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May 2, 2024

Planning Board
Town of Eastchester
40 Mill Road
Eastchester, New York 10709

Re: Submission of Revised Stormwater Pollution Prevention and Erosion Control Plan (rev. 4/18/24)
Planning Board Project No. 24-01, 42 Maple Avenue Subdivision
Section 44, Block 8, Lots 62, 61, 60-T, 60-E

Dear Members of the Planning Board:

The enclosed revised Stormwater Pollution Prevention and Erosion Control Plan is respectfully submitted in furtherance of the above-referenced application in adopting a Negative Declaration under SEQRA.

We have worked with the Town's Consultant Engineer in completing soil testing on the site and have prepared a full plan for stormwater mitigation design. The design has been sized to mitigate a 100-year storm event, comparing undeveloped conditions to proposed accounting for the maximum allowable impervious coverage.

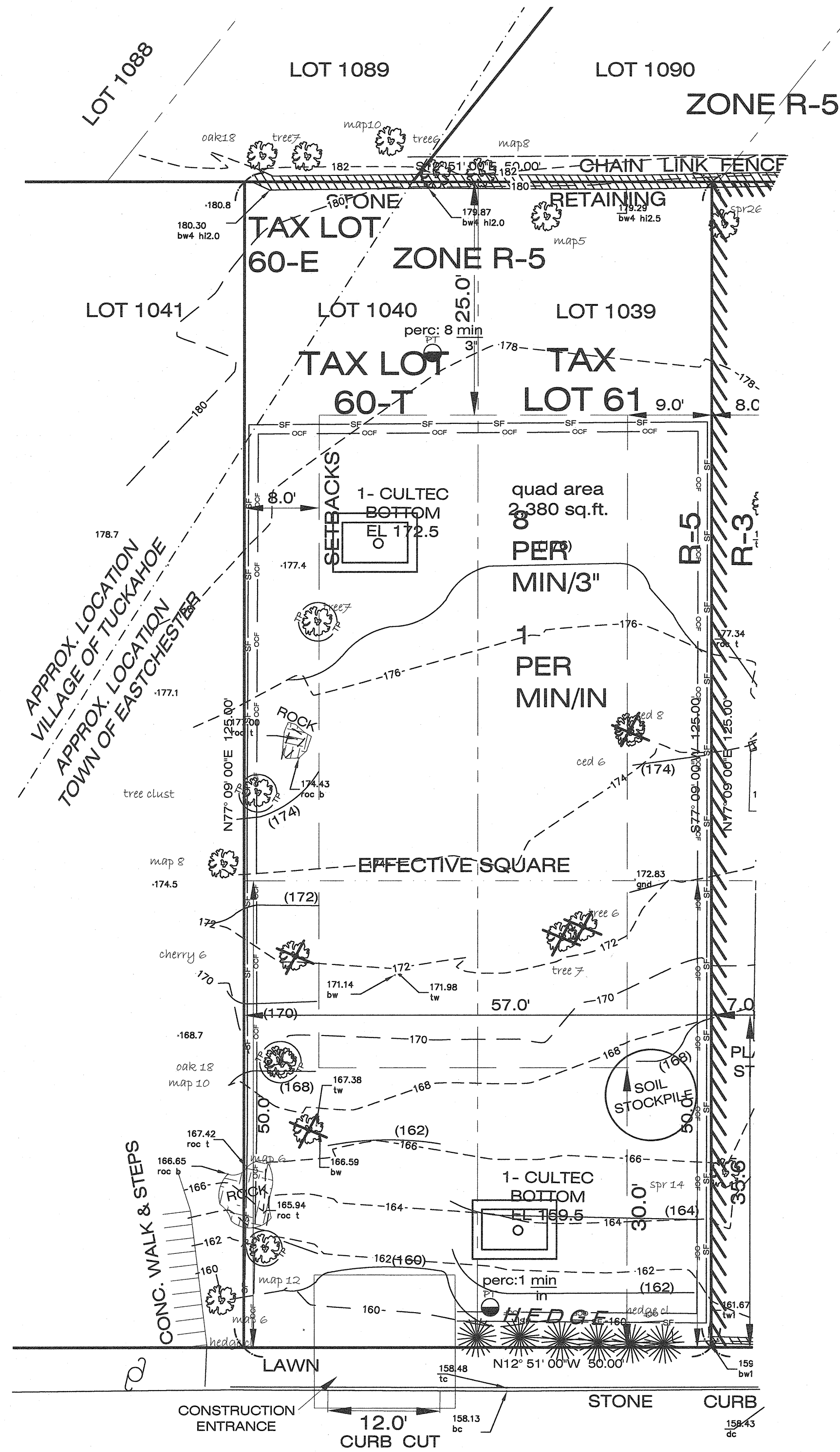
Thank you for your continued review and consideration.

Very truly yours,

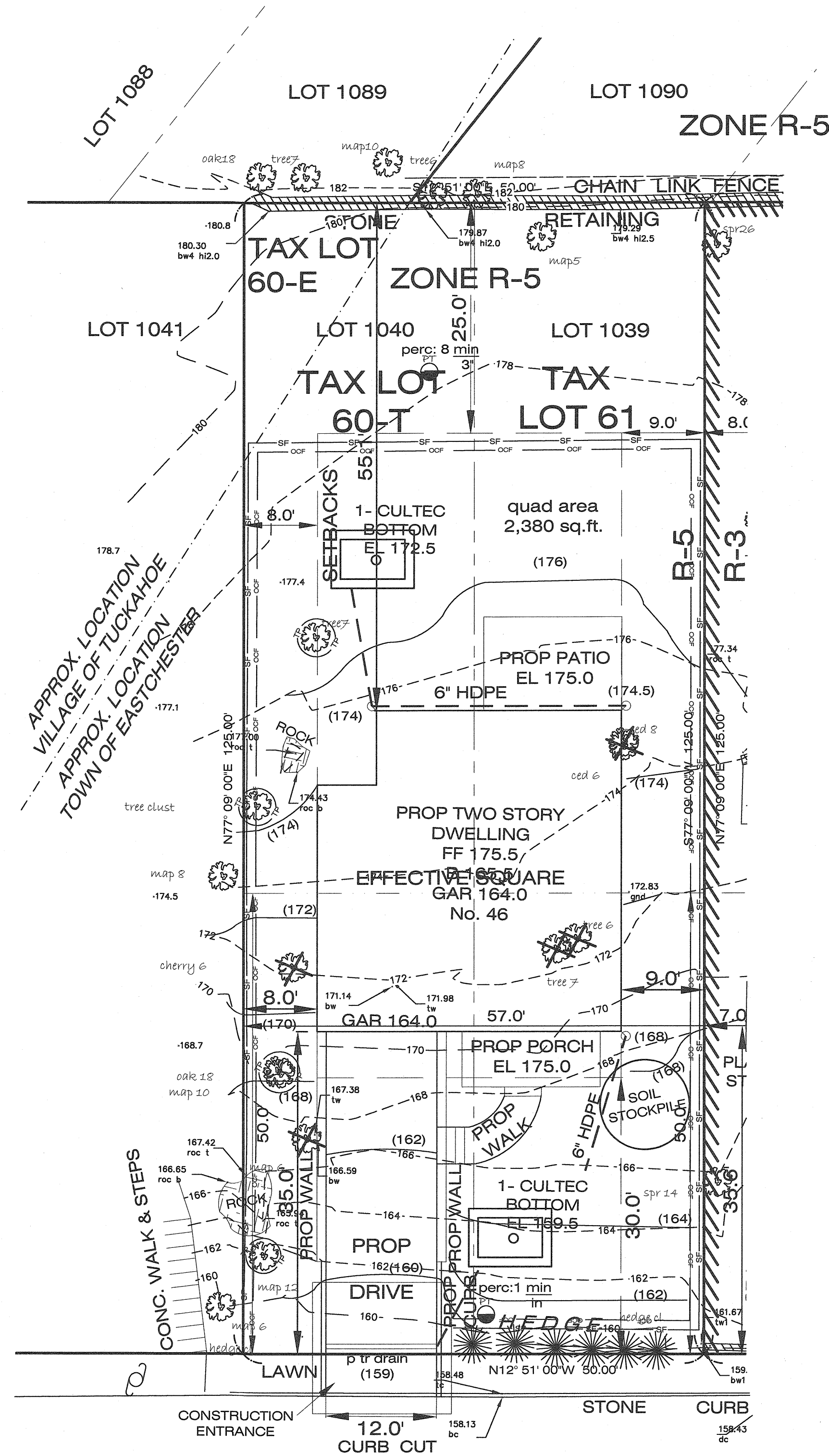
Eliot Senior, P.E., L.S.

EXISTING CONDITION
1"=10'

SS

CONST.
ENT

MAPLE AVENUE

PROPOSED CONDITION
1"=10'

MAPLE AVENUE

LEGEND

- UTILITY POLE
SIGN POST
HYDRANT
WATER VALVE
GAS VALVE
LIGHT POLE
GUY WIRES
- TELE. MANHOLE
SEWER MANHOLE
WATER MANHOLE
ELECTRIC MANHOLE
DRAIN MANHOLE
MANHOLE
ELECTRIC BOX
- 14" TREE
SIZE
- TREE TO BE REMOVED
- 102 --- EXISTING GRADE
(102) --- PROPOSED GRADE
SF --- DL --- SF SILT FENCE / AREA OF DISTURBANCE & CHAIN LINK FENCE (AS REQ'D BY MUNICIPALITY)
APB --- ADJACENT PROPERTY BUFFER INSTALL ORANGE CONSTRUCTION FENCE

During each phase, erosion controls will be installed and maintained in accordance with the New York Standards and Specifications for Erosion and Sediment Control. Numerous temporary measures will be installed including silt fences, drain inlet protection, temporary roof leaders, erosion control swales, temporary seeding, and mulching, etc. Upon the completion of the roof construction permanent storm water facilities will be installed.

Once the foundation is backfilled the drainage detention pipes must be installed. Once the roof has been installed, the roof gutters, (temporary or permanent), shall be installed. These roof gutters shall be connected to the drainage system with temporary pipes until the siding is installed.

Rough grading inspection is required at foundation backfilling. Grading to be certified by design professional.

NO	DATE	DESC	BY
1	4/18/24	100 yr st.	es
REVISIONS			

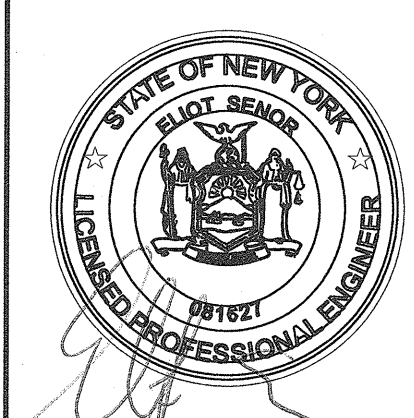
STORMWATER POLLUTION PREVENTION
AND EROSION CONTROL PLAN
PREPARED FOR:

STREET: VACANT LOT
CITY: EASTCHESTER
A.K.A. SECTION 44 - TAX BLOCK 8 - LOT 61
SECTION 44 - TAX BLOCK 8 - LOT 60.T

Unauthorized alteration or additions to the survey map is a violation of Section 7209 sub-section 2 of the New York State Education Law

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(914) 422-0070 FAX 422-3009



SCALE: 1" = AS SHOWN
DATE: APRIL 3, 2024
DRAWN BY: EJC.
CHECKED BY: ES.

SW-1

GENERAL NOTES

- Gabriel E. Senor, P.C. is not responsible for construction supervision unless retained under separate contract.
- Gabriel E. Senor, P.C. must be notified prior to backfilling any storm water system for inspection if The Engineering Dept. will require a final letter or certification from the design engineer for the storm water approval, site work and drainage installation.
- Any changes made to these plans shall be approved by Gabriel E. Senor, P.C. Any changes must be filed and approved by the appropriate Department as amendments.
- Gabriel E. Senor, P.C. is not responsible for damages if changes are made and not approved as in item 1 above.
- All conditions, locations, dimensions, and elevations shall be verified by the Contractor or Owner and must report all discrepancies to the Design Engineer prior to the start of construction.
- All work and materials shall comply with all applicable codes including, but not limited to the following: NYS Building Code, Local Zoning Code, ACI and AISI.
- The Contractor is responsible for all construction means and methods to implement the designs shown.
- Safety during construction is the responsibility of the Contractor and shall conform to all Local, State and Federal Agencies' requirements.
- The Contractor shall apply for and receive all necessary permits to perform the work shown on these plans prior to the start of construction.
- If imported fill material is required, it shall be certified in writing by a New York State Licensed Professional Engineer as non-contaminated, clean fill suitable for the intended use. Percolation tests shall be performed by the Design Engineer to demonstrate that the stormwater management practice will draw down the entire water quality volume within 48 hours. The results of the percolation test (p) shall be submitted to the Village Engineer for review and approval.
- Orange Construction Fence to be installed along the limits of the proposed disturbance limits line.
- Final grading shall be sloped away from the building and foundations.
- Adjoining public and private property shall be protected from damage during construction, remodeling and demolition work. The person making or causing an excavation to be made shall provide written notice to the owners of adjoining buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. Said notification shall be delivered not less than 10 days prior to the scheduled starting date of the excavation

DUST MITIGATION

- All earthmoving or excavation activities shall be discontinued during periods of winds greater than 25 miles-per-hour (mph) to prevent excessive amounts of fugitive dust generation
- Contractor is required to cover all stockpiles with tarp or plastic.
- Apply wood chips to disturbed areas
- All construction areas shall be sufficiently dampened to control dust caused by construction and hauling, and always provide reasonable dust control of areas subject to windblown erosion.
- All loads shall be secured by covering or use of at least 2 feet of freeboard to avoid carry-over.
- All materials transported off-site shall be either sufficiently watered or securely covered.

PERMITS

- The Contractor and all Sub-Contractors must submit a "Contractor Certification Statement" as per section 294-8 of the NYSDEC "Stormwater Pollution Prevention Plan" manual prior to the start of construction.
- Connection permits are required from the Department of Public Works for Sewer, Water, and Storm Water System overflows.
- Curb cut permit is required from the Department of Public Works. Curb cut maximum width is 18 feet.
- A street opening permit must be obtained from the municipality for all work in the Right of Way and a municipal inspection performed prior to back filling and final approvals
- The contractor shall secure a Street Opening Permit with the Municipality for all work to take place on the right of way including construction of a new driveway apron, and installation of new service laterals.
- If necessary, the Contractor shall secure a Tree Removal Permit with the Municipality prior to the commencement of construction activities.
- Contractor is required to provide Dig safe NY ticket prior to issuance of permits.

CURBS AND ROADS

- Curb cut permit is required from the Department of Public Works. Curb cut maximum width is 18 feet.
- All trenches in Village Right of Way must be backfilled with controlled density fill (1-k-crete).
- Replace or re-lay curb as directed by Municipal Engineer.
- Replace all sidewalks damaged due to construction activities.
- A non-conversion agreement for the basement must be signed and filed prior to the issuance of a C. of O. as required for properties in a 100 yr. flood zone

EROSION CONTROL.

- The contractor shall schedule with the Municipality a rough grading inspection prior to any framing of a building above the first-floor braced decking. Excess soils of significance shall be removed and disposed of upon completion of the rough grading.
- The structures for the storm water management system shall be installed at the earliest date possible when the structure's roof is complete. The Contractor shall consult with the Municipality and schedule this work upon completion and inspection of the rough grading activities.
- All proposed temporary seeding mixture shall be in accordance with the New York State Standards and Specifications for Urban Erosion Control, dated August 2005.
- Excess soil stockpile areas shall be confined to the front portion of the property to the extent practical. after foundation backfilling, site must be rough graded and excess soil removed from site.
- The contractor shall schedule with the Municipal Engineer a rough grading inspection prior to any framing new dwelling above the first-floor braced decking. Excess soils of significance shall be removed and disposed of upon completion of the rough grading.
- The structures for the storm water management system shall be installed at the earliest date possible when the structure's roof is complete and/or patio installed. The contractor shall consult with the Village and schedule this work upon completion and inspection of the rough grading activities.
- The contractor shall install new or restore and/or replace all curbing as required by the Village under Village Code 256-8.
- Silt Fence to be installed along existing and proposed contours on the down hill side of the property.

INSTALLATION & MAINTENANCE OF EROSION CONTROL CONSTRUCTION SCHEDULE

Notify appropriate municipal agency having jurisdiction at least 5 days prior to start.

EROSION CONTROL MEASURES

- Install all erosion control measures prior to start of construction.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 Days prior to finish.

INSPECTION BY MUNICIPALITY

Maintenance (to be performed during all phase of construction)

- After any rain causing runoff, Contractor to inspect silt fences, etc. and remove any excessive sediment and inspect stockpiles and correct and problems with establishment.
- Inspections shall be documented in writing and submitted to the appropriate Municipal Agency having jurisdiction.

Stock Piling of Excavation Material

- Strip Topsoil and Stockpile.
- Stockpile Excavation Subgrade.
- Seed piles with 1 lb. total annual eye remove from site within two days.

INSPECTION BY MUNICIPALITY

FINAL GRADING

- Remove unneeded subgrade from site.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 days prior finish.

INSPECTION BY MUNICIPALITY

LANDSCAPING

- Spread topsoil over areas to be seeded. Hand rake level.
- Broadcast 1 25lb. bag of Jonathan Green "Fastgrow" mix or equal over areas to be seeded.

POST CONSTRUCTION MAINTENANCE

- Landscape to visually inspect all stormwater structures for silt and debris during May and November of each year. Any silt and debris to be removed by jet vacuum if within 12" of lowest pipe invert (min 24" sump required)
- De-compaction of soils following construction is recommended. This will not only aid in the re-establishment of vegetation following construction but will help to ensure that lawn area is pervious in the future.
- Verification of the ownership of any tree designated to be removed near the property line prior to the tree removal.

DRAINAGE AND PIPING

Unless noted, all drainage piping on this plan is to be 6" Rigid SDR 35 or better.

- This storm water design plan is not designed to accept footing drains. Refer to Architectural plans for footing drain design. Do not connect footing drains or sump pumps to this surface water drainage system. Additional culcres can be added separately to accept sump pumps.

- If the drainage system is to be built in a filled area, the fill should be well drained material with a settling period of one to three months prior to the system installation. Additional percolations are required after the settling period and the system design will be revised, as necessary.

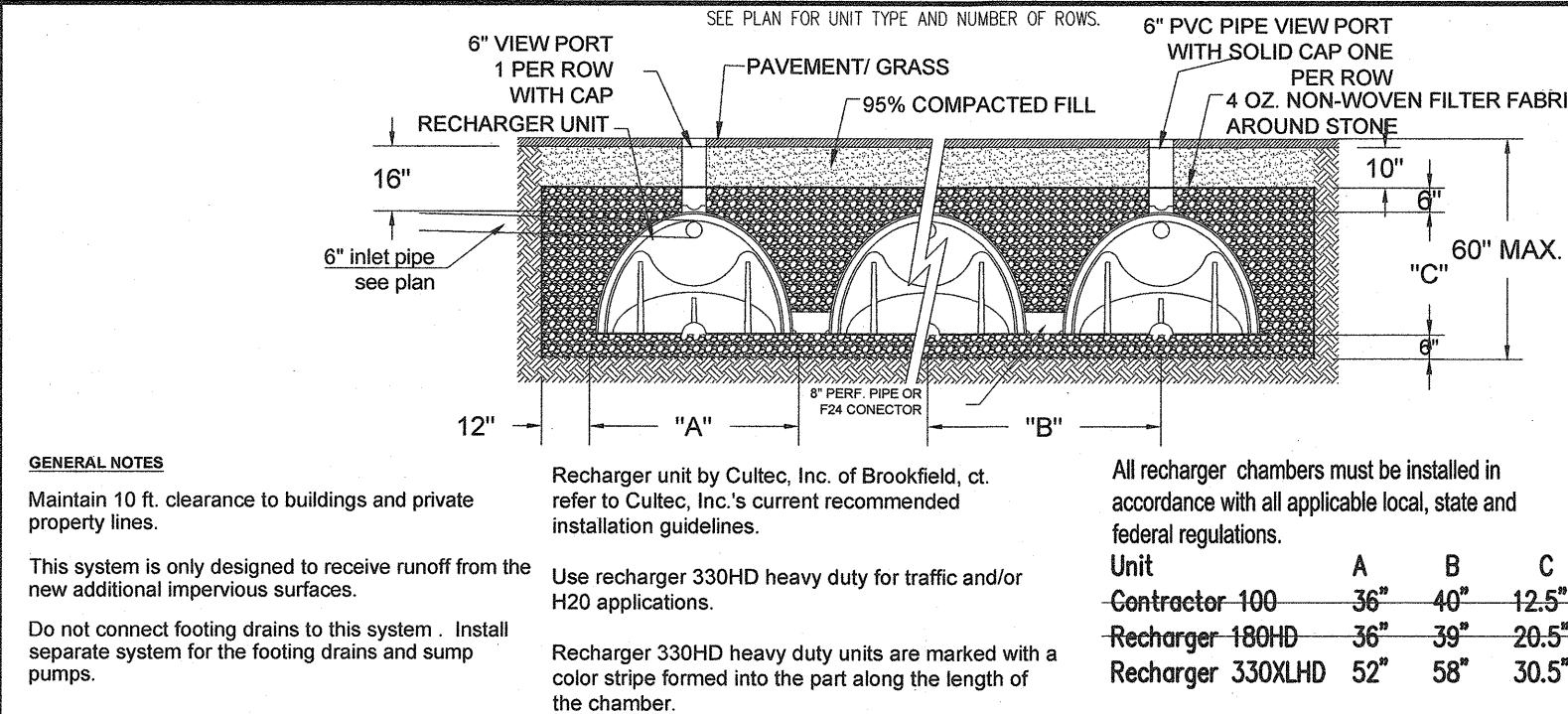
- All roof areas to be connected to onsite drainage system via roof gutters and leaders 6" rigid SDR 35 pipes at 2% min. slope or as shown Proposed plan.

- Any new sewer laterals are required for all new construction. Laterals must be extra heavy cast iron or ductile iron pipe.

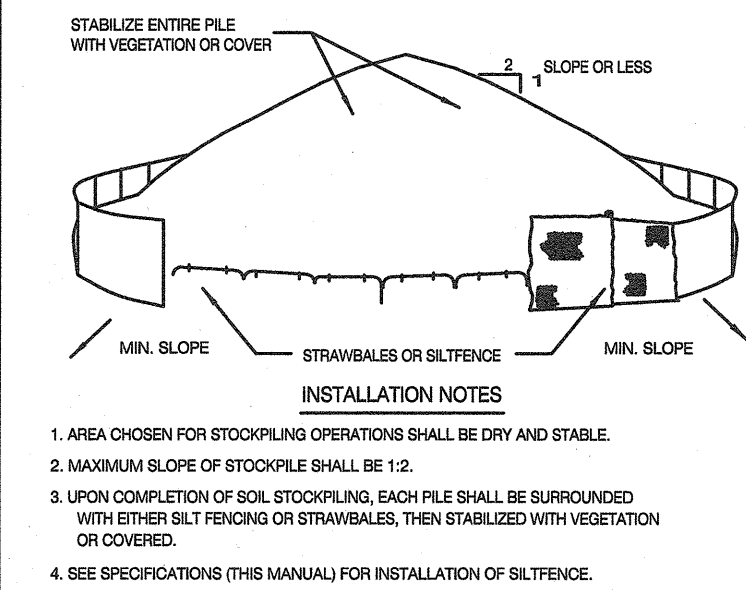
DEWATERING FOUNDATION EXCAVATION

- If groundwater is encountered pump ground water to a Dirtbag® or approved equal.

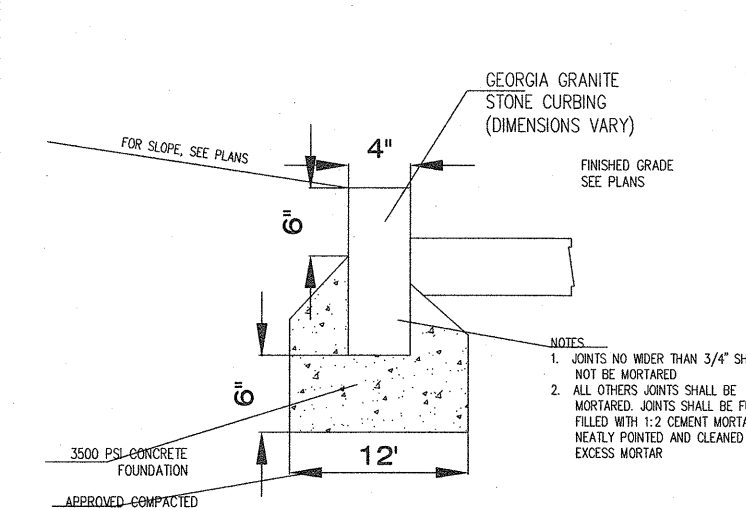
CULTEC CHAMBERS



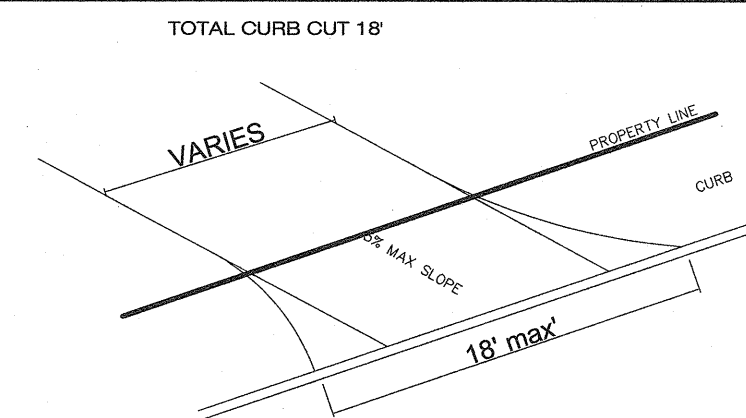
SOIL STOCKPILING (SS)



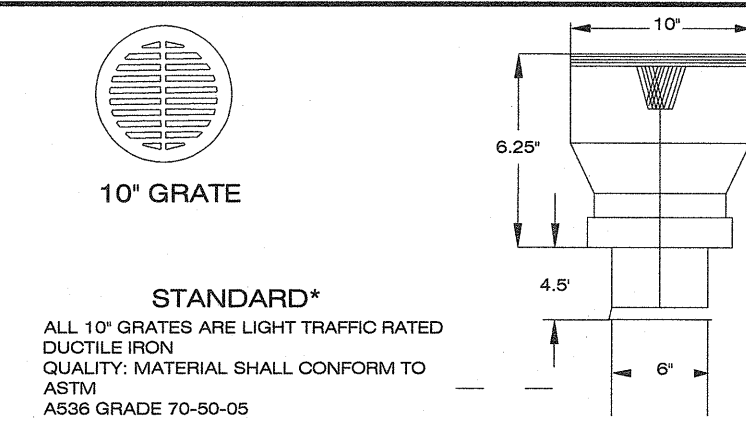
STONE CURB NEW/REPLACEMENT



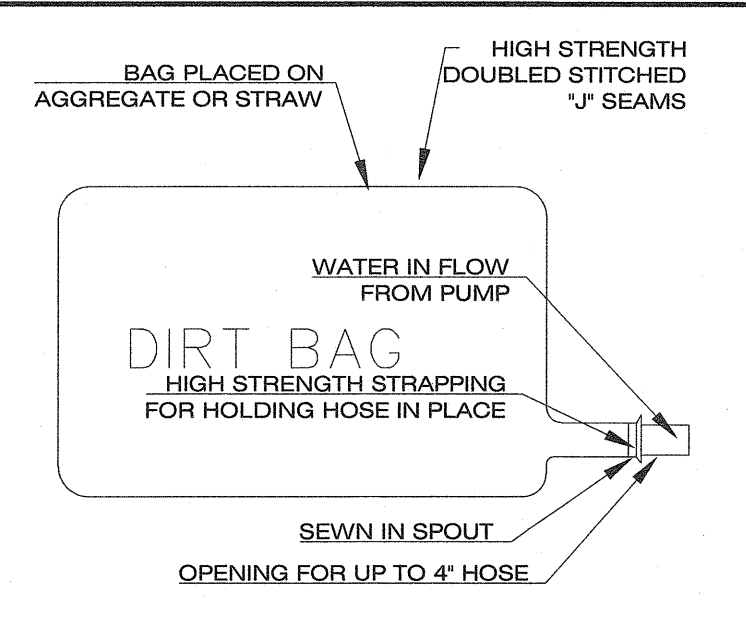
CURB CUT



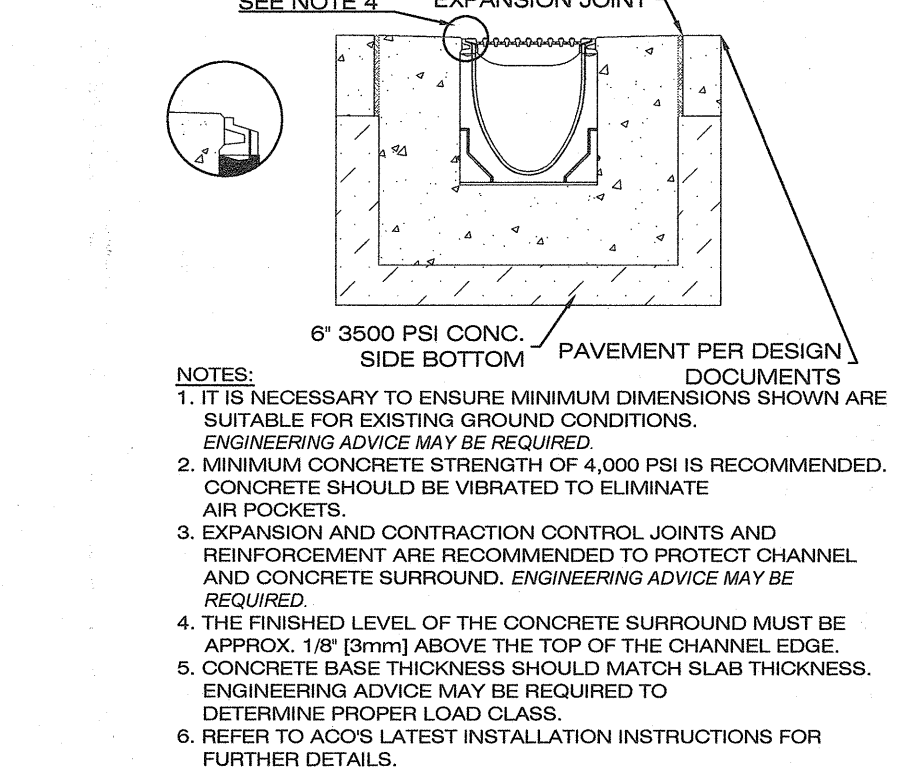
YARD DRAIN (YD)



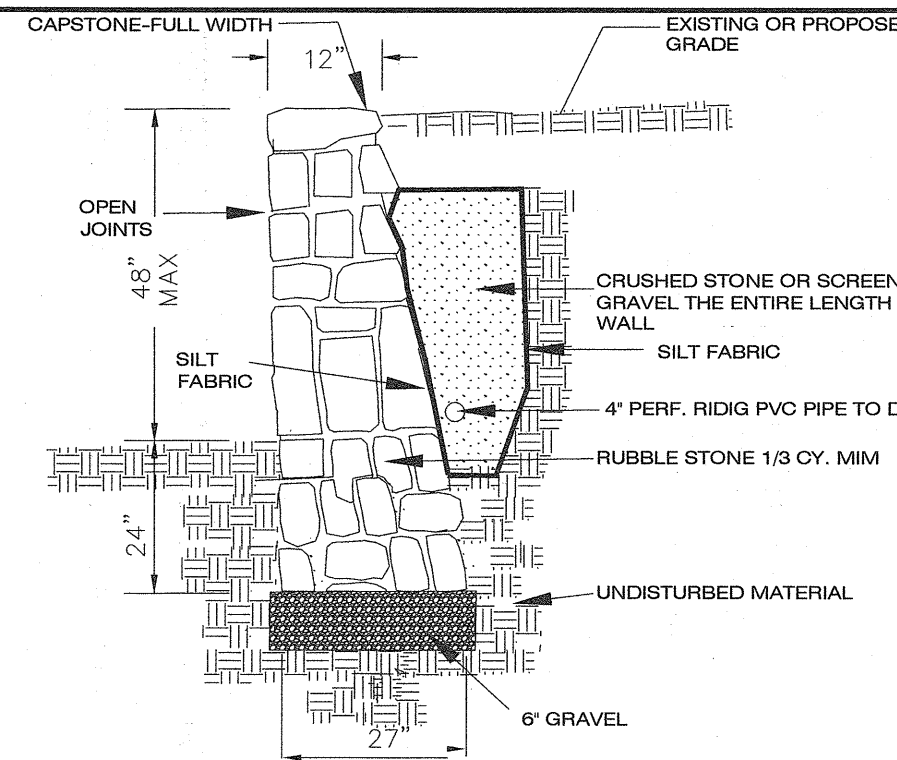
DE-WATERING SEDIMENT BAG



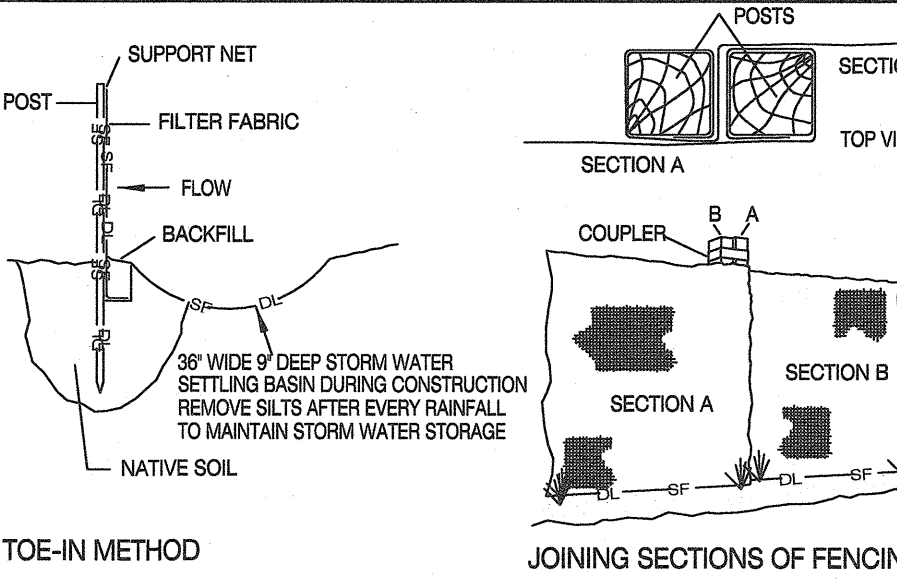
DRIVEWAY ACO-DRAIN



STONE WALL



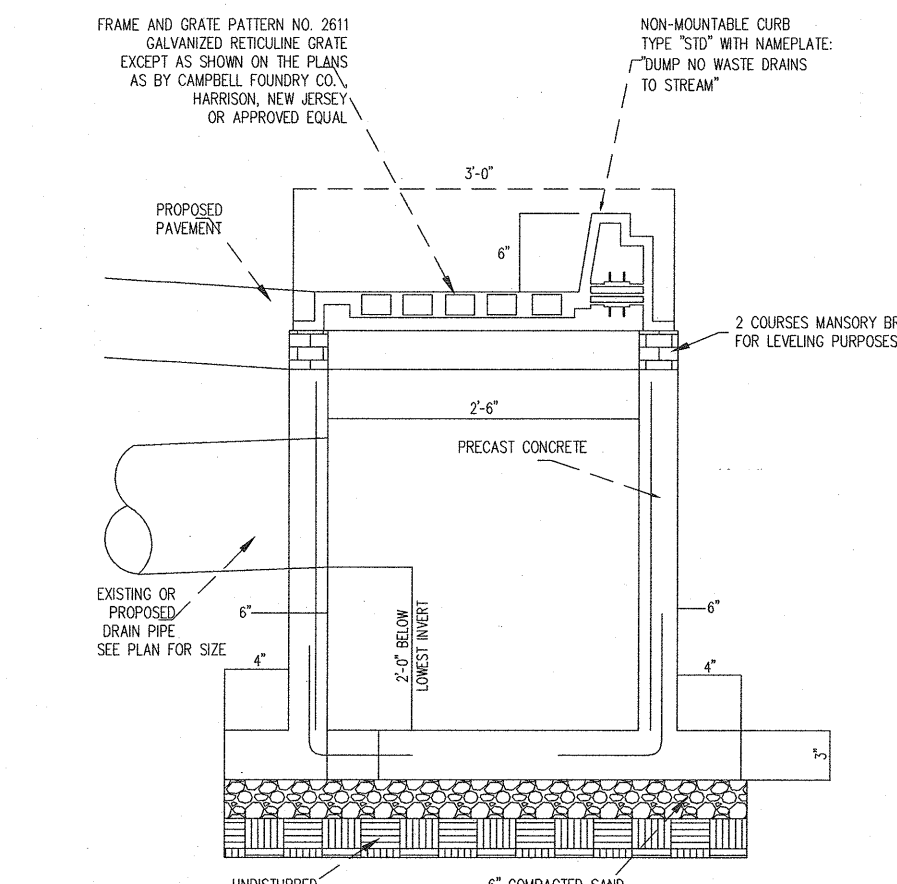
SILT FENCE (SF)/ STORM WATER CATCHMENT



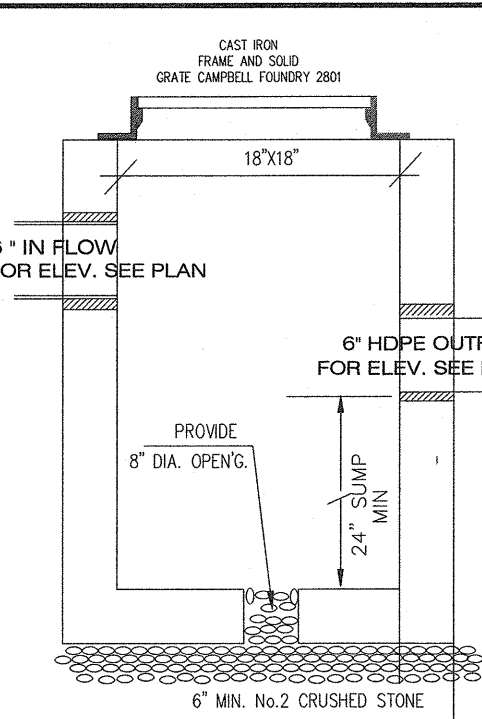
INSTALLATION NOTES

1. EXCAVATE A 4 INCH * 4 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.
5. JOIN SECTIONS AS SHOWN ABOVE.

STREET CATCH BASIN



WATER QUALITY STRUCTURE (WQ)



DRAINAGE CALCULATION

FRONT YARD

Soil and Percolation Rate

Soil percolation Tests were done at the site and performed in accordance with the procedure outlined in the "Stormwater Management" Westchester County Stormwater Best Management Practices Manual Series." The rate on the tests performed were as follows:

Perc Test H 18 inch deep 8 min/3" DROP

Drywell Design

This design procedure follows the procedure outlined on Page 6.23-6.25 of the above mentioned Manual.

Design Criteria

The impervious surface = 1869 S.F.

1. Use the design storm criteria of 100 Year Storm, 24 Hour, Zero net increase in runoff.

2. Provide subsurface disposal system consisting of Cultec Recharger 330XL embedded in 1.5" to 2" crushed stone as per detail.

3. Determine Soil Percolation Rate:

A. Area of Soil Percolation (Ap)

Surface Area of Cylinder (Ac)

$$Ac = \pi \times \text{Dia} \times \text{H} (\text{Avg depth of water})$$

Ac = 3.14 X 1 X 0.5

Ac = 1.57 S.F.

Bottom Area of Cylinder

$$Ab = \pi \times R^2$$

Ab = 3.14 X 0.5^2

Ab = 3.14 X 0.25

Ab = 0.79 S.F.

Ap = Ac + Ab

Ap = 2.36

B. Volume of Percolation (Vp)

$$Vp = Ab \times h$$

Vp = 0.79 X 0.25

Vp = 0.20

C. Soil Percolation Rate (Sr)

$$Sr = (\text{Volume}/Vp) \times \text{Area (Ap)} (\text{Time Rate}/PER 3" DROP) \times 60 \text{ min.} \times 24 \text{ hr.}$$

Sr = 0.20 / 0.20 X 2.36 / 1 X ##

Sr = 15.00 C.F./S.F./DAY

Sr = 15.00 - 25% CLOGGING FACTOR

Sr = 11.25

4. Calculate Required Storage Volume (Vs)

100 Yr. Storm 24 Hour Rainfall is 9 inches

Using the Table 3-2 on Page 3.7, Lawn with 75% Grass Cover in fair condition, and Hydrologic (B) for soils of this type.

The exist 74 The CN number for pavement is 98

Using Table 3-4 on Page 3.10 for a 25 Yr. Storm the depth of runoff.

CN= 98 runoff is 8.75 inch 0.73 ft.

5.83 0.48 0.25

Volume of Storage R (Vs)

$$Vs = \Delta \text{ Volume} \times \text{Area of Impervious Surface}$$

Vs = 0.25 X 1869

Vs = 467 C.F.

5. Calculate Volume of Cultec Chamber (per L) (Vw)

Vw = Volume of Chamber + Volume of Gravel

Vw = 14.9 C.F./L.F. + 8.65 C.F.

Vw = 23.55 C.F./L.F.

6. 24 Hour Percolation Rate Volume Per Cultec Chamber (Vp) (per L.F.)

Vp= bottom Surface Area of Gravel X Soil Perc Rate (Sr)

Vp= 11 X 11.25

Vp= 123.75 C.F./L.F./Day

7. 24 Hour Volume per Cultec Chamber (Vt) (per L.F.)

Vt= Vw + Vp

Vt= 23.55 + 123.75

Vt= 147.30 C.F./L.F./Day

8. Required Number of Cultec Chambers

Dwr= Required Volume of Storage/ Total Volume per Cultec Chamber (l L.F.)

Dwr= 467 C.F. / 147.30 C.F./L.F./Day

Dwr= 3.17 L.F.

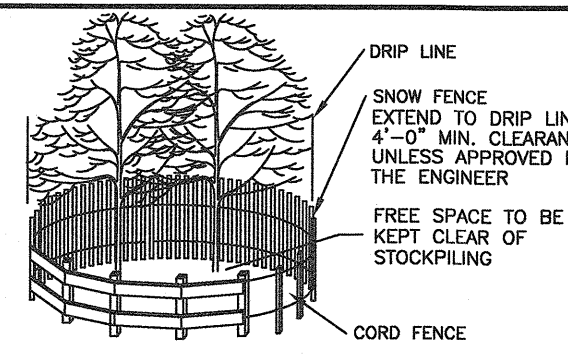
Du= Number of Units Required

Du= 3.17 L.F. / 0.5 CULTEC Chamber Units USE

use 1.0 units (two per row)

use 1.0 units (two per row)

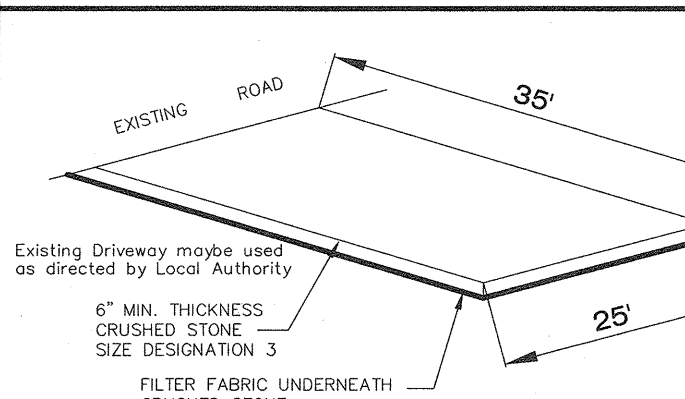
TREE PROTECTION



TREE PROTECTION NOTES:

1. THE CONTRACTOR SHALL INSTALL TEMPORARY WOODEN TREE GUARDS AROUND EXISTING TREES WHERE INDICATED, PRIOR TO COMMENCING WORK (SEE DETAIL).
2. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ALL EXISTING TREES AND THEIR SYSTEMS. ANY EXCAVATING WITHIN DRIP LINES SHALL BE KEPT TO A MINIMUM AND MUST BE COMPLETED BY HAND, ONLY IN THE PRESENCE OF THE CONTRACTOR SUPERVISOR AND AT AN ADDITIONAL CHARGE TO THE COUNTY. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY REMOVAL WORK SUCH AS ROOT AND LIMB REMOVAL, BRANCH REMOVAL, AND LIMB REMOVAL. ALL CONTRACTOR WORK SHALL BE ACCORDING TO STANDARD ACCEPTED AGRICULTURAL PRACTICES AND PROCEDURES BY A NEW YORK STATE LICENSED ARBORIST AS DIRECTED BY DPM DESIGNATED CONSTRUCTION INSPECTOR.
3. STOCKPILING OR STORAGE OF EQUIPMENT SHALL NOT BE PERMITTED WITHIN THE DRAPLINE OF AND TREE.
4. ANY DAMAGE TO EXISTING TREES DURING CONSTRUCTION WILL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL REPLACE SUCH DAMAGED TREES TO THE SATISFACTION OF DPM AT THE CONTRACTOR'S EXPENSE.
5. THE TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY WORK AND SHALL REMAIN UNTIL THE END OF ALL WORK.

CONSTRUCTION ENTRANCE DETAIL



SOIL DATA

Description of Charton

Setting-

Landform: Till plains, ridges, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Acid loamy till derived mainly from schist, gneiss, or granite

H1 - 0 to 8 inches: loam

H2 - 8 to 24 inches: sandy loam

H3 - 24 to 60 inches: sandy loam

Properties and qualities-

Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)

Depth to water table: More than 80 inches

PERCOLATION TEST DATE: 2-27-24

PERCOLATION TEST DATE: 2-27-24

FRONT YARD

PERCOLATION PIT DATA: 12" dia. 18" dep

TEST DATA: 6.2 Min/3" Drop

DEEP TEST PIT: NONE

REAR YARD

PERCOLATION PIT DATA: 12" dia. 32" dep

TEST DATA: 0.5 Min/3" DROP

DEEP TEST PIT: NONE

DRAINAGE CALCULATION

REAR YARD

Soil and Percolation Rate

Soil percolation Tests were done at the site and performed in accordance with the procedure outlined in the "Stormwater Management" Westchester County Stormwater Best Management Practices Manual Series." The rate on the tests performed were as follows:

Perc Test H 32 inch deep 1 min/3" DROP

Drywell Design

This design procedure follows the procedure outlined on Page 6.23-6.25 of the above mentioned Manual.

Design Criteria

The impervious surface = 1869 S.F.

1. Use the design storm criteria of 100 Year Storm, 24 Hour, Zero net increase in runoff.

2. Provide subsurface disposal system consisting of Cultec Recharger 330XL embedded in 1.5" to 2" crushed stone as per detail.

3. Determine Soil Percolation Rate:

A. Area of Soil Percolation (Ap)

Surface Area of Cylinder (Ac)

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B. Volume of Percolation (Vp)

$$Vp = Ab \times h$$

Vp = 0.79 X 0.25

Vp = 0.20

C. Soil Percolation Rate (Sr)

$$Sr = (\text{Volume}/Vp) \times \text{Area (Ap)} (\text{Time Rate}/PER 3" DROP) \times 60$$