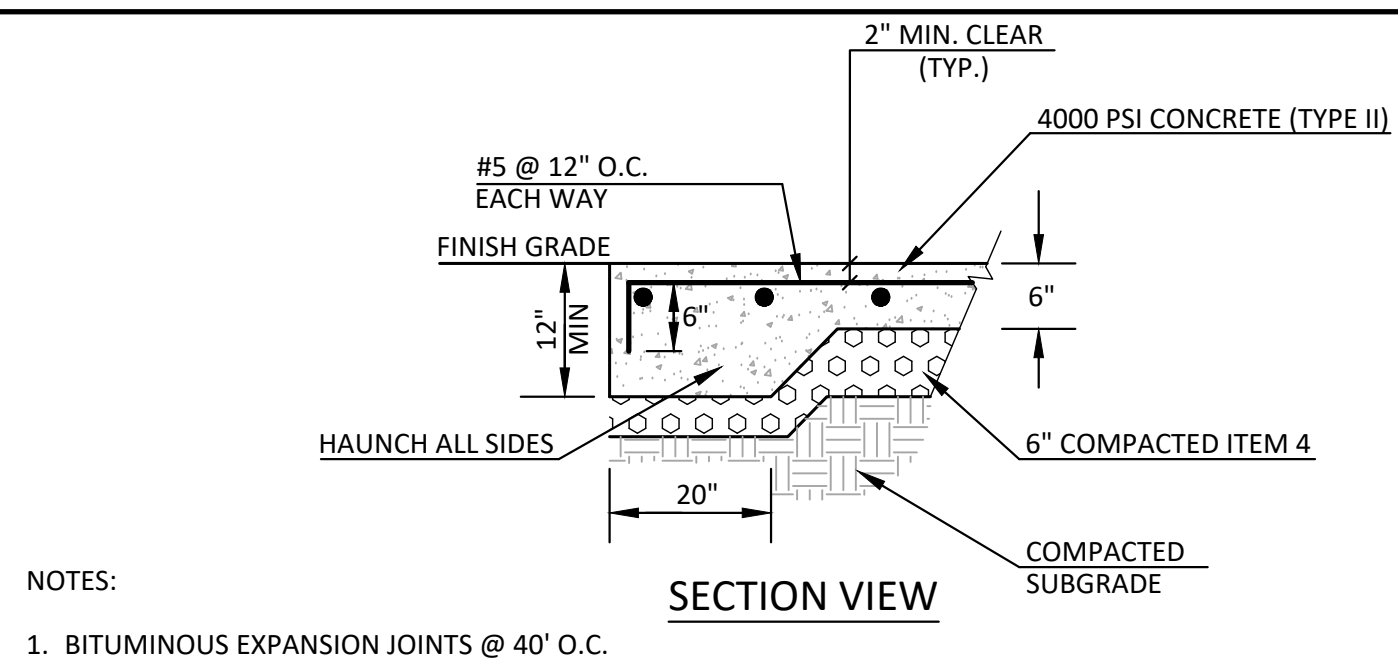
DIRECTIONAL ARROW DETAIL (N.T.S.)



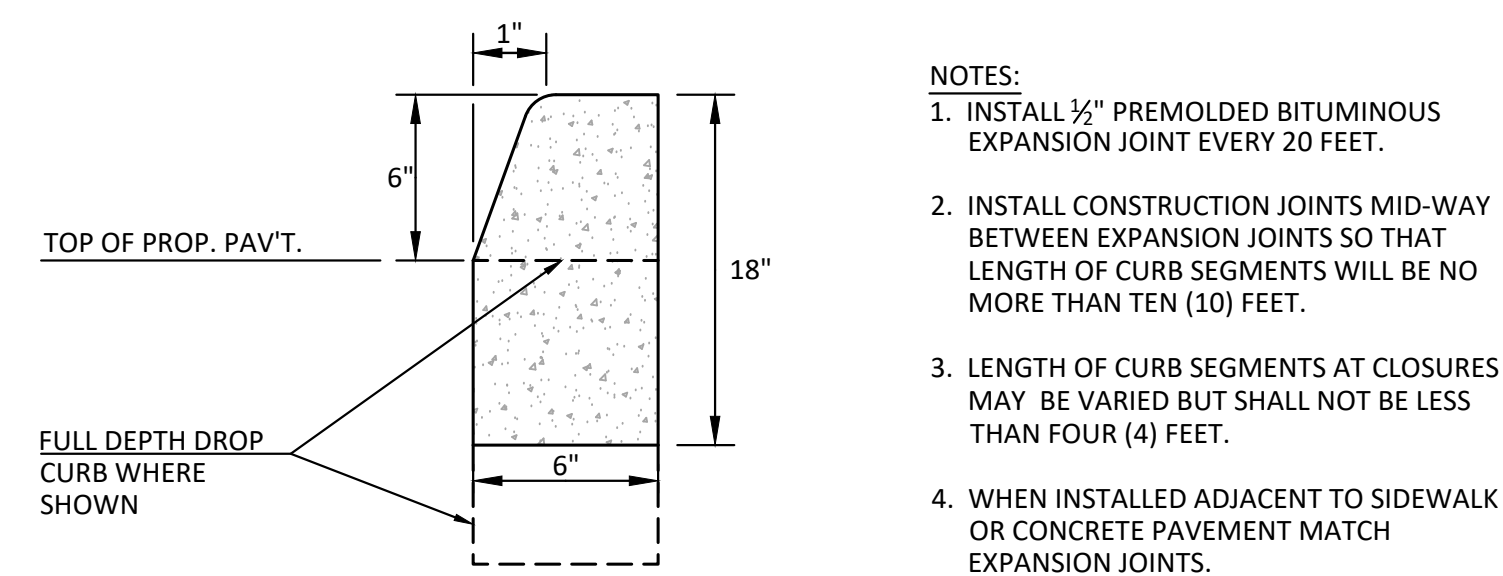
CONCRETE SIDEWALK DETAIL (N.T.S.)



CONCRETE SLAB DETAIL (N.T.S.)



CONCRETE CURB DETAIL (N.T.S.)



PAVEMENT & SIGNAGE DETAILS

KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
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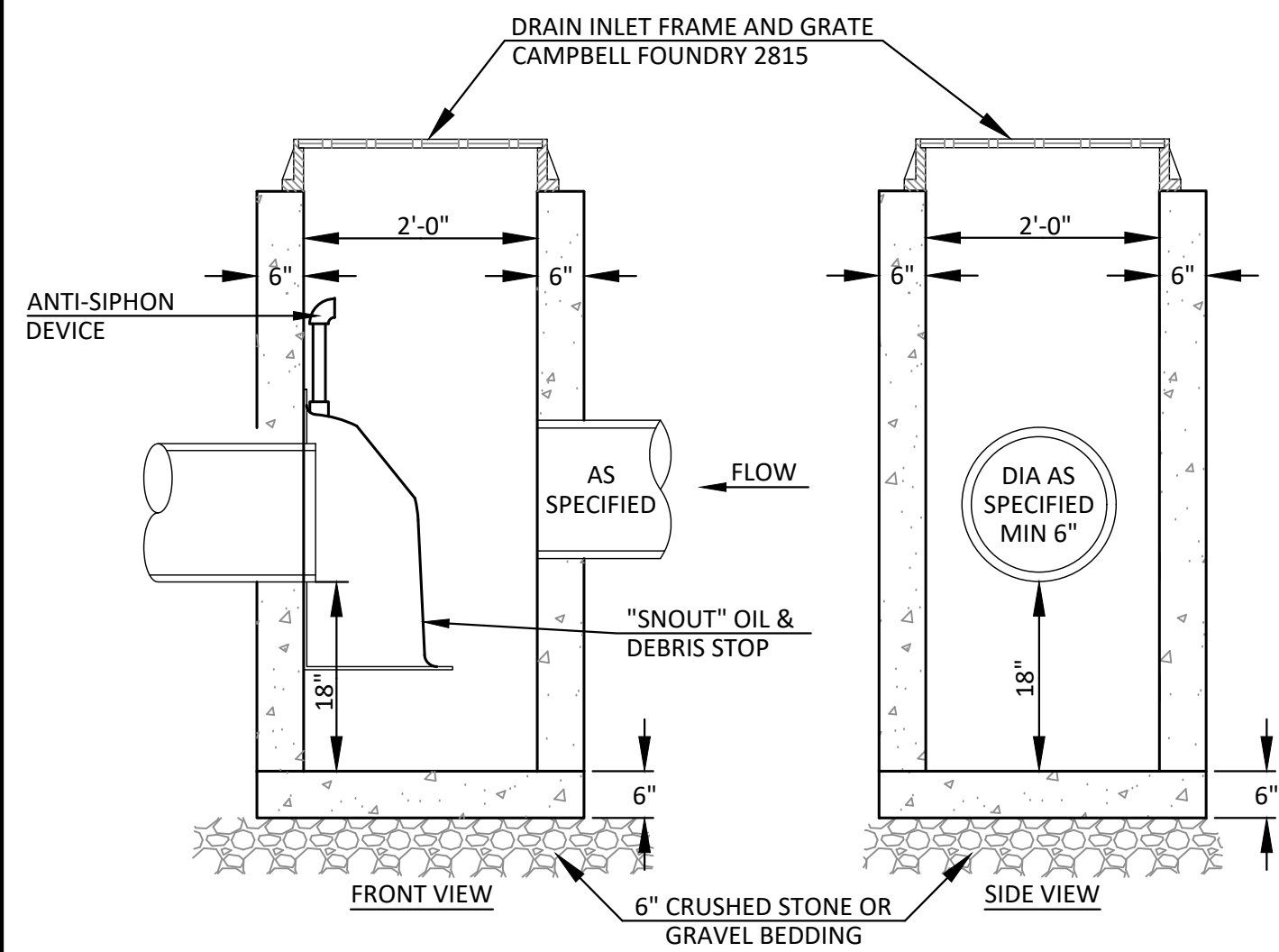
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PROJECT I.D.:  
NC PARKING  
DATE:  
NOVEMBER 13, 2023

REVISIONS

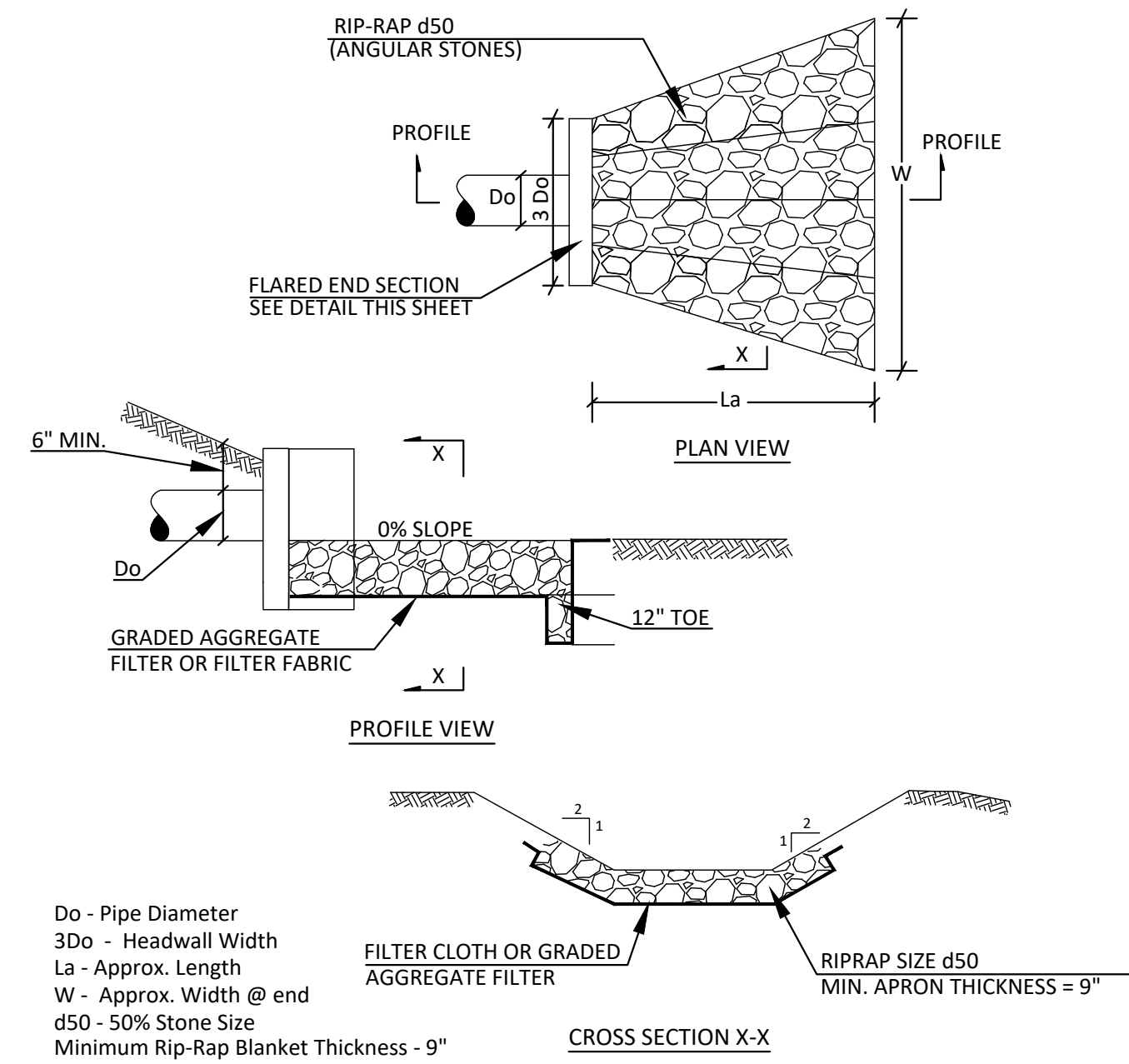
**PRECAST DRAIN INLET WITH HOOD DETAIL (N.T.S.)**



- NOTE:**
- CONCRETE MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI, SUITABLE FOR H-20 VEHICLE LOADING.

**BMP, INC.**  
 50 MT. AIRBORNE ROAD, SUITE C1, 08077  
 (800) 804-8008 FAX: (908) 424-2195  
 BROOKLYN, NJ 07003  
 WWW.BMPINC.COM  
 SN-BAS

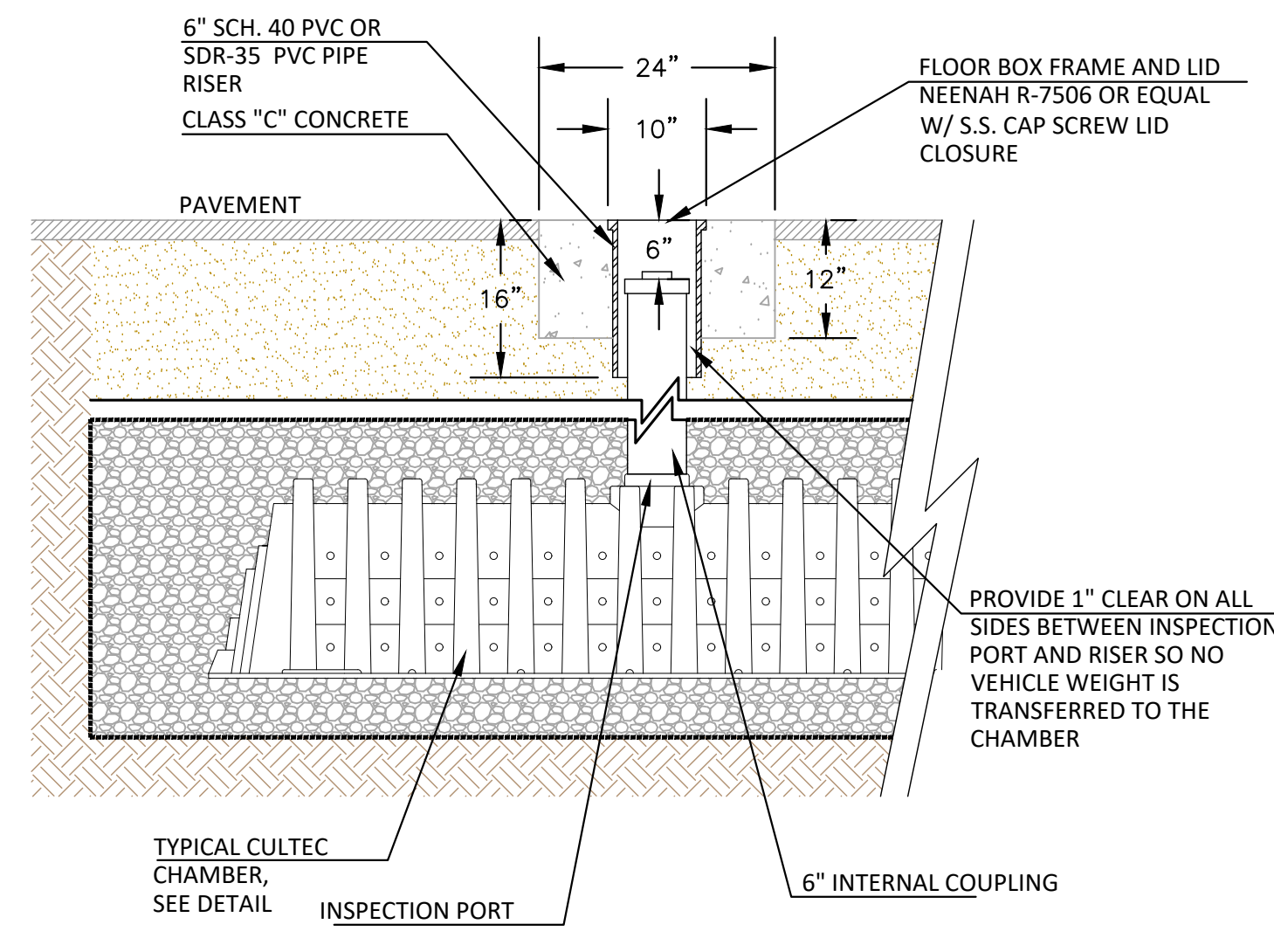
**RIP RAP OUTLET PROTECTION DETAIL (N.T.S.)**



Do - Pipe Diameter  
 3Do - Headwall Width  
 La - Approx. Length  
 W - Approx. Width @ end  
 d50 - 50% Stone Size  
 Minimum Rip-Rap Blanket Thickness - 9"

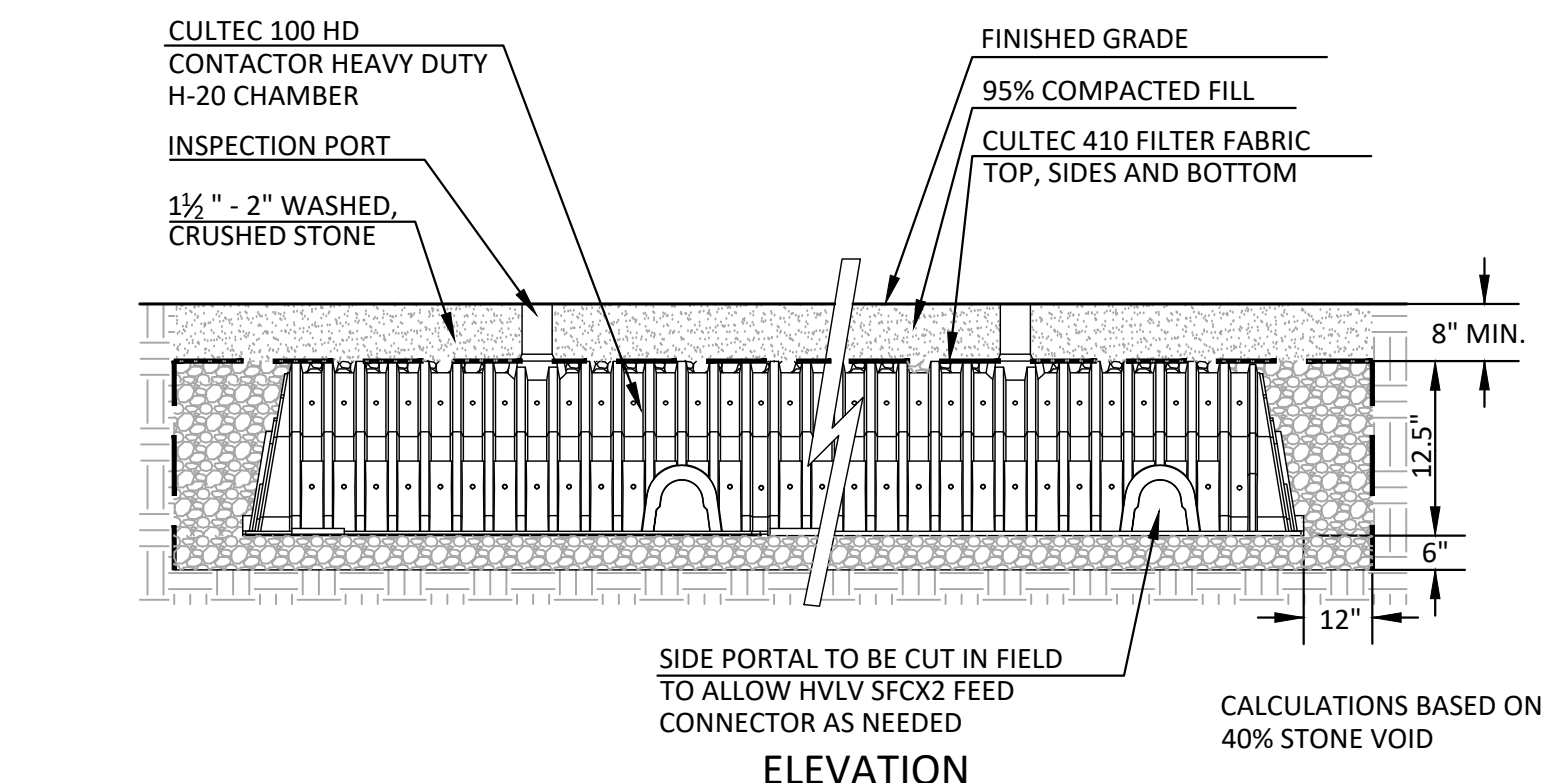
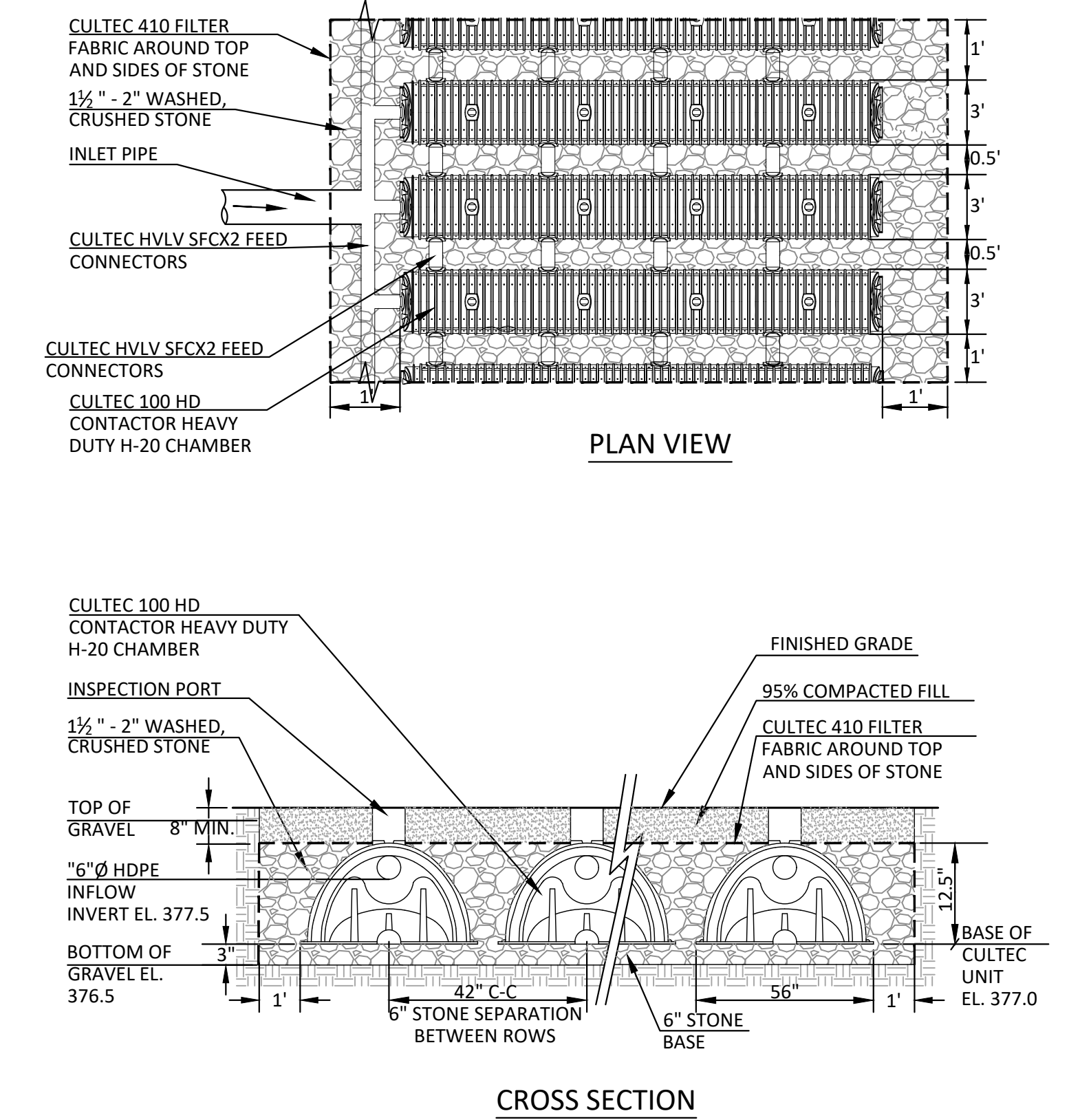
END SECTION #	Q (cfs)	Do (in)	3Do (ft)	La (min) (ft)	W (ft)	d50 (in)
1	1.90	12	3	4	6	4
2	0.34	6	1.5	3	4	4

**CULTEC INSPECTION PORT DETAIL (N.T.S.)**



PROVIDE 1" CLEAR ON ALL SIDES BETWEEN INSPECTION PORT AND RISER SO NO VEHICLE WEIGHT IS TRANSFERRED TO THE CHAMBER

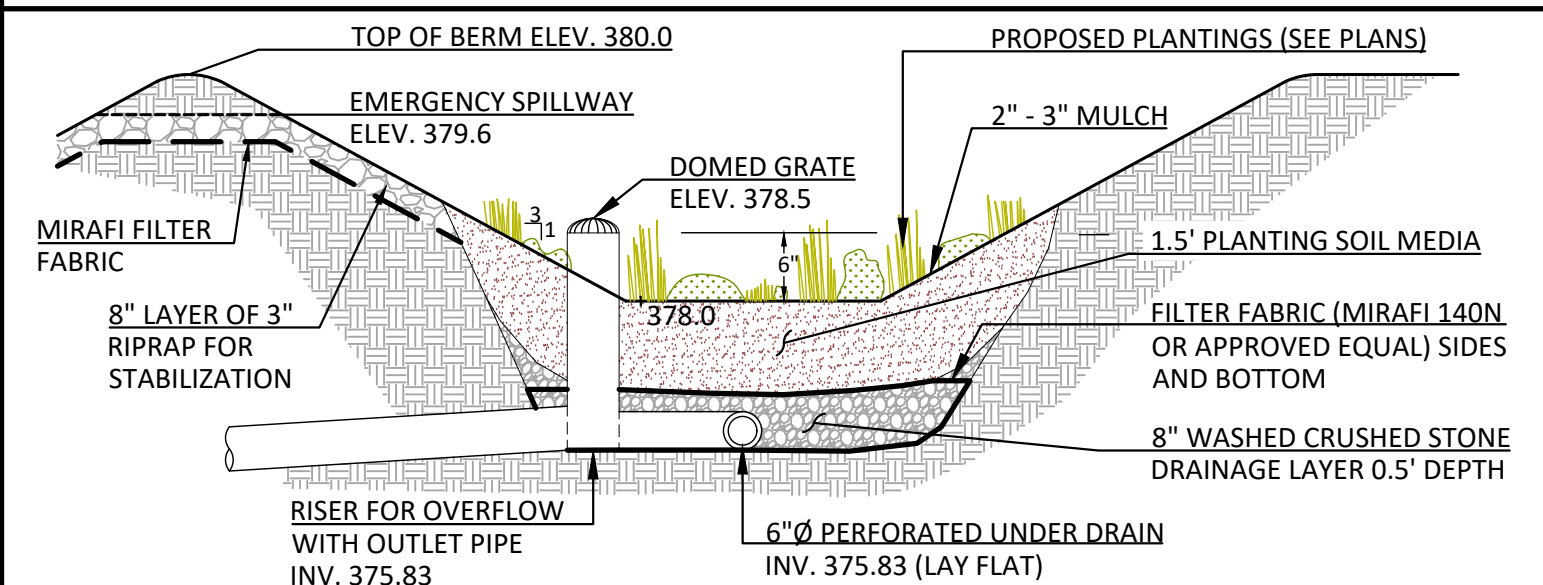
**CULTEC 100 HD CONTACTOR INFILTRATION SYSTEM DETAIL (N.T.S.)**



NOTE: DETAIL FOR TYPICAL INSTALLATION ONLY, REFER TO PLAN FOR LAYOUT & QUANTITY

- GENERAL NOTES**
- CONTACTOR™ 100 HD BY CULTEC, INC. OF BROOKFIELD, CT.
  - ALL CONTACTOR™ 100 HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
  - REFER TO MANUFACTURER, CULTEC, INC.'S RECOMMENDED INSTALLATION GUIDELINES.
  - ALL CONTACTOR™ 100 HD H-20 HEAVY DUTY UNITS ARE MARKED WITH A 4" STRIPE ALONG THE LENGTH OF THE CHAMBER.

**BIORETENTION BASIN WITH UNDERDRAIN (N.T.S.)**



- NOTES:**
- THE PROPOSED PLANTINGS SHALL BE IN ACCORDANCE WITH TABLE 5.11 "SUGGESTED RAIN GARDEN PLANT LIST" CONTAINED IN THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL.
  - PLANTING SOIL MEDIA SHOULD CONSIST IF 50%-70% SAND (LESS THAN 5% CLAY CONTENT), 50%-30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATTER (COMPOST OR PEAT).
  - THE PLANTING SOIL MEDIA SOIL SHOULD BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS AND OTHER OBJECTS LARGER THAN 2 INCHES IN DIAMETER. THE SOIL SHOULD BE VISIBLY FREE OF NOXIOUS WEEDS.
  - THE SOIL SHOULD HAVE A pH RANGE OF 5.2 TO 7.0 AND AN ORGANIC CONTENT OF 1.5%-4.0%
  - 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). THE MULCH LAYER SHOULD BE UNIFORM IN COLOR AND FREE OF WEED SEEDS, SOIL, ROOTS, GRASS CLIPPINGS, ETC.

**BIORETENTION SIZING:**

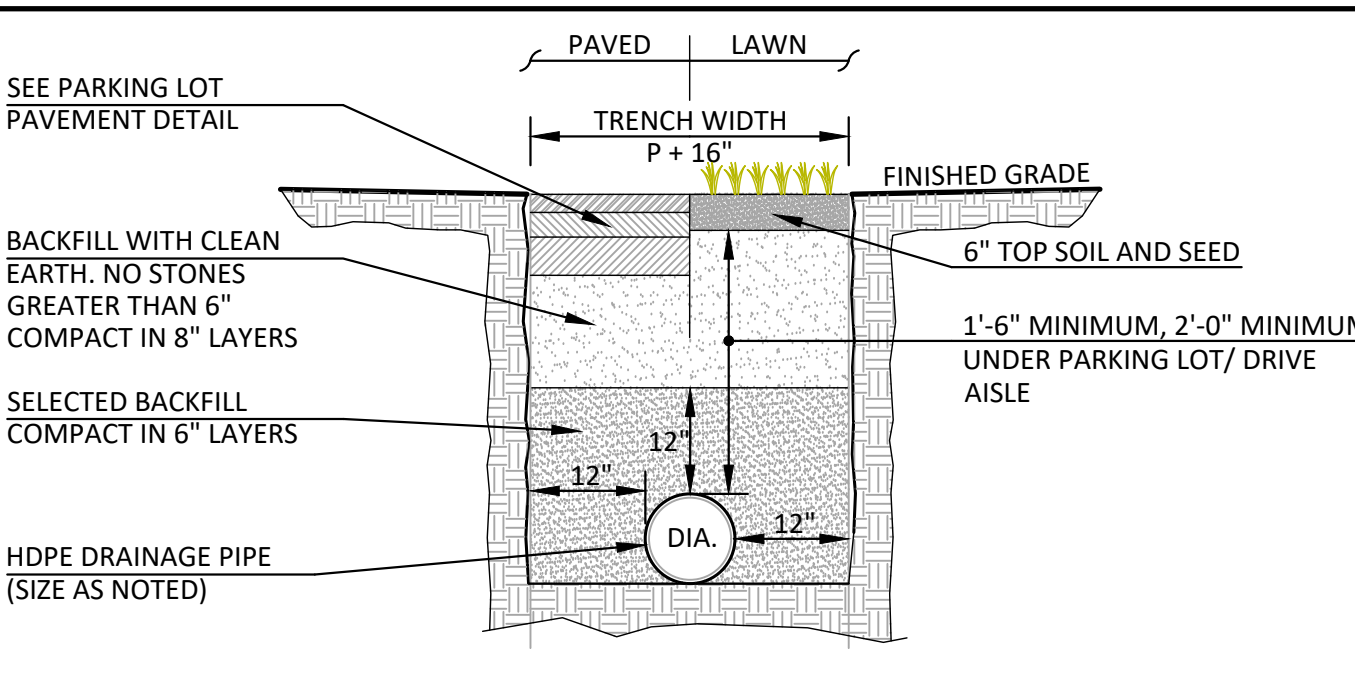
Af = Bioretention Basin Surface Area, (sf)  
 df = Depth of the Filter Media, (ft) (1.0 to 1.5 ft)  
 hf = Average height of water above filter media, (ft) (max. 0.5 ft)  
 k = Coefficient of permeability of filter media (ft/day)  
 tf = design filter bed drain time (days) (two hours for bioretention)  
 WQv = Water Quality Volume, (cf)  
 P = 90% Rainfall Event Number, (in)  
 A = Drainage Area to Bioretention Basin, (sf)  
 I = Percentage of Impervious within Drainage Area, (%)  
 WQv = (P \* Rv \* A) / 12  
 A = 35,891 sf  
 P = 1.5"  
 Rv = 0.05 + 0.009(I) = 0.05 + 0.009(69) = 0.67  
 WQv = (1.5" \* .67 \* 35,891 sf) / 12 = 3,006 cf

WQv = 3,006 cf  
 df = 1.5 ft  
 hf = 0.5 ft  
 k = 2.75 ft/day  
 tf = 2 day

Af = (WQv \* df) / (k (hf \* df) tf) = (3,006 cf \* 1.5 ft) / (2.75 ft/day (0.5 ft + 1.5 ft) 2 day)  
 Af = 4,509 ft<sup>2</sup> = 409.91 sf  
 11 ft<sup>2</sup>

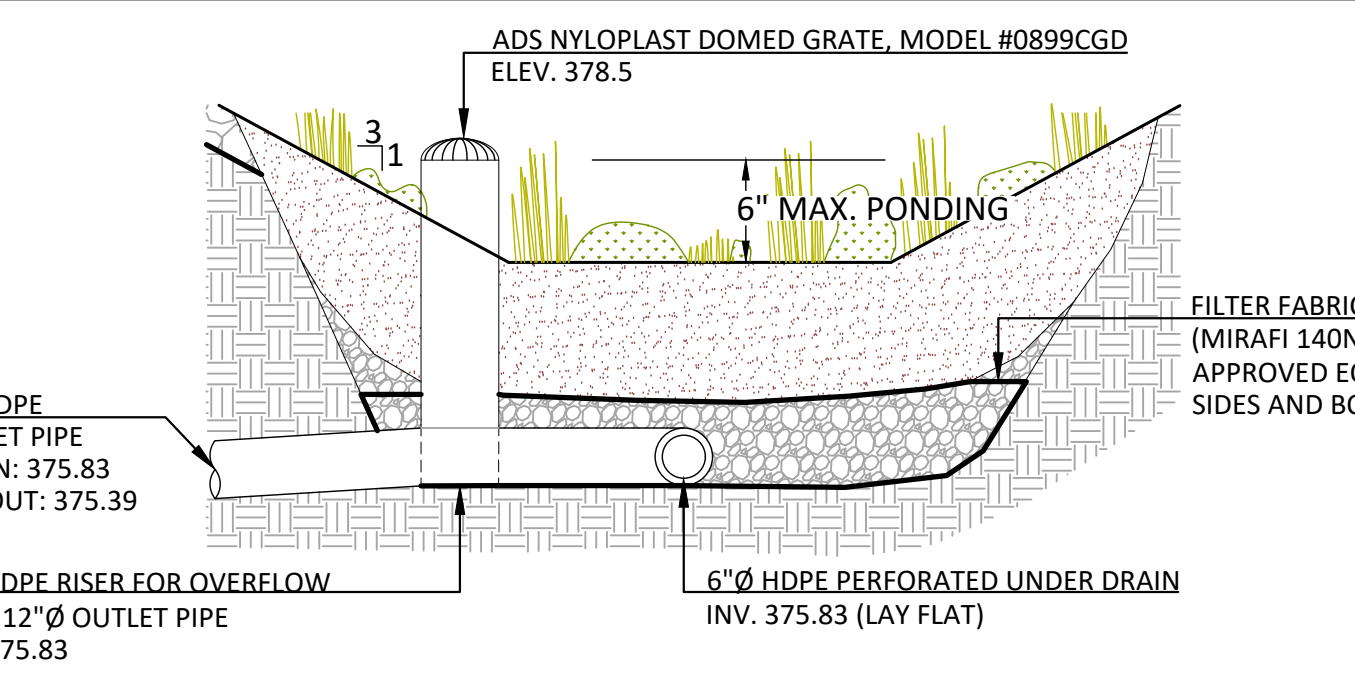
AREA OF FILTER BED PROVIDED = 2,962 sf ≥ Af = 409.91 sf

**DRAINAGE TRENCH DETAIL (N.T.S.)**



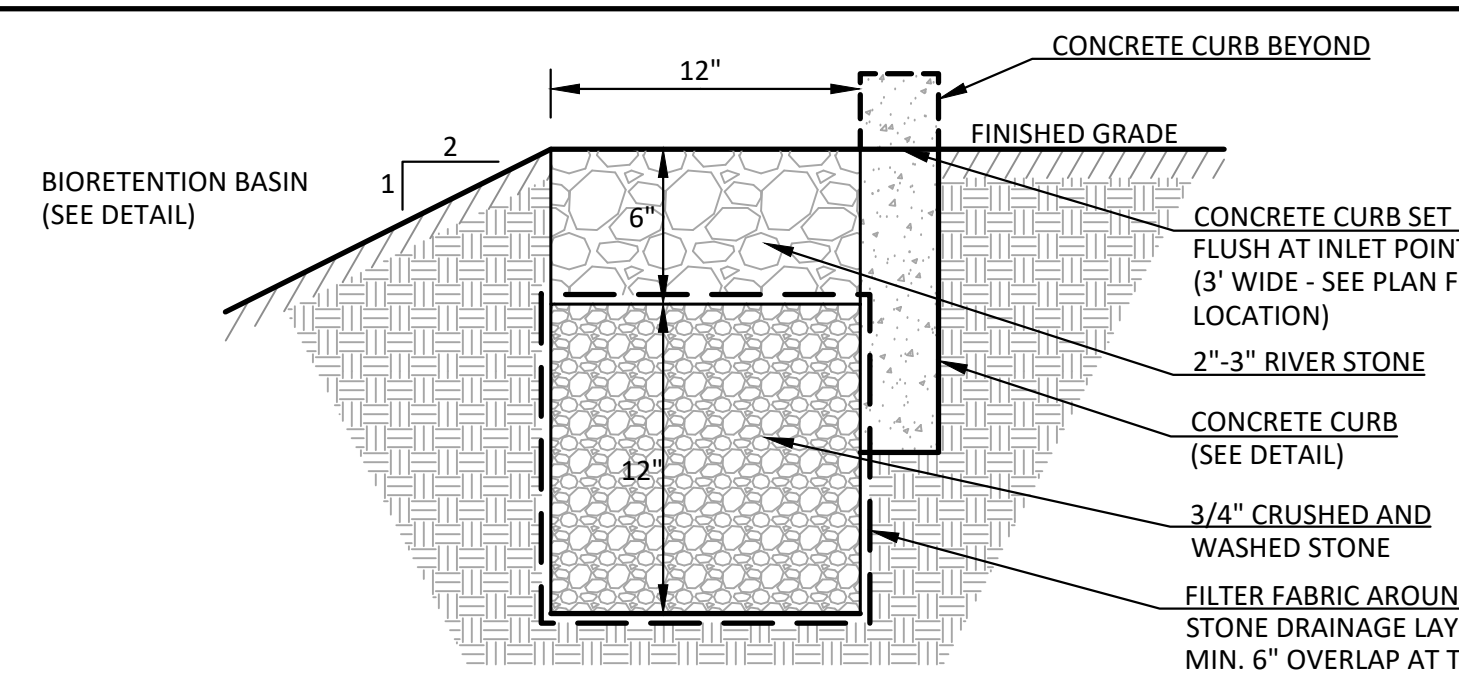
1'-6" MINIMUM, 2'-0" MINIMUM UNDER PARKING LOT/ DRIVE AISLE

**BIORETENTION BASIN OUTLET (N.T.S.)**

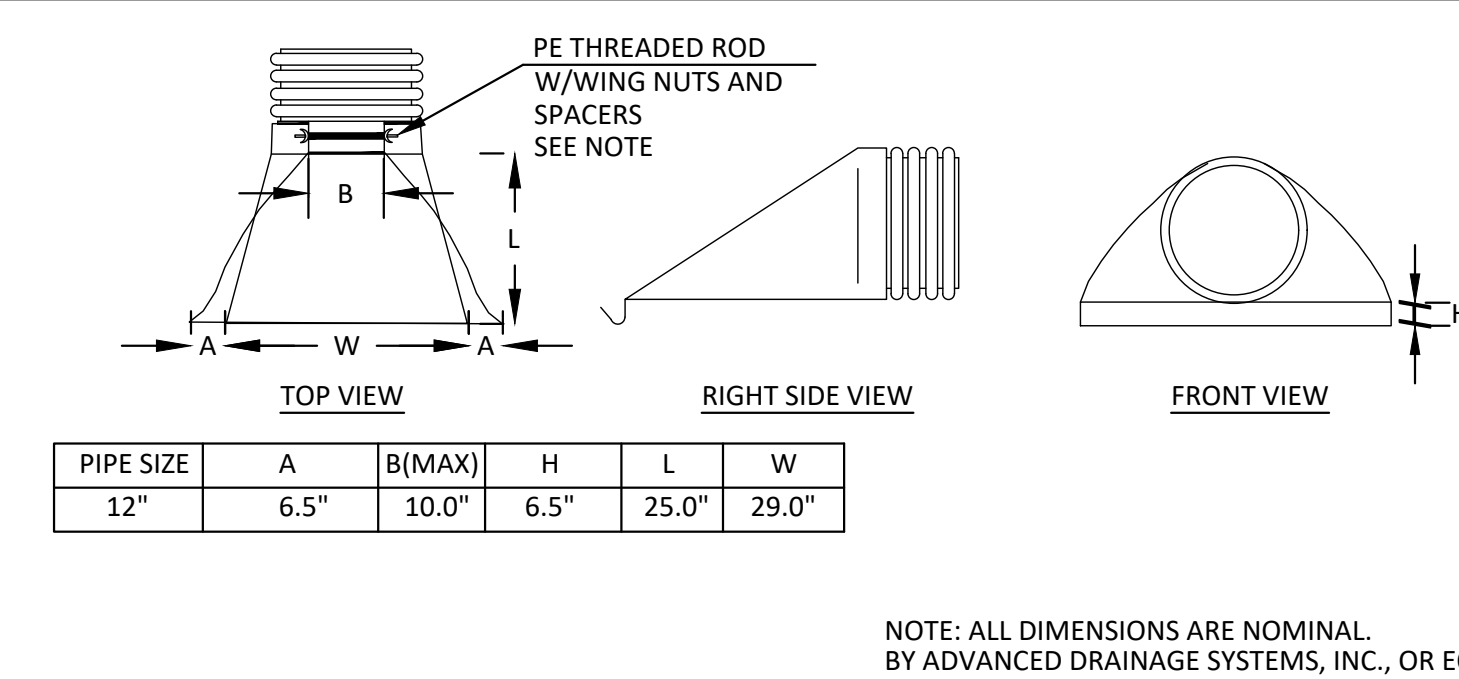


8" HDPE RISER FOR OVERFLOW WITH 12" OUTLET PIPE INV. 375.83

**GRAVEL DIAPHRAGM DETAIL (N.T.S.)**



**FLARED END SECTION DETAILS (N.T.S.)**



**DRAINAGE DETAILS**

**KENT PLACE/VERIZON PARKING PLAN**

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

**KSCJ CONSULTING**  
 KELLARD SESSIONS CERMELE JOHANNESSEN  
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STATE OF NEW YORK  
 MATTHEW J. CERMELE  
 LICENSED PROFESSIONAL ENGINEER  
 07802

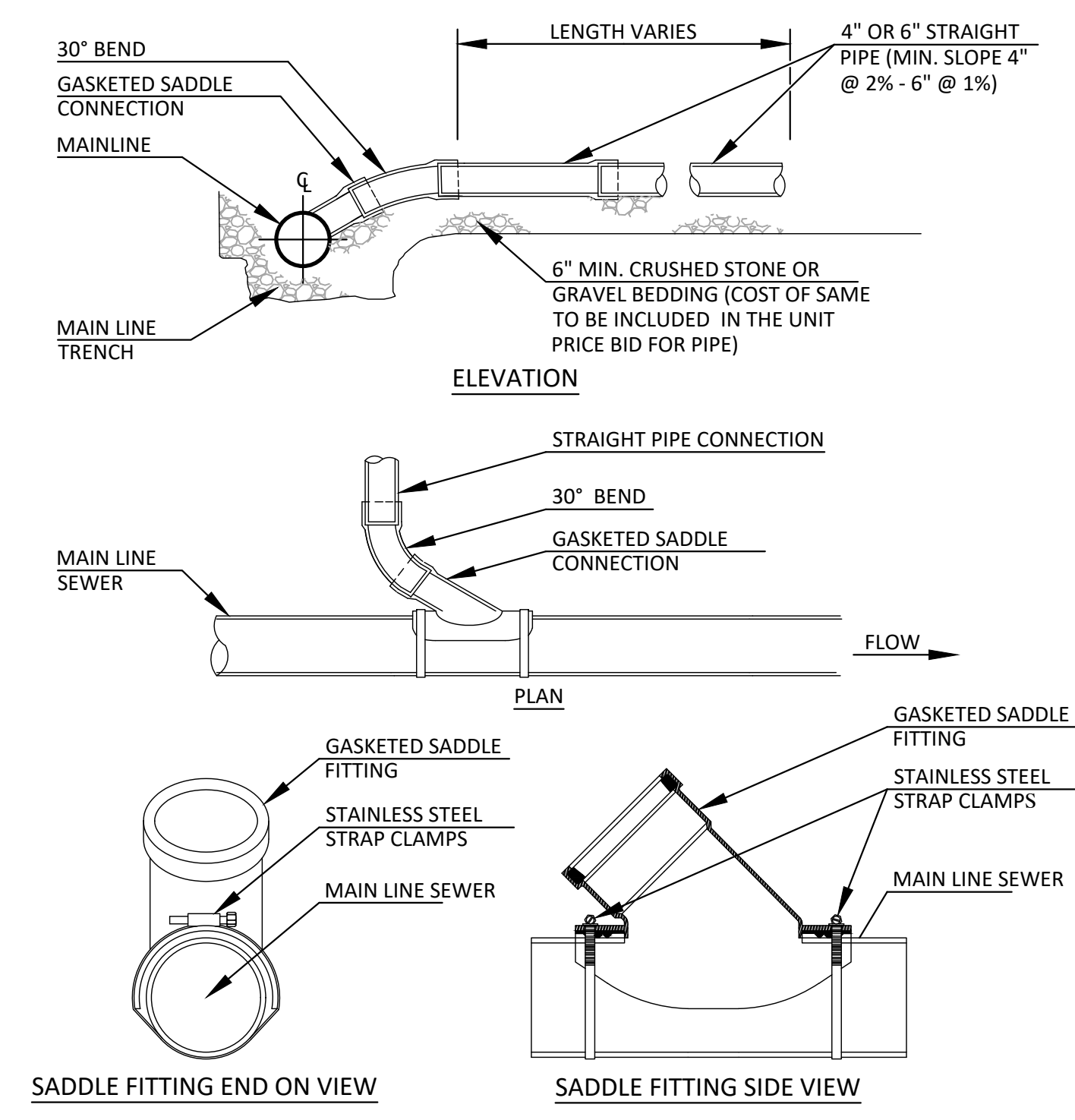
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**C-502**  
 PROJECT I.D.:  
 NC PARKING  
 DATE:  
 NOVEMBER 13, 2023

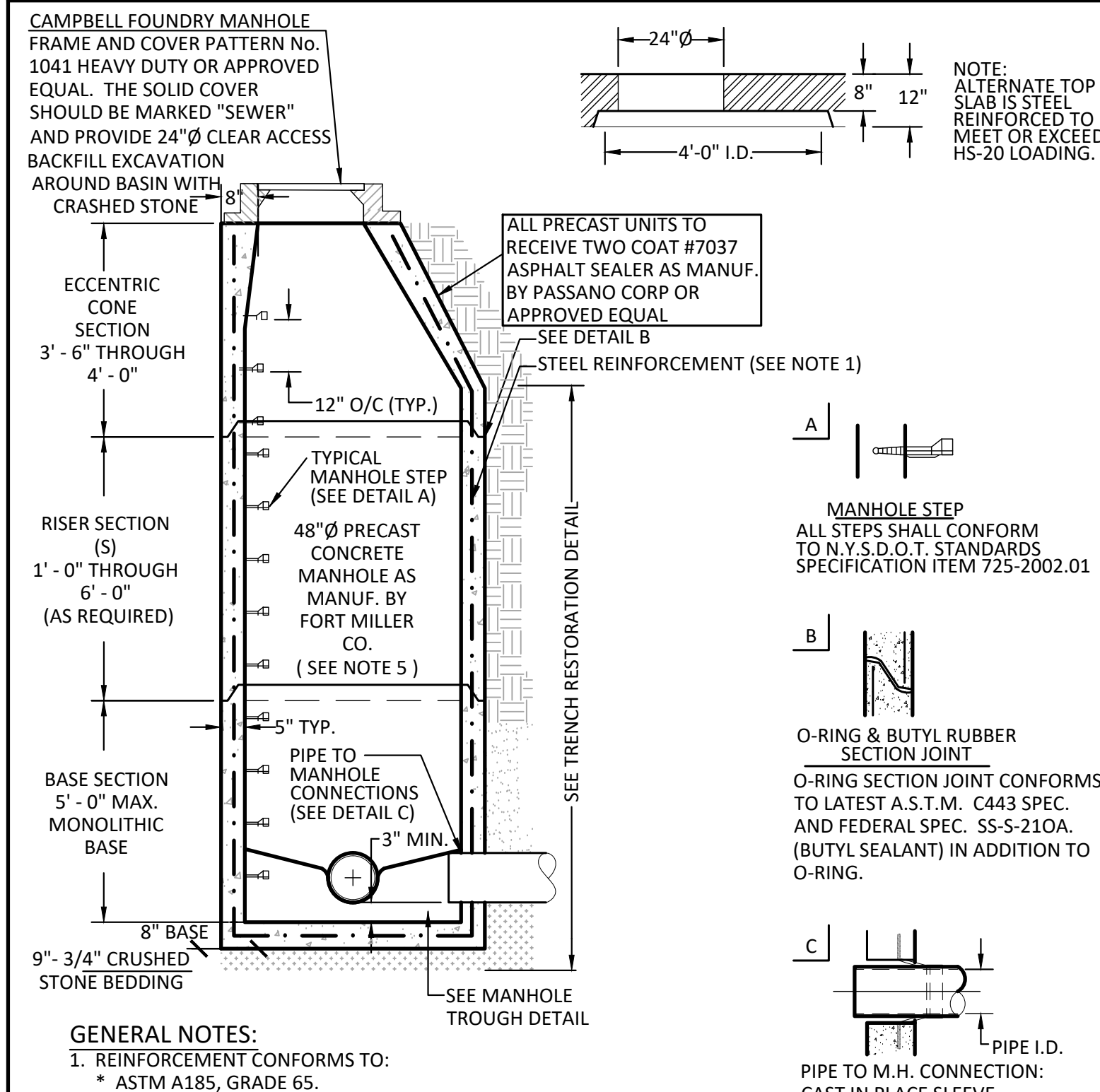
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### SEWER SERVICE CONNECTION TO EXISTING MAIN DETAIL (N.T.S.)

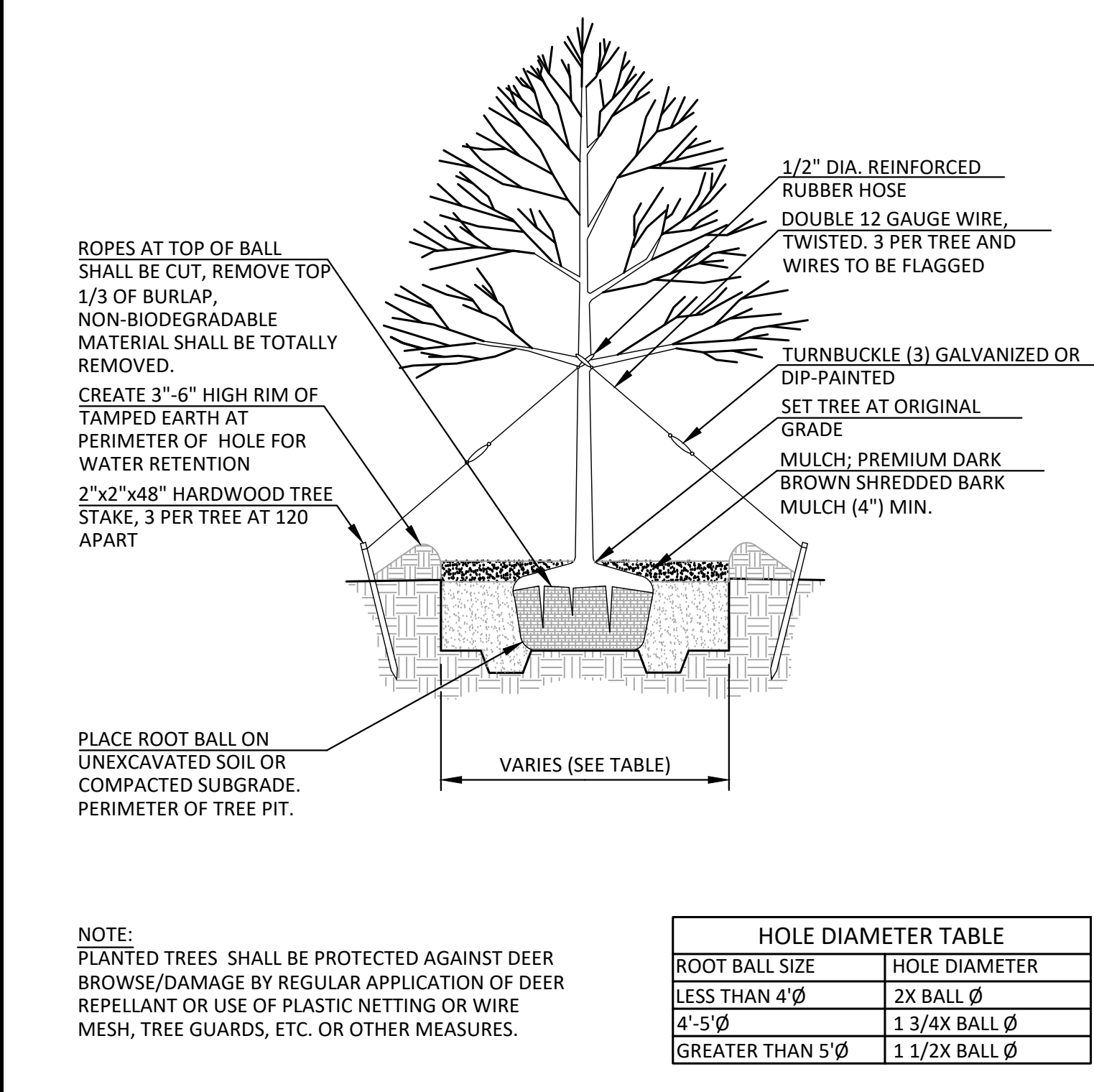


### PRECAST CONCRETE SEWER MANHOLE DETAIL (N.T.S.)

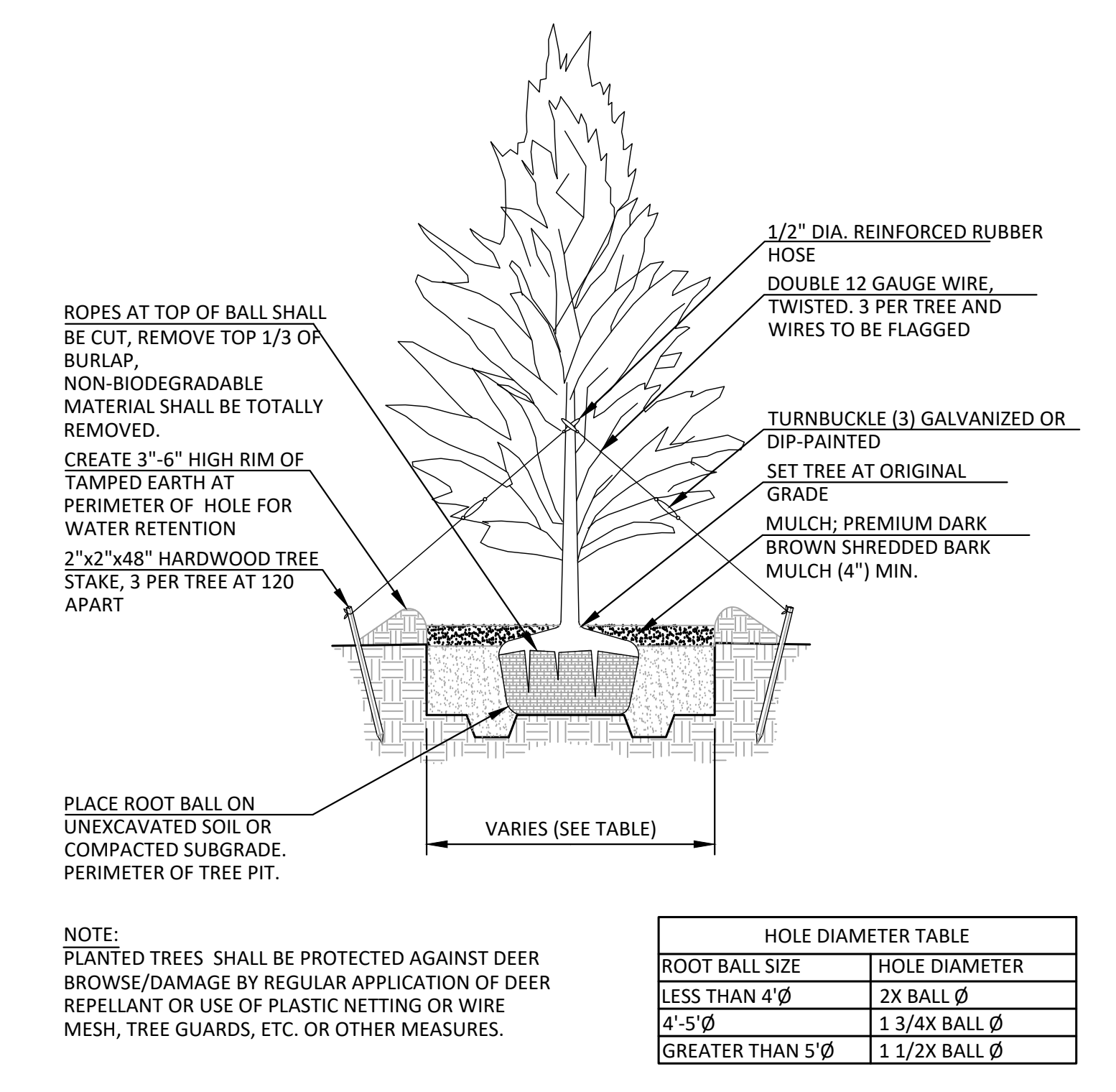


- GENERAL NOTES:**
- REINFORCEMENT CONFORMS TO:
    - ASTM A185, GRADE 65
    - ASTM A615, GRADE 60
  - CONCRETE COMPRESSIVE STRENGTH
    - 4000 PSI MINIMUM
    - 5.5% - 9.5% ENTRAINED AIR
  - MANHOLE DESIGN SPECIFICATIONS CONFORM TO ASTM C478 - 85a, FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
  - INVERT TO BE POURED IN THE FIELD BY THE CONTRACTOR.
  - MANHOLE DIAMETER SHALL BE A MINIMUM OF 48" AND 60" DIAMETER WHEN DEEPER THAN 12'.

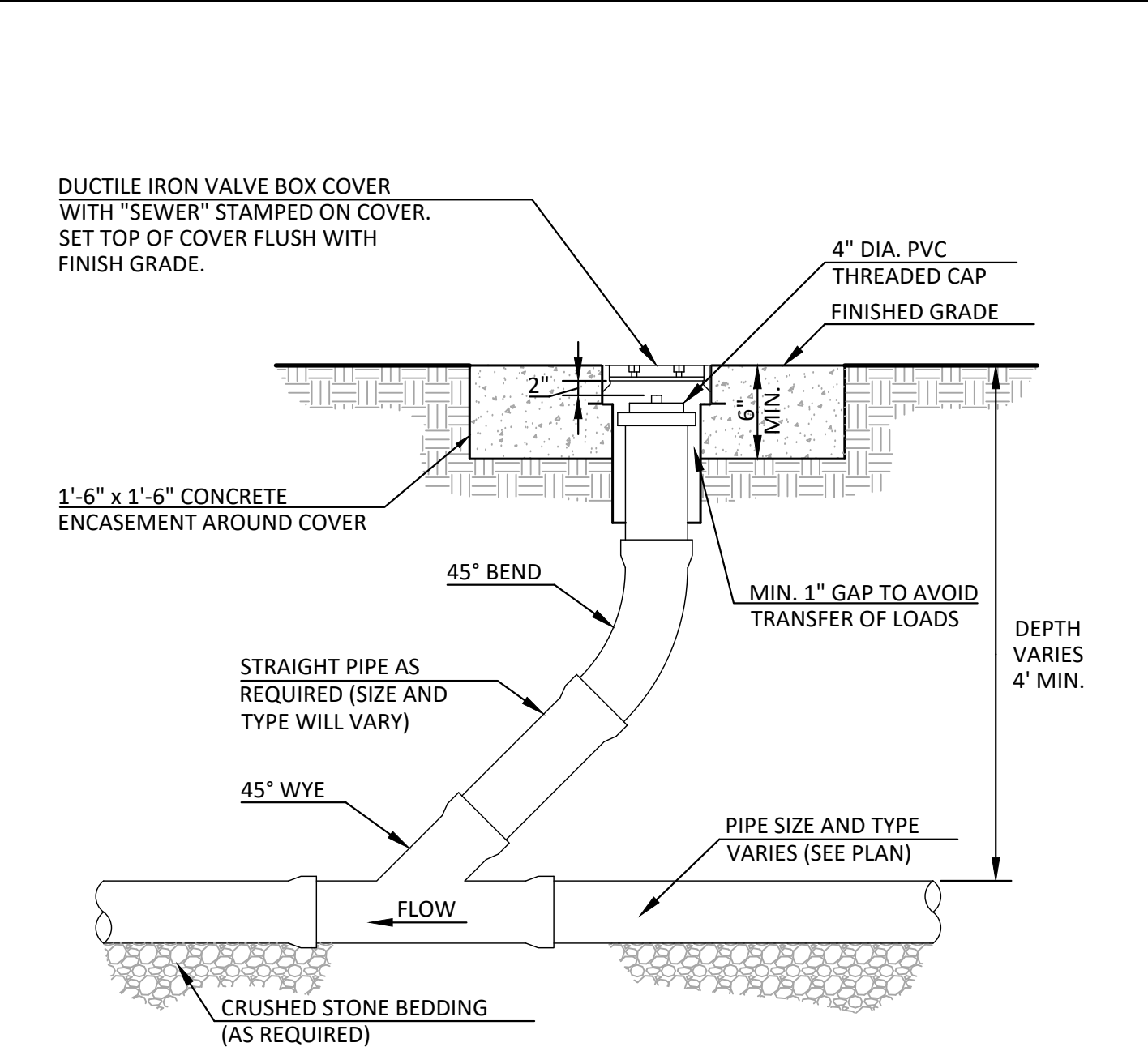
### DECIDUOUS TREE PLANTING DETAIL (N.T.S.)



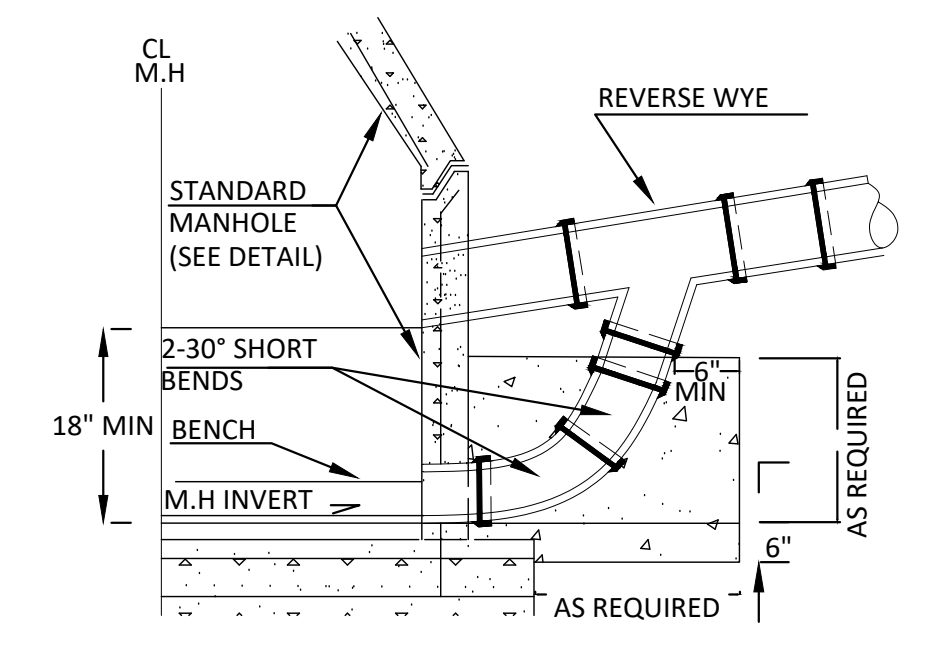
### EVERGREEN TREE PLANTING DETAIL (N.T.S.)



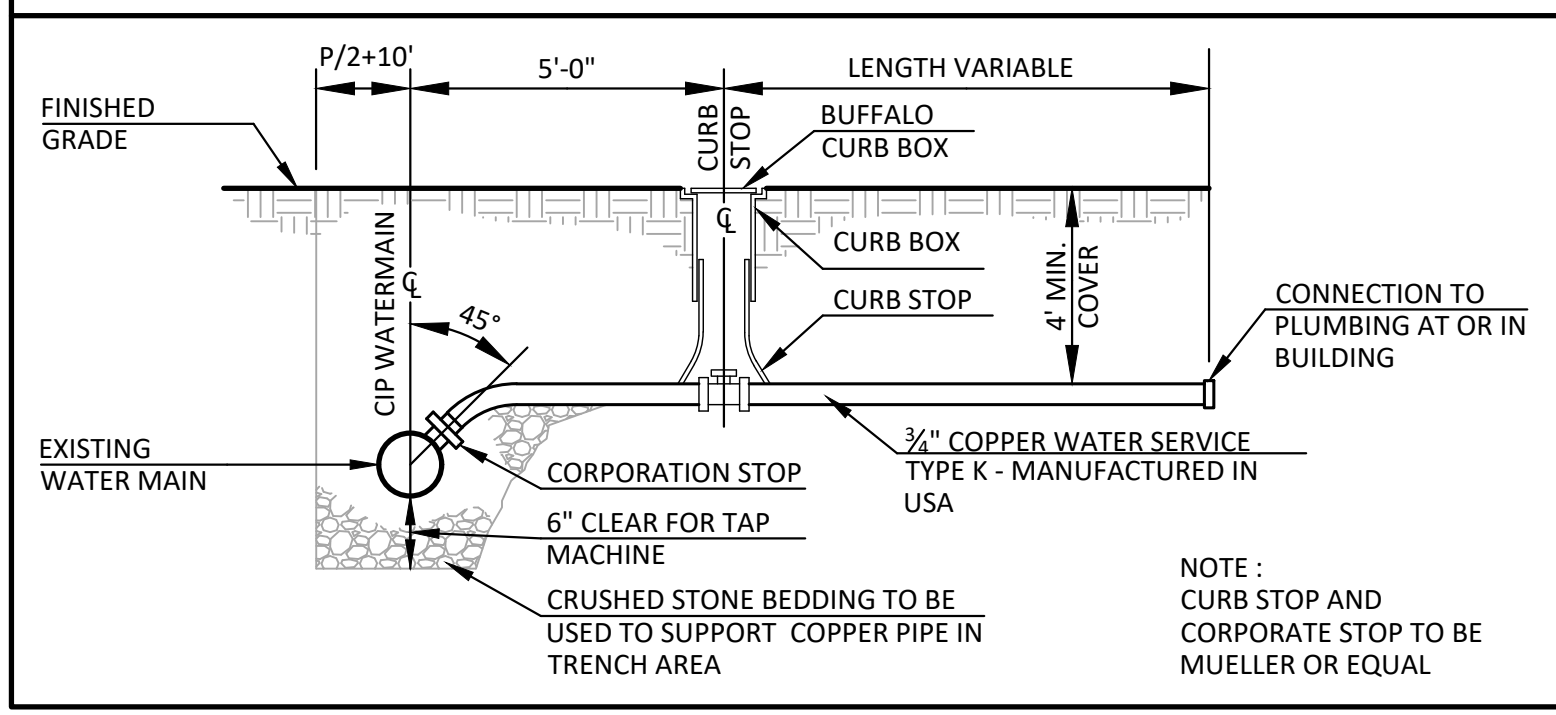
### SANITARY CLEANOUT DETAIL (N.T.S.)



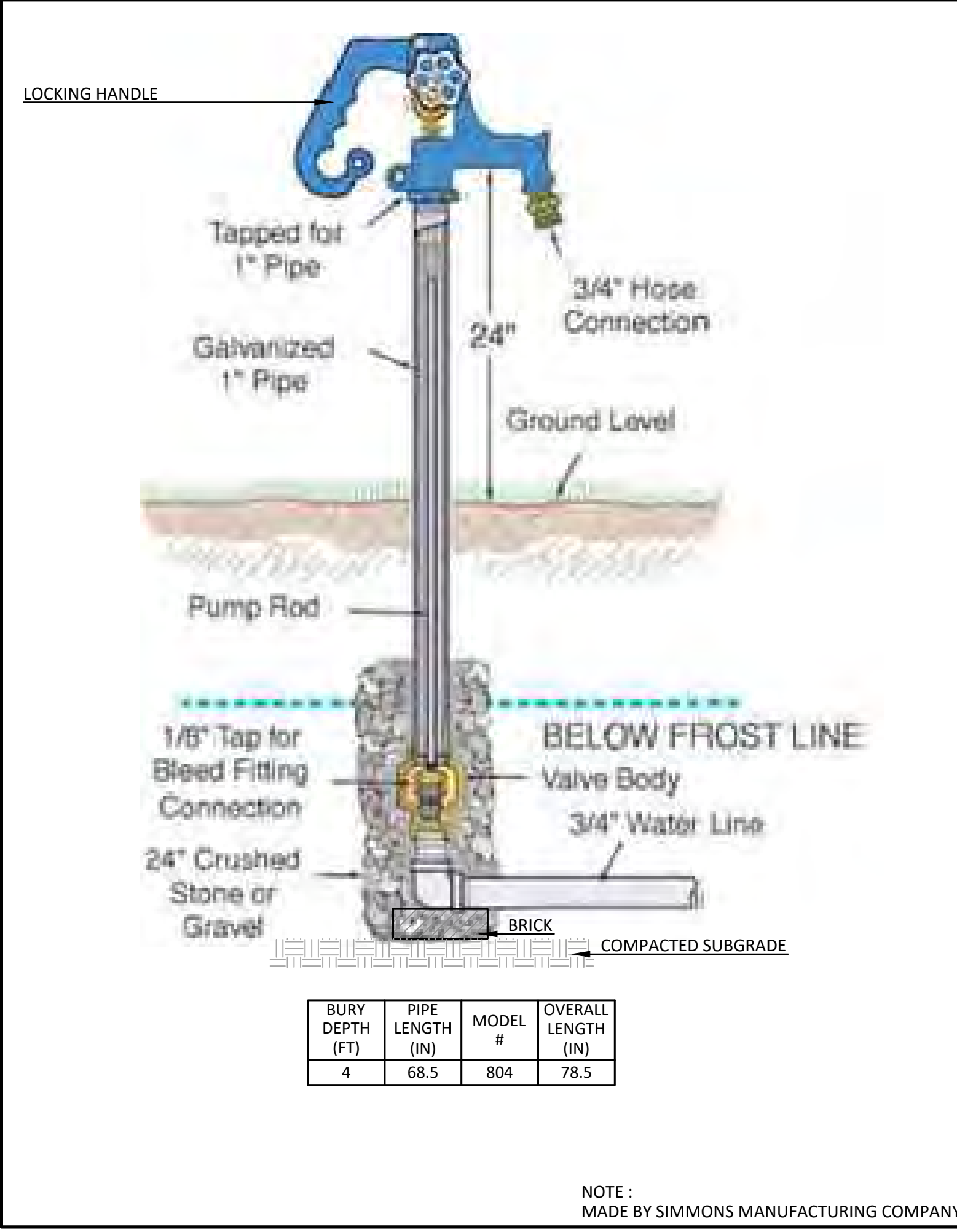
### DROP CONNECTION DETAIL (N.T.S.)



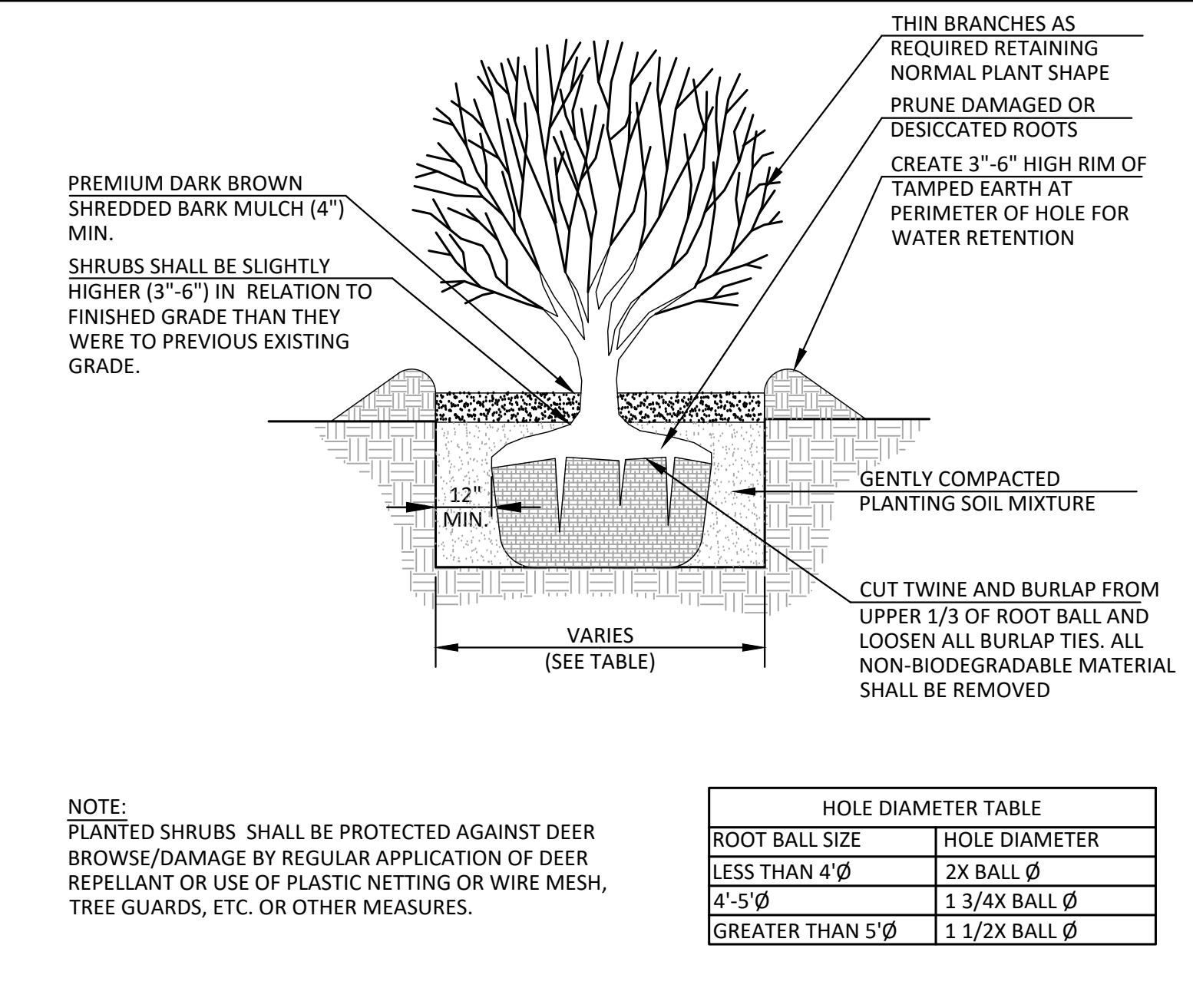
### WATER SERVICE BUILDING CONNECTION DETAIL (N.T.S.)



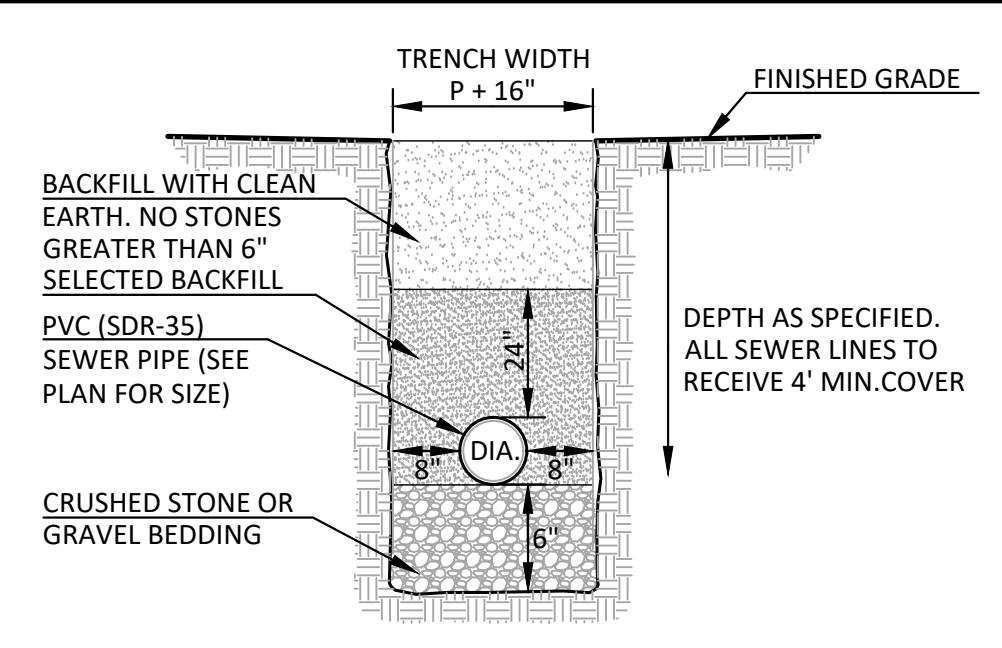
### FROST PROOF HYDRANT DETAIL (N.T.S.)



### SHRUB PLANTING DETAIL (N.T.S.)



### SEWER SERVICE TRENCH DETAIL (N.T.S.)



## SEWER, WATER & PLANTING DETAILS

## KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

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Professional Engineer  
Matthew J. Cermele  
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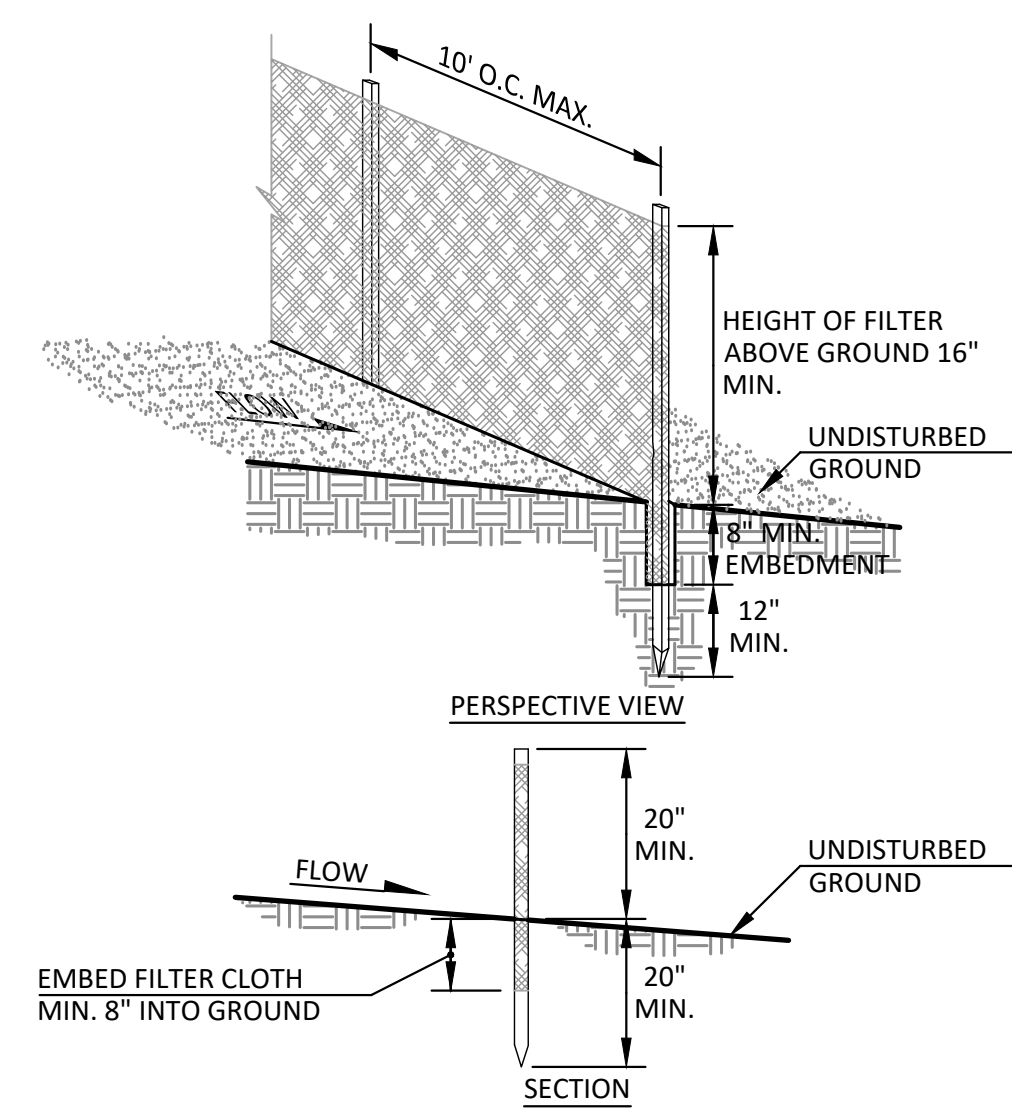
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PROJECT I.D.:  
NC PARKING

DATE:  
NOVEMBER 13, 2023

### SILT FENCE DETAIL (N.T.S.)

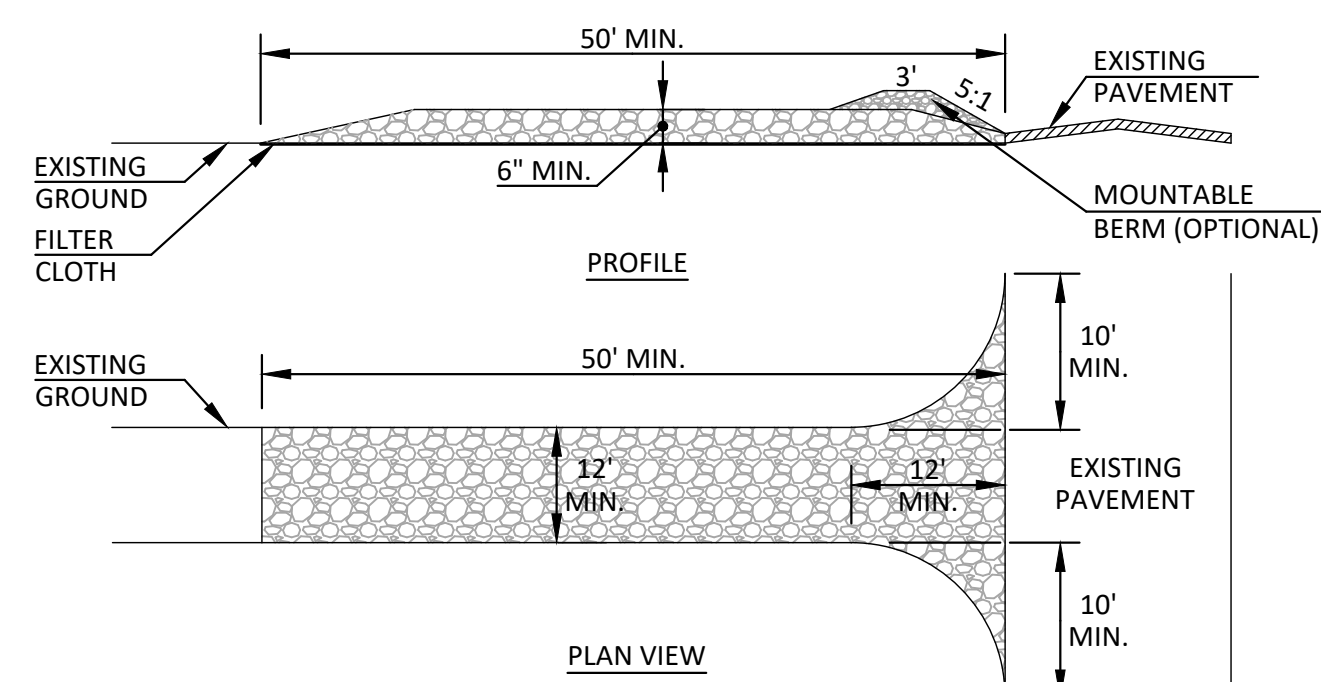


#### CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
- FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL
- PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

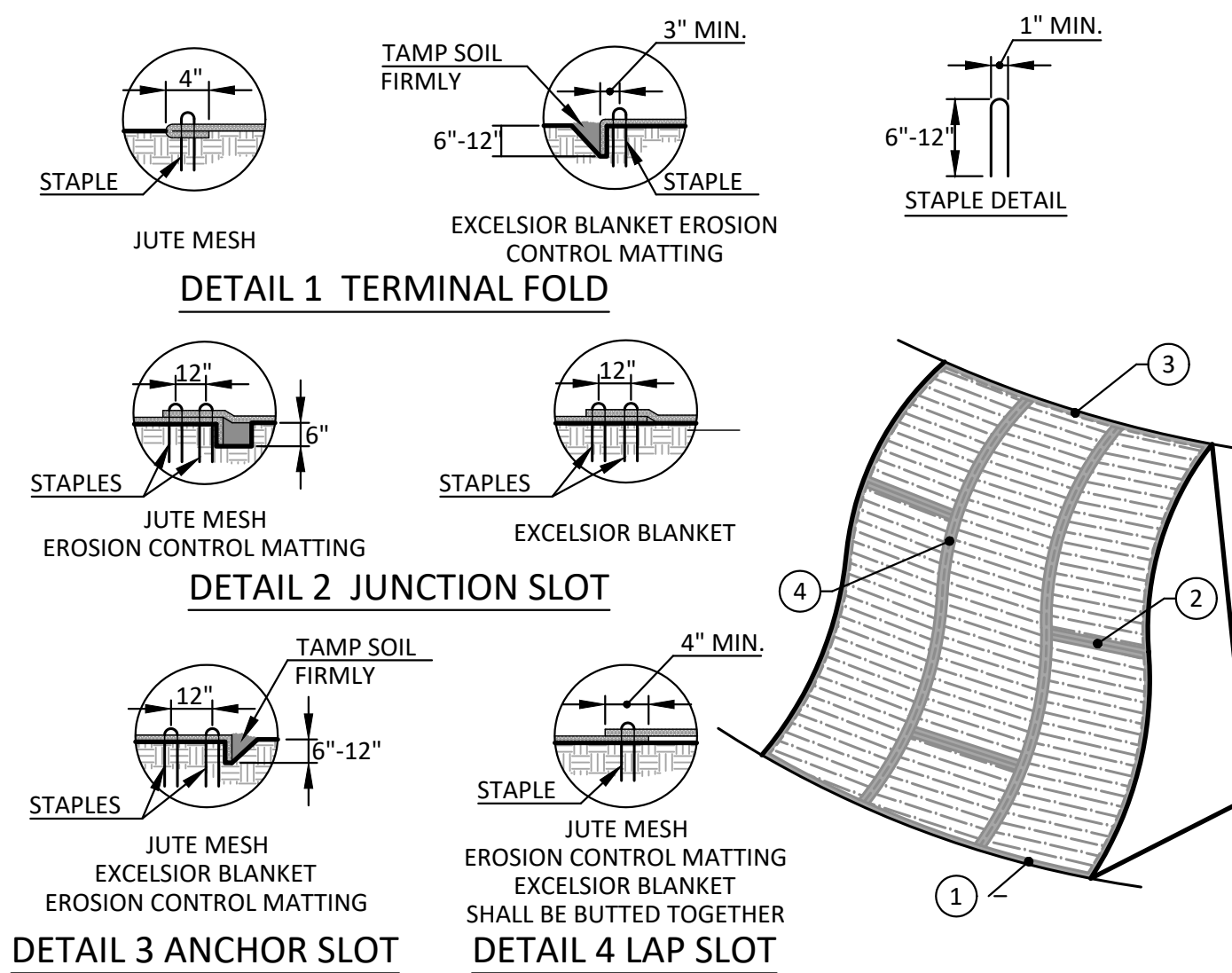
### STABILIZED CONSTRUCTION ENTRANCE DETAIL (N.T.S.)



#### CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

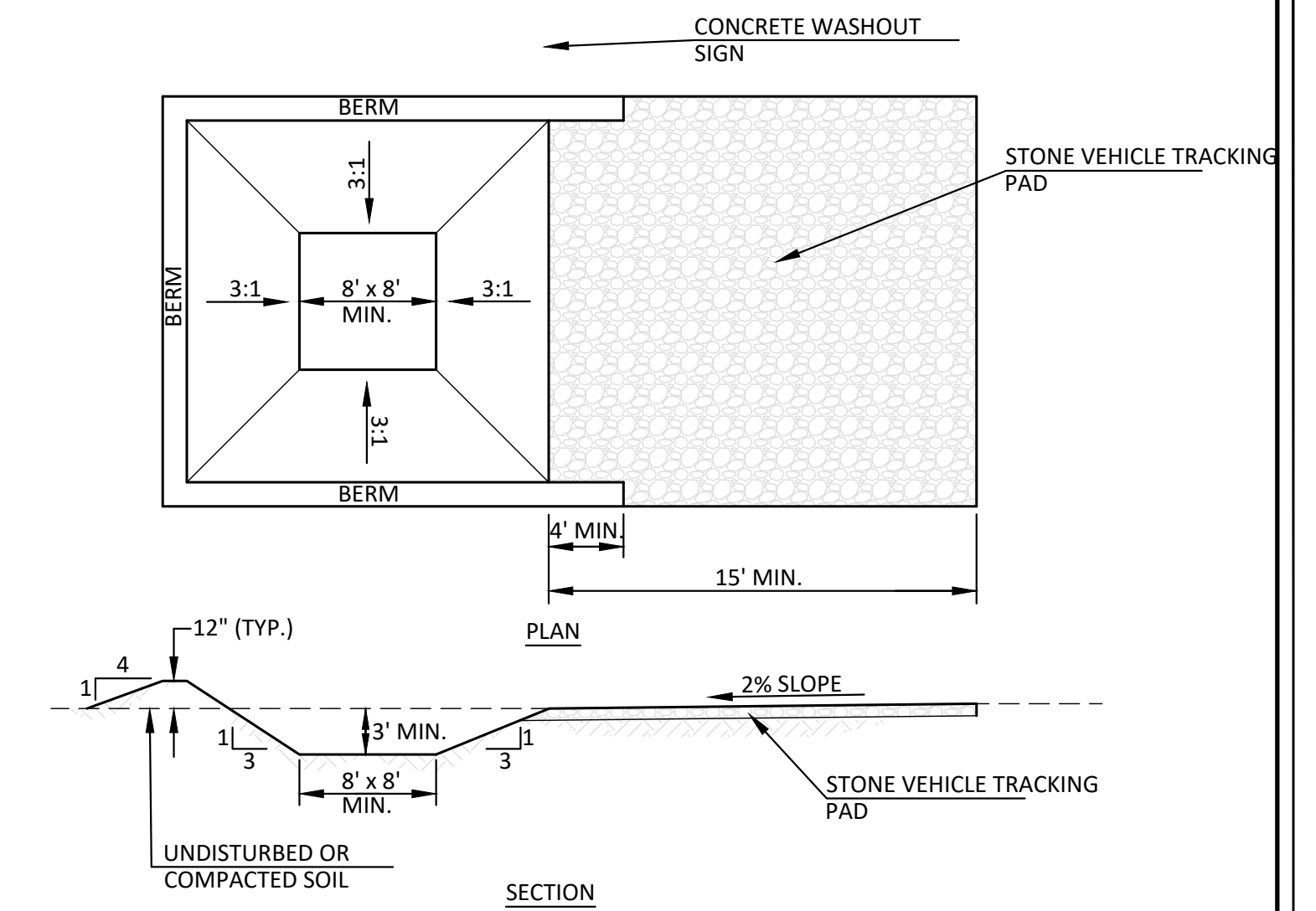
### EROSION CONTROL BLANKET DETAIL (N.T.S.)



#### CONSTRUCTION SPECIFICATIONS

- APPLY TO SLOPES GREATER THAN 3:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
- APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
- STAPLES ARE TO BE PLACED ALTERNATELY, IN COLLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
- DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
- ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

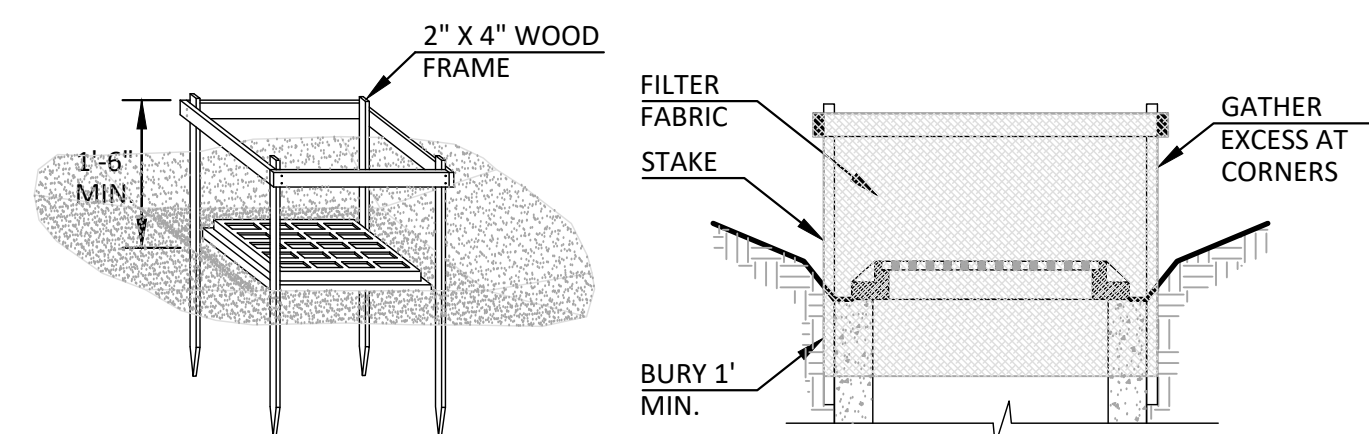
### CONCRETE WASHOUT AREA DETAIL (N.T.S.)



#### NOTES:

- SEE SHEET 4/17 FOR INSTALLATION LOCATION.
- THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

### FILTER FABRIC DROP INLET PROTECTION DETAIL (N.T.S.)

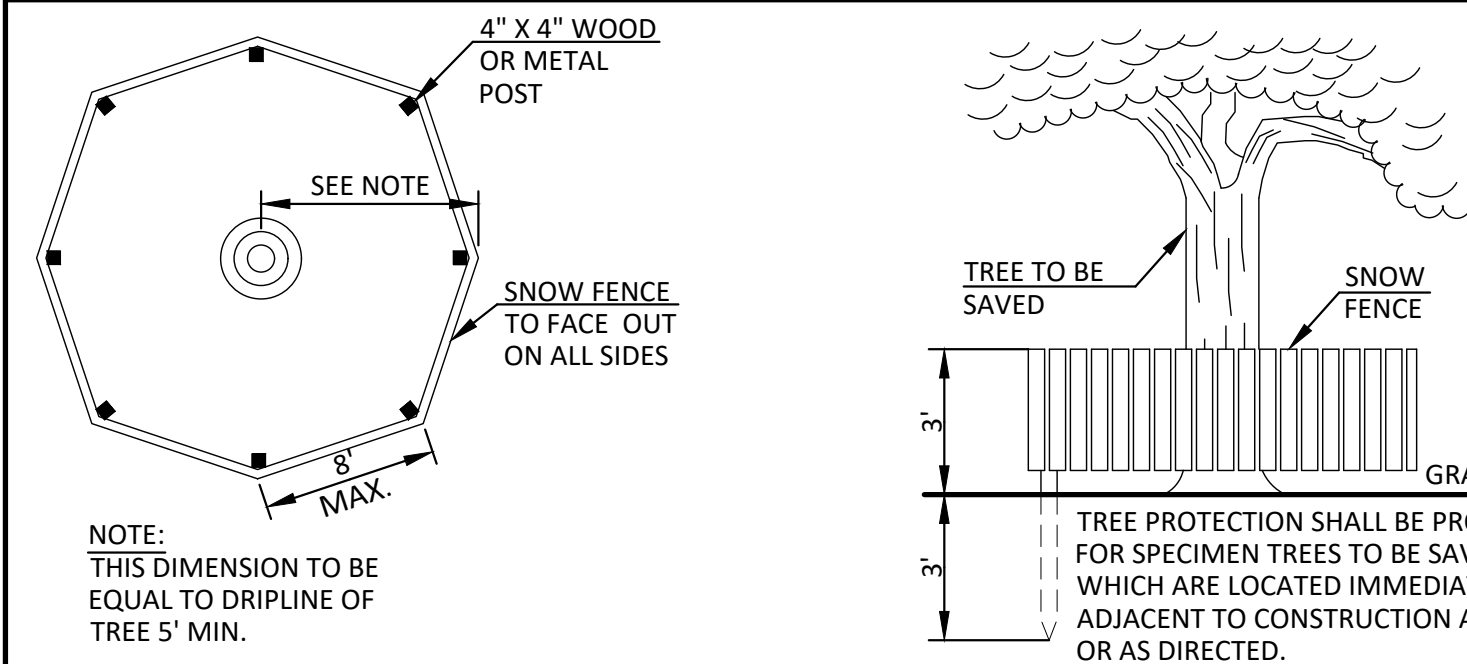


#### CONSTRUCTION SPECIFICATIONS

- FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2" X 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- A 2" X 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

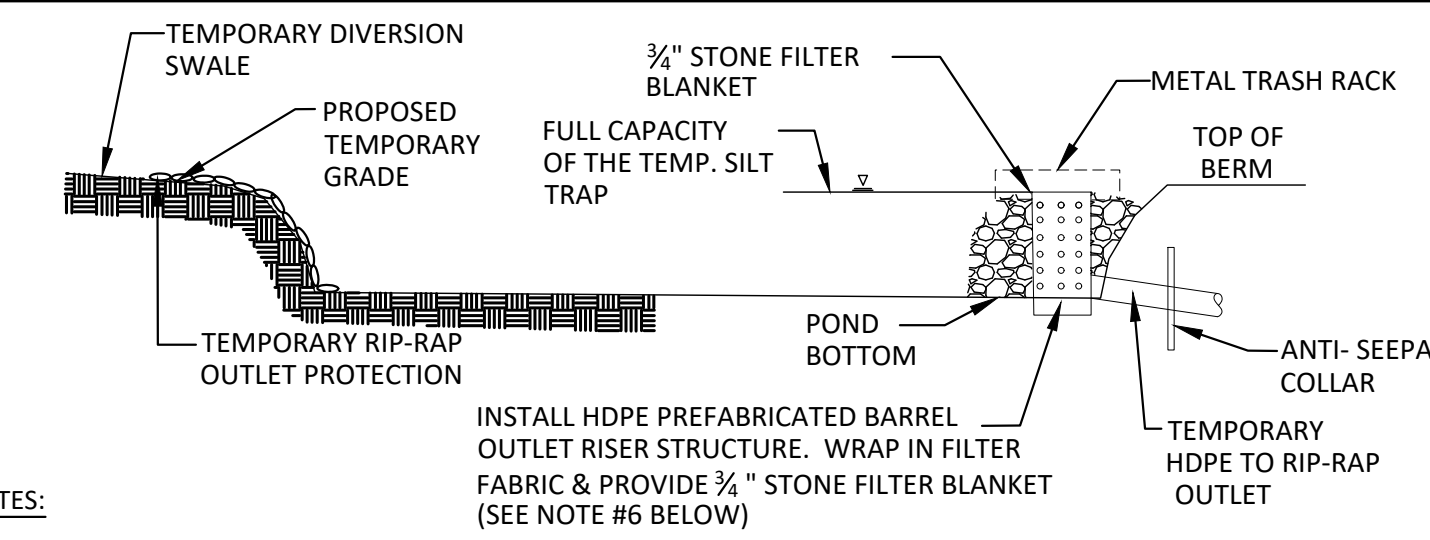
MAXIMUM DRAINAGE AREA = 1 ACRE

### TREE PROTECTION DETAIL (N.T.S.)



NOTE: THIS DIMENSION TO BE EQUAL TO DRIPLINE OF TREE 5' MIN.

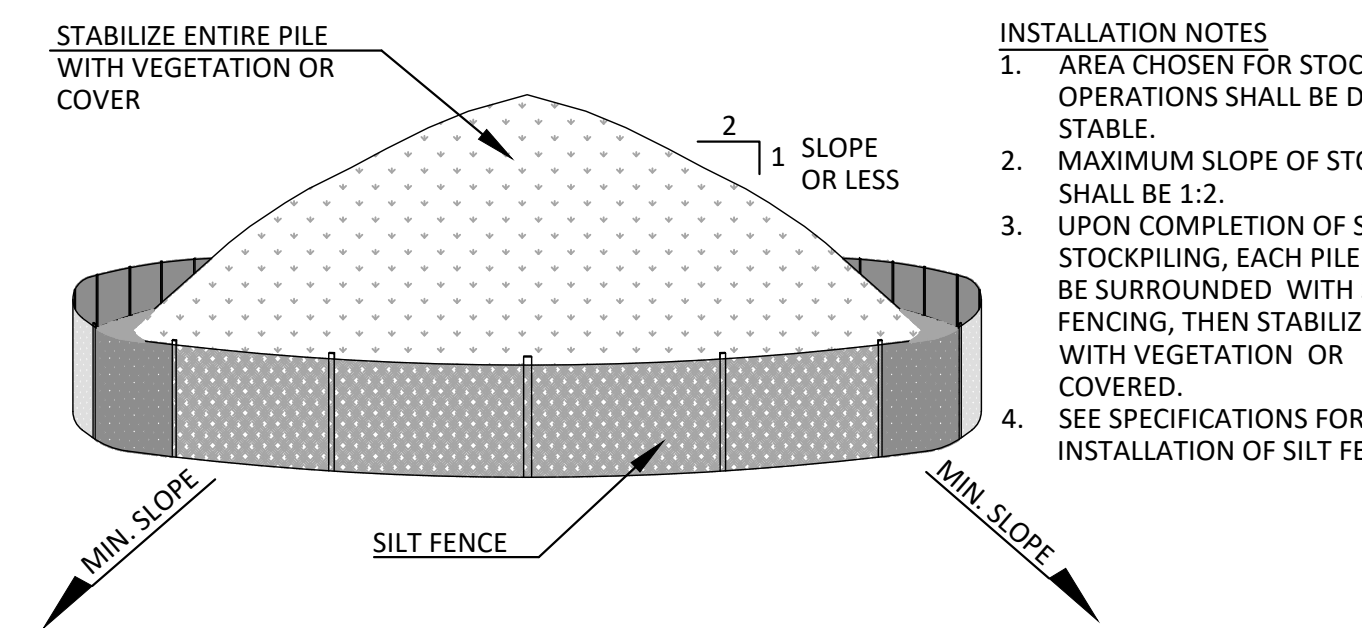
### TEMPORARY SEDIMENT TRAP DETAIL (N.T.S.)



#### NOTES:

- TEMPORARY SEDIMENT TRAP WILL BE INSPECTED AFTER EACH STORM OF 1/2" RAINFALL OR GREATER AND RISER WILL BE CLEARED OF ANY DEBRIS OR EXCESSIVE SILT.
- TEMPORARY SEDIMENT TRAP SHALL BE CLEARED OUT WHEN 1/2 OF CAPACITY HAS BEEN ACCUMULATED WITH SEDIMENT. ONCE SEDIMENT HAS REACHED THIS MARK, CONTRACTOR WILL IMMEDIATELY CLEAN OUT SEDIMENT TO ORIGINAL SEDIMENT TRAP GRADE.
- BERM TO BE MECHANICALLY COMPACTED EACH FILL, 8" LIFTS TO (95% PROCTOR DENSITY). BERM FILL SHALL BE FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES AND RELATIVELY PERVIOUS MATERIALS SUCH AS SAND OR GRAVEL.
- TEMPORARY SEDIMENT TRAP WILL BE STABILIZED WITH JUTE MESH DURING THE NON GROWING SEASON. DURING THE GROWING SEASON HYDROMULCH AND/ OR SEED AND STRAW MULCH.
- THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
- THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT BYPASS. PROVIDE 3/4" STONE FILTER BLANKET AROUND FILTER CLOTH.
- STAPLES OR CONNECTION BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
- FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
- THE RISER PIPE SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION AND/OR WATER FROM LEAVING THE BASIN BENEATH THE RISER. FOR CONCRETE BASED THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL OR TAMPED EARTH ON THE PLATE.
- ALL PIPE CONNECTIONS SHALL BE WATERTIGHT, (SEE NOTE #9).
- ALL SLOPES SHALL BE 2:1 OR FLATTER.
- THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DISTURBED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.

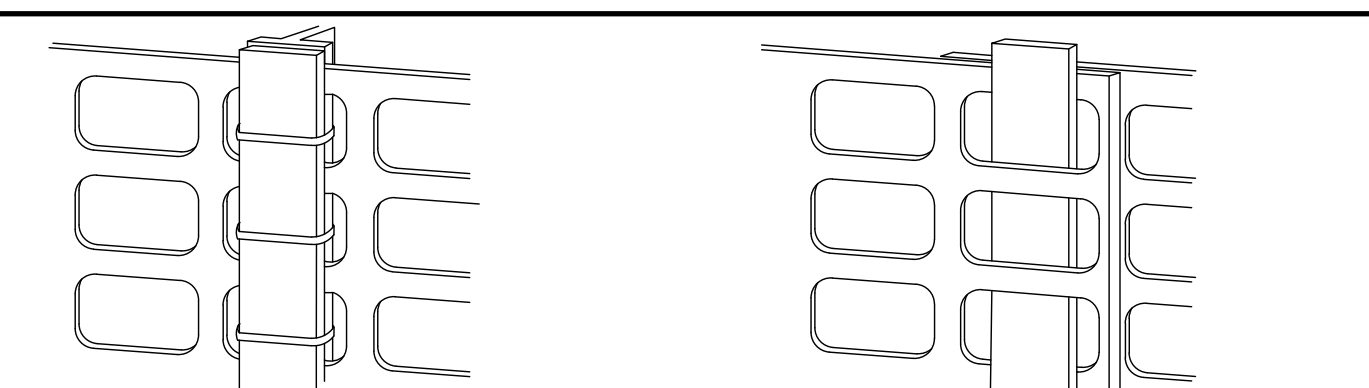
### TEMPORARY SOIL STOCKPILE DETAIL (N.T.S.)



#### INSTALLATION NOTES

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

### CONSTRUCTION FENCE DETAIL (N.T.S.)



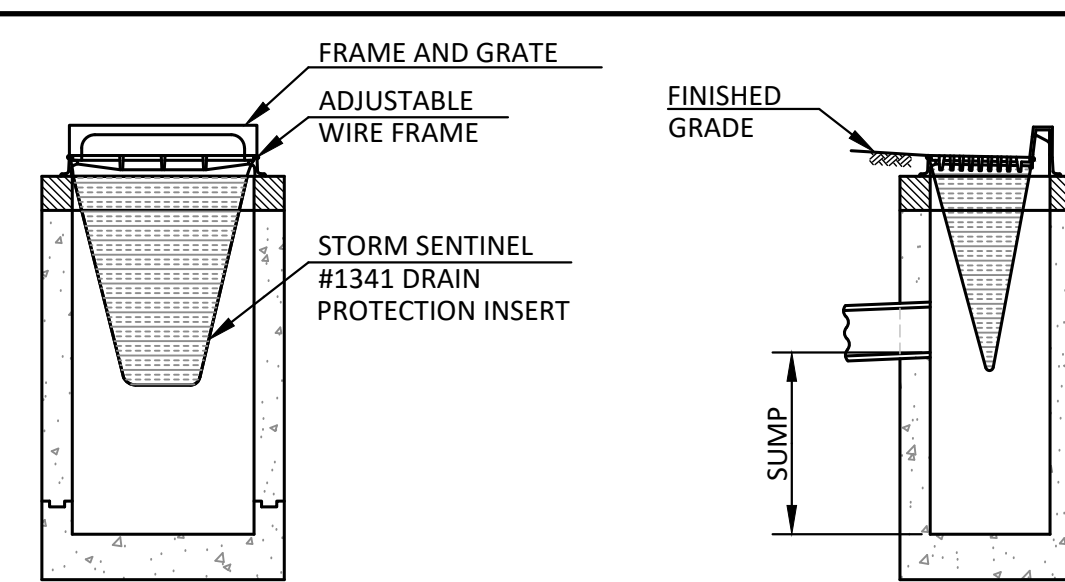
#### INSTALLATION INSTRUCTIONS

- T-POST SHOULD BE PLACED A MAXIMUM OF 10 FEET APART
- VERTICAL STRAND OF FENCE SHOULD BE SANDWICHED BETWEEN FLAT SIDE OF T-POST AND 1"x2" WOOD SLAT
- WIRE TIES OR PLASTIC CABLE TIES CAN THEN BE USED TO SECURE THE SLAT AND FENCE STRAND TO THE T-POST.

#### SPlicing INSTRUCTIONS

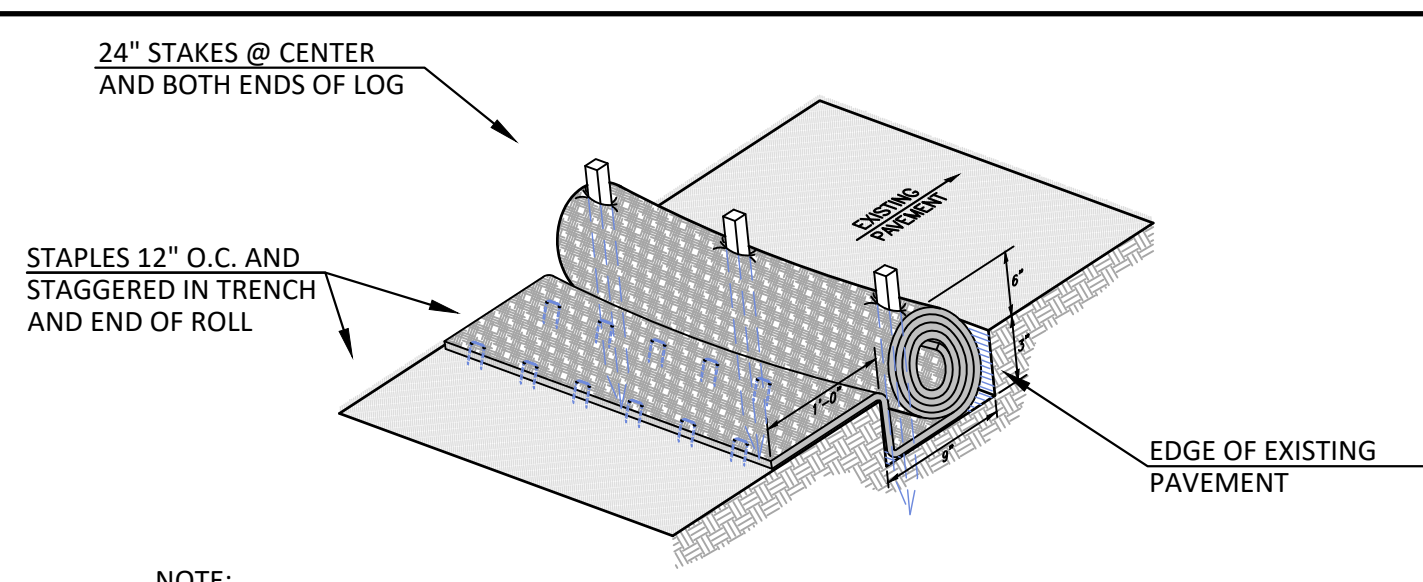
- TO CONNECT FENCE SECTIONS, OVERLAP 2 STRAND SECTION FROM EACH END AND WEAVE A 1"x2" SLAT THROUGH THE OVERLAPPED STRANDS
- FENCE SHOULD BE TENSIONED BY HAND ONLY. DO NOT USE MECHANICAL TENSIONERS.

### CATCH BASIN FILTERS - INLET PROTECTION DETAIL (N.T.S.)



NOTE: INSERTS TO BE MODEL # 1341 ADJUSTABLE CATCH BASIN INSERTS BY ENPAC OR APPROVED EQUAL.

### SEDIMENTSTOP™ FILTRATION LOG DETAIL (N.T.S.)



NOTE: INSTALL SEDIMENT STOP PER MANUFACTURER'S RECOMMENDATIONS. SEDIMENTSTOP MANUFACTURED BY NORTH AMERICAN GREEN (www.nagreen.com).

## EROSION & SEDIMENT CONTROL DETAILS

### KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK

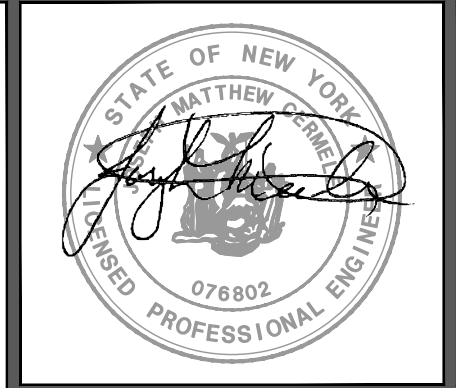


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NC PARKING  
DATE:  
NOVEMBER 13, 2023

REVISIONS

SYMBOLS AND ABBREVIATIONS					
SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION
	-	CONDUIT AND WIRING		NTS	NOT TO SCALE
	-	CONDUIT & WIRING TO BE REMOVED UON		OH	OVERHEAD
	-	BURIED CONDUIT		P	POLE
	-	OVERHEAD CONDUCTORS		PBO	PROVIDED BY OTHERS
	-	HOMERUN TO PANEL, ARROWS INDICATE # 1P		PNL	PANEL
	-	MULTI-POLE HOMERUN		PT	PRESSURE TREATED
	-	ELECTRICAL EQUIPMENT AS INDICATED		PVC	POLY VINYL CHLORIDE
	-	ELECTRICAL EQUIPMENT TO BE REMOVED UON		REL.	REMOVE AND RELOCATE
	-	ELECTRIC METER		RGS	RIGID GALVANIZED STEEL
	-	JUNCTION BOX		SCH	SCHEDULE
	-	FUSED DISCONNECT SWITCH		SPD	SURGE PROTECTION DEVICE
	-	UNFUSED DISCONNECT SWITCH		SW	SWITCH(ES)
	-	COMBINATION MOTOR STARTER/FUSED DISC.		TELCO	TELEPHONE COMPANY
	-	MOTOR STARTER		TYP	TYPICAL
	-	MOTOR		UG	UNDERGROUND
	-	SINGLE POLE SWITCH (x - INDICATES FIXTURE BEING CONTROLLED)		UON	UNLESS OTHERWISE NOTED
	-	THREE WAY SWITCH (x - INDICATES FIXTURE BEING CONTROLLED)		VIF	VERIFY IN FIELD
	-	MOTOR RATED TOGGLE SWITCH		V	VOLT(S)
	-	DUPLEX RECEPTACLE		WP	WEATHERPROOF
	-	DOUBLE DUPLEX RECEPTACLE			
	-	SPECIAL RECEPTACLE			
	CB	CIRCUIT BREAKER			
	-	ENCLOSED CIRCUIT BREAKER			
	-	FUSED SWITCH			
	GND	GROUND AS PER LOCAL CODE			
	-	GROUND BAR			
	-	GROUND ROD			
	-	UTILITY POLE			
	A	AMPERE(S)			
	AFF	ABOVE FINISHED FLOOR			
	AF	AMPERAGE OF FUSE			
	AGL	ABOVE GRADE LEVEL			
	AL	ALUMINIUM			
	AS	AMPERAGE OF SWITCH			
	AWG	AMERICAN WIRE GAUGE			
	BCW	BARE COPPER WIRE			
	C	CONDUIT			
	CKT	CIRCUIT			
	CU	COPPER			
	DEM.	DEMOLISH AND REMOVE			
	DISC	DISCONNECT			
	DWG	DRAWING			
	EMT	ELECTRICAL METALLIC TUBING			
	EM	EMERGENCY			
	EX.	EXISTING TO REMAIN			
	F	FLOOR			
	FBO	FURNISHED BY OTHERS			
	GFI	GROUND FAULT INTERRUPTER			
	HP	HORSEPOWER			
	IMC	INTERMEDIATE METAL CONDUIT			
	KVA	KILO-VOLT-AMPERE			
	KW	KILO-WATT			
	MAX	MAXIMUM			
	MCB	MAIN CIRCUIT BREAKER			
	MIN	MINIMUM			
	MLO	MAIN LUG ONLY			
	NIC	NOT IN CONTRACT			

**NOTES:**  
 1.) ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE APPLICABLE FOR THIS PROJECT.  
 2.) SEE LIGHTING FIXTURE SCHEDULE FOR LIGHT FIXTURE SYMBOLS.

**DEMOLITION NOTES**

- ALL EQUIPMENT SHALL BE DISCONNECTED AND REMOVED BACK TO POWER SOURCE ORIGINATION UNLESS OTHERWISE NOTED (UON) EXISTING TO REMAIN (EX.).
- CONTRACTOR SHALL VERIFY EXTENT OF DEMOLITION WORK IN THE FIELD PRIOR TO BID AND SHALL INCLUDE ALL LABOR AND MATERIALS IN BASE BID INCLUDING ALL TEMPORARY CONNECTIONS, CONDUIT AND WIRE IN ORDER TO ACCOMMODATE CONSTRUCTION AND PROVIDE CONTINUOUS SERVICE TO DEVICES AND SYSTEMS TO REMAIN, TEMPORARY AND PERMANENTLY. WORK REQUIRING THE SHUT-DOWN OF THE BUILDING POWER SHALL BE PERFORMED DURING OVERTIME AND SHALL BE INCLUDED IN BASE BID.
- CIRCUIT BREAKER, CONDUIT AND CONDUCTOR SIZES INDICATED SHALL BE FIELD VERIFIED PRIOR TO BID.
- ALL EXISTING ELECTRICAL EQUIPMENT NO LONGER IN USE, SUCH AS DISCONNECT SWITCHES, MOTOR CONTROLLERS, MOTOR STARTER PANELS, ETC. SHALL BE REMOVED UON.
- ALL DISCONNECTED & REMOVED EXISTING ELECTRICAL ITEMS THAT ARE NOT BEING REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED.
- THE CONTRACTOR SHALL INCLUDE IN THE BASE BID FOR ALL MATERIAL & LABOR REQUIRED FOR THE EXTENSIONS, REROUTING & RELOCATION OF EXISTING SYSTEM COMPONENTS, EQUIPMENT, WIRING, CONDUITS & CABLING SO AS TO MAINTAIN OPERATION OF ALL SYSTEMS THROUGHOUT THE BUILDING DURING DEMOLITION & CONSTRUCTION PHASES.

**TRENCHING NOTES**

- CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES THAT ARE NOT PART OF N.Y. STATE "CODE 753" PRIOR TO DIGGING.
- ALL EXCAVATING IN THE AREA OF THE EXISTING UNDERGROUND EQUIPMENT, PIPES AND CONDUITS SHALL BE PERFORMED BY HAND.
- ANY AREA/PLANTS OR LANDSCAPING OR PAVEMENTS DISTURBED DURING THE EXCAVATION SHALL BE RESTORED OR REPLACED TO MATCH EXISTING CONDITIONS BY THE CONTRACTOR AT NO COST TO THE OWNER.
- ANY EXISTING BURIED CONDUITS, DRAINAGE, SPRINKLER PIPING, ETC. THAT IS DISTURBED AND/OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL 1-800-962-7962 (NY STATE).

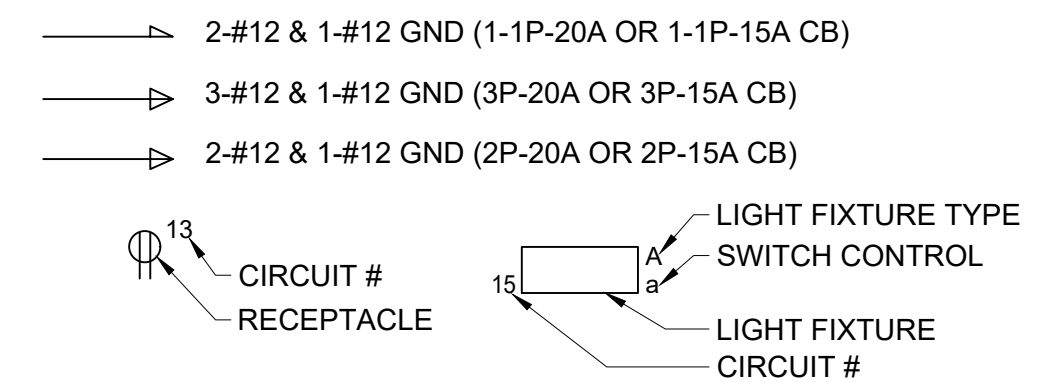
**GENERAL NOTES**

- ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED (UON) EXISTING TO REMAIN (EX.).
- THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATIONS AND DETAILS OF THE WORK TO BE INSTALLED.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL FEES ASSOCIATED WITH THIS WORK INCLUDING FILING WITH THE UTILITY COMPANY (AS REQUIRED), AND WITH LOCAL AUTHORITY HAVING JURISDICTION.
- ALL WORK INVOLVING THE ELECTRIC SERVICE SHALL BE COORDINATED AND APPROVED BY THE UTILITY COMPANY.
- ALL CONDUCTORS SHALL BE COPPER UON "ON DRAWINGS".
- ELECTRONIC FILES OF THE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS ARE AVAILABLE TO THE CONTRACTOR. THE ENGINEER MAY GRANT THE CONTRACTOR A LIMITED LICENSE TO MAKE A DERIVATIVE WORK OF THE DATABASE FOR THE PURPOSE OF SHOP DRAWINGS, SUBMITTALS AND AS-BUILT DRAWINGS. UPON REQUEST, THE ENGINEER SHALL PROVIDE A RELEASE FORM THAT MUST BE SIGNED AND RETURNED BY THE CONTRACTOR PRIOR TO RELEASE OF THE ELECTRONIC FILES.
- CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD.
- WHERE GFI RECEPTACLES ARE CIRCUITED WITH GENERAL CONVENIENCE RECEPTACLES, THE GFI RECEPTACLE SHALL BE THE LAST DEVICE ON THE CIRCUIT.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, PAINTING, AND FINAL RESTORATION REQUIRED TO FACILITATE THE DEMOLITION AND INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO PANELBOARDS, CONDUITS, WIRING, DEVICES, FIXTURES, ETC. INCLUDING ABOVE CEILINGS. CONTRACTOR TO REMOVE AND REPLACE CEILINGS, AND OPEN AND PATCH WALLS, AS REQUIRED TO EXECUTE THE ELECTRICAL WORK.

**DEFINITION OF TERMS**

- WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "CLIENT" IS USED, IT MUST BE UNDERSTOOD THAT "TOWN OF NORTH CASTLE" IS INTENDED.
- WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "SITE ENGINEER" IS USED, IT MUST BE UNDERSTOOD THAT "KELLARD SESSIONS" IS INTENDED.
- WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "ENGINEER" IS USED, IT MUST BE UNDERSTOOD THAT "OLA CONSULTING ENGINEERS" IS INTENDED.
- WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "ELECTRICAL UTILITY" OR "POWER COMPANY" ARE USED, IT MUST BE UNDERSTOOD THAT "CON EDISON" IS INTENDED.
- WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "TELEPHONE UTILITY" OR "TELCO" ARE USED, IT MUST BE UNDERSTOOD THAT "VERIZON" IS INTENDED.
- "WORK" MUST BE DEEMED TO CONSIST OF ALL LABOR AND OPERATIONS, TRANSPORTATION, HOISTING, MATERIALS, TOOLS, EQUIPMENT, SERVICES, INSPECTIONS, INVESTIGATIONS, COORDINATION AND SUPERVISION REQUIRED AND / OR REASONABLY NECESSARY TO PRODUCE THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS.
- "FURNISH" MEANS THE DESIGN, FABRICATION, PURCHASE AND DELIVERY TO THE JOB SITE.
- "INSTALL OR INSTALLATION" MEANS THE ACT OF PHYSICALLY PLACING, APPLYING, SETTING, ERECTING, ANCHORING, SECURING, ETC., CONSTRUCTION MATERIALS, EQUIPMENT, FURNISHINGS, APPLIANCES, AND SIMILAR ITEMS SPECIFIED AND FURNISHED AT THE JOB SITE. INSTALLATION OF SPECIFIED ITEMS MUST BE COMPLETE IN ALL RESPECTS.
- "PROVIDE" MEANS TO FURNISH AND INSTALL CONSTRUCTION MATERIAL, EQUIPMENT, ETC. AS DEFINED ABOVE.
- THE FOLLOWING ARE DEFINITIONS OF SHOP DRAWING STAMP ACTIONS:
  - "NO EXCEPTIONS TAKEN" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY COMMENCE.
  - "MAKE CORRECTIONS NOTED" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS, SUBJECT TO AND IN COMPLIANCE WITH THE ANNOTATIONS AND/OR CORRECTIONS INDICATED ON THE SHOP DRAWING. FABRICATION AND/OR PURCHASE MAY COMMENCE.
  - "AMEND AND RESUBMIT" MEANS THAT THE COMMENTS AND/OR CORRECTION ARE SO EXTENSIVE AND IMPORTANT THAT THE REVIEWER WANTS TO SEE HOW THE COMMENTS AND/OR CORRECTIONS ARE RESOLVED PRIOR TO RELEASE FOR FABRICATION AND/OR PURCHASE. FABRICATIONS AND/OR PURCHASE MAY NOT COMMENCE.
  - "REJECTED" MEANS THAT THE SHOP DRAWING DOES NOT COMPLY OR CONFORM TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY NOT COMMENCE.

**TYPICAL BRANCH CIRCUIT WIRING LEGEND**



- NOTES:**
- EACH 120V AND 277V CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. SHARED NEUTRAL HOMERUNS ARE NOT PERMITTED.
  - CONDUCTORS SHALL BE INCREASED FOR VOLTAGE DROP AND DERATING AS PER APPLICABLE ELECTRICAL CODE. FOR CIRCUITS THAT ARE BETWEEN 100' AND 150' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #10 AWG. FOR CIRCUITS THAT ARE BETWEEN 150' AND 225' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #8 AWG. FOR LENGTHS GREATER THAN 225' IN LENGTH, VERIFY CONDUCTOR SIZES WITH ENGINEER.

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PROJECT TITLE  
**TOWN OF NORTH CASTLE**  
 VERIZON-KENT PLACE PARKING LOT  
 KENT PLACE  
 ARMONK, NY 10504

DRAWING TITLE  
**ELECTRICAL SYMBOLS,  
 ABBREVIATIONS AND  
 GENERAL NOTES**

	SCALE AS SHOWN	PROJECT NO. NTON0004.00
	DRAWN BY CT	DRAWING NO. <b>E0.1</b>
	CHECKED BY ML / DS	
	DATE 03-31-2023	



**SPECIFICATIONS CONTINUED**

- SUPPORT EACH FIXTURE SECURELY. RECESSED FLUORESCENT FIXTURES SHALL BE SECURED AT A MINIMUM OF TWO POINTS TO THE BUILDING STRUCTURE TO MEET THE LOCAL BUILDING CODE SEISMIC REQUIREMENTS.
- UPON COMPLETION OF WORK AND AFTER THE BUILDING AREA IS BROOM CLEAN, ALL FIXTURES SHALL BE MADE CLEAN. USE DESTAINTIZING CLOTH ON ALL PLASTIC AND GLASS MATERIAL.
- RELAMPING ACCESS SHALL REQUIRE NO SPECIAL TOOLS.
- ALL FLUORESCENT FIXTURES SHALL BE EQUIPPED WITH ELECTRONIC BALLASTS.
- ALL FLUORESCENT LAMPS SHALL BE WARM WHITE 3000K, 82 CRI UNLESS OTHERWISE INDICATED. FURNISH NEW LAMPS FOR ALL NEW FIXTURES.

**I. NEW CIRCUIT BREAKER PANELBOARDS:**

- FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS INDICATED ON THE DRAWINGS. PANELBOARDS SHALL BE DEAD FRONT SAFETY TYPE EQUIPPED WITH THERMAL-MAGNETIC, BOLTED TYPE, MOLDED CASE CIRCUIT BREAKERS OF FRAME AND TRIP RATINGS AS SHOWN ON THE DRAWINGS. PANELBOARD BUS STRUCTURE AND MAIN LUGS OR MAIN BREAKER SHALL HAVE CURRENT RATINGS AS DRAWINGS. ALL BUSBARS SHALL BE COPPER. ALL PANELBOARDS SHALL BE SEISMIC RATED ACCORDING TO THE LOCAL BUILDING CODE REQUIREMENTS.
- CIRCUIT BREAKERS SHALL BE EQUIPPED WITH INDIVIDUALLY INSULATED, BRACED AND PROTECTED CONNECTORS. THE FRONT FACES OF ALL CIRCUIT BREAKERS SHALL BE FLUSH WITH EACH OTHER. LARGE PERMANENT INDIVIDUAL CIRCUIT NUMBERS SHALL BE AFFIXED TO EACH BREAKER IN A UNIFORM POSITION. TRIPPED INDICATION SHALL BE CLEARLY SHOWN BY THE BREAKER HANDLE TAKING A POSITION BETWEEN ON AND OFF. PROVISIONS FOR ADDITIONAL BREAKERS SHALL BE SUCH THAT NO ADDITIONAL CONNECTORS WILL BE REQUIRED TO ADD BREAKERS.
- EACH PANELBOARD, AS A COMPLETE UNIT, SHALL HAVE A RATING EQUAL TO OR GREATER THAN THE INTEGRATED EQUIPMENT RATING SHOWN ON THE DRAWINGS. PANELBOARD ASSEMBLY SHALL BE ENCLOSED IN A STEEL CABINET. THE RIGIDITY AND GAUGE OF STEEL TO BE AS SPECIFIED IN UL STANDARD 50 FOR CABINETS. THE SIZE OF WIRING GUTTERS SHALL BE IN ACCORDANCE WITH UL STANDARD 67 FOR PANELBOARDS. FRONTS SHALL INCLUDE DOORS AND HAVE FLUSH, BRUSHED STAINLESS STEEL, CYLINDER TUMBLER-TYPE LOCKS WITH CATCHES AND SPRING-LOADED DOOR PULLS. THE FLUSH LOCK SHALL NOT PROTRUDE BEYOND THE FRONT OF THE DOOR. ALL PANELBOARD LOCKS SHALL BE KEYPED ALIKE. FRONT SHALL HAVE ADJUSTABLE INDICATING TRIM CLAMPS WHICH SHALL BE COMPLETELY CONCEALED WHEN THE DOORS ARE CLOSED. DOORS SHALL BE MOUNTED BY COMPLETELY CONCEALED STEEL HINGES. FRONTS SHALL NOT BE REMOVABLE WITH DOOR IN THE LOCKED POSITION. A CIRCUIT DIRECTORY FRAME AND CARD WITH A CLEAR PLASTIC COVERING SHALL BE PROVIDED ON THE INSIDE OF THE DOOR. THE DIRECTORY CARD SHALL PROVIDE A SPACE AT LEAST 1/4" HIGH AND 3" LONG OR EQUIVALENT FOR EACH CIRCUIT. THE DIRECTORY SHALL BE TYPED TO IDENTIFY THE LOAD FED BY EACH CIRCUIT. FRONTS SHALL BE OF CODE GAUGE, FULL FINISHED STEEL WITH RUST-INHIBITING PRIMER AND BAKED ENAMEL FINISH.
- THE PANELBOARD INTERIOR ASSEMBLY SHALL BE DEAD FRONT WITH PANELBOARD FRONT REMOVED. MAIN LUGS OR MAIN BREAKER SHALL BE BARRIERED ON FIVE SIDES. THE BARRIER IN FRONT OF THE MAIN LUGS SHALL BE HINGED TO A FIXED PART OF THE INTERIOR. THE END OF THE BUS STRUCTURE OPPOSITE THE MAINS SHALL BE BARRIERED.
- 208/120 VOLT PANELBOARDS SHALL BE PROVIDED WITH FACTORY INSTALLED 100% RATED NEUTRAL BUS AND GROUND BUS WHICH SHALL HAVE PROVISIONS FOR EACH CIRCUIT IN THE PANELBOARD. EQUIPMENT GROUND BUS SHALL BE BRAZED TO PANELBOARD ENCLOSURE.
- PANELBOARDS SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BEAR THE UL LABEL.

**J. DISTRIBUTION TRANSFORMERS:**

- (NOT USED).

**K. DISTRIBUTION TRANSFORMERS FOR NON-LINEAR LOADS:**

- (NOT USED).

**L. DISCONNECT SWITCHES:**

- THE CONTRACTOR SHALL FURNISH AND INSTALL FUSIBLE OR NON-FUSIBLE DISCONNECT SWITCHES AS REQUIRED AND/OR SHOWN ON THE DRAWINGS.
- THE DISCONNECT SWITCHES, UNLESS OTHERWISE INDICATED OR SPECIFIED, SHALL BE HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK OPERATED, IN NEMA 1 OR 3R ENCLOSURES, OF A CAPACITY, TYPE AND NUMBER OF POLES AS NOTED ON THE DRAWINGS. THE MAIN LUGS SHALL BE ADEQUATE TO ACCEPT THE SIZES OF CABLE INDICATED ON THE DRAWINGS.
- ALL DISCONNECT SWITCHES SHALL BE FRONT OPERATED AND EACH SHALL CONTAIN A GROUNDING LUG WELDED TO THE INSIDE OF THE SWITCH ENCLOSURE.
- SWITCHES SHALL BE HORSEPOWER RATED FOR LOAD SERVED AND RATED FOR 200KAIC RMS SYMMETRICAL FAULT CURRENT.
- SWITCHES SHALL HAVE PROVISIONS TO BE LOCKED IN THE OPEN POSITION WITH CLIPS TO ACCEPT CLASS J FUSES.
- SWITCHES SHALL MEET NEMA STANDARD KS-1-1990 FOR TYPE HD SWITCHES AND SHALL BE U.L. LISTED.

**M. FUSES:**

- ALL FUSES SHALL BE UL LISTED.
- FUSE SIZE SHALL BE AS INDICATED ON DRAWINGS AND/OR IN ACCORDANCE WITH THE FOREMENTIONED CODE.
- FUSES SHALL BE BUSSMAN, LOWPEAK, DUAL ELEMENT, CURRENT LIMITING, TIME DELAY, CLASS J UNLESS OTHERWISE NOTED.
- FURNISH THREE SPARE FUSES (SAME AS SPECIFIED) OF EACH SIZE AND TURNOR TO BUILDING ENGINEER.

**N. PULLBOXES AND TROUGHS:**

- PULLBOXES AND TROUGHS WITH COVERS SHALL BE FABRICATED FROM MINIMUM #12 USSG GALVANIZED SHEET STEEL WITH ALL SEAMS AND JOINTS WELDED AND GROUND SMOOTH. COVERS SHALL BE SECURED TO PULLBOXES WITH NICKEL OR CADMIUM PLATED, OVAL HEAD SCREWS PROVIDED WITH STOP BEAD WASHERS. TROUGHS SHALL HAVE HINGED COVERS AND SHALL BE HELD CLOSED WITH EXTERNAL CLAMPS. DIMENSIONS OF BOXES AND TROUGHS SHALL BE AS REQUIRED BY ARRANGEMENT OF CONDUITS, EQUIPMENT OR APPLICABLE CODE REQUIREMENTS.
- PULLBOXES AND TROUGHS SHALL BE FINISHED INSIDE AND OUTSIDE WITH A SHOP-APPLIED COAT OF ASA #61 LIGHT GRAY ENAMEL.
- THE CONTRACTOR SHALL PROVIDE ALL PULLBOXES REQUIRED TO PULL WIRES IN CONDUIT RUNS WHETHER INDICATED ON THE DRAWINGS OR NOT. BOXES

AND TROUGHS USING CONCENTRIC OR ACENTRIC KNOCKOUTS SHALL BE GROUNDED TO THE INCOMING CONDUITS BY MEANS OF GROUNDING FITTINGS AND BONDING JUMPERS. OZ TYPE BLG INSULATED GROUNDING BUSHINGS, AS SPECIFIED ELSEWHERE, SHALL BE USED. BONDING JUMPERS SHALL BE COPPER SIZED IN ACCORDANCE WITH THE FOREMENTIONED CODE. A GROUND LUG SHALL BE WELDED INSIDE EACH BOX AND TROUGH.

**O. ALTERATIONS AND REMOVAL OF EXISTING EQUIPMENT, CONDUIT & WIRING:**

- THE EXISTING BUILDING ELECTRICAL SYSTEMS SHALL BE MAINTAINED IN OPERATION DURING THE CONSTRUCTION PERIOD. EXISTING SYSTEMS SHALL NOT BE SHUT DOWN NOR SHALL CONNECTIONS BE MADE THERETO WITHOUT PRIOR APPROVAL OF THE OWNER.
- CERTAIN EXISTING CONDUITS AND ASSOCIATED WIRING ARE INDICATED ON THE DRAWINGS ACCORDING TO THE BEST INFORMATION AVAILABLE. CERTAIN OTHER EXISTING CONDUITS AND ASSOCIATED WIRING MAY NOT BE SHOWN. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO DETERMINE THE LOCATION OF EXISTING CONDUIT AND WIRING AS REQUIRED FOR NEW CONSTRUCTION OR IF DAMAGED DURING CUTTING OPERATIONS, REPLACE/REPAIR AT NO EXPENSE TO THE OWNER.
- WHERE EQUIPMENT IS REMOVED OR WHERE WALLS AND CEILINGS ARE DEMOLISHED, WIRING DEVICES, CONDUIT, WIRING AND INSTALLATION MATERIAL (FITTINGS, BOXES, HANGERS, SUPPORTS, ETC.) THAT IS NOT TO BE REUSED SHALL BE REMOVED. ALL CONDUITS REMOVED SHALL BE CUT FLUSH WITH CONSTRUCTION AND OPENINGS PATCHED. ALL WIRING REMOVED SHALL BE DISCONNECTED AS FAR BACK AS THE BRANCH CIRCUIT PANELBOARD TERMINALS UNLESS OTHERWISE NOTED. WHERE WIRING IS TO REMAIN IN EXISTING CONDUITS TO MAINTAIN CONTINUITY OF CIRCUITS AND PASSES THROUGH OUTLET BOXES NOT TO BE REUSED FOR WIRING DEVICES OR LIGHTING FIXTURES, SUCH OUTLETS SHALL BE FURNISHED WITH COVERPLATES. ACTIVE CIRCUITS, IF REQUIRED AND NECESSARY TO REMAIN, SHALL BE REROUTED WITH NEW MATERIALS.
- ALL EQUIPMENT WHICH IS BEING REMOVED AND NOT BEING REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED.
- CONTRACTOR SHALL MEASURE STEADY STATE LOAD CURRENTS ON EACH PANELBOARD FEEDER OR EACH PANELBOARD THAT WAS ALTERED. SHOULD THE DIFFERENCE AT ANY PANELBOARD BETWEEN PHASES EXCEED 20 PERCENT, REARRANGE CIRCUITS IN PANELBOARD TO BALANCE THE PHASE LOAD WITHIN 20 PERCENT. TAKE CARE TO MAINTAIN PROPER PHASING FOR MULTI-WIRE BRANCH CIRCUITS. UPDATE DIRECTORIES ACCORDINGLY.

**E-8 FIRE ALARM SYSTEM MODIFICATIONS**

**A. (NOT USED).**

**E-9 PAINTING**

- PULL BOXES AND WIREWAYS SHALL BE SHOP PAINTED INSIDE AND OUTSIDE WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL UNDERCOATER IN A LIGHT GRAY COLOR AS APPROVED BY THE CLIENT'S REPRESENTATIVE.

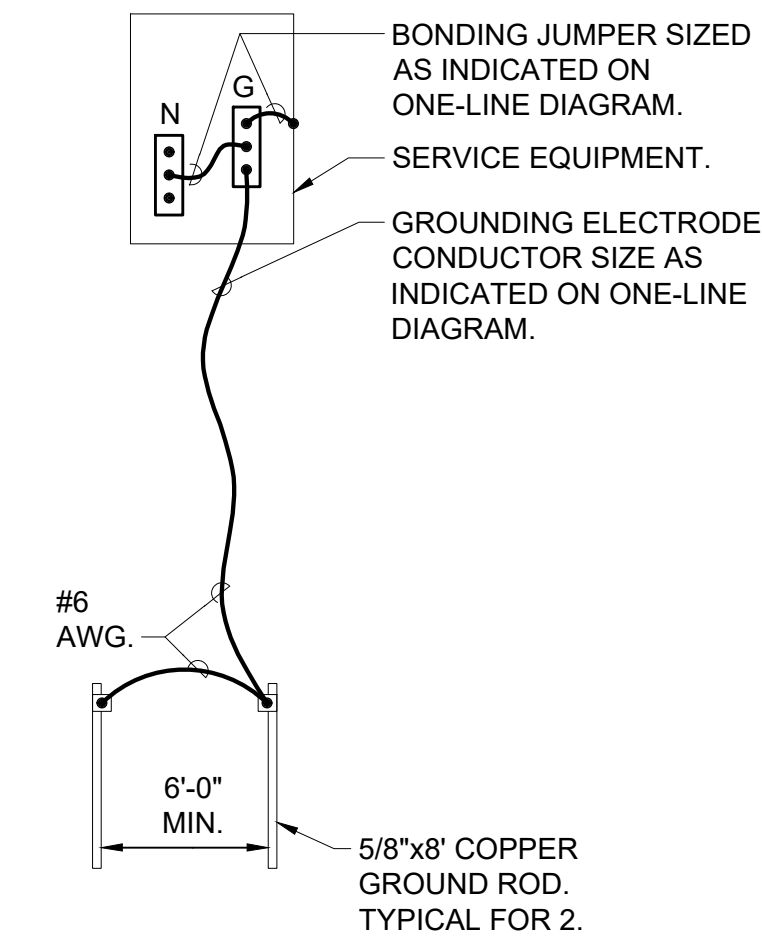
**E-10 IDENTIFICATION**

- THE CONTRACTOR SHALL PROVIDE UPDATED TYPE WRITTEN PANELBOARD DIRECTORIES IN ALL NEW PANELBOARDS AND ANY EXISTING PANELBOARD THAT HAS BEEN ALTERED. CONTRACTOR SHALL TRACE CIRCUITS TO REMAIN AS REQUIRED.
- ALL ELECTRICAL EQUIPMENT, SUCH AS PANELS, AND ALL OTHER SIMILAR ITEMS WHICH ARE FURNISHED UNDER THIS HEADING OF THE SPECIFICATIONS SHALL BE ADEQUATELY IDENTIFIED WITH ENGRAVED LAMINATED PLASTIC NAMEPLATE HAVING BLACK BACKGROUNDS AND WHITE LETTERS. WORDING ON THE NAMEPLATES SHALL CLEARLY INDICATE THE NAMES AND FUNCTIONS OF THE EQUIPMENT. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, FIVE COPIES OF A LIST OF ALL EQUIPMENT TO BE IDENTIFIED TOGETHER WITH THE WORDING TO BE USED ON THE NAMEPLATES BEFORE ORDERING.
- A MAINTENANCE LABEL SHALL BE AFFIXED TO ALL EQUIPMENT REQUIRING PREVENTATIVE MAINTENANCE. TWO COPIES OF ALL MAINTENANCE MANUALS SHALL BE PROVIDED TO THE CLIENT.
- ALL FEEDERS SHALL BE TAGGED WITH APPROVED-TYPE STENCILED METAL TAGS IN ALL PANELS AND PULLBOXES THROUGH WHICH THEY ARE ROUTED. THIS TAGGING SHALL INCLUDE FEEDER NUMBER, PANEL SOURCE, CIRCUIT NUMBER, FEEDER SIZE AND EQUIPMENT SUPPLIED.
- EACH DUPLEX AND QUAD RECEPTACLE SHALL BE LABELED WITH THE CIRCUIT NUMBER WHICH IT SERVES.

**E-11 TESTING**

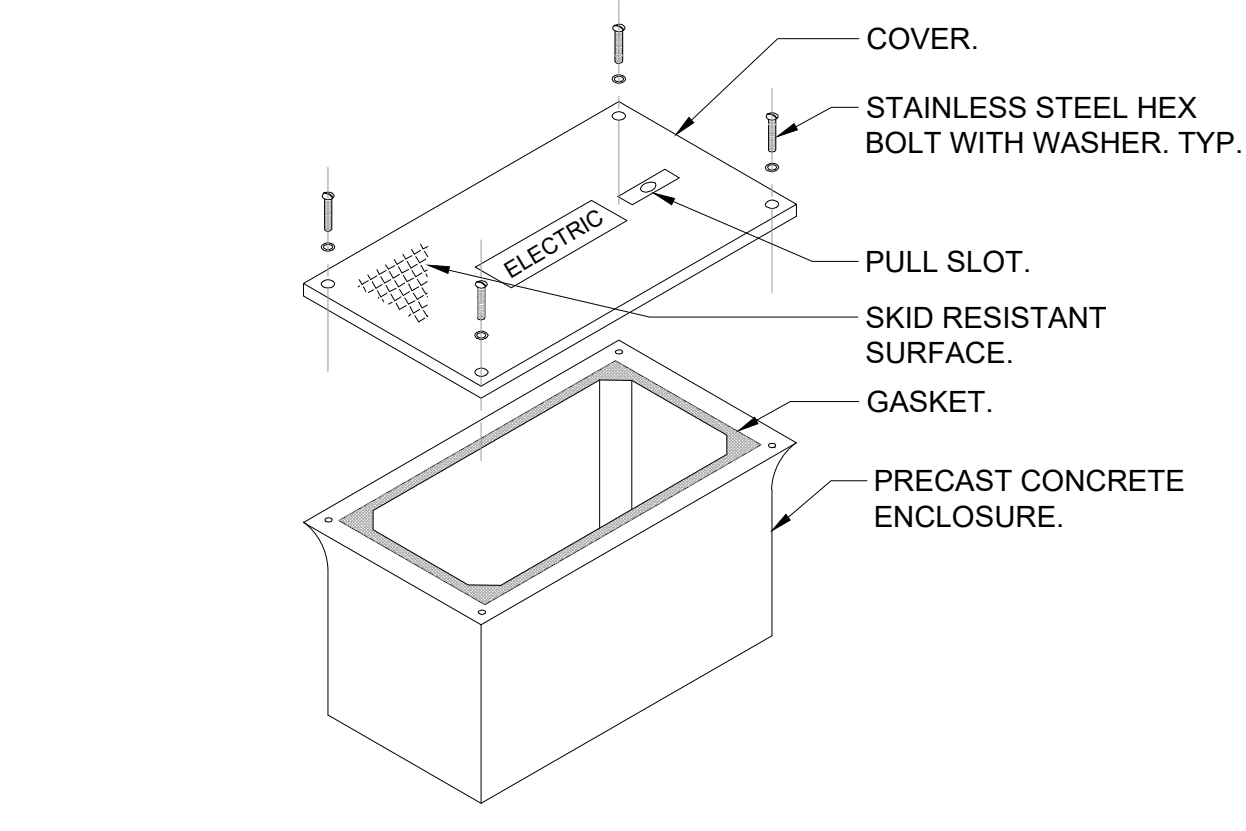
- ALL CIRCUITS SHALL BE TESTED FOR UNWANTED GROUNDS AND PROPER PHASE RELATION.
- THE CONTRACTOR SHALL PROVIDE QUALIFIED PERSONNEL TO CONDUCT AND/OR ASSIST THE CLIENT'S REPRESENTATIVE TO CONDUCT OPERATING TESTS AT THE COMPLETION OF THE WORK. THESE OPERATING TESTS WILL INCLUDE CHECKING THE FOLLOWING ELECTRICAL SYSTEMS:
  - WIRING DEVICES: A CHECK OF RECEPTACLES SHALL BE CHECKED FOR SMOOTHNESS OF OPERATION, CLEANLINESS OF INSTALLATION, CONDUCTOR CONNECTIONS, MANUFACTURER, RATINGS AND GROUNDING CONNECTIONS.
  - LIGHTING FIXTURES: OPERATION CHECK.
  - LIGHTING CONTROL SYSTEMS: TEST AND INSPECT COMPONENTS, ASSEMBLIES, AND EQUIPMENT INSTALLATIONS, INCLUDING CONNECTIONS. PERFORM FULL OPERATIONAL TESTS. ADJUST CONTROLS AS NEEDED.
  - TEST ALL CIRCUITS FOR PROPER FUNCTIONING AND CONNECTION.
  - ELECTRICAL CURRENT READINGS IN ALL PANELBOARDS AFFECTED BY WORK TO VERIFY BALANCING OF LOADS.
  - FOR ALL LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLE, PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ACCEPTANCE TESTING SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PARAMETERS.
  - FOR PANELBOARDS, PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ACCEPTANCE TESTING SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PARAMETERS.
  - FOR ENCLOSED SWITCHES AND CIRCUIT BREAKERS, PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ACCEPTANCE TESTING SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PARAMETERS.

**4 SERVICE GROUNDING DETAIL**  
SCALE: NONE



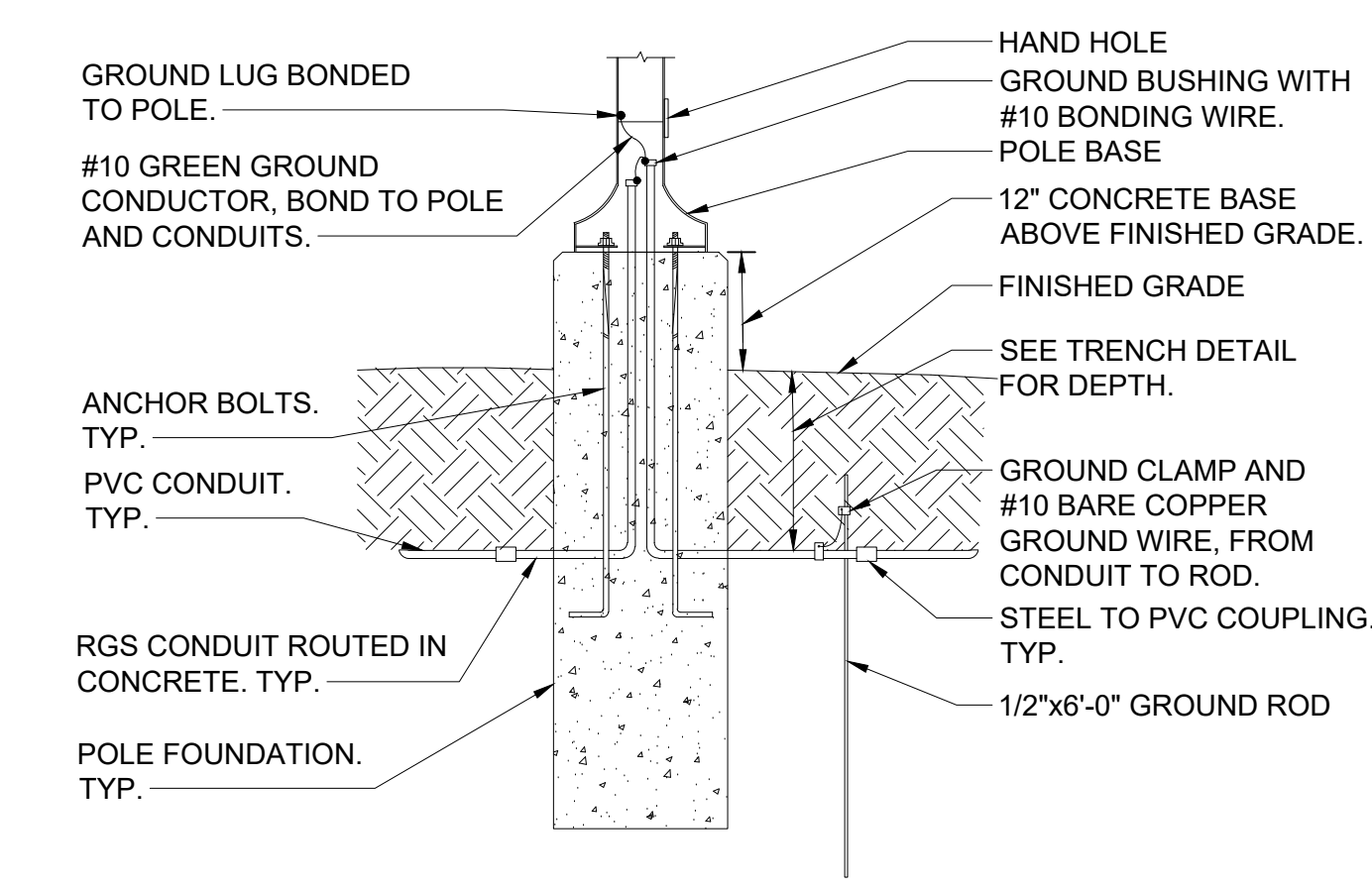
NOTES:  
1. ALL CONNECTIONS TO THE GROUND BAR SHALL BE MADE USING COMPRESSION LUGS SIZED TO ACCOMMODATE THE CONDUCTORS.

**3 HAND HOLE DETAIL**  
SCALE: NONE

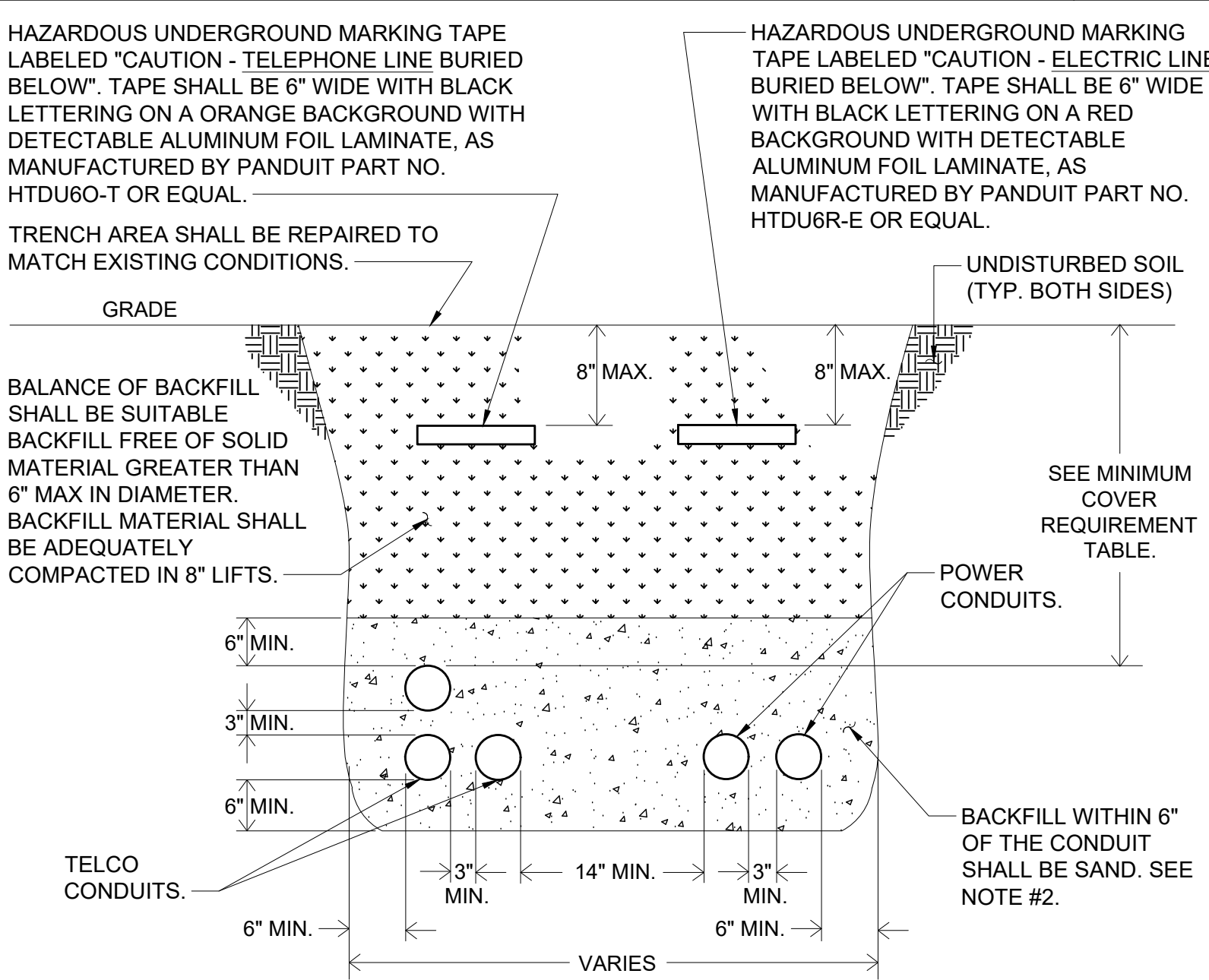


NOTES:  
1.) HAND HOLE SHALL BE 18"L x 11"W x 12"H WITH OPEN BOTTOM AND RATED FOR VEHICULAR TRAFFIC AS MANUFACTURED BY HUBBELL-QUAZITE, MODEL #PG1118BA12 OR EQUAL. BOX SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.  
2.) PROVIDE 6" OF GRAVEL BELOW BOX.  
3.) COVER SHALL BE IMPRINTED WITH THE APPROPRIATE DESCRIPTION OF BOX CONTENTS (I.E. ELECTRIC, TELEPHONE, DATA, CABLE TV, ETC.).

**2 LIGHT POST ELECTRICAL INSTALLATION DETAIL**  
SCALE: NONE



NOTE:  
1. THIS DETAIL PROVIDES ELECTRICAL GROUNDING/ BONDING AND RACEWAY INFORMATION ONLY.



**1 TRENCHING DETAIL FOR CONDUIT**  
SCALE: NONE

**MINIMUM COVER REQUIREMENT TABLE**

LOCATION	NONMETALLIC RACEWAYS LISTED FOR DIRECT BURIAL WITHOUT CONCRETE ENCASUREMENT OR OTHER APPROVED RACEWAYS
ALL LOCATION NOT SPECIFIED BELOW.	18"
IN TRENCH BELOW 2-IN. THICK CONCRETE OR EQUIVALENT.	12"
UNDER MINIMUM OF 4-IN. THICK CONCRETE EXTERIOR SLAB WITH NO VEHICULAR TRAFFIC AND THE SLAB EXTENDING NOT LESS THAN 6 IN. BEYOND THE UNDERGROUND INSTALLATION.	4" SEE NOTE #2.
UNDER STREETS, HIGHWAYS, ROADS, ALLEYS, DRIVEWAYS, AND PARKING LOTS.	24"

NOTES:  
1. DETAIL SHOWN FOR INFORMATION PURPOSES. SAME CONCEPT SHALL ALSO APPLY FOR SINGLE CONDUITS.  
2. SAND MAY BE OMITTED FOR INSTALLATIONS WHERE COVER REQUIREMENTS ARE 6" OR LESS.

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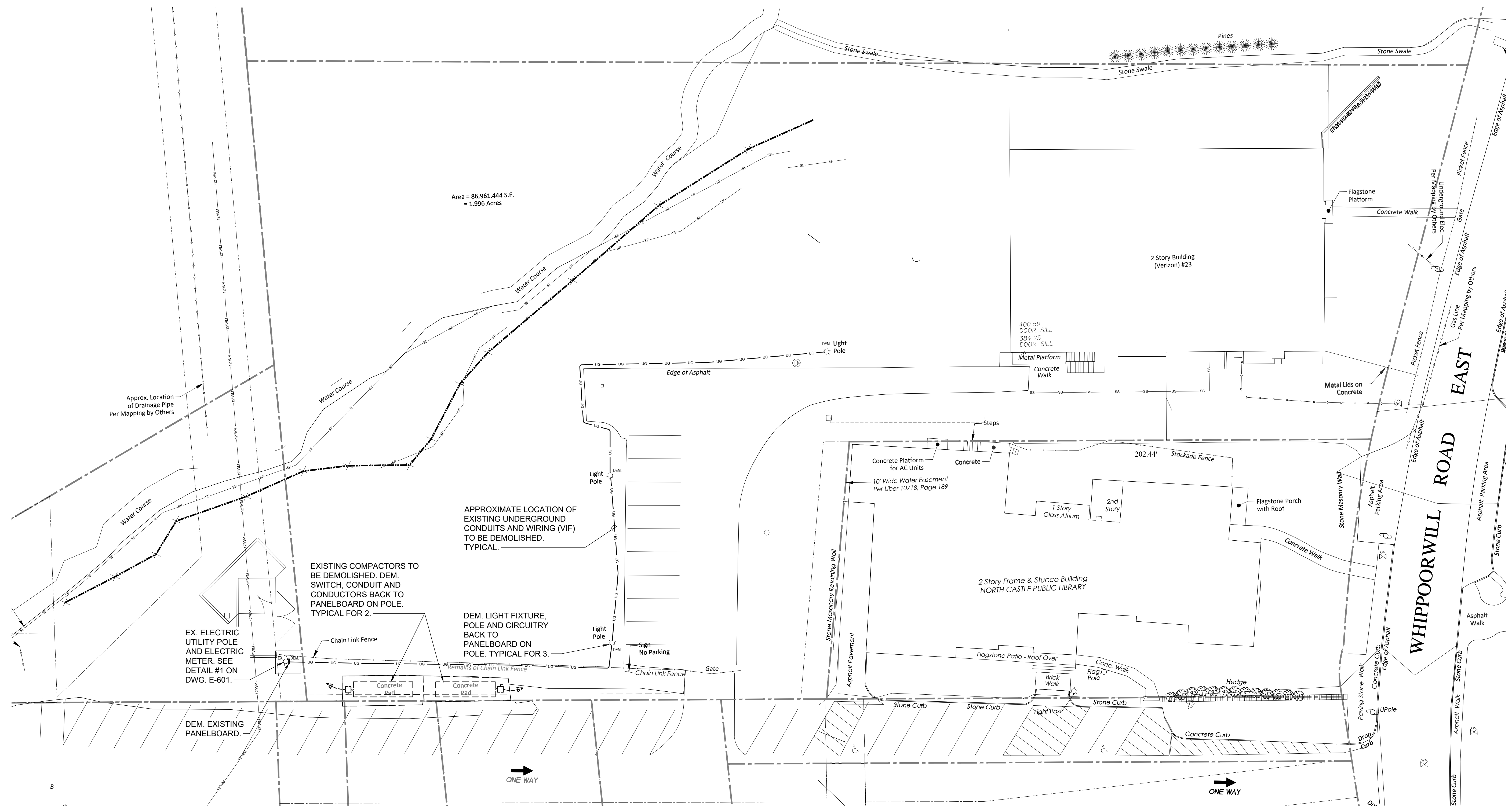
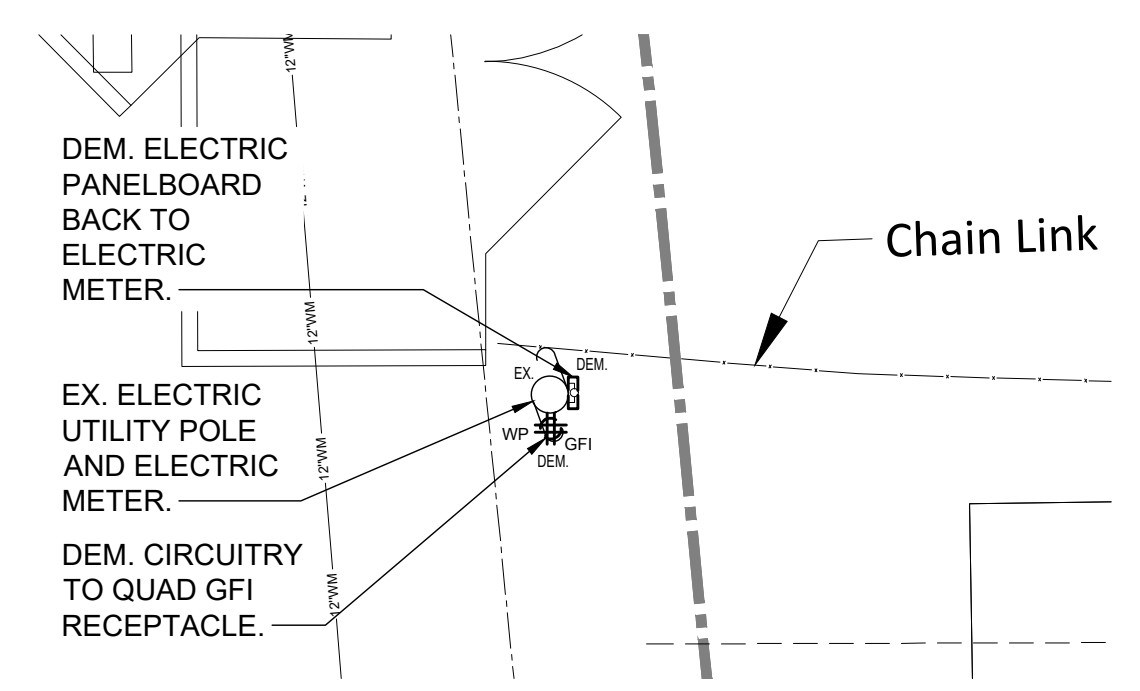
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VERIZON-KENT PLACE PARKING LOT  
KENT PLACE  
ARMONK, NY 10504

DRAWING TITLE  
**ELECTRICAL SPECIFICATIONS AND DETAILS**

	SCALE	PROJECT NO.
	AS SHOWN	NTOM0004.00
	DRAWN BY	DRAWING NO.
	CT	
	CHECKED BY	
ML / DS	<b>E0.3</b>	
DATE		
03-31-2023		

**2 ELECTRICAL UTILITY POLE DEMOLITION PLAN**  
 SCALE: 1 = 10'-0"



**1 ELECTRICAL SITE DEMOLITION PART PLAN**  
 SCALE: 1 = 20'-0"

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 KENT PLACE  
 ARMONK, NY 10504**

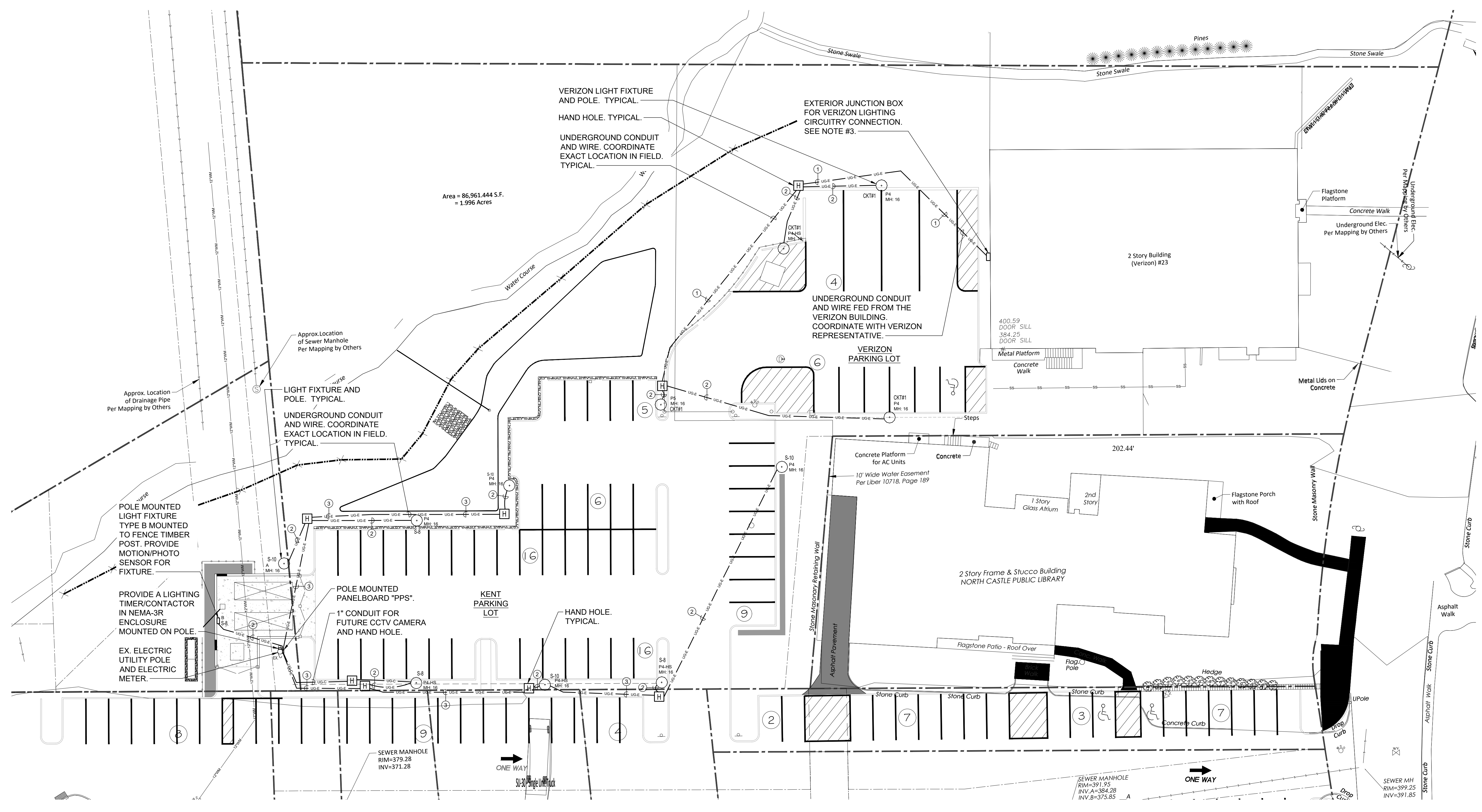
DRAWING TITLE  
**ELECTRICAL SITE  
 DEMOLITION PART PLAN**

	SCALE AS SHOWN	PROJECT NO. NTON0004.00
	DRAWN BY CT	DRAWING NO.
	CHECKED BY ML / DS	<b>E1.0</b>
	DATE 03-31-2023	

**FIELD WIRING/CONDUIT LEGEND**

①	2-#10 & 1-#10 GND IN (2) 1" (1 SPARE).
②	2-#10 & 1-#10 GND IN 1".
③	4-#10 & 1-#10 GND IN (2) 1" (1 SPARE).

- NOTES:**
- PANELBOARD DESIGNATION HAS BEEN SHORTENED FOR CLARITY AS FOLLOWS:  
 PPS = S
  - ALL KENT PLACE PARKING LOT LIGHT POLE FIXTURE CIRCUITS SHALL BE RUN THROUGH THE NEW CONTACTOR AND CONTROLLED BY THE LIGHTING TIME CLOCK.
  - FOR VERIZON LIGHT POLES: CONTRACTOR SHALL SAFE OFF AND COIL WIRING WITHIN THE EXTERIOR JUNCTION BOX. COORDINATE HEIGHT OF JUNCTION BOX WITH VERIAON REPRESENTATIVE. WALL PENETRATIONS, WIRING WITHIN THE VERIZON BUILDING AND LIGHTING CONTROLS FOR THE VERIZON PARKING LOT ARE BY OTHERS.
  - COORDINATE CONDUIT ROUTING WITH TOWN TO AVOID TREE ROOTS WITHIN THE PARKING LOT.
  - SEE LIGHTING FIXTURE SCHEDULE ON DRAWING E6.1.



No.	ISSUE OR REVISION	DATE
3	FOR PLANNING BOARD APPROVAL	09/29/2023
2	REVISED PER TOWN COMMENTS	08/30/2023
1	ISSUED FOR 100% REVIEW	05/08/2023

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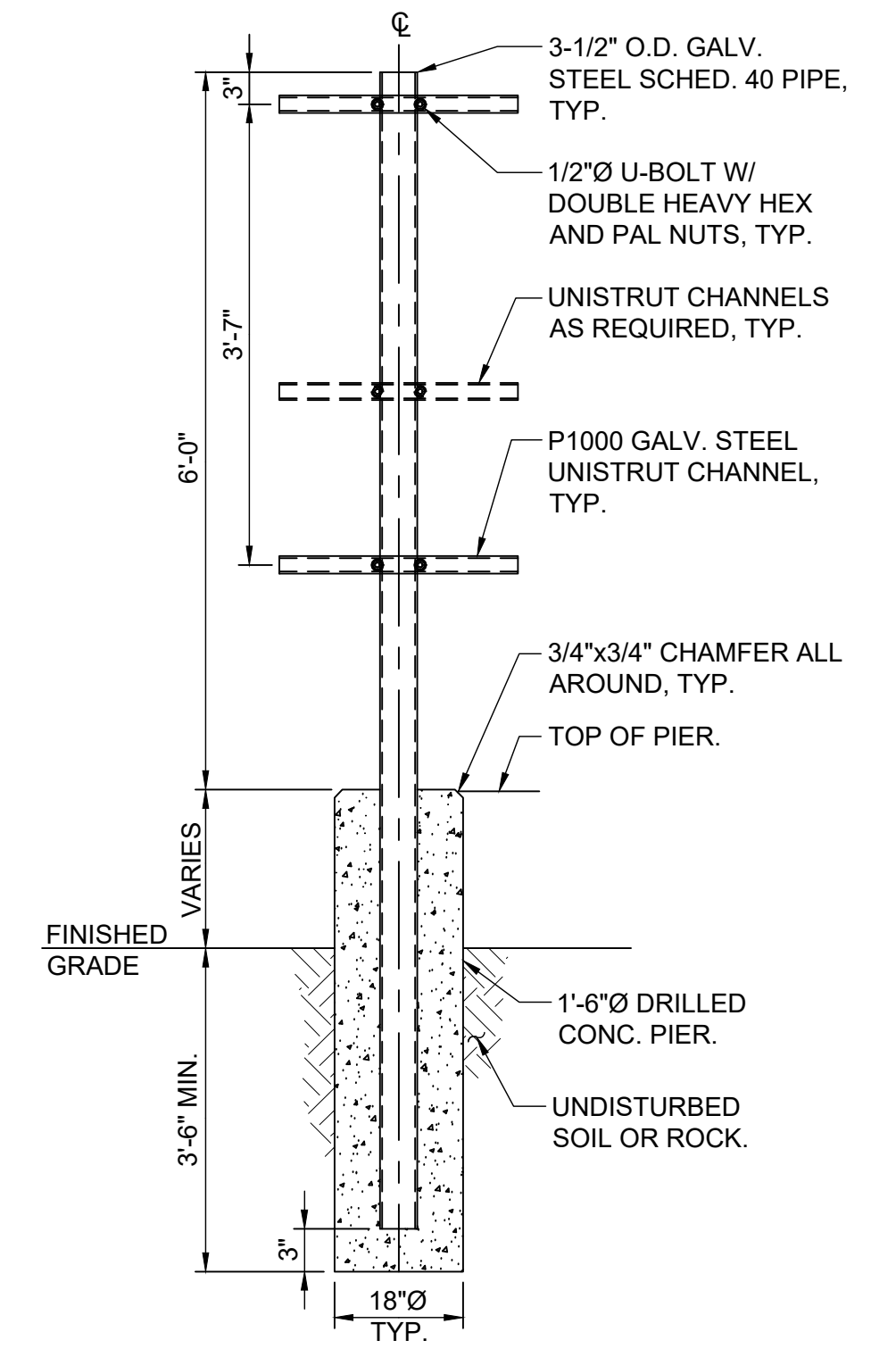
PROJECT TITLE  
**TOWN OF NORTH CASTLE  
 VERIZON-KENT PLACE PARKING LOT  
 KENT PLACE  
 ARMONK, NY 10504**

DRAWING TITLE  
**ELECTRICAL SITE LIGHTING PART PLAN**

**1 ELECTRICAL SITE LIGHTING PART PLAN**  
 SCALE: 1" = 20'-0"  
 NORTH

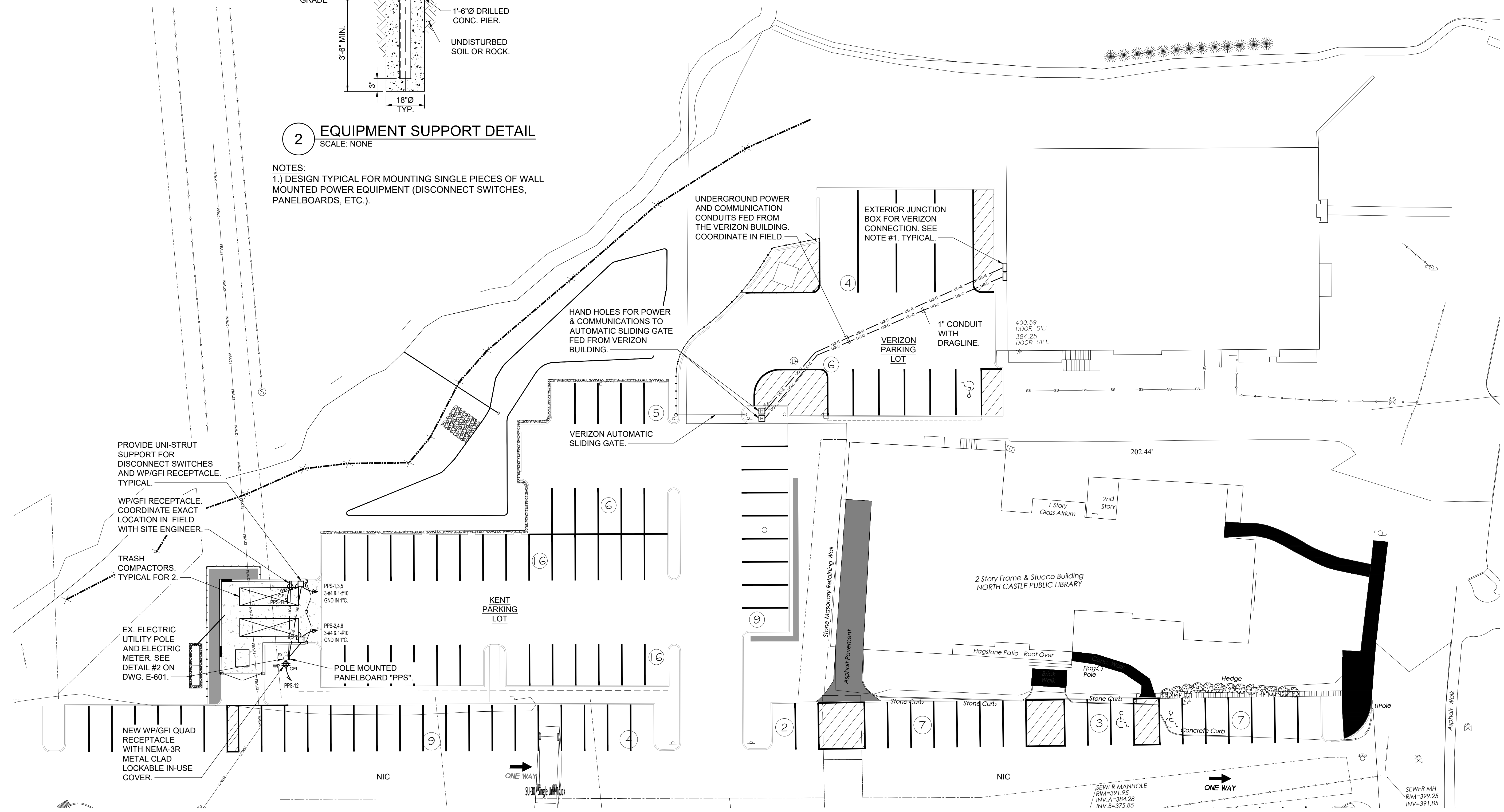
	SCALE AS SHOWN	PROJECT NO. NTON0004.00
	DRAWN BY CT	DRAWING NO.
	CHECKED BY ML / DS	<b>E1.1</b>
	DATE 03-31-2023	

**NOTES:**  
 1. VERIZON MOTORIZED SLIDING GATE IS BASED OFF DOORKING, INC. MODEL 9230 AND RATED AT 208 VOLTS, 3 PHASE, 3 HP, 9.8 AMPS. COORDINATE ELECTRICAL REQUIREMENTS WITH EQUIPMENT PURCHASED. CONTRACTOR SHALL SAFE OFF AND COIL 3-#10 & 1-#10 GND IN 1" C WIRING WITHIN THE EXTERIOR JUNCTION BOX. COORDINATE JUNCTION BOX HEIGHT WITH VERIZON REPRESENTATIVE. WALL PENETRATIONS AND WIRING WITHIN THE VERIZON BUILDING BY OTHERS.



**2 EQUIPMENT SUPPORT DETAIL**  
 SCALE: NONE

**NOTES:**  
 1.) DESIGN TYPICAL FOR MOUNTING SINGLE PIECES OF WALL MOUNTED POWER EQUIPMENT (DISCONNECT SWITCHES, PANELBOARDS, ETC.).



**1 ELECTRICAL SITE POWER PART PLAN**  
 SCALE: 1" = 20'-0"

No.	ISSUE OR REVISION	DATE
3	FOR PLANNING BOARD APPROVAL	09/29/2023
2	REVISED PER TOWN COMMENTS	08/30/2023
1	ISSUED FOR 100% REVIEW	05/08/2023

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PROJECT TITLE  
**TOWN OF NORTH CASTLE  
 VERIZON-KENT PLACE PARKING LOT  
 KENT PLACE  
 ARMONK, NY 10504**

DRAWING TITLE  
**ELECTRICAL SITE  
 POWER PART PLAN**

	SCALE AS SHOWN	PROJECT NO. NTON0004.00
	DRAWN BY CT	DRAWING NO.
	CHECKED BY ML / DS	<b>E1.2</b>
	DATE 03-31-2023	



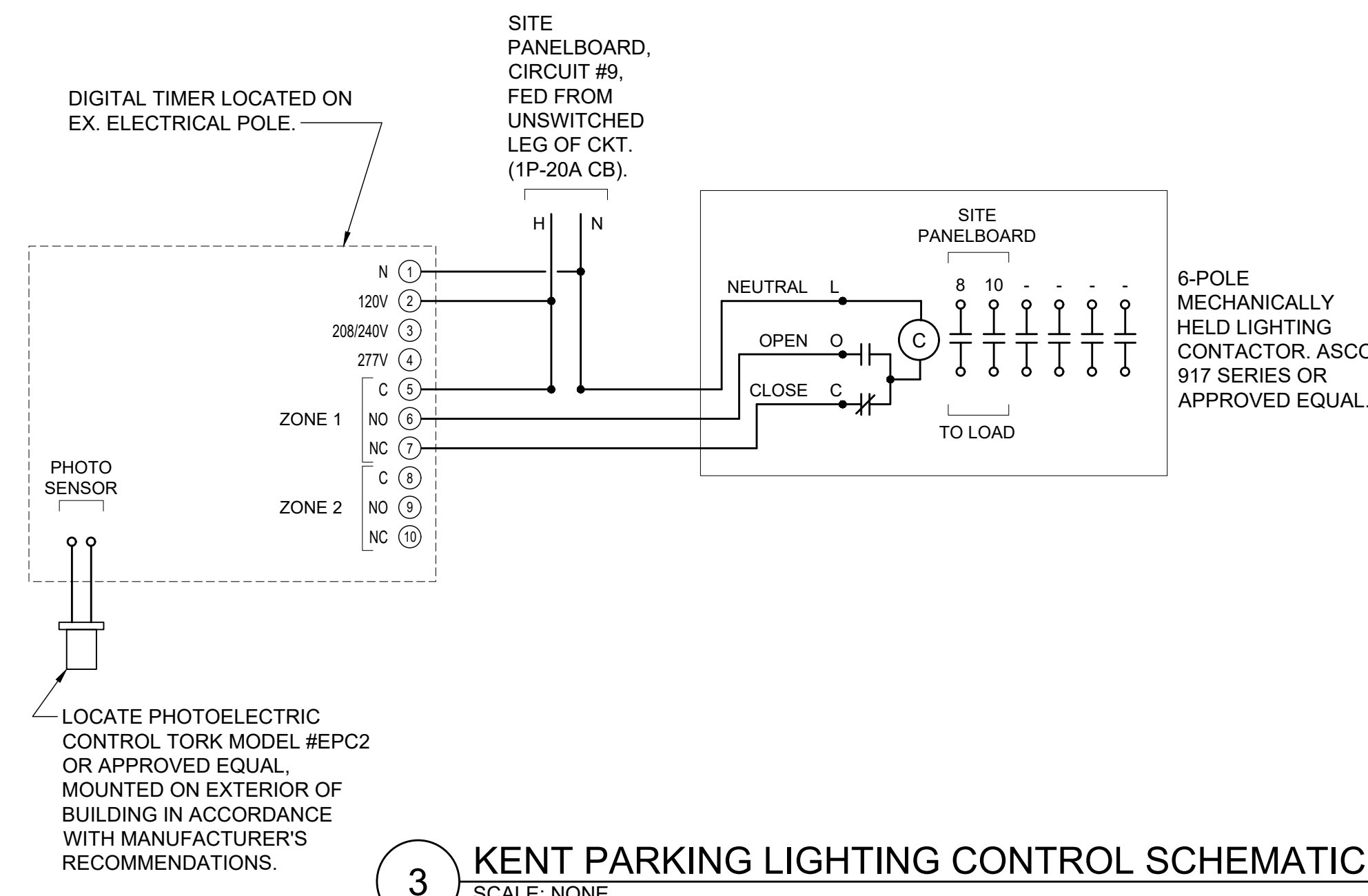
PPS PANEL SCHEDULE							
MAIN RATING: 225A		MAIN C.B.: 150A		KAIC RATING: 22KAIC			
VOLTAGE: 208Y/120V		PHASE: 3		WIRE: 4		MOUNTING: SURFACE	
CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1							2
3	TRASH COMPACTOR	60	3	3	60	TRASH COMPACTOR	4
5							6
7	RECP QUAD WP/GFI ON EX. POLE	20	1	1	20	SITE LTS KENT PARKING	8
9	LIGHTING TIMER/CONTACTOR	20	1	1	20	SITE LTS KENT PARKING	10
11	RECP WP/GFI NR TRASH COMPACTOR	20	1	1	20	RECP QUAD WP/GFI ON POLE	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17	SPARE	20	1	1	20	SPARE	18

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.

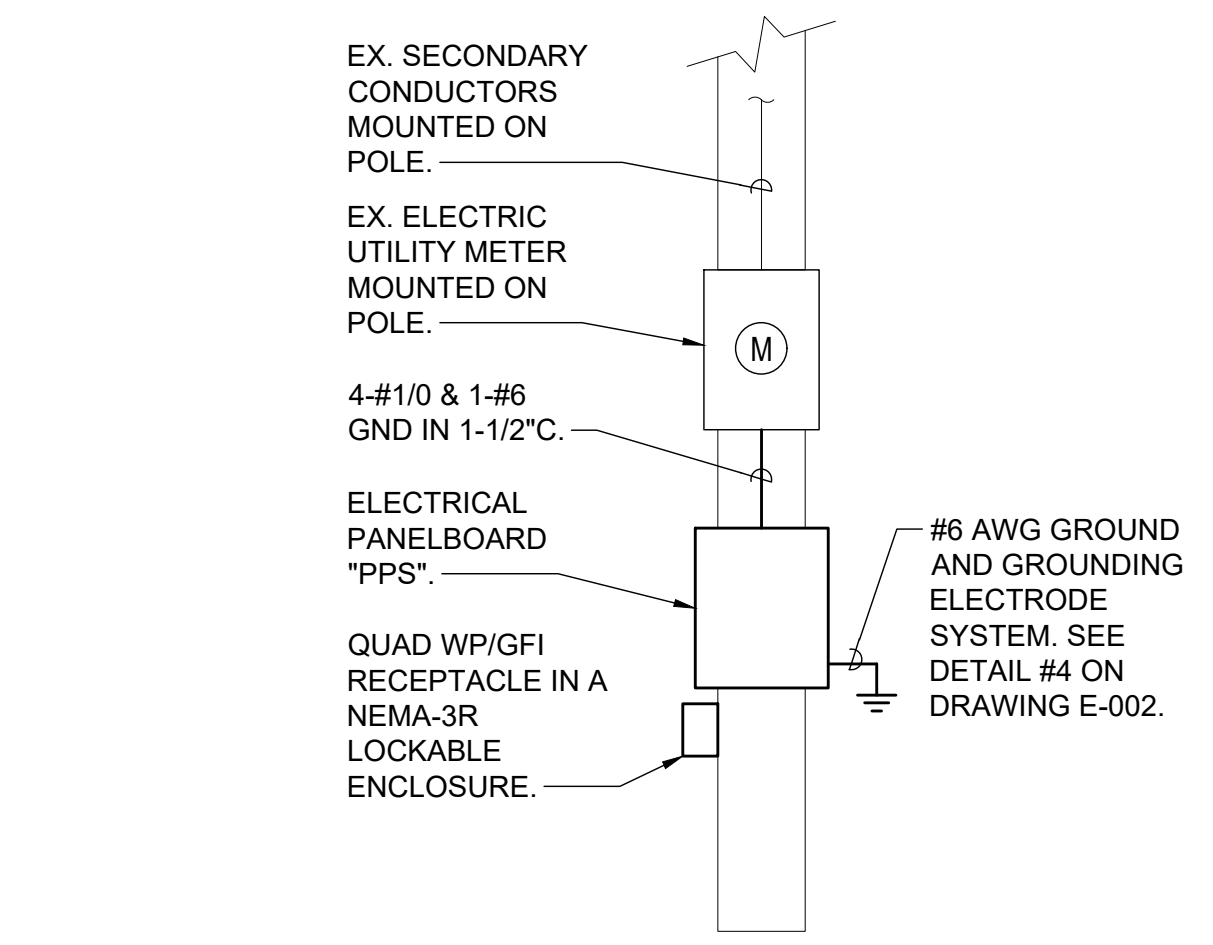
NOTES:  
 1. PROVIDE A SERVICE ENTRANCE RATED PANELBOARD.  
 2. PROVIDE A NEMA-3R ENCLOSURE.

LIGHTING FIXTURE SCHEDULE							
FIXTURE DESIGNATION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTS	MOUNTING	LUMENS	REMARKS
P4	CURRENT LIGHTING	PROV2-36L-615-4K7-4W-UNV	70.3W LED	UNV	POLE	7500	PROVIDENCE MEDIUM 2.0 EXTERIOR POLE MOUNTED LED LIGHT FIXTURE, 7500 LUMENS, WITH TYPE IV WIDE DISTRIBUTION.
P4-HS	CURRENT LIGHTING	PROV2-36L-615-4K7-4W-HS-UNV	70.3W LED	UNV	POLE	7500	PROVIDENCE MEDIUM 2.0 EXTERIOR POLE MOUNTED LED LIGHT FIXTURE, 7500 LUMENS, WITH TYPE IV WIDE DISTRIBUTION AND HOUSE SIDE SHIELD.
P5	CURRENT LIGHTING	PROV2-36L-615-4K7-5W-UNV	70.3W LED	UNV	POLE	7500	PROVIDENCE MEDIUM 2.0 EXTERIOR POLE MOUNTED LED LIGHT FIXTURE, 7500 LUMENS, WITH TYPE V WIDE DISTRIBUTION.
POLE A	ARCHITECTURAL AREA LIGHTING	DB6-16'	N/A	N/A	CONCRETE BASE	N/A	4" ROUND FLUTED POLE, 16' HIGH OR LOWER. POLE MOUNTED ON A 12" CONCRETE BASE AND ON A 24" BASE IN PARKING AREAS. FIXTURES MOUNTED ON POLE SHALL NOT BE MORE THAN 16'-0" ABOVE GROUND. ADJUST POLE HEIGHTS DEPENDING ON CONCRETE BASES.
B	WE-EF LIGHTING	DLS239-4000K-RAL9004	28W LED	120V	POLE	1758	EXTERIOR POLE MOUNTED LED LIGHT FIXTURE, 1758 LUMENS, 4000K, BLACK FINISH, MARINE GRADE DIE-CAST ALUMINUM HOUSING WITH DIFFUSED LENS. RATED FOR WET LOCATIONS.

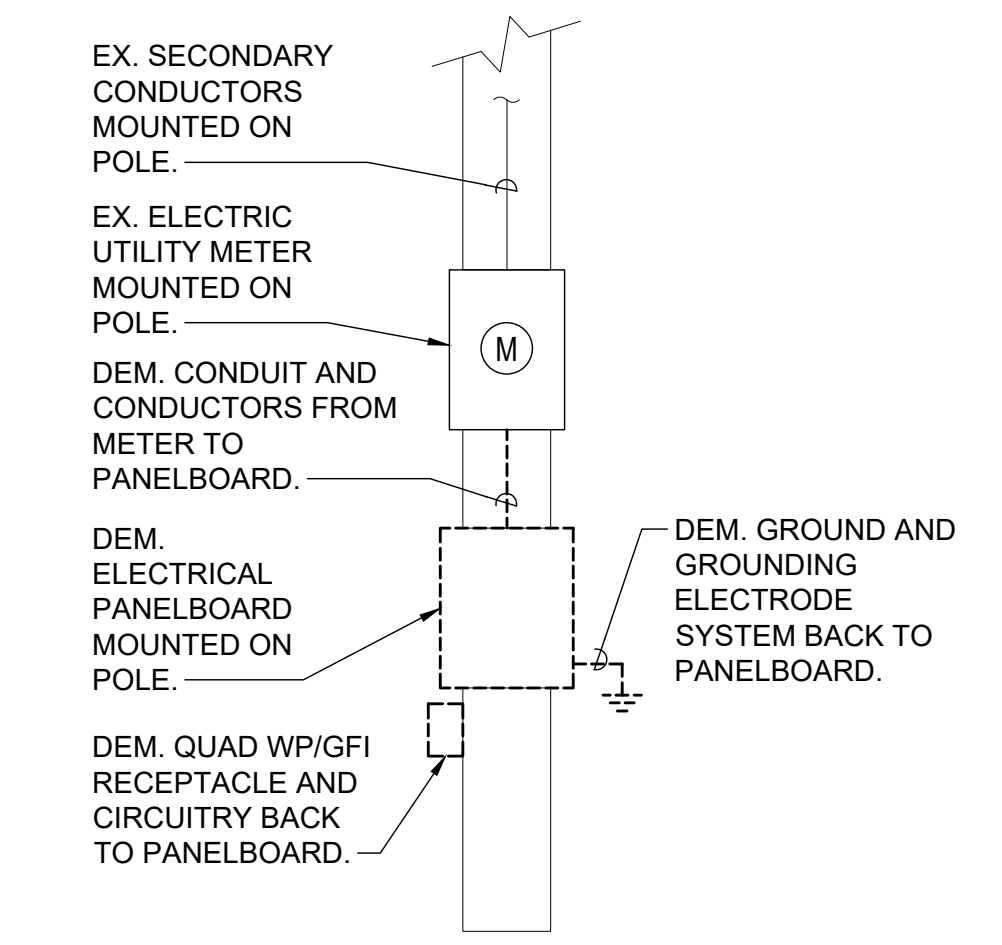
**NOTES:**  
 1.) VERIFY ALL FIXTURE CATALOG NUMBERS FOR INTENDED APPLICATIONS WITH REQUIRED ACCESSORIES.  
 2.) ALL BALLASTS AND DRIVERS IN FIXTURES LOCATED OUTDOORS SHALL BE ZERO DEGREE RATED STARTING TEMPERATURE. REFER TO DRAWINGS FOR LOCATION OF FIXTURES.  
 3.) IN THE EVENT THE CONTRACTOR CHOOSES TO SUBSTITUTE LIGHT FIXTURES FOR THOSE THAT ARE SPECIFIED ON THE LIGHT FIXTURE SCHEDULE, THE CONTRACTOR SHALL SUBMIT POINT-TO-POINT PHOTOMETRIC CALCULATIONS FOR ALL AREAS WHERE THE SUBSTITUTED FIXTURES ARE INDICATED TO BE INSTALLED ON THE DRAWINGS. THESE CALCULATIONS SHALL BE SUBMITTED ALONG WITH THE LIGHT FIXTURE SHOP DRAWINGS.



**3 KENT PARKING LIGHTING CONTROL SCHEMATIC DIAGRAM**  
SCALE: NONE



**2 ELECTRICAL NEW WORK ONE-LINE DIAGRAM**  
SCALE: NONE



**1 ELECTRICAL DEMOLITION ONE-LINE DIAGRAM**  
SCALE: NONE

- NOTES:**
- TIMER SHALL BE A DEDICATED 2 ZONE DIGITAL LIGHTING CONTROLLER WITH NEMA 3R ENCLOSURE WITH LOCKABLE HASP. EACH ZONE SHALL BE CAPABLE OF INDEPENDENT USER SETTABLE CONTROL BASED ON TIME OF DAY, LIGHT LEVEL OR A COMBINATION OF BOTH. TIMER SHALL HAVE CAPABILITY TO BE OVERRIDDEN LOCALLY VIA KEYPAD AND/OR REMOTELY VIA STANDARD TOGGLE SWITCHES. NSI/TORK MODEL #DMZ200BP OR APPROVED EQUAL.
  - DIGITAL TIMER SHALL BE PROGRAMMED AS FOLLOWS:  
 ZONE 1: PHOTOCCELL ON / TIMER OFF  
 ZONE 2: (SPARE)
  - LIGHTING CONTACTOR SHALL BE LOCATED ADJACENT TO ASSOCIATED PANELBOARDS U.O.N.
  - LIGHTING CONTACTOR SHALL BE INSTALLED IN NEMA-3R ENCLOSURE EQUIPPED WITH LOCKABLE HINGED COVERS.
  - POWER FOR FIXTURES AND CIRCUITS REQUIRED TO BE TAKEN FROM THE UNSWITCHED LEG OF A GIVEN CIRCUIT SHALL BE TAPPED ON THE LINE SIDE OF THE ASSOCIATED CONTACT.

OLA Consulting Engineers  
 50 Broadway,  
 Hawthorne, NY 10532  
 914.747.2800  
 8 West 38th Street,  
 Suite 501  
 New York, NY 10018  
 646.849.4110  
 olace.com

CLIENT  
**TOWN OF NORTH CASTLE**  
 15 BEDFORD ROAD  
 ARMONK, NY 10504

**KSCJ**  
 CONSULTING  
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 SITE & ENVIRONMENTAL  
 PLANNING  
 500 MAIN STREET  
 ARMONK, N.Y. 10504  
 P: (914) 275-2323  
 F: (914) 275-2329  
 WWW.KELSSES.COM

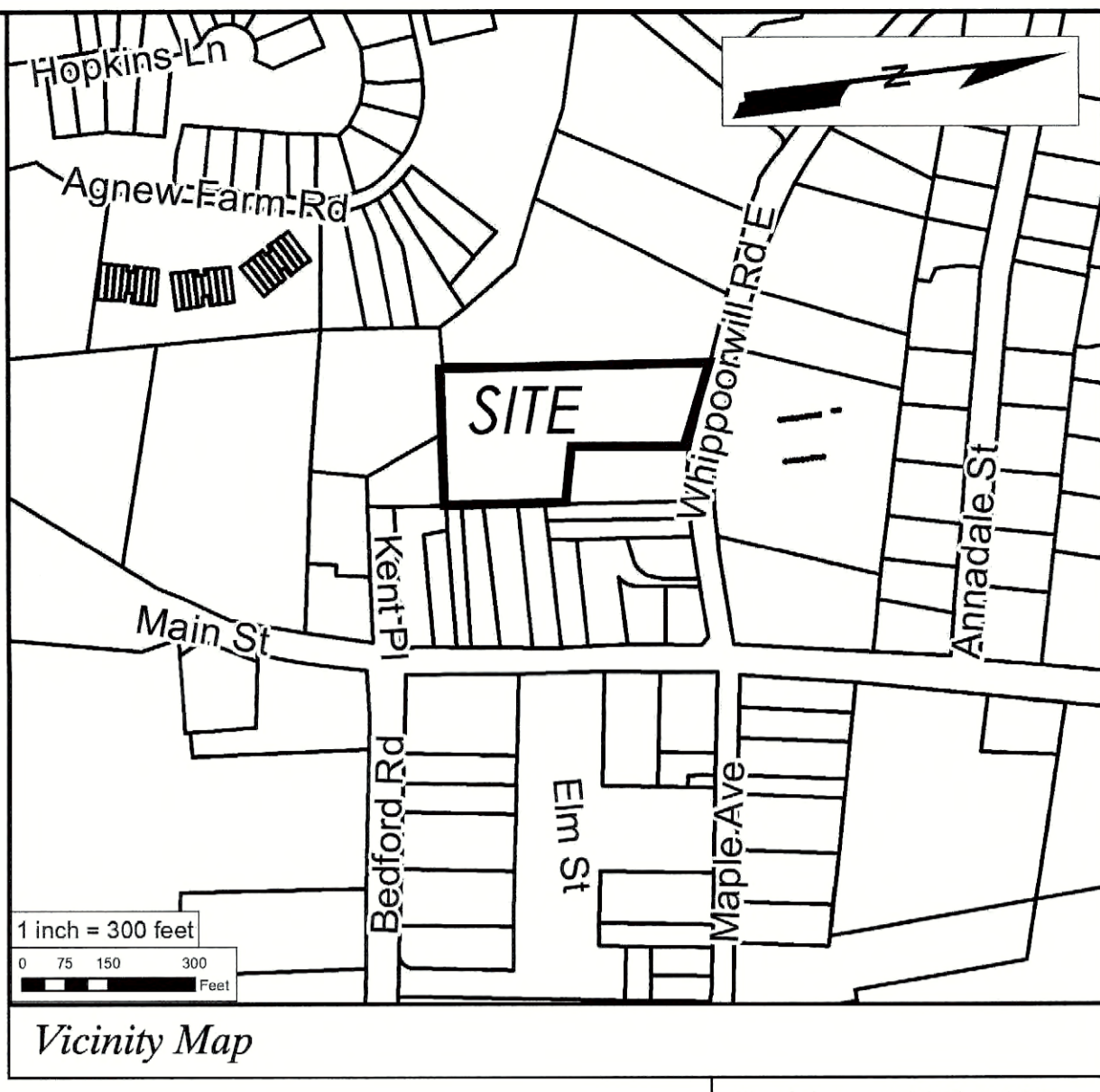
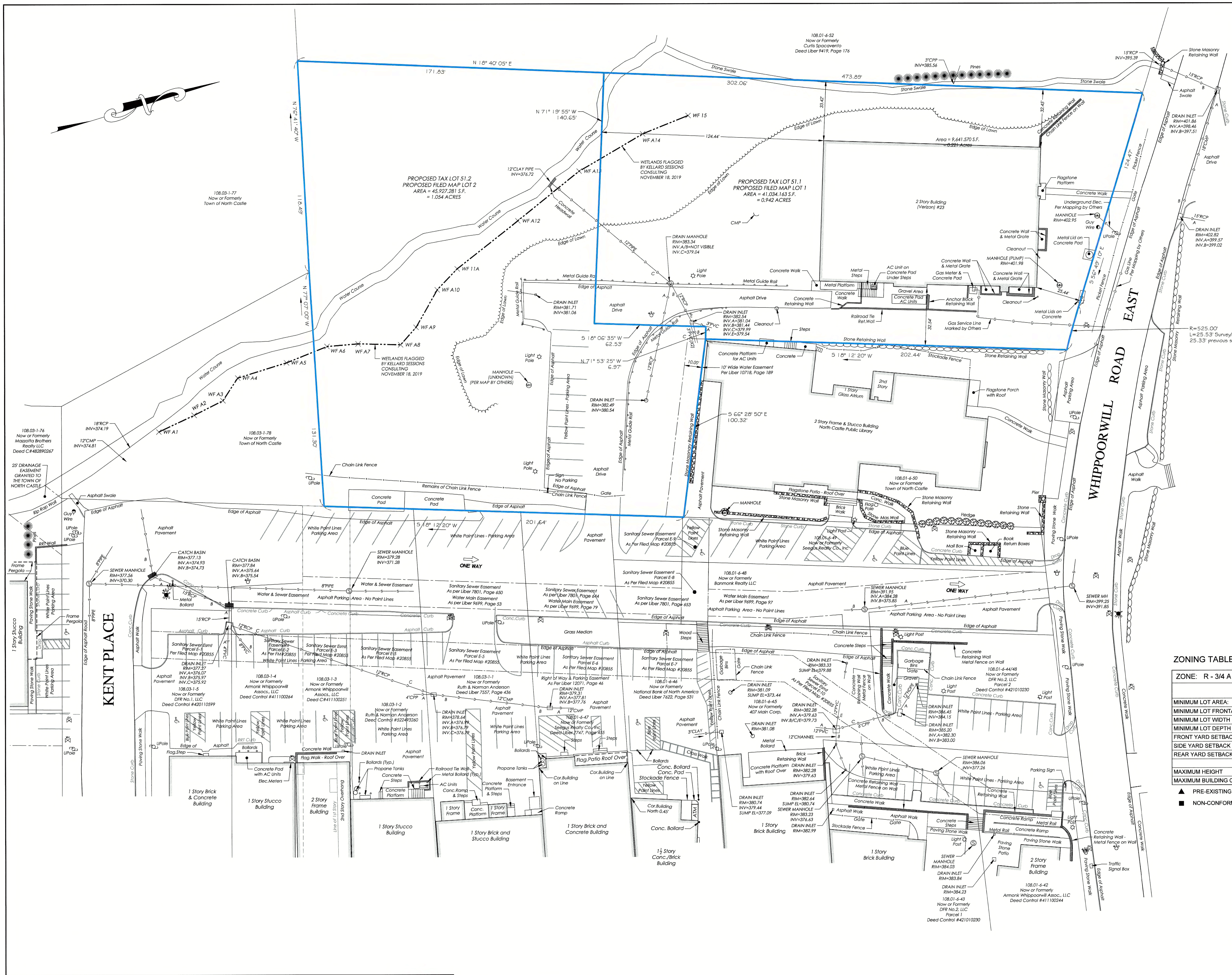
No.	ISSUE OR REVISION	DATE
3	FOR PLANNING BOARD APPROVAL	09/29/2023
2	REVISED PER TOWN COMMENTS	08/30/2023
1	ISSUED FOR 100% REVIEW	05/08/2023

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PROJECT TITLE  
**TOWN OF NORTH CASTLE**  
 VERIZON-KENT PLACE PARKING LOT  
 KENT PLACE  
 ARMONK, NY 10504

DRAWING TITLE  
**ELECTRICAL SCHEDULES**

SCALE: AS SHOWN  
 DRAWN BY: CT  
 CHECKED BY: ML / DS  
 DATE: 03-31-2023  
 PROJECT NO.: NTON0004.00  
 DRAWING NO.: **E6.1**



Total Area = 86,961,444 S.F.  
= 1,996 Acres

Unauthorized alteration or addition to a survey map bearing a licensed Land Surveyors seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

Possession only where indicated.  
Adjacent property lines and easements not surveyed or certified. Access to adjacent rights of way, easements and public or private lands not guaranteed or certified.

Underground utilities shown hereon are approximate and should be verified before excavating. Additional underground utilities are not shown or certified. Encroachments and structures below grade, if any, not shown or certified. Subject to covenants, easements, restrictions, conditions and agreements of record.

Premises shown hereon designated on the Town of North Castle Tax Maps as: Section 108.01, Block 6, Lot 51.

Property Address: 23 Whippoorwill Road East  
Armonk, NY 10504

The owner of this property shown hereon hereby consents to the filing of this map in the Westchester County Clerk's Office, Division of Land Records.

Owner: Agent for: Verizon New York Inc. Date

140 West Street, New York, New York 10007  
Address

Approved by Resolution of the Town of North Castle Planning Board

Planning Board Chairman, Christopher Carthy Date

Reviewed by the Town Engineers for conformance. Date

Joseph Carmelo, PE  
Kellard Sessions Consulting, P.C.  
Consulting Town Engineer

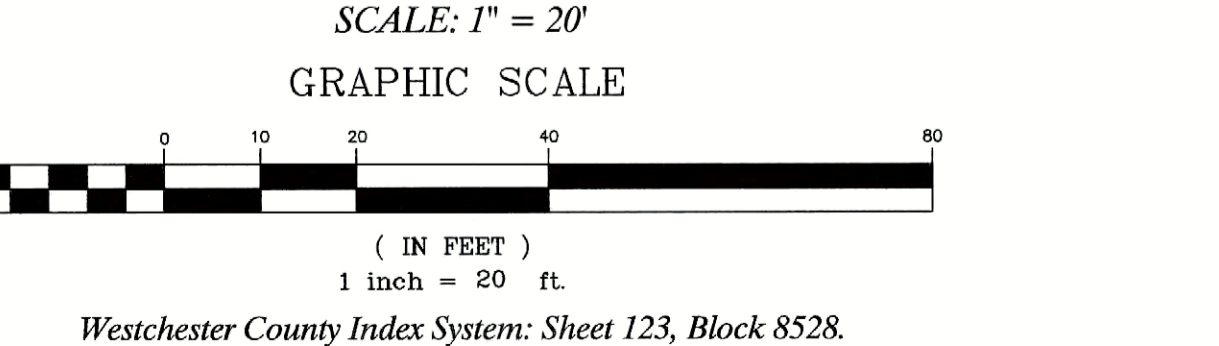
**ZONING TABLE**

ZONE: R - 3/4 A	REQUIRED/ PERMITTED	LOT 1	LOT 2
MINIMUM LOT AREA:	3/4 ACRE	0.942 ACRES	1.054 ACRES
MINIMUM LOT FRONTAGE:	125 FT.	150.00 FT.	N/A
MINIMUM LOT WIDTH:	125 FT.	143.2 FT.	191.5 FT.
MINIMUM LOT DEPTH:	150 FT.	263.7 FT.	188.1 FT.
FRONT YARD SETBACK:	40 FT.	25.44 FT. ▲	40 FT.
SIDE YARD SETBACK:	25 FT.	32.45 FT.	25 FT.
REAR YARD SETBACK:	40 FT.	124.44 FT.	40 FT.
MAXIMUM HEIGHT:	30 FT.	< 30 FT.	< 30 FT.
MAXIMUM BUILDING COVERAGE:	15%	23.49% ■	< 15%

▲ PRE-EXISTING NON-CONFORMING  
■ NON-CONFORMING

Total Area = 86,961,444 S.F.  
= 1,996 Acres

**PRELIMINARY SUBDIVISION PLAT PREPARED FOR VERIZON NEW YORK INC.**  
SITUATE IN THE TOWN OF NORTH CASTLE WESTCHESTER COUNTY, NEW YORK



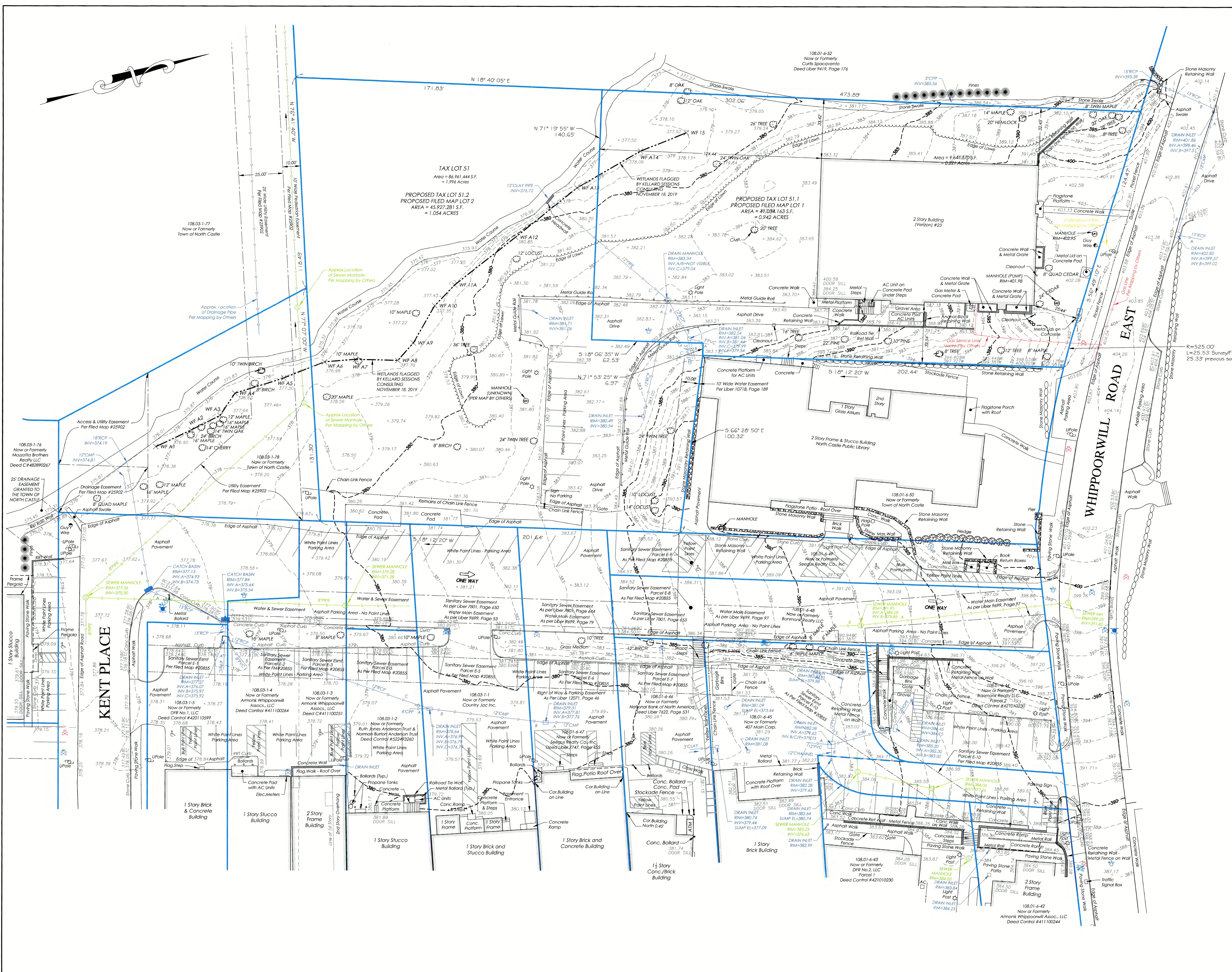
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**TC MERRITTS LAND SURVEYORS**  
394 BEDFORD ROAD • PLEASANTVILLE • NY 10570  
(914) 769-8003 • survey@tcmeritts.com

I, Daniel T. Merritts Licensed Land Surveyor, who made this map do hereby certify that the survey upon which this map is based was completed April 24, 2020 and that this map was completed February 11, 2022.

By: *Daniel T. Merritts*  
New York State Licensed Land Surveyor No. 050604

Project: 07-009  
Field Survey By: CR/ROB  
Drawn By: D4  
Checked By: DM



**LEGEND**

⊕	MANHOLES
□	DRAIN INLETS/CATCH BASINS
⊞	GAS VALVE/GAS BOX
⊞	WATER VALVE
⊞	HYDRANT
⊞	WATER SHUT OFF VALVE
⊞	UTILITY POLE
⊞	LIGHT POST
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL

**LEGEND**

—	WATER MAIN
—	DRAINAGE PIPE
—	GAS MAIN
—	SANITARY SEWER MAIN
—	ELECTRICAL LINE

Additional utilities may exist, not shown.  
No utilities marked in field.

Only copies from the original of this topography map marked with an original of the Land Surveyors embossed seal or red colored seal shall be considered to be true, valid copies.

Unauthorized alteration or addition to a map bearing a licensed Land Surveyors seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

Possession only where indicated.

Adjacent property lines and easements not surveyed or certified. Access to adjacent rights of way, easements and public or private lands not guaranteed or certified.

Underground utilities shown hereon are approximate and should be verified before excavating. Additional underground utilities are not shown or certified. Encroachments and structures below grade, if any, not shown or certified.

Subject to covenants, easements, restrictions, conditions and agreements of record.

This map is prepared to show topography only and is not to be used for title transfer purposes. Map may not be certified to title companies and/or banks.

Tree species shown hereon to be verified by a licensed arborist and are not certified by surveyor.

Elevations shown hereon generally in accordance with North American Vertical Datum 88.

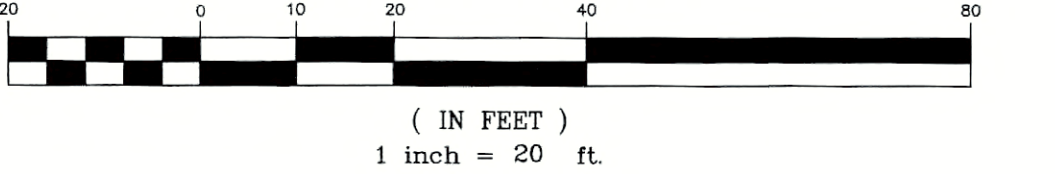
Premises shown hereon designated on the Town of North Castle Tax Maps as: Section 108.01, Block 6, Lot 51.

Property Address: 23 Whipoorwill Road East Amnck, NY 10504

This survey was performed without the benefit of a current abstract of title or documents from a title search and is therefore subject to whatever state of facts that may be revealed in such reports.

**TOPOGRAPHY OF PROPERTY  
PREPARED FOR  
TOWN OF NORTH CASTLE**  
SITUATE IN THE  
TOWN OF NORTH CASTLE,  
WESTCHESTER COUNTY, NEW YORK

SCALE: 1" = 20'  
GRAPHIC SCALE



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**TC MERRITTS LAND SURVEYORS**  
394 BEDFORD ROAD • PLEASANTVILLE • NY 10570  
(914) 769-8003 • survey@tcmeritts.com

Surveyed: April 23, 2020  
Map Prepared: April 24, 2020  
Map Revised: February 9, 2023 to show updated property owner names only

By: *Donal T. Merritt*  
New York State Licensed Land Surveyor No. 050604

Project: 07-009	Field Survey By: CR/ROB
Drawn By: DA	Checked By: DM

**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:

**B. Government Approvals**

**B. Government Approvals, Funding, or Sponsorship.** (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees <input type="checkbox"/> Yes <input type="checkbox"/> No		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No		
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
i. Coastal Resources. <ul style="list-style-type: none"> <li>i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No</li> </ul>		

**C. Planning and Zoning**

**C.1. Planning and zoning actions.**

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?  Yes  No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

**C.2. Adopted land use plans.**

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?  Yes  No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?  Yes  No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)  Yes  No

If Yes, identify the plan(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?  Yes  No

If Yes, identify the plan(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**C.3. Zoning**

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.  Yes  No  
If Yes, what is the zoning classification(s) including any applicable overlay district?

\_\_\_\_\_

b. Is the use permitted or allowed by a special or conditional use permit?  Yes  No

c. Is a zoning change requested as part of the proposed action?  Yes  No

If Yes,

i. What is the proposed new zoning for the site? \_\_\_\_\_

**C.4. Existing community services.**

a. In what school district is the project site located? \_\_\_\_\_

b. What police or other public protection forces serve the project site?  
\_\_\_\_\_

c. Which fire protection and emergency medical services serve the project site?  
\_\_\_\_\_

d. What parks serve the project site?  
\_\_\_\_\_  
\_\_\_\_\_

**D. Project Details**

**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?  
\_\_\_\_\_

b. a. Total acreage of the site of the proposed action? \_\_\_\_\_ acres

b. Total acreage to be physically disturbed? \_\_\_\_\_ acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? \_\_\_\_\_ acres

c. Is the proposed action an expansion of an existing project or use?  Yes  No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % \_\_\_\_\_ Units: \_\_\_\_\_

d. Is the proposed action a subdivision, or does it include a subdivision?  Yes  No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)  
\_\_\_\_\_

ii. Is a cluster/conservation layout proposed?  Yes  No

iii. Number of lots proposed? \_\_\_\_\_

iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

e. Will the proposed action be constructed in multiple phases?  Yes  No

i. If No, anticipated period of construction: \_\_\_\_\_ months

ii. If Yes:

- Total number of phases anticipated \_\_\_\_\_
- Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ month \_\_\_\_\_ year
- Anticipated completion date of final phase \_\_\_\_\_ month \_\_\_\_\_ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)?  Yes  No  
 If Yes,

i. Total number of structures \_\_\_\_\_

ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ height; \_\_\_\_\_ width; and \_\_\_\_\_ length

iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage?  Yes  No  
 If Yes,

i. Purpose of the impoundment: \_\_\_\_\_

ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  Other specify: \_\_\_\_\_

iii. If other than water, identify the type of impounded/contained liquids and their source. \_\_\_\_\_

iv. Approximate size of the proposed impoundment. Volume: \_\_\_\_\_ million gallons; surface area: \_\_\_\_\_ acres

v. Dimensions of the proposed dam or impounding structure: \_\_\_\_\_ height; \_\_\_\_\_ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): \_\_\_\_\_

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?  Yes  No  
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  
 If Yes:

i. What is the purpose of the excavation or dredging? \_\_\_\_\_

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): \_\_\_\_\_
- Over what duration of time? \_\_\_\_\_

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. \_\_\_\_\_

iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. \_\_\_\_\_

v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres

vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres

vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet

viii. Will the excavation require blasting?  Yes  No

ix. Summarize site reclamation goals and plan: \_\_\_\_\_

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?  Yes  No  
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): \_\_\_\_\_

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes  No

If Yes, describe: \_\_\_\_\_

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?  Yes  No

If Yes:

- acres of aquatic vegetation proposed to be removed: \_\_\_\_\_
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_
  
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

c. Will the proposed action use, or create a new demand for water?  Yes  No

If Yes:

i. Total anticipated water usage/demand per day: \_\_\_\_\_ gallons/day

ii. Will the proposed action obtain water from an existing public water supply?  Yes  No

If Yes:

- Name of district or service area: \_\_\_\_\_
- Does the existing public water supply have capacity to serve the proposal?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No
- Do existing lines serve the project site?  Yes  No

iii. Will line extension within an existing district be necessary to supply the project?  Yes  No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_
  
- Source(s) of supply for the district: \_\_\_\_\_

iv. Is a new water supply district or service area proposed to be formed to serve the project site?  Yes  No

If Yes:

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- Proposed source(s) of supply for new district: \_\_\_\_\_

v. If a public water supply will not be used, describe plans to provide water supply for the project: \_\_\_\_\_

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes?  Yes  No

If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): \_\_\_\_\_

iii. Will the proposed action use any existing public wastewater treatment facilities?  Yes  No

If Yes:

- Name of wastewater treatment plant to be used: \_\_\_\_\_
- Name of district: \_\_\_\_\_
- Does the existing wastewater treatment plant have capacity to serve the project?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No



• Do existing sewer lines serve the project site?  Yes  No  
 • Will a line extension within an existing district be necessary to serve the project?  Yes  No  
 If Yes:  
 • Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?  Yes  No  
 If Yes:  
 • Applicant/sponsor for new district: \_\_\_\_\_  
 • Date application submitted or anticipated: \_\_\_\_\_  
 • What is the receiving water for the wastewater discharge? \_\_\_\_\_

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?  Yes  No  
 If Yes:  
 i. How much impervious surface will the project create in relation to total size of project parcel?  
     \_\_\_\_\_ Square feet or \_\_\_\_\_ acres (impervious surface)  
     \_\_\_\_\_ Square feet or \_\_\_\_\_ acres (parcel size)  
 ii. Describe types of new point sources. \_\_\_\_\_  
 \_\_\_\_\_

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 • If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
 \_\_\_\_\_  
 • Will stormwater runoff flow to adjacent properties?  Yes  No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?  Yes  No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?  Yes  No  
 If Yes, identify:  
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)  
 \_\_\_\_\_  
 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  
 \_\_\_\_\_  
 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  
 \_\_\_\_\_

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?  Yes  No  
 If Yes:  
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No  
 ii. In addition to emissions as calculated in the application, the project will generate:  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)  
 • \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No

If Yes:

*i.* Estimate methane generation in tons/year (metric): \_\_\_\_\_

*ii.* Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): \_\_\_\_\_

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i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

---

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?  Yes  No

If Yes:

*i.* When is the peak traffic expected (Check all that apply):  Morning  Evening  Weekend  
 Randomly between hours of \_\_\_\_\_ to \_\_\_\_\_.

*ii.* For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): \_\_\_\_\_

*iii.* Parking spaces: Existing \_\_\_\_\_ Proposed \_\_\_\_\_ Net increase/decrease \_\_\_\_\_

*iv.* Does the proposed action include any shared use parking? Yes No

*v.* If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: \_\_\_\_\_

*vi.* Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?  Yes  No

*vii.* Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No

*viii.* Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

---

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No

If Yes:

*i.* Estimate annual electricity demand during operation of the proposed action: \_\_\_\_\_

*ii.* Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): \_\_\_\_\_

*iii.* Will the proposed action require a new, or an upgrade, to an existing substation?  Yes  No

---

l. Hours of operation. Answer all items which apply.

<p><i>i.</i> During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul>	<p><i>ii.</i> During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul>
---	--

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?  Yes  No  
 If yes:  
 i. Provide details including sources, time of day and duration:  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

---

n. Will the proposed action have outdoor lighting?  Yes  No  
 If yes:  
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_  
 \_\_\_\_\_

---

o. Does the proposed action have the potential to produce odors for more than one hour per day?  Yes  No  
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?  Yes  No  
 If Yes:  
 i. Product(s) to be stored \_\_\_\_\_  
 ii. Volume(s) \_\_\_\_\_ per unit time \_\_\_\_\_ (e.g., month, year)  
 iii. Generally, describe the proposed storage facilities: \_\_\_\_\_  
 \_\_\_\_\_

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q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?  Yes  No  
 If Yes:  
 i. Describe proposed treatment(s):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

ii. Will the proposed action use Integrated Pest Management Practices?  Yes  No

---

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?  Yes  No  
 If Yes:  
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:  
 • Construction: \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 • Operation : \_\_\_\_\_ tons per \_\_\_\_\_ (unit of time)  
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: \_\_\_\_\_  
 \_\_\_\_\_  
 • Operation: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • Construction: \_\_\_\_\_  
 \_\_\_\_\_  
 • Operation: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

s. Does the proposed action include construction or modification of a solid waste management facility?  Yes  No  
 If Yes:  
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_  
 ii. Anticipated rate of disposal/processing:  
 • \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or  
 • \_\_\_\_\_ Tons/hour, if combustion or thermal treatment  
 iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?  Yes  No  
 If Yes:  
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_  
 \_\_\_\_\_  
 ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month  
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?  Yes  No  
 If Yes: provide name and location of facility: \_\_\_\_\_  
 \_\_\_\_\_  
 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:  
 \_\_\_\_\_  
 \_\_\_\_\_

**E. Site and Setting of Proposed Action**

**E.1. Land uses on and surrounding the project site**

a. Existing land uses.  
 i. Check all uses that occur on, adjoining and near the project site.  
 Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): \_\_\_\_\_  
 ii. If mix of uses, generally describe:  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities:  
\_\_\_\_\_

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection:  
\_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  
• If yes, cite sources/documentation: \_\_\_\_\_  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:  
\_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:  
\_\_\_\_\_

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): \_\_\_\_\_  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):  
\_\_\_\_\_  
\_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> <ul style="list-style-type: none"> <li>• If yes, DEC site ID number: _____</li> <li>• Describe the type of institutional control (e.g., deed restriction or easement): _____</li> <li>• Describe any use limitations: _____</li> <li>• Describe any engineering controls: _____</li> <li>• Will the project affect the institutional or engineering controls in place? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>• Explain: _____            _____            _____</li> </ul>						
<b>E.2. Natural Resources On or Near Project Site</b>						
a. What is the average depth to bedrock on the project site? _____ feet						
b. Are there bedrock outcroppings on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %						
c. Predominant soil type(s) present on project site: <table style="width: 100%; border: none;"> <tr> <td style="border: none;">_____</td> <td style="border: none; text-align: right;">_____ %</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none; text-align: right;">_____ %</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none; text-align: right;">_____ %</td> </tr> </table>	_____	_____ %	_____	_____ %	_____	_____ %
_____	_____ %					
_____	_____ %					
_____	_____ %					
d. What is the average depth to the water table on the project site? Average: _____ feet						
e. Drainage status of project site soils: <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><input type="checkbox"/> Well Drained:</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Moderately Well Drained:</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Poorly Drained</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> </table>	<input type="checkbox"/> Well Drained:	_____ % of site	<input type="checkbox"/> Moderately Well Drained:	_____ % of site	<input type="checkbox"/> Poorly Drained	_____ % of site
<input type="checkbox"/> Well Drained:	_____ % of site					
<input type="checkbox"/> Moderately Well Drained:	_____ % of site					
<input type="checkbox"/> Poorly Drained	_____ % of site					
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><input type="checkbox"/> 0-10%:</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 10-15%:</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 15% or greater:</td> <td style="border: none; text-align: right;">_____ % of site</td> </tr> </table>	<input type="checkbox"/> 0-10%:	_____ % of site	<input type="checkbox"/> 10-15%:	_____ % of site	<input type="checkbox"/> 15% or greater:	_____ % of site
<input type="checkbox"/> 0-10%:	_____ % of site					
<input type="checkbox"/> 10-15%:	_____ % of site					
<input type="checkbox"/> 15% or greater:	_____ % of site					
g. Are there any unique geologic features on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes, describe: _____ _____						
h. Surface water features. <ul style="list-style-type: none"> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>ii. Do any wetlands or other waterbodies adjoin the project site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> </ul> If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. <ul style="list-style-type: none"> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the following information:             <ul style="list-style-type: none"> <li>• Streams: Name _____ Classification _____</li> <li>• Lakes or Ponds: Name _____ Classification _____</li> <li>• Wetlands: Name _____ Approximate Size _____</li> <li>• Wetland No. (if regulated by DEC) _____</li> </ul> </li> </ul>						
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If yes, name of impaired water body/bodies and basis for listing as impaired: _____ _____						
i. Is the project site in a designated Floodway? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>						
j. Is the project site in the 100-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>						
k. Is the project site in the 500-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>						
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: <ul style="list-style-type: none"> <li>i. Name of aquifer: _____</li> </ul>						

m. Identify the predominant wildlife species that occupy or use the project site: _____ _____ _____	
n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: i. Species and listing (endangered or threatened): _____ _____ _____	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: i. Species and listing: _____ _____	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If yes, give a brief description of how the proposed action may affect that use: _____ _____	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes, provide county plus district name/number: _____	
b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> i. If Yes: acreage(s) on project site? _____ ii. Source(s) of soil rating(s): _____	
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: i. CEA name: _____ ii. Basis for designation: _____ iii. Designating agency and date: _____	

<p>e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District</p> <p style="margin-left: 20px;">ii. Name: _____</p> <p style="margin-left: 20px;">iii. Brief description of attributes on which listing is based: _____</p>
<p>f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>
<p>g. Have additional archaeological or historic site(s) or resources been identified on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe possible resource(s): _____</p> <p style="margin-left: 20px;">ii. Basis for identification: _____</p>
<p>h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Identify resource: _____</p> <p style="margin-left: 20px;">ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____</p> <p style="margin-left: 20px;">iii. Distance between project and resource: _____ miles.</p>
<p>i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Identify the name of the river and its designation: _____</p> <p style="margin-left: 20px;">ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>

**F. Additional Information**

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

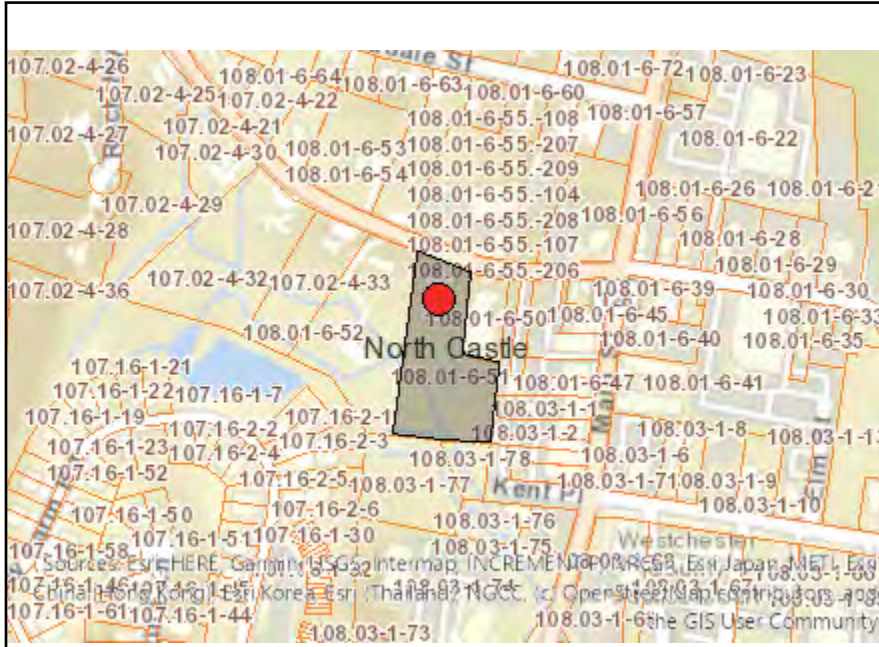
**G. Verification**

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name \_\_\_\_\_ Date \_\_\_\_\_

Signature  \_\_\_\_\_ Title \_\_\_\_\_





**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	360005
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	935-106
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Yes

E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Bedford Road Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No



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Director of Planning

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Fax: (914) 273-3554  
[www.northcastleny.com](http://www.northcastleny.com)

## Application for Site Development Plan Approval

### Application Name

Kent Place/Verizon Parking Plan

23 Whipoorwill Road East and Un-Numbered Town Parcel



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### Important General Information

- Prior to submitting an application, the "Notice to Applicants" should be reviewed.
- To appear before the Planning Board, all required application materials shall be submitted not later than **12:00 P.M., Monday, fourteen (14) days** prior to the date of the Planning Board meeting at which the application is scheduled to be heard or as otherwise noted by the Planning Board Secretary. Continuing Business can be submitted 12 days prior to the Next Planning Board meeting by the close of business. Except where noted.  
If all required application materials, including the pertinent application fee and escrow monies are not submitted by that deadline, the application shall be automatically removed from the agenda.  
At the discretion of the Planning Board Chairman, the application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Without prior authorization from the Planning Board, application submissions shall not be accepted at Planning Board meetings.
- At the time of submission, all required application materials shall be submitted. **Piecemeal** submissions **shall not** be accepted. Substitution of previously submitted materials shall not be permitted.
- All submissions shall be dated, with revision dates identified on new submissions.
- All submissions shall be accompanied by a cover letter describing the project and/or any changes as compared to previous submissions.
- To be considered complete for Planning Board hearing purposes, an application package shall contain the information identified in Parts IV and V of this application form.



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**AT THE TIME OF SUBMISSION TO THE PLANNING DEPARTMENT  
PLEASE MAKE SURE THE FOLLOWING IS PROVIDED**

- ✓ SUBMISSION OF A SINGLE PDF FILE (PLANS, APPLICATION FORM, OTHER PAPERWORK) ON A DISK, THUMBDRIVE OR EMAIL
  
- ✓ COVER LETTER DESCRIBING THE PROJECT OR CHANGES TO THE PROJECT
  
- ✓ ALL PLANS ARE SIGNED AND SEALED BY A LICENSED NYS PROFESSIONAL



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## **NOTICE TO APPLICANTS**

In the Town of North Castle, the Planning Board is responsible for the review and approval of all applications concerning site plans, subdivisions and lot line changes; some applications concerning special use permits, wetlands permits and tree removal permits; and the environmental review of those applications over which it has jurisdiction. The Planning Board may also have an advisory role in connection with some applications before the Town Board, such as those involving other categories of special use permits and zoning amendments.

The Planning Board is composed of five volunteer members – all residents of North Castle – who are appointed by the Town Board for five-year terms. As part of the review of some applications, the Planning Board is assisted on an as-needed basis by other lay boards of the Town, such as the Conservation Board (CB), the Zoning Board of Appeals (ZBA), the Open Space Committee and the Architectural Review Board (ARB). As part of the review of most applications, the Planning Board is also assisted by the Director of Planning, the Town Engineer, the Town Attorney and other special consultants when required.

### **FEES:**

If you submit an application for Planning Board review, you will be required to reimburse the Town for the cost of professional review services, including legal and engineering services, incurred in connection with the review of your application. The charges for professional planning review services have been \$120/hour. If other types of professional consultant review services are required, those charges will be in accord with fees usually charged for such services and pursuant to a contractual agreement between the Town and such professional.

At the time of submission of an application, the Planning Board will require the establishment of an escrow account from which withdrawals shall be made to reimburse the Town for the cost of consultant fees and professional staff services.

### **ESCROW ACCOUNT:**

Escrow Accounts are established for each application. Monies will be deducted from the account for professional review services rendered. Monthly escrow disbursement summaries will be mailed for your reference regarding your project. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, a letter will be mailed to the applicant and the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit. Additional information on these requirements is provided in the North Castle Town Code (see Sections 355-79B and 275-36.C).



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**PROCEDURE:**

Prior to submitting an application to the Planning Board for review and approval, prospective applicants should schedule an appointment with the Planning Board Secretary at (914) 273-3542 for a consultation with the Town Planner and the Town Engineer. When the appointment is made, a verbal description of the proposal should be provided to the Planning Board Secretary. The Town of North Castle is providing the services of the Director of Planning and the Town Engineer for *initial* consultation at no cost to the applicant so that it is possible to conduct the application review as efficiently as possible for the benefit of the applicant as well as the Planning Board.

After meeting with the Town Planner and Town Engineer, prospective applicants should prepare one complete set of application documents and plans. This set will be reviewed for completeness by the Town Planner. If determined to be incomplete, the Planning Department will submit a checklist indicating which items have not been adequately addressed. If determined to be complete, the checklist will be initialed and the Applicant should submit the remainder of the required application packages.

Once the checklist has been initialed and all application packages have been submitted, the Planning Board Secretary will schedule the application for the first available opening on the Planning Board's meeting agenda. However, if the required application material packages, including the pertinent application fee are not received at the Planning Board office by 12:00 PM, Monday, 14 days prior to the date of the Planning Board meeting at which you are scheduled to appear (or otherwise scheduled by the Planning Board Secretary), your application will be automatically removed from the agenda. At the discretion of the Planning Board Chairman, your application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Additional requirements pertinent to each type of application are provided on the individual application forms, which you should carefully review prior to submitting your application.

When an application is deemed complete and submitted for review, it will be forwarded to the Planning Board Members and its professional advisors in advance of the meeting to allow adequate time for review, preparation of written reports and site inspections as necessary. Your application may also be forwarded to other boards and staff of the Town as well as to agencies outside of the Town, if required. Compliance with State Environmental Quality Review (SEQR) procedures is also required as part of the processing of all applications.

At your first appearance before the Planning Board, the Applicant will describe the project and the Planning Board will discuss any preliminary issues. The Planning Board discussion may be continued at future meetings, or if the Planning Board review has progressed sufficiently, the Application may be scheduled for a public hearing (if one is required) The public hearing may occur at a single Planning Board meeting, or it may be adjourned and continued at another Planning Board meeting. Because the nature and complexity of each application varies



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considerably, it is not possible to predict in advance the length of time needed to secure Planning Board approval. There are certain steps that you can take, however, to expedite the review process. These include, but are not limited to, the following:

- Be thoroughly familiar with the requirements pertinent to your application. Carefully review relevant provisions of the North Castle Town Code and the application form for your particular type of application. Be sure to check on what other types of approvals may be required in addition to that of the Planning Board. Approvals by other Town boards or departments as well as agencies outside of the Town may be required before you will be allowed to proceed with your project.
- Make sure that your application materials are accurately prepared and contain all required information. The information that we initially request is required, so make sure that your submission is complete. If supplementary information is requested as the review process continues, make sure that it is submitted in a timely fashion so the Planning Board can continue to move your application along.
- Follow up to make sure that your application materials are being submitted on time, or deliver them to the Planning office yourself.
- Attend the Planning Board meeting at which your application will be discussed and be on time for the meeting. If you cannot appear personally, make sure that your representative will be there and is thoroughly familiar with your application.

If the Application is approved by the Planning Board, a resolution of approval will be adopted by the Planning Board. It is the Applicant's responsibility to address any and all conditions of approval. Permits from the Building Department cannot be issued until all conditions have been addressed and the plans have been signed by the Planning Board Chair and the Town Engineer.

**ON LINE AGENDAS & PLANNING DEPARTMENT MEMORANDA CAN BE  
REVIEWED AT**

**[WWW.NORTHCASTLENY.COM](http://WWW.NORTHCASTLENY.COM)**





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### INFORMATION REGARDING PUBLIC HEARINGS

1. The North Castle Assessor's Office shall prepare a list of neighbors to be notified for the neighbor notifications and public hearings - **A minimum of one week's notice is required**. The fee is \$50.00 which includes the list of neighbors and two sets of labels for mailing. The Assessor's Office may be reached Monday – Friday from 8:30 a.m.– 4:30 p.m. at 273-3324. You may also e-mail your request to [assessor@northcastleny.com](mailto:assessor@northcastleny.com)

When requesting your list please reference the list of application types below so that you can tell the Assessor's office how many feet on all sides of the property to create the list for.

**Subdivisions** - All lots zoned R-10, R-5 and R-2F shall notice all neighbors within 200 feet from all sides of their property. All other zoning districts shall notice neighbors within 500 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Special Use Permit for Structures over 800 sq ft. & Accessory Apartment** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Non Residential** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Residential/ Neighbor Notification** – All zoning districts R-3/4A or smaller shall notice all neighbors within 250' from all sides of their property. All zoning districts zoned R-1A or larger shall notice all neighbors within 500' from all sides of the property. No public hearing required, no publication in the newspaper required.

**Wetlands Permit** - All Zoning Districts shall notice all abutting property owners. Public hearing notice must be published in the newspaper.

2. The Director of Planning will prepare a Public Notice. The applicant and or professional will review, sign, date and return to the Planning Department Secretary. If there are any changes necessary, please edit and return for corrections. The corrections will be made and emailed back to the applicant who will forward it to the Journal Newspaper, when applicable.

**If notification to the newspaper is not required, please continue to #3.**



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You may email your public notice to [legals@lohud.com](mailto:legals@lohud.com). Please request an affidavit of publication which must be submitted to the Planning Board secretary prior to the public hearing. The Journal News requires three days prior notice before 12 noon, not counting weekends and holidays, for ad placement. Make sure the notice placement of the ad in the Greater Westchester Area. This notice cannot be published any sooner than 20 days prior to the meeting and must be published no less than 10 days prior to the meeting.

If you have any questions regarding your publication you may call 888-516-9220:  
Email Address: [legals@lohud.com](mailto:legals@lohud.com)

It is suggested that you purchase the newspaper for your records the day the notice is published.

3. Send out the Public Hearing Notice/ Neighbor Notification by First Class Mail. Notice shall be mailed by the applicant in official envelopes provided by the North Castle Planning Department; the list of noticed neighbors will be prepared by the Assessor's Office. This must be sent out no less than 10 days prior to the meeting and no more than 20 days prior to the meeting date. A Certificate of Mailing (PS Form 3817 or 3877) shall be filled out and post marked by the Post Office on the day of mailing. Neighbor Notifications – no publication in the newspaper required.
4. The Friday before the meeting or no later than 12:00 p.m. the day of the meeting the following **must** be submitted.
  - List of Neighbors prepared by the Assessor's Office
  - Certificate of Mailing – PS form 3817 or 3877 post marked by the US Post Office
  - Affidavit of publication from the Newspaper (only if published in the newspaper)



Name and Address of Sender		Check type of mail or service <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Priority Mail Express <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail <input type="checkbox"/> Certified Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Collect on Delivery (COD) <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Priority Mail		<b>Affix Stamp Here</b> <i>(if issued as an international certificate of mailing or for additional copies of this receipt).</i> <b>Postmark with Date of Receipt.</b>												
USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee		
1.				Handling Charge - if Registered and over \$50,000 in value												
2.																
3.																
4.									Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling	
5.																
6.																
7.																
8.																
Total Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster, Per (Name of receiving employee)														



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**APPLICATIONS REQUIRING PLANNING BOARD APPROVAL**  
**SCHEDULE OF APPLICATION FEES**

<b><u>Type of Application</u></b>	<b><u>Application Fee</u></b>
Site Development Plan	\$200.00
Each proposed Parking Space	\$10
Special Use Permit (each)	\$200 (each)
Preliminary Subdivision Plat	\$300 1 <sup>st</sup> Lot \$200 (each additional lot)
Final Subdivision Plat	\$250 1 <sup>st</sup> Lot \$100 (each additional lot)
Tree Removal Permit	\$75
Wetlands Permit	\$50 (each)
Short Environmental Assessment Form	\$50
Long Environmental Assessment Form	\$100
Recreation Fee	\$10,000 Each Additional Lot
Discussion Fee	\$200.00
Prior to submission of a sketch or preliminary subdivision Plat, an applicant or an applicant's representative wishes to discuss a subdivision proposal to the Planning Board, a discussion fee of \$200.00 shall be submitted for each informal appearance before the board.	

\*Any amendment to previously approved applications requires new application forms and Fes\*



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**PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS**

<b><u>Type of Application Deposit*</u></b>	<b><u>Amount of Initial Escrow Account</u></b>
Concept Study	\$500.00
Site Plan Waiver for Change of Use	\$500.00
Site Development Plan for:	
Multifamily Developments	\$3,000.00 plus \$100.00 per proposed dwelling unit
Commercial Developments	\$3,000.00 plus \$50.00 for each required parking space
1 or 2 Family Projects	\$2,000.00
Special Use Permit	\$2,000.00 plus \$50.00 for each required parking space
Subdivision:	
Lot Line Change resulting in no new lots	\$1,500.00
All Others	\$3,000.00 plus \$200.00 per proposed new lot in excess of two (2)
Preparation or Review of Environmental Impact Statement	\$15,000.00

\* If a proposed action involves multiple approvals, a single escrow account will be established. The total amount of the initial deposit shall be the sum of the individual amounts indicated. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit.

---

Applicant Signature

Date: 11/13/23

**I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES**

Name of Property Owner: Town of North Castle  
Mailing Address: 15 Bedford Road, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com

Name of Applicant (if different): Town of North Castle  
Address of Applicant: 15 Bedford Road, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com  
Interest of Applicant, if other than Property Owner:  
\_\_\_\_\_

Is the Applicant (if different from the property owner) a Contract Vendee?  
Yes  No   
If yes, please submit affidavit stating such. If no, application cannot be reviewed by Planning Board

Name of Professional Preparing Site Plan: Joseph M. Cermele, P.E., CFM  
Address: 500 Main Street, Armonk, New York 10504  
Telephone: 914-273-2323 Fax: \_\_\_\_\_ e-mail jcermele@kscjconsulting.com

Name of Other Professional: OLA Consulting Engineers, P.C.  
Address: 50 Broadway, Hawthorne, New York 10532  
Telephone: 914-909-3204 Fax: \_\_\_\_\_ e-mail mlillis@olace.com

Name of Attorney (if any): \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ e-mail \_\_\_\_\_

### **Applicant Acknowledgement**

By making this application, the undersigned Applicant agrees to permit Town officials and their designated representatives to conduct on-site inspections in connection with the review of this application.

The Applicant also agrees to pay all expenses for the cost of professional review services required for this application.

It is further acknowledged by the Applicant that all bills for the professional review services shall be mailed to the Applicant, unless the Town is notified in writing by the Applicant at the time of initial submission of the application that such mailings should be sent to a designated representative instead.

Signature of Applicant: \_\_\_\_\_ Date: 11/13/23

Signature of Property Owner: \_\_\_\_\_ Date: 11/13/23

**MUST HAVE BOTH SIGNATURES**

**II. IDENTIFICATION OF SUBJECT PROPERTY**

Street Address: 23 Whippoorwill Road East and Un-Numbered Town Parcel

Location (in relation to nearest intersecting street):

430 feet (north, south, east or west) of West of NYS Route 128

Abutting Street(s): Kent Place

Tax Map Designation (NEW): Section 108.01 & 108.03 Block 6 & 1 Lot 51 & 78

Tax Map Designation (OLD): Section \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_

Zoning District: R-3/4A Total Land Area +/- 2.296 Acres

Land Area in North Castle Only (if different) \_\_\_\_\_

Fire District(s) Armonk Fire Dept. School District(s) Byram Hills School District

Is any portion of subject property abutting or located within five hundred (500) feet of the following:

The boundary of any city, town or village?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

If yes, please identify name(s): \_\_\_\_\_

The boundary of any existing or proposed County or State park or any other recreation area?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed boundary of any county or State owned land on which a public building or institution is situated?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The boundary of a farm operation located in an agricultural district?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

Does the Property Owner or Applicant have an interest in any abutting property?

No  Yes \_\_\_\_\_

If yes, please identify the tax map designation of that property:

\_\_\_\_\_



**III. DESCRIPTION OF PROPOSED DEVELOPMENT**

Proposed Use: Parking Lot

Gross Floor Area: Existing \_\_\_\_\_ S.F. Proposed \_\_\_\_\_ S.F.

Proposed Floor Area Breakdown:

Retail \_\_\_\_\_ S.F.; Office \_\_\_\_\_ S.F.;

Industrial \_\_\_\_\_ S.F.; Institutional \_\_\_\_\_ S.F.;

Other Nonresidential \_\_\_\_\_ S.F.; Residential \_\_\_\_\_ S.F.;

Number of Dwelling Units: \_\_\_\_\_

Number of Parking Spaces: Existing 41 Required N/A Proposed 84

Number of Loading Spaces: Existing \_\_\_\_\_ Required \_\_\_\_\_ Proposed \_\_\_\_\_

Earthwork Balance: Cut 1,149 C.Y. Fill 567 C.Y.

Will Development on the subject property involve any of the following:

Areas of special flood hazard? No \_\_\_\_\_ Yes X

(If yes, application for a Development Permit pursuant to Chapter 177 of the North Castle Town Code may also be required)

Trees with a diameter at breast height (DBH) of 8" or greater?

No \_\_\_\_\_ Yes X

(If yes, application for a Tree Removal Permit pursuant to Chapter 308 of the North Castle Town Code may also be required.)

Town-regulated wetlands? No \_\_\_\_\_ Yes X

(If yes, application for a Town Wetlands Permit pursuant to Chapter 340 of the North Castle Town Code may also be required.)

State-regulated wetlands? No X Yes \_\_\_\_\_

(If yes, application for a State Wetlands Permit may also be required.)

#### **IV. SUBMISSION REQUIREMENTS**

The site development plan application package shall include all materials submitted in support of the application, including but not limited to the application form, plans, reports, letters and SEQR Environmental Assessment Form. **Submission of the following shall be required:**

- One (1) PDF set of the site development plan application package in a single PDF file .
- A check for the required application fee and a check for the required Escrow Account, both made payable to "Town of North Castle" in the amount specified on the "Schedule of Application Fees."

(continued next page)

## V. INFORMATION TO BE INCLUDED ON SITE DEVELOPMENT PLAN

The following checklist is provided to enable the Applicant to determine if he/she has provided enough information on the site development plan for the Planning Board to review his/her proposal. Applicants are advised to review ARTICLE VIII, Site Development Plan of the North Castle Town Code for a complete enumeration of pertinent requirements and standards prior to making application for site development plan approval.

The application for site development plan approval will not be accepted for Planning Board review unless all items identified below are supplied and **so indicated with a check mark in the blank line provided**. If a particular item is not relevant to the subject property or the development proposal, **the letters "NA" should be entered instead**. In addition, the project will not be scheduled on a Planning Board agenda until the Applicant receives an initialed "site plan checklist" from the Planning Department.

The information to be included on a site development plan shall include:

### **Legal Data:**

- Name of the application or other identifying title.
- Name and address of the Property Owner and the Applicant, (if different).
- Name, address and telephone number of the architect, engineer or other legally qualified professional who prepared the plan.
- Names and locations of all owners of record of properties abutting and directly across any and all adjoining streets from the subject property, including the tax map designation of the subject property and abutting and adjoining properties, as shown on the latest tax records.
- Existing zoning, fire, school, special district and municipal boundaries.
- Size of the property to be developed, as well as property boundaries showing dimensions and bearings as determined by a current survey; dimensions of yards along all property lines; name and width of existing streets; and lines of existing lots, reservations, easements and areas dedicated to public use.
- Reference to the location and conditions of any covenants, easements or deed restrictions that cover all or any part of the property, as well as identification of the document where such covenants, easements or deed restrictions are legally established.
- Schedule of minimum zoning requirements, as well as the plan's proposed compliance with those requirements, including lot area, frontage, lot width, lot depth, lot coverage, yards, off-street parking, off-street loading and other pertinent requirements.
- Locator map, at a convenient scale, showing the Applicant's entire property in relation to surrounding properties, streets, etc., within five hundred (500) feet of the site.
- North arrow, written and graphic scales, and the date of the original plan and all revisions, with notation identifying the revisions.
- A signature block for Planning Board endorsement of approval.

**Existing Conditions Data:**

- Location of existing use and design of buildings, identifying first floor elevation, and other structures.
- Location of existing parking and truck loading areas, with access and egress drives thereto.
- Location of existing facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.
- Location of all other existing site improvements, including pavement, walks, curbing, retaining walls and fences.
- Location, size and design of existing signs.
- Location, type, direction, power and time of use of existing outdoor lighting.
- Location of existing outdoor storage, if any.
- Existing topographical contours with a vertical interval of two (2) feet or less.
- Location of existing floodplains, wetlands, slopes of 15% or greater, wooded areas, landscaped areas, single trees with a DBH of 8" or greater, rock outcrops, stone walls and any other significant existing natural or cultural features.

**Proposed Development Data:**

- Proposed location of lots, streets, and public areas, and property to be affected by proposed easements, deed restrictions and covenants.
- Proposed location, use and architectural design of all buildings, including proposed floor elevations and the proposed division of buildings into units of separate occupancy.
- Proposed means of vehicular and pedestrian access to and egress from the site onto adjacent streets.
- Proposed sight distance at all points of vehicular access.
- Proposed number of employees for which buildings are designed
- Proposed streets, with profiles indicating grading and cross-sections showing the width of the roadway; the location and width of sidewalks; and the location and size of utility lines.
- Proposed location and design of any pedestrian circulation on the site and off-street parking and loading areas, including handicapped parking and ramps, and including details of construction, surface materials, pavement markings and directional signage.
- Proposed location and design of facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.

- Proposed location of all structures and other uses of land, such as walks, retaining walls, fences, designated open space and/or recreation areas and including details of design and construction.
- Location, size and design of all proposed signs.
- Location, type, direction, power and time of use of proposed outdoor lighting.
- Location and design of proposed outdoor garbage enclosure.
- Location of proposed outdoor storage, if any.
- Location of proposed landscaping and buffer screening areas, including the type (scientific and common names), size and amount of plantings.
- Type of power to be used for any manufacturing
- Type of wastes or by-products to be produced and disposal method
- In multi-family districts, floor plans, elevations and cross sections
- The proposed location, size, design and use of all temporary structures and storage areas to be used during the course of construction.
- Proposed grade elevations, clearly indicating how such grades will meet existing grades of adjacent properties or the street.
- Proposed soil erosion and sedimentation control measures.
- For all proposed site development plans containing land within an area of special flood hazard, the data required to ensure compliance with Chapter 177 of the North Castle Town Code.
- For all proposed site development plans involving clearing or removal of trees with a DBH of 8" or greater, the data required to ensure compliance with Chapter 308 of the North Castle Town Code.
- For all proposed site development plans involving disturbance to Town-regulated wetlands, the data required to ensure compliance with Chapter 340 of the North Castle Town Code.



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**WESTCHESTER COUNTY**  
17 Bedford Road  
Armonk, New York 10504-1898

**PLANNING DEPARTMENT**  
**Adam R. Kaufman, AICP**  
**Director of Planning**

Telephone: (914) 273-3542  
Fax: (914) 273-3554  
[www.northcastleny.com](http://www.northcastleny.com)

## Application for Preliminary Subdivision Approval

### Application Name

Kent Place/Verizon Parking Plan

23 Whippoorwill Road East and Un-Numbered Town Parcel



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### Important General Information

- Prior to submitting an application, the "Notice to Applicants" should be reviewed.
- To appear before the Planning Board, all required application materials shall be submitted not later than **12:00 P.M., Monday, fourteen (14) days** prior to the date of the Planning Board meeting at which the application is scheduled to be heard or as otherwise noted by the Planning Board Secretary. Continuing Business can be submitted 12 days prior to the Next Planning Board meeting by the close of business. Except where noted.  
If all required application materials, including the pertinent application fee and escrow monies are not submitted by that deadline, the application shall be automatically removed from the agenda.  
At the discretion of the Planning Board Chairman, the application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Without prior authorization from the Planning Board, application submissions shall not be accepted at Planning Board meetings.
- At the time of submission, all required application materials shall be submitted. **Piecemeal** submissions **shall not** be accepted. Substitution of previously submitted materials shall not be permitted.
- All submissions shall be dated, with revision dates identified on new submissions.
- All submissions shall be accompanied by a cover letter describing the project and/or any changes as compared to previous submissions.
- To be considered complete for Planning Board hearing purposes, an application package shall contain the information identified in Parts IV and V of this application form.



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**AT THE TIME OF SUBMISSION TO THE PLANNING DEPARTMENT  
PLEASE MAKE SURE THE FOLLOWING IS PROVIDED**

- ✓ SUBMISSION OF A SINGLE PDF FILE (PLANS, APPLICATION FORM, OTHER PAPERWORK) ON A DISK, THUMBDRIVE OR EMAIL
  
- ✓ COVER LETTER DESCRIBING THE PROJECT OR CHANGES TO THE PROJECT
  
- ✓ ALL PLANS ARE SIGNED AND SEALED BY A LICENSED NYS PROFESSIONAL





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## **NOTICE TO APPLICANTS**

In the Town of North Castle, the Planning Board is responsible for the review and approval of all applications concerning site plans, subdivisions and lot line changes; some applications concerning special use permits, wetlands permits and tree removal permits; and the environmental review of those applications over which it has jurisdiction. The Planning Board may also have an advisory role in connection with some applications before the Town Board, such as those involving other categories of special use permits and zoning amendments.

The Planning Board is composed of five volunteer members – all residents of North Castle – who are appointed by the Town Board for five-year terms. As part of the review of some applications, the Planning Board is assisted on an as-needed basis by other lay boards of the Town, such as the Conservation Board (CB), the Zoning Board of Appeals (ZBA), the Open Space Committee and the Architectural Review Board (ARB). As part of the review of most applications, the Planning Board is also assisted by the Director of Planning, the Town Engineer, the Town Attorney and other special consultants when required.

### **FEES:**

If you submit an application for Planning Board review, you will be required to reimburse the Town for the cost of professional review services, including legal and engineering services, incurred in connection with the review of your application. The charges for professional planning review services have been \$120/hour. If other types of professional consultant review services are required, those charges will be in accord with fees usually charged for such services and pursuant to a contractual agreement between the Town and such professional.

At the time of submission of an application, the Planning Board will require the establishment of an escrow account from which withdrawals shall be made to reimburse the Town for the cost of consultant fees and professional staff services.

### **ESCROW ACCOUNT:**

Escrow Accounts are established for each application. Monies will be deducted from the account for professional review services rendered. Monthly escrow disbursement summaries will be mailed for your reference regarding your project. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, a letter will be mailed to the applicant and the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit. Additional information on these requirements is provided in the North Castle Town Code (see Sections 355-79B and 275-36.C).



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**PROCEDURE:**

Prior to submitting an application to the Planning Board for review and approval, prospective applicants should schedule an appointment with the Planning Board Secretary at (914) 273-3542 for a consultation with the Town Planner and the Town Engineer. When the appointment is made, a verbal description of the proposal should be provided to the Planning Board Secretary. The Town of North Castle is providing the services of the Director of Planning and the Town Engineer for *initial* consultation at no cost to the applicant so that it is possible to conduct the application review as efficiently as possible for the benefit of the applicant as well as the Planning Board.

After meeting with the Town Planner and Town Engineer, prospective applicants should prepare one complete set of application documents and plans. This set will be reviewed for completeness by the Town Planner. If determined to be incomplete, the Planning Department will submit a checklist indicating which items have not been adequately addressed. If determined to be complete, the checklist will be initialed and the Applicant should submit the remainder of the required application packages.

Once the checklist has been initialed and all application packages have been submitted, the Planning Board Secretary will schedule the application for the first available opening on the Planning Board's meeting agenda. However, if the required application material packages, including the pertinent application fee are not received at the Planning Board office by 12:00 PM, Monday, 14 days prior to the date of the Planning Board meeting at which you are scheduled to appear (or otherwise scheduled by the Planning Board Secretary), your application will be automatically removed from the agenda. At the discretion of the Planning Board Chairman, your application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Additional requirements pertinent to each type of application are provided on the individual application forms, which you should carefully review prior to submitting your application.

When an application is deemed complete and submitted for review, it will be forwarded to the Planning Board Members and its professional advisors in advance of the meeting to allow adequate time for review, preparation of written reports and site inspections as necessary. Your application may also be forwarded to other boards and staff of the Town as well as to agencies outside of the Town, if required. Compliance with State Environmental Quality Review (SEQR) procedures is also required as part of the processing of all applications.

At your first appearance before the Planning Board, the Applicant will describe the project and the Planning Board will discuss any preliminary issues. The Planning Board discussion may be continued at future meetings, or if the Planning Board review has progressed sufficiently, the Application may be scheduled for a public hearing (if one is required) The public hearing may occur at a single Planning Board meeting, or it may be adjourned and continued at another Planning Board meeting. Because the nature and complexity of each application varies



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considerably, it is not possible to predict in advance the length of time needed to secure Planning Board approval. There are certain steps that you can take, however, to expedite the review process. These include, but are not limited to, the following:

- Be thoroughly familiar with the requirements pertinent to your application. Carefully review relevant provisions of the North Castle Town Code and the application form for your particular type of application. Be sure to check on what other types of approvals may be required in addition to that of the Planning Board. Approvals by other Town boards or departments as well as agencies outside of the Town may be required before you will be allowed to proceed with your project.
- Make sure that your application materials are accurately prepared and contain all required information. The information that we initially request is required, so make sure that your submission is complete. If supplementary information is requested as the review process continues, make sure that it is submitted in a timely fashion so the Planning Board can continue to move your application along.
- Follow up to make sure that your application materials are being submitted on time, or deliver them to the Planning office yourself.
- Attend the Planning Board meeting at which your application will be discussed and be on time for the meeting. If you cannot appear personally, make sure that your representative will be there and is thoroughly familiar with your application.

If the Application is approved by the Planning Board, a resolution of approval will be adopted by the Planning Board. It is the Applicant's responsibility to address any and all conditions of approval. Permits from the Building Department cannot be issued until all conditions have been addressed and the plans have been signed by the Planning Board Chair and the Town Engineer.

**ON LINE AGENDAS & PLANNING DEPARTMENT MEMORANDA CAN BE  
REVIEWED AT**

**[WWW.NORTHCASTLENY.COM](http://WWW.NORTHCASTLENY.COM)**



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### INFORMATION REGARDING PUBLIC HEARINGS

1. The North Castle Assessor's Office shall prepare a list of neighbors to be notified for the neighbor notifications and public hearings - **A minimum of one week's notice is required**. The fee is \$50.00 which includes the list of neighbors and two sets of labels for mailing. The Assessor's Office may be reached Monday – Friday from 8:30 a.m.– 4:30 p.m. at 273-3324. You may also e-mail your request to [assessor@northcastleny.com](mailto:assessor@northcastleny.com)

When requesting your list please reference the list of application types below so that you can tell the Assessor's office how many feet on all sides of the property to create the list for.

**Subdivisions** - All lots zoned R-10, R-5 and R-2F shall notice all neighbors within 200 feet from all sides of their property. All other zoning districts shall notice neighbors within 500 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Special Use Permit for Structures over 800 sq ft. & Accessory Apartment** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Non Residential** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Residential/ Neighbor Notification** – All zoning districts R-3/4A or smaller shall notice all neighbors within 250' from all sides of their property. All zoning districts zoned R-1A or larger shall notice all neighbors within 500' from all sides of the property. No public hearing required, no publication in the newspaper required.

**Wetlands Permit** - All Zoning Districts shall notice all abutting property owners. Public hearing notice must be published in the newspaper.

2. The Director of Planning will prepare a Public Notice. The applicant and or professional will review, sign, date and return to the Planning Department Secretary. If there are any changes necessary, please edit and return for corrections. The corrections will be made and emailed back to the applicant who will forward it to the Journal Newspaper, when applicable.

**If notification to the newspaper is not required, please continue to #3.**



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You may email your public notice to [legals@lohud.com](mailto:legals@lohud.com). Please request an affidavit of publication which must be submitted to the Planning Board secretary prior to the public hearing. The Journal News requires three days prior notice before 12 noon, not counting weekends and holidays, for ad placement. Make sure the notice placement of the ad in the Greater Westchester Area. This notice cannot be published any sooner than 20 days prior to the meeting and must be published no less than 10 days prior to the meeting.

If you have any questions regarding your publication you may call 888-516-9220:  
Email Address: [legals@lohud.com](mailto:legals@lohud.com)

It is suggested that you purchase the newspaper for your records the day the notice is published.

3. Send out the Public Hearing Notice/ Neighbor Notification by First Class Mail. Notice shall be mailed by the applicant in official envelopes provided by the North Castle Planning Department; the list of noticed neighbors will be prepared by the Assessor's Office. This must be sent out no less than 10 days prior to the meeting and no more than 20 days prior to the meeting date. A Certificate of Mailing (PS Form 3817 or 3877) shall be filled out and post marked by the Post Office on the day of mailing. Neighbor Notifications – no publication in the newspaper required.
4. The Friday before the meeting or no later than 12:00 p.m. the day of the meeting the following **must** be submitted.
  - List of Neighbors prepared by the Assessor's Office
  - Certificate of Mailing – PS form 3817 or 3877 post marked by the US Post Office
  - Affidavit of publication from the Newspaper (only if published in the newspaper)



Name and Address of Sender		Check type of mail or service <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Priority Mail Express <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail <input type="checkbox"/> Certified Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Collect on Delivery (COD) <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Priority Mail		<b>Affix Stamp Here</b> <i>(if issued as an international certificate of mailing or for additional copies of this receipt).</i> <b>Postmark with Date of Receipt.</b>											
USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee	
1.				Handling Charge - if Registered and over \$50,000 in value											
2.															
3.															
4.									Adult Signature Required						
5.										Adult Signature Restricted Delivery					
6.										Restricted Delivery					
7.										Return Receipt					
8.										Signature Confirmation					
Total Number of Pieces Listed by Sender		Total Number of Pieces Received at Post Office		Postmaster, Per (Name of receiving employee)											



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**APPLICATIONS REQUIRING PLANNING BOARD APPROVAL**  
**SCHEDULE OF APPLICATION FEES**

<b><u>Type of Application</u></b>	<b><u>Application Fee</u></b>
Site Development Plan	\$200.00
Each proposed Parking Space	\$10
Special Use Permit (each)	\$200 (each)
Preliminary Subdivision Plat	\$300 1 <sup>st</sup> Lot \$200 (each additional lot)
Final Subdivision Plat	\$250 1 <sup>st</sup> Lot \$100 (each additional lot)
Tree Removal Permit	\$75
Wetlands Permit	\$50 (each)
Short Environmental Assessment Form	\$50
Long Environmental Assessment Form	\$100
Recreation Fee	\$10,000 Each Additional Lot
Discussion Fee	\$200.00
Prior to submission of a sketch or preliminary subdivision Plat, an applicant or an applicant's representative wishes to discuss a subdivision proposal to the Planning Board, a discussion fee of \$200.00 shall be submitted for each informal appearance before the board.	

\*Any amendment to previously approved applications requires new application forms and Fes\*



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**PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS**

<b><u>Type of Application Deposit*</u></b>	<b><u>Amount of Initial Escrow Account</u></b>
Concept Study	\$500.00
Site Plan Waiver for Change of Use	\$500.00
Site Development Plan for:	
Multifamily Developments	\$3,000.00 plus \$100.00 per proposed dwelling unit
Commercial Developments	\$3,000.00 plus \$50.00 for each required parking space
1 or 2 Family Projects	\$2,000.00
Special Use Permit	\$2,000.00 plus \$50.00 for each required parking space
Subdivision:	
Lot Line Change resulting in no new lots	\$1,500.00
All Others	\$3,000.00 plus \$200.00 per proposed new lot in excess of two (2)
Preparation or Review of Environmental Impact Statement	\$15,000.00

\* If a proposed action involves multiple approvals, a single escrow account will be established. The total amount of the initial deposit shall be the sum of the individual amounts indicated. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit.

---

Applicant Signature

Date: 11/13/23



**I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES**

Name of Property Owner: Town of North Castle  
Mailing Address: 15 Bedford Road, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com

Name of Applicant (if different): Town of North Castle  
Address of Applicant: 15 Bedford Road, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com  
Interest of Applicant, if other than Property Owner:  
\_\_\_\_\_

Is the Applicant (if different from the property owner) a Contract Vendee?  
Yes  No   
If yes, please submit affidavit stating such. If no, application cannot be reviewed by Planning Board

Name of Professional Preparing Site Plan: Joseph M. Cermele, P.E., CFM  
Address: 500 Main Street, Armonk, New York 10504  
Telephone: 914-273-2323 Fax: \_\_\_\_\_ e-mail jcermele@kscjconsulting.com

Name of Other Professional: OLA Consulting Engineers, P.C.  
Address: 50 Broadway, Hawthorne, New York 10532  
Telephone: 914-909-3204 Fax: \_\_\_\_\_ e-mail mlillis@olace.com

Name of Attorney (if any): \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ e-mail \_\_\_\_\_

### **Applicant Acknowledgement**

By making this application, the undersigned Applicant agrees to permit Town officials and their designated representatives to conduct on-site inspections in connection with the review of this application.

The Applicant also agrees to pay all expenses of publication and the giving of public notice as required, and further acknowledges that he/she shall be responsible for reimbursing the Town for the cost of professional review services required for this application.

It is further acknowledged by the Applicant that all bills for the expenses of publication and the giving of public notice as well as professional consultant review services shall be mailed to the Applicant, unless the Town is notified in writing by the Applicant at the time of initial submission of the application that such mailings should be sent to a designated representative instead.

Signature of Applicant: \_\_\_\_\_ Date: 11/13/23

Signature of Property Owner: \_\_\_\_\_ Date: 11/13/23

Must have both signatures

**II. IDENTIFICATION OF SUBJECT PROPERTY**

Property Street Address: 23 Whippoorwill Road East and Un-Numbered Town Parcel

Location (in relation to nearest intersecting street):

430 feet (north, south, east or west) of West of NYS Route 128

Abutting Street(s): Kent Place

Tax Map Designation (NEW): Section 108.01 & 108.03 Block 6 & 1 Lot 51 & 78

Tax Map Designation (OLD): Section \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_

Zoning District: R-3/4A Total Land Area +/-2.296 Acres

Land Area in North Castle Only (if different) \_\_\_\_\_

Fire District(s) Armonk Fire Dept. School District(s) Byram Hills School District

Is any portion of subject property abutting or located within five hundred (500) feet of the following:

The boundary of any city, town or village?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

If yes, please identify name(s): \_\_\_\_\_

The boundary of any existing or proposed County or State park or any other recreation area?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed boundary of any county or State owned land on which a public building or institution is situated?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The boundary of a farm operation located in an agricultural district?

No  Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

Does the Property Owner or Applicant have an interest in any abutting property?

No  Yes \_\_\_\_\_

If yes, please identify the tax map designation of that property:

\_\_\_\_\_

**III. DESCRIPTION OF PROPOSED DEVELOPMENT**

Type of Subdivision proposed: Conventional \_\_\_\_\_ Conservation \_\_\_\_\_

Total Number of Lots Proposed on Preliminary Subdivision Plat: 2

Total Number of Lots Proposed in North Castle Only (if different): \_\_\_\_\_

Are any new streets proposed? No  Yes \_\_\_\_\_

Has the center line of each proposed street been staked? No  Yes \_\_\_\_\_

If no, please indicate the date by which such center lines will be staked: \_\_\_\_\_

Have the corners of each proposed lot been identified with appropriate stakes? No  Yes \_\_\_\_\_

If no, please indicate the date by which such lot corners will be staked: \_\_\_\_\_

Are any waivers from the provisions of Chapter 355 (Zoning) or Chapter 275 (Subdivision of Land) of the North Castle Town Code requested? No  Yes \_\_\_\_\_

If yes, please specify type: \_\_\_\_\_

Earthwork Balance: Cut 1,149 C.Y. Fill 567 C.Y.

Will Development on the subject property involve any of the following:

Areas of special flood hazard? No \_\_\_\_\_ Yes

(If yes, application for a Development Permit pursuant to Chapter 177 of the North Castle Town Code may also be required)

Trees with a diameter at breast height (DBH) of 8" or greater?

No \_\_\_\_\_ Yes

(If yes, application for a Tree Removal Permit pursuant to Chapter 308 of the North Castle Town Code may also be required.)

Town-regulated wetlands? No \_\_\_\_\_ Yes

(If yes, application for a Town Wetlands Permit pursuant to Chapter 340 of the North Castle Town Code may also be required.)

State-regulated wetlands? No  Yes \_\_\_\_\_

(If yes, application for a State Wetlands Permit may also be required.)

#### **IV. SUBMISSION REQUIREMENTS**

The preliminary subdivision application package shall include all materials submitted in support of the application, including but not limited to the application form, plans, reports, letters and SEQR Environmental Assessment Form. **Submission of the following shall be required:**

- One (1) PDF set of the preliminary subdivision application package in a single PDF file .
- A check for the required application fee and a check for the required Escrow Account, both checks made payable to "Town of North Castle" in the amount specified on the "Schedule of Application Fees."

(continued next page)

## V. INFORMATION TO BE INCLUDED ON PRELIMINARY SUBDIVISION PLAT

The following checklist is provided to enable the Applicant to determine if he/she has provided enough information on the preliminary subdivision plat and preliminary construction plans for the Planning Board to review his/her proposal. Applicants are advised to review Chapter 275 of the North Castle Town Code for a complete enumeration of pertinent requirements and standards prior to making application for preliminary subdivision plat approval.

The information required to be shown on the preliminary subdivision plat and the preliminary construction plans may be combined and shown on one plan to be identified as the Integrated Plot Plan. Whether this information is presented on one or two different plans, the application for preliminary subdivision plat approval will not be accepted for Planning Board review unless all items identified below are supplied and **so indicated with a check mark in the blank line provided**. If a particular item is not relevant to the subject property or the development proposal, **the letters "NA" should be entered instead**.

The information to be included on an Integrated Plot Plan shall include:

- Name of the proposed subdivision or other identifying title and signature block.
- Name and address of the Property Owner and the Applicant (if different).
- Name, address and telephone number of the surveyor, engineer or other legally qualified professional and the seal of the professional who prepared the plan.
- Names and locations of all owners of record of properties abutting and directly across any and all adjoining streets from the subject property, including the tax map designation of the subject property and abutting and adjoining properties, as shown on the latest tax records.
- Existing zoning, fire district, school district, special district and municipal boundaries.
- Names of existing streets
- Total acreage of the property to be developed, as well as property boundaries showing dimensions and bearings as determined by a current survey; name and width of existing streets; and lines of existing rights-of-way, reservations, easements and areas dedicated to public uses.
- Reference to the location and conditions of any covenants, easements or deed restrictions that cover all or any part of the property, as well as identification of the document where such covenants, easements or deed restrictions are legally established .
- Schedule of minimum zoning requirements, as well as the proposed lots' compliance with those requirements, including lot area, frontage, lot width, lot depth, building coverage, yards and other pertinent requirements.
- Site location map, at a scale of one (1) inch equals eight hundred (800) feet, showing the Applicant's entire property in relation to surrounding properties, streets, etc. within five hundred (500) feet of the site.
- North arrow, written and graphic scales, and the date of the original plan and all revisions, with notations identifying the revisions.
- Existing topographical contours with a vertical interval of two (2) feet or less.

- Location of existing floodplains, wetlands, slopes of 15% or greater, wooded areas, landscaped areas, single trees with a DBH of 8" or greater, rock outcrops, stone walls and any other significant existing natural or cultural features.
- Location of temporary stakes in the field to enable the Planning Board to find and appraise features of the preliminary plat.
- Location of existing use and design of buildings and other structures.
- Location of all other existing site improvements, including pavement, walks, curbing, retaining wall and fences.
- Location and sizes of existing water supply, sanitary sewage disposal, storm water drainage and other utility lines and structures within and nearby the proposed subdivision.
- Location of all existing monuments.
- Proposed arrangement of lots, including identifying numbers and approximate area and dimensions of each.
- Proposed layout of new streets, including sight distance at all proposed road intersections, widths and approximate curve radii, and any proposed rights-of-way, easements, deed restrictions, covenants and/or reservations.
- Location, size and nature of any area proposed to be reserved for park purposes.
- Proposed system for the provision of water supply and fire protection facilities, sanitary sewage disposal facilities, storm water drainage facilities and other utility services.
- Proposed street profiles and cross-sections showing the approximate grade of proposed streets, the relationship of existing grades to proposed grades and the proposed vertical curvature along the center line of all new streets.
- Proposed names for new streets.
- Location of proposed monuments.
- Where the preliminary plat includes only a portion of the Applicant's contiguous holding, the Applicant shall also indicate on a sketch, at a scale of not less than one (1) inch equals two hundred (200) feet, the probable future street system, lot arrangement, and location of park and other reservations for the remaining portion of the tract and topographic data with vertical contour interval of not more than ten (10) feet.
- For all proposed subdivision plans containing land within an area of special flood hazard, the data required to ensure compliance with Chapter 177 of the North Castle Town Code.
- For all proposed subdivision plans involving clearing or removal of trees with a DBH of 8" or greater, the data required to ensure compliance with Chapter 308 of the North Castle Town Code.
- For all proposed subdivision plans involving disturbance to Town-regulated wetlands, the data required to ensure compliance with Chapter 340 of the North Castle Town Code.



**TOWN OF NORTH CASTLE**  
**WESTCHESTER COUNTY**  
17 Bedford Road  
Armonk, New York 10504-1898

**PLANNING DEPARTMENT**  
**Adam R. Kaufman, AICP**  
**Director of Planning**

Telephone: (914) 273-3542  
Fax: (914) 273-3554  
[www.northcastleny.com](http://www.northcastleny.com)

## Application for Final Subdivision Approval

### Application Name

Kent Place/Verizon Parking Plan  
23 Whipoorwill Road East and Un-Numbered Town Parcel

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### Important General Information

- Prior to submitting an application, the "Notice to Applicants" should be reviewed.
- To appear before the Planning Board, all required application materials shall be submitted not later than **12:00 P.M., Monday, fourteen (14) days** prior to the date of the Planning Board meeting at which the application is scheduled to be heard or as otherwise noted by the Planning Board Secretary. Continuing Business can be submitted 12 days prior to the Next Planning Board meeting by the close of business. Except where noted.  
If all required application materials, including the pertinent application fee and escrow monies are not submitted by that deadline, the application shall be automatically removed from the agenda.  
At the discretion of the Planning Board Chairman, the application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Without prior authorization from the Planning Board, application submissions shall not be accepted at Planning Board meetings.
- At the time of submission, all required application materials shall be submitted. **Piecemeal** submissions **shall not** be accepted. Substitution of previously submitted materials shall not be permitted.
- All submissions shall be dated, with revision dates identified on new submissions.
- All submissions shall be accompanied by a cover letter describing the project and/or any changes as compared to previous submissions.
- To be considered complete for Planning Board hearing purposes, an application package shall contain the information identified in Parts IV and V of this application form.



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**AT THE TIME OF SUBMISSION TO THE PLANNING DEPARTMENT  
PLEASE MAKE SURE THE FOLLOWING IS PROVIDED**

- ✓ SUBMISSION OF A SINGLE PDF FILE (PLANS, APPLICATION FORM, OTHER PAPERWORK) ON A DISK, THUMBDRIVE OR EMAIL
  
- ✓ COVER LETTER DESCRIBING THE PROJECT OR CHANGES TO THE PROJECT
  
- ✓ ALL PLANS ARE SIGNED AND SEALED BY A LICENSED NYS PROFESSIONAL



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## **NOTICE TO APPLICANTS**

In the Town of North Castle, the Planning Board is responsible for the review and approval of all applications concerning site plans, subdivisions and lot line changes; some applications concerning special use permits, wetlands permits and tree removal permits; and the environmental review of those applications over which it has jurisdiction. The Planning Board may also have an advisory role in connection with some applications before the Town Board, such as those involving other categories of special use permits and zoning amendments.

The Planning Board is composed of five volunteer members – all residents of North Castle – who are appointed by the Town Board for five-year terms. As part of the review of some applications, the Planning Board is assisted on an as-needed basis by other lay boards of the Town, such as the Conservation Board (CB), the Zoning Board of Appeals (ZBA), the Open Space Committee and the Architectural Review Board (ARB). As part of the review of most applications, the Planning Board is also assisted by the Director of Planning, the Town Engineer, the Town Attorney and other special consultants when required.

### **FEES:**

If you submit an application for Planning Board review, you will be required to reimburse the Town for the cost of professional review services, including legal and engineering services, incurred in connection with the review of your application. The charges for professional planning review services have been \$120/hour. If other types of professional consultant review services are required, those charges will be in accord with fees usually charged for such services and pursuant to a contractual agreement between the Town and such professional.

At the time of submission of an application, the Planning Board will require the establishment of an escrow account from which withdrawals shall be made to reimburse the Town for the cost of consultant fees and professional staff services.

### **ESCROW ACCOUNT:**

Escrow Accounts are established for each application. Monies will be deducted from the account for professional review services rendered. Monthly escrow disbursement summaries will be mailed for your reference regarding your project. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, a letter will be mailed to the applicant and the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit. Additional information on these requirements is provided in the North Castle Town Code (see Sections 355-79B and 275-36.C).



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**PROCEDURE:**

Prior to submitting an application to the Planning Board for review and approval, prospective applicants should schedule an appointment with the Planning Board Secretary at (914) 273-3542 for a consultation with the Town Planner and the Town Engineer. When the appointment is made, a verbal description of the proposal should be provided to the Planning Board Secretary. The Town of North Castle is providing the services of the Director of Planning and the Town Engineer for *initial* consultation at no cost to the applicant so that it is possible to conduct the application review as efficiently as possible for the benefit of the applicant as well as the Planning Board.

After meeting with the Town Planner and Town Engineer, prospective applicants should prepare one complete set of application documents and plans. This set will be reviewed for completeness by the Town Planner. If determined to be incomplete, the Planning Department will submit a checklist indicating which items have not been adequately addressed. If determined to be complete, the checklist will be initialed and the Applicant should submit the remainder of the required application packages.

Once the checklist has been initialed and all application packages have been submitted, the Planning Board Secretary will schedule the application for the first available opening on the Planning Board's meeting agenda. However, if the required application material packages, including the pertinent application fee are not received at the Planning Board office by 12:00 PM, Monday, 14 days prior to the date of the Planning Board meeting at which you are scheduled to appear (or otherwise scheduled by the Planning Board Secretary), your application will be automatically removed from the agenda. At the discretion of the Planning Board Chairman, your application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Additional requirements pertinent to each type of application are provided on the individual application forms, which you should carefully review prior to submitting your application.

When an application is deemed complete and submitted for review, it will be forwarded to the Planning Board Members and its professional advisors in advance of the meeting to allow adequate time for review, preparation of written reports and site inspections as necessary. Your application may also be forwarded to other boards and staff of the Town as well as to agencies outside of the Town, if required. Compliance with State Environmental Quality Review (SEQR) procedures is also required as part of the processing of all applications.

At your first appearance before the Planning Board, the Applicant will describe the project and the Planning Board will discuss any preliminary issues. The Planning Board discussion may be continued at future meetings, or if the Planning Board review has progressed sufficiently, the Application may be scheduled for a public hearing (if one is required) The public hearing may occur at a single Planning Board meeting, or it may be adjourned and continued at another Planning Board meeting. Because the nature and complexity of each application varies



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considerably, it is not possible to predict in advance the length of time needed to secure Planning Board approval. There are certain steps that you can take, however, to expedite the review process. These include, but are not limited to, the following:

- Be thoroughly familiar with the requirements pertinent to your application. Carefully review relevant provisions of the North Castle Town Code and the application form for your particular type of application. Be sure to check on what other types of approvals may be required in addition to that of the Planning Board. Approvals by other Town boards or departments as well as agencies outside of the Town may be required before you will be allowed to proceed with your project.
- Make sure that your application materials are accurately prepared and contain all required information. The information that we initially request is required, so make sure that your submission is complete. If supplementary information is requested as the review process continues, make sure that it is submitted in a timely fashion so the Planning Board can continue to move your application along.
- Follow up to make sure that your application materials are being submitted on time, or deliver them to the Planning office yourself.
- Attend the Planning Board meeting at which your application will be discussed and be on time for the meeting. If you cannot appear personally, make sure that your representative will be there and is thoroughly familiar with your application.

If the Application is approved by the Planning Board, a resolution of approval will be adopted by the Planning Board. It is the Applicant's responsibility to address any and all conditions of approval. Permits from the Building Department cannot be issued until all conditions have been addressed and the plans have been signed by the Planning Board Chair and the Town Engineer.

**ON LINE AGENDAS & PLANNING DEPARTMENT MEMORANDA CAN BE  
REVIEWED AT**

**[WWW.NORTHCASTLENY.COM](http://WWW.NORTHCASTLENY.COM)**



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### INFORMATION REGARDING PUBLIC HEARINGS

1. The North Castle Assessor's Office shall prepare a list of neighbors to be notified for the neighbor notifications and public hearings - **A minimum of one week's notice is required**. The fee is \$50.00 which includes the list of neighbors and two sets of labels for mailing. The Assessor's Office may be reached Monday – Friday from 8:30 a.m.– 4:30 p.m. at 273-3324. You may also e-mail your request to [assessor@northcastleny.com](mailto:assessor@northcastleny.com)

When requesting your list please reference the list of application types below so that you can tell the Assessor's office how many feet on all sides of the property to create the list for.

**Subdivisions** - All lots zoned R-10, R-5 and R-2F shall notice all neighbors within 200 feet from all sides of their property. All other zoning districts shall notice neighbors within 500 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Special Use Permit for Structures over 800 sq ft. & Accessory Apartment** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Non Residential** - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

**Site Plan, Residential/ Neighbor Notification** – All zoning districts R-3/4A or smaller shall notice all neighbors within 250' from all sides of their property. All zoning districts zoned R-1A or larger shall notice all neighbors within 500' from all sides of the property. No public hearing required, no publication in the newspaper required.

**Wetlands Permit** - All Zoning Districts shall notice all abutting property owners. Public hearing notice must be published in the newspaper.

2. The Director of Planning will prepare a Public Notice. The applicant and or professional will review, sign, date and return to the Planning Department Secretary. If there are any changes necessary, please edit and return for corrections. The corrections will be made and emailed back to the applicant who will forward it to the Journal Newspaper, when applicable.

**If notification to the newspaper is not required, please continue to #3.**



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You may email your public notice to [legals@lohud.com](mailto:legals@lohud.com). Please request an affidavit of publication which must be submitted to the Planning Board secretary prior to the public hearing. The Journal News requires three days prior notice before 12 noon, not counting weekends and holidays, for ad placement. Make sure the notice placement of the ad in the Greater Westchester Area. This notice cannot be published any sooner than 20 days prior to the meeting and must be published no less than 10 days prior to the meeting.

If you have any questions regarding your publication you may call 888-516-9220:  
Email Address: [legals@lohud.com](mailto:legals@lohud.com)

It is suggested that you purchase the newspaper for your records the day the notice is published.

3. Send out the Public Hearing Notice/ Neighbor Notification by First Class Mail. Notice shall be mailed by the applicant in official envelopes provided by the North Castle Planning Department; the list of noticed neighbors will be prepared by the Assessor's Office. This must be sent out no less than 10 days prior to the meeting and no more than 20 days prior to the meeting date. A Certificate of Mailing (PS Form 3817 or 3877) shall be filled out and post marked by the Post Office on the day of mailing. Neighbor Notifications – no publication in the newspaper required.
4. The Friday before the meeting or no later than 12:00 p.m. the day of the meeting the following **must** be submitted.
  - List of Neighbors prepared by the Assessor's Office
  - Certificate of Mailing – PS form 3817 or 3877 post marked by the US Post Office
  - Affidavit of publication from the Newspaper (only if published in the newspaper)



Name and Address of Sender

Check type of mail or service

Adult Signature Required       Priority Mail Express  
 Adult Signature Restricted Delivery       Registered Mail  
 Certified Mail       Return Receipt for Merchandise  
 Certified Mail Restricted Delivery       Signature Confirmation  
 Collect on Delivery (COD)       Signature Confirmation Restricted Delivery  
 Insured Mail  
 Priority Mail

**Affix Stamp Here**  
*(if issued as an international certificate of mailing or for additional copies of this receipt).*  
**Postmark with Date of Receipt.**

USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
Total Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster, Per (Name of receiving employee)												

Handling Charge - if Registered and over \$50,000 in value

Adult Signature Required

Adult Signature Restricted Delivery

Restricted Delivery

Return Receipt

Signature Confirmation

Signature Confirmation Restricted Delivery

Special Handling





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**APPLICATIONS REQUIRING PLANNING BOARD APPROVAL**  
**SCHEDULE OF APPLICATION FEES**

<b><u>Type of Application</u></b>	<b><u>Application Fee</u></b>
Site Development Plan	\$200.00
Each proposed Parking Space	\$10
Special Use Permit (each)	\$200 (each)
Preliminary Subdivision Plat	\$300 1 <sup>st</sup> Lot \$200 (each additional lot)
Final Subdivision Plat	\$250 1 <sup>st</sup> Lot \$100 (each additional lot)
Tree Removal Permit	\$75
Wetlands Permit	\$50 (each)
Short Environmental Assessment Form	\$50
Long Environmental Assessment Form	\$100
Recreation Fee	\$10,000 Each Additional Lot
Discussion Fee	\$200.00
Prior to submission of a sketch or preliminary subdivision Plat, an applicant or an applicant's representative wishes to discuss a subdivision proposal to the Planning Board, a discussion fee of \$200.00 shall be submitted for each informal appearance before the board.	

\*Any amendment to previously approved applications requires new application forms and Fes\*



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**PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS**

<b><u>Type of Application Deposit*</u></b>	<b><u>Amount of Initial Escrow Account</u></b>
Concept Study	\$500.00
Site Plan Waiver for Change of Use	\$500.00
Site Development Plan for:	
Multifamily Developments	\$3,000.00 plus \$100.00 per proposed dwelling unit
Commercial Developments	\$3,000.00 plus \$50.00 for each required parking space
1 or 2 Family Projects	\$2,000.00
Special Use Permit	\$2,000.00 plus \$50.00 for each required parking space
Subdivision:	
Lot Line Change resulting in no new lots	\$1,500.00
All Others	\$3,000.00 plus \$200.00 per proposed new lot in excess of two (2)
Preparation or Review of Environmental Impact Statement	\$15,000.00

\* If a proposed action involves multiple approvals, a single escrow account will be established. The total amount of the initial deposit shall be the sum of the individual amounts indicated. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit.

---

Applicant Signature

Date: 11/13/23

**I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES**

Name of Property Owner: Town of North Castle  
Mailing Address: 15 Bedford Road, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com

Name of Applicant (if different): Town of North Castle  
Address of Applicant: 500 Main Street, Armonk, New York 10504  
Telephone: 914-273-3000 Fax: \_\_\_\_\_ e-mail khay@northcastleny.com  
Interest of Applicant, if other than Property Owner:  
\_\_\_\_\_

Is the Applicant (if different from the property owner) a Contract Vendee?  
Yes  No   
If yes, please submit affidavit stating such. If no, application cannot be reviewed by Planning Board

Name of Professional Preparing Site Plan: Joseph M. Cermele, P.E., CFM  
Address: 500 Main Street, Armonk, New York 10504  
Telephone: 914-273-2323 Fax: \_\_\_\_\_ e-mail jcermele@kscjconsulting.com

Name of Other Professional: OLA Consulting Engineers, P.C.  
Address: 50 Broadway, Hawthorne, New York 10532  
Telephone: 914-909-3204 Fax: \_\_\_\_\_ e-mail mlillis@olace.com

Name of Attorney (if any): \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ e-mail \_\_\_\_\_

### **Applicant Acknowledgement**

By making this application, the undersigned Applicant agrees to permit Town officials and their designated representatives to conduct on-site inspections in connection with the review of this application.

The Applicant also agrees to pay all expenses of publication and the giving of public notice as required, and further acknowledges that he/she shall be responsible for reimbursing the Town for the cost of professional review services required for this application.

It is further acknowledged by the Applicant that all bills for the expenses of publication and the giving of public notice as well as professional consultant review services shall be mailed to the Applicant, unless the Town is notified in writing by the Applicant at the time of initial submission of the application that such mailings should be sent to a designated representative instead.

Signature of Applicant: \_\_\_\_\_ Date: 11/13/23

Signature of Property Owner: \_\_\_\_\_ Date: 11/13/23

Must have both signatures

**II. IDENTIFICATION OF SUBJECT PROPERTY**

Street Address: 23 Whipporwill Road East and Un-Numbered Town Parcel

Location (in relation to nearest intersecting street):  
430 feet (north, south, east or west) of west of NYS Route 128

Abutting Street(s): Kent Place

Tax Map Designation (NEW): Section 108.01 & 108.03 Block 6 & 1 Lot 51 & 78

Tax Map Designation (OLD): Section \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_

Zoning District: R-3/4A Total Land Area +/-2.296 Acres

Land Area in North Castle Only (if different) \_\_\_\_\_

Fire District(s) Armonk Fire Dept. School District(s) Byram Hills School District

Is any portion of subject property abutting or located within five hundred (500) feet of the following:

The boundary of any city, town or village?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_  
If yes, please identify name(s): \_\_\_\_\_

The boundary of any existing or proposed County or State park or any other recreation area?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The existing or proposed boundary of any county or State owned land on which a public building or institution is situated?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

The boundary of a farm operation located in an agricultural district?  
No X Yes (adjacent) \_\_\_\_\_ Yes (within 500 feet) \_\_\_\_\_

Does the Property Owner or Applicant have an interest in any abutting property?  
No X Yes \_\_\_\_\_

If yes, please identify the tax map designation of that property:  
\_\_\_\_\_

**III. DESCRIPTION OF PROPOSED DEVELOPMENT**

Type of Subdivision proposed: Conventional \_\_\_\_\_ Conservation \_\_\_\_\_

Total Number of Lots Proposed on Final Subdivision Plat: 2

Total Number of Lots Proposed in North Castle Only (if different): \_\_\_\_\_

Is the final subdivision plat in conformance with the approved preliminary subdivision plat?

No \_\_\_\_\_ Yes X

If no, please identify any differences between the two plats \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are any waivers from the provisions of Chapter 355 (Zoning) or Chapter 275 (Subdivision of Land) of the North Castle Town Code requested? No X Yes \_\_\_\_\_

If yes, please specify type: \_\_\_\_\_

Earthwork Balance: Cut 1,149 C.Y. Fill 567 C.Y.

Will Development on the subject property involve any of the following:

Areas of special flood hazard? No \_\_\_\_\_ Yes X

(If yes, application for a Development Permit pursuant to Chapter 177 of the North Castle Town Code may also be required)

Trees with a diameter at breast height (DBH) of 8" or greater?

No \_\_\_\_\_ Yes X

(If yes, application for a Tree Removal Permit pursuant to Chapter 308 of the North Castle Town Code may also be required.)

Town-regulated wetlands? No \_\_\_\_\_ Yes X

(If yes, application for a Town Wetlands Permit pursuant to Chapter 340 of the North Castle Town Code may also be required.)

State-regulated wetlands? No X Yes \_\_\_\_\_

(If yes, application for a State Wetlands Permit may also be required.)

#### **IV. SUBMISSION REQUIREMENTS**

The final subdivision plat application package shall include all materials submitted in support of the application, including but not limited to the application form, final plat, final construction plans, Coverage Calculations Worksheet for each lot, reports, letters and SEQR Environmental Assessment Form. **Submission of the following shall be required:**

- One (1) PDF set of the final subdivision application package in a single PDF.
- A check for the required application fee and a check for the required Escrow Account fee, both made payable to "Town of North Castle" in the amount specified on the "Schedule of Application Fees."

(continued next page)

## V. INFORMATION TO BE INCLUDED ON THE FINAL SUBDIVISION PLAT

The following checklist is provided to enable the Applicant to determine if he/she has provided enough information on the final subdivision plat and final construction plans for the Planning Board to review his/her proposal. Applicants are advised to review Chapter 275 of the North Castle Town Code for a complete enumeration of pertinent requirements and standards prior to making application for final subdivision plat approval.

The information required to be shown on the final subdivision plat and the final construction plans may be combined and shown on one plan to be identified as the Integrated Plot Plan. The application for final subdivision plat approval will not be accepted for Planning Board review unless all items identified below are supplied and **so indicated with a check mark in the blank line provided**. If a particular item is not relevant to the subject property or the development proposal, **the letters "NA" should be entered instead**.

### The information to be included on the final subdivision plat shall include:

- Name of the proposed subdivision or other identifying title.
- Name and address of the Property Owner and the Applicant (if different).
- Name, address and telephone number of the surveyor, engineer or other legally qualified professional who prepared the plan as well as the seal of the professional preparing the plan
- Names and locations of all owners of record of properties abutting and directly across any and all adjoining streets from the subject property, including the tax map designation of the subject property and abutting and adjoining properties, as shown on the latest tax records.
- Location and dimensions of all boundary lines of the proposed subdivision and all existing and proposed streets, lot lines, easements and rights-of-way, with sufficient data to readily determine the location, bearing and length of all such lines and to reproduce such lines upon the ground.
- Names of all existing and proposed streets .
- Locations of all water bodies, watercourses and other wetlands.
- Location of all proposed Clearing and Grading Limit Lines.
- Location of all existing buildings, including identification of all buildings to be removed as a condition of approval.
- Total acreage included in the entire subdivision, and the identification number and acreage of all lots and land reservations within the proposed subdivision.
- Location of all existing and proposed monuments.
- Site location map, at a scale of one (1) inch equals eight hundred (800) feet, showing the Applicant's entire property in relation to surrounding properties, streets, etc. within five hundred (500) feet of the site.
- North arrow, written and graphic scales, and the date of the original plan and all revisions, with notations identifying the revisions.
- Notations explaining any drainage, sight, slope, road widening, park area or other reservations or easements, including any self-imposed restrictions or covenants.
- Endorsement of approval by the Westchester County Department of Health
- Signature block for Planning Board endorsement of approval.



**The information to be included on the final construction plans shall include the following:**

- Plans and profiles showing the location and a typical cross-section of street pavements, including curbs and gutters, sidewalks, manholes and catch basins; the location of street trees, street lighting and street signs; the location, size and invert elevations of existing and proposed sanitary sewers, storm water drains and fire hydrants; the location and size of all water, gas or other underground utilities or structures; and the location and design of any other required improvements.
- Profiles showing existing and proposed elevations along the center line of all streets. Where a proposed street intersects an existing street or streets, the elevation along the center line of the existing street or streets within one hundred (100) feet of the intersection shall be shown.
- Where steep slopes exist and when required by the Planning Board, cross-sections showing existing and proposed elevations of all new streets every one hundred (100) feet at five (5) points on a line at right angles to the center line of the street, said elevation points to be at the center line of the street, at each property line and at points twenty-five (25) feet inside each property line.
- Location, size, elevation and other appropriate description of any existing facilities which will be connected to proposed facilities and utilities within the subdivision.
- Where the design of the subdivision requires regrading of land, the regraded contours shall be shown, along with estimates of the quantity of material to be added or removed and the proposed measures to be implemented by the Applicant to rehabilitate the disturbed area or areas.
- Where the design of the subdivision requires blasting, the blasting areas and proposed measures to reduce impacts shall be shown as required by the Planning Board.
- Where the design of the subdivision requires the regarding of land, the regarded contours shall be shown along with the estimated quantify of material to be added or removed and the proposed measures to be implemented by the subdivider to rehabilitate the disturbed area or areas
- Title of all sheets; the name, address, signature and seal of the licensed professional preparing the construction plans; the date prepared, including revision dates, if any; the north arrow, written and graphic scales and consecutive numbering of each street in the series of plans.
- Notation indicating intended compliance with the Town construction standards and specifications as well as with the requirements of the Planning Board resolution of approval.
- Signature block for Planning Board endorsement of approval.

**The application for final subdivision plat approval shall also be accompanied by the following:**

- \_\_\_\_\_ Proof of ownership by the Applicant of the premises affected by the application and certificate of title company covering all interests, liens and objections to title, if any.
- \_\_\_\_\_ Where subdivision roads and/or other improvements are involved, a statement from the Applicant's engineer giving the estimated cost of construction, together with the quantities and unit costs used in preparing the estimate.
- \_\_\_\_\_ A list of any and all waivers of the provisions of Chapter 355 (Zoning) and Chapter 275 (Subdivision of Land) of the Town of North Castle Town Code which the Applicant requests the Planning Board to grant in this specific case, with the reasons therefor.



## **Town of North Castle Building Department**

17 Bedford Road

Armonk, New York 10504-1898

Telephone: (914) 273-3000 ext. 44 Fax: (914) 273-3554

[www.northcastleny.com](http://www.northcastleny.com)

### **TOWN OF NORTH CASTLE TREE REMOVAL APPLICATION PERMIT**

#### **WHEN A PERMIT IS REQUIRED**

The Town of North Castle finds and declares that the preservation of Trees is necessary to protect the health, safety and general welfare of the Town of North Castle because trees provide shade, impede soil erosion, aid water absorption and retention, inhibit excess runoff and flooding, enhance air quality, offer a natural barrier to noise, provide a natural habitat for wildlife, provide screening, enhance property values and add to the aesthetic quality of the community.

#### **A tree removal permit is required under the following circumstances:**

1. Removal of a tree within a property's regulated setback zone or landscape buffer zone (All trees 8" or greater DBH - Diameter at Breast Height).

The regulated setback zone refers to the area of vegetative screening or landscaping measured from each property line of a residentially zoned property toward the interior of such property.

R-4A One-Family Residence District: 25 feet.

R-2A One-Family Residence District: 15 feet.

R-1.5A One-Family Residence District: 12 feet.

R-1A One-Family Residence District: 10 feet.

All other residential districts: 5 feet

2. Removal of a Significant Tree that's 24 inches or greater DBH at 4 feet.
3. Removal of any tree in wetlands, within clearing lines, or Conservation Easements.
3. Any cutting of more than 5 trees of 8 inches in diameter or more in any one quarter-acre area, within a 12 month period with such area being measured as a square with each side measuring 104 feet.
4. Removal of any street tree within the Right of Way.
5. Removal in any calendar year of more than ten (10) trees on any lot.



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### Tree Removal Application

NOTE: TWO (2) SETS OF ALL REQUIRED DOCUMENTS MUST BE SUBMITTED WITH THIS APPLICATION

**Section I-** PROJECT ADDRESS: \_\_\_\_\_ DATE: \_\_\_\_\_

**Section II-** CONTACT INFORMATION: (Please print clearly. All information must be current)

APPLICANT: \_\_\_\_\_

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

PHONE: \_\_\_\_\_ MOBILE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_

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

PHONE: \_\_\_\_\_ MOBILE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

Tree Company: \_\_\_\_\_

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

PHONE: \_\_\_\_\_ MOBILE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

**Section III-** REGULATED ACTIVITY: (Check all that apply)

\_\_\_\_ Removal of a tree within a property's regulated setback zone or landscaped buffer zone.

\_\_\_\_ Removal of a significant tree.

\_\_\_\_ Removal of any tree in the wetlands, within clearing lines, or conservation easements.

\_\_\_\_ Clearing/Thinning.

\_\_\_\_ Removal of any tree within the right of way.

\_\_\_\_ Removal in any calendar year of more than ten (10) trees on any lot.

**Section IV-** DESCRIPTION OF WORK: ( Please include how many trees will be removed)

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**Section V-** FUTURE PLANS:

Do you have any intention of tearing down the house to build a new house within the next six (6) months. [ ] Yes [ ] No

# Town of North Castle Building Department

## **Section V-** FUTURE PLANS: (Continued)

Do you have any intention to expand the house over 1500 square feet within the next six (6) months?     Yes     No

## **Section VI-** RESTRICTION:

Is there any conservation easements on your deed?     Yes     No

## **Section VII-** PERMIT FEES: (\$50 application fee and a \$25 Certificate of Compliance fee)

## **Section VIII-** APPLICANT CERTIFICATION

I hereby certify that I have read the instructions & examined this application and know the same to be true & correct. All provisions of laws & ordinances covering this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or land use or the performance of construction.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Section IX-** AFFIDAVIT OF OWNER AUTHORIZATION: (To be notarized)

STATE OF NEW YORK            }  
COUNTY OF WESTCHESTER } SS:

The applicant \_\_\_\_\_ has proper consent from said owner to make this application as submitted and said owner agrees to all terms and conditions placed upon same.

Owner's Name (PRINT) \_\_\_\_\_ Owner's Signature \_\_\_\_\_

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

---

### **OFFICE USE ONLY – DO NOT WRITE BELOW THIS LINE**

Zone: \_\_\_\_\_ Section: \_\_\_\_\_ Block: \_\_\_\_\_ Lot: \_\_\_\_\_

## **Building Department Checklist:**

Does this permit require RPRC approval?     Yes     No

Has a plan delineating all improvements, site grading and disturbance proposed on the subject property.     Yes     No

GC License     Work. Comp.     Liability. Ins.     Disability     Two sets of documents

Permit Fee \$75.00    Payment type:     Check #: \_\_\_\_\_     Cash

Name on check: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Building Inspector Approval: \_\_\_\_\_ Date: \_\_\_\_\_

Conditions: \_\_\_\_\_



**STORMWATER POLLUTION**  
**PREVENTION PLAN (SWPPP)**

FOR  
KENT PLACE/VERIZON PARKING PLAN  
23 WHIPPOORWILL ROAD EAST  
AND UN-NUMBERED TOWN PARCEL

PREPARED FOR:  
TOWN OF NORTH CASTLE  
15 BEDFORD ROAD  
ARMONK, NEW YORK 10504

NOVEMBER, 2023

SUBMITTED TO:  
TOWN OF NORTH CASTLE PLANNING BOARD

PREPARED BY:



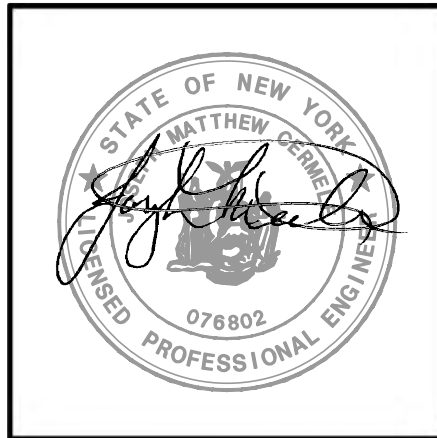
500 MAIN STREET  
ARMONK, NEW YORK 10504  
(914) 273-2323  
[www.KSCJCONSULTING.COM](http://www.KSCJCONSULTING.COM)

PROJECT NO. NC PARKING

THIS REPORT, IN CONJUNCTION WITH THE PROJECT PLANS,  
IS CONSIDERED THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN

## **SWPPP PREPARER CERTIFICATION**

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the NYSDEC SPDES General Permit, GP-0-20-001, for Stormwater Discharges from Construction Activity. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this Permit and the laws of the State of New York and could subject me to criminal, civil or administrative proceedings.



**NYS LICENSE No. 076802**

**NAME: JOSEPH M. CERMELE, P.E.**

**DATE: NOVEMBER, 2023**

# STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

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# STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

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## STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

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#### F. BEST MANAGEMENT PRACTICE SPECIFICATIONS

- CULTEC SYSTEM SPECIFICATIONS AND OPERATION AND MAINTENANCE MANUAL

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- T-01 TITLE SHEET
- G-01 GENERAL NOTES & LEGEND
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- C-100 EXISTING CONDITIONS & REMOVALS PLAN
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- C-504 EROSION & SEDIMENT CONTROL DETAILS

## **1.0 EXECUTIVE SUMMARY**

This Stormwater Pollution Prevention Plan (SWPPP) and accompanying project plans have been prepared for the construction activities associated with the proposed development of the Kent Place/Verizon Parking Plan in the Town of North Castle, Westchester County, New York. The subject property is located at 23 Whipoorwill Road East in the Town of North Castle, Westchester County, New York. The subject parcel is identified as Tax Map Number 108.01-6-51 on the Town of North Castle Tax Maps and consists of  $\pm 2.296$  acres. The property is located in the R-3/4A, One-Family Residence, Zoning District. The property currently includes an existing service building, parking lot, ancillary landscaping and an access driveway from Town parking area. Potable water supply is provided via drilled well. The site is served by a private septic field.

Throughout the construction process, strict adherence to the erosion control plans and specifications will be maintained to ensure that all sediment is contained within the site in a controlled manner and that the untimely or unnecessary removal of existing vegetation is prevented. It is anticipated that the project will occur over a period of approximately 12 months, commencing in February 2024.

The project site is within the Inland Long Island Sound Watershed and is, therefore, not located in the New York City Department of Environmental Protection's (NYCDEP) Watershed. Development of the site will involve disturbance to a total of  $\pm 1.16$  acres ( $\pm 50,530$  s.f.). The project has been designed in accordance with the guidelines set forth by the Town of North Castle Stormwater Management requirements provided in Town Code Chapter 267 "Stormwater Management". Additionally, because disturbance is greater than one (1) acre and does not directly discharge to a 303(d) watercourse, the project requires coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit, GP-0-20-001, for Stormwater Discharges from Construction Activity ("General Permit"). This report has been prepared in accordance with the General Permit and adheres to the guidelines set forth by the NYSDEC Stormwater Management Design Manual (SMDM) and related requirements of the Town of North Castle. Approval of the SWPPP by the NYCDEP is not required since the total disturbance is less than two (2) acres, not located within regulated wetlands/watercourses and their associated adjacent areas or within a Mainstreet Designated Area.

No known enforcement actions have been commenced against the owner for any alleged violations of law related to existing conditions or to the activity proposed.

At the time of this writing, it is understood that the following permits/approvals are required to implement the project:

**TABLE 1-1: PROJECT PERMITS AND APPROVALS**

AGENCY	PERMIT/APPROVAL	STATUS
Town of North Castle Planning Board	Site Development Plan Approval	Pending
	Preliminary and Final Subdivision Approval	Pending
	Tree Removal Permit	Pending
Town of North Castle Building Department	Building Permit	Pending
	Floodplain Development Permit	Pending
Town of North Castle Engineering	Stormwater Pollution Prevention Plan	Pending
Westchester County Health Department	Subdivision Plat Approval	Pending
New York State Department of Environmental Conservation	Stormwater SPDES General Permit GP-0-20-001	Pending

## 2.0 EXISTING SITE CONDITIONS

### 2.1 SITE DESCRIPTION

The ±1.996 acre project site is presently developed with a service building, parking lots, landscaping and access driveway from town parking area. For this SWPPP, the study area will be limited to the ±1.12 acre drainage area within which the proposed improvements are established. The undeveloped portions of the site consist of lawn and woodland areas throughout. The terrain can be described as mostly flat and gently sloping down towards the existing unnamed NYSDEC Class-C stream in the rear of the property.

### 2.2 SOILS

The United States Department of Agriculture (USDA) Natural Resource Conservation Service Web Soil Survey has been reviewed. The delineation of the soil boundaries for the study area are shown on Figure 2 – Soils Map and the Existing and Proposed Conditions Hydrology Plan, Figures 6 and 7 respectively. Refer to Appendix E for the soil survey map and test data sheets. The on-site soil types are Fluvaquents-Udifluvents complex (Ff) and Urban Land Riverhead complex (UvB). Soil group Ff is identified as Hydrologic Soil Group A/D, Hydrologic Soil Group D was used for the analysis. Soil group UvB is identified as Hydrologic Soil Group A.

This office conducted soil testing on October 19, 2022 to investigate the existing soil conditions and their suitability for the stormwater mitigation practices proposed. Soil testing was performed via deep test holes and percolation test holes, excavated within the vicinity of the proposed stormwater management practices, to determine the infiltration rates and verify the depth to any restrictive layers. The soil test results were generally sandy loam over silty and sandy clays. Mottling ranged from 3.5 feet to 4 feet below grade, groundwater ranged from 4 feet to 5.5 feet below grade. Results of the field testing were used for the design of the stormwater management practices.

The surficial soil conditions and the soil data is summarized in Table 2-1 below.

**TABLE 2-1: ON-SITE SOIL DISTRIBUTION**

MAP SYMBOL	SOIL NAME	HYDROLOGIC SOIL GROUP	ON-SITE ACREAGE	PERCENT OF SITE
Ff	Fluvaquents-Udifluvents Complex	A / D	±0.447	±40.1
UvB	Urban Land-Riverhead Complex	A	±0.669	±59.9
	<b>TOTAL</b>		<b>±1.116 acres</b>	<b>100%</b>

Source: USDA Soil Conservation Service Soil Survey for Putnam and Westchester Counties, New York

The Soil Conservation Service defines the hydrologic soil groups as follows:

- **Type A Soils:** Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well-drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- **Type B Soils:** Soils having a moderate infiltration rate when thoroughly wet. These soils consist mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.
- **Type C Soils:** Soils having a low infiltration rate when thoroughly wet. These soils consist mainly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine texture. These soils have a low rate of water transmission.
- **Type D Soils:** Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist mainly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

## 2.3 GROUNDWATER, SURFACE WATERS AND WETLANDS

### Groundwater

According to the onsite soil testing results, mottling was encountered at a depth of 32 inches below existing grade for the Cultec system and 54 inches below existing grade for the bioretention basin. Water seep was encountered at a depth of 48 inches below existing grade for the Cultec system and 65 inches below existing grade for the bioretention basin.

Aquifer mapping was reviewed to determine whether the site is over a sole source aquifer. According to the EPA “Sole Source Aquifers” map, the site is not over a sole source aquifer.

### Surface Waters and Wetlands

Based upon available mapping and field reconnaissance performed by this office, it was determined that there are no State or Federally regulated freshwater wetlands located on the project site or within any regulated buffer or adjacent areas. The unnamed stream is a NYSDEC Class-C watercourse. The stream and adjacent areas are locally-regulated wetlands. The wetland boundary was flagged by our office on November 18, 2019 and illustrated on Figure 3 with its associated 100 foot buffer (refer to Figure 3 – Wetland and Waterbody Map).

## 2.4 FLOODPLAIN

The property is shown on the Flood Insurance Rate Map (FIRM) for the Town of North Castle, New York map number 36119C0164F, effective date September 28, 2007. According to the FIRM, a portion of the site is located within the regulated floodway and within the 100-year Floodplain (1% annual chance flood hazard area) of the local water course. The remaining portion of the site is located in Zone AE (other flood areas), which is defined as “areas determined to be outside the 0.2% annual chance floodplain” or 500-year Floodplain (refer to Figure 4 – FEMA Flood Insurance Rate Map (FIRM)).

The FIRM indicates that the floodplain in this area is within a detailed study area, and the floodplain elevation is Elevation 379. The plan proposes to construct a bioretention basin within the 100-year floodplain area. Compensatory storage will be provided on site, to mitigate the filling of a portion of the floodplain, by excavating other areas of the site to provide flood storage as shown on the project plans. This compensatory storage area is hydraulically connected to the floodplain. No portion of the proposed stormwater mitigation practice storage volume, located below the 100-year FEMA Floodplain, will be accounted for stormwater mitigation purposes.

## 2.5 CULTURAL RESOURCES

According to the New York State Historic Preservation Office (SHPO) Cultural Resource Information System (CRIS), the project site is located within an archaeologically sensitive area (see Figure 5 – Cultural Resources Map). The project site was previously developed and the proposed redevelopment project will occur in a portion of the area that was previously disturbed and presently contains impervious areas. A copy of the “No Adverse Impact” determination from SHPO is included in Appendix H.

### 3.0 PROPOSED SITE CONDITIONS

Under the proposed condition, it is proposed to modify existing parking and to construct a new parking lot with 43 parking spaces and a trash enclosure. A proposed parking lot, walkway, and trash enclosure will be installed. Stormwater runoff from the developed parking lot will be collected and conveyed to the proposed stormwater management practice. The following table summarizes the existing and proposed land coverage within the improvement area.

The proposed development will yield a net increase of 18,207 s.f. of impervious coverage. The drainage improvement proposed to capture and treat the stormwater associated with the development of the parking lot is a bioretention basin. The project's drainage collection system will consist of land grading to pitch runoff towards the proposed bioretention. Curbing shall be constructed with gaps to facilitate flow through a gravel diaphragm for pretreatment before discharging into the bioretention area. Table 3-1: Land Cover Summary, below, identifies the various land covers and hydrologic soil groups under existing and proposed conditions for each watershed area.

**TABLE 3-1: LAND COVER SUMMARY**

DESIGN POINT 1					
LAND COVER DESCRIPTION	EXISTING CONDITION				
	LAND AREA BY HYDROLOGIC SOIL GROUP (SF)				
	A	B	C	D	TOTAL
LAWN	12,193	0	0	4,399	16,592
WOODED	10,329	0	0	13,496	23,825
WATERBODY	0	0	0	0	0
GRAVEL/PERVIOUS	0	0	0	0	0
IMPERVIOUS (BUILDING, DRIVES, WALKS, ETC.)	6,606	0	0	1,587	8,193
<b>TOTAL</b>	<b>29,128</b>	<b>0</b>	<b>0</b>	<b>19,482</b>	<b>48,610</b>
LAND COVER DESCRIPTION	PROPOSED CONDITION				
	LAND AREA BY HYDROLOGIC SOIL GROUP (SF)				
	A	B	C	D	TOTAL
LAWN	7,467	0	0	6,941	14,408
WOODED	0	0	0	7,802	7,802
WATERBODY	0	0	0	0	0
GRAVEL/PERVIOUS	0	0	0	0	0
IMPERVIOUS (BUILDING, DRIVES, WALKS, ETC.)	21,662	0	0	4,738	26,400
<b>TOTAL</b>	<b>29,129</b>	<b>0</b>	<b>0</b>	<b>19,481</b>	<b>48,610</b>



As described above, the proposed development will result in a change to various land cover types, which will ultimately increase the total impervious cover for the drainage areas analyzed. The increased impervious surface will increase peak rates of runoff, which will be mitigated, as discussed further in this Report.

As shown in the following sections of this report, the stormwater quality and quantity mitigation control measures for the proposed development have been designed in accordance with local regulations as well as the NYSDEC design standards. Additionally, an erosion and sediment control plan has been prepared in accordance with the New York State Standards and Specifications for Erosion and Sediment Control to protect the existing project site, downgradient properties, waterbodies and drainage features during construction activities and in the post-development condition.

## **4.0 STORMWATER MANAGEMENT PLAN**

The proposed stormwater management system for the development has been designed to meet the applicable requirements of local, city, and state stormwater ordinances and guidelines, including but not limited to:

- Town of North Castle requirements for Stormwater Management (Chapter 267);
- NYSDEC New York State Stormwater Management Design Manual (NYS SMDM) (latest edition);
- New York State Standards and Specifications for Erosion and Sediment Control (latest edition);
- New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001; and the
- Computer software entitled “Hydrocad Version 10.20”, developed by Hydrocad Software Solutions, LLC. This program is based on USDA Soil Conservation Service (SCS) Technical Release 20 (TR-20).

The subject development proposes the disturbance of more than one (1) acre. As such, coverage under the General Permit is required. Post-construction stormwater management controls are required under the General Permit. In order to meet the requirements, set forth by this permit, the latest edition of the NYSDEC SMDM was referenced for the design of the proposed stormwater management systems. The SMDM specifies five design criteria, discussed in further detail below, and includes Runoff Reduction Volume (RRv), Water Quality Volume (WQv), Stream Channel Protection Volume (CPv), Overbank Flood Control (Qp), and Extreme Flood Control (Qf). The first two of the requirements relate to treating water quality, while the latter pertain to stormwater quantity (peak flow) attenuation.

### **4.1 STORMWATER MANAGEMENT OBJECTIVES**

The goals of this Stormwater Management Plan are to:

- Reduce or eliminate erosion and sediment loading to downgradient properties and wetlands/water bodies during construction;
- Control the impact of stormwater runoff on the water quality of receiving waters;
- Control the volume and peak rate of runoff during and post-construction; and
- Maintain stormwater controls both during and after construction.

These goals will be achieved through site planning and implementing Best Management Practices (BMPS) for stormwater quality and quantity controls. Monitoring of temporary erosion controls throughout construction and pre- and post-construction monitoring, inspection and maintenance of BMPs will be

conducted to ensure optimal performance of stormwater quality and quantity practices needed to meet these objectives.

The stormwater management system proposed to treat the stormwater runoff associated with the proposed development consists of a pre-treatment gravel diaphragm, a bioretention basin and an underground infiltration system.

## **4.2 PLANNING AND GREEN INFRASTRUCTURE**

The current design regulations of the NYSDEC emphasize stormwater management at the source of runoff. Treating stormwater at its source tends to reduce the amount of runoff reaching the downstream design line of the drainage area and results in smaller stormwater practices. The following six (6) step process has been incorporated into the design of the project and is discussed in further detail in the following sections of this report.

- Step 1: Site Planning
- Step 2: Determine Water Quality Treatment Volume (WQv)
- Step 3: Apply Runoff Reduction Techniques and Standard Stormwater Management Practices with Runoff Reduction Volume (RRv) Capacity to Reduce Total WQv
- Step 4: Determine the Minimum Runoff Reduction Volume (RRv) Required
- Step 5: Apply Standard Stormwater Management Practices to Address the Remaining Water Quality Volume (WQv)
- Step 6: Apply Volume and Peak Rate Control Practices if still Needed to Meet Requirements

### **4.2.1 SITE PLANNING**

In order to achieve a reduction in runoff volume, the proposed development limits the extent of grading and clearing and preserves natural features to the extent practicable. Green infrastructure practices have been implemented to manage and treat stormwater, maintain and restore natural hydrology through infiltration, promote evapotranspiration and to capture and reuse stormwater.

The site development plans prepared for the project identify any important natural features including wetlands, buffer areas, topography, on-site soils and bedrock locations. The project was designed to preserve natural features and hydrology and to maintain natural drainage patterns to the extent practicable. The planning practices used for reduction of impervious cover and how these practices apply to the proposed project are described further in Section 4.3 and summarized in Table 4-1: Preservation of Natural Features and Conservation.

#### **4.2.2 DETERMINE WATER QUALITY TREATMENT VOLUME (WQV)**

Drainage areas and sub-drainage areas have been delineated on the existing and proposed condition hydrology plans to illustrate the contributing drainage area to each design point and to the stormwater management practices. Based on these drainage areas, the ground cover (including impervious surfaces) was determined, as well as the time of concentration flow paths. From this information, the water quality volume was calculated. The water quality volume is considered to be equivalent to the 90% design storm or “first flush”. The water quality volume calculations for the drainage areas have been provided in Appendix D.

#### **4.2.3 APPLY RUNOFF REDUCTION TECHNIQUES AND STANDARD STORMWATER MANAGEMENT PRACTICES WITH RUNOFF REDUCTION VOLUME (RRV) CAPACITY TO REDUCE TOTAL WQV**

A combination of green infrastructure techniques and standard stormwater management practices, with runoff reduction volume capacity, has been proposed for the project. A combination of gravel diaphragm, a bioretention basin and Cultec infiltration systems have been designed to capture runoff near the source of the disturbance for the proposed parking lot. The green infrastructure techniques and the standard stormwater management practices have been designed to reduce the contributing water quality volume and capture and treat the minimum required runoff reduction volume. The proposed infiltration system and bioretention basin provides 90% and 80% runoff reduction of the water quality volume. The RRV design calculations and a summary of the feasibility of green infrastructure practices for treatment of the proposed project has been provided in Appendix D.

#### **4.2.4 DETERMINE THE MINIMUM RUNOFF REDUCTION VOLUME (RRV) REQUIRED**

The runoff reduction volume is the reduction of the total water quality volume by application of green infrastructure techniques and standard stormwater management practices. Runoff reduction is achieved through infiltration, groundwater recharge, reuse, recycle and/or evaporation/evapotranspiration of 100% of the proposed conditions water quality volume to replicate the existing conditions hydrology. The minimum runoff reduction volume calculations have been provided in Appendix D. The proposed infiltration system provides a 90% reduction of the water quality volume and the bioretention basin provides 80% of runoff reduction volume. Based on the relatively small amount of new impervious area that would be created by the redevelopment of the site and the implementation of infiltration practices utilized for treatment, the amount of runoff reduction provided adequately meets the intent of the design requirements outlined in the Design Manual.

#### **4.2.5 APPLY STANDARD STORMWATER MANAGEMENT PRACTICES TO ADDRESS THE REMAINING WATER QUALITY VOLUME (WQV)**

The bioretention basin and infiltration system has been sized to capture 100% of runoff reduction. The systems will capture the estimated runoff resulting from the 90% design storm over the post-development watershed. The systems automatically meet NYSDEC channel protection requirements since they have been sized to capture and treat the full water quality volume.

#### 4.2.6 APPLY VOLUME AND PEAK RATE CONTROL PRACTICES IF NEEDED TO MEET REQUIREMENTS

The mitigation systems have been designed to meet the requirements for channel protection volume, overbank flood control and extreme flood control. The peak flow rates for the 1-year, 10-year, 50-year and 100-year post-development design storm events will be contained and infiltrated resulting in a reduction for the 1-, 50- and 100-year storm events and a negligible increase for the 10-year storm event in the post-development scenario when compared to the existing condition.

#### 4.3 PRESERVATION OF NATURAL FEATURES AND CONSERVATION

Preservation of natural features includes techniques to identify and preserve natural areas that can be used in the protection of water, habitat and vegetative resources. Conservation includes designing elements of the development in a way that the site design takes advantage of a site's natural features, preserves the more sensitive areas and identifies any constraints and opportunities to prevent or reduce negative effects of a development. An evaluation of the preservation of natural features and conservation planning practices is provided in Table 4-1 below.

**TABLE 4-1: PRESERVATION OF NATURAL FEATURES AND CONSERVATION**

PRACTICE	DESCRIPTION	APPLIED	SITE LIMITATIONS
Preservation of Undisturbed Areas	Delineate and place into permanent conservation easement undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain	No	See Note 1.
Preservation of Buffers	Define, delineate and place in permanent conservation easement naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands	No	See Note 2.
Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Yes	See Note 2.
Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Yes	See Note 2.
Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	N/A	

(1) Although no formal calculations and easements have been provided, the preservation of undisturbed areas has been maintained to the maximum extent practical.

(2) The clearing and grading limits has been minimized to the greatest extent practical as shown on the project plans and will be enforced with the approval of the project SWPPP.

Soil Restoration is a required practice applied across areas of a development site where soils have been disturbed and will be vegetated in order to recover the original properties and porosity of the soil. Healthy soil is vital to a sustainable environment and landscape. A deep, well-drained soil, rich in organic matter, absorbs rainwater, helps prevent flooding and soil erosion, filters out water pollutants, and promotes vigorous plant growth that requires less irrigation, pesticides, and fertilizer. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction, compost amendment, or both. Soil restoration must be performed in the areas disturbed by the project. The soils must be restored in accordance with Table 4-2 below.

**TABLE 4-2: SOIL RESTORATION**

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT
No Soil Disturbance (e.g., preservation of natural features)	Restoration not permitted
Minimal Soil Disturbance (e.g., clearing and grubbing activities)	Restoration not required
Areas where top soil is stripped only (e.g., no change in grade)	Aerate and apply 6 inches of topsoil in Type C and D soils
Areas of cut or fill	Apply full soil restoration in Type C and D soils
Heavy traffic areas on-site (especially in 5 feet to 25 feet around buildings, but not within a 5 foot perimeter around foundation walls)	Apply full soil restoration
Areas where runoff reduction or infiltration practices are applied	Restoration may not be required, but may be applied to enhance the reduction specified for the appropriate practices.
Redevelopment projects	Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.

Before applying full soil restoration, all construction activity, including construction equipment and material storage, site cleanup and trafficking, should be finished and the site closed to further disturbance. Full soil restoration is implemented in a two-phase process:

1. Deep rip the affected thickness of exposed subsoil material, aggressively fracturing it before the protected topsoil is reapplied on the site.
2. De-compact, simultaneously through the restored topsoil layer and upper half of the affected subsoil.

During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following is applied:

1. Apply 3 inches of compost over the subsoil.
2. Till compost a minimum of 12 inches into the subsoil using a cat-mounted ripper, tractor-mounted disc, or tiller mixing and circulating air and compost into subsoils.
3. Rock-pick until uplifted stone/rock materials of 4 inches or larger size are cleaned off the site. All construction/foreign debris and existing root masses shall be removed from proposed planting areas.
4. Apply 6 inches of topsoil. Newly installed planting soils shall be mixed with existing soils where they meet in order to create a transitional gradient to allow for proper drainage.
5. Install plants and vegetation in accordance with the project plans.

#### 4.4 REDUCTION OF IMPERVIOUS COVER

Reduction of impervious cover includes methods to reduce the amount of rooftops, parking lots, roadways, sidewalks, and other surfaces that do not allow rainfall to infiltration into the soil. An evaluation of the reduction of impervious cover techniques is provided in Table 4-3 below.

**TABLE 4-3: REDUCTION OF IMPERVIOUS COVER**

PRACTICE	DESCRIPTION	APPLIED	SITE LIMITATIONS
Roadway Reduction	Minimize roadway widths and lengths to reduce site impervious area	N/A	See Note 1.
Sidewalk Reduction	Minimize sidewalk lengths and widths to reduce site impervious area	Yes	Sidewalks have only been utilized by garbage enclosure
Driveway Reduction	Minimize driveway lengths and widths to reduce site impervious area	N/A	See Note 1.
Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover	N/A	See Note 1.
Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	N/A	See Note 1.
Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement	No	Purpose of development is an increase of available parking.

	surfaces in overflow parking areas, and using multistoried parking decks where appropriate.		
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(1) The application does not apply to this project.

## 4.5 HYDROLOGIC ANALYSIS

The methodology, requirements and guidelines used in the analysis and the preparation of the stormwater management plan for the project include:

- Computer software entitled, “Hydrocad Version 10.0”, developed by Hydrocad Software Solutions, LLC. This program is based on USDA Soil Conservation Service (SCS) Technical Release 20 (TR-20).
- NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, GP-0-20-001.
- New York State Stormwater Management Design Manual (latest edition).
- New York State Standards and Specifications for Erosion and Sediment Control, (latest edition).
- Town of North Castle requirements for Stormwater Management (Chapter 267).

Stormwater computations (provided in Appendix B) were based upon the Soil Conservation Service (SCS), TR-20 and TR-55 methodologies and recommendations included in the New York State Standards and Specifications for Erosion and Sediment Control. Pre- and post-development rates of stormwater discharge have been computed for comparison of the 1-year, 10-year, 50-year and 100-year storm events using Type III, 24-hour rainfall distribution. The computer software entitled “Hydrocad Version 10.20” by Hydrocad Software Solutions, LLC has been utilized to determine the runoff rates and detention requirements.

A TR-20 and TR-55 model of the site in existing conditions was constructed to determine runoff rates for the 1-year, 10-year, 50-year and 100-year design stormwater events. These rates serve as maximum target discharge rates to be maintained under the developed conditions. Having established the target rates in accordance with the Town of North Castle Stormwater Management Regulations, the TR-20 and TR-55 model of the proposed (developed) condition was similarly constructed to include the water quality facilities, the proposed detention system and the sub-area contributing to it.

The precipitation values for the 1-year, 10-year, 50-year and 100-year design storms were obtained from the latest Northeast Regional Climate Data Center Extreme Precipitation Tables (see Appendix C). The values provided are for the 24-hour design storms for the project site as listed below.



**TABLE 4-4: PRECIPITATION VALUES**

DESIGN STORM (YEAR)	24-HOUR RAINFALL (INCHES)
1	2.80
10	5.13
50	7.69
100	9.17

Source: Northeast Regional Climate Data Center

#### 4.5.1 PRE-DEVELOPMENT CONDITION

The ±1.996 acre project site is presently developed with a warehouse, parking lots, landscaping and access driveway from town parking area. For this SWPPP, the study area will be limited to the ±1.12 acre drainage area within which the proposed improvements are established. The undeveloped portions of the site consist of lawn and woodland areas throughout. The terrain can be described as mostly flat and gently sloping down towards the existing Class-C stream in the rear of the property. The on-site soil types are Fluvaquents-Udifluvents complex (Ff) and Urban Land Riverhead complex (UvB). Soil group Ff is identified as Hydrologic Soil Group A/D, Hydrologic Soil Group D was used for the analysis. Soil group UvB is identified as Hydrologic Soil Group A. The delineation of the soil boundaries is shown on the Existing and Proposed Conditions Hydrology Plan, Figures 6 and 7 respectively.

#### 4.5.2 POST-DEVELOPMENT CONDITIONS

Under the proposed condition, it is proposed to modify existing parking and to construct a new parking lot with 43 parking spaces and a trash enclosure. Stormwater runoff from the developed parking lot will be collected and conveyed to the proposed stormwater management practice.

As illustrated on Figure 7 - Proposed Conditions Hydrology Plan, the project site has been divided into three (3) drainage areas in the developed condition and the design lines/points remain unchanged from the existing condition. The three (3) drainage areas are described below:

##### **DRAINAGE AREA (DA POST):**

DA Post was divided into three (3) drainage areas that all ultimately discharging to Design Line, DP-1 Post:

- a. Drainage Area #1 (DA-1 Post) totals 0.24 acres and consists of undisturbed woods and grass that are predominantly HSG D. DA-1 Post drains to Design Line, DP-1 Post untreated.
- b. Drainage Area #2 (DA-2 Post) totals 0.04 acre and consists of the proposed refuse enclosure, walkway and a small area of grass. This area is collected in a drain inlet and is piped to two

- Cultec C-100HD underground infiltration units. Any overflow from these units shall outlet through an end section protected pipe and drain to the design line, DP-1 Post.
- c. Drainage Area #3 (DA-3 Post) totals 0.83 acres and includes the expanded parking areas and a section along the adjacent library building. This area is graded to drain stormwater runoff towards the curb lines along the proposed bioretention area. Gaps in the curbs shall allow water to flow through and into a gravel diaphragm before draining into the proposed bioretention area.

As in the pre-development conditions, the stormwater discharge to Design Line, DP-1 will continue to sheet flow into the onsite Class-C unnamed watercourse. The infiltration systems are sized to fully infiltrate the smaller storm event, while the larger storm events will bypass the system and contribute to Design Point, DP-1.

The proposed development will yield a net increase of 18,207 s.f. of impervious coverage. The drainage improvement proposed to capture and treat the stormwater associated with the development of the parking lot is a bioretention basin. The project's drainage collection system will consist of land grading to pitch runoff towards the proposed bioretention. Curbing shall be constructed with gaps to facilitate flow into the bioretention area.

#### **4.6 WATER QUALITY VOLUME, WQV**

Stormwater runoff from developed land is recognized as a significant contributor of pollution that can adversely affect the quality of the receiving waters. Treatment of stormwater runoff is important, since most runoff related water quality contaminants are transported during the initial stages of storm events. This treatment volume is known as the Water Quality Volume (WQV).

The Town of North Castle requirements include the capture and temporary storage of the water quality volume (WQV). The WQV is defined as the 90% design storm post-construction runoff volume and has been calculated to be 3,187 c.f. The proposed bioretention basin as designed will capture and treat the runoff volume resulting from the 90% design storm event over the post-development watershed with discharge through a 12-inch underdrain. See Appendix D for the WQV calculations for the subcatchments.

#### **4.7 RUNOFF REDUCTION VOLUME, RRV**

The Runoff Reduction Volume (RRV) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the SMDM, RRV may be treated with standard SMP's with RRV capacity sized in accordance with the requirements of Chapters 4 and 6, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth in Chapter 5. Runoff reduction is achieved when runoff from a site is captured, directed to a SMP or a GIP, infiltrated to the ground, reused, or removed by evapotranspiration, so it does not contribute to the stormwater discharge from the site. The goal for each site is to reduce the entire WQV (100%) through the implementation of GIP's and standard SMP's with RRV capacity.

The WQv has been calculated as 3,187 c.f. based on existing soil conditions for Hydraulic Soil Group D Soils, a specific reduction factor, S, of 0.22 is applied resulting in a minimum RRv of 673 c.f., which is provided by the bioretention basin.

#### **4.8 STREAM CHANNEL PROTECTION VOLUME, CPV**

The Stream Channel Protection (CPv) criterion is intended to protect stream channels from erosion.

Channel protection volume is accomplished by providing 24-hour extended detention of the 1 year, 24-hour storm event.

#### **4.9 OVERBANK FLOOD CONTROL, QP**

Overbank Flood Control (Qp) is required to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by the development. Overbank flood control requires storage to attenuate the post-development 10 year, 24-hour peak discharge rate to below pre-development rates.

The requirement of overbank flood control has been achieved by containing and mitigating the 10 year, 24-hour storm event within the infiltration systems. The peak stormwater runoff discharge rates for the proposed conditions have been kept to a negligible increase over the corresponding existing condition and satisfy this requirement.

#### **4.10 EXTREME FLOOD CONTROL, QF**

Extreme flood control (Qf) criteria is required to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the 100-year floodplain and to protect the physical integrity of stormwater management practices. Extreme flood control requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate to below pre-development rates.

The requirement of extreme flood control has been achieved by mitigating the 100-year, 24-hour storm event within the proposed infiltration systems. The peak stormwater runoff discharge rates for the proposed condition have been reduced over the corresponding existing condition for the 100-year storm event.

**TABLE 4-5: SUMMARY OF HYDROLOGIC ANALYSIS  
PEAK DISCHARGE RATE AND HYDROLOGIC RUNOFF VOLUME**

<b>PEAK DISCHARGE RATE SUMMARY</b>				
<b>DESIGN LINE DP-1</b>				
<b>WATERSHED CONDITION</b>	<b>PEAK DISCHARGE RATES BY STORM RETURN FREQUENCY (cfs)</b>			
	<b>STORM RETURN FREQUENCY (year)</b>			
	100	50	10	1
<b>EXISTING CONDITION</b>	4.92	3.67	1.68	0.28
<b>PROPOSED CONDITION</b>	4.73	2.96	1.78	0.15
<b>NET CHANGE (%)</b>	-3.86%	-19.34%	+5.95%	-46.42%

<b>HYDROLOGIC RUNOFF VOLUME SUMMARY</b>				
<b>DESIGN LINE DP-1</b>				
<b>WATERSHED CONDITION</b>	<b>RUNOFF VOLUMES BY STORM RETURN FREQUENCY (ac-ft)</b>			
	<b>STORM FREQUENCY (year)</b>			
	100	50	10	1
<b>EXISTING CONDITION</b>	0.420	0.313	0.147	0.034
<b>PROPOSED CONDITION</b>	0.551	0.429	0.223	0.051
<b>NET CHANGE (%)</b>	+31.19%	+37.06%	+51.70%	+50.0%

## 5.0 EROSION AND SEDIMENT CONTROL PLAN

All proposed soil erosion and sediment control practices have been designed in accordance with the following publications:

- New York Standards and Specifications for Erosion and Sediment Control (NYSSDESC), latest edition
- New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Runoff from Construction Activity (GP-0-20-001)
- Town of North Castle requirements for “Stormwater Management” (Chapter 267)

The primary aim of the soil erosion and sediment control plan is to reduce soil erosion from areas stripped of vegetation during construction and to prevent silt from reaching the drainage structures, infiltration systems, wetland systems, watercourses, waterbodies and downstream properties. The infiltration systems will not be put into service until the contributing drainage areas to the system have been stabilized. As outlined in the construction sequencing notes below and on the Erosion and Sediment Control Plan, the Erosion and Sediment Control Plan is an integral component of the construction phasing and project sequencing and will be implemented to control sediment and re-establish vegetation as soon as practicable. The plan will be implemented prior to the commencement of any earthmoving activities and will be maintained through the duration of the project.

### 5.1 SUGGESTED CONSTRUCTION SEQUENCE AND PHASING

Outlined below is a brief listing of the suggested construction sequencing for the project.

Prior to any interior site activity, the owner, contractor and owner’s engineer shall hold a pre-construction meeting.

Final stabilization, as defined by the NYSDEC SPDES General Permit GP-0-20-001, is the establishment of a uniform perennial vegetative cover with a density of eighty (80) percent over the pervious surface once all soil disturbance activities have ceased. Cover can be vegetative (e.g., grass, trees, seed and mulch, shrubs or turf) or non-vegetative (e.g., geotextiles, rip-rap or gabions, pavement, roofs, etc.).

The applicant shall notify the Town of North Castle enforcement official at least 48 hours before any of the following as required by the Stormwater Management Officer:

- Start of construction.
- Installation of sediment and erosion control measures.
- Completion of site clearing.
- Installation of constructed stormwater improvements.
- Completion of rough grading.
- Completion of final grading.
- Close of the construction season.
- Completion of final landscaping.

- Successful establishment of landscaping in public areas.

#### General Construction Sequencing

- A preconstruction meeting with the Town representatives, contractor and engineer shall be scheduled at least 48-hours before the start of construction activities.
- All erosion and sediment control practices shall be inspected as indicated in the erosion and sediment control maintenance schedule. If deficiencies are identified, the contractor shall begin implementing corrective actions in one business day and shall complete the corrective actions in a reasonable time frame.
- Prior to any construction, stakeout property lines and conservation areas and limits of disturbance for phase of interest. Mark limits of disturbance in field with orange construction fencing or flagging.

#### Suggested Construction Sequence:

1. Contractor to stake clearing limits of disturbance for proposed improvements.
2. Contractor to install perimeter erosion controls.
3. Contractor to install stabilized construction entrance.
4. Contractor to install silt fence and tree protection in locations, as indicated on the sediment and erosion control plan.
5. Contractor to stockpile excavated soil in soil stockpile locations to reclaim for further use (i.e., landscaping).
6. Contractor to provide dust control during construction as necessary.
7. Clear and stump all trees to be removed.
8. Excavate the area of the bioretention basin for use as a temporary sediment trap.
9. Install outlet riser and discharge pipe to stream with rip-rap apron. Outlet riser to be constructed with temporary filter per plan.
10. Contractor to install inlet protection around installed drainage facilities.
11. Rough grade the site to the proposed grades.
12. Install the sanitary sewer service, leakage test the lateral connection and put into service upon verification of acceptable testing with the town engineer.
13. Abandon the existing septic field in accordance with WCHD Regulations.
14. Install light pole bases, and electric conduit for all site lights, gate automation controls and refuse compactors.
15. Install parking lot subbase course.
16. Install concrete curb, walks, compactor and refuse area concrete slabs. Install foundations for rolling gate.
17. Install bioretention basin gravel diaphragm. River stone top course not to be installed at this time.
18. Install asphalt binder course.
19. Install gates, fences, refuse enclosure walls.
20. Clear accumulated sediment and debris from bioretention basin and shape to final grades. Install final outlet configuration per plan.
21. Install top soil seed and plantings for the bioretention basin and all areas to be vegetated and wetland mitigation per plan.

22. Install light poles and electric services.
23. Clean sediment from gravel diaphragm. Install top layer of river stone.
24. Install top course of asphalt.
25. Install pavement markings and signage per plan.
26. Once 80% stabilization is achieved, remove all temporary sediment controls.

## 5.2 TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

The proposed soil erosion and sediment control devices include the planned erosion control practices outlined below. Maintenance procedures for each erosion control practice are also provided herein. The owner or operator must ensure that all erosion and sediment control practices identified herein are maintained in effective operating condition at all times.

In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of next business day or completed within seven (7) calendar days.

### **STABILIZED CONSTRUCTION ENTRANCE**

A stabilized construction entrance shall be installed at the project entrance as indicated on the plans. The purpose of the stabilized construction entrance is to prevent vehicles leaving the site from tracking sediment, mud or any other construction-related materials from the site onto adjacent roadways.

#### **Maintenance/Inspection**

Stabilized construction entrance shall be inspected a minimum of twice every seven (7) calendar days. The Contractor shall maintain the construction entrance in a manner which prevents or significantly reduces the tracking of sediment/soil onto adjacent roadways. The Contractor shall inspect the construction entrance daily and after each rain event for displacement or loss of aggregate. The Contractor shall top-dress the construction entrance when displacement/loss of aggregate occurs, or if the aggregate becomes clogged or silted to the extent that the entrance can no longer perform its intended function. The Contractor shall inspect the vicinity of the construction entrance several times a day and immediately remove any sediment dropped or washed onto adjacent roadways.

### **SILT FENCE**

Silt fence (geotextile filter cloth) shall be placed in locations depicted on the approved plans. The purpose of the silt fence is to reduce the velocity of sediment-laden stormwater from small drainage areas and to intercept the transported sediment load. In general, silt fence shall be used at the down-gradient perimeter of disturbed areas, toe of slopes or intermediately within slopes where obvious channel concentration of stormwater is not present. Silt fence shall always be installed parallel to the contours in order to prevent concentrated flows from developing along the silt fence.

### Maintenance/Inspection

Silt fencing shall be inspected a minimum of twice every seven (7) calendar days. Inspections shall include ensuring that the fence material is tightly secured to the wood posts. In addition, overlapping filter fabric shall be secure and the fabric shall be maintained a minimum of six (6) inches below grade. In the event that any "bulges" develop in the fence, that section of fence shall be replaced immediately with a new fence section. Any visible sediment build-up against the fence shall be removed immediately and deposited on-site a minimum of 100 feet outside of any regulated wetland area, watercourse or waterbody.

### **INLET PROTECTION**

After the drain inlets have been installed and the site is completely stabilized, these drain inlets will receive stormwater from the driveway and overland watersheds. During construction, a filter fabric drop inlet barrier shall be placed around the drain inlets to allow stormwater to be filtered prior to the stormwater being discharged to the drainage system.

### Maintenance/Inspection

Inlet protection devices shall be inspected a minimum of twice every seven (7) calendar days. Care shall be taken to ensure that all inlet protection devices are properly located and secure and do not become displaced. Upon stabilization of the drainage areas, remove all materials and sediment and dispose of properly. Any accumulated sediments shall be removed from the device and deposited not less than 100 feet from a regulated wetland area, watercourse or waterbody.

### **TREE PROTECTION**

All significant trees to be preserved located within the limits of disturbance and on the perimeter of the disturbance limits shall be protected from harm by erecting a three (3) feet high (minimum) snow fence completely surrounding the tree. Snow fence should extend to the drip-line of the tree to be preserved. Trees designated to be protected/saved are illustrated on the construction drawings and will be identified in the field prior to construction.

### Maintenance/Inspection

The snow fence shall remain at the drip-line of the tree to be preserved. The snow fence shall be inspected a minimum of twice every seven (7) calendar days. Any damaged portions of the fence shall be repaired or replaced. Care shall also be taken to ensure that no construction equipment is driven or parked within the drip-line of the tree to be preserved.

### **RIP-RAP OUTLET PROTECTION**

The outlets of all stormwater discharge areas will be protected from erosion by the placement of stone rip-rap at the culvert outlet. The purpose of the stone outlet protection is to reduce the velocities of the discharged water such that flows will not erode the receiving area.



### Maintenance/Inspection

Maintenance of the outlet protection devices shall be inspected twice every seven (7) calendar days to determine if any scouring beneath the rip-rap has occurred and/or if any rip-rap has been displaced. All displaced rip-rap shall be re-positioned or replaced with new rip-rap. In addition, all leaves, twigs and brush shall be removed in the vicinity of the culvert/swale outlet to ensure that stormwater is flowing unobstructed.

### **SOIL/MATERIAL STOCKPILING**

All soil/material stripped from the construction area during grubbing and grading shall be stockpiled within the vicinity of the locations illustrated on the approved plans, or in practical locations on-site approved by the Town representative.

### Maintenance/Inspection

All stockpiles shall be inspected a minimum of twice every seven (7) calendar days for signs of erosion or problems with seed establishment. Soil stockpiles shall be protected from erosion by vegetating the stockpile with a rapidly-germinating grass seed and surrounded with silt fence. If the project is ongoing during the non-growing season, the stockpiles shall be protected with a tarpaulin covering the entire stockpile.

### **TEMPORARY SEDIMENT TRAP**

During construction, stormwater from portions of disturbed areas of the site will be conveyed to the trap via overland sheet flow and Temporary Diversion Swales. The Temporary Sediment Trap is located where the bioretention basin is to be constructed and has been appropriately sized to accommodate stormwater flows from disturbed areas being conveyed to it. In accordance with the NYS SDESC, the Temporary Sediment Trap will continue to be utilized until such time as the contributing area to the trap is completely stabilized. After site stabilization, the Temporary Sediment Trap shall be cleaned of all sediment and the bioretention basin constructed per the approved plans.

### Maintenance/ Inspection

The proposed Temporary Sediment Trap shall be inspected at a minimum of once every seven (7) calendar days. During construction, the Contractor shall ensure that the structural integrity of the embankments is not compromised and that the interior slopes of the trap are not eroding. Sediments shall be removed when sediment has accumulated to 50% of the design capacity. All trees, brush, stumps, obstructions and other objectionable material shall be removed from the trap upon inspection so as to not interfere with the proper functioning of the trap.

### **TEMPORARY DIVERSION SWALES**

Temporary Diversion Swales will be constructed as shown on the approved plans and above all created slopes 3:1 or steeper (both cut and fill slopes) and all unstabilized slopes steeper than 3:1 to prevent stormwater runoff from eroding these slopes.

### Maintenance/ Inspection

Inspection of the swales must be conducted at a minimum of every seven (7) days. The Contractor shall ensure that positive pitch within the swale is maintained and that all trees, brush, stumps, obstructions and any other objectionable material are removed immediately upon inspection. Once site construction has been completed, the swales shall be seeded and continue to be maintained as outlined above.

### SURFACE STABILIZATION

All disturbed areas will be protected from erosion with the use of vegetative measures (e.g., grass seed mix, sod), hydromulch, hay or erosion control blankets.

Erosion control barriers consisting of silt fencing shall be placed around exposed areas during construction. Any areas stripped of vegetation during construction will be vegetated and/or mulched immediately to prevent erosion of the exposed soils. In areas where significant erosion potential exists (steep slopes) and/or where specifically directed, Curlex Excelsior erosion control blankets (manufactured by American Excelsior or approved equal) shall be installed.

Materials that may be used for mulching include straw, hay, salt hay, wood fiber, synthetic soil stabilizers, mulch netting, erosion control blankets or sod. A permanent vegetative cover will be established upon completion of construction of those areas which have been brought to finish grade and to remain undisturbed.

### GENERAL LAND GRADING

The applicant/developer or their representatives shall be on-site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all sediment and erosion control practices. No more than five (5) acres of disturbed land will be exposed without stabilization at any one time.

The intent of the erosion controls is to control all disturbed areas, such that soils are protected from erosion by temporary methods and, ultimately by permanent vegetation.

### DUST CONTROL

Where vegetative or mulch cover is not practical in disturbed areas of the site, dust shall be controlled by the use of water sprinkling. The surface shall be sprayed until wet. Dust control shall continue until such time as the entire site is adequately stabilized with permanent vegetative cover.

### CRITICAL AREA SEEDING

This practice applies to all disturbed areas devoid of vegetation, except where specific seeding/planting recommendations exist in other standards and specifications for specific uses such as recreation.

Site preparation will include:

- A. Seed bed preparation-scarify if compacted. Remove debris and obstacles such as rocks and stumps. A minimum of four (4) inches of topsoil shall be provided.
- B. Soil Amendments:
  - a. Lime to pH 6.0
  - b. Fertilize with 600 lbs. of 5-10-10 or equivalent per acre (14 lbs/1,000 sq. ft.)
- C. Seed Mixtures:

Critical Area Seed Mixture @ 35 lbs. Per Acre (0.8 lb./1,000 sq. ft.)

Seed mixture to consist of:
  - Creeping Red Fescue (*Festuca Rubra*)
  - Switchgrass (*Panicum Virgatum*)
  - Timothy (*Phleum Pratense*)
  - Big Bluestem (*Andropogon Gerardii*)
  - Little Bluestem (*Andropogon Scoparius*)Add inoculant immediately prior to seeding.
- D. Time of Seeding:

Permanent seedings may be established at any time of the year if property mulched and adequate moisture is provided. Mid summer is not a good time to seed, but these seedings, if construction is complete and adequately irrigated, will facilitate covering the land. Temporary seedings should be made within 24 hours of construction or disturbance. If not, the soil must be scarified prior to seeding.
- E. Method of Seeding:

Hand-broadcasting, drilling with cultipack type seeder to hydroseeding are acceptable. Hydroseeding shall be performed in accordance with the current edition of the “NYSDOT’s Standard Specifications - Construction and Materials”, Section 610-3.02, Method No. 1. Good soil to seed contact is the key to successful seedings.
- F. Mulching:

Mulch Material: Air-dried straw (cereal grain); free of undesirable seeds and coarse materials.

Application Rate: 90 - 100 lbs. per 1,000 sq. ft. or 2 tons per acre.

Recommended Surface Coverage: Approximately 90%

Mulch Anchoring Material: Biodegradable mulch netting or hydromulch 11 - 17 lbs. per 1,000 sq. ft. or 500 - 750 lbs. per acre.

Method of Anchoring Application: Staple mulch netting (light-weight paper, jute wood fiber, or plastic netting) to soil surface in accordance with netting manufacturer's recommendations.

Hydromulch to be applied through a hydroseeder immediately after mulching.

G. Irrigation:

Watering is essential to establish a new seeding. Weather conditions and the intended use of the area will dictate when to water. Irrigation is a specialized practice and care needs to be taken not to exceed the application rate/infiltration rate of a given soil. Each application must be uniformly applied and 1 to 2 inches of water should be applied per application set up.

### **WINTER STABILIZATION**

This standard applies to all construction activities involved with ongoing land disturbance and exposure between November 15th to the following April 1<sup>st</sup>.

#### DESIGN CRITERIA:

1. Prepare a snow management plan with adequate storage for snow and control of melt water, requiring cleared snow to be stored in a manner not affecting ongoing construction activities.
2. Enlarge and stabilize access points to provide for snow management and stockpiling. Snow management activities must not destroy or degrade installed erosion and sediment control practices.
3. A minimum 25 foot buffer shall be maintained from all perimeter controls such as silt fence. Mark silt fence with tall stakes that are visible above the snow pack.
4. Drainage structures must be kept open and free of snow and ice dams. All debris, ice dams, or debris from plowing operations, that restrict the flow of runoff and meltwater, shall be removed.
5. Sediment barriers must be installed at all appropriate perimeter and sensitive locations. Silt fence and other practices requiring earth disturbance must be installed before the ground freezes.
6. Soil stockpiles must be protected by the use of established vegetation, anchored straw mulch, rolled stabilization matting, or other durable covering. A barrier must be installed at least 15 feet from the toe of the stockpile to prevent soil migration and to capture loose soil.
7. If straw mulch alone is used for temporary stabilization, it shall be applied at double the standard rate of 2 tons per acre, making the application rate 4 tons per acre. Other manufactured mulches should be applied at double the manufacturer's recommended rate.
8. To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil should be stabilized at the end of each work day unless:
  - A. Work will resume within 24 hours in the same area and no precipitation is forecast or;

- B. The work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.
9. Use stone paths to stabilize access perimeters of buildings under construction and areas where construction vehicle traffic is anticipated. Stone paths should be a minimum 10 feet in width but wider as necessary to accommodate equipment.

#### Maintenance/ Inspection

The site shall be inspected frequently to ensure that the erosion and sediment control plan is performing its winter stabilization function. If the site will not have earth disturbing activities ongoing during the "winter season", all bare exposed soil must be stabilized by established vegetation, straw or other acceptable mulch, matting, rock, or other approved material such as rolled erosion control products. Seeding of areas with mulch cover is preferred but seeding alone is not acceptable for proper stabilization.

### **5.3 PERMANENT EROSION AND SEDIMENT CONTROL MEASURES**

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. All of the permanent facilities are relatively maintenance free and only require periodic inspections. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

Riprap aprons will be used at the discharge end of all piped drainage systems. Runoff velocities will be reduced to levels that are non-erosive to the receiving waterbodies through use of these aprons.

Other than the buildings and paved surfaces, disturbed surfaces will be stabilized with vegetation. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium. Permanent seeding should optimally be undertaken in the spring from March through May and in late summer and fall from late August to October.

### **5.4 POLLUTION PREVENTION MEASURES FOR CONSTRUCTION RELATED ACTIVITIES**

Pollution prevention practices for preventing litter, construction chemicals (if applicable) and construction debris from becoming a pollutant source in stormwater discharge include daily pickup of construction debris, inspection, and physical controls such as silt fencing. Inspections will also be conducted to ensure that dust control measures are utilized as necessary. During construction, maintenance, construction and waste materials will be stored within suitable areas/dumpsters, as appropriate, to minimize the exposure of the materials to stormwater and spill prevention. All maintenance and construction waste will be disposed of in a safe manner in accordance with all applicable regulations.

The following measures must be implemented to control the possible exposure of harmful substances and materials to stormwater runoff:

1. Material resulting from the clearing and grubbing operation must be stockpiled away from storm drainage, water bodies or watercourses and surrounded with adequate erosion and sediment control measures. Soil stockpile locations must be exposed no longer than fourteen (14) calendar days before seeding.
2. Equipment maintenance areas must be protected from stormwater flows and must be supplied with appropriate waste receptacles for spent chemicals, solvents, oils, greases, gasoline, and any pollutants that might contaminate the surrounding habitat or water supply. Equipment wash-down zones must be within areas draining to sediment control devices.
3. The use of detergents for large-scale (i.e., vehicles, buildings, pavement surfaces, etc.) washing is prohibited.
4. Material storage locations and facilities (i.e., covered storage areas, storage sheds, etc.) must be on-site and must be stored according to the manufacturer's standards in a dedicated staging area. Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Runoff containing such materials must be collected, removed from the site, treated and disposed at an approved solid waste or chemical disposal facility.
5. Hazardous spills must be immediately contained to prevent pollutants from entering the surrounding habitat or water supply. Spill Kits must be provided on-site and must be displayed in a prominent location for ease of access and use. Spills greater than 5 gallons must be reported to the NYSDEC Response Unit at 1-800-457-7362. In addition, a record of the incidents or notifications must be documented and attached to the SWPPP.
6. Portable sanitary waste facilities must be provided on-site for workers and must be properly maintained.
7. Dumpsters or debris containers must be on-site and must be of adequate size to manage respective materials. Regular collection and disposal of wastes must occur as required.
8. Temporary concrete washout facilities must be a minimum of fifty (50) feet from storm drain inlets, open drainage facilities, and watercourses. Each facility should be away from construction traffic or access areas to prevent disturbance or tracking. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities. When temporary concrete washout facilities are no longer required for the work, the hardened concrete must be removed and disposed of. Materials used to construct the temporary concrete washout facilities must be removed and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities must be backfilled or repaired, seeded, and mulched for final stabilization. Wastewater discharges from washout of concrete is prohibited.
9. Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or approved private

well. Water used for construction that does not originate from an approved public supply must not discharge from the site.

10. Discharges from dewatering activities, including discharges from dewatering trenches and excavations, must be managed by appropriate control measures.
11. Wastewater discharges from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials is prohibited.

## **6.0 SWPPP IMPLEMENTATION**

### **6.1 PRE-CONSTRUCTION MEETING**

Before beginning construction, the owner or operator must set up a pre-construction meeting with the Town representative, qualified professional, qualified inspector, contractors, and subcontractors. The primary purpose of the pre-construction meeting is to discuss the responsibilities of each party as they relate to the implementation of the SWPPP and clarify any questions.

A copy of the Contractor Certification Form is provided in Appendix B. This form will be signed by the contractor prior to the commencement of construction activity. Each contractor and subcontractor shall identify at least one (1) person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the Trained Contractor. The Trained Contractor shall be on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor must receive four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. The Trained Contractor must receive four (4) hours of training every three (3) years.

### **6.2 CONSTRUCTION SITE LOGBOOK**

The owner/operator shall maintain at the construction site a copy of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, GP-0-20-001, the Notice of Intent (NOI), the NOI acknowledgment letter, the Stormwater Pollution Prevention Plan Report for Kent Place/Verizon Parking Plan, the MS4 SWPPP Acceptance Form and inspection reports from the Qualified Inspector until all disturbed areas have achieved final stabilization and the Notice of Termination (NOT) has been filed with the NYSDEC

### **6.3 CONSTRUCTION INSPECTIONS**

The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place. A Qualified Inspector shall conduct site inspections a minimum of once every seven (7) calendar days. The Qualified Inspector shall inspect and document the effectiveness of all erosion and sediment control practices. The Qualified Inspector shall prepare an inspection report subsequent to each and every inspection. The reports shall be forwarded to the Town's Stormwater Management Officer and also copied to the site logbook which is required to be kept on-site. The Qualified Inspector must be a licensed Professional Engineer, a Certified Professional in Erosion and Sediment Control (CPESC), a Registered Landscape Architect or someone working under the direct supervision of, and at the same company as, the Licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a soil and water conservation district.



### 6.3.1 TRAINED CONTRACTOR INSPECTIONS

The Trained Contractor must inspect the erosion and sediment control practices and pollution prevention measures to ensure that they are being maintained in effective operating condition at all times. The inspections must be conducted as follows:

- For construction-sites where soil disturbance activities are on-going, the Trained Contractor must inspect the measures within the active work area daily. If deficiencies are identified, the Contractor must begin implementing corrective actions within one business day and must complete the corrective actions by the end of the day.
- For construction-sites where soil disturbance activities have been temporarily suspended (e.g., winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the Trained Contractor can stop conducting the maintenance inspections. The Trained Contractor must resume conducting the daily maintenance inspections as soil disturbance activities resume.
- For construction-sites where soil disturbance activities have been shut down with partial project completion, the Trained Contractor can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post construction stormwater management practices required for the completed part of the project have been constructed in conformance with the SWPPP and are operational.

### 6.3.2 QUALIFIED INSPECTOR INSPECTIONS

The owner or operator must have a Qualified Inspector conduct site inspections to ensure the stability and effectiveness of all protective measures and practices employed during construction. The site inspections must be conducted as follows:

- For construction-sites where soil disturbance activities are on-going, the Qualified Inspector must conduct a site inspection at least once every seven (7) calendar days.
- For construction sites that directly discharge to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C of the General Permit or where the owner or operator has received authorization to disturb greater than five (5) acres of soil at any one time, the Qualified Inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- For construction-sites where soil disturbance activities have been temporarily suspended (e.g., winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the Qualified Inspector must conduct a site inspection at least once every thirty (30) calendar days. The owner or operator must notify the NYSDEC or MS4 in writing before reducing the frequency of the inspections.

- For construction-sites where soil disturbance activities have been shutdown with partial project completion, the Qualified Inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post construction stormwater management practices are operational. The owner or operator must notify the NYSDEC or the MS4 in writing before the shutdown.

All inspections must be performed in accordance with this SWPPP, accompanying project plans, latest revision of New York State Standards and Specifications for Erosion and Sediment Control, and procedures outlined in Appendix F of the latest revision of the New York State Stormwater Management Design Manual. Inspection reports must identify and document the maintenance of the erosion and sediment control measures. A sample inspection report has been provided in Appendix B.

### **6.3.3 TERMINATION OF COVERAGE UNDER THE GENERAL PERMIT**

The owner or operator may terminate coverage when:

- a. Total project completion has occurred.
- b. A planned shutdown with partial project completion has occurred.
- c. Property ownership changes or when there is a change in operational control over the construction plans and specifications; and the new owner or operator has obtained coverage under the SPDES General Permit.
- d. Coverage under an alternative SPDES General Permit or an individual SPDES Permit has been obtained.

If a planned shutdown with partial project completion or total project completion has occurred, then the owner or operator must have the Qualified Inspector perform a final site inspection to ensure the following have been met:

- Planned Shutdown with Partial Project Completion – all soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and all post construction stormwater management practices required for the completed part of the project have been constructed in conformance with the SWPPP and are operational.
- Total Project Completion – all construction activity has been completed; and all areas disturbed as of the project shutdown date have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed part of the project have been constructed in conformance with the SWPPP and are operational.

If all of the conditions have been met, then the Qualified Inspector must sign the “Final Stabilization” and “Post Construction Stormwater Management Practice” certifications in the Notice of Termination (NOT)

to certify that all requirements of the SPDES General Permit have been achieved. For construction-sites within an MS4, the “MS4 Acceptance” statement must be signed by the Town before submitting the NOT. The completed and signed NOT must be submitted to the NYSDEC to cancel coverage. A blank copy of the NOT has been provided in Appendix A.

## **7.0 POST-CONSTRUCTION REQUIREMENTS**

### **7.1 AS-BUILT PLANS AND CERTIFICATION**

The contractor is required to submit As-Built plans for any stormwater management practices located on site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a New York State Licensed Land Surveyor or Professional Engineer.

### **7.2 RECORD RETENTION**

Following construction, the Town must retain a copy of the signed NOI, signed MS4 SWPPP Acceptance Form, NOI Acknowledgement Letter, SWPPP, project plans, and any inspection reports that were prepared in conjunction with the General Permit for at least five (5) years from the date that the NYSDEC receives a complete NOT.

### **7.3 LONG-TERM INSPECTION AND MAINTENANCE**

#### **7.3.1 INSPECTION REQUIREMENTS**

The “General Notes” (Sheet G-02), “Grading Plan” (Sheet C-102), “Utility Plan” (Sheet C-103), “Erosion & Sediment Control Plan” (Sheet C-104) and “Erosion & Sediment Control Details” (Sheet C-504) are integral components of the post-construction stormwater facility inspection and maintenance program. The owner, its successors and/or assigns shall completely familiarize themselves with the plans, details and notes.

The stormwater facilities consist of the drainage collection system, infiltration systems, swales and their related appurtenances and shall be collectively referred to herein as the “stormwater facilities.” The purpose of the inspection/maintenance program is to provide basic instructions to the site owner (and future owners) as to the proper inspection and maintenance of the stormwater facilities and related appurtenances and to help the owner identify if these facilities are not performing properly.

Post construction inspections and maintenance must be performed by Owner’s Qualified Representative as described below. Inspections and maintenance for the various site components and stormwater management facilities must be performed in accordance with the accompanying project plans and this SWPPP.

These stormwater facilities will be inspected weekly for the first three (3) months following the completion of construction. Thereafter, these facilities will be inspected at a minimum quarterly, and always immediately following a significant rain event. Upon inspection, facilities shall be immediately maintained and/or cleaned, as required. Any site areas exhibiting soil erosion of any kind shall be immediately restored and stabilized with vegetation, mulch or rip-rap stone, as appropriate. Upon each

inspection, all visible debris including, but not limited to, twigs, leaf and forest litter shall be removed from swales, discharge points and frames and grates of drainage structures.

### **VEGETATED AREAS**

Vegetated swales must be mowed periodically. Any debris, leaf and forest litter or fallen trees/limbs shall be removed from within the swales at the time of each mowing, unless such debris impedes the proper flow of water, in which case all debris shall be immediately removed upon inspection. All visible accumulated sediments shall be removed when sediments become clearly visible. Special care shall be taken when removing sediment so as not to disrupt the intended finished grades of the swales.

### **DRAIN INLETS**

All drain inlets have been designed with sumps to trap sediment prior to its transport to the infiltration systems. These sumps will require periodic inspection and maintenance to ensure that adequate depth is maintained within the sumps. All sumps shall be inspected once per month for the first three (3) months (after drainage system has been put into service) and every four (4) months thereafter. The owner shall take measurements of the sump depth and shall remove the accumulated sediment when it reaches one-half the capacity of the sump. Sediments can be removed from the sumps with hand-labor or with a vacuum device.

### **INFILTRATION SYSTEMS**

The inlets and inspection ports shall be inspected once per month for the first year (after infiltration systems have been put into service) for clogging; any debris shall be removed as necessary. Thereafter, the inlets and inspection ports shall be inspected every four (4) months. Any debris removed shall be disposed of in accordance with applicable laws and regulations.

The infiltration systems shall be equipped with inspection ports located on the inlet row. From the surface through the inspection port, a stadia rod may be used to measure the depth of accumulated sediment in the inlet row of the inspection port. If the depth of accumulated sediment is greater than three (3) inches, then the inlet row shall be cleaned with water through a culvert cleaning nozzle. This shall be performed from the upstream drain inlet.

### **BIORETENTION BASIN**

Bioretention basins are intended to be relatively low maintenance. However, these practices may be subject to sedimentation and invasive plant species which could create maintenance problems. If the recharge ability is lost by accumulation of fine sediment, mosquito breeding may occur. Routine maintenance shall include the occasional replacement of plants, mulching, weeding and thinning to maintain the desired appearance. Weeding and watering are essential the first year. Keeping the basin weeded is one of the most important tasks, especially in the first couple of years while the native plants are establishing their root systems. Once the bioretention basin has matured, the basin area should be free of bare areas except where steppingstones are located. Inspect for sediment accumulations or heavy organic matter where runoff enters the basin and remove as necessary. The top few inches of planting

soil should be removed and replaced when water ponds for more than 48 hours. Blockages may cause diversion of flow around the basin. If the basin overflow device is an earthen berm or lip, check for erosion and repair as soon as possible. If this continues, a harder armoring of stone may be necessary. Make sure all appropriate elevations have been maintained, no settlement has occurred and no low spots have been created.

### **7.3.2 RESPONSIBLE PARTY**

The Town shall be responsible for the ongoing inspection and maintenance of the proposed stormwater facilities.

#### **CONTACT PERSON**

The entity responsible for implementing the inspection and maintenance program for all on-site stormwater facilities will be the Town. The current owner is the Town of North Castle, 15 Bedford Road, Armonk, New York 10504.

## 8.0 CONCLUSION

This SWPPP identifies the measures to be implemented during construction to minimize soil erosion and control sediment transport off-site, and after construction to control the water quality and quantity of stormwater runoff from the developed site to minimize adverse effects to downstream conditions.

Considering the level of stormwater treatment and peak rate attenuation proposed in the post-development condition, the applicant believes that the project will not adversely impact the stormwater quantity or a degradation in the quality to any reservoir, watercourse or wetland. Based upon the results of the stormwater quantity analysis, the peak discharge rates and total stormwater runoff volumes will not have an adverse effect on any receiving wetlands, downstream watercourses or reservoirs.

This Stormwater Pollution Prevention Plan has been developed in accordance with the requirements of the Town of North Castle and the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Phase II technical standards. In the opinion of the SWPPP preparer, the proposed project will not adversely impact adjacent or downstream properties, or receiving surface waters or wetlands, if the erosion and sediment control measures and stormwater management facilities are properly constructed, and maintained in accordance with the requirements outlined herein.

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/02Bldgs&ParcelsTownOwned/2023-11\\_Kent Place Verizon Parking Plan\\_SWPPP.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/02Bldgs&ParcelsTownOwned/2023-11_Kent Place Verizon Parking Plan_SWPPP.docx)

## **FIGURES**

**FIGURE 1: SITE LOCATION MAP**

**FIGURE 2: SOILS MAP**

**FIGURE 3: WETLAND AND WATERBODY MAP**

**FIGURE 4: FEMA FLOOD INSURANCE RATE MAP (FIRM)**

**FIGURE 5: CULTURAL RESOURCES MAP**

**FIGURE 6: EXISTING CONDITIONS HYDROLOGY PLAN**

**FIGURE 7: PROPOSED CONDITIONS HYDROLOGY PLAN**



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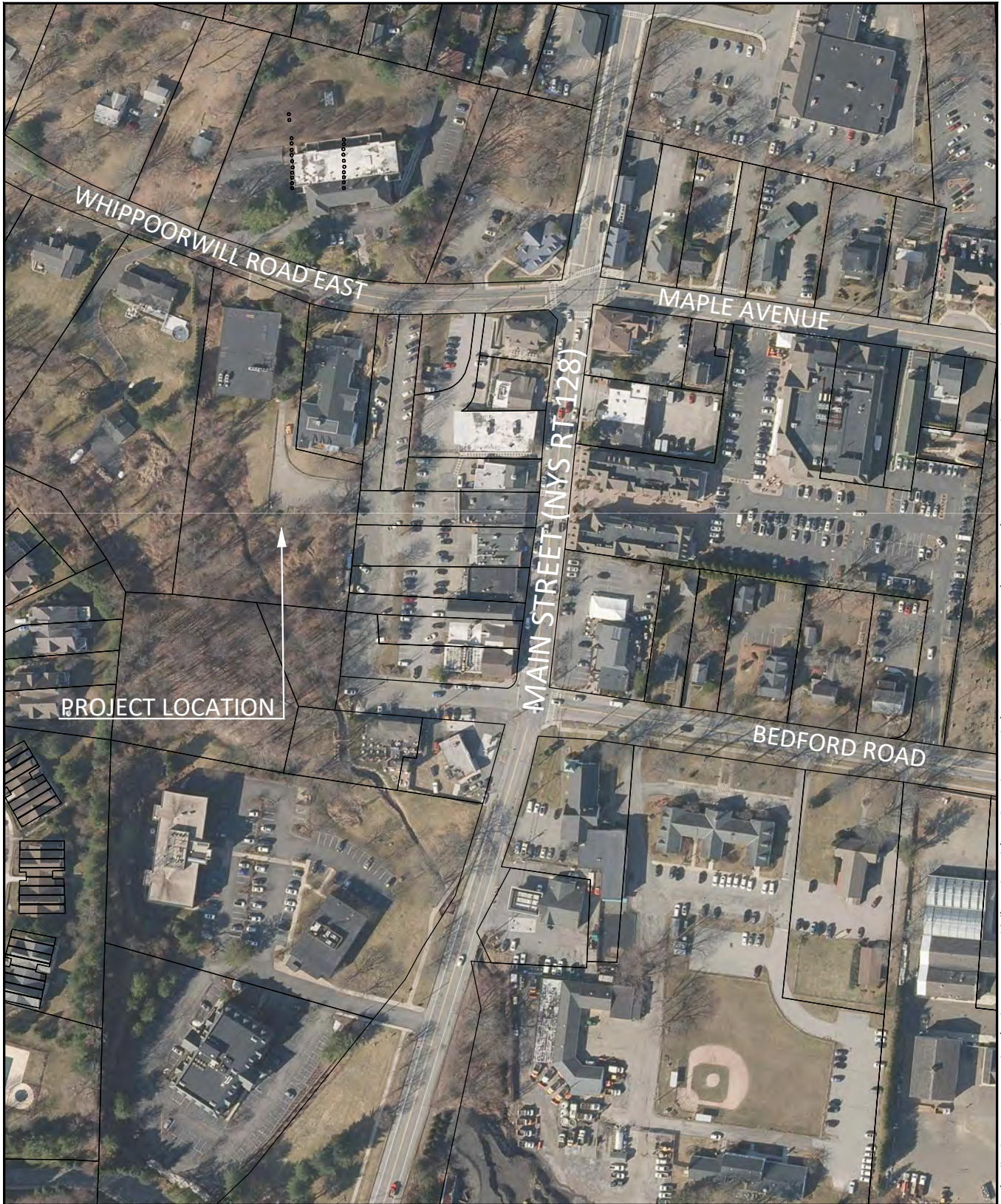
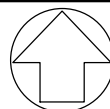
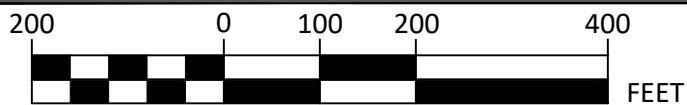


FIGURE 1: SITE LOCATION MAP

KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK

SEPTEMBER 29, 2023



**KSCJ**  
CONSULTING

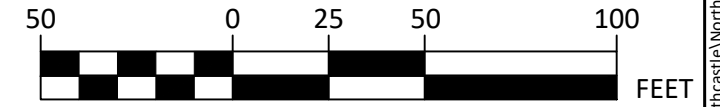
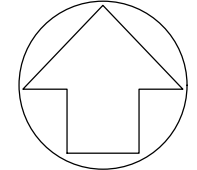
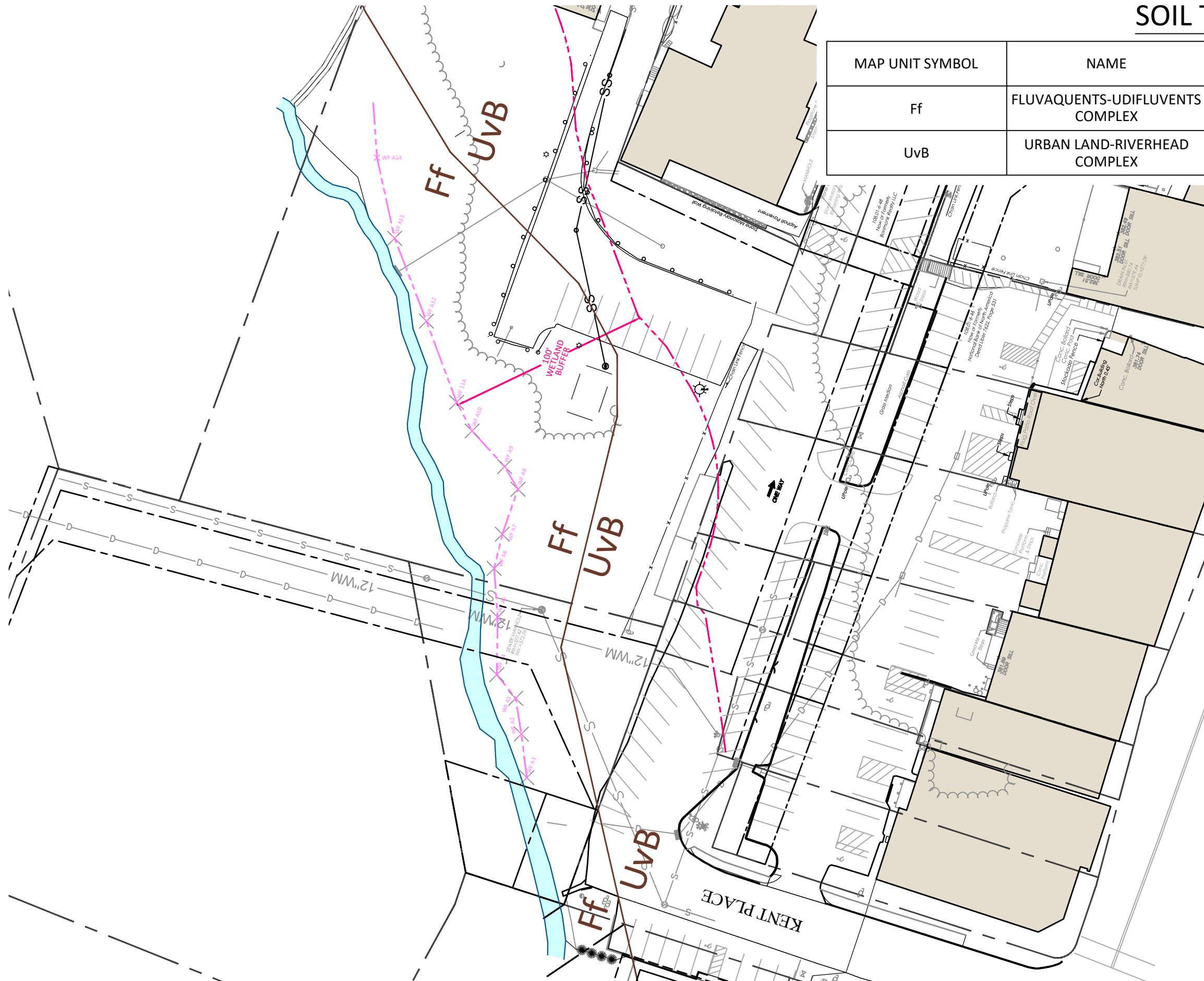
KELLARD SESSIONS CERMELE JOHANNESSEN

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LANDSCAPE ARCHITECTURE  
SITE & ENVIRONMENTAL PLANNING

Oct 27, 2023 - 4:09pm C:\Users\ssicignano\Kellard Sessions Consulting\Kelles - Municipal (T)\Northcastle\North Castle CAD Files\TNC VERIZON PARKING\CAD Dwg\Kent - Verizon-Kent - Parking Lots-Design.dwg - ssicignano

# SOIL TABLE

MAP UNIT SYMBOL	NAME	HYDROLOGIC SOIL GROUP	DESCRIPTION
Ff	FLUVAQUENTS-UDIFLUVENTS COMPLEX	A / D	FREQUENTLY FLOODED
UvB	URBAN LAND-RIVERHEAD COMPLEX	A	2% TO 8% SLOPES



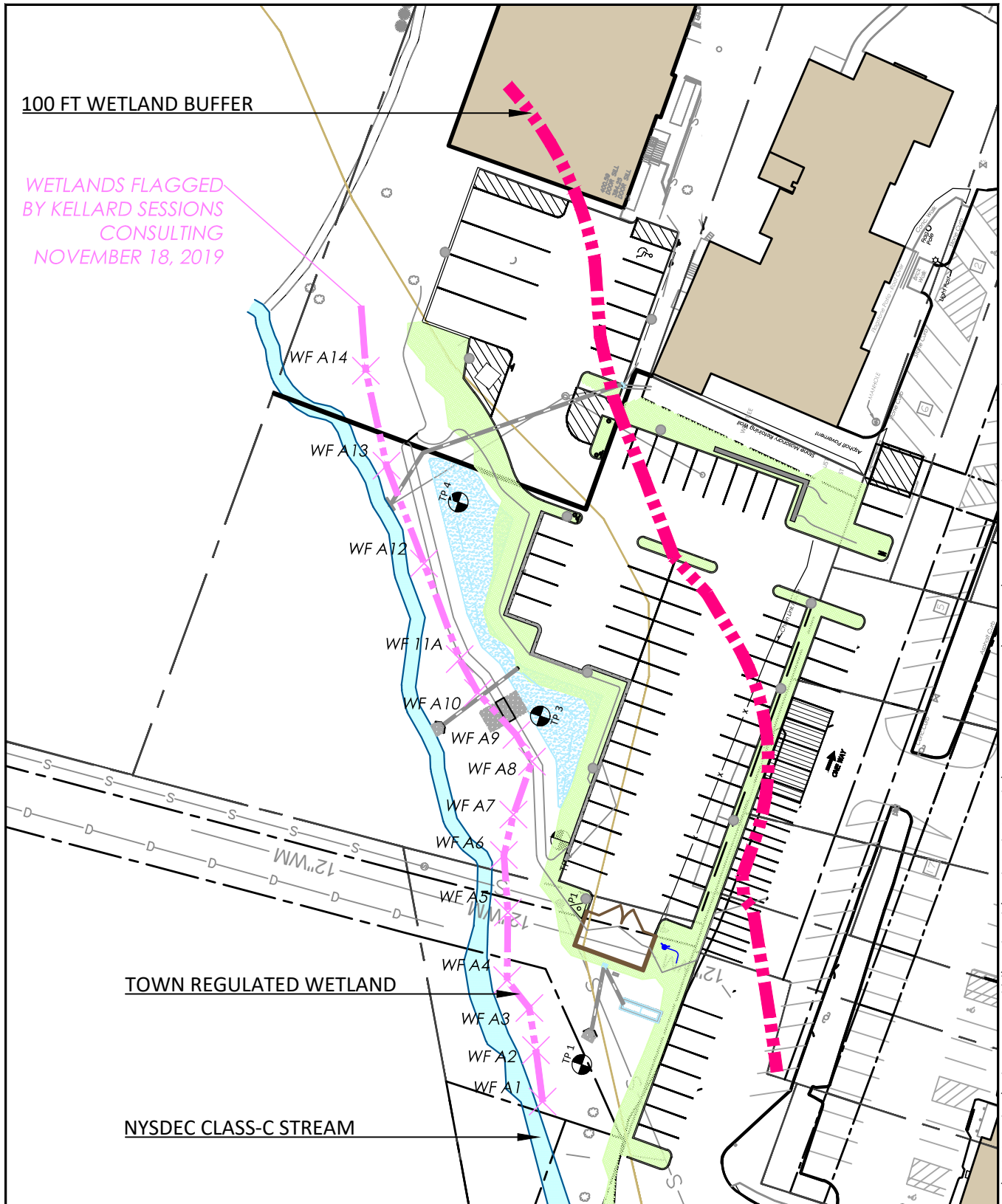
**FIGURE 2: SOILS MAPS**

**KENT PLACE/VERIZON PARKING PLAN**

SEPTEMBER 29, 2023  
TOWN OF NORTH CASTLE  
WESTCHESTER COUNTY, NEW YORK

**KSCJ**  
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100 FT WETLAND BUFFER

WETLANDS FLAGGED BY KELLARD SESSIONS CONSULTING NOVEMBER 18, 2019

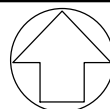
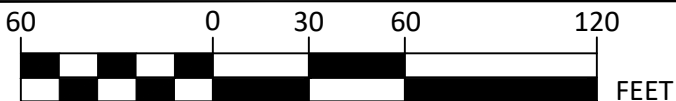
TOWN REGULATED WETLAND

NYSDEC CLASS-C STREAM

# FIGURE 3: WETLAND AND WATERBODY MAP KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK

SEPTEMBER 29, 2023



# KSCJ

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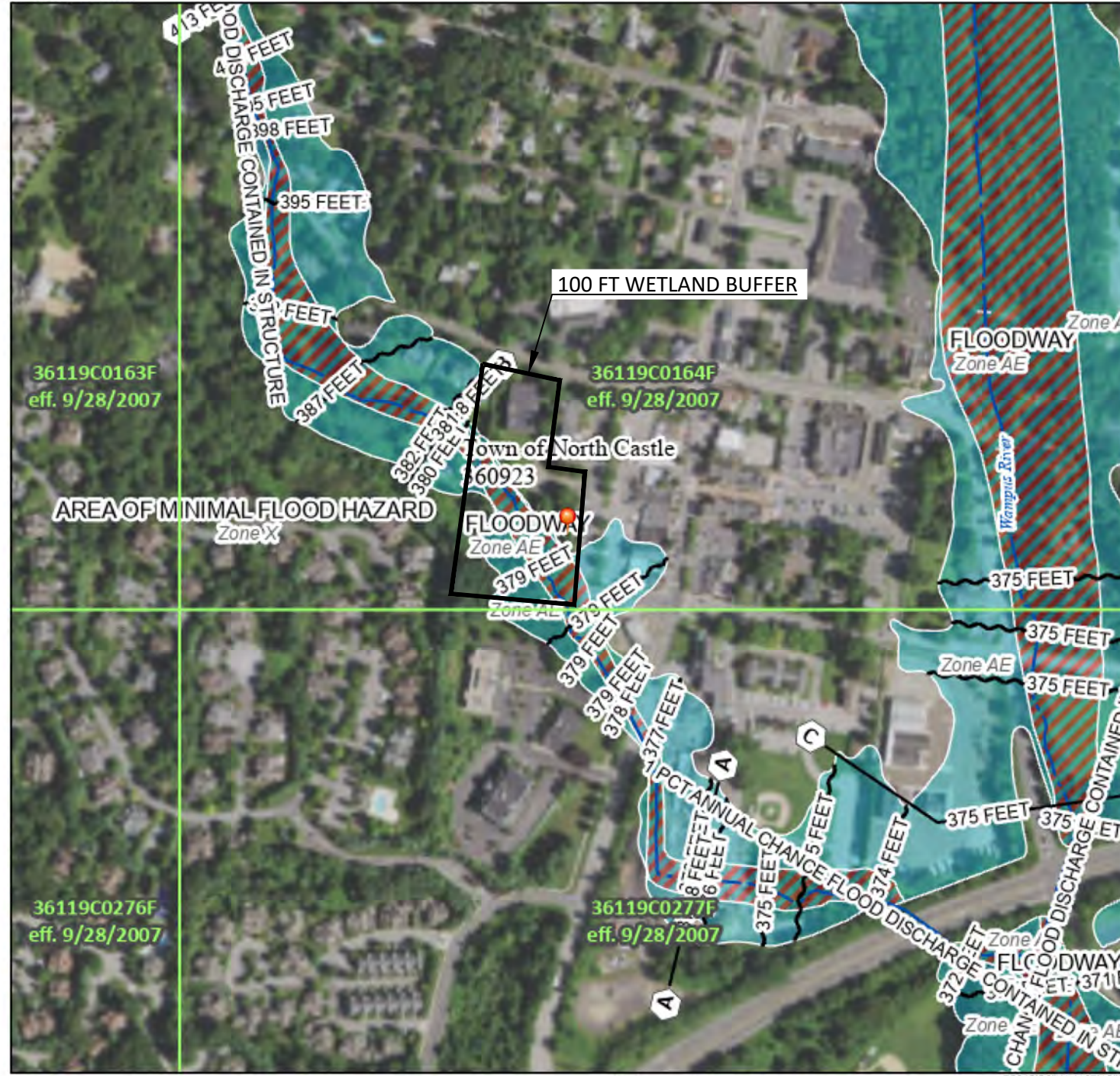
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
SITE & ENVIRONMENTAL PLANNING

Nov 06, 2023 - 4:24pm C:\Users\ssicignano\KSCJ Consulting\Kelles - Municipal (T)\Northcastle\North Castle CAD Files\TNC VERIZON PARKING\CAD Dwgs\Verizon-Kent - Parking Lots-Design.dwg - ssicignano

# National Flood Hazard Layer FIRMette



73°43'13"W 41°7'45"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- |                                    |   |
|------------------------------------|---|
| <b>SPECIAL FLOOD HAZARD AREAS</b>  | <ul style="list-style-type: none"> <li>Without Base Flood Elevation (BFE)<br/>Zone A, V, A99</li> <li>With BFE or Depth Zone AE, AO, AH, VE, AR</li> <li>Regulatory Floodway</li> </ul>   |
| <b>OTHER AREAS OF FLOOD HAZARD</b> | <ul style="list-style-type: none"> <li>0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X</li> <li>Future Conditions 1% Annual Chance Flood Hazard Zone X</li> <li>Area with Reduced Flood Risk due to Levee. See Notes. Zone X</li> <li>Area with Flood Risk due to Levee Zone D</li> </ul> |
| <b>OTHER AREAS</b>                 | <ul style="list-style-type: none"> <li>NO SCREEN Area of Minimal Flood Hazard Zone X</li> <li>Effective LOMRs</li> <li>Area of Undetermined Flood Hazard Zone D</li> </ul>  |
| <b>GENERAL STRUCTURES</b>          | <ul style="list-style-type: none"> <li>Channel, Culvert, or Storm Sewer</li> <li>Levee, Dike, or Floodwall</li> </ul>   |
| <b>OTHER FEATURES</b>              | <ul style="list-style-type: none"> <li>20.2 Cross Sections with 1% Annual Chance Water Surface Elevation</li> <li>17.5 Coastal Transect</li> <li>Base Flood Elevation Line (BFE)</li> <li>Limit of Study</li> <li>Jurisdiction Boundary</li> <li>Coastal Transect Baseline</li> <li>Profile Baseline</li> <li>Hydrographic Feature</li> </ul>   |
| <b>MAP PANELS</b>                  | <ul style="list-style-type: none"> <li>Digital Data Available</li> <li>No Digital Data Available</li> <li>Unmapped</li> </ul> <p>The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.</p>   |

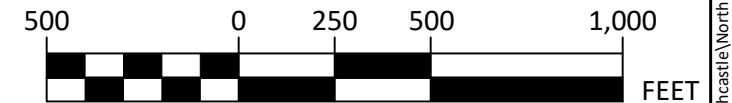
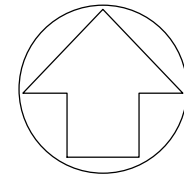


FIGURE 4: FEMA FLOOD INSURANCE RATE MAP (FIRM)

## KENT PLACE/VERIZON PARKING PLAN

SEPTEMBER 29, 2023  
TOWN OF NORTH CASTLE  
WESTCHESTER COUNTY, NEW YORK



PROJECT LOCATION

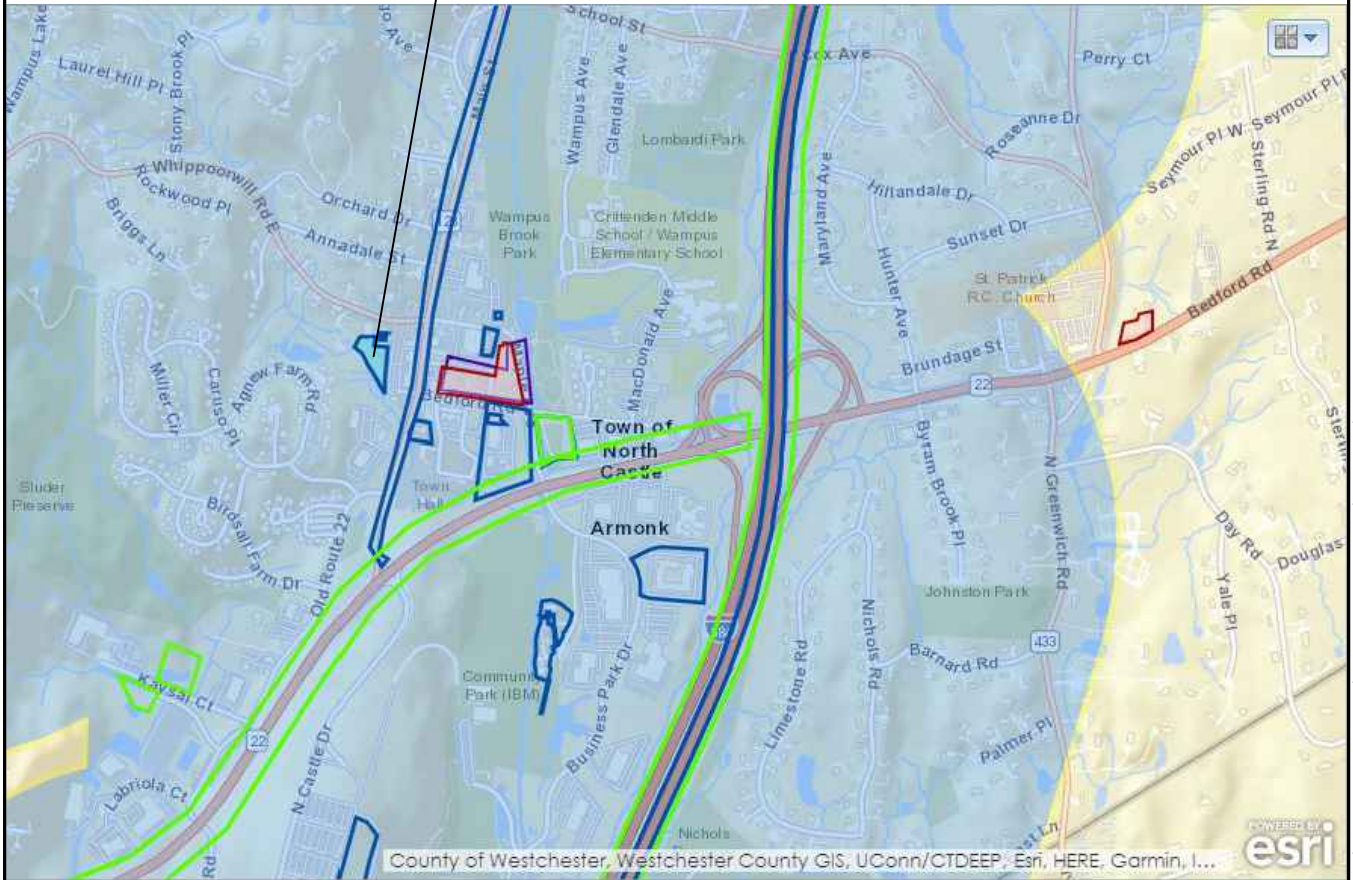
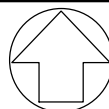


FIGURE 5: CULTURAL RESOURCES MAP  
KENT PLACE/VERIZON PARKING PLAN

TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK

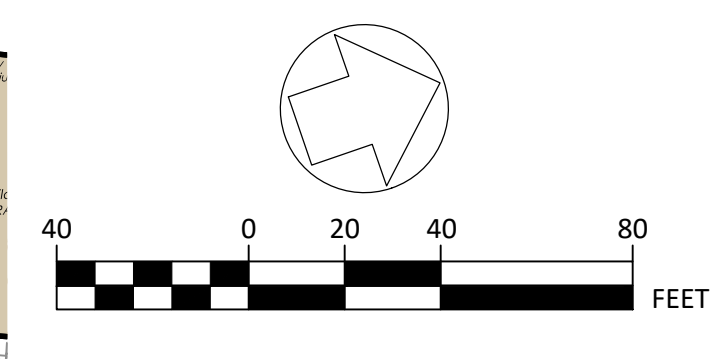
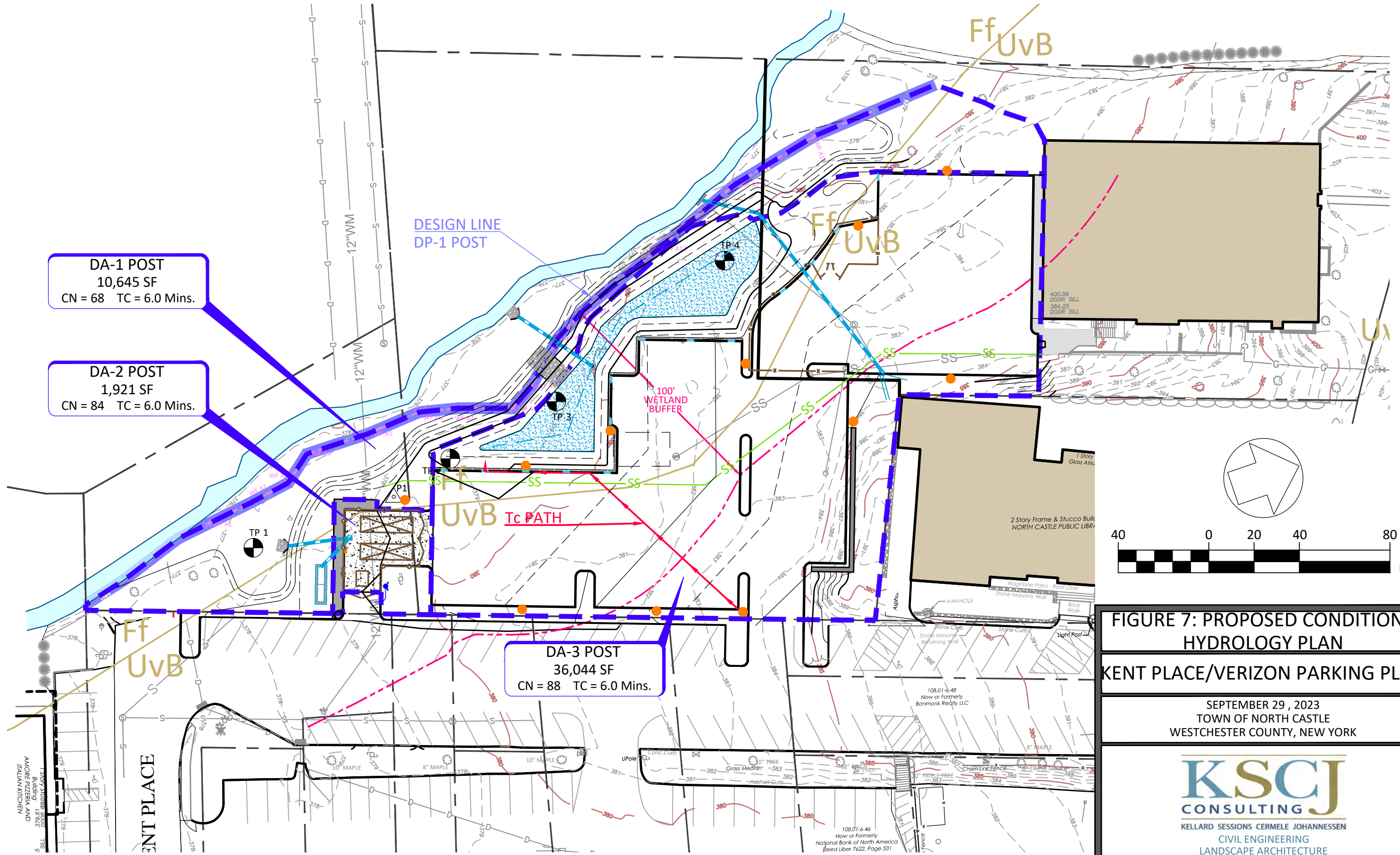
SEPTEMBER 29, 2023



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**FIGURE 7: PROPOSED CONDITIONS  
HYDROLOGY PLAN**

**KENT PLACE/VERIZON PARKING PLAN**

SEPTEMBER 29, 2023  
TOWN OF NORTH CASTLE  
WESTCHESTER COUNTY, NEW YORK

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## APPENDICES



## **APPENDIX A. PERMITS AND APPLICATIONS**

- **NYSDEC NOTICE OF INTENT**
- **NYSDEC MS4 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ACCEPTANCE FORM**
- **NYSDEC NOTICE OF TERMINATION**
- **NYSDEC SPDES GENERAL PERMIT, GP-0-20-001, FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES**

# NOI for coverage under Stormwater General Permit for Construction Activity

version 1.37

(Submission #: HPY-SEF7-H31CF, version 1)

## Details

---

**Originally Started By** Danielle Cinguina  
**Alternate Identifier** Kent Place/Verizon Parking Plan  
**Submission ID** HPY-SEF7-H31CF  
**Submission Reason** New  
**Status** Draft

## Form Input

---

### Owner/Operator Information

**Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)**

Town of North Castle

**Owner/Operator Contact Person Last Name (NOT CONSULTANT)**

Hay

**Owner/Operator Contact Person First Name**

Kevin

**Owner/Operator Mailing Address**

15 Bedford Road

**City**

Armonk

**State**

NY

**Zip**

10504

**Phone**

(914) 273-3000

**Email**

khay@northcastleny.com

**Federal Tax ID**

14-6002341

If the owner/operator is an organization, provide the Federal Tax ID number, or Employer Identification Number (EIN), in the format xx-xxxxxxx. If the owner/operator is an individual and not an organization, enter "Not Applicable" or "N/A" and do not provide the individual's social security number.

**Project Location****Project/Site Name**

Kent Place/Verizon Parking Plan

**Street Address (Not P.O. Box)**

23 Whippoorwill Road East

**Side of Street**

South

**City/Town/Village (THAT ISSUES BUILDING PERMIT)**

Town of North Castle

**State**

NY

**Zip**

10504

**DEC Region**

3

The DEC Region must be provided. Please use the NYSDEC Stormwater Interactive Map (<https://gisservices.dec.ny.gov/gis/stormwater/>) to confirm which DEC Region this site is located in. To view the DEC Regions, click on "Other Useful Reference Layers" on the left side of the map, then click on "DEC Administrative Boundary." Zoom out as needed to see the Region boundaries.

For projects that span multiple Regions, please select a primary Region and then provide the additional Regions as a note in Question 39.

**County**

WESTCHESTER

**Name of Nearest Cross Street**

Main Street (State Route 128)

**Distance to Nearest Cross Street (Feet)**

400

**Project In Relation to Cross Street**

West

**Tax Map Numbers Section-Block-Parcel**

108.01/6/51, 108.03/1/78

**Tax Map Numbers**

NONE PROVIDED

If the project does not have tax map numbers (e.g. linear projects), enter "Not Applicable" or "N/A".

**1. Coordinates**

---

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

**Navigate to your location and click on the map to get the X,Y coordinates**

41.125861270102554,-73.71542987047816

**Project Details****2. What is the nature of this project?**

Redevelopment with increase in impervious area

For the purposes of this eNOI, "New Construction" refers to any project that does not involve the disturbance of existing impervious area (i.e. 0 acres). If existing impervious area will be disturbed on the project site, it is considered redevelopment with either increase in impervious area or no increase in impervious area.

**3. Select the predominant land use for both pre and post development conditions.****Pre-Development Existing Landuse**

Parking Lot

**Post-Development Future Land Use**

Parking Lot

**3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.**

NONE PROVIDED

---

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

\*\*\* ROUND TO THE NEAREST TENTH OF AN ACRE. \*\*\*

**Total Site Area (acres)**

2.3

**Total Area to be Disturbed (acres)**

1.3

**Existing Impervious Area to be Disturbed (acres)**

15481.9

**Future Impervious Area Within Disturbed Area (acres)**

33014.4

**5. Do you plan to disturb more than 5 acres of soil at any one time?**

No

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

**A (%)**

60

**B (%)**

0

**C (%)**

0

**D (%)**

40

**7. Is this a phased project?**

No

**8. Enter the planned start and end dates of the disturbance activities.**

**Start Date**

02/01/2024

**End Date**

08/01/2024

**9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.**

Unnamed tributary to Wampus River

Drainage ditches and storm sewer systems are not considered surface waterbodies. Please identify the surface waterbody that they discharge to. If the nearest surface waterbody is unnamed, provide a description of the waterbody, such as, "Unnamed tributary to Niagara River."

**9a. Type of waterbody identified in question 9?**

Stream/Creek On Site

**Other Waterbody Type Off Site Description**

NONE PROVIDED

**9b. If "wetland" was selected in 9A, how was the wetland identified?**

NONE PROVIDED

**10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?**

No

**11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?**

No

**12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?**

No

Please use the DEC Stormwater Interactive Map (<https://gisservices.dec.ny.gov/gis/stormwater/>) to confirm if this site is located in one of the watersheds of an AA or AA-S classified water. To view the watershed areas, click on "Permit Related Layers" on the left side of the map, then click on "Class AAAAS Watersheds."

**If No, skip question 13.****13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey?**

NONE PROVIDED

**If Yes, what is the acreage to be disturbed?**

NONE PROVIDED

**14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?**

No

**15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?**

No

**16. What is the name of the municipality/entity that owns the separate storm sewer system?**

NONE PROVIDED

**17. Does any runoff from the site enter a sewer classified as a Combined Sewer?**

No

**18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?**

No

**19. Is this property owned by a state authority, state agency, federal government or local government?**

Yes

**20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)**

No

## **Required SWPPP Components**

**21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?**

Yes

**22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?**

Yes

**If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.**

**23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?**

Yes

**24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:**  
Professional Engineer (P.E.)

**SWPPP Preparer**

Joseph M. Cermele, P.E.

**Contact Name (Last, First)**

Cermele, Joseph

**Mailing Address**

500 Main Street

**City**

Armonk

**State**

NY

**Zip**

10504

**Phone**

(914) 273-2323

**Email**

jcermele@kscjconsulting.com

**Download SWPPP Preparer Certification Form**

Please take the following steps to prepare and upload your preparer certification form:

- 1) Click on the link below to download a blank certification form
- 2) The certified SWPPP preparer should sign this form
- 3) Scan the signed form
- 4) Upload the scanned document

[Download SWPPP Preparer Certification Form](#)

**Please upload the SWPPP Preparer Certification**

NONE PROVIDED

**Comment**

NONE PROVIDED

**Erosion & Sediment Control Criteria**

**25. Has a construction sequence schedule for the planned management practices been prepared?**

Yes

**26. Select all of the erosion and sediment control practices that will be employed on the project site:**



**Temporary Structural**

Silt Fence  
Stabilized Construction Entrance  
Dust Control  
Sediment Basin

**Biotechnical**

None

**Vegetative Measures**

Mulching  
Brush Matting  
Seeding  
Topsoiling

**Permanent Structural**

Rock Outlet Protection

**Other**

NONE PROVIDED

**Post-Construction Criteria**

**\* IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

**27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.**

NONE PROVIDED

**27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).**

All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

**28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)**

0.0695

**29. Post-construction SMP Identification**

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

**30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)**

0.05

**31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?**

No

**If Yes, go to question 36. If No, go to question 32.**

**32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)**

0.02

**32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?**

Yes

**If Yes, go to question 33.**

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

### **33. SMPs**

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

**33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)**

0.07

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

**34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).**

0.07

Question 34 appears to be incorrect. Please review the responses to Questions 30 and 33a to ensure the correct values were provided, or update Question 34.

**35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?**

Yes

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

**36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.****CPv Required (acre-feet)**

0.034

**CPv Provided (acre-feet)**

0.051

**36a. The need to provide channel protection has been waived because:**

NONE PROVIDED

**37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.****Overbank Flood Control Criteria (Qp)****Pre-Development (CFS)**

1.78

**Post-Development (CFS)**

1.78

**Total Extreme Flood Control Criteria (Qf)****Pre-Development (CFS)**

4.92

**Post-Development (CFS)**

4.73

**37a. The need to meet the Qp and Qf criteria has been waived because:**

NONE PROVIDED

**38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?**

Yes

**If Yes, Identify the entity responsible for the long term Operation and Maintenance**  
Town of North Castle

**39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.**

NONE PROVIDED

## **Post-Construction SMP Identification**

### **Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs**

Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

#### **RR Techniques (Area Reduction)**

---

Round to the nearest tenth

#### **Total Contributing Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

#### **Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

#### **Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED

#### **Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED

#### **Total Contributing Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

#### **Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

#### **Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)**

NONE PROVIDED

#### **RR Techniques (Volume Reduction)**

---

**Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Vegetated Swale (RR-5)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Rain Garden (RR-6)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Stormwater Planter (RR-7)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Porous Pavement (RR-9)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Green Roof (RR-10)**  
NONE PROVIDED

**Standard SMPs with RRv Capacity**

---

**Total Contributing Impervious Acres for Infiltration Trench (I-1)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Infiltration Basin (I-2)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Dry Well (I-3)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Underground Infiltration System (I-4)**  
0.04

**Total Contributing Impervious Acres for Bioretention (F-5)**  
0.83

**Total Contributing Impervious Acres for Dry Swale (O-1)**  
NONE PROVIDED

**Standard SMPs**

---

**Total Contributing Impervious Acres for Micropool Extended Detention (P-1)**  
NONE PROVIDED

**Total Contributing Impervious Acres for Wet Pond (P-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Extended Detention (P-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Multiple Pond System (P-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Pond (P-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Surface Sand Filter (F-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Underground Sand Filter (F-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Organic Filter (F-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Shallow Wetland (W-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Extended Detention Wetland (W-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pond/Wetland System (W-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Wetland (W-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Swale (O-2)**

NONE PROVIDED

**Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)**

---

**Total Contributing Impervious Area for Hydrodynamic**

NONE PROVIDED

**Total Contributing Impervious Area for Wet Vault**

NONE PROVIDED

**Total Contributing Impervious Area for Media Filter**

NONE PROVIDED

**"Other" Alternative SMP?**

NONE PROVIDED

**Total Contributing Impervious Area for "Other"**

NONE PROVIDED

**Provide the name and manufacturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.**

**Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.**

**Manufacturer of Alternative SMP**

NONE PROVIDED

**Name of Alternative SMP**

NONE PROVIDED

**Other Permits**

**40. Identify other DEC permits, existing and new, that are required for this project/facility.**

None

**If SPDES Multi-Sector GP, then give permit ID**

NONE PROVIDED

**If Other, then identify**

NONE PROVIDED

**41. Does this project require a US Army Corps of Engineers Wetland Permit?**

No

**If "Yes," then indicate Size of Impact, in acres, to the nearest tenth**

NONE PROVIDED

**42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.**

NONE PROVIDED

**MS4 SWPPP Acceptance**

**43. Is this project subject to the requirements of a regulated, traditional land use control MS4?**

Yes - Please attach the MS4 Acceptance form below

**If No, skip question 44**

**44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?**

Yes

**MS4 SWPPP Acceptance Form Download**

Download form from the link below. Complete, sign, and upload.

[MS4 SWPPP Acceptance Form](#)

**MS4 Acceptance Form Upload**

NONE PROVIDED

**Comment**

NONE PROVIDED

**Owner/Operator Certification****Owner/Operator Certification Form Download**

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.

[Owner/Operator Certification Form \(PDF, 45KB\)](#)

**Upload Owner/Operator Certification Form**

NONE PROVIDED

**Comment**

NONE PROVIDED





Department of  
Environmental  
Conservation

NYS Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505

## MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

**Construction Activities Seeking Authorization Under SPDES General Permit**

\*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

### I. Project Owner/Operator Information

1. Owner/Operator Name:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

### II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

### III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:

9. Title/Position:

10. Date Final SWPPP Reviewed and Accepted:

### IV. Regulated MS4 Information

11. Name of MS4:

12. MS4 SPDES Permit Identification Number: NYR20A

13. Contact Person:

14. Street Address:

15. City/State/Zip:

16. Telephone Number:

## MS4 SWPPP Acceptance Form - continued

### V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).  
Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

### VI. Additional Information



# SWPPP Preparer Certification Form

---

*SPDES General Permit for Stormwater  
Discharges From Construction Activity  
(GP-0-20-001)*

## **Project Site Information** Project/Site Name

## **Owner/Operator Information** Owner/Operator (Company Name/Private Owner/Municipality Name)

## **Certification Statement – SWPPP Preparer**

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First name

MI

Last Name

Signature

Date



**New York State Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505**

\*(NOTE: Submit completed form to address above)\*

**NOTICE OF TERMINATION for Storm Water Discharges Authorized  
under the SPDES General Permit for Construction Activity**

**Please indicate your permit identification number:** NYR \_\_\_\_\_

**I. Owner or Operator Information**

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

4b. Contact Person E-Mail:

**II. Project Site Information**

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

**III. Reason for Termination**

9a.  All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. \*Date final stabilization completed (month/year): \_\_\_\_\_

9b.  Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR \_\_\_\_\_  
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c.  Other (Explain on Page 2)

**IV. Final Site Information:**

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices?  yes  no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed?  yes  no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

\_\_\_\_\_

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit?     yes     no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.
- For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? \_\_\_\_\_  
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4?     yes  
 no  
(If Yes, complete section VI - "MS4 Acceptance" statement

**V. Additional Information/Explanation:**  
(Use this section to answer questions 9c. and 10b., if applicable)

**VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative** (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

**VII. Qualified Inspector Certification - Final Stabilization:**

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. 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.

Printed Name:

Title/Position:

Signature:

Date:

**VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):**

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. 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.

Printed Name:

Title/Position:

Signature:

Date:

**IX. Owner or Operator Certification**

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. 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.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)



Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP- 0-20-001

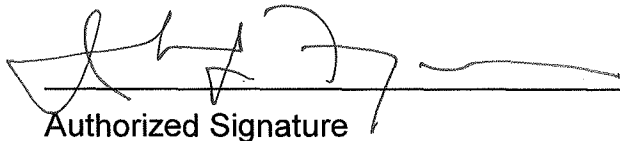
Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20  
Date

Address: NYS DEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750



## PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

**\*Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM  
CONSTRUCTION ACTIVITIES**

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## Part 1. PERMIT COVERAGE AND LIMITATIONS

### A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

### B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
  - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
  - (iii) *Minimize* the amount of soil exposed during *construction activity*;
  - (iv) *Minimize* the disturbance of *steep slopes*;
  - (v) *Minimize* sediment *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
  - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
  - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
  - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
  
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
  - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;
  
  - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and
  
  - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
  
- e. **Prohibited *Discharges*.** The following *discharges* are prohibited:
  - (i) Wastewater from washout of concrete;
  
  - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
  - (iv) Soaps or solvents used in vehicle and equipment washing; and
  - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

### **C. Post-construction Stormwater Management Practice Requirements**

1. The *owner or operator of a construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator of a construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

#### **a. Sizing Criteria for New Development**

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

**In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual.**

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
  
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
  
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

**b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed**

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be



calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual.** The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

### c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
- (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
  - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
  - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
  - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

**d. Sizing Criteria for Combination of Redevelopment Activity and New Development**

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

**D. Maintaining Water Quality**

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

## **E. Eligibility Under This General Permit**

1. This permit may authorize all *discharges* of stormwater from *construction activity to surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

## **F. Activities Which Are Ineligible for Coverage Under This General Permit**

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities or discharges from construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

*operator* has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase “D” (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
    - 1-5 acres of disturbance - 20 feet
    - 5-20 acres of disturbance - 50 feet
    - 20+ acres of disturbance - 100 feet, or
  - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
    - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
    - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
    - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
    - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
  - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.
9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

## Part II. PERMIT COVERAGE

### A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

## **B. Notice of Intent (NOI) Submittal**

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

## **C. Permit Authorization**

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
  - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
  - b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain *UPA* permits



must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
  - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
    - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
    - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
    - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
  - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
  - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

#### **D. General Requirements For Owners or Operators With Permit Coverage**

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator of a construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

- use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:*
- a. The *owner or operator* shall have a *qualified inspector* conduct **at least two** (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
  - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
  - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
  5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
  6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

*regulated, traditional land use control MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

#### **E. Permit Coverage for Discharges Authorized Under GP-0-15-002**

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

#### **F. Change of Owner or Operator**

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

*operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

### Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
  - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law 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 am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

## **B. Required SWPPP Contents**

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
  - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection



schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
  - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
  - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
  - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
  - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
  - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

### **C. Required SWPPP Components by Project Type**

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

## **Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS**

### **A. General Construction Site Inspection and Maintenance Requirements**

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

### C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
  - Certified Professional in Erosion and Sediment Control (CPESC),
  - New York State Erosion and Sediment Control Certificate Program holder
  - Registered Landscape Architect, or
  - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
    - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
  - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
  - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
  4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

## **Part V. TERMINATION OF PERMIT COVERAGE**

### **A. Termination of Permit Coverage**

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
  - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;



- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
      - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
      - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
  - a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

## **Part VI. REPORTING AND RETENTION RECORDS**

### **A. Record Retention**

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

### **B. Addresses**

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

## **Part VII. STANDARD PERMIT CONDITIONS**

### **A. Duty to Comply**

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

#### **B. Continuation of the Expired General Permit**

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

#### **C. Enforcement**

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

#### **D. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

### **E. Duty to Mitigate**

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

### **F. Duty to Provide Information**

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

### **G. Other Information**

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

### **H. Signatory Requirements**

1. All NOIs and NOTs shall be signed as follows:
  - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (i) the chief executive officer of the agency, or
    - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

## **I. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

## **J. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **K. Requirement to Obtain Coverage Under an Alternative Permit**

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **L. Proper Operation and Maintenance**

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

#### **M. Inspection and Entry**

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

#### **N. Permit Actions**

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

#### **O. Definitions**

Definitions of key terms are included in Appendix A of this permit.

#### **P. Re-Opener Clause**

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

#### **Q. Penalties for Falsification of Forms and Reports**

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.



**R. Other Permits**

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

## **APPENDIX A – Acronyms and Definitions**

### **Acronyms**

APO – Agency Preservation Officer

BMP – Best Management Practice

CPESC – Certified Professional in Erosion and Sediment Control

Cpv – Channel Protection Volume

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

DOW – Division of Water

EAF – Environmental Assessment Form

ECL - Environmental Conservation Law

EPA – U. S. Environmental Protection Agency

HSG – Hydrologic Soil Group

MS4 – Municipal Separate Storm Sewer System

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

OPRHP – Office of Parks, Recreation and Historic Places

Qf – Extreme Flood

Qp – Overbank Flood

RRv – Runoff Reduction Volume

RWE – Regional Water Engineer

SEQR – State Environmental Quality Review

SEQRA - State Environmental Quality Review Act

SHPA – State Historic Preservation Act

SPDES – State Pollutant Discharge Elimination System

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

UPA – Uniform Procedures Act

USDA – United States Department of Agriculture

WQv – Water Quality Volume

## Definitions

All definitions in this section are solely for the purposes of this permit.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

**Alter Hydrology from Pre to Post-Development Conditions** - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

**Combined Sewer** - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

**Commence (Commencement of) Construction Activities** - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

**Construction Activity(ies)** - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

**Construction Site** – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

**Dewatering** – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Direct Discharge (to a specific surface waterbody)** - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

**Discharge(s)** - means any addition of any pollutant to waters of the State through an outlet or *point source*.

**Embankment** –means an earthen or rock slope that supports a road/highway.

**Endangered or Threatened Species** – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

**Environmental Conservation Law (ECL)** - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

**Equivalent (Equivalence)** – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

**General SPDES permit** - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

**Groundwater(s)** - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

**Historic Property** – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

**Impervious Area (Cover)** - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

**Larger Common Plan of Development or Sale** - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Minimize** – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer (MS4)** - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

**Natural Buffer** –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

**New York State Erosion and Sediment Control Certificate Program** – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**NOI Acknowledgment Letter** - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

**Nonpoint Source** - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

**Performance Criteria** – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf ) in Part I.C.2. of the permit.

**Point Source** - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

**Pollutant** - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

**Qualified Inspector** - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

**Redevelopment Activity(ies)** – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Regulated, Traditional Land Use Control MS4** - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Routine Maintenance Activity** - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

**Site limitations** – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and Extreme Flood (Qf).

**State Pollutant Discharge Elimination System (SPDES)** - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.



**Steep Slope** – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Streambank** – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

**Surface Waters of the State** - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

**Temporarily Ceased** – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

**Total Maximum Daily Loads (TMDLs)** - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

**Trained Contractor** - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

**Uniform Procedures Act (UPA) Permit** - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

**Water Quality Standard** - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

## APPENDIX B – Required SWPPP Components by Project Type

**Table 1**  
**Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls**

<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E</li><li>• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E</li><li>• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.</li></ul>
<p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>
<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Pond construction</li><li>• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover</li><li>• Cross-country ski trails and walking/hiking trails</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li></ul>

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

**Table 2**  
**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

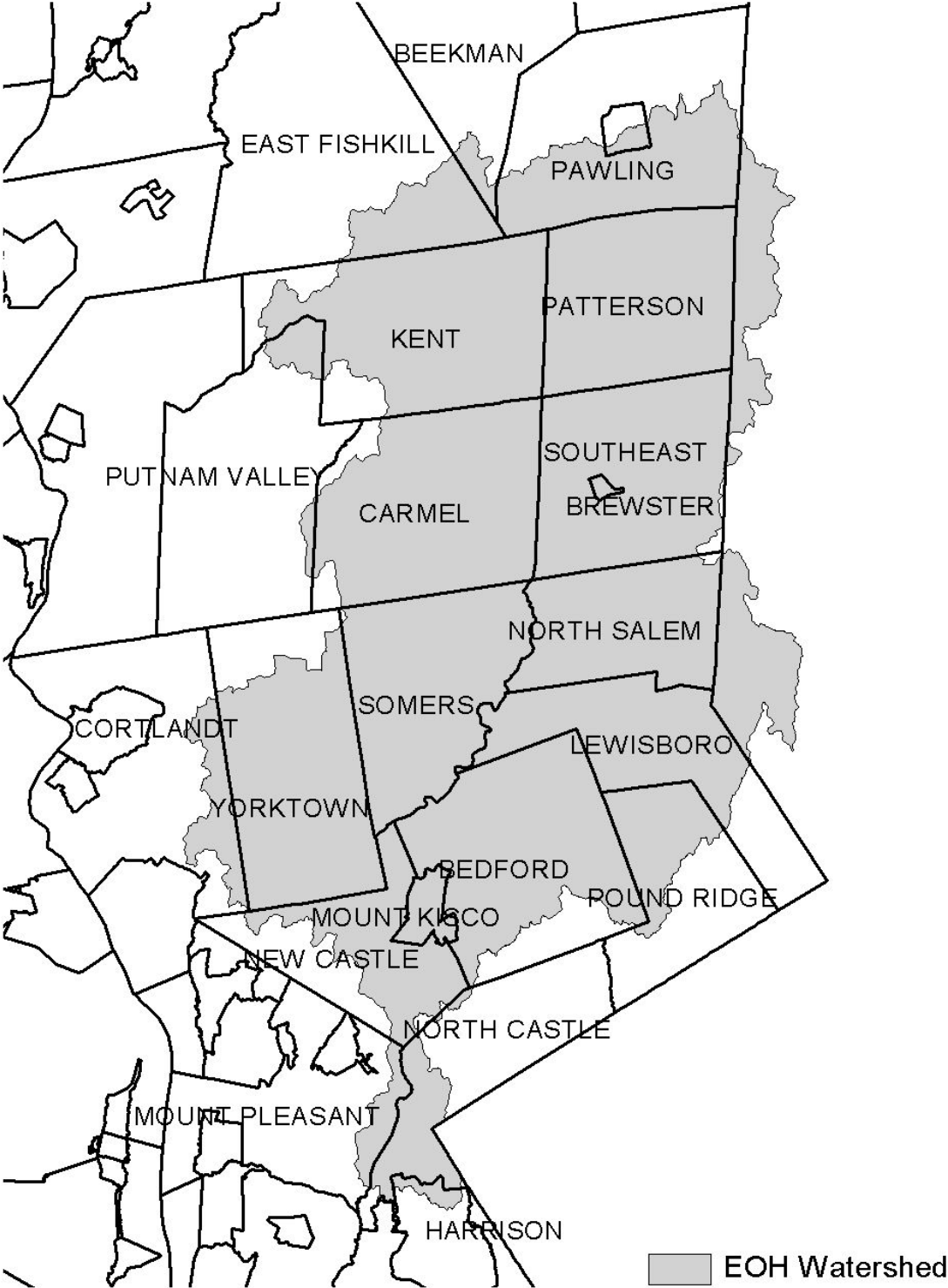
- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

## APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

**Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).**

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

**Figure 1 - New York City Watershed East of the Hudson**

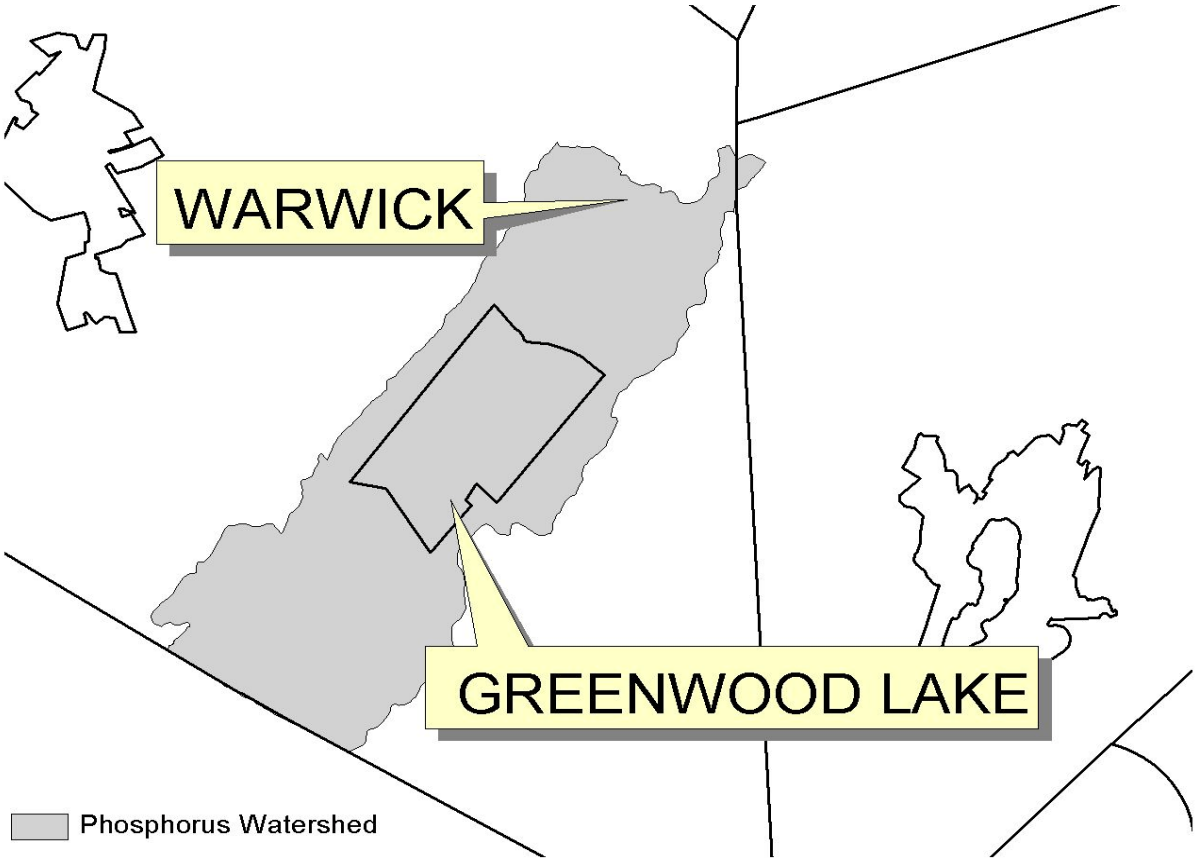




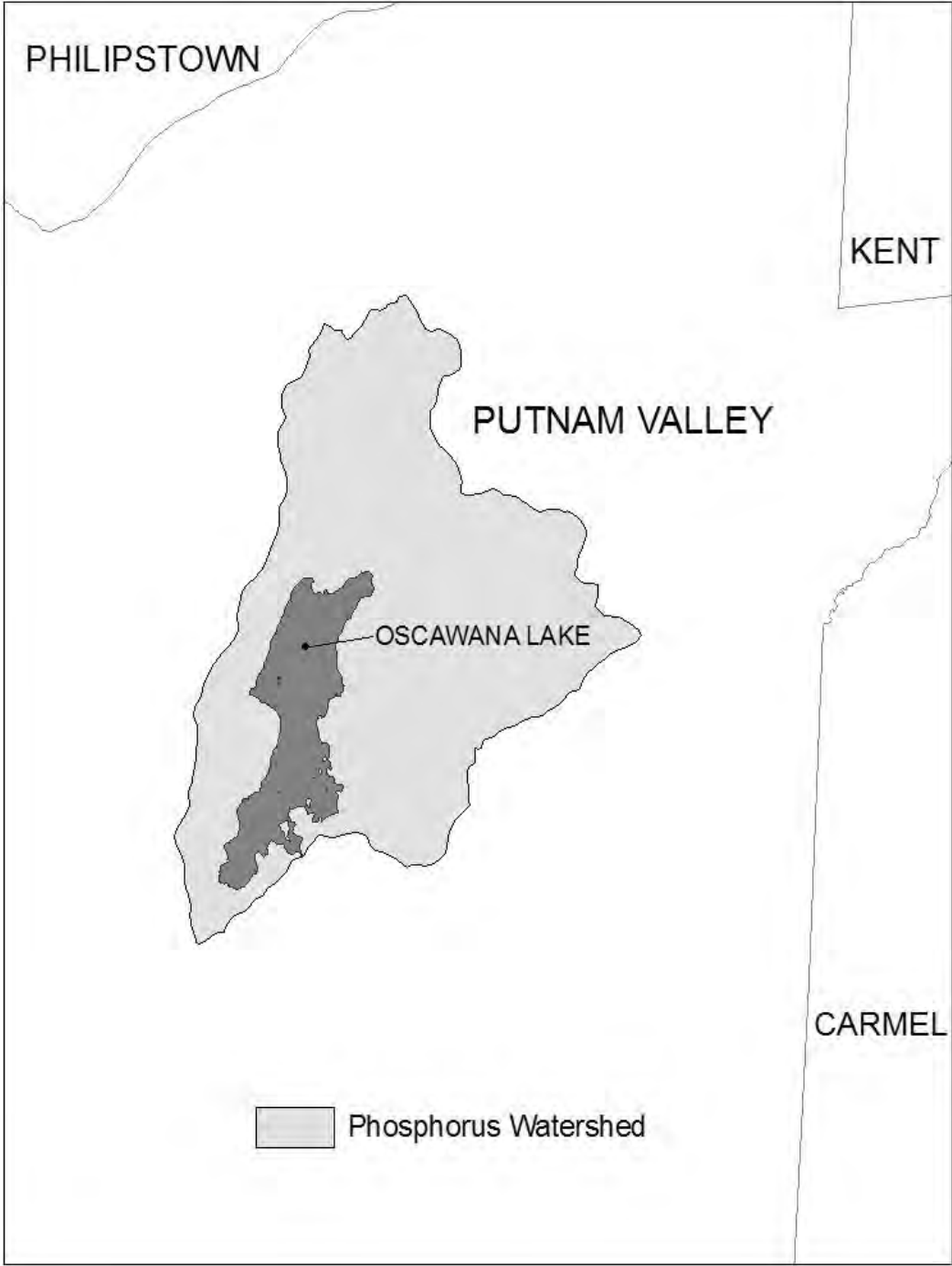
**Figure 2 - Onondaga Lake Watershed**



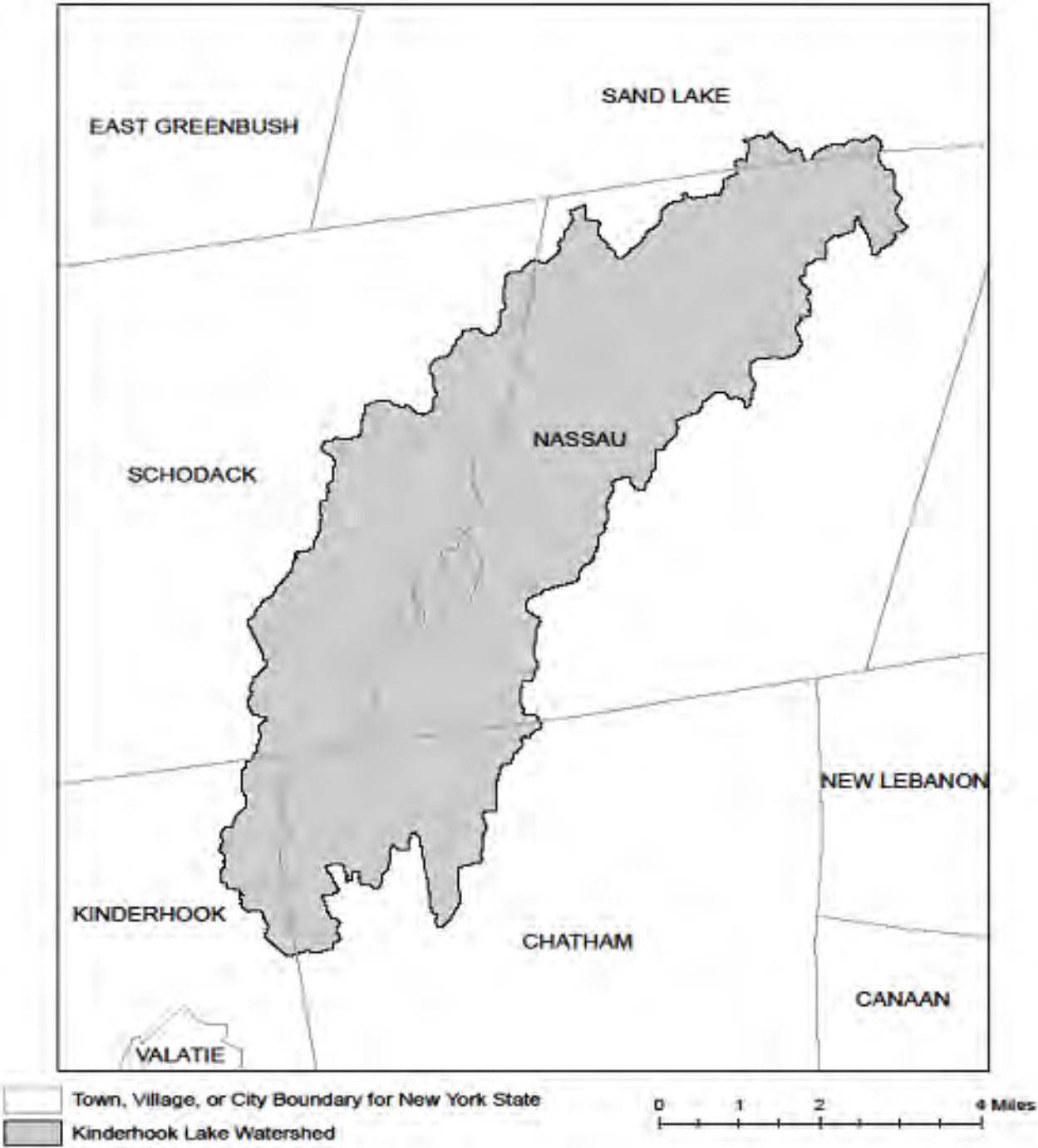
**Figure 3 - Greenwood Lake Watershed**



**Figure 4 - Oscawana Lake Watershed**



**Figure 5 - Kinderhook Lake Watershed**



## **APPENDIX D – Watersheds with Lower Disturbance Threshold**

**Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.**

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

## APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients



### 303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

## APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

## **APPENDIX B. CONTRACTOR CERTIFICATION AND SAMPLE INSPECTION REPORTS**

- **CONTRACTOR CERTIFICATION**
  - **NYSDEC PHASE II PRE-CONSTRUCTION MEETING REPORT**
  - **NYSDEC PHASE II CONSTRUCTION DURATION INSPECTION REPORT**

## CONTRACTOR CERTIFICATION

Each contractor and subcontractor identified in the Stormwater Pollution Prevention Plan (SWPPP) involved in soil disturbance and/or stormwater management practices shall sign and date a copy of the following certification statement prior to undertaking any land development activity.

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

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.

_____	_____
Signature	Date

Contractor Name: \_\_\_\_\_

Contractor Title: \_\_\_\_\_

Contracting Firm: \_\_\_\_\_

Firm Location: \_\_\_\_\_

Firm Telephone Number: \_\_\_\_\_

Each contractor and subcontractor shall identify at least one (1) person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the Trained Contractor. The Trained Contractor shall be on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor must receive four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. The Trained Contractor must receive four (4) hours of training every three (3) years.

Trained Contractor Name: \_\_\_\_\_

## NYSDEC PHASE II CONSTRUCTION DURATION INSPECTION REPORT

Name of Permitted Facility: _____	Permit Identification Number: _____
Facility Address: _____	Date of Authorization: _____
Owner / Operator Contact: _____ Name: _____ Phone: _____ Email: _____	Qualified Inspector Contact: _____ Name: _____ Phone: _____ Email: _____ <b>Address: 500 Main Street, Armonk, New York 10504</b>
Contractor Contact: _____ Name: _____ Phone: _____ Email: _____	KSCJ Project No: _____ Inspection Report No.: _____ Day / Date of Inspection: _____ Time of Inspection: _____ Weather: _____

**QUALIFIED INSPECTOR CERTIFICATION:**

<b>Qualified Inspector (print name)</b>	<b>Qualified Inspector (signature)</b>
---	--

The above-signed acknowledges that, to the best of his/her knowledge, that all information provided within this report is accurate and complete.

**GENERAL PERMIT REFERENCE: PART IV.C.2.A, B AND E STATES:**

“Unless otherwise notified by the Department, the qualified inspector shall conduct site inspections in accordance with the following timetable:

- a. For construction sites where soil disturbance activities are on-going, the qualified inspector shall conduct a site inspection at least once every seven (7) calendar days.
- b. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- e. For construction sites that directly discharge to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.”

**QUALIFIED INSPECTION REPORT:** To be prepared subsequent to each inspection and shall include and/or address, at a minimum, the following:

- a. A description of the condition of the runoff at all points of discharge from the construction site;
- b. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas;

- c. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- d. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- e. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- f. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- g. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- h. Identification and status of all corrective actions that were required by previous inspection;
- i. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions.

Within one business day of the completion of an inspection, the qualified inspector shall notify the owner or operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

**IDENTIFY LOCATION AND NATURE OF WORK, BY CONTRACTOR AND SUBCONTRACTORS, FOR EACH OPERATION:**

Refer to Erosion Control Inspection Sketch No. \_\_\_\_\_ dated \_\_\_\_\_ and accompanying photos (Appendix A):

**CURRENT ACTIVITIES**



## INSPECTION CHECKLIST

### MAINTAINING WATER QUALITY

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Is there any increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?

Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?

All disturbance is within the limits of approved plans.

Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

### HOUSEKEEPING

#### 1. GENERAL SITE CONDITIONS

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Is construction site litter, debris and spoils appropriately managed?

Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?

Is construction impacting the adjacent property?

Is dust adequately controlled?

#### 2. TEMPORARY STREAM CROSSING

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Maximum diameter pipes necessary to span creek without dredging are installed.

Installed non-woven geotextile fabric beneath approaches.

Is fill composed of aggregate (no earth or soil)?

Rock on approaches is clean enough to remove mud from vehicles and prevent sediment from entering stream during high flow.

#### 3. STABILIZED CONSTRUCTION ACCESS

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Stone is clean enough to effectively remove mud from vehicles.

Installed per standards and specifications?

Does all traffic use the stabilized entrance to enter and leave site?

Is adequate drainage provided to prevent ponding at entrance?

**RUNOFF CONTROL PRACTICES**

**1. EXCAVATION DEWATERING**

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

**YES NO N/A**

Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.

Clean water from upstream pool is being pumped to the downstream pool.

Sediment laden water from work area is being discharged to a silt-trapping device.

Constructed upstream berm with one-foot minimum freeboard.

**2. FLOW SPREADER**

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

**YES NO N/A**

Installed per plan.

Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.

Flow sheets out of level spreader without erosion on downstream edge.

**3. INTERCEPTOR DIKES AND SWALES**

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

**YES NO N/A**

Installed per plan with minimum side slopes 2H:1V or flatter.

Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.

Sediment-laden runoff directed to sediment trapping and structure.

**4. STONE CHECK DAM**

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

**YES NO N/A**

Is channel stable? (flow is not eroding soil underneath or around the structure).

Check is in good condition (rocks in place and no permanent pools behind the structure).

Has accumulated sediment been removed?

**5. ROCK OUTLET PROTECTION**

**NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

**YES NO N/A**

Installed per plan.

Installed concurrently with pipe installation.

**SOIL STABILIZATION**

**1. TOPSOIL AND SPOIL STOCKPILES** **NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Stockpiles are stabilized with vegetation and/or mulch.

Sediment control is installed at the toe of the slope.

**2. REVEGETATION** **NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Temporary seedings and mulch have been applied to idle areas.

4 inches minimum of topsoil has been applied under permanent seedings.

**SEDIMENT CONTROL PRACTICES**

**1. SILT FENCE AND LINEAR BARRIERS** **NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Installed on Contour, 10 feet from toe of slope (not across conveyance channels).

Joints constructed by wrapping the two ends together for continuous support.

Fabric buried 6 inches minimum.

Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation is \_\_\_\_\_% of design capacity.

**2. STORM DRAIN INLET PROTECTION (USE FOR STONE & BLOCK; FILTER FABRIC; CURB; OR, EXCAVATED; FILTER SOCK OR MANUFACTURED PRACTICES).** **NEEDS IMMEDIATE ATTENTION – SEE COMMENTS**

YES NO N/A

Installed concrete blocks lengthwise so open ends face outward, not upward.

Placed wire screen between No. 3 crushed stone and concrete blocks.

Drainage area is 1 acre or less.

Excavated area is 900 cubic feet.

Excavated side slopes should be 2:1.

2" x 4" frame is constructed and structurally sound.

Posts: 3-foot maximum spacing between posts.

Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at maximum 8-inch spacing.



**MODIFICATIONS TO THE SWPPP (TO BE COMPLETED AT DESCRIBED BELOW)**

The Operator shall amend the SWPPP whenever:

1. There is significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
  - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this Permit; or
  - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

**SWPPP MODIFICATION & REASON:**

## NYSDEC PHASE II PRE-CONSTRUCTION MEETING REPORT

Name of Permitted Facility: _____	Permit Identification Number: _____
Facility Address: _____	Date of Authorization: _____
Owner / Operator Contact: _____ Name: _____ Phone: _____ Email: _____	Qualified Inspector Contact: _____ Name: _____ Phone: _____ Email: _____ Address: <b>500 Main Street, Armonk, New York 10504</b>
Contractor Contact: _____ Name: _____ Phone: _____ Email: _____	KSCJ Project No: _____ Inspection Report No.: _____ Day / Date of Inspection: _____ Time of Inspection: _____ Weather: _____

**PREAMBLE TO SITE ASSESSMENT AND INSPECTIONS:** The following information is to be read by all persons involved in the construction of stormwater related activities:

The Operator agrees to have a qualified inspector assess the site prior to the commencement of construction and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify (See Appendix A of this report) that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting shall be held to review the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector in accordance with Part IV.C of the General Permit but in no case less than once every 7 calendar days. The Operator shall maintain a record of all inspection reports on site and make them available to the permitting authorities upon request.

Prior to filing the Notice of Termination, the Operator shall have a qualified inspector perform a final site inspection to certify that the site has undergone final stabilization and that all temporary erosion and sediment controls not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

**QUALIFIED INSPECTOR CERTIFICATION:**

\_\_\_\_\_  
**Qualified Inspector (print name)**

\_\_\_\_\_  
**Qualified Inspector (signature)**

The above-signed acknowledges that, to the best of his/her knowledge, that all information provided within this report is accurate and complete.

## PRE-CONSTRUCTION SITE ASSESSMENT CHECKLIST

### 1. NOTICE OF INTENT, SWPPP, AND CONTRACTOR'S CERTIFICATION

- | YES                      | NO                       | N/A                      |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has a Notice of Intent been filed with the NYS Department of Environmental Conservation?      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the SWPPP on-site? Where? _____  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the Plan current? What is the latest revision date? _____                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is a copy of the Notice of Intent (with brief description) on-site? Where? _____              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have all contractors involved with stormwater activities signed a contractor's certification? |

### 2. RESOURCE PROTECTION

- | YES                      | NO                       | N/A                      |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are construction limits clearly flagged or fenced?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Creek crossings installed prior to land-disturbing activity, including clearing and blasting.   |

### 3. SURFACE WATER PROTECTION

- | YES                      | NO                       | N/A                      |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Clean stormwater runoff has been diverted from areas to be disturbed.                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Bodies of water located either on site or in the vicinity of the site have been identified and protected. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Appropriate practices to protect on-site or downstream surface water are installed.                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are clearing and grading operations divided into areas <5 acres?  |

### 4. STABILIZED CONSTRUCTION ACCESS

- | YES                      | NO                       | N/A                      |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sediment tracked onto public streets is removed or cleaned on a regular basis.  |

**5. SEDIMENT CONTROLS**

- | <b>YES</b>               | <b>NO</b>                | <b>N/A</b>               |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Silt fence material and installation comply with the standard drawing and specifications. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Silt fences are installed at appropriate spacing intervals.                               |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sediment/detention basin was installed as first land-disturbing activity.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sediment traps and barriers are installed.  |

**6. POLLUTION PREVENTION FOR WASTE AND HAZARDOUS MATERIALS**

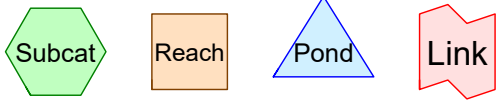
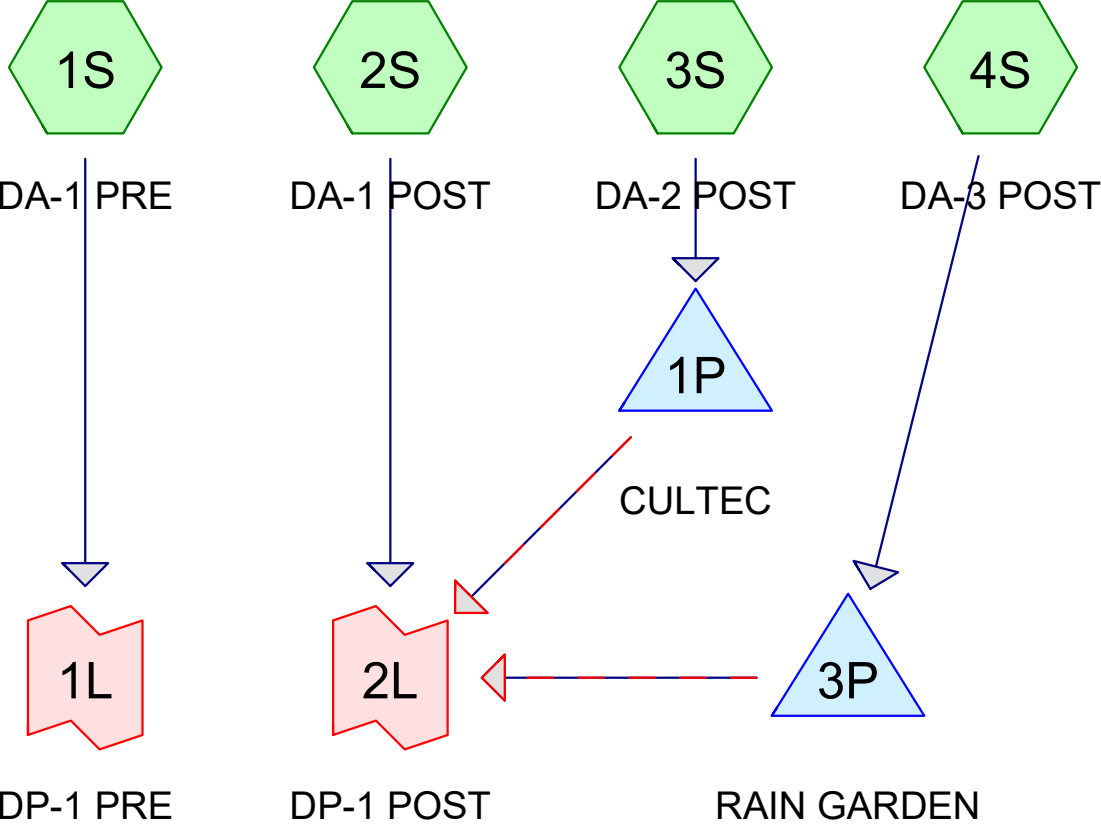
- | <b>YES</b>               | <b>NO</b>                | <b>N/A</b>               |  |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The plan is contained in the SWPPP on Page_____.   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Appropriate materials to control spills are on-site. Where?_____   |

**COMMENTS AND / OR CORRECTIVE ACTION:**



## **APPENDIX C. HYDROLOGIC AND HYDRAULIC CALCULATIONS**

- **EXISTING AND PROPOSED CONDITIONS HYDROLOGIC ANALYSIS**



**Routing Diagram for TNC VERIZON PARKING - HydroCAD grading edit**  
 Prepared by Kellard Sessions Consulting, Printed 10/4/2023  
 HydroCAD® 10.20-3c s/n 01808 © 2023 HydroCAD Software Solutions LLC

# TNC VERIZON PARKING - HydroCAD grading edit

Prepared by Kellard Sessions Consulting

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## Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	Type III 24-hr		Default	24.00	1	2.80	2
2	10-yr	Type III 24-hr		Default	24.00	1	5.13	2
3	50-yr	Type III 24-hr		Default	24.00	1	7.69	2
4	100-yr	Type III 24-hr		Default	24.00	1	9.17	2

# TNC VERIZON PARKING - HydroCAD grading edit

Prepared by Kellard Sessions Consulting

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## Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.451	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S, 4S)
0.260	80	>75% Grass cover, Good, HSG D (1S, 4S)
0.649	98	Paved parking, HSG A (1S, 3S, 4S)
0.145	98	Paved parking, HSG D (1S, 3S, 4S)
0.237	43	Woods/grass comb., Fair, HSG A (1S)
0.310	82	Woods/grass comb., Fair, HSG D (1S)
0.179	79	Woods/grass comb., Good, HSG D (2S)
<b>2.232</b>	<b>74</b>	<b>TOTAL AREA</b>

# TNC VERIZON PARKING - HydroCAD grading edit

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## Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.337	HSG A	1S, 2S, 3S, 4S
0.000	HSG B	
0.000	HSG C	
0.894	HSG D	1S, 2S, 3S, 4S
0.000	Other	
<b>2.232</b>		<b>TOTAL AREA</b>

# TNC VERIZON PARKING - HydroCAD grading edit

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## Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.451	0.000	0.000	0.260	0.000	0.712	>75% Grass cover, Good	1S, 2S, 3S, 4S
0.649	0.000	0.000	0.145	0.000	0.794	Paved parking	1S, 3S, 4S
0.237	0.000	0.000	0.310	0.000	0.547	Woods/grass comb., Fair	1S
0.000	0.000	0.000	0.179	0.000	0.179	Woods/grass comb., Good	2S
<b>1.337</b>	<b>0.000</b>	<b>0.000</b>	<b>0.894</b>	<b>0.000</b>	<b>2.232</b>	<b>TOTAL AREA</b>	

# TNC VERIZON PARKING - HydroCAD grading edit

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## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	3P	375.83	375.39	43.6	0.0101	0.012	0.0	12.0	0.0	

**TNC VERIZON PARKING - HydroCAD grading edit**

Type III 24-hr 1-yr Rainfall=2.80"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: DA-1 PRE**

Runoff Area=48,610 sf 16.85% Impervious Runoff Depth>0.36"  
 Flow Length=175' Tc=13.9 min CN=65 Runoff=0.28 cfs 0.034 af

**Subcatchment 2S: DA-1 POST**

Runoff Area=10,645 sf 0.00% Impervious Runoff Depth>0.47"  
 Tc=6.0 min CN=68 Runoff=0.12 cfs 0.010 af

**Subcatchment 3S: DA-2 POST**

Runoff Area=1,921 sf 76.42% Impervious Runoff Depth>1.26"  
 Tc=6.0 min CN=84 Runoff=0.07 cfs 0.005 af

**Subcatchment 4S: DA-3 POST**

Runoff Area=36,044 sf 69.17% Impervious Runoff Depth>1.53"  
 Tc=6.0 min CN=88 Runoff=1.56 cfs 0.106 af

**Pond 1P: CULTEC**

Peak Elev=377.60' Storage=52 cf Inflow=0.07 cfs 0.005 af  
 Discarded=0.01 cfs 0.004 af Primary=0.03 cfs 0.001 af Outflow=0.04 cfs 0.005 af

**Pond 3P: RAIN GARDEN**

Peak Elev=378.57' Storage=2,980 cf Inflow=1.56 cfs 0.106 af  
 Primary=0.13 cfs 0.041 af Secondary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.041 af

**Link 1L: DP-1 PRE**

Inflow=0.28 cfs 0.034 af  
 Primary=0.28 cfs 0.034 af

**Link 2L: DP-1 POST**

Inflow=0.15 cfs 0.051 af  
 Primary=0.15 cfs 0.051 af

**Total Runoff Area = 2.232 ac Runoff Volume = 0.154 af Average Runoff Depth = 0.83"**  
**64.42% Pervious = 1.438 ac 35.58% Impervious = 0.794 ac**



**Summary for Subcatchment 1S: DA-1 PRE**

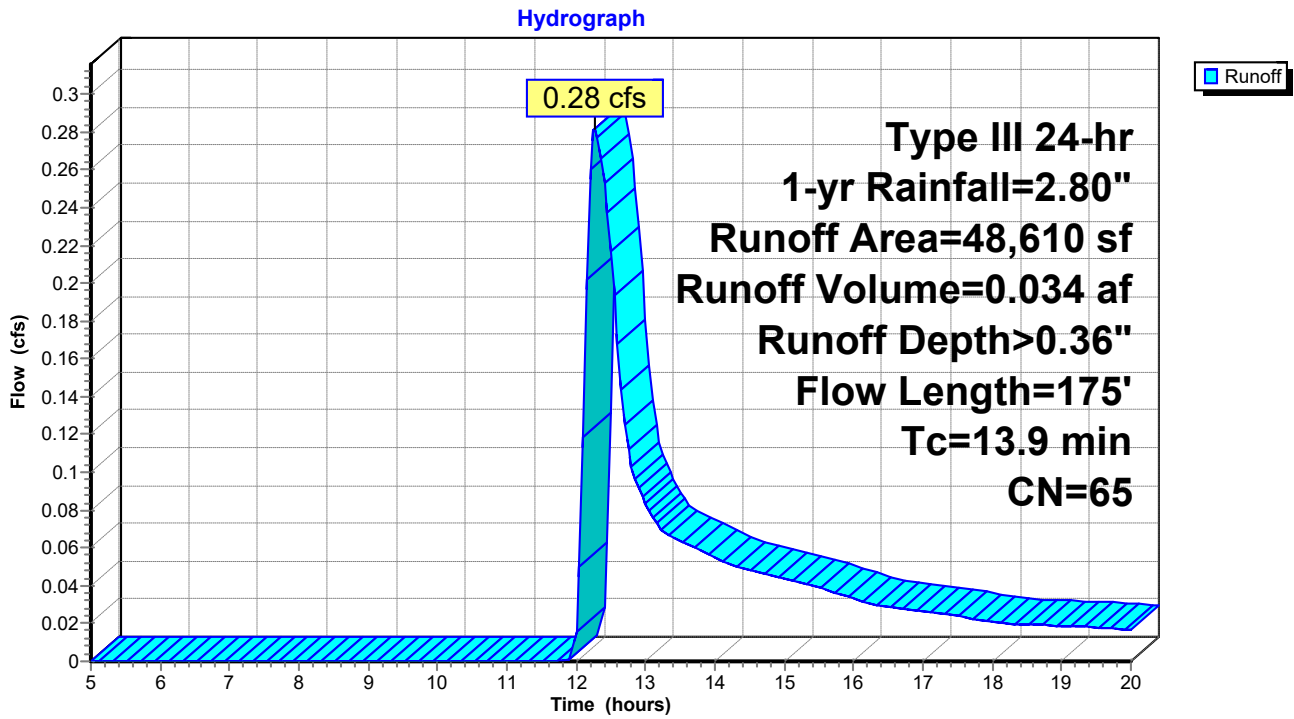
Runoff = 0.28 cfs @ 12.27 hrs, Volume= 0.034 af, Depth> 0.36"  
 Routed to Link 1L : DP-1 PRE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 1-yr Rainfall=2.80"

Area (sf)	CN	Description
13,496	82	Woods/grass comb., Fair, HSG D
4,399	80	>75% Grass cover, Good, HSG D
1,587	98	Paved parking, HSG D
6,606	98	Paved parking, HSG A
12,193	39	>75% Grass cover, Good, HSG A
10,329	43	Woods/grass comb., Fair, HSG A
48,610	65	Weighted Average
40,417		83.15% Pervious Area
8,193		16.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	25	0.2190	0.35		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.43"
0.5	51	0.0440	1.71		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 3.43"
11.8	73	0.0440	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 3.43"
0.4	26	0.0540	1.16		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	175	Total			

Subcatchment 1S: DA-1 PRE



**Summary for Subcatchment 2S: DA-1 POST**

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 0.010 af, Depth> 0.47"  
 Routed to Link 2L : DP-1 POST

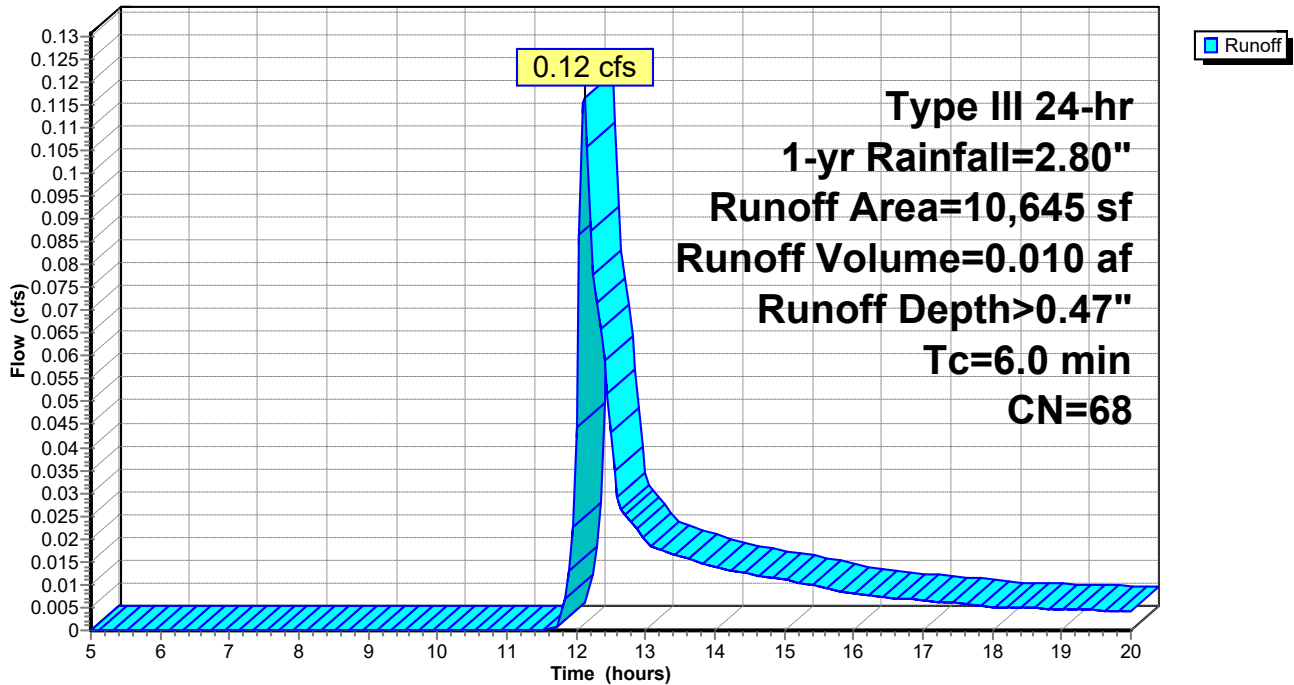
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 1-yr Rainfall=2.80"

Area (sf)	CN	Description
7,802	79	Woods/grass comb., Good, HSG D
2,843	39	>75% Grass cover, Good, HSG A
10,645	68	Weighted Average
10,645		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 2S: DA-1 POST**

Hydrograph



**Summary for Subcatchment 3S: DA-2 POST**

Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 1.26"  
 Routed to Pond 1P : CULTEC

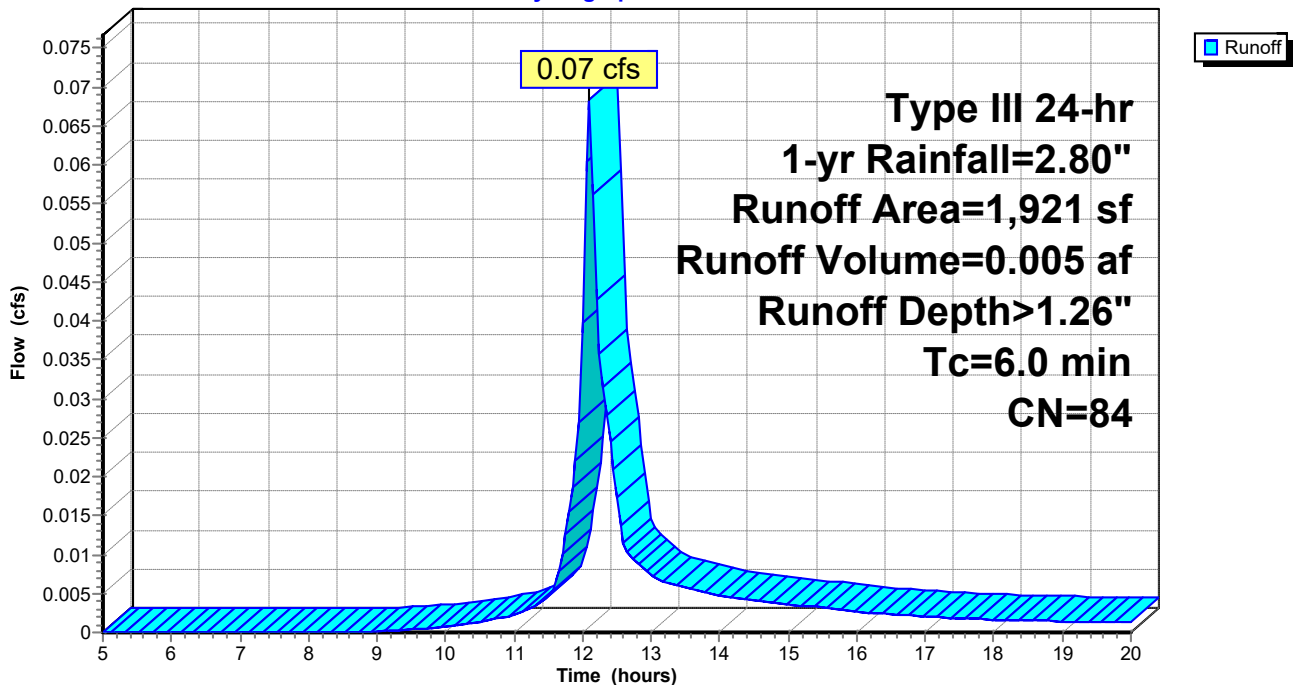
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 1-yr Rainfall=2.80"

Area (sf)	CN	Description
147	98	Paved parking, HSG D
1,321	98	Paved parking, HSG A
453	39	>75% Grass cover, Good, HSG A
1,921	84	Weighted Average
453		23.58% Pervious Area
1,468		76.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: DA-2 POST**

Hydrograph



**Summary for Subcatchment 4S: DA-3 POST**

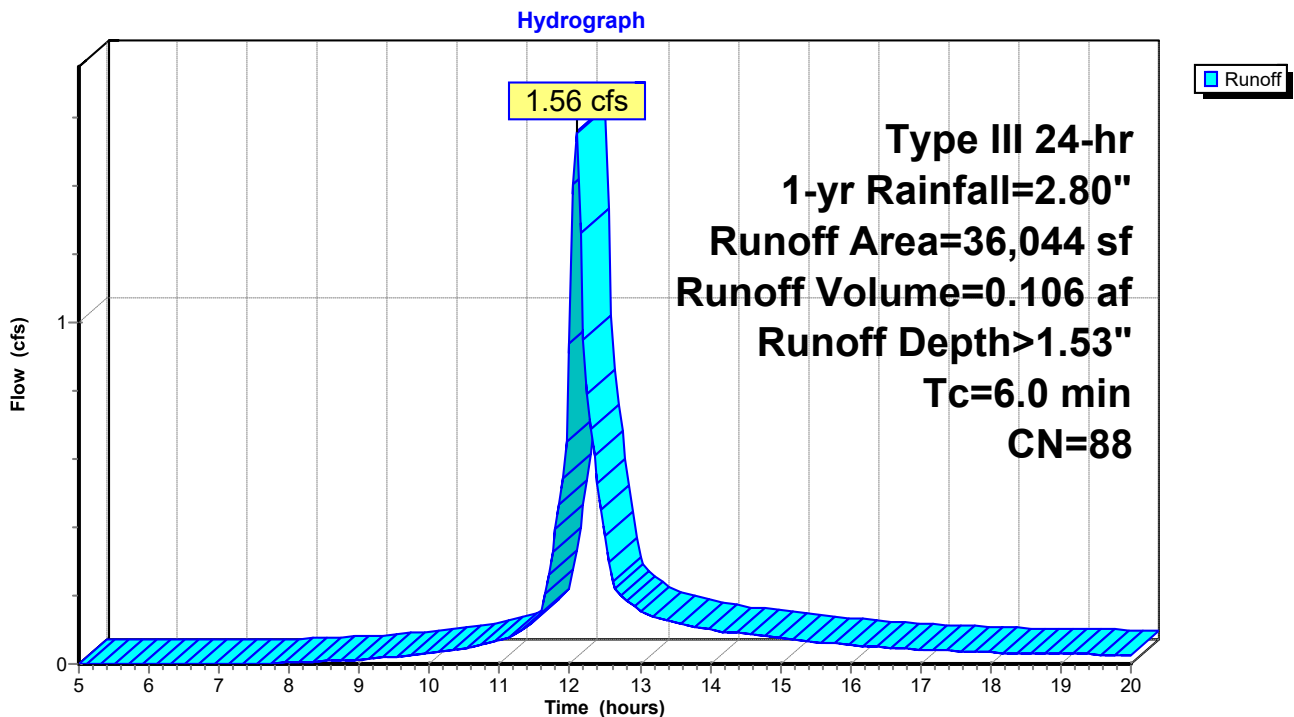
Runoff = 1.56 cfs @ 12.09 hrs, Volume= 0.106 af, Depth> 1.53"  
 Routed to Pond 3P : RAIN GARDEN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 1-yr Rainfall=2.80"

Area (sf)	CN	Description
6,941	80	>75% Grass cover, Good, HSG D
4,591	98	Paved parking, HSG D
20,341	98	Paved parking, HSG A
4,171	39	>75% Grass cover, Good, HSG A
36,044	88	Weighted Average
11,112		30.83% Pervious Area
24,932		69.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: DA-3 POST**



**Summary for Pond 1P: CULTEC**

Inflow Area = 0.044 ac, 76.42% Impervious, Inflow Depth > 1.26" for 1-yr event  
 Inflow = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af  
 Outflow = 0.04 cfs @ 12.27 hrs, Volume= 0.005 af, Atten= 44%, Lag= 10.4 min  
 Discarded = 0.01 cfs @ 11.70 hrs, Volume= 0.004 af  
 Primary = 0.03 cfs @ 12.27 hrs, Volume= 0.001 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 377.60' @ 12.27 hrs Surf.Area= 88 sf Storage= 52 cf

Plug-Flow detention time= 48.7 min calculated for 0.005 af (100% of inflow)  
 Center-of-Mass det. time= 48.3 min ( 846.6 - 798.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	376.50'	60 cf	<b>5.00'W x 17.50'L x 2.04'H Field A</b> 179 cf Overall - 29 cf Embedded = 150 cf x 40.0% Voids
#2A	377.00'	29 cf	<b>Cultec C-100HD</b> x 2 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		89 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	376.50'	<b>3.530 in/hr Exfiltration over Surface area</b>
#2	Primary	377.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.01 cfs @ 11.70 hrs HW=376.53' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.03 cfs @ 12.27 hrs HW=377.60' (Free Discharge)  
 ↑2=Orifice/Grate (Orifice Controls 0.03 cfs @ 1.06 fps)

**Pond 1P: CULTEC - Chamber Wizard Field A**

**Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)**

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length

1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width

6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

2 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 28.9 cf Chamber Storage

178.6 cf Field - 28.9 cf Chambers = 149.8 cf Stone x 40.0% Voids = 59.9 cf Stone Storage

Chamber Storage + Stone Storage = 88.8 cf = 0.002 af

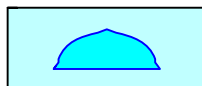
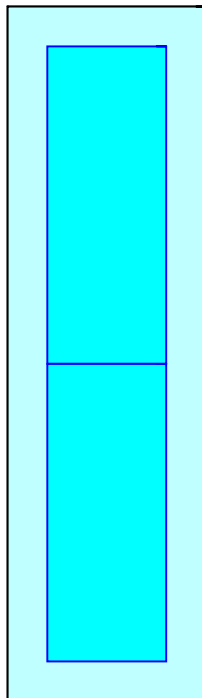
Overall Storage Efficiency = 49.7%

Overall System Size = 17.50' x 5.00' x 2.04'

2 Chambers

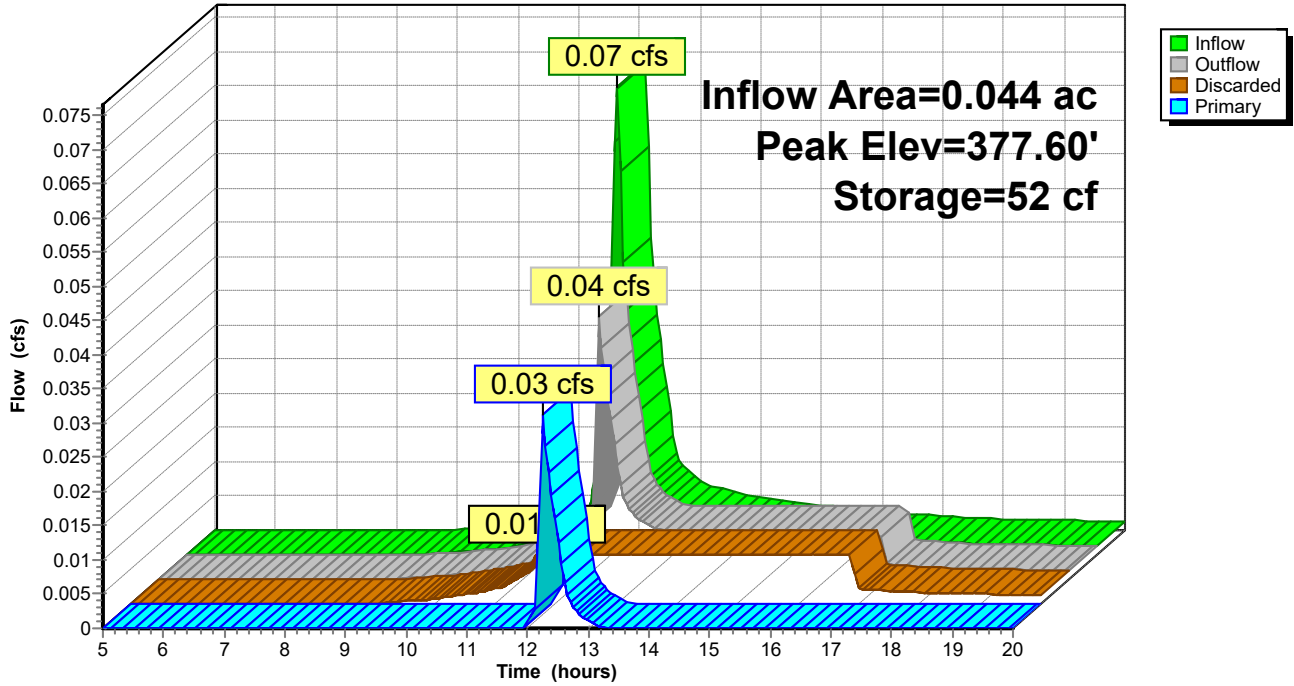
6.6 cy Field

5.5 cy Stone



### Pond 1P: CULTEC

Hydrograph





**Summary for Pond 3P: RAIN GARDEN**

Inflow Area = 0.827 ac, 69.17% Impervious, Inflow Depth > 1.53" for 1-yr event  
 Inflow = 1.56 cfs @ 12.09 hrs, Volume= 0.106 af  
 Outflow = 0.13 cfs @ 13.26 hrs, Volume= 0.041 af, Atten= 91%, Lag= 69.9 min  
 Primary = 0.13 cfs @ 13.26 hrs, Volume= 0.041 af  
 Routed to Link 2L : DP-1 POST  
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 378.57' @ 13.26 hrs Surf.Area= 3,156 sf Storage= 2,980 cf

Plug-Flow detention time= 224.3 min calculated for 0.041 af (39% of inflow)  
 Center-of-Mass det. time= 134.8 min ( 920.9 - 786.1 )

Volume	Invert	Avail.Storage	Storage Description	
#1	375.83'	8,858 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
375.83	2,436	0.0	0	0
376.50	2,436	40.0	653	653
378.00	2,436	20.0	731	1,384
379.00	3,697	100.0	3,067	4,450
380.00	5,118	100.0	4,408	8,858

Device	Routing	Invert	Outlet Devices
#1	Primary	375.83'	<b>12.0" Round Culvert</b> L= 43.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 375.83' / 375.39' S= 0.0101 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	378.50'	<b>8.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#3	Secondary	379.60'	<b>10.0' long + 2.0 '/' SideZ x 2.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

**Primary OutFlow** Max=0.13 cfs @ 13.26 hrs HW=378.57' (Free Discharge)

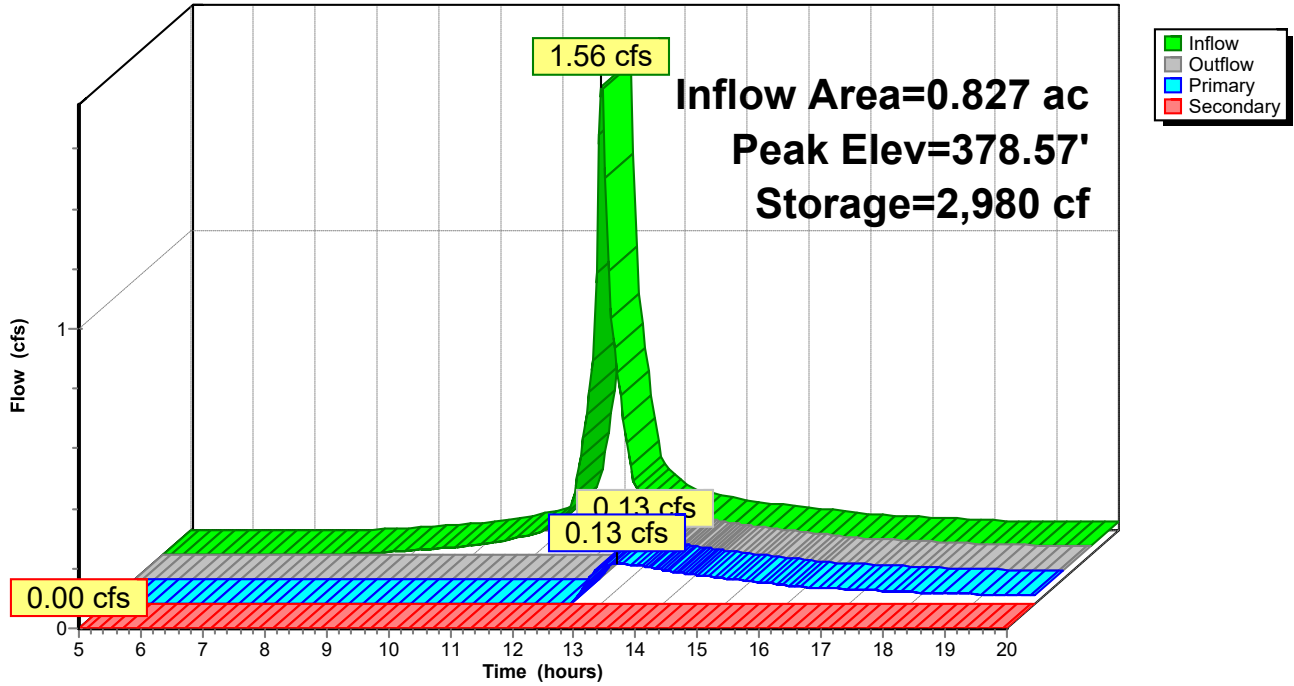
- ↑ 1=Culvert (Passes 0.13 cfs of 5.66 cfs potential flow)
- ↑ 2=Orifice/Grate (Weir Controls 0.13 cfs @ 0.87 fps)

**Secondary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=375.83' (Free Discharge)

- ↑ 3=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 3P: RAIN GARDEN

Hydrograph



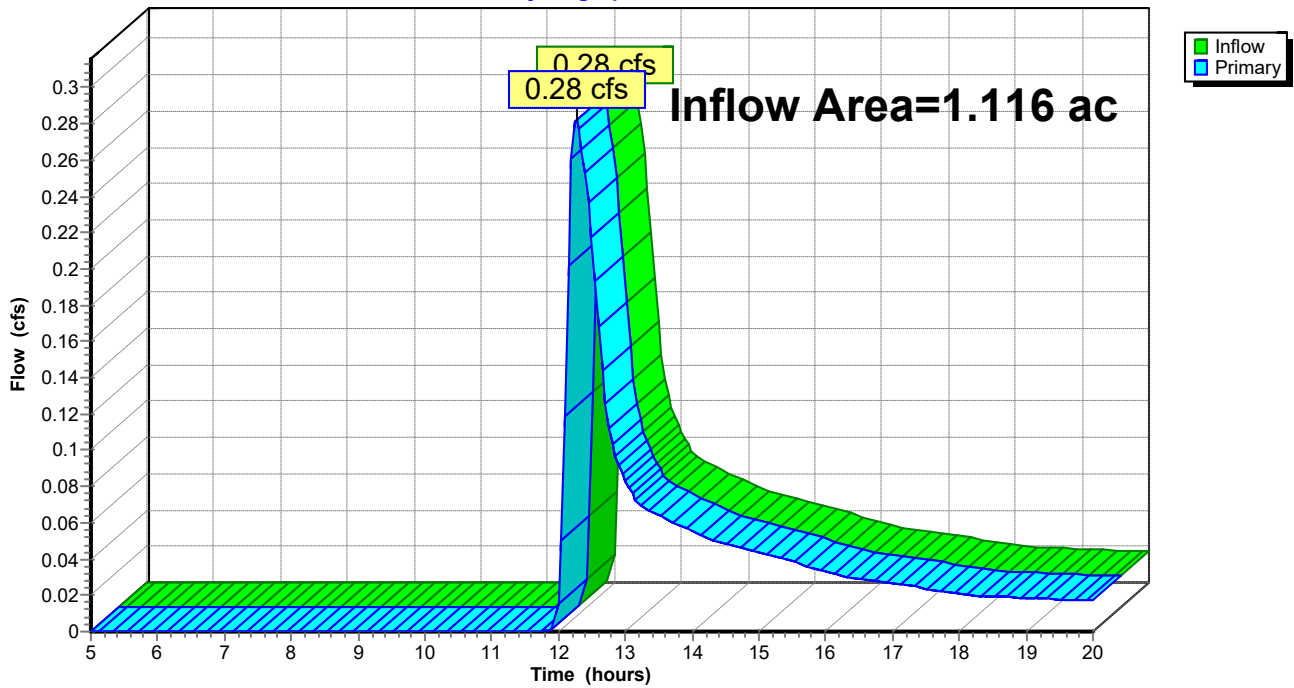
### Summary for Link 1L: DP-1 PRE

Inflow Area = 1.116 ac, 16.85% Impervious, Inflow Depth > 0.36" for 1-yr event  
Inflow = 0.28 cfs @ 12.27 hrs, Volume= 0.034 af  
Primary = 0.28 cfs @ 12.27 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 1L: DP-1 PRE

Hydrograph



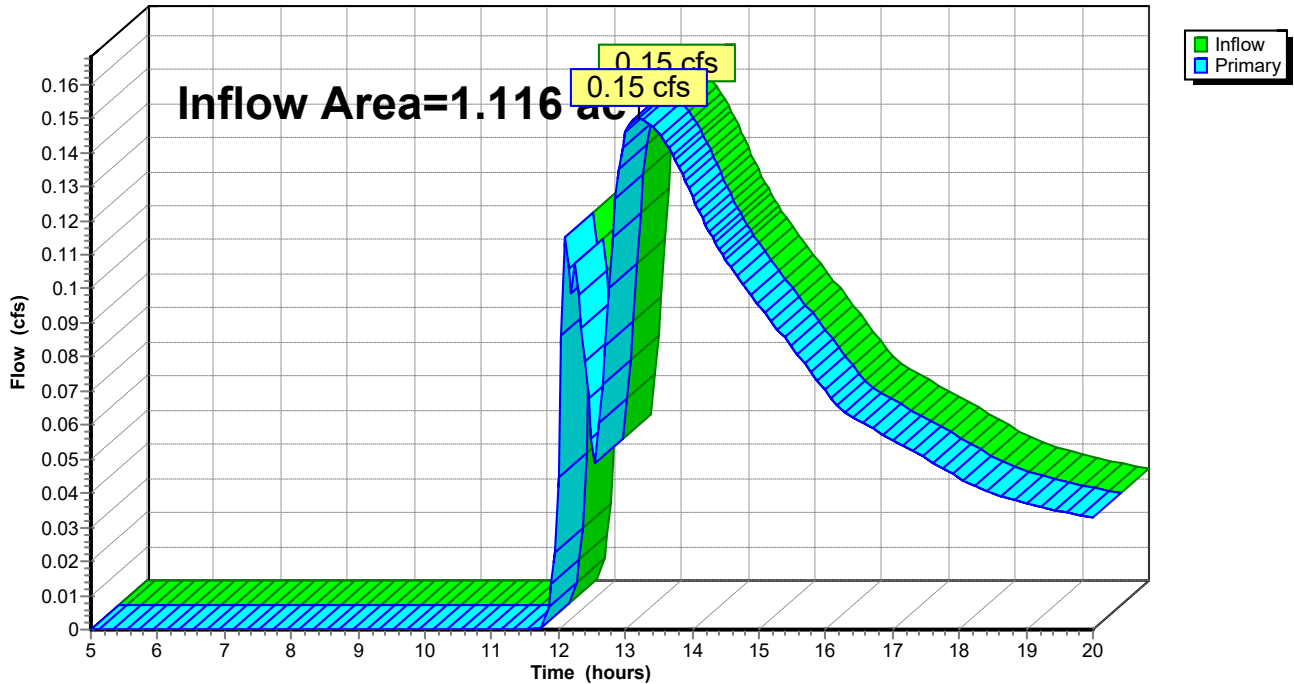
### Summary for Link 2L: DP-1 POST

Inflow Area = 1.116 ac, 54.31% Impervious, Inflow Depth > 0.55" for 1-yr event  
Inflow = 0.15 cfs @ 13.20 hrs, Volume= 0.051 af  
Primary = 0.15 cfs @ 13.20 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 2L: DP-1 POST

Hydrograph



**TNC VERIZON PARKING - HydroCAD grading edit**

Type III 24-hr 10-yr Rainfall=5.13"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: DA-1 PRE**

Runoff Area=48,610 sf 16.85% Impervious Runoff Depth>1.59"  
Flow Length=175' Tc=13.9 min CN=65 Runoff=1.68 cfs 0.147 af

**Subcatchment 2S: DA-1 POST**

Runoff Area=10,645 sf 0.00% Impervious Runoff Depth>1.81"  
Tc=6.0 min CN=68 Runoff=0.54 cfs 0.037 af

**Subcatchment 3S: DA-2 POST**

Runoff Area=1,921 sf 76.42% Impervious Runoff Depth>3.18"  
Tc=6.0 min CN=84 Runoff=0.17 cfs 0.012 af

**Subcatchment 4S: DA-3 POST**

Runoff Area=36,044 sf 69.17% Impervious Runoff Depth>3.58"  
Tc=6.0 min CN=88 Runoff=3.51 cfs 0.247 af

**Pond 1P: CULTEC**

Peak Elev=377.75' Storage=59 cf Inflow=0.17 cfs 0.012 af  
Discarded=0.01 cfs 0.006 af Primary=0.16 cfs 0.006 af Outflow=0.17 cfs 0.012 af

**Pond 3P: RAIN GARDEN**

Peak Elev=379.10' Storage=4,831 cf Inflow=3.51 cfs 0.247 af  
Primary=1.30 cfs 0.181 af Secondary=0.00 cfs 0.000 af Outflow=1.30 cfs 0.181 af

**Link 1L: DP-1 PRE**

Inflow=1.68 cfs 0.147 af  
Primary=1.68 cfs 0.147 af

**Link 2L: DP-1 POST**

Inflow=1.78 cfs 0.223 af  
Primary=1.78 cfs 0.223 af

**Total Runoff Area = 2.232 ac Runoff Volume = 0.443 af Average Runoff Depth = 2.38"**  
**64.42% Pervious = 1.438 ac 35.58% Impervious = 0.794 ac**

**Summary for Subcatchment 1S: DA-1 PRE**

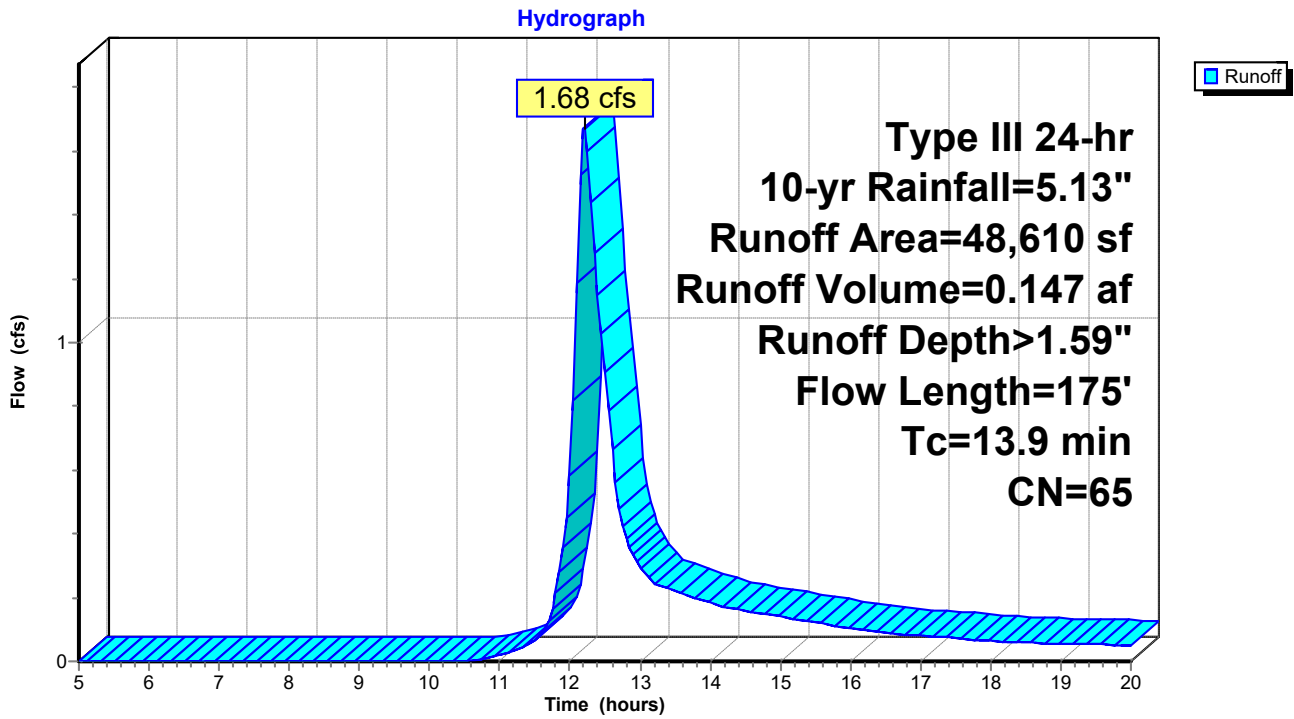
Runoff = 1.68 cfs @ 12.21 hrs, Volume= 0.147 af, Depth> 1.59"  
 Routed to Link 1L : DP-1 PRE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-yr Rainfall=5.13"

Area (sf)	CN	Description
13,496	82	Woods/grass comb., Fair, HSG D
4,399	80	>75% Grass cover, Good, HSG D
1,587	98	Paved parking, HSG D
6,606	98	Paved parking, HSG A
12,193	39	>75% Grass cover, Good, HSG A
10,329	43	Woods/grass comb., Fair, HSG A
48,610	65	Weighted Average
40,417		83.15% Pervious Area
8,193		16.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	25	0.2190	0.35		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.43"
0.5	51	0.0440	1.71		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 3.43"
11.8	73	0.0440	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 3.43"
0.4	26	0.0540	1.16		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	175	Total			

Subcatchment 1S: DA-1 PRE



**Summary for Subcatchment 2S: DA-1 POST**

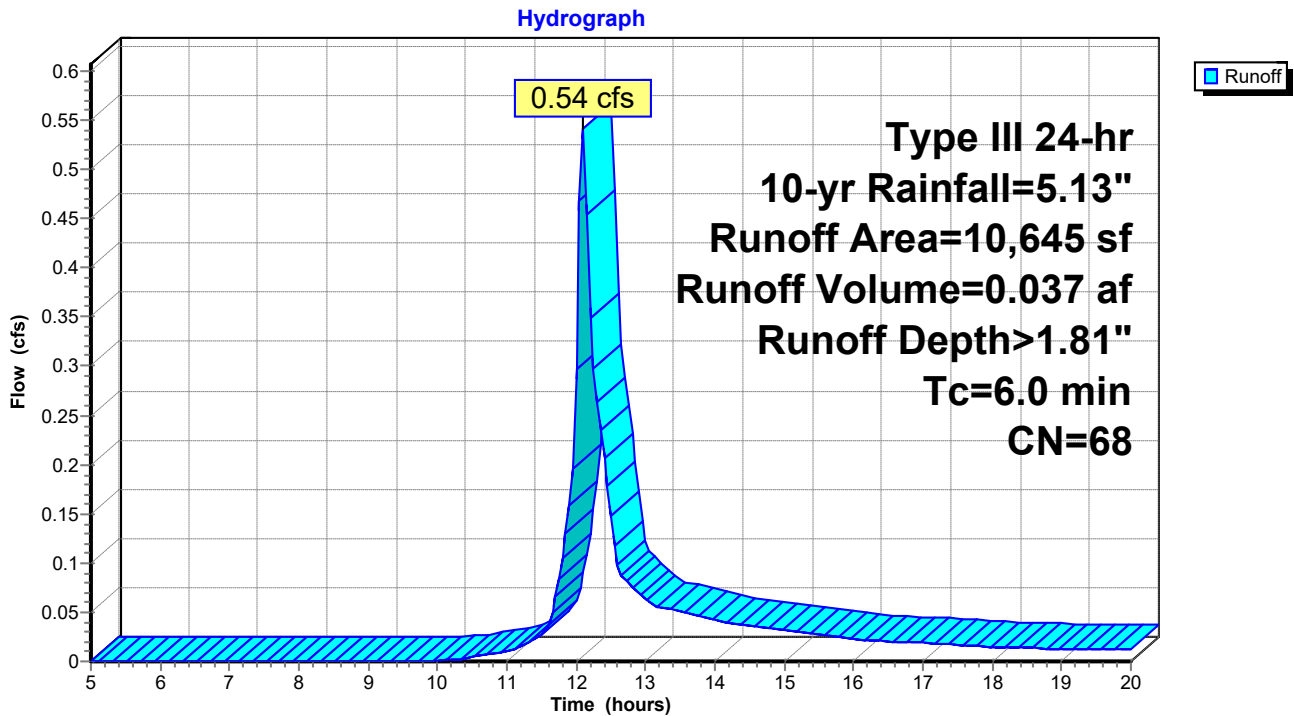
Runoff = 0.54 cfs @ 12.10 hrs, Volume= 0.037 af, Depth> 1.81"  
 Routed to Link 2L : DP-1 POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-yr Rainfall=5.13"

Area (sf)	CN	Description
7,802	79	Woods/grass comb., Good, HSG D
2,843	39	>75% Grass cover, Good, HSG A
10,645	68	Weighted Average
10,645		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 2S: DA-1 POST**





**Summary for Subcatchment 3S: DA-2 POST**

Runoff = 0.17 cfs @ 12.09 hrs, Volume= 0.012 af, Depth> 3.18"  
 Routed to Pond 1P : CULTEC

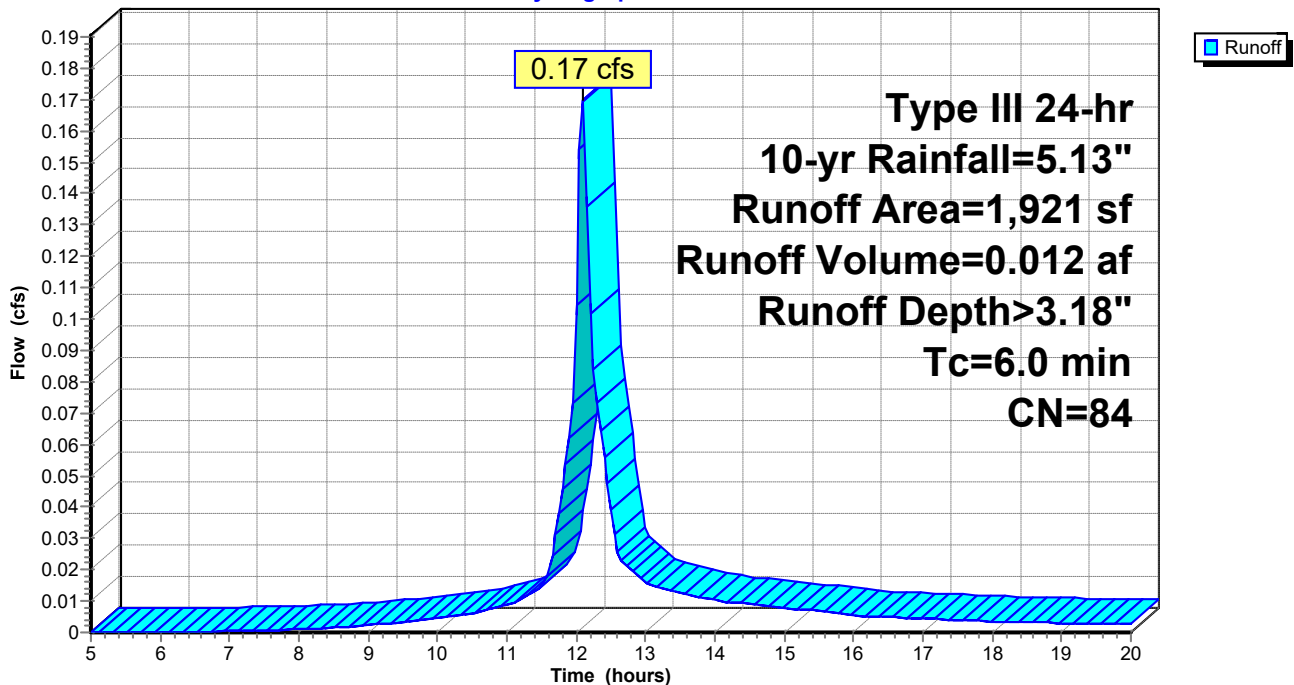
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-yr Rainfall=5.13"

Area (sf)	CN	Description
147	98	Paved parking, HSG D
1,321	98	Paved parking, HSG A
453	39	>75% Grass cover, Good, HSG A
1,921	84	Weighted Average
453		23.58% Pervious Area
1,468		76.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: DA-2 POST**

Hydrograph



**Summary for Subcatchment 4S: DA-3 POST**

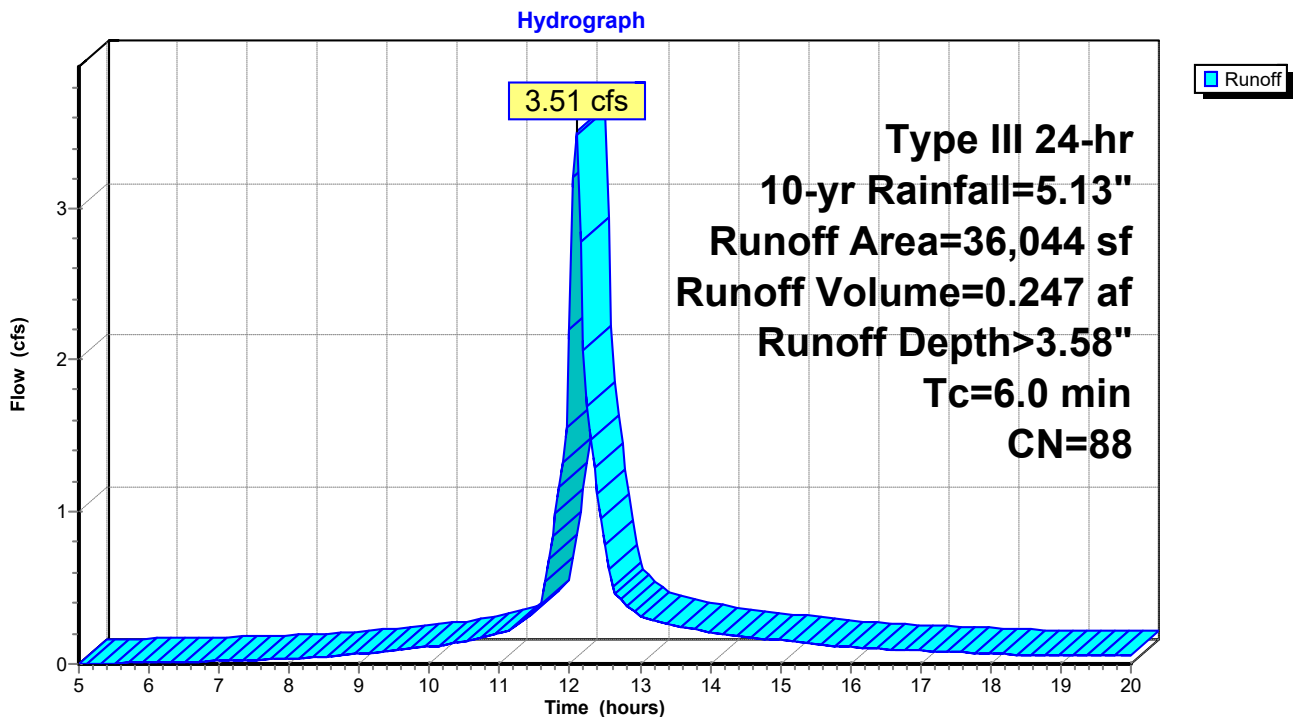
Runoff = 3.51 cfs @ 12.09 hrs, Volume= 0.247 af, Depth> 3.58"  
 Routed to Pond 3P : RAIN GARDEN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-yr Rainfall=5.13"

Area (sf)	CN	Description
6,941	80	>75% Grass cover, Good, HSG D
4,591	98	Paved parking, HSG D
20,341	98	Paved parking, HSG A
4,171	39	>75% Grass cover, Good, HSG A
36,044	88	Weighted Average
11,112		30.83% Pervious Area
24,932		69.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: DA-3 POST**



**Summary for Pond 1P: CULTEC**

Inflow Area = 0.044 ac, 76.42% Impervious, Inflow Depth > 3.18" for 10-yr event  
 Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.012 af  
 Outflow = 0.17 cfs @ 12.10 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.8 min  
 Discarded = 0.01 cfs @ 10.75 hrs, Volume= 0.006 af  
 Primary = 0.16 cfs @ 12.10 hrs, Volume= 0.006 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 377.75' @ 12.10 hrs Surf.Area= 88 sf Storage= 59 cf

Plug-Flow detention time= 36.2 min calculated for 0.012 af (100% of inflow)  
 Center-of-Mass det. time= 35.8 min ( 812.6 - 776.8 )

Volume	Invert	Avail.Storage	Storage Description
#1A	376.50'	60 cf	<b>5.00'W x 17.50'L x 2.04'H Field A</b> 179 cf Overall - 29 cf Embedded = 150 cf x 40.0% Voids
#2A	377.00'	29 cf	<b>Cultec C-100HD</b> x 2 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		89 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	376.50'	<b>3.530 in/hr Exfiltration over Surface area</b>
#2	Primary	377.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.01 cfs @ 10.75 hrs HW=376.52' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.16 cfs @ 12.10 hrs HW=377.74' (Free Discharge)  
 ↑2=Orifice/Grate (Orifice Controls 0.16 cfs @ 1.68 fps)

**Pond 1P: CULTEC - Chamber Wizard Field A**

**Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)**

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length

1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width

6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

2 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 28.9 cf Chamber Storage

178.6 cf Field - 28.9 cf Chambers = 149.8 cf Stone x 40.0% Voids = 59.9 cf Stone Storage

Chamber Storage + Stone Storage = 88.8 cf = 0.002 af

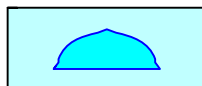
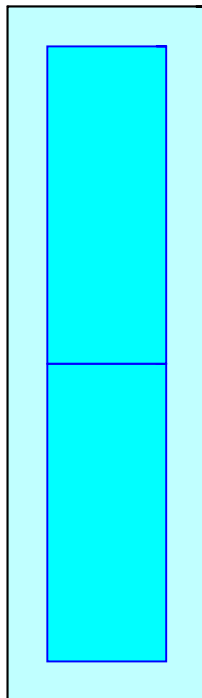
Overall Storage Efficiency = 49.7%

Overall System Size = 17.50' x 5.00' x 2.04'

2 Chambers

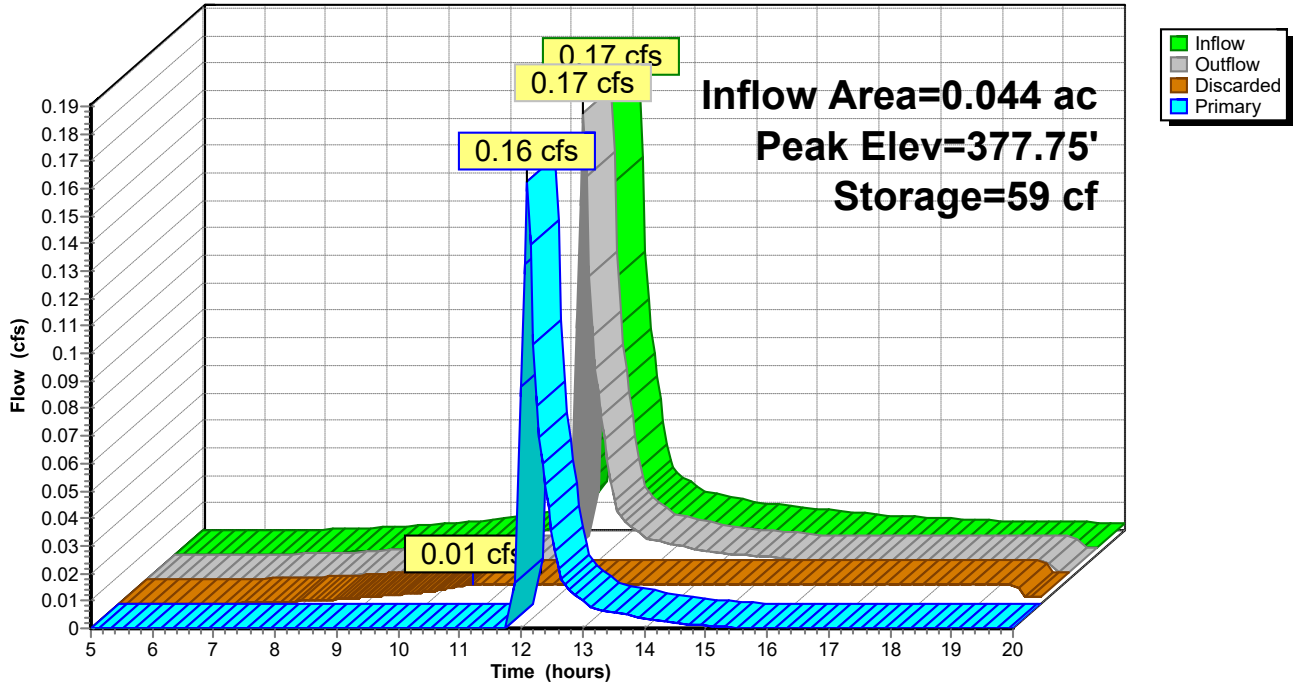
6.6 cy Field

5.5 cy Stone



### Pond 1P: CULTEC

Hydrograph



**Summary for Pond 3P: RAIN GARDEN**

Inflow Area = 0.827 ac, 69.17% Impervious, Inflow Depth > 3.58" for 10-yr event  
 Inflow = 3.51 cfs @ 12.09 hrs, Volume= 0.247 af  
 Outflow = 1.30 cfs @ 12.35 hrs, Volume= 0.181 af, Atten= 63%, Lag= 15.6 min  
 Primary = 1.30 cfs @ 12.35 hrs, Volume= 0.181 af  
 Routed to Link 2L : DP-1 POST  
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 379.10' @ 12.35 hrs Surf.Area= 3,841 sf Storage= 4,831 cf

Plug-Flow detention time= 123.1 min calculated for 0.180 af (73% of inflow)  
 Center-of-Mass det. time= 61.2 min ( 827.2 - 766.0 )

Volume	Invert	Avail.Storage	Storage Description	
#1	375.83'	8,858 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
375.83	2,436	0.0	0	0
376.50	2,436	40.0	653	653
378.00	2,436	20.0	731	1,384
379.00	3,697	100.0	3,067	4,450
380.00	5,118	100.0	4,408	8,858

Device	Routing	Invert	Outlet Devices
#1	Primary	375.83'	<b>12.0" Round Culvert</b> L= 43.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 375.83' / 375.39' S= 0.0101 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	378.50'	<b>8.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#3	Secondary	379.60'	<b>10.0' long + 2.0 '/' SideZ x 2.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

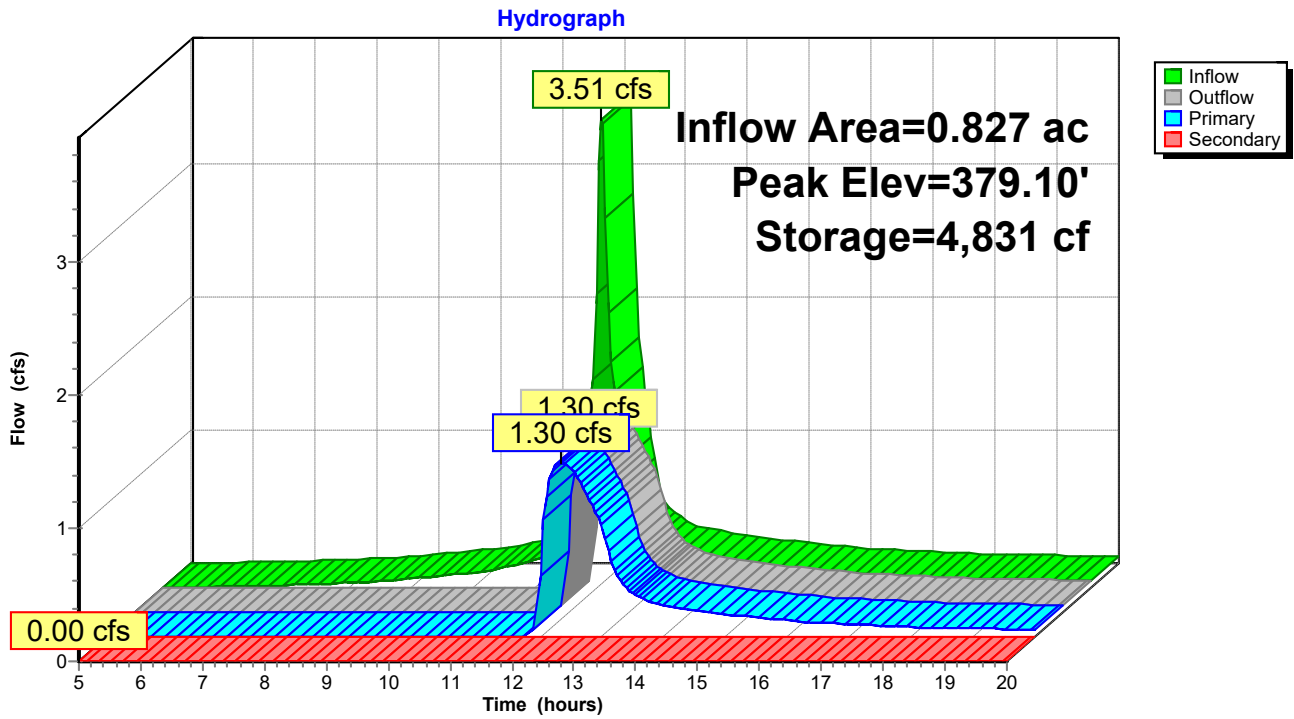
**Primary OutFlow** Max=1.30 cfs @ 12.35 hrs HW=379.10' (Free Discharge)

- ↑1=Culvert (Passes 1.30 cfs of 6.30 cfs potential flow)
- ↑2=Orifice/Grate (Orifice Controls 1.30 cfs @ 3.73 fps)

**Secondary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=375.83' (Free Discharge)

- ↑3=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 3P: RAIN GARDEN



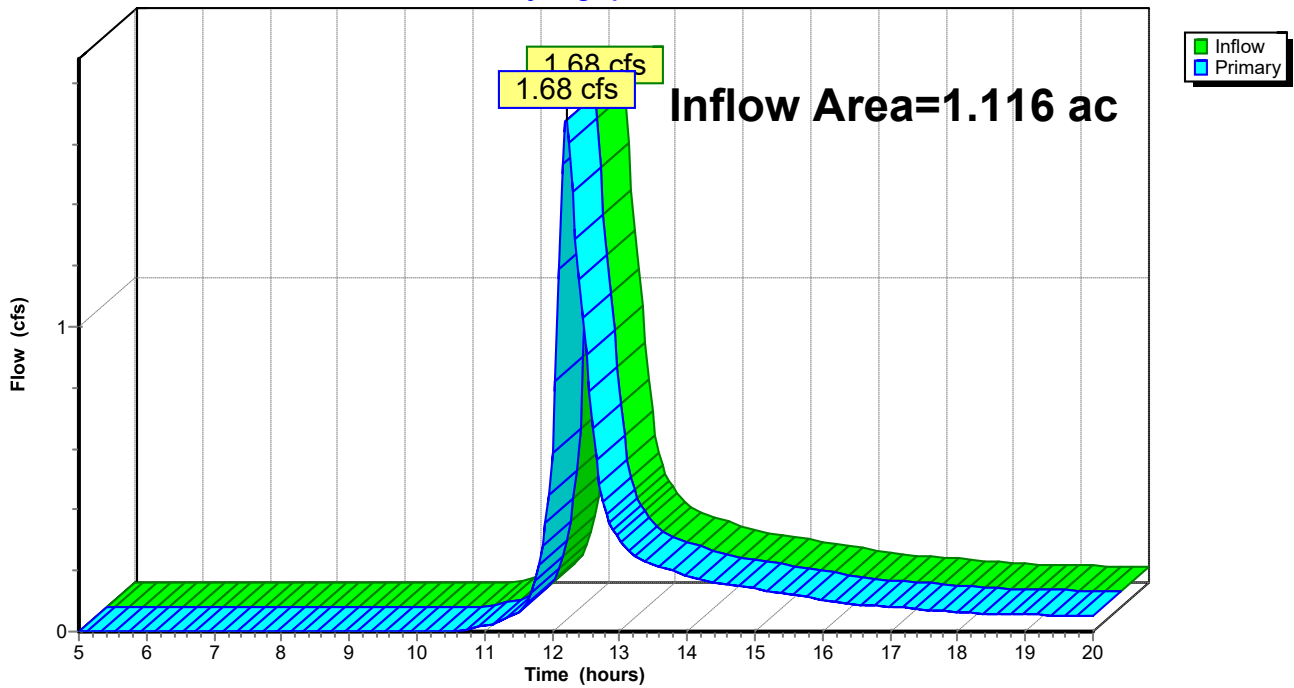
### Summary for Link 1L: DP-1 PRE

Inflow Area = 1.116 ac, 16.85% Impervious, Inflow Depth > 1.59" for 10-yr event  
Inflow = 1.68 cfs @ 12.21 hrs, Volume= 0.147 af  
Primary = 1.68 cfs @ 12.21 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 1L: DP-1 PRE

Hydrograph





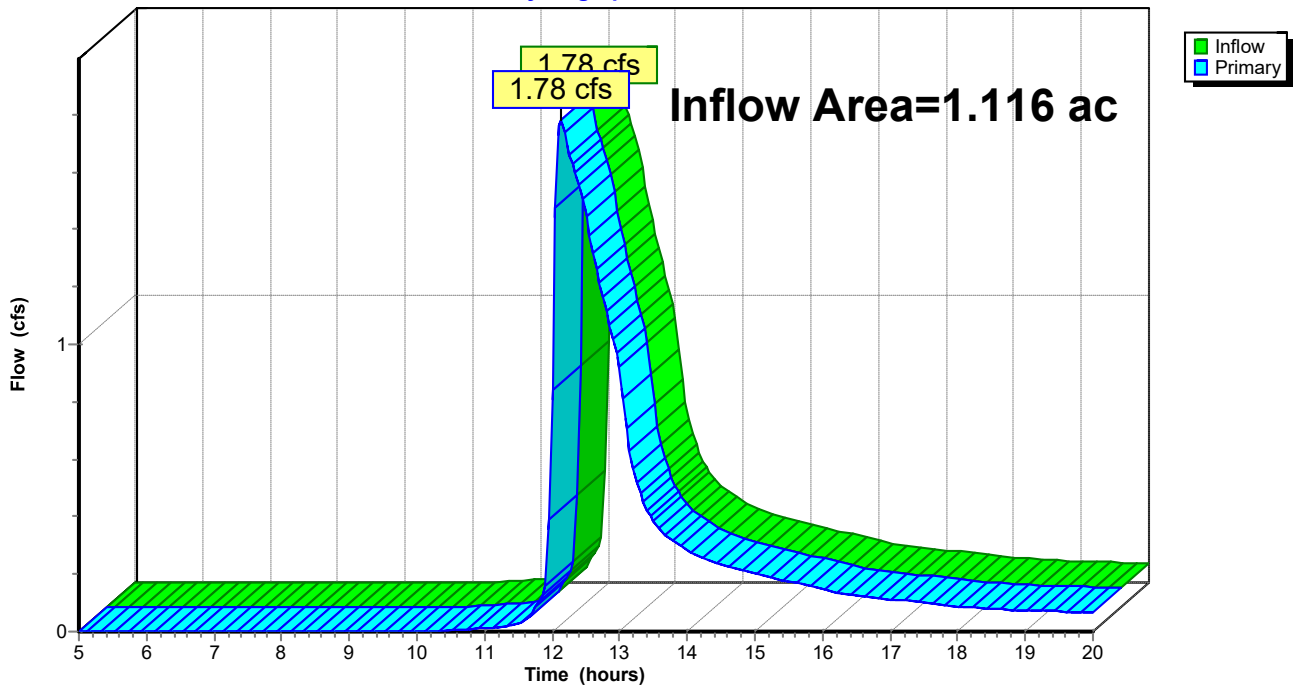
### Summary for Link 2L: DP-1 POST

Inflow Area = 1.116 ac, 54.31% Impervious, Inflow Depth > 2.40" for 10-yr event  
Inflow = 1.78 cfs @ 12.13 hrs, Volume= 0.223 af  
Primary = 1.78 cfs @ 12.13 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 2L: DP-1 POST

Hydrograph



**TNC VERIZON PARKING - HydroCAD grading edit**

Type III 24-hr 50-yr Rainfall=7.69"

Prepared by Kellard Sessions Consulting

Printed 10/4/2023

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment 1S: DA-1 PRE</b>	Runoff Area=48,610 sf 16.85% Impervious Runoff Depth>3.37" Flow Length=175' Tc=13.9 min CN=65 Runoff=3.67 cfs 0.313 af
<b>Subcatchment 2S: DA-1 POST</b>	Runoff Area=10,645 sf 0.00% Impervious Runoff Depth>3.70" Tc=6.0 min CN=68 Runoff=1.12 cfs 0.075 af
<b>Subcatchment 3S: DA-2 POST</b>	Runoff Area=1,921 sf 76.42% Impervious Runoff Depth>5.47" Tc=6.0 min CN=84 Runoff=0.28 cfs 0.020 af
<b>Subcatchment 4S: DA-3 POST</b>	Runoff Area=36,044 sf 69.17% Impervious Runoff Depth>5.92" Tc=6.0 min CN=88 Runoff=5.64 cfs 0.408 af
<b>Pond 1P: CULTEC</b>	Peak Elev=377.84' Storage=63 cf Inflow=0.28 cfs 0.020 af Discarded=0.01 cfs 0.007 af Primary=0.28 cfs 0.012 af Outflow=0.28 cfs 0.020 af
<b>Pond 3P: RAIN GARDEN</b>	Peak Elev=379.65' Storage=7,161 cf Inflow=5.64 cfs 0.408 af Primary=1.80 cfs 0.336 af Secondary=0.32 cfs 0.005 af Outflow=2.12 cfs 0.341 af
<b>Link 1L: DP-1 PRE</b>	Inflow=3.67 cfs 0.313 af Primary=3.67 cfs 0.313 af
<b>Link 2L: DP-1 POST</b>	Inflow=2.96 cfs 0.429 af Primary=2.96 cfs 0.429 af
<b>Total Runoff Area = 2.232 ac Runoff Volume = 0.817 af Average Runoff Depth = 4.39"</b>	
<b>64.42% Pervious = 1.438 ac 35.58% Impervious = 0.794 ac</b>	

**Summary for Subcatchment 1S: DA-1 PRE**

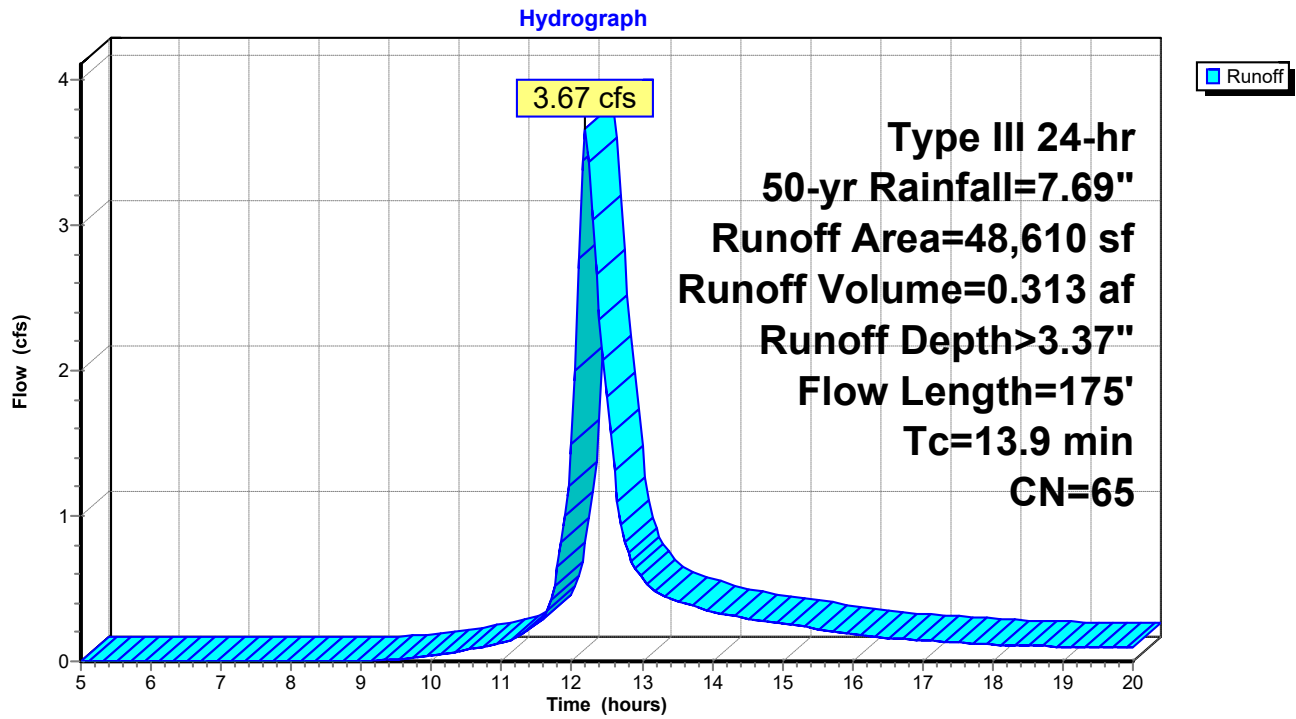
Runoff = 3.67 cfs @ 12.20 hrs, Volume= 0.313 af, Depth> 3.37"  
 Routed to Link 1L : DP-1 PRE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 50-yr Rainfall=7.69"

Area (sf)	CN	Description
13,496	82	Woods/grass comb., Fair, HSG D
4,399	80	>75% Grass cover, Good, HSG D
1,587	98	Paved parking, HSG D
6,606	98	Paved parking, HSG A
12,193	39	>75% Grass cover, Good, HSG A
10,329	43	Woods/grass comb., Fair, HSG A
48,610	65	Weighted Average
40,417		83.15% Pervious Area
8,193		16.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	25	0.2190	0.35		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.43"
0.5	51	0.0440	1.71		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 3.43"
11.8	73	0.0440	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 3.43"
0.4	26	0.0540	1.16		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	175	Total			

Subcatchment 1S: DA-1 PRE



**Summary for Subcatchment 2S: DA-1 POST**

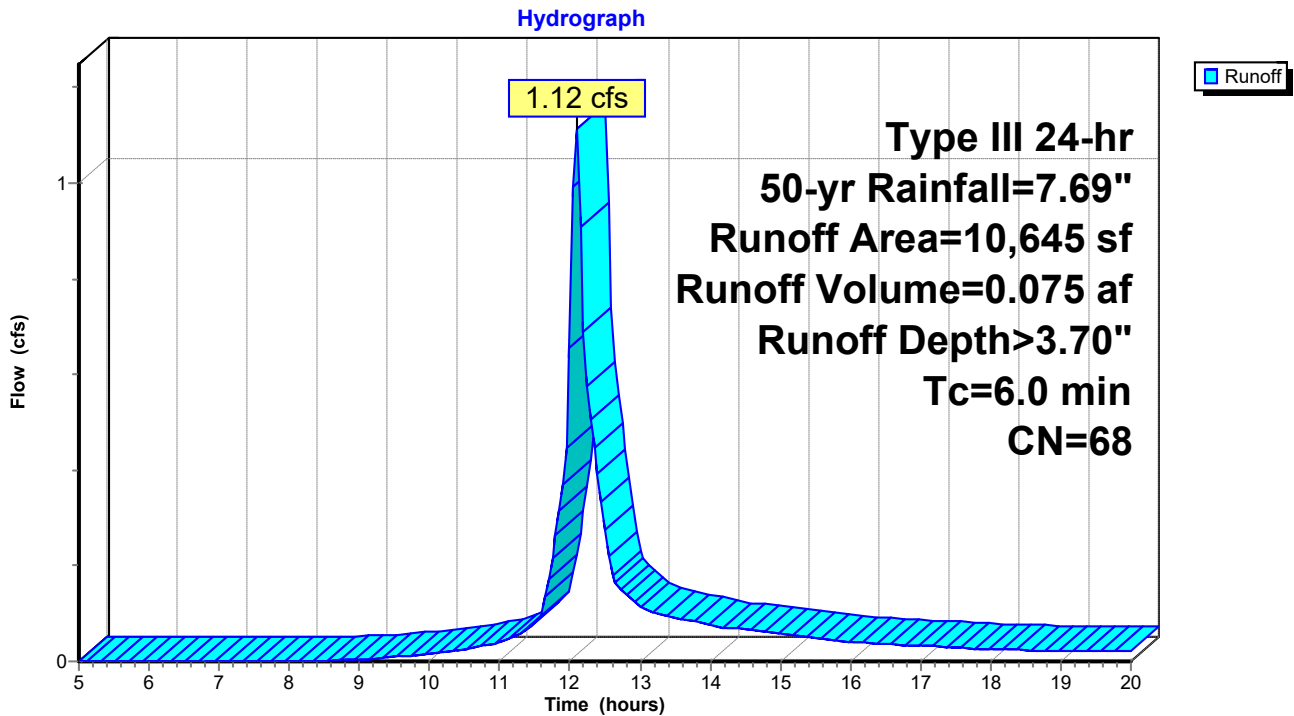
Runoff = 1.12 cfs @ 12.09 hrs, Volume= 0.075 af, Depth> 3.70"  
 Routed to Link 2L : DP-1 POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 50-yr Rainfall=7.69"

Area (sf)	CN	Description
7,802	79	Woods/grass comb., Good, HSG D
2,843	39	>75% Grass cover, Good, HSG A
10,645	68	Weighted Average
10,645		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 2S: DA-1 POST**



**Summary for Subcatchment 3S: DA-2 POST**

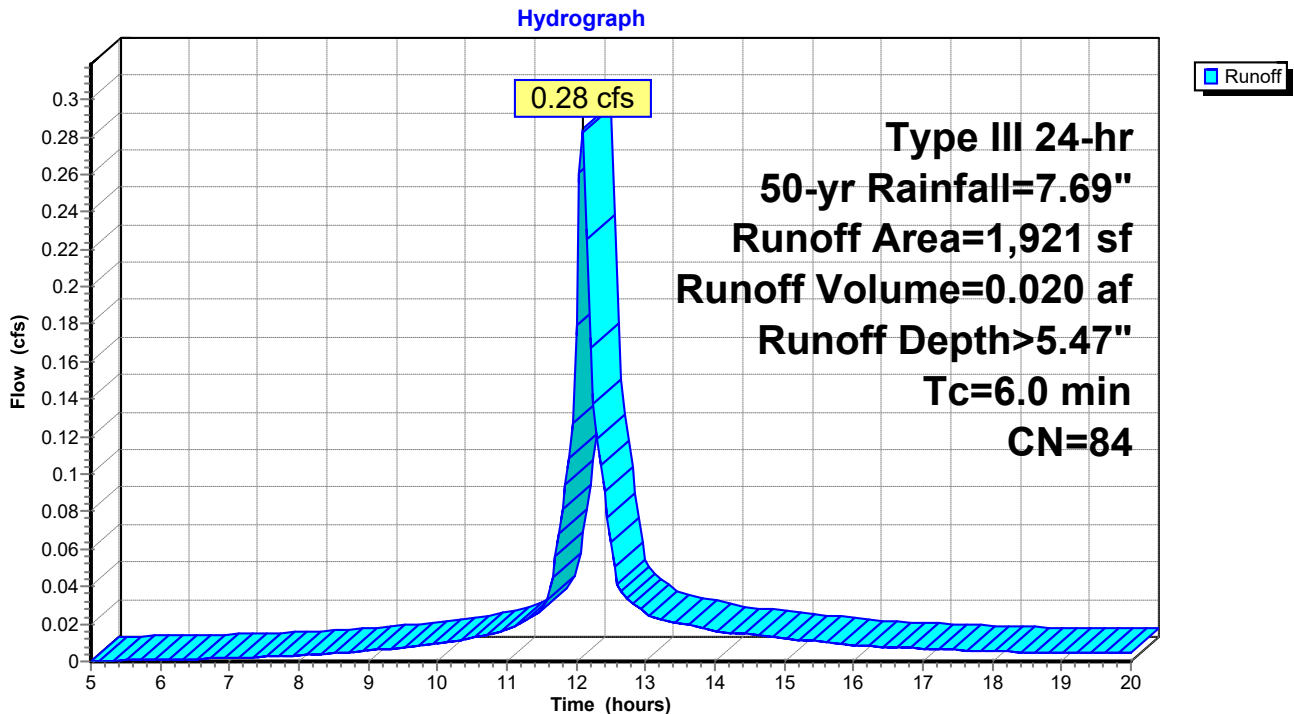
Runoff = 0.28 cfs @ 12.09 hrs, Volume= 0.020 af, Depth> 5.47"  
 Routed to Pond 1P : CULTEC

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 50-yr Rainfall=7.69"

Area (sf)	CN	Description
147	98	Paved parking, HSG D
1,321	98	Paved parking, HSG A
453	39	>75% Grass cover, Good, HSG A
1,921	84	Weighted Average
453		23.58% Pervious Area
1,468		76.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: DA-2 POST**



**Summary for Subcatchment 4S: DA-3 POST**

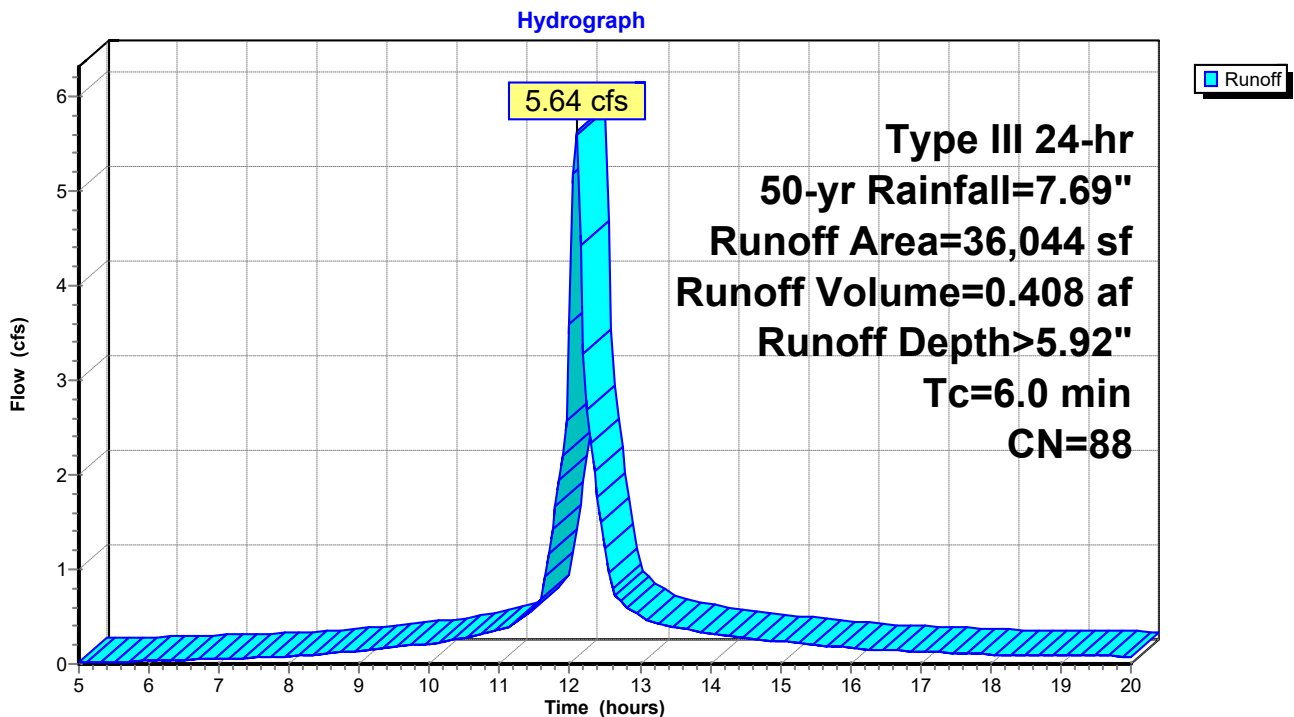
Runoff = 5.64 cfs @ 12.09 hrs, Volume= 0.408 af, Depth> 5.92"  
 Routed to Pond 3P : RAIN GARDEN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 50-yr Rainfall=7.69"

Area (sf)	CN	Description
6,941	80	>75% Grass cover, Good, HSG D
4,591	98	Paved parking, HSG D
20,341	98	Paved parking, HSG A
4,171	39	>75% Grass cover, Good, HSG A
36,044	88	Weighted Average
11,112		30.83% Pervious Area
24,932		69.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: DA-3 POST**



**Summary for Pond 1P: CULTEC**

Inflow Area = 0.044 ac, 76.42% Impervious, Inflow Depth > 5.47" for 50-yr event  
 Inflow = 0.28 cfs @ 12.09 hrs, Volume= 0.020 af  
 Outflow = 0.28 cfs @ 12.10 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.6 min  
 Discarded = 0.01 cfs @ 9.45 hrs, Volume= 0.007 af  
 Primary = 0.28 cfs @ 12.10 hrs, Volume= 0.012 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 377.84' @ 12.10 hrs Surf.Area= 88 sf Storage= 63 cf

Plug-Flow detention time= 28.1 min calculated for 0.019 af (97% of inflow)  
 Center-of-Mass det. time= 16.7 min ( 780.5 - 763.9 )

Volume	Invert	Avail.Storage	Storage Description
#1A	376.50'	60 cf	<b>5.00'W x 17.50'L x 2.04'H Field A</b> 179 cf Overall - 29 cf Embedded = 150 cf x 40.0% Voids
#2A	377.00'	29 cf	<b>Cultec C-100HD</b> x 2 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		89 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	376.50'	<b>3.530 in/hr Exfiltration over Surface area</b>
#2	Primary	377.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.01 cfs @ 9.45 hrs HW=376.52' (Free Discharge)  
 ↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.28 cfs @ 12.10 hrs HW=377.84' (Free Discharge)  
 ↑**2=Orifice/Grate** (Orifice Controls 0.28 cfs @ 1.97 fps)



**Pond 1P: CULTEC - Chamber Wizard Field A**

**Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)**

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length

1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width

6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

2 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 28.9 cf Chamber Storage

178.6 cf Field - 28.9 cf Chambers = 149.8 cf Stone x 40.0% Voids = 59.9 cf Stone Storage

Chamber Storage + Stone Storage = 88.8 cf = 0.002 af

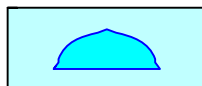
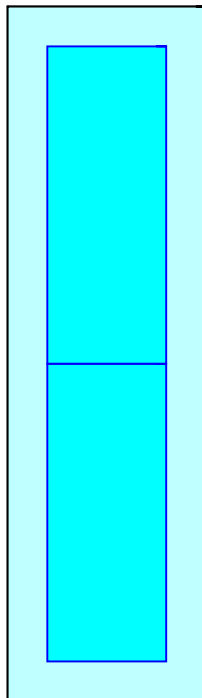
Overall Storage Efficiency = 49.7%

Overall System Size = 17.50' x 5.00' x 2.04'

2 Chambers

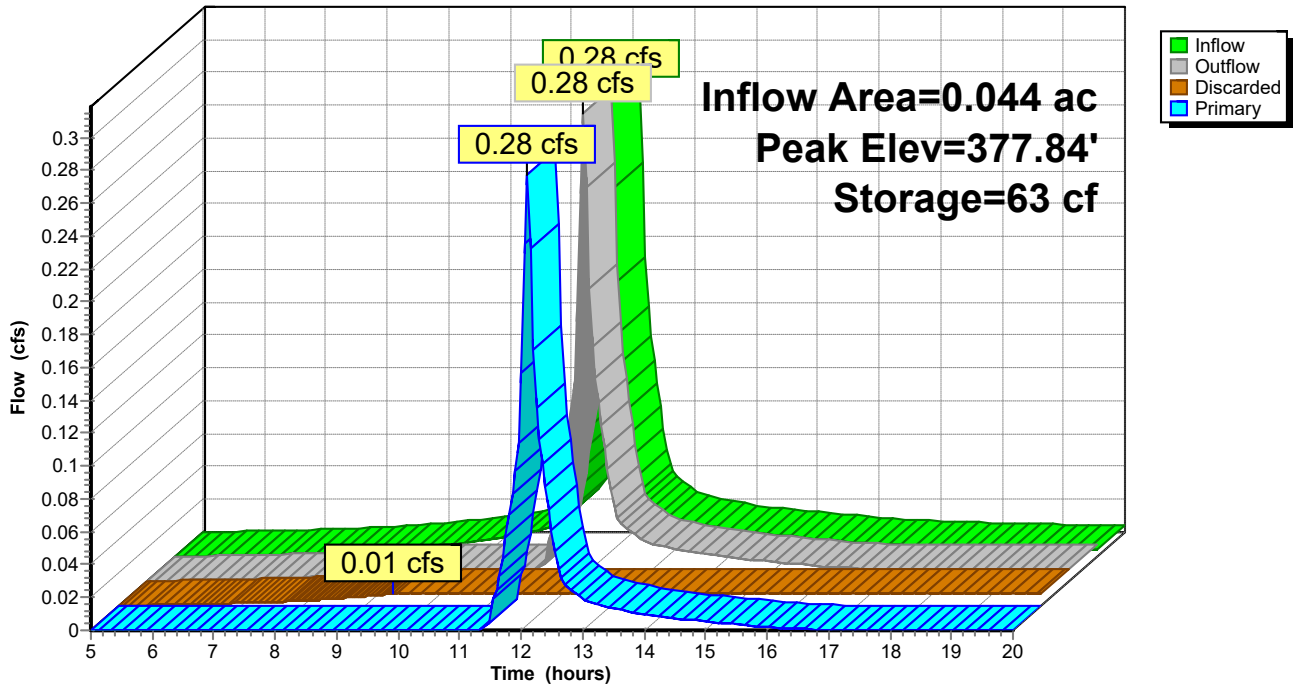
6.6 cy Field

5.5 cy Stone



### Pond 1P: CULTEC

Hydrograph



**Summary for Pond 3P: RAIN GARDEN**

Inflow Area = 0.827 ac, 69.17% Impervious, Inflow Depth > 5.92" for 50-yr event  
 Inflow = 5.64 cfs @ 12.09 hrs, Volume= 0.408 af  
 Outflow = 2.12 cfs @ 12.34 hrs, Volume= 0.341 af, Atten= 62%, Lag= 15.1 min  
 Primary = 1.80 cfs @ 12.34 hrs, Volume= 0.336 af  
 Routed to Link 2L : DP-1 POST  
 Secondary = 0.32 cfs @ 12.34 hrs, Volume= 0.005 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 379.65' @ 12.34 hrs Surf.Area= 4,623 sf Storage= 7,161 cf

Plug-Flow detention time= 105.9 min calculated for 0.341 af (84% of inflow)  
 Center-of-Mass det. time= 58.5 min ( 813.6 - 755.1 )

Volume	Invert	Avail.Storage	Storage Description	
#1	375.83'	8,858 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
375.83	2,436	0.0	0	0
376.50	2,436	40.0	653	653
378.00	2,436	20.0	731	1,384
379.00	3,697	100.0	3,067	4,450
380.00	5,118	100.0	4,408	8,858

Device	Routing	Invert	Outlet Devices
#1	Primary	375.83'	<b>12.0" Round Culvert</b> L= 43.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 375.83' / 375.39' S= 0.0101 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	378.50'	<b>8.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#3	Secondary	379.60'	<b>10.0' long + 2.0 ' SideZ x 2.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

**Primary OutFlow** Max=1.80 cfs @ 12.34 hrs HW=379.65' (Free Discharge)

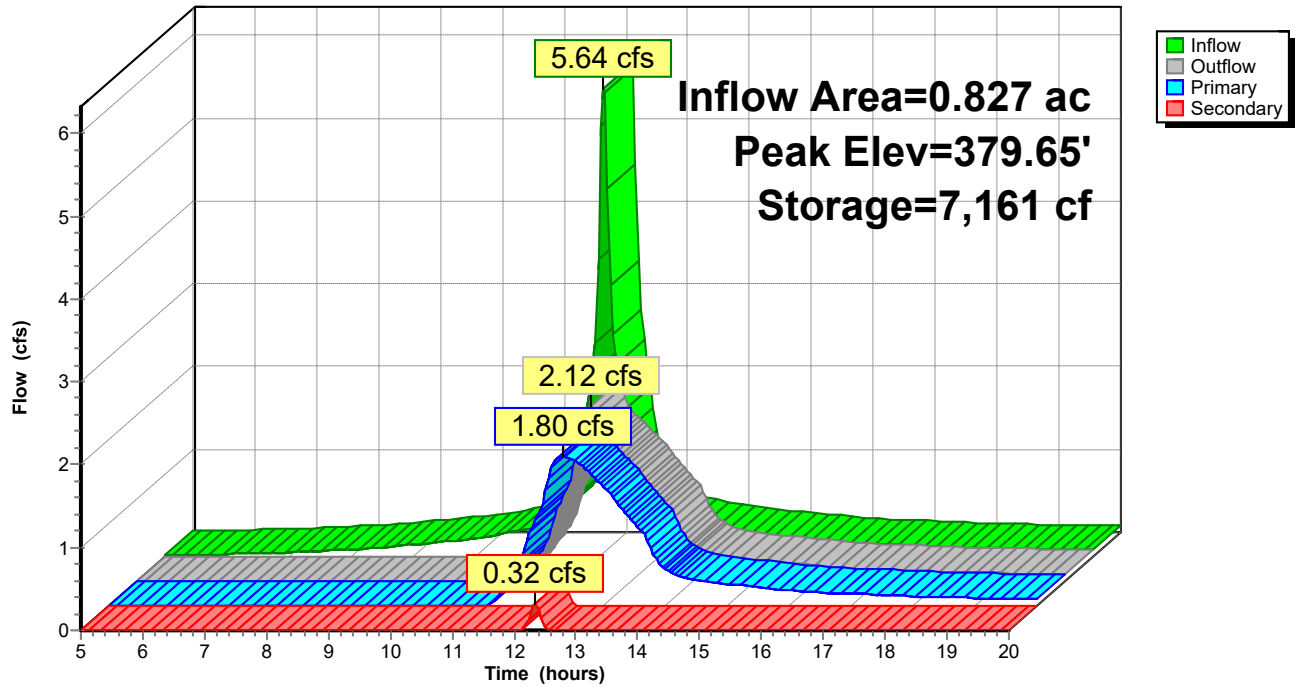
- ↑1=Culvert (Passes 1.80 cfs of 6.89 cfs potential flow)
- ↑2=Orifice/Grate (Orifice Controls 1.80 cfs @ 5.17 fps)

**Secondary OutFlow** Max=0.29 cfs @ 12.34 hrs HW=379.65' (Free Discharge)

- ↑3=Broad-Crested Rectangular Weir (Weir Controls 0.29 cfs @ 0.57 fps)

### Pond 3P: RAIN GARDEN

Hydrograph



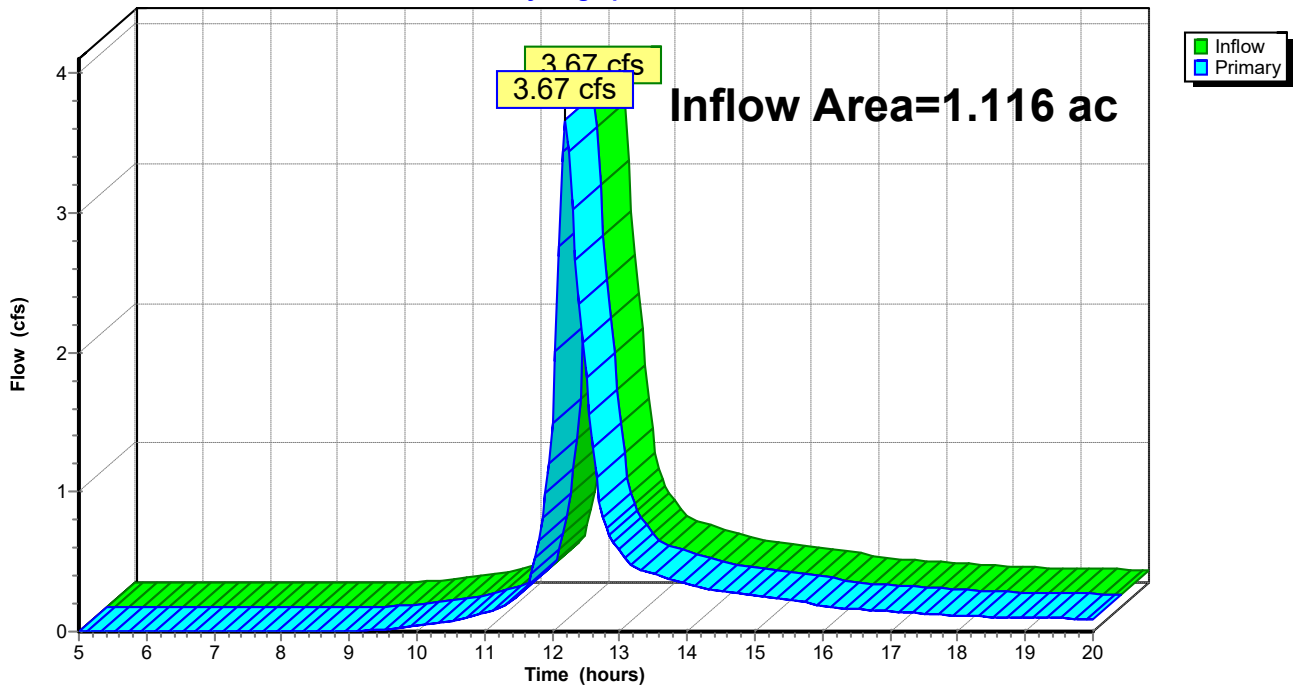
### Summary for Link 1L: DP-1 PRE

Inflow Area = 1.116 ac, 16.85% Impervious, Inflow Depth > 3.37" for 50-yr event  
Inflow = 3.67 cfs @ 12.20 hrs, Volume= 0.313 af  
Primary = 3.67 cfs @ 12.20 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 1L: DP-1 PRE

Hydrograph



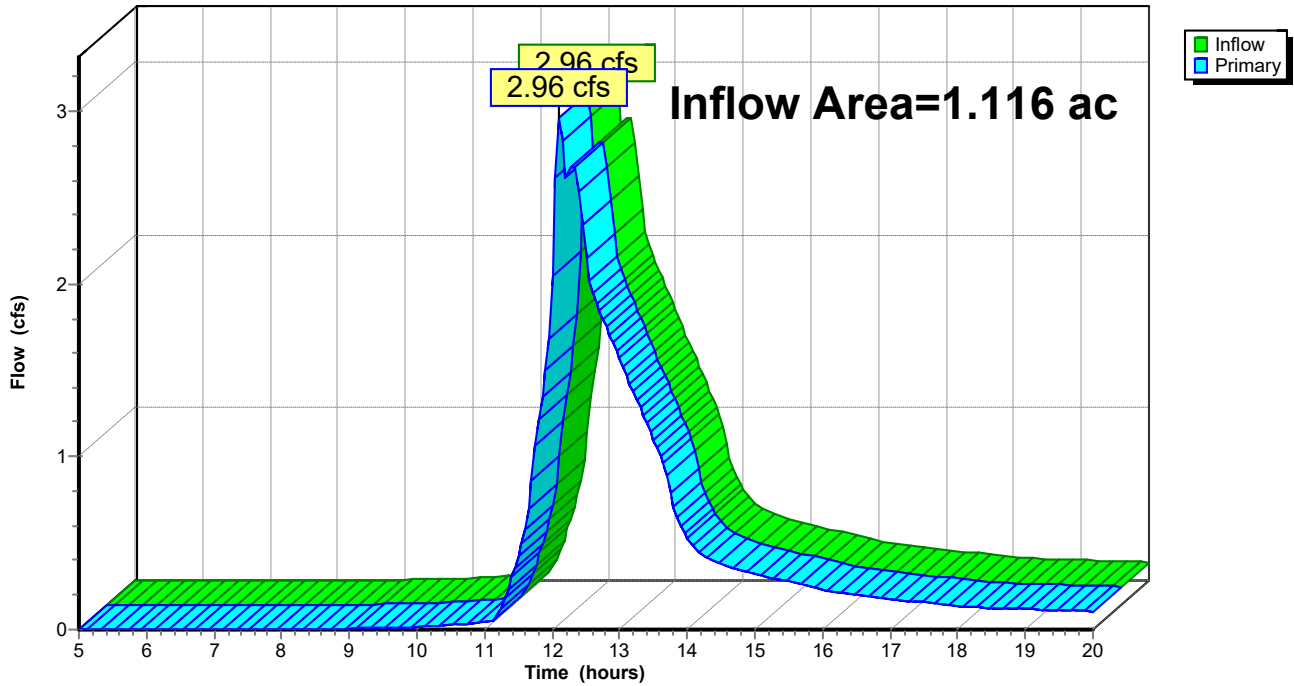
### Summary for Link 2L: DP-1 POST

Inflow Area = 1.116 ac, 54.31% Impervious, Inflow Depth > 4.61" for 50-yr event  
Inflow = 2.96 cfs @ 12.11 hrs, Volume= 0.429 af  
Primary = 2.96 cfs @ 12.11 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 2L: DP-1 POST

Hydrograph



**TNC VERIZON PARKING - HydroCAD grading edit**

Type III 24-hr 100-yr Rainfall=9.17"

Prepared by Kellard Sessions Consulting

Printed 10/4/2023

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: DA-1 PRE**

Runoff Area=48,610 sf 16.85% Impervious Runoff Depth>4.51"  
Flow Length=175' Tc=13.9 min CN=65 Runoff=4.92 cfs 0.420 af

**Subcatchment 2S: DA-1 POST**

Runoff Area=10,645 sf 0.00% Impervious Runoff Depth>4.89"  
Tc=6.0 min CN=68 Runoff=1.47 cfs 0.100 af

**Subcatchment 3S: DA-2 POST**

Runoff Area=1,921 sf 76.42% Impervious Runoff Depth>6.83"  
Tc=6.0 min CN=84 Runoff=0.35 cfs 0.025 af

**Subcatchment 4S: DA-3 POST**

Runoff Area=36,044 sf 69.17% Impervious Runoff Depth>7.29"  
Tc=6.0 min CN=88 Runoff=6.87 cfs 0.502 af

**Pond 1P: CULTEC**

Peak Elev=377.89' Storage=65 cf Inflow=0.35 cfs 0.025 af  
Discarded=0.01 cfs 0.008 af Primary=0.34 cfs 0.017 af Outflow=0.35 cfs 0.024 af

**Pond 3P: RAIN GARDEN**

Peak Elev=379.76' Storage=7,693 cf Inflow=6.87 cfs 0.502 af  
Primary=1.89 cfs 0.398 af Secondary=1.75 cfs 0.037 af Outflow=3.64 cfs 0.435 af

**Link 1L: DP-1 PRE**

Inflow=4.92 cfs 0.420 af  
Primary=4.92 cfs 0.420 af

**Link 2L: DP-1 POST**

Inflow=4.73 cfs 0.551 af  
Primary=4.73 cfs 0.551 af

**Total Runoff Area = 2.232 ac Runoff Volume = 1.047 af Average Runoff Depth = 5.63"**  
**64.42% Pervious = 1.438 ac 35.58% Impervious = 0.794 ac**

**Summary for Subcatchment 1S: DA-1 PRE**

Runoff = 4.92 cfs @ 12.20 hrs, Volume= 0.420 af, Depth> 4.51"  
 Routed to Link 1L : DP-1 PRE

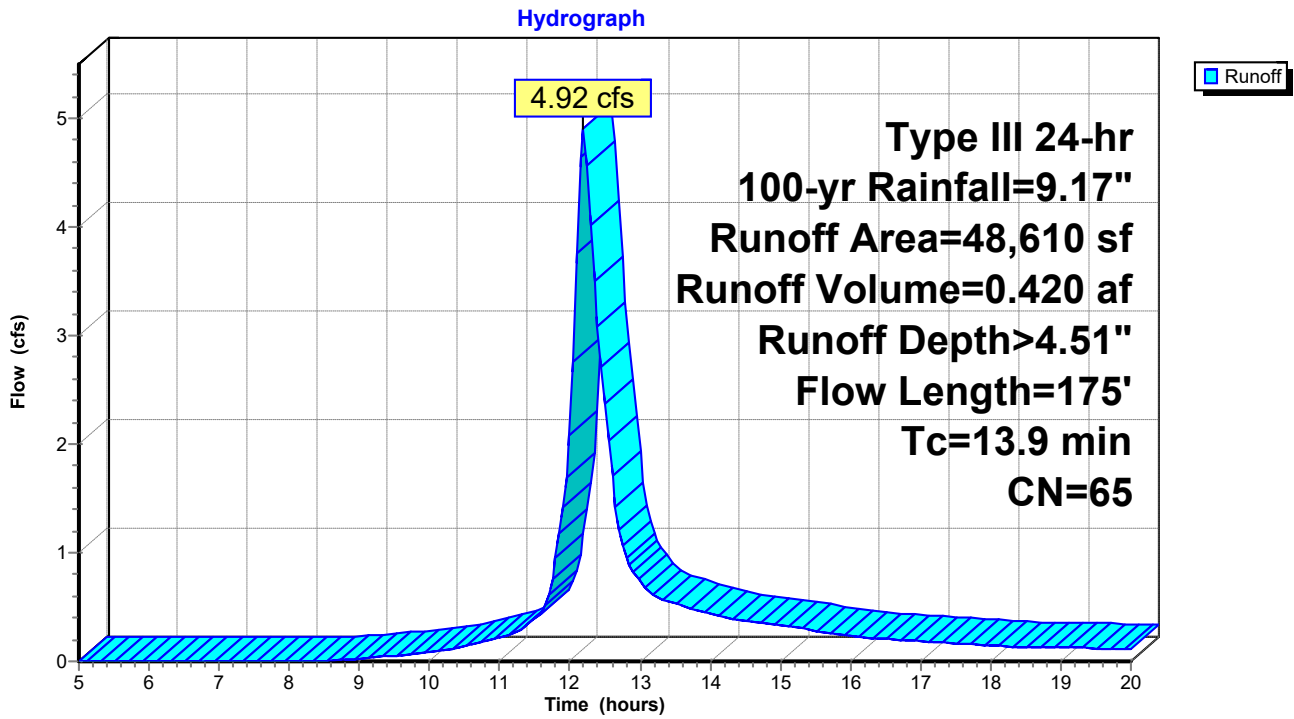
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100-yr Rainfall=9.17"

Area (sf)	CN	Description
13,496	82	Woods/grass comb., Fair, HSG D
4,399	80	>75% Grass cover, Good, HSG D
1,587	98	Paved parking, HSG D
6,606	98	Paved parking, HSG A
12,193	39	>75% Grass cover, Good, HSG A
10,329	43	Woods/grass comb., Fair, HSG A
48,610	65	Weighted Average
40,417		83.15% Pervious Area
8,193		16.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	25	0.2190	0.35		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.43"
0.5	51	0.0440	1.71		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 3.43"
11.8	73	0.0440	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 3.43"
0.4	26	0.0540	1.16		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	175	Total			



Subcatchment 1S: DA-1 PRE



**Summary for Subcatchment 2S: DA-1 POST**

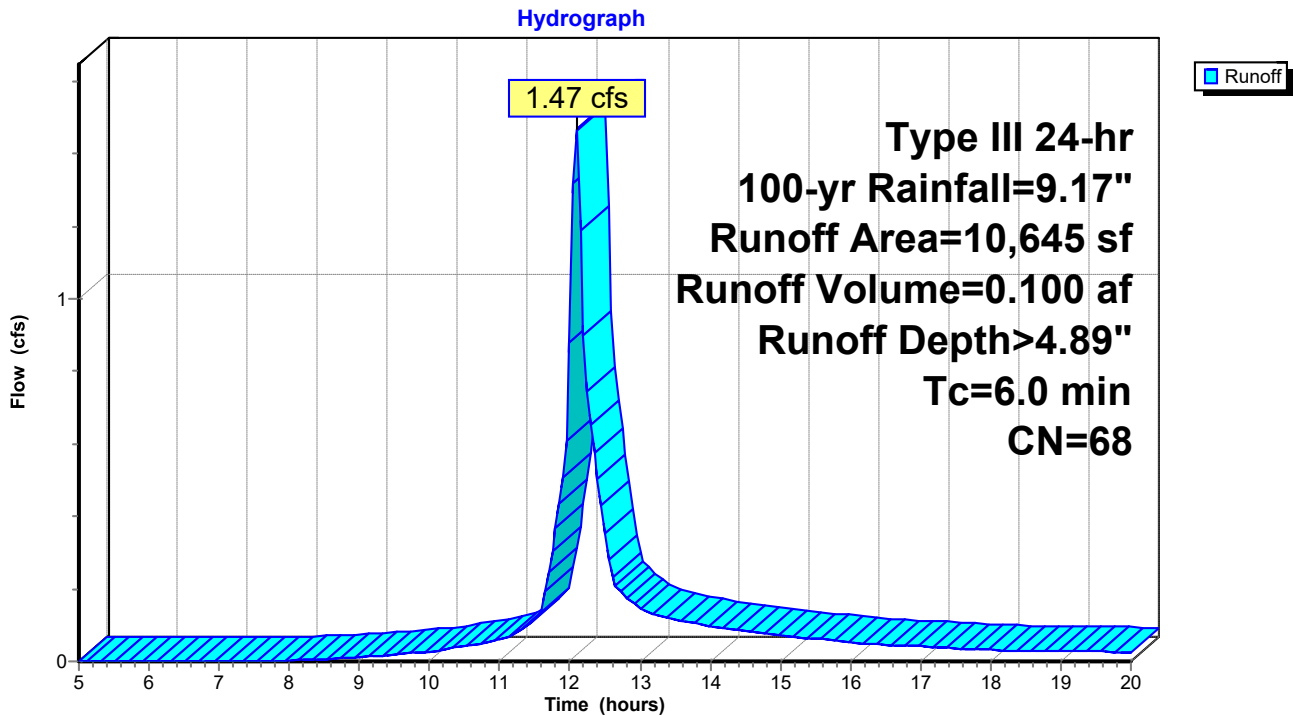
Runoff = 1.47 cfs @ 12.09 hrs, Volume= 0.100 af, Depth> 4.89"  
 Routed to Link 2L : DP-1 POST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100-yr Rainfall=9.17"

Area (sf)	CN	Description
7,802	79	Woods/grass comb., Good, HSG D
2,843	39	>75% Grass cover, Good, HSG A
10,645	68	Weighted Average
10,645		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 2S: DA-1 POST**



**Summary for Subcatchment 3S: DA-2 POST**

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 6.83"  
 Routed to Pond 1P : CULTEC

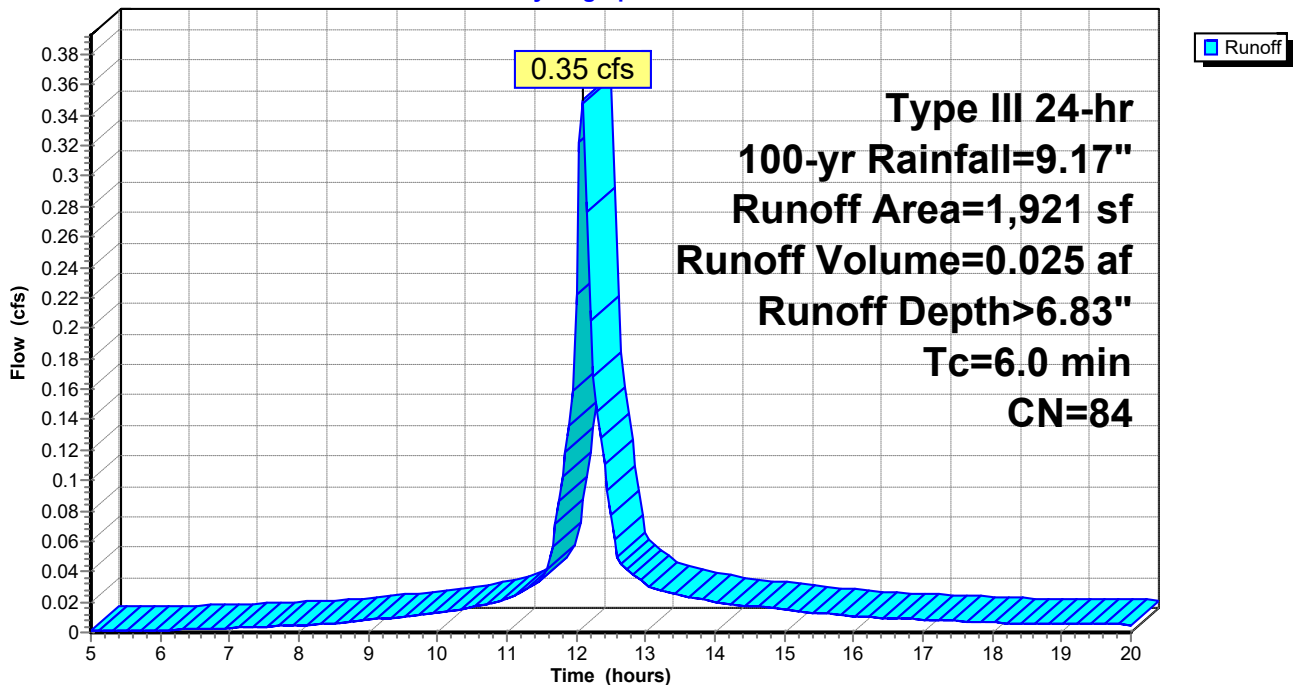
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100-yr Rainfall=9.17"

Area (sf)	CN	Description
147	98	Paved parking, HSG D
1,321	98	Paved parking, HSG A
453	39	>75% Grass cover, Good, HSG A
1,921	84	Weighted Average
453		23.58% Pervious Area
1,468		76.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: DA-2 POST**

Hydrograph



**Summary for Subcatchment 4S: DA-3 POST**

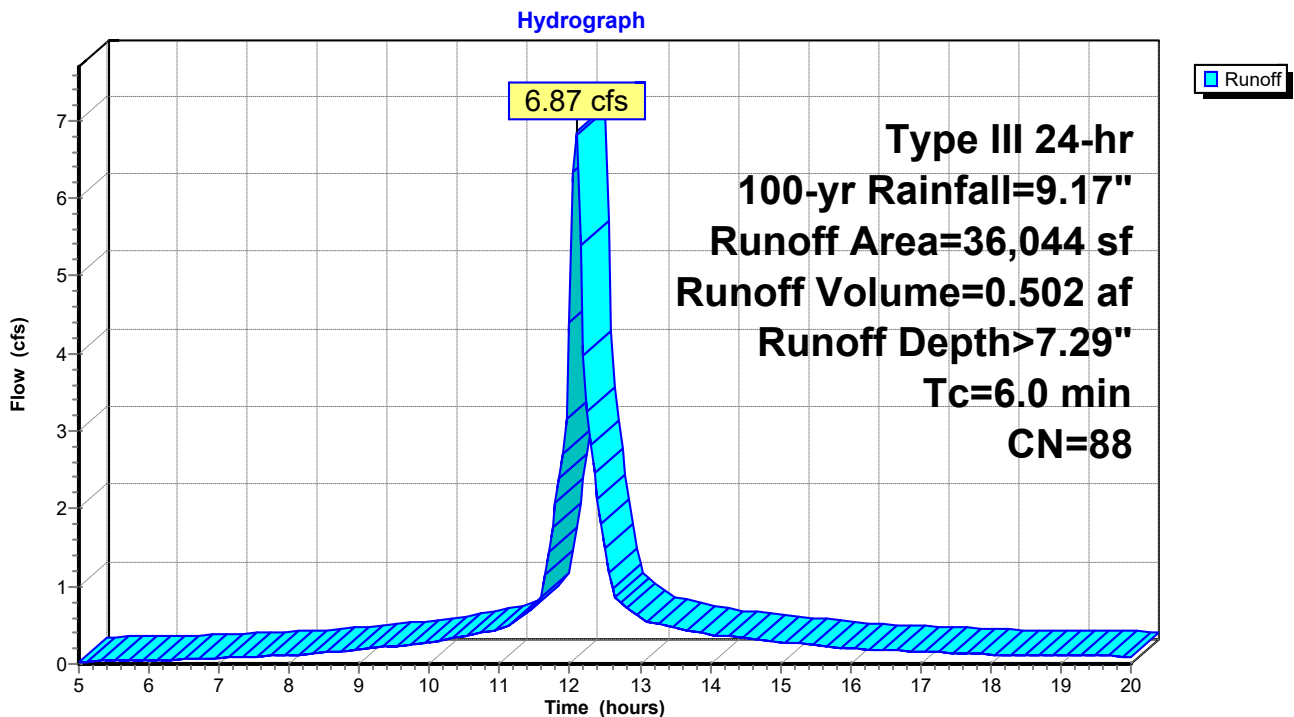
Runoff = 6.87 cfs @ 12.09 hrs, Volume= 0.502 af, Depth> 7.29"  
 Routed to Pond 3P : RAIN GARDEN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100-yr Rainfall=9.17"

Area (sf)	CN	Description
6,941	80	>75% Grass cover, Good, HSG D
4,591	98	Paved parking, HSG D
20,341	98	Paved parking, HSG A
4,171	39	>75% Grass cover, Good, HSG A
36,044	88	Weighted Average
11,112		30.83% Pervious Area
24,932		69.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: DA-3 POST**



**Summary for Pond 1P: CULTEC**

Inflow Area = 0.044 ac, 76.42% Impervious, Inflow Depth > 6.83" for 100-yr event  
 Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.025 af  
 Outflow = 0.35 cfs @ 12.10 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.6 min  
 Discarded = 0.01 cfs @ 8.80 hrs, Volume= 0.008 af  
 Primary = 0.34 cfs @ 12.10 hrs, Volume= 0.017 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 377.89' @ 12.10 hrs Surf.Area= 88 sf Storage= 65 cf

Plug-Flow detention time= 24.9 min calculated for 0.024 af (97% of inflow)  
 Center-of-Mass det. time= 11.7 min ( 770.7 - 759.0 )

Volume	Invert	Avail.Storage	Storage Description
#1A	376.50'	60 cf	<b>5.00'W x 17.50'L x 2.04'H Field A</b> 179 cf Overall - 29 cf Embedded = 150 cf x 40.0% Voids
#2A	377.00'	29 cf	<b>Cultec C-100HD</b> x 2 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		89 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	376.50'	<b>3.530 in/hr Exfiltration over Surface area</b>
#2	Primary	377.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.01 cfs @ 8.80 hrs HW=376.52' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.34 cfs @ 12.10 hrs HW=377.88' (Free Discharge)  
 ↑2=Orifice/Grate (Orifice Controls 0.34 cfs @ 2.11 fps)

**Pond 1P: CULTEC - Chamber Wizard Field A**

**Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)**

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length

1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width

6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

2 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 28.9 cf Chamber Storage

178.6 cf Field - 28.9 cf Chambers = 149.8 cf Stone x 40.0% Voids = 59.9 cf Stone Storage

Chamber Storage + Stone Storage = 88.8 cf = 0.002 af

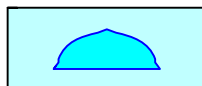
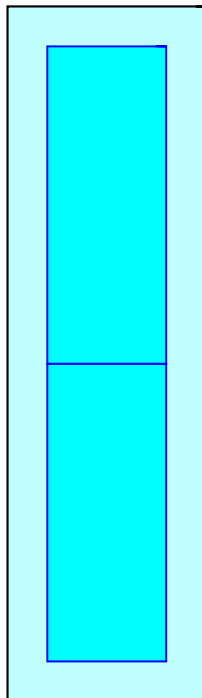
Overall Storage Efficiency = 49.7%

Overall System Size = 17.50' x 5.00' x 2.04'

2 Chambers

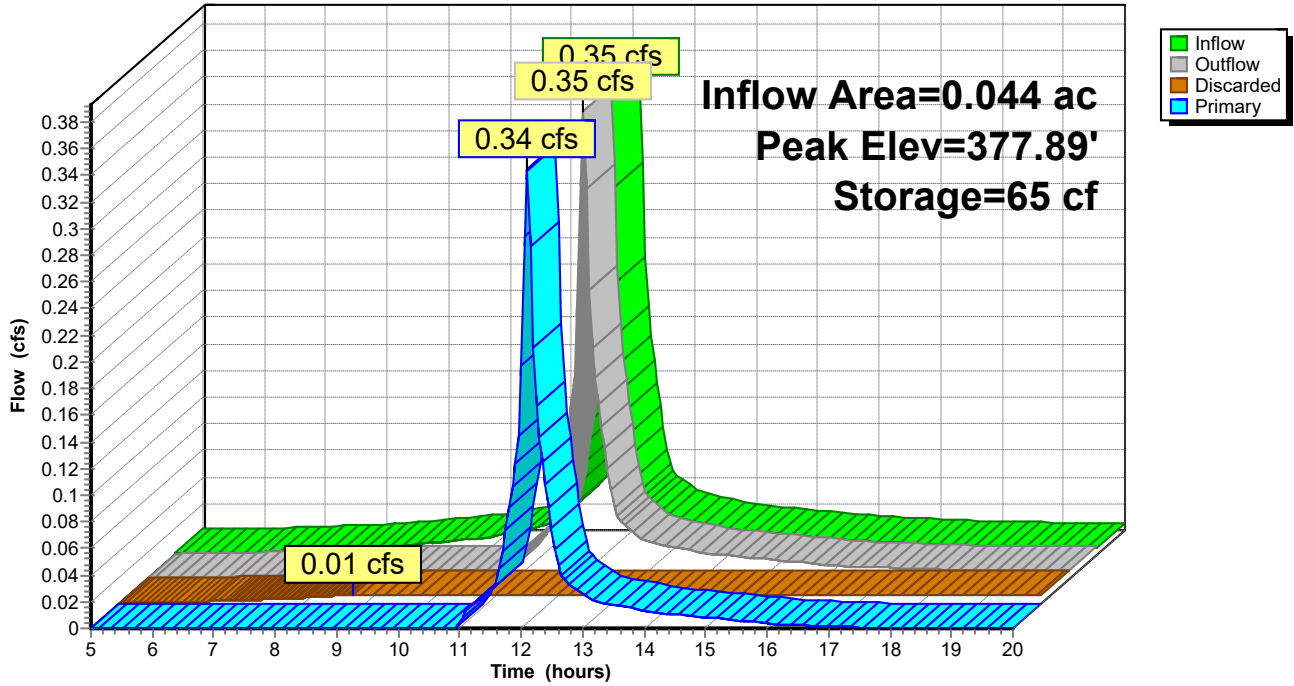
6.6 cy Field

5.5 cy Stone



### Pond 1P: CULTEC

Hydrograph



**Summary for Pond 3P: RAIN GARDEN**

Inflow Area = 0.827 ac, 69.17% Impervious, Inflow Depth > 7.29" for 100-yr event  
 Inflow = 6.87 cfs @ 12.09 hrs, Volume= 0.502 af  
 Outflow = 3.64 cfs @ 12.23 hrs, Volume= 0.435 af, Atten= 47%, Lag= 8.3 min  
 Primary = 1.89 cfs @ 12.23 hrs, Volume= 0.398 af  
 Routed to Link 2L : DP-1 POST  
 Secondary = 1.75 cfs @ 12.23 hrs, Volume= 0.037 af  
 Routed to Link 2L : DP-1 POST

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 379.76' @ 12.23 hrs Surf.Area= 4,784 sf Storage= 7,693 cf

Plug-Flow detention time= 94.8 min calculated for 0.433 af (86% of inflow)  
 Center-of-Mass det. time= 53.9 min ( 805.1 - 751.2 )

Volume	Invert	Avail.Storage	Storage Description	
#1	375.83'	8,858 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
375.83	2,436	0.0	0	0
376.50	2,436	40.0	653	653
378.00	2,436	20.0	731	1,384
379.00	3,697	100.0	3,067	4,450
380.00	5,118	100.0	4,408	8,858

Device	Routing	Invert	Outlet Devices
#1	Primary	375.83'	<b>12.0" Round Culvert</b> L= 43.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 375.83' / 375.39' S= 0.0101 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	378.50'	<b>8.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#3	Secondary	379.60'	<b>10.0' long + 2.0 '/' SideZ x 2.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

**Primary OutFlow** Max=1.89 cfs @ 12.23 hrs HW=379.76' (Free Discharge)

- ↑ 1=Culvert (Passes 1.89 cfs of 7.01 cfs potential flow)
- ↑ 2=Orifice/Grate (Orifice Controls 1.89 cfs @ 5.41 fps)

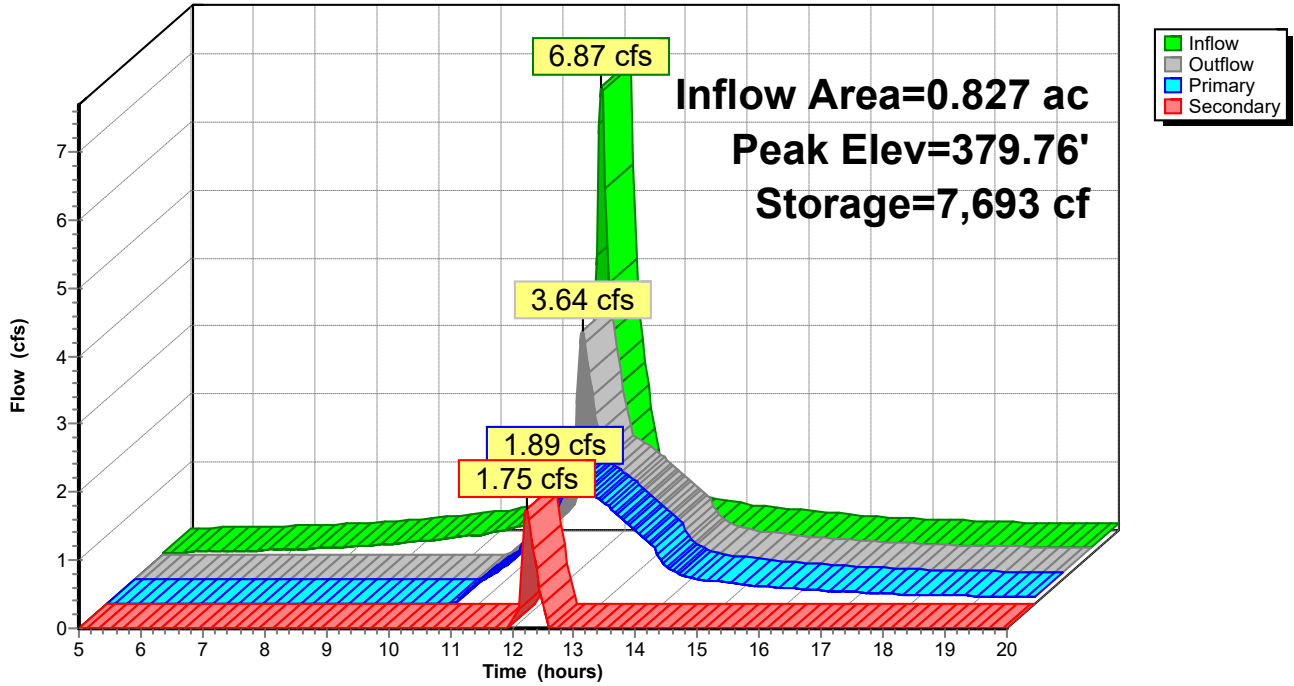
**Secondary OutFlow** Max=1.71 cfs @ 12.23 hrs HW=379.76' (Free Discharge)

- ↑ 3=Broad-Crested Rectangular Weir (Weir Controls 1.71 cfs @ 1.02 fps)



### Pond 3P: RAIN GARDEN

Hydrograph



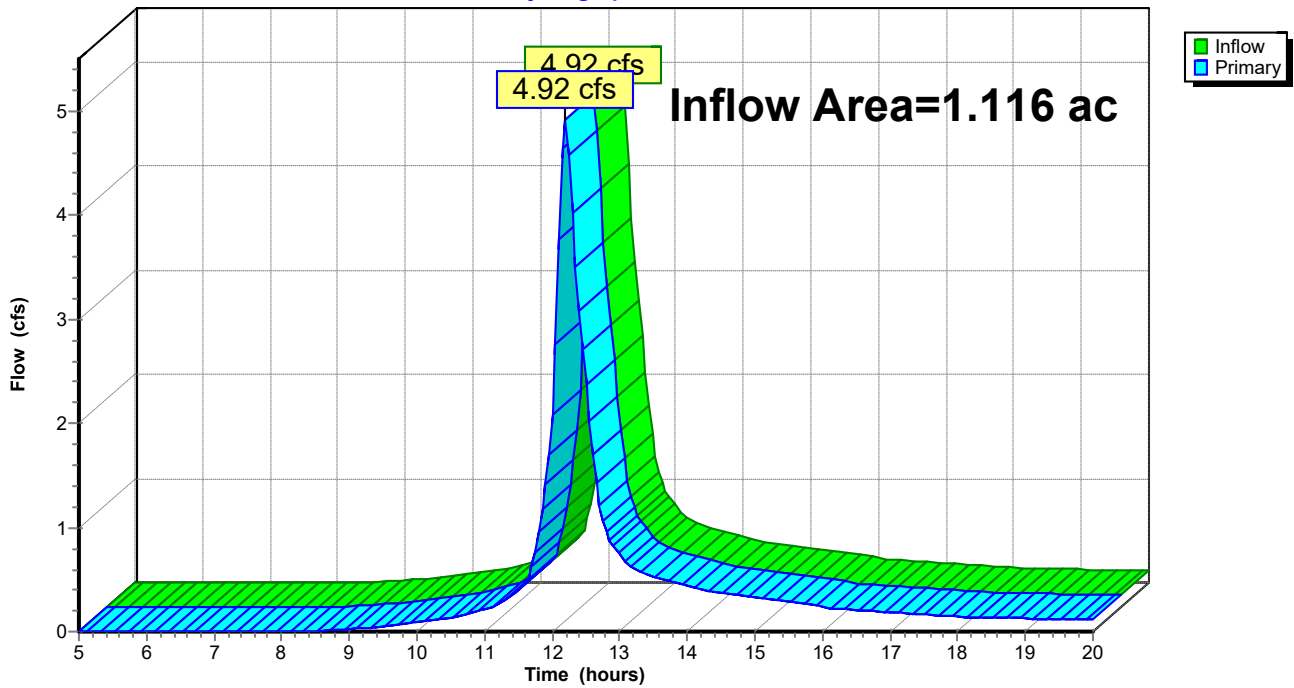
### Summary for Link 1L: DP-1 PRE

Inflow Area = 1.116 ac, 16.85% Impervious, Inflow Depth > 4.51" for 100-yr event  
Inflow = 4.92 cfs @ 12.20 hrs, Volume= 0.420 af  
Primary = 4.92 cfs @ 12.20 hrs, Volume= 0.420 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 1L: DP-1 PRE

Hydrograph



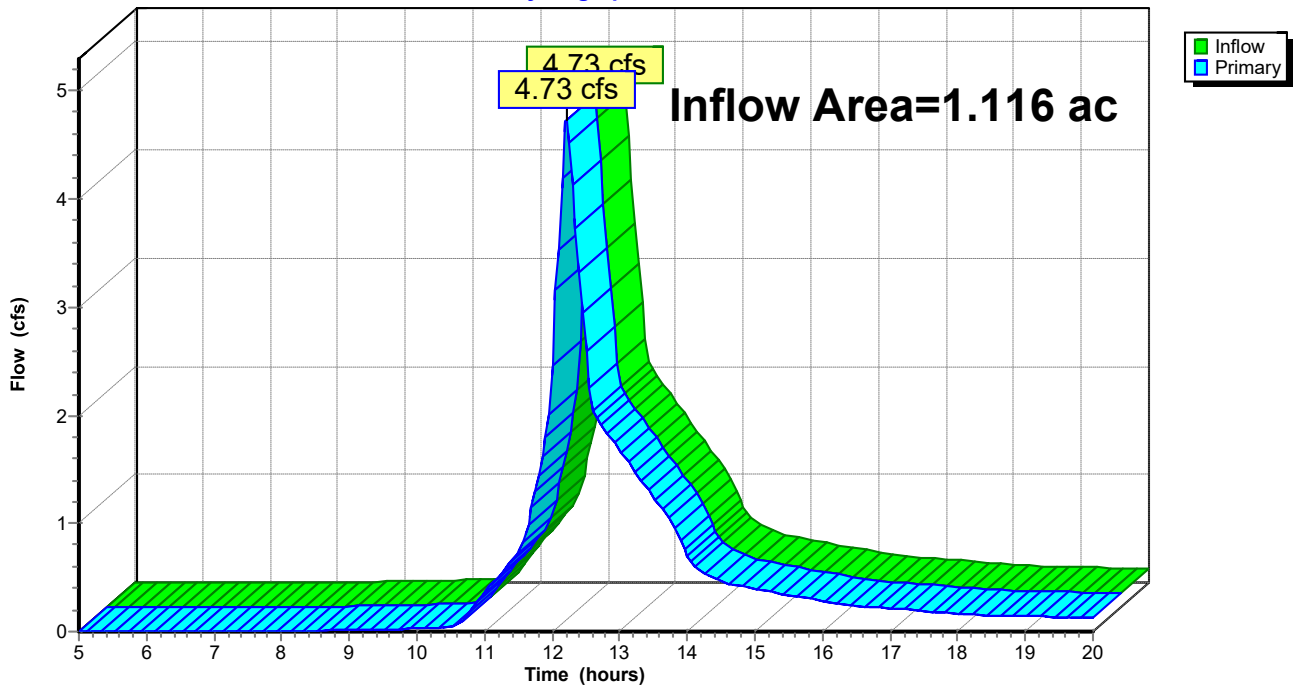
### Summary for Link 2L: DP-1 POST

Inflow Area = 1.116 ac, 54.31% Impervious, Inflow Depth > 5.93" for 100-yr event  
Inflow = 4.73 cfs @ 12.21 hrs, Volume= 0.551 af  
Primary = 4.73 cfs @ 12.21 hrs, Volume= 0.551 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 2L: DP-1 POST

Hydrograph



## **APPENDIX D. DESIGN CALCULATIONS**

- **WATER QUALITY VOLUME (WQV) CALCULATIONS**
- **GREEN INFRASTRUCTURE PRACTICES FEASIBILITY SUMMARY**
- **RUNOFF REDUCTION VOLUME (RRV) CALCULATIONS**
- **RIP RAP OUTLET PROTECTION SIZING CALCULATIONS**
- **TEMPORARY SEDIMENT TRAP SIZING CALCULATIONS**

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?..... **No**

Design Point: DA-1 Post  
 P= 1.50 inch *Manually enter P, Total Area and Impervious Cover.*

Breakdown of Subcatchments						
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Description
1	0.83	0.57	69%	0.67	3,014	
2	0.04	0.03	75%	0.73	174	
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.87	0.60	69%	0.67	<b>3,187</b>	<b>Subtotal 1</b>
<b>Total</b>	<b>0.87</b>	<b>0.60</b>	<b>69%</b>	<b>0.67</b>	<b>3,187</b>	<b>Initial WQv</b>

**0.07 af**

Identify Runoff Reduction Techniques By Area			
Technique	Total Contributing Area	Contributing Impervious Area	Notes
	(Acre)	(Acre)	
Conservation of Natural Areas	0.00	0.00	<i>minimum 10,000 sf</i>
Riparian Buffers	0.00	0.00	<i>maximum contributing length 75 feet to 150 feet</i>
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	<i>Up to 100 sf directly connected impervious area may be subtracted per tree</i>
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	

Recalculate WQv after application of Area Reduction Techniques					
	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft <sup>3</sup> )
"<<Initial WQv"	0.87	0.60	69%	0.67	3,187
Subtract Area	0.00	0.00			
WQv adjusted after Area Reductions	<b>0.87</b>	<b>0.60</b>	69%	0.67	3,187
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.87	0.60	69%	0.67	<b>3,187</b>
WQv reduced by Area Reduction techniques					0

**0.07 af**  
**0.00 af**

GREEN INFRASTRUCTURE TECHNIQUES FOR RUNOFF REDUCTION			
GROUP	PRACTICE	DESCRIPTION OF PRACTICE	APPLICATION OF PRACTICE
Runoff Reduction Techniques	Conservation of Natural Resources	Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on site.	Not Applicable
	Sheetflow to Riparian Buffers or Filter Strips	Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	Not Applicable
	Vegetated Open Swale	The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration.	A vegetated open swale is proposed to capture stormwater runoff from sections of the proposed parking lot to provide water quality treatment.
	Tree Planting/Tree Box	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	Not Applicable
	Stream Daylighting for Redevelopment Projects	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	Not Applicable
	Rain Garden/Biorientation Basins	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depressions.	A bioretention area is proposed to receive stormwater runoff from the proposed expanded parking areas.
	Green Roof	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	Not Applicable
	Stormwater Planter	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.	Not Applicable
	Rain Tank/Cistern	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	Not Applicable
	Porous Pavement	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Not Applicable

Source:

NYS Stormwater Management Design Manual, 2015  
Chapter 5 - Green Infrastructure Practices, Table 5.7

STORMWATER MANAGEMENT CAPABILITY MATRIX							
SMP GROUP	SMP DESIGN	WATER QUALITY			CHANNEL PROTECTION	FLOOD CONTROL	APPLICATION OF PRACTICE
		NITROGEN	METALS	BACTERIA			
Pond	Micropool ED	A	A	A	A	A	Not applicable
	Wet Pond				A	A	Not applicable
	Wet ED Pond				A	A	Not applicable
	Multiple Pond				A	A	Not applicable
	Pocket Pond				A	A	Not applicable
Wetland	Shallow Wetland	A	B	A	A	A	Not applicable
	ED Wetland				A	A	Not applicable
	Pond/Wetland				A	A	Not applicable
	Pocket Wetland				A	D	Not applicable
Infiltration	Infiltration Trench	A	A	A	C	C	Not applicable
	Shallow I-Basin				E		Not applicable
	Dry Well				C	C	Infiltration units are proposed to receive stormwater runoff from refuse enclosure.
Filters	Surface Sand Filter	A	A	B	D	C	Not applicable
	Underground SF				C	C	Not applicable
	Perimeter SF				C	C	Not applicable
	Organic SF				C	C	Not applicable
	Bioretention				D	C	A bioretention area is proposed to receive stormwater runoff from the proposed expanded parking areas.
Open Channels	Dry Swale	B	A	B	C	C	Not applicable
	Wet Swale				C	C	Not applicable

- A: Good option for meeting management goal.  
Good pollutant removal (>30% TN, >60% Metals, >70% Bacteria).
- B: Fair pollutant removal (15-30% TN, <30% Metals, 35-70% Bacteria).
- C: Cannot meet management goal.  
Poor pollutant removal (<15% TN, <30% Metals, <35% Bacteria).
- D: In most cases, cannot meet this goal, but the design may be adapted to add storage.
- E: Generally cannot meet this goal, except in areas with soil percolation rates greater than 5.0 in/hr.

**Source:**

**New York State Stormwater Management Design Manual, 2015**

Chapter 7: SMP Selection

Table 7.4: Stormwater Management Capability

Runoff Reduction Volume and Treated volumes						
	Runoff Reduction Techniques/Standard SMPs		Total Contributing Area	Total Contributing Impervious Area	WQv Reduced (RRv)	WQv Treated
			(acres)	(acres)	cf	cf
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00		
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.00	0.00		
	Tree Planting/Tree Pit	RR-3	0.00	0.00		
	Disconnection of Rooftop Runoff	RR-4		0.00		
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0	
Standard SMPs w/RRV Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.00	0.00	0	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	0.04	0.03	89	
	Bioretention & Infiltration Bioretention	F-5	0.83	0.57	0	3014
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention (P-1)	P-1				
	Wet Pond (P-2)	P-2				
	Wet Extended Detention (P-3)	P-3				
	Multiple Pond system (P-4)	P-4				
	Pocket Pond (p-5)	P-5				
	Surface Sand filter (F-1)	F-1				
	Underground Sand filter (F-2)	F-2				
	Perimeter Sand Filter (F-3)	F-3				
	Organic Filter (F-4)	F-4				
	Shallow Wetland (W-1)	W-1				
	Extended Detention Wetland (W-2)	W-2				
	Pond/Wetland System (W-3)	W-3				
	Pocket Wetland (W-4)	W-4				
Wet Swale (O-2)	O-2					
Totals by Area Reduction →			0.00	0.00	0	
Totals by Volume Reduction →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			0.87	0.60	89	3014
Totals by Standard SMP →			0.00	0.00		0
Totals ( Area + Volume + all SMPs) →			0.87	0.60	89	3,014
	Impervious Cover √	okay				
	Total Area √	okay				



# Minimum RRv

**Enter the Soils Data for the site**

Soil Group	Acres	S
A	0.04	55%
B		40%
C		30%
D	<b>0.83</b>	20%
Total Area	0.87	

**Calculate the Minimum RRv**

S =	<b>0.22</b>	
Impervious =	0.60	<i>acre</i>
Precipitation	1.5	<i>in</i>
Rv	0.95	
<b>Minimum RRv</b>	<b>673</b>	<b><i>ft3</i></b>
	0.02	<i>af</i>

# Bioretention Worksheet

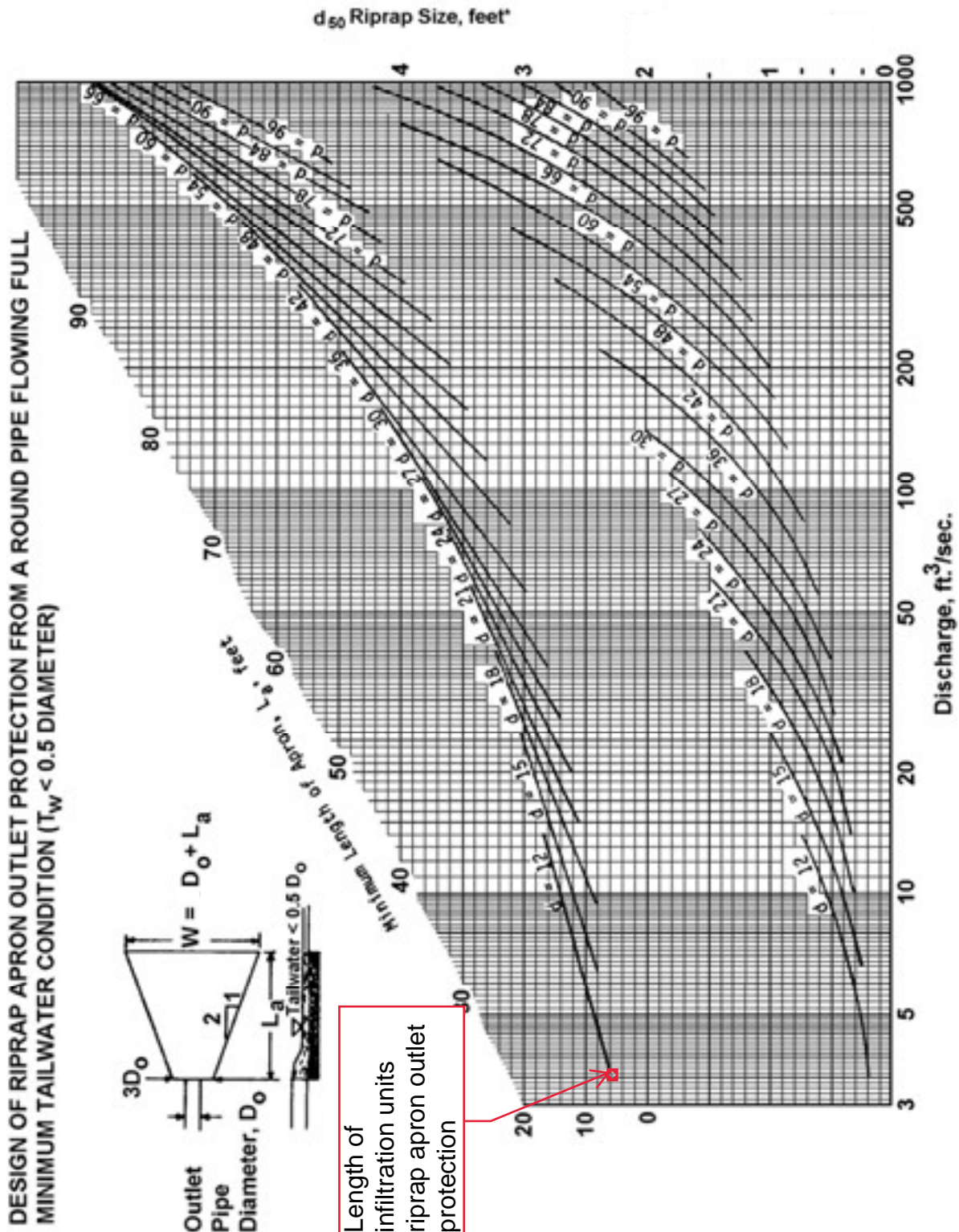
(For use on HSG C or D Soils with underdrains)

$$Af = WQv * (df) / [k * (hf + df)(tf)]$$

<p><i>Af</i> Required Surface Area (ft<sup>2</sup>)</p> <p><i>WQv</i> Water Quality Volume (ft<sup>3</sup>)</p> <p><i>df</i> Depth of the Soil Medium (feet)</p> <p><i>hf</i> Average height of water above the planter bed</p> <p><i>tf</i> Volume Through the Filter Media (days)</p>	<p><i>k</i> The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: <b>Sand</b> - 3.5 ft/day (City of Austin 1988); <b>Peat</b> - 2.0 ft/day (Galli 1990); <b>Leaf Compost</b> - 8.7 ft/day (Claytor and Schueler, 1996); <b>Bioretention Soil</b> (0.5 ft/day (Claytor &amp;</p>
---	--

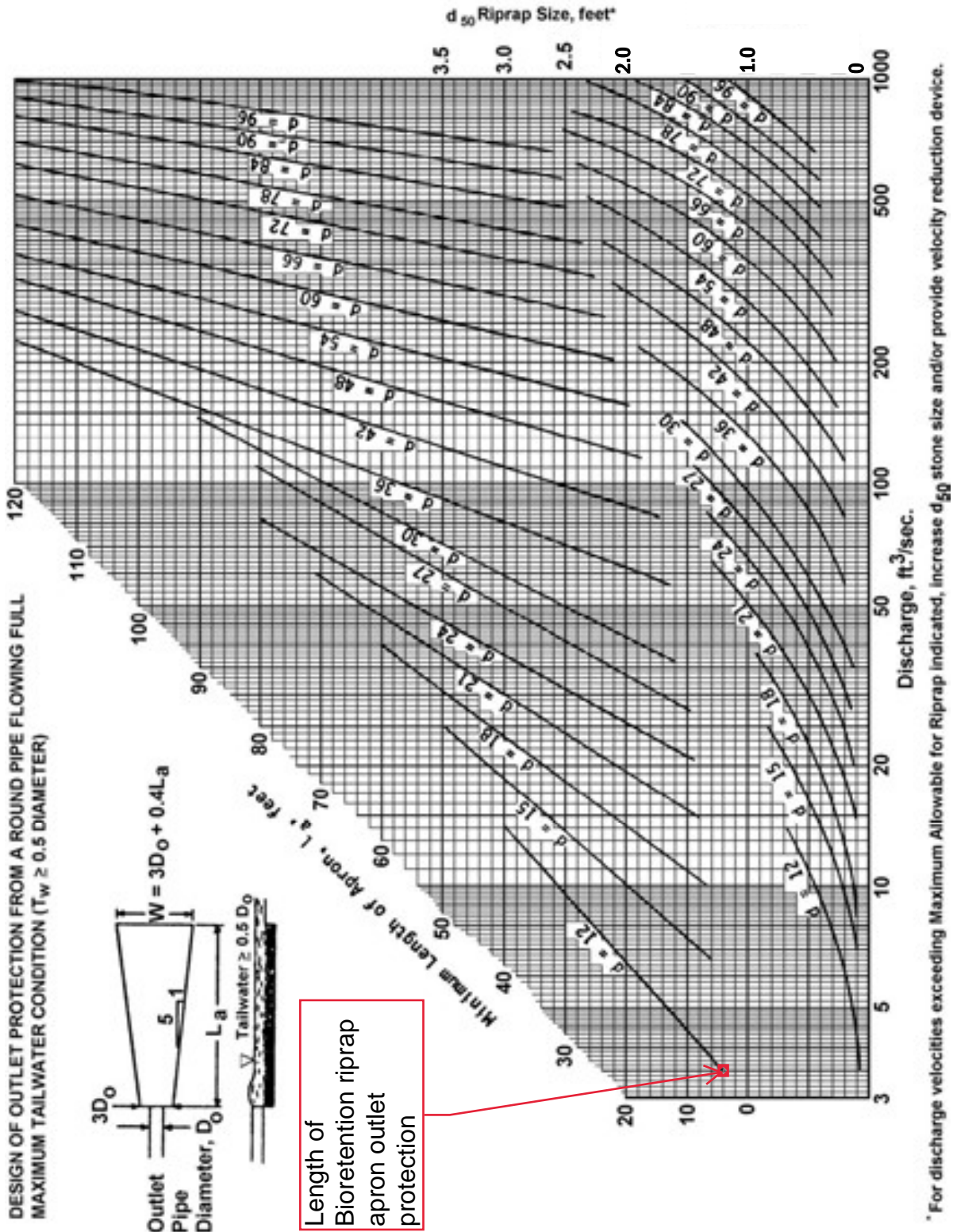
<b>Design Point:</b>	DA-1 Post						
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
1	0.83	0.57	0.69	0.67	3013.54	1.50	
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	69%	0.67	3,014	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.					0	ft <sup>3</sup>	
<b>Soil Information</b>							
Soil Group		D					
Soil Infiltration Rate		0.00	in/hour	<span style="color: red;">Okay</span>			
Using Underdrains?		Yes	<span style="color: red;">Okay</span>				
<b>Calculate the Minimum Filter Area</b>							
				Value	Units	Notes	
WQv				3,014	ft <sup>3</sup>		
Enter Depth of Soil Media				<i>df</i>	1.5	ft	2.5-4 ft
Enter Hydraulic Conductivity				<i>k</i>	2.5	ft/day	<span style="color: red;">Sizing as Filter</span>
Enter Average Height of Ponding				<i>hf</i>	0.5	ft	6 inches max.
Enter Filter Time				<i>tf</i>	2	days	
<b>Required Filter Area</b>				<b>Af</b>	<b>452</b>	<b>ft<sup>2</sup></b>	
<b>Determine Actual Bio-Retention Area</b>							
Filter Width		37	ft				
Filter Length		80.054	ft				
Filter Area		2961.998	ft <sup>2</sup>				
Actual Volume Provided		19747	ft <sup>3</sup>				
<b>Determine Runoff Reduction</b>							
Is the Bioretention contributing flow to another practice?				No	Select Practice	N/A	
RRv		0	<span style="color: red;">Hydraulic Conductivity is greater than 0.5 ft/day, No RRv credit is given</span>				
<b>RRv applied</b>		<b>0</b>	<b>ft<sup>3</sup></b>	<b>This is 40% of the storage provided or WQv whichever is less.</b>			
Volume Treated		3,014	ft <sup>3</sup>	This is the portion of the WQv that is not reduced in the practice.			
Volume Directed		0	ft <sup>3</sup>	This volume is directed another practice			
Sizing V		OK	Check to be sure Area provided ≥ Af				

**Figure 3.16**  
**Outlet Protection Design—Minimum Tailwater Condition Chart**  
**(Design of Outlet Protection from a Round Pipe Flowing Full,**  
**Minimum Tailwater Condition:  $T_w < 0.5D_o$ ) (USDA - NRCS)**



\* For discharge velocities exceeding Maximum A allowable for Riprap indicated, increase  $d_{50}$  stone size and/or provide velocity reduction device.

**Figure 3.17**  
**Outlet Protection Design—Maximum Tailwater Condition Chart**  
**(Design of Outlet Protection from a Round Pipe Flowing Full,**  
**Maximum Tailwater Condition:  $T_w \geq 0.5D_o$ ) (USDA - NRCS)**



# STANDARD AND SPECIFICATIONS FOR SEDIMENT TRAP



## Definition & Scope

A **temporary** sediment control device formed by excavation and/or embankment to intercept sediment-laden runoff and trap the sediment in order to protect drainageways, properties, and rights-of-way below the sediment trap from sedimentation.

## Conditions Where Practice Applies

A sediment trap is usually installed in a drainageway, at a storm drain inlet, or other points of collection from a disturbed area for one construction season.

Sediment traps should be used to artificially break up the natural drainage area into smaller sections where a larger device (sediment basin) would be less effective.

## Design Criteria

If the drainage area to the proposed trap location exceeds 5 acres, or the trap is in place beyond one construction season, or any of the additional design criteria presented here cannot be met, a full Sediment Basin must be used. See Standard and Specification for Sediment Basin on page 5.19.

## Drainage Area

The maximum drainage area for all sediment traps shall be 5 acres.

## Location

Sediment traps shall be located so that they can be installed prior to grading or filling in the drainage area they are to protect. Traps must **not be located any closer than 20 feet** from a proposed building foundation if the trap is to func-

tion during building construction. Locate traps to obtain maximum storage benefit from the terrain and for ease of cleanout and disposal of the trapped sediment.

## Trap Size

19,747 cf for 0.83 ac >  
3,600 cf/ac

The volume of a sediment trap as measured at the elevation of the crest of the outlet shall be at least 3,600 cubic feet per acre of drainage area. A minimum length to width ratio of 2:1 should be provided. The volume of a constructed trap shall be calculated using standard mathematical procedures. The volume of a natural sediment trap may be approximated by the equation: Volume (cu.ft.) = 0.4 x surface area (sq.ft.) x maximum depth (ft.).

## Trap Cleanout

Sediment shall be removed and the trap restored to the original dimensions when the sediment has accumulated to  $\frac{1}{2}$  of the design depth of traps I-II, and  $\frac{1}{3}$  the depth for trap III. Sediment removed from the trap shall be deposited in a protected area and in such a manner that it will not erode.

## Embankment

All earth embankments for sediment traps shall not exceed five (5) feet in height as measured at the low point of the original ground along the centerline of the embankment. Embankments shall have a minimum four (4) foot wide top and side slopes of 2:1 or flatter. The embankment shall be compacted by traversing with equipment while it is being constructed. The embankment shall be stabilized with seed and mulch as soon as it is completed.

The elevation of the top of any dike directing water to any sediment trap will equal or exceed the maximum height of the outlet structure along the entire length of the trap.

## Excavation

All excavation operations shall be carried out in such a manner that erosion and water pollution shall be minimal. Excavated portions of sediment traps shall have 1:1 or flatter slopes.

## Outlet

The outlet shall be designed, constructed, and maintained in such a manner that sediment does not leave the trap and that erosion at or below the outlet does not occur.

Sediment traps must outlet onto stabilized (preferable undisturbed) ground, into a watercourse, stabilized channel, or into a storm drain system. Distance between inlet and outlet should be maximized to the longest length practicable.

All traps must be seeded and mulched immediately after construction.

**Trap Details Needed on Erosion and Sediment Control Plans**

Each trap shall be delineated on the plans in such a manner that it will not be confused with any other features. Each trap on a plan shall indicate all the information necessary to properly construct and maintain the structure. If the drawings are such that this information cannot be delineated on the drawings, then a table shall be developed. If a table is developed, then each trap on a plan shall have a number and the numbers shall be consecutive.

The following information shall be shown for each trap in a summary table format on the plans.

1. Trap number
2. Type of trap
3. Drainage area
4. Storage required
5. Storage provided (if applicable)
6. Outlet length or pipe sizes
7. Storage depth below outlet or cleanout elevation
8. Embankment height and elevation (if applicable)

**Type of Sediment Traps**

There are three (3) specific types of sediment traps which vary according to their function, location, or drainage area.

- I. Pipe Outlet Sediment Trap
- II. Stone Outlet Sediment Trap
- III. Compost Filter Sock Sediment Trap

**I. Pipe Outlet Sediment Trap**

A Pipe Outlet Sediment Trap consists of a trap formed by embankment or excavation. The outlet for the trap is through a perforated riser and a pipe through the embankment. The outlet pipe and riser shall be made of steel, corrugated metal or other suitable material. The top of the embankment shall be at least 1 ½ feet above the crest of the riser. The preferred method of dewatering the sediment trap is by surface skimmer. See Dewatering Device Standard, page 5.10. If the riser alone is used for dewatering, the top 2/3 of the riser shall be perforated with one (1) inch nominal diameter holes or slits spaced six (6) inches vertically and horizontally placed in the concave portion of the corrugated pipe.

No holes or slits will be allowed within six (6) inches of the top of the horizontal barrel. All pipe connections shall be watertight. The riser shall be wrapped with ½ to ¾ inch hardware cloth wire then wrapped with filter cloth with a sieve size between #40-80 and secured with strapping or connecting band at the top and bottom of the cloth. The

cloth shall cover an area at least six (6) inches above the highest hole and six (6) inches below the lowest hole. The top of the riser pipe shall not be covered with filter cloth. The riser shall have a base with sufficient weight to prevent flotation of the riser. Two approved bases are:

1. A concrete base 12 in. thick with the riser embedded 9 in. into the concrete base, or
2. One quarter inch, minimum, thick steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2.5 feet of stone, gravel, or earth placed on it to prevent flotation. In either case, each side of the square base measurement shall be the riser diameter plus 24 inches.

Pipe outlet sediment traps shall be limited to a five (5) acre maximum drainage area. Pipe outlet sediment trap is interchangeable in the field with stone outlet provided that these sediment traps are constructed in accordance with the detail and specifications for that trap.

Select pipe diameter from the following table: See details for Pipe Outlet Sediment Trap ST-I in Figure 5.25 and 5.26 on pages 5.49 and 5.50.

Optional sediment trap dewatering devices are shown on Figure 5.29 on Page 5.53.

Minimum Sizes

Barrel Diameter <sup>1</sup> (in.)	Riser Diameter <sup>1</sup> (in.)	Maximum Drainage Area (ac.)
12	15	1
15	18	2
18	21	3
21	24	4
21	27	5

<sup>1</sup> Barrel diameter may be same size as riser diameter



## II. Stone Outlet Sediment Trap

A Stone Outlet Sediment Trap consists of a trap formed by an embankment or excavation. The outlet of this trap is over a stone section placed on level ground. The minimum length (feet) of the outlet shall be equal to four (4) times the drainage area (acres).

Required storage shall be 3,600 cubic feet per acre of drainage area.

The outlet crest (top of stone in weir section) shall be level, at least one (1) foot below top of embankment and no more than one (1) foot above ground beneath the outlet. Stone used in the outlet shall be small riprap (4 in. x 8 in.). To provide more efficient trapping effect, a layer of filter cloth should be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.

Stone Outlet Sediment Traps may be interchangeable in the field with pipe outlet sediment traps provided they are constructed in accordance with the detail and specifications for those traps. Stone outlet sediment traps shall be limited to a five (5) acre maximum drainage area.

See details for Stone Outlet Sediment Trap ST-II in Figure 5.27 on page 5.51



## III. Compost Sock Sediment Trap

A compost sock sediment trap consists of a trap formed by creating an enclosure of geotextile mesh tubes filled with a compost filter media. These traps are used in locations where there is no opportunity to direct runoff into larger traps or well vegetated areas. This could occur at site entrances and access points or in tight areas due to construction boundary limits.

Surface runoff can be directed to the trap with standard conveyance practices. Groundwater or surface ponding in low areas can be pumped into the compost sock sediment trap with appropriate energy dissipation at the pump outlet to prevent scour.

Design criteria for Compost Sock Sediment Trap

1. The maximum drainage area tributary to the trap shall be 5 acres.
2. The minimum settled height above ground shall be 2.0 feet formed by staking 3 compost filter socks in a pyramid as shown in Figure 5.28 on page 5.52.
3. The storage volume provided in the compost sock sediment trap shall be 3,600 cubic feet per tributary drainage acre.
4. If necessary, additional storage area can be created by excavating a sump 1 foot deep beginning at least 5 feet away from the inside sock.
5. All compost filter sock materials, mesh, and compost, will meet the material specifications listed in the Compost Filter Sock standard. No spillway is required.
6. Compost filter sock sediment traps shall be inspected weekly and after every rainfall event. Sediment shall be removed when it reaches one third, 1/3, the height of the trap.
7. The maximum limit of use for a compost sock sediment trap is one (1) year. The existing trap shall be replaced if there is a need for a trap beyond that time limit.
8. Upon completion of the work, the compost sock sediment trap shall be removed. The compost within the socks may be used during cleanup as a vegetative growth medium in accordance with the site stabilization plan.



## **APPENDIX E. DESIGN DATA**

- **WEB SOIL SURVEY REPORT**
  - **SOIL TEST DATA SHEETS**
- **NRCS EXTREME PRECIPITATION DATA**





United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Westchester County, New York**

## Verizon/Kent Place Parking Expansion



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

---

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)


**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

 Blowout

 Borrow Pit

 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York  
 Survey Area Data: Version 19, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ff	Fluvaquents-Udifluvents complex, frequently flooded	1.0	46.3%
UvB	Urban land-Riverhead complex, 2 to 8 percent slopes	1.1	53.7%
<b>Totals for Area of Interest</b>		<b>2.1</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

## Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Westchester County, New York

### Ff—Fluvaquents-Udifluvents complex, frequently flooded

#### Map Unit Setting

*National map unit symbol:* bd8k  
*Elevation:* 100 to 3,000 feet  
*Mean annual precipitation:* 46 to 50 inches  
*Mean annual air temperature:* 46 to 52 degrees F  
*Frost-free period:* 115 to 215 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Fluvaquents and similar soils:* 50 percent  
*Udifluvents and similar soils:* 35 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Fluvaquents

##### Setting

*Landform:* Flood plains  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Alluvium with highly variable texture

##### Typical profile

*H1 - 0 to 5 inches:* gravelly silt loam  
*H2 - 5 to 70 inches:* very gravelly silt loam

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to very high (0.06 to 19.98 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum content:* 15 percent  
*Available water supply, 0 to 60 inches:* Moderate (about 6.1 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* A/D  
*Hydric soil rating:* Yes

#### Description of Udifluvents

##### Setting

*Landform:* Flood plains  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Rise

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*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Alluvium with a wide range of texture

### Typical profile

*H1 - 0 to 4 inches:* gravelly silt loam  
*H2 - 4 to 70 inches:* very gravelly loam

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to very high (0.06 to 19.98 in/hr)  
*Depth to water table:* About 24 to 72 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water supply, 0 to 60 inches:* Low (about 5.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

### Minor Components

#### Sun

*Percent of map unit:* 3 percent  
*Landform:* Depressions  
*Hydric soil rating:* Yes

#### Hinckley

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

#### Knickerbocker

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

#### Riverhead

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

#### Leicester

*Percent of map unit:* 2 percent  
*Landform:* Depressions  
*Hydric soil rating:* Yes

#### Ridgebury

*Percent of map unit:* 2 percent  
*Landform:* Depressions  
*Hydric soil rating:* Yes

#### Carlisle

*Percent of map unit:* 1 percent  
*Landform:* Swamps, marshes  
*Hydric soil rating:* Yes

**Palms**

*Percent of map unit:* 1 percent  
*Landform:* Marshes, swamps  
*Hydric soil rating:* Yes

**UvB—Urban land-Riverhead complex, 2 to 8 percent slopes**

**Map Unit Setting**

*National map unit symbol:* bd7w  
*Elevation:* 0 to 660 feet  
*Mean annual precipitation:* 46 to 50 inches  
*Mean annual air temperature:* 46 to 52 degrees F  
*Frost-free period:* 115 to 215 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Urban land:* 50 percent  
*Riverhead and similar soils:* 25 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Riverhead**

**Setting**

*Landform:* Terraces, deltas  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loamy glaciofluvial deposits overlying stratified sand and gravel

**Typical profile**

*H1 - 0 to 6 inches:* loam  
*H2 - 6 to 25 inches:* sandy loam  
*H3 - 25 to 30 inches:* loamy sand  
*H4 - 30 to 60 inches:* loamy sand

**Properties and qualities**

*Slope:* 2 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* Low (about 4.4 inches)

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### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Hydrologic Soil Group:* A

*Ecological site:* F144AY023CT - Well Drained Outwash

*Hydric soil rating:* No

### **Minor Components**

#### **Knickerbocker**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Udorthents**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Pompton**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Hinckley**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Charlton**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### **Udifluvents**

*Percent of map unit:* 1 percent

*Hydric soil rating:* No

#### **Fluvaquents**

*Percent of map unit:* 1 percent

*Landform:* Flood plains

*Hydric soil rating:* Yes



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## DESIGN DATA SHEET - SOIL PERCOLATION TEST

OWNER: Town of North Castle & Verizon

ADDRESS: 15 Bedford Rd

PROPERTY LOCATION: 23 Whipoorwill Rd E  
& Unnumbered Town Parcel

SEC. 108.01 108.03

BLK. 6 1

MUNICIPALITY: North Castle

LOT. 51 78

WATERSHED: Inland Long Island Sound Basin

NYCDEP: \_\_\_\_\_ JOINT REVIEW  
 \_\_\_\_\_ DELEGATED

**SOIL PERCOLATION TEST DATA REQUIRED TO BE SUBMITTED WITH APPLICATION**

PRESOAK DATE: 10/19/2022

RUN DATE: 10/19/2022

HOLE NUMBER	RUN NO.	TIME START	TIME STOP	ELAPSED TIME (MIN.)	DEPTH TO WATER FROM GROUND SURFACES		WATER LEVEL DROP (INCHES)	SOIL PERC RATE (MIN./IN DROP)
					START (INCHES)	STOP (INCHES)		
PT-1	1	10:53	10:45	22	8	11	3	7.3
	2	10:45	11:12	22	8	11	3	9.0
	3	11:12	11:29	17	8	9	1	17.0
	4							
PT-2	1							
	2							
	3							
	4							
PT-3	1							
	2							
	3							
	4							
PT-4	1							
	2							
	3							
	4							

SOIL RATE USED: 17 MIN. / 1" DROP

PERC TEST PERFORMED BY: Vincenzo Federici

NOTES:

1. TESTS TO BE REPEATED AT SAME DEPTH UNTIL APPROXIMATELY EQUAL SOIL RATES ARE OBTAINED AT EACH PERCOLATION TEST HOLE. ALL DATA TO BE SUBMITTED FOR REVIEW.
2. DEPTH MEASUREMENTS TO BE MADE FROM TOP OF HOLE. DO NOT REPORT INCREMENTS OF LESS THAN ONE INCH.
3. SOIL PERCOLATION TESTING PERFORMED IN ACCORDANCE WITH APPENDIX D OF THE NYS STORMWATER MANAGEMENT DESIGN MANUAL, LATEST EDITION.



## DESIGN DATA SHEET - SOIL DEEP TEST

OWNER: Town of North Castle & Verizon ADDRESS: 15 Bedford Rd

PROPERTY LOCATION: 23 Whipoorwill Rd E & Unnumbered Town Parcel SEC. 108.01 108.03  
 BLK. 6 1

MUNICIPALITY: North Castle LOT. 51 78

WATERSHED: Inland Long Island Sound Basin NYCDEP: \_\_\_\_\_ JOINT REVIEW  
 \_\_\_\_\_ DELEGATED

### SOIL DEEP TEST DATA REQUIRED TO BE SUBMITTED WITH APPLICATION

TEST DATE: 10/19/2022

### DESCRIPTION OF SOILS ENCOUNTERED IN TEST HOLES

DEPTH BELOW EXISTING GRADE	DEEP TEST HOLE NO. 1	DEEP TEST HOLE NO. 2	DEEP TEST HOLE NO. 3	DEEP TEST HOLE NO. 4
GROUND SURFACE				
6"	Top Soil	Top Soil	Top Soil	Top Soil
12"	↓	↓	↓	↓
18"				
24"	Sandy Loam	Sandy Loam	Sandy Loam	Fill / Debris
30"				
36"	↓	↓		
42"	Mottling			↓
48"	↓	Bankrun Material		
54"	@ 48" Water Seep		@ 54" Mottling	Mixed Gray Clays & Sands
60"	↓	@ 60" Water Seep	↓	
66"	Silty Clay		@ 65" Water Seep	@ 66" Water Seep
72"		↓	↓	
78"				
84"				↓
90"				
96"				

WAS GROUNDWATER ENCOUNTERED? YES:  NO:

LEVEL AT WHICH GROUND WATER IS ENCOUNTERED: FT:  IN:

LEVEL AT WHICH WATER LEVEL RISES AFTER ENCOUNTERED: FT:  IN:

DEEP TEST PERFORMED BY: Vincenzo Federici

DESIGN PROFESSIONAL: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

COMPANY: KSCJ CONSULTING SEAL:  
 ADDRESS: 500 MAIN ST, ARMONK, NY 10504



# Extreme Precipitation Tables

## Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

<b>Smoothing</b>	Yes
<b>State</b>	New York
<b>Location</b>	
<b>Longitude</b>	73.716 degrees West
<b>Latitude</b>	41.126 degrees North
<b>Elevation</b>	0 feet
<b>Date/Time</b>	Fri, 20 Jan 2023 13:02:29 -0500

### Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.34	0.51	0.64	0.84	1.05	1.30	<b>1yr</b>	0.90	1.23	1.50	1.85	2.28	2.80	3.18	<b>1yr</b>	2.48	3.06	3.55	4.27	4.91	<b>1yr</b>
<b>2yr</b>	0.40	0.62	0.77	1.02	1.28	1.60	<b>2yr</b>	1.11	1.49	1.84	2.27	2.79	3.43	3.86	<b>2yr</b>	3.03	3.71	4.27	5.05	5.72	<b>2yr</b>
<b>5yr</b>	0.47	0.74	0.92	1.23	1.58	2.00	<b>5yr</b>	1.36	1.84	2.30	2.85	3.51	4.31	4.89	<b>5yr</b>	3.81	4.70	5.46	6.34	7.11	<b>5yr</b>
<b>10yr</b>	0.53	0.83	1.05	1.42	1.85	2.36	<b>10yr</b>	1.60	2.15	2.73	3.40	4.19	5.13	5.85	<b>10yr</b>	4.54	5.62	6.57	7.53	8.37	<b>10yr</b>
<b>25yr</b>	0.61	0.98	1.24	1.72	2.29	2.95	<b>25yr</b>	1.98	2.66	3.44	4.29	5.29	6.46	7.42	<b>25yr</b>	5.71	7.14	8.41	9.45	10.39	<b>25yr</b>
<b>50yr</b>	0.70	1.12	1.43	2.01	2.70	3.51	<b>50yr</b>	2.33	3.13	4.09	5.12	6.30	7.69	8.90	<b>50yr</b>	6.81	8.55	10.14	11.23	12.25	<b>50yr</b>
<b>100yr</b>	0.79	1.28	1.65	2.33	3.18	4.16	<b>100yr</b>	2.74	3.68	4.87	6.10	7.53	9.17	10.66	<b>100yr</b>	8.12	10.25	12.23	13.35	14.44	<b>100yr</b>
<b>200yr</b>	0.90	1.46	1.89	2.72	3.75	4.94	<b>200yr</b>	3.24	4.32	5.80	7.29	8.99	10.94	12.79	<b>200yr</b>	9.69	12.30	14.77	15.87	17.02	<b>200yr</b>
<b>500yr</b>	1.07	1.77	2.30	3.34	4.68	6.21	<b>500yr</b>	4.04	5.36	7.31	9.21	11.37	13.84	16.28	<b>500yr</b>	12.25	15.65	18.95	19.95	21.18	<b>500yr</b>

### Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.26	0.39	0.48	0.65	0.80	0.99	<b>1yr</b>	0.69	0.97	1.30	1.60	1.99	2.57	2.67	<b>1yr</b>	2.28	2.56	3.17	3.66	4.35	<b>1yr</b>
<b>2yr</b>	0.39	0.61	0.75	1.01	1.25	1.49	<b>2yr</b>	1.08	1.46	1.70	2.18	2.75	3.33	3.73	<b>2yr</b>	2.95	3.59	4.13	4.89	5.56	<b>2yr</b>
<b>5yr</b>	0.43	0.67	0.83	1.13	1.44	1.75	<b>5yr</b>	1.25	1.71	1.97	2.58	3.22	3.99	4.53	<b>5yr</b>	3.53	4.36	5.03	5.84	6.60	<b>5yr</b>
<b>10yr</b>	0.47	0.72	0.89	1.25	1.61	1.96	<b>10yr</b>	1.39	1.92	2.21	2.93	3.65	4.60	5.24	<b>10yr</b>	4.07	5.04	5.83	6.57	7.49	<b>10yr</b>
<b>25yr</b>	0.51	0.77	0.96	1.37	1.81	2.29	<b>25yr</b>	1.56	2.24	2.55	3.46	4.31	5.52	6.37	<b>25yr</b>	4.89	6.13	7.11	7.61	8.85	<b>25yr</b>
<b>50yr</b>	0.53	0.81	1.01	1.45	1.96	2.57	<b>50yr</b>	1.69	2.51	2.85	3.93	4.89	6.37	7.40	<b>50yr</b>	5.64	7.11	8.27	8.41	10.03	<b>50yr</b>
<b>100yr</b>	0.56	0.85	1.07	1.54	2.12	2.87	<b>100yr</b>	1.83	2.80	3.19	4.48	5.54	7.36	8.60	<b>100yr</b>	6.52	8.27	9.63	9.33	11.37	<b>100yr</b>
<b>200yr</b>	0.60	0.90	1.14	1.66	2.31	3.22	<b>200yr</b>	1.99	3.15	3.57	5.11	6.31	8.51	9.99	<b>200yr</b>	7.54	9.61	11.23	10.25	12.90	<b>200yr</b>
<b>500yr</b>	0.64	0.96	1.23	1.79	2.54	3.75	<b>500yr</b>	2.19	3.66	4.14	6.13	7.50	10.35	12.22	<b>500yr</b>	9.16	11.75	13.78	11.56	15.24	<b>500yr</b>

### Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.37	0.57	0.70	0.94	1.16	1.41	<b>1yr</b>	1.00	1.38	1.59	2.08	2.62	3.07	3.49	<b>1yr</b>	2.72	3.36	3.83	4.61	5.30	<b>1yr</b>
<b>2yr</b>	0.43	0.66	0.81	1.10	1.36	1.58	<b>2yr</b>	1.17	1.55	1.82	2.31	2.90	3.55	3.99	<b>2yr</b>	3.14	3.84	4.41	5.34	5.95	<b>2yr</b>
<b>5yr</b>	0.52	0.79	0.99	1.35	1.72	2.02	<b>5yr</b>	1.49	1.98	2.32	2.97	3.71	4.64	5.28	<b>5yr</b>	4.11	5.08	5.86	6.82	7.65	<b>5yr</b>
<b>10yr</b>	0.61	0.94	1.16	1.63	2.10	2.43	<b>10yr</b>	1.81	2.38	2.81	3.60	4.51	5.69	6.52	<b>10yr</b>	5.04	6.27	7.28	8.40	9.30	<b>10yr</b>
<b>25yr</b>	0.78	1.18	1.47	2.10	2.76	3.14	<b>25yr</b>	2.38	3.07	3.65	4.65	5.81	7.46	8.62	<b>25yr</b>	6.61	8.29	9.69	11.05	12.03	<b>25yr</b>
<b>50yr</b>	0.93	1.41	1.76	2.52	3.40	3.81	<b>50yr</b>	2.93	3.73	4.45	5.64	7.05	9.16	10.65	<b>50yr</b>	8.10	10.24	12.04	13.63	14.62	<b>50yr</b>
<b>100yr</b>	1.12	1.69	2.12	3.06	4.20	4.64	<b>100yr</b>	3.62	4.54	5.42	6.86	8.58	11.24	13.17	<b>100yr</b>	9.95	12.66	14.96	16.80	17.77	<b>100yr</b>
<b>200yr</b>	1.35	2.03	2.57	3.72	5.19	5.64	<b>200yr</b>	4.48	5.51	6.62	8.32	10.41	13.80	16.26	<b>200yr</b>	12.21	15.64	18.58	20.71	21.62	<b>200yr</b>
<b>500yr</b>	1.75	2.60	3.35	4.86	6.92	7.30	<b>500yr</b>	5.97	7.13	8.61	10.77	13.47	18.10	21.53	<b>500yr</b>	16.01	20.70	24.76	27.44	27.98	<b>500yr</b>



## **APPENDIX F. BEST MANAGEMENT PRACTICE SPECIFICATIONS**

- **CULTEC SYSTEM SPECIFICATIONS AND OPERATION AND MAINTENANCE MANUAL**

# CONTACTOR® & RECHARGER®

## STORMWATER MANAGEMENT SOLUTIONS



### OPERATION & MAINTENANCE GUIDELINES FOR CULTEC STORMWATER MANAGEMENT SYSTEMS



# OPERATIONS AND MAINTENANCE GUIDELINES

## Published by

### CULTEC

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Brookfield, Connecticut 06804 USA  
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## Contact Information:

For general information on our other products and services, please contact our offices within the United States at (800)428-5832, (203)775-4416 ext. 202, or e-mail us at CT-CustomerService@cultec.com.

For technical support, please call (203)775-4416 ext. 203 or e-mail CT-Tech@cultec.com.

Visit [www.cultec.com/downloads.html](http://www.cultec.com/downloads.html) for Product Downloads and CAD details.

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November 2023

*These instructions are for single-layer traffic applications only. For multi-layer applications, contact CULTEC. All illustrations and photos shown herein are examples of typical situations. Be sure to follow the engineer's drawings. Actual designs may vary.*



*This manual contains guidelines recommended by CULTEC and may be used in conjunction with, but not to supersede, local regulations or regulatory authorities. OSHA Guidelines must be followed when inspecting or cleaning any structure.*

## Introduction

The CULTEC Subsurface Stormwater Management System is a high-density polyethylene (HDPE) chamber system arranged in parallel rows surrounded by washed stone. The CULTEC chambers create arch-shaped voids within the washed stone to provide stormwater detention, retention, infiltration, and reclamation. Filter fabric is placed between the native soil and stone interface to prevent the intrusion of fines into the system. In order to minimize the amount of sediment which may enter the CULTEC system, a sediment collection device (stormwater pretreatment device) is recommended upstream from the CULTEC chamber system. Examples of pretreatment devices include, but are not limited to, an appropriately sized catch basin with sump, pretreatment catchment device, oil grit separator, or baffled distribution box. Manufactured pretreatment devices may also be used in accordance with CULTEC chambers. Installation, operation, and maintenance of these devices shall be in accordance with manufacturer's recommendations. Almost all of the sediment entering the stormwater management system will be collected within the pretreatment device.

Best Management Practices allow for the maintenance of the preliminary collection systems prior to feeding the CULTEC chambers. The pretreatment structures shall be inspected for any debris that will restrict inlet flow rates. Outfall structures, if any, such as outlet control must also be inspected for any obstructions that would restrict outlet flow rates. OSHA Guidelines must be followed when inspecting or cleaning any structure.

## Operation and Maintenance Requirements

### I. Operation

CULTEC stormwater management systems shall be operated to receive only stormwater run-off in accordance with applicable local regulations. CULTEC subsurface stormwater management chambers operate at peak performance when installed in series with pretreatment. Pretreatment of suspended solids is superior to treatment of solids once they have been introduced into the system. The use of pretreatment is adequate as long as the structure is maintained and the site remains stable with finished impervious surfaces such as parking lots, walkways, and pervious areas are properly maintained. If there is to be an unstable condition, such as improvements to buildings or parking areas, all proper silt control measures shall be implemented according to local regulations.

### II. Inspection and Maintenance Options

- A. The CULTEC system may be equipped with an inspection port located on the inlet row. The inspection port is a circular cast box placed in a rectangular concrete collar. When the lid is removed, a 6-inch (150 mm) pipe with a screw-in plug will be exposed. Remove the plug. This will provide access to the CULTEC Chamber row below. From the surface, through this access, the sediment may be measured at this location. A stadia rod may be used to measure the depth of sediment if any in this row. If the depth of sediment is in excess of 3 inches (76 mm), then this row should be cleaned with high pressure water through a culvert cleaning nozzle. This would be carried out through an upstream manhole or through the CULTEC StormFilter Unit (or other pretreatment device). CCTV inspection of this row can be deployed through this access port to determine if any sediment has accumulated in the inlet row.
- B. If the CULTEC bed is not equipped with an inspection port, then access to the inlet row will be through an upstream manhole or the CULTEC StormFilter.
  1. **Manhole Access**  
This inspection should only be carried out by persons trained in confined space entry and sewer inspection services. After the manhole cover has been removed a gas detector must be lowered into the manhole to ensure that there are not high concentrations of toxic gases present. The inspector should be lowered into the manhole with the proper safety equipment as per OSHA requirements. The inspector may be able to observe sediment from this location. If this is not possible, the inspector will need to deploy a CCTV robot to permit viewing of the sediment.

## 2. StormFilter Access

Remove the manhole cover to allow access to the unit. Typically a 30-inch (750 mm) pipe is used as a riser from the StormFilter to the surface. As in the case with manhole access, this access point requires a technician trained in confined space entry with proper gas detection equipment. This individual must be equipped with the proper safety equipment for entry into the StormFilter. The technician will be lowered onto the StormFilter unit. The hatch on the unit must be removed. Inside the unit are two filters which may be removed according to StormFilter maintenance guidelines. Once these filters are removed the inspector can enter the StormFilter unit to launch the CCTV camera robot.

- C. The inlet row of the CULTEC system is placed on a polyethylene liner to prevent scouring of the washed stone beneath this row. This also facilitates the flushing of this row with high pressure water through a culvert cleaning nozzle. The nozzle is deployed through a manhole or the StormFilter and extended to the end of the row. The water is turned on and the inlet row is back-flushed into the manhole or StormFilter. This water is to be removed from the manhole or StormFilter using a vacuum truck.

## III. Maintenance Guidelines

The following guidelines shall be adhered to for the operation and maintenance of the CULTEC stormwater management system:

- A. The owner shall keep a maintenance log which shall include details of any events which would have an effect on the system's operational capacity.
- B. The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions.
- C. Maintenance of the stormwater management system shall be performed by qualified workers and shall follow applicable occupational health and safety requirements.
- D. Debris removed from the stormwater management system shall be disposed of in accordance with applicable laws and regulations.

## IV. Suggested Maintenance Schedules

### A. Minor Maintenance

The following suggested schedule shall be followed for routine maintenance during the regular operation of the stormwater system:

Frequency	Action
Monthly in first year	Check inlets and outlets for clogging and remove any debris, as required.
Spring and Fall	Check inlets and outlets for clogging and remove any debris, as required.
One year after commissioning and every third year following	Check inlets and outlets for clogging and remove any debris, as required.

### B. Major Maintenance

The following suggested maintenance schedule shall be followed to maintain the performance of the CULTEC stormwater management chambers. Additional work may be necessary due to insufficient performance and other issues that might be found during the inspection of the stormwater management chambers. (See table on next page)

	Frequency	Action
Inlets and Outlets	Every 3 years	<ul style="list-style-type: none"> <li>Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>Check inlet and outlets for clogging and remove any debris as required.</li> </ul>
CULTEC Stormwater Chambers	2 years after commissioning	<ul style="list-style-type: none"> <li>Inspect the interior of the stormwater management chambers through inspection port for deficiencies using CCTV or comparable technique.</li> <li>Obtain documentation that the stormwater management chambers and feed connectors will function as anticipated.</li> </ul>
	9 years after commissioning every 9 years following	<ul style="list-style-type: none"> <li>Clean stormwater management chambers and feed connectors of any debris.</li> <li>Inspect the interior of the stormwater management structures for deficiencies using CCTV or comparable technique.</li> <li>Obtain documentation that the stormwater management chambers and feed connectors have been cleaned and will function as intended.</li> </ul>
	45 years after commissioning	<ul style="list-style-type: none"> <li>Clean stormwater management chambers and feed connectors of any debris.</li> <li>Determine the remaining life expectancy of the stormwater management chambers and recommended schedule and actions to rehabilitate the stormwater management chambers as required.</li> <li>Inspect the interior of the stormwater management chambers for deficiencies using CCTV or comparable technique.</li> <li>Replace or restore the stormwater management chambers in accordance with the schedule determined at the 45-year inspection.</li> <li>Attain the appropriate approvals as required.</li> <li>Establish a new operation and maintenance schedule.</li> </ul>
Surrounding Site	Monthly in 1 <sup>st</sup> year	<ul style="list-style-type: none"> <li>Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Yearly	<ul style="list-style-type: none"> <li>Confirm that no unauthorized modifications have been performed to the site.</li> </ul>

For additional information concerning the maintenance of CULTEC Subsurface Stormwater Management Chambers, please contact CULTEC at 1-800-428-5832.

# WQMP Operation & Maintenance (O&M) Plan

Project Name: \_\_\_\_\_

## Prepared for:

Project Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State Zip: \_\_\_\_\_

## Prepared on:

Date: \_\_\_\_\_

This O&M Plan describes the designated responsible party for implementation of this WQMP, including: operation and maintenance of all the structural BMP(s), conducting the training/educational program and duties, and any other necessary activities. The O&M Plan includes detailed inspection and maintenance requirements for all structural BMPs, including copies of any maintenance contract agreements, manufacturer’s maintenance requirements, permits, etc.

**8.1.1 Project Information**

Project name	
Address	
City, State Zip	
Site size	
List of structural BMPs, number of each	
Other notes	

**8.1.2 Responsible Party**

The responsible party for implementation of this WQMP is:

Name of Person or HOA Property Manager	
Address	
City, State Zip	
Phone number	
24-Hour Emergency Contact number	
Email	

**8.1.3 Record Keeping**

Parties responsible for the O&M plan shall retain records for at least 5 years.

All training and educational activities and BMP operation and maintenance shall be documented to verify compliance with this O&M Plan. A sample Training Log and Inspection and Maintenance Log are included in this document.

**8.1.4 Electronic Data Submittal**

This document along with the Site Plan and Attachments shall be provided in PDF format. AutoCAD files and/or GIS coordinates of BMPs shall also be submitted to the City.

## Appendix \_\_\_\_

### **BMP SITE PLAN**

Site plan is preferred on minimum 11" by 17" colored sheets, as long as legible.



## Minor Maintenance

Frequency		Action
<b>Monthly in first year</b>		Check inlets and outlets for clogging and remove any debris, as required.
		Notes
<input type="checkbox"/> Month 1	Date:	
<input type="checkbox"/> Month 2	Date:	
<input type="checkbox"/> Month 3	Date:	
<input type="checkbox"/> Month 4	Date:	
<input type="checkbox"/> Month 5	Date:	
<input type="checkbox"/> Month 6	Date:	
<input type="checkbox"/> Month 7	Date:	
<input type="checkbox"/> Month 8	Date:	
<input type="checkbox"/> Month 9	Date:	
<input type="checkbox"/> Month 10	Date:	
<input type="checkbox"/> Month 11	Date:	
<input type="checkbox"/> Month 12	Date:	
<b>Spring and Fall</b>		Check inlets and outlets for clogging and remove any debris, as required.
		Notes
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<b>One year after commissioning and every third year following</b>		Check inlets and outlets for clogging and remove any debris, as required.
		Notes
<input type="checkbox"/> Year 1	Date:	
<input type="checkbox"/> Year 4	Date:	
<input type="checkbox"/> Year 7	Date:	
<input type="checkbox"/> Year 10	Date:	
<input type="checkbox"/> Year 13	Date:	
<input type="checkbox"/> Year 16	Date:	
<input type="checkbox"/> Year 19	Date:	
<input type="checkbox"/> Year 22	Date:	



Major Maintenance

Frequency		Action
<b>Inlets and Outlets</b>	<b>Every 3 years</b>	
	Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.	
	Notes	
	<input type="checkbox"/> Year 1	Date:
	<input type="checkbox"/> Year 4	Date:
	<input type="checkbox"/> Year 7	Date:
	<input type="checkbox"/> Year 10	Date:
	<input type="checkbox"/> Year 13	Date:
	<input type="checkbox"/> Year 16	Date:
	<input type="checkbox"/> Year 19	Date:
	<input type="checkbox"/> Year 22	Date:
	<b>Spring and Fall</b>	
	Check inlet and outlets for clogging and remove any debris, as required.	
	Notes	
	<input type="checkbox"/> Spring	Date:
	<input type="checkbox"/> Fall	Date:
	<input type="checkbox"/> Spring	Date:
	<input type="checkbox"/> Fall	Date:
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<input type="checkbox"/> Spring	Date:	
<input type="checkbox"/> Fall	Date:	
<b>CULTEC Stormwater Chambers</b>	<b>2 years after commissioning</b>	
	<input type="checkbox"/> Inspect the interior of the stormwater management chambers through inspection port for deficiencies using CCTV or comparable technique. <input type="checkbox"/> Obtain documentation that the stormwater management chambers and feed connectors will function as anticipated.	
Notes		
<input type="checkbox"/> Year 2	Date:	

## Major Maintenance

Frequency		Action	
<b>CULTEC Stormwater Chambers</b>	<b>9 years after commissioning every 9 years following</b>		
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Clean stormwater management chambers and feed connectors of any debris.</li> <li><input type="checkbox"/> Inspect the interior of the stormwater management structures for deficiencies using CCTV or comparable technique.</li> <li><input type="checkbox"/> Obtain documentation that the stormwater management chambers and feed connectors have been cleaned and will function as intended.</li> </ul>		
	Notes		
	<input type="checkbox"/> Year 9	Date:	
	<input type="checkbox"/> Year 18	Date:	
	<input type="checkbox"/> Year 27	Date:	
	<input type="checkbox"/> Year 36	Date:	
<b>45 years after commissioning</b>			
<ul style="list-style-type: none"> <li><input type="checkbox"/> Clean stormwater management chambers and feed connectors of any debris.</li> <li><input type="checkbox"/> Determine the remaining life expectancy of the stormwater management chambers and recommended schedule and actions to rehabilitate the stormwater management chambers as required.</li> <li><input type="checkbox"/> Inspect the interior of the stormwater management chambers for deficiencies using CCTV or comparable technique.</li> <li><input type="checkbox"/> Replace or restore the stormwater management chambers in accordance with the schedule determined at the 45-year inspection.</li> <li><input type="checkbox"/> Attain the appropriate approvals as required.</li> <li><input type="checkbox"/> Establish a new operation and maintenance schedule.</li> </ul>			
Notes			
<input type="checkbox"/> Year 45	Date:		

### Major Maintenance

Frequency		Action	
<b>Surrounding Site</b>	<b>Monthly in 1<sup>st</sup> year</b>		
	<input type="checkbox"/> Check for depressions in areas over and surrounding the stormwater management system.		
	Notes		
	<input type="checkbox"/> Month 1	Date:	
	<input type="checkbox"/> Month 2	Date:	
	<input type="checkbox"/> Month 3	Date:	
	<input type="checkbox"/> Month 4	Date:	
	<input type="checkbox"/> Month 5	Date:	
	<input type="checkbox"/> Month 6	Date:	
	<input type="checkbox"/> Month 7	Date:	
	<input type="checkbox"/> Month 8	Date:	
	<input type="checkbox"/> Month 9	Date:	
	<input type="checkbox"/> Month 10	Date:	
	<input type="checkbox"/> Month 11	Date:	
	<input type="checkbox"/> Month 12	Date:	
	<b>Spring and Fall</b>		
	<input type="checkbox"/> Check for depressions in areas over and surrounding the stormwater management system.		
	Notes		
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<input type="checkbox"/> Spring	Date:	
	<input type="checkbox"/> Fall	Date:	
	<b>Yearly</b>		
	<input type="checkbox"/> Confirm that no unauthorized modifications have been performed to the site.		
Notes			
<input type="checkbox"/> Year 1	Date:		
<input type="checkbox"/> Year 2	Date:		
<input type="checkbox"/> Year 3	Date:		
<input type="checkbox"/> Year 4	Date:		
<input type="checkbox"/> Year 5	Date:		
<input type="checkbox"/> Year 6	Date:		
<input type="checkbox"/> Year 7	Date:		



**CULTEC**

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## **APPENDIX G. PROJECT CORRESPONDENCE**

- **NYS PARKS, RECREATION AND HISTORIC PRESERVATION (OPRHP)  
IMPACT DETERMINATION**



**New York State  
Parks, Recreation and  
Historic Preservation**

**KATHY HOCHUL**  
Governor

**ERIK KULLESEID**  
Commissioner

October 16, 2023

Steven Sicignano  
KSCJ Consulting  
500 Main Street  
Armonk, NY 10504

Re: DEC  
Verizon/Kent Place Parking  
23 Whippoorwill Rd E, Armonk, NY 10504  
23PR08706

Dear Steven Sicignano:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation  
Division for Historic Preservation

rev: B. Russell